MATT BAIRD

June 24, 2002

LOMA Manager
FEMA LOMA DEPOT
3601 Eisenhower Avenue
Suite 600
Alexandria, VA 22304

RE: CONDITIONAL LETTER OF MAP REVISION APPLICATION
PITTMAN EAST DETENTION BASIN PROJECT
PBS&J REFERENCE NUMBER: 511368.00

Dear LOMA Manager:

This submittal is to request a Conditional Letter of Map Revision (CLOMR) for the upstream and downstream area adjacent to the Pittman East Detention Basin. A check in the amount of $4,000.00 is enclosed for the CLOMR processing fee.

The following appendices contain standard forms and supporting hydrologic data required to support the CLOMR being requested:

APPENDIX I – STANDARD FEMA FORMS

1. Form 1 – Revision Requestor and Community Official
2. Form 3 – Hydrologic Analysis
3. Form 4 – Riverine Hydraulic Analysis
4. Form 5 – Riverine/Coastal Mapping
5. Form 6 – Channelization
6. Form 7 – Bridge/Culvert
7. Form 11– Dam

APPENDIX II – MAPS AND EXHIBITS

1. EXHIBIT I - PITTMAN EAST DETENTION BASIN WATERSHED MAP
2. EXHIBIT II - CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT MASTER PLAN UPDATE FACILITIES MAP
3. EXHIBIT III - EXISTING D-FIRM
4. EXHIBIT IV - ANNOTATED D-FIRM
5. EXHIBIT V - CROSS-SECTION MAP

APPENDIX III – HYDROLOGIC PARAMETERS, CALCULATIONS AND EXHIBITS

1. Hydrologic Parameters for the Existing Conditions
    a. EXHIBIT VI – PITTMAN WATERSHED SOILS MAP
    b. EXHIBIT VII – PITTMAN WATERSHED LAND USE MAP
    c. EXHIBIT VIII – STORM CENTERINGS

2. Developed Condition HEC-1 Model Outputs (used to determine flow rates tributary to the Pittman East Detention Basin)
    a. HEC-1 Model "2A-5"
    b. HEC-1 Model "DSDB-3"

APPENDIX IV– HYDRAULIC PARAMETERS, CALCULATIONS AND EXHIBITS

1. Normal depth calculations – downstream of detention basin

APPENDIX V – ADDITIONAL MISCELLANEOUS INFORMATION

1. Pittman East Detention Basin & Associated Outfall Facilities Improvement Plans – sealed by a Professional Engineer
2. CD containing GIS maps of proposed flood zone boundaries, HEC-1 models and cross-section calculations
3. Clark County Regional Flood Control District Operations and Maintenance Manual

EXCERPTS OF SUPPLEMENTAL STUDIES INCLUDED FOR YOUR REFERENCE

1. *Pittman East Detention Basin – Design Report* – March 2000
2. *Pittman East Detention Basin and Associated Outfall Facilities* – Improvement Plans – July 2000

PBS&J completed the Pittman East Detention Basin Design Report (PEDBDR) in March 2000, and completed the Construction Documents in July 2000; both are included with this submittal as separate attachments for your reference. Per selection criteria outlined within the design report, a location for the detention basin was chosen directly upstream (south and east) of the existing Henderson Executive Airport, southwest of the Seven Hills Master Planned Community, and west of the Del Webb Master Planned Community. The facility is designed to capture a significant amount of runoff from a large upstream watershed encompassing a large portion of the two existing residential master planned communities, as well as an undeveloped area to the south, a portion of which is anticipated to be residential development in the near future. **EXHIBIT I** is a reproduction of Figure 2-3 from the PEDBDR, and shows the offsite watershed map for the detention basin. Additionally, this detention basin is included within the Clark County Regional Flood Control District's 1996 Master Plan Update for the Las Vegas Valley (see **EXHIBIT II**, reproduced from Figure F-27 of the Master Plan Update). Construction of the detention basin is currently ongoing, and is approximately 50% complete.

Several hydrologic models were completed as part of the PEDBDR to determine future peak runoff values tributary to the detention basin for a variety of storm centerings. The hydrologic models also include analysis of subbasins directly south (downstream) of the detention area, and incorporate sub-basin flow rates from hydrologic studies previously completed for the Seven Hills and Del Webb developments (located northeast, and east of the proposed detention basin, respectively).

Using flood hydrograph package HEC-1 – Version 4.0, and storm centering 1 (model for the 33 square-mile area tributary to the detention basin), a peak 100-year detention basin inflow rate of 8640 cfs was calculated. HEC-1 Model 2A-5 reflects the aforementioned conditions, and is included in **APPENDIX III**. This peak inflow rate was used to establish many of the design parameters including required storage volume and stage/discharge relationships. HEC-1 Model 2A-5 also models the area downstream of the detention basin, to the intersection of Lake Mead Drive and Seven Hills Parkway. This was done using a storm centering which encompassed the aforementioned 33 square mile area south of the detention basin, and the 3 square mile area north of the detention basin. This overall basin is defined as storm centering 2. Model 2A-5 provides 100-year, 50-year, 25-year and 10-year flow rates for storm centerings 1 and 2, for the 33 and 36 square mile areas, respectively. HEC-1 Model 2A-5 output reflects a flow rate of 1194 cfs, immediately downstream of the detention basin. The modeled flow rate was increased by approximately 27 cfs to account for 91+/- acre-feet of sediment anticipated to have accumulated within the detention basin at the occurrence of a 100-year peak flood event. The resulting maximum outfall rate immediately downstream of the detention basin is approximately 1221 cfs, at a peak stage elevation of 2500.75. This peak stage elevation was used to annotate the existing FIRM map and create a new Flood Zone A by delineating upstream ponding limits resulting from detainment of the 100-year runoff. The existing D-FIRM, and the annotated D-FIRM are included as **EXHIBIT III** and **EXHIBIT IV**, respectively.

Flows intercepted by the detention basin are discharged via the following two outfall facilities: 1) A low-level outfall reinforced concrete pipeline (RCP), consisting of approximately 440 linear feet of 36" RCP, designed to convey a maximum 100-year flow rate of 151 cfs; and 2) A high-level outfall reinforced concrete box (RCB), consisting of approximately 215 linear feet of 6'x 8' RCB, designed to convey a maximum 100-year flow rate of 1070 cfs. Both the low-level and high-level outfall facilities terminate at a trapezoidal concrete-bottom lined open-channel, with gabion-lined side slopes. Flows from each of the outfalls are immediately routed over a perpendicular series of concrete baffles for energy dissipation prior to conveyance within the trapezoidal channel, and eventual discharge to the natural wash downstream (see design plans).

The calculated flow rate for the natural wash immediately downstream of the detention basin outfall to the intersection of St. Rose Parkway and Seven Hills Drive is 1221 cfs, as previously discussed above. However, tributary flows (consisting of combined runoff from the Seven Hills, and Del Webb communities) are laterally combined with the detention basin outfall flows at two distinct locations. Maximum combined flow rates downstream of each of these tributaries were extracted from a HEC-1 basin model labeled DSDB-3 (model and output data included in **APPENDIX III**). This model covers the 3 square mile area between the detention basin, St. Rose Parkway and Seven Hills Drive intersection (storm centering #3)). HEC-1 model DSDB-3 resulted in slightly higher maximum flow rates than those calculated with HEC-1 model 2A-5 for the areas downstream of the aforementioned tributaries. The resulting maximum 100-year flow rates downstream of each of the two confluences are 1268 cfs, and 2476 cfs, respectively. It should also be noted that a

contemporaneous rainfall analysis was completed in the Pittman East Detention Basin Design Report. This HEC-1 analysis assumes higher rainfall depths downstream of the detention basin and lower rainfall depths upstream of the detention basin to produce a worst case HEC-1 peak flow rate at the intersection of St. Rose Parkway and Seven Hills Drive. However, the assumptions made for the contemporaneous rainfall analysis are beyond the probability of a 100-year frequency flood event and will not be used for this CLOMR.

A hydrologic basin, labeled DOWN-1 was delineated for the area tributary to the natural wash extending northwest from the westerly end of the detention basin (see design report). **EXHIBIT V** shows the area delineated as basin DOWN-1. Sub-basin DOWN-1 covers an area that is currently delineated as a Flood Zone A. The detention basin collects all flow tributary to this flood zone upstream of sub-basin DOWN-1. The area of the sub-basin DOWN-1 is less than 0.2 square miles. Since the revised tributary area for this reach of the flood zone is less than 1 square mile it is being changed to a Flood Zone X.

Using the peak flow rates discussed above and approximate cross-section geometry, normal depth calculations were completed using Manning's equation, for a total of twelve representative cross-sections. Normal depth calculations are included in **APPENDIX IV** for each of these cross-sections, and **EXHIBIT V** is a map showing the cross-section locations. The resulting normal depths for all of the cross-sections are shown in the table below.

CROSS-SECTION NUMBER	NORMAL DEPTH (FT)
1	2.97
2	2.89
3	4.12
4	5.85
5	4.92
6	2.33
7	2.74
8	4.31
9	6.56
10	2.27
11	4.44
12	4.98

Normal depth calculations for cross-sections downstream of the detention basin outfall result in depths ranging from approximately 2.5 feet to 5.5 feet. Based on these depths, a new flood Zone A is proposed, and was delineated for this area. In addition, a new Zone A is proposed for the maximum water surface ponding area, upstream of the detention basin. All of these annotations are shown on the annotated D-FIRM map included as **EXHIBIT IV**.

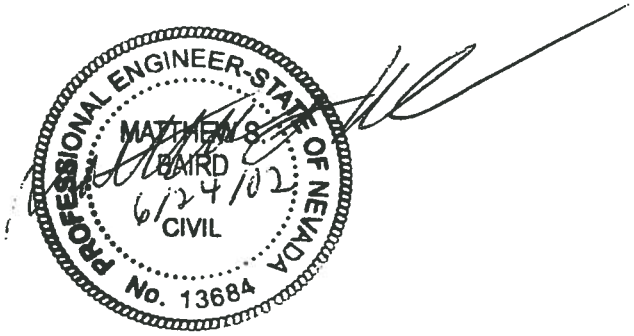
In summary, we are proposing several revisions to FIRM map no. 32003C2910, Effective Date: August 16, 1995. These proposed revisions are the results of construction of the new Pittman East Detention Basin in the City of Henderson. The detention basin will intercept all existing flows conveyed within the natural wash located at the westerly end of the detention basin. This wash is currently defined as a flood Zone A. This area is proposed to be revised to reflect a flood Zone X

based on post-detention flows and existing wash parameters. Additionally, construction of the detention basin will create significant ponding upstream of the detention basin berm, and will discharge flow to the natural wash downstream of the outfall structure. The entire area encompassing the upstream ponding, outfall facilities, and downstream natural wash is proposed to be revised to reflect a new flood Zone A. Currently, the area is denoted as Zone X.

If you have any questions on the information, assumptions, or data included within this report, please feel free to call me at (702) 263-7275, ext. 3176, or Matt Baird at ext.3180. We greatly appreciate your time in review of these requests.

Sincerely,
PBS&J

Jodi E. Jorjorian, P.E.
Project Manager



Mathew Baird, P.E.
Program Manager

cc: Stan Putman, P.E. – Program Manager/ PBS&J

APPENDIX I

STANDARD FEMA FORMS

FEDERAL EMERGENCY MANAGEMENT AGENCY **REVISION REQUESTER AND COMMUNITY OFFICIAL**	O.M.B No. 3067-0148 Expires April 30, 2001

Public reporting burden for this form is estimated to average 2.13 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

1. REQUESTED RESPONSE FROM FEMA

This request is for a:

☒ CLOMR A letter from FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60,65 & 72).

☐ LOMR A letter from FEMA officially revising the current NFIP map to show the changes to floodplains, floodway or flood elevations. LOMRs typically decrease flood hazards. (See 44 CFR Ch. 1 Parts 60 & 65.)

☐ Other Describe: _____

2. OVERVIEW

1. The basis for this revision request is (are): (check all that apply)

☒ Physical Change ☐ Improved Methodology/Data ☐ Floodway Revision

☒ Other Describe: Construction of the Pittman East Detention Basin is currently being completed

Note: A photograph is not required, but is very helpful during review.

2. Flooding Source: Unnamed tributary of the Pittman Wash

3. Project Name/Identifier: Pittman East Detention Basin & Associated Outfall Facilities

4. FEMA zone designations affected: A
(example: A, AH, AO, A1-A30, A99, AE, V, V1-V30, VE, B, C, D, X)

5. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	State	Map No.	Panel No.	Effective Date
Ex: 480301 480287	Katy, City Harris County	TX TX	480301 48201C	0005D 0220G	02/08/83 09/28/90
32003C	Henderson, City of Clark County, Unincorporated Areas	NV	32003C	2910	08/16/95

6. The area of revision encompasses the following types of flooding and structures. Check all that apply.

Types of Flooding	Structures
☒ Riverine	☒ Channelization
☐ Coastal	☐ Levee/Floodwall
☐ Alluvial fan	☒ Bridge/Culvert
☐ Shallow Flooding (e.g. Zones AO and AH)	☒ Dam
☐ Lakes	☐ Fill
☐ Other (describe)	☐ Other (describe)

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

4. ENCROACHMENT INFORMATION

1. Does the State have jurisdiction over the floodway or its adoption by communities participating in the NFIP?
☐ Yes ☒ No

If Yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

2. Does the development in the floodway cause the 1% annual chance (base) elevation to increase at any location by more than 0.000 feet? ☐ Yes ☐ No ☒ N/A

3. Does the cumulative effect of all development that has occurred since the effective SFHA was originally identified cause the base flood elevation to increase at any location by more than one foot (or other increase limit if community or state has adopted more stringent criteria - even if a floodway has not been delineated by FEMA)? ☐ Yes ☒ No

If the answer to either items is Yes, please attach documentation that all requirements of Section 65.12 of the NFIP regulations have been met, regarding evaluation of alternatives, notice to individual legal property owners, concurrence of CEO, and certification that no insurable structures are impacted.

5. MAINTENANCE RESPONSIBILITY

The community is willing to assume responsibility for ☒ performing ☐ overseeing compliance with the maintenance and operation plans of the Pittman East Detention Basin & Associated Outfall Facilities
(Name)
flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Operation and maintenance plans are attached. ☒ **Yes** ☐ **No** ☐ **N/A**

6. REVIEW FEE

The review fee for the appropriate request category has been included. ☒ Yes Fee amount: $4000.00

OR

This request is based on a federally sponsored flood-control project where 50 percent or more of the project's cost is federally sponsored, or the request is based on detailed hydrologic and hydraulic studies conducted by Federal, State, or local agencies to replace approximate studies conducted by FEMA and shown on the effective FIRM; thus the project is fee exempt. ☐ Yes

Please see Instructions for Fee Amounts

7. SIGNATURE

Note: **I understand that my signature indicates that all information submitted in support of this request is correct**

Matt Baird
Signature of Revision Requester

Matt Baird, P.E., Program Manager
Printed Name and Title of Revision Requester

PBS&J
Company Name

Telephone No.: 702-263-7275 x.3176 Date: 6/24/02

Note: **Signature indicates that the community understands, from the revision requester, the impacts of the revision on flooding conditions in the community.**

Joseph V. Damiani
Signature of Community Official

Joe Damiani, P.E., Project Engineer III
Printed Name and Title of Community Official

City of Henderson
Community Name

Telephone No.: 702-565-4242 Date: 6-24-2002

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is in accordance with 44 CFR Ch. 1, Sect 65.2

Matt Baird
Signature

Matt Baird, P.E.
Printed Name and Title of Revision Requester

Registr No. 13684 Expires (Date) 12/31/04 State NEVADA

Type of License/Expertise: CIVIL

Check which forms have been included with this request

Form Name and (Number)	Required if .....
☐ Hydrologic (3)	new or revised discharges
☒ Hydraulic (4)	new or revised water-surface elevations
☒ Mapping (5)	floodplain/floodway changes
☐ Channelization (6)	channel is modified
☒ Bridge/Culvert (7)	addition/revision of bridge/culvert
☐ Levee/Floodwall (8)	addition/revision of levee/floodwall
☐ Coastal (9)	new or revised coastal elevations
☐ Coastal Structures (10)	addition/revision of coastal structure
☒ Dam (11)	addition/revision of dam
☐ Alluvial Fan (12)	structures proposed on alluvial fan

FEDERAL EMERGENCY MANAGEMENT AGENCY
HYDROLOGIC ANALYSIS

O.M.B No. 3067-0148
Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average **3.67** hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: Clark County, Nevada and Incorporated Areas, City of Henderson

Flooding Source: Unnamed Tributary of the Pittman Wash

Project Name/Identifier: Pittman East Detention Basin & Outfall Facilities

1. REASON FOR NEW HYDROLOGIC ANALYSIS

☒ No existing analysis ☒ Improved data ☒ Changed physical condition of watershed

☐ Alternative methodology ☒ Proposed Conditions (CLOMR) ☐ Other

For the reason stated above, please attach a detailed explanation. If a computer program/model was used in revising the hydrologic analysis, **please provide a diskette with the input files** for the same flood recurrence intervals contained in the FIS for that stream; and at least for the 1% annual chance (base) flood where no detailed study exists.

Explanation provided: ☒ Yes ☐ No **Diskettes provided:** ☒ Yes ☐ No

2. METHODOLOGY FOR NEW ANALYSIS

Indicate Method	Required Data	Data Included
☐ Statistical Analysis of Gage Records	Form 3 - Attachment A	☐ Yes ☐ No
☐ Regional Regression Equations	Form 3 - Attachment C	☐ Yes ☐ No
☒ Precipitation/Runoff Model	Form 3 - Attachment D	☒ Yes ☐ No
☐ Other	Back-up computations and supporting data	☐ Yes ☐ No

3. APPROVAL OF ANALYSIS

The hydrologic analysis has already been approved by a local, state, or Federal Agency. ☒ Yes ☐ No ☐ Not Required

If Yes, attach evidence of approval. ☐ **Approval attached.** If No, attach explanation. ☒ **Explanation attached.**

4. COMPARISON OF BASE FLOOD DISCHARGES

Location:	Drainage Area (SqMi)	FIS(cfs)	Revised (cfs)
N/A (see attached explanation)			

Note: When revised discharges are not significantly different than the FIS discharges, FEMA may require a confidence limits analysis (see attachment B) at a later date to complete the review.

If only a portion of a detailed study area was revised please attach an explanation describing the transition from the proposed discharges to the effective discharges. ☐ **Explanation Included** ☒ **Explanation Not Required**

5. HISTORICAL FLOODING INFORMATION

If historical data are available for the flooding source please provide: Location, peak discharges/water-surface elevations and dates, and source of information. ☐ **Data Attached** ☒ **Data Not Available**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

ATTACHMENT A: STATISTICAL ANALYSIS OF GAGE RECORDS

Gaging Station: N/A

Gage Location (latitude and longitude): _____

		FIS:		Revised:	
1.	Number of years of data	_____		_____	
	Systematic	_____		_____	
	Historical	_____		_____	
2.	Homogeneous data	☐ Yes	☐ No	☐ Yes	☐ No
3.	Data adjustments	☐ Yes	☐ No	☐ Yes	☐ No
4.	Number of high outliers	_____		_____	
	Low outliers	_____		_____	
	Zero events	_____		_____	
5.	Generalized skew	_____		_____	
6.	Station skew	_____		_____	
7.	Adopted skew	_____		_____	
8.	Probability distribution used (justify if log-Pearson III was not used)	_____		_____	
9.	Transfer equations to ungaged sites			☐ Yes	☐ No
	If Yes, specify method				

_____

10.	Expected probability*	☐ Yes	☐ No
11.	Comparison of results with other analyses	☐ Yes	☐ No
	If Yes, describe comparison		

_____

12. **Attach analysis including plot of flood-frequency curve. Analysis Attached?** ☐ Yes ☐ No

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data are not available, indicate by N/A.

ATTACHMENT B: CONFIDENCE LIMITS EVALUATION

Stream: N/A

Select one location for Confidence Limits Evaluation (*describe location*): _____

1. Discharges for selected location:

Exceedence Probability		FIS:	Revised:
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

2. 1% Annual Chance (Base) Flood Confidence Intervals

90% Confidence Interval:	5% limit	_____ cfs
	95% limit	_____ cfs
50% Confidence Interval:	25% limit	_____ cfs
	75% limit	_____ cfs

3. If the discharge of the base flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the base flood elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

4. **Confidence Limits Analysis Attached?** ☐ Yes ☐ No

ATTACHMENT C: REGIONAL REGRESSION EQUATIONS

1. Bibliographical Reference:

   N/A

   _____

   _____

   (Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: _____

3. Hydrologic region(s): _____
   Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

   _____

   _____

   _____

		FIS:		Revised:	
5.	Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6.	Percent of watershed urbanization	_____		_____	
7.	Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
8.	Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is Yes, explain methdology below. If data are not available, indicate with N/A.

Comments

_____

9. **Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.**

   Computation and Supporting Maps provided? ☐ Yes ☐ No

ATTACHMENT D: PRECIPITATION/RUNOFF MODEL

		FIS:		Revised:	
1.	Method or model used:	N/A		HEC-1	
	Version:	N/A		4.0	
	Date:	N/A		September 1990	
2.	Source of rainfall depth:	N/A		CCRFCD Manual	
3.	Source of rainfall distribution:	N/A		CCRFCD Manual	
4.	Rainfall duration:	N/A		6 hours	
5.	Areal adjustment to precipitation (%):	N/A		CCRFCD DARF'S	
6.	Maximum overland flow length	N/A		500 feet	
7.	Hydrograph development method:	N/A		SCS UNIT HYDROGRAPH	
8.	Loss rate method:	N/A		SCS	
	Source of soils information:	N/A		SCS	
	Source of land use information:	N/A		CCRFCD Manual/MPU 1996,	
9.	Channel routing method:	N/A		Musking. and Kinematic Wave	
10.	Reservoir routing:	☐ Yes	☒ No	☒ Yes	☐ No
11.	Baseflow considerations: **If Yes, explain below how baseflow was determined:**	☐ Yes	☒ No	☐ Yes	☒ No
	_____				
12.	Snowmelt considerations:	☐ Yes	☒ No	☐ Yes	☒ No
13.	Model calibration: **If Yes, explain below how calibration was performed**	☐ Yes	☒ No	☐ Yes	☒ No
	_____				
14.	Future land use condition: **If Yes, explain why below**	☐ Yes	☒ No	☒ Yes	☐ No

Future land uses were predicted for the tributary area to the detention basin to determine fully developed CN values upstream of the proposed detention basin, and corresponding peak detention basin inflow rates. This assumption was pertinent to designing a detention facility that would have adequate capacity for increased upstream flow values caused by a rapidly developing upstream area.

15. **Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.**

Information and Maps provided? ☒ Yes ☐ No

NOTE: FEMA policy is to base flooding on existing conditions.

Explanation for Form 3, Page 1 of 5, Section 3

Signatures on plans represent approval for the project including Design Report and Hydrology.

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE HYDRAULIC ANALYSIS**	O.M.B No. 3067-0148 Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: City of Henderson

Flooding Source: Unnamed Tributary of the Pittman Wash

Project Name/Identifier: Pittman Detention Basin CLOMR

1. REACH TO BE REVISED

Describe the limits of the revision OR submit a copy of the FIRM with the revision area clearly highlighted.
Copy of FIRM(s) attached depicting area of the revision (highlighted, or circled)? ☒ Yes

Downstream Limit: Intersection of St. Rose Parkway/Seven Hills Drive

Upstream Limit: Pittman Detention and/or Detention Basin Outfall Structure

2. MODELS SUBMITTED

Requirements: for areas which have detailed flooding:
Full input and output listings along with files on diskette for each of the models listed below (items 1-4) and a summary of the source of input parameters used in the models must be provided. The summary must include a description of any changes made from model to model (e.g., Duplicate Effective model to Corrected Effective model). At a minimum, the Duplicate Effective (item 1) and the Revised or Post-Project Conditions (item 4) models must be submitted. See instructions for directions on when other models may be required.

for areas which do not have detailed flooding:
Only the 100-year (Base) flood profile is required. A hydraulic model is not required for areas which do not have detailed flooding; however, BFEs may not be added to the revised FIRM. If a hydraulic model is developed for the area, items 3 and 4 described below must be submitted.

If hydraulic models are not developed, hydraulic analyses (including all calculations) for existing or pre-project conditions and revised or post-project conditions must be submitted.

1. Duplicate Effective Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
Copies of the hydraulic analysis used in the effective FIS, referred to as the effective models (10-, 50-, 100-, and 500-year multi-profile runs and the floodway run) must be obtained and then reproduced on the requester's equipment to produce the Duplicate Effective model. This is required to assure that the effective models input data has been transferred correctly to the requester's equipment and to assure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach.

2. Corrected Effective Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
The Corrected Effective model is the model that corrects any errors that occur in the Duplicate Effective model, adds any additional cross sections to the Duplicate Effective model, or incorporates more detailed topographic information than that used in the currently effective model. The Corrected Effective model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

3. Existing or Pre-Project Conditions Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name**
The Duplicate Effective model or Corrective Effective model is modified to produce the Existing or Pre-Project Conditions model to reflect any modifications that have occurred within the floodplain since the date of the Effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective model or Duplicate Effective model.

4. Revised or Post-Project Conditions Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name**
The Existing or Pre-Project Conditions model (or Duplicate Effective model or Corrected Effective model, as appropriate) is revised to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project. When the request is for the proposed project this model must reflect proposed conditions.

5. Other – P lease attach a sheet describing all other models submitted along with the file names. ☒ **Natural** ☐ **Floodway**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

3. STARTING WATER-SURFACE ELEVATIONS

Explain how they were determined. Explanation Attached? ☒ Yes ☐ No

NOTE: If the effective study is an approximate study, the slope/area method is recommended. For detailed analysis studies, using a known water-surface elevation is recommended.

4. RESULTS (from the model used to revise the 100-year water surface elevations)

If the results indicate any of the following, attach an explanation - to this form, or to the hydraulic model printout- as to the reasonableness of the situation.

☒ Supercritical depth ☐ Critical Depth ☐ Drawdowns ☐ Negative Floodway Surcharges

☐ Floodway Surcharges Greater Than Maximum Allowed by Community/State

☐ Water surface elevations higher than the end points of cross sections.

☐ Floodway discharge is different than the Natural 100-year (base) flood discharge.

☐ Project causes 100-year floodplain or floodway elevations to increase (state if increases are located off the requester's property)

Explanation attached with Form ☒ **Explanation provided on attached printout** ☐

If Hydraulic model used is HEC-2, has it been checked with FEMA'S CHECK-2 computer program? ☐ **Yes** ☐ **No**
(see instructions for information on how to obtain CHECK-2)

5. REVISED FIRM/FBFM AND FLOOD PROFILES

1. Profile Transition **N/A – approximate method Zone A, profile not required.**

a. 100-Year Water-Surface Elevations - indicate the difference in water surface elevations where the project 100-year elevations tie into the existing 100-year water surface elevations at each end of the project.

Downstream End _____ within _____ (feet) Upstream End _____ within _____ (feet)
Cross-Section # *Cross-Section #*

b. Floodway Elevations - indicate the difference in water surface elevations where the project floodway elevations tie into the existing floodway water surface elevations at each end of the project.

Downstream End _____ within _____ (feet) Upstream End _____ within _____ (feet)
Cross-Section # *Cross-Section #*

c. Floodway widths - indicate the difference in floodway widths where the project floodway widths tie into the existing floodway width at each end of the project.

Downstream End _____ within _____ (feet) Upstream End _____ within _____ (feet)
Cross-Section # *Cross-Section #*

2. Profile Checklist (check box if information has been provided on profile)

The following information (unless in parentheses) must be included at the same scale as the existing profiles for this project:

☐ Stream Name ☐ Community Name ☐ Corporate Limits labeled ☐ Study limits labeled

☐ Confluences labeled ☐ Channel Stationing ☐ Streambed profiled ☐ Cross Sections labeled

☐ Horizontal/Vertical Scales indicated ☐ 100-year elevs profiled*

☐ Road Crossings ☐ Labeled ☐ Low Chord Elevations ☐ Top of Road Elevations

*All recurrence intervals in the effective study must also be profiled.

Floodway Data Table

Attach a Floodway Data Table for each cross section listed in the published Floodway Data table in the FIS report.

Floodway Data Table Attached ☐ **Yes** ☒ **Not Required**

Explanation for Form 4, Page 1 of 2, Section 2, Question 5 and Page 2 of 2, Section 3
No approximate or detailed hydraulic analysis currently exists for the area downstream of the detention basin outfall facilities. An approximate method analysis using normal depth calculations is being submitted with this CLOMR to delineate a Flood Zone A downstream of the detention basin outfall facilities. Electronic files of the normal depth calculations using FlowMaster Software are included in this submittal
File Name: revised_pittman.FM2

Explanation for Form 4, Page 2 of 2, Section 4
Supercritical flow in relatively steep natural washes in the desert southwest is common.

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE / COASTAL MAPPING**	O.M.B No. 3067-0148 Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: City of Henderson

Flooding Source: Unnamed tribuatary of the Pittman Wash

Project Name/Identifier: Pittman East Detention Basin & Associated Outfall Facilities CLOMR

This is a ☐ Manual ☒ Digital submission. *Digital map submissions may be used to update digital FIRMs (DFIRMs). For updating DFIRMs, these submissions must be coordinated with FEMA Headquarters as far in advance as possible.*

1. MAPPING CHANGES

1. A topographic workmap must be submitted showing the following information (check N/A when not applicable):

a. Revised approximate 100-year floodplain boundaries (Zone A)	☒ Yes	☐ No	☐ N/A
b. Revised detailed 100- and 500-year floodplain boundaries.	☐ Yes	☐ No	☒ N/A
c. Revised floodway boundaries	☐ Yes	☐ No	☒ N/A
d. Location and alignment of all cross sections with stationing control indicated.	☒ Yes	☐ No	☐ N/A
e. Stream alignments, road alignments and dam alignments.	☒ Yes	☐ No	☐ N/A
f. Current community boundaries.	☒ Yes	☐ No	☐ N/A
g. Effective 100- year floodplain and floodway boundaries from FIRM/FBFM reduced or enlarged to the scale of the topographic workmap	☒ Yes	☐ No	☐ N/A
h. Tie-ins between the effective and revised 100-, 500-year and floodway boundaries	☐ Yes	☐ No	☒ N/A
i. The requester's property boundaries and community easements	☐ Yes	☐ No	☒ N/A
j. The signed certification of a registered professional engineer	☒ Yes	☐ No	☐ N/A
k. Location and description of reference marks	☐ Yes	☐ No	☒ N/A
l. Vertical datum (example: NGVD, NAVD)	☒ Yes	☐ No	☐ N/A
m. Coastal zone designations tie into adjacent areas not being revised	☐ Yes	☐ No	☒ N/A
n. Location and alignment of all coastal transects used to revise the coastal analyze	☐ Yes	☐ No	☒ N/A
o. V-zone has been delineated to extend landward to the heel of the primary frontal dune	☐ Yes	☐ No	☒ N/A

If any items are marked No or N/A please attach an explanation.

2. What is the source and date of the updated topographic information (example: orthophoto maps, July 1985; filed survey, May 1979, beach profile, June 1987 etc.)? Contours created from ortho photos (1996) from Clark County GIS Management office.

3. What is the scale and contour interval of the following workmaps?

Effective FIS Scale N/A Contour Interval N/A

Revision Request Scale 1"=500' Contour Interval 5 FT

NOTE: Revised topographic information must be of equal or greater detail than effective.

4. Attach an annotated FIRM/FBFM at the scale of the effective FIRM/FBFM showing the revised 100- and 500-year floodplain and the floodway boundaries and how they tie into those shown on the effective FIRM/FBFM downstream and upstream of the revisions or adjacent to the area of revision for coastal studies. **FIRM/FBFM attached?** ☒ **Yes** ☐ **No**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

2. EARTH FILL PLACEMENT

1. The fill is: ☐ Existing ☒ Proposed

2. Has fill been/will be placed in the regulatory floodway? ☐ Yes ☒ No
If Yes, please attach completed Riverine Hydraulic Analysis Form (Form 4).

3. Has fill been/will be placed in floodway fringe (*area between the floodway and 100-year floodplain boundaries*)? ☐ Yes ☒ No

If Yes, then complete A, B, C, and D below.

a. Are fill slopes for granular materials steeper than one vertical on one-and-one-half horizontal? ☐ Yes ☐ No

If Yes, justify steeper slopes _____

b. Is adequate erosion protection provided for fill slopes exposed to moving flood waters? (*Slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap.)*

☐ Yes ☐ No

If No, describe erosion protection provided_____

c. Has all fill placed in revised 100-year floodplain been compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Method or acceptable equivalent method? ☐ Yes ☐ No

d. Can structures conceivably be constructed on the fill at any time in the future? ☐ Yes ☐ No

If Yes, attach certification of fill compaction (item 3c. above) by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer in accordance with Subparagraph 65.5(a)(6) of the NFIP regulations.

Fill certification attached ☐ **Yes** ☐ **No**

4. Has fill been/will be placed in a V zone? ☐ Yes ☒ No

If Yes, is the fill protected from erosion by a flood control structure such as a revetment or seawall?

☐ Yes ☐ No

If Yes, attach the Coastal Structures Form (Form 10).

FEDERAL EMERGENCY MANAGEMENT AGENCY **CHANNELIZATION**	O.M.B. Burden No. 3067-0148 Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Community Name: City of Henderson

Flooding Source: Unnamed tributary of the Pittman Wash

Project Name/Identifier: Pittman East Detention Basin & Associated Outfall Facilities CLOMR

1. REACH TO BE REVISED

Describe the limits of the revision **OR** submit a copy of the FIRM with the revision area clearly highlighted.
Copy of FIRM(s) attached depicting area of the revision (highlighted, or circled)? ☒ Yes

Downstream Limit: _____

Upstream Limit: _____

2. CHANNEL DESCRIPTION

Attach the following information about the channel (check box if information has been provided):

☒ Description of the inlet and outlet

☒ Description of the shape of the channel *(both cross sectional and planimetric configuration)* and its lining *(channel bottom and sides)*:

3. ACCESSORY STRUCTURES

The channelization includes:

- ☐ Levees *(Attach Levee/Floodwall System Analysis Form - Form 8)*
- ☐ Drop structures
- ☐ Superelevated sections
- ☒ Transitions in cross sectional geometry
- ☒ Debris basin/detention basin
- ☒ Energy dissipater
- ☐ Other (Describe):

4. DRAWING CHECKLIST

Attach the plans of the channelization certified by a registered professional engineer. The plan detail and information should include (check box if information has been provided):

☒ Channel alignment and locations of inlet, outlet, and accessory structures

☒ Channel lining

☒ Typical cross sections and profiles of channel banks and invert

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

5. HYDRAULIC CONSIDERATIONS

1. The channel was designed to carry 1221 (cfs) and/or the 100-year flood.

2. The design elevation in the channel based on:

- ☒ Subcritical flow
- ☐ Critical flow
- ☒ Supercritical flow
- ☐ Energy grade line

3. **If there is the potential for a hydraulic jump at the following locations, check the box(es) that apply and attach an explanation of how the hydraulic jump is controlled without affecting the stability of the channel.**

Inlet to channel?	☐ Yes
Outlet of channel?	☐ Yes
At Drop Structures?	☐ Yes
At Transitions?	☐ Yes
Other locations?	☒ Yes

Explanation Attached? ☒ **Yes** ☐ **No** ☐ **N/A**

6. SEDIMENT TRANSPORT CONSIDERATIONS

If there is any indication from historical records that sediment transport (including scour and deposition) can affect the 100-year (base flood) water-surface elevations; and/or based on the stream geomorphology, vegetative cover, development of the watershed and bank conditions, there is a potential for debris and sediment transport (including sewer and deposition) to affect the base flood water-surface elevations, then provide the following information **(Check the box if provided):**

Detention Basin Only

- ☒ Estimated sediment load
- ☒ Method used to estimate sediment transport
- ☒ Method used to estimate scour and/or deposition
- ☒ Method used to revise hydraulic or hydrologic analysis (model) to account for sediment transport

Explanation for Form 6, Page 2 of 2, Section 5, Question 3

A hydraulic jump will form downstream of the outlet of the high level (RCB) of the detention basin. The hydraulic jump is controlled by a USBR Type III Hydraulic Jump Basin (see Pittman East Detention Basin Design Report).

FEDERAL EMERGENCY MANAGEMENT AGENCY **BRIDGE/CULVERT**	O.M.B. Burden No. 3067-0148 Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Community Name: City of Henderson

Flooding Source: Unnamed tributary to the Pittman Wash

Project Name/Identifier: Pittman East Detention Basin & Associated Outfall Facilities CLOMR

1. IDENTIFIER

1. Name of structure (roadway, railroad, etc.): Pittman East Detention Basin - outfall culverts

2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier):

   The culvert is located at the downstream end of the Pittman East Detention Basin, and is used as the outfall structure for the low-level 36" RCP and high level 8'x6' RCB outfalls.

3. This revision reflects (check one of the following):

   ☒ New bridge/culvert not modeled in the FIS

   ☐ Modified bridge/culvert previously modeled in the FIS

   ☐ New analysis of bridge/culvert previously modeled in the FIS

4. Hydraulic model used to analyze the structure *(e.g., HEC-2 with special bridge routine, WSPRO, HY8)*

   WSPG (see Design Report)

   If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structure(s). *(Attach justification)*

   Justification attached ☐ **Yes** ☐ **No** ☒ **N/A**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

2. DRAWING CHECKLIST

Attach plans of the structure(s) certified by a registered professional engineer. The plan detail and information should include the following (check the boxes if the information has been provided):

- ☒ Dimensions (height, width, span, radius, length)
- ☒ Shape (culverts only)
- ☒ Material
- ☐ Beveling or Rounding
- ☐ Wing Wall Angle
- ☐ Low Chord Elevations - Upstream and Downstream
- ☐ Top of Road Elevations - Upstream and Downstream
- ☒ Structure Invert Elevations - Upstream and Downstream
- ☒ Stream Invert Elevations - Upstream and Downstream
- ☐ Skew Angle
- ☒ Cross-Section Locations
- ☒ Distances Between Cross Sections
- ☒ Erosion Protection

3. SEDIMENT TRANSPORT CONSIDERATIONS

If there is any indication from historical records that sediment transport (including scour and deposition) can affect the 100-year (base flood) water-surface elevations; and/or based on the stream geomorphology, vegetative cover, development of the watershed and bank conditions, there is a potential for debris and sediment transport (including sewer and deposition) to affect the base flood elevations, then provide the following information (**Check the box if provided):**

- ☐ Estimated sediment load
- ☐ Method used to estimate sediment transport
- ☐ Method used to estimate scour and/or deposition
- ☐ Method used to revise hydraulic or hydrologic analysis (model) to account for sediment transport

FEDERAL EMERGENCY MANAGEMENT AGENCY **DAM**	O.M.B. Burden No. 3067-0148 Expires April 30, 2001

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 0.5 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Community Name: City of Henderson

Flooding Source: Unnamed tributary of the Pittman wash

Project Name/Identifier: Pittman East Detention Basin & Associated Outfall Facilities

1. IDENTIFIER

1. **Name of Dam:** Pittman East Detention Basin

2. Location of dam along flood source (in terms of stream distance or cross section identifier):

   Section 11, Township 23, Range 61

   _____

   _____

3. This request is for (check one of the following):

   ☐ Existing dam
   ☒ New dam
   ☐ Modifications of existing dam (describe modifications): _____

4. Was the dam designed by: ☐ Federal agency ☐ State agency ☐ Local government agency ☒ Private organization?

2. BACKGROUND

1. Does the dam have dedicated flood control storage? ☒ Yes ☐ No

2. Does the project involve revised hydrology? ☒ Yes ☐ No

   If Yes, complete Hydrologic Analysis Form (Form 3) and include calculations of the 100-year inflow flood hydrograph routed through the dam with the beginning pool at the normal pool elevation (spillway crest elevation for ungated spillway). Include any inflow hydrograph bulking by watershed sediment yield and provide necessary debris and sediment yield analysis.

3. Does the revised hydrology affect the 100-year water-surface (base flood) elevation behind the dam or downstream of the dam?

   ☒ Yes ☐ No

   If yes, complete the Riverine Hydraulic Analysis Form (Form 4) and complete the table shown on the following page.

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

3. RESULTS

	Stillwater Elevation Behind the Dam	
	FIS	REVISED
10-year	NA	NA
50-year	NA	NA
100-year	NA	2500.75
500-year	NA	NA
Normal Pool Elevation	NA	NA (no water retained)

1. Was long-term sediment accumulation taken into consideration in determining the normal pool elevation? ☒ Yes ☐ No

2. Was the dam designed to withstand the hydrostatic and hydrodynamic forces associated with floods greater than the base flood? ☒ Yes ☐ No

   If No, the dam should not be modeled as considering the attenuation effects from the dam.

3. Provide the following data on the dam:

   Dimensional Height: 45 ft

   Crest Elevation of top of dam: 2510.0 ft

   base flood storage capacity: 1718 acre-ft plus freeboard to spillway crest = 137 acre-ft, total = 1855 acre-ft

   Freeboard (measured from base flood elevation): 1.25 ft

Spillway(s):

   Type: ☐ gated ☒ ungated

   Dimensional Width: 1751.5 ft

   Dimensional Height: 8.0 ft

   Crest Elevation of Top of Spillway: 2502.0 ft

5. Outlet(s):

   Type: ☐ gated ☒ ungated

   Width: 6.0 ft (RCB High Level)

   Height: 8.0 ft (RCB High Level)

   Diameter: 36.0 inch (RCP Low Level)

   Invert Elevation: 2461.0 ft and 2481.0 ft

6. Explain flow regulation plan: Uncontrolled free weir

7. Are the project features, including the emergency spillway, designed to accommodate the 100-year flood discharge without overtopping the dam? ☒ Yes ☐ No

8. Was the dam designed in accordance with all currently applicable local, State, and Federal regulations?
   ☒ Yes ☐ No

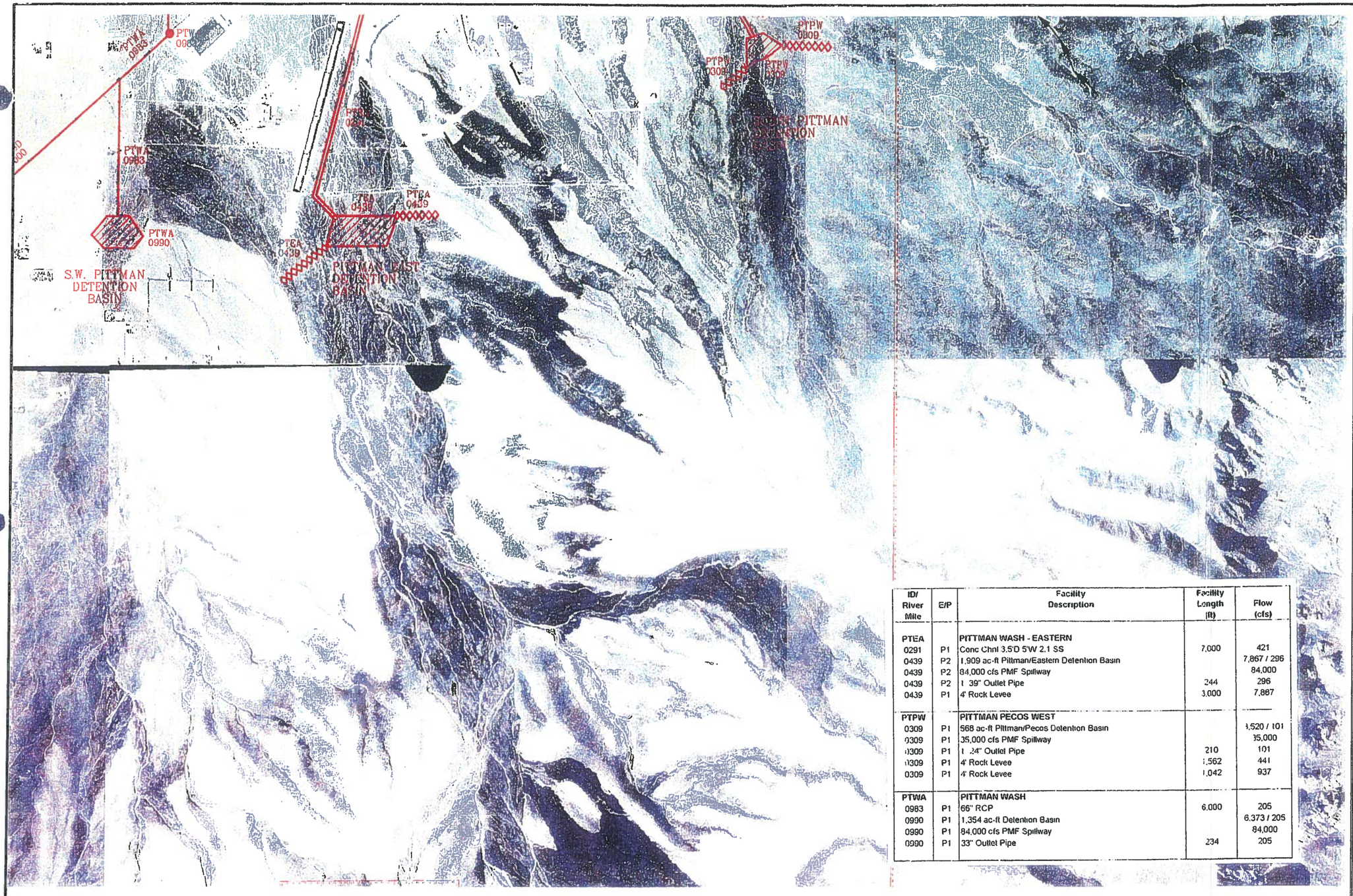
   If No, please attach an explanation. **Explanation attached** ☐ **Yes** ☐ **No**

   FEMA may request a list of regulations that have been complied with and supporting documentation demonstrating compliance with these regulations.

9. **Attach copy of formal operation and maintenance plan. Plan Attached?** ☒ Yes ☐ No

APPENDIX II

MAPS AND EXHIBITS



ID/ River Mile	E/P	Facility Description	Facility Length (ft)	Flow (cfs)
PTEA		PITTMAN WASH - EASTERN		
0291	P1	Conc Chnl 3.5'D 5'W 2.1 SS	7,000	421
0439	P2	1,909 ac-ft Pittman/Eastern Detention Basin		7,867 / 296
0439	P2	84,000 cfs PMF Spillway		84,000
0439	P2	1 39" Outlet Pipe	244	296
0439	P1	4' Rock Levee	3,000	7,887
PTPW		PITTMAN PECOS WEST		
0309	P1	568 ac-ft Pittman/Pecos Detention Basin		3,520 / 101
0309	P1	35,000 cfs PMF Spillway		35,000
0309	P1	1 24" Outlet Pipe	210	101
0309	P1	4' Rock Levee	1,562	441
0309	P1	4' Rock Levee	1,042	937
PTWA		PITTMAN WASH		
0983	P1	66" RCP	6,000	205
0990	P1	1,354 ac-ft Detention Basin		6,373 / 205
0990	P1	84,000 cfs PMF Spillway		84,000
0990	P1	33" Outlet Pipe	234	205

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	

EXHIBIT II

PHOTOS BY LANDISCOR
DATED: AUGUST 1995

CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT

FLOOD CONTROL MASTER PLAN UPDATE LAS VEGAS VALLEY 1996

LEGEND

- EXISTING MASTER PLAN FACILITIES
- PROPOSED MASTER PLAN FACILITIES
- LOCAL OR UNSTUDIED FACILITIES
- DETENTION/DEBRIS BASIN
- CULVERT
- BRIDGE
- PIPELINE
- LINED CHANNEL
- UNLINED CHANNEL
- DIKE
- NATURAL WASH
- ULTIMATE DEVELOPMENT BOUNDARY
- SECONDARY FACILITIES

GRAPHIC SCALE

3000 1500 0 1000 2000 3000

(IN FEET)

SCALE: 1 INCH = 3000 FEET

FLOOD CONTROL FACILITIES

FIGURE F-27

PBS&J POST, BUCKLEY, SCHUH & JERNIGAN, INC.

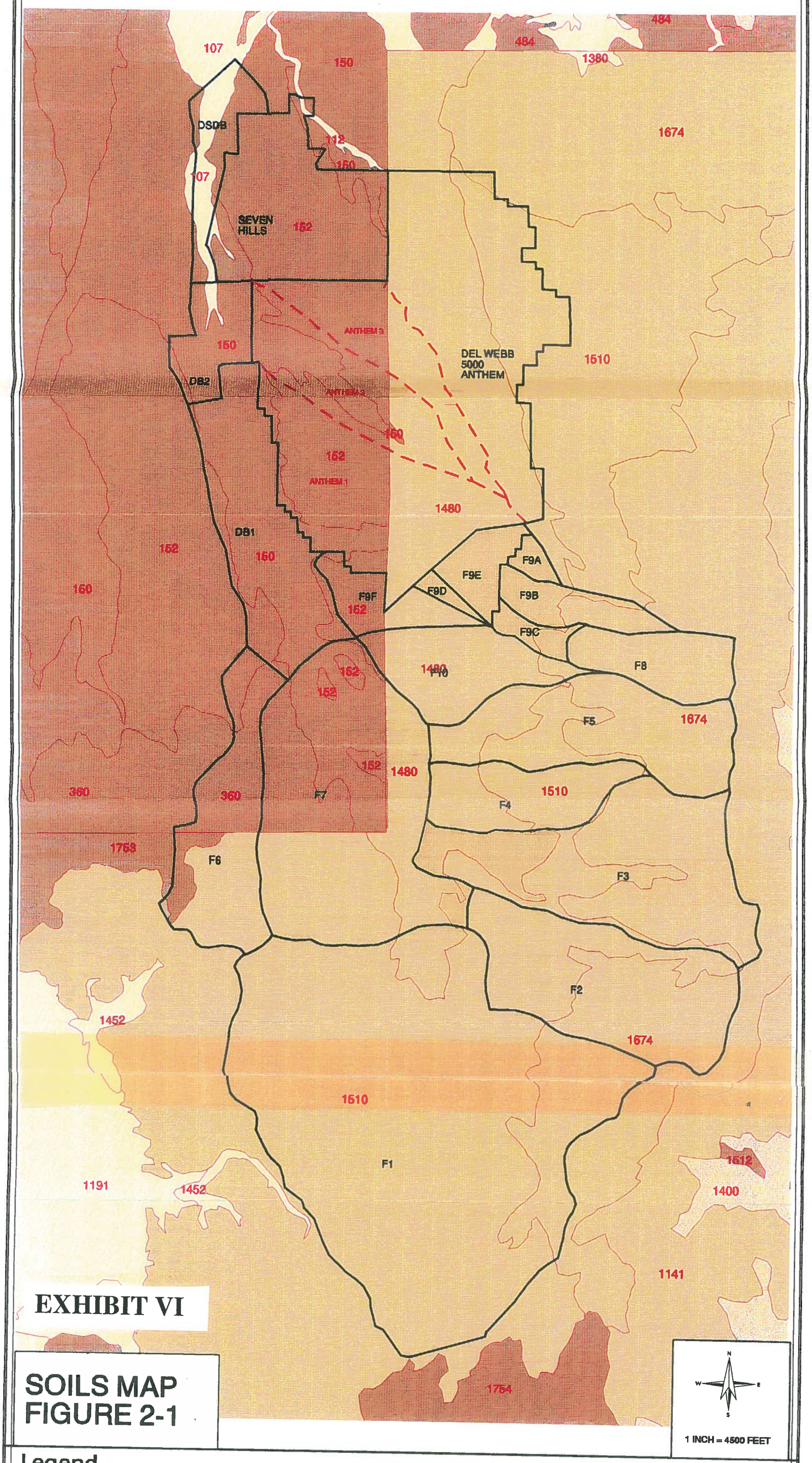
VTN nevada

APPENDIX III

HYDROLOGIC PARAMETERS, CALCULATIONS AND EXHIBITS

EXHIBIT VI

SOILS MAP
FIGURE 2-1



Legend

Hydrologic Soil Types

Type A Type D

DIVISION WITHIN DEL WEBB 5000

1510 or 150 MAP UNIT NUMBER

SUBBASIN BOUNDARIES

FIGURE 2-2
LAND USE MAP

Landuse

- Undeveloped Land
- Parks, Golf Courses
- Rural Residential
- Low Density Residential
- Med Density Residential
- High Density Residential
- Public Facility
- Commercial Retail,Casino (High Imp)
- Industrial (Low Imp.)
- Industrial (High Imp.)
- Schools
- Lakes

Note: See Figure 3-1 for subbasin labels

N E S W

MAP NOT TO SCALE

EXHIBIT VII

PBSJ
901 N. Green Valley Pkwy, Suite 100
Henderson, NV 89014
Phone: (702) 263-7276
Fax: (702) 263-7200

HEC-1 MODEL OUTPUT

FILE: 2A-5.DAT

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             SEPTEMBER 1990            *
*              VERSION 4.0              *
*                                       *
*  RUN DATE  02/21/2000  TIME  18:11:02 *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*            (916) 756-1104             *
*                                       *
*****************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X       XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
         LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                       *DIAGRAM
*** FREE ***
              1        ID
              2        ID   PITTMAN EAST DETENTION BASIN
              3        ID   PBS&J, February 2000
              4        ID
              5        ID   THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
              6        ID   "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
              7        ID   1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
              8        ID   DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
              9        ID   CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
             10        ID   MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
             11        ID   CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
             12        ID   ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
             13        ID   CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
             14        ID
             15        ID   THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE
             16        ID   DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF
             17        ID   LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.
```

```
18          ID
19          ID
20          ID   100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
21          ID   DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
22          ID   100-YEAR,  50-YEAR, 25-YEAR AND 10-YEAR EVENTS.
23          ID
24          IT       5       0       0     300
25          IO       5       0       0
26          IN       5       0       0
27          JR    PREC   0.731   0.722   0.636   0.628   0.541   0.534   0.417   0.412
            *

28          KK      F1
29          BA     9.4
30          PB    3.38
31          PC    .000    .020   0.059    0.08    0.11   0.144    0.15    0.16   0.168   0.171
32          PC    .180    .182   0.187    0.19   0.197   0.202    0.21    0.22    0.23   0.241
33          PC    .250    .259   0.265    0.28    0.29     0.3   0.305   0.309    0.31   0.317
34          PC    .321    .327   0.333   0.346   0.361   0.381   0.408    0.43   0.477   0.514
35          PC    .561    .630    0.71    0.72   0.731   0.752   0.779    0.79   0.795   0.804
36          PC    .810    .820   0.826    0.84   0.859   0.889    0.91   0.938   0.966    0.97
37          PC    .974    .979   0.981   0.983   0.985   0.989    0.99   0.992   0.993   0.996
38          PC    .997    .999       1
39          LS       0    84.5
40          UD     .97
            *

41          KK      F2
42          BA  2.4345
43          PB     3.3
44          LS       0    83.5
45          UD     .79
            *
```



```
LINE        ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

46          KK     CF2
47          HC       2
            *

48          KK     RF2
49          RM       6     .48    0.15
            *

50          KK      F3
51          BA   2.875
52          PB    3.25
53          LS       0    83.3
54          UD     .65
            *

55          KK     RF3
56          RM       6     .49    0.15
            *

57          KK      F4
58          BA  1.0125
59          PB    3.22
```

```
 60          LS       0    87.1
 61          UD     .45
             *

 62          KK     RF4
 63          RM       6     .46    0.15
             *

 64          KK     CF4
 65          KM  IntermCombine
 66          HC       2
             *

 67          KK      F5
 68          BA  1.9765
 69          PB    3.19
 70          LS       0    83.8
 71          UD     .63
             *

 72          KK     RF5
 73          RM       4     .33    0.15
             *

 74          KK     CF5
 75          HC       3
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 76          KK      F6
 77          BA  1.5766
 78          PB    3.23
 79          LS       0    86.9
 80          UD     .59
             *

 81          KK      F7
 82          BA  3.8656
 83          PB    3.23
 84          LS       0    88.3
 85          UD     .88
             *

 86          KK     CF7
 87          HC       3
             *

 88          KK     RF7
 89          RM       6     .51    0.15
             *

 90          KK     F10
 91          BA  1.0741
 92          PB    3.15
 93          LS       0    87.7
 94          UD     .73
             *
```

```
 95          KK    RF10
 96          RM       3     .27    0.15
             *

 97          KK     F9F
 98          BA   .5035
 99          PB    3.11
100          LS       0    89.2
101          UD    .324
             *

102          KK    14-1
103          BA  .02922
104          PB    3.15
105          LS       0      84
106          UD    .089
             *

107          KK    14-2
108          BA  .01094
109          PB    3.15
110          LS       0      87
111          UD    .098
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

112          KK     C26
113          HC       2
             *

114          KK   R14-2
115          RM       4      .3    0.15
             *

116          KK    CF9F
117          HC       3
             *

118          KK     F9A
119          BA   .1130
120          PB    3.12
121          LS       0    87.2
122          UD    .109
             *

123          KK      R6
124          RM       1    .144      .2
             *

125          KK     F9B
126          BA   .4926
127          PB    3.15
128          LS       0    83.9
129          UD    .211
             *
```

```
 130          KK      R7
 131          RM       1    .084       .2
              *

 132          KK      F8
 133          BA    .7602
 134          PB    3.17
 135          LS       0      81
 136          UD    .205
              *

 137          KK      R8
 138          RM       1    .113       .2
              *

 139          KK     F9C
 140          BA    .1894
 141          PB    3.15
 142          LS       0    85.3
 143          UD    .136
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 144          KK      C8
 145          HC       2
              *

 146          KK      R9
 147          RM       1    .119       .2
              *

 148          KK     F9E
 149          BA    .3882
 150          PB    3.11
 151          LS       0      88
 152          UD    .189
              *

 153          KK      C9
 154          HC       4
              *

 155          KK     R10
 156          RM       1    .074       .2
              *

 157          KK   13-16
 158          BA  .02906
 159          PB    3.15
 160          LS       0      81
 161          UD    .211
              *

 162          KK   13-17
 163          BA  .07578
 164          PB    3.15
 165          LS       0      87
```

```
 166          UD    .166
              *

 167          KK   13-18
 168          BA  .07453
 169          PB    3.15
 170          LS       0      87
 171          UD    .116
              *

 172          KK     C10
 173          HC       4
              *

 174          KK     R11
 175          RM       1    .095      .2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 176          KK   13-15
 177          BA  .03672
 178          PB    3.15
 179          LS       0      84
 180          UD    .061
              *

 181          KK     C11
 182          HC       2
              *

 183          KK     R12
 184          RM       1    .076      .2
              *

 185          KK     F9D
 186          BA   .0895
 187          PB    3.11
 188          LS       0      88
 189          UD    .184
              *

 190          KK     R13
 191          RD    1100    .073     .04       0    TRAP      10       3
              *

 192          KK   13-22
 193          BA  .01781
 194          PB    3.15
 195          LS       0      81
 196          UD    .119
              *

 197          KK     C12
 198          HC       2
              *

 199          KK   13-21
```

```
200          BA  .03906
201          PB    3.15
202          LS       0      87
203          UD    .091
             *

204          KK     R14
205          RM       1    .150       .2
             *

206          KK   13-20
207          BA  .01344
208          PB    3.15
209          LS       0      91
210          UD    .116
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

211          KK     C13
212          HC       2
             *

213          KK     C14
214          HC       2
             *

215          KK     R15
216          RM       1    .053       .2
             *

217          KK   13-14
218          BA  .04234
219          PB    3.15
220          LS       0      81
221          UD    .204
             *

222          KK   13-19
223          BA  .07828
224          PB    3.15
225          LS       0      87
226          UD    .198
             *

227          KK     C15
228          HC       4
             *

229          KK     R16
230          RM       1    .061       .2
             *

231          KK    13-9
232          BA  .04953
233          PB    3.07
234          LS       0      82
235          UD    .208
```

```
                *
 236            KK   13-12
 237            BA  .02813
 238            PB    3.15
 239            LS       0      89
 240            UD    .143
                *

 241            KK   13-13
 242            BA  .01375
 243            PB    3.15
 244            LS       0      85
 245            UD    .050
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 246            KK     R17
 247            RM       1    .076      .2
                *

 248            KK     C16
 249            HC       3
                *

 250            KK     R18
 251            RM       1    .108      .2
                *

 252            KK    13-8
 253            BA  .08859
 254            PB    3.15
 255            LS       0      83
 256            UD    .139
                *

 257            KK     C17
 258            HC       3
                *

 259            KK    13-7
 260            BA  .02172
 261            PB    3.22
 262            LS       0      87
 263            UD    .116
                *

 264            KK     R19
 265            RM       1    .065      .2
                *

 266            KK    13-6
 267            BA  .02922
 268            PB    3.22
 269            LS       0      92
 270            UD    .147
                *
```

```
 271          KK   13-23
 272          BA  .06156
 273          PB    3.22
 274          LS       0      89
 275          UD    .115
              *

 276          KK     C18
 277          HC       3
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 278          KK     R20
 279          RM       1    .053       .2
              *

 280          KK   13-25
 281          BA  .01375
 282          PB    3.22
 283          LS       0      77
 284          UD    .145
              *

 285          KK     R21
 286          RM       1    .064       .2
              *

 287          KK   13-24
 288          BA  .06594
 289          PB    3.22
 290          LS       0      82
 291          UD    .254
              *

 292          KK     C19
 293          HC       2
              *

 294          KK    13-4
 295          BA  .01469
 296          PB    3.07
 297          LS       0      81
 298          UD    .131
              *

 299          KK    13-5
 300          BA  .13578
 301          PB    3.07
 302          LS       0      87
 303          UD    .215
              *

 304          KK     C20
 305          HC       2
              *
```

```
306          KK     R22
307          RM       1    .098      .2
             *

308          KK   13-11
309          BA  .04844
310          PB    3.07
311          LS       0      87
312          UD    .145
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

313          KK     C21
314          HC       2
             *

315          KK     R23
316          RM       1    .065      .2
             *

317          KK   13-10
318          BA  .01594
319          PB    3.07
320          LS       0      94
321          UD    .102
             *

322          KK     C22
323          HC       2
             *

324          KK     R24
325          RM       1    .056      .2
             *

326          KK    13-3
327          BA  .04078
328          PB    3.07
329          LS       0      92
330          UD    .197
             *

331          KK     C23
332          HC       4
             *

333          KK     R25
334          RM       1    .130      .2
             *

335          KK    13-2
336          BA  .02438
337          PB    3.15
338          LS       0      93
339          UD    .092
             *
```

```
340          KK     C24
341          HC       3
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

342          KK    13-1
343          BA  .07250
344          PB    3.15
345          LS       0      88
346          UD    .174
             *

347          KK     C25
348          HC       2
             *

349          KK   CCF9F
350          HC       2
             *

351          KK    RF9F
352          RM       3     .29    0.15
             *

353          KK    12-1
354          BA  .13281
355          PB    3.07
356          LS       0      89
357          UD    .234
             *

358          KK   C12-1
359          HC       2
             *

360          KK   R12-1
361          RM       3     .25    0.15
             *

362          KK    11-4
363          BA  .02906
364          PB    3.15
365          LS       0      87
366          UD    .048
             *

367          KK      R2
368          RM       2    .246      .2
             *

369          KK    11-3
370          BA  .08750
371          PB    3.07
372          LS       0      89
373          UD    .177
             *
```

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 374          KK       C2
 375          HC        2
              *

 376          KK     11-2
 377          BA   .06219
 378          PB     3.07
 379          LS        0       93
 380          UD     .191
              *

 381          KK       C3
 382          HC        2
              *

 383          KK     11-7
 384          BA   .04703
 385          PB     3.22
 386          LS        0       84
 387          UD     .108
              *

 388          KK     11-8
 389          BA   .03203
 390          PB     3.22
 391          LS        0       87
 392          UD     .152
              *

 393          KK     11-9
 394          BA   .05875
 395          PB     3.22
 396          LS        0       84
 397          UD     .161
              *

 398          KK    11-10
 399          BA   .09422
 400          PB     3.22
 401          LS        0       88
 402          UD     .150
              *

 403          KK       R3
 404          RD      950     .095      .04        0    TRAP       50        4
              *

 405          KK       C4
 406          HC        4
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 407          KK       R4
```

```
408          RD    1000    .025     .04       0    TRAP      50       8
             *

409          KK    11-5
410          BA   .03219
411          PB    3.07
412          LS        0      87
413          UD    .104
             *

414          KK      C5
415          HC       2
             *

416          KK    11-6
417          BA   .13375
418          PB    3.22
419          LS        0      89
420          UD    .196
             *

421          KK      C6
422          HC       3
             *

423          KK      R5
424          RD    1000    .025     .04       0    TRAP      50       8
             *

425          KK    11-1
426          BA   .09234
427          PB    3.07
428          LS        0      89
429          UD    .162
             *

430          KK      C7
431          HC       2
             *

432          KK     CC7
433          HC       2
             *

434          KK     RC7
435          RM       3     .28    0.15
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

436          KK    10-2
437          BA   .13422
438          PB    3.07
439          LS        0      89
440          UD    .174
             *

441          KK      R1
```

```
442          RD    1500    .073     .04       0    TRAP      50       4
             *

443          KK    10-1
444          BA   .09938
445          PB    3.07
446          LS       0      87
447          UD    .090
             *

448          KK      C1
449          HC       2
             *

450          KK     CC1
451          HC       2
             *

452          KK     DB1
453          BA  1.9261
454          PB    3.04
455          LS       0      90
456          UD    .614
             *

457          KK    CDB1
458          HC       3
             *

459          KK    RDB1
460          RK    4000    .016   0.035       0    TRAP      60       2
             *

461          KK    9-19
462          BA   .01547
463          PB    3.07
464          LS       0      91
465          UD    .150
             *

466          KK    9-15
467          BA   .23781
468          PB    3.15
469          LS       0      87
470          UD    .238
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

471          KK     C14
472          HC       2
             *

473          KK     R13
474          RM       1    .059      .2
             *

475          KK    9-18
```

```
476          BA  .01266
477          PB    3.22
478          LS       0      91
479          UD    .115
             *

480          KK     C15
481          HC       2
             *

482          KK    9-16
483          BA  .01781
484          PB    3.07
485          LS       0      91
486          UD    .138
             *

487          KK    9-17
488          BA  .04750
489          PB    3.07
490          LS       0      83
491          UD    .171
             *

492          KK     C16
493          HC       2
             *

494          KK     C17
495          HC       2
             *

496          KK     R14
497          RM       1    .090      .2
             *

498          KK    9-14
499          BA  .08766
500          PB    3.07
501          LS       0      87
502          UD    .193
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

503          KK     C18
504          HC       2
             *

505          KK     R15
506          RD     750    .133     .04       0    TRAP      10       3
             *

507          KK    9-12
508          BA  .00703
509          PB    3.07
510          LS       0      95
511          UD    .050
```

```
                *

512             KK     R16
513             RD     550    .200     .04       0    TRAP      10        3
                *

514             KK     C19
515             HC       2
                *

516             KK     R17
517             RM       2    .203      .2
                *

518             KK    9-11
519             BA  .26313
520             PB    3.07
521             LS       0      84
522             UD    .241
                *

523             KK     C20
524             HC       2
                *

525             KK     9-6
526             BA  .03047
527             PB    3.07
528             LS       0      93
529             UD    .173
                *

530             KK     C21
531             HC       2
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

532             KK     R18
533             RD     700    .021    .013       0    CIRC     7.5
                *

534             KK    9-13
535             BA  .15156
536             PB    3.07
537             LS       0      89
538             UD    .233
                *

539             KK     R19
540             RD     850    .100    .013       0    CIRC     4.5
                *

541             KK     9-5
542             BA  .00734
543             PB    3.07
544             LS       0      89
545             UD    .076
```

```
                *

546             KK     C22
547             HC       3
                *

548             KK     R20
549             RD     600     .025     .015        0    TRAP       20        0
                *

550             KK     9-2
551             BA   .01813
552             PB    3.07
553             LS       0       93
554             UD    .163
                *

555             KK     C23
556             HC       2
                *

557             KK     R21
558             RD    1050     .029     .015        0    TRAP       10        0
                *

559             KK    9-10
560             BA   .00703
561             PB    3.07
562             LS       0       95
563             UD    .071
                *
```



```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

564             KK     R22
565             RM       1     .067       .2
                *

566             KK     9-9
567             BA   .02344
568             PB    3.07
569             LS       0       89
570             UD    .129
                *

571             KK     C24
572             HC       2
                *

573             KK     R23
574             RM       1     .136       .2
                *

575             KK     9-8
576             BA   .14672
577             PB    3.07
578             LS       0       89
579             UD    .232
```

```
                *
 580            KK     R24
 581            RD     600    .083     .04       0    TRAP      10       3
                *

 582            KK     9-7
 583            BA   .12828
 584            PB    3.07
 585            LS       0      84
 586            UD    .250
                *

 587            KK     C25
 588            HC       3
                *

 589            KK     R25
 590            RD     900    .033     .04       0    TRAP      50       8
                *

 591            KK     9-4
 592            BA   .03688
 593            PB    3.07
 594            LS       0      89
 595            UD    .138
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 596            KK     C26
 597            HC       2
                *

 598            KK     9-3
 599            BA   .05656
 600            PB    3.07
 601            LS       0      93
 602            UD    .163
                *

 603            KK     C27
 604            HC       3
                *

 605            KK     R26
 606            RD     800    .018     .04       0    TRAP      50       8
                *

 607            KK     9-1
 608            BA   .04766
 609            PB    3.07
 610            LS       0      89
 611            UD    .160
                *

 612            KK     C28
 613            HC       2
```

```
                *

614             KK     8-3
615             BA  .07656
616             PB    3.07
617             LS       0      89
618             UD    .142
                *

619             KK     8-2
620             BA  .01094
621             PB    3.07
622             LS       0      93
623             UD    .066
                *

624             KK     C12
625             HC       2
                *

626             KK     R12
627             RD     800    .044     .04       0    TRAP      10       3
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

628             KK     8-1
629             BA  .02234
630             PB    3.07
631             LS       0      88
632             UD    .080
                *

633             KK     C13
634             HC       2
                *

635             KK     7-2
636             BA  .01859
637             PB    3.07
638             LS       0      89
639             UD    .108
                *

640             KK     R11
641             RD     500    .100     .04       0    TRAP      10       3
                *

642             KK     7-1
643             BA  .01266
644             PB    3.07
645             LS       0      87
646             UD    .130
                *

647             KK     C11
648             HC       4
                *
```

```
 649          KK     DB2
 650          BA   .5965
 651          PB    2.91
 652          LS       0    89.3
 653          UD    .331
              *

 654          KK    CDB2
 655          KO       1
 656          HC       3
              *

 657          KK    PEDB
 658          KM  PITTMAN EAST DETENTION BASIN
 659          KM  TOP OF EMBANKMENT ELEVATION 2510
 660          KM  SPILLWAY CREST ELEVATION 2502, TWO LEVEL OUTLET
 661          KM  36" RCP LOW LEVEL OUTLET ELEVATION 2461
 662          KM  6'X8' RCB HIGH LEVEL OUTLET ELEVATION 2481
 663          KO       1
 664          RS       1    STOR       0
 665          SV       0      .8    13.6    53.5     133     264     306     350     397     448
1                                      HEC-1 INPUT                                          PAGE 21

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 666          SV     500     554     610     928    1249    1636    1855    2031    2216    2617
 667          SE    2461    2464    2468    2472    2476    2480    2481    2482    2483    2484
 668          SE    2485    2486    2487    2492    2496    2500    2502  2503.5    2505    2508
 669          SQ       0      38      70      86      99     111     114     225     427     628
 670          SQ     666     701     748     924    1063    1197    1262   11434   30402   85914
              *

 671          KK    RDB2
 672          RK    5000    .015   0.035       0    TRAP      60       2
              *

 673          KK      U1
 674          PB   2.900
 675          BA   0.031
 676          LS       0      87
 677          UK     100    0.02    0.08     100
 678          RK     300    0.03   0.017  0.0022    TRAP      60       0
 679          RK    1300    0.03   0.017   0.031    TRAP      60       0
              *

 680          KK       R
 681          RK     900    0.04   0.017       0    TRAP      80       0
              *

 682          KK    GB-1
 683          PB    2.91
 684          BA   0.009
 685          LS       0      84
 686          UD   0.074
              *

 687          KK       C
 688          HC       2
              *
```

```
 689          KK       R
 690          RK     550    0.04   0.017       0    TRAP      80       0
              *

 691          KK      W2
 692          PB   2.900
 693          BA   0.013
 694          LS       0      87
 695          UK     100    0.02    0.08     100
 696          RK     300    0.03   0.017  0.0022    TRAP      60       0
 697          RK     600    0.03   0.017   0.013    TRAP      60       0
              *

 698          KK       C
 699          HC       2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 700          KK      W1
 701          PB   2.900
 702          BA   0.033
 703          LS       0      87
 704          UK     100   0.017    0.08     100
 705          RK     400    0.02   0.017  0.0029    TRAP      60       0
 706          RK    1000    0.03   0.017   0.033    TRAP      60       0
              *

 707          KK       C
 708          HC       2
              *

 709          KK       R
 710          RK    1600    0.02   0.015       0    TRAP      20       0
              *

 711          KK   GB-2A
 712          PB    2.88
 713          BA   0.015
 714          LS       0      84
 715          UD   0.102
              *

 716          KK      V2
 717          PB    2.89
 718          BA   0.032
 719          LS       0    89.5
 720          UK     100    0.02    0.08     100
 721          RK     300    0.03   0.017  0.0022    TRAP      60       0
 722          RK    2000    0.03   0.017   0.032    TRAP      60       0
              *

 723          KK       C
 724          HC       3
              *

 725          KK       R
```

```
 726          RK    1300   0.004    0.03       0    TRAP      10       4
              *

 727          KK      V1
 728          PB    2.88
 729          BA   0.052
 730          LS       0    89.5
 731          UK     100    0.02    0.08     100
 732          RK     500    0.02   0.017  0.0036    TRAP      60       0
 733          RK    2200    0.03   0.017   0.052    TRAP      60       0
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 734          KK   GB-2B
 735          PB    2.88
 736          BA   0.007
 737          LS       0      84
 738          UD   0.079
              *

 739          KK       C
 740          HC       2
              *

 741          KK       C
 742          HC       2
              *

 743          KK      P1
 744          PB   2.900
 745          BA   0.094
 746          LS       0      87
 747          UK     100    0.02    0.08     100
 748          RK     300    0.02   0.017  0.0022    TRAP      60       0
 749          RK    2800    0.03   0.017   0.083    TRAP      60       0
              *

 750          KK    GB-4
 751          PB     2.9
 752          BA   0.035
 753          LS       0      84
 754          UD   0.112
              *

 755          KK      T2
 756          PB   2.900
 757          BA   0.021
 758          LS       0      87
 759          UK     100    0.02    0.08     100
 760          RK     100    0.02   0.017  0.0004    TRAP      60       0
 761          RK    2300    0.03   0.017   0.021    TRAP      80       0
              *

 762          KK       C
 763          HC       3
              *
```

```
 764          KK       R
 765          RK     900    0.004     0.03        0    TRAP       10        4
              *

 766          KK     6-8
 767          BA  .03031
 768          PB    3.07
 769          LS       0       94
 770          UD    .124
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 771          KK     6-7
 772          BA  .00672
 773          PB    3.15
 774          LS       0       91
 775          UD    .071
              *

 776          KK      C6
 777          HC       2
              *

 778          KK      R6
 779          RD     550    .036     .016        0    TRAP        0       50
              *

 780          KK     6-6
 781          BA  .03453
 782          PB    3.07
 783          LS       0       94
 784          UD    .112
              *

 785          KK      C7
 786          HC       2
              *

 787          KK      R7
 788          RM       2    .218       .2
              *

 789          KK     6-5
 790          BA  .10188
 791          PB    3.07
 792          LS       0       89
 793          UD    .199
              *

 794          KK      R8
 795          RD    1050    .090      .04        0    TRAP       10        3
              *

 796          KK     6-4
 797          BA  .19188
 798          PB    3.07
 799          LS       0       83
```

```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  800     UD    .246
          *

  801     KK      C8
  802     HC       3
          *

  803     KK      R9
  804     RM       1    .059      .2
          *

  805     KK     6-3
  806     BA  .01594
  807     PB    3.07
  808     LS       0      89
  809     UD    .106
          *

  810     KK     R10
  811     RD    1400    .061     .04       0    TRAP      10       3
          *

  812     KK     6-2
  813     BA  .05281
  814     PB    3.07
  815     LS       0      88
  816     UD    .082
          *

  817     KK      C9
  818     HC       3
          *

  819     KK     6-1
  820     BA  .02719
  821     PB    3.07
  822     LS       0      87
  823     UD    .121
          *

  824     KK     C10
  825     HC       2
          *

  826     KK       R
  827     RK    2100   0.023   0.025       0    TRAP      15       8
          *

  828     KK      T1
  829     PB   2.900
  830     BA   0.038
  831     LS       0      87
  832     UK     100    0.02    0.08     100
  833     RK     200    0.02   0.017  0.0014    TRAP      60       0
  834     RK    1800    0.03   0.017   0.038    TRAP      80       0
          *
```

```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  835     KK    GB-3
  836     PB   2.900
  837     BA   0.017
  838     LS       0      84
  839     UD   0.096
          *

  840     KK      U2
  841     PB   2.900
  842     BA   0.023
  843     LS       0      87
  844     UK     100    0.02    0.08     100
  845     RK     150    0.02   0.017  0.0011    TRAP      60        0
  846     RK    1500    0.03   0.017   0.023    TRAP      80        0
          *

  847     KK       C
  848     HC       4
          *

  849     KK       R
  850     RK     700   0.004    0.03       0    TRAP      10        4
          *

  851     KK       C
  852     HC       2
          *

  853     KK       R
  854     RK     800   0.004    0.03       0    TRAP      10        4
          *

  855     KK   GB-5A
  856     PB    2.88
  857     BA   0.033
  858     LS       0      84
  859     UD   0.093
          *

  860     KK       C
  861     HC       2
          *

  862     KK      Q1
  863     PB    2.88
  864     BA   0.023
  865     LS       0      87
  866     UK     100    0.02    0.08     100
  867     RK     200    0.02   0.017  0.0014    TRAP      60        0
  868     RK    1300   0.025   0.017   0.023    TRAP      60        0
          *
```



```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
```

```
869          KK      S1
870          PB    2.89
871          BA   0.047
872          LS       0      87
873          UK     100    0.02    0.08     100
874          RK     400    0.02   0.017  0.0029    TRAP      60       0
875          RK    1400    0.02   0.017   0.049    TRAP      60       0
             *

876          KK       C
877          HC       3
             *

878          KK       R
879          RK    1500   0.004    0.03       0    TRAP      10       4
             *

880          KK      S2
881          PB    2.88
882          BA   0.022
883          LS       0      87
884          UK     100    0.02    0.08     100
885          RK     300    0.02   0.017  0.0022    TRAP      60       0
886          RK    1300    0.02   0.017   0.022    TRAP      60       0
             *

887          KK   GB-5B
888          PB    2.88
889          BA   0.012
890          LS       0      84
891          UD    0.09
             *

892          KK       C
893          HC       3
             *

894          KK    GB-6
895          PB    2.87
896          BA   0.028
897          LS       0      84
898          UD   0.102
             *

899          KK       R
900          RK     600    0.01   0.017       0    TRAP      80       0
             *

901          KK      R2
902          PB    2.87
903          BA   0.036
904          LS       0      87
905          UK     100    0.02    0.08     100
906          RK     300    0.02   0.017  0.0022    TRAP      60       0
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

907          RK    1200    0.02   0.017   0.036    TRAP      60       0
```

```
                *
 908            KK       C
 909            HC       2
                *

 910            KK       R
 911            RK    1500    0.01   0.017       0    TRAP      80       0
                *

 912            KK      R1
 913            PB    2.87
 914            BA   0.031
 915            LS       0      87
 916            UK     100    0.02    0.08     100
 917            RK     300    0.02   0.017  0.0022    TRAP      60       0
 918            RK    1300    0.01   0.017   0.031    TRAP      60       0
                *

 919            KK       C
 920            HC       2
                *

 921            KK       C
 922            HC       2
                *

 923            KK   GB-14
 924            PB    2.88
 925            BA   0.012
 926            LS       0      84
 927            UD    0.05
                *

 928            KK       F
 929            PB    2.86
 930            BA   0.005
 931            LS       0      95
 932            UK     100    0.02    0.05     100
 933            RK     300    0.02   0.017  0.0022    TRAP      60       0
                *

 934            KK      CF
 935            HC       4
                *

 936            KK     CCF
 937            HC       2
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 938            KK      RF
 939            RK    6000    .015   0.035       0    TRAP      60       2
                *

 940            KK     5-7
 941            BA  .00891
```

```
 942          PB    3.15
 943          LS       0      91
 944          UD    .104
              *

 945          KK      R1
 946          RM       1    .136      .2
              *

 947          KK     5-6
 948          BA  .03656
 949          PB    3.15
 950          LS       0      91
 951          UD    .160
              *

 952          KK      C1
 953          HC       2
              *

 954          KK      R2
 955          RM       1    .091      .2
              *

 956          KK     5-5
 957          BA  .05016
 958          PB    3.07
 959          LS       0      84
 960          UD    .117
              *

 961          KK     5-8
 962          BA  .03969
 963          PB    3.07
 964          LS       0      91
 965          UD    .111
              *

 966          KK      C2
 967          HC       3
              *

 968          KK      R3
 969          RM       2    .174      .2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 970          KK     5-4
 971          BA  .11563
 972          PB    3.07
 973          LS       0      82
 974          UD    .206
              *

 975          KK      C3
 976          HC       2
              *
```

```
 977          KK       R4
 978          RD      800    .025    .013       0    CIRC     5.5
              *

 979          KK      5-2
 980          BA   .02859
 981          PB     3.07
 982          LS        0      88
 983          UD     .074
              *

 984          KK       C4
 985          HC        2
              *

 986          KK      5-3
 987          BA   .06078
 988          PB     3.07
 989          LS        0      88
 990          UD     .182
              *

 991          KK       R5
 992          RD      900    .117    .016       0    TRAP       0      50
              *

 993          KK      5-1
 994          BA   .01609
 995          PB     3.07
 996          LS        0      87
 997          UD     .140
              *

 998          KK       C5
 999          HC        3
              *

1000          KK        R
1001          RK     3100    0.02   0.025       0    TRAP      15       8
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1002          KK    GC-5A
1003          PB    2.900
1004          BA    0.050
1005          LS        0      84
1006          UD    0.128
              *

1007          KK       N1
1008          PB    2.900
1009          BA    0.046
1010          LS        0      85
1011          UK      200    0.02     0.1     100
1012          RK      300   0.035   0.017  0.0022    TRAP      60       0
1013          RK     2200   0.025   0.017   0.046    TRAP      60       0
```

```
                *
1014            KK       R
1015            RK    1500    0.02   0.013       0    CIRC       2       0
                *

1016            KK       C
1017            HC       3
                *

1018            KK   GC-5B
1019            PB    2.88
1020            BA    0.02
1021            LS       0      95
1022            UD    0.09
                *

1023            KK       R
1024            RK     200    0.01   0.017       0    TRAP      80       0
                *

1025            KK       C
1026            HC       2
                *

1027            KK   GC-4A
1028            PB     2.9
1029            BA   0.027
1030            LS       0      84
1031            UD   0.109
                *

1032            KK       R
1033            RK     800   0.004    0.03       0    TRAP      20       4
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1034            KK       R
1035            RK     400    0.01   0.017       0    TRAP      80       0
                *

1036            KK   GC-4B
1037            PB    2.88
1038            BA   0.056
1039            LS       0      84
1040            UD   0.123
                *

1041            KK       R
1042            RK    1300   0.015   0.017       0    TRAP      80       0
                *

1043            KK       C
1044            HC       3
                *

1045            KK       0
```

```
1046          PB    2.88
1047          BA   0.015
1048          LS       0      92
1049          UK     100    0.02    0.08     100
1050          RK     200    0.05   0.017  0.0014    TRAP      60       0
1051          RK     700    0.03    0.03   0.017    TRAP      60       0
              *

1052          KK       R
1053          RK     450    0.01   0.017       0    TRAP      80       0
              *

1054          KK       C
1055          HC       2
              *

1056          KK       R
1057          RK    1600   0.004    0.03       0    TRAP      20       4
              *

1058          KK      H3
1059          PB    2.88
1060          BA   0.017
1061          LS       0      87
1062          UK     100    0.02    0.08     100
1063          RK     200    0.05   0.017  0.0014    TRAP      60       0
1064          RK     100    0.03   0.017   0.017    TRAP      60       0
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1065          KK       R
1066          RK     600   0.004    0.03       0    TRAP      20       4
              *

1067          KK   GC-1A
1068          PB    2.88
1069          BA   0.021
1070          LS       0      84
1071          UD   0.101
              *

1072          KK       C
1073          HC       3
              *

1074          KK      P2
1075          PB   2.900
1076          BA   0.066
1077          LS       0      87
1078          UK     100    0.02     0.1     100
1079          RK     400    0.03   0.017  0.0029    TRAP      60       0
1080          RK    3700    0.02   0.017   0.066    TRAP      60       0
              *

1081          KK       R
1082          RK     500   0.004    0.03       0    TRAP      10       4
              *
```

```
1083          KK       C
1084          HC       2
              *

1085          KK       R
1086          RK    1800   0.004    0.03        0    TRAP      15       4
              *

1087          KK       Y
1088          PB    2.88
1089          BA   0.017
1090          LS       0      92
1091          UK     100    0.02    0.08      100
1092          RK     200    0.02   0.017   0.0014    TRAP      60       0
1093          RK    1000    0.02   0.017    0.017    TRAP      60       0
              *

1094          KK      H1
1095          PB    2.86
1096          BA   0.054
1097          LS       0      87
1098          UK     100    0.02    0.10      100
1099          RK     450    0.02   0.017   0.0032    TRAP      60       0
1100          RK    2100    0.02   0.017    0.054    TRAP      60       0
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1101          KK   GC-18
1102          PB    2.87
1103          BA   0.023
1104          LS       0      84
1105          UD   0.106
              *

1106          KK   GC-1C
1107          PB    2.86
1108          BA   0.018
1109          LS       0      84
1110          UD   0.096
              *

1111          KK       C
1112          HC       5
              *

1113          KK       R
1114          RK     700   0.004   0.030        0    TRAP      10       4
              *

1115          KK  C1D1GC
1116          PB    2.86
1117          BA   0.025
1118          LS       0    86.2
1119          UD    0.05
              *
```

```
1120          KK        C
1121          HC        2
              *

1122          KK       Q2
1123          PB     2.88
1124          BA    0.076
1125          LS        0       92
1126          UK      100    0.020     0.10      100
1127          RK      400     0.02    0.017   0.0029    TRAP       60        0
1128          RK     2000     0.02    0.017    0.076    TRAP       60        0
              *

1129          KK        R
1130          RK     1400     0.02    0.017        0    TRAP       80        0
              *

1131          KK       G1
1132          PB     2.86
1133          BA    0.035
1134          LS        0     89.5
1135          UK      100     0.02     0.10      100
1136          RK      400     0.02    0.017   0.0029    TRAP       60        0
1137          RK     1000     0.01    0.017    0.035    TRAP       60        0
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1138          KK       G2
1139          PB     2.86
1140          BA    0.018
1141          LS        0     89.5
1142          UK      100     0.02     0.10      100
1143          RK      150     0.02    0.017   0.0011    TRAP       60        0
1144          RK     1000    0.015    0.017    0.018    TRAP       60        0
              *

1145          KK        C
1146          HC        3
              *

1147          KK        C
1148          HC        2
              *

1149          KK        R
1150          RK      500    0.004    0.030        0    TRAP       15        4
              *

1151          KK        E
1152          PB     2.86
1153          BA    0.050
1154          LS        0     89.5
1155          UK      100     0.02     0.10      100
1156          RK      400     0.01    0.017   0.0029    TRAP       60        0
1157          RK     1000    0.015    0.017    0.050    TRAP       60        0
              *
```

```
1158          KK    GB-7
1159          PB    2.86
1160          BA   0.029
1161          LS       0      84
1162          UD   0.090
              *

1163          KK       C
1164          HC       3
              *

1165          KK       R
1166          RK    1000   0.015   0.015       0    TRAP      15       2
              *

1167          KK       8
1168          PB    2.86
1169          BA   0.036
1170          LS       0      92
1171          UK     100    0.02    0.08     100
1172          RK     400    0.01   0.017  0.0029    TRAP      60       0
1173          RK     800   0.015   0.015   0.036    TRAP      15       2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1174          KK       C
1175          HC       2
              *

1176          KK   GB-10
1177          PB    2.86
1178          BA   0.006
1179          LS       0      84
1180          UD   0.079
              *

1181          KK       R
1182          RK     800    0.02   0.030       0    TRAP      10       4
              *

1183          KK    GB-9
1184          PB    2.86
1185          BA   0.011
1186          LS       0      84
1187          UD   0.081
              *

1188          KK       C
1189          HC       2
              *

1190          KK       R
1191          RK     400   0.015   0.017       0    TRAP      50       0
              *

1192          KK   C2+ST
1193          BA   0.037
```

```
1194          PB    2.86
1195          LS       0      87
1196          UK     100    0.01    0.08     100
1197          RK     300    0.02   0.017  0.0022    TRAP      60       0
1198          RK    1300   0.015   0.017  0.0406    TRAP      60       0
              *

1199          KK      ST
1200          BA  0.0018
1201          LS       0      95
1202          UD    0.05
              *

1203          KK       C
1204          HC       3
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1205          KK       R
1206          RK     700   0.015   0.017       0    TRAP      50       0
              *

1207          KK    GB-8
1208          PB    2.86
1209          BA   0.017
1210          LS       0      84
1211          UD   0.087
              *

1212          KK   EN+ST
1213          BA   0.017
1214          PB    2.86
1215          LS       0      95
1216          UK     100    0.01    0.08     100
1217          RK     300    0.02   0.017  0.0022    TRAP      60       0
1218          RK     700   0.015   0.017  0.0172    TRAP      60       0
              *

1219          KK     COM
1220          BA   0.019
1221          PB    2.86
1222          LS       0      95
1223          UK     100    0.01    0.05     100
1224          RK     300    0.02   0.017  0.0022    TRAP      60       0
1225          RK     600    0.03   0.025   0.025    TRAP      20       2
              *

1226          KK       C
1227          HC       4
              *

1228          KK       C
1229          HC       2
              *

1230          KK    RCOM
1231          RK    2300    .017   0.035       0    TRAP      40       2
```

```
                  *

         1232     KK    DSDB
         1233     BA    .6092
         1234     PB    2.81
         1235     LS       0    86.6
         1236     UD    .548
                  *

         1237     KK    CDSDB
         1238     HC       3
                  *
         1239     ZZ
```

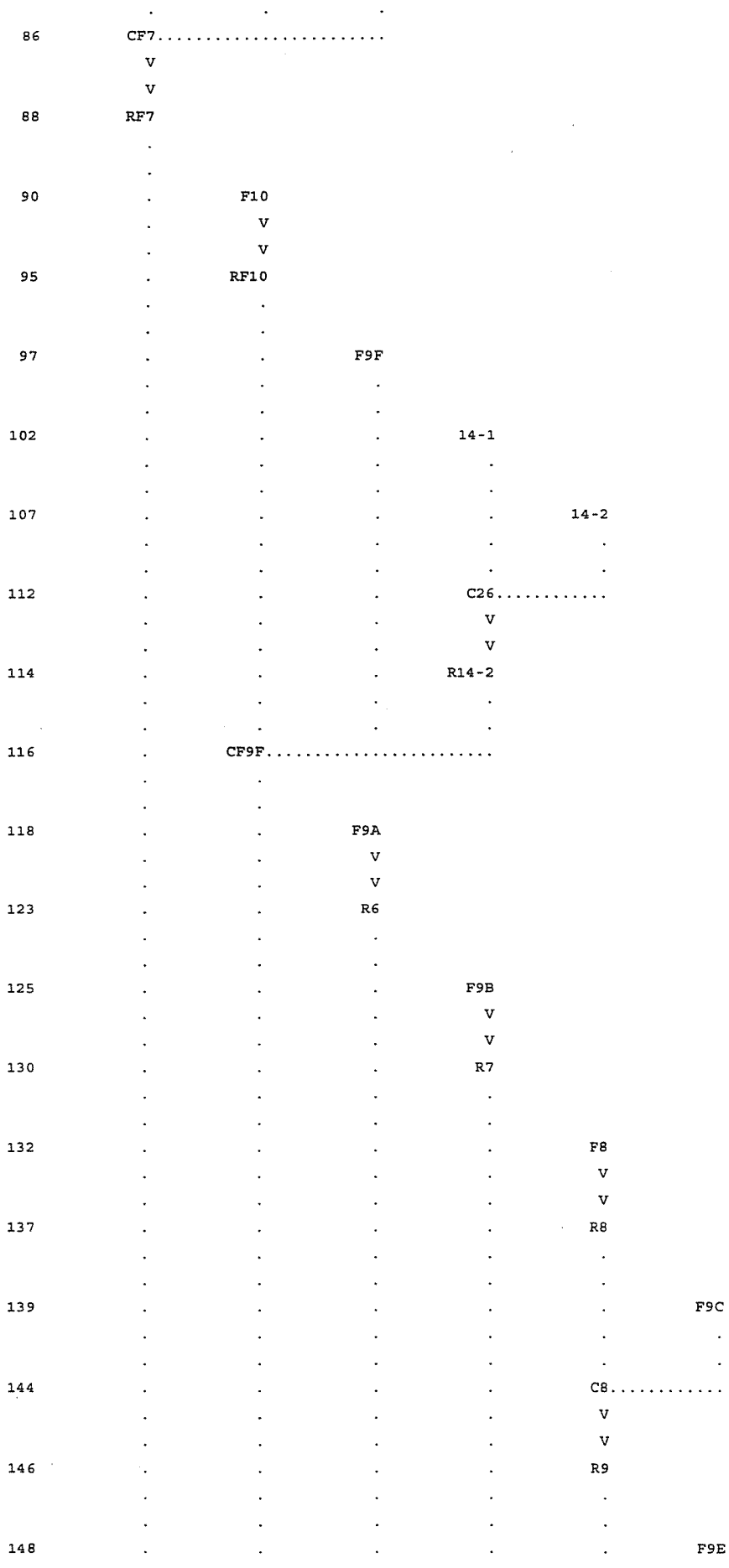
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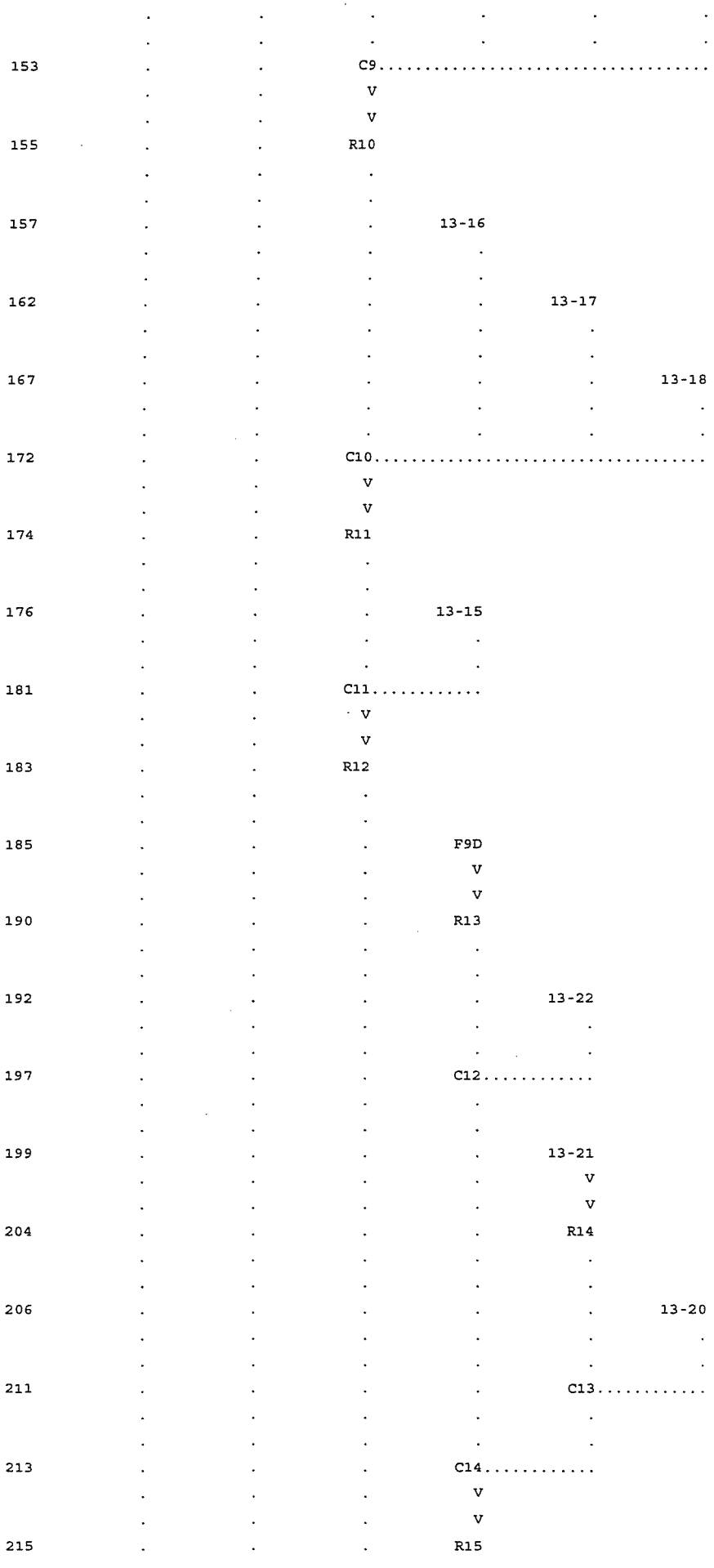
SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

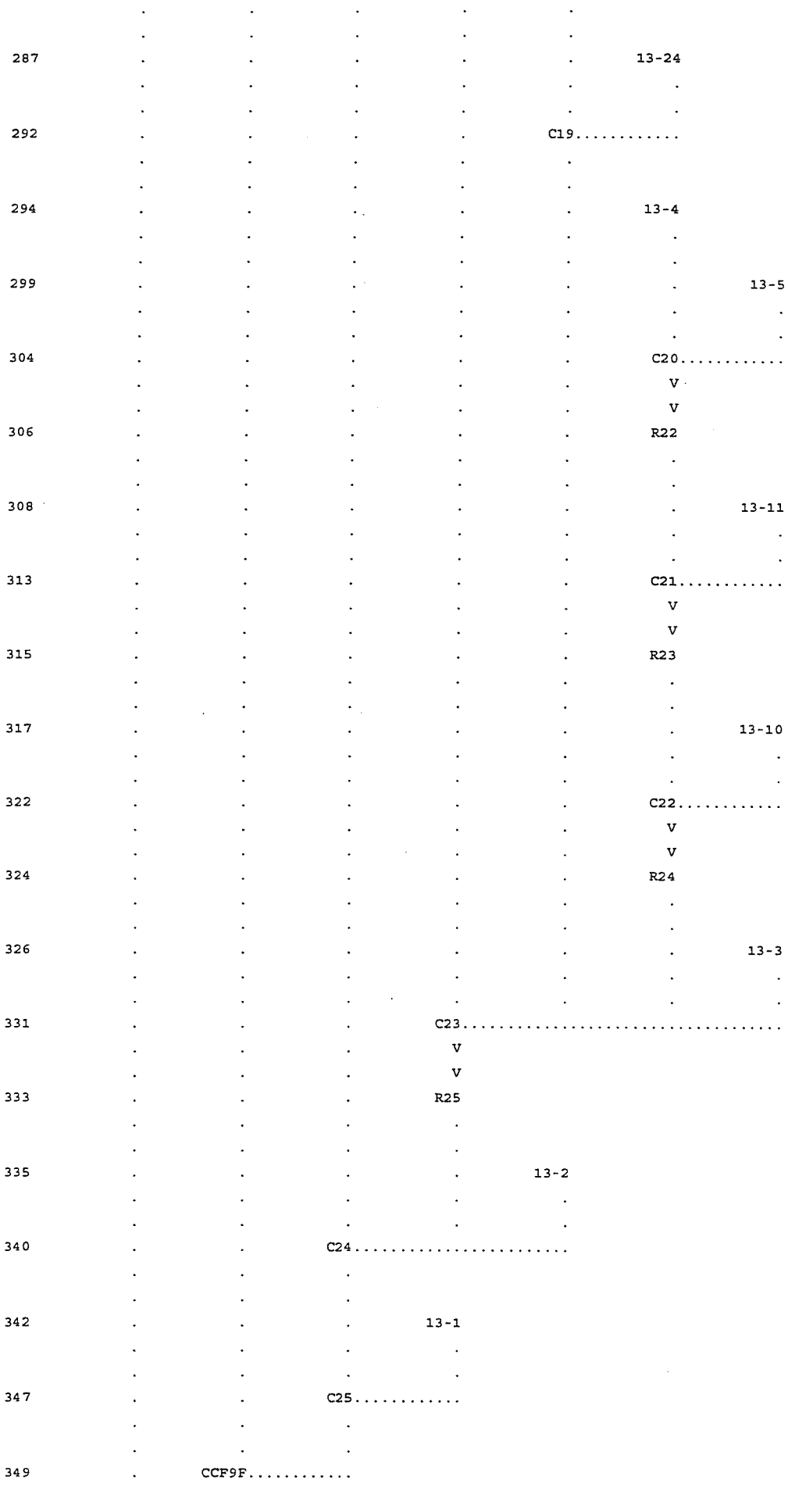
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

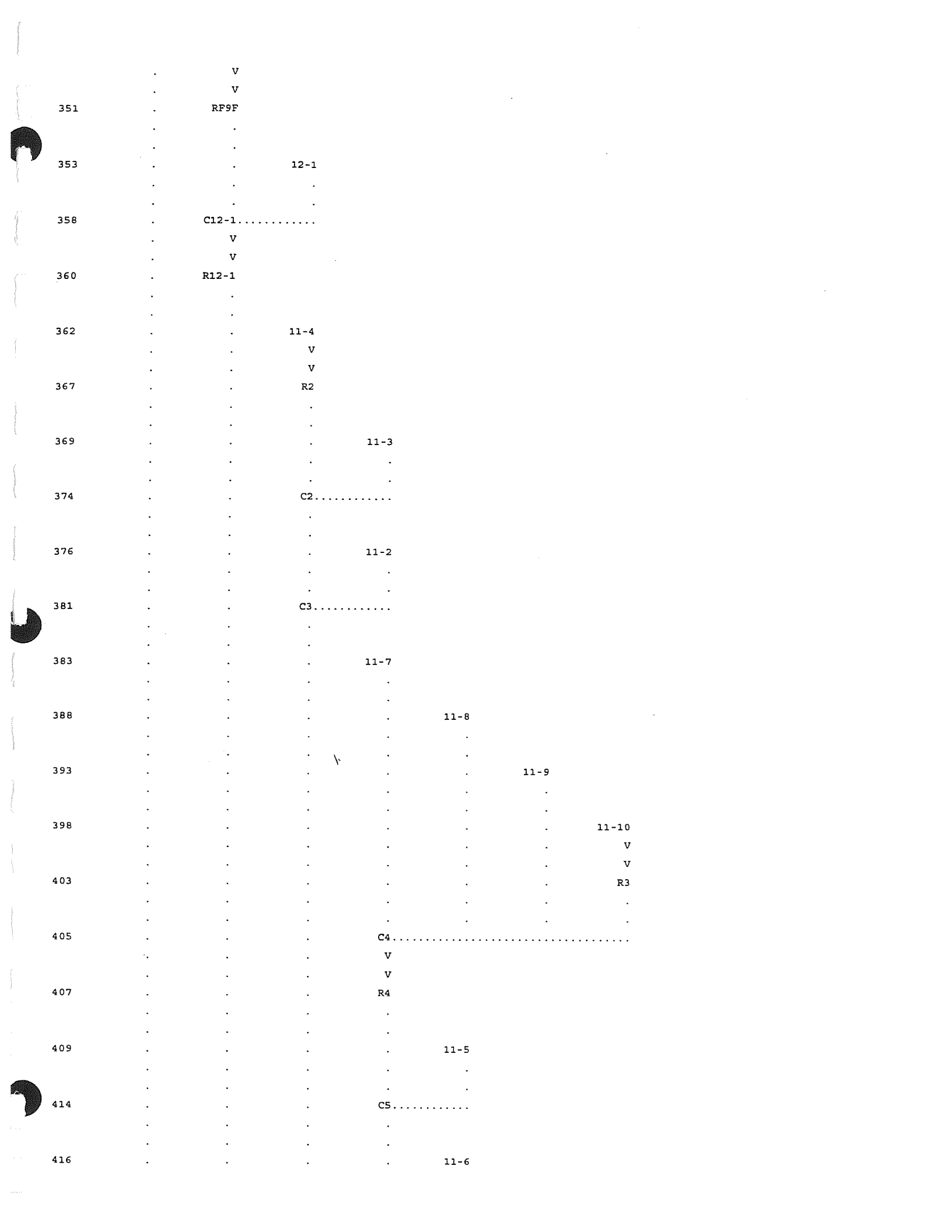
   28          F1
                .
                .
   41           .          F2
                .           .
                .           .
   46         CF2.............
                V
                V
   48         RF2
                .
                .
   50           .          F3
                .           V
                .           V
   55           .         RF3
                .           .
                .           .
   57           .           .          F4
                .           .           V
                .           .           V
   62           .           .         RF4
                .           .           .
                .           .           .
   64           .         CF4.............
                .           .
                .           .
   67           .           .          F5
                .           .           V
                .           .           V
   72           .           .         RF5
                .           .           .
                .           .           .
   74         CF5.........................
                .
                .
   76           .          F6
                .           .
                .           .
   81           .           .          F7
```

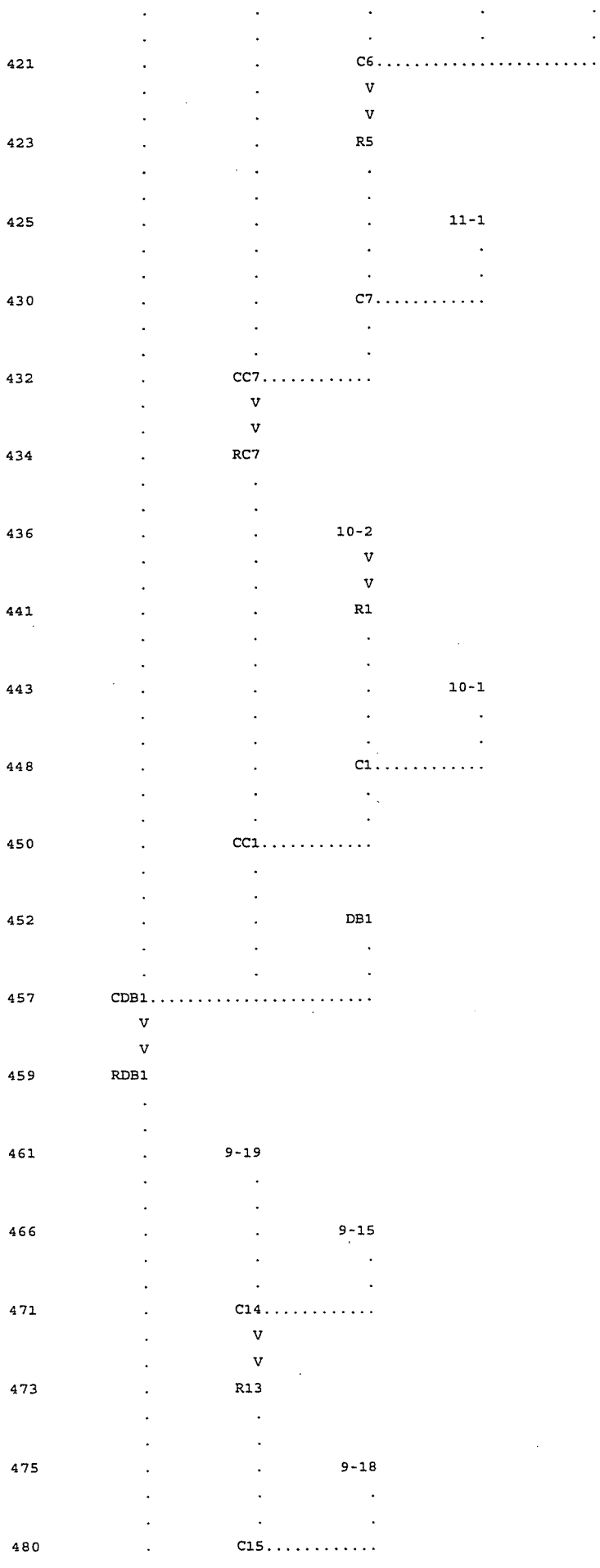

86
CF7
88
RF7
90
F10
95
RF10
97
F9F
102
14-1
107
14-2
112
C26
114
R14-2
116
CF9F
118
F9A
123
R6
125
F9B
130
R7
132
F8
137
R8
139
F9C
144
C8
146
R9
148
F9E

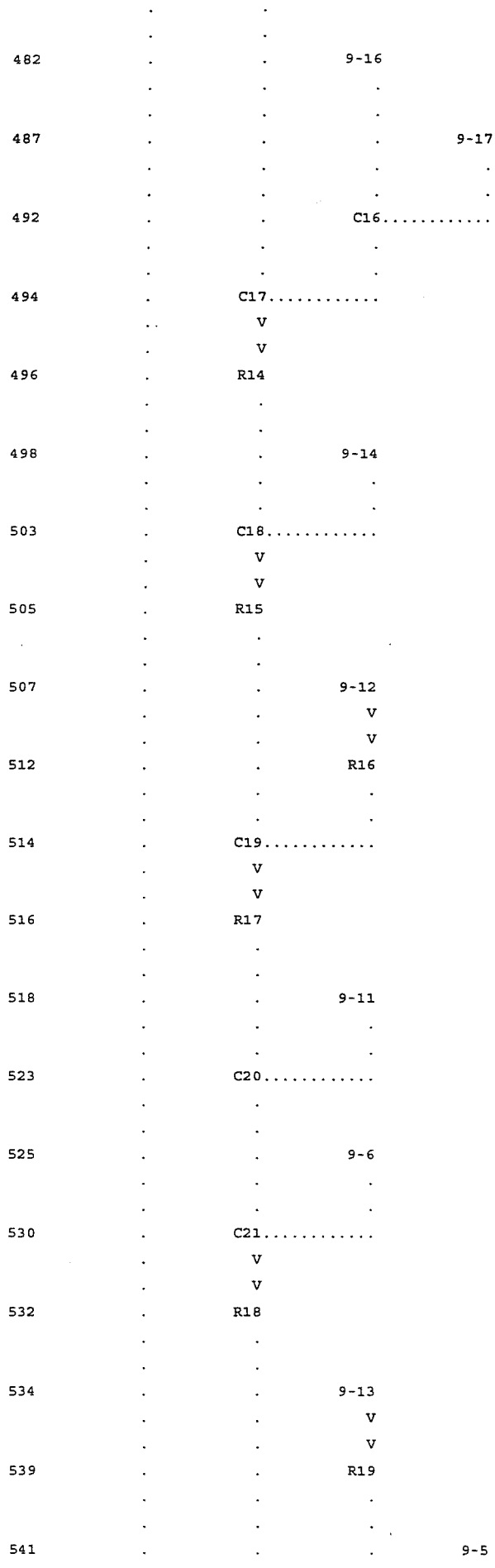

153
C9
155
R10
157
13-16
162
13-17
167
13-18
172
C10
174
R11
176
13-15
181
C11
183
R12
185
F9D
190
R13
192
13-22
197
C12
199
13-21
204
R14
206
13-20
211
C13
213
C14
215
R15

```
                .   .   .   .
                .   .   .   .
217             .   .   .   .       13-14
                .   .   .   .         .
                .   .   .   .         .
222             .   .   .   .         .       13-19
                .   .   .   .         .         .
                .   .   .   .         .         .
227             .   .   C15.....................................
                .   .     V
                .   .     V
229             .   .   R16
                .   .     .
                .   .     .
231             .   .   .       13-9
                .   .   .         .
                .   .   .         .
236             .   .   .   .       13-12
                .   .   .   .         .
                .   .   .   .         .
241             .   .   .   .         .       13-13
                .   .   .   .         .         V
                .   .   .   .         .         V
246             .   .   .   .         .       R17
                .   .   .   .         .         .
                .   .   .   .         .         .
248             .   .   .     C16.....................
                .   .   .       V
                .   .   .       V
250             .   .   .     R18
                .   .   .       .
                .   .   .       .
252             .   .   .   .       13-8
                .   .   .   .         .
                .   .   .   .         .
257             .   .   C17.....................
                .   .     .
                .   .     .
259             .   .   .       13-7
                .   .   .         V
                .   .   .         V
264             .   .   .     R19
                .   .   .       .
                .   .   .       .
266             .   .   .   .       13-6
                .   .   .   .         .
                .   .   .   .         .
271             .   .   .   .         .       13-23
                .   .   .   .         .         .
                .   .   .   .         .         .
276             .   .   .     C18.....................
                .   .   .       V
                .   .   .       V
278             .   .   .     R20
                .   .   .       .
                .   .   .       .
280             .   .   .   .       13-25
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                .   .   .   .         V
285             .   .   .   .       R21
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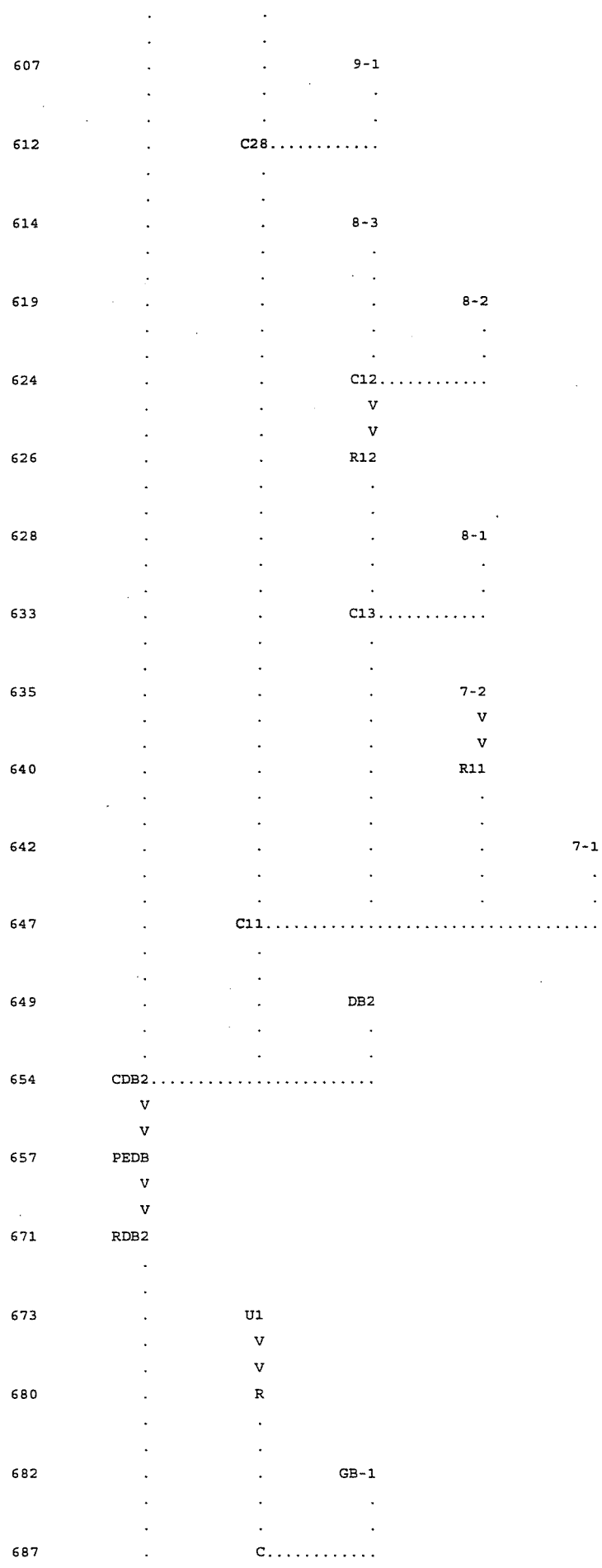

287
13-24
292
C19
294
13-4
299
13-5
304
C20
306
R22
308
13-11
313
C21
315
R23
317
13-10
322
C22
324
R24
326
13-3
331
C23
333
R25
335
13-2
340
C24
342
13-1
347
C25
349
CCF9F

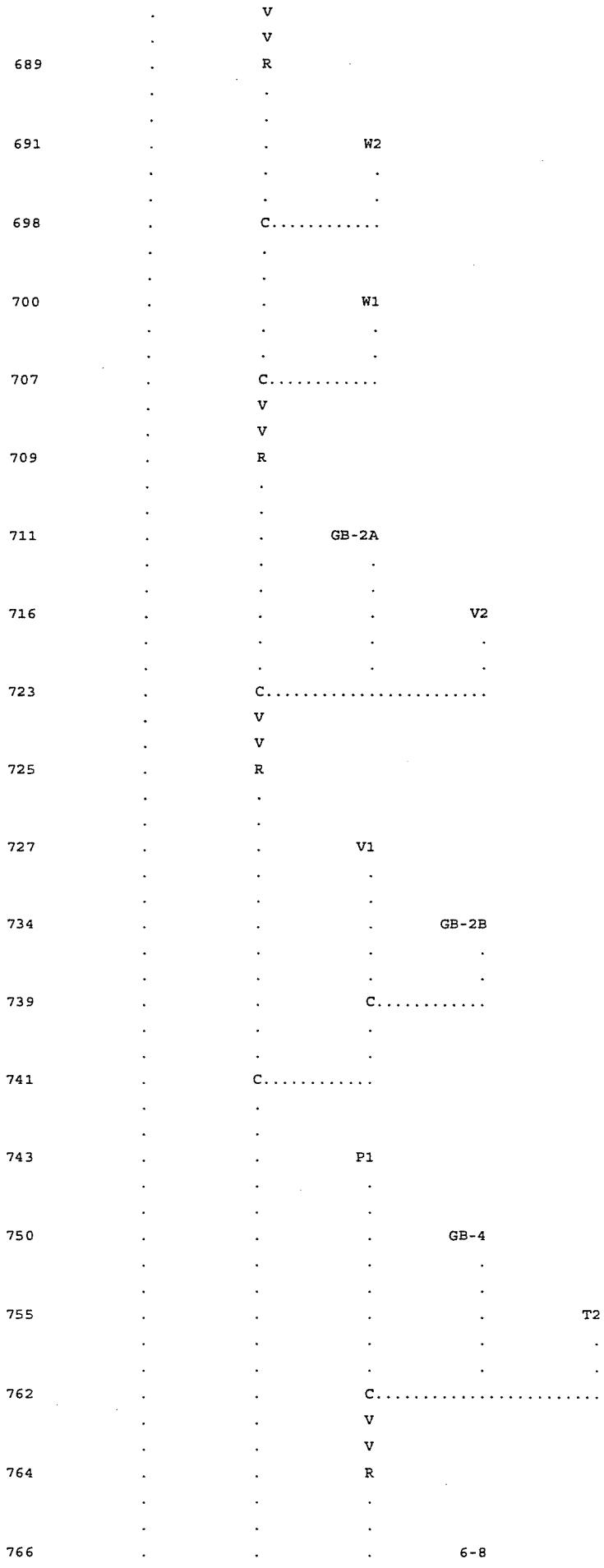

V
V
351 RF9F
12-1
353
358 C12-1
V
V
360 R12-1
362 11-4
V
V
367 R2
369 11-3
374 C2
376 11-2
381 C3
383 11-7
388 11-8
393 11-9
398 11-10
V
V
403 R3
405 C4
V
V
407 R4
409 11-5
414 C5
416 11-6


421 C6
423 R5
425 11-1
430 C7
432 CC7
434 RC7
436 10-2
441 R1
443 10-1
448 C1
450 CC1
452 DB1
457 CDB1
459 RDB1
461 9-19
466 9-15
471 C14
473 R13
475 9-18
480 C15

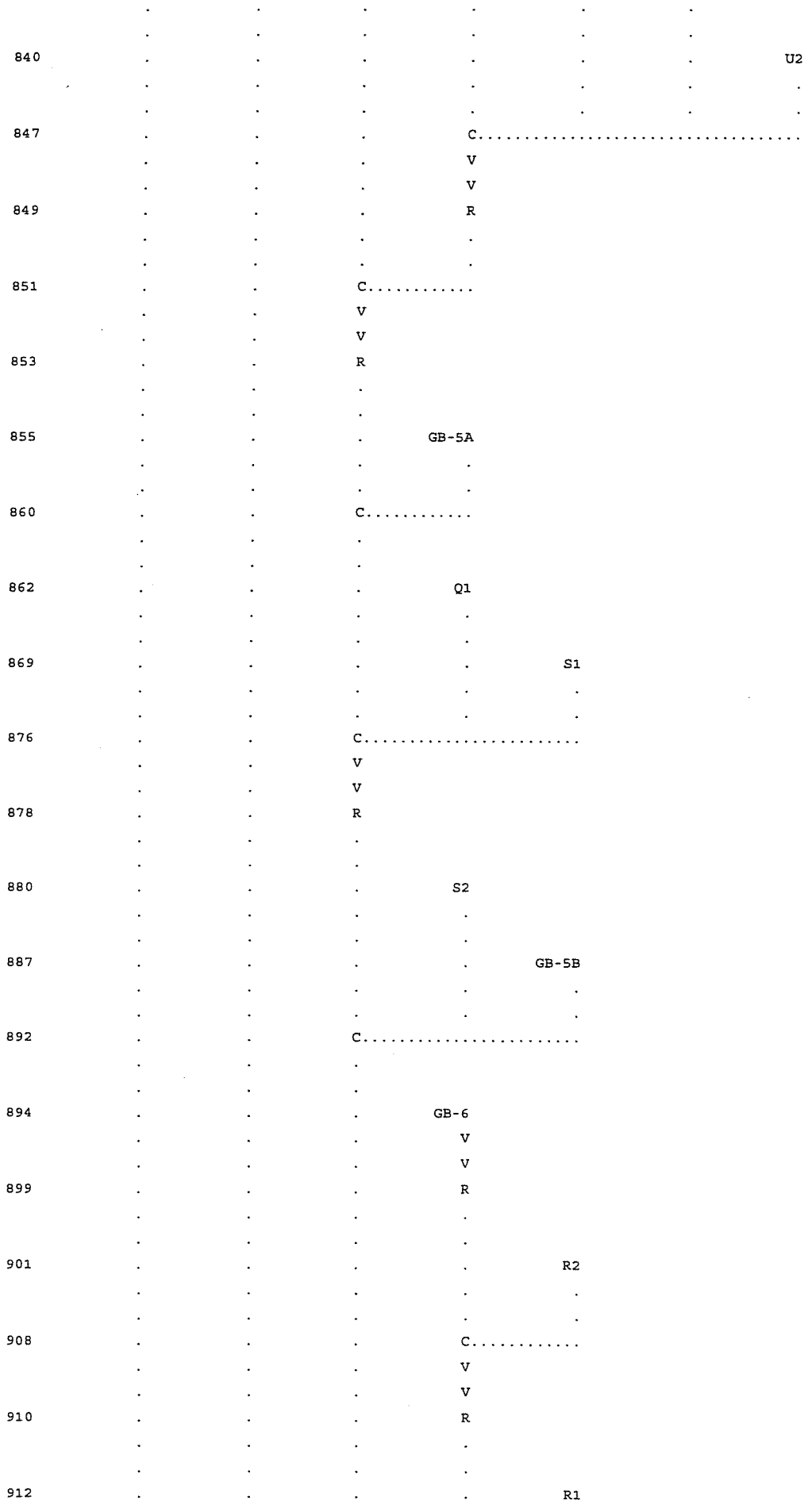

482
9-16
487
9-17
492
C16
494
C17
496
R14
498
9-14
503
C18
505
R15
507
9-12
512
R16
514
C19
516
R17
518
9-11
523
C20
525
9-6
530
C21
532
R18
534
9-13
539
R19
541
9-5

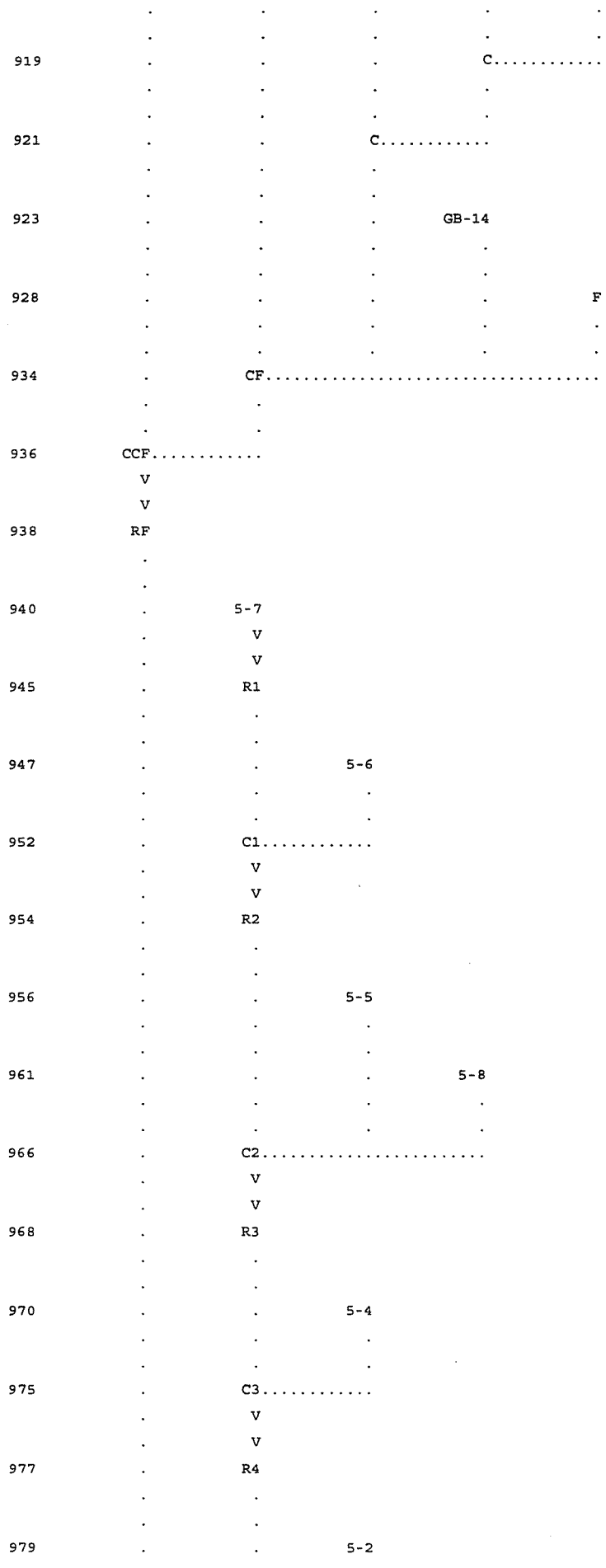
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                .          .          .
546             .       C22.....................
                .         V
                .         V
548             .       R20
                .          .
                .          .
550             .          .       9-2
                .          .         .
                .          .         .
555             .       C23...........
                .         V
                .         V
557             .       R21
                .          .
                .          .
559             .          .      9-10
                .          .        V
                .          .        V
564             .          .      R22
                .          .         .
                .          .         .
566             .          .         .       9-9
                .          .         .         .
                .          .         .         .
571             .          .      C24...........
                .          .        V
                .          .        V
573             .          .      R23
                .          .         .
                .          .         .
575             .          .         .       9-8
                .          .         .         V
                .          .         .         V
580             .          .         .       R24
                .          .         .         .
                .          .         .         .
582             .          .         .         .       9-7
                .          .         .         .         .
                .          .         .         .         .
587             .          .      C25.....................
                .          .        V
                .          .        V
589             .          .      R25
                .          .         .
                .          .         .
591             .          .         .       9-4
                .          .         .         .
                .          .         .         .
596             .          .      C26...........
                .          .         .
                .          .         .
598             .          .         .       9-3
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603             .       C27.....................
                .         V
                .         V
605             .       R26
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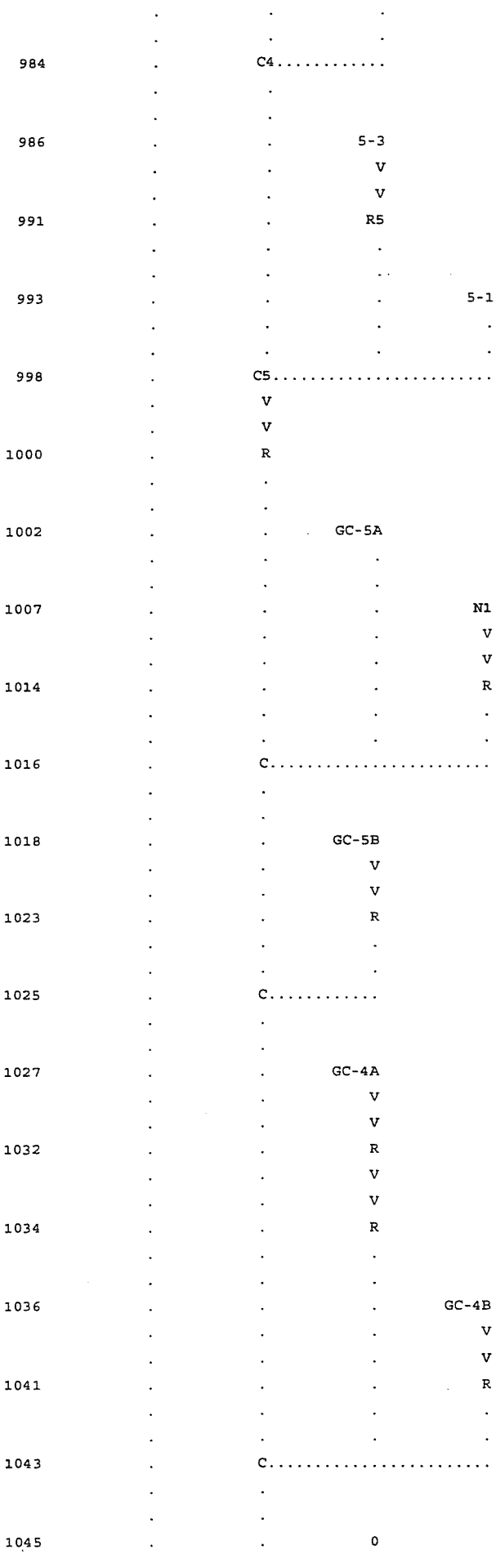

607
9-1
612
C28
614
8-3
619
8-2
624
C12
626
R12
628
8-1
633
C13
635
7-2
640
R11
642
7-1
647
C11
649
DB2
654
CDB2
657
PEDB
671
RDB2
673
U1
680
R
682
GB-1
687
C

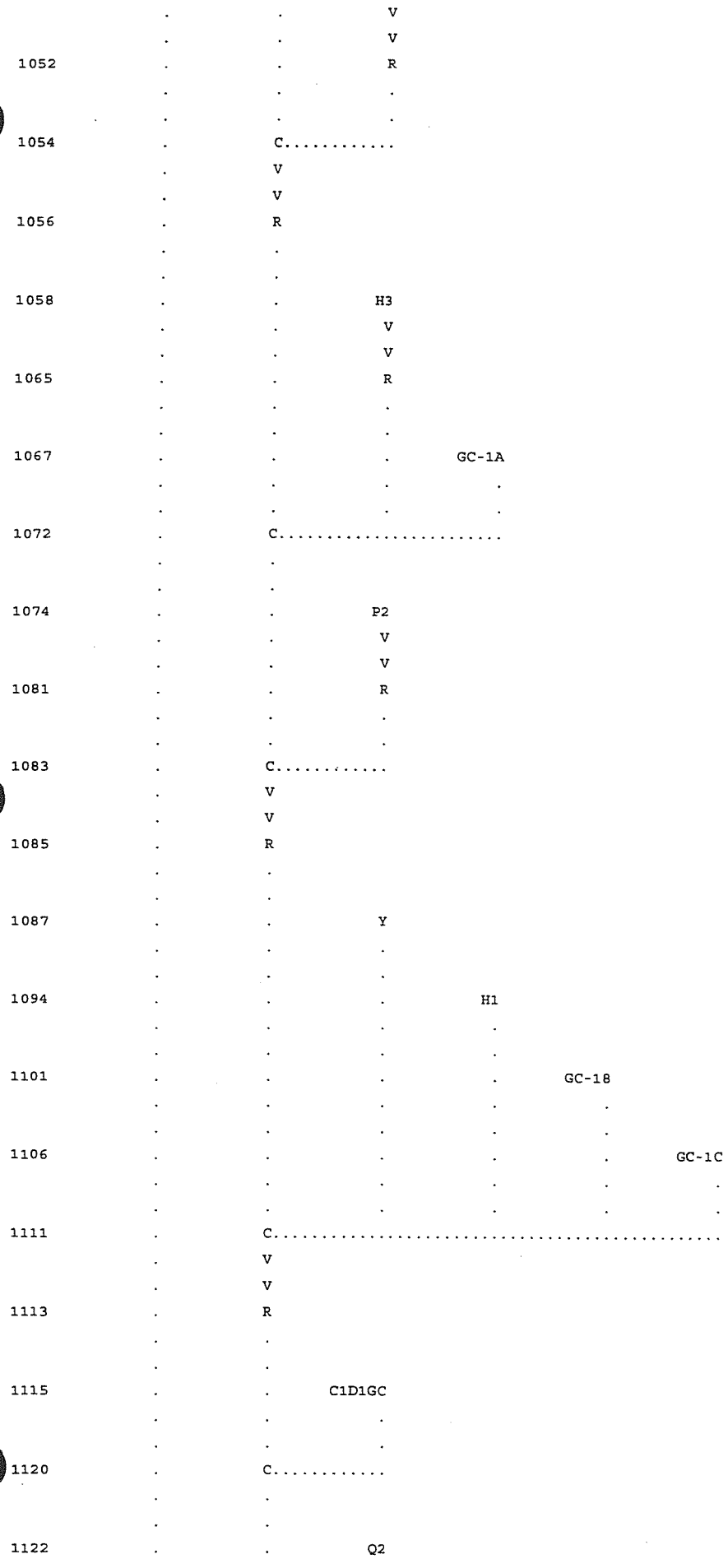

689
691
W2
698
700
W1
707
709
711
GB-2A
716
V2
723
725
727
V1
734
GB-2B
739
741
743
P1
750
GB-4
755
T2
762
764
766
6-8

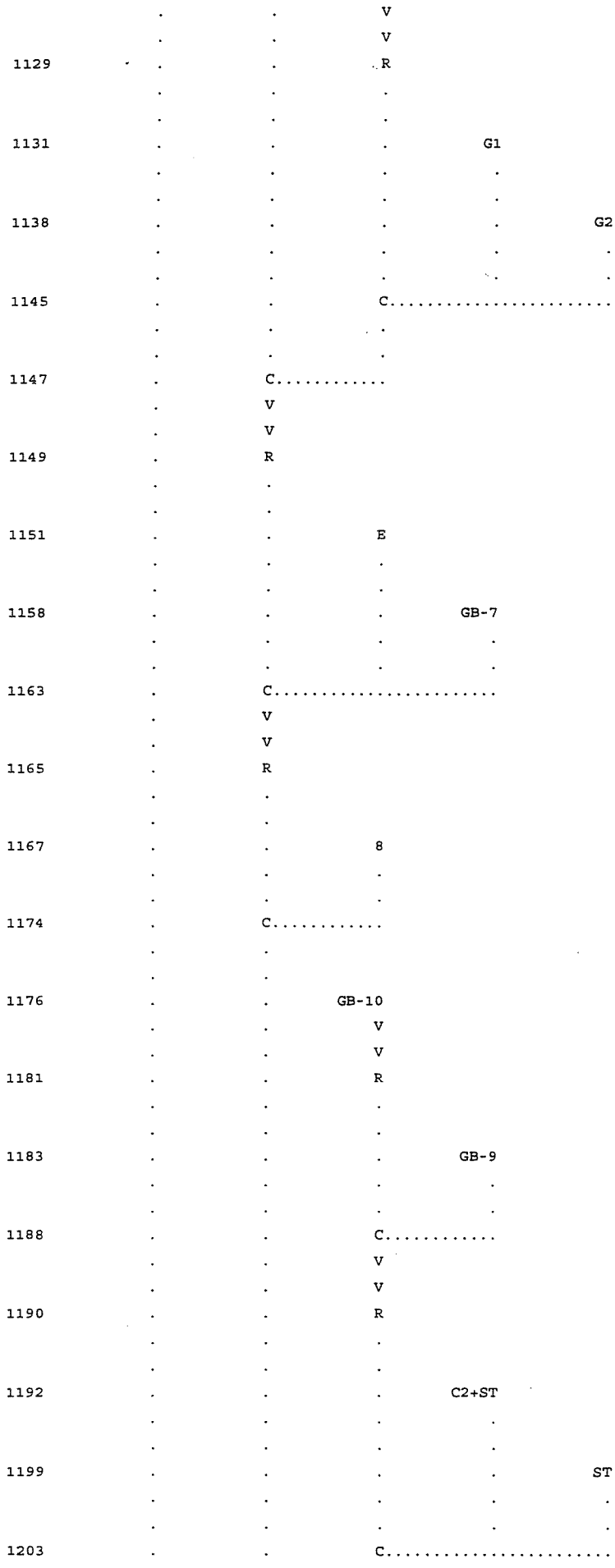
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771             .       .       .       .           6-7
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776             .       .       .     C6.............
                .       .       .       V
                .       .       .       V
778             .       .       .     R6
                .       .       .       .
                .       .       .       .
780             .       .       .       .           6-6
                .       .       .       .            .
                .       .       .       .            .
785             .       .       .     C7.............
                .       .       .       V
                .       .       .       V
787             .       .       .     R7
                .       .       .       .
                .       .       .       .
789             .       .       .       .           6-5
                .       .       .       .             V
                .       .       .       .             V
794             .       .       .       .            R8
                .       .       .       .             .
                .       .       .       .             .
796             .       .       .       .             .         6-4
                .       .       .       .             .          .
                .       .       .       .             .          .
801             .       .       .     C8.........................
                .       .       .       V
                .       .       .       V
803             .       .       .     R9
                .       .       .       .
                .       .       .       .
805             .       .       .       .           6-3
                .       .       .       .             V
                .       .       .       .             V
810             .       .       .       .           R10
                .       .       .       .             .
                .       .       .       .             .
812             .       .       .       .             .         6-2
                .       .       .       .             .          .
                .       .       .       .             .          .
817             .       .       .     C9.........................
                .       .       .       .
                .       .       .       .
819             .       .       .       .           6-1
                .       .       .       .            .
                .       .       .       .            .
824             .       .       .     C10............
                .       .       .       V
                .       .       .       V
826             .       .       .       R
                .       .       .       .
                .       .       .       .
828             .       .       .       .            T1
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                .       .       .       .             .
835             .       .       .       .             .        GB-3
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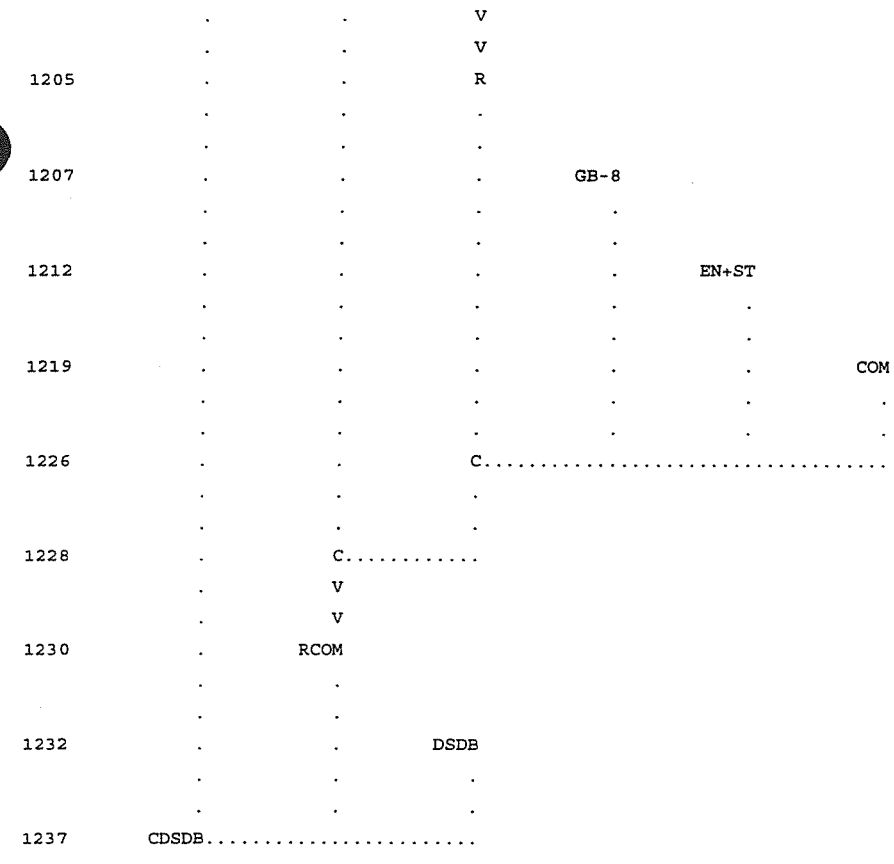

840
U2
847
849
851
853
855
GB-5A
860
862
Q1
869
S1
876
878
880
S2
887
GB-5B
892
894
GB-6
899
901
R2
908
910
912
R1


919
C
921
C
923
GB-14
928
F
934
CF
936
CCF
938
RF
940
5-7
945
R1
947
5-6
952
C1
954
R2
956
5-5
961
5-8
966
C2
968
R3
970
5-4
975
C3
977
R4
979
5-2


984
C4
986
5-3
991
R5
993
5-1
998
C5
1000
R
1002
GC-5A
1007
N1
1014
R
1016
C
1018
GC-5B
1023
R
1025
C
1027
GC-4A
1032
R
1034
R
1036
GC-4B
1041
R
1043
1045
0


1052
1054
1056
1058
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1083
1085
1087
1094
1101
1106
1111
1113
1115
1120
1122
H3
GC-1A
P2
H1
GC-18
GC-1C
C1D1GC
Q2


1129
1131
G1
1138
G2
1145
1147
1149
1151
1158
GB-7
1163
1165
1167
8
1174
1176
GB-10
1181
1183
GB-9
1188
1190
1192
C2+ST
1199
ST
1203



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             SEPTEMBER 1990            *
*              VERSION 4.0              *
*                                       *
*  RUN DATE  02/21/2000  TIME  18:11:02 *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN
PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC., DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.

100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR EVENTS.

25 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN	5	MINUTES IN COMPUTATION INTERVAL
IDATE	1 0	STARTING DATE
ITIME	0000	STARTING TIME
NQ	300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	2 0	ENDING DATE
NDTIME	0055	ENDING TIME
ICENT	19	CENTURY MARK

COMPUTATION INTERVAL .08 HOURS
TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION

NPLAN	1	NUMBER OF PLANS

JR MULTI-RATIO OPTION
RATIOS OF PRECIPITATION
.73 .72 .64 .63 .54 .53 .42 .41

*** ***

****
* *
654 KK * CDB2 *
* *
****

655 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

656 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE

***

HYDROGRAPH AT STATION CDB2

SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	5920.	1		1230	151	1.	1		1845	226	0.
1		0005	2	0.	1		0620	77	5622.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	5301.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	4964.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	4618.	1		1250	155	0.	1		1905	230	0.
1		0025	6	2.	1		0640	81	4271.	1		1255	156	0.	1		1910	231	0.
1		0030	7	8.	1		0645	82	3929.	1		1300	157	0.	1		1915	232	0.
1		0035	8	15.	1		0650	83	3597.	1		1305	158	0.	1		1920	233	0.
1		0040	9	20.	1		0655	84	3278.	1		1310	159	0.	1		1925	234	0.
1		0045	10	24.	1		0700	85	2974.	1		1315	160	0.	1		1930	235	0.
1		0050	11	26.	1		0705	86	2687.	1		1320	161	0.	1		1935	236	0.
1		0055	12	30.	1		0710	87	2419.	1		1325	162	0.	1		1940	237	0.
1		0100	13	38.	1		0715	88	2168.	1		1330	163	0.	1		1945	238	0.
1		0105	14	50.	1		0720	89	1937.	1		1335	164	0.	1		1950	239	0.
1		0110	15	65.	1		0725	90	1725.	1		1340	165	0.	1		1955	240	0.
1		0115	16	79.	1		0730	91	1532.	1		1345	166	0.	1		2000	241	0.
1		0120	17	92.	1		0735	92	1357.	1		1350	167	0.	1		2005	242	0.
1		0125	18	107.	1		0740	93	1199.	1		1355	168	0.	1		2010	243	0.
1		0130	19	126.	1		0745	94	1057.	1		1400	169	0.	1		2015	244	0.
1		0135	20	150.	1		0750	95	930.	1		1405	170	0.	1		2020	245	0.
1		0140	21	177.	1		0755	96	817.	1		1410	171	0.	1		2025	246	0.
1		0145	22	208.	1		0800	97	717.	1		1415	172	0.	1		2030	247	0.
1		0150	23	239.	1		0805	98	628.	1		1420	173	0.	1		2035	248	0.
1		0155	24	271.	1		0810	99	549.	1		1425	174	0.	1		2040	249	0.
1		0200	25	309.	1		0815	100	480.	1		1430	175	0.	1		2045	250	0.
1		0205	26	352.	1		0820	101	419.	1		1435	176	0.	1		2050	251	0.
1		0210	27	394.	1		0825	102	366.	1		1440	177	0.	1		2055	252	0.
1		0215	28	432.	1		0830	103	319.	1		1445	178	0.	1		2100	253	0.
1		0220	29	468.	1		0835	104	278.	1		1450	179	0.	1		2105	254	0.
1		0225	30	502.	1		0840	105	242.	1		1455	180	0.	1		2110	255	0.
1		0230	31	539.	1		0845	106	211.	1		1500	181	0.	1		2115	256	0.
1		0235	32	580.	1		0850	107	184.	1		1505	182	0.	1		2120	257	0.
1		0240	33	624.	1		0855	108	161.	1		1510	183	0.	1		2125	258	0.
1		0245	34	677.	1		0900	109	140.	1		1515	184	0.	1		2130	259	0.
1		0250	35	744.	1		0905	110	122.	1		1520	185	0.	1		2135	260	0.
1		0255	36	828.	1		0910	111	106.	1		1525	186	0.	1		2140	261	0.
1		0300	37	935.	1		0915	112	93.	1		1530	187	0.	1		2145	262	0.
1		0305	38	1063.	1		0920	113	81.	1		1535	188	0.	1		2150	263	0.
1		0310	39	1219.	1		0925	114	70.	1		1540	189	0.	1		2155	264	0.
1		0315	40	1416.	1		0930	115	61.	1		1545	190	0.	1		2200	265	0.
1		0320	41	1648.	1		0935	116	53.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1932.	1		0940	117	46.	1		1555	192	0.	1		2210	267	0.
1		0330	43	2306.	1		0945	118	40.	1		1600	193	0.	1		2215	268	0.
1		0335	44	2688.	1		0950	119	35.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2979.	1		0955	120	30.	1		1610	195	0.	1		2225	270	0.
1		0345	46	3196.	1		1000	121	27.	1		1615	196	0.	1		2230	271	0.
1		0350	47	3417.	1		1005	122	23.	1		1620	197	0.	1		2235	272	0.
1		0355	48	3646.	1		1010	123	20.	1		1625	198	0.	1		2240	273	0.
1		0400	49	3869.	1		1015	124	18.	1		1630	199	0.	1		2245	274	0.

1	0405	50	4114.	*	1	1020	125	16.	*	1	1635	200	0.	*	1	2250	275	0.	
1	0410	51	4411.	*	1	1025	126	14.	*	1	1640	201	0.	*	1	2255	276	0.	
1	0415	52	4775.	*	1	1030	127	12.	*	1	1645	202	0.	*	1	2300	277	0.	
1	0420	53	5195.	*	1	1035	128	10.	*	1	1650	203	0.	*	1	2305	278	0.	
1	0425	54	5661.	*	1	1040	129	9.	*	1	1655	204	0.	*	1	2310	279		
1	0430	55	6164.	*	1	1045	130	8.	*	1	1700	205	0.	*	1	2315	280		
1	0435	56	6695.	*	1	1050	131	7.	*	1	1705	206	0.	*	1	2320	281	0.	
1	0440	57	7223.	*	1	1055	132	6.	*	1	1710	207	0.	*	1	2325	282	0.	
1	0445	58	7710.	*	1	1100	133	5.	*	1	1715	208	0.	*	1	2330	283	0.	
1	0450	59	8132.	*	1	1105	134	4.	*	1	1720	209	0.	*	1	2335	284	0.	
1	0455	60	8442.	*	1	1110	135	4.	*	1	1725	210	0.	*	1	2340	285	0.	
1	0500	61	8605.	*	1	1115	136	3.	*	1	1730	211	0.	*	1	2345	286	0.	
1	0505	62	8635.	*	1	1120	137	3.	*	1	1735	212	0.	*	1	2350	287	0.	
1	0510	63	8556.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.	
1	0515	64	8393.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.	
1	0520	65	8178.	*	1	1135	140	2.	*	1	1750	215	0.	*	2	0005	290	0.	
1	0525	66	7946.	*	1	1140	141	2.	*	1	1755	216	0.	*	2	0010	291	0.	
1	0530	67	7719.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.	
1	0535	68	7509.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.	
1	0540	69	7318.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.	
1	0545	70	7145.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.	
1	0550	71	6980.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.	
1	0555	72	6813.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.	
1	0600	73	6632.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.	
1	0605	74	6426.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.	
1	0610	75	6189.	*	1	1225	150	1.	*	1	1840	225	0.	*	2	0055	300	0.	
				*					*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8635.	5.08		3910.	1000.	963.	963.
		(INCHES)	1.103	1.128	1.128	1.128
		(AC-FT)	1939.	1983.	1983.	1983.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .72

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				*					*					*				
DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	5814.	*	1		1230	151	1.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	5522.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	5207.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	4876.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	4537.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	2.	*	1		0640	81	4197.	*	1		1255	156	0.	*	1		1910	231	
1		0030	7	7.	*	1		0645	82	3861.	*	1		1300	157	0.	*	1		1915	232	
1		0035	8	14.	*	1		0650	83	3535.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	19.	*	1		0655	84	3221.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	22.	*	1		0700	85	2923.	*	1		1315	160	0.	*	1		1930	235	0.

1	0050	11	25.	*	1	0705	86	2641.	*	1	1320	161	0.	*	1	1935	236	0.
1	0055	12	28.	*	1	0710	87	2377.	*	1	1325	162	0.	*	1	1940	237	0.
1	0100	13	35.	*	1	0715	88	2131.	*	1	1330	163	0.	*	1	1945	238	0.
1	0105	14	46.	*	1	0720	89	1904.	*	1	1335	164	0.	*	1	1950	239	0.
1	0110	15	61.	*	1	0725	90	1696.	*	1	1340	165	0.	*	1	1955	240	0.
1	0115	16	74.	*	1	0730	91	1506.	*	1	1345	166	0.	*	1	2000	241	0.
1	0120	17	87.	*	1	0735	92	1334.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	102.	*	1	0740	93	1179.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	120.	*	1	0745	94	1039.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	142.	*	1	0750	95	915.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	168.	*	1	0755	96	804.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	197.	*	1	0800	97	705.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	227.	*	1	0805	98	617.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	259.	*	1	0810	99	540.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	296.	*	1	0815	100	472.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	337.	*	1	0820	101	412.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	377.	*	1	0825	102	359.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	415.	*	1	0830	103	313.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	449.	*	1	0835	104	273.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	482.	*	1	0840	105	238.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	518.	*	1	0845	106	208.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	557.	*	1	0850	107	181.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	600.	*	1	0855	108	158.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	651.	*	1	0900	109	138.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	716.	*	1	0905	110	120.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	798.	*	1	0910	111	105.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	901.	*	1	0915	112	91.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	1026.	*	1	0920	113	79.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	1179.	*	1	0925	114	69.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	1373.	*	1	0930	115	60.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	1599.	*	1	0935	116	52.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	1877.	*	1	0940	117	45.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	2243.	*	1	0945	118	40.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	2621.	*	1	0950	119	34.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2904.	*	1	0955	120	30.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	3120.	*	1	1000	121	26.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	3338.	*	1	1005	122	23.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	3565.	*	1	1010	123	20.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	3785.	*	1	1015	124	17.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	4024.	*	1	1020	125	15.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	4314.	*	1	1025	126	13.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	4670.	*	1	1030	127	12.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	5082.	*	1	1035	128	10.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	5538.	*	1	1040	129	9.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	6031.	*	1	1045	130	8.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	6553.	*	1	1050	131	7.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	7072.	*	1	1055	132	6.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	7550.	*	1	1100	133	5.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	7965.	*	1	1105	134	4.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	8270.	*	1	1110	135	4.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	8432.	*	1	1115	136	3.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	8462.	*	1	1120	137	3.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	8385.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	8227.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	8018.	*	1	1135	140	2.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	7792.	*	1	1140	141	2.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	7572.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	7366.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	7180.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	7012.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.

1	0550	71	6851.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	6688.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	6511.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	6310.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	6078.	*	1	1225	150	1.	*	1	1840	225	0.	*	2	0055	300	
				*					*					*				

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
	(CFS)				
+ 8462.	5.08	3830.	979.	943.	943.
	(INCHES)	1.080	1.105	1.105	1.105
	(AC-FT)	1899.	1943.	1943.	1943.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .64

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	4813.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	4576.	*	1		1235	152	0.	*	1		1850	227	
1		0010	3	0.	*	1		0625	78	4319.	*	1		1240	153	0.	*	1		1855	228	
1		0015	4	0.	*	1		0630	79	4048.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	3770.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	1.	*	1		0640	81	3490.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	3.	*	1		0645	82	3213.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	6.	*	1		0650	83	2943.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	9.	*	1		0655	84	2684.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	11.	*	1		0700	85	2437.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	13.	*	1		0705	86	2204.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	14.	*	1		0710	87	1984.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	16.	*	1		0715	88	1780.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	18.	*	1		0720	89	1591.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	24.	*	1		0725	90	1418.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	32.	*	1		0730	91	1260.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	42.	*	1		0735	92	1116.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	53.	*	1		0740	93	987.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	64.	*	1		0745	94	871.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	78.	*	1		0750	95	767.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	95.	*	1		0755	96	674.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	113.	*	1		0800	97	592.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	133.	*	1		0805	98	519.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	155.	*	1		0810	99	454.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	180.	*	1		0815	100	397.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	210.	*	1		0820	101	347.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	239.	*	1		0825	102	303.	*	1		1440	177	0.	*	1		2055	252	
1		0215	28	266.	*	1		0830	103	264.	*	1		1445	178	0.	*	1		2100	253	
1		0220	29	290.	*	1		0835	104	230.	*	1		1450	179	0.	*	1		2105	254	
1		0225	30	312.	*	1		0840	105	201.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	337.	*	1		0845	106	175.	*	1		1500	181	0.	*	1		2115	256	0.

1	0235	32	363.	*	1	0850	107	153.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	392.	*	1	0855	108	134.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	426.	*	1	0900	109	117.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	472.	*	1	0905	110	102.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	530.	*	1	0910	111	89.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	605.	*	1	0915	112	77.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	700.	*	1	0920	113	68.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	817.	*	1	0925	114	59.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	968.	*	1	0930	115	51.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	1150.	*	1	0935	116	45.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	1374.	*	1	0940	117	39.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1673.	*	1	0945	118	34.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	1990.	*	1	0950	119	29.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2230.	*	1	0955	120	26.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	2413.	*	1	1000	121	23.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	2598.	*	1	1005	122	20.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	2787.	*	1	1010	123	17.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	2970.	*	1	1015	124	15.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	3166.	*	1	1020	125	14.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	3402.	*	1	1025	126	12.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	3688.	*	1	1030	127	10.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	4021.	*	1	1035	128	9.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	4391.	*	1	1040	129	8.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	4792.	*	1	1045	130	7.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	5218.	*	1	1050	131	6.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	5646.	*	1	1055	132	5.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	6044.	*	1	1100	133	4.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	6393.	*	1	1105	134	4.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	6656.	*	1	1110	135	3.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	6804.	*	1	1115	136	3.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	6843.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	6794.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	6679.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	6521.	*	1	1135	140	2.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	6349.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	6180.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	6023.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	5882.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	5754.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	5632.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	5507.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	5369.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	5210.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	5025.	*	1	1225	150	1.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6843.	5.08		3088.	787.	759.	759.
		(INCHES)	.871	.888	.888	.888
		(AC-FT)	1531.	1562.	1562.	1562.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2

SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .63

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	4720.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	4489.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	4237.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	3972.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	3699.	1		1250	155	0.	1		1905	230	0.
1		0025	6	1.	1		0640	81	3424.	1		1255	156	0.	1		1910	231	0.
1		0030	7	3.	1		0645	82	3153.	1		1300	157	0.	1		1915	232	0.
1		0035	8	6.	1		0650	83	2889.	1		1305	158	0.	1		1920	233	0.
1		0040	9	8.	1		0655	84	2634.	1		1310	159	0.	1		1925	234	0.
1		0045	10	11.	1		0700	85	2392.	1		1315	160	0.	1		1930	235	0.
1		0050	11	12.	1		0705	86	2163.	1		1320	161	0.	1		1935	236	0.
1		0055	12	13.	1		0710	87	1948.	1		1325	162	0.	1		1940	237	0.
1		0100	13	15.	1		0715	88	1748.	1		1330	163	0.	1		1945	238	0.
1		0105	14	17.	1		0720	89	1562.	1		1335	164	0.	1		1950	239	0.
1		0110	15	21.	1		0725	90	1392.	1		1340	165	0.	1		1955	240	0.
1		0115	16	29.	1		0730	91	1237.	1		1345	166	0.	1		2000	241	0.
1		0120	17	39.	1		0735	92	1096.	1		1350	167	0.	1		2005	242	0.
1		0125	18	49.	1		0740	93	969.	1		1355	168	0.	1		2010	243	0.
1		0130	19	60.	1		0745	94	855.	1		1400	169	0.	1		2015	244	0.
1		0135	20	73.	1		0750	95	753.	1		1405	170	0.	1		2020	245	0.
1		0140	21	89.	1		0755	96	662.	1		1410	171	0.	1		2025	246	0.
1		0145	22	106.	1		0800	97	581.	1		1415	172	0.	1		2030	247	0.
1		0150	23	125.	1		0805	98	509.	1		1420	173	0.	1		2035	248	[illegible]
1		0155	24	146.	1		0810	99	446.	1		1425	174	0.	1		2040	249	[illegible]
1		0200	25	171.	1		0815	100	390.	1		1430	175	0.	1		2045	250	0.
1		0205	26	199.	1		0820	101	340.	1		1435	176	0.	1		2050	251	0.
1		0210	27	228.	1		0825	102	297.	1		1440	177	0.	1		2055	252	0.
1		0215	28	254.	1		0830	103	259.	1		1445	178	0.	1		2100	253	0.
1		0220	29	277.	1		0835	104	227.	1		1450	179	0.	1		2105	254	0.
1		0225	30	299.	1		0840	105	197.	1		1455	180	0.	1		2110	255	0.
1		0230	31	322.	1		0845	106	172.	1		1500	181	0.	1		2115	256	0.
1		0235	32	348.	1		0850	107	150.	1		1505	182	0.	1		2120	257	0.
1		0240	33	375.	1		0855	108	131.	1		1510	183	0.	1		2125	258	0.
1		0245	34	408.	1		0900	109	115.	1		1515	184	0.	1		2130	259	0.
1		0250	35	451.	1		0905	110	100.	1		1520	185	0.	1		2135	260	0.
1		0255	36	508.	1		0910	111	87.	1		1525	186	0.	1		2140	261	0.
1		0300	37	581.	1		0915	112	76.	1		1530	187	0.	1		2145	262	0.
1		0305	38	672.	1		0920	113	66.	1		1535	188	0.	1		2150	263	0.
1		0310	39	785.	1		0925	114	58.	1		1540	189	0.	1		2155	264	0.
1		0315	40	934.	1		0930	115	50.	1		1545	190	0.	1		2200	265	0.
1		0320	41	1110.	1		0935	116	44.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1331.	1		0940	117	38.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1624.	1		0945	118	33.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1934.	1		0950	119	29.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2171.	1		0955	120	25.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2350.	1		1000	121	22.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2532.	1		1005	122	19.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2718.	1		1010	123	17.	1		1625	198	0.	1		2240	273	[illegible]
1		0400	49	2896.	1		1015	124	15.	1		1630	199	0.	1		2245	274	[illegible]
1		0405	50	3089.	1		1020	125	13.	1		1635	200	0.	1		2250	275	[illegible]
1		0410	51	3320.	1		1025	126	12.	1		1640	201	0.	1		2255	276	0.
1		0415	52	3599.	1		1030	127	10.	1		1645	202	0.	1		2300	277	0.

1	0420	53	3925.	*	1	1035	128	9.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	4287.	*	1	1040	129	8.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	4679.	*	1	1045	130	7.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	5098.	*	1	1050	131	6.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	5517.	*	1	1055	132	5.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	5907.	*	1	1100	133	4.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	6251.	*	1	1105	134	4.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	6510.	*	1	1110	135	3.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	6656.	*	1	1115	136	3.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	6695.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	6649.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	6537.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	6383.	*	1	1135	140	2.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	6216.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	6052.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	5899.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	5762.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	5638.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	5520.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	5398.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	5264.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	5109.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	4928.	*	1	1225	150	1.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6695.	5.08		3021.	770.	742.	742.
		(INCHES)	.852	.869	.869	.869
		(AC-FT)	1498.	1527.	1527.	1527.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2

SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .54

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	3729.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	3551.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	3357.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	3150.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	2937.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	2722.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	1.	*	1		0645	82	2508.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	2.	*	1		0650	83	2300.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	3.	*	1		0655	84	2100.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	4.	*	1		0700	85	1908.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	5.	*	1		0705	86	1727.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	5.	*	1		0710	87	1557.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	6.	*	1		0715	88	1398.	*	1		1330	163	0.	*	1		1945	238	0.

1	0105	14	6.	*	1	0720	89	1250.	*	1	1335	164	0.	*	1	1950	239	0.
1	0110	15	7.	*	1	0725	90	1115.	*	1	1340	165	0.	*	1	1955	240	0.
1	0115	16	8.	*	1	0730	91	991.	*	1	1345	166	0.	*	1	2000	241	0.
1	0120	17	11.	*	1	0735	92	879.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	15.	*	1	0740	93	778.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	21.	*	1	0745	94	687.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	30.	*	1	0750	95	605.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	39.	*	1	0755	96	532.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	49.	*	1	0800	97	468.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	59.	*	1	0805	98	410.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	71.	*	1	0810	99	360.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	86.	*	1	0815	100	315.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	104.	*	1	0820	101	275.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	123.	*	1	0825	102	240.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	140.	*	1	0830	103	210.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	156.	*	1	0835	104	183.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	170.	*	1	0840	105	160.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	185.	*	1	0845	106	140.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	201.	*	1	0850	107	122.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	218.	*	1	0855	108	107.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	237.	*	1	0900	109	93.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	263.	*	1	0905	110	82.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	297.	*	1	0910	111	71.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	344.	*	1	0915	112	62.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	404.	*	1	0920	113	54.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	483.	*	1	0925	114	47.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	589.	*	1	0930	115	41.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	718.	*	1	0935	116	36.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	884.	*	1	0940	117	32.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1109.	*	1	0945	118	27.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	1354.	*	1	0950	119	24.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	1546.	*	1	0955	120	21.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	1692.	*	1	1000	121	18.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	1835.	*	1	1005	122	16.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	1987.	*	1	1010	123	14.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	2129.	*	1	1015	124	12.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	2277.	*	1	1020	125	11.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	2453.	*	1	1025	126	10.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	2665.	*	1	1030	127	9.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	2913.	*	1	1035	128	8.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	3190.	*	1	1040	129	6.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	3492.	*	1	1045	130	6.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	3816.	*	1	1050	131	5.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	4145.	*	1	1055	132	4.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	4456.	*	1	1100	133	4.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	4733.	*	1	1105	134	3.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	4948.	*	1	1110	135	3.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	5076.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	5122.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	5100.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	5027.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	4922.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	4805.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	4689.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	4583.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	4487.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	4401.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	4319.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	4234.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	4137.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.

1	0605	74	4023.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	3887.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5122.	5.08		2309.	587.	565.	565.
		(INCHES)	.651	.662	.662	.662
		(AC-FT)	1145.	1164.	1164.	1164.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .53

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	3651.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	3477.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	3287.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	3085.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	2877.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	2666.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	1.	*	1		0645	82	2457.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	2.	*	1		0650	83	2254.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	3.	*	1		0655	84	2057.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	4.	*	1		0700	85	1870.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	4.	*	1		0705	86	1692.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	5.	*	1		0710	87	1525.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	6.	*	1		0715	88	1370.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	6.	*	1		0720	89	1225.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	6.	*	1		0725	90	1093.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	7.	*	1		0730	91	972.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	10.	*	1		0735	92	862.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	13.	*	1		0740	93	763.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	19.	*	1		0745	94	673.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	27.	*	1		0750	95	594.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	35.	*	1		0755	96	522.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	45.	*	1		0800	97	458.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	55.	*	1		0805	98	402.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	67.	*	1		0810	99	352.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	81.	*	1		0815	100	308.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	98.	*	1		0820	101	270.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	116.	*	1		0825	102	236.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	133.	*	1		0830	103	206.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	148.	*	1		0835	104	180.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	162.	*	1		0840	105	157.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	176.	*	1		0845	106	137.	*	1		1500	181	0.	*	1		2115	256	0.
1		0235	32	191.	*	1		0850	107	120.	*	1		1505	182	0.	*	1		2120	257	0.
1		0240	33	207.	*	1		0855	108	105.	*	1		1510	183	0.	*	1		2125	258	0.
1		0245	34	226.	*	1		0900	109	92.	*	1		1515	184	0.	*	1		2130	259	0.

1	0250	35	250.	*	1	0905	110	80.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	283.	*	1	0910	111	70.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	328.	*	1	0915	112	61.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	385.	*	1	0920	113	53.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	462.	*	1	0925	114	47.	*	1	1540	189	0.	*	1	2155	264	
1	0315	40	564.	*	1	0930	115	41.	*	1	1545	190	0.	*	1	2200	265	
1	0320	41	690.	*	1	0935	116	35.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	851.	*	1	0940	117	31.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1068.	*	1	0945	118	27.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	1309.	*	1	0950	119	24.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	1499.	*	1	0955	120	21.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	1640.	*	1	1000	121	18.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	1785.	*	1	1005	122	16.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	1930.	*	1	1010	123	14.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	2070.	*	1	1015	124	12.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	2215.	*	1	1020	125	11.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	2387.	*	1	1025	126	9.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	2594.	*	1	1030	127	8.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	2835.	*	1	1035	128	7.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	3106.	*	1	1040	129	7.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	3400.	*	1	1045	130	6.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	3717.	*	1	1050	131	5.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	4039.	*	1	1055	132	4.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	4343.	*	1	1100	133	4.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	4614.	*	1	1105	134	3.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	4825.	*	1	1110	135	3.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	4951.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	4998.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	4979.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	4909.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	4807.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	
1	0525	66	4694.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	
1	0530	67	4582.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	4479.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	4387.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	4304.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	4224.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	4142.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	4048.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	3937.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	3805.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 4998.	5.08		2253.	573.	552.	552.
		(INCHES)	.636	.646	.646	.646
		(AC-FT)	1117.	1136.	1136.	1136.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2

SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .42

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2376.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	2270.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	2151.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	2024.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	1892.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	1757.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	1623.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	1491.	1		1305	158	0.	1		1920	233	0.
1		0040	9	1.	1		0655	84	1364.	1		1310	159	0.	1		1925	234	0.
1		0045	10	1.	1		0700	85	1241.	1		1315	160	0.	1		1930	235	0.
1		0050	11	1.	1		0705	86	1125.	1		1320	161	0.	1		1935	236	0.
1		0055	12	1.	1		0710	87	1016.	1		1325	162	0.	1		1940	237	0.
1		0100	13	1.	1		0715	88	914.	1		1330	163	0.	1		1945	238	0.
1		0105	14	1.	1		0720	89	819.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	731.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	651.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	578.	1		1350	167	0.	1		2005	242	0.
1		0125	18	2.	1		0740	93	513.	1		1355	168	0.	1		2010	243	0.
1		0130	19	3.	1		0745	94	453.	1		1400	169	0.	1		2015	244	0.
1		0135	20	4.	1		0750	95	400.	1		1405	170	0.	1		2020	245	0.
1		0140	21	6.	1		0755	96	352.	1		1410	171	0.	1		2025	246	0.
1		0145	22	8.	1		0800	97	310.	1		1415	172	0.	1		2030	247	0.
1		0150	23	10.	1		0805	98	273.	1		1420	173	0.	1		2035	248	0.
1		0155	24	12.	1		0810	99	239.	1		1425	174	0.	1		2040	249	0.
1		0200	25	15.	1		0815	100	210.	1		1430	175	0.	1		2045	250	0.
1		0205	26	21.	1		0820	101	184.	1		1435	176	0.	1		2050	251	0.
1		0210	27	28.	1		0825	102	161.	1		1440	177	0.	1		2055	252	0.
1		0215	28	35.	1		0830	103	141.	1		1445	178	0.	1		2100	253	0.
1		0220	29	42.	1		0835	104	123.	1		1450	179	0.	1		2105	254	0.
1		0225	30	48.	1		0840	105	108.	1		1455	180	0.	1		2110	255	0.
1		0230	31	55.	1		0845	106	94.	1		1500	181	0.	1		2115	256	0.
1		0235	32	61.	1		0850	107	82.	1		1505	182	0.	1		2120	257	0.
1		0240	33	68.	1		0855	108	72.	1		1510	183	0.	1		2125	258	0.
1		0245	34	75.	1		0900	109	63.	1		1515	184	0.	1		2130	259	0.
1		0250	35	85.	1		0905	110	56.	1		1520	185	0.	1		2135	260	0.
1		0255	36	98.	1		0910	111	49.	1		1525	186	0.	1		2140	261	0.
1		0300	37	117.	1		0915	112	43.	1		1530	187	0.	1		2145	262	0.
1		0305	38	144.	1		0920	113	37.	1		1535	188	0.	1		2150	263	0.
1		0310	39	180.	1		0925	114	33.	1		1540	189	0.	1		2155	264	0.
1		0315	40	231.	1		0930	115	29.	1		1545	190	0.	1		2200	265	0.
1		0320	41	300.	1		0935	116	25.	1		1550	191	0.	1		2205	266	0.
1		0325	42	392.	1		0940	117	22.	1		1555	192	0.	1		2210	267	0.
1		0330	43	522.	1		0945	118	19.	1		1600	193	0.	1		2215	268	0.
1		0335	44	673.	1		0950	119	17.	1		1605	194	0.	1		2220	269	0.
1		0340	45	798.	1		0955	120	15.	1		1610	195	0.	1		2225	270	0.
1		0345	46	891.	1		1000	121	13.	1		1615	196	0.	1		2230	271	0.
1		0350	47	983.	1		1005	122	12.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1079.	1		1010	123	10.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1166.	1		1015	124	9.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1253.	1		1020	125	8.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1354.	1		1025	126	7.	1		1640	201	0.	1		2255	276	0.
1		0415	52	1475.	1		1030	127	6.	1		1645	202	0.	1		2300	277	0.
1		0420	53	1617.	1		1035	128	5.	1		1650	203	0.	1		2305	278	0.
1		0425	54	1777.	1		1040	129	5.	1		1655	204	0.	1		2310	279	0.
1		0430	55	1958.	1		1045	130	4.	1		1700	205	0.	1		2315	280	0.

1	0435	56	2154.	*	1	1050	131	4.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	2359.	*	1	1055	132	3.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	2557.	*	1	1100	133	3.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	2741.	*	1	1105	134	2.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	2890.	*	1	1110	135	2.	*	1	1725	210	0.	*	1	2340	285	
1	0500	61	2988.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	
1	0505	62	3036.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	3042.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	3017.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	2970.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	2916.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	2862.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	2813.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	2769.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	2732.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	2695.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	2655.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	2606.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	2545.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	2468.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
	(CFS)				
+ 3042.	5.17	1382.	350.	337.	337.
	(INCHES)	.390	.394	.394	.394
	(AC-FT)	685.	693.	693.	693.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .41

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	2324.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	2220.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	2105.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	1981.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	1851.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	1720.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	1588.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	1459.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	1.	*	1		0655	84	1335.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	1.	*	1		0700	85	1215.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	1.	*	1		0705	86	1102.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	1.	*	1		0710	87	995.	*	1		1325	162	0.	*	1		1940	237	
1		0100	13	1.	*	1		0715	88	895.	*	1		1330	163	0.	*	1		1945	238	
1		0105	14	1.	*	1		0720	89	802.	*	1		1335	164	0.	*	1		1950	239	
1		0110	15	1.	*	1		0725	90	716.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	1.	*	1		0730	91	638.	*	1		1345	166	0.	*	1		2000	241	0.

1	0120	17	1.	*	1	0735	92	567.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	2.	*	1	0740	93	502.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	2.	*	1	0745	94	444.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	4.	*	1	0750	95	392.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	5.	*	1	0755	96	345.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	7.	*	1	0800	97	304.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	9.	*	1	0805	98	267.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	11.	*	1	0810	99	235.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	14.	*	1	0815	100	205.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	19.	*	1	0820	101	180.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	25.	*	1	0825	102	158.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	32.	*	1	0830	103	138.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	39.	*	1	0835	104	121.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	45.	*	1	0840	105	106.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	51.	*	1	0845	106	92.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	57.	*	1	0850	107	81.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	64.	*	1	0855	108	71.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	71.	*	1	0900	109	62.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	80.	*	1	0905	110	54.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	93.	*	1	0910	111	48.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	111.	*	1	0915	112	42.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	136.	*	1	0920	113	37.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	171.	*	1	0925	114	32.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	220.	*	1	0930	115	28.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	287.	*	1	0935	116	25.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	375.	*	1	0940	117	22.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	502.	*	1	0945	118	19.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	650.	*	1	0950	119	17.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	772.	*	1	0955	120	15.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	864.	*	1	1000	121	13.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	954.	*	1	1005	122	12.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	1047.	*	1	1010	123	10.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1131.	*	1	1015	124	9.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1217.	*	1	1020	125	8.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1314.	*	1	1025	126	7.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1431.	*	1	1030	127	6.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	1569.	*	1	1035	128	5.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	1725.	*	1	1040	129	5.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	1901.	*	1	1045	130	4.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	2093.	*	1	1050	131	4.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	2292.	*	1	1055	132	3.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	2486.	*	1	1100	133	3.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	2666.	*	1	1105	134	2.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	2812.	*	1	1110	135	2.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	2908.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	2956.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	2964.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	2940.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	2896.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	2844.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	2792.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	2745.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	2703.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	2667.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	2632.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	2594.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	2547.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	2488.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	2413.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2964.	5.17		1347.	341.	328.	328.
		(INCHES)	.380	.384	.384	.384
		(AC-FT)	668.	676.	676.	676.

CUMULATIVE AREA = 32.97 SQ MI

657 KK

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* *
* PEDB *
* *
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663 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

664 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	STOR	TYPE OF INITIAL CONDITION
RSVRIC	.00	INITIAL CONDITION
X	.00	WORKING R AND D COEFFICIENT

665 SV	STORAGE	.0	.8	13.6	53.5	133.0	264.0	306.0	350.0	397.0	448.0
		500.0	554.0	610.0	928.0	1249.0	1636.0	1855.0	2031.0	2216.0	2617.0
667 SE	ELEVATION	2461.00	2464.00	2468.00	2472.00	2476.00	2480.00	2481.00	2482.00	2483.00	2484.00
		2485.00	2486.00	2487.00	2492.00	2496.00	2500.00	2502.00	2503.50	2505.00	2508.00
669 SQ	DISCHARGE	0.	38.	70.	86.	99.	111.	114.	225.	427.	628.
		666.	701.	748.	924.	1063.	1197.	1262.	11434.	30402.	85914.

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	1185.	1602.6	2499.7	1		1640	201	908.	898.5	2491.5
1		0005	2	0.	.0	2461.0	1		0825	102	1184.	1597.2	2499.6	1		1645	202	904.	892.3	2491.4
1		0010	3	0.	.0	2461.0	1		0830	103	1182.	1591.4	2499.5	1		1650	203	901.	886.1	2491.3

1	0015	4	0.	.0	2461.0	*	1	0835	104	1179.	1585.3	2499.5	*	1	1655	204	897.	879.9	2491.2
1	0020	5	0.	.0	2461.0	*	1	0840	105	1177.	1579.0	2499.4	*	1	1700	205	894.	873.7	2491.1
1	0025	6	0.	.0	2461.0	*	1	0845	106	1175.	1572.4	2499.3	*	1	1705	206	891.	867.6	2491.0
1	0030	7	2.	.0	2461.1	*	1	0850	107	1173.	1565.7	2499.3	*	1	1710	207	887.	861.4	2491.0
1	0035	8	4.	.1	2461.4	*	1	0855	108	1170.	1558.8	2499.2	*	1	1715	208	884.	855.3	2490.9
1	0040	9	8.	.2	2461.6	*	1	0900	109	1168.	1551.8	2499.1	*	1	1720	209	880.	849.3	2490.8
1	0045	10	12.	.3	2461.9	*	1	0905	110	1165.	1544.7	2499.1	*	1	1725	210	877.	843.2	2490.7
1	0050	11	16.	.3	2462.2	*	1	0910	111	1163.	1537.5	2499.0	*	1	1730	211	874.	837.2	2490.6
1	0055	12	19.	.4	2462.5	*	1	0915	112	1160.	1530.2	2498.9	*	1	1735	212	870.	831.2	2490.5
1	0100	13	23.	.5	2462.8	*	1	0920	113	1158.	1522.8	2498.8	*	1	1740	213	867.	825.2	2490.4
1	0105	14	29.	.6	2463.3	*	1	0925	114	1155.	1515.3	2498.8	*	1	1745	214	864.	819.2	2490.3
1	0110	15	37.	.8	2463.9	*	1	0930	115	1153.	1507.8	2498.7	*	1	1750	215	861.	813.3	2490.2
1	0115	16	39.	1.0	2464.1	*	1	0935	116	1150.	1500.3	2498.6	*	1	1755	216	857.	807.4	2490.1
1	0120	17	39.	1.3	2464.2	*	1	0940	117	1147.	1492.7	2498.5	*	1	1800	217	854.	801.5	2490.0
1	0125	18	40.	1.8	2464.3	*	1	0945	118	1145.	1485.1	2498.4	*	1	1805	218	851.	795.6	2489.9
1	0130	19	42.	2.3	2464.5	*	1	0950	119	1142.	1477.5	2498.4	*	1	1810	219	847.	789.8	2489.8
1	0135	20	43.	2.9	2464.7	*	1	0955	120	1139.	1469.9	2498.3	*	1	1815	220	844.	783.9	2489.7
1	0140	21	45.	3.8	2464.9	*	1	1000	121	1137.	1462.2	2498.2	*	1	1820	221	841.	778.1	2489.6
1	0145	22	48.	4.8	2465.2	*	1	1005	122	1134.	1454.6	2498.1	*	1	1825	222	838.	772.4	2489.6
1	0150	23	51.	6.0	2465.6	*	1	1010	123	1132.	1446.9	2498.0	*	1	1830	223	835.	766.6	2489.5
1	0155	24	54.	7.3	2466.0	*	1	1015	124	1129.	1439.3	2498.0	*	1	1835	224	831.	760.9	2489.4
1	0200	25	58.	9.0	2466.5	*	1	1020	125	1126.	1431.6	2497.9	*	1	1840	225	828.	755.2	2489.3
1	0205	26	63.	10.8	2467.1	*	1	1025	126	1124.	1424.0	2497.8	*	1	1845	226	825.	749.5	2489.2
1	0210	27	68.	12.9	2467.8	*	1	1030	127	1121.	1416.3	2497.7	*	1	1850	227	822.	743.8	2489.1
1	0215	28	71.	15.3	2468.2	*	1	1035	128	1118.	1408.7	2497.7	*	1	1855	228	819.	738.1	2489.0
1	0220	29	72.	17.9	2468.4	*	1	1040	129	1116.	1401.1	2497.6	*	1	1900	229	816.	732.5	2488.9
1	0225	30	73.	20.7	2468.7	*	1	1045	130	1113.	1393.5	2497.5	*	1	1905	230	813.	726.9	2488.8
1	0230	31	74.	23.8	2469.0	*	1	1050	131	1110.	1385.8	2497.4	*	1	1910	231	810.	721.3	2488.8
1	0235	32	75.	27.2	2469.4	*	1	1055	132	1108.	1378.3	2497.3	*	1	1915	232	807.	715.7	2488.7
1	0240	33	77.	30.8	2469.7	*	1	1100	133	1105.	1370.7	2497.3	*	1	1920	233	803.	710.2	2488.6
1	0245	34	78.	34.7	2470.1	*	1	1105	134	1103.	1363.1	2497.2	*	1	1925	234	800.	704.7	2488.5
1	0250	35	80.	39.1	2470.6	*	1	1110	135	1100.	1355.5	2497.1	*	1	1930	235	797.	699.2	2488.4
1	0255	36	82.	43.9	2471.0	*	1	1115	136	1097.	1348.0	2497.0	*	1	1935	236	794.	693.7	2488.3
1	0300	37	84.	49.4	2471.6	*	1	1120	137	1095.	1340.5	2496.9	*	1	1940	237	791.	688.2	2488.2
1	0305	38	86.	55.7	2472.1	*	1	1125	138	1092.	1333.0	2496.9	*	1	1945	238	788.	682.8	2488.1
1	0310	39	88.	63.0	2472.5	*	1	1130	139	1089.	1325.5	2496.8	*	1	1950	239	785.	677.4	2488.1
1	0315	40	89.	71.4	2472.9	*	1	1135	140	1087.	1318.0	2496.7	*	1	1955	240	782.	672.0	2488.0
1	0320	41	91.	81.4	2473.4	*	1	1140	141	1084.	1310.5	2496.6	*	1	2000	241	779.	666.6	2487.9
1	0325	42	92.	93.1	2474.0	*	1	1145	142	1082.	1303.1	2496.6	*	1	2005	242	776.	661.2	2487.8
1	0330	43	95.	107.0	2474.7	*	1	1150	143	1079.	1295.6	2496.5	*	1	2010	243	773.	655.9	2487.7
1	0335	44	97.	123.6	2475.5	*	1	1155	144	1077.	1288.2	2496.4	*	1	2015	244	770.	650.6	2487.6
1	0340	45	100.	142.4	2476.3	*	1	1200	145	1074.	1280.8	2496.3	*	1	2020	245	768.	645.3	2487.6
1	0345	46	102.	163.0	2476.9	*	1	1205	146	1071.	1273.4	2496.3	*	1	2025	246	765.	640.0	2487.5
1	0350	47	104.	185.0	2477.6	*	1	1210	147	1069.	1266.1	2496.2	*	1	2030	247	762.	634.8	2487.4
1	0355	48	106.	208.6	2478.3	*	1	1215	148	1066.	1258.7	2496.1	*	1	2035	248	759.	629.5	2487.3
1	0400	49	108.	233.8	2479.1	*	1	1220	149	1064.	1251.4	2496.0	*	1	2040	249	756.	624.3	2487.2
1	0405	50	111.	260.5	2479.9	*	1	1225	150	1061.	1244.1	2495.9	*	1	2045	250	753.	619.1	2487.1
1	0410	51	113.	289.1	2480.6	*	1	1230	151	1058.	1236.8	2495.8	*	1	2050	251	750.	613.9	2487.1
1	0415	52	149.	319.8	2481.3	*	1	1235	152	1055.	1229.5	2495.8	*	1	2055	252	747.	608.8	2487.0
1	0420	53	237.	352.8	2482.1	*	1	1240	153	1051.	1222.3	2495.7	*	1	2100	253	743.	603.7	2486.9
1	0425	54	388.	388.0	2482.8	*	1	1245	154	1048.	1215.1	2495.6	*	1	2105	254	738.	598.6	2486.8
1	0430	55	540.	425.6	2483.6	*	1	1250	155	1045.	1207.8	2495.5	*	1	2110	255	734.	593.5	2486.7
1	0435	56	641.	465.8	2484.3	*	1	1255	156	1042.	1200.7	2495.4	*	1	2115	256	730.	588.4	2486.6
1	0440	57	672.	509.2	2485.2	*	1	1300	157	1039.	1193.5	2495.3	*	1	2120	257	726.	583.4	2486.5
1	0445	58	703.	555.9	2486.0	*	1	1305	158	1036.	1186.4	2495.2	*	1	2125	258	722.	578.4	2486.4
1	0450	59	744.	605.4	2486.9	*	1	1310	159	1033.	1179.2	2495.1	*	1	2130	259	717.	573.5	2486.3
1	0455	60	774.	657.3	2487.7	*	1	1315	160	1030.	1172.1	2495.0	*	1	2135	260	713.	568.6	2486.3
1	0500	61	804.	710.5	2488.6	*	1	1320	161	1027.	1165.1	2495.0	*	1	2140	261	709.	563.7	2486.2
1	0505	62	833.	764.3	2489.4	*	1	1325	162	1024.	1158.0	2494.9	*	1	2145	262	705.	558.8	2486.1
1	0510	63	863.	817.6	2490.3	*	1	1330	163	1021.	1151.0	2494.8	*	1	2150	263	701.	554.0	2486.0

1	0515	64	892.	870.0	2491.1	*	1	1335	164	1018.	1143.9	2494.7	*	1	2155	264	698.	549.1	2485.9
1	0520	65	920.	920.8	2491.9	*	1	1340	165	1014.	1136.9	2494.6	*	1	2200	265	695.	544.3	2485.8
1	0525	66	942.	969.9	2492.5	*	1	1345	166	1011.	1130.0	2494.5	*	1	2205	266	692.	539.6	2485.7
1	0530	67	963.	1017.3	2493.1	*	1	1350	167	1008.	1123.0	2494.4	*	1	2210	267	689.	534.8	2485.6
1	0535	68	982.	1063.0	2493.7	*	1	1355	168	1005.	1116.1	2494.3	*	1	2215	268	686.	530.1	2[redacted]
1	0540	69	1002.	1107.2	2494.2	*	1	1400	169	1002.	1109.2	2494.3	*	1	2220	269	682.	525.4	2[redacted]
1	0545	70	1020.	1150.1	2494.8	*	1	1405	170	999.	1102.3	2494.2	*	1	2225	270	679.	520.7	2485.4
1	0550	71	1038.	1191.6	2495.3	*	1	1410	171	996.	1095.4	2494.1	*	1	2230	271	676.	516.0	2485.3
1	0555	72	1056.	1231.9	2495.8	*	1	1415	172	994.	1088.5	2494.0	*	1	2235	272	673.	511.4	2485.2
1	0600	73	1071.	1270.9	2496.2	*	1	1420	173	991.	1081.7	2493.9	*	1	2240	273	670.	506.7	2485.1
1	0605	74	1084.	1308.4	2496.6	*	1	1425	174	988.	1074.9	2493.8	*	1	2245	274	667.	502.1	2485.0
1	0610	75	1096.	1344.4	2497.0	*	1	1430	175	985.	1068.1	2493.7	*	1	2250	275	664.	497.6	2485.0
1	0615	76	1108.	1378.5	2497.3	*	1	1435	176	982.	1061.3	2493.7	*	1	2255	276	661.	493.0	2484.9
1	0620	77	1119.	1410.6	2497.7	*	1	1440	177	979.	1054.6	2493.6	*	1	2300	277	658.	488.4	2484.8
1	0625	78	1129.	1440.4	2498.0	*	1	1445	178	976.	1047.9	2493.5	*	1	2305	278	654.	483.9	2484.7
1	0630	79	1139.	1468.0	2498.3	*	1	1450	179	973.	1041.2	2493.4	*	1	2310	279	651.	479.4	2484.6
1	0635	80	1148.	1493.1	2498.5	*	1	1455	180	970.	1034.5	2493.3	*	1	2315	280	648.	475.0	2484.5
1	0640	81	1155.	1515.8	2498.8	*	1	1500	181	967.	1027.8	2493.2	*	1	2320	281	644.	470.5	2484.4
1	0645	82	1162.	1536.0	2499.0	*	1	1505	182	964.	1021.1	2493.2	*	1	2325	282	641.	466.1	2484.3
1	0650	83	1169.	1553.9	2499.2	*	1	1510	183	961.	1014.5	2493.1	*	1	2330	283	638.	461.7	2484.3
1	0655	84	1174.	1569.5	2499.3	*	1	1515	184	959.	1007.9	2493.0	*	1	2335	284	635.	457.3	2484.2
1	0700	85	1179.	1582.9	2499.5	*	1	1520	185	956.	1001.3	2492.9	*	1	2340	285	632.	452.9	2484.1
1	0705	86	1183.	1594.3	2499.6	*	1	1525	186	953.	994.7	2492.8	*	1	2345	286	628.	448.6	2484.0
1	0710	87	1186.	1603.7	2499.7	*	1	1530	187	950.	988.2	2492.8	*	1	2350	287	614.	444.3	2483.9
1	0715	88	1188.	1611.3	2499.7	*	1	1535	188	947.	981.6	2492.7	*	1	2355	288	597.	440.2	2483.8
1	0720	89	1191.	1617.3	2499.8	*	1	1540	189	944.	975.1	2492.6	*	2	0000	289	581.	436.1	2483.8
1	0725	90	1192.	1621.7	2499.9	*	1	1545	190	942.	968.6	2492.5	*	2	0005	290	566.	432.1	2483.7
1	0730	91	1193.	1624.7	2499.9	*	1	1550	191	939.	962.2	2492.4	*	2	0010	291	550.	428.3	2483.6
1	0735	92	1194.	1626.4	2499.9	*	1	1555	192	936.	955.7	2492.3	*	2	0015	292	536.	424.6	2483.5
1	0740	93	1194.	1627.0	2499.9	*	1	1600	193	933.	949.3	2492.3	*	2	0020	293	521.	420.9	2483.5
1	0745	94	1194.	1626.6	2499.9	*	1	1605	194	930.	942.9	2492.2	*	2	0025	294	507.	417.4	2[redacted]
1	0750	95	1193.	1625.2	2499.9	*	1	1610	195	928.	936.5	2492.1	*	2	0030	295	494.	413.9	2[redacted]
1	0755	96	1192.	1623.0	2499.9	*	1	1615	196	925.	930.1	2492.0	*	2	0035	296	481.	410.6	2483.3
1	0800	97	1191.	1620.1	2499.8	*	1	1620	197	922.	923.7	2491.9	*	2	0040	297	468.	407.3	2483.2
1	0805	98	1190.	1616.5	2499.8	*	1	1625	198	918.	917.4	2491.8	*	2	0045	298	455.	404.1	2483.1
1	0810	99	1189.	1612.3	2499.8	*	1	1630	199	915.	911.1	2491.7	*	2	0050	299	443.	401.0	2483.1
1	0815	100	1187.	1607.7	2499.7	*	1	1635	200	911.	904.8	2491.6	*	2	0055	300	431.	398.0	2483.0
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1194.	7.67		1145.	799.	770.	770.
		(INCHES)	.323	.902	.902	.902
		(AC-FT)	568.	1585.	1585.	1585.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1627.	7.67	1485.	864.	832.	832.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2499.91	7.67	2498.44	2489.09	2488.07	2488.07

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .72

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	1173.	1566.9	2499.3	1		1640	201	893.	871.2	2491.1
1		0005	2	0.	.0	2461.0	1		0825	102	1171.	1561.5	2499.2	1		1645	202	889.	865.1	2491.0
1		0010	3	0.	.0	2461.0	1		0830	103	1169.	1555.8	2499.2	1		1650	203	886.	858.9	2490.9
1		0015	4	0.	.0	2461.0	1		0835	104	1167.	1549.8	2499.1	1		1655	204	882.	852.9	2490.8
1		0020	5	0.	.0	2461.0	1		0840	105	1165.	1543.5	2499.0	1		1700	205	879.	846.8	2490.7
1		0025	6	0.	.0	2461.0	1		0845	106	1163.	1537.0	2499.0	1		1705	206	876.	840.7	2490.6
1		0030	7	2.	.0	2461.1	1		0850	107	1160.	1530.4	2498.9	1		1710	207	872.	834.7	2490.5
1		0035	8	4.	.1	2461.3	1		0855	108	1158.	1523.5	2498.8	1		1715	208	869.	828.7	2490.4
1		0040	9	8.	.2	2461.6	1		0900	109	1156.	1516.6	2498.8	1		1720	209	866.	822.8	2490.3
1		0045	10	11.	.2	2461.9	1		0905	110	1153.	1509.5	2498.7	1		1725	210	862.	816.8	2490.3
1		0050	11	15.	.3	2462.2	1		0910	111	1151.	1502.4	2498.6	1		1730	211	859.	810.9	2490.2
1		0055	12	18.	.4	2462.4	1		0915	112	1148.	1495.1	2498.5	1		1735	212	856.	805.0	2490.1
1		0100	13	22.	.5	2462.7	1		0920	113	1146.	1487.8	2498.5	1		1740	213	853.	799.1	2490.0
1		0105	14	27.	.6	2463.1	1		0925	114	1143.	1480.4	2498.4	1		1745	214	849.	793.2	2489.9
1		0110	15	34.	.7	2463.7	1		0930	115	1141.	1473.0	2498.3	1		1750	215	846.	787.4	2489.8
1		0115	16	38.	.9	2464.0	1		0935	116	1138.	1465.6	2498.2	1		1755	216	843.	781.6	2489.7
1		0120	17	39.	1.2	2464.1	1		0940	117	1135.	1458.1	2498.2	1		1800	217	840.	775.8	2489.6
1		0125	18	40.	1.6	2464.3	1		0945	118	1133.	1450.6	2498.1	1		1805	218	837.	770.0	2489.5
1		0130	19	41.	2.1	2464.4	1		0950	119	1130.	1443.0	2498.0	1		1810	219	833.	764.3	2489.4
1		0135	20	43.	2.7	2464.6	1		0955	120	1128.	1435.5	2497.9	1		1815	220	830.	758.5	2489.3
1		0140	21	45.	3.5	2464.8	1		1000	121	1125.	1427.9	2497.8	1		1820	221	827.	752.8	2489.2
1		0145	22	47.	4.4	2465.1	1		1005	122	1122.	1420.3	2497.8	1		1825	222	824.	747.1	2489.2
1		0150	23	50.	5.5	2465.5	1		1010	123	1120.	1412.8	2497.7	1		1830	223	821.	741.5	2489.1
1		0155	24	53.	6.9	2465.9	1		1015	124	1117.	1405.2	2497.6	1		1835	224	818.	735.8	2489.0
1		0200	25	57.	8.4	2466.4	1		1020	125	1114.	1397.6	2497.5	1		1840	225	815.	730.2	2488.9
1		0205	26	61.	10.2	2466.9	1		1025	126	1112.	1390.0	2497.5	1		1845	226	811.	724.6	2488.8
1		0210	27	66.	12.2	2467.6	1		1030	127	1109.	1382.5	2497.4	1		1850	227	808.	719.0	2488.7
1		0215	28	70.	14.4	2468.1	1		1035	128	1107.	1374.9	2497.3	1		1855	228	805.	713.5	2488.6
1		0220	29	71.	16.9	2468.3	1		1040	129	1104.	1367.4	2497.2	1		1900	229	802.	707.9	2488.5
1		0225	30	72.	19.6	2468.6	1		1045	130	1101.	1359.8	2497.1	1		1905	230	799.	702.4	2488.5
1		0230	31	74.	22.6	2468.9	1		1050	131	1099.	1352.3	2497.1	1		1910	231	796.	696.9	2488.4
1		0235	32	75.	25.8	2469.2	1		1055	132	1096.	1344.8	2497.0	1		1915	232	793.	691.5	2488.3
1		0240	33	76.	29.2	2469.6	1		1100	133	1094.	1337.3	2496.9	1		1920	233	790.	686.0	2488.2
1		0245	34	78.	33.0	2469.9	1		1105	134	1091.	1329.8	2496.8	1		1925	234	787.	680.6	2488.1
1		0250	35	79.	37.2	2470.4	1		1110	135	1088.	1322.3	2496.8	1		1930	235	784.	675.2	2488.0
1		0255	36	81.	41.8	2470.8	1		1115	136	1086.	1314.9	2496.7	1		1935	236	781.	669.8	2487.9
1		0300	37	83.	47.1	2471.4	1		1120	137	1083.	1307.4	2496.6	1		1940	237	778.	664.4	2487.9
1		0305	38	86.	53.1	2472.0	1		1125	138	1081.	1300.0	2496.5	1		1945	238	775.	659.1	2487.8
1		0310	39	87.	60.1	2472.3	1		1130	139	1078.	1292.6	2496.5	1		1950	239	772.	653.7	2487.7
1		0315	40	88.	68.3	2472.7	1		1135	140	1076.	1285.2	2496.4	1		1955	240	769.	648.4	2487.6
1		0320	41	90.	77.9	2473.2	1		1140	141	1073.	1277.8	2496.3	1		2000	241	766.	643.1	2487.5
1		0325	42	92.	89.3	2473.8	1		1145	142	1070.	1270.4	2496.2	1		2005	242	763.	637.9	2487.4
1		0330	43	94.	102.8	2474.5	1		1150	143	1068.	1263.0	2496.1	1		2010	243	761.	632.6	2487.4
1		0335	44	97.	118.9	2475.3	1		1155	144	1065.	1255.7	2496.1	1		2015	244	758.	627.4	2487.3
1		0340	45	99.	137.3	2476.1	1		1200	145	1063.	1248.4	2496.0	1		2020	245	755.	622.2	2487.2
1		0345	46	101.	157.3	2476.7	1		1205	146	1060.	1241.1	2495.9	1		2025	246	752.	617.0	2487.1
1		0350	47	103.	178.9	2477.4	1		1210	147	1056.	1233.8	2495.8	1		2030	247	749.	611.8	2487.0
1		0355	48	105.	201.9	2478.1	1		1215	148	1053.	1226.5	2495.7	1		2035	248	745.	606.7	2486.9
1		0400	49	108.	226.5	2478.9	1		1220	149	1050.	1219.3	2495.6	1		2040	249	741.	601.6	2486.8
1		0405	50	110.	252.6	2479.7	1		1225	150	1047.	1212.1	2495.5	1		2045	250	737.	596.5	2486.8

1	0410	51	112.	280.6	2480.4	*	1	1230	151	1044.	1204.9	2495.5	*	1	2050	251	732.	591.4	2486.7
1	0415	52	126.	310.7	2481.1	*	1	1235	152	1041.	1197.7	2495.4	*	1	2055	252	728.	586.4	2486.6
1	0420	53	208.	343.1	2481.8	*	1	1240	153	1038.	1190.6	2495.3	*	1	2100	253	724.	581.4	2486.5
1	0425	54	344.	377.8	2482.6	*	1	1245	154	1035.	1183.4	2495.2	*	1	2105	254	720.	576.4	2486.4
1	0430	55	497.	414.7	2483.3	*	1	1250	155	1032.	1176.3	2495.1	*	1	2110	255	716.	571.5	24
1	0435	56	633.	454.2	2484.1	*	1	1255	156	1028.	1169.2	2495.0	*	1	2115	256	712.	566.6	24
1	0440	57	664.	496.6	2484.9	*	1	1300	157	1025.	1162.2	2494.9	*	1	2120	257	707.	561.7	2486.1
1	0445	58	693.	542.3	2485.8	*	1	1305	158	1022.	1155.1	2494.8	*	1	2125	258	703.	556.8	2486.1
1	0450	59	732.	590.8	2486.7	*	1	1310	159	1019.	1148.1	2494.7	*	1	2130	259	700.	552.0	2486.0
1	0455	60	765.	641.6	2487.5	*	1	1315	160	1016.	1141.1	2494.7	*	1	2135	260	697.	547.2	2485.9
1	0500	61	794.	693.7	2488.3	*	1	1320	161	1013.	1134.1	2494.6	*	1	2140	261	693.	542.4	2485.8
1	0505	62	823.	746.3	2489.1	*	1	1325	162	1010.	1127.1	2494.5	*	1	2145	262	690.	537.6	2485.7
1	0510	63	852.	798.6	2490.0	*	1	1330	163	1007.	1120.2	2494.4	*	1	2150	263	687.	532.9	2485.6
1	0515	64	881.	849.8	2490.8	*	1	1335	164	1004.	1113.2	2494.3	*	1	2155	264	684.	528.2	2485.5
1	0520	65	908.	899.6	2491.6	*	1	1340	165	1001.	1106.3	2494.2	*	1	2200	265	681.	523.5	2485.4
1	0525	66	933.	947.7	2492.2	*	1	1345	166	998.	1099.5	2494.1	*	1	2205	266	678.	518.8	2485.3
1	0530	67	953.	994.1	2492.8	*	1	1350	167	995.	1092.6	2494.1	*	1	2210	267	675.	514.1	2485.3
1	0535	68	972.	1038.9	2493.4	*	1	1355	168	992.	1085.7	2494.0	*	1	2215	268	672.	509.5	2485.2
1	0540	69	991.	1082.3	2493.9	*	1	1400	169	989.	1078.9	2493.9	*	1	2220	269	669.	504.9	2485.1
1	0545	70	1009.	1124.2	2494.4	*	1	1405	170	986.	1072.1	2493.8	*	1	2225	270	666.	500.3	2485.0
1	0550	71	1027.	1165.0	2495.0	*	1	1410	171	983.	1065.3	2493.7	*	1	2230	271	663.	495.7	2484.9
1	0555	72	1044.	1204.5	2495.4	*	1	1415	172	981.	1058.6	2493.6	*	1	2235	272	660.	491.1	2484.8
1	0600	73	1060.	1242.7	2495.9	*	1	1420	173	978.	1051.8	2493.5	*	1	2240	273	656.	486.6	2484.7
1	0605	74	1074.	1279.5	2496.3	*	1	1425	174	975.	1045.1	2493.5	*	1	2245	274	653.	482.1	2484.7
1	0610	75	1086.	1314.7	2496.7	*	1	1430	175	972.	1038.4	2493.4	*	1	2250	275	650.	477.6	2484.6
1	0615	76	1097.	1348.1	2497.0	*	1	1435	176	969.	1031.7	2493.3	*	1	2255	276	646.	473.1	2484.5
1	0620	77	1108.	1379.6	2497.3	*	1	1440	177	966.	1025.1	2493.2	*	1	2300	277	643.	468.7	2484.4
1	0625	78	1118.	1408.8	2497.7	*	1	1445	178	963.	1018.4	2493.1	*	1	2305	278	640.	464.3	2484.3
1	0630	79	1128.	1435.8	2497.9	*	1	1450	179	960.	1011.8	2493.0	*	1	2310	279	637.	459.9	2484.2
1	0635	80	1136.	1460.4	2498.2	*	1	1455	180	957.	1005.2	2493.0	*	1	2315	280	633.	455.5	248
1	0640	81	1144.	1482.7	2498.4	*	1	1500	181	955.	998.6	2492.9	*	1	2320	281	630.	451.2	24
1	0645	82	1151.	1502.5	2498.6	*	1	1505	182	952.	992.0	2492.8	*	1	2325	282	623.	446.8	248
1	0650	83	1157.	1520.0	2498.8	*	1	1510	183	949.	985.5	2492.7	*	1	2330	283	607.	442.6	2483.9
1	0655	84	1162.	1535.3	2499.0	*	1	1515	184	946.	979.0	2492.6	*	1	2335	284	590.	438.5	2483.8
1	0700	85	1167.	1548.5	2499.1	*	1	1520	185	943.	972.5	2492.6	*	1	2340	285	575.	434.5	2483.7
1	0705	86	1171.	1559.6	2499.2	*	1	1525	186	940.	966.0	2492.5	*	1	2345	286	559.	430.6	2483.7
1	0710	87	1174.	1568.8	2499.3	*	1	1530	187	938.	959.5	2492.4	*	1	2350	287	544.	426.8	2483.6
1	0715	88	1176.	1576.2	2499.4	*	1	1535	188	935.	953.1	2492.3	*	1	2355	288	530.	423.1	2483.5
1	0720	89	1178.	1582.0	2499.4	*	1	1540	189	932.	946.6	2492.2	*	2	0000	289	516.	419.5	2483.4
1	0725	90	1180.	1586.3	2499.5	*	1	1545	190	929.	940.2	2492.2	*	2	0005	290	502.	416.0	2483.4
1	0730	91	1181.	1589.2	2499.5	*	1	1550	191	927.	933.8	2492.1	*	2	0010	291	488.	412.6	2483.3
1	0735	92	1181.	1590.8	2499.5	*	1	1555	192	924.	927.5	2492.0	*	2	0015	292	475.	409.2	2483.2
1	0740	93	1182.	1591.3	2499.5	*	1	1600	193	920.	921.1	2491.9	*	2	0020	293	463.	406.0	2483.2
1	0745	94	1181.	1590.8	2499.5	*	1	1605	194	917.	914.8	2491.8	*	2	0025	294	450.	402.9	2483.1
1	0750	95	1181.	1589.4	2499.5	*	1	1610	195	913.	908.5	2491.7	*	2	0030	295	438.	399.8	2483.1
1	0755	96	1180.	1587.2	2499.5	*	1	1615	196	910.	902.2	2491.6	*	2	0035	296	426.	396.8	2483.0
1	0800	97	1179.	1584.3	2499.5	*	1	1620	197	906.	896.0	2491.5	*	2	0040	297	414.	393.9	2482.9
1	0805	98	1178.	1580.7	2499.4	*	1	1625	198	903.	889.7	2491.4	*	2	0045	298	402.	391.1	2482.9
1	0810	99	1176.	1576.6	2499.4	*	1	1630	199	899.	883.5	2491.3	*	2	0050	299	390.	388.4	2482.8
1	0815	100	1175.	1572.0	2499.3	*	1	1635	200	896.	877.3	2491.2	*	2	0055	300	379.	385.8	2482.8
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1182.	7.67		1133.	785.	756.	756.
		(INCHES)	.320	.885	.886	.886
		(AC-FT)	562.	1557.	1557.	1557.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
(AC-FT)	(HR)				
1591.	7.67	1451.	840.	809.	809.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
(FEET)	(HR)				
2499.54	7.67	2498.09	2488.75	2487.75	2487.75

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .64

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	1057.	1235.5	2495.8	1		1640	201	757.	625.7	2487.2
1		0005	2	0.	.0	2461.0	1		0825	102	1055.	1230.4	2495.8	1		1645	202	754.	620.5	2487.2
1		0010	3	0.	.0	2461.0	1		0830	103	1053.	1225.1	2495.7	1		1650	203	751.	615.3	2487.1
1		0015	4	0.	.0	2461.0	1		0835	104	1050.	1219.6	2495.6	1		1655	204	748.	610.2	2487.0
1		0020	5	0.	.0	2461.0	1		0840	105	1048.	1213.9	2495.6	1		1700	205	744.	605.0	2486.9
1		0025	6	0.	.0	2461.0	1		0845	106	1045.	1208.0	2495.5	1		1705	206	740.	599.9	2486.8
1		0030	7	1.	.0	2461.1	1		0850	107	1043.	1201.9	2495.4	1		1710	207	735.	594.9	2486.7
1		0035	8	2.	.0	2461.1	1		0855	108	1040.	1195.7	2495.3	1		1715	208	731.	589.8	2486.6
1		0040	9	3.	.1	2461.3	1		0900	109	1037.	1189.4	2495.3	1		1720	209	727.	584.8	2486.5
1		0045	10	5.	.1	2461.4	1		0905	110	1034.	1183.0	2495.2	1		1725	210	723.	579.8	2486.5
1		0050	11	7.	.2	2461.6	1		0910	111	1032.	1176.6	2495.1	1		1730	211	718.	574.8	2486.4
1		0055	12	9.	.2	2461.7	1		0915	112	1029.	1170.1	2495.0	1		1735	212	714.	569.9	2486.3
1		0100	13	11.	.2	2461.9	1		0920	113	1026.	1163.5	2494.9	1		1740	213	710.	565.0	2486.2
1		0105	14	13.	.3	2462.0	1		0925	114	1023.	1156.9	2494.9	1		1745	214	706.	560.1	2486.1
1		0110	15	15.	.3	2462.2	1		0930	115	1020.	1150.2	2494.8	1		1750	215	702.	555.3	2486.0
1		0115	16	19.	.4	2462.5	1		0935	116	1017.	1143.5	2494.7	1		1755	216	699.	550.4	2485.9
1		0120	17	24.	.5	2462.9	1		0940	117	1014.	1136.8	2494.6	1		1800	217	696.	545.6	2485.8
1		0125	18	30.	.6	2463.4	1		0945	118	1012.	1130.1	2494.5	1		1805	218	692.	540.9	2485.8
1		0130	19	38.	.8	2464.0	1		0950	119	1009.	1123.3	2494.4	1		1810	219	689.	536.1	2485.7
1		0135	20	39.	1.0	2464.1	1		0955	120	1006.	1116.6	2494.4	1		1815	220	686.	531.4	2485.6
1		0140	21	39.	1.4	2464.2	1		1000	121	1003.	1109.8	2494.3	1		1820	221	683.	526.6	2485.5
1		0145	22	41.	1.8	2464.3	1		1005	122	1000.	1103.1	2494.2	1		1825	222	680.	522.0	2485.4
1		0150	23	42.	2.4	2464.5	1		1010	123	997.	1096.3	2494.1	1		1830	223	677.	517.3	2485.3
1		0155	24	44.	3.1	2464.7	1		1015	124	994.	1089.6	2494.0	1		1835	224	674.	512.6	2485.2
1		0200	25	46.	3.9	2465.0	1		1020	125	991.	1082.9	2493.9	1		1840	225	671.	508.0	2485.1
1		0205	26	48.	4.9	2465.3	1		1025	126	988.	1076.1	2493.8	1		1845	226	668.	503.4	2485.1
1		0210	27	51.	6.1	2465.7	1		1030	127	985.	1069.4	2493.8	1		1850	227	665.	498.8	2485.0
1		0215	28	55.	7.5	2466.1	1		1035	128	982.	1062.7	2493.7	1		1855	228	662.	494.2	2484.9
1		0220	29	59.	9.0	2466.6	1		1040	129	979.	1056.0	2493.6	1		1900	229	658.	489.7	2484.8
1		0225	30	63.	10.7	2467.1	1		1045	130	977.	1049.3	2493.5	1		1905	230	655.	485.2	2484.7
1		0230	31	67.	12.5	2467.6	1		1050	131	974.	1042.6	2493.4	1		1910	231	652.	480.7	2484.6
1		0235	32	70.	14.4	2468.1	1		1055	132	971.	1036.0	2493.3	1		1915	232	649.	476.2	2484.5
1		0240	33	71.	16.5	2468.3	1		1100	133	968.	1029.3	2493.3	1		1920	233	645.	471.7	2484.5
1		0245	34	72.	18.8	2468.5	1		1105	134	965.	1022.7	2493.2	1		1925	234	642.	467.3	2484.4
1		0250	35	73.	21.4	2468.8	1		1110	135	962.	1016.1	2493.1	1		1930	235	639.	462.9	2484.3
1		0255	36	74.	24.4	2469.1	1		1115	136	959.	1009.5	2493.0	1		1935	236	636.	458.5	2484.2
1		0300	37	76.	27.8	2469.4	1		1120	137	956.	1002.9	2492.9	1		1940	237	632.	454.1	2484.1

1	0305	38	77.	31.7	2469.8	*	1	1125	138	954.	996.4	2492.9	*	1	1945	238	629.	449.8	2484.
1	0310	39	79.	36.4	2470.3	*	1	1130	139	951.	989.8	2492.8	*	1	1950	239	618.	445.5	2484.0
1	0315	40	81.	42.0	2470.8	*	1	1135	140	948.	983.3	2492.7	*	1	1955	240	602.	441.3	2483.
1	0320	41	84.	48.7	2471.5	*	1	1140	141	945.	976.8	2492.6	*	1	2000	241	585.	437.2	2483.
1	0325	42	87.	56.8	2472.2	*	1	1145	142	942.	970.3	2492.5	*	1	2005	242	570.	433.2	2
1	0330	43	88.	66.7	2472.7	*	1	1150	143	940.	963.8	2492.4	*	1	2010	243	554.	429.3	2
1	0335	44	90.	78.7	2473.3	*	1	1155	144	937.	957.4	2492.4	*	1	2015	244	540.	425.6	2483.
1	0340	45	92.	92.6	2474.0	*	1	1200	145	934.	950.9	2492.3	*	1	2020	245	525.	421.9	2483.
1	0345	46	95.	108.0	2474.7	*	1	1205	146	931.	944.5	2492.2	*	1	2025	246	511.	418.3	2483.4
1	0350	47	98.	124.6	2475.6	*	1	1210	147	928.	938.1	2492.1	*	1	2030	247	497.	414.9	2483.
1	0355	48	100.	142.4	2476.3	*	1	1215	148	926.	931.7	2492.0	*	1	2035	248	484.	411.5	2483.
1	0400	49	102.	161.6	2476.9	*	1	1220	149	923.	925.4	2492.0	*	1	2040	249	471.	408.2	2483.2
1	0405	50	103.	182.0	2477.5	*	1	1225	150	919.	919.1	2491.9	*	1	2045	250	459.	405.0	2483.2
1	0410	51	105.	203.9	2478.2	*	1	1230	151	916.	912.7	2491.8	*	1	2050	251	446.	401.9	2483.1
1	0415	52	108.	227.6	2478.9	*	1	1235	152	912.	906.4	2491.7	*	1	2055	252	434.	398.8	2483.0
1	0420	53	110.	253.4	2479.7	*	1	1240	153	909.	900.2	2491.6	*	1	2100	253	422.	395.9	2483.0
1	0425	54	112.	281.6	2480.4	*	1	1245	154	905.	893.9	2491.5	*	1	2105	254	410.	393.0	2482.9
1	0430	55	130.	312.4	2481.1	*	1	1250	155	902.	887.7	2491.4	*	1	2110	255	398.	390.3	2482.9
1	0435	56	214.	345.6	2481.9	*	1	1255	156	898.	881.5	2491.3	*	1	2115	256	386.	387.6	2482.8
1	0440	57	359.	381.1	2482.7	*	1	1300	157	895.	875.3	2491.2	*	1	2120	257	375.	384.9	2482.7
1	0445	58	511.	418.3	2483.4	*	1	1305	158	891.	869.2	2491.1	*	1	2125	258	364.	382.4	2482.7
1	0450	59	635.	457.2	2484.2	*	1	1310	159	888.	863.1	2491.0	*	1	2130	259	354.	379.9	2482.6
1	0455	60	664.	497.7	2485.0	*	1	1315	160	885.	857.0	2490.9	*	1	2135	260	343.	377.5	2482.6
1	0500	61	692.	539.4	2485.7	*	1	1320	161	881.	850.9	2490.8	*	1	2140	261	333.	375.2	2482.5
1	0505	62	724.	581.5	2486.5	*	1	1325	162	878.	844.8	2490.7	*	1	2145	262	324.	372.9	2482.5
1	0510	63	755.	623.4	2487.2	*	1	1330	163	875.	838.8	2490.6	*	1	2150	263	314.	370.7	2482.4
1	0515	64	778.	664.5	2487.9	*	1	1335	164	871.	832.8	2490.5	*	1	2155	264	305.	368.6	2482.4
1	0520	65	800.	704.5	2488.5	*	1	1340	165	868.	826.8	2490.4	*	1	2200	265	296.	366.5	2482.4
1	0525	66	822.	743.2	2489.1	*	1	1345	166	865.	820.8	2490.3	*	1	2205	266	287.	364.5	2482.3
1	0530	67	842.	780.6	2489.7	*	1	1350	167	861.	814.9	2490.2	*	1	2210	267	279.	362.6	2482.3
1	0535	68	862.	816.8	2490.3	*	1	1355	168	858.	809.0	2490.1	*	1	2215	268	271.	360.7	2
1	0540	69	882.	851.8	2490.8	*	1	1400	169	855.	803.1	2490.0	*	1	2220	269	263.	358.8	2
1	0545	70	901.	885.7	2491.3	*	1	1405	170	852.	797.2	2489.9	*	1	2225	270	255.	357.0	2482.1
1	0550	71	919.	918.6	2491.9	*	1	1410	171	848.	791.3	2489.9	*	1	2230	271	248.	355.3	2482.1
1	0555	72	934.	950.6	2492.3	*	1	1415	172	845.	785.5	2489.8	*	1	2235	272	241.	353.6	2482.1
1	0600	73	947.	981.6	2492.7	*	1	1420	173	842.	779.7	2489.7	*	1	2240	273	234.	352.0	2482.0
1	0605	74	960.	1011.5	2493.0	*	1	1425	174	839.	773.9	2489.6	*	1	2245	274	227.	350.4	2482.0
1	0610	75	973.	1040.0	2493.4	*	1	1430	175	836.	768.2	2489.5	*	1	2250	275	222.	348.9	2482.0
1	0615	76	984.	1067.2	2493.7	*	1	1435	176	832.	762.4	2489.4	*	1	2255	276	218.	347.4	2481.9
1	0620	77	995.	1092.7	2494.1	*	1	1440	177	829.	756.7	2489.3	*	1	2300	277	215.	345.9	2481.9
1	0625	78	1006.	1116.4	2494.3	*	1	1445	178	826.	751.0	2489.2	*	1	2305	278	211.	344.4	2481.9
1	0630	79	1015.	1138.3	2494.6	*	1	1450	179	823.	745.3	2489.1	*	1	2310	279	207.	343.0	2481.8
1	0635	80	1024.	1158.2	2494.9	*	1	1455	180	820.	739.7	2489.0	*	1	2315	280	204.	341.5	2481.8
1	0640	81	1031.	1176.1	2495.1	*	1	1500	181	817.	734.0	2488.9	*	1	2320	281	200.	340.2	2481.8
1	0645	82	1038.	1192.1	2495.3	*	1	1505	182	814.	728.4	2488.9	*	1	2325	282	197.	338.8	2481.7
1	0650	83	1044.	1206.1	2495.5	*	1	1510	183	810.	722.8	2488.8	*	1	2330	283	193.	337.4	2481.7
1	0655	84	1050.	1218.3	2495.6	*	1	1515	184	807.	717.2	2488.7	*	1	2335	284	190.	336.1	2481.7
1	0700	85	1054.	1228.6	2495.7	*	1	1520	185	804.	711.7	2488.6	*	1	2340	285	187.	334.8	2481.7
1	0705	86	1058.	1237.4	2495.9	*	1	1525	186	801.	706.2	2488.5	*	1	2345	286	184.	333.6	2481.6
1	0710	87	1061.	1244.5	2495.9	*	1	1530	187	798.	700.7	2488.4	*	1	2350	287	180.	332.3	2481.6
1	0715	88	1063.	1250.1	2496.0	*	1	1535	188	795.	695.2	2488.3	*	1	2355	288	177.	331.1	2481.6
1	0720	89	1065.	1254.4	2496.1	*	1	1540	189	792.	689.7	2488.3	*	2	0000	289	174.	329.9	2481.5
1	0725	90	1066.	1257.4	2496.1	*	1	1545	190	789.	684.3	2488.2	*	2	0005	290	171.	328.7	2481.5
1	0730	91	1067.	1259.3	2496.1	*	1	1550	191	786.	678.8	2488.1	*	2	0010	291	168.	327.5	2481.5
1	0735	92	1067.	1260.1	2496.1	*	1	1555	192	783.	673.4	2488.0	*	2	0015	292	165.	326.3	2481.5
1	0740	93	1067.	1260.0	2496.1	*	1	1600	193	780.	668.1	2487.9	*	2	0020	293	162.	325.2	2
1	0745	94	1066.	1259.1	2496.1	*	1	1605	194	777.	662.7	2487.8	*	2	0025	294	160.	324.1	2
1	0750	95	1066.	1257.4	2496.1	*	1	1610	195	774.	657.4	2487.7	*	2	0030	295	157.	323.0	2
1	0755	96	1065.	1255.0	2496.1	*	1	1615	196	771.	652.0	2487.7	*	2	0035	296	154.	321.9	2481.
1	0800	97	1064.	1252.0	2496.0	*	1	1620	197	768.	646.7	2487.6	*	2	0040	297	152.	320.9	2481.3

1	0805	98	1063.	1248.5	2496.0	*	1	1625	198	765.	641.4	2487.5	*	2	0045	298	149.	319.9	2481.3
1	0810	99	1061.	1244.6	2495.9	*	1	1630	199	762.	636.2	2487.4	*	2	0050	299	146.	318.8	2481.3
1	0815	100	1059.	1240.2	2495.9	*	1	1635	200	760.	630.9	2487.3	*	2	0055	300	144.	317.8	2481.3

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
	(CFS)				
1067.	7.58	1014.	627.	604.	604.
	(INCHES)	.286	.708	.708	.708
	(AC-FT)	503.	1244.	1244.	1244.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
(AC-FT)	(HR)				
1260.	7.58	1136.	633.	610.	610.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
(FEET)	(HR)				
2496.12	7.58	2494.59	2485.63	2484.73	2484.73

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .63

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	*	1		0820	101	1044.	1205.8	2495.5	*	1		1640	201	743.	604.5	2486.9
1		0005	2	0.	.0	2461.0	*	1		0825	102	1042.	1200.9	2495.4	*	1		1645	202	739.	599.4	2486.8
1		0010	3	0.	.0	2461.0	*	1		0830	103	1040.	1195.6	2495.3	*	1		1650	203	735.	594.3	2486.7
1		0015	4	0.	.0	2461.0	*	1		0835	104	1038.	1190.1	2495.3	*	1		1655	204	731.	589.3	2486.6
1		0020	5	0.	.0	2461.0	*	1		0840	105	1035.	1184.4	2495.2	*	1		1700	205	726.	584.2	2486.5
1		0025	6	0.	.0	2461.0	*	1		0845	106	1033.	1178.6	2495.1	*	1		1705	206	722.	579.3	2486.5
1		0030	7	1.	.0	2461.0	*	1		0850	107	1030.	1172.6	2495.0	*	1		1710	207	718.	574.3	2486.4
1		0035	8	2.	.0	2461.1	*	1		0855	108	1027.	1166.5	2495.0	*	1		1715	208	714.	569.4	2486.3
1		0040	9	3.	.1	2461.3	*	1		0900	109	1025.	1160.3	2494.9	*	1		1720	209	710.	564.5	2486.2
1		0045	10	5.	.1	2461.4	*	1		0905	110	1022.	1154.0	2494.8	*	1		1725	210	706.	559.6	2486.1
1		0050	11	7.	.1	2461.5	*	1		0910	111	1019.	1147.6	2494.7	*	1		1730	211	702.	554.7	2486.0
1		0055	12	8.	.2	2461.7	*	1		0915	112	1016.	1141.1	2494.7	*	1		1735	212	698.	549.9	2485.9
1		0100	13	10.	.2	2461.8	*	1		0920	113	1013.	1134.6	2494.6	*	1		1740	213	695.	545.1	2485.8
1		0105	14	12.	.2	2461.9	*	1		0925	114	1011.	1128.1	2494.5	*	1		1745	214	692.	540.3	2485.7
1		0110	15	14.	.3	2462.1	*	1		0930	115	1008.	1121.5	2494.4	*	1		1750	215	689.	535.6	2485.7
1		0115	16	17.	.4	2462.3	*	1		0935	116	1005.	1114.9	2494.3	*	1		1755	216	686.	530.9	2485.6
1		0120	17	22.	.5	2462.7	*	1		0940	117	1002.	1108.3	2494.2	*	1		1800	217	683.	526.1	2485.5
1		0125	18	28.	.6	2463.2	*	1		0945	118	999.	1101.6	2494.2	*	1		1805	218	680.	521.5	2485.4
1		0130	19	35.	.7	2463.8	*	1		0950	119	996.	1095.0	2494.1	*	1		1810	219	677.	516.8	2485.3
1		0135	20	38.	.9	2464.0	*	1		0955	120	993.	1088.3	2494.0	*	1		1815	220	674.	512.1	2485.2
1		0140	21	39.	1.2	2464.1	*	1		1000	121	991.	1081.7	2493.9	*	1		1820	221	671.	507.5	2485.1
1		0145	22	40.	1.6	2464.3	*	1		1005	122	988.	1075.0	2493.8	*	1		1825	222	668.	502.9	2485.1
1		0150	23	41.	2.2	2464.4	*	1		1010	123	985.	1068.3	2493.7	*	1		1830	223	665.	498.3	2485.0
1		0155	24	43.	2.8	2464.6	*	1		1015	124	982.	1061.7	2493.7	*	1		1835	224	661.	493.7	2484.9

1	0200	25	45.	3.6	2464.9	*	1	1020	125	979.	1055.0	2493.6	*	1	1840	225	658.	489.2	2484.8
1	0205	26	47.	4.5	2465.2	*	1	1025	126	976.	1048.3	2493.5	*	1	1845	226	655.	484.7	2484.7
1	0210	27	50.	5.7	2465.5	*	1	1030	127	973.	1041.7	2493.4	*	1	1850	227	652.	480.2	2484.6
1	0215	28	53.	7.0	2465.9	*	1	1035	128	970.	1035.1	2493.3	*	1	1855	228	648.	475.7	2484.5
1	0220	29	57.	8.4	2466.4	*	1	1040	129	968.	1028.5	2493.3	*	1	1900	229	645.	471.2	2[illegible]
1	0225	30	61.	10.0	2466.9	*	1	1045	130	965.	1021.9	2493.2	*	1	1905	230	642.	466.8	2[illegible]
1	0230	31	65.	11.7	2467.4	*	1	1050	131	962.	1015.3	2493.1	*	1	1910	231	639.	462.4	2484.3
1	0235	32	70.	13.5	2468.0	*	1	1055	132	959.	1008.7	2493.0	*	1	1915	232	635.	458.0	2484.2
1	0240	33	71.	15.6	2468.2	*	1	1100	133	956.	1002.1	2492.9	*	1	1920	233	632.	453.6	2484.1
1	0245	34	72.	17.8	2468.4	*	1	1105	134	953.	995.6	2492.8	*	1	1925	234	629.	449.3	2484.0
1	0250	35	73.	20.2	2468.7	*	1	1110	135	950.	989.1	2492.8	*	1	1930	235	616.	445.0	2483.9
1	0255	36	74.	23.0	2468.9	*	1	1115	136	948.	982.5	2492.7	*	1	1935	236	600.	440.8	2483.9
1	0300	37	75.	26.3	2469.3	*	1	1120	137	945.	976.0	2492.6	*	1	1940	237	584.	436.8	2483.8
1	0305	38	77.	30.0	2469.6	*	1	1125	138	942.	969.6	2492.5	*	1	1945	238	568.	432.8	2483.7
1	0310	39	78.	34.5	2470.1	*	1	1130	139	939.	963.1	2492.4	*	1	1950	239	553.	428.9	2483.6
1	0315	40	81.	39.9	2470.6	*	1	1135	140	936.	956.6	2492.4	*	1	1955	240	538.	425.2	2483.6
1	0320	41	83.	46.4	2471.3	*	1	1140	141	934.	950.2	2492.3	*	1	2000	241	524.	421.5	2483.5
1	0325	42	86.	54.2	2472.0	*	1	1145	142	931.	943.8	2492.2	*	1	2005	242	510.	418.0	2483.4
1	0330	43	88.	63.8	2472.5	*	1	1150	143	928.	937.4	2492.1	*	1	2010	243	496.	414.5	2483.3
1	0335	44	90.	75.4	2473.1	*	1	1155	144	925.	931.0	2492.0	*	1	2015	244	483.	411.1	2483.3
1	0340	45	92.	88.9	2473.8	*	1	1200	145	922.	924.7	2491.9	*	1	2020	245	470.	407.8	2483.2
1	0345	46	94.	103.9	2474.5	*	1	1205	146	919.	918.4	2491.8	*	1	2025	246	457.	404.7	2483.2
1	0350	47	97.	120.0	2475.3	*	1	1210	147	915.	912.0	2491.7	*	1	2030	247	445.	401.5	2483.1
1	0355	48	99.	137.4	2476.1	*	1	1215	148	912.	905.8	2491.7	*	1	2035	248	433.	398.5	2483.0
1	0400	49	101.	156.1	2476.7	*	1	1220	149	908.	899.5	2491.6	*	1	2040	249	421.	395.6	2483.0
1	0405	50	103.	176.0	2477.3	*	1	1225	150	905.	893.3	2491.5	*	1	2045	250	409.	392.7	2482.9
1	0410	51	105.	197.3	2478.0	*	1	1230	151	901.	887.0	2491.4	*	1	2050	251	397.	390.0	2482.9
1	0415	52	107.	220.4	2478.7	*	1	1235	152	898.	880.8	2491.3	*	1	2055	252	385.	387.3	2482.8
1	0420	53	109.	245.6	2479.4	*	1	1240	153	894.	874.7	2491.2	*	1	2100	253	374.	384.7	2482.7
1	0425	54	112.	273.1	2480.2	*	1	1245	154	891.	868.5	2491.1	*	1	2105	254	363.	382.1	2482.7
1	0430	55	114.	303.2	2480.9	*	1	1250	155	888.	862.4	2491.0	*	1	2110	255	352.	379.6	2[illegible]
1	0435	56	189.	335.8	2481.7	*	1	1255	156	884.	856.3	2490.9	*	1	2115	256	342.	377.3	248[illegible]
1	0440	57	314.	370.6	2482.4	*	1	1300	157	881.	850.2	2490.8	*	1	2120	257	332.	374.9	2482.5
1	0445	58	468.	407.3	2483.2	*	1	1305	158	878.	844.2	2490.7	*	1	2125	258	322.	372.7	2482.5
1	0450	59	618.	445.4	2483.9	*	1	1310	159	874.	838.1	2490.6	*	1	2130	259	313.	370.5	2482.4
1	0455	60	655.	485.0	2484.7	*	1	1315	160	871.	832.1	2490.5	*	1	2135	260	304.	368.4	2482.4
1	0500	61	683.	525.7	2485.5	*	1	1320	161	868.	826.2	2490.4	*	1	2140	261	295.	366.3	2482.3
1	0505	62	712.	566.9	2486.2	*	1	1325	162	864.	820.2	2490.3	*	1	2145	262	286.	364.3	2482.3
1	0510	63	746.	607.8	2487.0	*	1	1330	163	861.	814.2	2490.2	*	1	2150	263	278.	362.4	2482.3
1	0515	64	769.	648.0	2487.6	*	1	1335	164	858.	808.3	2490.1	*	1	2155	264	270.	360.5	2482.2
1	0520	65	791.	687.1	2488.2	*	1	1340	165	855.	802.4	2490.0	*	1	2200	265	262.	358.6	2482.2
1	0525	66	812.	725.0	2488.8	*	1	1345	166	851.	796.6	2489.9	*	1	2205	266	254.	356.9	2482.1
1	0530	67	832.	761.6	2489.4	*	1	1350	167	848.	790.7	2489.8	*	1	2210	267	247.	355.1	2482.1
1	0535	68	851.	796.9	2489.9	*	1	1355	168	845.	784.9	2489.7	*	1	2215	268	240.	353.5	2482.1
1	0540	69	870.	831.1	2490.5	*	1	1400	169	842.	779.1	2489.7	*	1	2220	269	233.	351.8	2482.0
1	0545	70	889.	864.3	2491.0	*	1	1405	170	838.	773.3	2489.6	*	1	2225	270	226.	350.2	2482.0
1	0550	71	907.	896.6	2491.5	*	1	1410	171	835.	767.5	2489.5	*	1	2230	271	222.	348.7	2482.0
1	0555	72	924.	927.9	2492.0	*	1	1415	172	832.	761.8	2489.4	*	1	2235	272	218.	347.2	2481.9
1	0600	73	937.	958.2	2492.4	*	1	1420	173	829.	756.1	2489.3	*	1	2240	273	214.	345.7	2481.9
1	0605	74	950.	987.4	2492.7	*	1	1425	174	826.	750.4	2489.2	*	1	2245	274	210.	344.2	2481.9
1	0610	75	962.	1015.4	2493.1	*	1	1430	175	823.	744.7	2489.1	*	1	2250	275	207.	342.8	2481.8
1	0615	76	973.	1041.9	2493.4	*	1	1435	176	819.	739.0	2489.0	*	1	2255	276	203.	341.4	2481.8
1	0620	77	984.	1066.9	2493.7	*	1	1440	177	816.	733.4	2488.9	*	1	2300	277	200.	340.0	2481.8
1	0625	78	994.	1090.1	2494.0	*	1	1445	178	813.	727.8	2488.9	*	1	2305	278	196.	338.6	2481.7
1	0630	79	1003.	1111.5	2494.3	*	1	1450	179	810.	722.2	2488.8	*	1	2310	279	193.	337.3	2481.7
1	0635	80	1012.	1131.0	2494.5	*	1	1455	180	807.	716.6	2488.7	*	1	2315	280	190.	336.0	2[illegible]
1	0640	81	1019.	1148.5	2494.7	*	1	1500	181	804.	711.1	2488.6	*	1	2320	281	186.	334.7	2[illegible]
1	0645	82	1026.	1164.1	2494.9	*	1	1505	182	801.	705.6	2488.5	*	1	2325	282	183.	333.4	2481.6
1	0650	83	1032.	1177.9	2495.1	*	1	1510	183	798.	700.1	2488.4	*	1	2330	283	180.	332.2	2481.6
1	0655	84	1037.	1189.8	2495.3	*	1	1515	184	795.	694.6	2488.3	*	1	2335	284	177.	330.9	2481.6

1	0700	85	1042.	1199.9	2495.4	*	1	1520	185	792.	689.1	2488.2	*	1	2340	285	174.	329.7	2481.5
1	0705	86	1045.	1208.4	2495.5	*	1	1525	186	789.	683.7	2488.2	*	1	2345	286	171.	328.5	2481.5
1	0710	87	1048.	1215.3	2495.6	*	1	1530	187	786.	678.3	2488.1	*	1	2350	287	168.	327.4	2481.5
1	0715	88	1051.	1220.8	2495.6	*	1	1535	188	783.	672.9	2488.0	*	1	2355	288	165.	326.2	2481.5
1	0720	89	1053.	1225.0	2495.7	*	1	1540	189	780.	667.5	2487.9	*	2	0000	289	162.	325.1	2481.4
1	0725	90	1054.	1227.9	2495.7	*	1	1545	190	777.	662.1	2487.8	*	2	0005	290	159.	324.0	2481.4
1	0730	91	1055.	1229.7	2495.8	*	1	1550	191	774.	656.8	2487.7	*	2	0010	291	157.	322.9	2481.4
1	0735	92	1055.	1230.5	2495.8	*	1	1555	192	771.	651.5	2487.7	*	2	0015	292	154.	321.8	2481.4
1	0740	93	1055.	1230.3	2495.8	*	1	1600	193	768.	646.2	2487.6	*	2	0020	293	151.	320.8	2481.3
1	0745	94	1054.	1229.3	2495.8	*	1	1605	194	765.	640.9	2487.5	*	2	0025	294	149.	319.8	2481.3
1	0750	95	1054.	1227.6	2495.7	*	1	1610	195	762.	635.6	2487.4	*	2	0030	295	146.	318.7	2481.3
1	0755	96	1053.	1225.2	2495.7	*	1	1615	196	759.	630.4	2487.3	*	2	0035	296	144.	317.7	2481.3
1	0800	97	1051.	1222.3	2495.7	*	1	1620	197	756.	625.2	2487.2	*	2	0040	297	141.	316.8	2481.2
1	0805	98	1050.	1218.8	2495.6	*	1	1625	198	754.	620.0	2487.2	*	2	0045	298	139.	315.8	2481.2
1	0810	99	1048.	1214.9	2495.6	*	1	1630	199	751.	614.8	2487.1	*	2	0050	299	136.	314.8	2481.2
1	0815	100	1046.	1210.5	2495.5	*	1	1635	200	748.	609.6	2487.0	*	2	0055	300	134.	313.9	2481.2
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1055.	7.58		1002.	612.	589.	589.
		(INCHES)	.283	.690	.690	.690
		(AC-FT)	497.	1213.	1214.	1214.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1230.	7.58	1108.	616.	594.	594.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2495.77	7.58	2494.24	2485.35	2484.46	2484.46

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .54

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
							*								*							
1		0000	1	0.	.0	2461.0	*	1		0820	101	907.	897.4	2491.5	*	1		1640	201	444.	401.4	2483.1
1		0005	2	0.	.0	2461.0	*	1		0825	102	905.	892.9	2491.4	*	1		1645	202	433.	398.4	2483.0
1		0010	3	0.	.0	2461.0	*	1		0830	103	902.	888.2	2491.4	*	1		1650	203	420.	395.5	2483.0
1		0015	4	0.	.0	2461.0	*	1		0835	104	899.	883.4	2491.3	*	1		1655	204	408.	392.6	2482.9
1		0020	5	0.	.0	2461.0	*	1		0840	105	897.	878.4	2491.2	*	1		1700	205	396.	389.9	2482.8
1		0025	6	0.	.0	2461.0	*	1		0845	106	894.	873.3	2491.1	*	1		1705	206	385.	387.2	2482.8
1		0030	7	0.	.0	2461.0	*	1		0850	107	891.	868.0	2491.1	*	1		1710	207	374.	384.6	2482.7
1		0035	8	1.	.0	2461.0	*	1		0855	108	888.	862.7	2491.0	*	1		1715	208	363.	382.0	2482.7
1		0040	9	1.	.0	2461.1	*	1		0900	109	885.	857.3	2490.9	*	1		1720	209	352.	379.6	2482.6
1		0045	10	2.	.0	2461.1	*	1		0905	110	882.	851.8	2490.8	*	1		1725	210	342.	377.2	2482.6
1		0050	11	3.	.1	2461.2	*	1		0910	111	879.	846.2	2490.7	*	1		1730	211	332.	374.8	2482.5

1	0055	12	3.	.1	2461.3	*	1	0915	112	876.	840.7	2490.6	*	1	1735	212	322.	372.6	2482.5
1	0100	13	4.	.1	2461.3	*	1	0920	113	873.	835.0	2490.5	*	1	1740	213	313.	370.4	2482.4
1	0105	14	5.	.1	2461.4	*	1	0925	114	869.	829.4	2490.4	*	1	1745	214	304.	368.3	2482.4
1	0110	15	5.	.1	2461.4	*	1	0930	115	866.	823.7	2490.4	*	1	1750	215	295.	366.2	2482.3
1	0115	16	6.	.1	2461.5	*	1	0935	116	863.	818.0	2490.3	*	1	1755	216	286.	364.2	24
1	0120	17	7.	.1	2461.5	*	1	0940	117	860.	812.3	2490.2	*	1	1800	217	278.	362.3	24
1	0125	18	9.	.2	2461.7	*	1	0945	118	857.	806.6	2490.1	*	1	1805	218	270.	360.4	2482.2
1	0130	19	11.	.2	2461.9	*	1	0950	119	854.	800.9	2490.0	*	1	1810	219	262.	358.6	2482.2
1	0135	20	15.	.3	2462.2	*	1	0955	120	851.	795.2	2489.9	*	1	1815	220	254.	356.8	2482.1
1	0140	21	21.	.4	2462.6	*	1	1000	121	847.	789.5	2489.8	*	1	1820	221	247.	355.1	2482.1
1	0145	22	27.	.6	2463.1	*	1	1005	122	844.	783.8	2489.7	*	1	1825	222	240.	353.4	2482.1
1	0150	23	35.	.7	2463.7	*	1	1010	123	841.	778.1	2489.6	*	1	1830	223	233.	351.8	2482.0
1	0155	24	38.	.9	2464.0	*	1	1015	124	838.	772.4	2489.6	*	1	1835	224	226.	350.2	2482.0
1	0200	25	39.	1.2	2464.1	*	1	1020	125	835.	766.7	2489.5	*	1	1840	225	222.	348.6	2482.0
1	0205	26	40.	1.6	2464.2	*	1	1025	126	832.	761.1	2489.4	*	1	1845	226	218.	347.1	2481.9
1	0210	27	41.	2.1	2464.4	*	1	1030	127	828.	755.4	2489.3	*	1	1850	227	214.	345.6	2481.9
1	0215	28	43.	2.7	2464.6	*	1	1035	128	825.	749.8	2489.2	*	1	1855	228	210.	344.2	2481.9
1	0220	29	45.	3.4	2464.8	*	1	1040	129	822.	744.1	2489.1	*	1	1900	229	207.	342.8	2481.8
1	0225	30	47.	4.2	2465.1	*	1	1045	130	819.	738.5	2489.0	*	1	1905	230	203.	341.3	2481.8
1	0230	31	49.	5.1	2465.4	*	1	1050	131	816.	732.9	2488.9	*	1	1910	231	200.	340.0	2481.8
1	0235	32	51.	6.1	2465.7	*	1	1055	132	813.	727.4	2488.8	*	1	1915	232	196.	338.6	2481.7
1	0240	33	54.	7.2	2466.0	*	1	1100	133	810.	721.8	2488.8	*	1	1920	233	193.	337.3	2481.7
1	0245	34	57.	8.4	2466.4	*	1	1105	134	807.	716.2	2488.7	*	1	1925	234	190.	335.9	2481.7
1	0250	35	60.	9.7	2466.8	*	1	1110	135	804.	710.7	2488.6	*	1	1930	235	186.	334.6	2481.7
1	0255	36	64.	11.2	2467.3	*	1	1115	136	801.	705.2	2488.5	*	1	1935	236	183.	333.4	2481.6
1	0300	37	68.	13.0	2467.8	*	1	1120	137	798.	699.7	2488.4	*	1	1940	237	180.	332.1	2481.6
1	0305	38	71.	15.0	2468.1	*	1	1125	138	795.	694.3	2488.3	*	1	1945	238	177.	330.9	2481.6
1	0310	39	72.	17.6	2468.4	*	1	1130	139	792.	688.8	2488.2	*	1	1950	239	174.	329.7	2481.5
1	0315	40	73.	20.8	2468.7	*	1	1135	140	789.	683.4	2488.2	*	1	1955	240	171.	328.5	2481.5
1	0320	41	74.	24.8	2469.1	*	1	1140	141	786.	678.0	2488.1	*	1	2000	241	168.	327.3	2481.5
1	0325	42	76.	29.8	2469.6	*	1	1145	142	783.	672.6	2488.0	*	1	2005	242	165.	326.2	24
1	0330	43	79.	36.1	2470.3	*	1	1150	143	780.	667.2	2487.9	*	1	2010	243	162.	325.1	24
1	0335	44	82.	44.0	2471.1	*	1	1155	144	777.	661.8	2487.8	*	1	2015	244	159.	324.0	2481.4
1	0340	45	86.	53.5	2472.0	*	1	1200	145	774.	656.5	2487.7	*	1	2020	245	157.	322.9	2481.4
1	0345	46	88.	64.0	2472.5	*	1	1205	146	771.	651.2	2487.6	*	1	2025	246	154.	321.8	2481.4
1	0350	47	90.	75.5	2473.1	*	1	1210	147	768.	645.9	2487.6	*	1	2030	247	151.	320.7	2481.3
1	0355	48	92.	88.1	2473.7	*	1	1215	148	765.	640.6	2487.5	*	1	2035	248	149.	319.7	2481.3
1	0400	49	94.	101.6	2474.4	*	1	1220	149	762.	635.4	2487.4	*	1	2040	249	146.	318.7	2481.3
1	0405	50	96.	116.1	2475.2	*	1	1225	150	759.	630.1	2487.3	*	1	2045	250	144.	317.7	2481.3
1	0410	51	99.	131.8	2475.9	*	1	1230	151	756.	624.9	2487.2	*	1	2050	251	141.	316.7	2481.2
1	0415	52	100.	148.7	2476.5	*	1	1235	152	753.	619.7	2487.2	*	1	2055	252	139.	315.8	2481.2
1	0420	53	102.	167.2	2477.0	*	1	1240	153	751.	614.6	2487.1	*	1	2100	253	136.	314.8	2481.2
1	0425	54	104.	187.5	2477.7	*	1	1245	154	747.	609.4	2487.0	*	1	2105	254	134.	313.9	2481.2
1	0430	55	106.	209.8	2478.3	*	1	1250	155	743.	604.3	2486.9	*	1	2110	255	132.	313.0	2481.2
1	0435	56	108.	234.2	2479.1	*	1	1255	156	739.	599.2	2486.8	*	1	2115	256	129.	312.1	2481.1
1	0440	57	111.	260.9	2479.9	*	1	1300	157	735.	594.1	2486.7	*	1	2120	257	127.	311.2	2481.1
1	0445	58	113.	289.7	2480.6	*	1	1305	158	730.	589.1	2486.6	*	1	2125	258	125.	310.3	2481.1
1	0450	59	150.	320.5	2481.3	*	1	1310	159	726.	584.0	2486.5	*	1	2130	259	123.	309.5	2481.1
1	0455	60	236.	352.5	2482.1	*	1	1315	160	722.	579.1	2486.4	*	1	2135	260	121.	308.6	2481.1
1	0500	61	375.	384.9	2482.7	*	1	1320	161	718.	574.1	2486.4	*	1	2140	261	119.	307.8	2481.0
1	0505	62	506.	417.0	2483.4	*	1	1325	162	714.	569.2	2486.3	*	1	2145	262	117.	307.0	2481.0
1	0510	63	628.	448.3	2484.0	*	1	1330	163	710.	564.3	2486.2	*	1	2150	263	115.	306.2	2481.0
1	0515	64	650.	478.7	2484.6	*	1	1335	164	706.	559.4	2486.1	*	1	2155	264	114.	305.4	2481.0
1	0520	65	671.	508.5	2485.2	*	1	1340	165	701.	554.5	2486.0	*	1	2200	265	114.	304.6	2481.0
1	0525	66	690.	537.3	2485.7	*	1	1345	166	698.	549.7	2485.9	*	1	2205	266	114.	303.8	2480.9
1	0530	67	710.	565.1	2486.2	*	1	1350	167	695.	544.9	2485.8	*	1	2210	267	114.	303.1	24
1	0535	68	733.	592.1	2486.7	*	1	1355	168	692.	540.2	2485.7	*	1	2215	268	114.	302.3	2
1	0540	69	753.	618.2	2487.1	*	1	1400	169	689.	535.4	2485.7	*	1	2220	269	114.	301.5	24
1	0545	70	767.	643.6	2487.5	*	1	1405	170	686.	530.7	2485.6	*	1	2225	270	114.	300.7	2480.9
1	0550	71	780.	668.3	2487.9	*	1	1410	171	683.	526.0	2485.5	*	1	2230	271	114.	299.9	2480.9

1	0555	72	794.	692.3	2488.3	*	1	1415	172	680.	521.3	2485.4	*	1	2235	272	114.	299.1	2480.8
1	0600	73	806.	715.6	2488.7	*	1	1420	173	677.	516.6	2485.3	*	1	2240	273	113.	298.4	2480.8
1	0605	74	819.	738.1	2489.0	*	1	1425	174	674.	511.9	2485.2	*	1	2245	274	113.	297.6	2480.8
1	0610	75	831.	759.7	2489.4	*	1	1430	175	671.	507.3	2485.1	*	1	2250	275	113.	296.8	2480.8
1	0615	76	842.	780.2	2489.7	*	1	1435	176	668.	502.7	2485.1	*	1	2255	276	113.	296.0	2480.8
1	0620	77	853.	799.4	2490.0	*	1	1440	177	665.	498.1	2485.0	*	1	2300	277	113.	295.2	2480.7
1	0625	78	863.	817.3	2490.3	*	1	1445	178	661.	493.6	2484.9	*	1	2305	278	113.	294.5	2480.7
1	0630	79	872.	833.7	2490.5	*	1	1450	179	658.	489.0	2484.8	*	1	2310	279	113.	293.7	2480.7
1	0635	80	880.	848.6	2490.8	*	1	1455	180	655.	484.5	2484.7	*	1	2315	280	113.	292.9	2480.7
1	0640	81	887.	862.0	2491.0	*	1	1500	181	651.	480.0	2484.6	*	1	2320	281	113.	292.1	2480.7
1	0645	82	894.	873.9	2491.1	*	1	1505	182	648.	475.5	2484.5	*	1	2325	282	113.	291.4	2480.7
1	0650	83	900.	884.3	2491.3	*	1	1510	183	645.	471.1	2484.4	*	1	2330	283	113.	290.6	2480.6
1	0655	84	905.	893.2	2491.5	*	1	1515	184	642.	466.6	2484.4	*	1	2335	284	113.	289.8	2480.6
1	0700	85	909.	900.8	2491.6	*	1	1520	185	638.	462.2	2484.3	*	1	2340	285	113.	289.0	2480.6
1	0705	86	912.	907.0	2491.7	*	1	1525	186	635.	457.8	2484.2	*	1	2345	286	113.	288.2	2480.6
1	0710	87	915.	912.0	2491.7	*	1	1530	187	632.	453.5	2484.1	*	1	2350	287	113.	287.5	2480.6
1	0715	88	917.	915.9	2491.8	*	1	1535	188	629.	449.1	2484.0	*	1	2355	288	113.	286.7	2480.5
1	0720	89	919.	918.7	2491.9	*	1	1540	189	616.	444.9	2483.9	*	2	0000	289	113.	285.9	2480.5
1	0725	90	920.	920.5	2491.9	*	1	1545	190	599.	440.7	2483.9	*	2	0005	290	113.	285.1	2480.5
1	0730	91	920.	921.4	2491.9	*	1	1550	191	583.	436.6	2483.8	*	2	0010	291	112.	284.4	2480.5
1	0735	92	920.	921.5	2491.9	*	1	1555	192	567.	432.6	2483.7	*	2	0015	292	112.	283.6	2480.5
1	0740	93	920.	920.9	2491.9	*	1	1600	193	552.	428.8	2483.6	*	2	0020	293	112.	282.8	2480.4
1	0745	94	919.	919.6	2491.9	*	1	1605	194	537.	425.0	2483.5	*	2	0025	294	112.	282.0	2480.4
1	0750	95	918.	917.7	2491.8	*	1	1610	195	523.	421.4	2483.5	*	2	0030	295	112.	281.3	2480.4
1	0755	96	917.	915.3	2491.8	*	1	1615	196	509.	417.8	2483.4	*	2	0035	296	112.	280.5	2480.4
1	0800	97	915.	912.5	2491.8	*	1	1620	197	495.	414.4	2483.3	*	2	0040	297	112.	279.7	2480.4
1	0805	98	914.	909.2	2491.7	*	1	1625	198	482.	411.0	2483.3	*	2	0045	298	112.	279.0	2480.4
1	0810	99	912.	905.5	2491.6	*	1	1630	199	469.	407.7	2483.2	*	2	0050	299	112.	278.2	2480.3
1	0815	100	909.	901.6	2491.6	*	1	1635	200	457.	404.5	2483.1	*	2	0055	300	112.	277.4	2480.3
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 920.	7.58		863.	447.	431.	431.
		(INCHES)	.243	.504	.504	.504
		(AC-FT)	428.	887.	887.	887.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
922.	7.58	817.	451.	435.	435.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2491.90	7.58	2490.25	2482.47	2481.68	2481.68

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .53

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0 *	1		0820	101	894.	874.1	2491.2 *	1		1640	201	399.	390.5	2482.9
1		0005	2	0.	.0	2461.0 *	1		0825	102	892.	869.7	2491.1 *	1		1645	202	387.	387.8	2482.8
1		0010	3	0.	.0	2461.0 *	1		0830	103	889.	865.0	2491.0 *	1		1650	203	376.	385.2	2
1		0015	4	0.	.0	2461.0 *	1		0835	104	887.	860.3	2490.9 *	1		1655	204	365.	382.6	2
1		0020	5	0.	.0	2461.0 *	1		0840	105	884.	855.3	2490.9 *	1		1700	205	354.	380.1	2482.6
1		0025	6	0.	.0	2461.0 *	1		0845	106	881.	850.3	2490.8 *	1		1705	206	344.	377.7	2482.6
1		0030	7	0.	.0	2461.0 *	1		0850	107	878.	845.1	2490.7 *	1		1710	207	334.	375.4	2482.5
1		0035	8	1.	.0	2461.0 *	1		0855	108	875.	839.8	2490.6 *	1		1715	208	324.	373.1	2482.5
1		0040	9	1.	.0	2461.1 *	1		0900	109	872.	834.5	2490.5 *	1		1720	209	315.	370.9	2482.4
1		0045	10	2.	.0	2461.1 *	1		0905	110	869.	829.1	2490.4 *	1		1725	210	306.	368.8	2482.4
1		0050	11	2.	.1	2461.2 *	1		0910	111	866.	823.6	2490.4 *	1		1730	211	297.	366.7	2482.4
1		0055	12	3.	.1	2461.2 *	1		0915	112	863.	818.1	2490.3 *	1		1735	212	288.	364.7	2482.3
1		0100	13	4.	.1	2461.3 *	1		0920	113	860.	812.6	2490.2 *	1		1740	213	280.	362.7	2482.3
1		0105	14	4.	.1	2461.3 *	1		0925	114	857.	807.0	2490.1 *	1		1745	214	272.	360.8	2482.2
1		0110	15	5.	.1	2461.4 *	1		0930	115	854.	801.4	2490.0 *	1		1750	215	264.	359.0	2482.2
1		0115	16	5.	.1	2461.4 *	1		0935	116	851.	795.8	2489.9 *	1		1755	216	256.	357.2	2482.2
1		0120	17	6.	.1	2461.5 *	1		0940	117	848.	790.2	2489.8 *	1		1800	217	248.	355.5	2482.1
1		0125	18	8.	.2	2461.6 *	1		0945	118	845.	784.6	2489.7 *	1		1805	218	241.	353.8	2482.1
1		0130	19	10.	.2	2461.8 *	1		0950	119	841.	778.9	2489.7 *	1		1810	219	234.	352.1	2482.0
1		0135	20	14.	.3	2462.1 *	1		0955	120	838.	773.3	2489.6 *	1		1815	220	227.	350.6	2482.0
1		0140	21	19.	.4	2462.5 *	1		1000	121	835.	767.7	2489.5 *	1		1820	221	222.	349.0	2482.0
1		0145	22	25.	.5	2462.9 *	1		1005	122	832.	762.0	2489.4 *	1		1825	222	219.	347.5	2481.9
1		0150	23	32.	.7	2463.5 *	1		1010	123	829.	756.4	2489.3 *	1		1830	223	215.	346.0	2481.9
1		0155	24	38.	.8	2464.0 *	1		1015	124	826.	750.8	2489.2 *	1		1835	224	211.	344.5	2481.9
1		0200	25	39.	1.1	2464.1 *	1		1020	125	823.	745.2	2489.1 *	1		1840	225	208.	343.1	2481.8
1		0205	26	40.	1.4	2464.2 *	1		1025	126	820.	739.6	2489.0 *	1		1845	226	204.	341.7	2481.8
1		0210	27	41.	1.9	2464.3 *	1		1030	127	817.	734.1	2489.0 *	1		1850	227	200.	340.3	2481.8
1		0215	28	42.	2.5	2464.5 *	1		1035	128	814.	728.5	2488.9 *	1		1855	228	197.	338.9	2481.7
1		0220	29	44.	3.1	2464.7 *	1		1040	129	811.	722.9	2488.8 *	1		1900	229	194.	337.6	2
1		0225	30	46.	3.9	2465.0 *	1		1045	130	807.	717.4	2488.7 *	1		1905	230	190.	336.2	2
1		0230	31	48.	4.7	2465.2 *	1		1050	131	804.	711.9	2488.6 *	1		1910	231	187.	334.9	2481.7
1		0235	32	50.	5.7	2465.5 *	1		1055	132	801.	706.4	2488.5 *	1		1915	232	184.	333.7	2481.6
1		0240	33	53.	6.7	2465.8 *	1		1100	133	798.	700.9	2488.4 *	1		1920	233	181.	332.4	2481.6
1		0245	34	55.	7.8	2466.2 *	1		1105	134	795.	695.5	2488.3 *	1		1925	234	178.	331.2	2481.6
1		0250	35	59.	9.0	2466.6 *	1		1110	135	792.	690.0	2488.3 *	1		1930	235	174.	330.0	2481.5
1		0255	36	62.	10.5	2467.0 *	1		1115	136	789.	684.6	2488.2 *	1		1935	236	171.	328.8	2481.5
1		0300	37	66.	12.1	2467.5 *	1		1120	137	786.	679.2	2488.1 *	1		1940	237	168.	327.6	2481.5
1		0305	38	70.	14.1	2468.0 *	1		1125	138	783.	673.8	2488.0 *	1		1945	238	166.	326.5	2481.5
1		0310	39	71.	16.5	2468.3 *	1		1130	139	780.	668.4	2487.9 *	1		1950	239	163.	325.3	2481.4
1		0315	40	72.	19.6	2468.6 *	1		1135	140	777.	663.1	2487.8 *	1		1955	240	160.	324.2	2481.4
1		0320	41	74.	23.4	2469.0 *	1		1140	141	774.	657.7	2487.8 *	1		2000	241	157.	323.1	2481.4
1		0325	42	76.	28.2	2469.5 *	1		1145	142	771.	652.4	2487.7 *	1		2005	242	154.	322.0	2481.4
1		0330	43	78.	34.2	2470.1 *	1		1150	143	769.	647.1	2487.6 *	1		2010	243	152.	321.0	2481.3
1		0335	44	81.	41.9	2470.8 *	1		1155	144	766.	641.8	2487.5 *	1		2015	244	149.	320.0	2481.3
1		0340	45	85.	51.0	2471.7 *	1		1200	145	763.	636.6	2487.4 *	1		2020	245	147.	318.9	2481.3
1		0345	46	87.	61.2	2472.4 *	1		1205	146	760.	631.3	2487.3 *	1		2025	246	144.	317.9	2481.3
1		0350	47	89.	72.4	2472.9 *	1		1210	147	757.	626.1	2487.3 *	1		2030	247	142.	316.9	2481.2
1		0355	48	91.	84.5	2473.6 *	1		1215	148	754.	620.9	2487.2 *	1		2035	248	139.	316.0	2481.2
1		0400	49	93.	97.7	2474.2 *	1		1220	149	751.	615.7	2487.1 *	1		2040	249	137.	315.0	2481.2
1		0405	50	96.	111.8	2474.9 *	1		1225	150	748.	610.6	2487.0 *	1		2045	250	134.	314.1	2481.2
1		0410	51	98.	127.0	2475.7 *	1		1230	151	744.	605.4	2486.9 *	1		2050	251	132.	313.2	2481.2
1		0415	52	100.	143.4	2476.3 *	1		1235	152	740.	600.3	2486.8 *	1		2055	252	130.	312.3	2481.1
1		0420	53	102.	161.4	2476.9 *	1		1240	153	736.	595.3	2486.7 *	1		2100	253	128.	311.4	2481.1
1		0425	54	103.	181.2	2477.5 *	1		1245	154	731.	590.2	2486.6 *	1		2105	254	125.	310.5	2
1		0430	55	105.	202.9	2478.1 *	1		1250	155	727.	585.2	2486.6 *	1		2110	255	123.	309.7	2
1		0435	56	108.	226.6	2478.9 *	1		1255	156	723.	580.2	2486.5 *	1		2115	256	121.	308.8	2
1		0440	57	110.	252.6	2479.7 *	1		1300	157	719.	575.2	2486.4 *	1		2120	257	119.	308.0	2481.0
1		0445	58	112.	280.7	2480.4 *	1		1305	158	715.	570.3	2486.3 *	1		2125	258	117.	307.2	2481.0

1	0450	59	126.	310.7	2481.1	*	1	1310	159	711.	565.4	2486.2	*	1	2130	259	115.	306.4	2481.0
1	0455	60	205.	342.1	2481.8	*	1	1315	160	706.	560.5	2486.1	*	1	2135	260	114.	305.6	2481.0
1	0500	61	328.	373.9	2482.5	*	1	1320	161	702.	555.7	2486.0	*	1	2140	261	114.	304.8	2481.0
1	0505	62	460.	405.5	2483.2	*	1	1325	162	699.	550.8	2485.9	*	1	2145	262	114.	304.0	2481.0
1	0510	63	582.	436.2	2483.8	*	1	1330	163	696.	546.0	2485.9	*	1	2150	263	114.	303.2	2480.9
1	0515	64	641.	466.1	2484.3	*	1	1335	164	693.	541.3	2485.8	*	1	2155	264	114.	302.5	2480.9
1	0520	65	662.	495.0	2484.9	*	1	1340	165	690.	536.5	2485.7	*	1	2200	265	114.	301.7	2480.9
1	0525	66	681.	523.1	2485.4	*	1	1345	166	687.	531.8	2485.6	*	1	2205	266	114.	300.9	2480.9
1	0530	67	699.	550.3	2485.9	*	1	1350	167	684.	527.0	2485.5	*	1	2210	267	114.	300.1	2480.9
1	0535	68	720.	576.6	2486.4	*	1	1355	168	680.	522.3	2485.4	*	1	2215	268	114.	299.3	2480.8
1	0540	69	741.	602.1	2486.9	*	1	1400	169	677.	517.7	2485.3	*	1	2220	269	113.	298.5	2480.8
1	0545	70	757.	626.9	2487.3	*	1	1405	170	674.	513.0	2485.2	*	1	2225	270	113.	297.8	2480.8
1	0550	71	771.	651.0	2487.6	*	1	1410	171	671.	508.4	2485.2	*	1	2230	271	113.	297.0	2480.8
1	0555	72	784.	674.5	2488.0	*	1	1415	172	668.	503.8	2485.1	*	1	2235	272	113.	296.2	2480.8
1	0600	73	796.	697.2	2488.4	*	1	1420	173	665.	499.2	2485.0	*	1	2240	273	113.	295.4	2480.7
1	0605	74	808.	719.2	2488.7	*	1	1425	174	662.	494.6	2484.9	*	1	2245	274	113.	294.6	2480.7
1	0610	75	820.	740.2	2489.0	*	1	1430	175	659.	490.1	2484.8	*	1	2250	275	113.	293.9	2480.7
1	0615	76	831.	760.2	2489.4	*	1	1435	176	655.	485.5	2484.7	*	1	2255	276	113.	293.1	2480.7
1	0620	77	842.	779.0	2489.7	*	1	1440	177	652.	481.0	2484.6	*	1	2300	277	113.	292.3	2480.7
1	0625	78	851.	796.5	2489.9	*	1	1445	178	649.	476.6	2484.5	*	1	2305	278	113.	291.5	2480.7
1	0630	79	860.	812.5	2490.2	*	1	1450	179	646.	472.1	2484.5	*	1	2310	279	113.	290.8	2480.6
1	0635	80	868.	827.1	2490.4	*	1	1455	180	642.	467.7	2484.4	*	1	2315	280	113.	290.0	2480.6
1	0640	81	875.	840.2	2490.6	*	1	1500	181	639.	463.3	2484.3	*	1	2320	281	113.	289.2	2480.6
1	0645	82	882.	851.8	2490.8	*	1	1505	182	636.	458.9	2484.2	*	1	2325	282	113.	288.4	2480.6
1	0650	83	887.	861.9	2491.0	*	1	1510	183	633.	454.5	2484.1	*	1	2330	283	113.	287.6	2480.6
1	0655	84	892.	870.6	2491.1	*	1	1515	184	630.	450.1	2484.0	*	1	2335	284	113.	286.9	2480.5
1	0700	85	896.	878.0	2491.2	*	1	1520	185	620.	445.8	2484.0	*	1	2340	285	113.	286.1	2480.5
1	0705	86	900.	884.1	2491.3	*	1	1525	186	603.	441.6	2483.9	*	1	2345	286	113.	285.3	2480.5
1	0710	87	902.	888.9	2491.4	*	1	1530	187	587.	437.5	2483.8	*	1	2350	287	112.	284.5	2480.5
1	0715	88	904.	892.7	2491.4	*	1	1535	188	571.	433.6	2483.7	*	1	2355	288	112.	283.8	2480.5
1	0720	89	906.	895.4	2491.5	*	1	1540	189	556.	429.7	2483.6	*	2	0000	289	112.	283.0	2480.5
1	0725	90	907.	897.1	2491.5	*	1	1545	190	541.	425.9	2483.6	*	2	0005	290	112.	282.2	2480.4
1	0730	91	907.	898.0	2491.5	*	1	1550	191	526.	422.2	2483.5	*	2	0010	291	112.	281.4	2480.4
1	0735	92	907.	898.0	2491.5	*	1	1555	192	512.	418.6	2483.4	*	2	0015	292	112.	280.7	2480.4
1	0740	93	907.	897.4	2491.5	*	1	1600	193	499.	415.2	2483.4	*	2	0020	293	112.	279.9	2480.4
1	0745	94	906.	896.1	2491.5	*	1	1605	194	485.	411.8	2483.3	*	2	0025	294	112.	279.1	2480.4
1	0750	95	905.	894.2	2491.5	*	1	1610	195	472.	408.5	2483.2	*	2	0030	295	112.	278.4	2480.3
1	0755	96	904.	891.8	2491.4	*	1	1615	196	460.	405.3	2483.2	*	2	0035	296	112.	277.6	2480.3
1	0800	97	902.	889.0	2491.4	*	1	1620	197	447.	402.1	2483.1	*	2	0040	297	112.	276.8	2480.3
1	0805	98	901.	885.7	2491.3	*	1	1625	198	435.	399.1	2483.0	*	2	0045	298	112.	276.0	2480.3
1	0810	99	899.	882.1	2491.3	*	1	1630	199	423.	396.2	2483.0	*	2	0050	299	112.	275.3	2480.3
1	0815	100	896.	878.2	2491.2	*	1	1635	200	411.	393.3	2482.9	*	2	0055	300	112.	274.5	2480.3
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 907.	7.58		850.	434.	418.	418.
		(INCHES)	.240	.490	.490	.490
		(AC-FT)	422.	861.	861.	861.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
898.	7.58	795.	440.	424.	424.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR

+ (FEET)	(HR)			
2491.53	7.58	2489.91	2482.25	2481.47	2481.47

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .42

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	679.	520.1	2485.4	1		1640	201	114.	300.6	2480.9
1		0005	2	0.	.0	2461.0	1		0825	102	677.	516.6	2485.3	1		1645	202	114.	299.9	2480.9
1		0010	3	0.	.0	2461.0	1		0830	103	674.	513.0	2485.2	1		1650	203	114.	299.1	2480.8
1		0015	4	0.	.0	2461.0	1		0835	104	672.	509.2	2485.2	1		1655	204	113.	298.3	2480.8
1		0020	5	0.	.0	2461.0	1		0840	105	670.	505.4	2485.1	1		1700	205	113.	297.5	2480.8
1		0025	6	0.	.0	2461.0	1		0845	106	667.	501.5	2485.0	1		1705	206	113.	296.7	2480.8
1		0030	7	0.	.0	2461.0	1		0850	107	664.	497.5	2485.0	1		1710	207	113.	296.0	2480.8
1		0035	8	0.	.0	2461.0	1		0855	108	661.	493.5	2484.9	1		1715	208	113.	295.2	2480.7
1		0040	9	0.	.0	2461.0	1		0900	109	658.	489.4	2484.8	1		1720	209	113.	294.4	2480.7
1		0045	10	0.	.0	2461.0	1		0905	110	655.	485.3	2484.7	1		1725	210	113.	293.6	2480.7
1		0050	11	1.	.0	2461.0	1		0910	111	652.	481.2	2484.6	1		1730	211	113.	292.8	2480.7
1		0055	12	1.	.0	2461.1	1		0915	112	649.	477.0	2484.6	1		1735	212	113.	292.1	2480.7
1		0100	13	1.	.0	2461.1	1		0920	113	646.	472.8	2484.5	1		1740	213	113.	291.3	2480.6
1		0105	14	1.	.0	2461.1	1		0925	114	643.	468.6	2484.4	1		1745	214	113.	290.5	2480.6
1		0110	15	1.	.0	2461.1	1		0930	115	640.	464.4	2484.3	1		1750	215	113.	289.7	2480.6
1		0115	16	1.	.0	2461.1	1		0935	116	637.	460.2	2484.2	1		1755	216	113.	289.0	2480.6
1		0120	17	1.	.0	2461.1	1		0940	117	634.	456.0	2484.2	1		1800	217	113.	288.2	2480.6
1		0125	18	1.	.0	2461.1	1		0945	118	631.	451.8	2484.1	1		1805	218	113.	287.4	2480.6
1		0130	19	2.	.0	2461.1	1		0950	119	626.	447.6	2484.0	1		1810	219	113.	286.6	2480.5
1		0135	20	2.	.0	2461.2	1		0955	120	610.	443.4	2483.9	1		1815	220	113.	285.9	2480.5
1		0140	21	3.	.1	2461.2	1		1000	121	594.	439.4	2483.8	1		1820	221	113.	285.1	2480.5
1		0145	22	4.	.1	2461.3	1		1005	122	578.	435.4	2483.8	1		1825	222	112.	284.3	2480.5
1		0150	23	5.	.1	2461.4	1		1010	123	563.	431.6	2483.7	1		1830	223	112.	283.5	2480.5
1		0155	24	7.	.1	2461.5	1		1015	124	548.	427.8	2483.6	1		1835	224	112.	282.8	2480.4
1		0200	25	9.	.2	2461.7	1		1020	125	534.	424.1	2483.5	1		1840	225	112.	282.0	2480.4
1		0205	26	11.	.2	2461.9	1		1025	126	520.	420.6	2483.5	1		1845	226	112.	281.2	2480.4
1		0210	27	15.	.3	2462.2	1		1030	127	506.	417.1	2483.4	1		1850	227	112.	280.4	2480.4
1		0215	28	20.	.4	2462.6	1		1035	128	493.	413.7	2483.3	1		1855	228	112.	279.7	2480.4
1		0220	29	25.	.5	2463.0	1		1040	129	480.	410.4	2483.3	1		1900	229	112.	278.9	2480.4
1		0225	30	31.	.6	2463.4	1		1045	130	467.	407.1	2483.2	1		1905	230	112.	278.1	2480.3
1		0230	31	37.	.8	2463.9	1		1050	131	454.	404.0	2483.1	1		1910	231	112.	277.3	2480.3
1		0235	32	38.	.9	2464.0	1		1055	132	442.	400.9	2483.1	1		1915	232	112.	276.6	2480.3
1		0240	33	39.	1.1	2464.1	1		1100	133	431.	397.9	2483.0	1		1920	233	112.	275.8	2480.3
1		0245	34	39.	1.3	2464.2	1		1105	134	418.	395.0	2483.0	1		1925	234	112.	275.0	2480.3
1		0250	35	40.	1.6	2464.2	1		1110	135	406.	392.2	2482.9	1		1930	235	112.	274.3	2480.2
1		0255	36	41.	1.9	2464.4	1		1115	136	395.	389.5	2482.8	1		1935	236	112.	273.5	2480.2
1		0300	37	42.	2.4	2464.5	1		1120	137	383.	386.8	2482.8	1		1940	237	112.	272.7	2480.2
1		0305	38	44.	3.0	2464.7	1		1125	138	372.	384.2	2482.7	1		1945	238	112.	272.0	2480.2
1		0310	39	46.	3.8	2464.9	1		1130	139	361.	381.7	2482.7	1		1950	239	112.	271.2	2480.2
1		0315	40	48.	4.9	2465.3	1		1135	140	351.	379.2	2482.6	1		1955	240	111.	270.4	2480.2
1		0320	41	52.	6.4	2465.7	1		1140	141	340.	376.9	2482.6	1		2000	241	111.	269.7	2480.2
1		0325	42	57.	8.4	2466.4	1		1145	142	331.	374.6	2482.5	1		2005	242	111.	268.9	2480.1
1		0330	43	64.	11.1	2467.2	1		1150	143	321.	372.3	2482.5	1		2010	243	111.	268.1	2480.1
1		0335	44	70.	14.8	2468.1	1		1155	144	312.	370.2	2482.4	1		2015	244	111.	267.4	2480.1
1		0340	45	72.	19.4	2468.6	1		1200	145	303.	368.0	2482.4	1		2020	245	111.	266.6	2480.1

1	0345	46	74.	24.7	2469.1	*	1	1205	146	294.	366.0	2482.3	*	1	2025	246	111.	265.8	2480.0
1	0350	47	77.	30.6	2469.7	*	1	1210	147	285.	364.0	2482.3	*	1	2030	247	111.	265.1	2480.0
1	0355	48	79.	37.2	2470.4	*	1	1215	148	277.	362.1	2482.3	*	1	2035	248	111.	264.3	2480.0
1	0400	49	82.	44.3	2471.1	*	1	1220	149	269.	360.2	2482.2	*	1	2040	249	111.	263.5	2480.0
1	0405	50	85.	52.1	2471.9	*	1	1225	150	261.	358.4	2482.2	*	1	2045	250	111.	262.8	2480.0
1	0410	51	87.	60.5	2472.4	*	1	1230	151	253.	356.6	2482.1	*	1	2050	251	111.	262.0	2479.9
1	0415	52	89.	69.6	2472.8	*	1	1235	152	246.	354.9	2482.1	*	1	2055	252	111.	261.2	2479.9
1	0420	53	90.	79.6	2473.3	*	1	1240	153	239.	353.2	2482.1	*	1	2100	253	111.	260.5	2479.9
1	0425	54	92.	90.7	2473.9	*	1	1245	154	232.	351.6	2482.0	*	1	2105	254	111.	259.7	2479.9
1	0430	55	94.	102.9	2474.5	*	1	1250	155	225.	350.0	2482.0	*	1	2110	255	111.	259.0	2479.8
1	0435	56	96.	116.4	2475.2	*	1	1255	156	221.	348.5	2482.0	*	1	2115	256	110.	258.2	2479.8
1	0440	57	99.	131.3	2475.9	*	1	1300	157	217.	347.0	2481.9	*	1	2120	257	110.	257.4	2479.8
1	0445	58	100.	147.5	2476.4	*	1	1305	158	214.	345.5	2481.9	*	1	2125	258	110.	256.7	2479.8
1	0450	59	102.	165.1	2477.0	*	1	1310	159	210.	344.0	2481.9	*	1	2130	259	110.	255.9	2479.8
1	0455	60	104.	183.8	2477.5	*	1	1315	160	206.	342.6	2481.8	*	1	2135	260	110.	255.2	2479.7
1	0500	61	105.	203.3	2478.1	*	1	1320	161	203.	341.2	2481.8	*	1	2140	261	110.	254.4	2479.7
1	0505	62	107.	223.3	2478.8	*	1	1325	162	199.	339.8	2481.8	*	1	2145	262	110.	253.6	2479.7
1	0510	63	109.	243.5	2479.4	*	1	1330	163	196.	338.5	2481.7	*	1	2150	263	110.	252.9	2479.7
1	0515	64	111.	263.6	2480.0	*	1	1335	164	193.	337.1	2481.7	*	1	2155	264	110.	252.1	2479.6
1	0520	65	112.	283.4	2480.5	*	1	1340	165	189.	335.8	2481.7	*	1	2200	265	110.	251.4	2479.6
1	0525	66	114.	302.9	2480.9	*	1	1345	166	186.	334.5	2481.6	*	1	2205	266	110.	250.6	2479.6
1	0530	67	154.	321.9	2481.4	*	1	1350	167	183.	333.3	2481.6	*	1	2210	267	110.	249.9	2479.6
1	0535	68	200.	340.2	2481.8	*	1	1355	168	180.	332.0	2481.6	*	1	2215	268	110.	249.1	2479.5
1	0540	69	259.	357.8	2482.2	*	1	1400	169	177.	330.8	2481.6	*	1	2220	269	110.	248.3	2479.5
1	0545	70	331.	374.8	2482.5	*	1	1405	170	173.	329.6	2481.5	*	1	2225	270	109.	247.6	2479.5
1	0550	71	401.	390.9	2482.9	*	1	1410	171	170.	328.4	2481.5	*	1	2230	271	109.	246.8	2479.5
1	0555	72	464.	406.4	2483.2	*	1	1415	172	168.	327.2	2481.5	*	1	2235	272	109.	246.1	2479.5
1	0600	73	522.	421.1	2483.5	*	1	1420	173	165.	326.1	2481.5	*	1	2240	273	109.	245.3	2479.4
1	0605	74	577.	435.0	2483.7	*	1	1425	174	162.	325.0	2481.4	*	1	2245	274	109.	244.6	2479.4
1	0610	75	628.	448.2	2484.0	*	1	1430	175	159.	323.9	2481.4	*	1	2250	275	109.	243.8	2479.4
1	0615	76	637.	460.5	2484.2	*	1	1435	176	156.	322.8	2481.4	*	1	2255	276	109.	243.1	2479.4
1	0620	77	646.	472.1	2484.5	*	1	1440	177	154.	321.7	2481.4	*	1	2300	277	109.	242.3	2479.3
1	0625	78	653.	482.8	2484.7	*	1	1445	178	151.	320.7	2481.3	*	1	2305	278	109.	241.6	2479.3
1	0630	79	661.	492.7	2484.9	*	1	1450	179	148.	319.6	2481.3	*	1	2310	279	109.	240.8	2479.3
1	0635	80	667.	501.6	2485.0	*	1	1455	180	146.	318.6	2481.3	*	1	2315	280	109.	240.1	2479.3
1	0640	81	672.	509.5	2485.2	*	1	1500	181	143.	317.6	2481.3	*	1	2320	281	109.	239.3	2479.2
1	0645	82	677.	516.5	2485.3	*	1	1505	182	141.	316.6	2481.2	*	1	2325	282	109.	238.6	2479.2
1	0650	83	681.	522.6	2485.4	*	1	1510	183	138.	315.7	2481.2	*	1	2330	283	109.	237.8	2479.2
1	0655	84	684.	527.7	2485.5	*	1	1515	184	136.	314.7	2481.2	*	1	2335	284	109.	237.1	2479.2
1	0700	85	687.	532.0	2485.6	*	1	1520	185	134.	313.8	2481.2	*	1	2340	285	108.	236.3	2479.2
1	0705	86	689.	535.4	2485.7	*	1	1525	186	131.	312.9	2481.2	*	1	2345	286	108.	235.6	2479.1
1	0710	87	691.	538.0	2485.7	*	1	1530	187	129.	312.0	2481.1	*	1	2350	287	108.	234.8	2479.1
1	0715	88	692.	539.9	2485.7	*	1	1535	188	127.	311.1	2481.1	*	1	2355	288	108.	234.1	2479.1
1	0720	89	693.	541.1	2485.8	*	1	1540	189	125.	310.2	2481.1	*	2	0000	289	108.	233.3	2479.1
1	0725	90	693.	541.6	2485.8	*	1	1545	190	123.	309.4	2481.1	*	2	0005	290	108.	232.6	2479.0
1	0730	91	693.	541.6	2485.8	*	1	1550	191	120.	308.6	2481.1	*	2	0010	291	108.	231.9	2479.0
1	0735	92	693.	541.1	2485.8	*	1	1555	192	118.	307.7	2481.0	*	2	0015	292	108.	231.1	2479.0
1	0740	93	692.	540.1	2485.7	*	1	1600	193	116.	306.9	2481.0	*	2	0020	293	108.	230.4	2479.0
1	0745	94	691.	538.6	2485.7	*	1	1605	194	114.	306.1	2481.0	*	2	0025	294	108.	229.6	2479.0
1	0750	95	690.	536.8	2485.7	*	1	1610	195	114.	305.3	2481.0	*	2	0030	295	108.	228.9	2478.9
1	0755	96	688.	534.7	2485.6	*	1	1615	196	114.	304.6	2481.0	*	2	0035	296	108.	228.1	2478.9
1	0800	97	687.	532.2	2485.6	*	1	1620	197	114.	303.8	2480.9	*	2	0040	297	108.	227.4	2478.9
1	0805	98	685.	529.5	2485.5	*	1	1625	198	114.	303.0	2480.9	*	2	0045	298	108.	226.7	2478.9
1	0810	99	683.	526.5	2485.5	*	1	1630	199	114.	302.2	2480.9	*	2	0050	299	108.	225.9	2478.8
1	0815	100	681.	523.4	2485.4	*	1	1635	200	114.	301.4	2480.9	*	2	0055	300	107.	225.2	2478.8
						*							*						

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PEAK FLOW TIME MAXIMUM AVERAGE FLOW

6-HR 24-HR 72-HR 24.92-HR

+ (CFS)	(HR)					
		(CFS)				
+ 693.	7.42		592.	236.	227.	227.
		(INCHES)	.167	.266	.266	.266
		(AC-FT)	293.	468.	468.	468.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
542.	7.42	468.	289.	279.	279.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2485.77	7.42	2484.37	2479.10	2478.44	2478.44

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB

PLAN 1, RATIO = .41

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	670.	506.8	2485.1	1		1640	201	113.	298.4	2480.8
1		0005	2	0.	.0	2461.0	1		0825	102	668.	503.3	2485.1	1		1645	202	113.	297.6	2480.8
1		0010	3	0.	.0	2461.0	1		0830	103	666.	499.8	2485.0	1		1650	203	113.	296.9	2
1		0015	4	0.	.0	2461.0	1		0835	104	663.	496.1	2484.9	1		1655	204	113.	296.1	24
1		0020	5	0.	.0	2461.0	1		0840	105	660.	492.3	2484.9	1		1700	205	113.	295.3	2480.7
1		0025	6	0.	.0	2461.0	1		0845	106	658.	488.5	2484.8	1		1705	206	113.	294.5	2480.7
1		0030	7	0.	.0	2461.0	1		0850	107	655.	484.5	2484.7	1		1710	207	113.	293.7	2480.7
1		0035	8	0.	.0	2461.0	1		0855	108	652.	480.6	2484.6	1		1715	208	113.	293.0	2480.7
1		0040	9	0.	.0	2461.0	1		0900	109	649.	476.5	2484.5	1		1720	209	113.	292.2	2480.7
1		0045	10	0.	.0	2461.0	1		0905	110	646.	472.5	2484.5	1		1725	210	113.	291.4	2480.7
1		0050	11	0.	.0	2461.0	1		0910	111	643.	468.4	2484.4	1		1730	211	113.	290.6	2480.6
1		0055	12	1.	.0	2461.1	1		0915	112	640.	464.3	2484.3	1		1735	212	113.	289.9	2480.6
1		0100	13	1.	.0	2461.1	1		0920	113	637.	460.2	2484.2	1		1740	213	113.	289.1	2480.6
1		0105	14	1.	.0	2461.1	1		0925	114	634.	456.0	2484.2	1		1745	214	113.	288.3	2480.6
1		0110	15	1.	.0	2461.1	1		0930	115	631.	451.9	2484.1	1		1750	215	113.	287.5	2480.6
1		0115	16	1.	.0	2461.1	1		0935	116	627.	447.7	2484.0	1		1755	216	113.	286.7	2480.5
1		0120	17	1.	.0	2461.1	1		0940	117	611.	443.6	2483.9	1		1800	217	113.	286.0	2480.5
1		0125	18	1.	.0	2461.1	1		0945	118	595.	439.6	2483.8	1		1805	218	113.	285.2	2480.5
1		0130	19	2.	.0	2461.1	1		0950	119	579.	435.7	2483.8	1		1810	219	112.	284.4	2480.5
1		0135	20	2.	.0	2461.2	1		0955	120	564.	431.9	2483.7	1		1815	220	112.	283.6	2480.5
1		0140	21	3.	.1	2461.2	1		1000	121	550.	428.1	2483.6	1		1820	221	112.	282.9	2480.4
1		0145	22	4.	.1	2461.3	1		1005	122	535.	424.5	2483.5	1		1825	222	112.	282.1	2480.4
1		0150	23	5.	.1	2461.4	1		1010	123	521.	420.9	2483.5	1		1830	223	112.	281.3	2480.4
1		0155	24	6.	.1	2461.5	1		1015	124	507.	417.4	2483.4	1		1835	224	112.	280.6	2480.4
1		0200	25	8.	.2	2461.6	1		1020	125	494.	414.0	2483.3	1		1840	225	112.	279.8	2480.4
1		0205	26	11.	.2	2461.8	1		1025	126	481.	410.7	2483.3	1		1845	226	112.	279.0	2480.4
1		0210	27	14.	.3	2462.1	1		1030	127	468.	407.5	2483.2	1		1850	227	112.	278.2	2480.3
1		0215	28	18.	.4	2462.4	1		1035	128	456.	404.3	2483.1	1		1855	228	112.	277.5	24
1		0220	29	23.	.5	2462.8	1		1040	129	444.	401.3	2483.1	1		1900	229	112.	276.7	2
1		0225	30	28.	.6	2463.2	1		1045	130	432.	398.3	2483.0	1		1905	230	112.	275.9	248
1		0230	31	34.	.7	2463.7	1		1050	131	420.	395.4	2483.0	1		1910	231	112.	275.2	2480.3
1		0235	32	38.	.8	2464.0	1		1055	132	408.	392.6	2482.9	1		1915	232	112.	274.4	2480.2

1	0240	33	38.	1.0	2464.1	*	1	1100	133	396.	389.8	2482.8	*	1	1920	233	112.	273.6	2480.2
1	0245	34	39.	1.2	2464.1	*	1	1105	134	385.	387.1	2482.8	*	1	1925	234	112.	272.8	2480.2
1	0250	35	40.	1.4	2464.2	*	1	1110	135	373.	384.5	2482.7	*	1	1930	235	112.	272.1	2480.2
1	0255	36	40.	1.8	2464.3	*	1	1115	136	363.	382.0	2482.7	*	1	1935	236	112.	271.3	2480.2
1	0300	37	41.	2.2	2464.4	*	1	1120	137	352.	379.6	2482.6	*	1	1940	237	111.	270.5	2480.2
1	0305	38	43.	2.7	2464.6	*	1	1125	138	342.	377.2	2482.6	*	1	1945	238	111.	269.8	2480.1
1	0310	39	45.	3.5	2464.8	*	1	1130	139	332.	374.9	2482.5	*	1	1950	239	111.	269.0	2480.1
1	0315	40	47.	4.5	2465.2	*	1	1135	140	322.	372.6	2482.5	*	1	1955	240	111.	268.2	2480.1
1	0320	41	51.	5.9	2465.6	*	1	1140	141	313.	370.5	2482.4	*	1	2000	241	111.	267.5	2480.1
1	0325	42	56.	7.8	2466.2	*	1	1145	142	304.	368.3	2482.4	*	1	2005	242	111.	266.7	2480.1
1	0330	43	62.	10.5	2467.0	*	1	1150	143	295.	366.3	2482.3	*	1	2010	243	111.	265.9	2480.0
1	0335	44	70.	14.0	2468.0	*	1	1155	144	286.	364.3	2482.3	*	1	2015	244	111.	265.2	2480.0
1	0340	45	72.	18.4	2468.5	*	1	1200	145	278.	362.4	2482.3	*	1	2020	245	111.	264.4	2480.0
1	0345	46	74.	23.5	2469.0	*	1	1205	146	270.	360.5	2482.2	*	1	2025	246	111.	263.7	2480.0
1	0350	47	76.	29.2	2469.6	*	1	1210	147	262.	358.6	2482.2	*	1	2030	247	111.	262.9	2480.0
1	0355	48	79.	35.6	2470.2	*	1	1215	148	255.	356.9	2482.1	*	1	2035	248	111.	262.1	2479.9
1	0400	49	82.	42.6	2470.9	*	1	1220	149	247.	355.1	2482.1	*	1	2040	249	111.	261.4	2479.9
1	0405	50	85.	50.1	2471.7	*	1	1225	150	240.	353.5	2482.1	*	1	2045	250	111.	260.6	2479.9
1	0410	51	87.	58.2	2472.2	*	1	1230	151	233.	351.8	2482.0	*	1	2050	251	111.	259.8	2479.9
1	0415	52	88.	67.0	2472.7	*	1	1235	152	226.	350.3	2482.0	*	1	2055	252	111.	259.1	2479.8
1	0420	53	90.	76.8	2473.2	*	1	1240	153	222.	348.7	2482.0	*	1	2100	253	110.	258.3	2479.8
1	0425	54	92.	87.5	2473.7	*	1	1245	154	218.	347.2	2481.9	*	1	2105	254	110.	257.6	2479.8
1	0430	55	93.	99.3	2474.3	*	1	1250	155	214.	345.7	2481.9	*	1	2110	255	110.	256.8	2479.8
1	0435	56	96.	112.4	2475.0	*	1	1255	156	211.	344.3	2481.9	*	1	2115	256	110.	256.0	2479.8
1	0440	57	98.	126.9	2475.7	*	1	1300	157	207.	342.8	2481.8	*	1	2120	257	110.	255.3	2479.7
1	0445	58	100.	142.6	2476.3	*	1	1305	158	203.	341.4	2481.8	*	1	2125	258	110.	254.5	2479.7
1	0450	59	101.	159.7	2476.8	*	1	1310	159	200.	340.0	2481.8	*	1	2130	259	110.	253.8	2479.7
1	0455	60	103.	177.8	2477.4	*	1	1315	160	196.	338.7	2481.7	*	1	2135	260	110.	253.0	2479.7
1	0500	61	105.	196.8	2477.9	*	1	1320	161	193.	337.3	2481.7	*	1	2140	261	110.	252.2	2479.6
1	0505	62	107.	216.3	2478.5	*	1	1325	162	190.	336.0	2481.7	*	1	2145	262	110.	251.5	2479.6
1	0510	63	108.	235.9	2479.1	*	1	1330	163	186.	334.7	2481.7	*	1	2150	263	110.	250.7	2479.6
1	0515	64	110.	255.5	2479.7	*	1	1335	164	183.	333.4	2481.6	*	1	2155	264	110.	250.0	2479.6
1	0520	65	112.	274.8	2480.3	*	1	1340	165	180.	332.2	2481.6	*	1	2200	265	110.	249.2	2479.5
1	0525	66	113.	293.8	2480.7	*	1	1345	166	177.	331.0	2481.6	*	1	2205	266	110.	248.5	2479.5
1	0530	67	130.	312.4	2481.1	*	1	1350	167	174.	329.8	2481.5	*	1	2210	267	110.	247.7	2479.5
1	0535	68	176.	330.4	2481.6	*	1	1355	168	171.	328.6	2481.5	*	1	2215	268	109.	247.0	2479.5
1	0540	69	219.	347.8	2482.0	*	1	1400	169	168.	327.4	2481.5	*	1	2220	269	109.	246.2	2479.5
1	0545	70	288.	364.6	2482.3	*	1	1405	170	165.	326.3	2481.5	*	1	2225	270	109.	245.4	2479.4
1	0550	71	356.	380.6	2482.7	*	1	1410	171	162.	325.1	2481.4	*	1	2230	271	109.	244.7	2479.4
1	0555	72	422.	395.9	2483.0	*	1	1415	172	159.	324.0	2481.4	*	1	2235	272	109.	243.9	2479.4
1	0600	73	480.	410.5	2483.3	*	1	1420	173	157.	322.9	2481.4	*	1	2240	273	109.	243.2	2479.4
1	0605	74	535.	424.3	2483.5	*	1	1425	174	154.	321.9	2481.4	*	1	2245	274	109.	242.4	2479.3
1	0610	75	586.	437.4	2483.8	*	1	1430	175	151.	320.8	2481.3	*	1	2250	275	109.	241.7	2479.3
1	0615	76	629.	449.5	2484.0	*	1	1435	176	149.	319.8	2481.3	*	1	2255	276	109.	240.9	2479.3
1	0620	77	637.	460.8	2484.2	*	1	1440	177	146.	318.8	2481.3	*	1	2300	277	109.	240.2	2479.3
1	0625	78	645.	471.2	2484.4	*	1	1445	178	144.	317.8	2481.3	*	1	2305	278	109.	239.4	2479.3
1	0630	79	652.	480.8	2484.6	*	1	1450	179	141.	316.8	2481.2	*	1	2310	279	109.	238.7	2479.2
1	0635	80	658.	489.5	2484.8	*	1	1455	180	139.	315.8	2481.2	*	1	2315	280	109.	237.9	2479.2
1	0640	81	664.	497.3	2484.9	*	1	1500	181	136.	314.9	2481.2	*	1	2320	281	109.	237.2	2479.2
1	0645	82	669.	504.1	2485.1	*	1	1505	182	134.	313.9	2481.2	*	1	2325	282	108.	236.4	2479.2
1	0650	83	672.	510.0	2485.2	*	1	1510	183	132.	313.0	2481.2	*	1	2330	283	108.	235.7	2479.1
1	0655	84	676.	514.9	2485.3	*	1	1515	184	129.	312.1	2481.1	*	1	2335	284	108.	235.0	2479.1
1	0700	85	678.	519.1	2485.4	*	1	1520	185	127.	311.2	2481.1	*	1	2340	285	108.	234.2	2479.1
1	0705	86	680.	522.4	2485.4	*	1	1525	186	125.	310.4	2481.1	*	1	2345	286	108.	233.5	2479.1
1	0710	87	682.	524.9	2485.5	*	1	1530	187	123.	309.5	2481.1	*	1	2350	287	108.	232.7	2479.0
1	0715	88	683.	526.7	2485.5	*	1	1535	188	121.	308.7	2481.1	*	1	2355	288	108.	232.0	2479.0
1	0720	89	684.	527.8	2485.5	*	1	1540	189	119.	307.9	2481.0	*	2	0000	289	108.	231.2	2479.0
1	0725	90	684.	528.3	2485.5	*	1	1545	190	117.	307.1	2481.0	*	2	0005	290	108.	230.5	2479.0
1	0730	91	684.	528.3	2485.5	*	1	1550	191	115.	306.3	2481.0	*	2	0010	291	108.	229.7	2479.0
1	0735	92	684.	527.7	2485.5	*	1	1555	192	114.	305.5	2481.0	*	2	0015	292	108.	229.0	2478.9

1	0740	93	683.	526.7	2485.5	*	1	1600	193	114.	304.7	2481.0	*	2	0020	293	108.	228.3	2478.9
1	0745	94	682.	525.2	2485.5	*	1	1605	194	114.	303.9	2480.9	*	2	0025	294	108.	227.5	2478.9
1	0750	95	681.	523.4	2485.4	*	1	1610	195	114.	303.1	2480.9	*	2	0030	295	108.	226.8	2478.9
1	0755	96	680.	521.3	2485.4	*	1	1615	196	114.	302.3	2480.9	*	2	0035	296	108.	226.0	2478.8
1	0800	97	678.	518.8	2485.3	*	1	1620	197	114.	301.6	2480.9	*	2	0040	297	107.	225.3	2
1	0805	98	676.	516.1	2485.3	*	1	1625	198	114.	300.8	2480.9	*	2	0045	298	107.	224.6	2
1	0810	99	675.	513.2	2485.2	*	1	1630	199	114.	300.0	2480.9	*	2	0050	299	107.	223.8	2478.8
1	0815	100	673.	510.1	2485.2	*	1	1635	200	114.	299.2	2480.8	*	2	0055	300	107.	223.1	2478.8
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 684.	7.42		571.	228.	220.	220.
		(INCHES)	.161	.257	.257	.257
		(AC-FT)	283.	453.	453.	453.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
528.	7.42	457.	285.	274.	274.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2485.52	7.42	2484.15	2478.99	2478.33	2478.33

CUMULATIVE AREA = 32.97 SQ MI

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

					RATIOS APPLIED TO PRECIPITATION							
OPERATION	STATION	AREA	PLAN		RATIO 1	RATIO 2	RATIO 3	RATIO 4	RATIO 5	RATIO 6	RATIO 7	RATIO 8
					.73	.72	.64	.63	.54	.53	.42	.41
HYDROGRAPH AT												
+	F1	9.40	1	FLOW	2670.	2615.	2092.	2044.	1540.	1500.	885.	861.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
HYDROGRAPH AT												
+	F2	2.43	1	FLOW	709.	694.	550.	537.	399.	388.	220.	214.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.33	4.33
2 COMBINED AT												
+	CF2	11.83	1	FLOW	3351.	3280.	2616.	2556.	1923.	1874.	1094.	1063.
				TIME	4.33	4.33	4.42	4.42	4.42	4.42	4.42	4.50
ROUTED TO												
+	RF2	11.83	1	FLOW	3250.	3182.	2544.	2486.	1871.	1823.	1069.	1040.
				TIME	4.83	4.92	4.92	4.92	4.92	4.92	5.00	5.00
HYDROGRAPH AT												
+	F3	2.88	1	FLOW	896.	876.	692.	675.	499.	485.	273.	265.
				TIME	4.08	4.08	4.08	4.08	4.08	4.08	4.17	4.17
ROUTED TO												
+	RF3	2.88	1	FLOW	847.	829.	654.	639.	472.	459.	258.	250.
				TIME	4.58	4.58	4.58	4.58	4.58	4.58	4.67	4.67

HYDROGRAPH AT												
+	F4	1.01	1	FLOW	459.	450.	366.	359.	277.	270.	167.	163.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
ROUTED TO												
+	RF4	1.01	1	FLOW	421.	413.	337.	330.	255.	249.	154.	151.
				TIME	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
2 COMBINED AT												
+	CF4	3.89	1	FLOW	1224.	1198.	955.	932.	698.	680.	393.	381.
				TIME	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	F5	1.98	1	FLOW	622.	609.	482.	471.	350.	340.	192.	186.
				TIME	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08
ROUTED TO												
+	RF5	1.98	1	FLOW	598.	585.	463.	452.	336.	327.	184.	179.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.50
3 COMBINED AT												
+	CF5	17.70	1	FLOW	4785.	4683.	3734.	3648.	2735.	2664.	1547.	1503.
				TIME	4.67	4.67	4.75	4.75	4.75	4.75	4.83	4.83
HYDROGRAPH AT												
+	F6	1.58	1	FLOW	621.	609.	495.	485.	374.	365.	225.	219.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
HYDROGRAPH AT												
+	F7	3.87	1	FLOW	1313.	1288.	1058.	1037.	811.	793.	504.	493.
				TIME	4.25	4.25	4.33	4.33	4.33	4.33	4.33	4.33
3 COMBINED AT												
+	CF7	23.14	1	FLOW	6274.	6144.	4934.	4824.	3654.	3562.	2120.	2063.
				TIME	4.58	4.67	4.67	4.67	4.67	4.67	4.75	4.75
ROUTED TO												
+	RF7	23.14	1	FLOW	6137.	6011.	4827.	4719.	3582.	3494.	2096.	2041.
				TIME	5.17	5.17	5.17	5.17	5.25	5.25	5.42	5.42
HYDROGRAPH AT												
+	F10	1.07	1	FLOW	378.	371.	303.	297.	230.	225.	140.	137.
				TIME	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
ROUTED TO												
+	RF10	1.07	1	FLOW	368.	361.	294.	288.	223.	218.	136.	133.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
HYDROGRAPH AT												
+	F9F	.50	1	FLOW	278.	273.	225.	221.	174.	170.	110.	107.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	14-1	.03	1	FLOW	20.	20.	16.	15.	12.	11.	7.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	14-2	.01	1	FLOW	8.	8.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

2 COMBINED AT												
+	C26	.04	1	FLOW	28.	28.	22.	22.	17.	16.	10.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R14-2	.04	1	FLOW	21.	21.	16.	16.	12.	12.	7.	7.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
3 COMBINED AT												
+	CF9F	1.62	1	FLOW	476.	467.	382.	374.	290.	284.	183.	179.
				TIME	4.17	4.17	4.17	4.17	4.17	4.25	4.92	4.92
HYDROGRAPH AT												
+	F9A	.11	1	FLOW	83.	81.	66.	65.	50.	49.	31.	30.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.11	1	FLOW	70.	69.	56.	55.	43.	42.	26.	26.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	F9B	.49	1	FLOW	253.	248.	197.	192.	143.	139.	79.	76.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R7	.49	1	FLOW	240.	235.	186.	182.	135.	132.	74.	72.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	F8	.76	1	FLOW	340.	332.	256.	249.	178.	173.	88.	85.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
ROUTED TO												
+	R8	.76	1	FLOW	307.	299.	232.	226.	162.	158.	82.	79.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	F9C	.19	1	FLOW	121.	119.	96.	94.	72.	70.	42.	41.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C8	.95	1	FLOW	391.	382.	298.	290.	210.	204.	107.	104.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R9	.95	1	FLOW	368.	359.	279.	272.	196.	190.	100.	96.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	F9E	.39	1	FLOW	256.	251.	206.	202.	158.	154.	98.	96.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C9	1.94	1	FLOW	878.	859.	683.	667.	498.	485.	277.	269.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R10	1.94	1	FLOW	851.	833.	662.	646.	482.	469.	268.	260.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75

HYDROGRAPH AT												
+	13-16	.03	1	FLOW	13.	12.	9.	9.	7.	6.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	13-17	.08	1	FLOW	51.	50.	41.	40.	31.	30.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-18	.07	1	FLOW	53.	52.	43.	42.	32.	32.	20.	19.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	C10	2.12	1	FLOW	911.	891.	710.	693.	518.	505.	290.	282.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R11	2.12	1	FLOW	884.	865.	688.	672.	502.	489.	280.	272.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
HYDROGRAPH AT												
+	13-15	.04	1	FLOW	28.	28.	22.	22.	16.	16.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C11	2.16	1	FLOW	894.	875.	696.	680.	508.	495.	284.	276.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
ROUTED TO												
+	R12	2.16	1	FLOW	876.	858.	682.	666.	498.	485.	278.	270.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	F9D	.09	1	FLOW	60.	59.	48.	47.	37.	36.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R13	.09	1	FLOW	56.	55.	45.	44.	35.	34.	22.	21.
				TIME	3.58	3.58	3.58	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-22	.02	1	FLOW	9.	9.	7.	7.	5.	5.	3.	2.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C12	.11	1	FLOW	65.	64.	52.	51.	39.	38.	24.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	13-21	.04	1	FLOW	31.	30.	25.	24.	19.	18.	12.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R14	.04	1	FLOW	25.	25.	20.	20.	15.	15.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-20	.01	1	FLOW	12.	11.	10.	9.	8.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

2 COMBINED AT												
+	C13	.05	1	FLOW	36.	35.	29.	28.	22.	22.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C14	.16	1	FLOW	101.	99.	81.	80.	61.	60.	37.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R15	.16	1	FLOW	98.	96.	78.	77.	60.	58.	37.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-14	.04	1	FLOW	19.	18.	14.	14.	10.	10.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-19	.08	1	FLOW	49.	48.	39.	38.	30.	29.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C15	2.44	1	FLOW	965.	945.	754.	737.	553.	539.	313.	304.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	R16	2.44	1	FLOW	956.	935.	745.	728.	545.	531.	309.	300.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	4.00	4.00
HYDROGRAPH AT												
+	13-9	.05	1	FLOW	22.	21.	17.	16.	12.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	13-12	.03	1	FLOW	21.	21.	17.	17.	14.	13.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-13	.01	1	FLOW	11.	11.	9.	9.	7.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R17	.01	1	FLOW	9.	9.	7.	7.	6.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C16	.09	1	FLOW	53.	52.	41.	41.	31.	30.	18.	17.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R18	.09	1	FLOW	48.	47.	37.	37.	28.	27.	16.	15.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-8	.09	1	FLOW	50.	49.	39.	38.	28.	28.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C17	2.62	1	FLOW	1006.	985.	785.	767.	575.	560.	324.	315.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92

HYDROGRAPH AT												
+	13-7	.02	1	FLOW	16.	16.	13.	13.	10.	10.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R19	.02	1	FLOW	16.	15.	12.	12.	9.	9.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-6	.03	1	FLOW	26.	25.	21.	21.	17.	17.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-23	.06	1	FLOW	50.	49.	41.	40.	32.	31.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C18	.11	1	FLOW	89.	87.	73.	71.	57.	56.	37.	37.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R20	.11	1	FLOW	88.	86.	72.	70.	56.	55.	36.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-25	.01	1	FLOW	6.	6.	4.	4.	3.	3.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	4.83
ROUTED TO												
+	R21	.01	1	FLOW	5.	5.	4.	4.	2.	2.	1.	1.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	4.92	4.92
HYDROGRAPH AT												
+	13-24	.07	1	FLOW	29.	29.	23.	22.	16.	16.	8.	8.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C19	.08	1	FLOW	35.	34.	26.	26.	19.	18.	9.	9.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-4	.01	1	FLOW	7.	7.	5.	5.	4.	4.	2.	2.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-5	.14	1	FLOW	78.	77.	62.	61.	47.	46.	28.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C20	.15	1	FLOW	85.	84.	68.	66.	51.	49.	30.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R22	.15	1	FLOW	79.	78.	63.	62.	47.	46.	28.	27.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-11	.05	1	FLOW	32.	32.	26.	25.	20.	19.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58

2 COMBINED AT												
+	C21	.20	1	FLOW	103.	101.	82.	80.	61.	60.	37.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R23	.20	1	FLOW	100.	98.	79.	78.	59.	58.	35.	35.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	13-10	.02	1	FLOW	16.	15.	13.	13.	11.	11.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C22	.21	1	FLOW	108.	106.	86.	84.	64.	63.	38.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R24	.21	1	FLOW	106.	104.	85.	83.	64.	62.	38.	37.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	13-3	.04	1	FLOW	31.	31.	26.	25.	21.	20.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C23	.45	1	FLOW	244.	240.	196.	192.	149.	146.	92.	90.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R25	.45	1	FLOW	228.	224.	183.	179.	139.	136.	85.	83.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	13-2	.02	1	FLOW	25.	24.	21.	20.	17.	16.	12.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C24	3.09	1	FLOW	1208.	1183.	948.	927.	700.	682.	402.	391.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	13-1	.07	1	FLOW	50.	49.	41.	40.	31.	30.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C25	3.16	1	FLOW	1231.	1206.	967.	945.	715.	697.	411.	400.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
2 COMBINED AT												
+	CCF9F	4.78	1	FLOW	1689.	1654.	1333.	1303.	991.	967.	579.	564.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	RF9F	4.78	1	FLOW	1613.	1580.	1271.	1243.	944.	921.	553.	538.
				TIME	4.17	4.17	4.17	4.17	4.25	4.25	4.25	4.25
HYDROGRAPH AT												
+	12-1	.13	1	FLOW	81.	79.	65.	64.	50.	49.	32.	31.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67

2 COMBINED AT												
+	C12-1	4.92	1	FLOW	1640.	1606.	1293.	1265.	961.	938.	563.	548.
				TIME	4.17	4.17	4.17	4.17	4.17	4.17	4.25	4.25
ROUTED TO												
+	R12-1	4.92	1	FLOW	1591.	1559.	1255.	1227.	933.	910.	547.	533.
				TIME	4.42	4.42	4.42	4.42	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	11-4	.03	1	FLOW	27.	26.	22.	21.	17.	16.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R2	.03	1	FLOW	19.	18.	15.	15.	11.	11.	7.	7.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-3	.09	1	FLOW	61.	60.	49.	48.	38.	37.	24.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C2	.12	1	FLOW	77.	76.	63.	61.	48.	47.	30.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-2	.06	1	FLOW	50.	49.	42.	41.	34.	33.	23.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C3	.18	1	FLOW	127.	125.	104.	102.	82.	80.	53.	52.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-7	.05	1	FLOW	31.	30.	24.	24.	18.	17.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	11-8	.03	1	FLOW	23.	22.	18.	18.	14.	14.	9.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-9	.06	1	FLOW	36.	35.	28.	27.	20.	20.	12.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-10	.09	1	FLOW	70.	69.	57.	56.	44.	43.	28.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.09	1	FLOW	67.	67.	55.	54.	42.	41.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C4	.23	1	FLOW	154.	152.	123.	121.	93.	91.	56.	54.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R4	.23	1	FLOW	146.	143.	114.	113.	86.	86.	53.	52.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67

HYDROGRAPH AT												
+	11-5	.03	1	FLOW	23.	23.	19.	18.	14.	14.	9.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C5	.26	1	FLOW	167.	163.	131.	130.	97.	95.	57.	57.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	11-6	.13	1	FLOW	96.	94.	78.	76.	60.	59.	39.	38.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C6	.58	1	FLOW	389.	382.	313.	308.	239.	235.	147.	144.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R5	.58	1	FLOW	369.	367.	300.	296.	233.	228.	145.	142.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-1	.09	1	FLOW	66.	65.	54.	53.	42.	41.	26.	26.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C7	.67	1	FLOW	430.	424.	345.	338.	266.	260.	166.	163.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	CC7	5.58	1	FLOW	1675.	1641.	1324.	1295.	990.	966.	586.	570.
				TIME	4.42	4.42	4.42	4.50	4.50	4.50	4.50	4.50
ROUTED TO												
+	RC7	5.58	1	FLOW	1641.	1609.	1299.	1272.	971.	948.	577.	563.
				TIME	4.75	4.75	4.75	4.75	4.75	4.83	4.83	4.83
HYDROGRAPH AT												
+	10-2	.13	1	FLOW	94.	92.	76.	75.	59.	58.	37.	37.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R1	.13	1	FLOW	89.	88.	71.	72.	56.	55.	37.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	10-1	.10	1	FLOW	76.	74.	61.	59.	46.	45.	28.	27.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C1	.23	1	FLOW	146.	143.	116.	115.	89.	87.	55.	53.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	CC1	5.82	1	FLOW	1712.	1679.	1361.	1333.	1023.	999.	612.	597.
				TIME	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
HYDROGRAPH AT												
+	DB1	1.93	1	FLOW	793.	779.	645.	633.	501.	490.	319.	312.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

3 COMBINED AT												
+	CDB1	30.88	1	FLOW	8144.	7979.	6440.	6299.	4808.	4692.	2852.	2778.
				TIME	5.08	5.08	5.08	5.08	5.17	5.17	5.17	5.17
ROUTED TO												
+	RDB1	30.88	1	FLOW	8127.	7962.	6429.	6289.	4807.	4691.	2849.	2775.
				TIME	5.08	5.08	5.17	5.17	5.17	5.17	5.25	5.25
HYDROGRAPH AT												
+	9-19	.02	1	FLOW	12.	12.	10.	10.	8.	8.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-15	.24	1	FLOW	136.	133.	109.	106.	82.	80.	50.	49.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C14	.25	1	FLOW	147.	144.	117.	115.	89.	87.	54.	53.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R13	.25	1	FLOW	145.	142.	116.	113.	88.	86.	53.	52.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-18	.01	1	FLOW	11.	11.	9.	9.	7.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C15	.27	1	FLOW	151.	148.	121.	119.	92.	90.	56.	55.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-16	.02	1	FLOW	14.	14.	12.	12.	9.	9.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-17	.05	1	FLOW	25.	24.	19.	18.	14.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C16	.07	1	FLOW	39.	38.	31.	30.	23.	22.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C17	.33	1	FLOW	182.	178.	145.	142.	110.	108.	67.	65.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R14	.33	1	FLOW	175.	171.	140.	137.	106.	103.	64.	63.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-14	.09	1	FLOW	53.	52.	43.	42.	32.	31.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C18	.42	1	FLOW	219.	215.	174.	171.	131.	128.	79.	77.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67

ROUTED TO												
+	R15	.42	1	FLOW	216.	212.	172.	168.	129.	126.	78.	76.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	9-12	.01	1	FLOW	8.	8.	7.	7.	6.	6.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R16	.01	1	FLOW	8.	8.	7.	7.	6.	5.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C19	.43	1	FLOW	218.	214.	174.	170.	131.	128.	79.	77.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R17	.43	1	FLOW	203.	200.	162.	159.	123.	120.	74.	72.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	9-11	.26	1	FLOW	123.	120.	95.	93.	69.	67.	38.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C20	.69	1	FLOW	287.	281.	227.	222.	169.	165.	100.	97.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
HYDROGRAPH AT												
+	9-6	.03	1	FLOW	25.	25.	21.	21.	17.	17.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C21	.72	1	FLOW	301.	295.	237.	232.	177.	173.	105.	103.
				TIME	3.75	3.75	3.75	3.75	3.83	3.83	3.83	3.83
ROUTED TO												
+	R18	.72	1	FLOW	300.	294.	237.	232.	177.	173.	105.	102.
				TIME	3.75	3.75	3.83	3.83	3.83	3.83	3.83	3.92
HYDROGRAPH AT												
+	9-13	.15	1	FLOW	92.	91.	75.	73.	58.	56.	37.	36.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R19	.15	1	FLOW	92.	90.	74.	73.	58.	56.	36.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-5	.01	1	FLOW	6.	6.	5.	5.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C22	.88	1	FLOW	385.	377.	305.	298.	227.	222.	135.	131.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R20	.88	1	FLOW	383.	375.	303.	296.	227.	221.	135.	131.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75

HYDROGRAPH AT													
+	9-2	.02	1	FLOW	15.	15.	13.	13.	10.	10.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C23	.90	1	FLOW	395.	387.	313.	306.	234.	228.	139.	135.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO													
+	R21	.90	1	FLOW	392.	384.	310.	303.	232.	227.	139.	135.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT													
+	9-10	.01	1	FLOW	8.	8.	7.	7.	6.	5.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R22	.01	1	FLOW	7.	7.	6.	6.	5.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	9-9	.02	1	FLOW	17.	17.	14.	14.	11.	11.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C24	.03	1	FLOW	24.	24.	20.	19.	16.	15.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO													
+	R23	.03	1	FLOW	22.	21.	18.	17.	14.	14.	9.	9.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	9-8	.15	1	FLOW	90.	88.	72.	71.	56.	55.	35.	35.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO													
+	R24	.15	1	FLOW	89.	87.	72.	71.	56.	55.	35.	34.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	9-7	.13	1	FLOW	59.	58.	46.	45.	33.	32.	18.	18.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT													
+	C25	.31	1	FLOW	170.	166.	136.	133.	103.	101.	63.	61.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO													
+	R25	.31	1	FLOW	168.	164.	133.	131.	101.	98.	60.	59.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.67
HYDROGRAPH AT													
+	9-4	.04	1	FLOW	27.	27.	22.	22.	17.	17.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C26	.34	1	FLOW	187.	183.	149.	146.	113.	110.	68.	66.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67

HYDROGRAPH AT												
+	9-3	.06	1	FLOW	48.	47.	40.	39.	32.	32.	22.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C27	1.30	1	FLOW	617.	604.	491.	481.	370.	361.	222.	216.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R26	1.30	1	FLOW	607.	593.	482.	470.	362.	352.	219.	214.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-1	.05	1	FLOW	34.	34.	28.	27.	22.	21.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C28	1.34	1	FLOW	633.	620.	503.	492.	379.	369.	227.	222.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	8-3	.08	1	FLOW	56.	55.	46.	45.	35.	35.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-2	.01	1	FLOW	12.	11.	10.	10.	8.	8.	6.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C12	.09	1	FLOW	64.	63.	52.	51.	41.	40.	26.	26.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R12	.09	1	FLOW	63.	62.	52.	51.	40.	40.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-1	.02	1	FLOW	19.	18.	15.	15.	12.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C13	.11	1	FLOW	78.	76.	63.	61.	49.	48.	32.	31.
				TIME	3.50	3.50	3.58	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-2	.02	1	FLOW	15.	14.	12.	12.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R11	.02	1	FLOW	14.	13.	11.	11.	9.	8.	6.	5.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-1	.01	1	FLOW	8.	8.	7.	7.	5.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C11	1.48	1	FLOW	705.	690.	562.	550.	425.	414.	256.	250.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67

HYDROGRAPH AT												
+	DB2	.60	1	FLOW	296.	290.	239.	234.	184.	180.	115.	112.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
3 COMBINED AT												
+	CDB2	32.97	1	FLOW	8635.	8462.	6843.	6695.	5122.	4998.	3042.	2964.
				TIME	5.08	5.08	5.08	5.08	5.08	5.08	5.17	5.17
ROUTED TO												
+	PEDB	32.97	1	FLOW	1194.	1182.	1067.	1055.	920.	907.	693.	684.
				TIME	7.67	7.67	7.58	7.58	7.58	7.58	7.42	7.42
			** PEAK STAGES IN FEET **									
			1	STAGE	2499.91	2499.54	2496.12	2495.77	2491.90	2491.53	2485.77	2485.52
				TIME	7.67	7.67	7.58	7.58	7.58	7.58	7.42	7.42
ROUTED TO												
+	RDB2	32.97	1	FLOW	1194.	1182.	1067.	1055.	920.	907.	693.	684.
				TIME	7.75	7.75	7.67	7.67	7.67	7.67	7.58	7.50
HYDROGRAPH AT												
+	U1	.03	1	FLOW	21.	20.	16.	16.	12.	12.	7.	6.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	20.	20.	16.	16.	11.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-1	.01	1	FLOW	6.	6.	4.	4.	3.	3.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.04	1	FLOW	24.	24.	19.	19.	14.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.04	1	FLOW	24.	24.	19.	18.	13.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W2	.01	1	FLOW	9.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.05	1	FLOW	32.	31.	25.	25.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W1	.03	1	FLOW	22.	21.	17.	17.	13.	13.	7.	7.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.09	1	FLOW	54.	53.	43.	42.	31.	31.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.09	1	FLOW	54.	52.	42.	41.	30.	29.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67

HYDROGRAPH AT												
+	GB-2A	.01	1	FLOW	8.	8.	6.	6.	5.	5.	3.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	V2	.03	1	FLOW	24.	23.	20.	19.	15.	14.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	85.	83.	67.	65.	49.	47.	25.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.13	1	FLOW	81.	79.	63.	61.	47.	45.	25.	23.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	V1	.05	1	FLOW	39.	38.	31.	31.	24.	23.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
HYDROGRAPH AT												
+	GB-2B	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.06	1	FLOW	42.	41.	34.	33.	25.	25.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.19	1	FLOW	123.	121.	95.	93.	67.	65.	37.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.67	3.67	3.67
HYDROGRAPH AT												
+	P1	.09	1	FLOW	63.	61.	50.	49.	36.	35.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-4	.04	1	FLOW	19.	18.	15.	14.	10.	10.	6.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	T2	.02	1	FLOW	13.	13.	10.	10.	7.	7.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.75	3.75
3 COMBINED AT												
+	C	.15	1	FLOW	94.	92.	73.	72.	53.	51.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.15	1	FLOW	91.	89.	69.	68.	48.	47.	26.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-8	.03	1	FLOW	27.	27.	23.	23.	19.	18.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	6-7	.01	1	FLOW	7.	7.	6.	6.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

2 COMBINED AT												
+	C6	.04	1	FLOW	34.	34.	29.	28.	23.	23.	16.	16.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.04	1	FLOW	32.	32.	27.	26.	22.	21.	15.	15.
				TIME	3.50	3.50	3.58	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-6	.03	1	FLOW	33.	32.	28.	27.	22.	22.	16.	16.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C7	.07	1	FLOW	65.	64.	54.	54.	44.	43.	31.	30.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R7	.07	1	FLOW	54.	53.	46.	45.	37.	36.	26.	25.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-5	.10	1	FLOW	68.	66.	55.	54.	42.	41.	27.	26.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R8	.10	1	FLOW	64.	63.	52.	51.	40.	39.	26.	25.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-4	.19	1	FLOW	84.	82.	65.	63.	46.	45.	25.	24.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C8	.37	1	FLOW	201.	197.	162.	158.	123.	120.	76.	74.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R9	.37	1	FLOW	194.	190.	156.	153.	119.	116.	74.	72.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-3	.02	1	FLOW	13.	12.	10.	10.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R10	.02	1	FLOW	11.	12.	10.	10.	8.	7.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	6-2	.05	1	FLOW	44.	43.	35.	34.	27.	26.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C9	.43	1	FLOW	219.	215.	176.	172.	133.	130.	82.	80.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	6-1	.03	1	FLOW	18.	18.	15.	14.	11.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58

2 COMBINED AT													
+	C10	.46	1	FLOW	230.	226.	185.	181.	140.	137.	86.	84.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO													
+	R	.46	1	FLOW	229.	225.	183.	180.	138.	135.	86.	83.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.75
HYDROGRAPH AT													
+	T1	.04	1	FLOW	25.	25.	20.	19.	15.	14.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT													
+	GB-3	.02	1	FLOW	10.	10.	8.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT													
+	U2	.02	1	FLOW	15.	15.	12.	12.	9.	9.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
4 COMBINED AT													
+	C	.54	1	FLOW	265.	260.	210.	205.	159.	156.	97.	94.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO													
+	R	.54	1	FLOW	261.	256.	209.	205.	158.	155.	96.	94.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
2 COMBINED AT													
+	C	.69	1	FLOW	348.	340.	272.	267.	206.	201.	120.	117.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	.69	1	FLOW	341.	334.	272.	266.	203.	198.	120.	116.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	GB-5A	.03	1	FLOW	19.	19.	15.	14.	11.	10.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT													
+	C	.72	1	FLOW	349.	342.	278.	272.	207.	202.	122.	118.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	Q1	.02	1	FLOW	15.	15.	12.	12.	9.	9.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	S1	.05	1	FLOW	31.	31.	25.	24.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT													
+	C	.79	1	FLOW	394.	385.	305.	297.	228.	222.	132.	129.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	.79	1	FLOW	385.	377.	304.	297.	222.	217.	130.	127.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.83

HYDROGRAPH AT												
+	S2	.02	1	FLOW	15.	14.	12.	11.	8.	8.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-5B	.01	1	FLOW	7.	7.	5.	5.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.83	1	FLOW	398.	390.	314.	307.	231.	224.	135.	130.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-6	.03	1	FLOW	15.	15.	12.	12.	9.	8.	5.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.03	1	FLOW	14.	14.	11.	11.	8.	8.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	R2	.04	1	FLOW	23.	23.	19.	18.	14.	14.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.06	1	FLOW	38.	37.	30.	29.	22.	22.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	37.	36.	29.	28.	21.	21.	11.	11.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	R1	.03	1	FLOW	20.	20.	16.	16.	12.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.09	1	FLOW	57.	56.	44.	43.	31.	30.	17.	16.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C	.92	1	FLOW	446.	437.	355.	347.	261.	255.	150.	146.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-14	.01	1	FLOW	8.	8.	6.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	F	.00	1	FLOW	6.	6.	5.	5.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	CF	1.13	1	FLOW	570.	557.	444.	434.	330.	322.	187.	181.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
2 COMBINED AT												
+	CCF	34.10	1	FLOW	1196.	1184.	1069.	1057.	923.	910.	695.	686.
				TIME	7.67	7.67	7.58	7.67	7.58	7.58	7.50	7.50

ROUTED TO												
+	RF	34.10	1	FLOW	1196.	1184.	1069.	1057.	922.	910.	695.	686.
				TIME	7.75	7.75	7.75	7.75	7.67	7.67	7.58	7.58
HYDROGRAPH AT												
+	5-7	.01	1	FLOW	8.	8.	7.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R1	.01	1	FLOW	7.	7.	6.	5.	4.	4.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-6	.04	1	FLOW	30.	29.	24.	24.	19.	19.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C1	.05	1	FLOW	36.	36.	30.	30.	24.	23.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R2	.05	1	FLOW	34.	33.	28.	27.	22.	22.	15.	14.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-5	.05	1	FLOW	29.	29.	23.	22.	16.	16.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-8	.04	1	FLOW	33.	33.	28.	27.	22.	21.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C2	.14	1	FLOW	91.	89.	74.	72.	57.	56.	36.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.14	1	FLOW	80.	78.	65.	64.	50.	49.	32.	31.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-4	.12	1	FLOW	52.	50.	39.	38.	27.	27.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C3	.25	1	FLOW	128.	126.	102.	99.	76.	74.	45.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R4	.25	1	FLOW	127.	125.	101.	98.	75.	73.	44.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-2	.03	1	FLOW	24.	24.	20.	19.	15.	15.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C4	.28	1	FLOW	135.	132.	107.	104.	80.	78.	47.	46.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67

HYDROGRAPH AT													
+	5-3	.06	1	FLOW	40.	39.	32.	31.	25.	24.	15.	15.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
ROUTED TO													
+	R5	.06	1	FLOW	38.	38.	31.	30.	23.	23.	14.	14.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
HYDROGRAPH AT													
+	5-1	.02	1	FLOW	11.	11.	9.	8.	7.	6.	4.	4.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
3 COMBINED AT													
+	C5	.36	1	FLOW	182.	178.	144.	140.	107.	104.	64.	62.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67	
ROUTED TO													
+	R	.36	1	FLOW	181.	177.	143.	140.	107.	104.	63.	62.	
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75	
HYDROGRAPH AT													
+	GC-5A	.05	1	FLOW	26.	26.	20.	20.	15.	14.	8.	8.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
HYDROGRAPH AT													
+	N1	.05	1	FLOW	24.	23.	17.	17.	12.	11.	5.	5.	
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.83	3.83	
ROUTED TO													
+	R	.05	1	FLOW	23.	22.	17.	16.	11.	11.	5.	5.	
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.92	3.92	
3 COMBINED AT													
+	C	.45	1	FLOW	220.	216.	173.	170.	128.	124.	71.	69.	
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75	
HYDROGRAPH AT													
+	GC-5B	.02	1	FLOW	20.	19.	17.	16.	14.	13.	10.	10.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
ROUTED TO													
+	R	.02	1	FLOW	19.	19.	16.	16.	13.	13.	9.	9.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
2 COMBINED AT													
+	C	.47	1	FLOW	230.	225.	181.	177.	135.	131.	75.	72.	
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67	
HYDROGRAPH AT													
+	GC-4A	.03	1	FLOW	15.	14.	11.	11.	8.	8.	4.	4.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
ROUTED TO													
+	R	.03	1	FLOW	14.	14.	11.	11.	8.	8.	4.	4.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67	
ROUTED TO													
+	R	.03	1	FLOW	14.	13.	10.	10.	8.	7.	4.	4.	
				TIME	3.58	3.58	3.58	3.67	3.67	3.67	3.67	3.67	

HYDROGRAPH AT													
+	GC-4B	.06	1	FLOW	29.	28.	22.	22.	16.	16.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO													
+	R	.06	1	FLOW	29.	28.	22.	21.	16.	15.	8.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
3 COMBINED AT													
+	C	.56	1	FLOW	272.	266.	211.	207.	157.	153.	87.	85.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	0	.01	1	FLOW	14.	13.	11.	11.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO													
+	R	.01	1	FLOW	12.	12.	10.	10.	8.	8.	5.	5.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C	.57	1	FLOW	284.	278.	221.	216.	164.	159.	92.	89.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO													
+	R	.57	1	FLOW	281.	275.	220.	215.	161.	157.	91.	88.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	H3	.02	1	FLOW	13.	13.	10.	10.	7.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R	.02	1	FLOW	11.	11.	9.	9.	7.	7.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GC-1A	.02	1	FLOW	12.	11.	9.	9.	7.	6.	4.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT													
+	C	.61	1	FLOW	293.	288.	231.	226.	169.	165.	95.	92.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	P2	.07	1	FLOW	40.	39.	29.	29.	21.	20.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	.07	1	FLOW	37.	36.	28.	28.	20.	19.	10.	9.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.83	3.83
2 COMBINED AT													
+	C	.67	1	FLOW	330.	323.	259.	254.	189.	184.	104.	101.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	.67	1	FLOW	321.	314.	253.	248.	187.	183.	103.	100.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83

HYDROGRAPH AT													
+	Y	.02	1	FLOW	15.	15.	12.	12.	9.	9.	6.	6.	
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58	
HYDROGRAPH AT													
+	H1	.05	1	FLOW	35.	34.	27.	26.	18.	18.	9.	9.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67	
HYDROGRAPH AT													
+	GC-18	.02	1	FLOW	12.	12.	10.	9.	7.	7.	4.	4.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
HYDROGRAPH AT													
+	GC-1C	.02	1	FLOW	10.	10.	8.	8.	6.	5.	3.	3.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
5 COMBINED AT													
+	C	.79	1	FLOW	365.	358.	282.	275.	209.	204.	116.	113.	
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83	
ROUTED TO													
+	R	.79	1	FLOW	359.	351.	280.	274.	207.	201.	115.	112.	
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83	
HYDROGRAPH AT													
+	C1D1GC	.03	1	FLOW	19.	19.	15.	15.	11.	11.	7.	7.	
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
2 COMBINED AT													
+	C	.81	1	FLOW	364.	356.	284.	278.	210.	204.	118.	114.	
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83	
HYDROGRAPH AT													
+	Q2	.08	1	FLOW	63.	62.	52.	51.	41.	40.	26.	25.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
ROUTED TO													
+	R	.08	1	FLOW	62.	61.	50.	49.	38.	37.	25.	24.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67	
HYDROGRAPH AT													
+	G1	.04	1	FLOW	26.	25.	21.	21.	16.	16.	9.	9.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58	
HYDROGRAPH AT													
+	G2	.02	1	FLOW	13.	13.	11.	10.	8.	8.	5.	5.	
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58	
3 COMBINED AT													
+	C	.13	1	FLOW	100.	99.	82.	80.	62.	61.	37.	36.	
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67	
2 COMBINED AT													
+	C	.94	1	FLOW	439.	430.	343.	335.	249.	243.	141.	137.	
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83	
ROUTED TO													
+	R	.94	1	FLOW	438.	429.	340.	332.	249.	243.	140.	137.	
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83	

HYDROGRAPH AT												
+	E	.05	1	FLOW	36.	36.	30.	29.	23.	22.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-7	.03	1	FLOW	17.	16.	13.	13.	9.	9.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	1.02	1	FLOW	469.	458.	365.	357.	264.	257.	150.	146.
				TIME	3.58	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	1.02	1	FLOW	468.	458.	364.	356.	264.	257.	149.	146.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	8	.04	1	FLOW	32.	31.	26.	25.	19.	19.	13.	12.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	1.06	1	FLOW	487.	476.	377.	369.	272.	265.	154.	151.
				TIME	3.58	3.58	3.67	3.67	3.67	3.75	3.83	3.83
HYDROGRAPH AT												
+	GB-10	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.01	1	FLOW	3.	3.	3.	2.	2.	2.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-9	.01	1	FLOW	7.	6.	5.	5.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.02	1	FLOW	10.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	9.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	C2+ST	.04	1	FLOW	24.	23.	19.	18.	13.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	ST	.00	1	FLOW	2.	2.	2.	2.	1.	1.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.06	1	FLOW	33.	32.	26.	25.	19.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	33.	32.	26.	25.	18.	17.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67

HYDROGRAPH AT												
+	GB-8	.02	1	FLOW	10.	10.	8.	8.	6.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	EN+ST	.02	1	FLOW	16.	16.	13.	13.	11.	10.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	COM	.02	1	FLOW	20.	20.	17.	17.	13.	13.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	C	.11	1	FLOW	76.	75.	60.	58.	44.	43.	27.	26.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	1.16	1	FLOW	557.	544.	424.	414.	303.	295.	168.	164.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.83	3.83
ROUTED TO												
+	RCOM	1.16	1	FLOW	541.	529.	420.	410.	299.	292.	167.	163.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	DSDB	.61	1	FLOW	195.	191.	152.	149.	112.	109.	64.	63.
				TIME	3.92	3.92	3.92	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT												
+	CDSDB	35.87	1	FLOW	1479.	1461.	1240.	1215.	932.	914.	700.	691.
				TIME	5.08	5.08	5.08	5.17	5.42	7.58	7.42	7.42

*** NORMAL END OF HEC-1 ***

HEC-1 MODEL OUTPUT

FILE: DSDB.DAT

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             SEPTEMBER 1990            *
*              VERSION 4.0              *
*                                       *
*  RUN DATE  02/21/2000  TIME  18:10:24 *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X       XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX  XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
         LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                       *DIAGRAM
*** FREE ***
              1        ID
              2        ID    PITTMAN EAST DETENTION BASIN
              3        ID    PBS&J, February 2000
              4        ID
              5        ID    THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
              6        ID    "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
              7        ID    1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
              8        ID    DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
              9        ID    CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
             10        ID    MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
             11        ID    CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
             12        ID    ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
             13        ID    CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
             14        ID
             15        ID    THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE
             16        ID    INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE
             17        ID
```

```
18          ID
19          ID   100-YEAR,  6-HOUR STORM,  SDN3
20          ID   DARF RATIOS FOR AREAS OF 0, 0.5, 1, 2 AND 2.9 SQUARE MILES FOR
21          ID   THE 100-YEAR EVENT.
22          ID
23          IT       5       0       0     300
24          IO       5       0       0
25          IN       5       0       0
26          JR    PREC       1    0.98    0.97    0.93   0.921
            *

27          KK    GB-1
28          BA    .009
29          PB    2.91
30          PC   0.000   0.020   0.057   0.070   0.087   0.108   0.124   0.130   0.130   0.130
31          PC   0.130   0.130   0.130   0.133   0.140   0.142   0.148   0.158   0.172   0.181
32          PC   0.190   0.197   0.199   0.200   0.201   0.204   0.214   0.229   0.241   0.249
33          PC   0.251   0.256   0.270   0.278   0.281   0.283   0.295   0.322   0.352   0.409
34          PC   0.499   0.590   0.710   0.744   0.781   0.812   0.819   0.835   0.851   0.856
35          PC   0.860   0.868   0.876   0.888   0.910   0.926   0.937   0.950   0.970   0.976
36          PC   0.982   0.985   0.987   0.989   0.990   0.993   0.993   0.994   0.995   0.998
37          PC   0.998   0.999   1.000
38          LS       0      84
39          UD    .074
            *

40          KK      U1
41          PB    2.90
42          BA   0.031
43          LS       0      87
44          UK     100    0.02    0.08     100
45          RK     300    0.03   0.017  0.0022    TRAP      60       0
46          RK    1300    0.03   0.017   0.031    TRAP      60       0
            *
```



```
LINE        ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

47          KK       R
48          RK     900    0.04   0.017       0    TRAP      80       0
            *

49          KK       C
50          HC       2
            *

51          KK       R
52          RK     550    0.04   0.017       0    TRAP      80       0
            *

53          KK      W2
54          PB    2.90
55          BA   0.013
56          LS       0      87
57          UK     100    0.02    0.08     100
58          RK     300    0.03   0.017  0.0022    TRAP      60       0
59          RK     600    0.03   0.017   0.013    TRAP      60       0
            *
```

```
60          KK       C
61          HC       2
            *

62          KK      W1
63          PB    2.90
64          BA   0.033
65          LS       0      87
66          UK     100   0.017    0.08     100
67          RK     400    0.02   0.017  0.0029    TRAP      60       0
68          RK    1000    0.03   0.017   0.033    TRAP      60       0
            *

69          KK       C
70          HC       2
            *

71          KK       R
72          RK    1600    0.02   0.015       0    TRAP      20       0
            *

73          KK   GB-2A
74          PB    2.88
75          BA   0.015
76          LS       0      84
77          UD   0.102
            *
```



```
LINE        ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

78          KK      V2
79          PB    2.89
80          BA   0.032
81          LS       0    89.5
82          UK     100    0.02    0.08     100
83          RK     300    0.03   0.017  0.0022    TRAP      60       0
84          RK    2000    0.03   0.017   0.032    TRAP      60       0
            *

85          KK       C
86          HC       3
            *

87          KK       R
88          RK    1300   0.004    0.03       0    TRAP      10       4
            *

89          KK      V1
90          PB    2.88
91          BA   0.052
92          LS       0    89.5
93          UK     100    0.02    0.08     100
94          RK     500    0.02   0.017  0.0036    TRAP      60       0
95          RK    2200    0.03   0.017   0.052    TRAP      60       0
            *

96          KK   GB-2B
97          PB    2.88
```

```
 98          BA   0.007
 99          LS       0      84
100          UD   0.079
             *

101          KK       C
102          HC       2
             *

103          KK       C
104          HC       2
             *

105          KK      P1
106          PB    2.90
107          BA   0.094
108          LS       0      87
109          UK     100    0.02    0.08     100
110          RK     300    0.02   0.017  0.0022    TRAP      60        0
111          RK    2800    0.03   0.017   0.083    TRAP      60        0
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

112          KK    GB-4
113          PB     2.9
114          BA   0.035
115          LS       0      84
116          UD   0.112
             *

117          KK      T2
118          PB    2.90
119          BA   0.021
120          LS       0      87
121          UK     100    0.02    0.08     100
122          RK     100    0.02   0.017  0.0004    TRAP      60        0
123          RK    2300    0.03   0.017   0.021    TRAP      80        0
             *

124          KK       C
125          HC       3
             *

126          KK       R
127          RK     900   0.004    0.03       0    TRAP      10        4
             *

128          KK     6-8
129          BA  .03031
130          PB    3.07
131          LS       0      94
132          UD    .124
             *

133          KK     6-7
134          BA  .00672
135          PB    3.15
```

```
          136          LS       0      91
          137          UD    .071
                       *

          138          KK      C6
          139          HC       2
                       *

          140          KK      R6
          141          RD     550    .036    .016       0    TRAP       0      50
                       *

          142          KK     6-6
          143          BA  .03453
          144          PB    3.07
          145          LS       0      94
          146          UD    .112
                       *
```



```
        LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          147          KK      C7
          148          HC       2
                       *

          149          KK      R7
          150          RM       2    .218      .2
                       *

          151          KK     6-5
          152          BA  .10188
          153          PB    3.07
          154          LS       0      89
          155          UD    .199
                       *

          156          KK      R8
          157          RD    1050    .090     .04       0    TRAP      10       3
                       *

          158          KK     6-4
          159          BA  .19188
          160          PB    3.07
          161          LS       0      83
          162          UD    .246
                       *

          163          KK      C8
          164          HC       3
                       *

          165          KK      R9
          166          RM       1    .059      .2
                       *

          167          KK     6-3
          168          BA  .01594
          169          PB    3.07
```

```
170          LS       0      89
171          UD    .106
             *

172          KK     R10
173          RD    1400    .061     .04        0    TRAP       10        3
             *

174          KK     6-2
175          BA  .05281
176          PB    3.07
177          LS       0      88
178          UD    .082
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

179          KK      C9
180          HC       3
             *

181          KK     6-1
182          BA  .02719
183          PB    3.07
184          LS       0      87
185          UD    .121
             *

186          KK     C10
187          HC       2
             *

188          KK       R
189          RK    2100   0.023   0.025        0    TRAP       15        8
             *

190          KK      T1
191          PB    2.90
192          BA   0.038
193          LS       0      87
194          UK     100    0.02    0.08      100
195          RK     200    0.02   0.017   0.0014    TRAP       60        0
196          RK    1800    0.03   0.017    0.038    TRAP       80        0
             *

197          KK    GB-3
198          PB    2.90
199          BA   0.017
200          LS       0      84
201          UD   0.096
             *

202          KK      U2
203          PB    2.90
204          BA   0.023
205          LS       0      87
206          UK     100    0.02    0.08      100
207          RK     150    0.02   0.017   0.0011    TRAP       60        0
```

```
 208          RK    1500    0.03    0.017    0.023    TRAP      80        0
              *

 209          KK       C
 210          HC       4
              *

 211          KK       R
 212          RK     700   0.004     0.03        0    TRAP      10        4
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 213          KK       R
 214          RK     800   0.004     0.03        0    TRAP      10        4
              *

 215          KK   GB-5A
 216          PB    2.88
 217          BA   0.033
 218          LS       0      84
 219          UD   0.093
              *

 220          KK       C
 221          HC       2
              *

 222          KK      Q1
 223          PB    2.88
 224          BA   0.023
 225          LS       0      87
 226          UK     100    0.02     0.08      100
 227          RK     200    0.02    0.017   0.0014    TRAP      60        0
 228          RK    1300   0.025    0.017    0.023    TRAP      60        0
              *

 229          KK      S1
 230          PB    2.89
 231          BA   0.047
 232          LS       0      87
 233          UK     100    0.02     0.08      100
 234          RK     400    0.02    0.017   0.0029    TRAP      60        0
 235          RK    1400    0.02    0.017    0.049    TRAP      60        0
              *

 236          KK       C
 237          HC       3
              *

 238          KK       R
 239          RK    1500   0.004     0.03        0    TRAP      10        4
              *

 240          KK      S2
 241          PB    2.88
 242          BA   0.022
 243          LS       0      87
```

```
244          UK     100    0.02    0.08     100
245          RK     300    0.02   0.017  0.0022    TRAP      60       0
246          RK    1300    0.02   0.017   0.022    TRAP      60       0
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

247          KK   GB-5B
248          PB    2.88
249          BA   0.012
250          LS       0      84
251          UD    0.09
             *

252          KK       C
253          HC       3
             *

254          KK    GB-6
255          PB    2.87
256          BA   0.028
257          LS       0      84
258          UD   0.102
             *

259          KK       R
260          RK     600    0.01   0.017        0    TRAP      80       0
             *

261          KK      R2
262          PB    2.87
263          BA   0.036
264          LS       0      87
265          UK     100    0.02    0.08     100
266          RK     300    0.02   0.017  0.0022    TRAP      60       0
267          RK    1200    0.02   0.017   0.036    TRAP      60       0
             *

268          KK       C
269          HC       2
             *

270          KK       R
271          RK    1500    0.01   0.017        0    TRAP      80       0
             *

272          KK      R1
273          PB    2.87
274          BA   0.031
275          LS       0      87
276          UK     100    0.02    0.08     100
277          RK     300    0.02   0.017  0.0022    TRAP      60       0
278          RK    1300    0.01   0.017   0.031    TRAP      60       0
             *

279          KK       C
280          HC       2
             *
```

```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  281     KK       C
  282     HC       2
          *

  283     KK   GB-14
  284     PB    2.88
  285     BA   0.012
  286     LS       0      84
  287     UD    0.05
          *

  288     KK       F
  289     PB    2.86
  290     BA   0.005
  291     LS       0      95
  292     UK     100    0.02    0.05     100
  293     RK     300    0.02   0.017  0.0022    TRAP      60        0
          *

  294     KK      CF
  295     HC       4
          *

  296     KK     CCF
  297     HC       2
          *

  298     KK      RF
  299     RK    6000    .015   0.035       0    TRAP      60        2
          *

  300     KK     5-7
  301     BA  .00891
  302     PB    3.15
  303     LS       0      91
  304     UD    .104
          *

  305     KK      R1
  306     RM       1    .136      .2
          *

  307     KK     5-6
  308     BA  .03656
  309     PB    3.15
  310     LS       0      91
  311     UD    .160
          *
```



```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  312     KK      C1
  313     HC       2
```

```
                *
 314            KK      R2
 315            RM       1    .091      .2
                *

 316            KK     5-5
 317            BA  .05016
 318            PB    3.07
 319            LS       0      84
 320            UD    .117
                *

 321            KK     5-8
 322            BA  .03969
 323            PB    3.07
 324            LS       0      91
 325            UD    .111
                *

 326            KK      C2
 327            HC       3
                *

 328            KK      R3
 329            RM       2    .174      .2
                *

 330            KK     5-4
 331            BA  .11563
 332            PB    3.07
 333            LS       0      82
 334            UD    .206
                *

 335            KK      C3
 336            HC       2
                *

 337            KK      R4
 338            RD     800    .025    .013       0    CIRC     5.5
                *

 339            KK     5-2
 340            BA  .02859
 341            PB    3.07
 342            LS       0      88
 343            UD    .074
                *
```



```
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 344            KK      C4
 345            HC       2
                *

 346            KK     5-3
 347            BA  .06078
```

```
348          PB    3.07
349          LS       0      88
350          UD    .182
             *

351          KK      R5
352          RD     900    .117    .016        0    TRAP        0       50
             *

353          KK     5-1
354          BA  .01609
355          PB    3.07
356          LS       0      87
357          UD    .140
             *

358          KK      C5
359          HC       3
             *

360          KK       R
361          RK    3100    0.02   0.025        0    TRAP       15        8
             *

362          KK   GC-5A
363          PB    2.90
364          BA   0.050
365          LS       0      84
366          UD   0.128
             *

367          KK      N1
368          PB    2.90
369          BA   0.046
370          LS       0      85
371          UK     200    0.02     0.1     100
372          RK     300   0.035   0.017  0.0022    TRAP       60        0
373          RK    2200   0.025   0.017   0.046    TRAP       60        0
             *

374          KK       R
375          RK    1500    0.02   0.013        0    CIRC        2        0
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

376          KK       C
377          HC       3
             *

378          KK   GC-5B
379          PB    2.88
380          BA    0.02
381          LS       0      95
382          UD    0.09
             *

383          KK       R
```

```
384          RK     200    0.01   0.017       0    TRAP      80       0
             *

385          KK       C
386          HC       2
             *

387          KK   GC-4A
388          PB     2.9
389          BA   0.027
390          LS       0      84
391          UD   0.109
             *

392          KK       R
393          RK     800   0.004    0.03       0    TRAP      20       4
             *

394          KK       R
395          RK     400    0.01   0.017       0    TRAP      80       0
             *

396          KK   GC-4B
397          PB    2.88
398          BA   0.056
399          LS       0      84
400          UD   0.123
             *

401          KK       R
402          RK    1300   0.015   0.017       0    TRAP      80       0
             *

403          KK       C
404          HC       3
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

405          KK       0
406          PB    2.88
407          BA   0.015
408          LS       0      92
409          UK     100    0.02    0.08     100
410          RK     200    0.05   0.017  0.0014    TRAP      60       0
411          RK     700    0.03    0.03   0.017    TRAP      60       0
             *

412          KK       R
413          RK     450    0.01   0.017       0    TRAP      80       0
             *

414          KK       C
415          HC       2
             *

416          KK       R
417          RK    1600   0.004    0.03       0    TRAP      20       4
```

```
                *
418             KK      H3
419             PB    2.88
420             BA   0.017
421             LS       0      87
422             UK     100    0.02    0.08     100
423             RK     200    0.05   0.017  0.0014    TRAP      60       0
424             RK     100    0.03   0.017   0.017    TRAP      60       0
                *

425             KK       R
426             RK     600   0.004    0.03       0    TRAP      20       4
                *

427             KK   GC-1A
428             PB    2.88
429             BA   0.021
430             LS       0      84
431             UD   0.101
                *

432             KK       C
433             HC       3
                *

434             KK      P2
435             PB    2.90
436             BA   0.066
437             LS       0      87
438             UK     100    0.02     0.1     100
439             RK     400    0.03   0.017  0.0029    TRAP      60       0
440             RK    3700    0.02   0.017   0.066    TRAP      60       0
                *
1                                    HEC-1 INPUT                                    PAGE 14

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

441             KK       R
442             RK     500   0.004    0.03       0    TRAP      10       4
                *

443             KK       C
444             HC       2
                *

445             KK       R
446             RK    1800   0.004    0.03       0    TRAP      15       4
                *

447             KK       Y
448             PB    2.88
449             BA   0.017
450             LS       0      92
451             UK     100    0.02    0.08     100
452             RK     200    0.02   0.017  0.0014    TRAP      60       0
453             RK    1000    0.02   0.017   0.017    TRAP      60       0
                *
```

```
454          KK      H1
455          PB    2.86
456          BA   0.054
457          LS       0      87
458          UK     100    0.02     0.10      100
459          RK     450    0.02    0.017   0.0032    TRAP       60        0
460          RK    2100    0.02    0.017    0.054    TRAP       60        0
             *

461          KK   GC-18
462          PB    2.87
463          BA   0.023
464          LS       0      84
465          UD   0.106
             *

466          KK   GC-1C
467          PB    2.86
468          BA   0.018
469          LS       0      84
470          UD   0.096
             *

471          KK       C
472          HC       5
             *

473          KK       R
474          RK     700   0.004    0.030        0    TRAP       10        4
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

475          KK  C1D1GC
476          PB    2.86
477          BA   0.025
478          LS       0    86.2
479          UD    0.05
             *

480          KK       C
481          HC       2
             *

482          KK      Q2
483          PB    2.88
484          BA   0.076
485          LS       0      92
486          UK     100   0.020     0.10      100
487          RK     400    0.02    0.017   0.0029    TRAP       60        0
488          RK    2000    0.02    0.017    0.076    TRAP       60        0
             *

489          KK       R
490          RK    1400    0.02    0.017        0    TRAP       80        0
             *

491          KK      G1
```

```
492          PB    2.86
493          BA   0.035
494          LS       0    89.5
495          UK     100    0.02    0.10     100
496          RK     400    0.02   0.017  0.0029    TRAP      60       0
497          RK    1000    0.01   0.017   0.035    TRAP      60       0
             *

498          KK      G2
499          PB    2.86
500          BA   0.018
501          LS       0    89.5
502          UK     100    0.02    0.10     100
503          RK     150    0.02   0.017  0.0011    TRAP      60       0
504          RK    1000   0.015   0.017   0.018    TRAP      60       0
             *

505          KK       C
506          HC       3
             *

507          KK       C
508          HC       2
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

509          KK       R
510          RK     500   0.004   0.030       0    TRAP      15       4
             *

511          KK       E
512          PB    2.86
513          BA   0.050
514          LS       0    89.5
515          UK     100    0.02    0.10     100
516          RK     400    0.01   0.017  0.0029    TRAP      60       0
517          RK    1000   0.015   0.017   0.050    TRAP      60       0
             *

518          KK    GB-7
519          PB    2.86
520          BA   0.029
521          LS       0      84
522          UD   0.090
             *

523          KK       C
524          HC       3
             *

525          KK       R
526          RK    1000   0.015   0.015       0    TRAP      15       2
             *

527          KK       8
528          PB    2.86
529          BA   0.036
```

```
 530          LS       0      92
 531          UK     100    0.02    0.08     100
 532          RK     400    0.01   0.017  0.0029    TRAP      60       0
 533          RK     800   0.015   0.015   0.036    TRAP      15       2
              *

 534          KK       C
 535          HC       2
              *

 536          KK   GB-10
 537          PB    2.86
 538          BA   0.006
 539          LS       0      84
 540          UD   0.079
              *

 541          KK       R
 542          RK     800    0.02   0.030       0    TRAP      10       4
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 543          KK    GB-9
 544          PB    2.86
 545          BA   0.011
 546          LS       0      84
 547          UD   0.081
              *

 548          KK       C
 549          HC       2
              *

 550          KK       R
 551          RK     400   0.015   0.017       0    TRAP      50       0
              *

 552          KK   C2+ST
 553          BA   0.037
 554          PB    2.86
 555          LS       0      87
 556          UK     100    0.01    0.08     100
 557          RK     300    0.02   0.017  0.0022    TRAP      60       0
 558          RK    1300   0.015   0.017  0.0406    TRAP      60       0
              *

 559          KK      ST
 560          BA  0.0018
 561          LS       0      95
 562          UD    0.05
              *

 563          KK       C
 564          HC       3
              *

 565          KK       R
```

```
     566          RK     700   0.015   0.017       0    TRAP      50       0
                  *
     567          KK    GB-8
     568          PB    2.86
     569          BA   0.017
     570          LS       0      84
     571          UD   0.087
                  *
     572          KK   EN+ST
     573          BA   0.017
     574          PB    2.86
     575          LS       0      95
     576          UK     100    0.01    0.08     100
     577          RK     300    0.02   0.017  0.0022    TRAP      60       0
     578          RK     700   0.015   0.017  0.0172    TRAP      60       0
                  *
1                                        HEC-1 INPUT                                    PAGE 18

    LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

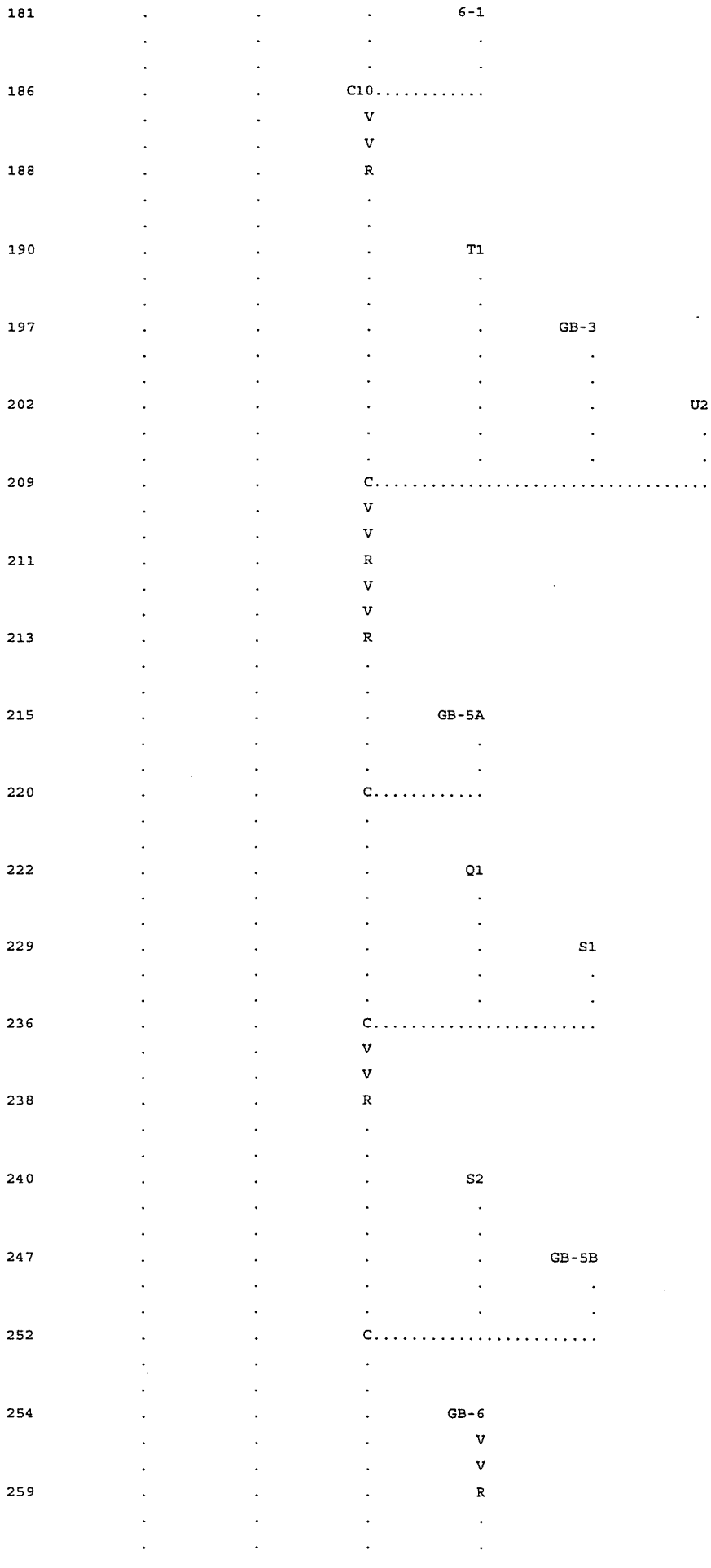
     579          KK     COM
     580          BA   0.019
     581          PB    2.86
     582          LS       0      95
     583          UK     100    0.01    0.05     100
     584          RK     300    0.02   0.017  0.0022    TRAP      60       0
     585          RK     600    0.03   0.025   0.025    TRAP      20       2
                  *
     586          KK       C
     587          HC       4
                  *
     588          KK       C
     589          HC       2
                  *
     590          KK    RCOM
     591          RK    2300    .017   0.035       0    TRAP      40       2
                  *
     592          KK    DSDB
     593          BA   .6092
     594          PB    2.81
     595          LS       0   86.57
     596          UD    .548
                  *
     597          KK   CDSDB
     598          KO       1
     599          HC       3
                  *
     600          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK

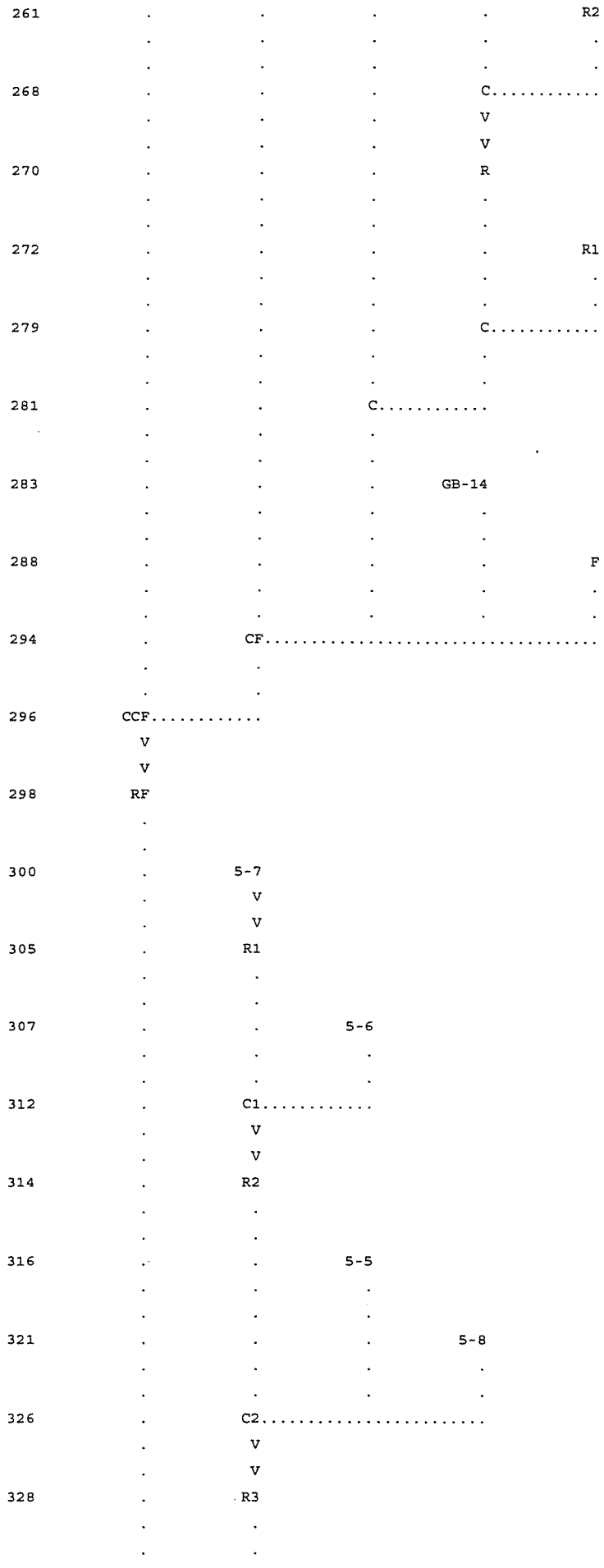
  INPUT
   LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
```

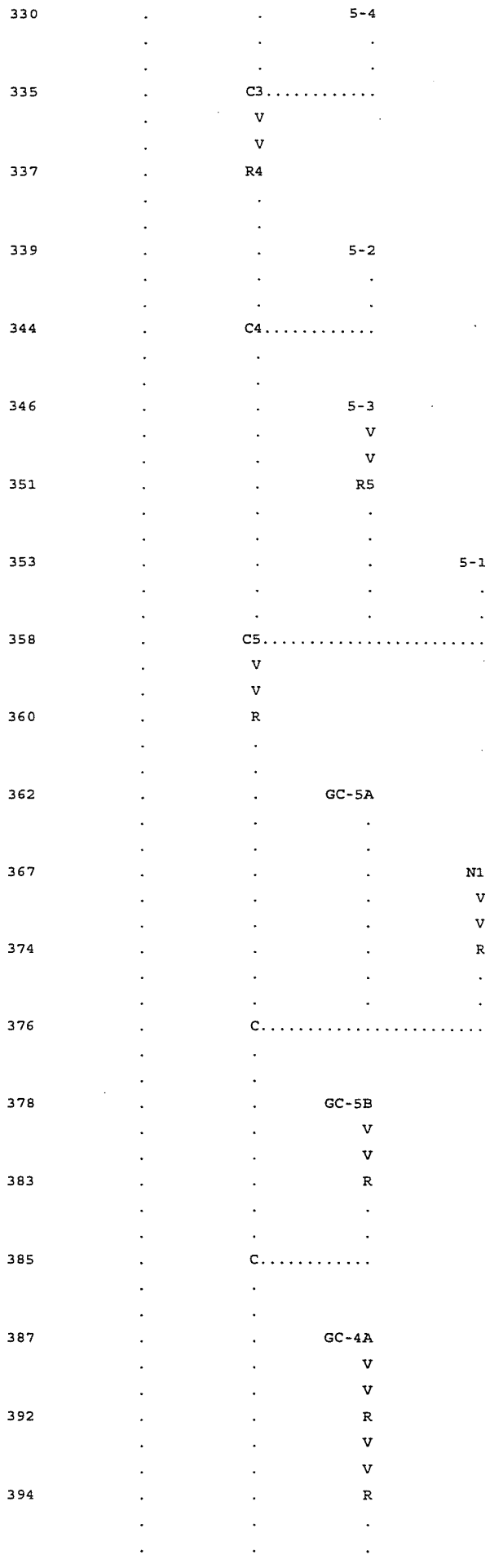
```
NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

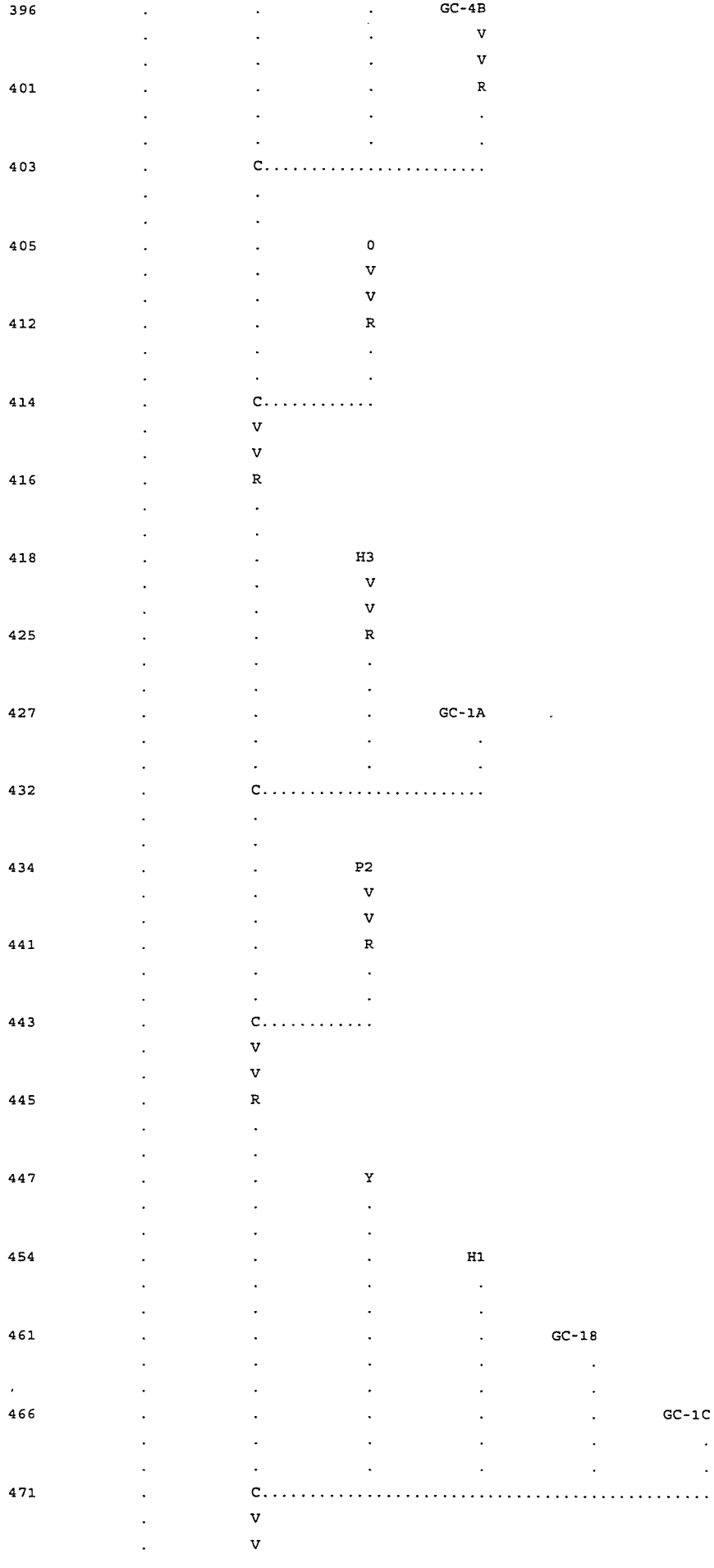
27       GB-1
            .
            .
40          .          U1
            .           V
            .           V
47          .           R
            .           .
            .           .
49          C............
            V
            V
51          R
            .
            .
53          .          W2
            .           .
            .           .
60          C............
            .
            .
62          .          W1
            .           .
            .           .
69          C............
            V
            V
71          R
            .
            .
73          .      GB-2A
            .           .
            .           .
78          .           .          V2
            .           .           .
            .           .           .
85          C.....................
            V
            V
87          R
            .
            .
89          .          V1
            .           .
            .           .
96          .           .      GB-2B
            .           .           .
            .           .           .
101         .           C............
            .           .
            .           .
103         C............
            .
            .
105         .          P1
            .           .
            .           .
```

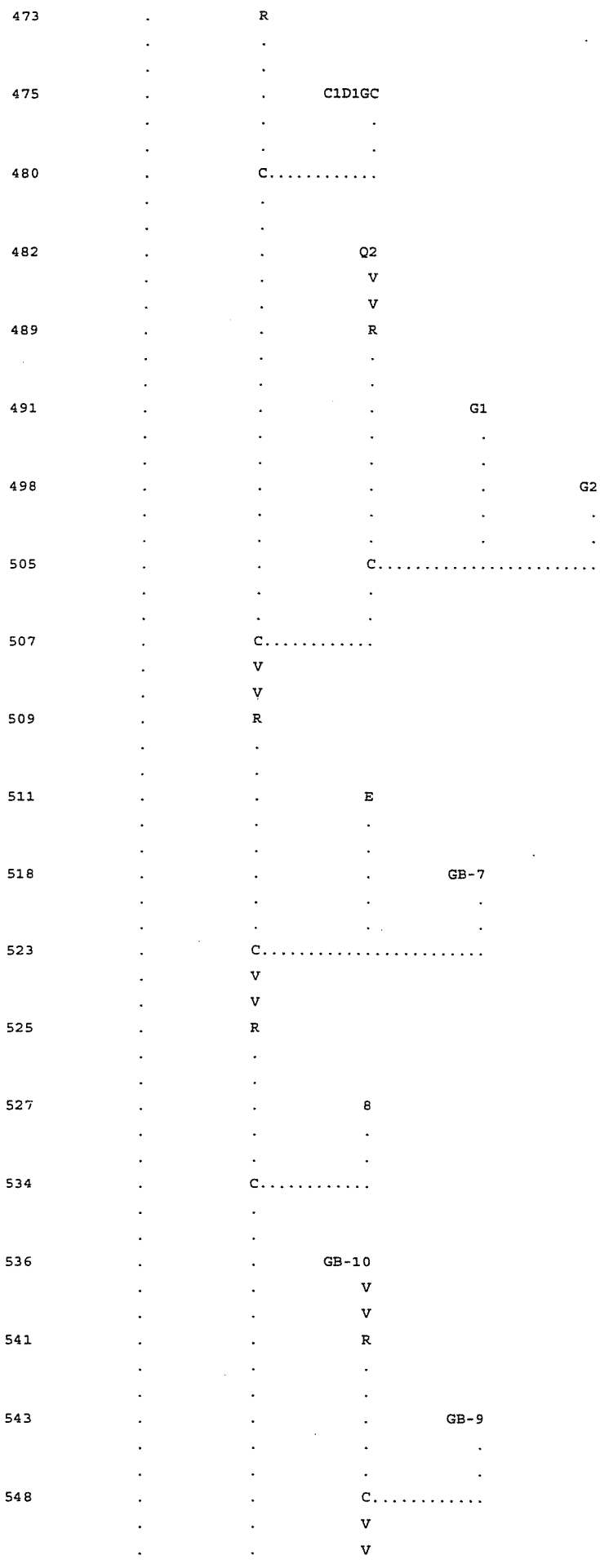
```
112                GB-4
                    .
                    .
117                 .          T2
                    .           .
                    .           .
124                 C.....................
                    V
                    V
126                 R
                    .
                    .
128                 6-8
                    .
                    .
133                 .          6-7
                    .           .
                    .           .
138                 C6.....
                    V
                    V
140                 R6
                    .
                    .
142                 .          6-6
                    .           .
                    .           .
147                 C7.....
                    V
                    V
149                 R7
                    .
                    .
151                 .          6-5
                    .           V
                    .           V
156                 .          R8
                    .           .
                    .           .
158                 .           .          6-4
                    .           .           .
                    .           .           .
163                 C8.....................
                    V
                    V
165                 R9
                    .
                    .
167                 .          6-3
                    .           V
                    .           V
172                 .          R10
                    .           .
                    .           .
174                 .           .          6-2
                    .           .           .
                    .           .           .
179                 C9.....................
                    .
                    .
```

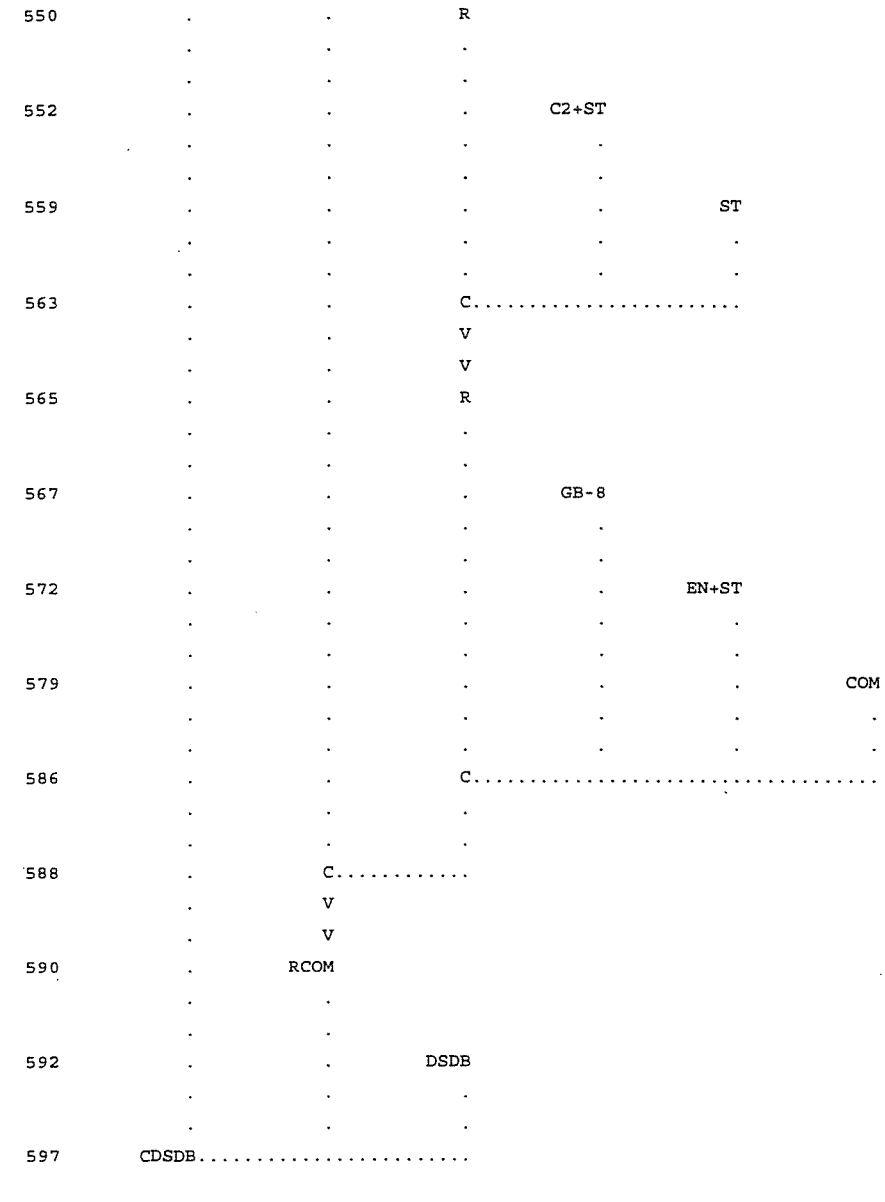

181
6-1
186
C10
188
190
T1
197
GB-3
202
U2
209
C
211
R
213
R
215
GB-5A
220
C
222
Q1
229
S1
236
C
238
R
240
S2
247
GB-5B
252
C
254
GB-6
V
259
R


261
R2
268
C
V
V
270
R
272
R1
279
C
281
C
283
GB-14
288
F
294
CF
296
CCF
V
V
298
RF
300
5-7
V
V
305
R1
307
5-6
312
C1
V
V
314
R2
316
5-5
321
5-8
326
C2
V
V
328
R3


330
5-4
335
C3
337
R4
339
5-2
344
C4
346
5-3
351
R5
353
5-1
358
C5
360
R
362
GC-5A
367
N1
374
376
C
378
GC-5B
383
385
C
387
GC-4A
392
394


396
GC-4B
401
403
405
412
414
416
418
425
427
GC-1A
432
434
441
443
445
447
454
H1
461
GC-18
466
GC-1C
471


473
R
475
C1D1GC
480
C.....
482
Q2
489
R
491
G1
498
G2
505
C.....
507
C.....
509
R
511
E
518
GB-7
523
C.....
525
R
527
8
534
C.....
536
GB-10
541
R
543
GB-9
548
C.....



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            SEPTEMBER 1990             *
*             VERSION 4.0               *
*                                       *
*  RUN DATE  02/21/2000  TIME  18:10:24 *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN
PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,

DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE

100-YEAR, 6-HOUR STORM, SDN3
DARF RATIOS FOR AREAS OF 0, 0.5, 1, 2 AND 2.9 SQUARE MILES FOR THE 100-YEAR EVENT.

24 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN	5	MINUTES IN COMPUTATION INTERVAL
IDATE	1 0	STARTING DATE
ITIME	0000	STARTING TIME
NQ	300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	2 0	ENDING DATE
NDTIME	0055	ENDING TIME
ICENT	19	CENTURY MARK

COMPUTATION INTERVAL .08 HOURS
TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION

NPLAN	1	NUMBER OF PLANS

JR MULTI-RATIO OPTION

RATIOS OF PRECIPITATION

1.00	.98	.97	.93	.92

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** ***

```
          **************
          *            *
597 KK    *     CDSDB  *
          *            *
          **************
```

598 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

599 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE

***

****

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = 1.00

****

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	102.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	90.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	80.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	72.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	64.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	57.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	50.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	43.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	38.	1		1310	159	0.	1		1925	234	0.

1	0045	10	1.	*	1	0700	85	33.	*	1	1315	160	0.	*	1	1930	235	0.
1	0050	11	3.	*	1	0705	86	29.	*	1	1320	161	0.	*	1	1935	236	0.
1	0055	12	5.	*	1	0710	87	25.	*	1	1325	162	0.	*	1	1940	237	0.
1	0100	13	5.	*	1	0715	88	22.	*	1	1330	163	0.	*	1	1945	238	0.
1	0105	14	5.	*	1	0720	89	19.	*	1	1335	164	0.	*	1	1950	239	[redacted]
1	0110	15	4.	*	1	0725	90	17.	*	1	1340	165	0.	*	1	1955	240	[redacted]
1	0115	16	4.	*	1	0730	91	15.	*	1	1345	166	0.	*	1	2000	241	0.
1	0120	17	6.	*	1	0735	92	13.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	8.	*	1	0740	93	11.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	11.	*	1	0745	94	10.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	16.	*	1	0750	95	9.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	21.	*	1	0755	96	8.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	28.	*	1	0800	97	8.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	35.	*	1	0805	98	7.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	41.	*	1	0810	99	6.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	48.	*	1	0815	100	6.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	55.	*	1	0820	101	5.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	64.	*	1	0825	102	5.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	75.	*	1	0830	103	4.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	88.	*	1	0835	104	4.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	99.	*	1	0840	105	4.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	110.	*	1	0845	106	3.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	118.	*	1	0850	107	3.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	127.	*	1	0855	108	3.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	142.	*	1	0900	109	3.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	162.	*	1	0905	110	3.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	178.	*	1	0910	111	2.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	188.	*	1	0915	112	2.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	195.	*	1	0920	113	2.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	212.	*	1	0925	114	2.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	263.	*	1	0930	115	2.	*	1	1545	190	0.	*	1	2200	265	[redacted]
1	0320	41	427.	*	1	0935	116	2.	*	1	1550	191	0.	*	1	2205	266	[redacted]
1	0325	42	857.	*	1	0940	117	2.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1659.	*	1	0945	118	2.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	2530.	*	1	0950	119	2.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2807.	*	1	0955	120	1.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	2681.	*	1	1000	121	1.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	2477.	*	1	1005	122	1.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	2243.	*	1	1010	123	1.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1985.	*	1	1015	124	1.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1731.	*	1	1020	125	1.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1488.	*	1	1025	126	1.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1266.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	1067.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	901.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	781.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	714.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	694.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	710.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	745.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	772.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	773.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	754.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	707.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	638.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	560.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	[redacted]
1	0525	66	482.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	[redacted]
1	0530	67	411.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	347.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	291.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.

1	0545	70	244.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	207.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	177.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	152.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	132.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	115.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
		6-HR	24-HR	72-HR	24.92-HR	
+ (CFS)	(HR)					
		(CFS)				
+ 2807.	3.67	521.	131.	126.	126.	
		(INCHES)	1.670	1.680	1.680	1.680
		(AC-FT)	259.	260.	260.	260.

CUMULATIVE AREA = 2.90 SQ MI

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HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .98

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	100.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	89.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	79.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	70.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	63.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	56.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	49.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	43.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	0.	*	1		0655	84	37.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	1.	*	1		0700	85	32.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	2.	*	1		0705	86	28.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	4.	*	1		0710	87	25.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	5.	*	1		0715	88	21.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	4.	*	1		0720	89	19.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	4.	*	1		0725	90	17.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	4.	*	1		0730	91	14.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	5.	*	1		0735	92	13.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	7.	*	1		0740	93	11.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	10.	*	1		0745	94	10.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	14.	*	1		0750	95	9.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	19.	*	1		0755	96	8.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	25.	*	1		0800	97	7.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	32.	*	1		0805	98	7.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	38.	*	1		0810	99	6.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	44.	*	1		0815	100	6.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	49.	*	1		0820	101	5.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	58.	*	1		0825	102	5.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	67.	*	1		0830	103	4.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	79.	*	1		0835	104	4.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	92.	*	1		0840	105	4.	*	1		1455	180	0.	*	1		2110	255	0.

1	0230	31	103.	*	1	0845	106	3.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	111.	*	1	0850	107	3.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	119.	*	1	0855	108	3.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	134.	*	1	0900	109	3.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	153.	*	1	0905	110	3.	*	1	1520	185	0.	*	1	2135	260	[redacted]
1	0255	36	168.	*	1	0910	111	2.	*	1	1525	186	0.	*	1	2140	261	
1	0300	37	179.	*	1	0915	112	2.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	186.	*	1	0920	113	2.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	203.	*	1	0925	114	2.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	251.	*	1	0930	115	2.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	409.	*	1	0935	116	2.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	794.	*	1	0940	117	2.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1566.	*	1	0945	118	2.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	2433.	*	1	0950	119	2.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2723.	*	1	0955	120	1.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	2609.	*	1	1000	121	1.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	2414.	*	1	1005	122	1.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	2186.	*	1	1010	123	1.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1937.	*	1	1015	124	1.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1689.	*	1	1020	125	1.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1454.	*	1	1025	126	1.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1237.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	1043.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	881.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	764.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	696.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	673.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	688.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	726.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	750.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	754.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	[redacted]
1	0505	62	735.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	692.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	625.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	548.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	473.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	403.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	340.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	285.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	240.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	204.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	174.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	149.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	130.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	114.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2723.	3.67		506.	127.	122.	122.
		(INCHES)	1.619	1.629	1.629	1.629
		(AC-FT)	251.	252.	252.	252.

CUMULATIVE AREA = 2.90 SQ MI

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HYDROGRAPH AT STATION CDSDB

SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .97

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	99.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	88.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	78.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	70.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	62.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	55.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	48.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	42.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	0.	*	1		0655	84	37.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	0.	*	1		0700	85	32.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	2.	*	1		0705	86	28.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	4.	*	1		0710	87	24.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	4.	*	1		0715	88	21.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	4.	*	1		0720	89	19.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	4.	*	1		0725	90	16.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	3.	*	1		0730	91	14.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	4.	*	1		0735	92	13.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	6.	*	1		0740	93	11.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	9.	*	1		0745	94	10.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	13.	*	1		0750	95	9.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	19.	*	1		0755	96	8.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	25.	*	1		0800	97	7.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	32.	*	1		0805	98	7.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	37.	*	1		0810	99	6.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	42.	*	1		0815	100	6.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	48.	*	1		0820	101	5.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	56.	*	1		0825	102	5.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	64.	*	1		0830	103	4.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	75.	*	1		0835	104	4.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	87.	*	1		0840	105	4.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	99.	*	1		0845	106	3.	*	1		1500	181	0.	*	1		2115	256	0.
1		0235	32	106.	*	1		0850	107	3.	*	1		1505	182	0.	*	1		2120	257	0.
1		0240	33	115.	*	1		0855	108	3.	*	1		1510	183	0.	*	1		2125	258	0.
1		0245	34	128.	*	1		0900	109	3.	*	1		1515	184	0.	*	1		2130	259	0.
1		0250	35	147.	*	1		0905	110	3.	*	1		1520	185	0.	*	1		2135	260	0.
1		0255	36	163.	*	1		0910	111	2.	*	1		1525	186	0.	*	1		2140	261	0.
1		0300	37	174.	*	1		0915	112	2.	*	1		1530	187	0.	*	1		2145	262	0.
1		0305	38	182.	*	1		0920	113	2.	*	1		1535	188	0.	*	1		2150	263	0.
1		0310	39	198.	*	1		0925	114	2.	*	1		1540	189	0.	*	1		2155	264	0.
1		0315	40	244.	*	1		0930	115	2.	*	1		1545	190	0.	*	1		2200	265	0.
1		0320	41	395.	*	1		0935	116	2.	*	1		1550	191	0.	*	1		2205	266	0.
1		0325	42	786.	*	1		0940	117	2.	*	1		1555	192	0.	*	1		2210	267	0.
1		0330	43	1525.	*	1		0945	118	2.	*	1		1600	193	0.	*	1		2215	268	0.
1		0335	44	2432.	*	1		0950	119	2.	*	1		1605	194	0.	*	1		2220	269	0.
1		0340	45	2688.	*	1		0955	120	1.	*	1		1610	195	0.	*	1		2225	270	0.
1		0345	46	2575.	*	1		1000	121	1.	*	1		1615	196	0.	*	1		2230	271	0.
1		0350	47	2380.	*	1		1005	122	1.	*	1		1620	197	0.	*	1		2235	272	0.
1		0355	48	2157.	*	1		1010	123	1.	*	1		1625	198	0.	*	1		2240	273	0.
1		0400	49	1913.	*	1		1015	124	1.	*	1		1630	199	0.	*	1		2245	274	0.
1		0405	50	1669.	*	1		1020	125	1.	*	1		1635	200	0.	*	1		2250	275	0.
1		0410	51	1437.	*	1		1025	126	1.	*	1		1640	201	0.	*	1		2255	276	0.

1	0415	52	1222.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	1031.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	871.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	755.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	688.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	
1	0440	57	665.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	
1	0445	58	678.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	716.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	741.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	744.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	726.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	682.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	617.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	542.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	468.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	399.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	337.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	283.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	238.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	202.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	172.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	148.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	129.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	112.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2688.	3.67		499.	125.	121.	121.
		(INCHES)	1.597	1.607	1.607	1.607
		(AC-FT)	247.	249.	249.	249.

CUMULATIVE AREA = 2.90 SQ MI

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HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .93

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				*					*					*				
DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	96.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	85.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	75.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	67.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	59.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	53.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	47.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	41.	*	1		1305	158	0.	*	1		1920	233	
1		0040	9	0.	*	1		0655	84	36.	*	1		1310	159	0.	*	1		1925	234	
1		0045	10	0.	*	1		0700	85	31.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	2.	*	1		0705	86	27.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	4.	*	1		0710	87	24.	*	1		1325	162	0.	*	1		1940	237	0.

1	0100	13	4.	*	1	0715	88	21.	*	1	1330	163	0.	*	1	1945	238	0.
1	0105	14	3.	*	1	0720	89	18.	*	1	1335	164	0.	*	1	1950	239	0.
1	0110	15	3.	*	1	0725	90	16.	*	1	1340	165	0.	*	1	1955	240	0.
1	0115	16	3.	*	1	0730	91	14.	*	1	1345	166	0.	*	1	2000	241	0.
1	0120	17	3.	*	1	0735	92	13.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	4.	*	1	0740	93	11.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	6.	*	1	0745	94	10.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	9.	*	1	0750	95	9.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	13.	*	1	0755	96	8.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	19.	*	1	0800	97	7.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	25.	*	1	0805	98	7.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	30.	*	1	0810	99	6.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	34.	*	1	0815	100	6.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	39.	*	1	0820	101	5.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	44.	*	1	0825	102	5.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	52.	*	1	0830	103	4.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	61.	*	1	0835	104	4.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	73.	*	1	0840	105	4.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	84.	*	1	0845	106	3.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	92.	*	1	0850	107	3.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	100.	*	1	0855	108	3.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	112.	*	1	0900	109	3.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	129.	*	1	0905	110	3.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	143.	*	1	0910	111	2.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	155.	*	1	0915	112	2.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	164.	*	1	0920	113	2.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	179.	*	1	0925	114	2.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	220.	*	1	0930	115	2.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	352.	*	1	0935	116	2.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	687.	*	1	0940	117	2.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1365.	*	1	0945	118	2.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	2174.	*	1	0950	119	2.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2499.	*	1	0955	120	1.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	2429.	*	1	1000	121	1.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	2251.	*	1	1005	122	1.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	2047.	*	1	1010	123	1.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1817.	*	1	1015	124	1.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1586.	*	1	1020	125	1.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1366.	*	1	1025	126	1.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1164.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	982.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	830.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	719.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	651.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	627.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	638.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	673.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	699.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	704.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	689.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	650.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	590.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	519.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	449.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	383.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	324.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	272.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	229.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	194.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	166.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.

1	0600	73	143.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	125.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	109.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
		6-HR	24-HR	72-HR	24.92-HR	
+ (CFS)	(HR)					
		(CFS)				
+ 2499.	3.67	467.	117.	113.	113.	
		(INCHES)	1.494	1.503	1.503	1.503
		(AC-FT)	231.	233.	233.	233.

CUMULATIVE AREA = 2.90 SQ MI

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HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .92

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
					*						*						*					
1		0000	1	0.	*	1		0615	76	94.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	84.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	75.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	67.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	60.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	53.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	46.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	41.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	0.	*	1		0655	84	36.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	0.	*	1		0700	85	31.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	1.	*	1		0705	86	27.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	2.	*	1		0710	87	24.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	3.	*	1		0715	88	21.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	3.	*	1		0720	89	18.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	3.	*	1		0725	90	16.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	3.	*	1		0730	91	14.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	3.	*	1		0735	92	13.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	4.	*	1		0740	93	11.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	6.	*	1		0745	94	10.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	8.	*	1		0750	95	9.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	12.	*	1		0755	96	8.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	18.	*	1		0800	97	7.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	24.	*	1		0805	98	7.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	28.	*	1		0810	99	6.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	32.	*	1		0815	100	6.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	37.	*	1		0820	101	5.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	42.	*	1		0825	102	5.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	49.	*	1		0830	103	4.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	58.	*	1		0835	104	4.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	69.	*	1		0840	105	4.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	80.	*	1		0845	106	3.	*	1		1500	181	0.	*	1		2115	256	0.
1		0235	32	89.	*	1		0850	107	3.	*	1		1505	182	0.	*	1		2120	257	0.
1		0240	33	97.	*	1		0855	108	3.	*	1		1510	183	0.	*	1		2125	258	0.

1	0245	34	108.	*	1	0900	109	3.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	125.	*	1	0905	110	3.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	140.	*	1	0910	111	2.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	150.	*	1	0915	112	2.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	159.	*	1	0920	113	2.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	175.	*	1	0925	114	2.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	214.	*	1	0930	115	2.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	342.	*	1	0935	116	2.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	667.	*	1	0940	117	2.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1321.	*	1	0945	118	2.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	2123.	*	1	0950	119	2.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	2476.	*	1	0955	120	1.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	2400.	*	1	1000	121	1.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	2223.	*	1	1005	122	1.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	2020.	*	1	1010	123	1.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1795.	*	1	1015	124	1.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1568.	*	1	1020	125	1.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1351.	*	1	1025	126	1.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1150.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	972.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	821.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	712.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	646.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	622.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	631.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	664.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	691.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	696.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	681.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	643.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	583.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	514.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	445.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	380.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	321.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	270.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	227.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	192.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	165.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	142.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	123.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	108.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2476.	3.67		460.	116.	111.	111.
		(INCHES)	1.472	1.481	1.481	1.481
		(AC-FT)	228.	229.	229.	229.

CUMULATIVE AREA = 2.90 SQ MI

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PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS

FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES

TIME TO PEAK IN HOURS

					RATIOS APPLIED TO PRECIPITATION				
OPERATION	STATION	AREA	PLAN		RATIO 1	RATIO 2	RATIO 3	RATIO 4	RATIO 5
					1.00	.98	.97	.93	.92
HYDROGRAPH AT									
+	GB-1	.01	1	FLOW	13.	13.	13.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	U1	.03	1	FLOW	53.	52.	51.	47.	47.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.03	1	FLOW	50.	48.	47.	44.	43.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.04	1	FLOW	63.	61.	60.	56.	55.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.04	1	FLOW	61.	58.	57.	53.	52.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	W2	.01	1	FLOW	23.	22.	22.	21.	20.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.05	1	FLOW	84.	81.	79.	74.	73.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	W1	.03	1	FLOW	56.	55.	54.	50.	49.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.09	1	FLOW	140.	135.	133.	124.	122.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.09	1	FLOW	132.	127.	125.	116.	114.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-2A	.01	1	FLOW	19.	19.	18.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	V2	.03	1	FLOW	58.	56.	55.	52.	51.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.13	1	FLOW	209.	202.	199.	185.	182.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.13	1	FLOW	201.	195.	193.	181.	178.

				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	V1	.05	1	FLOW	92.	88.	87.	82.	81.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-2B	.01	1	FLOW	10.	10.	9.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.06	1	FLOW	102.	98.	97.	90.	89.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.19	1	FLOW	295.	287.	283.	266.	263.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	P1	.09	1	FLOW	154.	149.	145.	136.	134.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-4	.04	1	FLOW	45.	43.	43.	40.	39.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	T2	.02	1	FLOW	32.	31.	31.	29.	29.
				TIME	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT									
+	C	.15	1	FLOW	229.	221.	217.	202.	199.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.15	1	FLOW	221.	215.	211.	199.	196.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	6-8	.03	1	FLOW	58.	57.	56.	54.	53.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	6-7	.01	1	FLOW	14.	14.	14.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C6	.04	1	FLOW	71.	70.	69.	65.	65.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R6	.04	1	FLOW	69.	68.	67.	64.	63.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	6-6	.03	1	FLOW	67.	66.	65.	62.	61.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C7	.07	1	FLOW	135.	132.	131.	124.	123.

				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R7	.07	1	FLOW	117.	114.	113.	107.	106.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	6-5	.10	1	FLOW	148.	144.	142.	133.	132.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R8	.10	1	FLOW	145.	141.	139.	131.	129.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	6-4	.19	1	FLOW	204.	197.	194.	181.	178.
				TIME	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT									
+	C8	.37	1	FLOW	459.	445.	439.	413.	407.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R9	.37	1	FLOW	450.	437.	431.	405.	400.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	6-3	.02	1	FLOW	27.	26.	26.	25.	24.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R10	.02	1	FLOW	27.	26.	26.	24.	24.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	6-2	.05	1	FLOW	95.	93.	92.	86.	85.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C9	.43	1	FLOW	508.	494.	487.	459.	452.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	6-1	.03	1	FLOW	42.	41.	41.	38.	38.
				TIME	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT									
+	C10	.46	1	FLOW	532.	517.	510.	481.	474.
				TIME	3.75	3.75	3.75	3.75	3.75
ROUTED TO									
+	R	.46	1	FLOW	531.	516.	509.	479.	472.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	T1	.04	1	FLOW	63.	61.	60.	56.	54.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-3	.02	1	FLOW	23.	22.	22.	20.	20.

				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	U2	.02	1	FLOW	38.	37.	36.	34.	33.
				TIME	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT									
+	C	.54	1	FLOW	585.	569.	561.	528.	521.
				TIME	3.75	3.75	3.75	3.75	3.75
ROUTED TO									
+	R	.54	1	FLOW	584.	568.	560.	528.	520.
				TIME	3.75	3.75	3.75	3.75	3.75
ROUTED TO									
+	R	.54	1	FLOW	583.	567.	559.	526.	519.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	GB-5A	.03	1	FLOW	44.	43.	42.	39.	39.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.57	1	FLOW	605.	588.	580.	546.	538.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	Q1	.02	1	FLOW	39.	37.	37.	34.	34.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	S1	.05	1	FLOW	78.	76.	74.	69.	68.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.64	1	FLOW	657.	639.	630.	593.	585.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.64	1	FLOW	657.	638.	629.	591.	583.
				TIME	3.67	3.67	3.67	3.67	3.75
HYDROGRAPH AT									
+	S2	.02	1	FLOW	36.	35.	34.	32.	31.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-5B	.01	1	FLOW	16.	16.	16.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.68	1	FLOW	687.	667.	657.	618.	609.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	GB-6	.03	1	FLOW	36.	35.	34.	32.	31.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.03	1	FLOW	35.	34.	34.	31.	31.

				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	R2	.04	1	FLOW	60.	59.	58.	54.	53.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.06	1	FLOW	93.	90.	89.	83.	81.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.06	1	FLOW	89.	87.	85.	80.	79.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	R1	.03	1	FLOW	50.	48.	47.	44.	44.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.09	1	FLOW	135.	131.	130.	122.	120.
				TIME	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT									
+	C	.77	1	FLOW	796.	772.	758.	711.	701.
				TIME	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT									
+	GB-14	.01	1	FLOW	19.	19.	19.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	F	.00	1	FLOW	12.	12.	12.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT									
+	CF	.94	1	FLOW	1034.	1002.	985.	923.	909.
				TIME	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT									
+	CCF	1.13	1	FLOW	1328.	1289.	1268.	1190.	1172.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	RF	1.13	1	FLOW	1298.	1260.	1249.	1150.	1149.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	5-7	.01	1	FLOW	17.	17.	16.	15.	15.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R1	.01	1	FLOW	15.	14.	14.	13.	13.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	5-6	.04	1	FLOW	64.	63.	62.	59.	58.
				TIME	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT									
+	C1	.05	1	FLOW	78.	77.	76.	72.	71.

				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R2	.05	1	FLOW	73.	71.	70.	67.	66.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	5-5	.05	1	FLOW	70.	68.	67.	63.	62.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	5-8	.04	1	FLOW	71.	69.	68.	65.	64.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C2	.14	1	FLOW	205.	199.	196.	185.	183.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R3	.14	1	FLOW	182.	177.	174.	165.	162.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	5-4	.12	1	FLOW	124.	120.	118.	110.	109.
				TIME	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT									
+	C3	.25	1	FLOW	294.	285.	281.	263.	259.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R4	.25	1	FLOW	292.	283.	279.	262.	259.
				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	5-2	.03	1	FLOW	53.	52.	51.	48.	48.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C4	.28	1	FLOW	317.	308.	303.	284.	280.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	5-3	.06	1	FLOW	89.	86.	85.	80.	79.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R5	.06	1	FLOW	86.	83.	82.	77.	76.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	5-1	.02	1	FLOW	25.	24.	24.	22.	22.
				TIME	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT									
+	C5	.36	1	FLOW	422.	410.	403.	379.	374.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.36	1	FLOW	413.	401.	395.	371.	366.

				TIME	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT									
+	GC-5A	.05	1	FLOW	64.	62.	61.	57.	56.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	N1	.05	1	FLOW	65.	63.	62.	58.	57.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R	.05	1	FLOW	64.	62.	60.	56.	55.
				TIME	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT									
+	C	.45	1	FLOW	512.	496.	489.	459.	452.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	GC-5B	.02	1	FLOW	40.	39.	39.	37.	37.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.02	1	FLOW	39.	39.	38.	36.	36.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.47	1	FLOW	536.	520.	512.	481.	474.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	GC-4A	.03	1	FLOW	35.	33.	33.	31.	30.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R	.03	1	FLOW	34.	33.	33.	30.	30.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R	.03	1	FLOW	33.	32.	31.	29.	29.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	GC-4B	.06	1	FLOW	71.	69.	67.	63.	62.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R	.06	1	FLOW	68.	66.	65.	61.	60.
				TIME	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT									
+	C	.56	1	FLOW	629.	610.	601.	565.	557.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	0	.01	1	FLOW	31.	31.	30.	28.	28.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.01	1	FLOW	30.	29.	29.	27.	27.

				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.57	1	FLOW	645.	626.	617.	579.	571.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.57	1	FLOW	644.	624.	615.	576.	568.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	H3	.02	1	FLOW	32.	31.	31.	29.	28.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.02	1	FLOW	28.	28.	27.	25.	25.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GC-1A	.02	1	FLOW	27.	26.	26.	24.	24.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.61	1	FLOW	677.	657.	647.	607.	598.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	P2	.07	1	FLOW	103.	100.	99.	92.	90.
				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	R	.07	1	FLOW	100.	97.	96.	89.	87.
				TIME	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT									
+	C	.67	1	FLOW	758.	737.	726.	681.	671.
				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.67	1	FLOW	748.	725.	713.	666.	655.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	Y	.02	1	FLOW	35.	34.	33.	32.	31.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	H1	.05	1	FLOW	83.	80.	80.	75.	74.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	GC-18	.02	1	FLOW	29.	28.	28.	26.	25.
				TIME	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	GC-1C	.02	1	FLOW	24.	23.	22.	21.	21.
				TIME	3.50	3.50	3.50	3.50	3.50
5 COMBINED AT									
+	C	.79	1	FLOW	852.	826.	813.	762.	750.

				TIME	3.67	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.79	1	FLOW	844.	818.	804.	752.	740.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	C1D1GC	.03	1	FLOW	44.	42.	42.	39.	39.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.81	1	FLOW	862.	835.	822.	768.	756.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	Q2	.08	1	FLOW	148.	144.	141.	134.	132.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.08	1	FLOW	137.	134.	132.	125.	124.
				TIME	3.50	3.50	3.58	3.58	3.58
HYDROGRAPH AT									
+	G1	.04	1	FLOW	62.	60.	60.	56.	55.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	G2	.02	1	FLOW	33.	32.	31.	29.	29.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.13	1	FLOW	232.	226.	222.	208.	205.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.94	1	FLOW	1012.	980.	965.	905.	893.
				TIME	3.58	3.67	3.67	3.67	3.67
ROUTED TO									
+	R	.94	1	FLOW	1009.	980.	965.	904.	891.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	E	.05	1	FLOW	89.	86.	86.	80.	79.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	GB-7	.03	1	FLOW	39.	38.	37.	35.	34.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	1.02	1	FLOW	1101.	1063.	1043.	973.	955.
				TIME	3.58	3.58	3.58	3.58	3.67
ROUTED TO									
+	R	1.02	1	FLOW	1084.	1050.	1034.	969.	955.
				TIME	3.58	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	8	.04	1	FLOW	74.	72.	71.	67.	66.

				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	1.06	1	FLOW	1138.	1099.	1079.	1007.	987.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	GB-10	.01	1	FLOW	8.	8.	8.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.01	1	FLOW	8.	7.	7.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT									
+	GB-9	.01	1	FLOW	15.	15.	15.	14.	13.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	.02	1	FLOW	23.	22.	22.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.02	1	FLOW	22.	21.	21.	19.	19.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	C2+ST	.04	1	FLOW	59.	56.	55.	51.	50.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	ST	.00	1	FLOW	4.	4.	4.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT									
+	C	.06	1	FLOW	84.	81.	80.	74.	73.
				TIME	3.50	3.50	3.50	3.50	3.50
ROUTED TO									
+	R	.06	1	FLOW	80.	77.	75.	71.	70.
				TIME	3.50	3.50	3.58	3.58	3.58
HYDROGRAPH AT									
+	GB-8	.02	1	FLOW	23.	22.	22.	21.	20.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	EN+ST	.02	1	FLOW	37.	36.	35.	34.	33.
				TIME	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT									
+	COM	.02	1	FLOW	44.	43.	43.	40.	40.
				TIME	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT									
+	C	.11	1	FLOW	184.	178.	176.	165.	162.
				TIME	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT									
+	C	1.16	1	FLOW	1292.	1250.	1227.	1148.	1126.

				TIME	3.58	3.58	3.58	3.58	3.58
ROUTED TO									
+	RCOM	1.16	1	FLOW	1242.	1205.	1186.	1113.	1096.
				TIME	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT									
+	DSDB	.61	1	FLOW	438.	424.	418.	392.	386.
				TIME	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT									
+	CDSDB	2.90	1	FLOW	2807.	2723.	2688.	2499.	2476.
				TIME	3.67	3.67	3.67	3.67	3.67

*** NORMAL END OF HEC-1 ***

APPENDIX IV

HYDRAULIC PARAMETERS, CALCULATIONS AND EXHIBITS

Cross-Section 1 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 1
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data		
Channel Slope	0.010000	ft/ft

Elevation range: 0.00 ft to 5.50 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	3.50	0.00	126.64	0.035
19.94	2.00			
85.94	1.00			
87.94	0.00			
115.94	0.00			
126.64	5.50			

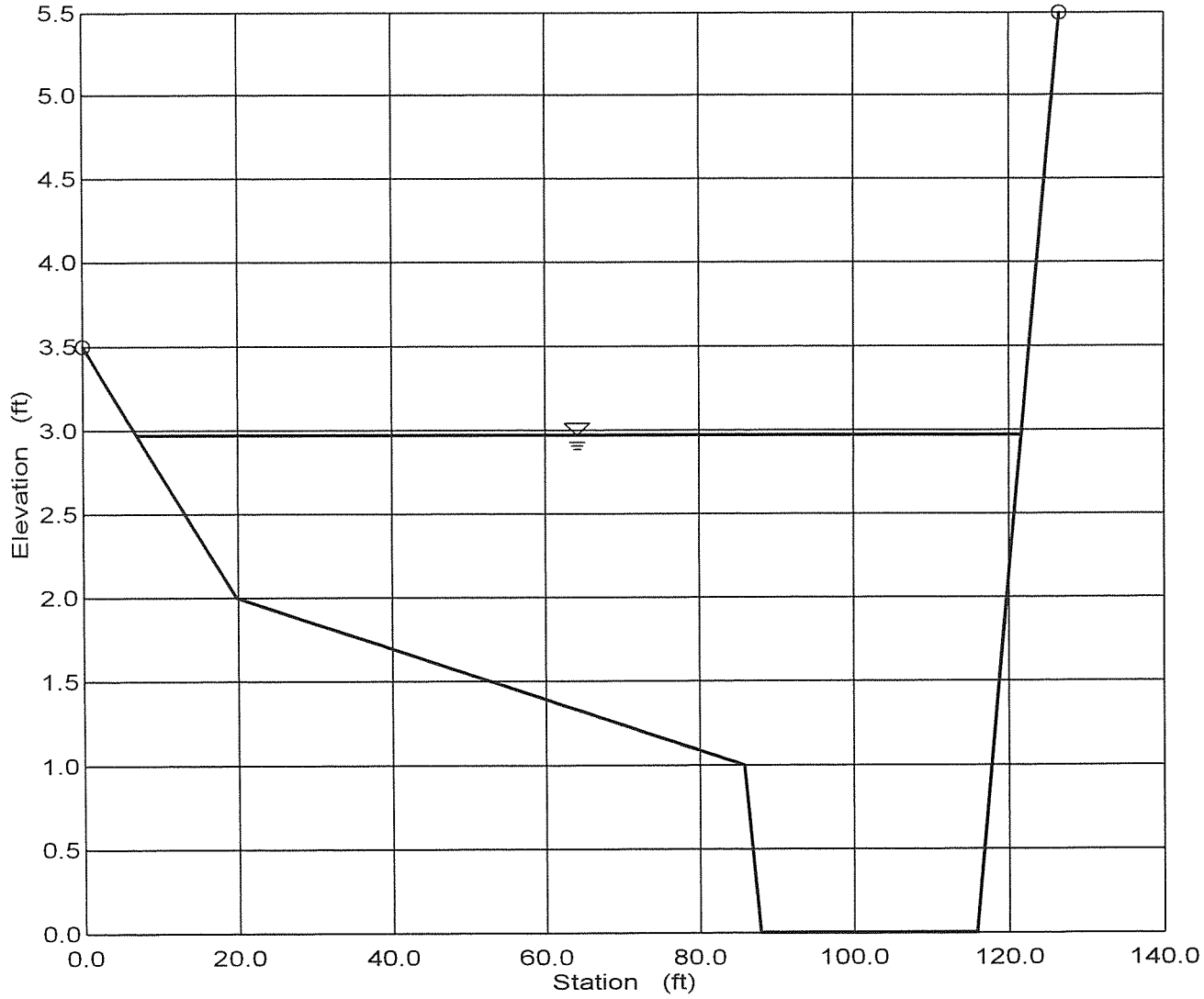
Discharge	1,221.00	cfs

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2.97	ft
Flow Area	199.77	ft²
Wetted Perimeter	115.65	ft
Top Width	114.65	ft
Height	2.97	ft
Critical Depth	2.73	ft
Critical Slope	0.015579	ft/ft
Velocity	6.11	ft/s
Velocity Head	0.58	ft
Specific Energy	3.55	ft
Froude Number	0.82	
Flow is subcritical.		

Cross-Section 1 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 1
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.010000	ft/ft
Water Surface Elevation	2.97	ft
Discharge	1,221.00	cfs



Cross-Section 2 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 2
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

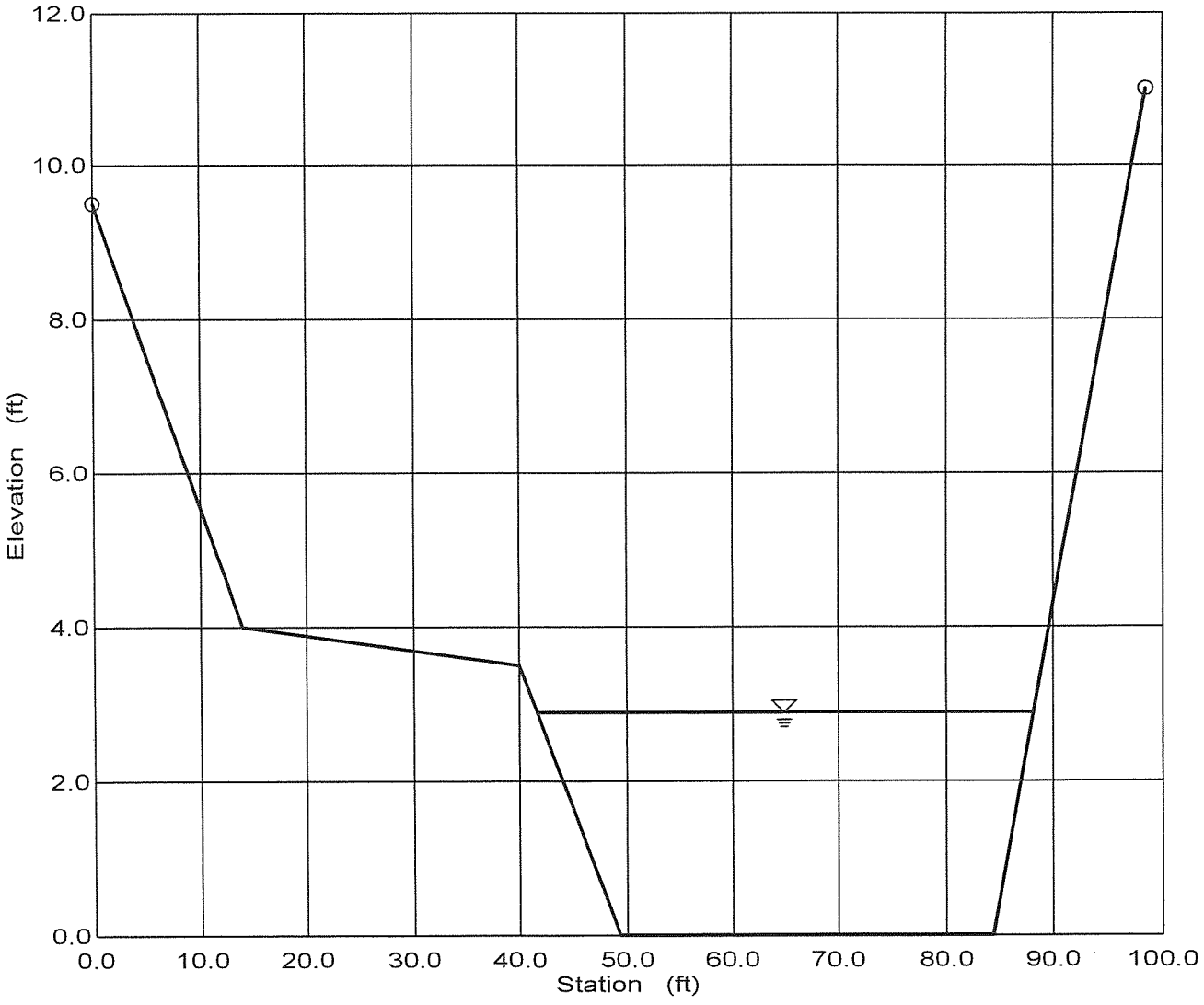
Input Data				
Channel Slope	0.018000 ft/ft			
Elevation range: 0.00 ft to 11.00 ft.				
Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	9.50	0.00	98.60	0.035
13.95	4.00			
39.95	3.50			
49.35	0.00			
84.35	0.00			
98.60	11.00			
Discharge	1,221.00 cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2.89	ft
Flow Area	117.83	ft^2
Wetted Perimeter	48.02	ft
Top Width	46.51	ft
Height	2.89	ft
Critical Depth	3.15	ft
Critical Slope	0.013353	ft/ft
Velocity	10.36	ft/s
Velocity Head	1.67	ft
Specific Energy	4.56	ft
Froude Number	1.15	
Flow is supercritical.		

Cross-Section 2 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 2
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.018000	ft/ft
Water Surface Elevation	2.89	ft
Discharge	1,221.00	cfs



Cross-Section 3 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

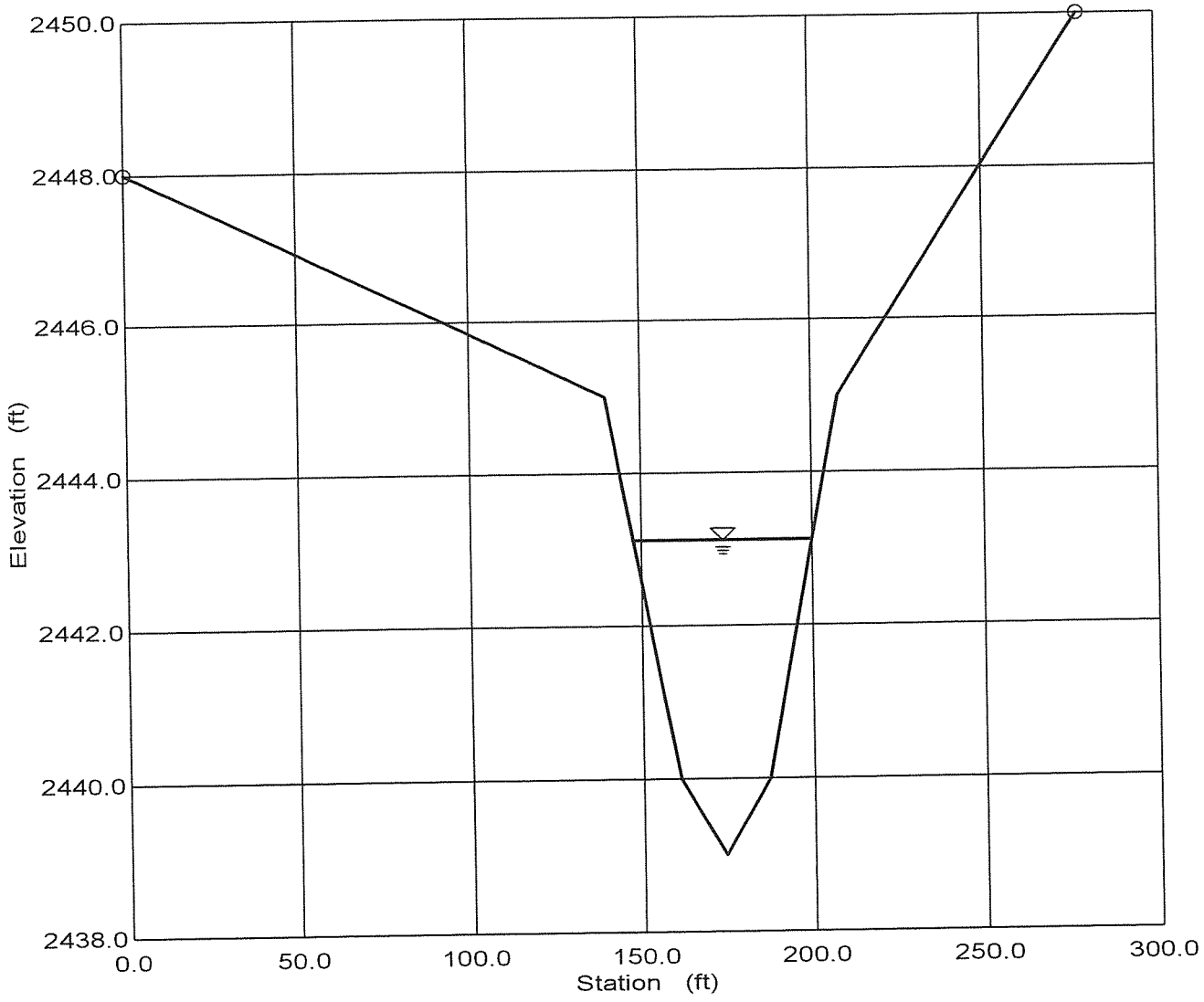
Input Data					
Channel Slope	0.012990 ft/ft				
Elevation range: 2,439.00 ft to 2,450.00 ft.					
Station (ft)	Elevation (ft)		Start Station	End Station	Roughness
0.00	2,448.00		0.00	278.00	0.035
140.00	2,445.00				
161.00	2,440.00				
174.00	2,439.00				
187.00	2,440.00				
208.00	2,445.00				
278.00	2,450.00				
Discharge	1,221.00	cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,443.12	ft
Flow Area	135.23	ft^2
Wetted Perimeter	53.06	ft
Top Width	52.24	ft
Height	4.12	ft
Critical Depth	2,443.10	ft
Critical Slope	0.013291	ft/ft
Velocity	9.03	ft/s
Velocity Head	1.27	ft
Specific Energy	2,444.39	ft
Froude Number	0.99	
Flow is subcritical.		

Cross-Section 3 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 3
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.012990	ft/ft
Water Surface Elevation	2,443.12	ft
Discharge	1,221.00	cfs



Cross-Section 4 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 4
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data		
Channel Slope	0.013740	ft/ft
Elevation range: 2,425.00 ft to 2,440.00 ft.		

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,435.00	0.00	132.50	0.035
10.00	2,430.00			
17.00	2,425.00			
48.50	2,430.00			
125.50	2,435.00			
132.50	2,440.00			

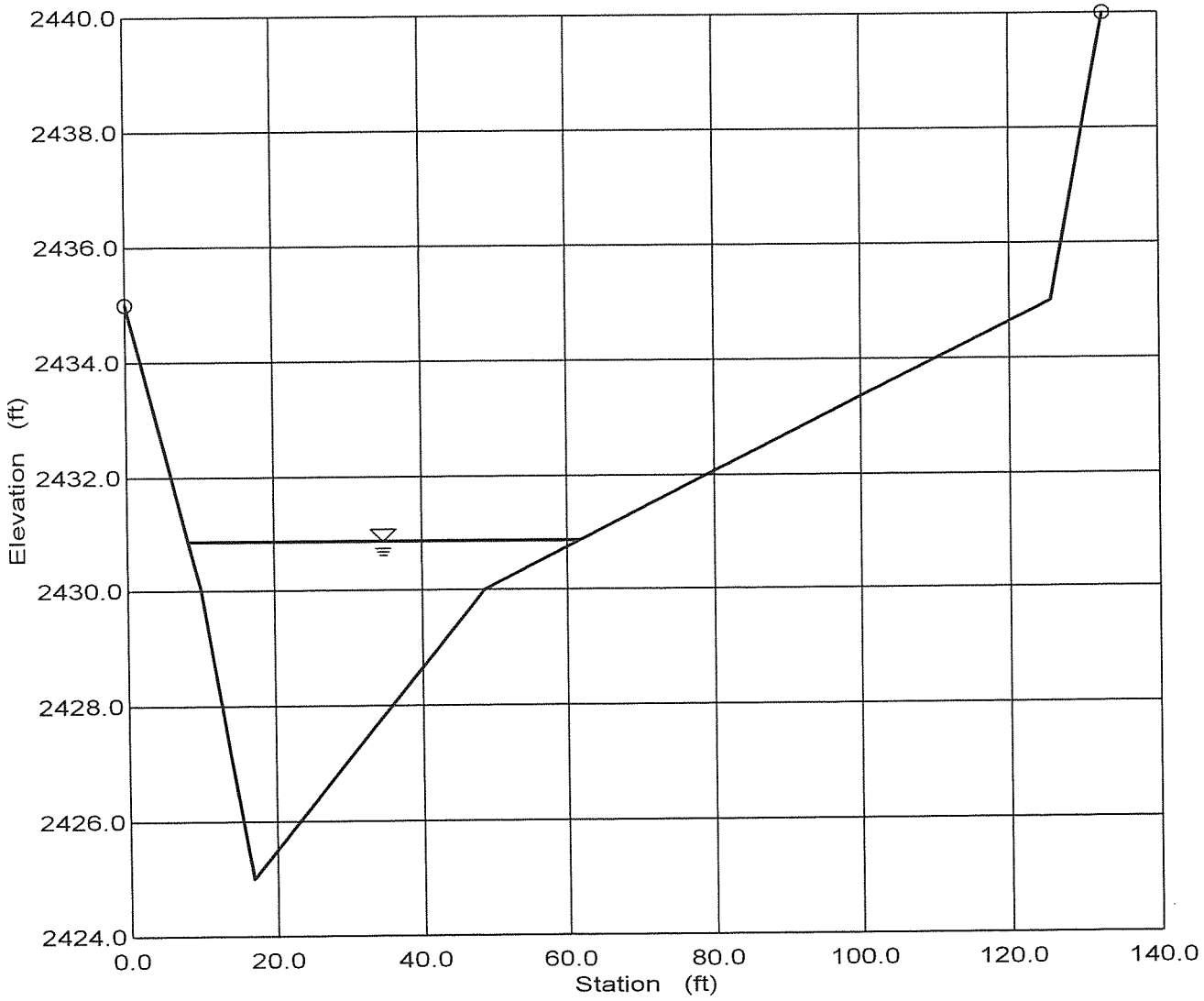
Discharge	1,221.00	cfs

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,430.85	ft
Flow Area	135.48	ft²
Wetted Perimeter	55.59	ft
Top Width	53.36	ft
Height	5.85	ft
Critical Depth	2,430.85	ft
Critical Slope	0.013821	ft/ft
Velocity	9.01	ft/s
Velocity Head	1.26	ft
Specific Energy	2,432.12	ft
Froude Number	1.00	
Flow is subcritical.		

Cross-Section 4 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 4
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.013740	ft/ft
Water Surface Elevation	2,430.85	ft
Discharge	1,221.00	cfs



Cross-Section 5 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 5
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

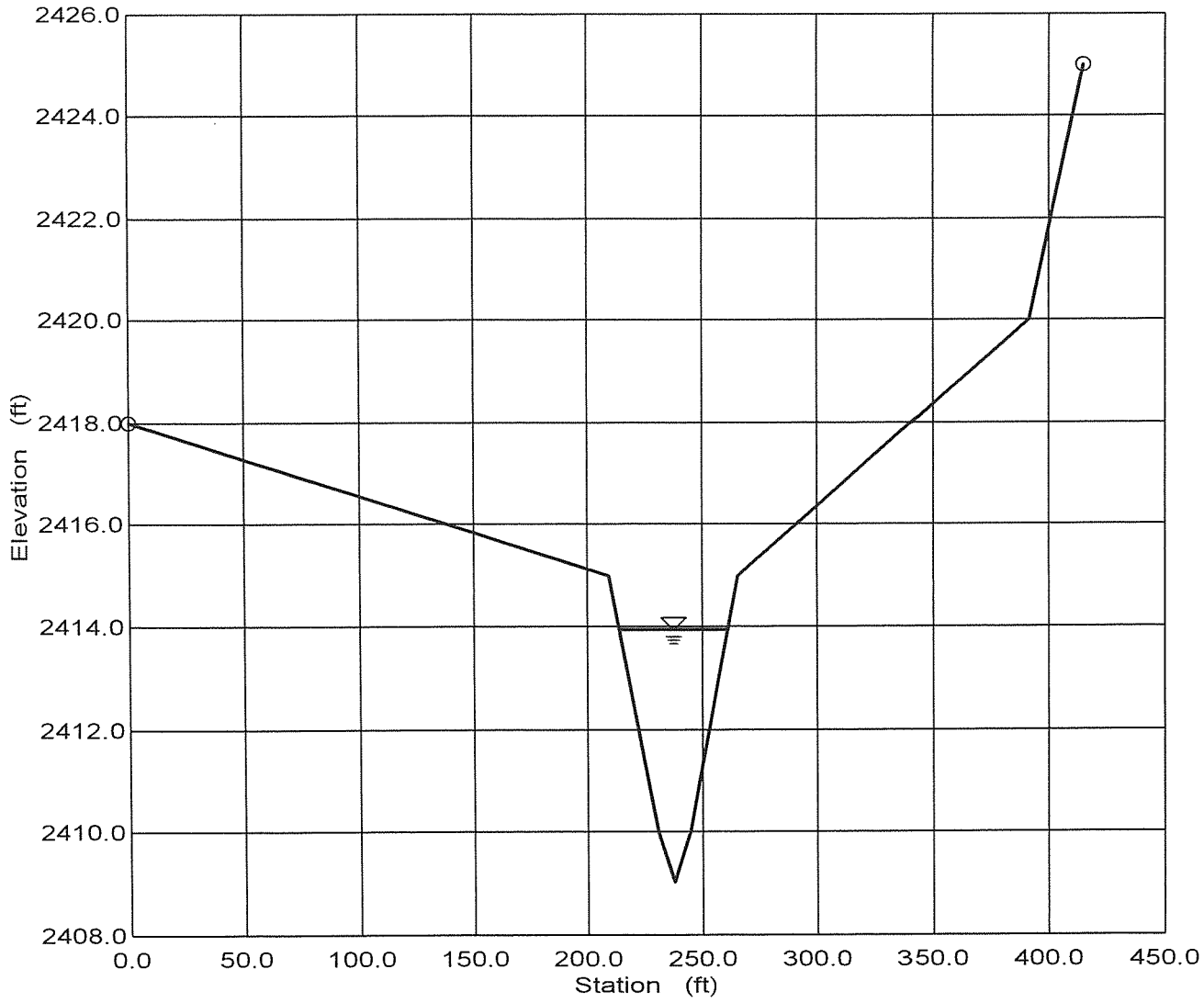
Input Data				
Channel Slope	0.014290 ft/ft			
Elevation range: 2,409.00 ft to 2,425.00 ft.				
Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,418.00	0.00	415.00	0.035
210.00	2,415.00			
231.00	2,410.00			
238.00	2,409.00			
245.00	2,410.00			
266.00	2,415.00			
392.00	2,420.00			
415.00	2,425.00			
Discharge	1,221.00 cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,413.92	ft
Flow Area	126.21	ft²
Wetted Perimeter	47.95	ft
Top Width	46.89	ft
Height	4.92	ft
Critical Depth	2,414.00	ft
Critical Slope	0.013153	ft/ft
Velocity	9.67	ft/s
Velocity Head	1.45	ft
Specific Energy	2,415.37	ft
Froude Number	1.04	
Flow is supercritical.		

Cross-Section 5 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 5
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.014290	ft/ft
Water Surface Elevation	2,413.92	ft
Discharge	1,221.00	cfs



Cross-Section 6 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 6
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data		
Channel Slope	0.014290	ft/ft

Elevation range: 2,394.00 ft to 2,451.00 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,402.00	0.00	686.00	0.035
70.00	2,400.00			
119.00	2,395.00			
150.50	2,394.00			
182.00	2,395.00			
224.00	2,396.00			
266.00	2,395.00			
269.50	2,394.00			
273.00	2,395.00			
301.00	2,400.00			
329.00	2,401.00			
357.00	2,400.00			
500.50	2,399.00			
644.00	2,400.00			
686.00	2,451.00			

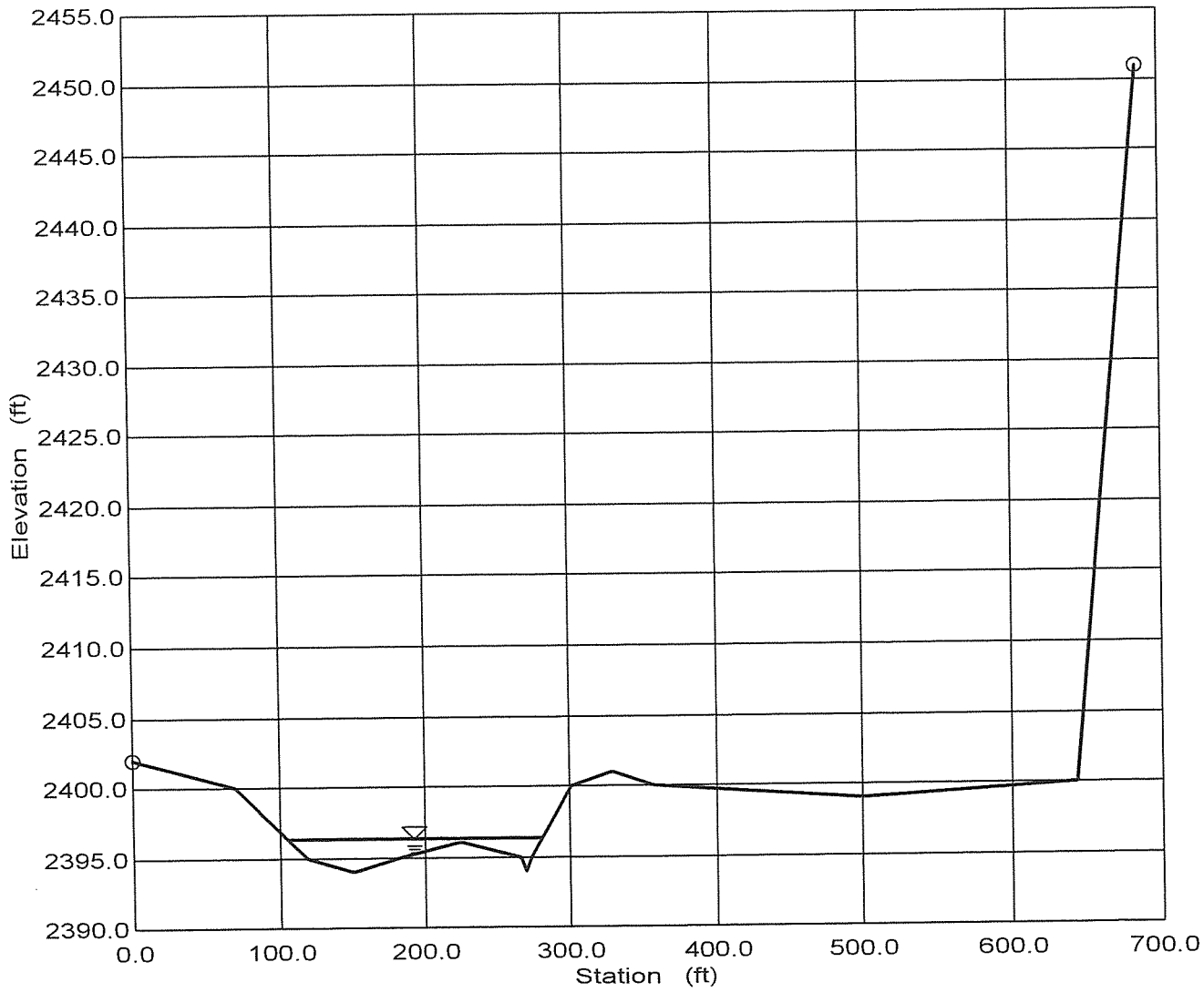
Discharge	1,221.00	cfs

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,396.33	ft
Flow Area	211.84	ft^2
Wetted Perimeter	175.04	ft
Top Width	174.52	ft
Height	2.33	ft
Critical Depth	2,396.27	ft
Critical Slope	0.017082	ft/ft
Velocity	5.76	ft/s
Velocity Head	0.52	ft
Specific Energy	2,396.85	ft
Froude Number	0.92	
Flow is subcritical.		

Cross-Section 6 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 6
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.014290	ft/ft
Water Surface Elevation	2,396.33	ft
Discharge	1,221.00	cfs



Cross-Section 7 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 7
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

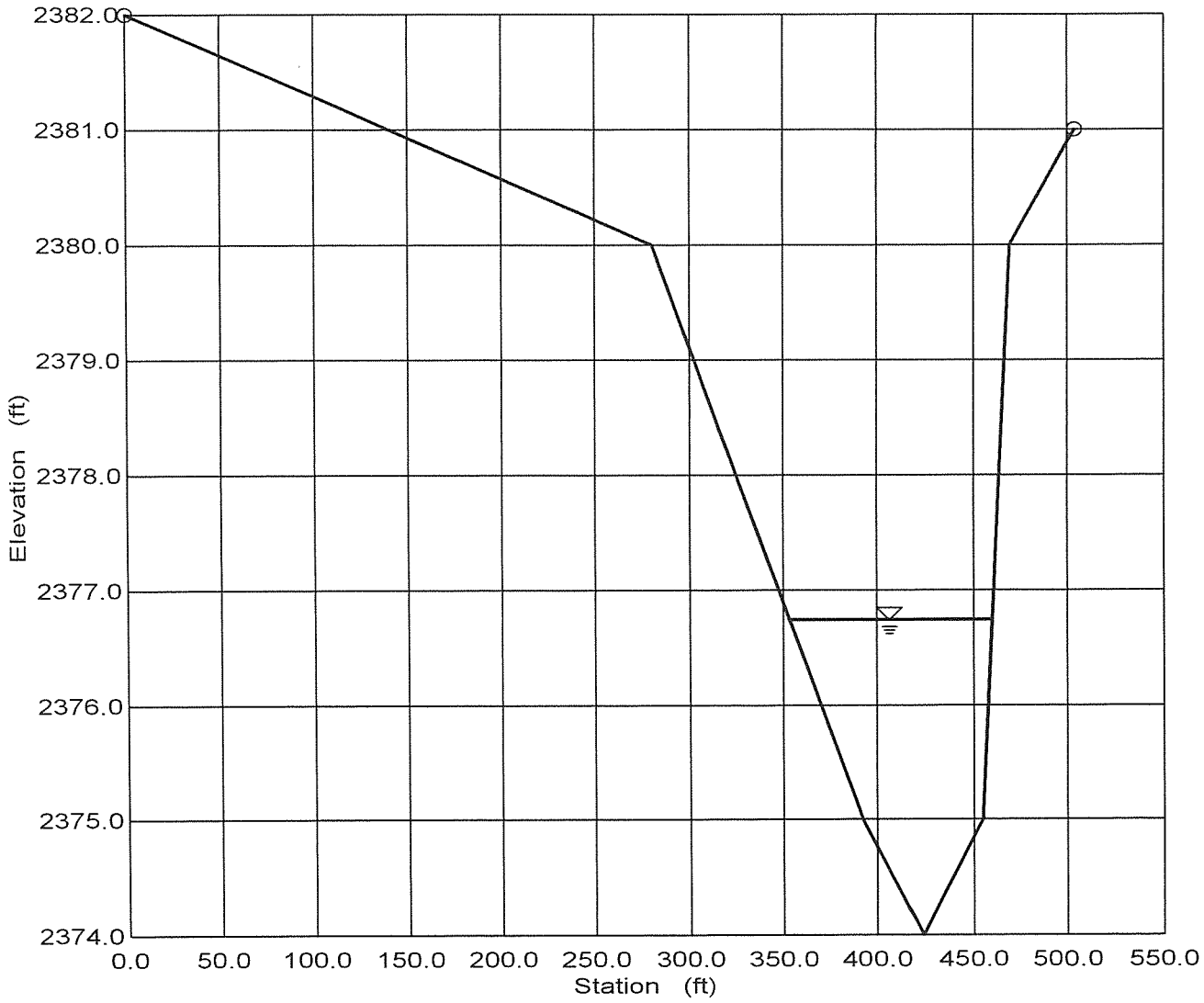
Input Data					
Channel Slope	0.013000 ft/ft				
Elevation range: 2,374.00 ft to 2,382.00 ft.					
Station (ft)	Elevation (ft)		Start Station	End Station	Roughness
0.00	2,382.00		0.00	504.00	0.035
280.00	2,380.00				
392.00	2,375.00				
423.50	2,374.00				
455.00	2,375.00				
469.00	2,380.00				
504.00	2,381.00				
Discharge	1,221.00	cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,376.74	ft
Flow Area	179.12	ft^2
Wetted Perimeter	107.18	ft
Top Width	106.81	ft
Height	2.74	ft
Critical Depth	2,376.64	ft
Critical Slope	0.015269	ft/ft
Velocity	6.82	ft/s
Velocity Head	0.72	ft
Specific Energy	2,377.46	ft
Froude Number	0.93	
Flow is subcritical.		

Cross-Section 7 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 7
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.013000	ft/ft
Water Surface Elevation	2,376.74	ft
Discharge	1,221.00	cfs



Cross-Section 8 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 8
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

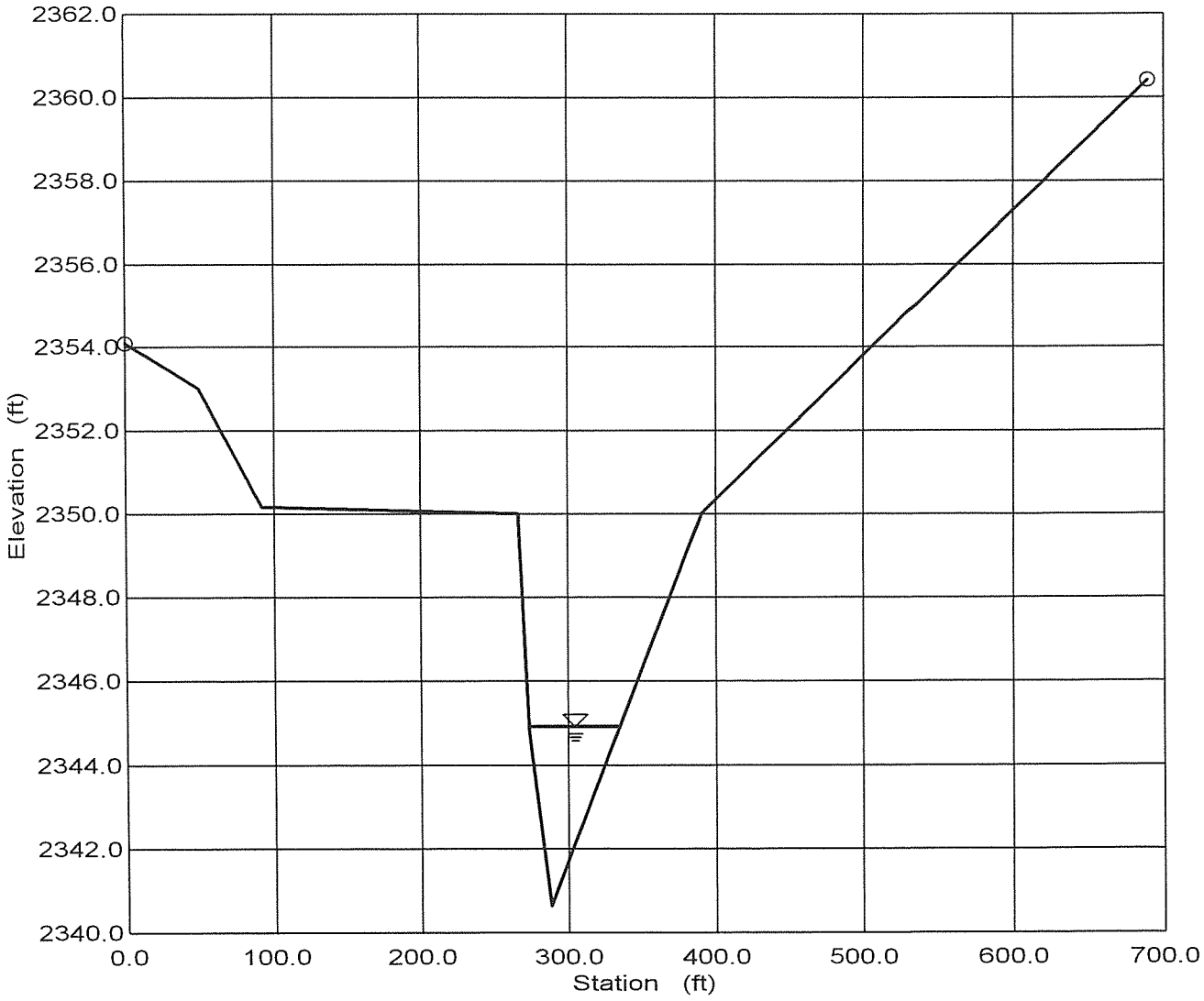
Input Data				
Channel Slope	0.017900 ft/ft			
Elevation range: 2,340.60 ft to 2,360.40 ft.				
Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,354.10	0.00	690.00	0.035
49.00	2,353.00			
92.00	2,350.20			
265.00	2,350.00			
273.00	2,344.80			
288.00	2,340.60			
391.00	2,350.00			
690.00	2,360.40			
Discharge	1,268.00 cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,344.91	ft
Flow Area	134.72	ft^2
Wetted Perimeter	63.16	ft
Top Width	62.35	ft
Height	4.31	ft
Critical Depth	2,345.12	ft
Critical Slope	0.013809	ft/ft
Velocity	9.41	ft/s
Velocity Head	1.38	ft
Specific Energy	2,346.28	ft
Froude Number	1.13	
Flow is supercritical.		

Cross-Section 8 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 8
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.017900	ft/ft
Water Surface Elevation	2,344.91	ft
Discharge	1,268.00	cfs



Cross-Section 9 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 9
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

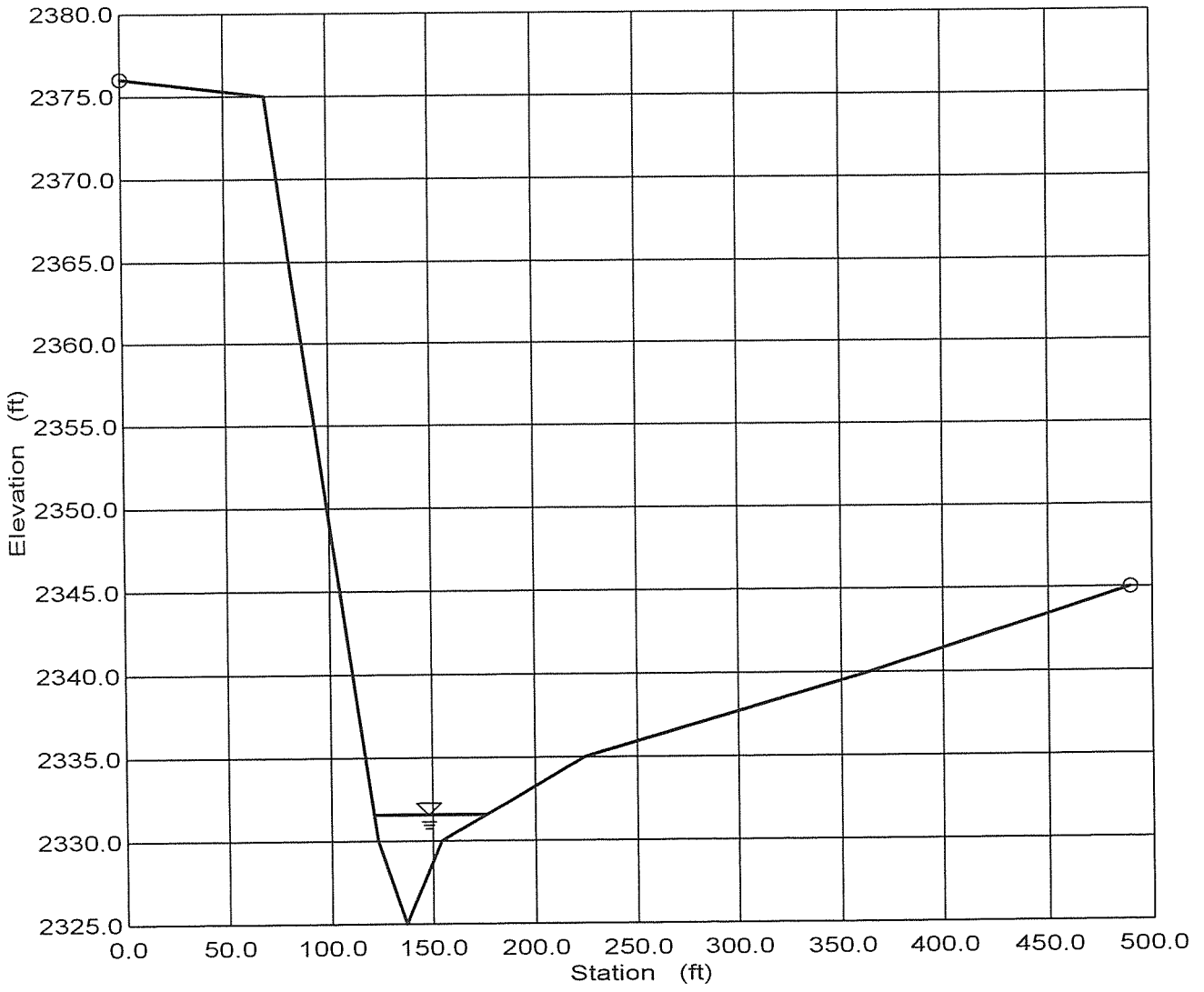
Input Data				
Channel Slope	0.011900 ft/ft			
Elevation range: 2,325.00 ft to 2,376.00 ft.				
Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,376.00	0.00	490.00	0.035
70.00	2,375.00			
122.50	2,330.00			
136.50	2,325.00			
154.00	2,330.00			
224.00	2,335.00			
364.00	2,340.00			
490.00	2,345.00			
Discharge	1,268.00 cfs			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,331.56	ft
Flow Area	146.59	ft^2
Wetted Perimeter	57.43	ft
Top Width	55.23	ft
Height	6.56	ft
Critical Depth	2,331.41	ft
Critical Slope	0.013661	ft/ft
Velocity	8.65	ft/s
Velocity Head	1.16	ft
Specific Energy	2,332.73	ft
Froude Number	0.94	
Flow is subcritical.		

Cross-Section 9 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 9
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.011900	ft/ft
Water Surface Elevation	2,331.56	ft
Discharge	1,268.00	cfs



Cross-Section 10 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 10
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

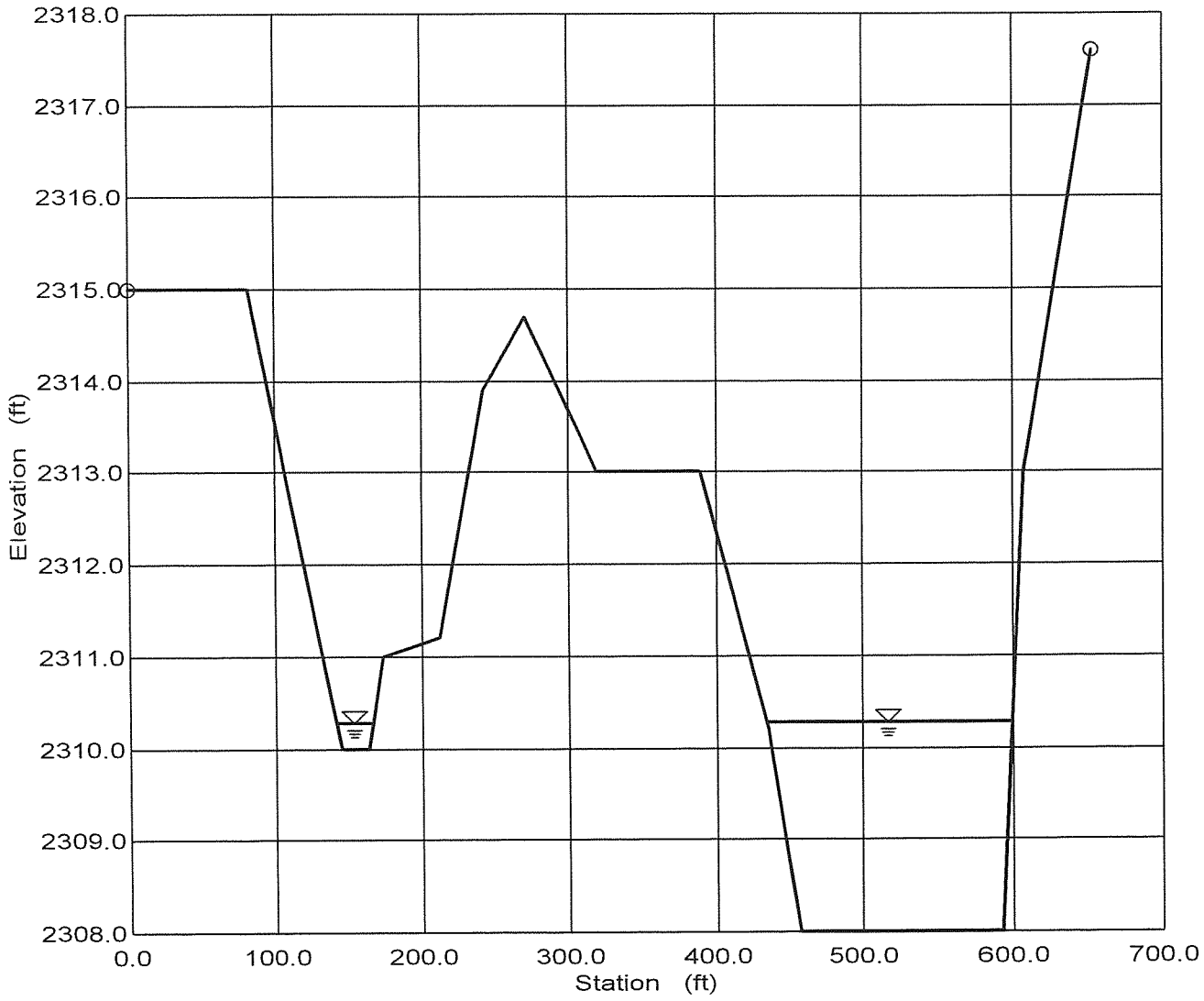
Input Data				
Channel Slope	0.012990 ft/ft			
Elevation range: 2,308.00 ft to 2,317.60 ft.				
Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,315.00	0.00	653.00	0.035
82.00	2,315.00			
145.00	2,310.00			
164.00	2,310.00			
173.00	2,311.00			
212.00	2,311.20			
242.00	2,313.90			
271.00	2,314.70			
319.00	2,313.00			
390.00	2,313.00			
436.00	2,310.20			
458.00	2,308.00			
592.00	2,308.00			
607.00	2,313.00			
653.00	2,317.60			
Discharge	2,476.00	cfs		

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,310.27	ft
Flow Area	343.80	ft²
Wetted Perimeter	189.34	ft
Top Width	188.83	ft
Height	2.27	ft
Critical Depth	2,310.19	ft
Critical Slope	0.014810	ft/ft
Velocity	7.20	ft/s
Velocity Head	0.81	ft
Specific Energy	2,311.08	ft
Froude Number	0.94	
Flow is subcritical.		
Flow is divided.		

Cross-Section 10 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 10
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.012990	ft/ft
Water Surface Elevation	2,310.27	ft
Discharge	2,476.00	cfs



Cross-Section 11 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 11
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data		
Channel Slope	0.009520	ft/ft

Elevation range: 2,305.00 ft to 2,325.00 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,314.00	0.00	650.00	0.035
34.00	2,312.00			
72.00	2,310.70			
108.00	2,311.10			
154.00	2,307.80			
204.00	2,305.00			
224.00	2,305.00			
276.00	2,315.00			
488.00	2,320.00			
587.00	2,322.50			
650.00	2,325.00			

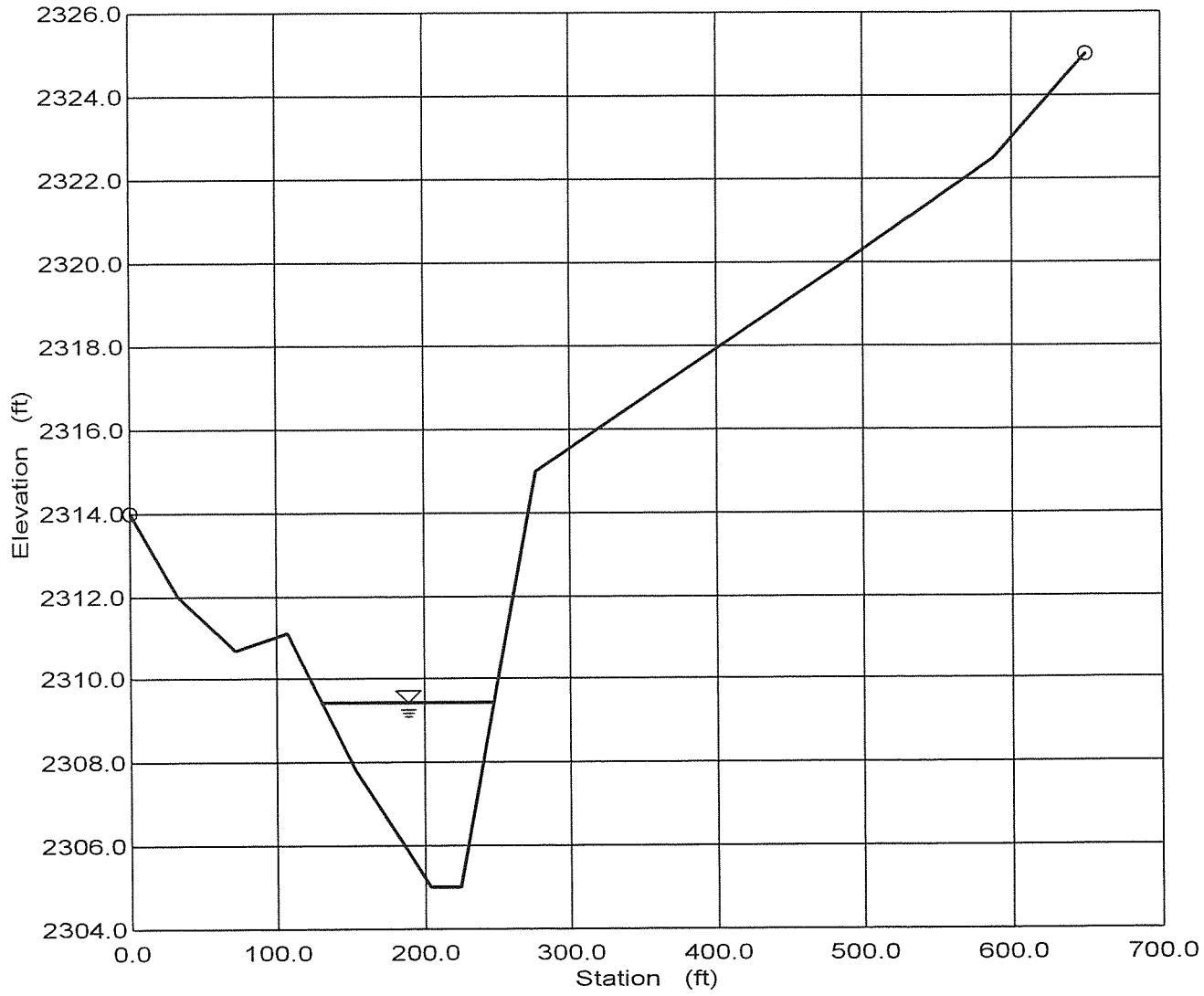
Discharge	2,476.00	cfs

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,309.44	ft
Flow Area	310.77	ft²
Wetted Perimeter	116.50	ft
Top Width	115.94	ft
Height	4.44	ft
Critical Depth	2,309.13	ft
Critical Slope	0.013224	ft/ft
Velocity	7.97	ft/s
Velocity Head	0.99	ft
Specific Energy	2,310.43	ft
Froude Number	0.86	
Flow is subcritical.		

Cross-Section 11 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 11
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.009520	ft/ft
Water Surface Elevation	2,309.44	ft
Discharge	2,476.00	cfs



Cross-Section 12 - Normal Depth
Worksheet for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 12
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data		
Channel Slope	0.005000	ft/ft
Discharge	2,476.00	cfs

Elevation range: 2,292.60 ft to 2,299.10 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	2,299.10	0.00	323.00	0.035
36.00	2,296.70			
114.00	2,296.70			
166.00	2,295.30			
206.00	2,294.30			
246.00	2,292.60			
260.00	2,292.60			
274.00	2,297.30			
323.00	2,297.40			

Results		
Wtd. Mannings Coefficient	0.035	
Water Surface Elevation	2,297.58	ft
Flow Area	551.30	ft²
Wetted Perimeter	301.27	ft
Top Width	300.22	ft
Height	4.98	ft
Critical Depth	2,296.84	ft
Critical Slope	0.015676	ft/ft
Velocity	4.49	ft/s
Velocity Head	0.31	ft
Specific Energy	2,297.90	ft
Froude Number	0.58	

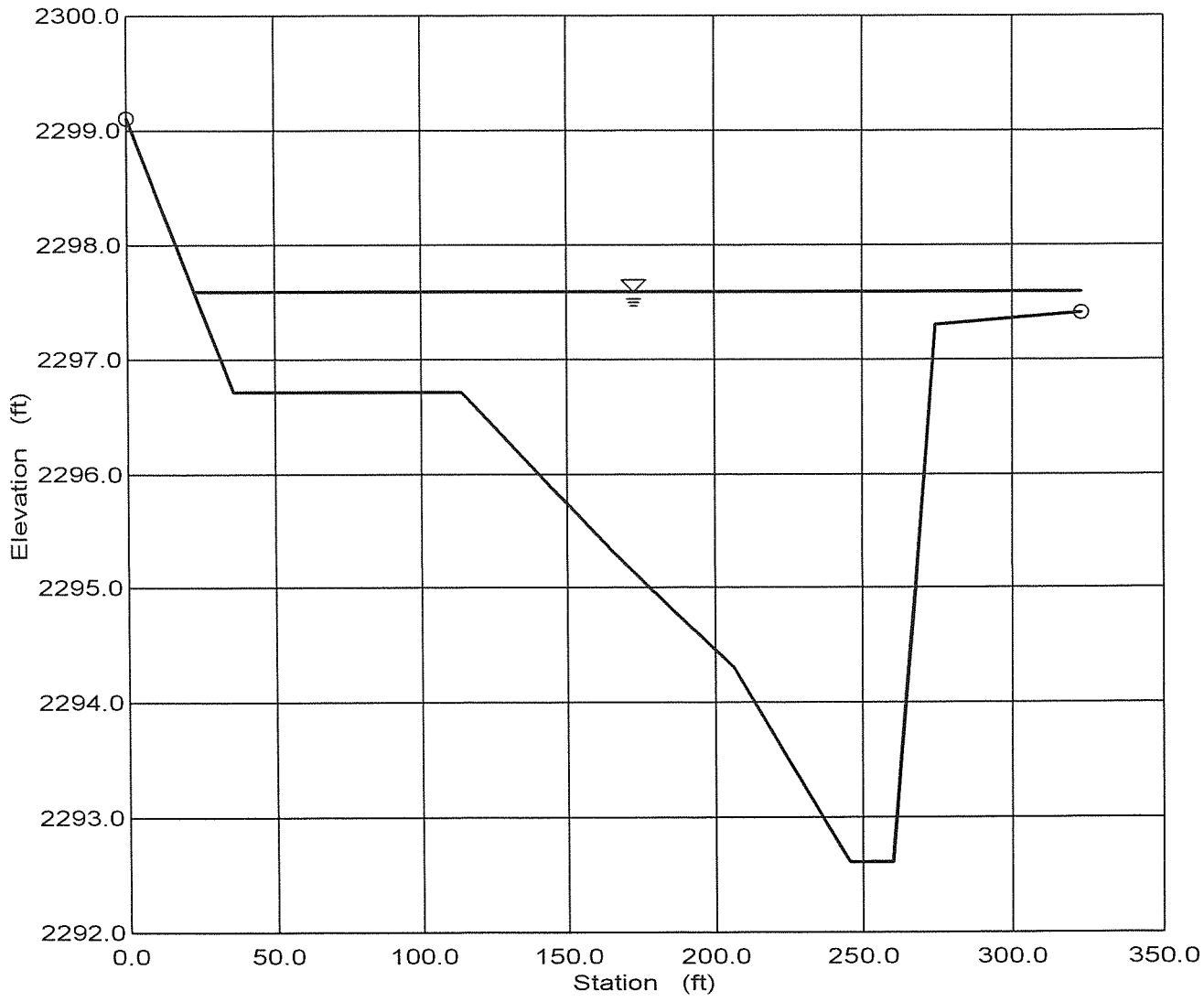
Flow is subcritical.

Water elevation exceeds lowest end station by 0.18 ft.

Cross-Section 12 - Normal Depth Calculation
Cross Section for Irregular Channel

Project Description	
Project File	w:\pblcwks\511368\haestad\revise~1.fm2
Worksheet	CROSS-SECTION 12
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0.035	
Channel Slope	0.005000	ft/ft
Water Surface Elevation	2,297.58	ft
Discharge	2,476.00	cfs

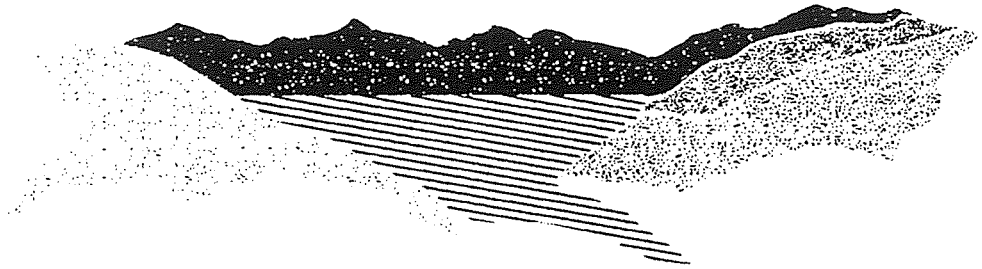


APPENDIX V

ADDITIONAL MISCELLANEOUS INFORMATION

C L A R K C O U N T Y

REGIONAL FLOOD CONTROL DISTRICT



OPERATIONS AND MAINTENANCE MANUAL

PRINTED
JANUARY 2000

CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT

OPERATIONS AND MAINTENANCE MANUAL

GALE WM. FRASER, II, P.E.
GENERAL MANAGER / CHIEF ENGINEER

The Operations and Maintenance Manual has been updated in accordance with Regional Flood Control District Board action on December 9, 1999. The Board adopted amendments to Sections 2.50, 3.20, 4.11, 4.22, 4.25, 4.34, added Chapter 5, updated forms and charts, and added sample forms.

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
OPERATIONS AND MAINTENANCE MANUAL

CHAPTER 1
EXECUTIVE SUMMARY

1.10 EXECUTIVE SUMMARY

The Clark County Regional Flood Control District (District) was created under NRS 543 with responsibility to plan, construct and maintain drainage and flood control facilities throughout Clark County. In order to comply with NRS 543.340(4), this Operations and Maintenance Manual has been prepared through the cooperation and support of all of the affected Entities in the County. The document sets forth both policies and procedures by which the maintenance of the drainage and flood control facilities will be achieved to assure their proper working order at the time of need. The overall goal of the maintenance program as adopted by the District Board is as follows:

> COMPLY WITH THE PROVISIONS OF NRS 543.340(4) AND ASSURE THAT FACILITIES IN THE MASTER PLAN ARE MAINTAINED IN A MANNER THAT MAXIMIZES THEIR USEFUL LIFE AND ENSURES THEIR OPERATION AT DESIGN CAPACITY DURING A STORM EVENT.

Ten policy statements were also adopted supporting the above goal.

In order to achieve the goal, and to comply with the adopted policies, the following procedures have been developed in an open and very participatory manner.

Funding Procedure - Provides for a means by which the Entities can be reimbursed for activities associated with maintenance of drainage and flood control facilities on the Master Plan provided they meet criteria as set forth in the manual.

Administrative Procedure - Provides for establishing standards and levels of service by which maintenance will be achieved. This procedure includes the steps and schedule by which an annual work plan is established and adopted by the District Board. It also provides for the certification of performance by each Entity in accordance with the annual interlocal contract. The ability for the Entity to contract maintenance activities to private contractors is also authorized under this procedure.

Maintenance Procedures - This procedure provides the specific activities under which the maintenance program is to be carried out as listed below:

ACTIVITY NUMBER	ACTIVITY NAME	WORK MEASURE UNIT
05	Inspect Channels	Miles
10	Clean and Reshape Channels	Cubic Yards
15	Repair Lined Channel	Each
20	Provide/Maintain Erosion Control	Square Feet
25	Clean and Inspect Detention/Debris Basins	Cubic Yards
30	Erosion Repair	Cubic Yards
35	Fence Repair	Linear Feet
40	Vegetation Control - Chemical	Acres
45	Vegetation Control - Mechanical	Acres
50	Maintain Access Road	Miles
55	Clean and Inspect Inlet/Outlet Structures	Each
60	Repair Inlet/Outlet Structures	Each
65	Clean Storm Sewer Lines	Linear Feet
70	Storm Sewer Repair	Repairs
75	Clean/Flush Culverts & Bridges	Each
80	Miscellaneous Work Activities	Labor Hours
85	Engineering	Labor Hours

A specific performance standard has been developed for each activity setting forth the following elements :

- The most effective crew size.
- The kinds and number of equipment required.
- The major types of material that should be used.
- Recommended procedures for performing the work.
- An estimate of expected average daily accomplishment with standard crew size, equipment, and procedures.
- Authorization and scheduling criteria.

Inventory Procedures - A critical element of any maintenance program is the identification and condition of the overall drainage and flood control system. In the case of this program, the inventory also identifies those facilities that are "eligible" for reimbursement of maintenance activities, provided the work is a part of the annual plan. Facilities eligible are those identified in the Regional Flood Control District's Master Plan and any revisions, amendments, and/or changes subsequently approved. Only those facilities that exist as Master Plan facilities, or exist in the same alignment as a proposed Master Plan facility and appurtenant facilities are eligible.

Maintenance is an ongoing and very dynamic function of a successful drainage and flood control program. This Operations and Maintenance Manual sets forth an initial set of policies and procedures, including the various actions required to achieve the maintenance goal. The manual will need to be updated on a regular basis to reflect fiscal implications and the experience gained as the District continuous to grow and to serve the citizens and taxpayers of Clark County.

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
OPERATIONS AND MAINTENANCE MANUAL

CHAPTER 2
INTRODUCTION

2.10 BACKGROUND

The Clark County Regional Flood Control District (District) was established in 1986 to plan, construct, and maintain drainage and flood control facilities. These responsibilities focused on alleviating the potential for flooding and protecting the lives and property of District residents. The initial phases of the District's program succeeded in preparing a Master Plan, uniform design criteria, regulatory standards, and constructing facilities. As these areas have progressed, the District, along with other agencies and Entities in the County, has oriented its efforts towards assuring adequate maintenance of flood control facilities and conveyance systems. This orientation is consistent with the vital role maintenance plays in all comprehensive flood control programs. This Operations and Maintenance Manual has been prepared through the District with the support and cooperation of each affected Entity. It represents a commitment to uniform flood control system standards and establishes a blueprint for a cost effective and consistent maintenance program throughout the District.

2.20 AUTHORITY

Nevada Revised Statute (NRS) 543 mandates that the District shall undertake programs for both construction and maintenance of flood control facilities. A commitment to building and maintaining flood control facilities within Clark County is reiterated in the District's Uniform Regulations for the Control of Drainage which states that capital improvements, operation, and maintenance are all interrelated parts of the District's overall flood control program. In accordance with NRS 543.340(4) and the Uniform Regulations, the District authorized URS Consultants to prepare a specific Operations and Maintenance Manual, which was adopted by the District Board on November 8, 1990. To reflect fiscal implications and experience gained, the manual was updated in 1995 and 1999.

2.30 RESPONSIBILITY

The District was formed, in part, to fund and coordinate the construction and maintenance of facilities to alleviate flooding and protect the life and property of citizens within the boundaries of the District. It is the responsibility of the District to prepare and update the Master Plan for the control of floods, and manage the Regional Fund for the Control of Floods in a manner consistent with NRS 543.

2.40 APPROACH

The maintenance program must assure that the flood control projects funded by the District are maintained at a level which maximizes their useful life and assures that facilities operate to design capacity. As an interconnected network of conveyances and structures, failure of any flood control facility to operate properly may affect the performance of the overall system within a specific watershed.

Flood control facilities require regular maintenance if they are to be functional, visually attractive, and last through their design life. Accordingly, the development of a maintenance program is just as critical to the overall success of a comprehensive flood control effort as basin planning and regulation enforcement. As stormwater and flood control programs begin to address nonpoint pollution/water quality issues, the maintenance program will play an even greater role by enabling cost effective reductions in pollutant loadings to receiving waters. Finally, visibility of the program to the public, which a comprehensive maintenance program affords, is an important factor in demonstrating that flood control management is truly a full-time commitment and not simply a priority only after a storm event. The primary objectives of the District's maintenance program are :

- To develop a complete physical feature inventory for the system.
- To establish overall policies and levels of service.
- To develop operating procedures.

It is also critical that ongoing inspection and reporting procedures continue to assure all systems are ready when needed.

Due to the multiple jurisdictions involved with maintenance of the flood control system, a commitment to this program from all Entities within the Flood Control District was essential. This commitment was made through the Maintenance Technical Committee during the development of the manual in 1990. It was also recognized that coordination of this maintenance program with state transportation programs was critical. The level and consistency of the long range commitment has a direct impact on how effective the resulting maintenance system becomes. This commitment begins with a credible Operations and Maintenance Manual.

An essential building block for a successful flood control maintenance program in Clark County is a complete physical feature inventory of the system. It is also important to note that no maintenance program is ever truly "complete". Rather, these programs are constantly evolving as inventories are defined and standards/costs are further refined. A similar evolution is anticipated for this program. The flexibility to adjust to this evolutionary process has been built into this manual.

2 SO DEFINITIONS

In addition to the definitions of terms and phrases set forth in other District documents, the following apply to operation and maintenance:

Acceptance for Maintenance: "Acceptance for Maintenance" means that a project funded by the District, Entity, or other public/private funds is a part of the Master Plan and has been constructed in accordance with District standards and therefore eligible for maintenance funding by the District.

Annual Budget: "Annual Budget" means the anticipated costs associated with completion of each activity outlined within the annual work plan submitted by each of the Entities, and ultimately approved by the District Board of Directors prior to the start of each fiscal year.

Annual Work Plan: "Annual Work Plan" means a plan submitted by each of the Entities setting forth the type and quantity of maintenance to be performed during the ensuing budget year in a form prescribed by the District specifically requesting funds for budgeting purposes.

Certification: "Certification" means the documentation which evidences that required maintenance by an Entity has been completed in accordance with established standards.

Maintenance Program : The "Maintenance Program" has been established by the Board to provide funding of, and establish performance standards and guidelines for, the maintenance of flood control facilities located throughout Clark County and the incorporated areas. The Program provides funding to entities to perform maintenance of eligible flood control facilities. Projects eligible for District maintenance funding are those identified in the Regional Flood Control District's Master Plan and any revisions, amendments, and/or changes subsequently approved. Only those facilities that exist as Master Plan Facilities or exist in the same alignment as a proposed Master Plan facility, and appurtenant facilities are eligible. Subsequently, the District works with the entities annually to develop Maintenance Work Plans. The work plans undertaken through the Maintenance Program and budgets are funded through the annual interlocal contracts between each Entity and the District. No matching funds are required, except in those cases where an arrangement has been made to cooperatively fund a particular field activity. Work is performed using a combination of private contractors and entity maintenance staff. The Maintenance Program contains three broad categories of work:

1. Routine and/or Preventive Maintenance: "Routine and/or Preventive Maintenance" means work on existing facilities to keep them in proper working condition, including but not limited to, debris/sedimentation removal, vegetative control, and reshaping.

2. Restoration: "Restoration" means the repair to existing facilities after a storm event including erosion repair, fence replacement, repairing/replacing trash racks, inlets, storm sewer systems, major debris removal and similar "one time" work activity.

3. Rehabilitation: "Rehabilitation" means rebuilding a facility and/or conveyance system after it is destroyed by an event or it has been determined that it is not operating according to the intent of the design documents on file at the District causing a safety or maintenance problem or it has deteriorated to the extent that it must be replaced "in kind" including replacing or modifying drop structures, reshaping channels, bank protection restoration, inlets etc. In general, the rehabilitative projects are designed by consultants and the construction contracts are awarded through a bid process.

Maintenance Program Exclusions : "Exclusions" typically include local drainageway maintenance such as curb and gutter work, inlet maintenance, and repairs to small piped storm sewer systems, unless otherwise constructed as part of a regional facility. Maintenance work exclusions also include repair or replacement of existing flood control Master Plan facilities which undergo catastrophic damage of more than one-half (½) mile. These types of catastrophic damages will generally be classified as capital improvements, and requests for capital improvement funds must be reprogrammed as a capital improvement project in accordance with District Policies and Procedures.

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
OPERATIONS AND MAINTENANCE MANUAL

CHAPTER 3
POLICY STATEMENT

It is important that a maintenance policy statement be adopted which reflects the objectives of both the elected officials and the operations staff charged with its implementation. The initial policy document was prepared and reviewed by District staff and the Maintenance Committee. Following input from the group, it was reviewed by the respective Public Works Directors of all Entities and further revised to reflect their input. The document was then reviewed by the Technical Advisory Committee (TAC) and the Citizens Advisory Committee (CAC) before final adoption by the Board on November 8, 1990. The final adopted policy statement is as follows:

3.10 GOAL

Comply with the provisions of NRS 543.340 (4) and assure that facilities in the Master Plan are maintained in a manner that maximizes their useful life and ensures their operation at design capacity during a storm event.

3.20 POLICIES

1. Flood control facilities identified in the Master Plan are eligible for District maintenance funding.

2. As specified in the Uniform Regulations for the Control of Drainage Section 12.050, facilities funded through the District shall be inspected on an annual basis to assure proper maintenance has been provided.

3. In cases where funded maintenance by the lead Entity is not performed to the standards specified, the District shall perform or cause to be performed the maintenance necessary to assure proper operations of the facility. Costs incurred by the District shall be deducted from the amount authorized in the maintenance agreement between the lead Entity and the District.

4. Flood control facilities improved or constructed after adoption of this policy, must be designed in accordance with District criteria and standards to be eligible for maintenance funding.

5. Access to the facility must be guaranteed to the lead Entity and the District in order to be eligible for maintenance funding.

6. The maintenance requirements applied to these facilities shall be based on the standards contained in the District's Onerations and Maintenance Manual.

7. The lead Entity must develop an annual work plan to be eligible for maintenance funds. Upon completion of the work, the Entity must certify that the work was completed in accordance with the standards contained in the District's Operations and Maintenance Manual.

8. Maintenance funding is available only for repair, restoration, rehabilitation, or maintenance of existing facilities and is not intended to supplement the District's capital improvement program. For example, if the intent of the field activity is to increase the designed capacity of a facility or conveyance, then that function is capital in nature.

9. Expenditures for repair and replacement of existing flood control Master Plan facilities which undergo catastrophic damage of one-half (½) mile or less will be classified as maintenance. These expenditures will be made from funds budgeted in the Facilities Maintenance Fund.

10. Expenditures for repair and replacement of existing flood control Master Plan facilities which undergo catastrophic damage of more than one-half (½) mile will generally be classified as capital improvements. Requests for capital improvement funds must be reprogrammed as a capital improvement project in accordance with District Policies and Procedures.

11. Expenditures for removal of debris and sediment captured or deposited in a debris basin, detention basin or a linear flood control facility will be classified as maintenance. Necessary repairs to a debris or detention basin will also be classified as maintenance. These expenditures will be made from funds budgeted in the Facilities Maintenance Fund.

12. Expenditures for repair and replacement of non-improved or "earth lined" flood control facilities and features will be classified as maintenance. These expenditures will be made from funds budgeted in the Facilities Maintenance Fund.

13. An entity may consider another option in lieu of repairing or rehabilitating facilities that have not been improved to Master Plan design specifications. This option is to build/implement the long-term solution for the damaged facility. Expediting the implementation of the Master Plan may be a viable alternative that maximizes the use of available resources. This should be considered as an alternative if the long-term solution

can be implemented in a timely manner. Requests for capital improvement funds to implement a Master Plan project must be reprogrammed as a capital improvement project in accordance with District Policies and Procedures.

14. All facilities eligible for maintenance funding must be publicly owned.

15. Funds may be provided by the District for maintenance of Master Plan facilities by outside contractors under conditions when the use of such an approach is deemed the most efficient and cost effective by the lead Entity.

16. Bridge structures, generally speaking, are not eligible for District funding unless it can be shown that the flood carrying aspects of the regional facility causes a safety or maintenance problem.

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
OPERATIONS AND MAINTENANCE MANUAL

CHAPTER 4
PROCEDURES

4.10 FUNDING PROCEDURES

4.11 Purpose

This element of the Operations and Maintenance Manual provides the Entities with procedures for the appropriation, expenditure and reimbursement of funds to perform maintenance activities. A principle role of the District shall be to manage and disburse payments to the Entities for maintenance that is performed in compliance with the approved plans. A diagram of the funding **flow** is shown on **Figure 4-l.**

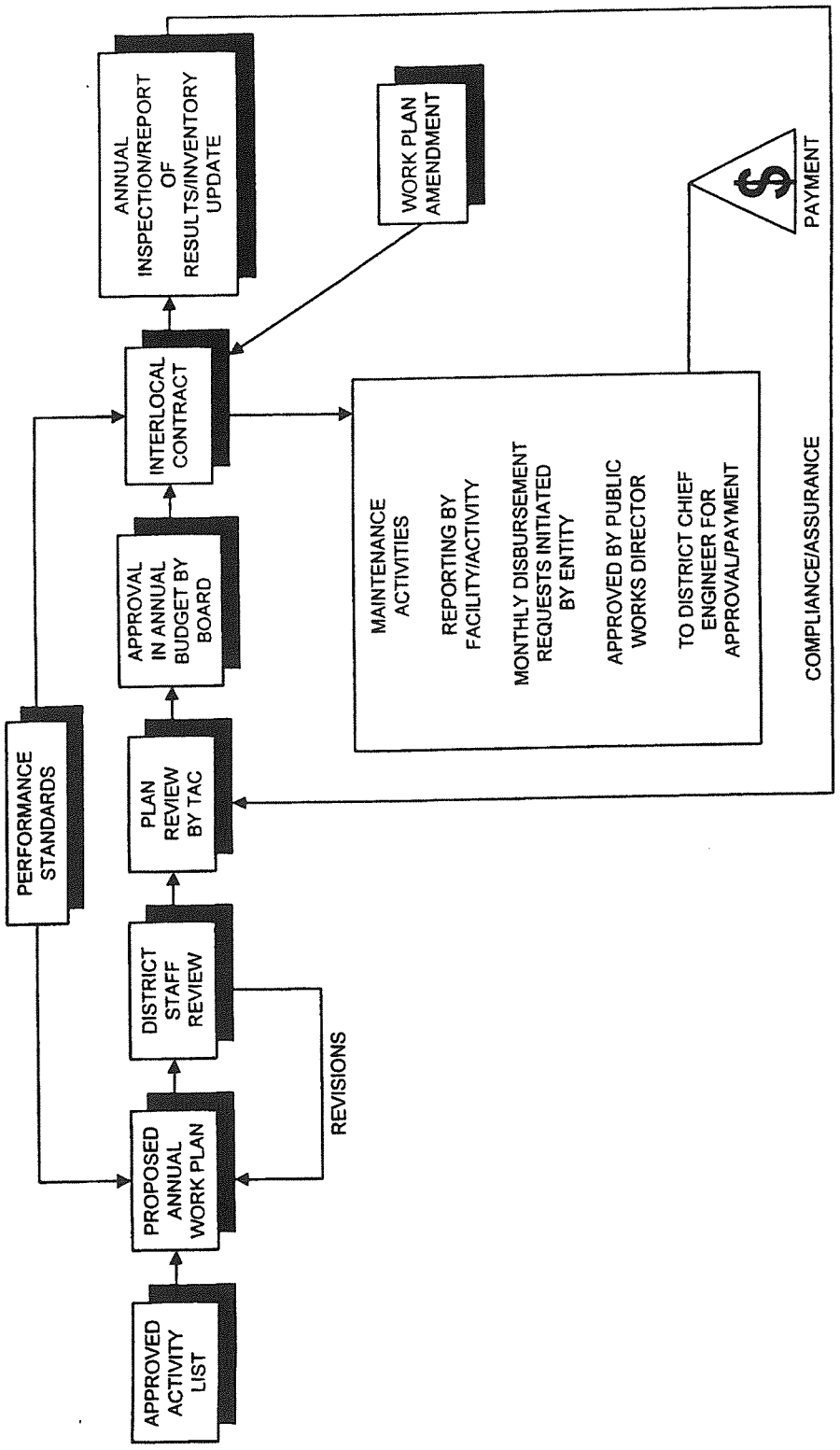
The District has authorized funding to assist the Entities with major drainageway maintenance in accordance with the priorities listed below:

- First priority: District owned facilities.
- Second priority: Facilities owned by other public agencies, but totally or partly financed by District funds. (Capital Improvement and Maintenance Project)
- Third priority: Facilities owned by others and constructed by others without District assistance.
- Fourth priority: Unimproved drainageways.

4.12 Payment Procedures

Payment for work performed will be made in accordance with the annual interlocal contract executed as part of the approved work plan and the payment procedures outlined herein. The primary mechanism for reimbursements shall occur through a purchase order established between the District and each Entity. In cases where the Entity directs the District to make payments to a contractor or supplier directly, the purchase orders will be established between the District and the contractor, consultant, or supplier, at the Entity's request. Unless otherwise contained within this manual, all District Policies and Procedures relating to disbursement of funds and reimbursement to Entities apply.

Figure 4-1 Funding Flow Diagram



Schedule

Disbursement requests (invoices) from each Entity may only be submitted for completed work activity and may not be submitted more than once in a 30-day period. Disbursement requests must be accompanied by a verification statement from the Entity that the work for which payment is due has been completed in accordance with the standards contained in this manual. The disbursement request must identify the Master Plan facility maintained, specific plan activity or activities for which reimbursement is sought, and separately identify personnel, equipment, and other related costs. **(Figure** 4-2 represents a sample of the reporting required, and can be obtained on diskette from the District.) Administrative costs incurred by the Entity in the management of the interlocal contract are not reimbursable. Examples include cost accounting work, secretarial/clerical work, the preparation of requests for payment, and certification statements for work performed under the contract.

All invoices from the Entities requesting reimbursement to the Entity or direct payment to the Entity contractor or vendor must first be submitted to and approved by the Entity's Public Works Director or other designated responsible person in charge of the project. The Chief Engineer or designated District staff will process and approve such payments within 30 days providing the required approval has been obtained and terms of the interlocal contract have been satisfied.

Direct payments to contractors must originate from the Entity and include the following:

1. Invoice to the Entity from the contractor.
2. Certification of work performed by the contractor signed by the Entity, if applicable.
3. Disbursement Request Form **(Figure 4-2).**

Reporting

Monthly and annual summaries of purchase order balances, budget status, and facility expenditures shall be prepared by the District as a part of the routine financial reporting procedures to the Board.

REGIONAL FLOOD CONTROL DISTRICT

MAINTENANCE WORK PROGRAM - FISCAL YEAR 20XX-XX

ENTITY: _____

[ ] **Disbursement Request**

Vendor Name: _____

Invoice Number: _____

Amount Requested: _____

RFCD Purchase Order #:

[ ] **Amended Annual Budget Request**

Approved: _____

General Manager/Chief Engineer Date

Clark County Regional Flood Control District

MWP Facility #:											
Facility Name:											
Master Plan Facility ID:											ACTIVITY TOTAL
05-Chnl Insp											0.00
10-Reshape Chnl											0.00
15-Chnl Repair											0.00
20-Erosion Control											0.00
25-Clean DB											0.00
30-Erosion Repair											0.00
35-Fence Repair											0.00
40-Vege Control - C											0.00
45-Vege Control - M											0.00
50-Access Rd											0.00
55-Clean In/Outlet											0.00
60-Repair In/Out											0.00
65-Clean Storm Drn											0.00
70-Sewer Repair											0.00
75-Clean Culverts											0.00
80-Misc Maint											0.00
85-Engr											0.00
Facility Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

I certify that the above described maintenance was/will be performed in accordance with the criteria/standards contained in the District's Operations and Maintenance Manual. Further, the information contained in this Request accurately reflects those costs incurred/to be incurred during the performance of this work.

_____

Project Manager Date

Figure 4-2 Disbursement / Amended Budget Request

4.20 ADMINISTRATIVE PROCEDURES

4.21 Purpose

The purpose of this element of the Operations and Maintenance Manual is to provide specific procedures for establishing standards and levels of service, preparing the annual work plan, administrating the planning, approval and enforcement elements, and updating the manual over time. The principal role of the District shall be to review and approve annual maintenance work plans and monitor the performance of work activities. The principal role of the Entities shall be development of annual work plans that are consistent with the District's approved maintenance activity list; performance of the maintenance work set forth in the approved work plans; and the submittal of quarterly reports that summarize work performance while certifying compliance with maintenance activity performance standards as set forth in the Operations and Maintenance Manual.

4.22 Annual Work Plans

In accordance with the schedule on the following page, each Entity shall submit a proposed annual maintenance work plan containing the following components:

Section 1:	Program Summary by Maintenance Project Including Cost for Each Project
Section 2:	Summary by Maintenance Activity
Section 3:	Individual Maintenance Projects Showing Narrative, Location Map, Work Activities, Results, Costs

District staff shall review the proposed plans and work with the Entities to resolve any discrepancies found with District maintenance standards and policy objectives. After the initial staff review, the plans shall be forwarded to the Technical Advisory Committee. Lastly, the plans will be incorporated in the annual District budget and submitted to the Board for final approval.

The activities in the work plan shall be consistent with the District's approved activity list for maintenance of flood control and drainage facilities. Work plans should also describe locally funded work activities that may be linked to the District maintenance work activities to show overlapping areas of responsibility for personnel and equipment. Where local personnel and equipment are going to be used to perform both District funded activities and locally funded activities, the Entity will describe how these resources are to be managed and the procedures for tracking costs related to both sets of activities.

Entities may contract for the performance of maintenance work activities. The proposed work plan must specify that a contractor is to be utilized and the time frame for selection of a contractor. In the event that maintenance work is performed under contract, the contract must specify that the District has the authority to inspect all work performed under the contract and approve or deny payments to contractors based on inspection findings.

All work performed must comply with District approved maintenance activity performance standards as set forth in subsequent sections of this Manual. The Entity is required to inspect Master Plan facilities annually, including any maintenance work performed by Entities on Master Plan Facilities, and shall notify the District prior to the annual inspection of completed maintenance work. Entities shall facilitate the inspection of maintenance work by the District. The District may withhold funding, require additional maintenance work, or seek repayment of disbursed funds when an inspection reveals that work activities were not performed in conformance with activity performance standards.

Schedule

February 1 -	Submittal of preliminary work plan proposal and tentative budget to District staff for review, recommendations, and coordination with entities. This is important for the following reasons: 1) Fiscal Year Budget Authority submittal and approval. 2) Prioritization of maintenance funding activities.
April 1 -	Submittal of tentative annual work plans, budgets, and interlocal contracts to District staff for review, recommendations, and coordination with entities.
May (TAC deadline)	Submittal of the Entities' final annual work plans, budgets, and interlocal contracts to the TAC and CAC for approval.
June	After receiving approval from the TAC and CAC, entities' final annual work plans, budgets, and interlocal contracts are submitted to the Board for approval.
July 1 -	Beginning of maintenance plan contract period, which ends June 30.

Reporting

Each Entity will submit quarterly reports indicating the status of the work completed under the current fiscal year's program (**Figure** 4-3). The reports are due 30 days after the close of the quarter, and will be submitted to the Board for review. Also, each Entity shall submit an annual certification to the District stating that all work contained in the work plan and reimbursed through the interlocal contract has been performed to the specifications established in this manual.

Figure 4-3 Quarterly Status Report

REGIONAL FLOOD CONTROL DISTRICT
MAINTENANCE WORK PROGRAM
QUARTERLY STATUS REPORT - FY 20XX-XX

MWP Facility #: _____ Entity: _____
Facility Name: _____ Date Prepared: _____
MP Facility ID: _____ Quarter: _____

Force Account/ Contract	Activity	Approved Work Plan Amount ($)	Amended Work Plan Amount ($)	Expended To Date ($)	Percent Complete	Scheduled Completion Date
	5 Inspect Channels					
	10 Clean and Reshape Channels					
	15 Repair Lined Channel					
	20 Provide/Maintain Erosion Control					
	25 Clean & Inspect Detention Debris Basins					
	30 Erosion Repair					
	35 Fence Repair					
	40 Vegetation Control - Chemical					
	45 Vegetation Control - Mechanical					
	50 Maintain Access Road					
	55 Clean & Inspect Inlet/Outlet Structures					
	60 Repair Inlet/Outlet Structures					
	65 Clean Storm Sewer Lines					
	70 Storm Sewer Repair					
	75 Clean/Flush Culverts & Bridges					
	80 Miscellaneous Work Activities					
	85 Engineering					
	TOTALS	$0.00	$0.00	$0.00	0%	

Delays or problem areas:

Work completed during current quarter:

Work to be completed during next quarter:

Consultant/ Contractor: _____
Project Manager: _____ Phone Number: _____

4.23 Approval of Annual Work Plan

The work plans received by the District will be reviewed and budget requests compiled into a summary showing the dollar amount by Entity for each of the priority areas set forth in **Section 4.11.** The Chief Engineer shall review the total maintenance budget requests against the District's proposed annual total budget for facility maintenance and make a recommendation to the District Board as to the amount of maintenance funds to be disbursed to each respective Entity based upon equity and need.

Once the Technical Advisory Committee has reviewed the maintenance work plans and budget appropriation recommendation, the Chief Engineer will forward the compiled summary to the Board for consideration and approval as a key element of the Annual District Budget.

Schedule

The Entities will submit the proposed work plan to the Chief Engineer as outlined in **Section 4.22.**

Reporting

The Chief Engineer's report to the District Board shall show both the budget requested by the Entity and the recommended amount to be appropriated, the report will also make comments on any adjustments made to the initial request.

4.24 Work Plan and Budget Amendments

Requests for amendments to approved work plans and budgets must be submitted to the Chief Engineer in writing. The amendment request must specify the work elements affected, describe the reasons for the amendment request, and describe the impact of the proposed amendment on the affected work plan objectives.

Formal approval of work plan and/or budget amendments requiring a reallocation of funds between facilities must be obtained from the Chief Engineer prior to submittal of payment requests. **(See Figure** 4-2.) The Entity shall also notify District staff of work plan and/or budget amendments within a facility. Requests requiring an increase in the overall work plan budget must be submitted to the Board for approval with a supplemental interlocal contract for the amended work in accordance with **Section 4.6** of the District Policies and Procedures Manual.

Schedule

Amendment requests shall be reviewed by District staff and responded to in writing within 15 days of receipt of the original request. Work plan amendments which require an increase in the Entity's annual budget will require submittal of an agenda item and supplemental interlocal contract for approval by the District Board of Directors.

Reporting

Annual certification of results will include addressing all amendments made to the annual work plan.

4.25 Certification of Compliance

It is the intent of the District to rely to the maximum extent possible on the Entities to carry out the maintenance activities and comply "voluntarily" with the procedures and standards set forth in this manual. The District shall from time to time inspect facilities funded by the District or those on the Master Plan to assure compliance with the interlocal contract. Each Entity shall submit an annual certification to the District stating that all work contained in the work plan and reimbursed through the interlocal contract has been performed to the specifications established in this manual. This certification shall be signed by the person executing the interlocal contract or designee. The certification should summarize proposed and actual plan accomplishments. It should also describe any major maintenance problems that have implications for the District as a whole, such as significant deterioration of major conveyance system components or the failure of system components to perform as intended, and suggest revisions to the activity list provisions.

Schedule

The certification and final payment requests shall be submitted to the District within 30 calendar days of the termination of the annual interlocal contract for maintenance funding.

Reporting

The certification shall be attested to on the Final Accounting Report (**Figure 4-4**), and an attachment may be used to describe additional pertinent information.

Figure 4-4 Final Accounting Report

(ENTITY)
MAINTENANCE WORK PROGRAM
FINAL ACCOUNTING REPORT - FY 20XX-XX
As of (Current Date)

VENDOR	P.O. NUMBER	P.O. AMOUNT	TOTAL EXPENDED	P.O. BALANCE
Sample Vendor 1	123456 01	1,000.00	1,000.00	0.00
Sample Vendor 2	123456 02	1,000.00	500.00	500.00
Sample Vendor 3	123456 03	1,000.00	200.00	800.00
	Total	$3,000	$1,700	$1,300

FY XX-XX INTERLOCAL AMOUNT/BUDGET	4,000.00	Total Encumbered	3,000.00
Total Encumbered	3,000.00	Total Expended	1,700.00
Total Unencumbered	$1,000.00	Total Unexpended	$1,300.00

Total Authorized	**$4,000.00**
Expended	**$1,700.00**
RETURN TO FUND 286	**$2,300.00**

Regional Flood Control District **(Entity)**

RFCD Date Project Manager Date

I certify that the above described maintenance was performed in accordance with the criteria/standards contained in the District's Operations and Maintenance Manual. Further, the information contained in this Final Accounting Report accurately reflects those costs incurred during the performance of this work. If there are any maintenance problems that have implications for the District as a whole, such as significant deterioration of major conveyence system components or failure of system components to perform as intended, a detailed description will accompany this report as an attachment.

4.26 Interlocal Contract Document

The performance of work outlined in the approved maintenance plan shall be guided by an interlocal contract entered into annually between the District and each Entity. Sample contracts are contained in **Appendices B and C.** Major provisions of the contract include: the adoption of the Board approved work plan as the document outlining the work to be performed; references to the performance standards, reimbursement and payment procedures, and plan amendment procedures outlined in this manual for governing maintenance work performance evaluations, and contract amendments; and a requirement for submittal of an annual certification of results.

Schedule

All Entities will enter into an "annual" interlocal contract in conjunction with adoption of the District and respective Entity budgets.

Reporting

Reporting requirements will be as prescribed in the respective interlocal contracts.

4.27 Contract for Maintenance Performance

If, in the opinion of the Entity, it appears to be most cost effective (or due to an emergency) to utilize the services of private contractors to perform maintenance functions, the Entity shall solicit bids from qualified contractors in compliance with their statutory procedures for the necessary work. The Entity will provide the District with copies of bid specifications and bid tabulations as well as copies of the respective contract documents. All expenditures must comply with **NRS** 332, Local Government Purchasing Act, **NRS** 338, the Public Works Act, and all relevant statutes, rules, regulations, and policies.

Schedule

All contracts for maintenance services shall be bid on an annual basis or for a specific project location.

Reporting

The Entity shall advise the District in advance that they intend to utilize a private contractor (may be included as part of annual work plan). They shall also provide a summary of work performed and a statement of inspection as part of the request for reimbursement to the Entity or directly by the District to the contractor.

4.30 MAINTENANCE PROCEDURES

4.31 Purpose

As a part of the overall operations and maintenance procedures adopted by the District, an outline for specific maintenance procedures has been developed. The accepted maintenance procedures are centered around specific elements of a management system for field maintenance, and include defined maintenance activities, standards, scheduling, and reporting procedures.

Due to the diversity in physical features among the various agencies involved, and the varied resources employed in maintenance activities, it is essential to treat these procedures as general guidelines which must be tailored to meet the situation at hand. It is also essential that these procedures remain dynamic, be actively reviewed, and periodically updated. An annual review is recommended.

4.32 Activities

Maintenance work activities identify all major maintenance work and include all activities which are performed frequently and in amounts that make them a significant part of the total work program. Each activity must be clearly defined so maintenance personnel at all levels of management uniformly understand the operation to be performed and the type of deficiency to be corrected.

Personnel who plan, schedule, perform, report, or evaluate maintenance work must know what each work activity means. Work activities are used for the following purposes:

- Planned maintenance work is identified in the annual maintenance work plan by activity name and number.
- Activity names and numbers are used for authorizing, assigning, and reporting work.
- Activity names and numbers are used on work scheduling guides and work performance summaries.

Work measurement units are established for the major maintenance activities. For example, "Acres Covered" is the work measurement unit for vegetation control while "Cubic Yards Removed" is the work unit for cleaning and reshaping channels. These measurement units are used to describe how much work is planned and to report how much work is accomplished for each activity.

For some activities, specific work measurement units--other than labor hours--would not be meaningful. For example, the miscellaneous maintenance activity includes a number of different operations. This activity cannot be measured by a common unit other than labor hours.

Following is the accepted maintenance Activity List for the District including work measure units.

ACTIVITY NUMBER	ACTIVITY NAME	WORK MEASURE UNIT
05	Inspect Channels	Miles
10	Clean and Reshape Channels	Cubic Yards
15	Repair Lined Channel	Each
20	Provide/Maintain Erosion Control	Square Feet
25	Clean and Inspect Detention/Debris Basins	Cubic Yards
30	Erosion Repair	Cubic Yards
35	Fence Repair	Linear Feet
40	Vegetation Control - Chemical	Acres
45	Vegetation Control - Mechanical	Acres
50	Maintain Access Road	Miles
55	Clean and Inspect Inlet/Outlet Structures	Each
60	Repair Inlet/Outlet Structures	Each
65	Clean Storm Sewer Lines	Linear Feet
70	Storm Sewer Repair	Repairs
75	Clean/Flush Culverts & Bridges	Each
80	Miscellaneous Work Activities	Labor Hours
85	Engineering	Labor Hours

4.33 Standards

"Performance Standards" have been established for each of the major maintenance work activities. These performance standards specify:

- The most effective crew size.
- The kinds and number of equipment required.
- The major types of material that should be used.
- Recommended procedures for performing the work.
- An estimate of expected average daily accomplishment with standard crew size, equipment and procedures.
- Authorization and scheduling criteria.

Following is an item-by-item description of the format of the performance standards.

1. Activity Identification/Date. The activity number and name are shown as well as the "effective date" of the performance standard--to be used when updating or replacing performance standards.

2 Description and Purpose. The Description and Purpose section of the performance standards explains the work activity and the kinds of defects to be corrected or reasons for doing the work.

3 Authorized By and Work Control Category. The level of management responsible for authorizing the work is identified. Certain activities requiring special equipment, coordination, or expertise are Engineer-authorized activities and should not be scheduled or performed without the Engineer's approval. The type of control to be placed on the quantity of work performed is identified. This control is unlimited or limited in terms of the amount of work done (accomplishment) or the amount of labor input (crew-day).

4 Performance Criteria. This section includes important information for the "scheduler" about when to schedule the work and for the crew leader to identify the work to be done.

5 Crew Size. The crew size outlines the numbers of personnel needed to do the work. The crew size is based on average conditions. Sometimes, there will be a need to add or delete people to satisfy special traffic safety conditions or hauling requirements.

6. Equipment. The basic requirements for major pieces of equipment are listed. Situations such as the breakdown or unavailability of equipment or special materials hauling requirements may require the addition, deletion or substitution of equipment.

7. Materials. The materials section includes a list of the major materials to be used for the activity.

8. Work Method. The work method outlines, step-by-step, the recommended procedures for performing the work. Each step should be performed in order to correctly maintain the feature as well as provide the quality of work desired.

9. Average Daily Production. The average daily production is an estimate of the amount of work a crew can accomplish during a day using the recommended crew size, equipment, materials and work method. This estimate is shown as a range and should be attainable over a period of time. Some days the accomplishment may be more or less than the estimate, but eventually, the average should fall in line.

10. Notes. Any other relevant, helpful information or instructions.

Use of Performance Standards

Maintenance supervisory personnel should become thoroughly familiar with these performance standards. It is important that the performance standards be used when making assignments and performing work. Some situations will require deviation from the performance standards--such as more or less flagmen or additional haul trucks. These situations are recognized, and crew leaders are expected to consider such situations when organizing and managing their activities.

Haul truck needs should be determined using factors such as haul distance and time estimates (spot, dump, load, and cycle times.)

The performance standards also provide guidance and a measure for supervisors to use when evaluating work in progress and completed.

Field personnel are in the best position to identify new or better work methods or difficulties with the current performance standards. These suggestions for improvements or questions should be directed to the crew leader or supervisor.

The performance standards should be reviewed and updated annually. If other changes occur that require more frequent review and update or development, the performance standards can be changed to suit these needs.

4.34 Scheduling

The objectives of work scheduling are:

- To do the planned amount of work.
- To perform the work when it should be done.
- To do the work where it should be done.
- To use the proper people, equipment and supplies to do the work.
- To ensure to the extent possible that all flood control facilities are functioning at design capacity during a storm event, noting that Flash Flood Season is July through September.

Three tools are available to help supervisors meet these objectives. The WORK PROGRAM defines the estimated amount of work and the estimated labor-days required for each activity to provide the desired levels of service; a WORK CALENDAR helps to establish when the various activities should be done; and the PERFORMANCE STANDARDS provide information about quantity standards, personnel requirements and how much work can be done in a given time.

The annual work program establishes the kinds and amount of work to be done during the year and the resources that will be required to do that work. This annual plan needs to be broken into a monthly plan for effective scheduling of work and to permit timely evaluations of work program performance.

The process of "distributing" the annual work load throughout the year is done by allocating a part of the work (in labor-hours, by activity) to specific months. Some types of work -- emergency or service activities -- must be done throughout the year as the need arises. Other types of work must be done on a regularly scheduled basis -- such as preventive maintenance work. Finally, some types of work can be done during certain periods but can be shifted from one month to the other, and still other work can be done almost any time during the year.

These factors must be considered when distributing the different types of work. Preventive maintenance and other types of work which must be performed on a regularly scheduled basis are distributed so as to level labor power needs as much as possible. Finally, work which can be performed any time is distributed to those months with the fewest labor-days. In this way, staffing needs are kept as uniform as possible resulting in more efficient use of available labor power.

A work calendar lists -- activity by activity -- the labor-hours for each month. These labor-hours are used in conjunction with the work program annual work quantities for work scheduling and

the preparation of periodic Activity Status Reports. A sample work calendar is included in **Figure** 4-5.

Once the work program and staffing levels have been set, the work load distribution can be finalized and the calendar prepared to summarize/communicate the planned monthly distribution of the work program.

Work scheduling is the process of using the Work Calendar and specific scheduling procedures to plan ahead, establish work priorities and accomplish the work.

The performance standards outlined in the previous sections apply to corrective and preventive maintenance activities. These procedures are not as rigid or foolproof as implied by the description. Equipment breakdowns, emergencies, or bad weather will disrupt a schedule -- but part of the scheduling process is to be aware that these situations will occur and to be prepared to respond with little or no difficulty. Because of these situations, supervisors should not expect to accomplish all of the work as scheduled. Generally, a supervisor can consider his scheduling efforts to be successful if 75 to 80 percent of the scheduled work is completed as planned.

REGIONAL FLOOD CONTROL DISTRICT
MAINTENANCE WORK PROGRAM
WORK CALENDAR

MWP Facility #: _____
Facility Name: _____
MP Facility ID: _____

Entity: _____
Fiscal Year: _____
Date Prepared: _____

ACTIVITY No.	Description	Monthly Distribution of Time (in hours) JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total Per Activity
5	Inspect Channels													-
10	Clean and Reshape Channels													-
15	Repair Lined Channel													-
20	Provide/Maintain Erosion Control													-
25	Clean & Inspect Detention/Debris Basins													-
30	Erosion Repair													-
35	Fence Repair													-
40	Vegetation Control - Chemical													-
45	Vegetation Control - Mechanical													-
50	Maintain Access Road													-
55	Clean & Inspect Inlet/Outlet Structures													-
60	Repair Inlet/Outlet Structures													-
65	Clean Storm Sewer Lines													-
70	Storm Sewer Repair													-
75	Clean/Flush Culverts & Bridges													-
80	Miscellaneous Work Activities													-
85	Engineering													-
	Total Per Month	-	-	-	-	-	-	-	-	-	-	-	-	-

I certify that the above described maintenance will be performed in accordance with the criteria/standards contained in the District's Operations and Maintenance Manual. Further the information contained in this Work Calendar accurately reflects the time expected to be incurred during the performance of this work.

_____
Project Manager Date

Figure 4-5 Work Calendar

Following are some additional hints or techniques to consider:

- It is not necessary to "formally schedule" the daily, routine activities. It is necessary, however, to regularly check the work reports and accomplishments to verify the distribution of work assignments. A periodic review and adjustment of the work assignments may be necessary to maintain a "balanced work load."

- It is usually best to prepare a schedule (and work assignments) assuming everything will work as planned -- no equipment breakdowns, no emergencies, etc. But make sure a backlog of "alternate" work is available so that little time is wasted when adjustments to the schedule must be made.

- Some guidelines for identifying alternate work:

  - Low priority work that needs to be done, but not necessarily during the next week or so.

  - Work that does not require special equipment or a lot of preparation time.

  - Preventive maintenance on light equipment.

- Take time to estimate the amount of work needed and the number of hours required to do the work. Good estimates will improve the scheduling process significantly. The performance standards, inspections and sound judgment based on experience all help the estimating process.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
05	INSPECT CHANNELS	12/99

DESCRIPTION & PURPOSE

Inspect both improved and unimproved flood channels for proper cross-section, sedimentation, debris and erosion damage, in order to schedule cleaning or repairs as needed.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Perform complete inspection of channels on an annual basis and after major storm events.

CREW SIZE

- 1 Crew Supervisor
-
-
- 1 **TOTAL**

EQUIPMENT

- 1 Pickup
-
-
-

WORK METHOD

1. Use safety devices, as required.
2. Visually inspect channels for cross-section, sediment, debris, erosion, and vegetation.
3. Prioritize a list of channels requiring maintenance.
4. Schedule cleaning of channels referring to prioritized list.

MATERIAL

-
-
-
-

AVERAGE DAILY PRODUCTION

8 miles/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
10	CLEAN & RESHAPE CHANNELS	12/99

DESCRIPTION & PURPOSE

Mechanical silt, vegetation, and debris removal, and reshaping of unlined channels to restore adequate flow.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Improved earth channels should be scheduled for cleaning and reprofiling on an annual schedule, or as appropriate following a flood event. Natural channels on a 3-year cycle.

CREW SIZE

- 2 Equipment Operators
- 1 Truck Driver
- .5 Foreman
- 3.5 **TOTAL**

EQUIPMENT

- 1* 10-wheel Dump Truck
- 1 Scraper
- 1 Gradall

WORK METHOD

1. Set up safety devices as required.
2. Remove silt and vegetation.
3. Load and haul removed material to proper disposal site.
4. Reshape channel.
5. Clean up work site.
6. Remove safety devices.

MATERIAL

- Disposal Fees

AVERAGE DAILY PRODUCTION

300 Cubic Yards/day

NOTES:

*Schedule sufficient trucks to insure maximum utilization of excavation equipment.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
15	REPAIR LINED CHANNELS	12/99

DESCRIPTION & PURPOSE

Repair of damaged concrete, rip rap, gabion, or other channel linings, retaining walls, etc., to restore to original condition and prevent further deterioration.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Repairs of channel linings, retaining walls, and other structures critical to the protection of a facility are to be scheduled immediately upon detection of damage.

CREW SIZE

- 1 Maintenance Foreman
- 2 Maintenance Workers
-
- 3 **TOTAL**

EQUIPMENT

- Pickup
- Flatbed Dump
- Concrete Mixer
-

WORK METHOD

1. Obtain from storekeeper safety equipment, materials, tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Clean and prepare damaged area.
4. Build and place forms as necessary.
5. Place and finish concrete.
6. Remove forms and back fill.

MATERIAL

- Assorted lumber
- 6-30 bags sacked concrete
- 3-15 tons concrete gravel mix
- 2-10 CY ready-mix concrete

AVERAGE DAILY PRODUCTION

1Each/Day

NOTES:

Crew size and equipment may vary significantly depending on urgency, extent and complexity of repair.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
20	PROVIDE / MAINTAIN EROSION CONTROL	12/99

DESCRIPTION & PURPOSE

Placement of rip rap, sand bags, or other erosion control materials and repair of damaged areas of erosion protection to restore material to original condition. This work is done to prevent further deterioration and eliminate potential erosion problems.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Work is to be scheduled when damage or deterioration is severe enough to present potential erosion problems. Erosion undercutting roadways, sidewalks, or prepared embankments/improvements shall be repaired immediately. Repair of undermined stabilizers shall be scheduled immediately.

CREW SIZE

- 1 Foreman
- 2 Equipment Operators
- 2 Maintenance Workers
-
- 5 **TOTAL**

EQUIPMENT

- 1 Truck Crane
- -or- Backhoe
- 1 Dump Truck
- 1 Pickup

WORK METHOD

1. Obtain from storekeeper safety equipment, materials and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Shape work area to receive riprap, or other erosion control materials.
4. Place material and grout where applicable.
5. Back fill as necessary.

MATERIAL

- 20-50 Tons Rock for riprap (delivered)
- 5-12 yards ready mix concrete (if needed)
- 5,000-15,000 gal Water

AVERAGE DAILY PRODUCTION

1300 Square Feet/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
25	CLEAN & INSPECT DETENTION/DEBRIS BASINS	12/99

DESCRIPTION & PURPOSE

Inspection and removal, by loader (including hauling and disposal), of sediment and debris deposited in detention and debris basins to restore full capacity and original shape.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Remove sediment bi-annually or when debris basins or dams detention capacity is significantly reduced. Clean out is normally justified when the sedimentation reaches 1 to 2 feet in depth or as established by the design.

CREW SIZE

- 1 Foreman
- 3 Equipment Operators
- 1 Maintenance Worker
- 5 **TOTAL**

EQUIPMENT

- 1 Pickup
- 1 Loader
- 2* Dump Trucks

WORK METHOD

1. Obtain from storekeeper safety equipment, materials and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Prepare removal and disposal sites for access.
4. Stockpile material for removal.
5. Load material and haul to designated disposal site.
6. Shape dam or basin to desired line and grade.
7. Grade disposal site as necessary.

MATERIAL

- Disposal Fees

AVERAGE DAILY PRODUCTION

1000 Cubic Yards/day

NOTES:

*Schedule sufficient trucks to insure maximum utilization of excavation equipment.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
30	EROSION REPAIR	12/99

DESCRIPTION & PURPOSE

The replacement and compaction of material removed by erosion, using hand tools or other methods, to restore Flood Control channels, supporting embankments, levees or access roads.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

As needed when damage has occurred which has affected or will affect the structural integrity of a channel embankment, levee, or access road,at a location where mechanical methods cannot be used.

CREW SIZE

- 1 Foreman
- 2 Maintenance Workers
-
-
- 3 TOTAL

EQUIPMENT

- 1 1-Ton Dump -or- Flatbed
- 1 Air Compressor w/compactor
- 1 Pickup w/Water Tank
- -or- Auxiliary Spray Truck

WORK METHOD

1. Obtain from storekeeper safety equipment, materials, and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Remove debris and growth from damage location.
4. Haul fill material from pre-determined source.
5. Place and compact fill material in lifts.
6. Shape repair area to conform to adjacent areas.
7. Clean up work area as necessary.

MATERIAL

- 15-30 Tons Select Fill Material
-
-
-

AVERAGE DAILY PRODUCTION

15 Cubic Yards

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
35	FENCE REPAIR	12/99

DESCRIPTION & PURPOSE

The repair and/or re-establishment of downed or damaged fences to restore fence to proper condition and to provide right-of-way control.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Repair of downed or open fence areas to be performed upon detection. Repairs to damaged locations that remain partially functional are to be scheduled in priority with other work.

CREW SIZE

- 2 Maintenance Workers
- 2 **TOTAL**

EQUIPMENT

- 1 Fence Truck
- 1 Concrete Mixer (if needed)

WORK METHOD

1. Obtain from storekeeper safety equipment, materials and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Perform necessary repairs to:
   - Posts
   - Fabric
   - Top rail

MATERIAL

- 40-50 Linear Ft Fence Fabric
- Miscellaneous Hardware
- 5 bags "Readycrete"

AVERAGE DAILY PRODUCTION

100 Linear Feet/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
40	VEGETATION CONTROL - CHEMICAL	12/99

DESCRIPTION & PURPOSE

The application of herbicides, to designated areas, with a boom-mounted spray bar to prevent new growth and/or control existing vegetation, for the purpose of insuring the capacity and integrity of Flood Control facilities.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Spray pre-emergence herbicide and post-emergence herbicide annually to designated areas combining applications where possible.

CREW SIZE

- 2 Maintenance Workers
- 2 **TOTAL**

EQUIPMENT

- 1 Truck-mounted chemical tank with spray bar and hand sprayer

WORK METHOD

1. Set up safety devices as required.
2. Treat channel areas as required.
3. Remove safety devices.

MATERIAL

- Pre 12.5-25 lb/Ac
- Emerg Contact: 12.5-25 lb/Ac
- Post Brush: 120 lb/Ac
- Emerg Grass: 30 lb/Ac
- Waterweed: 1 gal/Ac
- Spreader: 1 gal/Ac
- Water 200 gal/Ac

AVERAGE DAILY PRODUCTION

Acres

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
45	VEGETATION CONTROL - MECHANICAL	12/99

DESCRIPTION & PURPOSE

The mechanical removal of brush and weeds to maintain detention, debris basins, and channels free of vegetation.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Work to be scheduled when weeds and willows grow up at unsprayable locations, or when growth is too high for effective spraying.

CREW SIZE

- 1 Equipment Operator
- 1 **TOTAL**

EQUIPMENT

- 1 Mower or Grader
- 1 Tilt Trailer (if needed)
- 1 Pickup

WORK METHOD

1. Obtain from storekeeper safety equipment, materials, and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Mow, blade down, or turn under unwanted vegetation.

MATERIAL

AVERAGE DAILY PRODUCTION

4 Acres/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
50	MAINTAIN ACCESS ROADS	12/99

DESCRIPTION & PURPOSE

Mechanical grading of access roads to remove minor ruts and erosion,and restore normal shape and cross slope, for access to Flood Control facilities.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

As needed prior to rainy season, or when the weather affects the road condition. Plan to re-profile access roads on a bi-annual (two year) frequency.

CREW SIZE

- 2 Equipment Operators
- 1 Maintenance Workers
- 3 **TOTAL**

EQUIPMENT

- 1 Grader
- 0-1 Water Truck
- 0-1 Roller
- 1 Pickup

WORK METHOD

1. Obtain from storekeeper equipment and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Grade access roads:
   - Restoring X-section shape
   - Filling potholes
   - Grading out ruts
   - Restoring ditches and drainage.
4. Roll and compact regraded.

MATERIAL

- 10,000 Gal Water (if needed)

AVERAGE DAILY PRODUCTION

.5 Mile/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
55	CLEAN & INSPECT INLET/OUTLET STRUCTURES	12/99

DESCRIPTION & PURPOSE

Cleaning and inspection of catch basins, inlets, sumps, grates, outflow and other structures to remove silt and debris and to inspect for structural integrity and proper functioning.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Plan for structures to be inspected and cleaned a minimum of once per year. Annual cleaning shall be the major effort to allow thorough inspection of structure in order to schedule repairs.

CREW SIZE

- .25 Foreman
- 2 Maintenance Workers
-
-
- 2.25 **TOTAL**

EQUIPMENT

- 1 1-Ton Truck
- 1 Water Tanker (1500 gal)
- -or- High Pressure Vacuum (Vactor)
- Appropriate Hand Tools

WORK METHOD

1. Perform daily vehicle P.M. check and check equipment.
2. Place signs/traffic control devices as required.
3. Locate truck in the best working position and as far off roadway as practical.
4. Remove grate. Then remove debris, trash & sediment from grate.
5. Loosen solids with spade if necessary.
6. Flush/vacuum basin.
7. Inspect structure visually to determine if further cleaning or repair is necessary.
8. Dispose of debris at designated dump site.
9. Check and clean equipment after use.

MATERIAL

- Water
-
-
-

AVERAGE DAILY PRODUCTION

15 Each/day

NOTES:

Structures that cannot be cleaned shall be reported to the Maintenance Supervisor for initiation of corrective action.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
60	REPAIR INLET / OUTLET STRUCTURES	12/99

DESCRIPTION & PURPOSE

Repair of catch basins, grates, inlets, control gates, outfalls, weirs, manholes, sumps, and other spot structures to restore elements to their original operational condition.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Based on detailed inspection of repair, replace components, or entire structure as conditions warrant. Plan repair of five percent (5%) of system structures per year.

CREW SIZE

- 1 Foreman
- 2 Maintenance Workers
- 3 **TOTAL**

EQUIPMENT

- 1 Pickup
- 1 Compressor w/accessories

WORK METHOD

1. Obtain necessary safety equipment, tools, and materials.
2. Initiate applicable safety procedures and traffic control.
3. Remove and clean area of damage/failure.
4. Repair as necessary to original condition and test operation as appropriate.

MATERIAL

- Concrete
- Aggregates
- Miscellaneous parts, as required

AVERAGE DAILY PRODUCTION

1 Each/day

NOTES:

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
65	CLEAN STORM SEWER LINES	12/99

DESCRIPTION & PURPOSE

The removal of debris of any type from within conduits by: flushing with water; the use of a sewer cleaning machine; or by physically entering the conduit and manually removing debris, to restore full capacity.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Plan cleaning of storm sewer lines on an average 5-year cycle. Specific areas may require annual cleaning while others will require less than 5-year cleaning.

CREW SIZE

- 1 Maintenance Foreman
- 2 Maintenance Workers
- 3 **TOTAL**

EQUIPMENT

- 1 Sewer Cleaner

WORK METHOD

1. Obtain from storekeeper safety equipment and tools necessary for the day's work.
2. Begin applicable safety procedures and/or traffic control.
3. Remove debris from conduit.
4. Load debris and haul to designated disposal site if necessary.
5. Clean up work area as necessary.

MATERIAL

- 0-5,000 Gallons Water

AVERAGE DAILY PRODUCTION

1500 linear feet/day

NOTES:

Work should be scheduled whenever possible, in conjunction with annual cleaning of adjacent structures.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
70	STORM SEWER LINE REPAIR	12/99

DESCRIPTION & PURPOSE

Excavation and repair of storm sewer lines to eliminate blockages and repair failed pipes.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Priority of repairs:
1. eliminate blockages and hazards to public safety;
2. remove flow restrictions and repair damaged/failed pipe sections.

CREW SIZE

- 1 Foreman
- 1 Equipment Operator
- 2 Maintenance Workers
- 4 **TOTAL**

EQUIPMENT

- 1 Dump Truck
- 1 Backhoe/Util Tractor
- 1 Air Compressor w/accessories
- Appropriate Hand Tools

MATERIAL

- Pipe/fittings
- Sand
- Cement
- Rock
- Asphalt, as required

WORK METHOD

1. Set up warning signs and traffic control devices.
2. Take necessary measures to control flow -- providing uninterrupted service whenever possible.
3. Cut pavement and/or excavate to the extent required to determine necessary scope of repairs.
4. Remove flow restrictions, as necessary.
5. Back fill and compact in lifts to within 10 inches of surface.
6. Place select material (rock or shell) and compact to within 2 inches of surface* (See Note below.)
7. Coordinate density test and request repaving as required.
8. Clean work area. Remove signs and warning devices.
9. Record work accomplishment.

AVERAGE DAILY PRODUCTION

1 Repair/day

NOTES:

Verify location of other utilities prior to excavation.

* Back fill specifications apply to paved areas. In easements and other unpaved areas, back fill and compact in 2-foot lifts to grade; re-sod as necessary. Install safety fence and secure job site at end of workday as required.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
75	CLEAN / FLUSH CULVERTS & BRIDGES	12/99

DESCRIPTION & PURPOSE

Cleaning/flushing of culverts and bridges to remove silt and debris, and eliminate restriction to flow.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Plan for all culverts to be cleaned/flushed annually.

CREW SIZE

- 1 Maintenance Supervisor
- 1 Maintenance Worker
-
-
- 2 TOTAL

EQUIPMENT

- 1 1-Ton Dump Truck
- 1 Water Tanker (1500 gal)
- -or- High Pressure/Vacuum cleaner/Vactor
- Safety Equipment
- Appropriate Hand Tools

WORK METHOD

1. Place signs and safety devices.
2. Locate truck in best working position and as far off roadway as possible.
3. Clean out ends of culvert.
4. Flush culverts until flow is unrestricted.
5. Load excess material/debris into truck for disposal at designated dump area.
6. Pick up signs and safety devices.

MATERIAL

- Water
-

AVERAGE DAILY PRODUCTION

5-7 Each/Day

NOTES:

1. Inform Maintenance Supervisor of any non-cleanable culverts or those that can only be partially cleaned.
2. Avoid damaging downstream property when flushing culverts.
3. Work should be scheduled, whenever possible, in conjunction with annual cleaning of adjacent structures.

Amended: December 9, 1999

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
80	MISCELLANEOUS WORK ACTIVITIES	12/99

DESCRIPTION & PURPOSE

All work performed that is not described in previous activities. This includes, among others, activities such as catwalk repair, rodent control, pump maintenance, concrete spalled area repair, painting, building and grounds maintenance, trash pickup*, graffiti abatement, sign installation and maintenance.

AUTHORIZED BY	LIMITS ON WORK
Maintenance Supervisor	

PERFORMANCE CRITERIA

Plan 8 labor hours per channel mile per year for miscellaneous maintenance work.

CREW SIZE	WORK METHOD
▪ 1 Maintenance Worker ▪ ▪ ▪ 1 **TOTAL**	1. Obtain from storekeeper safety equipment, materials, and tools necessary for the day's work. 2. Begin applicable safety procedures and/or traffic control.
EQUIPMENT	
▪ 1 Pickup ▪ Hand tools ▪ ▪	
MATERIAL	**AVERAGE DAILY PRODUCTION**
▪ As required ▪ ▪ ▪	8 Labor Hours

NOTES:

*Includes appliances, tires, car bodies, and other large objects dumped in channels/basins.

PERFORMANCE STANDARD

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

ACTIVITY NUMBER	NAME	DATE
85	ENGINEERING	12/99

DESCRIPTION & PURPOSE

All work that is by nature engineering. This includes, among others, surveying and preparation of plans and specifications for maintenance work.

AUTHORIZED BY	LIMITS ON WORK
Director of Public Works for designee	

PERFORMANCE CRITERIA

CREW SIZE	WORK METHOD
▪ N/A ▪ ▪ ▪ TOTAL	1. As deemed most cost effective.
EQUIPMENT	
▪ N/A ▪ ▪ ▪	
MATERIAL	**AVERAGE DAILY PRODUCTION**
▪ N/A ▪ ▪ ▪	8 Hours/Day

NOTES:

4.35 Reporting

Comprehensive maintenance programs include procedures for reporting and summarizing work accomplished and labor-hours used for maintenance activities. This information enables managers and supervisors to compare actual performance with the planned work program. These planned-actual comparisons -- on a regular basis -- are essential for effective management and control of the work program.

The reporting procedures provide specific information:

- What Master Plan facility required work.
- What work was done by activity.
- How much of each activity was done.
- The labor-hours used to accomplish the work

This information is used by managers in their effort to:

- Make sure the right kinds and amounts of maintenance work are done.
- Identify the problem areas and related corrective actions.
- Develop future work programs and budgets.
- Identify opportunities for improved productivity.

The work reporting process can consist of a simple form as outlined in the following section.

Daily Work Activity Report

The Daily Work Activity Report may be used to record and summarize (1) the kinds and amounts of work performed by maintenance personnel, and (2) the number of labor-hours used to do that work. The report can be used to summarize all work activities. Each Entity may use its standard accounting/reporting procedures for the Daily Work Activity Report.

The Maintenance Supervisor or crew leader usually prepares the Daily Work Activity Report. Following are instructions for the completion of the sample report shown on **Figure 4-6.**

1. Identification Data - Fill in all blanks: the Entity, date, name of person preparing the report, and the names and employee numbers of all persons to perform work to be reported for the day. (The form provides for several combinations of activities and employees. If additional pages are needed, number the pages accordingly).

2. Master Plan Facility ID/Name Enter the specific 4 letter-4 digit Master Plan Facility number and reach, which indicates the "from" and "to," if applicable. This number directly corresponds to the specific Master Plan location as identified on current Master Plan maps. Also, indicate the Facility Name.

3. MWP Facility Number - Enter the identifying Maintenance Work Plan facility number. (This number directly corresponds to the budget approved for the facility and will typically include a range of Master Plan facilities and reach.)

4. Activity Number - Enter the number of each activity performed. Use the Work Activity Directory or Performance Standards to complete the blank.

5. Employee Number - Enter the employee number of the person working a specific activity at the specific facility.

6. Hours Worked by Each Employee - Record the number of hours worked by each employee, by the appropriate activity. Record the time spent to the nearest quarter-hour. For example, record 1 hour and 45 minutes as 1.75 hours and 3 hours and 20 minutes as 3.25 hours.

7. Equipment Number - Enter the assigned equipment number for any mechanical equipment on which work was performed for preventive and corrective maintenance only.

8. Work Performed - Enter the location and a brief description of the work performed.

9. Accomplishment - Measure and record the amount of work done for each activity. Use the correct measurement unit for each activity. (See the Activity List in **Section 4.32.)** Record the amount of work done to the nearest whole unit. Record labor-hours to the nearest hour. For activities with labor-hours as the unit of measure, the "quantity" will be exactly the same as "total hours" for the activity.

10. Notes/Comments - Record any additional relevant information that may be of use in summarizing and analyzing work activity data.

The completed reports can be used for monthly summarization and report preparation, and serve as completion certification backup for the monthly force account reimbursement billings.

REGIONAL FLOOD CONTROL DISTRICT
DAILY WORK ACTIVITY REPORT

ENTITY: _____

Date Work Performed: _____ 20 ____

Supervisor Name: _____

Employee Name: _____ No. _____

Employee Name: _____ No. _____

Employee Name: _____ No. _____

Employee Name: _____ No. _____

Employee Name: _____ No. _____

MWP Facility Number	Master Plan Facility ID/Facility Name	Activity Number Worked	Empl. Number	Hours Worked by Activity	Equip. Number Used	Work Performance (Location, Brief Description, Materials Used, Etc.)	Accomplishment	
							Amount	Unit of Measure

NOTES/COMMENTS: _____

The undersigned hereby certifies that the above described maintenance was performed in accordance with the criteria/standards contained in the Districts Operations and Maintenance Manual. Further, the information contained herein accurately reflects the time and accomplishments reported during the performance of this work.

_____ _____ _____

Supervisor's Signature Date Title

Page ____ of ____

Figure 4-6 Daily Work Activity Report

4.40 INVENTORY PROCEDURES

4.41 Purpose

The purpose of this element of the Operations and Maintenance Manual is to provide a record of the existing physical flood control system that is eligible for maintenance funding assistance by the District. The physical facilities that make up the collection and conveyance system have in many instances been paid for in whole or in part by the District, however, they are not "owned, " operated, or maintained by the District. If, however, the total flood control system does not function properly when needed, it is ultimately the responsibility of the District to determine why and to take corrective action. A critical key to assuring the system functions properly is an up-to-date inventory of the physical system.

4.42 Physical System

In 1990, each Entity provided a list of the physical system that makes up the flood control system in their jurisdiction. Facilities eligible for maintenance funding are those identified in the Regional Flood Control District's Master Plan and any revisions, amendments, and/or changes subsequently approved. Only those facilities that exist as Master Plan facilities, or exist in the same alignment as a proposed Master Plan facility and appurtenant facilities are eligible.

Schedule

The inventory work sheets must be expanded to represent a true and accurate accounting of facilities on the Master Plan and tributary (drainage) systems and updated as part of the annual certification process.

Reporting

The Entities should submit annual updates of the physical system inventory on the form required by the District **(Figure C-l).**

4.43 Physical System Maps

Each Entity must have a map that shows the physical system for drainage and flood control. This map should reflect that portion that is on the Master Plan and also that portion that is eligible for maintenance funding by the District.

Schedule

The individual Entities should submit to the District updated maps annually, or more frequently as project completion dictates, reflecting the size, location and material elements of their drainage and flood control system. The update should show those systems that are eligible for Regional Flood Control District funding under the categories shown in **Section 4.11** of this manual.

Reporting

The physical system update with maps should be provided to the District and be in a form that is readily reproducible.

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
OPERATIONS AND MAINTENANCE MANUAL

CHAPTER 5
EMERGENCY FUNDING PROCEDURES

5.10 EMERGENCY FUNDING PROCEDURES

5.11 Purpose

This element of the Operations and Maintenance Manual provides the Entities with procedures to perform emergency restoration and rehabilitation immediately following a flood event. A principal role of the District shall be to support the Entities' efforts to: (1) secure funding from state, federal, entity reserves and private sources; and (2) facilitate required immediate repairs to regional flood control facilities without delay.

Projects eligible for District emergency restoration and rehabilitation funding are those included in the Entity's approved or amended Maintenance Work Program.

5.12 Procedures

If the governing body elects to declare an emergency, then the District, in accordance with NRS 332.055 (Emergency Contracts: Competitive bidding not required; "emergency" defined.), will authorize and process emergency purchase orders to the maximum limit of unexpended funds upon written request by the Entity.

APPENDIX A

KEY STATUTORY, REGULATORY, AND POLICY REFERENCES

NEVADA REVISED STATUTES

1. CHAPTER 332 PURCHASING: LOCAL GOVERNMENTS
2. CHAPTER 338 PUBLIC WORKS PROJECTS
3. CHAPTER 543 CONTROL OF FLOODS

UNIFORM REGULATIONS FOR THE CONTROL OF DRAINAGE

1. SECTION 12 DESIGN/IMPROVEMENT STANDARDS
   a. 12.050 Construction/Operation/Maintenance

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

1. SECTION 300 DRAINAGE POLICY
   a. 303.10 Drainage Facilities Maintenance

REGIONAL FLOOD CONTROL DISTRICT POLICIES AND PROCEDURES MANUAL

1. CHAPTER 16.0 FACILITY MAINTENANCE
   a. 16.1 Annual Maintenance Work Program
   b. 16.2 Catastrophic Damage to Flood Control Facilities

APPENDIXB

SAMPLE AUTHORIZATION-TO-PROCEED INTERLOCAL CONTRACT

INTERLOCAL CONTRACT
ANNUAL MAINTENANCE WORK PROGRAM

THIS CONTRACT, made and entered into this ___ day of_____, 20____, by and between the [legal name of CITY or COUNTY], a political subdivision of the State of Nevada, hereinafter referred to as "CITY" (or "COUNTY"), and the CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, hereinafter referred to as "DISTRICT".

W I T N E S S E T H :

WHEREAS, pursuant to Chapter 543 of the Nevada Revised Statutes, the DISTRICT may approve and fund projects to maintain flood control improvements; and

WHEREAS, the CITY (or COUNTY) desires to maintain flood control improvements within the CITY (or COUNTY) in accordance with the maintenance program set forth herein, and hereinafter referred to as "Project"; and

WHEREAS, the facilities upon which maintenance will be done are facilities described in the District's Master Plan.

NOW, THEREFORE, in consideration of the covenants, conditions, agreements, and promises of the parties hereto, the DISTRICT authorizes the Project as it is mutually understood and agreed as follows:

SECTION I - SCOPE OF PROJECT

This Interlocal Contract applies to the maintenance of flood control facilities, which are identified in the District's Master Plan facilities including updates and amendments subsequently approved. The basic maintenance to the facilities will be in accordance with performance standards set forth in the current District *Operations and Maintenance Manual.*

The Project is more specifically described in Exhibit "A" which is attached hereto and by this reference incorporated herein.

SECTION II - PROJECT COSTS

The DISTRICT agrees to provide reimbursement for Project costs within the limits specified below:

1. The Projects costs shall not exceed $_____

The amounts allocated to each individual facility within the Project must be specified in **Exhibit "A".** Any changes to said allocated amounts must be approved by the DISTRICT's Chief Engineer in accordance with **Section** 4.24 of the District *Operations and Maintenance Manual.*

2. "Authorization to Proceed" is herein granted for maintenance of facilities in Exhibit "A" in an amount not to exceed _____, effective _____

3. A separate request for an "Authorization to Proceed" will be required for additional facility maintenance funds.

4. A written request must be made to the DISTRICT and a Supplemental Interlocal Contract approved to increase the amount noted above prior to payment of any additional funds.

5. The CITY (or COUNTY) and DISTRICT will comply with **Section 4.12** of the *Operations and Maintenance Manual.* In accordance with said manual the CITY (or COUNTY) shall submit invoices together with a detailed summary report of the maintenance service performed. The CITY (or COUNTY) shall submit an invoice voucher in the manner prescribed by the DISTRICT. The vouchers shall include such information as is necessary for the DISTRICT to determine the nature of all expenditures. Each voucher will clearly indicate that it is for services rendered in performance under this contract. Each voucher will also be accompanied by a written certification from the CITY (or COUNTY) stating that it is for performance of maintenance activities under this contract and is composed of completed elements set forth in the annual work program.

All invoices must be submitted for payment to:

Clark County Regional Flood Control District
Accounts Payable
600 S. Grand Central Parkway, Suite 300
Las Vegas, Nevada 89106-45 11

Payment shall be considered timely if made by the DISTRICT within 30 days. Pursuant to **Section IV, Paragraph** 6, the DISTRICT may, in its sole discretion, withhold payments to the CITY (or COUNTY) for services rendered if the CITY (or COUNTY) fails to satisfactorily comply with any term or condition of this contract and/or the District Operations and *Maintenance Manual.*

SECTION III - PROJECT TIME

The CITY (or COUNTY) agrees to perform the Project to the satisfaction of the DISTRICT on or before June 30, 20 . The DISTRICT may grant extensions or terminate this contract and require all sums advanced to the CITY (or COUNTY) to be repaid if the CITY (or COUNTY) fails to perform by said date.

SECTION IV GENERAL

1. The CITY (or COUNTY) will complete the Project as set forth in **Exhibit "A".** The CITY (or COUNTY) staff personnel responsible for coordination work under this contract are as listed below:

(list names and titles of CITY or COUNTY staff)

It is understood that staff named above will be responsible for work coordination throughout the period of this contract unless the DISTRICT is informed in writing of changes in these personnel assignments.

2. In addition to the specific terms set forth in this Contract, the parties hereto shall be subject to and governed by the District *Operations and Maintenance Manual,* and any applicable portions of the *Policies and Procedures* adopted by the DISTRICT.

3. It is the intent of the DISTRICT that scheduling of maintenance and repair of drainage and flood control facilities in general and Master Plan Facilities specifically be coordinated among entities. Therefore, in those cases where Master Plan approved, and District-funded projects have regional fund control significance impacting more than one entity, the CITY (or COUNTY) will allow all impacted entities an opportunity to review the maintenance schedule in order to coordinate maintenance efforts.

4. The Chief Engineer of the DISTRICT shall be responsible for monitoring the performance of the CITY (or COUNTY), approval for payment of billings and expenses submitted by the CITY (or COUNTY) and the acceptance of any report provided by the CITY (or COUNTY). The CITY (or COUNTY) shall be responsible for monitoring performance of CITY (or COUNTY) staff or private contractors, and the CITY (or COUNTY) shall maintain detailed records of all payments made to contractors and make such records available to the DISTRICT upon request.

5. The CITY (or COUNTY) shall provide right of access to its facilities to the DISTFUCT or Chief Engineer at all reasonable times, in order to monitor and evaluate performance, compliance, and/or quality assurance under this contract.

6. In the event the CITY (or COUNTY) fails to perform the maintenance according to the standards specified in this contract and in the District *Operations and Maintenance Manual,* the DISTRICT may perform or cause to be performed the maintenance necessary to assure proper operation of the facility. Cost incurred by the DISTRICT shall be reimbursed by the CITY (or COUNTY) or be deducted from the amount authorized by this contract. The DISTRICT may not exercise this right without giving the CITY (or COUNTY) specific written notice of the maintenance required and allowing the CITY (or COUNTY) 60 days within which to perform said maintenance. The notice required by this provision must be sent to:

(insert name of City or County staff)
(insert title)
[insert City or County mailing address)

7. The records of the CITY (or COUNTY) and/or private contractors pertaining to the subject matter of this contract shall at all reasonable times be subject to inspection and audit by the DISTRICT or an Agent of the DISTRICT.

8. If any provision of this contract shall be deemed in conflict with any statute or rule of law, such provision shall be deemed modified to be in conformance with said statute or rule of law.

9. All parties to this contract shall comply with applicable local, state, and federal laws.

10. Any costs found to be improperly allocated in the Project will be refunded by the CITY (or COUNTY) to the DISTRICT.

11. It is specifically understood and agreed to by and between the parties hereto that it is not intended by any of the provisions of any part of this contract to create in the public or any member thereof a third party beneficiary hereunder, or to authorize anyone not a party to this contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this contract.

12. The CITY (or COUNTY) hereby indemnifies and shall defend and hold harmless the DISTRICT, its representatives and their employees (or their authorized representatives) from and against any and all suits, actions, legal or administrative proceedings, claims, demands, damages, liabilities, interest, attorney's fees, costs and expenses whatsoever of any kind or nature whether arising before or after completion of the work hereunder and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of the CITY (or COUNTY), of anyone acting under its direction or control, or on its behalf in connection with or incident to the performance of this Contract. The CITY'S (or COUNTY'S) aforesaid indemnity and hold harmless obligations, or portions or applications thereof, shall apply to the fullest extent permitted by law, but in no event shall they apply to liability caused by the sole negligence or willful misconduct of the party indemnified or held harmless.

IN WITNESS WHEREOF, the parties have caused this contract to be executed the day and year first above written.

Date of District Action:

REGIONAL FLOOD CONTROL DISTRICT

_____ BY: _____
ATTEST: Chairman

_____
Secretary to the Board

Approved as to Form:

BY: _____
Deputy District Attorney

****

Date of Council Action:
(or Commission Action)

CITY (or COUNTY) OF _____

_____ BY: _____
ATTEST: (Mayor or Board Chairman)

_____
City (or County Clerk)

APPENDIX C

SAMPLE INTERLOCAL CONTRACT

INTERLOCAL CONTRACT
ANNUAL MAINTENANCE WORK PROGRAM

THIS CONTRACT, made and entered into this ___ day of_____, 20____, by and between the [legal name of CITY or COUNTY], a political subdivision of the State of Nevada, hereinafter referred to as "CITY" (or "COUNTY"), and the CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, hereinafter referred to as "DISTRICT".

WITNESSETH:

WHEREAS, pursuant to Chapter 543 of the Nevada Revised Statutes, the DISTRICT may approve and fund projects to maintain flood control improvements; and

WHEREAS, the CITY (or COUNTY) desires to maintain flood control improvements within the CITY (or COUNTY) in accordance with the maintenance program set forth herein, and hereinafter referred to as "Project"; and

WHEREAS, the facilities upon which maintenance will be done are facilities described in the District's Master Plan.

NOW, THEREFORE, in consideration of the covenants, conditions, agreements, and promises of the parties hereto, the DISTRICT authorizes the Project as it is mutually understood and agreed as follows:

SECTION I - SCOPE OF PROJECT

This Interlocal Contract applies to the maintenance of flood control facilities, which are identified in the District's Master Plan facilities including updates and amendments subsequently approved. The basic maintenance to the facilities will be in accordance with performance standards set forth in the current District *Operations and Maintenance Manual.*

The Project is more specifically described in Exhibit "A" which is attached hereto and by this reference incorporated herein.

SECTION II - PROJECT COSTS

The DISTRICT agrees to provide reimbursement for Project costs within the limits specified below:

1. The Projects costs shall not exceed $_____

The amounts allocated to each individual facility within the Project must be specified in **Exhibit "A".** Any changes to said allocated amounts must be approved by the DISTRICT's Chief Engineer in accordance with **Section** 4.24 of the District *Operations and Maintenance Manual.*

A written request must be made to the DISTRICT and a Supplemental Interlocal Contract approved to increase the amount noted above prior to payment of any additional funds.

2. The CITY (or COUNTY) and DISTRICT will comply with **Section 4.12** of the *Operations and Maintenance Manual.* In accordance with said manual the CITY (or COUNTY) shall submit invoices together with a detailed summary report of the maintenance service performed. The CITY (or COUNTY) shall submit an invoice voucher in the manner prescribed by the DISTRICT. The vouchers shall include such information as is necessary for the DISTRICT to determine the nature of all expenditures. Each voucher will clearly indicate that it is for services rendered in performance under this contract. Each voucher will also be accompanied by a written certification from the CITY (or COUNTY) stating that it is for performance of maintenance activities under this contract and is composed of completed elements set forth in the annual work program.

All invoices must be submitted for payment to:

Clark County Regional Flood Control District
Accounts Payable
600 S. Grand Central Parkway, Suite 300
Las Vegas, Nevada 89106-45 11

Payment shall be considered timely if made by the DISTRICT within 30 days. Pursuant to **Section IV, Paragraph** 6, the DISTRICT may, in its sole discretion, withhold payments to the CITY (or COUNTY) for services rendered if the CITY (or COUNTY) fails to satisfactorily comply with any term or condition of this contract and/or the District *Operations and Maintenance Manual.*

SECTION III - PROJECT TIME

The CITY (or COUNTY) agrees to perform the Project to the satisfaction of the DISTRICT on or before June 30, 20____. The DISTRICT may grant extensions or terminate this contract and require all sums advanced to the CITY (or COUNTY) to be repaid if the CITY (or COUNTY) fails to perform by said date.

SECTION IV - GENERAL

1. The CITY (or COUNTY) will complete the Project as set forth in **Exhibit "A".** The CITY (or COUNTY) staff personnel responsible for coordination work under this contract are as listed below:

(list names and titles of CITY or COUNTY staff)

It is understood that staff named above will be responsible for work coordination throughout the period of this contract unless the DISTRICT is informed in writing of changes in these personnel assignments.

2. In addition to the specific terms set forth in this Contract, the parties hereto shall be subject to and governed by the District *Operations and Maintenance Manual,* and any applicable portions of the *Policies and Procedures* adopted by the DISTRICT.

3. It is the intent of the DISTRICT that scheduling of maintenance and repair of drainage and flood control facilities in general and Master Plan Facilities specifically be coordinated among entities. Therefore, in those cases where Master Plan approved, and District-funded projects have regional fund control significance impacting more than one entity, the CITY (or COUNTY) will allow all impacted entities an opportunity to review the maintenance schedule in order to coordinate maintenance efforts.

4. The Chief Engineer of the DISTRICT shall be responsible for monitoring the performance of the CITY (or COUNTY), approval for payment of billings and expenses submitted by the CITY (or COUNTY) and the acceptance of any report provided by the CITY (or COUNTY). The CITY (or COUNTY) shall be responsible for monitoring performance of CITY (or COUNTY) staff or private contractors, and the CITY (or COUNTY) shall maintain detailed records of all payments made to contractors and make such records available to the DISTRICT upon request.

5. The CITY (or COUNTY) shall provide right of access to its facilities to the DISTRICT or Chief Engineer at all reasonable times, in order to monitor and evaluate performance, compliance, and/or quality assurance under this contract.

6. In the event the CITY (or COUNTY) fails to perform the maintenance according to the standards specified in this contract and in the District *Operations and Maintenance Manual,* the DISTRICT may perform or cause to be performed the maintenance necessary to assure proper operation of the facility. Cost incurred by the DISTRICT shall be reimbursed by the CITY (or COUNTY) or be deducted from the amount authorized by this contract. The DISTRICT may not exercise this right without giving the CITY (or COUNTY) specific written notice of the maintenance required and allowing the CITY (or COUNTY) 60 days within which to perform said maintenance. The notice required by this provision must be sent to:

(insert name of City or County staff)
(insert title)
(insert City or County mailing address)

7. The records of the CITY (or COUNTY) and/or private contractors pertaining to the subject matter of this contract shall at all reasonable times be subject to inspection and audit by the DISTRICT or an Agent of the DISTRICT.

8. If any provision of this contract shall be deemed in conflict with any statute or rule of law, such provision shall be deemed modified to be in conformance with said statute or rule of law.

9. All parties to this contract shall comply with applicable local, state, and federal laws.

10. Any costs found to be improperly allocated in the Project will be refunded by the CITY (or COUNTY) to the DISTRICT.

11. It is specifically understood and agreed to by and between the parties hereto that it is not intended by any of the provisions of any part of this contract to create in the public or any member thereof a third party beneficiary hereunder, or to authorize anyone not a party to this contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this contract.

12. The CITY (or COUNTY) hereby indemnifies and shall defend and hold harmless the DISTRICT, its representatives and their employees (or their authorized representatives) from and against any and all suits, actions, legal or administrative proceedings, claims, demands, damages, liabilities, interest, attorney ' s fees, costs and expenses whatsoever of any kind or nature whether arising before or after completion of the work hereunder and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of the CITY (or COUNTY), of anyone acting under its direction or control, or on its behalf in connection with or incident to the performance of this Contract. The CITY'S (or COUNTY'S) aforesaid indemnity and hold harmless obligations, or portions or applications thereof, shall apply to the fullest extent permitted by law, but in no event shall they apply to liability caused by the sole negligence or willful misconduct of the party indemnified or held harmless.

IN WITNESS WHEREOF, the parties have caused this contract to be executed the day and year first above written.

Date of District Action:

REGIONAL FLOOD CONTROL DISTRICT

_____

ATTEST:

BY:_____
Chairman

_____
Secretary to the Board

Approved as to Form:

BY:_____
Deputy District Attorney

****

Date of Council Action:
(or Commission Action)

CITY (or COUNTY) OF _____

_____

ATTEST:

BY:_____
(Mayor or Board Chairman)

_____
City (or County Clerk)

SAMPLE EXHIBIT A

PART I

Summary of overall work plan listing specific projects and associated costs attributable to each. (See **Figure C-l)**

PART II

Facility map(s) which identify location of planned maintenance work by project.

PART III

Summary of work plan broken into maintenance activities to be completed, with associated budgeted costs, for all projects identified in Part I. (See **Figure C-2)**

Figure C-1 Maintenance Work Plan Summary

(ENTITY)
MAINTENANCE WORK PLAN SUMMARY
FISCAL YEAR 20XX-XX

Master Plan Facility ID	MWP Facility Number	Facility Description	Cost
		TOTAL	$ 0.00

Figure C-2 Annual Budget

REGIONAL FLOOD CONTROL DISTRICT
MAINTENANCE WORK PROGRAM
ANNUAL BUDGET - FY 20XX-XX

MWP Facility #: _____ Entity: _____
Facility Name: _____ Date Prepared: _____
MP Facility ID: _____

Force Account/ Contract	Activity	Requested Work Plan Amount ($)	Amended Work Plan Amount ($)	Percent Complete	Scheduled Completion Date
	5 Inspect Channels				
	10 Clean and Reshape Channels				
	15 Repair Lined Channel				
	20 Provide/Maintain Erosion Control				
	25 Clean & Inspect Detention Debris Basins				
	30 Erosion Repair				
	35 Fence Repair				
	40 Vegetation Control - Chemical				
	45 Vegetation Control - Mechanical				
	50 Maintain Access Road				
	55 Clean & Inspect Inlet/Outlet Structures				
	60 Repair Inlet/Outlet Structures				
	65 Clean Storm Sewer Lines				
	70 Storm Sewer Repair				
	75 Clean/Flush Culverts & Bridges				
	80 Miscellaneous Work Activities				
	85 Engineering				
	TOTALS	$0.00	$0.00		

Delays or problem areas:

Work completed during prior fiscal year:

Work to be completed during current fiscal year:

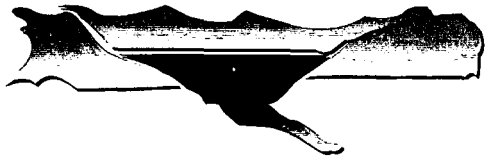
Consultant/ Contractor: _____
Project Manager: _____ Phone Number: _____

RFCD
2:44

Request for Letter of Map Revision
Pittman East Detention Basin
Clark County, Nevada

Prepared for:
CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT
500 S. Grand Central Parkway
Las Vegas, NV 89155

CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT



04-09-0454P

Prepared by:
PBS&J
2270 Corporate Circle, Suite 100
Henderson, Nevada 89074
(702) 263-7275

PBS&J

December 17, 2003

Comment 1: Detailed application and certification forms, which were used in processing this request, must be used for requesting final revisions to the maps. Therefore, when the map revision request for the area covered by this letter is submitted, Form 1, entitled "Overview & Concurrence Form", must be included. (A copy of this form is enclosed.)

Response: Form 1, titled "Overview and Concurrence Form" has been duly filled and included with this LOMR request. Please see **Appendix A** for the copy. In addition, it should be noted that the proposed revisions are located in both the City of Henderson and Unincorporated Clark County; therefore, concurrence has been obtained from both entities.

Comment 2: The detailed application and certification forms listed below may be required if as-built conditions differ from the preliminary plans. If required, please submit new forms (copies of which are enclosed) or annotated copies of the previously submitted forms showing the revised information.

Form 2, entitled "Riverine Hydrology & Hydraulics Form"
Form 3, entitled "Riverine Structures Form"
Hydraulic analyses, for as-built conditions, of the base flood must be submitted with Form 2.

Response: The as-built conditions for the Pittman East Detention Basin do not differ from the preliminary plans, however additional analysis has been done for the area north of St. Rose Parkway and additional forms pertaining to that area have been included in **Appendix A**.

Comment 3: Effective September 1, 2002, FEMA revised the fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps. In accordance with this schedule, the current fee for this map revision request is $3,800 and must be received before we can begin processing the request. Please note, however, that the fee schedule is subject to change, and requesters are required to submit the fee in effect at the time of the submittal. Payment of this fee shall be made in the form of a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card. The payment must be forwarded to the following address:

Federal Emergency Management Agency
Fee-Charge System Administrator
P.O. Box 3173
Merrifield, VA 22116-3173

Response: The current fee for this map revision request of $4,200 has been attached with this LOMR study.

Comment 4: As-built plans, certified by a registered professional engineer, of all proposed project elements.

Response: As-built plans for Pittman East Detention Basin are attached under a separate cover. As-built plans for Jeffreys Apartment development are included in **Appendix E**.

Comment 5: Community acknowledgment of the map revision request.

Response: Community acknowledgement is included in **Appendix A**.

Comment 6: An officially adopted maintenance and operation plan for the proposed Pittman East Detention basin and its associated outfall facilities. This plan, which may be in the form of a written statement from the community Chief Executive Officer, an ordinance, or other legislation, must describe the nature of the maintenance activities, the frequency with which they will be performed, and the title of the local community official who will be responsible for ensuring that the maintenance activities are accomplished.

Response: The maintenance and operation plan information is provided in the cover letter from Kevin Eubanks, Assistant General Manager of the Clark County Regional Flood Control District.

Comment 7: The proposed SFHA that extends approximately 11,000 feet north along a natural wash from the outfall of the proposed Pittman East Detention Basin to the intersection of St. Rose Parkway and Seven Hills Drive does not tie into the base floodplain boundary delineations shown on the effective FIRM. Please extend the hydraulic analyses downstream so that the revised base floodplain boundary delineations tie into the base floodplain boundary delineations shown on the effective FIRM at the downstream limit of the proposed revision.

Response: The present LOMR study analyzes the proposed Special Flood Hazard Area (SFHA) tie-in (henceforth called tie-in area) between the downstream end of the aforementioned CLOMR boundary delineation and the adjacent downstream base flood boundary delineation shown on the effective FIRM. The SFHA delineation upstream of St. Rose Parkway and Seven Hills Drive is the same as what was submitted with the CLOMR. The area in the vicinity of St. Rose Parkway and downstream to just west of Eastern Avenue (tie-in area) has been analyzed and SFHA delineations made to address this comment.

There is an existing 10' x 6' RCB culvert under St. Rose Parkway just west of Seven Hills Drive. An inlet control nomograph shows that the existing 10' x 6' RCB does not have capacity to convey the 100-year flow of 2,476 cfs. Therefore, it was determined that the majority of the flow would overtop St. Rose Parkway and drain in a northerly direction (see work maps). Flow from a sub-basin named E1, shown in the Work Map in **Appendix B**, in the tie-in area has been included in the hydrologic model "DSDB-3MOD.DAT". Please refer to **Appendix C** for the HEC-1 model "DSDB-3MOD.OUT". Combination Point C1, also shown in the abovementioned Work Map, combines the flow from this basin and flow from the combination point CDSDB

(from the HEC-1 model "DSDB3.DAT" included in **Appendix C**) for a total of 2,489 cfs. The flow of 2,489 cfs was used to delineate the SFHA in the tie-in area.

The hydraulic analysis and delineation of the SFHA in the tie-in area was completed based on the best available information. Approximate methods (normal depth calculations) were used for the hydraulic analysis along with conservative engineering judgment. Please refer to **Appendix D** for the hydraulic calculations. The cross-section locations for the normal depth calculations are shown on the Work Map. There are three berms that were constructed in this area in conjunction with the South Valley Apartments development to direct runoff away from the development towards the existing SFHA to the east. However, these berms do not meet FEMA criteria for Levees. Therefore, PBS&J analyzed the area assuming the berms had not been constructed. The berms are labeled on the Work Map as Berm 1, Berm 2 and Berm 3. The SFHA delineation in the tie-in area is split into 3 contiguous areas called Area 1, Area 2 and Area 3 (see Work Map). In the area adjacent to Berm 1 the SFHA delineation was made assuming Berm 1 had not been constructed (cross-section 15) and a second delineation was made assuming Berm 1 was constructed as shown in the topography (cross-sections 13 and 14). The western half of Area 1 represents the SFHA delineation without Berm 1 and Area 2 represents the SFHA with Berm 1 in place. Both delineations are proposed as flood Zone A. Areas between the two delineations that were not inundated based on the analysis completed were still shown as SFHA as a conservative measure and to provide a contiguous flood zone delineation.

Berm 2 was removed from cross-sections 16 and 17 and the SFHA delineation made accordingly. Downstream of cross-section 17 the flow is traveling in an easterly direction towards Jeffreys Street. However, with the removal of Berm 3 this flow can escape to the north towards Dave Street. Therefore a flow split calculation was completed using HEC-RAS lateral weir option. The location of the lateral weir is represented on the Work Map as cross-section 18. This analysis shows that approximately 686 cfs can drain north towards Dave Street and 1,803 cfs continues easterly towards Jeffreys Street. The east half of SFHA Area 1 represents the 1,803 cfs (cross-sections 19, 20 and 21), which connects to the existing SFHA crossing St. Rose Parkway at Jeffreys Street.

The SFHA delineated as Area 3 represents the 686 cfs from the flow split at cross-section 18. Downstream of the flow split the 686 cfs drains north towards Dave Street (cross-sections 22 and 25). At cross-section 25 the flow enters Dave Street. The water surface elevation developed in cross-section 25 was used to analyze the potential for flow to enter Stinnet Street. Cross-section 23 was analyzed using the weir equation and a flow of approximately 108 cfs was determined to split and drain down Stinnet Street. Cross-section 24 shows that the depth of flow in Stinnet Street is less than 1 foot and does not warrant a SFHA delineation. The remaining 578 cfs travels east in Dave Street (cross-section 26). This flow continues to Jeffreys Street and then drains northeast to the existing SFHA (cross-sections 27, 28 and 29). In addition to the areas shown to be inundated in cross-sections 26 through 29 other areas are proposed to be designated as SFHA as part of Area 3. These areas were added as a conservative measure due to the uncertainty in the flow paths and the lack of detailed topography in the north half of Area 3. For example, the southeast corner of the Jeffreys Apartment development was included in Area 3 due to the potential for the momentum of flow (686 cfs) traveling north at Dave Street (cross-section

25) to carry the flow into the apartment complex and cause damage to the apartment buildings in the area identified as SFHA.

Comment 8: Please provide a topographic work map, certified by a registered professional engineer, that reflect the revised floodplain boundaries, and the extended analyses of the base floodplain to the downstream limit of the proposed revision, as requested above. In addition, please submit an analysis that shows the effects of the proposed SFHA on the other SFHAs downstream of the intersection of St. Rose Parkway and Seven Hills Drive. A topographic work map showing the revised floodplain boundaries must be submitted with Form 2.

Response: A certified topographic map is herewith included, in **Appendix B**, showing the revised floodplain boundaries, and the extended analyses of the tie-in area. Hydraulic calculations are included in **Appendix D** as discussed above. The proposed SFHA is not adversely affected by the extension of the aforementioned CLOMR SFHA to tie into the existing floodplain downstream or the construction of the Pittman East Detention Basin and associated outfall facilities.

Based on the available 5-foot topography for the existing natural desert terrain tributary to the Pittman East Detention Basin it is apparent that a large portion of the watershed drains to the intersection of 7-Hills Drive and St. Rose Parkway. To demonstrate this, HEC-1 model 2A-5 from the detention basin design report was modified to split flows draining to the detention basin into flows that follow the existing SFHA on the west end of the Pittman East Detention Basin spillway and flows that follow the alignment of the detention basin outfall towards the intersection of 7-Hills Drive and St. Rose Parkway. In this HEC-1 model the detention basin was removed to represent the pre-detention basin condition. The modified 2A-5 model is called 2A-5NODB, which is included in **Appendix C**. In the 2A-5NODB model 50% of the flow at concentration point "CDB1" (downstream end of subbasin DB1, see Exhibit I in **Appendix B**) was diverted northwest towards the existing SFHA at the west end of the detention basin spillway and 50% of the flow was diverted towards the alignment of the detention basin outfall. In addition, 25% of the flow from subbasin DB1 was diverted to the northwest and 75% of the flow was diverted to the alignment of the detention basin outfall. The results of this analysis show that the flow at the intersection of 7-Hills Drive and St. Rose Parkway would be 5,348 cfs without the detention basin and is 2,476 cfs (DSDB-3) with the detention basin. Therefore, there is no adverse impact to the downstream flood zones due to the construction of the Pittman East Detention Basin.

Comment 9: Please submit an annotated FIRM, at the scale of the effective FIRM, that shows how the downstream end of the proposed SFHA at Cross Section CS-12 ties into the base floodplain boundary delineations shown on the effective FIRM. This cross section is shown on the submitted work map entitled "Exhibit V, Pittman East Detention Basin, Cross Section Map," prepared by PBS&J, dated June 2002.

Response: An annotated FIRM is included in **Appendix B** as is the existing FIRM map, showing the base floodplain boundary delineation in the tie-in area. The annotated FIRM map shows the proposed Zone A (100-year) as well as existing Zone A (100-year). There is possible ponding upstream of the existing 10' x 6' RCB (near the intersection of St. Rose Parkway and Seven Hills Drive) and hence cross-section CS-12 from the referenced CLOMR has been eliminated and the label designated to the first cross-section just downstream of St. Rose Parkway. Please refer to "Exhibit V, Pittman East Detention Basin, Cross Section Map" and the Work Map in **Appendix B** for cross-section locations.

511368

Federal Emergency Management Agency

Washington, D.C. 20472

DEC 18 2002

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:
Case No.: 02-09-1171R

The Honorable James Gibson
Mayor, City of Henderson
240 South Water Street
Henderson, NV 89015

Community: City of Henderson, NV
Community No.: 320005

104

Dear Mayor Gibson:

This responds to a request that the Federal Emergency Management Agency (FEMA) comment on the effects that a proposed project would have on the effective Flood Insurance Rate Map (FIRM) for Clark County, Nevada and Incorporated Areas (the effective FIRM for your community), in accordance with Part 65 of the National Flood Insurance Program (NFIP) regulations. In a letter dated June 26, 2002, Ms. Valerie Flock, P.E., Hydraulic Design Engineer, PBS&J, requested that FEMA evaluate the effects that proposed rerouting of an unnamed tributary to Pittman Wash (unnamed tributary), from just downstream of Del Web Access Road to approximately its confluence with Pittman Wash and eastward to the proposed Pittman East Detention Basin approximately 1,000 feet north of Del Web Access Road, would have on the flood hazard information shown on the effective FIRM. The proposed project is shown on the undated work map entitled "Exhibit IV Pittman East Detention Basin Annotated D-FIRM," prepared by PBS&J. The request also included a proposed delineation of the Special Flood Hazard Area (SFHA), the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), based on the discharge of the proposed detention basin from approximately 3,100 feet north of Del Web Access Road extending along a natural wash approximately 11,000 feet north to the intersection of St. Rose Parkway and Seven Hills Drive. The SFHA for the affected reaches of the unnamed tributary is designated on the effective FIRM as Zone A, an SFHA with no Base Flood Elevations determined.

All data required to complete our review of this request for a Conditional Letter of Map Revision (CLOMR) were submitted with letters from Ms. Flock.

We reviewed the submitted data and the data used to prepare the effective FIRM for your community and determined that the proposed project meets the minimum floodplain management criteria of the NFIP. We believe that, if the proposed project is constructed as shown on the submitted facilities plans entitled "Pittman East Detention Basin & Associated Outfall Facilities," prepared by PBS&J, dated July 21, 2000, and as described in the submitted report entitled "Conditional Letter of Map Revision Application Pittman East Detention Basin Project," prepared by PBS&J, dated June 24, 2002, and the data listed below are received, a revision to the FIRM would be warranted.

The proposed conditions HEC-1 hydrologic model dated April 3, 2002, incorporates the effects of the rerouting of the unnamed tributary from just downstream of Del Web Access Road to approximately its confluence with Pittman Wash and eastward to the proposed Pittman East Detention Basin. In addition, the submitted information included HEC-RAS hydraulic modeling of the discharge from the proposed Pittman East Detention Basin into a natural wash downstream of its associated outfall facilities, from

approximately 3,100 feet north of Del Web Access Road extending approximately 11,000 feet north to the intersection of St. Rose Parkway and Seven Hills Drive.

Our comparison of the proposed conditions HEC-1 model to the information shown on the effective FIRM revealed that as a result of the proposed project and updated topographic information, the SFHA along the unnamed tributary from just downstream of Del Web Access Road to its confluence with Pittman Wash approximately 7,000 feet downstream of Del Web Access Road will be removed, and the base flood will be contained in the proposed Pittman East Detention Basin. In addition, an SFHA designated Zone A will be added downstream of the outfalls of the proposed Pioneer East Detention Basin.

Upon completion of the project, your community may submit the data listed below and request that we make a final determination on revising the effective FIRM.

- Detailed application and certification forms, which were used in processing this request, must be used for requesting final revisions to the maps. Therefore, when the map revision request for the area covered by this letter is submitted, Form 1, entitled "Overview & Concurrence Form," must be included. (A copy of this form is enclosed.)

- The detailed application and certification forms listed below may be required if as-built conditions differ from the preliminary plans. If required, please submit new forms (copies of which are enclosed) or annotated copies of the previously submitted forms showing the revised information.

  Form 2, entitled "Riverine Hydrology & Hydraulics Form"

  Form 3, entitled "Riverine Structures Form"

  Hydraulic analyses, for as-built conditions, of the base flood must be submitted with Form 2.

- Effective September 1, 2002, FEMA revised the fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps. In accordance with this schedule, the current fee for this map revision request is $3,800 and must be received before we can begin processing the request. Please note, however, that the fee schedule is subject to change, and requesters are required to submit the fee in effect at the time of the submittal. Payment of this fee shall be made in the form of a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card. The payment must be forwarded to the following address:

  Federal Emergency Management Agency
  Fee-Charge System Administrator
  P.O. Box 3173
  Merrifield, VA 22116-3173

- As-built plans, certified by a registered professional engineer, of all proposed project elements

- Community acknowledgment of the map revision request

- An officially adopted maintenance and operation plan for the proposed Pittman East Detention Basin and its associated outfall facilities. This plan, which may be in the form of a written statement from the community Chief Executive Officer, an ordinance, or other legislation, must describe the nature of the maintenance activities, the frequency with which they will be performed, and the title of the local community official who will be responsible for ensuring that the maintenance activities are accomplished.

- The proposed SFHA that extends approximately 11,000 feet north along a natural wash from the outfall of the proposed Pittman East Detention Basin to the intersection of St. Rose Parkway and Seven Hills Drive does not tie into the base floodplain boundary delineations shown on the effective FIRM. Please extend the hydraulic analyses downstream so that the revised base floodplain boundary delineations tie into the base floodplain boundary delineations shown on the effective FIRM at the downstream limit of the proposed revision.

- Please provide a topographic work map, certified by a registered professional engineer, that reflects the revised floodplain boundaries, and the extended analyses of the base floodplain to the downstream limit of the proposed revision, as requested above. In addition, please submit an analysis that shows the effects of the proposed SFHA on other SFHAs downstream of the intersection of St. Rose Parkway and Seven Hills Drive. A topographic work map showing the revised floodplain boundaries must be submitted with Form 2.

- Please submit an annotated FIRM, at the scale of the effective FIRM, that shows how the downstream end of the proposed SFHA at Cross Section CS-12 ties into the base floodplain boundary delineations shown on the effective FIRM. This cross section is shown on the submitted work map entitled "Exhibit V, Pittman East Detention Basin, Cross Section Map," prepared by PBS&J, dated June 2002.

After receiving appropriate documentation to show that the project has been completed, FEMA will initiate a revision to the FIRM.

The basis of this CLOMR is, in whole or in part, a channel-modification/culvert project. NFIP regulations, as cited in Paragraph 60.3(b)(7), require that communities assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management regulations. Consequently, the ultimate responsibility for maintenance of the modified channel and culvert rests with your community.

This CLOMR is based on minimum floodplain management criteria established under the NFIP. Your community is responsible for approving all floodplain development and for ensuring all necessary permits required by Federal or State law have been received. State, county, and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction in the Special Flood Hazard Area/SFHA. If the State, county, or community has adopted

more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP criteria.

If you have any questions regarding floodplain management regulations for your community or the NFIP in general, please contact the Consultation Coordination Officer (CCO) for your community. Information on the CCO for your community may be obtained by calling the Chief, National Flood Insurance Program Branch, Flood Insurance and Mitigation Division of FEMA in Oakland, California, at (510) 627-7184. If you have any questions regarding this CLOMR, please call our Map Assistance Center, toll free, at 1-877-FEMA MAP (1-877-336-2627).

Sincerely,

Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and
Mitigation Administration

For: Michael M. Grimm, Acting Chief
Hazard Study Branch
Federal Insurance and
Mitigation Administration

Enclosures

cc: Mr. Joseph Damiani, P.E.
Project Engineer III
Department of Public Works
City of Henderson

Mr. Kevin Eubanks, P.E.
Assistant General Manager
Clark County Regional Flood
Control District

Mr. Matthew S. Baird, P.E.
Program Manager
PBS&J

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HEC-1 Output File "2A-5.OUT" from Pittman East Detention Basin CLOMR
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HEC-1 Output File "DSDB-3.OUT" from Pittman East Detention Basin CLOMR

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Hydrologic & Hydraulic Models and Figures

1.0 INTRODUCTION

This study provides a hydraulic model in support for the Letter of Map Revision (henceforth called LOMR) for the Pittman East Detention Basin in Clark County, Nevada. This LOMR proposes a Flood Zone "A" through the project site, and will connect two Zone "A"s.

2.0 HYDROLOGY AND HYDRAULICS

Figures F-25A and F-25B show the CCRFCD Flood Control facilities in the project vicinity. The limits of the flood zone "A" at the downstream end of the proposed connection is shown in the Existing FEMA Flood Zone Map (see **Figure 1** in **Appendix B**). There are some existing berm facilities in the project site to protect the adjacent property owners to the north during a flood event. Please refer to the HEC-1 models included in **Appendix C** for existing onsite and offsite hydrology.

The flow of 2489 cfs at combination point C1 has been used in the Flow Master calculations to determine the limits of the proposed flood zone "A" downstream of St. Rose Parkway and upstream of cross-section CS-29 in the present study. Cross-sections have been labeled in the Work Map (NAVD 1988 datum) (**Figure 3** included in **Appendix B**) with Section 12-12 at the upstream end of the "tie-in area" and Section 32-32 at the downstream end. The 100-year flow of 578 cfs traveling in the northeasterly direction from the intersection of Dave and Stinnet Streets impacts the southeast portion of Jeffreys Apartments, which comes within the limits of the proposed Zone "A". Please see **Figures 2 and 3** for the zone "A" limits.

APPENDIX A

FEMA Forms

FEDERAL EMERGENCY MANAGEMENT AGENCY

OVERVIEW & CONCURRENCE FORM

O.M.B No. 3067-0148
Expires September 30, 2005

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0148). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

A. REQUESTED RESPONSE FROM FEMA

This request is for a (check one):

☐ CLOMR: A letter from FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72).

☒ LOMR: A letter from FEMA officially revising the current NFIP map to show the changes to floodplains, regulatory floodway or flood elevations. (See Parts 60 & 65 of the NFIP Regulations.)

B. OVERVIEW

1. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	State	Map No.	Panel No.	Effective Date
Ex: 480301 480287	City of Katy Harris County	TX TX	480301 48201C	0005D 0220G	02/08/83 09/28/90
320003	Clark County Unincorporated Areas	NV	32003C	2590E	08/13/03
320005	City of Henderson	NV	32003C	2590E	08/13/03

2. Flooding Source: Pittman Wash

3. Project Name/Identifier: Pittman East Detention Basin

4. FEMA zone designations affected: A (choices: A, AH, AO, A1-A30, A99, AE, AR, V, V1-V30, VE, B, C, D, X)

5. Basis for Request and Type of Revision:

a. The basis for this revision request is (check all that apply)

☐ Physical Change ☐ Improved Methodology/Data

☐ Regulatory Floodway Revision ☒ Other (Attach Description)

Note: A photograph and narrative description of the area of concern is not required, but is very helpful during review.

b. The area of revision encompasses the following types of flooding and structures (check all that apply)

Types of Flooding:	☒ Riverine	☐ Coastal	☐ Shallow Flooding (e.g., Zones AO and AH)
	☐ Alluvial fan	☐ Lakes	☐ Other (Attach Description)
Structures:	☐ Channelization	☐ Levee/Floodwall	☒ Bridge/Culvert
	☐ Dam	☐ Fill	☒ Other, Attach Description

C. REVIEW FEE

Has the review fee for the appropriate request category been included? ☒ Yes Fee amount: $4,200

☐ No, Attach Explanation

Please see the FEMA Web site at http://www.fema.gov/fhm/frm_fees.shtm **for Fee Amounts and Exemptions.**

D. SIGNATURE

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name: Matthew S. Baird, P.E., CFM	Company: PBS&J	
Mailing Address: 2270 Corporate Circle Suite 100 Henderson, NV 89074	Daytime Telephone No.: (702) 263-7275	Fax No.: (702) 263-7200
	E-Mail Address: mbaird@pbsj.com	
Signature of Requester (required):		Date: 12/1/03

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.

Community Official's Name and Title: Curt Chandler, P.E., Project Engineer II		Telephone No.: (702) 565-2140
Community Name: City of Henderson Public Works	Community Official's Signature (required):	Date: 12-17-03

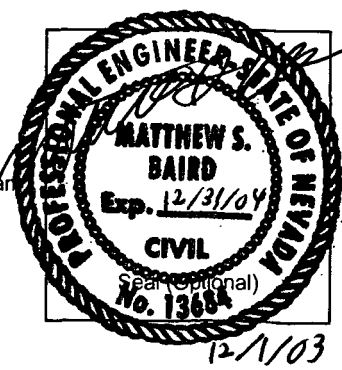
CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: Matthew S. Baird, P.E., CFM	License No.: 13684, Nevada	Expiration Date: 12/31/2004
Company Name: PBS&J	Telephone No.: (702) 263-7275	Fax No.: (702) 263-7200
Signature:		Date: 12/1/03

Ensure the forms that are appropriate to your revision request are included in your submittal.

Form Name and (Number)	Required if ...
☒ Riverine Hydrology and Hydraulics Form (Form 2)	New or revised discharges or water-surface elevations
☒ Riverine Structures Form (Form 3)	Channel is modified, addition/revision of bridge/culverts, addition/revision of levee/floodwall, addition/revision of da
☐ Coastal Analysis Form (Form 4)	New or revised coastal elevations
☐ Coastal Structures Form (Form 5)	Addition/revision of coastal structure
☐ Alluvial Fan Flooding Form (Form 6)	Flood control measures on alluvial fans



(Seal Optional)
12/1/03

C. REVIEW FEE

Has the review fee for the appropriate request category been included? ☒ Yes Fee amount: $4,200

☐ No, Attach Explanation

Please see the FEMA Web site at http://www.fema.gov/fhm/frm_fees.shtm **for Fee Amounts and Exemptions.**

D. SIGNATURE

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name: Matthew S. Baird, P.E., CFM	Company: PBS&J	
Mailing Address: 2270 Corporate Circle Suite 100 Henderson, NV 89074	Daytime Telephone No.: (702) 263-7275	Fax No.: (702) 263-7200
	E-Mail Address: mbaird@pbsj.com	
Signature of Requester (required):		Date: 12/1/03

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.

Community Official's Name and Title: David Betley, P.E., Principal Engineer, Civil Engineering Division		Telephone No.: (702) 455-4808
Community Name: Clark County Unincorporated Areas	Community Official's Signature (required):	Date: 12/23/03

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: Matthew S. Baird, P.E., CFM	License No.: 13684, Nevada	Expiration Date: 12/31/2004
Company Name: PBS&J	Telephone No.: (702) 263-7275	Fax No.: (702) 263-7200
Signature:		Date: 12/1/03

Ensure the forms that are appropriate to your revision request are included in your submittal.

Form Name and (Number)	Required if ...
☒ Riverine Hydrology and Hydraulics Form (Form 2)	New or revised discharges or water-surface elevations
☒ Riverine Structures Form (Form 3)	Channel is modified, addition/revision of bridge/culverts, addition/revision of levee/floodwall, addition/revision of dam
☐ Coastal Analysis Form (Form 4)	New or revised coastal elevations
☐ Coastal Structures Form (Form 5)	Addition/revision of coastal structure
☐ Alluvial Fan Flooding Form (Form 6)	Flood control measures on alluvial fans



FEDERAL EMERGENCY MANAGEMENT AGENCY

RIVERINE HYDROLOGY & HYDRAULICS FORM

O.M.B No. 3067-0148
Expires September 30, 2005

PAPERWORK REDUCTION ACT

Public reporting burden for this form is estimated to average 3 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0148). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

Flooding Source: Pittman Wash
Note: Fill out one form for each flooding source studied

A. HYDROLOGY

1. Reason for New Hydrologic Analysis (check all that apply)

☐ Not revised (skip to section 2) ☒ No existing analysis ☐ Improved data
☐ Alternative methodology ☐ Proposed Conditions (CLOMR) ☒ Changed physical condition of watershed

2. Comparison of Representative 1%-Annual-Chance Discharges

Location	Drainage Area (Sq. Mi.)	FIS (cfs)	Revised (cfs)
Jeffreys St. @ St. Rose	2.96	none	2489

3. Methodology for New Hydrologic Analysis (check all that apply)

☐ Statistical Analysis of Gage Records ☒ Precipitation/Runoff Model HEC-1 [TR-20, HEC-1, HEC-HMS etc.]
☐ Regional Regression Equations ☐ Other (please attach description)

Please enclose all relevant models in digital format, maps, computations (including computation of parameters) and documentation to support the new analysis. The document, "Numerical Models Accepted by FEMA for NFIP Usage" lists the models accepted by FEMA. This document can be found at: http://www.fema.gov/fhm/en_modl.shtm.

4. Review/Approval of Analysis

If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review.

5. Impacts of Sediment Transport on Hydrology

Was sediment transport considered? ☐ Yes ☒ No If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was not considered.

B. HYDRAULICS

1. Reach to be Revised

	Description	Cross Section	Water-Surface Elevations (ft.) Effective	Proposed/Revised
Downstream Limit	Existing Flood Zone A	CS-29	approximate zone	approximate zone
Upstream Limit	Upstream of Spencer Street	CS-12	approximate zone	approximate zone

2. Hydraulic Method Used

Hydraulic Analysis Flow Master 6.1 [HEC-2 , HEC-RAS, Other (Attach description)]

B. HYDRAULICS (CONTINUED)

3. Pre-Submittal Review of Hydraulic Models

FEMA has developed two review programs, CHECK-2 and CHECK-RAS, to aid in the review of HEC-2 and HEC-RAS hydraulic models, respectively. These review programs verify that the hydraulic estimates and assumptions in the model data are in accordance with NFIP requirements, and that the data are comparable with the assumptions and limitations of HEC-2/HEC-RAS. CHECK-2 and CHECK-RAS identify areas of potential error or concern. These tools do not replace engineering judgment. CHECK-2 and CHECK-RAS can be downloaded from http://www.fema.gov/fhm/frm_soft.shtm. We recommend that you review your HEC-2 and HEC-RAS models with CHECK-2 and CHECK-RAS. If you disagree with a message, please attach an explanation of why the message is not valid in this case. Review of your submittal and resolution of valid modeling discrepancies will result in reduced review time.

HEC-2/HEC-RAS models reviewed with CHECK-2/CHECK-RAS? ☐ Yes ☒ No

4. Models Submitted

Duplicate Effective Model*	Natural File Name:	Floodway File Name:
Corrected Effective Model*	Natural File Name:	Floodway File Name:
Existing or Pre-Project Conditions Model	Natural File Name:	Floodway File Name:
Revised or Post-Project Conditions Model	Natural File Name:	Floodway File Name:
Other - (attach description)	Natural File Name:	Floodway File Name:

*Not required for revisions to approximate 1%-annual-chance floodplains (Zone A) – for details, refer to the corresponding section of the instructions.

The document "Numerical Models Accepted by FEMA for NFIP Usage" lists the models accepted by FEMA. This document can be found at: http://www.fema.gov/fhm/en_modl.shtm.

C. MAPPING REQUIREMENTS

A **certified topographic map** must be submitted showing the following information (where applicable): the boundaries of the effective, existing, and proposed conditions 1%-annual-chance floodplain (for approximate Zone A revisions) or the boundaries of the 1%- and 0.2%-annual-chance floodplains and regulatory floodway (for detailed Zone AE, AO, and AH revisions); location and alignment of all cross sections with stationing control indicated; stream, road, and other alignments (e.g., dams, levees, etc.); current community easements and boundaries; boundaries of the requester's property; certification of a registered professional engineer registered in the subject State; location and description of reference marks; and the referenced vertical datum (NGVD, NAVD, etc.).

Note that the boundaries of the existing or proposed conditions floodplains and regulatory floodway to be shown on the revised FIRM and/or FBFM must tie-in with the effective floodplain and regulatory floodway boundaries. Please attach **a copy of the effective FIRM and/or FBFM,** annotated to show the boundaries of the revised 1%- and 0.2%-annual-chance floodplains and regulatory floodway that tie-in with the boundaries of the effective 1%- and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and downstream limits of the area of revision.

D. COMMON REGULATORY REQUIREMENTS

1. For CLOMR requests, do Base Flood Elevations (BFEs) increase? ☐ Yes ☒ No

For CLOMR requests, if either of the following is true, please submit evidence of compliance with Section 65.12 of the NFIP regulations:
- The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot.
- The proposed project encroaches upon a SFHA with BFEs established and would result in increases above 1.00 foot.

2. Does the request involve the placement or proposed placement of fill? ☐ Yes ☒ No

If Yes, the community must be able to certify that the area to be removed from the special flood hazard area, to include any structures or proposed structures, meets all of the standards of the local floodplain ordinances, and is reasonably safe from flooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(a)(3), 65.5(a)(4), and 65.6(a)(14). Please see the MT-2 instructions for more information.

3. For LOMR requests, is the regulatory floodway being revised? ☐ Yes ☒ No

If Yes, attach evidence of regulatory floodway revision notification. As per Paragraph 65.7(b)(1) of the NFIP Regulations, notification is required for requests involving revisions to the regulatory floodway. (Not required for revisions to approximate 1%-annual-chance floodplains [studied Zone A designation] unless a regulatory floodway is being added. Elements and examples of regulatory floodway revision notification can be found in the MT-2 Form 2 Instructions.)

4. For LOMR requests, does this request require property owner notification and acceptance of BFE increases? ☐ Yes ☒ No

If Yes, please attach proof of property owner notification and acceptance (if available). Elements of and examples of property owner notification can be found in the MT-2 Form 2 Instructions.

FEDERAL EMERGENCY MANAGEMENT AGENCY

RIVERINE STRUCTURES FORM

O.M.B. No. 3067-0148
Expires September 30, 2005

PAPERWORK REDUCTION ACT

Public reporting burden for this form is estimated to average 7 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0148). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

Flooding Source: Pittman Wash
Note: Fill out one form for each flooding source studied

A. GENERAL

Complete the appropriate section(s) for each Structure listed below:

Channelization ..... complete Section B
Bridge/Culvert ..... complete Section C
Dam ..... complete Section D
Levee/Floodwall ..... complete Section E
Sediment Transport ..... complete Section F (if required)

Description Of Structure

1. Name of Structure:

Type (check one): ☐ Channelization ☒ Bridge/Culvert ☐ Levee/Floodwall ☐ Dam

Location of Structure: under St. Rose Parkway

Downstream Limit/Cross Section: CS-29

Upstream Limit/Cross Section: CS-12

2. Name of Structure:

Type (check one): ☐ Channelization ☐ Bridge/Culvert ☐ Levee/Floodwall ☐ Dam

Location of Structure:

Downstream Limit/Cross Section:

Upstream Limit/Cross Section:

3. Name of Structure:

Type (check one) ☐ Channelization ☐ Bridge/Culvert ☐ Levee/Floodwall ☐ Dam

Location of Structure:

Downstream Limit/Cross Section:

Upstream Limit/Cross Section:

NOTE: For more structures, attach additional pages as needed.

B. CHANNELIZATION

Flooding Source:

Name of Structure:

1. Accessory Structures

The channelization includes (check one):

- ☐ Levees [Attach Section E (Levee/Floodwall)]
- ☐ Superelevated sections
- ☐ Debris basin/detention basin
- ☐ Other (Describe):
- ☐ Drop structures
- ☐ Transitions in cross sectional geometry
- ☐ Energy dissipator

2. Drawing Checklist

Attach the plans of the channelization certified by a registered professional engineer, as described in the instructions.

3. Hydraulic Considerations

The channel was designed to carry (cfs) and/or the -year flood.

The design elevation in the channel is based on (check one):

☐ Subcritical flow ☐ Critical flow ☐ Supercritical flow ☐ Energy grade line

If there is the potential for a hydraulic jump at the following locations, check all that apply and attach an explanation of how the hydraulic jump is controlled without affecting the stability of the channel.

☐ Inlet to channel ☐ Outlet of channel ☐ At Drop Structures ☐ At Transitions
☐ Other locations (specify):

4. Sediment Transport Considerations

Was sediment transport considered? ☐ Yes ☐ No If Yes, then fill out Section F (Sediment Transport).
If No, then attach your explanation for why sediment transport was not considered.

C. BRIDGE/CULVERT

Flooding Source: Pittman Wash

Name of Structure: 10' x 6' RCB under St. Rose Parkway just west of Spencer Street ("SR" 69+31.549)

1. This revision reflects (check one):

- ☒ New bridge/culvert not modeled in the FIS
- ☐ Modified bridge/culvert previously modeled in the FIS
- ☐ New analysis of bridge/culvert previously modeled in the FIS

2. Hydraulic model used to analyze the structure (e.g., HEC-2 with special bridge routine, WSPRO, HY8): Inlet Control Nomograph
If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structures. Attach justification.

3. Attach plans of the structures certified by a registered professional engineer. The plan detail and information should include the following (check the information that has been provided):

- ☐ Dimensions (height, width, span, radius, length)
- ☐ Shape (culverts only)
- ☒ Material
- ☐ Beveling or Rounding
- ☐ Wing Wall Angle
- ☐ Skew Angle
- ☐ Distances Between Cross Sections
- ☐ Erosion Protection
- ☐ Low Chord Elevations – Upstream and Downstream
- ☐ Top of Road Elevations – Upstream and Downstream
- ☒ Structure Invert Elevations – Upstream and Downstream
- ☒ Stream Invert Elevations – Upstream and Downstream
- ☒ Cross-Section Locations

4. Sediment Transport Considerations

Was sediment transport considered? ☐ Yes ☒ No If yes, then fill out Section F (Sediment Transport).
If No, then attach your explanation for why sediment transport was not considered.

D. DAM

Flooding Source:

Name of Structure:

1. This request is for (check one): ☐ Existing dam ☐ New dam ☐ Modification of existing dam
2. The dam was designed by (check one): ☐ Federal agency ☐ State agency ☐ Local government agency

   ☐ Private organization Name of the agency or organization:
3. Does the project involve revised hydrology? ☐ Yes ☒ No

   If Yes, complete the Riverine Hydrology & Hydraulics Form (Form 2).
4. Does the submittal include debris/sediment yield analysis? ☐ Yes ☐ No

   If yes, then fill out Section F (Sediment Transport).
   If No, then attach your explanation for why debris/sediment analysis was not considered.
5. Does the Base Flood Elevation behind the dam or downstream of the dam change?

   ☐ Yes ☐ No If Yes, complete the Riverine Hydrology & Hydraulics Form (Form 2) and complete the table below.

Stillwater Elevation Behind the Dam

FREQUENCY (% annual chance)	FIS	REVISED
10-year (10%)		
50-year (2%)		
100-year (1%)		
500-year (0.2%)		
Normal Pool Elevation		

6. Please attach a copy of the formal Operation and Maintenance Plan

E. LEVEE/FLOODWALL

1. System Elements

a. This Levee/Floodwall analysis is based on (check one):

- ☐ upgrading of an existing levee/floodwall system
- ☐ a newly constructed levee/floodwall system
- ☐ reanalysis of an existing levee/floodwall system

b. Levee elements and locations are (check one):

☐ earthen embankment, dike, berm, etc.	Station	to
☐ structural floodwall	Station	to
☐ Other (describe):	Station	to

c. Structural Type (check one):

- ☐ monolithic cast-in place reinforced concrete
- ☐ reinforced concrete masonry block
- ☐ sheet piling
- ☐ Other (describe):

d. Has this levee/floodwall system been certified by a Federal agency to provide protection from the base flood?

☐ Yes ☐ No

If Yes, by which agency?

e. Attach certified drawings containing the following information (indicate drawing sheet numbers):

1. Plan of the levee embankment and floodwall structures. Sheet Numbers:
2. A profile of the levee/floodwall system showing the Base Flood Elevation (BFE), levee and/or wall crest and foundation, and closure locations for the total levee system. Sheet Numbers:
3. A profile of the BFE, closure opening outlet and inlet invert elevations, type and size of opening, and kind of closure. Sheet Numbers:
4. A layout detail for the embankment protection measures. Sheet Numbers:
5. Location, layout, and size and shape of the levee embankment features, foundation treatment, floodwall structure, closure structures, and pump stations. Sheet Numbers:

2. Freeboard

a. The minimum freeboard provided above the BFE is:

Riverine

3.0 feet or more at the downstream end and throughout	☐ Yes	☐ No
3.5 feet or more at the upstream end	☐ Yes	☐ No
4.0 feet within 100 feet upstream of all structures and/or constrictions	☐ Yes	☐ No

Coastal

1.0 foot above the height of the one percent wave associated with the 1%-annual-chance stillwater surge elevation or maximum wave runup (whichever is greater).	☐ Yes	☐ No
2.0 feet above the 1%-annual-chance stillwater surge elevation	☐ Yes	☐ No

E. LEVEE/FLOODWALL (CONTINUED)

2. Freeboard (continued)

Please note, occasionally exceptions are made to the minimum freeboard requirement. If an exception is requested, attach documentation addressing Paragraph 65.10(b)(1)(ii) of the NFIP Regulations.

If No is answered to any of the above, please attach an explanation.

b. Is there an indication from historical records that ice-jamming can affect the BFE? ☐ Yes ☐ No

If Yes, provide ice-jam analysis profile and evidence that the minimum freeboard discussed above still exists.

3. Closures

a. Openings through the levee system (check one): ☐ exists ☐ does not exist

If opening exists, list all closures:

Channel Station	Left or Right Bank	Opening Type	Highest Elevation for Opening Invert	Type of Closure Device

(Extend table on an added sheet as needed and reference)

Note: Geotechnical and geologic data

In addition to the required detailed analysis reports, data obtained during field and laboratory investigations and used in the design analysis for the following system features should be submitted in a tabulated summary form. (Reference U.S. Army Corps of Engineers [USACE] EM-1110-2-1906 Form 2086.)

4. Embankment Protection

a. The maximum levee slope landside is:

b. The maximum levee slope floodside is:

c. The range of velocities along the levee during the base flood is: (min.) to (max.)

d. Embankment material is protected by (describe what kind):

e. Riprap Design Parameters (check one): ☐ Velocity ☐ Tractive stress
Attach references

Reach	Sideslope	Flow Depth	Velocity	Curve or Straight	Stone Riprap			Depth of Toedown
					D_{100}	D_{50}	Thickness	
Sta to								
Sta to								
Sta to								
Sta to								
Sta to								
Sta to								

(Extend table on an added sheet as needed and reference each entry)

4. Embankment Protection (continued)

f. Is a bedding/filter analysis and design attached? ☐ Yes ☐ No

g. Describe the analysis used for other kinds of protection used (include copies of the design analysis):

Attach engineering analysis to support construction plans.

5. Embankment And Foundation Stability

a. Identify locations and describe the basis for selection of critical location for analysis:

☐ Overall height: Sta. ; height ft.

☐ Limiting foundation soil strength:

Sta. , depth to

strength ϕ = degrees, c = psf

slope: SS = (h) to (v)

(Repeat as needed on an added sheet for additional locations)

b. Specify the embankment stability analysis methodology used (e.g., circular arc, sliding block, infinite slope, etc.):

c. Summary of stability analysis results:

Case	Loading Conditions	Critical Safety Factor	Criteria (Min.)
I	End of construction		1.3
II	Sudden drawdown		1.0
III	Critical flood stage		1.4
IV	Steady seepage at flood stage		1.4
VI	Earthquake (Case I)		1.0

(Reference: USACE EM-1110-2-1913 Table 6-1)

d. Was a seepage analysis for the embankment performed? ☐ Yes ☐ No

If Yes, describe methodology used:

e. Was a seepage analysis for the foundation performed? ☐ Yes ☐ No

f. Were uplift pressures at the embankment landside toe checked? ☐ Yes ☐ No

g. Were seepage exit gradients checked for piping potential? ☐ Yes ☐ No

h. The duration of the base flood hydrograph against the embankment is hours.

Attach engineering analysis to support construction plans.

E. LEVEE/FLOODWALL (CONTINUED)

6. Floodwall And Foundation Stability

a. Describe analysis submittal based on Code (check one):

☐ UBC (1988) or ☐ Other (specify):

b. Stability analysis submitted provides for:

☐ Overturning ☐ Sliding If not, explain:

c. Loading included in the analyses were:

☐ Lateral earth @ P_A = psf; P_p = psf

☐ Surcharge-Slope @ , ☐ surface psf

☐ Wind @ P_w = psf

☐ Seepage (Uplift); ☐ Earthquake @ P_{eq} = %g

☐ 1%-annual-chance significant wave height: ft.

☐ 1%-annual-chance significant wave period: sec.

d. Summary of Stability Analysis Results: Factors of Safety.

Itemize for each range in site layout dimension and loading condition limitation for each respective reach.

Loading Condition	Criteria (Min)		Sta	To	Sta	To
	Overturn	Sliding	Overturn	Sliding	Overturn	Sliding
Dead & Wind	1.5	1.5				
Dead & Soil	1.5	1.5				
Dead, Soil, Flood, & Impact	1.5	1.5				
Dead, Soil, & Seismic	1.3	1.3				

(Ref: FEMA 114 Sept 1986; USACE EM 1110-2-2502)

(Note: Extend table on an added sheet as needed and reference)

e. Foundation bearing strength for each soil type:

Bearing Pressure	Sustained Load (psf)	Short Term Load (psf)
Computed design maximum		
Maximum allowable		

f. Foundation scour protection ☐ is, ☐ is not provided. If provided, attach explanation and supporting documentation:

Attach engineering analysis to support construction plans.

E. LEVEE/FLOODWALL (CONTINUED)

7. Settlement

a. Has anticipated potential settlement been determined and incorporated into the specified construction elevations to maintain the established freeboard margin? ☐ Yes ☐ No

b. The computed range of settlement is ft. to ft.

c. Settlement of the levee crest is determined to be primarily from :

☐ Foundation consolidation
☐ Embankment compression
☐ Other (Describe):

d. Differential settlement of floodwalls ☐ has ☐ has not been accommodated in the structural design and construction.

Attach engineering analysis to support construction plans.

8. Interior Drainage

a. Specify size of each interior watershed:

Draining to pressure conduit: acres
Draining to ponding area: acres

b. Relationships Established

Ponding elevation vs. storage	☐ Yes	☐ No
Ponding elevation vs. gravity flow	☐ Yes	☐ No
Differential head vs. gravity flow	☐ Yes	☐ No

c. The river flow duration curve is enclosed: ☐ Yes ☐ No

d. Specify the discharge capacity of the head pressure conduit: cfs

e. Which flooding conditions were analyzed?

• Gravity flow (Interior Watershed)	☐ Yes	☐ No
• Common storm (River Watershed)	☐ Yes	☐ No
• Historical ponding probability	☐ Yes	☐ No
• Coastal wave overtopping	☐ Yes	☐ No

If No for any of the above, attach explanation.

f. Interior drainage has been analyzed based on joint probability of interior and exterior flooding and the capacities of pumping and outlet facilities to provide the established level of flood protection. ☐ Yes ☐ No

If No, attach explanation.

g. The rate of seepage through the levee system for the base flood is cfs

h. The length of levee system used to drive this seepage rate in item g: ft.

8. Interior Drainage (continued)

i. Will pumping plants be used for interior drainage? ☐ Yes ☐ No

If Yes, include the number of pumping plants:
For each pumping plant, list:

	Plant #1	Plant #2
The number of pumps		
The ponding storage capacity		
The maximum pumping rate		
The maximum pumping head		
The pumping starting elevation		
The pumping stopping elevation		
Is the discharge facility protected?		
Is there a flood warning plan?		
How much time is available between warning and flooding?		

Will the operation be automatic? ☐ Yes ☐ No

If the pumps are electric, are there backup power sources? ☐ Yes ☐ No

(Reference: USACE EM-1110-2-3101, 3102, 3103, 3104, and 3105)

Include a copy of supporting documentation of data and analysis. Provide a map showing the flooded area and maximum ponding elevations for all interior watersheds that result in flooding.

9. Other Design Criteria

a. The following items have been addressed as stated:

Liquefaction ☐ is ☐ is not a problem
Hydrocompaction ☐ is ☐ is not a problem
Heave differential movement due to soils of high shrink/swell ☐ is ☐ is not a problem

b. For each of these problems, state the basic facts and corrective action taken:

Attach supporting documentation

c. If the levee/floodwall is new or enlarged, will the structure adversely impact flood levels and/or flow velocities floodside of the structure?
☐ Yes ☐ No

Attach supporting documentation

d. Sediment Transport Considerations:

Was sediment transport considered? ☐ Yes ☐ No If Yes, then fill out Section F (Sediment Transport).
If No, then attach your explanation for why sediment transport was not considered.

E. LEVEE/FLOODWALL (CONTINUED)

10. Operational Plan And Criteria

a. Are the planned/installed works in full compliance with Part 65.10 of the NFIP Regulations? ☐ Yes ☐ No

b. Does the operation plan incorporate all the provisions for closure devices as required in Paragraph 65.10(c)(1) of the NFIP regulations? ☐ Yes ☐ No

c. Does the operation plan incorporate all the provisions for interior drainage as required in Paragraph 65.10(c)(2) of the NFIP regulations? ☐ Yes ☐ No

If the answer is No to any of the above, please attach supporting documentation.

11. Maintenance Plan

a. Are the planned/installed works in full compliance with Part 65.10 of the NFIP Regulations? ☐ Yes ☐ No
If No, please attach supporting documentation.

12. Operations and Maintenance Plan

Please attach a copy of the formal Operations and Maintenance Plan for the levee/floodwall.

F. SEDIMENT TRANSPORT

Flooding Source:

Name of Structure:

If there is any indication from historical records that sediment transport (including scour and deposition) can affect the Base Flood Elevation (BFE); and/or based on the stream morphology, vegetative cover, development of the watershed and bank conditions, there is a potential for debris and sediment transport (including scour and deposition) to affect the BFEs, then provide the following information along with the supporting documentation:

Sediment load associated with the base flood discharge: Volume acre-feet

Debris load associated with the base flood discharge: Volume acre-feet

Sediment transport rate (percent concentration by volume)

Method used to estimate sediment transport:

Most sediment transport formulas are intended for a range of hydraulic conditions and sediment sizes; attach a detailed explanation for using the selected method.

Method used to estimate scour and/or deposition:

Method used to revise hydraulic or hydrologic analysis (model) to account for sediment transport:
Please note that bulked flows are used to evaluate the performance of a structure during the base flood; however, FEMA does not map BFEs based on bulked flows.

If a sediment analysis has not been performed, an explanation as to why sediment transport (including scour and deposition) will not affect the BFEs or structures must be provided.

FEDERAL EMERGENCY MANAGEMENT AGENCY

PAYMENT INFORMATION FORM

Community Name: Pittman East Detention Basin

Project Identifier: Case No. 02-09-1171R

THIS FORM MUST BE MAILED, ALONG WITH THE APPROPRIATE FEE, TO ONE OF TWO POST OFFICE BOXES (SEE BELOW) OR FAXED TO THE FAX NUMBER BELOW.

Type of Request:

MT-1 application fee
MT-2 application fee } (Insert **3173** as the P.O. Box number in the address below)

External Data Requests (EDRs) (Insert **398** as the P.O. Box number in the address below)

Federal Emergency Management Agency
Revisions Fee-Collection System Administrator
P.O. Box 3173
Merrifield, Virginia 22116
Fax: (703) 849-0282

Request No.: (if known) Amount: $4200.00

☐ INITIAL FEE* ☒ FINAL FEE ☐ FEE BALANCE** ☐ MASTER CARD ☐ VISA ☒ CHECK ☐ MONEY ORDER

*Note: Check only for EDR and/or Alluvial Fan requests (as appropriate).

**Note: Check only if submitting a corrected fee for an ongoing request.

COMPLETE THIS SECTION ONLY IF PAYING BY CREDIT CARD

EXP. DATE

1 2 3 4 — 5 6 7 8 — 9 10 11 12 — 13 14 15 16 Month — Year

CARD NUMBER

Date _____ Signature

NAME *(AS IT APPEARS ON CARD)*:
(please print or type)

ADDRESS:
(for your credit card receipt-please print or type)

DAYTIME PHONE:

EXPLANATIONS

MT-2 Form 1 Page 1 of 2

Item 5a Description:
Mapping SFHA in areas where none was mapped.

Item 5b Description:
Existing Berm Facilities on site. Berms do not meet FEMA criteria for levees. Therefore, the area was analyzed and mapped assuming the berms are in place and assuming the berms are not in place.

MT-2 Form 2 Page 1 of 2

Item 4 Description:
This was provided in the Pittman East Detention Basin CLOMR.

Item 5 Description:
The detention basin has been designed to capture all sediment from the upstream watershed.

MT-2 Form 3 Page 2 of 10

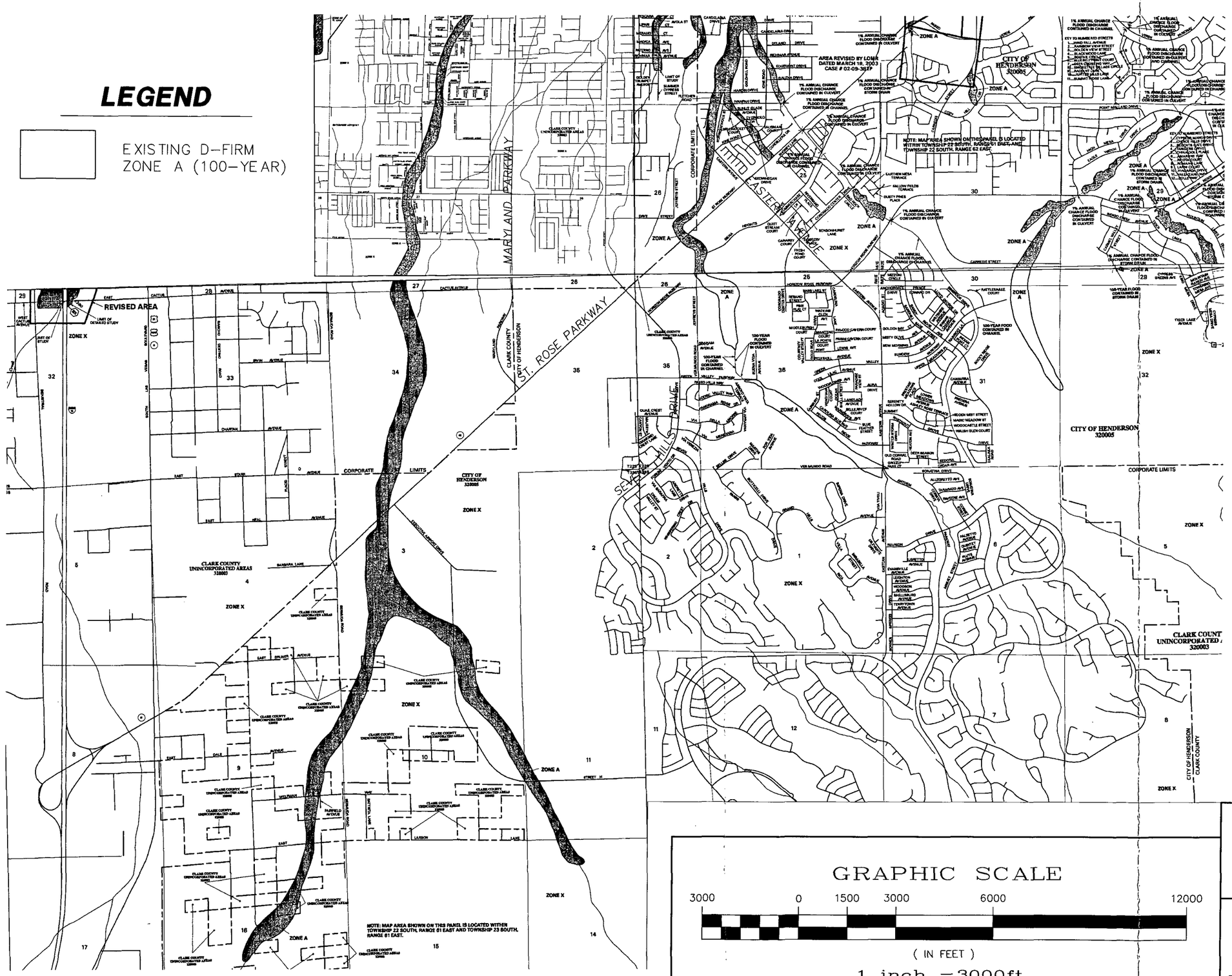
Item 3 in Section C Description:
The culvert has been in place for many years. No plans for the structure could be obtained. The culvert does not have capacity to convey the 100-year flow. Overtopping of the roadway was assumed and the associated flood zone delineated accordingly.

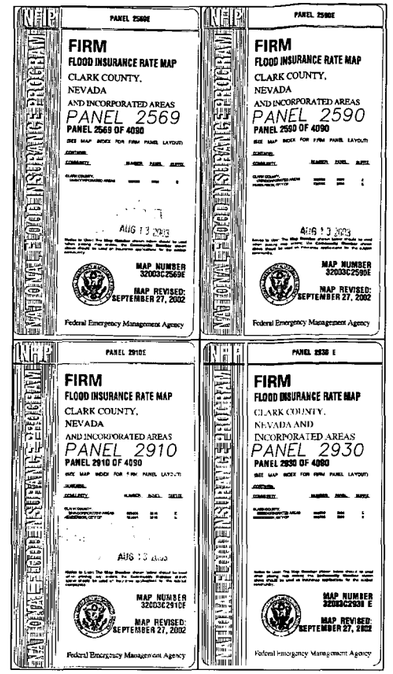
Item 4 in Section C Description:
The detention basin has been designed to capture all sediment from the upstream watershed.

APPENDIX B
Figures

LEGEND

EXISTING D–FIRM
ZONE A (100–YEAR)





GRAPHIC SCALE

3000 0 1500 3000 6000 12000

(IN FEET)

1 inch = 3000ft.

N

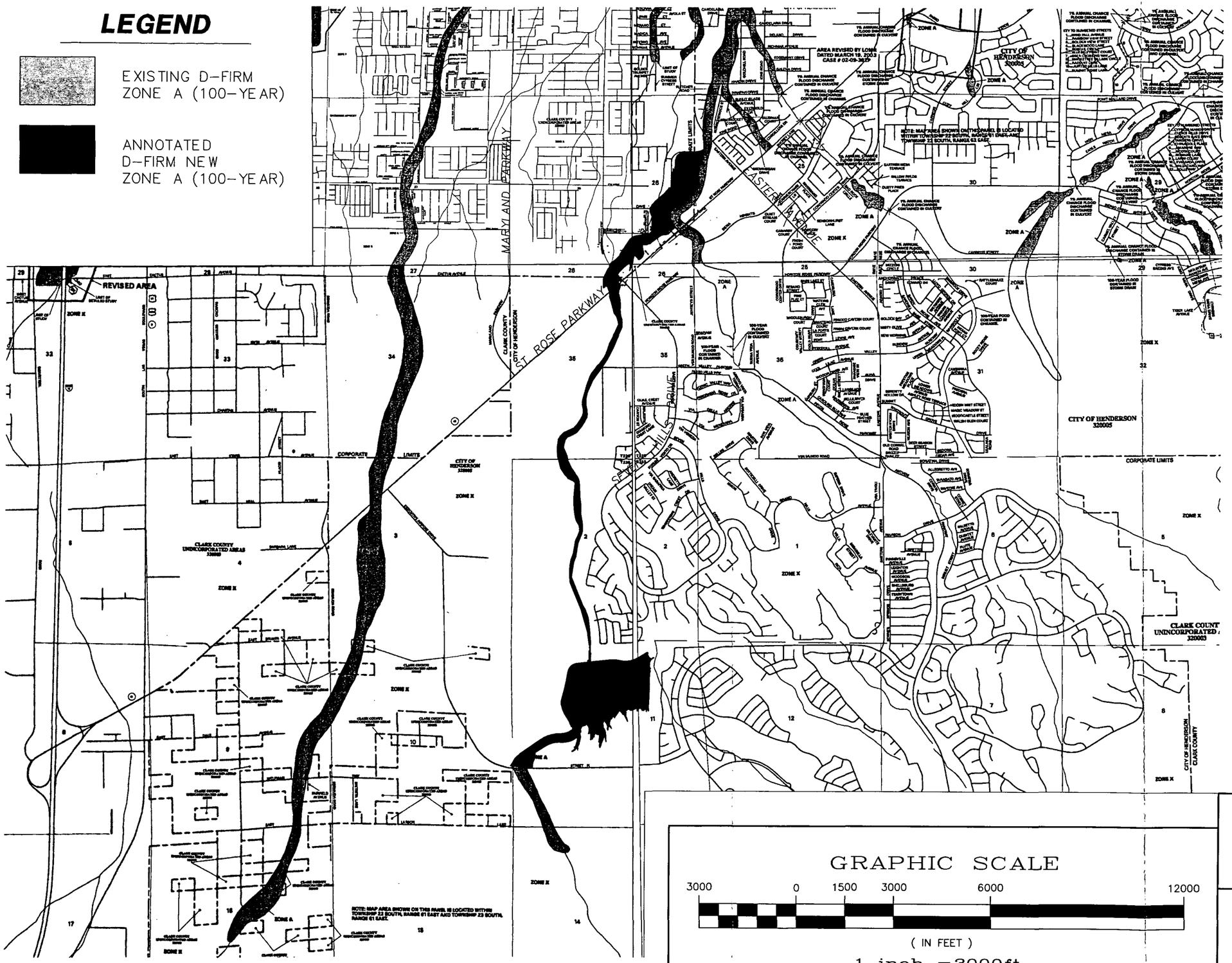
FIGURE 1
EXISTING FEMA FLOOD ZONE MAP

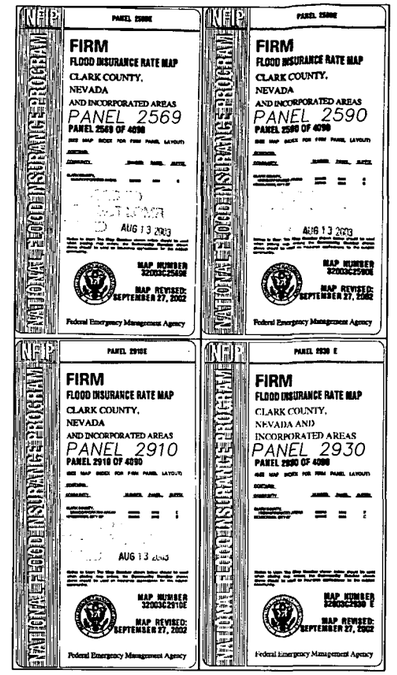
PBS&J
2270 Corporate Circle
Suite 100
Henderson, Nevada 89074–6382
Telephone: 702/263–7275
Fax: 702/263–7200
ENGINEERING • PLANNING • SURVEYING • CONSTRUCTION SERVICES

LEGEND

EXISTING D-FIRM
ZONE A (100-YEAR)

ANNOTATED
D-FIRM NEW
ZONE A (100-YEAR)





N

PBS&J

GRAPHIC SCALE

3000 0 1500 3000 6000 12000

(IN FEET)

1 inch = 3000ft.

FIGURE 2
ANNOTATED FEMA FLOOD ZONE MAP

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Henderson, Nevada 89074-6382
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Fax: 702/263-7200
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ENGINEERING · PLANNING
CONSTRUCTION SERVICES
SURVEYING

December 2, 2003

Mr. Max H. Yuan, P.E.
Federal Emergency Management Agency
Mitigation Hazard Identification Branch
500 C Street, SW
Washington, DC 20472

RE: WORKMAP CERTIFICATION FOR LETTER OF MAP REVISION APPLICATION FOR PITTMAN EAST DETENTION BASIN
PBS&J REFERNCE NO.: 511542.00
FEMA CASE NO.: 02-09-1171R

Dear Mr. Yuan,

I, Matt Baird, hereby certify that flood zone delineations shown on the Work Maps (Figure 3 and Exhibit V) included in this LOMR are consistent with the technical analysis performed by PBS&J as part of this LOMR.

Sincerely,

PBS&J



Matthew S. Baird, P.E., CFM
Lic. 13684, Nevada

2270 Corporate Circle · Suite 100 · Henderson, Nevada 89074-6382 · Telephone 702/263-7275 · Fax 702/263-7200

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

2002 LAS VEGAS VALLEY FLOOD CONTROL MASTER PLAN UPDATE

LEGEND

- Ultimate Development Boundary
- Existing Facilities
- Category A Proposed Facilities
- Category B Proposed Facilities
- Local Existing Facilities
- Local Proposed Facilities
- Detention Basin
- Culvert
- Bridge
- Pipeline
- Lined Channel
- Unlined Channel
- Dike
- Natural Wash
- ID-Mile Separator

N W E S

0 1,000 2,000 3,000 4,000 5,000
Feet

SCALE: 1 inch = 3000 feet

US95 I-15 I-215

1	2			
3	4	5	6	
7	8	9	10	
11	12	13	14	
15	16	17	18	
19	20	21	22	
23	24	25	26	
27	28	29		

FLOOD CONTROL FACILITIES
FIGURE F-25

PBS&J

G.C. WALLACE, INC.

FIGURE F-25A: CCRFCD FLOOD CONTROL FACILITIES MAP

ID / River Mile	Status	Facility Description	Length (ft.)	Flow (cfs)	HEC-1 Node	HEC-1 Model	Tributary Area (sq.mi.)	Channel Slope (%) **
DCGL		**DUCK CREEK GILESPIE CHANNEL**						
0000	E	Natural Wash	1900	1811	CDLD460	DUCK3	2.56	
0035	P2	2: 16' X 4' RCBC @ Silverado Ranch	60	1811	CDLD460	DUCK3	2.56	0.90
0036	E	Natural Wash	1111	1811	CDLD460	DUCK3	2.56	
0057	E	Conc Chnl 32'W 9.0'D 3:1 SS	1580	841	CDLD460S	DUCK3	1.10	0.20
0086	E	4: 8' X 5' RCBC @ E Pyle Ave	60	841	CDLD460S	DUCK3	1.10	1.20
0087	E	Natural Wash	1080	841	CDLD460S	DUCK3	1.10	
0106	E	3: 8' X 4' RCBC @ La Cienega	80	841	CDLD460S	DUCK3	1.10	0.50
0107	E	Conc Chnl 12'W 7'D 2:1 SS	310	567	CDLD450	DUCK3	0.75	1.30
0112	E	2: 10' X 4' RCBC @ E Frias Ave	60	567	CDLD450	DUCK3	0.75	0.50
0113	E	Conc Chnl 12'W 7'D 2:1 SS	490	567	CDLD450	DUCK3	0.75	2.40
0123	E	Natural Wash	230	567	CDLD450	DUCK3	0.75	
0128	P1	2: 14' X 4' RCBC @ E Rush Ave	50	567	CDLD450	DUCK3	0.75	0.80
0129	E	Natural Wash	690	567	CDLD450	DUCK3	0.75	
0138	E	2: 18' X 4' RCAC @ E Cactus Ave	100	567	CDLD450	DUCK3	0.75	0.30
0139	E	Conc Chnl 10'W 7'D 2:1 SS	940	567	CDLD450	DUCK3	0.75	0.40
0178	E	2: 18' X 4' RCAC @ Great Gable Dr	90	567	CDLD450	DUCK3	0.75	0.40
0179	E	Conc Chnl 10'W 7'D 2:1 SS	700	567	CDLD450	DUCK3	0.75	1.85
0192	E	Natural Wash	420	567	CDLD450	DUCK3	0.75	
0200	P1	2: 12' X 4' RCBC @ E Irvin Ave	40	567	CDLD450	DUCK3	0.75	1.20
0201	E	Natural Wash	660	567	CDLD450	DUCK3	0.75	
DCWA		**DUCK CREEK WASH**						
1214	E	121,300 cfs PMF Spillway		1E+05	CDLDCDB	DUCK5SC	16.16	
1215	E	54" RCP Outlet	20	355	LDCDB	DUCK5SC	16.16	
1216	E	1,235 ac-ft Lower Duck Creek Detention Basin		5259	CDLDCDB	DUCK5SC	16.16	
PTAD		**PITTMAN ANTHEM DRIVE**						
0000	P0	Conc Chnl 20'W 4.5'D 2:1 SS	2950	1122	CPED190	PIT3SC	0.92	1.00
0037	E	14' X 7' Concrete Arch	950	1122	CPED190	PIT3SC	0.92	2.00
0055	E	16' X 8.5' RCAC @ Sun City Anthem Dr	200	741	CPED180	PIT3SC	0.59	2.30
PTAN		**PITTMAN ANTHEM CHANNEL**						
0000	E	24' X 10' RCAC @ Sun City Anthem Dr	70	2829	CPMD185	PIT3	3.08	2.50
0001	E	Grass Chnl 100'W 5'D 3:1 SS	2550	2829	CPMD185	PIT3	3.08	0.60
0049	E	24' X 9' RCAC @ Reunion Dr	60	2779	CPMD110	PIT3SC	2.78	3.00
0050	E	Grass Chnl 100'W 5'D 3:1 SS	1670	2779	CPMD110	PIT3SC	2.78	0.70
0084	E	2: 16' X 8.5' RCAC @ Anthem Club Dr	100	2406	CPMD090	PIT3SC	2.26	2.90
0085	E	Grass Chnl 100'W 5' D 5:1 SS	3500	2406	CPMD090	PIT3SC	2.26	0.70
0151	E	28' X 8.5' RCAC @ Anthem Club Dr	100	2215	CPMD085	PIT3SC	2.00	2.90
0152	E	Grass Chnl 100'W 5'D 5:1 SS	2150	1793	CPMD075	PIT3SC	1.57	1.00
0193	P1	28' X 8' RCAC	80	1289	CPMD070	PIT3SC	1.13	2.70
0194	P0	Rip Rap Chnl 50'W 4'D 4:1 SS	1750	1289	CPMD070	PIT3SC	1.13	2.70
0226	P0	16' X 8.5' RCAC	100	768	CPMD065	PIT3SC	0.60	2.70
0227	P0	Rip Rap Chnl 50'W 3'D 4:1 SS	1500	768	CPMD065	PIT3SC	0.60	3.00
0256	P0	Rip Rap Chnl 50'W 2.5'D 4:1 SS	3020	333	CPMD060	PIT3SC	0.27	3.00
0278	E	16,704 cfs PMF Spillway		16704	CPMD020	PIT3	2.49	
0279	E	27" RCP Outlet	200	95	PTAN0280	PIT3	2.49	
0280	E	165 ac-ft Pittman Anthem Detention Basin		1754	CPMD020	PIT3	2.49	
PTAP		**PITTMAN ANTHEM PARKWAY**						
0000	P1	Conc Chnl 20'W 4.5'D 2:1 SS	100	1901	CPPE140	PIT3	2.18	5.00
0002	E	2: 8' X 8' RCBC @ St. Rose Pkwy	150	1901	CPPE140	PIT3	2.18	1.50
0005	E	Rip Rap Chnl 30'W 5'D 3:1 SS	525	1901	CPPE140	PIT3	2.18	1.30
0015	E	2: 14' X 5' RCAC @ Siena Heights	140	1901	CPPE140	PIT3	2.18	1.30
0018	P1	Conc Chnl 20'W 5'D 2:1 SS	1450	1901	CPPE140	PIT3	2.18	1.70
0045	P1	2: 12' X 6' RCBC @ Horizon Ridge Pkwy	150	1901	CPPE140	PIT3	2.18	1.60
0048	P1	Conc Chnl 20'W 5.5'D 2:1 SS	1850	1901	CPPE140	PIT3	2.18	1.60
0083	E	Earth Bottom, Rip Rap Sides Chnl 20'W	380	1426	CPPE060	PIT3	0.88	2.10
0090	E	20' X 8' RCAC	70	1426	CPPE060	PIT3	0.88	0.20
0092	E	Earth Bottom, Rip Rap Sides Chnl 20'W	360	1426	CPPE060	PIT3	0.88	0.20
0099	E	10' X 6.5' RCB	1770	1426	CPPE060	PIT3	0.88	1.70
0132	P1	Conc Chnl 12'W 4.5'D 2:1 SS	3100	916	CPPE050	PIT3	0.88	2.50
0191	E	72" RCP @ Eastern	740	546	CPPE040	PIT3	0.45	2.70

ID / River Mile	Status	Facility Description	Length (ft.)	Flow (cfs)	HEC-1 Node	HEC-1 Model	Tributary Area (sq.mi.)	Channel Slope (%) **
PTBL		**PITTMAN WASH - BELTWAY**						
0069	E	2: 13' X 6' RCB	1400	2224	CPWA085	PIT3SC	5.15	1.00
0095	P1	2: 13' X 6' RCB	590	1979	CPPE195	PIT3SC	5.39	1.00
0107	E	4: 72" RCP @ Silverado Ranch	600	1979	CPPE195	PIT3SC	5.39	2.00
0118	E	2: 11' X 6.2' Concrete Arch	1380	1979	CPPE195	PIT3SC	5.39	1.10
0144	E	Conc Chnl 25'W 6'D 0:1 SS	100	1979	CPPE195	PIT3SC	5.39	1.00
0146	E	2: 12' X 8' RCB	240	1768	NORTH	PIT3SC	5.15	1.00
0150	E	Conc Chnl 25'W 5.5'D 0:1 SS	40	1768	NORTH	PIT3SC	5.15	1.00
0151	E	2: 14' X 6' RCBC @ St. Rose Pkwy	40	1768	NORTH	PIT3SC	5.15	1.00
0157	E	Conc Chnl 25'W 5.5'D 0:1 SS	310	1768	NORTH	PIT3SC	5.15	1.00
PTDW		**PITTMAN DESERT WILLOW**						
0000	E	Conc Chnl 29'W 5.5' D 2:1 SS	1550	1121	CPMR090	PIT3	2.19	2.20
0029	E	72" RCP	2140	568	DETB	PIT3	1.42	3.20
0069	E	78" RCP with 66" Orifice Plate Outlet	840	568	DETB	PIT3	1.42	1.40
0085	E	15 ac-ft Desert Willows Golf Course Detention Basin		1143	CPMR070	PIT3	1.42	
0088	E	Grass Chnl 100'W 5:1 SS	2090	1143	CPMR070	PIT3	1.42	2.20
PTEA		**PITTMAN WASH - EASTERN**						
0020	P2	Conc Chnl 24'W 8'D 0:1 SS	2350	3225	CPPE200	PIT3SC	6.71	1.60
0054	P2	Conc Chnl 24'W 8'D 0:1 SS	1500	2284	CPPE205	PIT3SC	5.38	1.60
0090	E	3: 12' X 6' RCBC @ Eastern	200	2099	EAST	PIT3SC	5.15	1.70
0092	E	3: 10' X 6' RCB	820	2099	EAST	PIT3SC	5.15	2.40
0119	E	Conc Chnl 22'W 5'D 0:1 SS	200	2099	EAST	PIT3SC	5.15	2.00
0124	E	Splitter Structure		3892	CPPE155	PIT3SC	5.15	
0125	E	Conc Chnl 30'W 6'D 0:1 SS	740	3892	CPPE155	PIT3SC	5.15	1.20
0139	E	Earth Chnl 50'W 3:1 SS	800	3892	CPPE155	PIT3SC	5.15	1.20
0145	E	3: 12' X 10' RCBC @ St. Rose Pkwy	80	2152	CPPE130	PIT3SC	2.97	0.90
0146	P3	Conc Chnl 20'W 6'D 2:1 SS	2100	2152	CPPE130	PIT3SC	2.97	1.00
0199	P1	2: 14' X 6' RCBC @ Spencer	100	2152	CPPE130	PIT3SC	2.97	1.00
0200	P1	Conc Chnl 15'W 6'D 2:1 SS	250	2152	CPPE130	PIT3SC	2.97	1.70
0208	P1	Add 2: 10' X 6' RCBC @ St. Rose Pkwy	100	2152	CPPE130	PIT3SC	2.97	1.50
0209	E	10' X 6' RCBC @ St. Rose Pkwy	100	2152	CPPE130	PIT3SC	2.97	1.00
0210	P1	Conc Chnl 15'W 6'D 2:1 SS	1050	2152	CPPE130	PIT3SC	2.97	1.50
0230	P1	Conc Chnl 15'W 4.5'D 2:1 SS	1550	866	CPPE090	PIT3SC	1.16	1.50
0244	P1	2: 10' X 5' RCBC @ Green Valley Pkwy	100	866	CPPE090	PIT3SC	1.16	1.70
0245	P1	Conc Chnl 15'W 4'D 2:1 SS	3250	866	CPPE090	PIT3SC	1.16	1.70
0291	P1	Conc Chnl 12'W 4.5'D 2:1 SS	5870	866	CPPE090	PIT3SC	1.16	1.80
0437	E	72,800 cfs PMF Spillway		72800	CPED270	PIT4SC	8.77	
0438	E	8' X 6' RCB & 36" RCP Outlet	200	670	PTEA0439	PIT4SC	8.77	
0439	E	1718 ac-ft Pittman East Detention Basin		4537	CPED270	PIT4SC	8.77	
0493	E	32" X 6.5' RCAC @ Volunteer	120	1406	CPED225	PIT3SC	7.38	0.50
0494	E	36" X 10' RCAC @ Volunteer	120	4219	CPED225	PIT3SC	7.38	0.50
0495	E	36" X 10' RCAC @ Volunteer	120	4219	CPED225	PIT3SC	7.38	0.50
0500	P0	Conc Chnl 25'W 7'D 2:1 SS	2240	4219	CPED225	PIT3SC	7.38	1.40
0572	P0	Conc Chnl 25'W 6.5'D 2:1 SS	3140	3596	CPED215	PIT3SC	6.46	1.40
0601	P0	Conc Chnl 25'W 6'D 2:1 SS	4040	2837	CPED096	PIT3SC	5.34	1.40
PTFD		**PITTMAN FOOTHILLS DRIVE**						
0026	E	Conc Chnl 20'W 8'D 0:1 SS	1350	1114	CPMR120	PIT3SC	1.32	2.60
0050	E	20' X 10' RCAC @ Amador Ln	60	1114	CPMR120	PIT3SC	1.32	1.20
0051	E	Conc Chnl 13'W 6'D 1:1 SS	680	1114	CPMR120	PIT3SC	1.32	1.30
0063	E	16' X 6' RCAC @ Foothills Village Dr	550	1114	CPMR120	PIT3SC	1.32	2.60
0068	E	Natural Wash	2250	1114	CPMR120	PIT3SC	1.32	
0110	E	2: 14' X 10' RCBC @ MacDonald Ranch Dr	50	865	CPMR110	PIT3SC	1.00	3.10
0111	E	Natural Wash	2300	865	CPMR110	PIT3SC	1.00	

ID / River Mile	Status	Facility Description	Length (ft.)	Flow (cfs)	HEC-1 Node	HEC-1 Model	Tributary Area (sq.mi.)	Channel Slope (%) **
PTGV		**PITTMAN GREEN VALLEY**						
0000	P1	Conc Chnl 15'W 4.5'D 2:1 SS	1450	1108	CPPE095	PIT3SC	1.34	2.40
0027	E	2: 8' X 6' RCBC @ Green Valley Pkwy	110	1108	CPPE095	PIT3SC	1.34	1.00
0028	E	Conc Chnl 18'W 6'D 2:1 SS	675	1108	CPPE095	PIT3SC	1.34	1.50
0041	P1	Conc Chnl 15'W 4.5'D 2:1 SS	410	1108	CPPE095	PIT3SC	1.34	2.10
0048	E	16' X 9' RCAC @ Quail Crest	100	684	CPPE020	PIT3SC	0.88	2.13
0050	E	Conc Chnl 12'W 4'D 2:1 SS	1000	684	CPPE020	PIT3SC	0.88	3.50
0070	E	20' X 10' RCAC @ Seven Hill	150	684	CPPE020	PIT3SC	0.88	0.60
0073	E	Grass Chnl 100'W 4'D 5:1 SS	4200	684	CPPE020	PIT3SC	0.88	1.00
PTHD		**PITTMAN HAMPTON ROAD**						
0000	E	Gabion Chnl 20'W 5'D 3:1 SS	220	1004	CPED260	PIT3SC	1.06	2.20
0005	E	20' X 5' Concrete Arch	450	1004	CPED260	PIT3SC	1.06	1.20
0010	E	16' X 5' Concrete Arch	600	744	CPED250	PIT3SC	0.78	1.20
0020	E	2: 84" CMP @ Sun City Anthem Dr	200	744	CPED250	PIT3SC	0.78	1.20
PTHR		**PITTMAN HORIZON RIDGE**						
0140	P1	Conc Chnl 15'W 4'D 2:1 SS	3425	1065	CPPD135	PIT3SC	0.89	4.00
0203	P1	84" RCP Outlet	200	882	CPPD125	PIT3SC	0.72	4.00
0204	P1	882 cfs Spillway		882	CPPD125	PIT3SC	0.72	
0205	P1	2.5 ac-ft Pittman Horizon Ridge Debris Basin		882	CPPD125	PIT3SC	0.72	
PTLA		**PITTMAN WASH LARSON ST**						
0000	P1	Conc Chnl 12'W 4.5'D 2:1 SS	3250	735	CPND160	PIT3SC	0.73	1.40
PTMR		**PITTMAN MAC DONALD RANCH**						
0132	P1	Conc Chnl 25'W 5.5'D 2:1 SS	3520	2776	CPMR165	PIT4	8.38	2.20
0188	E	24.5' X 8' RCAC @ Valle Verde	270	2749	CPMR130	PIT4	8.20	2.00
0190	E	Conc Chnl 31'W 6'D 2:1 SS	2080	2389	CPMR135	PIT3	5.66	1.00
0232	E	2: 20' X 8' RCAC @ High Mesa	70	2389	CPMR135	PIT3	5.66	0.50
0233	E	Grass Chnl 100'W 4'D 5:1 SS	3750	2389	CPMR135	PIT3	5.66	0.85
0320	E	4: 20' X 8.75' RCAC @ Horizon Ridge Pkwy	190	2350	CPMR040	PIT3	5.31	1.90
0321	E	28' X 7.2' Concrete Arch	500	2350	CPMR040	PIT3	5.31	1.30
0331	P1	Conc Chnl 18'W 5.5'D 2:1 SS	2100	2350	CPMR040	PIT3	5.31	2.20
0375	P1	3: 10' X 6' RCBC @ Carnegie	80	2350	CPMR040	PIT3	5.31	2.20
0376	P1	Conc Chnl 18'W 5.5'D 2:1 SS	1000	2350	CPMR040	PIT3	5.31	2.20
0399	E	3: 24' X 7' RCAC	90	2280	CPMR030	PIT3	4.94	2.20
0400	P1	Conc Chnl 18'W 5.5'D 2:1 SS	4240	2280	CPMR030	PIT3	4.94	2.20
0478	P1	2,280 cfs Spillway		2280	CPMR030	PIT3	4.94	
0479	P1	12' X 8' RCB Outlet	200	2280	CPMR030	PIT3	4.94	2.20
0480	P1	17 ac-ft Pittman MacDonald Ranch Debris Basin		2280	CPMR030	PIT3	4.94	
PTPW		**PITTMAN PECOS WEST**						
0000	P2	8' X 8' RCB	1650	1094	CPPE190	PIT3SC	1.33	1.20
0041	P2	Conc Chnl 24'W 4'D 2:1 SS	350	1094	CPPE190	PIT3SC	1.33	2.00
0060	E	2: 8' X 6' RCBC @ Ivanpah	50	1094	CPPE190	PIT3SC	1.33	2.00
0062	E	Conc Chnl 24'W 4.5'D 2:1 SS	900	1094	CPPE190	PIT3SC	1.33	0.70
0067	E	9' X 8' RCBC @ St. Rose Parkway	50	1094	CPPE190	PIT3SC	1.33	3.00
0068	E	Conc Chnl 40'W 4.5'D 2:1 SS	820	1094	CPPE190	PIT3SC	1.33	2.30
0082	E	2: 12' X 6' RCBC & 1: 10' X 6' RCBC @ Siena Heights	70	1094	CPPE190	PIT3SC	1.33	2.10
0083	E	Conc Chnl 40'W 4.5'D 2:1SS	1270	1094	CPPE190	PIT3SC	1.33	2.30
0109	E	3: 12' X 6' RCBC & 1: 10' X 6' RCBC @ Coronado Ctr	50	698	CPPE180	PIT3SC	0.82	1.40
0110	P1	Conc Chnl 15'W 4.5'D 2:1 SS	1500	698	CPPE180	PIT3SC	0.82	0.70
0136	E	4: 12' X 6' RCBC @ Horizon Ridge Pkwy	120	698	CPPE180	PIT3SC	0.82	2.00
0137	E	**Conc Chnl 50'W 2:1 SS**	3450	698	CPPE180	PIT3SC	0.82	2.00
0205	E	3: 9' X 8' RCBC @ Green Valley Pkwy	250	472	CPPE170	PIT3SC	0.55	1.70
0206	E	Conc Chnl 40'W 4'D 1:1 SS	1400	472	CPPE170	PIT3SC	0.55	1.90
0212	E	2: 12' X 8' RCBC @ Sandy Ridge Ave	130	472	CPPE170	PIT3SC	0.55	1.05
0213	E	Conc Chnl 40'W 4'D 1:1 SS	1200	472	CPPE170	PIT3SC	0.55	2.20
0218	E	Conc Chnl 40'W 4'D 1:1 SS	1250	472	CPPE170	PIT3SC	0.55	2.20
0261	E	3: 10' X 8' RCBC @ Summit Grove	190	233	PTPW0309	PIT3SC	5.34	1.70
0262	E	Conc Chnl 40'W 4'D 1:1 SS	850	233	PTPW0309	PIT3SC	5.34	0.70
0307	E	36,760 cfs PMF Spillway		36760	CPMD180	PIT3SC	5.34	
0308	E	42" RCP Outlet	250	233	PTPW0309	PIT3SC	5.34	
0309	E	355 ac-ft McCullough Detention Basin		4208	CPMD180	PIT3SC	5.34	

ID / River Mile	Status	Facility Description	Length (ft.)	Flow (cfs)	HEC-1 Node	HEC-1 Model	Tributary Area (sq.mi.)	Channel Slope (%) **
PTRD		**PITTMAN REUNION DRIVE**						
0000	E	90" RCP	2040	740	CPMD170	PIT3SC	1.53	1.50
0039	E	84" RCP	1590	740	PMD160	PIT3SC	1.09	1.20
0049	E	78" RCP Outlet	370	740	PMD160	PIT3SC	1.09	3.30
0054	E	800 cfs Spillway		800	PMD160	PIT3SC	1.09	
0055	E	8.4 ac-ft Anthem Debris Basin #1		740	PMD160	PIT3SC	1.09	
PTSD		**PITTMAN WASH - SOUTH**						
0000	P0	2: 12' X 6' RCBC	200	2187	CPND195	PIT3SC	2.26	2.10
0001	P0	Conc Chnl 25'W 5'D 2:1 SS	1450	2187	CPND195	PIT3SC	2.26	1.60
0052	P0	2: 14' X 6' RCBC	100	2187	CPND195	PIT3SC	2.26	1.60
0053	P0	Conc Chnl 12'W 5'D 2:1 SS	2400	1258	CPND145	PIT3SC	0.99	1.60
PTSE		**PITTMAN WASH - SOUTHEAST**						
0000	P0	Rip Rap Chnl 60'W 6.5'D 3:1 SS	7310	2358	CPED160	PIT3	4.78	1.20
0135	P0	Rip Rap Chnl 60'W 6'D 3:1 SS	8230	2262	CPED155	PIT3	4.40	1.50
PTSH		**PITTMAN SEVEN HILLS**						
0000	P1	Conc Chnl 12'W 4'D 2:1 SS	660	647	CPPE080	PIT3	0.79	2.30
0011	E	3: 60" RCP	90	647	CPPE080	PIT3	0.79	1.30
0012	E	Unlined Chnl 20'W 4'D 4:1 SS	150	647	CPPE080	PIT3	0.79	1.40
0018	E	20' X 10' RCAC @ Seven Hills Dr	130	647	CPPE080	PIT3	0.79	1.50
0019	P2	Grass Chnl 60'W 3'D 4:1 SS	2400	647	CPPE080	PIT3	0.79	1.00
0065	E	Grass Chnl 60'W 3'D 4:1 SS	930	647	CPPE080	PIT3	0.79	2.00
0084	E	20' X 10' RCAC @ Seven Hills Dr	150	647	CPPE080	PIT3	0.79	1.80
PTSR		**PITTMAN WASH ST ROSE**						
0000	P1	Conc Chnl 20'W 5'D 0:1 SS	3690	1267	CPCD040	PIT3SC	1.38	1.30
PTST		**PITTMAN STEPHANIE**						
0108	E	11' X 7' RCB	2480	1439	CPRE100	PIT3	1.43	3.70
0155	P1	11' X 5' RCB	830	1439	CPRE100	PIT3	1.43	3.60
0170	E	16' X 6' RCAC @ Quiet River	270	1439	CPRE100	PIT3	1.43	2.60
PTVV		**PITTMAN VALLEY VERDE**						
0000	E	12' X 7' RCAC @ Horizon Ridge Pkwy	200	500	PMR090	PIT3	0.54	2.53
0004	E	Rip Rap Chnl 20'W 5'D 3:1 SS	140	500	PMR090	PIT3	0.54	0.50
0005	E	2: 60" RCP	840	500	PMR090	PIT3	0.54	3.60
PTWA		**PITTMAN WASH**						
0653	E	60" RCP	3770	1020	CPWA030	PIT3SC	1.05	0.80
0654	P0	Add Parallel 12' X 6' RCB	3770	1020	CPWA030	PIT3SC	1.05	0.80
0724	E	54" RCP	1330	81	PTWA0740	PIT3SC	5.76	0.30
0730	E	48" RCP	1100	81	PTWA0740	PIT3SC	5.76	0.30
0738	E	42" RCP Outlet	1500	81	PTWA0740	PIT3SC	5.76	0.30
0740	P0	Upgrade to 2,220 ac-ft Cactus Detention Basin		5151	CPCD150	PIT3SC	5.76	
0741	E	1,300 ac-ft Cactus Detention Basin		5151	CPCD150	PIT3SC	6.00	
0778	P1	Conc Chnl 30'W 7.5'D 2:1 SS	6400	4371	CPCD130	PIT3SC	4.97	0.72
0982	P1	3: 12' X 8' RCBC @ Lake Mead	200	3798	CPCD080	PIT3SC	4.25	1.10
0983	P1	Conc Chnl 25'W 7.0'D 0:1 SS	2150	2600	CPCD075	PIT3SC	2.89	0.96
1024	P1	108" RCP	1650	1130	CPCD065	PIT3SC	1.12	1.20
1080	P1	66" RCP	4570	201	PTWA1151	PIT3SC	5.65	1.60
1149	P1	36" RCP Outlet	200	201	PTWA1151	PIT3SC	5.65	
1150	P1	51,900 cfs PMF Spillway		51900	CPND190	PIT3SC	5.65	
1151	P1	425 ac-ft Pittman North Detention Basin		5192	CPND190	PIT3SC	5.65	

FLOOD CONTROL FACILITIES INVENTORY TO ACCOMPANY FIGURE F-25A

**The HEC-1 node shown identifies the controlling concentration point for the associated facility and is located upstream of this facility due to decreasing peak flow with increasing tributary area caused by storm distribution transitions, depth area reduction factors, or attenuation of flow from routing.*
***As-built or design slopes were used when available. All other slopes are based on existing topography. The user should verify the facility slope listed prior to performing any facility specific analysis.*

REGIONAL FLOOD CONTROL DISTRICT

2002 LAS VEGAS VALLEY FLOOD CONTROL MASTER PLAN UPDATE FACILITY INVENTORY FIGURE F-25B

LEGEND

Street Name Designator AA BB
Parent Stream Name
Stream Name
ID / River Mile 00 00
Distance above confluence
With parent stream
Miles in tenths

Existing Facility ..... E
Proposed or Modified Facility ..... P
Contingency Level
Category B P0
Master Plan P1
Preliminary Design P2
Design P3

Bottom Width ..... W
Depth ..... D
Side Slope, H:V ..... SS

Construction Features

Cast in Place Concrete Pipe ..... CIPCP
Corrugated Metal Arch Pipe Culvert ..... CMAP
Corrugated Metal Pipe Culvert ..... CMP
High Density Polyethylene ..... HDPE
Helical Elliptical Reinforced Concrete Pipe ..... HERCP
Reinforced Concrete Arch Pipe ..... RCAC
Reinforced Concrete Box ..... RCB
Reinforced Concrete Box Culvert ..... RCBC
Reinforced Concrete Pipe ..... RCP
Reinforced Concrete Pipe Culvert ..... RCPC
Storm Sewer Pipe ..... SSP

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APPENDIX C
Hydrology

Rainfall Methodology and Soils Information

Rainfall Methodology

A. Point Rainfall

According to Figure 513 of the Criteria Manual, the Pittman East Detention Basin LOMR basins are located outside the McCarran Rainfall area. The 100-year, 50-year, 25-year and 10-year, 6-hour rainfall depth duration frequency values for areas located inside the McCarran Airport Rainfall area were obtained from Figures 503-506 of the Criteria Manual.

The HEC-1 multi-ratio option (HEC 1990) was used to model the 100-year, 50-year, 25-year and 10-year design storms in the HEC-1 input file. The HEC-1 JR card was used to specify the precipitation by which to multiply the 100-year precipitation values (point rainfall).

B. Storm Distribution

Table 503 in the Criteria Manual specifies that the 6-hour storm distribution, SDN 3 should be used for drainage areas less than eight square miles.

Runoff Methodology

A. Lag Time

The Criteria Manual's Standard Form 4 was completed to determine the time of concentration for each drainage basin. For all basins which comprise less than 1 square mile, the time of concentration was calculated as follows:

$T_c = T_i + T_t$

Where: Tc = Time of Concentration
Ti = Initial, inlet or overland flow time
Tt = Travel time in the ditch, gutter, etc.

Initial flow time was calculated as follows:

$Ti = 1.8(1.1 - K)Lo1/2/S1/3$

Where: Ti = Initial overland flow time (in minutes)
K = 0.0132CN – 0.39
CN = Curve Number
Lo = Length of overland flow (maximum 500 feet)
S = Average basin slope (in percent)

The lag time was calculated as follows:

$T_{lag} = 0.6T_c$ (in hours)

B. Soils – Curve Number Determination

Soils information for the basins was obtained from the Soil Conservation Service (SCS) Soil Survey of Las Vegas Valley Area, Nevada, 1985. The hydrologic group classification for each soil within the project site was read from Table 15 of the SCS Survey. These soils types were matched to the corresponding SCS Curve Number (CN) for use in the Standard Form 4 and the HEC-1 analysis. According to the soils map the basins are made up of soil map symbol #107, #150 and #152. The soil name for map symbol #107 is Arizo. The soil name for map symbol #150 is Cave. The soil map name for #152 is Cave. The corresponding CN's for these soils are found in Table 602 of the Criteria Manual. The CN calculations for the basins are included in this appendix.

Table 3 is a summary of the CN's used for the onsite and offsite basins for existing and future conditions.

TABLE 2
CURVE NUMBER CALCULATIONS
ONSITE CONDITION

BASIN NAME	COVER TYPE	SOIL COMPOSITION	SOIL TYPE	HYDROLOGIC GROUP	CURVE NUMBER CALCULATIONS	COMPOSITE CURVE NUMBER
EXISTING CONDITIONS						
E1	Undeveloped	77% Arizo	#107	90% A, 5% B, 5% D	0.77*(0.90*63 + 0.05*77 + 0.05*88) + 0.13*(0.90*88 + 0.05*63 + 0.05*77) + 0.10*(0.85*88 + 0.10*77 + 0.05*63)	69.78
		13% Cave	#150	90% D, 5% A, 5% B		
		10% Cave	#152	85% D, 10% B, 5% A		

TABLE 15.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare" and "occasional" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern]

Soil name and map symbol	Hydrologic group	Flooding		High water table		Bedrock		Cemented pan		Risk of corrosion	
		Frequency	Months	Depth	Months	Depth	Thickness	Depth	Hardness	Uncoated steel	Concrete
				Ft		In		In			
105*:											
McCullough	B	Rare	---	>6.0	---	>60	---	---	---	High	High.
Jean	A	Rare	---	>6.0	---	>60	---	---	---	High	Low.
Bluepoint	A	None	---	>6.0	---	>60	---	---	---	High	Low.
107, Arizo	A	Rare	---	>6.0	---	>60	---	---	---	High	Low.
112, Arizo	A	Occasional	Mar-Sep	>6.0	---	>60	---	---	---	High	Low.
113, Arizo	A	Rare	---	>6.0	---	>60	---	---	---	High	High.
117, Arizo	A	None	---	>6.0	---	>60	---	---	---	High	Low.
120, Bluepoint	A	Rare	---	4.0-6.0	Jun-Sep	>60	---	---	---	High	Moderate.
127, 128, 129, Bluepoint	A	None	---	>6.0	---	>60	---	---	---	High	Low.
130*:											
Bracken	B	None	---	>6.0	---	40-60	Soft	---	---	High	High.
Destazo	B	None	---	>6.0	---	>60	---	---	---	High	High.
132, Bracken	B	None	---	>6.0	---	40-60	Soft	---	---	High	High.
133*:											
Bracken	B	None	---	>6.0	---	40-60	Soft	---	---	High	High.
Rock outcrop.											
134, Bracken	B	None	---	>6.0	---	40-60	Soft	---	---	High	High.
140, Casaga	C	None	---	>6.0	---	>60	---	---	---	High	High.
150, Cave	D	None	---	>6.0	---	>60	---	4-20	Thick	High	Low.
151, Cave	D	None	---	>6.0	---	>60	---	10-20	Thick	High	Low.
152, 155, Cave	D	None	---	>6.0	---	>60	---	4-20	Thick	High	Low.
160, Destazo	B	None	---	>6.0	---	>60	---	---	---	High	High.
181*:											
Caliza	B	None	---	>6.0	---	>60	---	---	---	High	Low.
Pittman	C	None	---	>6.0	---	>60	---	20-30	Thick	High	Low.

See footnote at end of table.

defines many of the terms used in describing the soils or miscellaneous areas.

In the Las Vegas Valley Area, the mean annual temperature is about 66 degrees F, the mean annual precipitation is about 4 inches, and the frost-free season ranges from 220 to about 270 days. More detailed climatic data are available in the section "Climate" and in tables 1, 2, and 3. Because the climate is quite uniform throughout the survey area, climatic data are not given in the individual map unit descriptions.

Map Unit Descriptions

105—McCullough-Jean-Bluepoint complex, 0 to 4 percent slopes. This map unit is on fan piedmonts.

This unit is 40 percent McCullough fine sandy loam, 0 to 4 percent slopes, 30 percent Jean loamy fine sand, 0 to 4 percent slopes, and 20 percent Bluepoint loamy fine sand, 0 to 4 percent slopes. The McCullough soil is on fan skirts, the Jean soil is on inset fans crossing fan piedmonts, and the Bluepoint soil is on sand sheets on fan piedmonts. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

Included in this unit are about 5 percent Las Vegas soils and 5 percent McCarran soils on relict alluvial flats. Included areas make up about 10 percent of the total acreage. The percentage varies from one area to another.

The McCullough soil is very deep and well drained. It formed in alluvium derived from various kinds of rock. Typically, the surface layer is pink fine sandy loam about 2 inches thick. The subsoil is light brown and pink gravelly sandy loam and fine sandy loam about 24 inches thick. The upper 9 inches of the substratum is pink, weakly lime-cemented, stratified fine sandy loam and loam, and the lower part to a depth of 62 inches is pink fine sand.

Permeability of the McCullough soil is moderate. Available water capacity is moderate. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is high. This soil is subject to rare periods of flooding during prolonged, high-intensity storms. Channeling and deposition are common along streambanks.

The Jean soil is very deep and excessively drained. It formed in alluvium derived dominantly from limestone, sandstone, and quartzite. Typically, the surface layer is pink loamy fine sand about 1 inch thick. The upper 17 inches of the substratum is light reddish brown and pink loamy fine sand, and the lower part to a depth of 60 inches or more is pink, stratified very gravelly loamy fine sand to extremely gravelly sand.

Permeability of the Jean soil is rapid. Available water capacity is very low. Effective rooting depth is 60 inches or more. Runoff is very slow, and the hazard of water erosion is slight. The hazard of soil blowing is high. This soil is subject to rare periods of flooding during prolonged, high-intensity storms. Channeling and deposition are common along streambanks.

The Bluepoint soil is very deep and somewhat excessively drained. It formed in eolian deposits derived dominantly from sandstone and quartzite. Typically, the surface layer is pink loamy fine sand 2 inches thick. The underlying material to a depth of 60 inches or more is pink fine sand or loamy fine sand.

Permeability of the Bluepoint soil is rapid. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is very slow, and the hazard of water erosion is slight. The hazard of soil blowing is high.

This unit is used mainly for urban development. It is also used as habitat for desert wildlife and for recreation.

The main limitation for construction of dwellings is the hazard of flooding on the McCullough and Jean soils. Dikes and channels that have outlets for floodwater can be used to protect buildings from flooding. Excavating in areas of the Jean and Bluepoint soils can expose material that is highly susceptible to soil blowing. Gypsum in the McCullough soil can induce electrochemical action that corrodes concrete. This limitation can be overcome by using cement that is resistant to sulfate corrosion.

The main limitation for septic tank absorption fields is the inadequate filtration of effluent in the Jean and Bluepoint soils. Because the substratum is rapidly permeable, special design may be needed to avoid polluting ground water and nearby water supplies. If the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies as a result of seepage from onsite sewage disposal systems.

Channeling and deposition can be minimized and maintenance costs reduced by protecting roads on the McCullough and Jean soils from flooding. The Bluepoint soil in this unit is flooded less frequently and is more suitable for use as sites for roads. When the Bluepoint soil is dry, roads are difficult to maintain because of the presence of loose sand. This results in poor traction and an increased risk of soil blowing.

The main limitation for lawns and landscaping is the very low available water capacity of the Jean soil. Frequent irrigation of lawns, gardens, and most other plantings is needed.

This map unit is in capability subclasses IVs, irrigated, and VIIs, nonirrigated. The McCullough soils are in horticultural group 2, and the Jean and Bluepoint soils are in horticultural group 3.

107—Arizo extremely stony loam, 0 to 4 percent slopes. This very deep, excessively drained soil is on inset fans. It formed in alluvium derived dominantly from basalt and andesite.

Typically, about 85 percent of the surface is covered with a desert pavement of stones, cobbles, and pebbles. A dark desert varnish is on the exposed surfaces of the rock fragments. The surface layer is pink extremely stony loam about 4 inches thick. The underlying material to a depth of 60 inches or more is pale brown, stratified material that averages very gravelly sand.

Included in this unit are about 5 percent Cave soils on erosional fan remnant shoulders and 5 percent Caliza soils on erosional fan remnant side slopes. Included areas make up about 10 percent of the total acreage.

Permeability of this Arizo soil is very rapid. Available water capacity is very low. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is moderate. This soil is subject to rare periods of flooding during prolonged, high-intensity storms. Channeling and deposition are common along streambanks.

This unit is used mainly as habitat for desert wildlife and for recreation. It is also used for urban development.

The main limitations for construction of dwellings are the rare periods of flooding and the desert pavement. Dikes and channels that have outlets for floodwater can be used to protect buildings and onsite sewage disposal systems from flooding. The desert pavement interferes with the use of equipment.

The main limitations for septic tank absorption fields are inadequate filtration of effluent and the stones and cobbles in the soil. Because the substratum is highly permeable, special design may be needed to avoid polluting ground water and nearby water supplies. The presence of stones may hamper excavation.

This unit is limited for roads because of the desert pavement. Unless an adequate wearing surface is maintained, stones and cobbles in the soil create road hazards and increase maintenance costs.

The main limitations for lawns and landscaping are droughtiness, the content of pebbles throughout the soil, and the content of stones and cobbles in the surface layer. Frequent irrigation of lawns, gardens, and most other plantings is needed because of the limited available water capacity of the soil. Topsoil is needed for best results when landscaping, particularly in areas used for lawns.

This map unit is in capability subclass VIIs, nonirrigated, and in horticultural group 3.

112—Arizo very gravelly loamy sand, flooded, 0 to 4 percent slopes. This very deep, excessively drained soil is in channels on fan piedmonts. It formed in alluvium derived dominantly from various kinds of rock.

Typically, 65 percent of the surface is covered with pebbles. The surface layer is pale brown very gravelly loamy sand about 2 inches thick. The underlying material to a depth of 60 inches or more is light brown, stratified very gravelly sandy loam to extremely gravelly loamy sand, averaging very gravelly loamy sand.

Included in this unit are about 5 percent Nickel soils on erosional fan remnants, 3 percent Aztec soils on nonburied fan remnants, 5 percent Cave soils on erosional fan remnants, and 2 percent McCarran soils on relict alluvial flats. Included areas make up about 15 percent of the total acreage.

Permeability of this Arizo soil is very rapid. Available water capacity is very low. Effective rooting depth is 60 inches or more. Runoff is very slow, and the hazard of water erosion is slight. The hazard of soil blowing is moderate. This soil is subject to occasional periods of very brief, high-velocity flooding from March through September.

Most areas of this unit are used as habitat for desert wildlife and for recreation. A few areas are used for urban development.

This unit is poorly suited to urban development. The main limitation for construction of dwellings is the hazard of flooding. Flooding can be controlled only by use of major flood control structures.

The main limitations for septic tank absorption fields are the hazard of flooding and inadequate filtration of effluent. Flooding can be controlled only by use of major flood control structures. Because the substratum is highly permeable, special design may be needed to avoid polluting ground water and nearby water supplies.

This unit is limited for roads because of the hazard of flooding. Flooding can be controlled only by use of major flood control structures.

The main limitations for lawns and landscaping are the content of cobbles and pebbles throughout the soil and the very low available water capacity. Topsoil is needed for best results when landscaping, particularly in areas used for lawns. Frequent irrigation of lawns, gardens, and most other plantings is needed because of the limited available water capacity of the soil.

This map unit is in capability subclasses IVw, irrigated, and VIIw, nonirrigated. It is in horticultural group 3.

113—Arizo very gravelly fine sandy loam, gypsiferous substratum, 2 to 8 percent slopes. This very deep, excessively drained soil is on inset fans on pediments underlain by weakly consolidated, gypsiferous sediment. It formed in alluvium derived dominantly from basalt and andesite overlying gypsiferous sediment.

Typically, 80 percent of the surface is covered with a desert pavement of rock fragments, mainly pebbles. The surface layer is light brown very gravelly fine sandy loam about 2 inches thick. The upper 38 inches of the underlying material is light brown very gravelly loamy sand, and the lower part to a depth of 60 inches or more is light brown, highly gypsiferous loamy sand. Rock fragments cover 70 to 90 percent of the surface. Depth to the gypsiferous layer ranges from 40 to 60 inches.

Included in this unit are about 5 percent Nickel soils on erosional fan remnants, 5 percent Rock outcrop as isolated low hills, and 5 percent Aztec soils on erosional

Included in this unit are about 10 percent Bracken soils on dissected pediments and 5 percent Weiser soils on erosional fan remnants. Included areas make up about 15 percent of the total acreage.

Permeability of the Casaga soil is slow. Available water capacity is high. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is high if the desert pavement is disturbed. This soil is moderately affected by salts to a depth of 1 inch, slightly affected to a depth of 41 inches, and moderately affected below this depth.

This unit is used mainly as habitat for desert wildlife and for recreation. It is also used for urban development.

The effects of shrinking and swelling on dwellings can be minimized by using an appropriate engineering design and by backfilling with material that has a low shrink-swell potential. Gypsum in the soil can induce electrochemical action that corrodes concrete. This limitation can be overcome by using cement that is resistant to sulfate corrosion.

The main limitation for septic tank absorption fields is the restricted permeability. Using long absorption lines and backfilling the trench with sandy material help to compensate for the restricted permeability. The operation of septic tank absorption fields can be improved in some areas by placing the absorption lines below the less permeable subsoil.

Trafficability of roads can be improved by providing a stable base and an adequate wearing surface.

The main limitations for lawns and landscaping are the presence of pebbles and excess salts throughout the soil. Removing the desert pavement is necessary for best results when landscaping, particularly in areas used for lawns. Because of the content of gypsum and other salts in the soil, salt-tolerant plants should be selected.

This map unit is in capability subclasses IVe, irrigated, and VIIc, nonirrigated. It is in horticultural group 4.

150—Cave very stony sandy loam, 0 to 4 percent slopes. This very shallow, well drained soil is on erosional fan remnants. It formed in alluvium derived from various kinds of rock.

Typically, about 70 percent of the surface is covered with a desert pavement of rock fragments and pan fragments. The surface layer is very pale brown very stony sandy loam about 3 inches thick. The underlying material to a depth of 6 inches is very pale brown gravelly sandy loam. The next layer to a depth of 60 inches or more is an indurated, lime-cemented hardpan. Depth to the hardpan ranges from 4 to 20 inches.

Included in this unit are about 5 percent Arizo soils, flooded, 0 to 4 percent slopes, in channels and 5 percent Caliza very stony fine sandy loam, 2 to 8 percent slopes, on erosional fan remnants. Included areas make up about 10 percent of the total acreage. The percentage varies from one area to another.

Permeability of the Cave soil is moderate above the hardpan. Available water capacity is very low. Effective rooting depth is 4 to 20 inches. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is high if the surface is disturbed.

Most areas of this unit are used as habitat for desert wildlife and for recreation. A few areas are used for urban development.

If this unit is used for urban development, the main limitation is the shallow depth to the lime-cemented hardpan. Heavy equipment is needed for excavation of building sites. Special design of septic tank absorption fields is needed.

Roads should be designed to minimize cuts because of the limited depth to the hardpan.

Removing the desert pavement is necessary for best results when landscaping, particularly in areas used for lawns. It is difficult to establish plants in areas where the pan is exposed. Mulching and fertilizing cut areas help to establish plants. Selection of adapted vegetation is critical for the establishment of lawns, shrubs, trees, and vegetable gardens. Lawn grasses, shrubs, and trees that are not sensitive to lime-induced chlorosis are well suited to use in landscaping. Annual applications of iron chelates reduce the effects of chlorosis.

Intermittent streams form the drainageways in this unit. These drainageways are subject to rare or occasional periods of high-velocity flooding. Care should be taken during urbanization to accommodate the runoff from the drainageways. If drains become plugged during a major flood, accelerated erosion and damage to roads, buildings, and other structures can occur.

This map unit is in capability subclass VIIs, nonirrigated, and in horticultural group 6.

151—Cave loamy fine sand, 2 to 8 percent slopes. This shallow, well drained soil is on erosional fan remnants. It formed in alluvium derived from various kinds of rock.

Typically, the surface layer is light brown loamy fine sand about 5 inches thick. The underlying material to a depth of 11 inches is pink gravelly fine sandy loam. The next layer to a depth of 60 inches or more is an indurated, lime-cemented hardpan. Depth to the hardpan ranges from 10 to 20 inches.

Included in this unit is small areas of Arizo soils, flooded, in channels. Included areas make up about 5 percent of the total acreage.

Permeability of the Cave soil is moderate above the hardpan. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is high.

This unit is used as habitat for desert wildlife and for recreation.

This unit is limited for roads because of the depth to the indurated hardpan. Roads should be designed to minimize cuts.

This map unit is in capability subclass VIIs, nonirrigated, and in horticultural group 6.

152—Cave gravelly fine sandy loam, 0 to 4 percent slopes. This shallow, well drained soil is on erosional fan remnants. It formed in alluvium derived from various kinds of rock.

Typically, about 80 percent of the surface is covered with a desert pavement of pebbles and cobbles. The surface layer is pale brown gravelly fine sandy loam about 12 inches thick. The next layer to a depth of 36 inches is an indurated, lime-cemented hardpan. The underlying material to a depth of 60 inches or more is light brown very gravelly sandy loam. Depth to the hardpan ranges from 4 to 20 inches.

Included in this unit are about 5 percent Arizo soils, flooded, in channels, 5 percent Canutio soils on inset fans, and 5 percent Grapevine soils on side slopes of erosional fan remnants. Included areas make up about 15 percent of the total acreage. The percentage varies from one area to another.

Permeability of the Cave soil is moderate above the hardpan. Available water capacity is very low. Effective rooting depth is 4 to 20 inches. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is high if the surface is disturbed.

This unit is used mainly for urban development. It is also used as habitat for desert wildlife and for recreation.

This unit is poorly suited to urban development. The main limitation is the shallow depth to the hardpan. Excavation for building sites is limited by the hardpan, and heavy equipment is needed. Special design of septic tank absorption fields is needed.

Roads should be designed to minimize cuts because of the limited depth to the hardpan.

It is difficult to establish plants in areas where the pan is exposed. Mulching and fertilizing cut areas help to establish plants. Lawn grasses, shrubs, and trees that are not sensitive to lime-induced chlorosis are well suited to use in landscaping. Annual applications of iron chelates reduce the effects of chlorosis.

Intermittent streams form the drainageways in this unit. These drainageways are subject to rare or occasional periods of high-velocity flooding. Care should be taken during urbanization to accommodate the runoff from the drainageways. If drains become plugged during a major flood, accelerated erosion and damage to roads, buildings, and other structures can occur.

This map unit is in capability subclass VIIs, nonirrigated, and in horticultural group 6.

155—Cave gravelly fine sandy loam, 4 to 15 percent slopes. This shallow, well drained soil is on erosional fan remnants. It formed in alluvium derived from various kinds of rock.

Typically, about 70 percent of the surface is covered with a desert pavement of rock fragments and pan fragments. The surface layer is light brown gravelly fine sandy loam about 5 inches thick. The underlying material to a depth of 15 inches is light brown gravelly fine sandy loam. The next layer to a depth of 60 inches or more is an indurated, lime-cemented hardpan. Depth to the hardpan ranges from 4 to 20 inches.

Included in this unit are about 5 percent Arizo soils, flooded, in channels and 5 percent Caliza soils on side slopes of erosional fan remnants. Included areas make up about 10 percent of the total acreage. The percentage varies from one area to another.

Permeability of the Cave soil is moderate above the hardpan. Available water capacity is very low. Effective rooting depth is 4 to 20 inches. Runoff is moderate, and the hazard of water erosion is slight. The hazard of soil blowing is high if the surface is disturbed.

This unit is used as habitat for desert wildlife and for recreation.

This unit is limited for roads because of the depth to the indurated hardpan. Roads should be designed to minimize cuts. Cutting and filling can be reduced by building roads in the less sloping areas.

This map unit is in capability subclass VIIs, nonirrigated and in horticultural group 6.

160—Destazo cobbly fine sandy loam, 0 to 2 percent slopes. This very deep, well drained soil is on relict alluvial flats. It formed in alluvium derived dominantly from limestone and dolomite.

Typically, about 60 percent of the surface is covered with a desert pavement of pebbles and cobbles. The surface layer is pink cobbly fine sandy loam about 11 inches thick. The upper 29 inches of the underlying material is light brown very gravelly sandy clay loam, and the lower part to a depth of 60 inches or more is pinkish white gravelly sandy loam containing some crystalline gypsum.

Included in this unit are about 5 percent Bracken very cobbly fine sandy loam, 2 to 8 percent slopes, on side slopes of slightly higher remnants of relict alluvial flats and 10 percent Las Vegas soils on summits of slightly higher remnants of alluvial flats. Included areas make up about 15 percent of the total acreage.

Permeability of this Destazo soil is moderately slow. Available water capacity is moderate. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is moderate.

This unit is used mainly as habitat for desert wildlife and for recreation. It is also used for urban development.

This unit is well suited to the construction of dwellings.

The main limitation for septic tank absorption fields is restricted permeability. The operation of septic tank

RUNOFF CURVE NUMBERS
(URBAN AREAS[1])

Cover description		Curve numbers for hydrologic soil group—			
Cover type and hydrologic condition	Average percent impervious area[2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.)[3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only)[4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
See Table 602A					
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation)[5]		77	86	91	94

1 Average runoff condition, and $I_a = 0.2S$.

2 The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system. Impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using Figure 603.

3 CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

4 Composite CN's for natural desert landscaping should be computed using Figure 603 based on the impervious area percentage (CN #98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

5 Composite CN's to use for the design of temporary measures during grading and construction should be computed using Figure 603 based on the degree of development impervious area percentage) and the CN's for the newly graded pervious areas.

Revision	Date

PRECIPITATION ADJUSTMENT RATIOS

Recurrence Interval	Ratio to NOAA Atlas 2
2-year	1.00
5-year	1.16
10-year	1.24
25-year	1.33
50-year	1.39
100-year	1.43

NOTE:
1. Multiply the values obtained from the NOAA Atlas 2 by the above ratios to obtain the adjusted precipitation values.
2. NOAA Atlas 2 values for use with TR-55 shall not be adjusted by the above ratios.
3. Tables 505 and 506 require no adjustments.

Revision	Date

SIX HOUR DEPTH-AREA REDUCTION FACTORS

Drainage Area (Square Miles)	Six-Hour Depth-Area Reduction Factor
0.0	1.00
0.5	0.98
1.0	0.97
2.0	0.93
4.0	0.91
6.0	0.90
8.0	0.88
10.0	0.86
20.0	0.79
30.0	0.74
50.0	0.68
100.0	0.60
150.0	0.55
200.0	0.51
300.0	0.46
400.0	0.42
500.0	0.39

NOTES: 1. A graphical representation of these factors is presented in Figure 514.

2. Consult with the local entity and/or the CCRFCD for guidance in using the Depth-Area Reduction Factors for drainage areas greater than 200 square miles.

Revision	Date

SIX-HOUR STORM DISTRIBUTIONS

Storm Time (In Minutes)	Percent of Total Storm Depth SDN3	SDN4	SDN5	Storm Time (In Minutes)	Percent of Total Storm Depth SDN3	SDN4	SDN5
0	0.0	0.0	0.0	185	32.2	37.6	43.0
5	2.0	2.0	2.0	190	35.2	41.5	47.7
10	5.7	5.8	5.9	195	40.9	46.2	51.4
15	7.0	7.5	8.0	200	49.9	53.0	56.1
20	8.7	9.9	11.0	205	59.0	61.0	63.0
25	10.8	12.6	14.4	210	71.0	71.0	71.0
30	12.4	13.7	15.0	215	74.4	73.2	72.0
35	13.0	14.5	16.0	220	78.1	75.6	73.1
40	13.0	14.9	16.8	225	81.2	78.2	75.2
45	13.0	15.1	17.1	230	81.9	79.9	77.9
50	13.0	15.5	18.0	235	83.5	81.3	79.0
55	13.0	15.6	18.2	240	85.1	82.3	79.5
60	13.0	15.9	18.7	245	85.6	83.0	80.4
65	13.3	16.2	19.0	250	86.0	83.5	81.0
70	14.0	16.9	19.7	255	86.8	84.4	82.0
75	14.2	17.2	20.2	260	87.6	85.1	82.6
80	14.8	17.9	21.0	265	88.8	86.4	84.0
85	15.8	18.9	22.0	270	91.0	88.5	85.9
90	17.2	20.1	23.0	275	92.6	90.8	88.9
95	18.1	21.1	24.1	280	93.7	92.4	91.0
100	19.0	22.0	25.0	285	95.0	94.4	93.8
105	19.7	22.8	25.9	290	97.0	96.8	96.6
110	19.9	23.2	26.5	295	97.6	97.3	97.0
115	20.0	24.0	28.0	300	98.2	97.8	97.4
120	20.1	24.6	29.0	305	98.5	98.2	97.9
125	20.4	25.2	30.0	310	98.7	98.4	98.1
130	21.4	26.0	30.5	315	98.9	98.6	98.3
135	22.9	26.9	30.9	320	99.0	98.8	98.5
140	24.1	27.6	31.0	325	99.3	99.1	98.9
145	24.9	28.3	31.7	330	99.3	99.2	99.0
150	25.1	28.6	32.1	335	99.4	99.3	99.2
155	25.6	29.2	32.7	340	99.5	99.4	99.3
160	27.0	30.2	33.3	345	99.8	99.7	99.6
165	27.8	31.2	34.6	350	99.8	99.8	99.7
170	28.1	32.1	36.1	355	99.9	99.9	99.9
175	28.3	33.2	38.1	360	100.0	100.0	100.0
180	29.5	35.2	40.8				

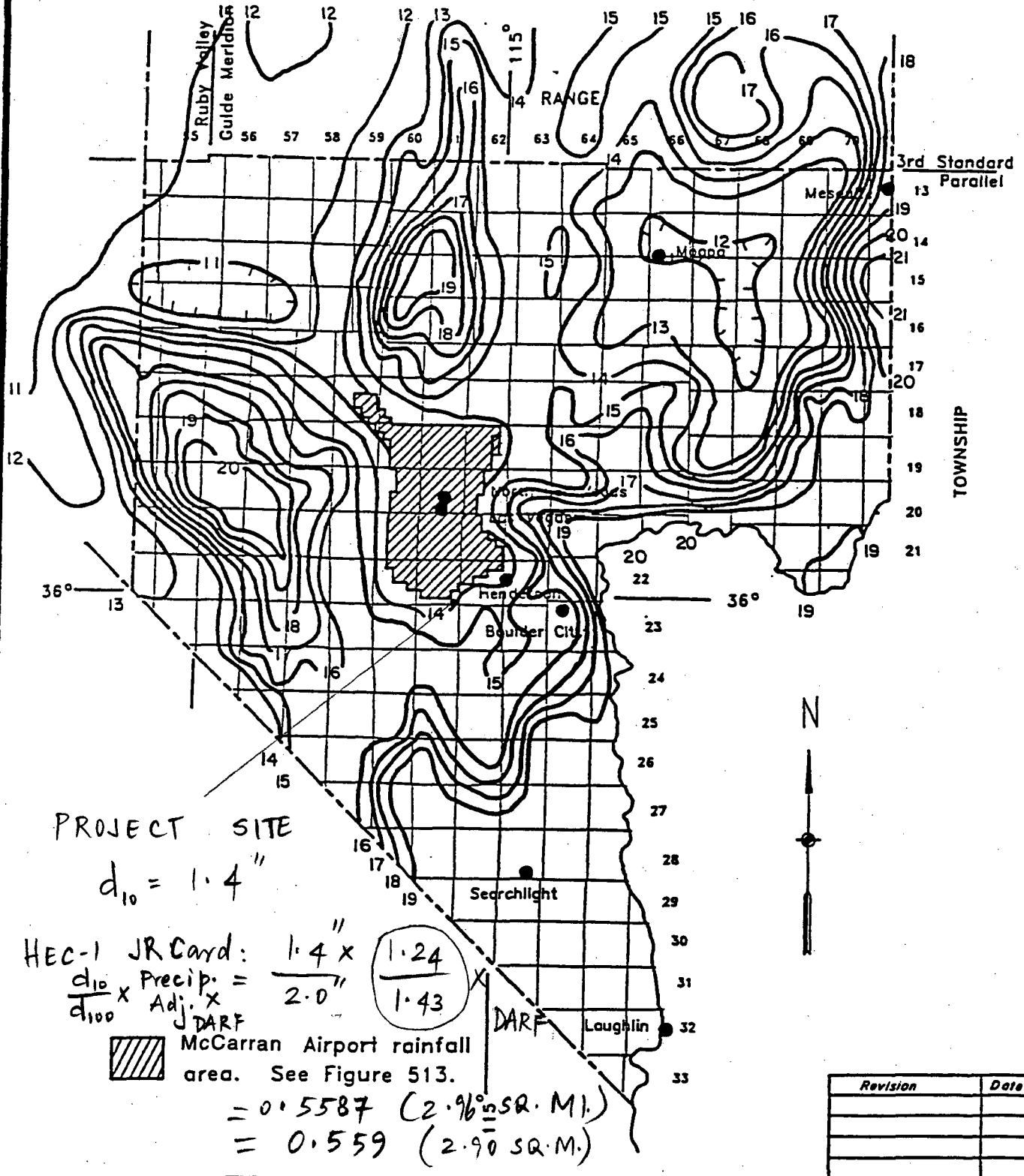
Notes:
1. For drainage areas less than 8 square miles in size, use SDN 3.
2. For drainage areas greater than or equal to 8 square miles and less than 12 square miles in size, use SDN 4.
3. For drainage areas greater than or equal to 12 square miles, use SDN 5.
4. A graphical representation of these values is presented on **Figure 515.**

Revision	Date

REFERENCE:

TABLE 503

RAINFALL DEPTH-DURATION-FREQUENCY
10-YEAR, 6-HOUR
(DEPTHS IN TENTHS OF INCHES)



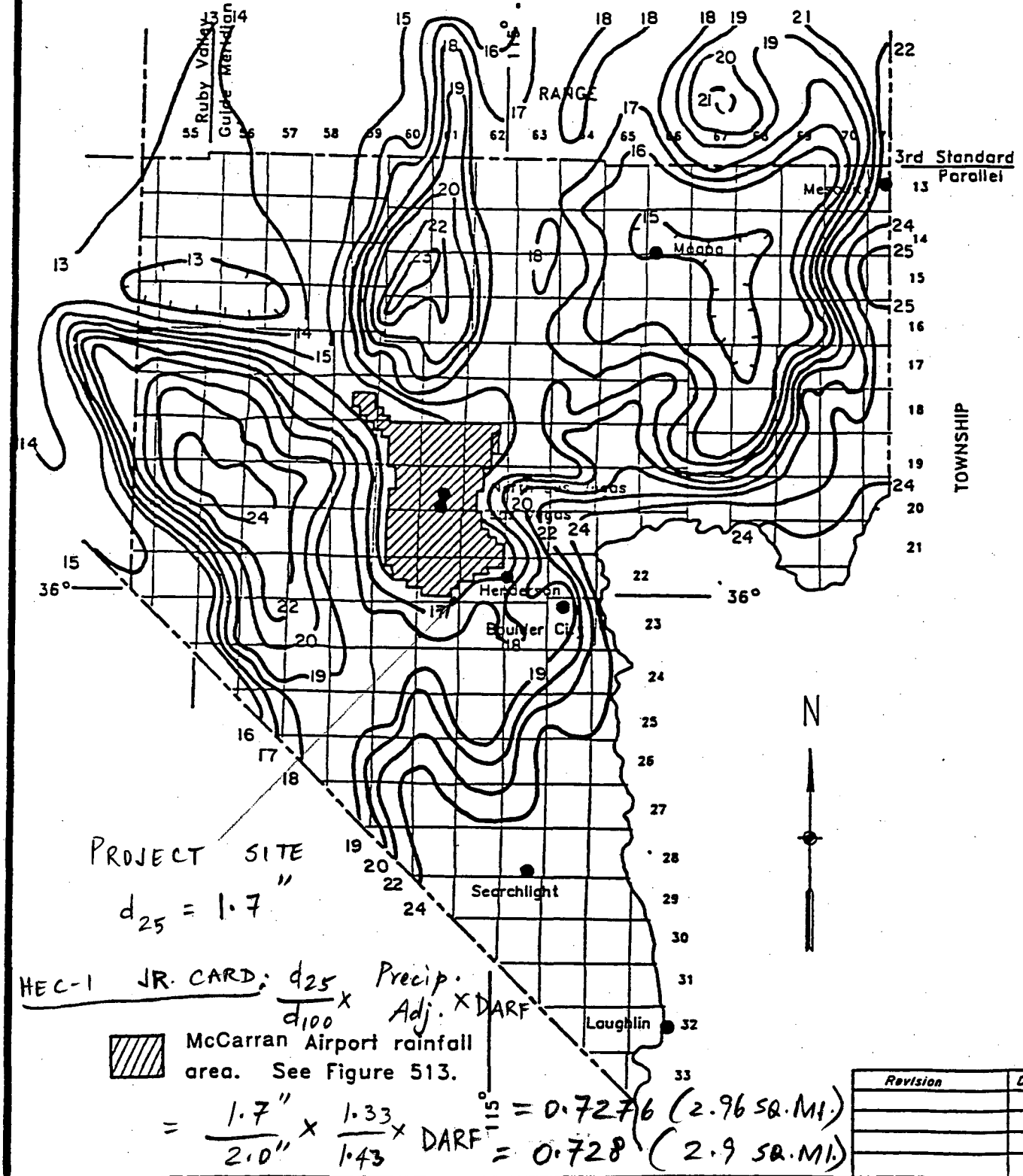
Revision	Date

WRC ENGINEERING

REFERENCE:
NOAA ATLAS 2, VOLUME VII NEVADA, 1973

FIGURE 503

RAINFALL DEPTH-DURATION-FREQUENCY
25-YEAR, 6-HOUR
(DEPTHS IN TENTHS OF INCHES)



HEC-1 JR. CARD: $\frac{d_{25}}{d_{100}}$ Precip. Adj. × DARF

McCarran Airport rainfall area. See Figure 513.

$= \frac{1.7"}{2.0"} \times \frac{1.33}{1.43} \times \text{DARF}$ $\quad = 0.7276$ (2.96 SQ. MI.)

$= 0.728$ (2.9 SQ. MI.)

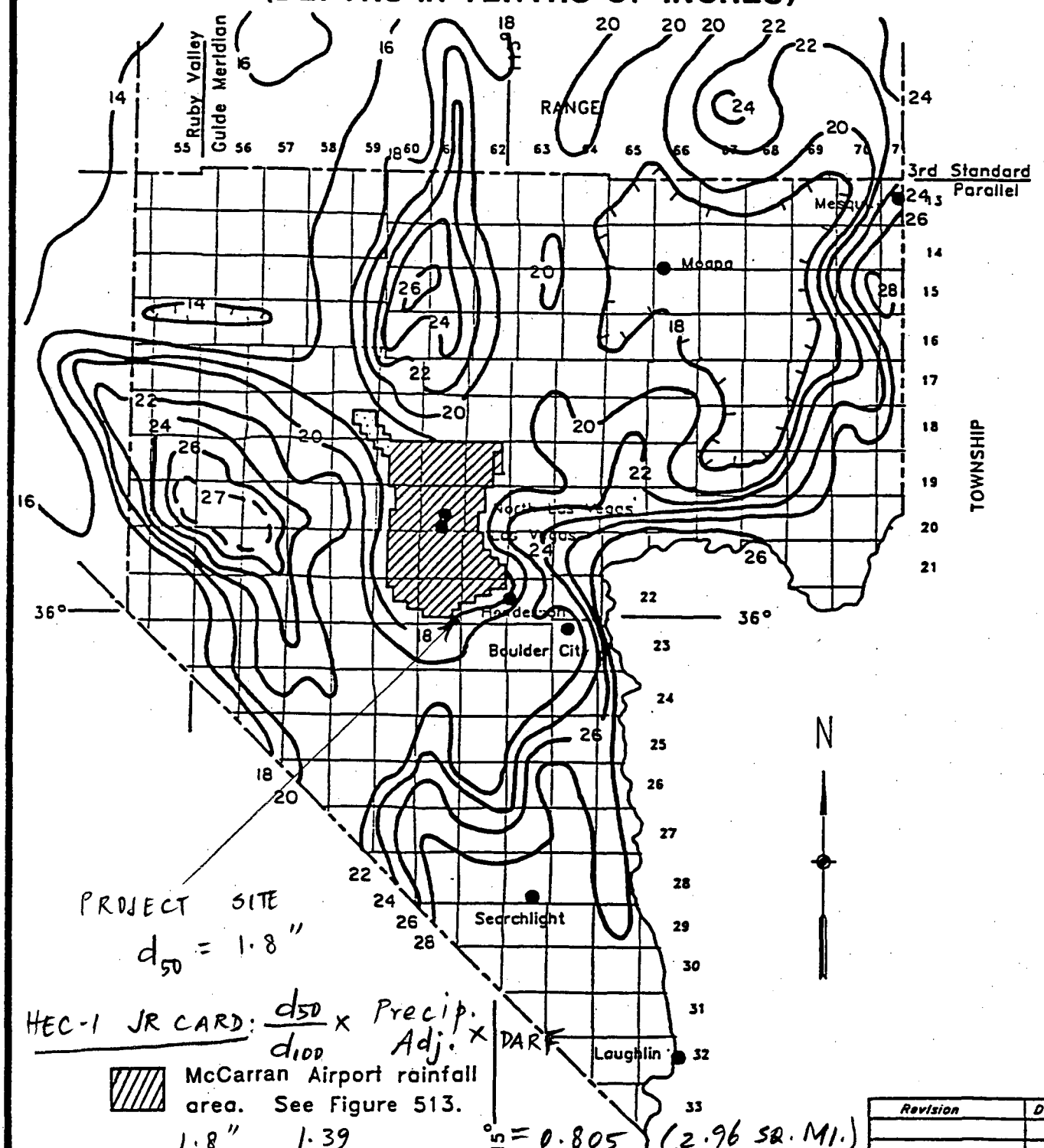
Revision	Date

WRC ENGINEERING

REFERENCE: NOAA ATLAS 2, VOLUME VII NEVADA, 1973

FIGURE 504

RAINFALL DEPTH-DURATION-FREQUENCY
50-YEAR, 6-HOUR
(DEPTHS IN TENTHS OF INCHES)



Revision	Date

WRC ENGINEERING

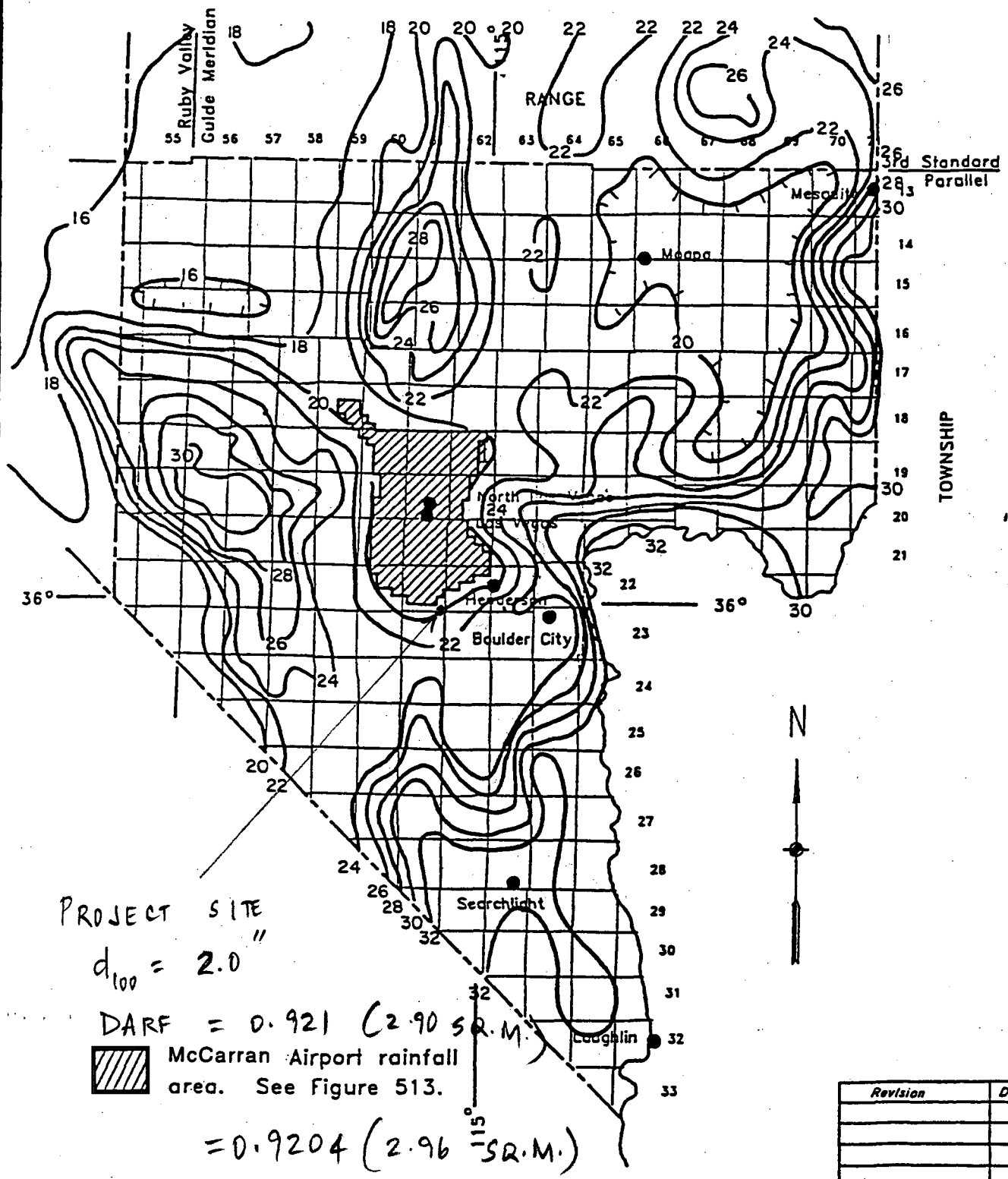
REFERENCE:
NOAA ATLAS 2, VOLUME VII NEVADA, 1973

FIGURE 505

DSDB-3 AND DSDB-3 MOD

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

RAINFALL DEPTH-DURATION-FREQUENCY
100-YEAR, 6-HOUR
(DEPTHS IN TENTHS OF INCHES)



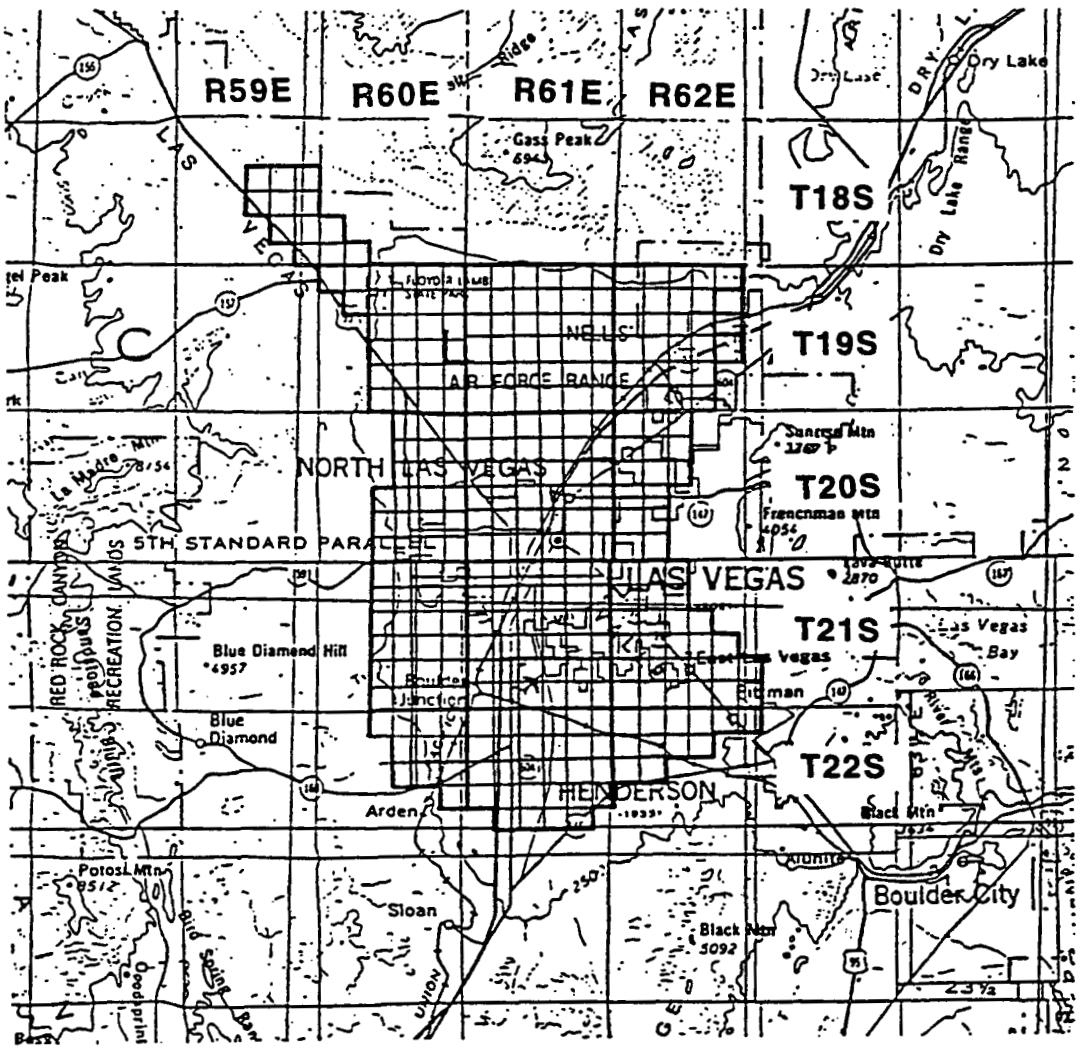
Revision	Date

WRC ENGINEERING

REFERENCE:
NOAA ATLAS 2, VOLUME VII NEVADA, 1973

FIGURE 506

McCARRAN AIRPORT RAINFALL AREA



TOWNSHIP	RANGE	SECTIONS	TOWNSHIP	RANGE	SECTIONS
18 South	59 East	13-15,22-26,36	20 South	62 East	4-9,16-20,29-32
18 South	60 East	30-32	21 South	60 East	1-4,9-16,21-28,33-36
19 South	60 East	1-6,8-16,21-28,33-36	21 South	61 East	ALL SECTIONS
19 South	61 East	ALL SECTIONS	21 South	62 East	4-9,15-23, 25-36
19 South	62 East	2-11,14-23,27-34	22 South	60 East	1-4,10-15,24
20 South	60 East	1-3,10-15,21-28,33-36	22 South	61 East	1-24,26-29
20 South	61 East	ALL SECTIONS	22 South	62 East	1-10,17-18

Notes:
1. Refer to Table 505 and Figure 516 Depth-Duration- Frequency values in the McCarran Airport Rainfall Area.
2. Refer to Table 506 and Figure 517 for Time-Intensity-Frequency values on the McCarran Airport Rainfall Area.

Revision	Date

WRC ENGINEERING

REFERENCE:
USACE, Los Angeles District, 1988

FIGURE 513

HEC-1 Output File "DSDB-3MOD.OUT" modified from Pittman East Detention Basin CLOMR

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

TIME OF CONCENTRATION

PBS&J, Inc. **DEVELOPMENT:** Pittman East Detention Basin
Project No. : 511542
File: STDRFRM4.XLS **CALCULATED BY :** AKS **DATE:** November 2003

SUB-BASIN DATA					INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME (Tt)					Tc	Tc CHECK URBANIZED BASINS		FINAL Tc	Tlag	REMARKS
DESIG: (1)	CN	K (2)	AREA (acres) (3)	AREA (mi^2)	LENGTH (ft) (4)	SLOPE (%) (5)	TI (min) (6)	LENGTH (ft) (7)	SLOPE (%) (8)	LAND COVER k	VELOCITY* (fps) (9)	Tt (min) (10)	Tc = Ti + Tt (min) (11)	TOTAL LENGTH (ft) (12)	Tc = (L/180)+10 (min) (13)	Tc = (min) (14)	Tlag= 0.6Tc/60 (hrs)	Q_{100}/Q_{10} (cfs)
E1	70	0.531	35.3	0.0552	180	5.0	8.0	3240	1.9	NA	2.4	22.3	30.3	3420	N/A	30.3	**0.303**	

Tc = Ti + Tt Ti = 1.8 (1.1 - K) L^1/2 / S^1/3

Tlag = 0.6Tc K = 0.0132 (CN) - 0.39

* The velocity in column 9 is based on approximate channel properties.

REFERENCE :

STANDARD FORM 4

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   25NOV03  TIME  13:50:32   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

```
X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X               X
XXXXXXX  XXXX     X       XXXXX   X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                        *DIAGRAM
 *** FREE ***
              1         ID
              2         ID    PITTMAN EAST DETENTION BASIN
              3         ID    PBS&J, February 2000
              4         ID
              5         ID    THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
              6         ID    "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
              7         ID    1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
              8         ID    DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
              9         ID    CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
             10         ID    MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
             11         ID    CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
             12         ID    ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
             13         ID    CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
             14         ID
             15         ID    THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE
             16         ID    INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE
             17         ID
             18         ID
             19         ID   100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN3
             20         ID   DARF RATIOS FOR AREAS OF 2.9 AND 2.96 SQUARE MILES FOR
             21         ID   THE 100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR STORM EVENTS.
             22         ID
             23         IT       5       0       0     300
             24         IO       5       0       0
             25         IN       5       0       0
             26         JR    PREC   0.921  0.9204   0.806   0.805   0.728  0.7276   0.559  0.5587
                        *
             27         KK    GB-1
             28         BA    .009
             29         PB    2.91
             30         PC   0.000   0.020   0.057   0.070   0.087   0.108   0.124   0.130   0.130   0.130
             31         PC   0.130   0.130   0.130   0.133   0.140   0.142   0.148   0.158   0.172   0.181
             32         PC   0.190   0.197   0.199   0.200   0.201   0.204   0.214   0.229   0.241   0.249
             33         PC   0.251   0.256   0.270   0.278   0.281   0.283   0.295   0.322   0.352   0.409
             34         PC   0.499   0.590   0.710   0.744   0.781   0.812   0.819   0.835   0.851   0.856
             35         PC   0.860   0.868   0.876   0.888   0.910   0.926   0.937   0.950   0.970   0.976
             36         PC   0.982   0.985   0.987   0.989   0.990   0.993   0.993   0.994   0.995   0.998
             37         PC   0.998   0.999   1.000
             38         LS       0      84
             39         UD    .074
                        *
             40         KK      U1
             41         PB    2.90
             42         BA   0.031
             43         LS       0      87
             44         UK     100    0.02    0.08     100
             45         RK     300    0.03   0.017  0.0022    TRAP      60       0
             46         RK    1300    0.03   0.017   0.031    TRAP      60       0
                        *
```



```
          LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

             47         KK       R
             48         RK     900    0.04   0.017       0    TRAP      80       0
                        *
             49         KK       C
             50         HC       2
                        *
             51         KK       R
             52         RK     550    0.04   0.017       0    TRAP      80       0
                        *
             53         KK      W2
             54         PB    2.90
             55         BA   0.013
             56         LS       0      87
             57         UK     100    0.02    0.08     100
             58         RK     300    0.03   0.017  0.0022    TRAP      60       0
             59         RK     600    0.03   0.017   0.013    TRAP      60       0
                        *
             60         KK       C
```

```
   61          HC        2
               *

   62          KK       W1
   63          PB     2.90
   64          BA    0.033
   65          LS        0       87
   66          UK      100    0.017     0.08      100
   67          RK      400     0.02    0.017   0.0029    TRAP       60        0
   68          RK     1000     0.03    0.017    0.033    TRAP       60        0
               *

   69          KK        C
   70          HC        2
               *

   71          KK        R
   72          RK     1600     0.02    0.015        0    TRAP       20        0
               *

   73          KK    GB-2A
   74          PB     2.88
   75          BA    0.015
   76          LS        0       84
   77          UD    0.102
               *
1                                        HEC-1 INPUT                                        PAGE  3

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

   78          KK       V2
   79          PB     2.89
   80          BA    0.032
   81          LS        0     89.5
   82          UK      100     0.02     0.08      100
   83          RK      300     0.03    0.017   0.0022    TRAP       60        0
   84          RK     2000     0.03    0.017    0.032    TRAP       60        0
               *

   85          KK        C
   86          HC        3
               *

   87          KK        R
   88          RK     1300    0.004     0.03        0    TRAP       10        4
               *

   89          KK       V1
   90          PB     2.88
   91          BA    0.052
   92          LS        0     89.5
   93          UK      100     0.02     0.08      100
   94          RK      500     0.02    0.017   0.0036    TRAP       60        0
   95          RK     2200     0.03    0.017    0.052    TRAP       60        0
               *

   96          KK    GB-2B
   97          PB     2.88
   98          BA    0.007
   99          LS        0       84
  100          UD    0.079
               *

  101          KK        C
  102          HC        2
               *

  103          KK        C
  104          HC        2
               *

  105          KK       P1
  106          PB     2.90
  107          BA    0.094
  108          LS        0       87
  109          UK      100     0.02     0.08      100
  110          RK      300     0.02    0.017   0.0022    TRAP       60        0
  111          RK     2800     0.03    0.017    0.083    TRAP       60        0
               *
1                                        HEC-1 INPUT                                        PAGE  4

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  112          KK     GB-4
  113          PB      2.9
  114          BA    0.035
  115          LS        0       84
  116          UD    0.112
               *

  117          KK       T2
  118          PB     2.90
  119          BA    0.021
  120          LS        0       87
  121          UK      100     0.02     0.08      100
  122          RK      100     0.02    0.017   0.0004    TRAP       60        0
  123          RK     2300     0.03    0.017    0.021    TRAP       80        0
               *

  124          KK        C
  125          HC        3
               *

  126          KK        R
  127          RK      900    0.004     0.03        0    TRAP       10        4
               *

  128          KK      6-8
  129          BA   .03031
  130          PB     3.07
  131          LS        0       94
  132          UD     .124
               *

  133          KK      6-7
  134          BA   .00672
```

```
 135          PB     3.15
 136          LS        0      91
 137          UD     .071
              *

 138          KK       C6
 139          HC        2
              *

 140          KK       R6
 141          RD      550    .036    .016       0    TRAP       0       50
              *

 142          KK      6-6
 143          BA   .03453
 144          PB     3.07
 145          LS        0      94
 146          UD     .112
              *
1                                        HEC-1 INPUT                                        PAGE  5

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 147          KK       C7
 148          HC        2
              *

 149          KK       R7
 150          RM        2    .218      .2
              *

 151          KK      6-5
 152          BA   .10188
 153          PB     3.07
 154          LS        0      89
 155          UD     .199
              *

 156          KK       R8
 157          RD     1050    .090     .04       0    TRAP      10       3
              *

 158          KK      6-4
 159          BA   .19188
 160          PB     3.07
 161          LS        0      83
 162          UD     .246
              *

 163          KK       C8
 164          HC        3
              *

 165          KK       R9
 166          RM        1    .059      .2
              *

 167          KK      6-3
 168          BA   .01594
 169          PB     3.07
 170          LS        0      89
 171          UD     .106
              *

 172          KK      R10
 173          RD     1400    .061     .04       0    TRAP      10       3
              *

 174          KK      6-2
 175          BA   .05281
 176          PB     3.07
 177          LS        0      88
 178          UD     .082
              *
1                                        HEC-1 INPUT                                        PAGE  6

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 179          KK       C9
 180          HC        3
              *

 181          KK      6-1
 182          BA   .02719
 183          PB     3.07
 184          LS        0      87
 185          UD     .121
              *

 186          KK      C10
 187          HC        2
              *

 188          KK        R
 189          RK     2100   0.023   0.025       0    TRAP      15       8
              *

 190          KK       T1
 191          PB     2.90
 192          BA    0.038
 193          LS        0      87
 194          UK      100    0.02    0.08     100
 195          RK      200    0.02   0.017  0.0014    TRAP      60       0
 196          RK     1800    0.03   0.017   0.038    TRAP      80       0
              *

 197          KK     GB-3
 198          PB     2.90
 199          BA    0.017
 200          LS        0      84
 201          UD    0.096
              *

 202          KK       U2
 203          PB     2.90
 204          BA    0.023
```

```
                205          LS       0      87
                206          UK     100    0.02    0.08     100
                207          RK     150    0.02   0.017  0.0011    TRAP      60       0
                208          RK    1500    0.03   0.017   0.023    TRAP      80       0
                             *

                209          KK       C
                210          HC       4
                             *

                211          KK       R
                212          RK     700   0.004    0.03       0    TRAP      10       4
                             *
1                                                HEC-1 INPUT                                                PAGE  7

               LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                213          KK       R
                214          RK     800   0.004    0.03       0    TRAP      10       4
                             *

                215          KK   GB-5A
                216          PB    2.88
                217          BA   0.033
                218          LS       0      84
                219          UD   0.093
                             *

                220          KK       C
                221          HC       2
                             *

                222          KK      Q1
                223          PB    2.88
                224          BA   0.023
                225          LS       0      87
                226          UK     100    0.02    0.08     100
                227          RK     200    0.02   0.017  0.0014    TRAP      60       0
                228          RK    1300   0.025   0.017   0.023    TRAP      60       0
                             *

                229          KK      S1
                230          PB    2.89
                231          BA   0.047
                232          LS       0      87
                233          UK     100    0.02    0.08     100
                234          RK     400    0.02   0.017  0.0029    TRAP      60       0
                235          RK    1400    0.02   0.017   0.049    TRAP      60       0
                             *

                236          KK       C
                237          HC       3
                             *

                238          KK       R
                239          RK    1500   0.004    0.03       0    TRAP      10       4
                             *

                240          KK      S2
                241          PB    2.88
                242          BA   0.022
                243          LS       0      87
                244          UK     100    0.02    0.08     100
                245          RK     300    0.02   0.017  0.0022    TRAP      60       0
                246          RK    1300    0.02   0.017   0.022    TRAP      60       0
                             *
1                                                HEC-1 INPUT                                                PAGE  8

               LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                247          KK   GB-5B
                248          PB    2.88
                249          BA   0.012
                250          LS       0      84
                251          UD    0.09
                             *

                252          KK       C
                253          HC       3
                             *

                254          KK    GB-6
                255          PB    2.87
                256          BA   0.028
                257          LS       0      84
                258          UD   0.102
                             *

                259          KK       R
                260          RK     600    0.01   0.017       0    TRAP      80       0
                             *

                261          KK      R2
                262          PB    2.87
                263          BA   0.036
                264          LS       0      87
                265          UK     100    0.02    0.08     100
                266          RK     300    0.02   0.017  0.0022    TRAP      60       0
                267          RK    1200    0.02   0.017   0.036    TRAP      60       0
                             *

                268          KK       C
                269          HC       2
                             *

                270          KK       R
                271          RK    1500    0.01   0.017       0    TRAP      80       0
                             *

                272          KK      R1
                273          PB    2.87
                274          BA   0.031
                275          LS       0      87
                276          UK     100    0.02    0.08     100
                277          RK     300    0.02   0.017  0.0022    TRAP      60       0
                278          RK    1300    0.01   0.017   0.031    TRAP      60       0
```

```
                *
  279           KK       C
  280           HC       2
                *
1                                        HEC-1 INPUT                                        PAGE  9

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  281           KK       C
  282           HC       2
                *
  283           KK    GB-14
  284           PB     2.88
  285           BA    0.012
  286           LS        0       84
  287           UD     0.05
                *
  288           KK       F
  289           PB     2.86
  290           BA    0.005
  291           LS        0       95
  292           UK      100     0.02     0.05      100
  293           RK      300     0.02    0.017   0.0022     TRAP       60        0
                *
  294           KK      CF
  295           HC       4
                *
  296           KK     CCF
  297           HC       2
                *
  298           KK      RF
  299           RK     6000     .015    0.035        0     TRAP       60        2
                *
  300           KK     5-7
  301           BA   .00891
  302           PB    3.15
  303           LS        0       91
  304           UD    .104
                *
  305           KK      R1
  306           RM       1     .136       .2
                *
  307           KK     5-6
  308           BA   .03656
  309           PB    3.15
  310           LS        0       91
  311           UD    .160
                *
1                                        HEC-1 INPUT                                        PAGE 10

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  312           KK      C1
  313           HC       2
                *
  314           KK      R2
  315           RM       1     .091       .2
                *
  316           KK     5-5
  317           BA   .05016
  318           PB    3.07
  319           LS        0       84
  320           UD    .117
                *
  321           KK     5-8
  322           BA   .03969
  323           PB    3.07
  324           LS        0       91
  325           UD    .111
                *
  326           KK      C2
  327           HC       3
                *
  328           KK      R3
  329           RM       2     .174       .2
                *
  330           KK     5-4
  331           BA   .11563
  332           PB    3.07
  333           LS        0       82
  334           UD    .206
                *
  335           KK      C3
  336           HC       2
                *
  337           KK      R4
  338           RD     800     .025     .013        0     CIRC      5.5
                *
  339           KK     5-2
  340           BA   .02859
  341           PB    3.07
  342           LS        0       88
  343           UD    .074
                *
1                                        HEC-1 INPUT                                        PAGE 11

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
```

```
344          KK       C4
345          HC        2
             *

346          KK      5-3
347          BA   .06078
348          PB     3.07
349          LS        0      88
350          UD     .182
             *

351          KK       R5
352          RD      900    .117    .016        0    TRAP        0       50
             *

353          KK      5-1
354          BA   .01609
355          PB     3.07
356          LS        0      87
357          UD     .140
             *

358          KK       C5
359          HC        3
             *

360          KK        R
361          RK     3100    0.02   0.025        0    TRAP       15        8
             *

362          KK    GC-5A
363          PB     2.90
364          BA    0.050
365          LS        0      84
366          UD    0.128
             *

367          KK       N1
368          PB     2.90
369          BA    0.046
370          LS        0      85
371          UK      200    0.02     0.1      100
372          RK      300   0.035   0.017   0.0022    TRAP       60        0
373          RK     2200   0.025   0.017    0.046    TRAP       60        0
             *

374          KK        R
375          RK     1500    0.02   0.013        0    CIRC        2        0
             *
1                                      HEC-1 INPUT                                    PAGE 12

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

376          KK        C
377          HC        3
             *

378          KK    GC-5B
379          PB     2.88
380          BA     0.02
381          LS        0      95
382          UD     0.09
             *

383          KK        R
384          RK      200    0.01   0.017        0    TRAP       80        0
             *

385          KK        C
386          HC        2
             *

387          KK    GC-4A
388          PB      2.9
389          BA    0.027
390          LS        0      84
391          UD    0.109
             *

392          KK        R
393          RK      800   0.004    0.03        0    TRAP       20        4
             *

394          KK        R
395          RK      400    0.01   0.017        0    TRAP       80        0
             *

396          KK    GC-4B
397          PB     2.88
398          BA    0.056
399          LS        0      84
400          UD    0.123
             *

401          KK        R
402          RK     1300   0.015   0.017        0    TRAP       80        0
             *

403          KK        C
404          HC        3
             *
1                                      HEC-1 INPUT                                    PAGE 13

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

405          KK        0
406          PB     2.88
407          BA    0.015
408          LS        0      92
409          UK      100    0.02    0.08      100
410          RK      200    0.05   0.017   0.0014    TRAP       60        0
411          RK      700    0.03    0.03    0.017    TRAP       60        0
             *

412          KK        R
```

```
413          RK     450    0.01   0.017       0    TRAP      80       0
             *

414          KK       C
415          HC       2
             *

416          KK       R
417          RK    1600   0.004    0.03       0    TRAP      20       4
             *

418          KK      H3
419          PB    2.88
420          BA   0.017
421          LS       0      87
422          UK     100    0.02    0.08     100
423          RK     200    0.05   0.017  0.0014    TRAP      60       0
424          RK     100    0.03   0.017   0.017    TRAP      60       0
             *

425          KK       R
426          RK     600   0.004    0.03       0    TRAP      20       4
             *

427          KK   GC-1A
428          PB    2.88
429          BA   0.021
430          LS       0      84
431          UD   0.101
             *

432          KK       C
433          HC       3
             *

434          KK      P2
435          PB    2.90
436          BA   0.066
437          LS       0      87
438          UK     100    0.02     0.1     100
439          RK     400    0.03   0.017  0.0029    TRAP      60       0
440          RK    3700    0.02   0.017   0.066    TRAP      60       0
             *
1                                        HEC-1 INPUT                                    PAGE 14

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

441          KK       R
442          RK     500   0.004    0.03       0    TRAP      10       4
             *

443          KK       C
444          HC       2
             *

445          KK       R
446          RK    1800   0.004    0.03       0    TRAP      15       4
             *

447          KK       Y
448          PB    2.88
449          BA   0.017
450          LS       0      92
451          UK     100    0.02    0.08     100
452          RK     200    0.02   0.017  0.0014    TRAP      60       0
453          RK    1000    0.02   0.017   0.017    TRAP      60       0
             *

454          KK      H1
455          PB    2.86
456          BA   0.054
457          LS       0      87
458          UK     100    0.02    0.10     100
459          RK     450    0.02   0.017  0.0032    TRAP      60       0
460          RK    2100    0.02   0.017   0.054    TRAP      60       0
             *

461          KK   GC-18
462          PB    2.87
463          BA   0.023
464          LS       0      84
465          UD   0.106
             *

466          KK   GC-1C
467          PB    2.86
468          BA   0.018
469          LS       0      84
470          UD   0.096
             *

471          KK       C
472          HC       5
             *

473          KK       R
474          RK     700   0.004   0.030       0    TRAP      10       4
             *
1                                        HEC-1 INPUT                                    PAGE 15

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

475          KK  C1D1GC
476          PB    2.86
477          BA   0.025
478          LS       0    86.2
479          UD    0.05
             *

480          KK       C
481          HC       2
             *

482          KK      Q2
483          PB    2.88
484          BA   0.076
```

```
485          LS      0      92
486          UK    100   0.020    0.10     100
487          RK    400    0.02   0.017  0.0029    TRAP      60       0
488          RK   2000    0.02   0.017   0.076    TRAP      60       0
             *

489          KK       R
490          RK   1400    0.02   0.017       0    TRAP      80       0
             *

491          KK      G1
492          PB    2.86
493          BA   0.035
494          LS       0    89.5
495          UK     100    0.02    0.10     100
496          RK     400    0.02   0.017  0.0029    TRAP      60       0
497          RK    1000    0.01   0.017   0.035    TRAP      60       0
             *

498          KK      G2
499          PB    2.86
500          BA   0.018
501          LS       0    89.5
502          UK     100    0.02    0.10     100
503          RK     150    0.02   0.017  0.0011    TRAP      60       0
504          RK    1000   0.015   0.017   0.018    TRAP      60       0
             *

505          KK       C
506          HC       3
             *

507          KK       C
508          HC       2
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

509          KK       R
510          RK     500   0.004   0.030       0    TRAP      15       4
             *

511          KK       E
512          PB    2.86
513          BA   0.050
514          LS       0    89.5
515          UK     100    0.02    0.10     100
516          RK     400    0.01   0.017  0.0029    TRAP      60       0
517          RK    1000   0.015   0.017   0.050    TRAP      60       0
             *

518          KK    GB-7
519          PB    2.86
520          BA   0.029
521          LS       0      84
522          UD   0.090
             *

523          KK       C
524          HC       3
             *

525          KK       R
526          RK    1000   0.015   0.015       0    TRAP      15       2
             *

527          KK       8
528          PB    2.86
529          BA   0.036
530          LS       0      92
531          UK     100    0.02    0.08     100
532          RK     400    0.01   0.017  0.0029    TRAP      60       0
533          RK     800   0.015   0.015   0.036    TRAP      15       2
             *

534          KK       C
535          HC       2
             *

536          KK   GB-10
537          PB    2.86
538          BA   0.006
539          LS       0      84
540          UD   0.079
             *

541          KK       R
542          RK     800    0.02   0.030       0    TRAP      10       4
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

543          KK    GB-9
544          PB    2.86
545          BA   0.011
546          LS       0      84
547          UD   0.081
             *

548          KK       C
549          HC       2
             *

550          KK       R
551          RK     400   0.015   0.017       0    TRAP      50       0
             *

552          KK   C2+ST
553          BA   0.037
554          PB    2.86
555          LS       0      87
556          UK     100    0.01    0.08     100
557          RK     300    0.02   0.017  0.0022    TRAP      60       0
558          RK    1300   0.015   0.017  0.0406    TRAP      60       0
```

```
                  *
559               KK      ST
560               BA   0.002
561               LS       0      95
562               UD    0.05
                  *
563               KK       C
564               HC       3
                  *
565               KK       R
566               RK     700   0.015   0.017       0    TRAP      50       0
                  *
567               KK    GB-8
568               PB    2.86
569               BA   0.017
570               LS       0      84
571               UD   0.087
                  *
572               KK   EN+ST
573               BA   0.017
574               PB    2.86
575               LS       0      95
576               UK     100    0.01    0.08     100
577               RK     300    0.02   0.017  0.0022    TRAP      60       0
578               RK     700   0.015   0.017  0.0172    TRAP      60       0
                  *
1                                        HEC-1 INPUT                                    PAGE 18

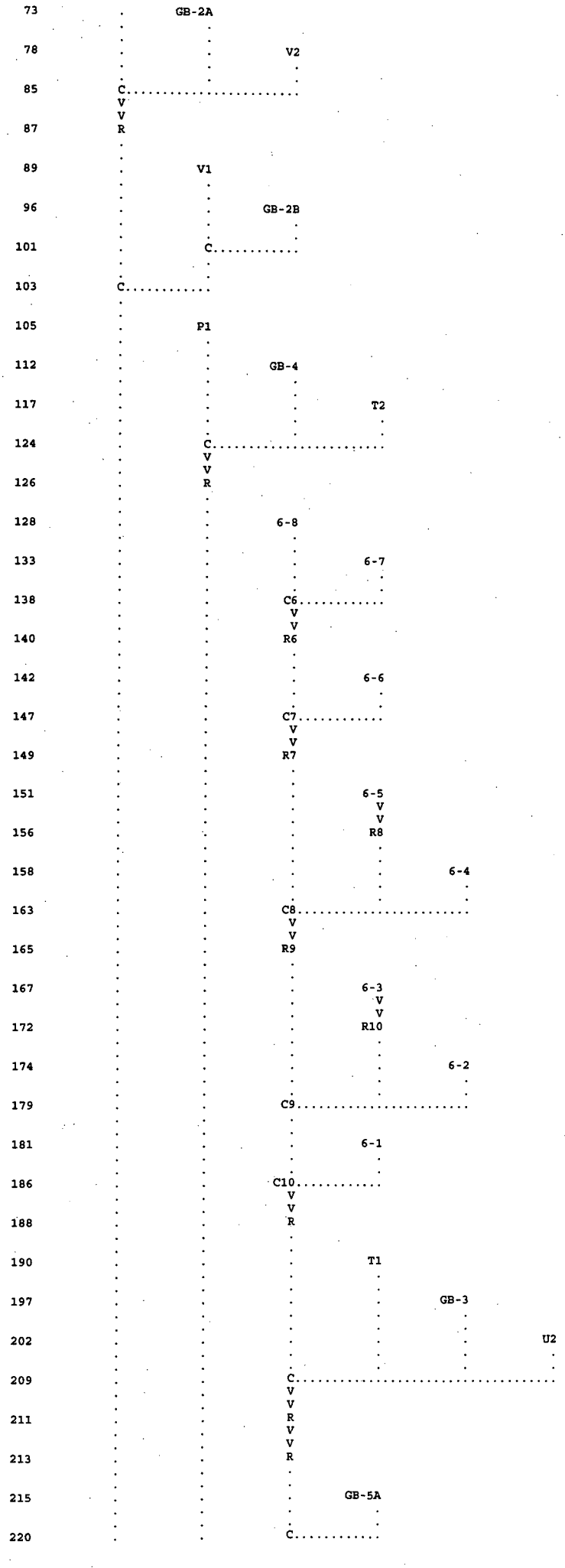
            LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

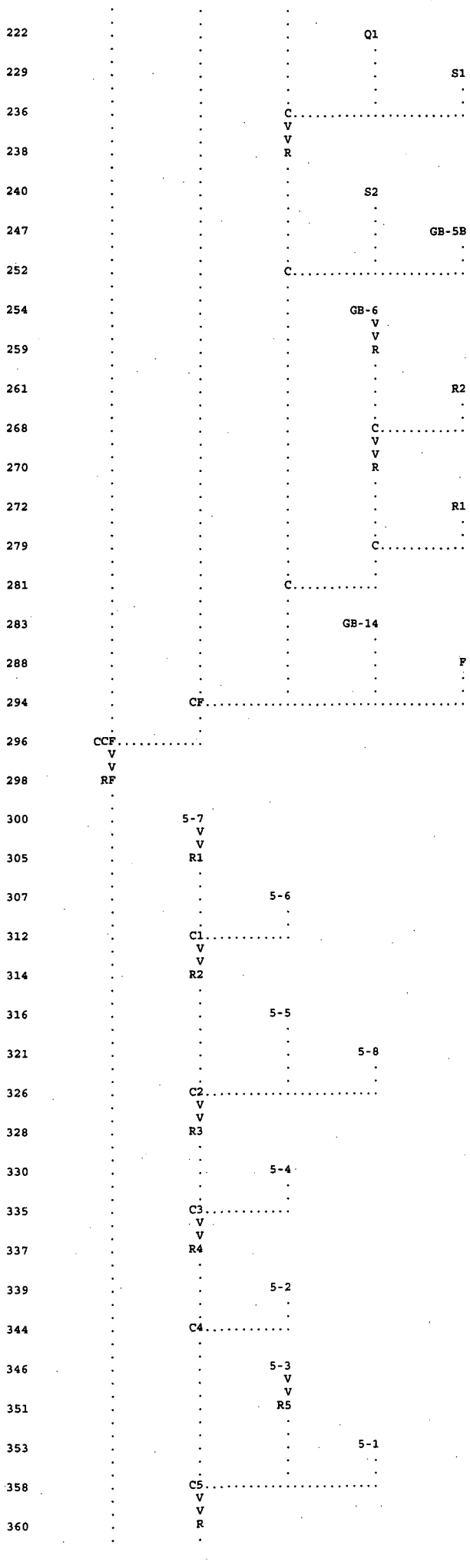
579               KK     COM
580               BA   0.019
581               PB    2.86
582               LS       0      95
583               UK     100    0.01    0.05     100
584               RK     300    0.02   0.017  0.0022    TRAP      60       0
585               RK     600    0.03   0.025   0.025    TRAP      20       2
                  *
586               KK       C
587               HC       4
                  *
588               KK       C
589               HC       2
                  *
590               KK    RCOM
591               RK    2300    .017   0.035       0    TRAP      40       2
                  *
592               KK    DSDB
593               BA   .6092
594               PB    2.81
595               LS       0   86.57
596               UD    .548
                  *
597               KK   CDSDB
598               KO       1
599               HC       3
                  *
600               KK      E1
601               KM   ONSITE BASIN
602               BA  0.0552
603               PB    2.77
604               LS       0    69.8
605               UD   0.303
                  *
606               KK      C1
607               HC       2
                  *
608               ZZ
1
                  SCHEMATIC DIAGRAM OF STREAM NETWORK

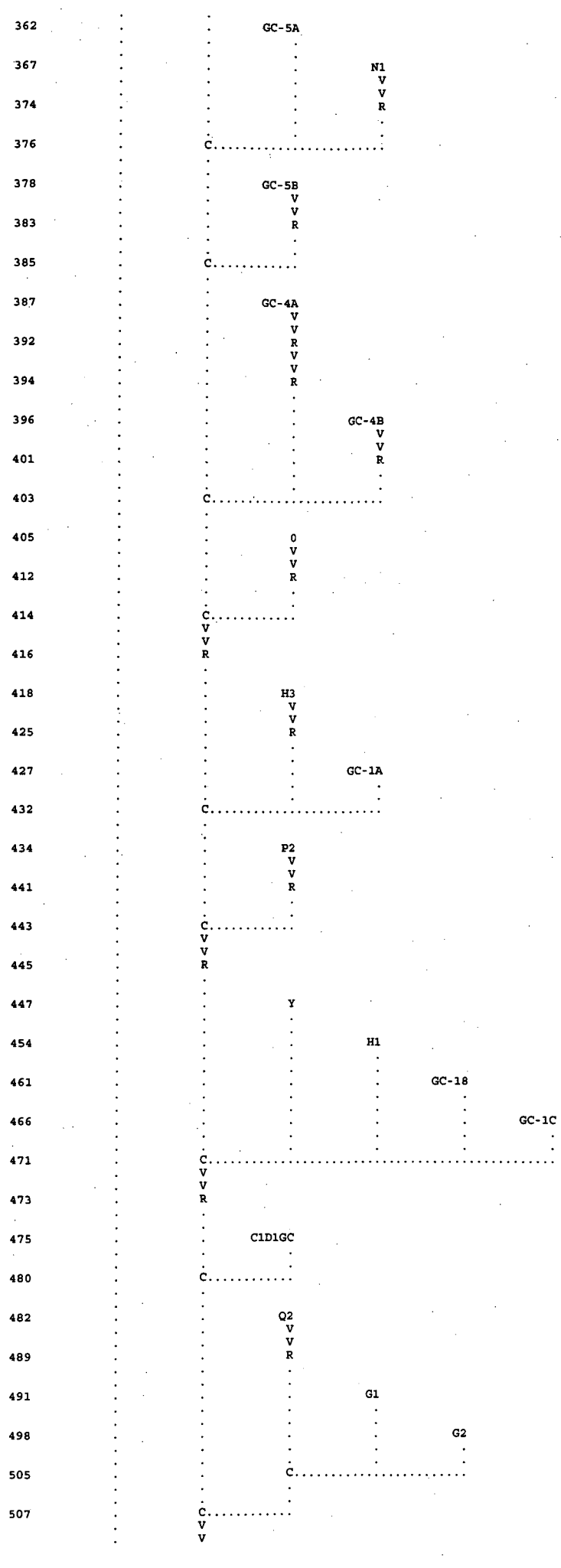
            INPUT
             LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

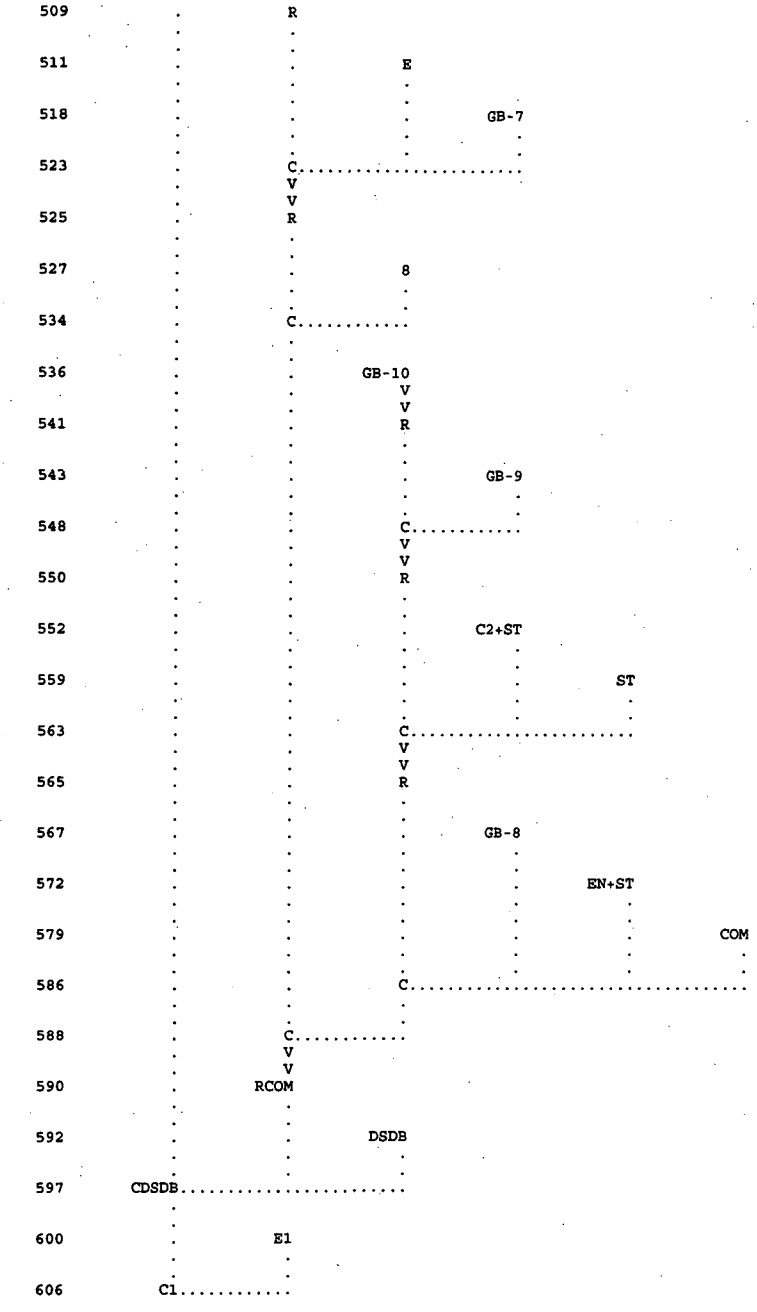
              NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

               27        GB-1
                           .
                           .
               40          .          U1
                           .           V
                           .           V
               47          .           R
                           .           .
                           .           .
               49          C.............
                           V
                           V
               51          R
                           .
                           .
               53          .          W2
                           .           .
                           .           .
               60          C.............
                           .
                           .
               62          .          W1
                           .           .
                           .           .
               69          C.............
                           V
                           V
               71          R
                           .
                           .
```


73
GB-2A
78
V2
85
C
V
V
R
87
89
V1
96
GB-2B
101
C
103
C
105
P1
112
GB-4
117
T2
124
C
V
V
R
126
128
6-8
133
6-7
138
C6
V
V
R6
140
142
6-6
147
C7
V
V
R7
149
151
6-5
V
V
R8
156
158
6-4
163
C8
V
V
R9
165
167
6-3
V
V
R10
172
174
6-2
179
C9
181
6-1
186
C10
V
V
R
188
190
T1
197
GB-3
202
U2
209
C
V
V
R
V
V
R
211
213
215
GB-5A
220
C


222
Q1
229
S1
236
C
V
V
238
R
240
S2
247
GB-5B
252
C
254
GB-6
V
V
259
R
261
R2
268
C
V
V
270
R
272
R1
279
C
281
C
283
GB-14
288
F
294
CF
296
CCF
V
V
298
RF
300
5-7
V
V
305
R1
307
5-6
312
C1
V
V
314
R2
316
5-5
321
5-8
326
C2
V
V
328
R3
330
5-4
335
C3
V
V
337
R4
339
5-2
344
C4
346
5-3
V
V
351
R5
353
5-1
358
C5
V
V
360
R


362
GC-5A
367
N1
374
376
C
378
GC-5B
383
385
C
387
GC-4A
392
394
396
GC-4B
401
403
C
405
0
412
414
C
416
418
H3
425
427
GC-1A
432
C
434
P2
441
443
C
445
447
Y
454
H1
461
GC-18
466
GC-1C
471
C
473
475
C1D1GC
480
C
482
Q2
489
491
G1
498
G2
505
C
507
C



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*          VERSION 4.1                  *
*                                       *
*  RUN DATE   25NOV03  TIME  13:50:32   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*         609 SECOND STREET             *
*      DAVIS, CALIFORNIA 95616          *
*          (916) 756-1104               *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN
PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC., DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE

100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN3
DARF RATIOS FOR AREAS OF 2.9 AND 2.96 SQUARE MILES FOR
THE 100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR STORM EVENTS.

24 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL

```
                QSCAL          0.  HYDROGRAPH PLOT SCALE

IT          HYDROGRAPH TIME DATA
                 NMIN           5  MINUTES IN COMPUTATION INTERVAL
                IDATE       1    0  STARTING DATE
                ITIME         0000  STARTING TIME
                   NQ          300  NUMBER OF HYDROGRAPH ORDINATES
               NDDATE       2    0  ENDING DATE
               NDTIME         0055  ENDING TIME
               ICENT           19  CENTURY MARK

            COMPUTATION INTERVAL      .08 HOURS
                TOTAL TIME BASE   24.92 HOURS

     ENGLISH UNITS
          DRAINAGE AREA         SQUARE MILES
          PRECIPITATION DEPTH   INCHES
          LENGTH, ELEVATION     FEET
          FLOW                  CUBIC FEET PER SECOND
          STORAGE VOLUME        ACRE-FEET
          SURFACE AREA          ACRES
          TEMPERATURE           DEGREES FAHRENHEIT

JP          MULTI-PLAN OPTION
                NPLAN           1  NUMBER OF PLANS

JR          MULTI-RATIO OPTION
              RATIOS OF PRECIPITATION
               .92       .92       .81       .81       .73       .73       .56       .56

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


    *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  1

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


    *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

    *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** *** *** *

1	0525	66	445.	1	1140	141	1.	1	1755	216	0.	2	0010	291	0.				
1	0530	67	380.	1	1145	142	1.	1	1800	217	0.	2	0015	292	0.				
1	0535	68	322.	1	1150	143	1.	1	1805	218	0.	2	0020	293	0.				
1	0540	69	270.	1	1155	144	1.	1	1810	219	0.	2	0025	294	0.				
1	0545	70	227.	1	1200	145	1.	1	1815	220	0.	2	0030	295	0.				
1	0550	71	193.	1	1205	146	1.	1	1820	221	0.	2	0035	296	0.				
1	0555	72	165.	1	1210	147	0.	1	1825	222	0.	2	0040	297	0.				
1	0600	73	142.	1	1215	148	0.	1	1830	223	0.	2	0045	298	0.				
1	0605	74	123.	1	1220	149	0.	1	1835	224	0.	2	0050	299	0.				
1	0610	75	108.	1	1225	150	0.	1	1840	225	0.	2	0055	300	0.				

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2476.	3.67		460.	116.	111.	111.
		(INCHES)	1.472	1.481	1.481	1.481
		(AC-FT)	228.	229.	229.	229.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .92

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	94.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	84.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	75.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	66.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	59.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	53.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	47.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	41.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	36.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	31.	1		1315	160	0.	1		1930	235	0.
1		0050	11	1.	1		0705	86	27.	1		1320	161	0.	1		1935	236	0.
1		0055	12	2.	1		0710	87	24.	1		1325	162	0.	1		1940	237	0.
1		0100	13	3.	1		0715	88	21.	1		1330	163	0.	1		1945	238	0.
1		0105	14	3.	1		0720	89	18.	1		1335	164	0.	1		1950	239	0.
1		0110	15	3.	1		0725	90	16.	1		1340	165	0.	1		1955	240	0.
1		0115	16	3.	1		0730	91	14.	1		1345	166	0.	1		2000	241	0.
1		0120	17	3.	1		0735	92	12.	1		1350	167	0.	1		2005	242	0.
1		0125	18	4.	1		0740	93	11.	1		1355	168	0.	1		2010	243	0.
1		0130	19	6.	1		0745	94	10.	1		1400	169	0.	1		2015	244	0.
1		0135	20	8.	1		0750	95	9.	1		1405	170	0.	1		2020	245	0.
1		0140	21	12.	1		0755	96	8.	1		1410	171	0.	1		2025	246	0.
1		0145	22	18.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	24.	1		0805	98	7.	1		1420	173	0.	1		2035	248	0.
1		0155	24	28.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	32.	1		0815	100	6.	1		1430	175	0.	1		2045	250	0.
1		0205	26	37.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	41.	1		0825	102	5.	1		1440	177	0.	1		2055	252	0.
1		0215	28	49.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	58.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	69.	1		0840	105	4.	1		1455	180	0.	1		2110	255	0.
1		0230	31	80.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	89.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	96.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	108.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	124.	1		0905	110	3.	1		1520	185	0.	1		2135	260	0.
1		0255	36	139.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	150.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	159.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	174.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	214.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	341.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	668.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1318.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	2121.	1		0950	119	2.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2476.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2398.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2222.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2019.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1794.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1567.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1350.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	1150.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	971.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	820.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	710.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	645.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	622.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	631.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	662.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	690.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	695.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	681.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	643.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	582.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	513.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	444.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	380.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	321.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	270.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	227.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	193.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	165.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	141.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	123.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	108.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2476.	3.67		459.	116.	111.	111.
		(INCHES)	1.471	1.480	1.480	1.480

(AC-FT) 228. 229. 229. 229.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .81

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	84.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	74.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	65.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	59.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	52.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	46.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	42.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	37.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	33.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	28.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	25.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	22.	1		1325	162	0.	1		1940	237	0.
1		0100	13	2.	1		0715	88	19.	1		1330	163	0.	1		1945	238	0.
1		0105	14	2.	1		0720	89	17.	1		1335	164	0.	1		1950	239	0.
1		0110	15	2.	1		0725	90	15.	1		1340	165	0.	1		1955	240	0.
1		0115	16	2.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	12.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	11.	1		1355	168	0.	1		2010	243	0.
1		0130	19	2.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	2.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	4.	1		0755	96	8.	1		1410	171	0.	1		2025	246	0.
1		0145	22	6.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	9.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	13.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	16.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	18.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	21.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	24.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	29.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	36.	1		0840	105	4.	1		1455	180	0.	1		2110	255	0.
1		0230	31	44.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	51.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	57.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	64.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	73.	1		0905	110	3.	1		1520	185	0.	1		2135	260	0.
1		0255	36	84.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	95.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	106.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	120.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	148.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	228.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	451.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	894.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1539.	1		0950	119	2.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1978.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1976.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1857.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1696.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1516.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1330.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1149.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	981.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	831.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	704.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	609.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	549.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	522.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	522.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	544.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	571.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	582.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	574.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	548.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	502.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	446.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	388.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	333.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	283.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	239.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	201.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	171.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	146.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	126.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	109.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	95.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
1978.	3.67	373.	94.	90.	90.
		(INCHES) 1.194	1.201	1.201	1.201
		(AC-FT) 185.	186.	186.	186.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .81

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	84.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	74.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	65.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	59.	1		1245	154	0.	1		1900	229	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0020	5	0.	1		0635	80	52.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	46.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	42.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	37.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	33.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	28.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	25.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	22.	1		1325	162	0.	1		1940	237	0.
1		0100	13	1.	1		0715	88	19.	1		1330	163	0.	1		1945	238	0.
1		0105	14	2.	1		0720	89	17.	1		1335	164	0.	1		1950	239	0.
1		0110	15	2.	1		0725	90	15.	1		1340	165	0.	1		1955	240	0.
1		0115	16	2.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	12.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	11.	1		1355	168	0.	1		2010	243	0.
1		0130	19	2.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	2.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	4.	1		0755	96	8.	1		1410	171	0.	1		2025	246	0.
1		0145	22	6.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	9.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	13.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	16.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	18.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	20.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	24.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	29.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	36.	1		0840	105	4.	1		1455	180	0.	1		2110	255	0.
1		0230	31	43.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	50.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	56.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	63.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	73.	1		0905	110	3.	1		1520	185	0.	1		2135	260	0.
1		0255	36	84.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	95.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	106.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	119.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	147.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	226.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	448.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	889.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1533.	1		0950	119	2.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1972.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1971.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1853.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1693.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1513.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1328.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1147.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	980.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	830.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	703.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	608.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	548.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	521.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	521.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	543.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	570.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	581.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	573.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	547.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	501.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	445.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	387.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	333.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	283.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	238.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	201.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	170.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	146.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	126.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	109.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	95.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
1972.	3.67	372.	94.	90.	90.
		(INCHES) 1.192	1.199	1.199	1.199
		(AC-FT) 185.	186.	186.	186.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	76.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	67.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	60.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	53.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	48.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	42.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	38.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	34.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	30.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	26.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	23.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	21.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	18.	1		1330	163	0.	1		1945	238	0.
1		0105	14	1.	1		0720	89	16.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	14.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	11.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	10.	1		1355	168	0.	1		2010	243	0.
1		0130	19	1.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	1.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	2.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	3.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	4.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0155	24	6.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	8.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	9.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	10.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	11.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	15.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	20.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	26.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	31.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	36.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	40.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	46.	1		0905	110	2.	1		1520	185	0.	1		2135	260	0.
1		0255	36	53.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	59.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	69.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	81.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	102.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	158.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	316.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	642.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1143.	1		0950	119	1.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1613.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1684.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1605.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1473.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1325.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1168.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1011.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	866.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	735.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	624.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	539.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	483.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	455.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	450.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	465.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	490.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	503.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	500.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	481.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	444.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	397.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	348.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	300.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	256.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	217.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	183.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	156.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	133.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	115.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	99.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	87.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
1684.	3.75	(CFS) 315.	79.	76.	76.
		(INCHES) 1.010	1.016	1.016	1.016
		(AC-FT) 156.	157.	157.	157.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	76.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	67.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	60.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	53.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	48.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	42.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	38.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	34.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	30.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	26.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	23.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	21.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	18.	1		1330	163	0.	1		1945	238	0.
1		0105	14	1.	1		0720	89	16.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	14.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	11.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	10.	1		1355	168	0.	1		2010	243	0.
1		0130	19	1.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	1.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	2.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	3.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	4.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	6.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	8.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	9.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	10.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	11.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	15.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	20.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	26.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	31.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	36.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	40.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	46.	1		0905	110	2.	1		1520	185	0.	1		2135	260	0.
1		0255	36	53.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	59.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	69.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	81.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	102.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	158.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	311.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0330	43	640.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1142.	1		0950	119	1.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1611.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1683.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1603.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1471.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1324.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1167.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1010.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	865.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	735.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	623.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	538.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	483.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	455.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	450.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	465.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	490.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	503.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	500.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	480.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	444.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	397.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	348.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	300.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	256.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	217.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	183.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	155.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	133.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	115.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	99.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	87.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
1683.	3.75	315.	79.	76.	76.
		(INCHES) 1.008	1.015	1.015	1.015
		(AC-FT) 156.	157.	157.	157.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .56

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	60.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	53.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	46.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	42.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	37.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	33.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	30.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	27.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	24.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	21.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	19.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	17.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	15.	1		1330	163	0.	1		1945	238	0.
1		0105	14	0.	1		0720	89	14.	1		1335	164	0.	1		1950	239	0.
1		0110	15	0.	1		0725	90	12.	1		1340	165	0.	1		1955	240	0.
1		0115	16	0.	1		0730	91	11.	1		1345	166	0.	1		2000	241	0.
1		0120	17	0.	1		0735	92	10.	1		1350	167	0.	1		2005	242	0.
1		0125	18	0.	1		0740	93	9.	1		1355	168	0.	1		2010	243	0.
1		0130	19	0.	1		0745	94	8.	1		1400	169	0.	1		2015	244	0.
1		0135	20	0.	1		0750	95	7.	1		1405	170	0.	1		2020	245	0.
1		0140	21	0.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	0.	1		0800	97	6.	1		1415	172	0.	1		2030	247	0.
1		0150	23	0.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	1.	1		0810	99	5.	1		1425	174	0.	1		2040	249	0.
1		0200	25	1.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	1.	1		0820	101	4.	1		1435	176	0.	1		2050	251	0.
1		0210	27	2.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	2.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	2.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	2.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	3.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	4.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	6.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	8.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	10.	1		0905	110	2.	1		1520	185	0.	1		2135	260	0.
1		0255	36	12.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	15.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	18.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	21.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	29.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	47.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	101.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	234.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	436.	1		0950	119	1.	1		1605	194	0.	1		2220	269	0.
1		0340	45	714.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	989.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1044.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	991.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	908.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	813.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	711.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	614.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	525.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	448.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	387.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	344.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	317.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	305.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	306.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	320.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	334.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.

1	0505	62	339.	1	1120	137	1.	1	1735	212	0.	1	2350	287	0.				
1	0510	63	334.	1	1125	138	1.	1	1740	213	0.	1	2355	288	0.				
1	0515	64	316.	1	1130	139	1.	1	1745	214	0.	2	0000	289	0.				
1	0520	65	289.	1	1135	140	1.	1	1750	215	0.	2	0005	290	0.				
1	0525	66	257.	1	1140	141	1.	1	1755	216	0.	2	0010	291	0.				
1	0530	67	226.	1	1145	142	1.	1	1800	217	0.	2	0015	292	0.				
1	0535	68	195.	1	1150	143	1.	1	1805	218	0.	2	0020	293	0.				
1	0540	69	167.	1	1155	144	1.	1	1810	219	0.	2	0025	294	0.				
1	0545	70	142.	1	1200	145	0.	1	1815	220	0.	2	0030	295	0.				
1	0550	71	122.	1	1205	146	0.	1	1820	221	0.	2	0035	296	0.				
1	0555	72	104.	1	1210	147	0.	1	1825	222	0.	2	0040	297	0.				
1	0600	73	90.	1	1215	148	0.	1	1830	223	0.	2	0045	298	0.				
1	0605	74	78.	1	1220	149	0.	1	1835	224	0.	2	0050	299	0.				
1	0610	75	68.	1	1225	150	0.	1	1840	225	0.	2	0055	300	0.				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
1044.	3.83	198.	50.	48.	48.
		(INCHES) .635	.639	.639	.639
		(AC-FT) 98.	99.	99.	99.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .56

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	60.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	53.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	46.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	42.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	37.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	33.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	30.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	27.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	24.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	21.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	19.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	17.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	15.	1		1330	163	0.	1		1945	238	0.
1		0105	14	0.	1		0720	89	14.	1		1335	164	0.	1		1950	239	0.
1		0110	15	0.	1		0725	90	12.	1		1340	165	0.	1		1955	240	0.
1		0115	16	0.	1		0730	91	11.	1		1345	166	0.	1		2000	241	0.
1		0120	17	0.	1		0735	92	10.	1		1350	167	0.	1		2005	242	0.
1		0125	18	0.	1		0740	93	9.	1		1355	168	0.	1		2010	243	0.
1		0130	19	0.	1		0745	94	8.	1		1400	169	0.	1		2015	244	0.
1		0135	20	0.	1		0750	95	7.	1		1405	170	0.	1		2020	245	0.
1		0140	21	0.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	0.	1		0800	97	6.	1		1415	172	0.	1		2030	247	0.
1		0150	23	0.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	0.	1		0810	99	5.	1		1425	174	0.	1		2040	249	0.
1		0200	25	1.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	1.	1		0820	101	4.	1		1435	176	0.	1		2050	251	0.
1		0210	27	2.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	2.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	2.	1		0835	104	3.	1		1450	179	0.	1		2105	254	0.
1		0225	30	2.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	3.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	4.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	6.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	8.	1		0900	109	2.	1		1515	184	0.	1		2130	259	0.
1		0250	35	10.	1		0905	110	2.	1		1520	185	0.	1		2135	260	0.
1		0255	36	12.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	15.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	18.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	21.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	29.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	48.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	101.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	232.	1		0945	118	1.	1		1600	193	0.	1		2215	268	0.
1		0335	44	436.	1		0950	119	1.	1		1605	194	0.	1		2220	269	0.
1		0340	45	711.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	987.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1043.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	990.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	908.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	812.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	711.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	613.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	525.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	448.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	387.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	343.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	317.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	305.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	306.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	319.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	333.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	339.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	334.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	316.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	288.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	257.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	225.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	195.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	167.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	142.	1		1200	145	0.	1		1815	220	0.	2		0030	295	0.
1		0550	71	122.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	104.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	90.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	78.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	68.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR

	(CFS)	(HR)				
+	1043.	3.83	(CFS)	198.	50.	48.	48.
			(INCHES)	.634	.638	.638	.638
			(AC-FT)	98.	99.	99.	99.

CUMULATIVE AREA = 2.90 SQ MI

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1 .92	RATIO 2 .92	RATIO 3 .81	RATIO 4 .81	RATIO 5 .73	RATIO 6 .73	RATIO 7 .56	RATIO 8 .56
HYDROGRAPH AT												
+	GB-1	.01	1	FLOW	12.	12.	9.	9.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	U1	.03	1	FLOW	47.	47.	37.	37.	30.	30.	19.	19.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	43.	43.	34.	34.	30.	30.	18.	18.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.04	1	FLOW	55.	55.	43.	43.	36.	36.	22.	22.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.04	1	FLOW	52.	52.	42.	42.	36.	36.	21.	21.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	W2	.01	1	FLOW	20.	20.	16.	16.	13.	13.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	.05	1	FLOW	73.	73.	56.	56.	47.	47.	29.	29.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	W1	.03	1	FLOW	49.	49.	39.	39.	32.	32.	21.	21.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	.09	1	FLOW	122.	122.	95.	95.	79.	79.	49.	49.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.09	1	FLOW	114.	114.	92.	92.	78.	78.	46.	46.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-2A	.01	1	FLOW	17.	17.	13.	13.	11.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	V2	.03	1	FLOW	51.	51.	41.	41.	35.	35.	23.	23.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	182.	181.	145.	145.	124.	124.	76.	76.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.13	1	FLOW	178.	178.	143.	143.	119.	119.	73.	73.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	V1	.05	1	FLOW	81.	80.	66.	66.	57.	57.	38.	38.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-2B	.01	1	FLOW	9.	9.	7.	7.	6.	6.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.06	1	FLOW	89.	89.	72.	71.	62.	62.	41.	41.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.19	1	FLOW	263.	262.	215.	214.	181.	181.	104.	104.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	P1	.09	1	FLOW	134.	134.	107.	107.	92.	92.	57.	57.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-4	.04	1	FLOW	39.	39.	32.	32.	26.	26.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	T2	.02	1	FLOW	29.	29.	23.	23.	20.	20.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.15	1	FLOW	199.	199.	161.	162.	138.	138.	84.	84.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.15	1	FLOW	196.	196.	159.	159.	133.	133.	75.	75.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	6-8	.03	1	FLOW	53.	53.	45.	45.	40.	40.	29.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-7	.01	1	FLOW	13.	13.	11.	11.	10.	10.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

2 COMBINED AT												
+	C6	.04	1	FLOW	65.	65.	55.	55.	48.	48.	34.	34.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.04	1	FLOW	63.	63.	54.	54.	48.	48.	34.	34.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-6	.03	1	FLOW	61.	61.	52.	52.	46.	46.	33.	33.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C7	.07	1	FLOW	123.	123.	105.	105.	93.	93.	67.	67.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R7	.07	1	FLOW	106.	106.	90.	90.	80.	80.	57.	57.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-5	.10	1	FLOW	132.	132.	109.	109.	93.	93.	61.	61.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R8	.10	1	FLOW	129.	129.	107.	107.	92.	92.	61.	61.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-4	.19	1	FLOW	178.	178.	141.	141.	117.	117.	68.	68.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C8	.37	1	FLOW	407.	407.	333.	333.	284.	284.	182.	182.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R9	.37	1	FLOW	400.	399.	328.	327.	280.	280.	180.	180.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-3	.02	1	FLOW	24.	24.	20.	20.	17.	17.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R10	.02	1	FLOW	24.	24.	20.	20.	17.	17.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-2	.05	1	FLOW	85.	85.	70.	70.	60.	60.	39.	39.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C9	.43	1	FLOW	452.	452.	372.	371.	318.	318.	207.	206.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-1	.03	1	FLOW	38.	38.	31.	31.	27.	27.	17.	17.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C10	.46	1	FLOW	474.	474.	390.	389.	334.	334.	217.	217.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.46	1	FLOW	472.	472.	388.	387.	331.	331.	213.	213.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	T1	.04	1	FLOW	54.	54.	43.	43.	37.	37.	23.	23.
				TIME	3.50	3.50	3.50	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-3	.02	1	FLOW	20.	20.	16.	16.	13.	13.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	U2	.02	1	FLOW	33.	33.	26.	26.	22.	22.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C	.54	1	FLOW	521.	521.	429.	428.	368.	367.	239.	239.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.54	1	FLOW	520.	520.	428.	427.	366.	366.	237.	237.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.54	1	FLOW	519.	518.	426.	425.	364.	364.	233.	233.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GB-5A	.03	1	FLOW	39.	39.	31.	31.	26.	26.	15.	15.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.57	1	FLOW	538.	538.	442.	441.	377.	377.	242.	242.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	Q1	.02	1	FLOW	34.	34.	27.	27.	22.	22.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	S1	.05	1	FLOW	68.	68.	53.	54.	45.	45.	29.	29.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.64	1	FLOW	585.	584.	479.	478.	410.	410.	266.	266.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.64	1	FLOW	583.	582.	479.	478.	409.	409.	262.	262.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												

+	S2	.02	1	FLOW	31.	31.	25.	24.	21.	21.	13.	13.
				TIME	3.50	3.50	3.58	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-5B	.01	1	FLOW	14.	14.	11.	11.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.68	1	FLOW	609.	609.	497.	496.	425.	424.	272.	272.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GB-6	.03	1	FLOW	31.	31.	25.	25.	21.	21.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	31.	31.	25.	25.	21.	21.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	R2	.04	1	FLOW	53.	53.	41.	41.	34.	34.	22.	22.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	.06	1	FLOW	81.	81.	64.	64.	54.	54.	34.	34.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	79.	79.	64.	64.	53.	53.	32.	32.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	R1	.03	1	FLOW	44.	43.	35.	35.	30.	30.	18.	18.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.09	1	FLOW	120.	120.	98.	98.	83.	83.	48.	48.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.77	1	FLOW	701.	700.	576.	574.	489.	489.	309.	309.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-14	.01	1	FLOW	17.	17.	14.	14.	12.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	F	.00	1	FLOW	11.	11.	10.	10.	8.	8.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	CF	.94	1	FLOW	909.	908.	727.	726.	611.	610.	384.	383.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	CCF	1.13	1	FLOW	1172.	1170.	941.	940.	785.	784.	488.	487.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	RF	1.13	1	FLOW	1148.	1149.	912.	909.	767.	766.	470.	469.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	5-7	.01	1	FLOW	15.	15.	13.	13.	11.	11.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R1	.01	1	FLOW	13.	13.	11.	11.	10.	10.	7.	7.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-6	.04	1	FLOW	58.	58.	49.	49.	42.	42.	29.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C1	.05	1	FLOW	71.	71.	59.	59.	52.	52.	35.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R2	.05	1	FLOW	66.	66.	55.	55.	48.	48.	33.	33.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-5	.05	1	FLOW	62.	62.	50.	50.	42.	42.	25.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-8	.04	1	FLOW	64.	64.	54.	54.	47.	47.	32.	32.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C2	.14	1	FLOW	183.	183.	151.	151.	130.	130.	86.	86.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.14	1	FLOW	162.	162.	134.	134.	115.	115.	76.	76.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-4	.12	1	FLOW	109.	108.	86.	86.	71.	71.	41.	41.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C3	.25	1	FLOW	259.	259.	211.	211.	179.	179.	113.	113.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R4	.25	1	FLOW	259.	258.	211.	210.	179.	179.	113.	113.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-2	.03	1	FLOW	48.	48.	39.	39.	34.	34.	22.	22.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C4	.28	1	FLOW	280.	280.	227.	226.	193.	193.	123.	122.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75

HYDROGRAPH AT												
+	5-3	.06	1	FLOW	79.	79.	65.	65.	56.	55.	36.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R5	.06	1	FLOW	76.	76.	62.	62.	53.	53.	35.	35.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-1	.02	1	FLOW	22.	22.	18.	18.	15.	15.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C5	.36	1	FLOW	374.	373.	304.	303.	257.	257.	162.	162.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.36	1	FLOW	366.	366.	299.	299.	255.	254.	161.	161.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GC-5A	.05	1	FLOW	56.	56.	45.	45.	37.	37.	22.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	N1	.05	1	FLOW	57.	57.	44.	44.	35.	35.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.05	1	FLOW	55.	55.	42.	42.	33.	33.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
3 COMBINED AT												
+	C	.45	1	FLOW	452.	452.	366.	365.	308.	308.	193.	193.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GC-5B	.02	1	FLOW	37.	37.	31.	31.	28.	28.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	36.	36.	31.	31.	27.	27.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.47	1	FLOW	474.	473.	385.	384.	325.	325.	203.	202.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GC-4A	.03	1	FLOW	30.	30.	24.	24.	20.	20.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	30.	30.	24.	24.	20.	20.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
ROUTED TO												
+	R	.03	1	FLOW	29.	29.	23.	23.	19.	19.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	GC-4B	.06	1	FLOW	62.	62.	50.	50.	41.	41.	25.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	60.	60.	47.	47.	39.	39.	23.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
3 COMBINED AT												
+	C	.56	1	FLOW	557.	556.	452.	451.	382.	381.	233.	233.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	0	.01	1	FLOW	28.	28.	23.	23.	20.	20.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.01	1	FLOW	27.	27.	22.	22.	19.	19.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	.57	1	FLOW	571.	571.	465.	464.	394.	393.	242.	242.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.57	1	FLOW	568.	567.	458.	456.	383.	383.	241.	240.
				TIME	3.67	3.67	3.67	3.67	3.75	3.67	3.75	3.75
HYDROGRAPH AT												
+	H3	.02	1	FLOW	28.	28.	23.	23.	19.	19.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	25.	25.	20.	20.	16.	16.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	GC-1A	.02	1	FLOW	24.	24.	19.	19.	16.	16.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
3 COMBINED AT												
+	C	.61	1	FLOW	598.	597.	483.	482.	405.	405.	252.	252.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	P2	.07	1	FLOW	90.	90.	72.	72.	60.	60.	32.	32.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.07	1	FLOW	87.	87.	68.	67.	54.	54.	30.	30.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.67	1	FLOW	671.	671.	545.	544.	459.	459.	281.	281.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												

+	R	.67	1	FLOW	655.	654.	532.	531.	452.	451.	275.	275.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT													
+	Y	.02	1	FLOW	31.	31.	26.	26.	22.	22.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT													
+	H1	.05	1	FLOW	74.	74.	61.	61.	51.	51.	29.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GC-1B	.02	1	FLOW	25.	25.	20.	20.	17.	17.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GC-1C	.02	1	FLOW	21.	21.	16.	16.	14.	14.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
5 COMBINED AT													
+	C	.79	1	FLOW	750.	749.	602.	600.	506.	506.	312.	312.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
ROUTED TO													
+	R	.79	1	FLOW	740.	739.	596.	594.	505.	505.	306.	306.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT													
+	C1D1GC	.03	1	FLOW	39.	39.	32.	31.	27.	27.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT													
+	C	.81	1	FLOW	756.	755.	607.	605.	514.	514.	310.	310.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT													
+	Q2	.08	1	FLOW	132.	131.	108.	108.	92.	92.	65.	65.
				TIME	3.50	3.50	3.50	3.50	3.58	3.50	3.58	3.58
ROUTED TO													
+	R	.08	1	FLOW	124.	124.	105.	105.	92.	92.	62.	62.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	G1	.04	1	FLOW	55.	55.	44.	44.	37.	37.	25.	25.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	G2	.02	1	FLOW	29.	29.	23.	23.	20.	20.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
3 COMBINED AT													
+	C	.13	1	FLOW	205.	204.	169.	169.	148.	148.	100.	100.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C	.94	1	FLOW	893.	892.	724.	721.	606.	605.	372.	372.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	.94	1	FLOW	891.	890.	718.	716.	598.	597.	368.	368.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	E	.05	1	FLOW	79.	79.	63.	63.	53.	53.	36.	36.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GB-7	.03	1	FLOW	34.	34.	27.	27.	23.	23.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT													
+	C	1.02	1	FLOW	955.	954.	773.	771.	647.	646.	395.	395.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO													
+	R	1.02	1	FLOW	955.	954.	771.	768.	643.	642.	393.	392.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	B	.04	1	FLOW	66.	66.	55.	55.	47.	47.	31.	31.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT													
+	C	1.06	1	FLOW	987.	986.	797.	794.	667.	666.	407.	406.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	GB-10	.01	1	FLOW	7.	7.	6.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R	.01	1	FLOW	7.	7.	5.	5.	5.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GB-9	.01	1	FLOW	13.	13.	11.	11.	9.	9.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT													
+	C	.02	1	FLOW	20.	20.	16.	16.	13.	13.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R	.02	1	FLOW	19.	19.	15.	15.	12.	12.	7.	7.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	C2+ST	.04	1	FLOW	50.	51.	41.	41.	35.	35.	21.	21.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	ST	.00	1	FLOW	4.	4.	4.	4.	3.	3.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT													
+	C	.06	1	FLOW	73.	74.	58.	58.	49.	49.	30.	30.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58

ROUTED TO													
+	R	.06	1	FLOW	70.	70.	58.	58.	49.	49.	28.	28.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	GB-8	.02	1	FLOW	20.	20.	16.	16.	13.	13.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT													
+	EN+ST	.02	1	FLOW	33.	33.	28.	28.	25.	25.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT													
+	COM	.02	1	FLOW	40.	40.	34.	34.	30.	30.	21.	21.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT													
+	C	.11	1	FLOW	163.	163.	131.	131.	110.	110.	68.	68.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT													
+	C	1.16	1	FLOW	1127.	1125.	890.	886.	739.	738.	448.	447.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
ROUTED TO													
+	RCOM	1.16	1	FLOW	1096.	1095.	883.	880.	734.	733.	441.	440.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT													
+	DSDB	.61	1	FLOW	386.	385.	312.	311.	262.	262.	161.	161.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT													
+	CDSDB	2.90	1	FLOW	2476.	2476.	1978.	1972.	1684.	1683.	1044.	1043.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT													
+	E1	.06	1	FLOW	16.	16.	10.	10.	7.	7.	2.	2.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
2 COMBINED AT													
+	C1	2.96	1	FLOW	2489.	2489.	1986.	1981.	1691.	1690.	1046.	1045.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83

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SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
FOR PLAN = 1 RATIO= .92									
U1	MANE	.93	56.88	211.47	1.65	5.00	53.30	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2731E+01 OUTFLOW= .2731E+01 BASIN STORAGE= .1568E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92									
U1	MANE	.94	49.71	211.87	1.46	5.00	46.69	210.00	1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2406E+01 OUTFLOW= .2406E+01 BASIN STORAGE= .1430E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92									
U1	MANE	.94	49.69	211.91	1.45	5.00	46.74	210.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2403E+01 OUTFLOW= .2403E+01 BASIN STORAGE= .1464E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81									
U1	MANE	1.04	40.15	212.34	1.18	5.00	36.75	210.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1945E+01 OUTFLOW= .1944E+01 BASIN STORAGE= .1450E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81									
U1	MANE	1.04	39.97	212.41	1.17	5.00	36.65	210.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1941E+01 OUTFLOW= .1941E+01 BASIN STORAGE= .1621E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73									
U1	MANE	1.09	33.41	211.93	.99	5.00	30.23	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1642E+01 OUTFLOW= .1642E+01 BASIN STORAGE= .1359E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73									
U1	MANE	1.09	33.39	211.95	.99	5.00	30.20	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1641E+01 OUTFLOW= .1641E+01 BASIN STORAGE= .1654E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56									
U1	MANE	1.27	19.95	214.02	.62	5.00	19.29	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1026E+01 OUTFLOW= .1025E+01 BASIN STORAGE= .1417E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56									
U1	MANE	1.29	20.01	214.13	.62	5.00	19.32	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1025E+01 OUTFLOW= .1024E+01 BASIN STORAGE= .1576E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

```
          R  MANE          .71     46.09    211.76      1.46      5.00     43.32    210.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2406E+01 EXCESS= .0000E+00 OUTFLOW= .2409E+01 BASIN STORAGE= .1003E-03 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE          .71     46.34    211.30      1.46      5.00     43.35    210.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2403E+01 EXCESS= .0000E+00 OUTFLOW= .2407E+01 BASIN STORAGE= .1027E-03 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .87     36.57    211.73      1.17      5.00     34.42    215.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1941E+01 EXCESS= .0000E+00 OUTFLOW= .1942E+01 BASIN STORAGE= .1044E-03 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .86     36.48    211.75      1.17      5.00     34.45    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1938E+01 EXCESS= .0000E+00 OUTFLOW= .1939E+01 BASIN STORAGE= .1036E-03 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .94     30.13    212.17       .99      5.00     29.64    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1641E+01 EXCESS= .0000E+00 OUTFLOW= .1641E+01 BASIN STORAGE= .9997E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .94     30.10    212.19       .99      5.00     29.62    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1639E+01 EXCESS= .0000E+00 OUTFLOW= .1640E+01 BASIN STORAGE= .1033E-03 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .97     19.22    216.99       .62      5.00     18.21    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1024E+01 EXCESS= .0000E+00 OUTFLOW= .1024E+01 BASIN STORAGE= .9679E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .97     19.20    217.03       .62      5.00     18.18    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1023E+01 EXCESS= .0000E+00 OUTFLOW= .1022E+01 BASIN STORAGE= .1029E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          R  MANE          .41     54.82    210.97      1.41      5.00     52.33    210.00        1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3015E+01 EXCESS= .0000E+00 OUTFLOW= .3017E+01 BASIN STORAGE= .7523E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE          .41     54.87    210.93      1.41      5.00     52.34    210.00        1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3015E+01 EXCESS= .0000E+00 OUTFLOW= .3017E+01 BASIN STORAGE= .7489E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .60     42.70    211.56      1.14      5.00     42.03    215.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2422E+01 EXCESS= .0000E+00 OUTFLOW= .2424E+01 BASIN STORAGE= .7187E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .53     42.63    211.49      1.13      5.00     42.04    215.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2418E+01 EXCESS= .0000E+00 OUTFLOW= .2420E+01 BASIN STORAGE= .7373E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .56     35.75    215.24       .96      5.00     35.69    215.00         .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2040E+01 EXCESS= .0000E+00 OUTFLOW= .2041E+01 BASIN STORAGE= .7468E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .56     35.72    215.27       .96      5.00     35.66    215.00         .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2039E+01 EXCESS= .0000E+00 OUTFLOW= .2040E+01 BASIN STORAGE= .7323E-04 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .62     21.88    216.37       .59      5.00     20.99    215.00         .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1258E+01 EXCESS= .0000E+00 OUTFLOW= .1259E+01 BASIN STORAGE= .7389E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .63     21.82    216.40       .59      5.00     20.94    215.00         .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1257E+01 EXCESS= .0000E+00 OUTFLOW= .1257E+01 BASIN STORAGE= .7114E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
         W2  MANE          .65     24.30    211.57      1.65      5.00     23.16    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1145E+01 OUTFLOW= .1146E+01 BASIN STORAGE= .4992E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .92
               W2  MANE          .59     21.18    211.65      1.46      5.00     20.31    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1009E+01 OUTFLOW= .1009E+01 BASIN STORAGE= .5141E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               W2  MANE          .59     21.21    211.11      1.45      5.00     20.37    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1008E+01 OUTFLOW= .1008E+01 BASIN STORAGE= .5102E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               W2  MANE          .73     17.20    211.78      1.18      5.00     16.07    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8155E+00 OUTFLOW= .8154E+00 BASIN STORAGE= .4868E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               W2  MANE          .59     17.18    211.46      1.17      5.00     16.04    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8139E+00 OUTFLOW= .8143E+00 BASIN STORAGE= .5245E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               W2  MANE          .75     14.38    212.27       .99      5.00     13.40    210.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6887E+00 OUTFLOW= .6890E+00 BASIN STORAGE= .5048E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               W2  MANE          .75     14.36    212.29       .99      5.00     13.38    210.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6880E+00 OUTFLOW= .6884E+00 BASIN STORAGE= .4891E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
               W2  MANE          .80      8.67    212.97       .62      5.00      7.93    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4304E+00 OUTFLOW= .4302E+00 BASIN STORAGE= .4742E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               W2  MANE          .79      8.69    213.00       .62      5.00      7.91    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4299E+00 OUTFLOW= .4297E+00 BASIN STORAGE= .4743E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               W1  MANE          .73     59.89    211.50      1.65      5.00     56.27    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2907E+01 OUTFLOW= .2908E+01 BASIN STORAGE= .1737E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               W1  MANE          .66     52.68    211.76      1.46      5.00     49.32    210.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2561E+01 OUTFLOW= .2563E+01 BASIN STORAGE= .1825E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               W1  MANE          .67     52.51    211.81      1.45      5.00     49.12    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2559E+01 OUTFLOW= .2560E+01 BASIN STORAGE= .1648E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               W1  MANE          .76     42.32    212.37      1.18      5.00     39.00    210.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2070E+01 OUTFLOW= .2071E+01 BASIN STORAGE= .1709E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               W1  MANE          .76     42.26    212.47      1.17      5.00     38.84    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2066E+01 OUTFLOW= .2067E+01 BASIN STORAGE= .1689E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               W1  MANE          .87     35.43    212.16       .99      5.00     32.08    210.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1748E+01 OUTFLOW= .1747E+01 BASIN STORAGE= .1679E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               W1  MANE          .87     35.39    212.18       .99      5.00     32.04    210.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1747E+01 OUTFLOW= .1746E+01 BASIN STORAGE= .1645E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               W1  MANE          .93     21.17    213.14       .62      5.00     20.55    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1092E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .1765E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .56
               W1  MANE          .93     21.12    213.16       .62      5.00     20.53    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1091E+01 OUTFLOW= .1091E+01 BASIN STORAGE= .1747E-03 PERCENT ERROR=    .1
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          FOR PLAN = 1  RATIO=  .92
               R  MANE          .70    120.59    211.24      1.44      5.00    114.05    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6595E+01 EXCESS= .0000E+00 OUTFLOW= .6599E+01 BASIN STORAGE= .2257E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               R  MANE          .70    120.37    211.20      1.44      5.00    113.95    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6591E+01 EXCESS= .0000E+00 OUTFLOW= .6595E+01 BASIN STORAGE= .2311E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE          .64     94.95    211.48      1.16      5.00     91.91    215.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5313E+01 EXCESS= .0000E+00 OUTFLOW= .5318E+01 BASIN STORAGE= .2253E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE          .65     94.48    211.22      1.16      5.00     91.86    215.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5303E+01 EXCESS= .0000E+00 OUTFLOW= .5307E+01 BASIN STORAGE= .2327E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE          .73     78.45    215.61       .98      5.00     78.36    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4482E+01 EXCESS= .0000E+00 OUTFLOW= .4485E+01 BASIN STORAGE= .2353E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE          .73     78.39    215.63       .98      5.00     78.29    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4478E+01 EXCESS= .0000E+00 OUTFLOW= .4481E+01 BASIN STORAGE= .2343E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
               R  MANE          .80     49.05    216.74       .61      5.00     46.31    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2784E+01 EXCESS= .0000E+00 OUTFLOW= .2784E+01 BASIN STORAGE= .2324E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               R  MANE          .80     48.91    216.78       .61      5.00     46.19    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2781E+01 EXCESS= .0000E+00 OUTFLOW= .2781E+01 BASIN STORAGE= .2323E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              V2  MANE         1.30     61.15    211.33      1.84      5.00     57.60    210.00        1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3143E+01 OUTFLOW= .3141E+01 BASIN STORAGE= .2502E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              V2  MANE         1.32     54.68    212.20      1.64      5.00     50.70    210.00        1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2792E+01 OUTFLOW= .2793E+01 BASIN STORAGE= .2433E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              V2  MANE         1.33     54.79    212.15      1.63      5.00     50.70    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2790E+01 OUTFLOW= .2789E+01 BASIN STORAGE= .2502E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
              V2  MANE         1.47     44.75    212.82      1.34      5.00     40.91    210.00        1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2291E+01 OUTFLOW= .2291E+01 BASIN STORAGE= .2173E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
              V2  MANE         1.46     44.53    212.88      1.34      5.00     40.83    210.00        1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2287E+01 OUTFLOW= .2287E+01 BASIN STORAGE= .2089E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              V2  MANE         1.50     37.94    212.78      1.15      5.00     34.84    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1960E+01 OUTFLOW= .1958E+01 BASIN STORAGE= .2157E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
              V2  MANE         1.50     37.91    212.82      1.15      5.00     34.83    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1958E+01 OUTFLOW= .1956E+01 BASIN STORAGE= .2419E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .56
              V2  MANE         1.78     23.80    213.56       .75      5.00     23.33    215.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1274E+01 OUTFLOW= .1274E+01 BASIN STORAGE= .2188E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
              V2  MANE         1.71     23.83    213.93       .75      5.00     23.30    215.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1273E+01 OUTFLOW= .1273E+01 BASIN STORAGE= .2254E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .92
                R  MANE          1.46    180.79    213.20      1.47      5.00    178.32    215.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1040E+02 EXCESS= .0000E+00 OUTFLOW= .1041E+02 BASIN STORAGE= .1853E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
                R  MANE          1.46    180.58    213.23      1.47      5.00    178.08    215.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1039E+02 EXCESS= .0000E+00 OUTFLOW= .1040E+02 BASIN STORAGE= .1807E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          1.51    143.80    216.85      1.18      5.00    143.15    215.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8396E+01 EXCESS= .0000E+00 OUTFLOW= .8402E+01 BASIN STORAGE= .1817E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          1.51    143.61    216.92      1.18      5.00    142.90    215.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8381E+01 EXCESS= .0000E+00 OUTFLOW= .8384E+01 BASIN STORAGE= .1853E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.60    122.63    218.18      1.00      5.00    118.68    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7100E+01 EXCESS= .0000E+00 OUTFLOW= .7104E+01 BASIN STORAGE= .1795E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.59    122.41    218.21      1.00      5.00    118.55    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7094E+01 EXCESS= .0000E+00 OUTFLOW= .7097E+01 BASIN STORAGE= .1867E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE          1.70     76.19    218.41       .63      5.00     72.65    220.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4445E+01 EXCESS= .0000E+00 OUTFLOW= .4456E+01 BASIN STORAGE= .1822E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .56
                R  MANE          1.70     75.92    218.46       .63      5.00     72.53    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4440E+01 EXCESS= .0000E+00 OUTFLOW= .4450E+01 BASIN STORAGE= .1792E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .92
                V1 MANE          1.07     98.83    212.36      1.83      5.00     91.57    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5082E+01 OUTFLOW= .5082E+01 BASIN STORAGE= .4279E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                V1 MANE          1.13     87.50    212.05      1.63      5.00     80.52    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4515E+01 OUTFLOW= .4514E+01 BASIN STORAGE= .3977E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                V1 MANE          1.11     87.35    212.22      1.63      5.00     80.46    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4510E+01 OUTFLOW= .4511E+01 BASIN STORAGE= .4354E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
                V1 MANE          1.35     71.51    213.13      1.33      5.00     65.88    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3704E+01 OUTFLOW= .3702E+01 BASIN STORAGE= .4669E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .81
                V1 MANE          1.36     71.26    213.18      1.33      5.00     65.66    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3697E+01 OUTFLOW= .3695E+01 BASIN STORAGE= .4277E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
                V1 MANE          1.29     60.71    212.65      1.14      5.00     57.41    215.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3168E+01 OUTFLOW= .3165E+01 BASIN STORAGE= .4554E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
                V1 MANE          1.29     60.66    212.67      1.14      5.00     57.46    215.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3165E+01 OUTFLOW= .3163E+01 BASIN STORAGE= .4413E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                V1 MANE          1.66     37.94    214.91       .74      5.00     37.85    215.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2058E+01 OUTFLOW= .2055E+01 BASIN STORAGE= .4413E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .56
                V1 MANE          1.66     37.89    214.95       .74      5.00     37.83    215.00         .74
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2056E+01 OUTFLOW= .2053E+01 BASIN STORAGE= .4461E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

P1	MANE	1.20	165.90	212.62	1.65	5.00	154.01	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8282E+01 OUTFLOW= .8282E+01 BASIN STORAGE= .5843E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

P1	MANE	1.23	145.54	212.74	1.45	5.00	133.78	210.00	1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7295E+01 OUTFLOW= .7294E+01 BASIN STORAGE= .5981E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

P1	MANE	1.23	145.34	212.78	1.45	5.00	133.58	210.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7288E+01 OUTFLOW= .7285E+01 BASIN STORAGE= .5911E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

P1	MANE	1.38	117.34	213.00	1.18	5.00	106.56	215.00	1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5897E+01 OUTFLOW= .5893E+01 BASIN STORAGE= .6514E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

P1	MANE	1.38	117.28	213.07	1.17	5.00	106.89	215.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5885E+01 OUTFLOW= .5882E+01 BASIN STORAGE= .6537E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

P1	MANE	1.44	98.03	213.06	.99	5.00	92.25	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4980E+01 OUTFLOW= .4979E+01 BASIN STORAGE= .6443E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

P1	MANE	1.44	97.92	213.10	.99	5.00	92.19	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4975E+01 OUTFLOW= .4974E+01 BASIN STORAGE= .6311E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

P1	MANE	1.77	57.62	214.19	.62	5.00	57.17	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3112E+01 OUTFLOW= .3103E+01 BASIN STORAGE= .5846E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .56

P1	MANE	1.77	57.59	214.21	.62	5.00	57.12	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3109E+01 OUTFLOW= .3100E+01 BASIN STORAGE= .5874E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .92

T2	MANE	1.97	35.09	212.51	1.65	5.00	32.13	215.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1850E+01 OUTFLOW= .1847E+01 BASIN STORAGE= .2174E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .92

T2	MANE	2.12	30.48	212.31	1.45	5.00	28.65	215.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1630E+01 OUTFLOW= .1627E+01 BASIN STORAGE= .2673E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .92

T2	MANE	2.12	30.41	212.36	1.45	5.00	28.59	215.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1628E+01 OUTFLOW= .1625E+01 BASIN STORAGE= .2623E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .81

T2	MANE	2.31	24.22	213.65	1.17	5.00	23.27	215.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1317E+01 OUTFLOW= .1315E+01 BASIN STORAGE= .2326E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .81

T2	MANE	2.31	24.19	213.72	1.17	5.00	23.27	215.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1315E+01 OUTFLOW= .1312E+01 BASIN STORAGE= .2299E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

T2	MANE	2.49	19.95	214.72	.99	5.00	19.76	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1112E+01 OUTFLOW= .1109E+01 BASIN STORAGE= .2039E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

T2	MANE	2.49	19.93	214.76	.99	5.00	19.76	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1111E+01 OUTFLOW= .1108E+01 BASIN STORAGE= .2218E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .56

T2	MANE	3.13	11.20	217.82	.62	5.00	10.55	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6952E+00 OUTFLOW= .6913E+00 BASIN STORAGE= .2030E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .56

T2	MANE	3.14	11.19	217.84	.62	5.00	10.54	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6945E+00 OUTFLOW= .6906E+00 BASIN STORAGE= .2703E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .92

R	MANE	.96	198.69	212.04	1.41	5.00	196.49	215.00	1.41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1126E+02 EXCESS= .0000E+00 OUTFLOW= .1127E+02 BASIN STORAGE= .1184E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	.96	198.35	212.08	1.41	5.00	195.95	215.00	1.41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1124E+02 EXCESS= .0000E+00 OUTFLOW= .1126E+02 BASIN STORAGE= .1186E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.02	159.91	216.49	1.13	5.00	159.06	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9053E+01 EXCESS= .0000E+00 OUTFLOW= .9061E+01 BASIN STORAGE= .1192E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.03	160.16	216.29	1.13	5.00	159.01	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9037E+01 EXCESS= .0000E+00 OUTFLOW= .9045E+01 BASIN STORAGE= .1189E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.00	137.69	216.82	.95	5.00	133.45	215.00	.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7628E+01 EXCESS= .0000E+00 OUTFLOW= .7636E+01 BASIN STORAGE= .1197E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.00	137.95	216.96	.95	5.00	133.34	215.00	.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7621E+01 EXCESS= .0000E+00 OUTFLOW= .7632E+01 BASIN STORAGE= .1158E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .56

R	MANE	1.16	81.57	217.91	.59	5.00	75.13	220.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4707E+01 EXCESS= .0000E+00 OUTFLOW= .4709E+01 BASIN STORAGE= .1173E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	1.16	81.38	217.95	.59	5.00	75.07	220.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4702E+01 EXCESS= .0000E+00 OUTFLOW= .4704E+01 BASIN STORAGE= .1191E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.26	64.63	212.46	2.15	5.00	63.33	215.00	2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4239E+01 EXCESS= .0000E+00 OUTFLOW= .4240E+01 BASIN STORAGE= .1937E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.26	64.59	212.50	2.15	5.00	63.31	215.00	2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4236E+01 EXCESS= .0000E+00 OUTFLOW= .4236E+01 BASIN STORAGE= .1913E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.31	55.00	212.04	1.81	5.00	53.78	215.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3572E+01 EXCESS= .0000E+00 OUTFLOW= .3572E+01 BASIN STORAGE= .2018E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.31	54.93	212.12	1.81	5.00	53.74	215.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3566E+01 EXCESS= .0000E+00 OUTFLOW= .3567E+01 BASIN STORAGE= .1975E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.35	48.50	212.10	1.58	5.00	47.55	215.00	1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3124E+01 EXCESS= .0000E+00 OUTFLOW= .3125E+01 BASIN STORAGE= .1747E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.35	48.47	212.13	1.58	5.00	47.54	215.00	1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3122E+01 EXCESS= .0000E+00 OUTFLOW= .3122E+01 BASIN STORAGE= .2118E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.47	34.38	212.08	1.10	5.00	33.95	215.00	1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2175E+01 EXCESS= .0000E+00 OUTFLOW= .2175E+01 BASIN STORAGE= .1795E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.47	34.37	212.12	1.10	5.00	33.93	215.00	1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2173E+01 EXCESS= .0000E+00 OUTFLOW= .2174E+01 BASIN STORAGE= .1777E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.62	131.76	216.99	1.74	5.00	129.18	220.00	1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9481E+01 EXCESS= .0000E+00 OUTFLOW= .9481E+01 BASIN STORAGE= .4954E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.62	131.64	217.05	1.74	5.00	129.12	220.00	1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9471E+01 EXCESS= .0000E+00 OUTFLOW= .9472E+01 BASIN STORAGE= .4897E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.71	109.06	217.55	1.43	5.00	107.40	220.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7781E+01 EXCESS= .0000E+00 OUTFLOW= .7781E+01 BASIN STORAGE= .4415E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.71	108.87	217.67	1.43	5.00	107.19	220.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7767E+01 EXCESS= .0000E+00 OUTFLOW= .7767E+01 BASIN STORAGE= .4312E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.79	93.99	218.55	1.23	5.00	92.22	220.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6661E+01 EXCESS= .0000E+00 OUTFLOW= .6661E+01 BASIN STORAGE= .4397E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.79	93.89	218.61	1.22	5.00	92.17	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6655E+01 EXCESS= .0000E+00 OUTFLOW= .6656E+01 BASIN STORAGE= .4353E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.03	61.98	218.98	.80	5.00	61.21	220.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4335E+01 EXCESS= .0000E+00 OUTFLOW= .4336E+01 BASIN STORAGE= .4474E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.03	61.95	219.03	.80	5.00	61.19	220.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4332E+01 EXCESS= .0000E+00 OUTFLOW= .4332E+01 BASIN STORAGE= .4429E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R10	MANE	3.50	24.29	217.00	1.75	5.00	24.09	215.00	1.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1484E+01 EXCESS= .0000E+00 OUTFLOW= .1486E+01 BASIN STORAGE= .8031E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	3.50	24.27	217.00	1.75	5.00	24.07	215.00	1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1483E+01 EXCESS= .0000E+00 OUTFLOW= .1484E+01 BASIN STORAGE= .8027E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	3.75	20.14	217.50	1.43	5.00	19.94	215.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1218E+01 EXCESS= .0000E+00 OUTFLOW= .1220E+01 BASIN STORAGE= .6488E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	3.75	20.10	217.50	1.43	5.00	19.91	215.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1216E+01 EXCESS= .0000E+00 OUTFLOW= .1217E+01 BASIN STORAGE= .6482E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	4.50	17.25	216.00	1.23	5.00	16.76	215.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1041E+01 EXCESS= .0000E+00 OUTFLOW= .1042E+01 BASIN STORAGE= .9991E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .00

R10	MANE	4.50	17.23	216.17	1.22	5.00	16.69	215.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1040E+01 EXCESS= .0000E+00 OUTFLOW= .1041E+01 BASIN STORAGE= .9650E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .00

R10	MANE	4.25	11.46	216.75	.80	5.00	10.87	215.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6765E+00 EXCESS= .0000E+00 OUTFLOW= .6772E+00 BASIN STORAGE= .7858E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .00

R10	MANE	4.25	11.45	216.75	.80	5.00	10.86	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6759E+00 EXCESS= .0000E+00 OUTFLOW= .6766E+00 BASIN STORAGE= .7855E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

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          R  MANE          1.00    472.65    225.41      1.61      5.00    472.31    225.00        1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3962E+02 EXCESS= .0000E+00 OUTFLOW= .3965E+02 BASIN STORAGE= .3980E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE          1.06    472.56    226.08      1.61      5.00    471.93    225.00        1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3959E+02 EXCESS= .0000E+00 OUTFLOW= .3961E+02 BASIN STORAGE= .4414E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE           .98    389.51    226.92      1.31      5.00    387.72    225.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3228E+02 EXCESS= .0000E+00 OUTFLOW= .3231E+02 BASIN STORAGE= .3667E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE           .98    388.65    226.97      1.31      5.00    386.99    225.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3222E+02 EXCESS= .0000E+00 OUTFLOW= .3225E+02 BASIN STORAGE= .3478E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          1.01    332.80    226.29      1.12      5.00    331.17    225.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2745E+02 EXCESS= .0000E+00 OUTFLOW= .2748E+02 BASIN STORAGE= .3261E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          1.01    332.59    226.32      1.12      5.00    330.89    225.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2743E+02 EXCESS= .0000E+00 OUTFLOW= .2745E+02 BASIN STORAGE= .3188E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          1.20    215.62    227.54       .71      5.00    212.95    225.00         .71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1757E+02 EXCESS= .0000E+00 OUTFLOW= .1758E+02 BASIN STORAGE= .4348E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          1.20    215.37    227.56       .71      5.00    212.77    225.00         .71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1755E+02 EXCESS= .0000E+00 OUTFLOW= .1757E+02 BASIN STORAGE= .4305E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          T1 MANE          1.15     67.75    212.16      1.65      5.00     62.82    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3348E+01 OUTFLOW= .3347E+01 BASIN STORAGE= .2691E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          T1 MANE          1.22     59.26    212.10      1.45      5.00     54.38    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2949E+01 OUTFLOW= .2948E+01 BASIN STORAGE= .2495E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          T1 MANE          1.21     59.20    212.14      1.45      5.00     54.47    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2946E+01 OUTFLOW= .2945E+01 BASIN STORAGE= .2649E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .81
          T1 MANE          1.42     47.27    213.17      1.18      5.00     42.86    210.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2384E+01 OUTFLOW= .2383E+01 BASIN STORAGE= .2281E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .81
          T1 MANE          1.42     47.22    213.24      1.17      5.00     42.72    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2379E+01 OUTFLOW= .2378E+01 BASIN STORAGE= .2262E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
          T1 MANE          1.53     39.61    213.44       .99      5.00     37.06    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2013E+01 OUTFLOW= .2012E+01 BASIN STORAGE= .2386E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
          T1 MANE          1.53     39.55    213.48       .99      5.00     37.03    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2011E+01 OUTFLOW= .2010E+01 BASIN STORAGE= .2372E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .56
          T1 MANE          1.83     23.46    214.03       .62      5.00     23.12    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1258E+01 OUTFLOW= .1255E+01 BASIN STORAGE= .2383E-03 PERCENT ERROR=    .2

     FOR PLAN = 1  RATIO=  .56
          T1 MANE          1.83     23.44    214.05       .62      5.00     23.10    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1257E+01 OUTFLOW= .1254E+01 BASIN STORAGE= .2362E-03 PERCENT ERROR=    .2
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          FOR PLAN = 1  RATIO=  .92
               U2  MANE          1.19     40.83    212.32      1.65      5.00     38.44    210.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2026E+01 OUTFLOW= .2026E+01 BASIN STORAGE= .1349E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .92
               U2  MANE          1.27     35.93    212.30      1.45      5.00     33.38    210.00         1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1785E+01 OUTFLOW= .1784E+01 BASIN STORAGE= .1590E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .92
               U2  MANE          1.27     35.84    212.34      1.45      5.00     33.39    210.00         1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1783E+01 OUTFLOW= .1782E+01 BASIN STORAGE= .1293E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .81
               U2  MANE          1.43     28.93    212.11      1.18      5.00     26.09    210.00         1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1443E+01 OUTFLOW= .1442E+01 BASIN STORAGE= .1541E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .81
               U2  MANE          1.47     28.86    212.59      1.17      5.00     26.11    210.00         1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1440E+01 OUTFLOW= .1439E+01 BASIN STORAGE= .1439E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
               U2  MANE          1.43     24.03    212.01       .99      5.00     22.13    215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1218E+01 OUTFLOW= .1218E+01 BASIN STORAGE= .1352E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
               U2  MANE          1.43     24.02    212.04       .99      5.00     22.12    215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1217E+01 OUTFLOW= .1217E+01 BASIN STORAGE= .1366E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .56
               U2  MANE          1.87     14.24    213.77       .62      5.00     14.00    215.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7614E+00 OUTFLOW= .7595E+00 BASIN STORAGE= .1232E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .56
               U2  MANE          1.87     14.23    213.79       .62      5.00     13.99    215.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7606E+00 OUTFLOW= .7587E+00 BASIN STORAGE= .1246E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .59    520.60    225.48      1.58      5.00    520.33    225.00         1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4552E+02 EXCESS= .0000E+00 OUTFLOW= .4553E+02 BASIN STORAGE= .5214E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .54    520.38    225.54      1.58      5.00    520.02    225.00         1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4548E+02 EXCESS= .0000E+00 OUTFLOW= .4549E+02 BASIN STORAGE= .5279E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .68    428.46    225.77      1.29      5.00    428.10    225.00         1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3703E+02 EXCESS= .0000E+00 OUTFLOW= .3703E+02 BASIN STORAGE= .5313E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .68    427.51    225.83      1.29      5.00    427.22    225.00         1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3695E+02 EXCESS= .0000E+00 OUTFLOW= .3696E+02 BASIN STORAGE= .5260E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .66    366.95    225.58      1.09      5.00    366.34    225.00         1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3145E+02 EXCESS= .0000E+00 OUTFLOW= .3146E+02 BASIN STORAGE= .5274E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .66    366.67    225.61      1.09      5.00    366.03    225.00         1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3142E+02 EXCESS= .0000E+00 OUTFLOW= .3143E+02 BASIN STORAGE= .5221E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE           .69    238.60    226.26       .70      5.00    236.93    225.00          .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2003E+02 EXCESS= .0000E+00 OUTFLOW= .2004E+02 BASIN STORAGE= .5124E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE           .78    237.89    225.90       .70      5.00    236.73    225.00          .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2002E+02 EXCESS= .0000E+00 OUTFLOW= .2002E+02 BASIN STORAGE= .5211E-04 PERCENT ERROR=     .0
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          FOR PLAN = 1  RATIO= .92
                R  MANE          .65    519.54    225.83      1.59      5.00    518.70    225.00        1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4557E+02 EXCESS= .0000E+00 OUTFLOW= .4559E+02 BASIN STORAGE= .6502E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .92
                R  MANE          .60    519.50    225.84      1.58      5.00    518.37    225.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4553E+02 EXCESS= .0000E+00 OUTFLOW= .4554E+02 BASIN STORAGE= .6458E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .81
                R  MANE          .68    427.58    226.32      1.29      5.00    425.99    225.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3706E+02 EXCESS= .0000E+00 OUTFLOW= .3708E+02 BASIN STORAGE= .6559E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .81
                R  MANE          .68    426.63    226.38      1.29      5.00    425.11    225.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3699E+02 EXCESS= .0000E+00 OUTFLOW= .3701E+02 BASIN STORAGE= .6451E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .73
                R  MANE          .73    365.36    225.88      1.10      5.00    363.92    225.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3149E+02 EXCESS= .0000E+00 OUTFLOW= .3150E+02 BASIN STORAGE= .6443E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .73
                R  MANE          .73    365.06    225.91      1.09      5.00    363.58    225.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3146E+02 EXCESS= .0000E+00 OUTFLOW= .3147E+02 BASIN STORAGE= .6696E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .56
                R  MANE          .87    236.28    226.95       .70      5.00    233.44    225.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2006E+02 EXCESS= .0000E+00 OUTFLOW= .2007E+02 BASIN STORAGE= .6414E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .56
                R  MANE          .75    236.65    226.47       .70      5.00    233.24    225.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2004E+02 EXCESS= .0000E+00 OUTFLOW= .2005E+02 BASIN STORAGE= .6495E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO= .92
               Q1  MANE          .99     40.92    211.25      1.64      5.00     38.55    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2005E+01 OUTFLOW= .2006E+01 BASIN STORAGE= .1138E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .92
               Q1  MANE         1.06     36.13    211.89      1.44      5.00     33.55    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1766E+01 OUTFLOW= .1766E+01 BASIN STORAGE= .1301E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .92
               Q1  MANE         1.06     36.06    211.93      1.44      5.00     33.50    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1764E+01 OUTFLOW= .1764E+01 BASIN STORAGE= .1308E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .81
               Q1  MANE         1.09     29.12    212.27      1.16      5.00     26.64    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1427E+01 OUTFLOW= .1427E+01 BASIN STORAGE= .1208E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .81
               Q1  MANE         1.09     28.94    212.32      1.16      5.00     26.62    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1424E+01 OUTFLOW= .1424E+01 BASIN STORAGE= .1366E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .73
               Q1  MANE         1.16     24.08    212.82       .98      5.00     21.76    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1204E+01 OUTFLOW= .1204E+01 BASIN STORAGE= .1232E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .73
               Q1  MANE         1.16     24.08    212.84       .98      5.00     21.71    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1203E+01 OUTFLOW= .1202E+01 BASIN STORAGE= .1143E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO= .56
               Q1  MANE         1.57     14.49    213.65       .61      5.00     14.13    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7516E+00 OUTFLOW= .7503E+00 BASIN STORAGE= .1271E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO= .56
               Q1  MANE         1.58     14.44    213.67       .61      5.00     14.13    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7508E+00 OUTFLOW= .7495E+00 BASIN STORAGE= .1264E-03 PERCENT ERROR=    .2
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          FOR PLAN = 1  RATIO=  .92
               S1  MANE          .87     84.08    212.18      1.64      5.00     78.39    210.00        1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+01 OUTFLOW= .4122E+01 BASIN STORAGE= .2896E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               S1  MANE          .94     73.66    211.70      1.45      5.00     68.09    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3628E+01 OUTFLOW= .3628E+01 BASIN STORAGE= .3000E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               S1  MANE          .88     73.60    211.86      1.45      5.00     67.94    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3624E+01 OUTFLOW= .3627E+01 BASIN STORAGE= .2745E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               S1  MANE          .99     59.48    212.71      1.17      5.00     53.07    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2932E+01 OUTFLOW= .2932E+01 BASIN STORAGE= .2769E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               S1  MANE         1.04     58.91    212.02      1.17      5.00     53.51    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2926E+01 OUTFLOW= .2926E+01 BASIN STORAGE= .2720E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               S1  MANE         1.10     49.23    212.26       .99      5.00     45.44    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2475E+01 OUTFLOW= .2474E+01 BASIN STORAGE= .2869E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               S1  MANE         1.10     49.18    212.28       .99      5.00     45.29    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2473E+01 OUTFLOW= .2472E+01 BASIN STORAGE= .2694E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               S1  MANE         1.35     29.41    213.67       .62      5.00     29.17    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1546E+01 OUTFLOW= .1543E+01 BASIN STORAGE= .2734E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .56
               S1  MANE         1.35     29.43    213.70       .61      5.00     29.13    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1544E+01 OUTFLOW= .1541E+01 BASIN STORAGE= .2768E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
                R  MANE         1.16    584.19    222.82      1.55      5.00    582.78    225.00        1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5318E+02 EXCESS= .0000E+00 OUTFLOW= .5323E+02 BASIN STORAGE= .2181E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
                R  MANE         1.16    583.82    222.85      1.55      5.00    582.38    225.00        1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5313E+02 EXCESS= .0000E+00 OUTFLOW= .5318E+02 BASIN STORAGE= .2167E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.30    478.95    224.87      1.26      5.00    478.94    225.00        1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4319E+02 EXCESS= .0000E+00 OUTFLOW= .4322E+02 BASIN STORAGE= .2116E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.23    477.97    224.20      1.26      5.00    477.96    225.00        1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4310E+02 EXCESS= .0000E+00 OUTFLOW= .4314E+02 BASIN STORAGE= .2200E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.34    409.71    226.01      1.07      5.00    409.32    225.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3662E+02 EXCESS= .0000E+00 OUTFLOW= .3665E+02 BASIN STORAGE= .2076E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.29    409.35    226.75      1.07      5.00    408.95    225.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3659E+02 EXCESS= .0000E+00 OUTFLOW= .3662E+02 BASIN STORAGE= .2108E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.42    264.68    228.36       .68      5.00    261.79    230.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2322E+02 EXCESS= .0000E+00 OUTFLOW= .2323E+02 BASIN STORAGE= .2085E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.42    264.42    228.40       .68      5.00    261.58    230.00         .68
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .2319E+02 EXCESS= .0000E+00 OUTFLOW= .2320E+02 BASIN STORAGE= .2108E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

S2	MANE	1.15	38.63	212.50	1.63	5.00	35.95	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1918E+01 OUTFLOW= .1918E+01 BASIN STORAGE= .1404E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

S2	MANE	1.11	33.84	211.62	1.44	5.00	31.12	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1689E+01 OUTFLOW= .1689E+01 BASIN STORAGE= .1480E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

S2	MANE	1.11	33.82	211.65	1.44	5.00	31.09	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1687E+01 OUTFLOW= .1687E+01 BASIN STORAGE= .1530E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

S2	MANE	1.18	27.21	212.68	1.16	5.00	24.56	215.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1365E+01 OUTFLOW= .1365E+01 BASIN STORAGE= .1476E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

S2	MANE	1.19	27.05	212.77	1.16	5.00	24.45	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1362E+01 OUTFLOW= .1362E+01 BASIN STORAGE= .1388E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

S2	MANE	1.36	22.76	212.59	.98	5.00	21.21	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1152E+01 OUTFLOW= .1151E+01 BASIN STORAGE= .1563E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

S2	MANE	1.36	22.74	212.62	.98	5.00	21.19	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1151E+01 OUTFLOW= .1150E+01 BASIN STORAGE= .1551E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

S2	MANE	1.70	13.45	214.99	.61	5.00	13.44	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7189E+00 OUTFLOW= .7173E+00 BASIN STORAGE= .1570E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .56

S2	MANE	1.70	13.43	215.02	.61	5.00	13.42	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7182E+00 OUTFLOW= .7165E+00 BASIN STORAGE= .1563E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .92

R	MANE	.98	31.23	212.19	1.23	5.00	30.90	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1834E+01 EXCESS= .0000E+00 OUTFLOW= .1838E+01 BASIN STORAGE= .1148E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R	MANE	.98	31.19	212.21	1.23	5.00	30.87	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1832E+01 EXCESS= .0000E+00 OUTFLOW= .1836E+01 BASIN STORAGE= .8292E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81

R	MANE	.94	24.81	212.70	.98	5.00	24.72	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1453E+01 EXCESS= .0000E+00 OUTFLOW= .1457E+01 BASIN STORAGE= .9296E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .81

R	MANE	.94	24.75	212.74	.97	5.00	24.67	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1450E+01 EXCESS= .0000E+00 OUTFLOW= .1454E+01 BASIN STORAGE= .1157E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

R	MANE	.96	20.64	215.81	.81	5.00	20.63	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1206E+01 EXCESS= .0000E+00 OUTFLOW= .1210E+01 BASIN STORAGE= .1069E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

R	MANE	.96	20.62	215.85	.81	5.00	20.61	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1205E+01 EXCESS= .0000E+00 OUTFLOW= .1209E+01 BASIN STORAGE= .1119E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .56

R	MANE	1.28	12.32	216.02	.48	5.00	12.23	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7145E+00 EXCESS= .0000E+00 OUTFLOW= .7160E+00 BASIN STORAGE= .8857E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .56

R	MANE	1.17	12.35	216.70	.48	5.00	12.22	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7137E+00 EXCESS= .0000E+00 OUTFLOW= .7153E+00 BASIN STORAGE= .9282E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R2	MANE	.87	64.38	211.75	1.63	5.00	60.43	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3122E+01 OUTFLOW= .3123E+01 BASIN STORAGE= .2001E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R2	MANE	.86	56.69	212.12	1.43	5.00	52.95	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2749E+01 OUTFLOW= .2750E+01 BASIN STORAGE= .1873E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R2	MANE	.86	56.37	212.30	1.43	5.00	52.62	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2746E+01 OUTFLOW= .2748E+01 BASIN STORAGE= .1898E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R2	MANE	1.01	45.42	211.92	1.16	5.00	41.41	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2220E+01 OUTFLOW= .2221E+01 BASIN STORAGE= .1984E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R2	MANE	1.01	45.43	212.07	1.15	5.00	41.44	210.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2216E+01 OUTFLOW= .2216E+01 BASIN STORAGE= .1753E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R2	MANE	.97	38.03	212.41	.98	5.00	34.30	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1874E+01 OUTFLOW= .1874E+01 BASIN STORAGE= .1903E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R2	MANE	.97	38.02	212.46	.97	5.00	34.23	210.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1872E+01 OUTFLOW= .1871E+01 BASIN STORAGE= .1853E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R2	MANE	1.18	22.76	213.53	.61	5.00	22.07	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1169E+01 OUTFLOW= .1167E+01 BASIN STORAGE= .1913E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

R2	MANE	1.18	22.74	213.55	.61	5.00	22.05	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1168E+01 OUTFLOW= .1166E+01 BASIN STORAGE= .1911E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	1.44	81.09	212.84	1.35	5.00	79.12	215.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4586E+01 EXCESS= .0000E+00 OUTFLOW= .4594E+01 BASIN STORAGE= .3860E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R	MANE	1.40	80.78	212.75	1.34	5.00	78.99	215.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4581E+01 EXCESS= .0000E+00 OUTFLOW= .4588E+01 BASIN STORAGE= .3469E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81

R	MANE	1.61	63.63	213.61	1.08	5.00	63.57	215.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3677E+01 EXCESS= .0000E+00 OUTFLOW= .3680E+01 BASIN STORAGE= .3817E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.62	63.54	214.57	1.08	5.00	63.51	215.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3669E+01 EXCESS= .0000E+00 OUTFLOW= .3675E+01 BASIN STORAGE= .3814E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

R	MANE	1.63	54.10	217.70	.90	5.00	53.13	215.00	.90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3082E+01 EXCESS= .0000E+00 OUTFLOW= .3084E+01 BASIN STORAGE= .3322E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.63	54.04	217.73	.90	5.00	53.05	215.00	.90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3078E+01 EXCESS= .0000E+00 OUTFLOW= .3080E+01 BASIN STORAGE= .3477E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	2.05	33.44	218.55	.55	5.00	32.31	220.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1883E+01 EXCESS= .0000E+00 OUTFLOW= .1886E+01 BASIN STORAGE= .3675E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .56

R	MANE	2.05	33.47	218.61	.55	5.00	32.29	220.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1881E+01 EXCESS= .0000E+00 OUTFLOW= .1883E+01 BASIN STORAGE= .3549E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R1	MANE	1.23	53.96	212.37	1.63	5.00	49.70	210.00	1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2688E+01 OUTFLOW= .2688E+01 BASIN STORAGE= .2137E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R1	MANE	1.22	47.54	212.27	1.43	5.00	43.55	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2367E+01 OUTFLOW= .2366E+01 BASIN STORAGE= .2206E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R1	MANE	1.22	47.43	212.30	1.43	5.00	43.42	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2365E+01 OUTFLOW= .2364E+01 BASIN STORAGE= .2014E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R1	MANE	1.30	37.95	212.70	1.16	5.00	34.52	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1912E+01 OUTFLOW= .1911E+01 BASIN STORAGE= .2058E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R1	MANE	1.40	37.86	213.01	1.15	5.00	34.58	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1908E+01 OUTFLOW= .1907E+01 BASIN STORAGE= .2228E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R1	MANE	1.52	31.49	213.78	.98	5.00	29.87	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1614E+01 OUTFLOW= .1612E+01 BASIN STORAGE= .2081E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

R1	MANE	1.52	31.39	213.83	.97	5.00	29.81	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1612E+01 OUTFLOW= .1610E+01 BASIN STORAGE= .1985E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

R1	MANE	1.71	18.50	214.87	.61	5.00	18.46	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1006E+01 OUTFLOW= .1004E+01 BASIN STORAGE= .2016E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .56

R1	MANE	1.71	18.48	214.89	.61	5.00	18.44	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1005E+01 OUTFLOW= .1003E+01 BASIN STORAGE= .2256E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .92

F	MANE	.52	12.30	209.60	2.31	5.00	12.29	210.00	2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6167E+00 OUTFLOW= .6166E+00 BASIN STORAGE= .8879E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

F	MANE	.40	11.26	210.05	2.09	5.00	11.25	210.00	2.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5581E+00 OUTFLOW= .5580E+00 BASIN STORAGE= .9053E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

F	MANE	.47	11.18	209.79	2.09	5.00	11.18	210.00	2.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5577E+00 OUTFLOW= .5576E+00 BASIN STORAGE= .9131E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

F	MANE	.45	9.59	210.11	1.77	5.00	9.58	210.00	1.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4734E+00 OUTFLOW= .4732E+00 BASIN STORAGE= .9150E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

F	MANE	.44	9.59	209.81	1.77	5.00	9.58	210.00	1.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4726E+00 OUTFLOW= .4725E+00 BASIN STORAGE= .8986E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

F	MANE	.54	8.51	210.18	1.56	5.00	8.48	210.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4163E+00 OUTFLOW= .4161E+00 BASIN STORAGE= .9449E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

F	MANE	.59	8.52	210.14	1.56	5.00	8.49	210.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4160E+00 OUTFLOW= .4158E+00 BASIN STORAGE= .9364E-05 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

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                F  MANE          .59      6.11    210.19      1.10      5.00      6.08    210.00        1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2945E+00 OUTFLOW= .2944E+00 BASIN STORAGE= .9441E-05 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                F  MANE          .66      6.10    210.16      1.10      5.00      6.07    210.00        1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2943E+00 OUTFLOW= .2941E+00 BASIN STORAGE= .9228E-05 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               RF  MANE         2.68   1150.36    219.79      1.50      5.00   1148.49    220.00        1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9058E+02 EXCESS= .0000E+00 OUTFLOW= .9067E+02 BASIN STORAGE= .8980E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               RF  MANE         2.69   1150.50    219.85      1.50      5.00   1149.07    220.00        1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9050E+02 EXCESS= .0000E+00 OUTFLOW= .9057E+02 BASIN STORAGE= .8654E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               RF  MANE         2.81    935.03    220.44      1.22      5.00    911.66    220.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7338E+02 EXCESS= .0000E+00 OUTFLOW= .7359E+02 BASIN STORAGE= .8374E-02 PERCENT ERROR=   -.3

          FOR PLAN = 1  RATIO=  .81
               RF  MANE         2.81    935.80    220.50      1.22      5.00    909.23    220.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7324E+02 EXCESS= .0000E+00 OUTFLOW= .7346E+02 BASIN STORAGE= .8326E-02 PERCENT ERROR=   -.3

          FOR PLAN = 1  RATIO=  .73
               RF  MANE         3.16    781.77    221.75      1.03      5.00    766.97    225.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6210E+02 EXCESS= .0000E+00 OUTFLOW= .6238E+02 BASIN STORAGE= .9857E-02 PERCENT ERROR=   -.5

          FOR PLAN = 1  RATIO=  .73
               RF  MANE         3.16    780.94    221.78      1.03      5.00    766.43    225.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6205E+02 EXCESS= .0000E+00 OUTFLOW= .6233E+02 BASIN STORAGE= .9841E-02 PERCENT ERROR=   -.5

          FOR PLAN = 1  RATIO=  .56
               RF  MANE         3.58    480.59    227.97       .65      5.00    469.80    230.00         .65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3910E+02 EXCESS= .0000E+00 OUTFLOW= .3904E+02 BASIN STORAGE= .9882E-02 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .56
               RF  MANE         3.58    479.90    228.02       .65      5.00    469.40    230.00         .65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3906E+02 EXCESS= .0000E+00 OUTFLOW= .3898E+02 BASIN STORAGE= .8636E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .52    259.28    220.80      1.51      5.00    258.51    225.00        1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2020E+02 EXCESS= .0000E+00 OUTFLOW= .2020E+02 BASIN STORAGE= .6105E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .52    259.07    220.84      1.51      5.00    258.30    225.00        1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2018E+02 EXCESS= .0000E+00 OUTFLOW= .2018E+02 BASIN STORAGE= .5971E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .54    210.70    224.68      1.22      5.00    210.67    225.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1632E+02 EXCESS= .0000E+00 OUTFLOW= .1632E+02 BASIN STORAGE= .6229E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .54    210.31    224.77      1.22      5.00    210.26    225.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1629E+02 EXCESS= .0000E+00 OUTFLOW= .1629E+02 BASIN STORAGE= .6098E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .56    178.94    224.85      1.03      5.00    178.94    225.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1379E+02 EXCESS= .0000E+00 OUTFLOW= .1379E+02 BASIN STORAGE= .5982E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .56    178.80    224.89      1.03      5.00    178.80    225.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1377E+02 EXCESS= .0000E+00 OUTFLOW= .1377E+02 BASIN STORAGE= .6354E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
               R4  MANE          .61    113.26    225.60       .65      5.00    113.01    225.00         .65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8637E+01 EXCESS= .0000E+00 OUTFLOW= .8637E+01 BASIN STORAGE= .6098E-04 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .00
R4 MANE .61 113.10 225.64 .64 5.00 112.89 225.00 .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8628E+01 EXCESS= .0000E+00 OUTFLOW= .8628E+01 BASIN STORAGE= .5990E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.26 78.73 216.26 1.67 5.00 76.15 215.00 1.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5400E+01 EXCESS= .0000E+00 OUTFLOW= .5400E+01 BASIN STORAGE= .1849E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.26 78.64 216.32 1.66 5.00 76.04 215.00 1.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5394E+01 EXCESS= .0000E+00 OUTFLOW= .5395E+01 BASIN STORAGE= .2121E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.32 64.66 216.57 1.36 5.00 62.23 220.00 1.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4408E+01 EXCESS= .0000E+00 OUTFLOW= .4408E+01 BASIN STORAGE= .2085E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.32 64.52 216.67 1.36 5.00 62.08 220.00 1.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4399E+01 EXCESS= .0000E+00 OUTFLOW= .4399E+01 BASIN STORAGE= .2040E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.37 55.27 216.98 1.16 5.00 53.38 220.00 1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3753E+01 EXCESS= .0000E+00 OUTFLOW= .3753E+01 BASIN STORAGE= .1974E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.37 55.22 217.02 1.16 5.00 53.35 220.00 1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3749E+01 EXCESS= .0000E+00 OUTFLOW= .3749E+01 BASIN STORAGE= .1955E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.53 35.72 217.65 .74 5.00 34.85 220.00 .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2406E+01 EXCESS= .0000E+00 OUTFLOW= .2406E+01 BASIN STORAGE= .1880E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R5 MANE 1.53 35.69 217.71 .74 5.00 34.81 220.00 .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2404E+01 EXCESS= .0000E+00 OUTFLOW= .2404E+01 BASIN STORAGE= .1861E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92
R MANE 1.58 372.25 223.33 1.55 5.00 366.41 225.00 1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2952E+02 EXCESS= .0000E+00 OUTFLOW= .2955E+02 BASIN STORAGE= .1966E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92
R MANE 1.58 371.78 223.35 1.55 5.00 366.04 225.00 1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2949E+02 EXCESS= .0000E+00 OUTFLOW= .2952E+02 BASIN STORAGE= .1946E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81
R MANE 1.72 302.54 223.61 1.26 5.00 299.20 225.00 1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2392E+02 EXCESS= .0000E+00 OUTFLOW= .2396E+02 BASIN STORAGE= .1445E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81
R MANE 1.64 302.74 223.27 1.26 5.00 298.64 225.00 1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2387E+02 EXCESS= .0000E+00 OUTFLOW= .2392E+02 BASIN STORAGE= .1781E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73
R MANE 1.70 257.13 223.48 1.07 5.00 254.56 225.00 1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2025E+02 EXCESS= .0000E+00 OUTFLOW= .2028E+02 BASIN STORAGE= .1432E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73
R MANE 1.65 256.73 223.60 1.07 5.00 254.37 225.00 1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2023E+02 EXCESS= .0000E+00 OUTFLOW= .2026E+02 BASIN STORAGE= .1405E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56
R MANE 1.91 161.29 224.75 .67 5.00 161.19 225.00 .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1277E+02 EXCESS= .0000E+00 OUTFLOW= .1279E+02 BASIN STORAGE= .1364E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .56
R MANE 1.91 161.10 224.79 .67 5.00 161.01 225.00 .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1276E+02 EXCESS= .0000E+00 OUTFLOW= .1278E+02 BASIN STORAGE= .1346E-05 PERCENT ERROR= -.2

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          FOR PLAN = 1  RATIO=  .92
               N1  MANE          1.43     67.17    213.89      1.50      5.00     65.02    215.00         1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3691E+01 OUTFLOW= .3685E+01 BASIN STORAGE= .5678E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .92
               N1  MANE          1.43     57.69    213.53      1.31      5.00     56.96    215.00         1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3228E+01 OUTFLOW= .3223E+01 BASIN STORAGE= .5778E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .92
               N1  MANE          1.43     57.49    213.58      1.31      5.00     56.72    215.00         1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3225E+01 OUTFLOW= .3219E+01 BASIN STORAGE= .5542E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .81
               N1  MANE          1.61     44.49    214.41      1.05      5.00     44.30    215.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2577E+01 OUTFLOW= .2570E+01 BASIN STORAGE= .5555E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .81
               N1  MANE          1.61     44.35    214.48      1.05      5.00     44.16    215.00         1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2571E+01 OUTFLOW= .2565E+01 BASIN STORAGE= .5455E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .73
               N1  MANE          1.82     35.98    215.46       .87      5.00     35.44    215.00          .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2153E+01 OUTFLOW= .2146E+01 BASIN STORAGE= .6064E-03 PERCENT ERROR=     .3

          FOR PLAN = 1  RATIO=  .73
               N1  MANE          1.81     35.96    215.49       .87      5.00     35.39    215.00          .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2151E+01 OUTFLOW= .2144E+01 BASIN STORAGE= .6241E-03 PERCENT ERROR=     .3

          FOR PLAN = 1  RATIO=  .56
               N1  MANE          2.22     18.59    220.28       .53      5.00     18.41    220.00          .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1301E+01 OUTFLOW= .1291E+01 BASIN STORAGE= .6062E-03 PERCENT ERROR=     .7

          FOR PLAN = 1  RATIO=  .56
               N1  MANE          2.22     18.56    220.30       .53      5.00     18.37    220.00          .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1299E+01 OUTFLOW= .1290E+01 BASIN STORAGE= .6058E-03 PERCENT ERROR=     .7

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .60     56.21    215.83      1.31      5.00     55.02    215.00         1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3224E+01 EXCESS= .0000E+00 OUTFLOW= .3224E+01 BASIN STORAGE= .1259E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .63     55.91    215.73      1.31      5.00     54.78    215.00         1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3220E+01 EXCESS= .0000E+00 OUTFLOW= .3220E+01 BASIN STORAGE= .1268E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .51     44.09    215.93      1.05      5.00     41.66    215.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2568E+01 EXCESS= .0000E+00 OUTFLOW= .2569E+01 BASIN STORAGE= .1261E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .50     43.93    216.17      1.04      5.00     41.54    215.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2562E+01 EXCESS= .0000E+00 OUTFLOW= .2563E+01 BASIN STORAGE= .1256E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .64     35.10    216.58       .87      5.00     32.83    220.00          .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2143E+01 EXCESS= .0000E+00 OUTFLOW= .2144E+01 BASIN STORAGE= .1260E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .64     35.03    216.61       .87      5.00     32.80    220.00          .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2141E+01 EXCESS= .0000E+00 OUTFLOW= .2142E+01 BASIN STORAGE= .1265E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE           .75     18.24    221.98       .53      5.00     17.57    225.00          .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1292E+01 EXCESS= .0000E+00 OUTFLOW= .1292E+01 BASIN STORAGE= .1253E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE           .75     18.20    222.01       .53      5.00     17.55    225.00          .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1290E+01 EXCESS= .0000E+00 OUTFLOW= .1291E+01 BASIN STORAGE= .1260E-04 PERCENT ERROR=     .0
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 FOR PLAN = 1  RATIO=  .92
       R  MANE          .30     36.46    210.68      2.11      5.00     35.93    210.00        2.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2252E+01 EXCESS= .0000E+00 OUTFLOW= .2253E+01 BASIN STORAGE= .5447E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .92
       R  MANE          .31     36.41    210.47      2.11      5.00     35.90    210.00        2.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2250E+01 EXCESS= .0000E+00 OUTFLOW= .2251E+01 BASIN STORAGE= .5510E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .81
       R  MANE          .37     31.27    210.76      1.79      5.00     30.79    210.00        1.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1910E+01 EXCESS= .0000E+00 OUTFLOW= .1912E+01 BASIN STORAGE= .6693E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .81
       R  MANE          .37     31.23    210.72      1.79      5.00     30.75    210.00        1.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1907E+01 EXCESS= .0000E+00 OUTFLOW= .1909E+01 BASIN STORAGE= .5805E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .73
       R  MANE          .38     27.75    210.62      1.58      5.00     27.29    210.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1680E+01 EXCESS= .0000E+00 OUTFLOW= .1681E+01 BASIN STORAGE= .5847E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .73
       R  MANE          .35     27.74    210.55      1.58      5.00     27.27    210.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1679E+01 EXCESS= .0000E+00 OUTFLOW= .1680E+01 BASIN STORAGE= .6762E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .56
       R  MANE          .39     20.13    210.68      1.12      5.00     19.69    210.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1189E+01 EXCESS= .0000E+00 OUTFLOW= .1190E+01 BASIN STORAGE= .6191E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .56
       R  MANE          .45     20.06    210.68      1.11      5.00     19.67    210.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1188E+01 EXCESS= .0000E+00 OUTFLOW= .1189E+01 BASIN STORAGE= .7322E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .92
       R  MANE         1.51     30.20    217.39      1.25      5.00     29.99    215.00        1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1800E+01 EXCESS= .0000E+00 OUTFLOW= .1806E+01 BASIN STORAGE= .9704E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .92
       R  MANE         1.51     30.17    217.35      1.25      5.00     29.96    215.00        1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1798E+01 EXCESS= .0000E+00 OUTFLOW= .1804E+01 BASIN STORAGE= .9729E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .81
       R  MANE         1.72     24.04    216.09       .99      5.00     23.87    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1427E+01 EXCESS= .0000E+00 OUTFLOW= .1432E+01 BASIN STORAGE= .8936E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .81
       R  MANE         1.71     24.00    216.22       .99      5.00     23.82    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1424E+01 EXCESS= .0000E+00 OUTFLOW= .1429E+01 BASIN STORAGE= .9376E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .73
       R  MANE         1.69     20.28    218.46       .83      5.00     19.83    215.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1186E+01 EXCESS= .0000E+00 OUTFLOW= .1190E+01 BASIN STORAGE= .1067E-05 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .73
       R  MANE         1.69     20.24    218.48       .83      5.00     19.81    215.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1185E+01 EXCESS= .0000E+00 OUTFLOW= .1189E+01 BASIN STORAGE= .7819E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .56
       R  MANE         1.99     12.23    218.87       .49      5.00     11.57    215.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7042E+00 EXCESS= .0000E+00 OUTFLOW= .7051E+00 BASIN STORAGE= .9769E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .56
       R  MANE         1.94     12.05    219.30       .49      5.00     11.61    220.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7034E+00 EXCESS= .0000E+00 OUTFLOW= .7065E+00 BASIN STORAGE= .8620E-06 PERCENT ERROR=   -.4

 FOR PLAN = 1  RATIO=  .92
       R  MANE          .55     29.94    216.16      1.25      5.00     28.80    215.00        1.26
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .1803E+01 EXCESS= .0000E+00 OUTFLOW= .1805E+01 BASIN STORAGE= .7246E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	.56	29.90	216.07	1.25	5.00	28.77	215.00	1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1801E+01 EXCESS= .0000E+00 OUTFLOW= .1803E+01 BASIN STORAGE= .7179E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.74	23.70	216.64	1.00	5.00	22.70	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1432E+01 EXCESS= .0000E+00 OUTFLOW= .1433E+01 BASIN STORAGE= .6309E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.69	23.71	216.50	.99	5.00	22.66	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1429E+01 EXCESS= .0000E+00 OUTFLOW= .1431E+01 BASIN STORAGE= .6893E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.82	19.71	216.74	.83	5.00	18.89	220.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1188E+01 EXCESS= .0000E+00 OUTFLOW= .1189E+01 BASIN STORAGE= .6775E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.82	19.69	216.76	.82	5.00	18.87	220.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1187E+01 EXCESS= .0000E+00 OUTFLOW= .1188E+01 BASIN STORAGE= .7118E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.92	11.57	217.00	.49	5.00	11.56	220.00	.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7054E+00 EXCESS= .0000E+00 OUTFLOW= .7059E+00 BASIN STORAGE= .6925E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.92	11.57	220.54	.49	5.00	11.56	220.00	.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7071E+00 EXCESS= .0000E+00 OUTFLOW= .7075E+00 BASIN STORAGE= .7275E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	1.24	61.39	217.02	1.24	5.00	59.77	215.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3690E+01 EXCESS= .0000E+00 OUTFLOW= .3704E+01 BASIN STORAGE= .4425E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .92

R	MANE	1.26	61.32	217.10	1.24	5.00	59.70	215.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3686E+01 EXCESS= .0000E+00 OUTFLOW= .3698E+01 BASIN STORAGE= .5497E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .81

R	MANE	1.30	49.36	217.36	.98	5.00	47.35	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2924E+01 EXCESS= .0000E+00 OUTFLOW= .2937E+01 BASIN STORAGE= .4979E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .81

R	MANE	1.41	48.60	216.70	.98	5.00	47.24	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2918E+01 EXCESS= .0000E+00 OUTFLOW= .2932E+01 BASIN STORAGE= .4503E-04 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .73

R	MANE	1.40	40.69	216.84	.82	5.00	39.18	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2428E+01 EXCESS= .0000E+00 OUTFLOW= .2435E+01 BASIN STORAGE= .4209E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

R	MANE	1.40	40.66	216.86	.81	5.00	39.13	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2426E+01 EXCESS= .0000E+00 OUTFLOW= .2433E+01 BASIN STORAGE= .4161E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .56

R	MANE	1.78	24.45	218.72	.48	5.00	23.28	220.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1439E+01 EXCESS= .0000E+00 OUTFLOW= .1446E+01 BASIN STORAGE= .4876E-04 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .56

R	MANE	1.78	24.40	218.74	.48	5.00	23.26	220.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1438E+01 EXCESS= .0000E+00 OUTFLOW= .1445E+01 BASIN STORAGE= .4852E-04 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .92

0	MANE	.75	32.46	210.91	2.05	5.00	31.26	210.00	2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1638E+01 OUTFLOW= .1639E+01 BASIN STORAGE= .6804E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

0	MANE	.90	29.19	211.31	1.83	5.00	28.08	210.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1468E+01 OUTFLOW= .1468E+01 BASIN STORAGE= .6648E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

0	MANE	.90	29.12	211.43	1.83	5.00	28.03	210.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1466E+01 OUTFLOW= .1467E+01 BASIN STORAGE= .6606E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

0	MANE	.91	24.28	211.08	1.53	5.00	23.22	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1223E+01 OUTFLOW= .1223E+01 BASIN STORAGE= .6831E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

0	MANE	.90	24.19	211.12	1.53	5.00	23.14	210.00	1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1221E+01 OUTFLOW= .1221E+01 BASIN STORAGE= .6583E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

0	MANE	1.02	21.11	211.73	1.32	5.00	19.98	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1059E+01 OUTFLOW= .1059E+01 BASIN STORAGE= .6696E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

0	MANE	1.02	21.08	211.77	1.32	5.00	19.96	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1058E+01 OUTFLOW= .1058E+01 BASIN STORAGE= .6604E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

0	MANE	1.10	14.12	212.20	.89	5.00	13.09	210.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7155E+00 OUTFLOW= .7151E+00 BASIN STORAGE= .5578E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

0	MANE	1.10	14.09	212.23	.89	5.00	13.08	210.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7149E+00 OUTFLOW= .7146E+00 BASIN STORAGE= .6792E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.69	27.57	210.93	1.84	5.00	26.55	210.00	1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1467E+01 EXCESS= .0000E+00 OUTFLOW= .1468E+01 BASIN STORAGE= .4770E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	.65	27.77	211.42	1.83	5.00	26.51	210.00	1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1466E+01 EXCESS= .0000E+00 OUTFLOW= .1468E+01 BASIN STORAGE= .4632E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.83	22.91	211.66	1.53	5.00	21.81	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1222E+01 EXCESS= .0000E+00 OUTFLOW= .1224E+01 BASIN STORAGE= .4963E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.83	22.79	211.70	1.53	5.00	21.74	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1220E+01 EXCESS= .0000E+00 OUTFLOW= .1221E+01 BASIN STORAGE= .4931E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.77	19.83	211.64	1.32	5.00	18.59	210.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1058E+01 EXCESS= .0000E+00 OUTFLOW= .1059E+01 BASIN STORAGE= .4912E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.77	19.80	211.66	1.32	5.00	18.57	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1057E+01 EXCESS= .0000E+00 OUTFLOW= .1058E+01 BASIN STORAGE= .4895E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.96	12.94	212.51	.89	5.00	12.48	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7151E+00 EXCESS= .0000E+00 OUTFLOW= .7157E+00 BASIN STORAGE= .4693E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.96	12.92	212.54	.89	5.00	12.46	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7147E+00 EXCESS= .0000E+00 OUTFLOW= .7153E+00 BASIN STORAGE= .4681E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	1.20	570.07	221.58	1.49	5.00	567.95	220.00	1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4532E+02 EXCESS= .0000E+00 OUTFLOW= .4537E+02 BASIN STORAGE= .3462E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	1.20	569.51	221.62	1.49	5.00	567.29	220.00	1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4527E+02 EXCESS= .0000E+00 OUTFLOW= .4533E+02 BASIN STORAGE= .3407E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.34	462.62	221.92	1.21	5.00	457.59	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3666E+02 EXCESS= .0000E+00 OUTFLOW= .3671E+02 BASIN STORAGE= .3545E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.38	461.66	222.06	1.20	5.00	456.43	220.00	1.20

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3659E+02 EXCESS= .0000E+00 OUTFLOW= .3662E+02 BASIN STORAGE= .3535E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.39	392.55	222.92	1.02	5.00	383.21	225.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3096E+02 EXCESS= .0000E+00 OUTFLOW= .3099E+02 BASIN STORAGE= .3449E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.39	392.03	222.95	1.02	5.00	383.08	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3094E+02 EXCESS= .0000E+00 OUTFLOW= .3097E+02 BASIN STORAGE= .3448E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	1.58	241.60	223.05	.64	5.00	240.59	225.00	.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1945E+02 EXCESS= .0000E+00 OUTFLOW= .1949E+02 BASIN STORAGE= .3313E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .56

R	MANE	1.68	241.21	224.01	.64	5.00	240.36	225.00	.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1943E+02 EXCESS= .0000E+00 OUTFLOW= .1945E+02 BASIN STORAGE= .3532E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

H3	MANE	.15	32.12	210.27	1.63	5.00	32.01	210.00	1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1482E+01 OUTFLOW= .1482E+01 BASIN STORAGE= .2457E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H3	MANE	.17	28.46	210.46	1.44	5.00	28.31	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1305E+01 OUTFLOW= .1305E+01 BASIN STORAGE= .2365E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H3	MANE	.11	28.31	210.23	1.44	5.00	28.22	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1304E+01 OUTFLOW= .1303E+01 BASIN STORAGE= .2409E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .81

H3	MANE	.24	22.98	210.59	1.16	5.00	22.66	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1054E+01 OUTFLOW= .1054E+01 BASIN STORAGE= .2341E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

H3	MANE	.24	22.84	210.39	1.16	5.00	22.65	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1052E+01 OUTFLOW= .1052E+01 BASIN STORAGE= .2414E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

H3	MANE	.20	19.25	210.82	.98	5.00	18.98	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8901E+00 OUTFLOW= .8898E+00 BASIN STORAGE= .2319E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

H3	MANE	.20	19.23	210.82	.98	5.00	18.97	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8893E+00 OUTFLOW= .8889E+00 BASIN STORAGE= .2447E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

H3	MANE	.23	11.77	211.02	.61	5.00	11.36	210.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5555E+00 OUTFLOW= .5552E+00 BASIN STORAGE= .2435E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

H3	MANE	.23	11.71	210.94	.61	5.00	11.41	210.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5549E+00 OUTFLOW= .5546E+00 BASIN STORAGE= .2296E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	1.17	27.93	212.17	1.45	5.00	24.80	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1308E+01 EXCESS= .0000E+00 OUTFLOW= .1311E+01 BASIN STORAGE= .1616E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

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                R  MANE         1.26     27.60    212.48      1.44      5.00     24.71    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1306E+01 EXCESS= .0000E+00 OUTFLOW= .1309E+01 BASIN STORAGE= .1586E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.35     21.75    212.06      1.17      5.00     19.51    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1055E+01 EXCESS= .0000E+00 OUTFLOW= .1056E+01 BASIN STORAGE= .1605E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.34     21.88    212.24      1.17      5.00     19.53    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1055E+01 EXCESS= .0000E+00 OUTFLOW= .1056E+01 BASIN STORAGE= .1628E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.35     18.31    213.11       .98      5.00     16.14    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8911E+00 EXCESS= .0000E+00 OUTFLOW= .8918E+00 BASIN STORAGE= .1673E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.35     18.26    213.13       .98      5.00     16.12    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8904E+00 EXCESS= .0000E+00 OUTFLOW= .8911E+00 BASIN STORAGE= .1674E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.52     11.11    213.52       .61      5.00     10.36    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5553E+00 EXCESS= .0000E+00 OUTFLOW= .5555E+00 BASIN STORAGE= .1568E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.48     11.15    213.51       .61      5.00     10.40    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5552E+00 EXCESS= .0000E+00 OUTFLOW= .5557E+00 BASIN STORAGE= .1588E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               P2  MANE         2.05    106.70    213.25      1.65      5.00    102.86    215.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5815E+01 OUTFLOW= .5810E+01 BASIN STORAGE= .9145E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .92
               P2  MANE         2.18     92.66    213.69      1.45      5.00     90.13    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5122E+01 OUTFLOW= .5112E+01 BASIN STORAGE= .1036E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
               P2  MANE         2.18     92.57    213.73      1.45      5.00     90.04    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5117E+01 OUTFLOW= .5107E+01 BASIN STORAGE= .1032E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .81
               P2  MANE         2.38     72.71    215.42      1.17      5.00     72.22    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4140E+01 OUTFLOW= .4132E+01 BASIN STORAGE= .1070E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .81
               P2  MANE         2.37     72.48    215.50      1.17      5.00     71.98    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4132E+01 OUTFLOW= .4124E+01 BASIN STORAGE= .1096E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
               P2  MANE         2.53     59.79    214.85       .99      5.00     59.70    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3496E+01 OUTFLOW= .3485E+01 BASIN STORAGE= .9357E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .73
               P2  MANE         2.53     59.75    214.88       .99      5.00     59.67    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3493E+01 OUTFLOW= .3482E+01 BASIN STORAGE= .9333E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .56
               P2  MANE         3.22     32.68    218.12       .62      5.00     32.48    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2185E+01 OUTFLOW= .2171E+01 BASIN STORAGE= .9128E-03 PERCENT ERROR=    .6

          FOR PLAN = 1  RATIO=  .56
               P2  MANE         3.22     32.65    218.14       .62      5.00     32.43    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2183E+01 OUTFLOW= .2169E+01 BASIN STORAGE= .8926E-03 PERCENT ERROR=    .6

          FOR PLAN = 1  RATIO=  .92
                R  MANE          .65     88.98    215.85      1.45      5.00     86.87    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5110E+01 EXCESS= .0000E+00 OUTFLOW= .5113E+01 BASIN STORAGE= .6707E-04 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .92
                R  MANE          .66     88.87    215.88      1.45      5.00     86.76    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5105E+01 EXCESS= .0000E+00 OUTFLOW= .5108E+01 BASIN STORAGE= .6677E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .80     70.81    216.83      1.17      5.00     67.71    215.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4130E+01 EXCESS= .0000E+00 OUTFLOW= .4132E+01 BASIN STORAGE= .6727E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .80     70.51    216.09      1.17      5.00     67.48    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4122E+01 EXCESS= .0000E+00 OUTFLOW= .4124E+01 BASIN STORAGE= .6623E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .85     59.09    216.64       .99      5.00     54.23    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3492E+01 EXCESS= .0000E+00 OUTFLOW= .3493E+01 BASIN STORAGE= .6656E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .81     58.86    216.45       .99      5.00     54.18    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3489E+01 EXCESS= .0000E+00 OUTFLOW= .3491E+01 BASIN STORAGE= .6689E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .98     32.12    222.06       .62      5.00     30.43    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2171E+01 EXCESS= .0000E+00 OUTFLOW= .2171E+01 BASIN STORAGE= .6591E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .92     31.93    221.43       .62      5.00     30.39    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2168E+01 EXCESS= .0000E+00 OUTFLOW= .2169E+01 BASIN STORAGE= .6635E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                R  MANE         1.37    668.52    222.57      1.48      5.00    655.05    220.00        1.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5313E+02 EXCESS= .0000E+00 OUTFLOW= .5318E+02 BASIN STORAGE= .6077E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
                R  MANE         1.37    667.88    222.60      1.48      5.00    654.27    220.00        1.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5307E+02 EXCESS= .0000E+00 OUTFLOW= .5312E+02 BASIN STORAGE= .6053E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.41    541.11    222.41      1.20      5.00    531.87    225.00        1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4297E+02 EXCESS= .0000E+00 OUTFLOW= .4300E+02 BASIN STORAGE= .5891E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE         1.44    541.04    222.69      1.19      5.00    530.78    225.00        1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4286E+02 EXCESS= .0000E+00 OUTFLOW= .4289E+02 BASIN STORAGE= .5969E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.38    456.93    223.33      1.01      5.00    451.59    225.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3624E+02 EXCESS= .0000E+00 OUTFLOW= .3627E+02 BASIN STORAGE= .5902E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.45    457.11    223.27      1.01      5.00    451.43    225.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3621E+02 EXCESS= .0000E+00 OUTFLOW= .3623E+02 BASIN STORAGE= .6143E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.62    280.05    227.65       .63      5.00    274.83    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2274E+02 EXCESS= .0000E+00 OUTFLOW= .2276E+02 BASIN STORAGE= .5751E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE         1.77    278.57    228.93       .63      5.00    274.62    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2269E+02 EXCESS= .0000E+00 OUTFLOW= .2270E+02 BASIN STORAGE= .5847E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                Y  MANE          .87     36.37    211.46      2.05      5.00     34.81    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1857E+01 OUTFLOW= .1857E+01 BASIN STORAGE= .9299E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                Y  MANE          .85     32.61    211.65      1.84      5.00     31.20    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1663E+01 OUTFLOW= .1664E+01 BASIN STORAGE= .8053E-04 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .92

Y	MANE	.85	32.57	211.67	1.83	5.00	31.18	210.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1662E+01 OUTFLOW= .1663E+01 BASIN STORAGE= .8037E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

Y	MANE	1.02	27.25	211.76	1.53	5.00	25.70	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1386E+01 OUTFLOW= .1386E+01 BASIN STORAGE= .8021E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

Y	MANE	1.05	27.10	212.02	1.53	5.00	25.68	210.00	1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1383E+01 OUTFLOW= .1383E+01 BASIN STORAGE= .7958E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

Y	MANE	1.02	23.76	212.09	1.32	5.00	22.14	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1200E+01 OUTFLOW= .1201E+01 BASIN STORAGE= .8462E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

Y	MANE	1.02	23.73	212.11	1.32	5.00	22.09	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1199E+01 OUTFLOW= .1199E+01 BASIN STORAGE= .9199E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

Y	MANE	1.30	15.81	212.20	.89	5.00	14.40	210.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8109E+00 OUTFLOW= .8105E+00 BASIN STORAGE= .8428E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

Y	MANE	1.30	15.81	212.23	.89	5.00	14.39	210.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8102E+00 OUTFLOW= .8099E+00 BASIN STORAGE= .9107E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H1	MANE	1.32	90.41	213.17	1.62	5.00	82.60	215.00	1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4658E+01 OUTFLOW= .4657E+01 BASIN STORAGE= .4815E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H1	MANE	1.37	79.16	212.95	1.42	5.00	73.70	215.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4101E+01 OUTFLOW= .4099E+01 BASIN STORAGE= .5305E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H1	MANE	1.36	79.18	213.12	1.42	5.00	73.77	215.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4097E+01 OUTFLOW= .4096E+01 BASIN STORAGE= .5099E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

H1	MANE	1.37	63.35	213.20	1.15	5.00	60.86	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3311E+01 OUTFLOW= .3310E+01 BASIN STORAGE= .5078E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

H1	MANE	1.37	63.25	213.27	1.15	5.00	60.78	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3305E+01 OUTFLOW= .3302E+01 BASIN STORAGE= .5378E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

H1	MANE	1.59	52.30	213.79	.97	5.00	51.46	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2794E+01 OUTFLOW= .2790E+01 BASIN STORAGE= .5256E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

H1	MANE	1.59	52.26	213.83	.97	5.00	51.39	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2791E+01 OUTFLOW= .2787E+01 BASIN STORAGE= .5292E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

H1	MANE	1.92	30.28	216.65	.60	5.00	29.42	215.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1735E+01 BASIN STORAGE= .5165E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .56

H1	MANE	1.92	30.23	216.67	.60	5.00	29.38	215.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1740E+01 OUTFLOW= .1734E+01 BASIN STORAGE= .5251E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .92

R	MANE	.47	748.83	221.13	1.47	5.00	739.69	220.00	1.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6158E+02 EXCESS= .0000E+00 OUTFLOW= .6159E+02 BASIN STORAGE= .2406E-03 PERCENT ERROR= .0

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 FOR PLAN = 1  RATIO= .92
      R  MANE          .53    748.22    221.09      1.47      5.00    738.86    220.00        1.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6151E+02 EXCESS= .0000E+00 OUTFLOW= .6153E+02 BASIN STORAGE= .2396E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .81
      R  MANE          .60    601.91    221.19      1.19      5.00    595.61    225.00        1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4975E+02 EXCESS= .0000E+00 OUTFLOW= .4976E+02 BASIN STORAGE= .2349E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .81
      R  MANE          .60    599.78    221.22      1.18      5.00    594.18    225.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4963E+02 EXCESS= .0000E+00 OUTFLOW= .4964E+02 BASIN STORAGE= .2386E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .73
      R  MANE          .63    505.26    225.75      1.00      5.00    504.87    225.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4197E+02 EXCESS= .0000E+00 OUTFLOW= .4198E+02 BASIN STORAGE= .2386E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .73
      R  MANE          .62    505.05    225.77      1.00      5.00    504.70    225.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4192E+02 EXCESS= .0000E+00 OUTFLOW= .4193E+02 BASIN STORAGE= .2390E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .56
      R  MANE          .61    312.19    226.28       .63      5.00    306.30    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2633E+02 EXCESS= .0000E+00 OUTFLOW= .2634E+02 BASIN STORAGE= .2352E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .56
      R  MANE          .61    311.68    226.35       .63      5.00    306.03    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2628E+02 EXCESS= .0000E+00 OUTFLOW= .2628E+02 BASIN STORAGE= .2339E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .92
     Q2  MANE          .99    156.40    211.53      2.05      5.00    147.58    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8301E+01 OUTFLOW= .8301E+01 BASIN STORAGE= .5963E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .92
     Q2  MANE         1.06    140.90    212.24      1.84      5.00    131.61    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7437E+01 OUTFLOW= .7438E+01 BASIN STORAGE= .5892E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .92
     Q2  MANE         1.09    140.70    212.44      1.83      5.00    131.29    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7430E+01 OUTFLOW= .7431E+01 BASIN STORAGE= .5985E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .81
     Q2  MANE         1.14    116.71    212.29      1.53      5.00    108.26    210.00        1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6195E+01 OUTFLOW= .6195E+01 BASIN STORAGE= .6264E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .81
     Q2  MANE         1.14    116.79    212.35      1.53      5.00    108.22    210.00        1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6184E+01 OUTFLOW= .6184E+01 BASIN STORAGE= .6133E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .73
     Q2  MANE         1.10    101.23    212.10      1.32      5.00     92.30    215.00        1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5366E+01 OUTFLOW= .5365E+01 BASIN STORAGE= .6403E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .73
     Q2  MANE         1.10    101.30    212.13      1.32      5.00     92.42    210.00        1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5362E+01 OUTFLOW= .5360E+01 BASIN STORAGE= .6438E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO= .56
     Q2  MANE         1.38     67.09    213.82       .89      5.00     65.21    215.00         .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3625E+01 OUTFLOW= .3621E+01 BASIN STORAGE= .5473E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO= .56
     Q2  MANE         1.38     67.00    213.85       .89      5.00     65.13    215.00         .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3622E+01 OUTFLOW= .3618E+01 BASIN STORAGE= .5569E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO= .92
      R  MANE         1.01    130.15    212.32      1.83      5.00    123.85    215.00        1.83
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .7426E+01 EXCESS= .0000E+00 OUTFLOW= .7433E+01 BASIN STORAGE= .4481E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R MANE	.85	129.93	212.29	1.83	5.00	123.75	215.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7424E+01 EXCESS= .0000E+00 OUTFLOW= .7430E+01 BASIN STORAGE= .4369E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R MANE	1.02	107.88	212.22	1.53	5.00	105.18	215.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6187E+01 EXCESS= .0000E+00 OUTFLOW= .6195E+01 BASIN STORAGE= .4564E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R MANE	.93	107.54	211.75	1.53	5.00	105.23	215.00	1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6176E+01 EXCESS= .0000E+00 OUTFLOW= .6183E+01 BASIN STORAGE= .4412E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R MANE	1.10	92.29	214.20	1.33	5.00	92.28	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5366E+01 EXCESS= .0000E+00 OUTFLOW= .5371E+01 BASIN STORAGE= .4218E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R MANE	1.10	92.38	213.12	1.32	5.00	92.29	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5362E+01 EXCESS= .0000E+00 OUTFLOW= .5367E+01 BASIN STORAGE= .4564E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R MANE	1.22	64.24	217.54	.89	5.00	61.74	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3622E+01 EXCESS= .0000E+00 OUTFLOW= .3622E+01 BASIN STORAGE= .4451E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R MANE	1.29	63.69	216.69	.89	5.00	61.62	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3619E+01 EXCESS= .0000E+00 OUTFLOW= .3620E+01 BASIN STORAGE= .4603E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G1 MANE	.84	66.30	212.17	1.82	5.00	62.24	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3387E+01 OUTFLOW= .3388E+01 BASIN STORAGE= .2329E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G1 MANE	.94	59.00	212.29	1.61	5.00	54.81	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3008E+01 OUTFLOW= .3009E+01 BASIN STORAGE= .2438E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G1 MANE	.88	58.69	211.69	1.61	5.00	54.66	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3005E+01 OUTFLOW= .3007E+01 BASIN STORAGE= .2448E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

G1 MANE	.97	48.33	212.44	1.32	5.00	44.21	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2467E+01 OUTFLOW= .2467E+01 BASIN STORAGE= .2383E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

G1 MANE	.93	48.01	212.53	1.32	5.00	43.99	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2462E+01 OUTFLOW= .2463E+01 BASIN STORAGE= .2418E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G1 MANE	1.08	41.01	212.78	1.13	5.00	37.40	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2109E+01 OUTFLOW= .2109E+01 BASIN STORAGE= .2545E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G1 MANE	1.08	40.92	212.81	1.13	5.00	37.32	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2107E+01 OUTFLOW= .2107E+01 BASIN STORAGE= .2381E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

G1 MANE	1.17	25.69	213.74	.73	5.00	25.21	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1369E+01 OUTFLOW= .1367E+01 BASIN STORAGE= .2575E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

G1 MANE	1.17	25.65	213.77	.73	5.00	25.18	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1368E+01 OUTFLOW= .1366E+01 BASIN STORAGE= .2326E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

G2 MANE	.99	34.44	211.68	1.81	5.00	32.69	210.00	1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1742E+01 BASIN STORAGE= .9556E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G2	MANE	1.07	30.44	212.24	1.61	5.00	28.94	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1547E+01 OUTFLOW= .1547E+01 BASIN STORAGE= .9438E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G2	MANE	1.01	30.52	211.38	1.61	5.00	28.80	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1545E+01 OUTFLOW= .1545E+01 BASIN STORAGE= .1058E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

G2	MANE	1.03	24.99	212.22	1.32	5.00	23.40	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1269E+01 OUTFLOW= .1269E+01 BASIN STORAGE= .9976E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

G2	MANE	1.13	24.92	212.22	1.32	5.00	23.24	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1266E+01 OUTFLOW= .1266E+01 BASIN STORAGE= .9523E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G2	MANE	1.17	21.23	212.62	1.13	5.00	19.53	210.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1085E+01 OUTFLOW= .1084E+01 BASIN STORAGE= .1123E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

G2	MANE	1.17	21.17	212.65	1.13	5.00	19.55	210.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1084E+01 OUTFLOW= .1083E+01 BASIN STORAGE= .1095E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

G2	MANE	1.43	13.33	212.66	.73	5.00	12.78	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7040E+00 OUTFLOW= .7032E+00 BASIN STORAGE= .1050E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

G2	MANE	1.43	13.32	212.69	.73	5.00	12.76	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7033E+00 OUTFLOW= .7025E+00 BASIN STORAGE= .1066E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	.47	891.21	220.20	1.50	5.00	890.68	220.00	1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7546E+02 EXCESS= .0000E+00 OUTFLOW= .7546E+02 BASIN STORAGE= .2700E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.48	890.55	220.20	1.50	5.00	890.01	220.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7538E+02 EXCESS= .0000E+00 OUTFLOW= .7538E+02 BASIN STORAGE= .2699E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.45	721.60	220.59	1.22	5.00	718.04	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6121E+02 EXCESS= .0000E+00 OUTFLOW= .6121E+02 BASIN STORAGE= .2691E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.42	719.75	220.70	1.22	5.00	715.63	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6105E+02 EXCESS= .0000E+00 OUTFLOW= .6106E+02 BASIN STORAGE= .2685E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.48	604.56	221.27	1.03	5.00	597.91	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5180E+02 EXCESS= .0000E+00 OUTFLOW= .5181E+02 BASIN STORAGE= .2681E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.46	604.19	221.17	1.03	5.00	597.08	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5174E+02 EXCESS= .0000E+00 OUTFLOW= .5175E+02 BASIN STORAGE= .2685E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.46	371.42	226.14	.65	5.00	368.38	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3280E+02 EXCESS= .0000E+00 OUTFLOW= .3280E+02 BASIN STORAGE= .2656E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.55	370.79	225.94	.65	5.00	367.82	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3275E+02 EXCESS= .0000E+00 OUTFLOW= .3275E+02 BASIN STORAGE= .2652E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

E	MANE	.64	94.79	211.92	1.82	5.00	89.39	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4838E+01 OUTFLOW= .4840E+01 BASIN STORAGE= .3316E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

E	MANE	.75	84.08	211.71	1.61	5.00	79.11	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4297E+01 OUTFLOW= .4297E+01 BASIN STORAGE= .3577E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

E	MANE	.75	83.86	211.77	1.61	5.00	78.73	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4293E+01 OUTFLOW= .4292E+01 BASIN STORAGE= .3506E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

E	MANE	.83	68.59	212.26	1.32	5.00	63.37	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3524E+01 OUTFLOW= .3524E+01 BASIN STORAGE= .3443E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

E	MANE	.87	68.48	212.73	1.32	5.00	63.03	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3518E+01 OUTFLOW= .3517E+01 BASIN STORAGE= .3453E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.78	58.39	212.20	1.13	5.00	53.28	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3013E+01 OUTFLOW= .3012E+01 BASIN STORAGE= .3503E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.78	58.29	212.23	1.13	5.00	53.15	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3010E+01 OUTFLOW= .3010E+01 BASIN STORAGE= .3492E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

E	MANE	.89	36.58	213.99	.73	5.00	35.89	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1956E+01 OUTFLOW= .1954E+01 BASIN STORAGE= .3177E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

E	MANE	.89	36.50	214.03	.73	5.00	35.84	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1954E+01 OUTFLOW= .1953E+01 BASIN STORAGE= .3219E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.31	954.77	219.82	1.50	5.00	954.71	220.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8171E+02 EXCESS= .0000E+00 OUTFLOW= .8170E+02 BASIN STORAGE= .2721E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.27	954.13	220.05	1.50	5.00	954.12	220.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8162E+02 EXCESS= .0000E+00 OUTFLOW= .8163E+02 BASIN STORAGE= .2740E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.25	772.70	220.38	1.22	5.00	770.81	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6629E+02 EXCESS= .0000E+00 OUTFLOW= .6629E+02 BASIN STORAGE= .2722E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.32	769.86	220.55	1.22	5.00	768.32	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6612E+02 EXCESS= .0000E+00 OUTFLOW= .6613E+02 BASIN STORAGE= .2700E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.26	646.75	220.47	1.03	5.00	642.75	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5611E+02 EXCESS= .0000E+00 OUTFLOW= .5611E+02 BASIN STORAGE= .2692E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.26	646.16	220.51	1.03	5.00	641.79	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5605E+02 EXCESS= .0000E+00 OUTFLOW= .5605E+02 BASIN STORAGE= .2723E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.36	394.97	225.72	.65	5.00	392.81	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3552E+02 EXCESS= .0000E+00 OUTFLOW= .3553E+02 BASIN STORAGE= .2703E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.33	394.50	225.64	.65	5.00	392.23	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3547E+02 EXCESS= .0000E+00 OUTFLOW= .3547E+02 BASIN STORAGE= .2698E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

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          8  MANE          .46     76.48    211.11      2.03      5.00     74.09    210.00        2.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3896E+01 OUTFLOW= .3895E+01 BASIN STORAGE= .1301E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          8  MANE          .46     68.50    211.53      1.82      5.00     66.09    210.00        1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3490E+01 OUTFLOW= .3489E+01 BASIN STORAGE= .1130E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          8  MANE          .46     68.41    211.54      1.82      5.00     66.01    210.00        1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3487E+01 OUTFLOW= .3486E+01 BASIN STORAGE= .1127E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .81
          8  MANE          .39     57.02    211.72      1.51      5.00     54.86    210.00        1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2906E+01 OUTFLOW= .2905E+01 BASIN STORAGE= .1205E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .81
          8  MANE          .52     57.02    211.52      1.51      5.00     54.59    210.00        1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2901E+01 OUTFLOW= .2899E+01 BASIN STORAGE= .1238E-03 PERCENT ERROR=    .1

     FOR PLAN = 1  RATIO=  .73
          8  MANE          .40     49.74    211.59      1.31      5.00     47.29    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2517E+01 OUTFLOW= .2516E+01 BASIN STORAGE= .1306E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
          8  MANE          .42     49.66    211.39      1.31      5.00     47.40    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2515E+01 OUTFLOW= .2514E+01 BASIN STORAGE= .1310E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .56
          8  MANE          .49     33.14    211.98       .88      5.00     31.00    210.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1699E+01 OUTFLOW= .1698E+01 BASIN STORAGE= .1198E-03 PERCENT ERROR=    .1

     FOR PLAN = 1  RATIO=  .56
          8  MANE          .49     33.13    212.01       .88      5.00     30.96    210.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1697E+01 OUTFLOW= .1696E+01 BASIN STORAGE= .1397E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          R  MANE         1.22      7.34    212.50      1.22      5.00      6.73    215.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3907E+00 EXCESS= .0000E+00 OUTFLOW= .3916E+00 BASIN STORAGE= .1866E-07 PERCENT ERROR=   -.2

     FOR PLAN = 1  RATIO=  .92
          R  MANE         1.16      7.32    212.54      1.22      5.00      6.72    215.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3903E+00 EXCESS= .0000E+00 OUTFLOW= .3913E+00 BASIN STORAGE= .1984E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .81
          R  MANE         1.30      5.74    213.25       .97      5.00      5.42    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3094E+00 EXCESS= .0000E+00 OUTFLOW= .3104E+00 BASIN STORAGE= .2189E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .81
          R  MANE         1.30      5.72    213.32       .97      5.00      5.41    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3087E+00 EXCESS= .0000E+00 OUTFLOW= .3097E+00 BASIN STORAGE= .2328E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .73
          R  MANE         1.41      4.87    212.82       .80      5.00      4.55    215.00         .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2568E+00 EXCESS= .0000E+00 OUTFLOW= .2575E+00 BASIN STORAGE= .2255E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .73
          R  MANE         1.41      4.86    212.84       .80      5.00      4.55    215.00         .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2565E+00 EXCESS= .0000E+00 OUTFLOW= .2572E+00 BASIN STORAGE= .2310E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .56
          R  MANE         1.58      2.84    212.88       .48      5.00      2.75    215.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1520E+00 EXCESS= .0000E+00 OUTFLOW= .1524E+00 BASIN STORAGE= .2211E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .56
          R  MANE         1.58      2.85    212.91       .48      5.00      2.75    215.00         .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1518E+00 EXCESS= .0000E+00 OUTFLOW= .1521E+00 BASIN STORAGE= .1942E-07 PERCENT ERROR=   -.2
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          FOR PLAN = 1  RATIO=  .92
                R  MANE          .63     19.76    211.18      1.22      5.00     18.85    210.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1107E+01 EXCESS= .0000E+00 OUTFLOW= .1108E+01 BASIN STORAGE= .2045E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
                R  MANE          .63     19.73    211.16      1.22      5.00     18.82    210.00        1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1106E+01 EXCESS= .0000E+00 OUTFLOW= .1108E+01 BASIN STORAGE= .1707E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .60     15.66    211.51       .97      5.00     14.83    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8770E+00 EXCESS= .0000E+00 OUTFLOW= .8782E+00 BASIN STORAGE= .2118E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .67     15.61    211.21       .97      5.00     14.80    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8752E+00 EXCESS= .0000E+00 OUTFLOW= .8763E+00 BASIN STORAGE= .1671E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .67     13.02    211.40       .80      5.00     12.42    215.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7279E+00 EXCESS= .0000E+00 OUTFLOW= .7288E+00 BASIN STORAGE= .1698E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .57     13.04    211.17       .80      5.00     12.41    215.00         .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7271E+00 EXCESS= .0000E+00 OUTFLOW= .7283E+00 BASIN STORAGE= .2269E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .73      7.55    211.60       .48      5.00      7.46    215.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4308E+00 EXCESS= .0000E+00 OUTFLOW= .4316E+00 BASIN STORAGE= .2031E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .73      7.54    211.63       .48      5.00      7.45    215.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4301E+00 EXCESS= .0000E+00 OUTFLOW= .4309E+00 BASIN STORAGE= .1933E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .92
             C2+ST  MANE          1.00     63.26    212.41      1.62      5.00     58.59    210.00        1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3192E+01 OUTFLOW= .3192E+01 BASIN STORAGE= .2541E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             C2+ST  MANE          1.10     55.37    212.52      1.42      5.00     50.44    210.00        1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2810E+01 OUTFLOW= .2810E+01 BASIN STORAGE= .2888E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             C2+ST  MANE          .98     55.35    212.40      1.42      5.00     50.62    210.00        1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2807E+01 OUTFLOW= .2807E+01 BASIN STORAGE= .2579E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
             C2+ST  MANE          1.07     44.04    212.37      1.15      5.00     40.68    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2269E+01 OUTFLOW= .2269E+01 BASIN STORAGE= .2845E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
             C2+ST  MANE          1.07     43.97    213.34      1.15      5.00     40.73    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2264E+01 OUTFLOW= .2263E+01 BASIN STORAGE= .2809E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
             C2+ST  MANE          1.28     36.94    212.85       .97      5.00     35.03    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1914E+01 OUTFLOW= .1914E+01 BASIN STORAGE= .2739E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
             C2+ST  MANE          1.28     36.92    212.87       .97      5.00     35.00    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1913E+01 OUTFLOW= .1912E+01 BASIN STORAGE= .2727E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
             C2+ST  MANE          1.43     21.43    214.53       .60      5.00     21.38    215.00         .60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1193E+01 OUTFLOW= .1190E+01 BASIN STORAGE= .2804E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .56
             C2+ST  MANE          1.43     21.40    214.56       .60      5.00     21.35    215.00         .60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1192E+01 OUTFLOW= .1189E+01 BASIN STORAGE= .2788E-03 PERCENT ERROR=    .3
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          FOR PLAN = 1  RATIO=  .92
                R  MANE          .65     73.09    211.46      1.39      5.00     70.46    215.00        1.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4143E+01 EXCESS= .0000E+00 OUTFLOW= .4146E+01 BASIN STORAGE= .1260E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
                R  MANE          .52     73.34    211.00      1.39      5.00     70.22    215.00        1.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4138E+01 EXCESS= .0000E+00 OUTFLOW= .4143E+01 BASIN STORAGE= .1200E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .53     57.63    211.41      1.12      5.00     57.53    215.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3335E+01 EXCESS= .0000E+00 OUTFLOW= .3338E+01 BASIN STORAGE= .1252E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
                R  MANE          .69     57.58    211.44      1.12      5.00     57.52    215.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3328E+01 EXCESS= .0000E+00 OUTFLOW= .3331E+01 BASIN STORAGE= .1191E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .65     48.90    215.90       .94      5.00     48.72    215.00         .94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2810E+01 EXCESS= .0000E+00 OUTFLOW= .2813E+01 BASIN STORAGE= .1198E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .65     48.86    215.91       .94      5.00     48.67    215.00         .94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2807E+01 EXCESS= .0000E+00 OUTFLOW= .2810E+01 BASIN STORAGE= .1232E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .74     29.81    216.28       .58      5.00     28.26    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+01 EXCESS= .0000E+00 OUTFLOW= .1741E+01 BASIN STORAGE= .1174E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .71     29.67    216.77       .58      5.00     28.22    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1738E+01 EXCESS= .0000E+00 OUTFLOW= .1740E+01 BASIN STORAGE= .1181E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
             EN+ST  MANE          .75     38.15    211.69      2.31      5.00     36.72    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2097E+01 OUTFLOW= .2097E+01 BASIN STORAGE= .1035E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             EN+ST  MANE          .65     34.62    211.43      2.09      5.00     33.24    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1898E+01 OUTFLOW= .1898E+01 BASIN STORAGE= .1011E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             EN+ST  MANE          .65     34.59    211.44      2.09      5.00     33.23    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1896E+01 OUTFLOW= .1896E+01 BASIN STORAGE= .1021E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
             EN+ST  MANE          .68     29.41    211.64      1.78      5.00     28.04    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1609E+01 OUTFLOW= .1609E+01 BASIN STORAGE= .1061E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
             EN+ST  MANE          .68     29.32    211.31      1.77      5.00     28.04    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1607E+01 OUTFLOW= .1607E+01 BASIN STORAGE= .1010E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
             EN+ST  MANE          .83     25.99    211.92      1.56      5.00     24.71    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1415E+01 OUTFLOW= .1415E+01 BASIN STORAGE= .1084E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
             EN+ST  MANE          .83     25.98    211.94      1.56      5.00     24.70    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1414E+01 OUTFLOW= .1414E+01 BASIN STORAGE= .1080E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
             EN+ST  MANE          .91     18.31    212.20      1.10      5.00     17.18    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1001E+01 OUTFLOW= .1001E+01 BASIN STORAGE= .1005E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
             EN+ST  MANE          .90     18.29    212.24      1.10      5.00     17.16    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1000E+01 OUTFLOW= .1000E+01 BASIN STORAGE= .1060E-03 PERCENT ERROR=    .0
```

```
          FOR PLAN = 1  RATIO=  .92
               COM  MANE          .39     44.87    210.73      2.31      5.00     44.16    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2344E+01 OUTFLOW= .2343E+01 BASIN STORAGE= .4364E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               COM  MANE          .39     40.81    210.69      2.09      5.00     40.01    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2121E+01 OUTFLOW= .2121E+01 BASIN STORAGE= .4333E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               COM  MANE          .51     40.79    210.76      2.09      5.00     39.91    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2119E+01 OUTFLOW= .2119E+01 BASIN STORAGE= .4494E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               COM  MANE          .41     34.79    210.78      1.77      5.00     33.87    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1799E+01 OUTFLOW= .1798E+01 BASIN STORAGE= .4369E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               COM  MANE          .45     34.49    211.18      1.77      5.00     33.60    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1796E+01 OUTFLOW= .1796E+01 BASIN STORAGE= .4475E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               COM  MANE          .52     30.70    211.19      1.56      5.00     29.68    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1582E+01 OUTFLOW= .1582E+01 BASIN STORAGE= .4577E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               COM  MANE          .51     30.69    211.19      1.56      5.00     29.71    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1581E+01 OUTFLOW= .1581E+01 BASIN STORAGE= .4558E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               COM  MANE          .60     21.84    211.56      1.10      5.00     20.83    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1119E+01 OUTFLOW= .1119E+01 BASIN STORAGE= .4499E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               COM  MANE          .50     21.83    211.43      1.10      5.00     20.86    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1118E+01 OUTFLOW= .1119E+01 BASIN STORAGE= .4442E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               RCOM  MANE         .94   1124.29    217.00      1.52      5.00   1095.95    220.00        1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9453E+02 EXCESS= .0000E+00 OUTFLOW= .9459E+02 BASIN STORAGE= .2410E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
               RCOM  MANE         .92   1122.45    217.04      1.52      5.00   1095.07    220.00        1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9444E+02 EXCESS= .0000E+00 OUTFLOW= .9451E+02 BASIN STORAGE= .2467E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               RCOM  MANE        1.03    888.94    217.18      1.24      5.00    882.94    220.00        1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7687E+02 EXCESS= .0000E+00 OUTFLOW= .7693E+02 BASIN STORAGE= .2436E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               RCOM  MANE        1.03    885.63    217.27      1.24      5.00    880.05    220.00        1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7669E+02 EXCESS= .0000E+00 OUTFLOW= .7674E+02 BASIN STORAGE= .2457E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               RCOM  MANE        1.07    738.09    222.24      1.05      5.00    734.01    220.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6521E+02 EXCESS= .0000E+00 OUTFLOW= .6525E+02 BASIN STORAGE= .2394E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               RCOM  MANE        1.12    736.01    221.41      1.05      5.00    732.60    220.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6514E+02 EXCESS= .0000E+00 OUTFLOW= .6516E+02 BASIN STORAGE= .2440E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               RCOM  MANE        1.33    445.58    226.89       .67      5.00    441.12    225.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4155E+02 EXCESS= .0000E+00 OUTFLOW= .4155E+02 BASIN STORAGE= .2444E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               RCOM  MANE        1.36    445.74    227.59       .67      5.00    440.48    225.00         .67
```

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4149E+02 EXCESS= .0000E+00 OUTFLOW= .4149E+02 BASIN STORAGE= .2342E-02 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

HEC-1 Output File "2A-5.OUT" from Pittman East Detention Basin CLOMR

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   19NOV03  TIME  12:59:28   *
*                                       *
*****************************************
```


```
*****************************************
*                                       *
*   U.S. ARMY CORPS OF ENGINEERS        *
*   HYDROLOGIC ENGINEERING CENTER       *
*        609 SECOND STREET              *
*      DAVIS, CALIFORNIA 95616          *
*         (916) 756-1104                *
*                                       *
*****************************************
```


```
X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX           XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                    *DIAGRAM
*** FREE ***
             1      ID
             2      ID    PITTMAN EAST DETENTION BASIN
             3      ID    PBS&J, February 2000
             4      ID
             5      ID    THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
             6      ID    "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
             7      ID    1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
             8      ID    DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
             9      ID    CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
            10      ID    MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
            11      ID    CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
            12      ID    ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
            13      ID    CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
            14      ID
            15      ID    THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE
            16      ID    DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF
            17      ID    LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.
            18      ID
            19      ID
            20      ID    100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
            21      ID    DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
            22      ID    100-YEAR,  50-YEAR, 25-YEAR AND 10-YEAR EVENTS.
            23      ID
            24      IT       5       0       0     300
            25      IO       5       0       0
            26      IN       5       0       0
            27      JR    PREC   0.731   0.722   0.636   0.628   0.541   0.534   0.417   0.412
                    *
            28      KK      F1
            29      BA     9.4
            30      PB    3.38
            31      PC    .000    .020   0.059    0.08    0.11   0.144    0.15    0.16   0.168   0.171
            32      PC    .180    .182   0.187    0.19   0.197   0.202    0.21    0.22    0.23   0.241
            33      PC    .250    .259   0.265    0.28    0.29     0.3   0.305   0.309    0.31   0.317
            34      PC    .321    .327   0.333   0.346   0.361   0.381   0.408    0.43   0.477   0.514
            35      PC    .561    .630    0.71    0.72   0.731   0.752   0.779    0.79   0.795   0.804
            36      PC    .810    .820   0.826    0.84   0.859   0.889    0.91   0.938   0.966    0.97
            37      PC    .974    .979   0.981   0.983   0.985   0.989    0.99   0.992   0.993   0.996
            38      PC    .997    .999       1
            39      LS       0    84.5
            40      UD     .97
                    *
            41      KK      F2
            42      BA  2.4345
            43      PB     3.3
            44      LS       0    83.5
            45      UD     .79
                    *
```



```
          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

            46      KK     CF2
            47      HC       2
                    *
            48      KK     RF2
            49      RM       6     .48    0.15
                    *
            50      KK      F3
            51      BA   2.875
            52      PB    3.25
            53      LS       0    83.3
            54      UD     .65
                    *
            55      KK     RF3
            56      RM       6     .49    0.15
                    *
            57      KK      F4
            58      BA  1.0125
            59      PB    3.22
            60      LS       0    87.1
```

2A-5.OUT

No flow splits

```
     61          UD      .45
                 *

     62          KK      RF4
     63          RM        6      .46     0.15
                 *

     64          KK      CF4
     65          KM  IntermCombine
     66          HC        2
                 *

     67          KK       F5
     68          BA   1.9765
     69          PB     3.19
     70          LS        0     83.8
     71          UD      .63
                 *

     72          KK      RF5
     73          RM        4      .33     0.15
                 *

     74          KK      CF5
     75          HC        3
                 *
```



```
   LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

     76          KK       F6
     77          BA   1.5766
     78          PB     3.23
     79          LS        0     86.9
     80          UD      .59
                 *

     81          KK       F7
     82          BA   3.8656
     83          PB     3.23
     84          LS        0     88.3
     85          UD      .88
                 *

     86          KK      CF7
     87          HC        3
                 *

     88          KK      RF7
     89          RM        6      .51     0.15
                 *

     90          KK      F10
     91          BA   1.0741
     92          PB     3.15
     93          LS        0     87.7
     94          UD      .73
                 *

     95          KK     RF10
     96          RM        3      .27     0.15
                 *

     97          KK      F9F
     98          BA    .5035
     99          PB     3.11
    100          LS        0     89.2
    101          UD     .324
                 *

    102          KK     14-1
    103          BA   .02922
    104          PB     3.15
    105          LS        0       84
    106          UD     .089
                 *

    107          KK     14-2
    108          BA   .01094
    109          PB     3.15
    110          LS        0       87
    111          UD     .098
                 *
```



```
   LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

    112          KK      C26
    113          HC        2
                 *

    114          KK    R14-2
    115          RM        4       .3     0.15
                 *

    116          KK     CF9F
    117          HC        3
                 *

    118          KK      F9A
    119          BA    .1130
    120          PB     3.12
    121          LS        0     87.2
    122          UD     .109
                 *

    123          KK       R6
    124          RM        1     .144       .2
                 *

    125          KK      F9B
    126          BA    .4926
    127          PB     3.15
    128          LS        0     83.9
    129          UD     .211
                 *
```

```
 130          KK       R7
 131          RM        1    .084       .2
              *

 132          KK       F8
 133          BA    .7602
 134          PB     3.17
 135          LS        0       81
 136          UD     .205
              *

 137          KK       R8
 138          RM        1    .113       .2
              *

 139          KK      F9C
 140          BA    .1894
 141          PB     3.15
 142          LS        0    85.3
 143          UD     .136
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 144          KK       C8
 145          HC        2
              *

 146          KK       R9
 147          RM        1    .119       .2
              *

 148          KK      F9E
 149          BA    .3882
 150          PB     3.11
 151          LS        0       88
 152          UD     .189
              *

 153          KK       C9
 154          HC        4
              *

 155          KK      R10
 156          RM        1    .074       .2
              *

 157          KK    13-16
 158          BA   .02906
 159          PB     3.15
 160          LS        0       81
 161          UD     .211
              *

 162          KK    13-17
 163          BA   .07578
 164          PB     3.15
 165          LS        0       87
 166          UD     .166
              *

 167          KK    13-18
 168          BA   .07453
 169          PB     3.15
 170          LS        0       87
 171          UD     .116
              *

 172          KK      C10
 173          HC        4
              *

 174          KK      R11
 175          RM        1    .095       .2
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 176          KK    13-15
 177          BA   .03672
 178          PB     3.15
 179          LS        0       84
 180          UD     .061
              *

 181          KK      C11
 182          HC        2
              *

 183          KK      R12
 184          RM        1    .076       .2
              *

 185          KK      F9D
 186          BA    .0895
 187          PB     3.11
 188          LS        0       88
 189          UD     .184
              *

 190          KK      R13
 191          RD     1100    .073      .04        0    TRAP       10        3
              *

 192          KK    13-22
 193          BA   .01781
 194          PB     3.15
 195          LS        0       81
 196          UD     .119
              *

 197          KK      C12
 198          HC        2
```

```
                *
  199           KK   13-21
  200           BA  .03906
  201           PB    3.15
  202           LS       0      87
  203           UD    .091
                *

  204           KK     R14
  205           RM       1    .150      .2
                *

  206           KK   13-20
  207           BA  .01344
  208           PB    3.15
  209           LS       0      91
  210           UD    .116
                *
1                                        HEC-1 INPUT                                    PAGE  7

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  211           KK     C13
  212           HC       2
                *

  213           KK     C14
  214           HC       2
                *

  215           KK     R15
  216           RM       1    .053      .2
                *

  217           KK   13-14
  218           BA  .04234
  219           PB    3.15
  220           LS       0      81
  221           UD    .204
                *

  222           KK   13-19
  223           BA  .07828
  224           PB    3.15
  225           LS       0      87
  226           UD    .198
                *

  227           KK     C15
  228           HC       4
                *

  229           KK     R16
  230           RM       1    .061      .2
                *

  231           KK    13-9
  232           BA  .04953
  233           PB    3.07
  234           LS       0      82
  235           UD    .208
                *

  236           KK   13-12
  237           BA  .02813
  238           PB    3.15
  239           LS       0      89
  240           UD    .143
                *

  241           KK   13-13
  242           BA  .01375
  243           PB    3.15
  244           LS       0      85
  245           UD    .050
                *
1                                        HEC-1 INPUT                                    PAGE  8

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  246           KK     R17
  247           RM       1    .076      .2
                *

  248           KK     C16
  249           HC       3
                *

  250           KK     R18
  251           RM       1    .108      .2
                *

  252           KK    13-8
  253           BA  .08859
  254           PB    3.15
  255           LS       0      83
  256           UD    .139
                *

  257           KK     C17
  258           HC       3
                *

  259           KK    13-7
  260           BA  .02172
  261           PB    3.22
  262           LS       0      87
  263           UD    .116
                *

  264           KK     R19
  265           RM       1    .065      .2
                *

  266           KK    13-6
```

```
 267          BA  .02922
 268          PB    3.22
 269          LS        0      92
 270          UD     .147
              *

 271          KK   13-23
 272          BA  .06156
 273          PB    3.22
 274          LS        0      89
 275          UD     .115
              *

 276          KK      C18
 277          HC        3
              *
1                                        HEC-1 INPUT                                        PAGE  9

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 278          KK      R20
 279          RM        1    .053       .2
              *

 280          KK   13-25
 281          BA  .01375
 282          PB    3.22
 283          LS        0      77
 284          UD     .145
              *

 285          KK      R21
 286          RM        1    .064       .2
              *

 287          KK   13-24
 288          BA  .06594
 289          PB    3.22
 290          LS        0      82
 291          UD     .254
              *

 292          KK      C19
 293          HC        2
              *

 294          KK    13-4
 295          BA  .01469
 296          PB    3.07
 297          LS        0      81
 298          UD     .131
              *

 299          KK    13-5
 300          BA  .13578
 301          PB    3.07
 302          LS        0      87
 303          UD     .215
              *

 304          KK      C20
 305          HC        2
              *

 306          KK      R22
 307          RM        1    .098       .2
              *

 308          KK   13-11
 309          BA  .04844
 310          PB    3.07
 311          LS        0      87
 312          UD     .145
              *
1                                        HEC-1 INPUT                                        PAGE 10

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 313          KK      C21
 314          HC        2
              *

 315          KK      R23
 316          RM        1    .065       .2
              *

 317          KK   13-10
 318          BA  .01594
 319          PB    3.07
 320          LS        0      94
 321          UD     .102
              *

 322          KK      C22
 323          HC        2
              *

 324          KK      R24
 325          RM        1    .056       .2
              *

 326          KK    13-3
 327          BA  .04078
 328          PB    3.07
 329          LS        0      92
 330          UD     .197
              *

 331          KK      C23
 332          HC        4
              *

 333          KK      R25
 334          RM        1    .130       .2
              *
```

```
 335          KK    13-2
 336          BA  .02438
 337          PB    3.15
 338          LS       0      93
 339          UD    .092
              *

 340          KK     C24
 341          HC       3
              *
1                                        HEC-1 INPUT                                        PAGE 11

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 342          KK    13-1
 343          BA  .07250
 344          PB    3.15
 345          LS       0      88
 346          UD    .174
              *

 347          KK     C25
 348          HC       2
              *

 349          KK   CCF9F
 350          HC       2
              *

 351          KK    RF9F
 352          RM       3     .29    0.15
              *

 353          KK    12-1
 354          BA  .13281
 355          PB    3.07
 356          LS       0      89
 357          UD    .234
              *

 358          KK   C12-1
 359          HC       2
              *

 360          KK   R12-1
 361          RM       3     .25    0.15
              *

 362          KK    11-4
 363          BA  .02906
 364          PB    3.15
 365          LS       0      87
 366          UD    .048
              *

 367          KK      R2
 368          RM       2    .246      .2
              *

 369          KK    11-3
 370          BA  .08750
 371          PB    3.07
 372          LS       0      89
 373          UD    .177
              *
1                                        HEC-1 INPUT                                        PAGE 12

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 374          KK      C2
 375          HC       2
              *

 376          KK    11-2
 377          BA  .06219
 378          PB    3.07
 379          LS       0      93
 380          UD    .191
              *

 381          KK      C3
 382          HC       2
              *

 383          KK    11-7
 384          BA  .04703
 385          PB    3.22
 386          LS       0      84
 387          UD    .108
              *

 388          KK    11-8
 389          BA  .03203
 390          PB    3.22
 391          LS       0      87
 392          UD    .152
              *

 393          KK    11-9
 394          BA  .05875
 395          PB    3.22
 396          LS       0      84
 397          UD    .161
              *

 398          KK   11-10
 399          BA  .09422
 400          PB    3.22
 401          LS       0      88
 402          UD    .150
              *

 403          KK      R3
 404          RD     950    .095     .04       0    TRAP      50       4
              *
```

```
                                                
```

```
 471          KK     C14
 472          HC       2
              *

 473          KK     R13
 474          RM       1    .059      .2
              *

 475          KK    9-18
 476          BA  .01266
 477          PB    3.22
 478          LS       0      91
 479          UD    .115
              *

 480          KK     C15
 481          HC       2
              *

 482          KK    9-16
 483          BA  .01781
 484          PB    3.07
 485          LS       0      91
 486          UD    .138
              *

 487          KK    9-17
 488          BA  .04750
 489          PB    3.07
 490          LS       0      83
 491          UD    .171
              *

 492          KK     C16
 493          HC       2
              *

 494          KK     C17
 495          HC       2
              *

 496          KK     R14
 497          RM       1    .090      .2
              *

 498          KK    9-14
 499          BA  .08766
 500          PB    3.07
 501          LS       0      87
 502          UD    .193
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 503          KK     C18
 504          HC       2
              *

 505          KK     R15
 506          RD     750    .133     .04       0    TRAP      10       3
              *

 507          KK    9-12
 508          BA  .00703
 509          PB    3.07
 510          LS       0      95
 511          UD    .050
              *

 512          KK     R16
 513          RD     550    .200     .04       0    TRAP      10       3
              *

 514          KK     C19
 515          HC       2
              *

 516          KK     R17
 517          RM       2    .203      .2
              *

 518          KK    9-11
 519          BA  .26313
 520          PB    3.07
 521          LS       0      84
 522          UD    .241
              *

 523          KK     C20
 524          HC       2
              *

 525          KK     9-6
 526          BA  .03047
 527          PB    3.07
 528          LS       0      93
 529          UD    .173
              *

 530          KK     C21
 531          HC       2
              *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 532          KK     R18
 533          RD     700    .021     .013       0    CIRC     7.5
              *

 534          KK    9-13
 535          BA  .15156
 536          PB    3.07
```

```
537          LS       0      89
538          UD     .233
             *

539          KK      R19
540          RD      850    .100    .013       0    CIRC      4.5
             *

541          KK      9-5
542          BA   .00734
543          PB     3.07
544          LS        0      89
545          UD     .076
             *

546          KK      C22
547          HC        3
             *

548          KK      R20
549          RD      600    .025    .015       0    TRAP       20        0
             *

550          KK      9-2
551          BA   .01813
552          PB     3.07
553          LS        0      93
554          UD     .163
             *

555          KK      C23
556          HC        2
             *

557          KK      R21
558          RD     1050    .029    .015       0    TRAP       10        0
             *

559          KK     9-10
560          BA   .00703
561          PB     3.07
562          LS        0      95
563          UD     .071
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

564          KK      R22
565          RM        1    .067      .2
             *

566          KK      9-9
567          BA   .02344
568          PB     3.07
569          LS        0      89
570          UD     .129
             *

571          KK      C24
572          HC        2
             *

573          KK      R23
574          RM        1    .136      .2
             *

575          KK      9-8
576          BA   .14672
577          PB     3.07
578          LS        0      89
579          UD     .232
             *

580          KK      R24
581          RD      600    .083     .04       0    TRAP       10        3
             *

582          KK      9-7
583          BA   .12828
584          PB     3.07
585          LS        0      84
586          UD     .250
             *

587          KK      C25
588          HC        3
             *

589          KK      R25
590          RD      900    .033     .04       0    TRAP       50        8
             *

591          KK      9-4
592          BA   .03688
593          PB     3.07
594          LS        0      89
595          UD     .138
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

596          KK      C26
597          HC        2
             *

598          KK      9-3
599          BA   .05656
600          PB     3.07
601          LS        0      93
602          UD     .163
             *

603          KK      C27
604          HC        3
```

```
                *
          605   KK     R26
          606   RD     800    .018     .04       0    TRAP      50       8
                *
          607   KK     9-1
          608   BA   .04766
          609   PB    3.07
          610   LS       0      89
          611   UD    .160
                *
          612   KK     C28
          613   HC       2
                *
          614   KK     8-3
          615   BA   .07656
          616   PB    3.07
          617   LS       0      89
          618   UD    .142
                *
          619   KK     8-2
          620   BA   .01094
          621   PB    3.07
          622   LS       0      93
          623   UD    .066
                *
          624   KK     C12
          625   HC       2
                *
          626   KK     R12
          627   RD     800    .044     .04       0    TRAP      10       3
                *
1                                      HEC-1 INPUT                                                    PAGE 20

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          628   KK     8-1
          629   BA   .02234
          630   PB    3.07
          631   LS       0      88
          632   UD    .080
                *
          633   KK     C13
          634   HC       2
                *
          635   KK     7-2
          636   BA   .01859
          637   PB    3.07
          638   LS       0      89
          639   UD    .108
                *
          640   KK     R11
          641   RD     500    .100     .04       0    TRAP      10       3
                *
          642   KK     7-1
          643   BA   .01266
          644   PB    3.07
          645   LS       0      87
          646   UD    .130
                *
          647   KK     C11
          648   HC       4
                *
          649   KK     DB2
          650   BA   .5965
          651   PB    2.91
          652   LS       0    89.3
          653   UD    .331
                *
          654   KK    CDB2
          655   KO       1
          656   HC       3
                *
          657   KK    PEDB
          658   KM  PITTMAN EAST DETENTION BASIN
          659   KM  TOP OF EMBANKMENT ELEVATION 2510
          660   KM  SPILLWAY CREST ELEVATION 2502, TWO LEVEL OUTLET
          661   KM  36" RCP LOW LEVEL OUTLET ELEVATION 2461
          662   KM  6'X8' RCB HIGH LEVEL OUTLET ELEVATION 2481
          663   KO       1
          664   RS       1    STOR       0
          665   SV       0      .8     13.6     53.5      133      264      306      350      397      448
1                                      HEC-1 INPUT                                                    PAGE 21

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          666   SV     500      554      610      928     1249     1636     1855     2031     2216     2617
          667   SE    2461     2464     2468     2472     2476     2480     2481     2482     2483     2484
          668   SE    2485     2486     2487     2492     2496     2500     2502   2503.5     2505     2508
          669   SQ       0       38       70       86       99      111      114      225      427      628
          670   SQ     666      701      748      924     1063     1197     1262    11434    30402    85914
                *
          671   KK    RDB2
          672   RK    5000    .015    0.035        0    TRAP       60        2
                *
          673   KK      U1
          674   PB   2.900
          675   BA   0.031
          676   LS       0       87
          677   UK     100     0.02     0.08      100
          678   RK     300     0.03    0.017   0.0022    TRAP       60        0
```

```
 679  RK    1300   0.03   0.017   0.031   TRAP     60       0
      *
 680  KK       R
 681  RK     900   0.04   0.017       0   TRAP     80       0
      *
 682  KK    GB-1
 683  PB    2.91
 684  BA   0.009
 685  LS       0     84
 686  UD   0.074
      *
 687  KK       C
 688  HC       2
      *
 689  KK       R
 690  RK     550   0.04   0.017       0   TRAP     80       0
      *
 691  KK      W2
 692  PB   2.900
 693  BA   0.013
 694  LS       0     87
 695  UK     100   0.02    0.08     100
 696  RK     300   0.03   0.017  0.0022   TRAP     60       0
 697  RK     600   0.03   0.017   0.013   TRAP     60       0
      *
 698  KK       C
 699  HC       2
      *
1                                HEC-1 INPUT                                 PAGE 22

 LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 700  KK      W1
 701  PB   2.900
 702  BA   0.033
 703  LS       0     87
 704  UK     100  0.017    0.08     100
 705  RK     400   0.02   0.017  0.0029   TRAP     60       0
 706  RK    1000   0.03   0.017   0.033   TRAP     60       0
      *
 707  KK       C
 708  HC       2
      *
 709  KK       R
 710  RK    1600   0.02   0.015       0   TRAP     20       0
      *
 711  KK   GB-2A
 712  PB    2.88
 713  BA   0.015
 714  LS       0     84
 715  UD   0.102
      *
 716  KK      V2
 717  PB    2.89
 718  BA   0.032
 719  LS       0   89.5
 720  UK     100   0.02    0.08     100
 721  RK     300   0.03   0.017  0.0022   TRAP     60       0
 722  RK    2000   0.03   0.017   0.032   TRAP     60       0
      *
 723  KK       C
 724  HC       3
      *
 725  KK       R
 726  RK    1300  0.004    0.03       0   TRAP     10       4
      *
 727  KK      V1
 728  PB    2.88
 729  BA   0.052
 730  LS       0   89.5
 731  UK     100   0.02    0.08     100
 732  RK     500   0.02   0.017  0.0036   TRAP     60       0
 733  RK    2200   0.03   0.017   0.052   TRAP     60       0
      *
1                                HEC-1 INPUT                                 PAGE 23

 LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 734  KK   GB-2B
 735  PB    2.88
 736  BA   0.007
 737  LS       0     84
 738  UD   0.079
      *
 739  KK       C
 740  HC       2
      *
 741  KK       C
 742  HC       2
      *
 743  KK      P1
 744  PB   2.900
 745  BA   0.094
 746  LS       0     87
 747  UK     100   0.02    0.08     100
 748  RK     300   0.02   0.017  0.0022   TRAP     60       0
 749  RK    2800   0.03   0.017   0.083   TRAP     60       0
      *
 750  KK    GB-4
```

```
751          PB      2.9
752          BA    0.035
753          LS        0      84
754          UD    0.112
             *

755          KK       T2
756          PB    2.900
757          BA    0.021
758          LS        0      87
759          UK      100    0.02    0.08     100
760          RK      100    0.02   0.017  0.0004    TRAP       60        0
761          RK     2300    0.03   0.017   0.021    TRAP       80        0
             *

762          KK        C
763          HC        3
             *

764          KK        R
765          RK      900   0.004    0.03       0    TRAP       10        4
             *

766          KK      6-8
767          BA  .03031
768          PB     3.07
769          LS        0      94
770          UD     .124
             *
1                                        HEC-1 INPUT                                        PAGE 24

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

771          KK      6-7
772          BA  .00672
773          PB     3.15
774          LS        0      91
775          UD     .071
             *

776          KK       C6
777          HC        2
             *

778          KK       R6
779          RD      550    .036    .016       0    TRAP        0       50
             *

780          KK      6-6
781          BA  .03453
782          PB     3.07
783          LS        0      94
784          UD     .112
             *

785          KK       C7
786          HC        2
             *

787          KK       R7
788          RM        2    .218      .2
             *

789          KK      6-5
790          BA  .10188
791          PB     3.07
792          LS        0      89
793          UD     .199
             *

794          KK       R8
795          RD     1050    .090     .04       0    TRAP       10        3
             *

796          KK      6-4
797          BA  .19188
798          PB     3.07
799          LS        0      83
800          UD     .246
             *

801          KK       C8
802          HC        3
             *
1                                        HEC-1 INPUT                                        PAGE 25

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

803          KK       R9
804          RM        1    .059      .2
             *

805          KK      6-3
806          BA  .01594
807          PB     3.07
808          LS        0      89
809          UD     .106
             *

810          KK      R10
811          RD    1400    .061     .04       0    TRAP       10        3
             *

812          KK      6-2
813          BA  .05281
814          PB     3.07
815          LS        0      88
816          UD     .082
             *

817          KK       C9
818          HC        3
             *

819          KK      6-1
820          BA  .02719
```

```
 821          PB    3.07
 822          LS       0      87
 823          UD    .121
              *

 824          KK      C10
 825          HC        2
              *

 826          KK        R
 827          RK     2100   0.023   0.025       0    TRAP      15       8
              *

 828          KK       T1
 829          PB    2.900
 830          BA    0.038
 831          LS        0      87
 832          UK      100    0.02    0.08     100
 833          RK      200    0.02   0.017  0.0014    TRAP      60       0
 834          RK     1800    0.03   0.017   0.038    TRAP      80       0
              *
1                                    HEC-1 INPUT                                    PAGE 26

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 835          KK    GB-3
 836          PB    2.900
 837          BA    0.017
 838          LS        0      84
 839          UD    0.096
              *

 840          KK       U2
 841          PB    2.900
 842          BA    0.023
 843          LS        0      87
 844          UK      100    0.02    0.08     100
 845          RK      150    0.02   0.017  0.0011    TRAP      60       0
 846          RK     1500    0.03   0.017   0.023    TRAP      80       0
              *

 847          KK        C
 848          HC        4
              *

 849          KK        R
 850          RK      700   0.004    0.03       0    TRAP      10       4
              *

 851          KK        C
 852          HC        2
              *

 853          KK        R
 854          RK      800   0.004    0.03       0    TRAP      10       4
              *

 855          KK    GB-5A
 856          PB     2.88
 857          BA    0.033
 858          LS        0      84
 859          UD    0.093
              *

 860          KK        C
 861          HC        2
              *

 862          KK       Q1
 863          PB     2.88
 864          BA    0.023
 865          LS        0      87
 866          UK      100    0.02    0.08     100
 867          RK      200    0.02   0.017  0.0014    TRAP      60       0
 868          RK     1300   0.025   0.017   0.023    TRAP      60       0
              *
1                                    HEC-1 INPUT                                    PAGE 27

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 869          KK       S1
 870          PB    2.89
 871          BA    0.047
 872          LS        0      87
 873          UK      100    0.02    0.08     100
 874          RK      400    0.02   0.017  0.0029    TRAP      60       0
 875          RK     1400    0.02   0.017   0.049    TRAP      60       0
              *

 876          KK        C
 877          HC        3
              *

 878          KK        R
 879          RK     1500   0.004    0.03       0    TRAP      10       4
              *

 880          KK       S2
 881          PB    2.88
 882          BA    0.022
 883          LS        0      87
 884          UK      100    0.02    0.08     100
 885          RK      300    0.02   0.017  0.0022    TRAP      60       0
 886          RK     1300    0.02   0.017   0.022    TRAP      60       0
              *

 887          KK    GB-5B
 888          PB    2.88
 889          BA    0.012
 890          LS        0      84
 891          UD     0.09
              *

 892          KK        C
 893          HC        3
              *
```

```
 894          KK    GB-6
 895          PB    2.87
 896          BA    0.028
 897          LS       0      84
 898          UD    0.102
              *

 899          KK       R
 900          RK     600    0.01   0.017       0    TRAP      80       0
              *

 901          KK      R2
 902          PB    2.87
 903          BA   0.036
 904          LS       0      87
 905          UK     100    0.02    0.08     100
 906          RK     300    0.02   0.017  0.0022    TRAP      60       0
1                                    HEC-1 INPUT                                    PAGE 28

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 907          RK    1200    0.02   0.017   0.036    TRAP      60       0
              *

 908          KK       C
 909          HC       2
              *

 910          KK       R
 911          RK    1500    0.01   0.017       0    TRAP      80       0
              *

 912          KK      R1
 913          PB    2.87
 914          BA   0.031
 915          LS       0      87
 916          UK     100    0.02    0.08     100
 917          RK     300    0.02   0.017  0.0022    TRAP      60       0
 918          RK    1300    0.01   0.017   0.031    TRAP      60       0
              *

 919          KK       C
 920          HC       2
              *

 921          KK       C
 922          HC       2
              *

 923          KK   GB-14
 924          PB    2.88
 925          BA   0.012
 926          LS       0      84
 927          UD    0.05
              *

 928          KK       F
 929          PB    2.86
 930          BA   0.005
 931          LS       0      95
 932          UK     100    0.02    0.05     100
 933          RK     300    0.02   0.017  0.0022    TRAP      60       0
              *

 934          KK      CF
 935          HC       4
              *

 936          KK     CCF
 937          HC       2
              *
1                                    HEC-1 INPUT                                    PAGE 29

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 938          KK      RF
 939          RK    6000    .015   0.035       0    TRAP      60       2
              *

 940          KK     5-7
 941          BA  .00891
 942          PB    3.15
 943          LS       0      91
 944          UD    .104
              *

 945          KK      R1
 946          RM       1    .136      .2
              *

 947          KK     5-6
 948          BA  .03656
 949          PB    3.15
 950          LS       0      91
 951          UD    .160
              *

 952          KK      C1
 953          HC       2
              *

 954          KK      R2
 955          RM       1    .091      .2
              *

 956          KK     5-5
 957          BA  .05016
 958          PB    3.07
 959          LS       0      84
 960          UD    .117
              *

 961          KK     5-8
 962          BA  .03969
 963          PB    3.07
 964          LS       0      91
```

```
                965          UD     .111
                             *

                966          KK       C2
                967          HC        3
                             *

                968          KK       R3
                969          RM        2     .174       .2
                             *
1                                                HEC-1 INPUT                                                PAGE 30

               LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

                970          KK      5-4
                971          BA   .11563
                972          PB     3.07
                973          LS        0       82
                974          UD     .206
                             *

                975          KK       C3
                976          HC        2
                             *

                977          KK       R4
                978          RD      800     .025     .013        0     CIRC      5.5
                             *

                979          KK      5-2
                980          BA   .02859
                981          PB     3.07
                982          LS        0       88
                983          UD     .074
                             *

                984          KK       C4
                985          HC        2
                             *

                986          KK      5-3
                987          BA   .06078
                988          PB     3.07
                989          LS        0       88
                990          UD     .182
                             *

                991          KK       R5
                992          RD      900     .117     .016        0     TRAP        0       50
                             *

                993          KK      5-1
                994          BA   .01609
                995          PB     3.07
                996          LS        0       87
                997          UD     .140
                             *

                998          KK       C5
                999          HC        3
                             *

               1000          KK        R
               1001          RK     3100    0.02    0.025        0     TRAP       15        8
                             *
1                                                HEC-1 INPUT                                                PAGE 31

               LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

               1002          KK    GC-5A
               1003          PB    2.900
               1004          BA    0.050
               1005          LS        0       84
               1006          UD    0.128
                             *

               1007          KK       N1
               1008          PB    2.900
               1009          BA    0.046
               1010          LS        0       85
               1011          UK      200    0.02      0.1      100
               1012          RK      300   0.035    0.017   0.0022     TRAP       60        0
               1013          RK     2200   0.025    0.017    0.046     TRAP       60        0
                             *

               1014          KK        R
               1015          RK     1500    0.02    0.013        0     CIRC        2        0
                             *

               1016          KK        C
               1017          HC        3
                             *

               1018          KK    GC-5B
               1019          PB    2.88
               1020          BA    0.02
               1021          LS        0       95
               1022          UD    0.09
                             *

               1023          KK        R
               1024          RK      200    0.01    0.017        0     TRAP       80        0
                             *

               1025          KK        C
               1026          HC        2
                             *

               1027          KK    GC-4A
               1028          PB      2.9
               1029          BA    0.027
               1030          LS        0       84
               1031          UD    0.109
                             *

               1032          KK        R
```

```
1033  RK     800   0.004    0.03       0    TRAP      20       4
      *
1                                  HEC-1 INPUT                                  PAGE 32

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1034  KK       R
1035  RK     400    0.01   0.017       0    TRAP      80       0
      *
1036  KK   GC-4B
1037  PB    2.88
1038  BA   0.056
1039  LS       0      84
1040  UD   0.123
      *
1041  KK       R
1042  RK    1300   0.015   0.017       0    TRAP      80       0
      *
1043  KK       C
1044  HC       3
      *
1045  KK       0
1046  PB    2.88
1047  BA   0.015
1048  LS       0      92
1049  UK     100    0.02    0.08     100
1050  RK     200    0.05   0.017  0.0014    TRAP      60       0
1051  RK     700    0.03    0.03   0.017    TRAP      60       0
      *
1052  KK       R
1053  RK     450    0.01   0.017       0    TRAP      80       0
      *
1054  KK       C
1055  HC       2
      *
1056  KK       R
1057  RK    1600   0.004    0.03       0    TRAP      20       4
      *
1058  KK      H3
1059  PB    2.88
1060  BA   0.017
1061  LS       0      87
1062  UK     100    0.02    0.08     100
1063  RK     200    0.05   0.017  0.0014    TRAP      60       0
1064  RK     100    0.03   0.017   0.017    TRAP      60       0
      *
1                                  HEC-1 INPUT                                  PAGE 33

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1065  KK       R
1066  RK     600   0.004    0.03       0    TRAP      20       4
      *
1067  KK   GC-1A
1068  PB    2.88
1069  BA   0.021
1070  LS       0      84
1071  UD   0.101
      *
1072  KK       C
1073  HC       3
      *
1074  KK      P2
1075  PB   2.900
1076  BA   0.066
1077  LS       0      87
1078  UK     100    0.02     0.1     100
1079  RK     400    0.03   0.017  0.0029    TRAP      60       0
1080  RK    3700    0.02   0.017   0.066    TRAP      60       0
      *
1081  KK       R
1082  RK     500   0.004    0.03       0    TRAP      10       4
      *
1083  KK       C
1084  HC       2
      *
1085  KK       R
1086  RK    1800   0.004    0.03       0    TRAP      15       4
      *
1087  KK       Y
1088  PB    2.88
1089  BA   0.017
1090  LS       0      92
1091  UK     100    0.02    0.08     100
1092  RK     200    0.02   0.017  0.0014    TRAP      60       0
1093  RK    1000    0.02   0.017   0.017    TRAP      60       0
      *
1094  KK      H1
1095  PB    2.86
1096  BA   0.054
1097  LS       0      87
1098  UK     100    0.02    0.10     100
1099  RK     450    0.02   0.017  0.0032    TRAP      60       0
1100  RK    2100    0.02   0.017   0.054    TRAP      60       0
      *
1                                  HEC-1 INPUT                                  PAGE 34

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
```

```
1101          KK   GC-18
1102          PB    2.87
1103          BA   0.023
1104          LS       0      84
1105          UD   0.106
              *

1106          KK   GC-1C
1107          PB    2.86
1108          BA   0.018
1109          LS       0      84
1110          UD   0.096
              *

1111          KK       C
1112          HC       5
              *

1113          KK       R
1114          RK     700   0.004   0.030       0    TRAP      10       4
              *

1115          KK  C1D1GC
1116          PB    2.86
1117          BA   0.025
1118          LS       0    86.2
1119          UD    0.05
              *

1120          KK       C
1121          HC       2
              *

1122          KK      Q2
1123          PB    2.88
1124          BA   0.076
1125          LS       0      92
1126          UK     100   0.020    0.10     100
1127          RK     400    0.02   0.017  0.0029    TRAP      60       0
1128          RK    2000    0.02   0.017   0.076    TRAP      60       0
              *

1129          KK       R
1130          RK    1400    0.02   0.017       0    TRAP      80       0
              *

1131          KK      G1
1132          PB    2.86
1133          BA   0.035
1134          LS       0    89.5
1135          UK     100    0.02    0.10     100
1136          RK     400    0.02   0.017  0.0029    TRAP      60       0
1137          RK    1000    0.01   0.017   0.035    TRAP      60       0
              *
```

1 HEC-1 INPUT PAGE 35

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1138          KK      G2
1139          PB    2.86
1140          BA   0.018
1141          LS       0    89.5
1142          UK     100    0.02    0.10     100
1143          RK     150    0.02   0.017  0.0011    TRAP      60       0
1144          RK    1000   0.015   0.017   0.018    TRAP      60       0
              *

1145          KK       C
1146          HC       3
              *

1147          KK       C
1148          HC       2
              *

1149          KK       R
1150          RK     500   0.004   0.030       0    TRAP      15       4
              *

1151          KK       E
1152          PB    2.86
1153          BA   0.050
1154          LS       0    89.5
1155          UK     100    0.02    0.10     100
1156          RK     400    0.01   0.017  0.0029    TRAP      60       0
1157          RK    1000   0.015   0.017   0.050    TRAP      60       0
              *

1158          KK    GB-7
1159          PB    2.86
1160          BA   0.029
1161          LS       0      84
1162          UD   0.090
              *

1163          KK       C
1164          HC       3
              *

1165          KK       R
1166          RK    1000   0.015   0.015       0    TRAP      15       2
              *

1167          KK       8
1168          PB    2.86
1169          BA   0.036
1170          LS       0      92
1171          UK     100    0.02    0.08     100
1172          RK     400    0.01   0.017  0.0029    TRAP      60       0
1173          RK     800   0.015   0.015   0.036    TRAP      15       2
              *
```

1 HEC-1 INPUT PAGE 36

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1174          KK       C
```

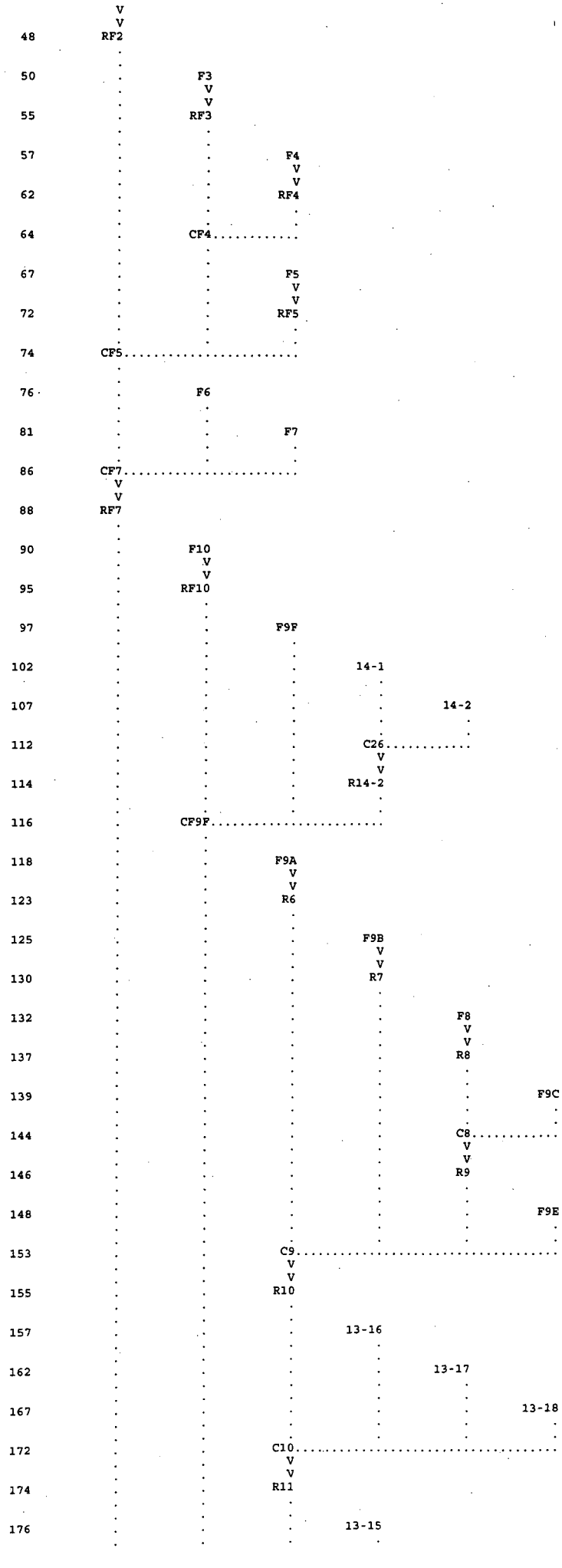
```
1175          HC        2
              *
1176          KK    GB-10
1177          PB     2.86
1178          BA    0.006
1179          LS        0      84
1180          UD    0.079
              *
1181          KK        R
1182          RK      800    0.02    0.030        0    TRAP       10        4
              *
1183          KK    GB-9
1184          PB     2.86
1185          BA    0.011
1186          LS        0      84
1187          UD    0.081
              *
1188          KK        C
1189          HC        2
              *
1190          KK        R
1191          RK      400   0.015   0.017        0    TRAP       50        0
              *
1192          KK    C2+ST
1193          BA    0.037
1194          PB     2.86
1195          LS        0      87
1196          UK      100    0.01    0.08      100
1197          RK      300    0.02   0.017   0.0022    TRAP       60        0
1198          RK     1300   0.015   0.017   0.0406    TRAP       60        0
              *
1199          KK       ST
1200          BA    0.002
1201          LS        0      95
1202          UD     0.05
              *
1203          KK        C
1204          HC        3
              *
1                                        HEC-1 INPUT                                    PAGE 37

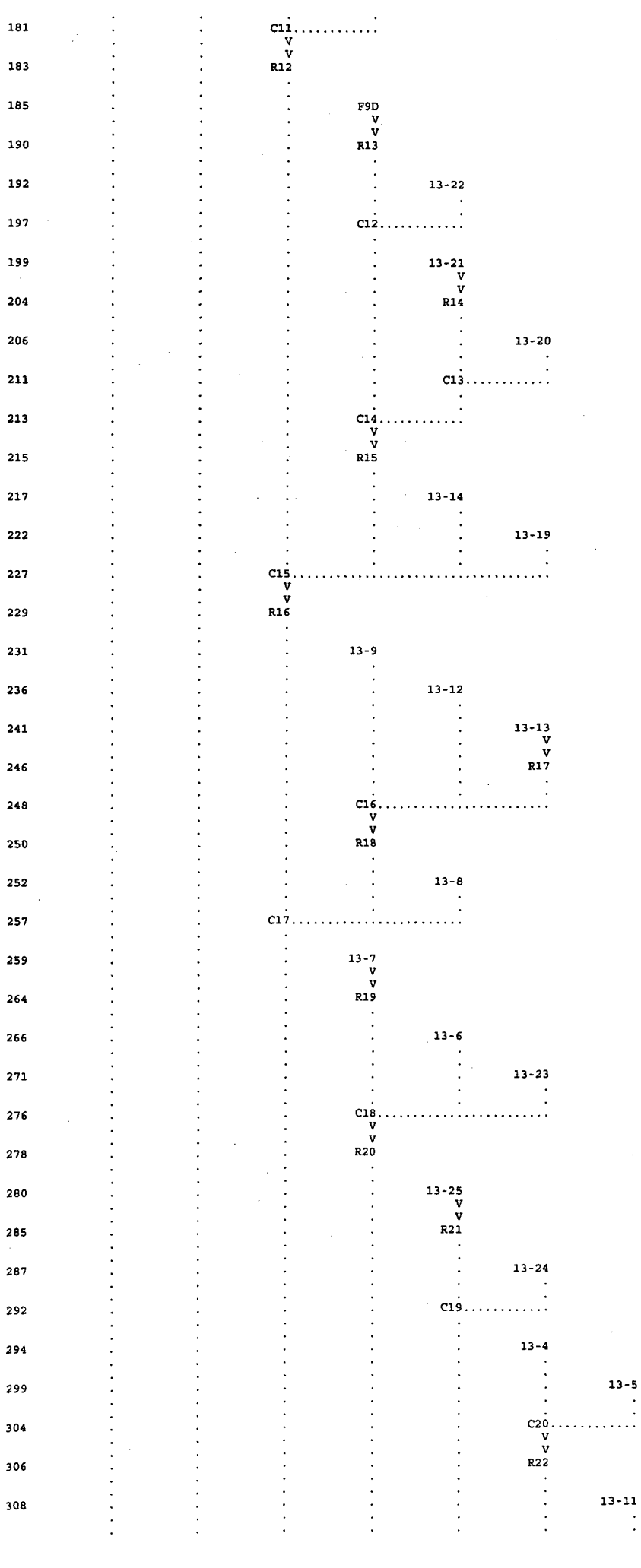
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1205          KK        R
1206          RK      700   0.015   0.017        0    TRAP       50        0
              *
1207          KK    GB-8
1208          PB     2.86
1209          BA    0.017
1210          LS        0      84
1211          UD    0.087
              *
1212          KK    EN+ST
1213          BA    0.017
1214          PB     2.86
1215          LS        0      95
1216          UK      100    0.01    0.08      100
1217          RK      300    0.02   0.017   0.0022    TRAP       60        0
1218          RK      700   0.015   0.017   0.0172    TRAP       60        0
              *
1219          KK      COM
1220          BA    0.019
1221          PB     2.86
1222          LS        0      95
1223          UK      100    0.01    0.05      100
1224          RK      300    0.02   0.017   0.0022    TRAP       60        0
1225          RK      600    0.03   0.025    0.025    TRAP       20        2
              *
1226          KK        C
1227          HC        4
              *
1228          KK        C
1229          HC        2
              *
1230          KK     RCOM
1231          RK     2300    .017   0.035        0    TRAP       40        2
              *
1232          KK     DSDB
1233          BA    .6092
1234          PB     2.81
1235          LS        0     86.6
1236          UD     .548
              *
1237          KK    CDSDB
1238          HC        3
              *
1239          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK

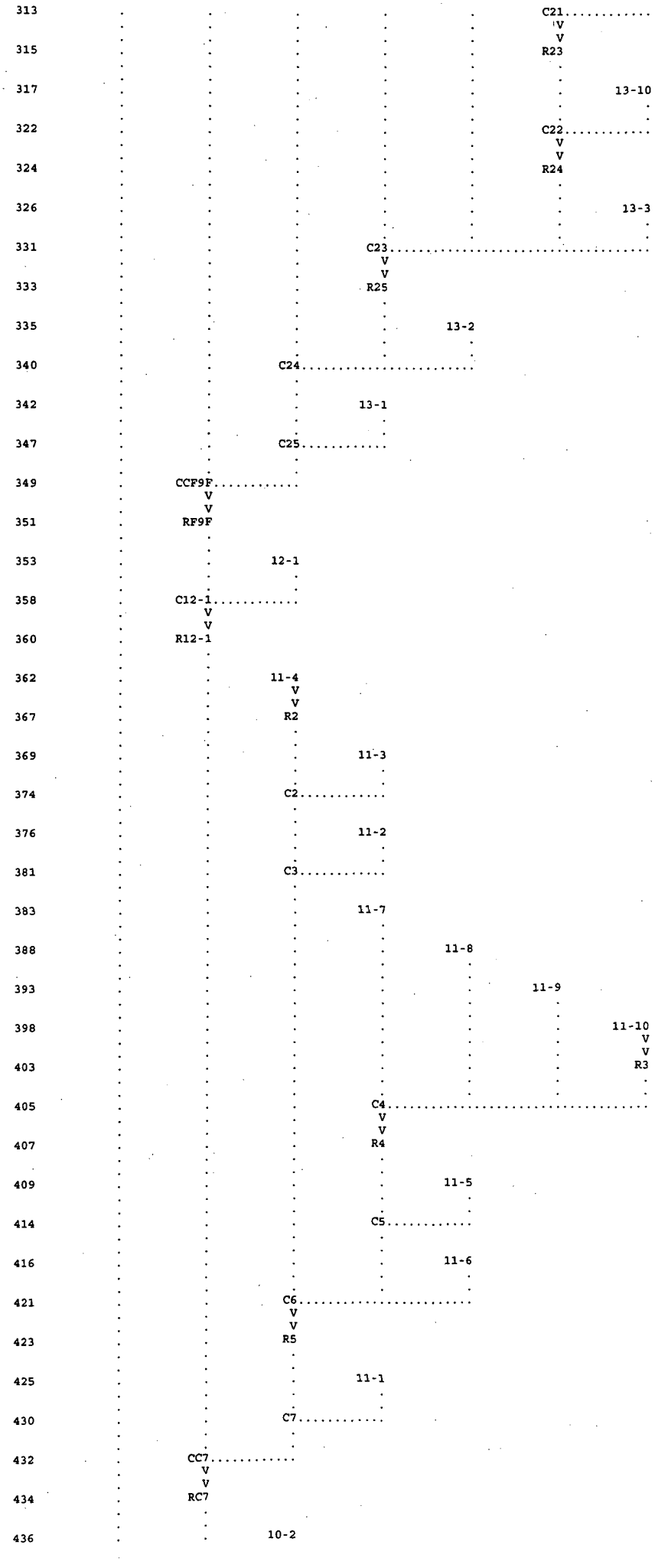
INPUT
 LINE      (V) ROUTING              (---->) DIVERSION OR PUMP FLOW

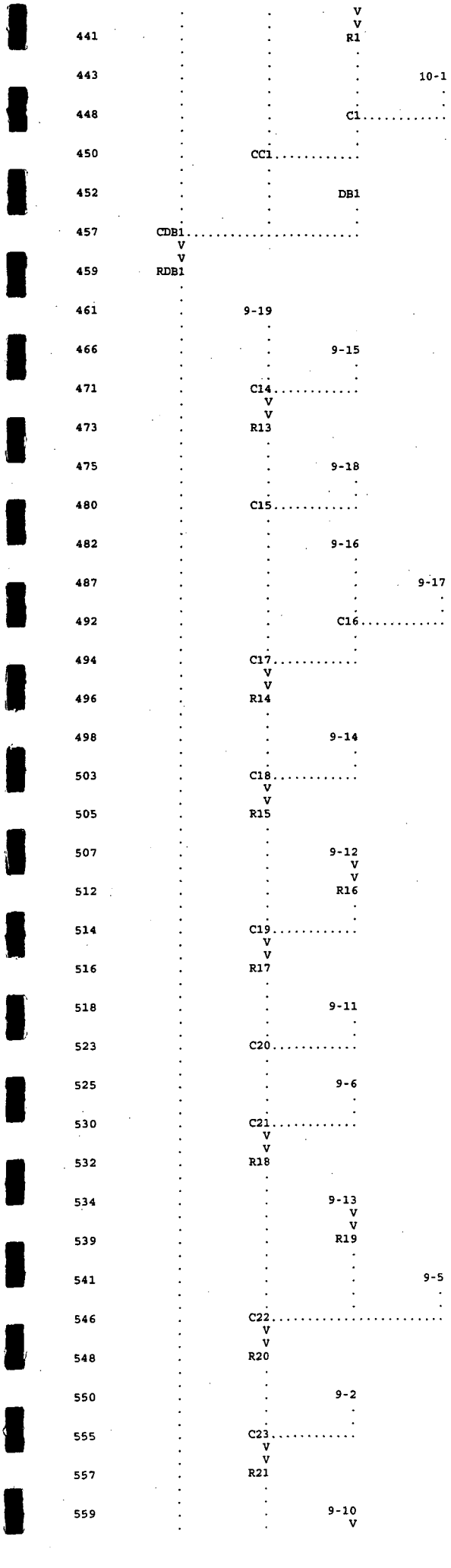
  NO.      (.) CONNECTOR            (<----) RETURN OF DIVERTED OR PUMPED FLOW

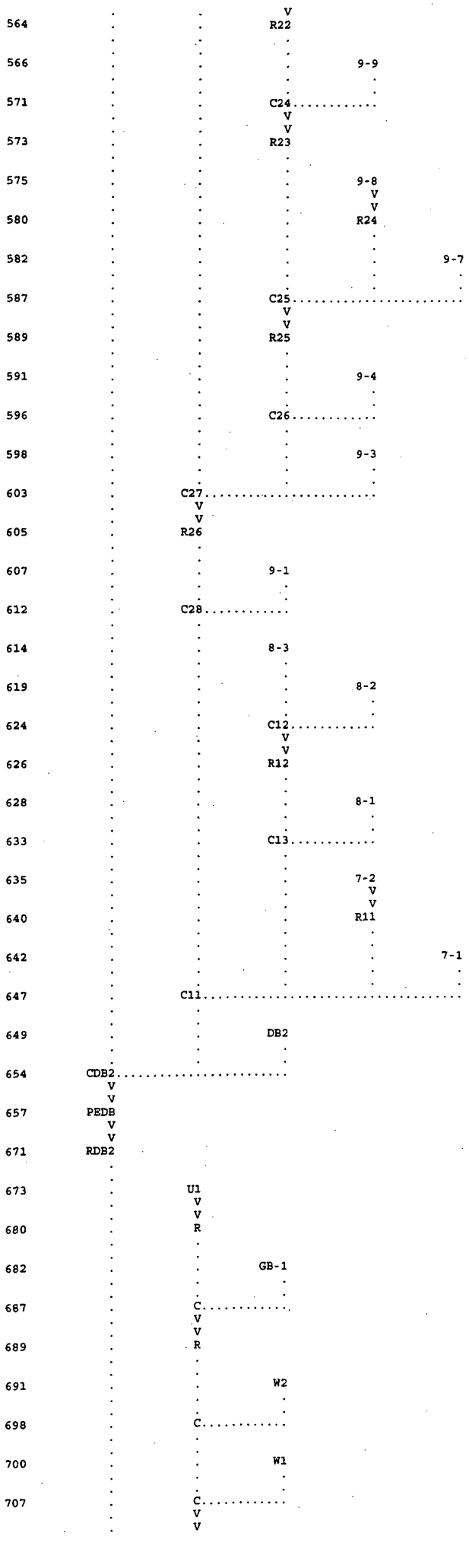
   28           F1
                .
                .
   41           .          F2
                .           .
                .           .
   46         CF2.............
```

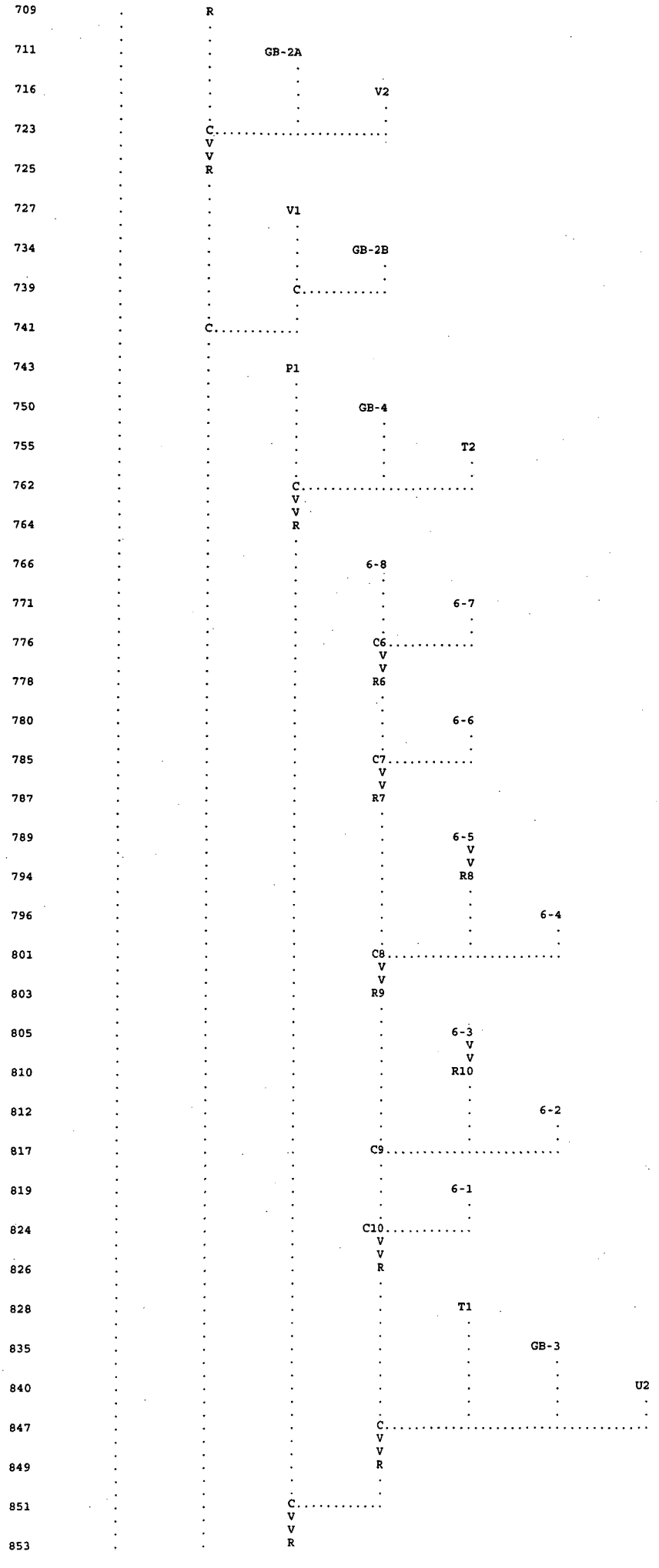

48 RF2
50 F3
55 RF3
57 F4
62 RF4
64 CF4
67 F5
72 RF5
74 CF5
76 F6
81 F7
86 CF7
88 RF7
90 F10
95 RF10
97 F9F
102 14-1
107 14-2
112 C26
114 R14-2
116 CF9F
118 F9A
123 R6
125 F9B
130 R7
132 F8
137 R8
139 F9C
144 C8
146 R9
148 F9E
153 C9
155 R10
157 13-16
162 13-17
167 13-18
172 C10
174 R11
176 13-15

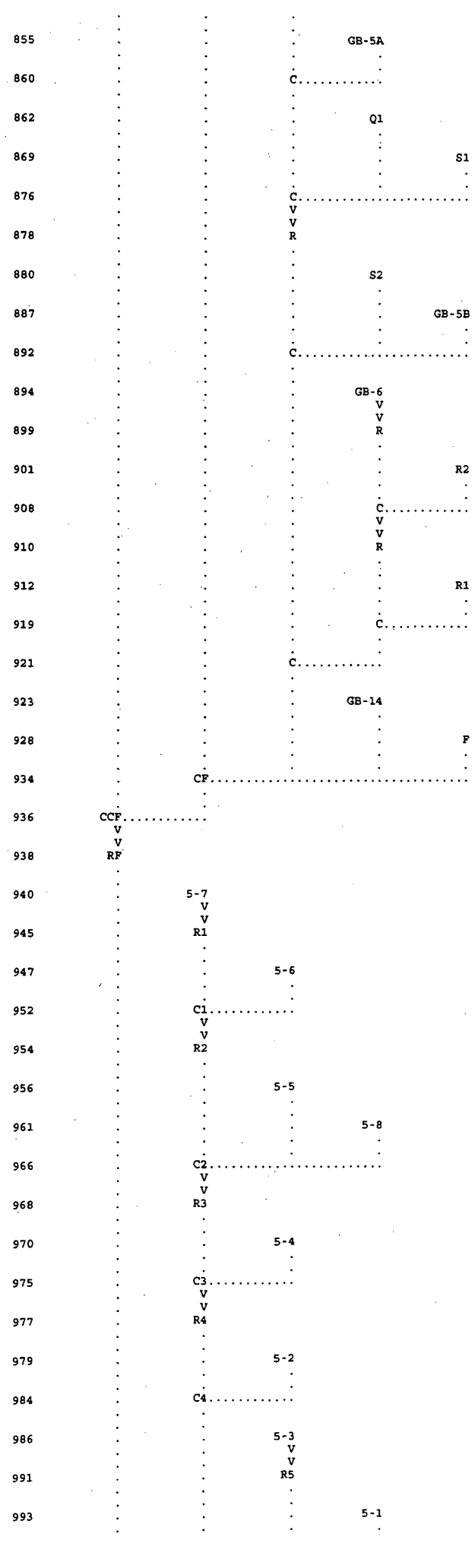

181
C11
183
R12
185
F9D
190
R13
192
13-22
197
C12
199
13-21
204
R14
206
13-20
211
C13
213
C14
215
R15
217
13-14
222
13-19
227
C15
229
R16
231
13-9
236
13-12
241
13-13
246
R17
248
C16
250
R18
252
13-8
257
C17
259
13-7
264
R19
266
13-6
271
13-23
276
C18
278
R20
280
13-25
285
R21
287
13-24
292
C19
294
13-4
299
13-5
304
C20
306
R22
308
13-11

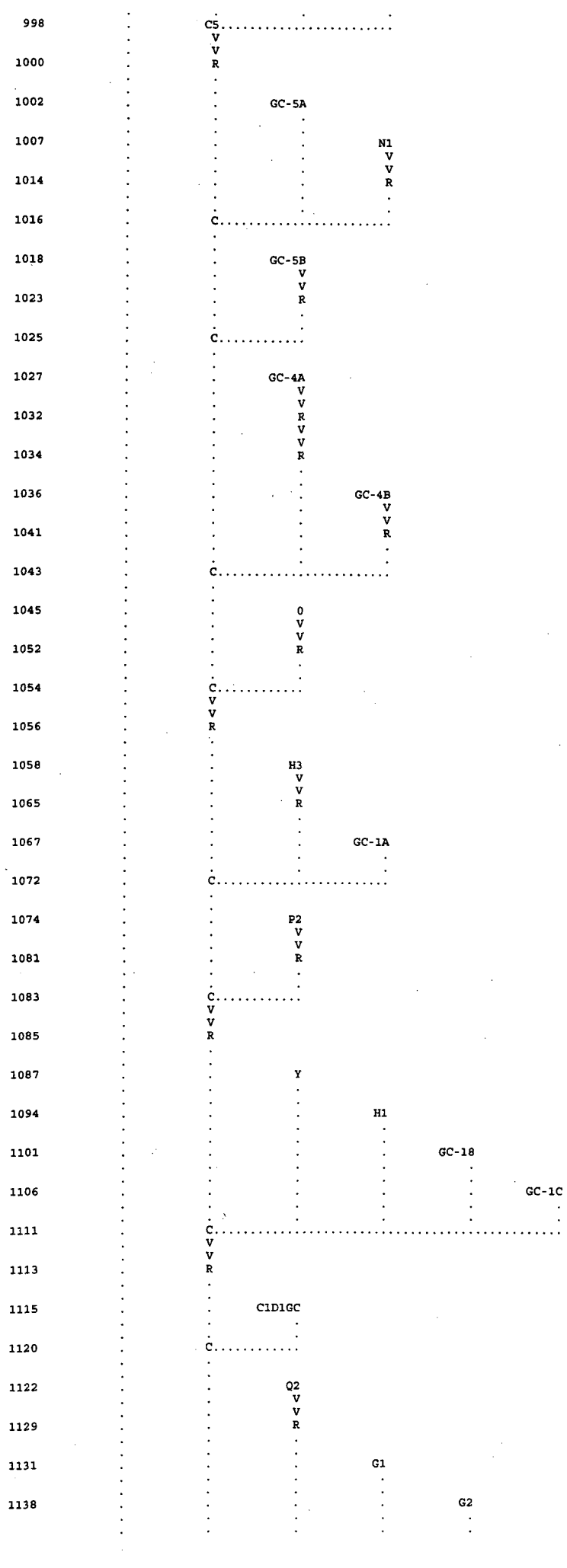

313
C21
315
R23
317
13-10
322
C22
324
R24
326
13-3
331
C23
333
R25
335
13-2
340
C24
342
13-1
347
C25
349
CCF9F
351
RF9F
353
12-1
358
C12-1
360
R12-1
362
11-4
367
R2
369
11-3
374
C2
376
11-2
381
C3
383
11-7
388
11-8
393
11-9
398
11-10
403
R3
405
C4
407
R4
409
11-5
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CC7
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RC7
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10-2

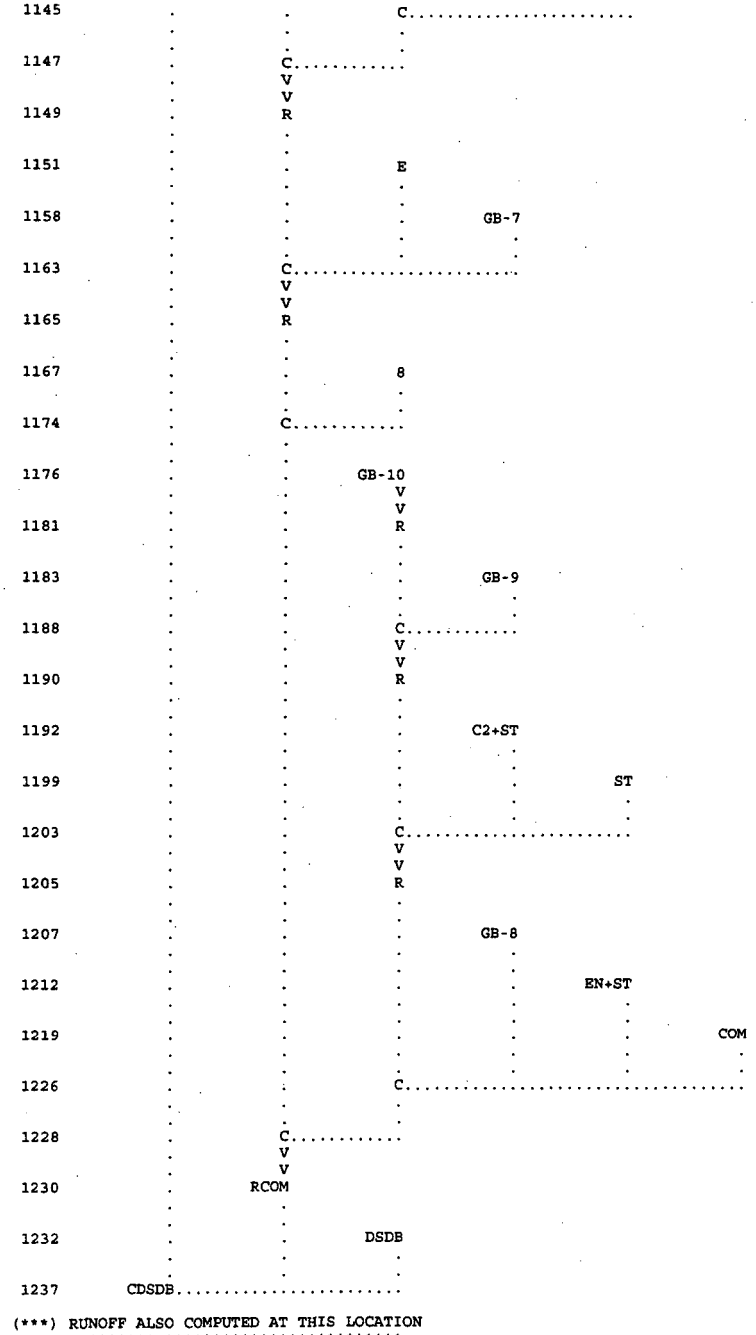

441
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541
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550
555
557
559
CDB1
RDB1
CC1
C1
DB1
9-19
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C14
R13
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C15
9-16
C16
C17
R14
9-14
C18
R15
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R16
C19
R17
9-11
C20
9-6
C21
R18
9-13
R19
C22
R20
9-2
C23
R21
9-10
10-1
9-17
9-5


564 R22
566 9-9
571 C24
573 R23
575 9-8
580 R24
582 9-7
587 C25
589 R25
591 9-4
596 C26
598 9-3
603 C27
605 R26
607 9-1
612 C28
614 8-3
619 8-2
624 C12
626 R12
628 8-1
633 C13
635 7-2
640 R11
642 7-1
647 C11
649 DB2
654 CDB2
657 PEDB
671 RDB2
673 U1
680 R
682 GB-1
687 C
689 R
691 W2
698 C
700 W1
707 C


709
R
711
GB-2A
716
V2
723
C
V
V
725
R
727
V1
734
GB-2B
739
C
741
C
743
P1
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755
T2
762
C
V
V
764
R
766
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C6
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778
R6
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C7
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R7
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R8
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C8
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R9
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V
V
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R10
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C9
819
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C10
V
V
826
R
828
T1
835
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U2
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C
V
V
849
R
851
C
V
V
853
R


855 GB-5A
860 C
862 Q1
869 S1
876 C
878 R
880 S2
887 GB-5B
892 C
894 GB-6
899 R
901 R2
908 C
910 R
912 R1
919 C
921 C
923 GB-14
928 F
934 CF
936 CCF
938 RF
940 5-7
945 R1
947 5-6
952 C1
954 R2
956 5-5
961 5-8
966 C2
968 R3
970 5-4
975 C3
977 R4
979 5-2
984 C4
986 5-3
991 R5
993 5-1


998
C5
1000
1002
GC-5A
1007
N1
1014
1016
C
1018
GC-5B
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1025
C
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GC-4A
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1036
GC-4B
1041
1043
C
1045
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C
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C
1074
P2
1081
1083
C
1085
1087
Y
1094
H1
1101
GC-18
1106
GC-1C
1111
C
1113
1115
C1D1GC
1120
C
1122
Q2
1129
1131
G1
1138
G2



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*          VERSION 4.1                  *
*                                       *
*  RUN DATE   19NOV03  TIME  12:59:28   *
*                                       *
*****************************************
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```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN
PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC., DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.

100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR EVENTS.

25 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL

```
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                    NMIN           5  MINUTES IN COMPUTATION INTERVAL
                   IDATE       1   0  STARTING DATE
                   ITIME        0000  STARTING TIME
                      NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE       2   0  ENDING DATE
                  NDTIME        0055  ENDING TIME
                  ICENT           19  CENTURY MARK

                COMPUTATION INTERVAL      .08 HOURS
                   TOTAL TIME BASE    24.92 HOURS

        ENGLISH UNITS
            DRAINAGE AREA          SQUARE MILES
            PRECIPITATION DEPTH    INCHES
            LENGTH, ELEVATION      FEET
            FLOW                   CUBIC FEET PER SECOND
            STORAGE VOLUME         ACRE-FEET
            SURFACE AREA           ACRES
            TEMPERATURE            DEGREES FAHRENHEIT

    JP          MULTI-PLAN OPTION
                    NPLAN          1  NUMBER OF PLANS

    JR          MULTI-RATIO OPTION
                RATIOS OF PRECIPITATION
                  .73       .72       .64       .63       .54       .53       .42       .41


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


          **************
          *            *
654 KK    *      CDB2  *
          *            *
          **************

655 KO          OUTPUT CONTROL VARIABLES
                    IPRNT          1  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE

656 HC          HYDROGRAPH COMBINATION
                    ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                ***

*****************************************************************************************************************************

                                        HYDROGRAPH AT STATION     CDB2
                                            SUM OF  3 HYDROGRAPHS
                                          PLAN 1,   RATIO =   .73

*****************************************************************************************************************************

  DA MON HRMN   ORD      FLOW    *  DA MON HRMN   ORD      FLOW    *  DA MON HRMN   ORD      FLOW    *  DA MON HRMN   ORD      FLOW
   1     0000    1        0.    *   1     0615   76      5920.    *   1     1230  151        1.    *   1     1845  226        0.
   1     0005    2        0.    *   1     0620   77      5622.    *   1     1235  152        0.    *   1     1850  227        0.
   1     0010    3        0.    *   1     0625   78      5301.    *   1     1240  153        0.    *   1     1855  228        0.
   1     0015    4        0.    *   1     0630   79      4964.    *   1     1245  154        0.    *   1     1900  229        0.
   1     0020    5        0.    *   1     0635   80      4618.    *   1     1250  155        0.    *   1     1905  230        0.
   1     0025    6        2.    *   1     0640   81      4271.    *   1     1255  156        0.    *   1     1910  231        0.
   1     0030    7        8.    *   1     0645   82      3929.    *   1     1300  157        0.    *   1     1915  232        0.
   1     0035    8       15.    *   1     0650   83      3597.    *   1     1305  158        0.    *   1     1920  233        0.
   1     0040    9       20.    *   1     0655   84      3278.    *   1     1310  159        0.    *   1     1925  234        0.
   1     0045   10       24.    *   1     0700   85      2974.    *   1     1315  160        0.    *   1     1930  235        0.
   1     0050   11       26.    *   1     0705   86      2687.    *   1     1320  161        0.    *   1     1935  236        0.
   1     0055   12       30.    *   1     0710   87      2419.    *   1     1325  162        0.    *   1     1940  237        0.
   1     0100   13       38.    *   1     0715   88      2168.    *   1     1330  163        0.    *   1     1945  238        0.
   1     0105   14       50.    *   1     0720   89      1937.    *   1     1335  164        0.    *   1     1950  239        0.
   1     0110   15       65.    *   1     0725   90      1725.    *   1     1340  165        0.    *   1     1955  240        0.
   1     0115   16       79.    *   1     0730   91      1532.    *   1     1345  166        0.    *   1     2000  241        0.
   1     0120   17       92.    *   1     0735   92      1357.    *   1     1350  167        0.    *   1     2005  242        0.
   1     0125   18      107.    *   1     0740   93      1199.    *   1     1355  168        0.    *   1     2010  243        0.
   1     0130   19      126.    *   1     0745   94      1057.    *   1     1400  169        0.    *   1     2015  244        0.
   1     0135   20      150.    *   1     0750   95       930.    *   1     1405  170        0.    *   1     2020  245        0.
   1     0140   21      177.    *   1     0755   96       817.    *   1     1410  171        0.    *   1     2025  246        0.
   1     0145   22      208.    *   1     0800   97       717.    *   1     1415  172        0.    *   1     2030  247        0.
   1     0150   23      239.    *   1     0805   98       628.    *   1     1420  173        0.    *   1     2035  248        0.
   1     0155   24      271.    *   1     0810   99       549.    *   1     1425  174        0.    *   1     2040  249        0.
   1     0200   25      309.    *   1     0815  100       480.    *   1     1430  175        0.    *   1     2045  250        0.
   1     0205   26      352.    *   1     0820  101       419.    *   1     1435  176        0.    *   1     2050  251        0.
   1     0210   27      394.    *   1     0825  102       366.    *   1     1440  177        0.    *   1     2055  252        0.
   1     0215   28      432.    *   1     0830  103       319.    *   1     1445  178        0.    *   1     2100  253        0.
   1     0220   29      468.    *   1     0835  104       278.    *   1     1450  179        0.    *   1     2105  254        0.
   1     0225   30      502.    *   1     0840  105       242.    *   1     1455  180        0.    *   1     2110  255        0.
   1     0230   31      539.    *   1     0845  106       211.    *   1     1500  181        0.    *   1     2115  256        0.
   1     0235   32      580.    *   1     0850  107       184.    *   1     1505  182        0.    *   1     2120  257        0.
   1     0240   33      624.    *   1     0855  108       161.    *   1     1510  183        0.    *   1     2125  258        0.
   1     0245   34      677.    *   1     0900  109       140.    *   1     1515  184        0.    *   1     2130  259        0.
   1     0250   35      744.    *   1     0905  110       122.    *   1     1520  185        0.    *   1     2135  260        0.
   1     0255   36      828.    *   1     0910  111       106.    *   1     1525  186        0.    *   1     2140  261        0.
   1     0300   37      935.    *   1     0915  112        93.    *   1     1530  187        0.    *   1     2145  262        0.
   1     0305   38     1063.    *   1     0920  113        81.    *   1     1535  188        0.    *   1     2150  263        0.
   1     0310   39     1219.    *   1     0925  114        70.    *   1     1540  189        0.    *   1     2155  264        0.
   1     0315   40     1416.    *   1     0930  115        61.    *   1     1545  190        0.    *   1     2200  265        0.
   1     0320   41     1648.    *   1     0935  116        53.    *   1     1550  191        0.    *   1     2205  266        0.
   1     0325   42     1932.    *   1     0940  117        46.    *   1     1555  192        0.    *   1     2210  267        0.
   1     0330   43     2306.    *   1     0945  118        40.    *   1     1600  193        0.    *   1     2215  268        0.
   1     0335   44     2688.    *   1     0950  119        35.    *   1     1605  194        0.    *   1     2220  269        0.
   1     0340   45     2979.    *   1     0955  120        30.    *   1     1610  195        0.    *   1     2225  270        0.
   1     0345   46     3196.    *   1     1000  121        27.    *   1     1615  196        0.    *   1     2230  271        0.
   1     0350   47     3417.    *   1     1005  122        23.    *   1     1620  197        0.    *   1     2235  272        0.
   1     0355   48     3646.    *   1     1010  123        20.    *   1     1625  198        0.    *   1     2240  273        0.
   1     0400   49     3869.    *   1     1015  124        18.    *   1     1630  199        0.    *   1     2245  274        0.
   1     0405   50     4114.    *   1     1020  125        16.    *   1     1635  200        0.    *   1     2250  275        0.
   1     0410   51     4411.    *   1     1025  126        14.    *   1     1640  201        0.    *   1     2255  276        0.
   1     0415   52     4775.    *   1     1030  127        12.    *   1     1645  202        0.    *   1     2300  277        0.
   1     0420   53     5195.    *   1     1035  128        10.    *   1     1650  203        0.    *   1     2305  278        0.
   1     0425   54     5661.    *   1     1040  129         9.    *   1     1655  204        0.    *   1     2310  279        0.
   1     0430   55     6163.    *   1     1045  130         8.    *   1     1700  205        0.    *   1     2315  280        0.
   1     0435   56     6695.    *   1     1050  131         7.    *   1     1705  206        0.    *   1     2320  281        0.
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1	0440	57	7223.		1	1055	132	6.		1	1710	207	0.		1	2325	282	0.	
1	0445	58	7710.		1	1100	133	5.		1	1715	208	0.		1	2330	283	0.	
1	0450	59	8132.		1	1105	134	4.		1	1720	209	0.		1	2335	284	0.	
1	0455	60	8442.		1	1110	135	4.		1	1725	210	0.		1	2340	285	0.	
1	0500	61	8605.		1	1115	136	3.		1	1730	211	0.		1	2345	286	0.	
1	0505	62	8635.		1	1120	137	3.		1	1735	212	0.		1	2350	287	0.	
1	0510	63	8556.		1	1125	138	2.		1	1740	213	0.		1	2355	288	0.	
1	0515	64	8393.		1	1130	139	2.		1	1745	214	0.		2	0000	289	0.	
1	0520	65	8178.		1	1135	140	2.		1	1750	215	0.		2	0005	290	0.	
1	0525	66	7946.		1	1140	141	2.		1	1755	216	0.		2	0010	291	0.	
1	0530	67	7719.		1	1145	142	1.		1	1800	217	0.		2	0015	292	0.	
1	0535	68	7509.		1	1150	143	1.		1	1805	218	0.		2	0020	293	0.	
1	0540	69	7318.		1	1155	144	1.		1	1810	219	0.		2	0025	294	0.	
1	0545	70	7145.		1	1200	145	1.		1	1815	220	0.		2	0030	295	0.	
1	0550	71	6980.		1	1205	146	1.		1	1820	221	0.		2	0035	296	0.	
1	0555	72	6813.		1	1210	147	1.		1	1825	222	0.		2	0040	297	0.	
1	0600	73	6632.		1	1215	148	1.		1	1830	223	0.		2	0045	298	0.	
1	0605	74	6426.		1	1220	149	1.		1	1835	224	0.		2	0050	299	0.	
1	0610	75	6189.		1	1225	150	1.		1	1840	225	0.		2	0055	300	0.	

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
8635.	5.08	3910.	1000.	963.	963.
		(INCHES) 1.103	1.128	1.128	1.128
		(AC-FT) 1939.	1983.	1983.	1983.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .72

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	5814.	1		1230	151	1.	1		1845	226	0.
1		0005	2	0.	1		0620	77	5522.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	5207.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	4876.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	4537.	1		1250	155	0.	1		1905	230	0.
1		0025	6	2.	1		0640	81	4197.	1		1255	156	0.	1		1910	231	0.
1		0030	7	7.	1		0645	82	3861.	1		1300	157	0.	1		1915	232	0.
1		0035	8	14.	1		0650	83	3535.	1		1305	158	0.	1		1920	233	0.
1		0040	9	19.	1		0655	84	3221.	1		1310	159	0.	1		1925	234	0.
1		0045	10	22.	1		0700	85	2923.	1		1315	160	0.	1		1930	235	0.
1		0050	11	25.	1		0705	86	2641.	1		1320	161	0.	1		1935	236	0.
1		0055	12	28.	1		0710	87	2377.	1		1325	162	0.	1		1940	237	0.
1		0100	13	35.	1		0715	88	2131.	1		1330	163	0.	1		1945	238	0.
1		0105	14	46.	1		0720	89	1904.	1		1335	164	0.	1		1950	239	0.
1		0110	15	61.	1		0725	90	1696.	1		1340	165	0.	1		1955	240	0.
1		0115	16	74.	1		0730	91	1506.	1		1345	166	0.	1		2000	241	0.
1		0120	17	87.	1		0735	92	1334.	1		1350	167	0.	1		2005	242	0.
1		0125	18	102.	1		0740	93	1179.	1		1355	168	0.	1		2010	243	0.
1		0130	19	120.	1		0745	94	1039.	1		1400	169	0.	1		2015	244	0.
1		0135	20	142.	1		0750	95	915.	1		1405	170	0.	1		2020	245	0.
1		0140	21	168.	1		0755	96	804.	1		1410	171	0.	1		2025	246	0.
1		0145	22	197.	1		0800	97	705.	1		1415	172	0.	1		2030	247	0.
1		0150	23	227.	1		0805	98	617.	1		1420	173	0.	1		2035	248	0.
1		0155	24	259.	1		0810	99	540.	1		1425	174	0.	1		2040	249	0.
1		0200	25	296.	1		0815	100	472.	1		1430	175	0.	1		2045	250	0.
1		0205	26	337.	1		0820	101	412.	1		1435	176	0.	1		2050	251	0.
1		0210	27	377.	1		0825	102	359.	1		1440	177	0.	1		2055	252	0.
1		0215	28	415.	1		0830	103	313.	1		1445	178	0.	1		2100	253	0.
1		0220	29	449.	1		0835	104	273.	1		1450	179	0.	1		2105	254	0.
1		0225	30	482.	1		0840	105	238.	1		1455	180	0.	1		2110	255	0.
1		0230	31	518.	1		0845	106	208.	1		1500	181	0.	1		2115	256	0.
1		0235	32	557.	1		0850	107	181.	1		1505	182	0.	1		2120	257	0.
1		0240	33	600.	1		0855	108	158.	1		1510	183	0.	1		2125	258	0.
1		0245	34	651.	1		0900	109	138.	1		1515	184	0.	1		2130	259	0.
1		0250	35	716.	1		0905	110	120.	1		1520	185	0.	1		2135	260	0.
1		0255	36	798.	1		0910	111	105.	1		1525	186	0.	1		2140	261	0.
1		0300	37	901.	1		0915	112	91.	1		1530	187	0.	1		2145	262	0.
1		0305	38	1026.	1		0920	113	79.	1		1535	188	0.	1		2150	263	0.
1		0310	39	1179.	1		0925	114	69.	1		1540	189	0.	1		2155	264	0.
1		0315	40	1373.	1		0930	115	60.	1		1545	190	0.	1		2200	265	0.
1		0320	41	1599.	1		0935	116	52.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1877.	1		0940	117	45.	1		1555	192	0.	1		2210	267	0.
1		0330	43	2243.	1		0945	118	40.	1		1600	193	0.	1		2215	268	0.
1		0335	44	2621.	1		0950	119	34.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2904.	1		0955	120	30.	1		1610	195	0.	1		2225	270	0.
1		0345	46	3120.	1		1000	121	26.	1		1615	196	0.	1		2230	271	0.
1		0350	47	3338.	1		1005	122	23.	1		1620	197	0.	1		2235	272	0.
1		0355	48	3565.	1		1010	123	20.	1		1625	198	0.	1		2240	273	0.
1		0400	49	3785.	1		1015	124	17.	1		1630	199	0.	1		2245	274	0.
1		0405	50	4024.	1		1020	125	15.	1		1635	200	0.	1		2250	275	0.
1		0410	51	4314.	1		1025	126	13.	1		1640	201	0.	1		2255	276	0.
1		0415	52	4670.	1		1030	127	12.	1		1645	202	0.	1		2300	277	0.
1		0420	53	5082.	1		1035	128	10.	1		1650	203	0.	1		2305	278	0.
1		0425	54	5538.	1		1040	129	9.	1		1655	204	0.	1		2310	279	0.
1		0430	55	6031.	1		1045	130	8.	1		1700	205	0.	1		2315	280	0.
1		0435	56	6553.	1		1050	131	7.	1		1705	206	0.	1		2320	281	0.
1		0440	57	7072.	1		1055	132	6.	1		1710	207	0.	1		2325	282	0.
1		0445	58	7550.	1		1100	133	5.	1		1715	208	0.	1		2330	283	0.
1		0450	59	7965.	1		1105	134	4.	1		1720	209	0.	1		2335	284	0.
1		0455	60	8270.	1		1110	135	4.	1		1725	210	0.	1		2340	285	0.
1		0500	61	8432.	1		1115	136	3.	1		1730	211	0.	1		2345	286	0.
1		0505	62	8462.	1		1120	137	3.	1		1735	212	0.	1		2350	287	0.
1		0510	63	8385.	1		1125	138	2.	1		1740	213	0.	1		2355	288	0.
1		0515	64	8227.	1		1130	139	2.	1		1745	214	0.	2		0000	289	0.
1		0520	65	8018.	1		1135	140	2.	1		1750	215	0.	2		0005	290	0.
1		0525	66	7792.	1		1140	141	2.	1		1755	216	0.	2		0010	291	0.
1		0530	67	7572.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	7366.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	7180.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	7012.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	6851.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	6688.	1		1210	147	1.	1		1825	222	0.	2		0040	297	0.
1		0600	73	6511.	1		1215	148	1.	1		1830	223	0.	2		0045	298	0.
1		0605	74	6310.	1		1220	149	1.	1		1835	224	0.	2		0050	299	0.
1		0610	75	6078.	1		1225	150	1.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8462.	5.08	(CFS)	3830.	979.	943.	943.
		(INCHES)	1.080	1.105	1.105	1.105
		(AC-FT)	1899.	1943.	1943.	1943.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .64

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	4813.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	4576.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	4319.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	4048.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	3770.	1		1250	155	0.	1		1905	230	0.
1		0025	6	1.	1		0640	81	3490.	1		1255	156	0.	1		1910	231	0.
1		0030	7	3.	1		0645	82	3213.	1		1300	157	0.	1		1915	232	0.
1		0035	8	6.	1		0650	83	2943.	1		1305	158	0.	1		1920	233	0.
1		0040	9	9.	1		0655	84	2684.	1		1310	159	0.	1		1925	234	0.
1		0045	10	11.	1		0700	85	2437.	1		1315	160	0.	1		1930	235	0.
1		0050	11	13.	1		0705	86	2204.	1		1320	161	0.	1		1935	236	0.
1		0055	12	14.	1		0710	87	1984.	1		1325	162	0.	1		1940	237	0.
1		0100	13	16.	1		0715	88	1780.	1		1330	163	0.	1		1945	238	0.
1		0105	14	18.	1		0720	89	1591.	1		1335	164	0.	1		1950	239	0.
1		0110	15	24.	1		0725	90	1418.	1		1340	165	0.	1		1955	240	0.
1		0115	16	32.	1		0730	91	1260.	1		1345	166	0.	1		2000	241	0.
1		0120	17	42.	1		0735	92	1116.	1		1350	167	0.	1		2005	242	0.
1		0125	18	53.	1		0740	93	987.	1		1355	168	0.	1		2010	243	0.
1		0130	19	64.	1		0745	94	871.	1		1400	169	0.	1		2015	244	0.
1		0135	20	78.	1		0750	95	767.	1		1405	170	0.	1		2020	245	0.
1		0140	21	95.	1		0755	96	674.	1		1410	171	0.	1		2025	246	0.
1		0145	22	113.	1		0800	97	592.	1		1415	172	0.	1		2030	247	0.
1		0150	23	133.	1		0805	98	519.	1		1420	173	0.	1		2035	248	0.
1		0155	24	155.	1		0810	99	454.	1		1425	174	0.	1		2040	249	0.
1		0200	25	180.	1		0815	100	397.	1		1430	175	0.	1		2045	250	0.
1		0205	26	210.	1		0820	101	347.	1		1435	176	0.	1		2050	251	0.
1		0210	27	239.	1		0825	102	303.	1		1440	177	0.	1		2055	252	0.
1		0215	28	266.	1		0830	103	264.	1		1445	178	0.	1		2100	253	0.
1		0220	29	290.	1		0835	104	230.	1		1450	179	0.	1		2105	254	0.
1		0225	30	312.	1		0840	105	201.	1		1455	180	0.	1		2110	255	0.
1		0230	31	337.	1		0845	106	175.	1		1500	181	0.	1		2115	256	0.
1		0235	32	363.	1		0850	107	153.	1		1505	182	0.	1		2120	257	0.
1		0240	33	392.	1		0855	108	134.	1		1510	183	0.	1		2125	258	0.
1		0245	34	426.	1		0900	109	117.	1		1515	184	0.	1		2130	259	0.
1		0250	35	472.	1		0905	110	102.	1		1520	185	0.	1		2135	260	0.
1		0255	36	530.	1		0910	111	89.	1		1525	186	0.	1		2140	261	0.
1		0300	37	605.	1		0915	112	77.	1		1530	187	0.	1		2145	262	0.
1		0305	38	700.	1		0920	113	68.	1		1535	188	0.	1		2150	263	0.
1		0310	39	817.	1		0925	114	59.	1		1540	189	0.	1		2155	264	0.
1		0315	40	968.	1		0930	115	51.	1		1545	190	0.	1		2200	265	0.
1		0320	41	1150.	1		0935	116	45.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1374.	1		0940	117	39.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1673.	1		0945	118	34.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1990.	1		0950	119	29.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2231.	1		0955	120	26.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2413.	1		1000	121	23.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2598.	1		1005	122	20.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2787.	1		1010	123	17.	1		1625	198	0.	1		2240	273	0.
1		0400	49	2970.	1		1015	124	15.	1		1630	199	0.	1		2245	274	0.
1		0405	50	3166.	1		1020	125	14.	1		1635	200	0.	1		2250	275	0.
1		0410	51	3402.	1		1025	126	12.	1		1640	201	0.	1		2255	276	0.
1		0415	52	3688.	1		1030	127	10.	1		1645	202	0.	1		2300	277	0.
1		0420	53	4021.	1		1035	128	9.	1		1650	203	0.	1		2305	278	0.
1		0425	54	4391.	1		1040	129	8.	1		1655	204	0.	1		2310	279	0.
1		0430	55	4792.	1		1045	130	7.	1		1700	205	0.	1		2315	280	0.
1		0435	56	5218.	1		1050	131	6.	1		1705	206	0.	1		2320	281	0.
1		0440	57	5646.	1		1055	132	5.	1		1710	207	0.	1		2325	282	0.
1		0445	58	6044.	1		1100	133	4.	1		1715	208	0.	1		2330	283	0.
1		0450	59	6393.	1		1105	134	4.	1		1720	209	0.	1		2335	284	0.
1		0455	60	6656.	1		1110	135	3.	1		1725	210	0.	1		2340	285	0.
1		0500	61	6804.	1		1115	136	3.	1		1730	211	0.	1		2345	286	0.
1		0505	62	6843.	1		1120	137	2.	1		1735	212	0.	1		2350	287	0.
1		0510	63	6794.	1		1125	138	2.	1		1740	213	0.	1		2355	288	0.
1		0515	64	6679.	1		1130	139	2.	1		1745	214	0.	2		0000	289	0.
1		0520	65	6521.	1		1135	140	2.	1		1750	215	0.	2		0005	290	0.
1		0525	66	6349.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	6180.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	6023.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	5882.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	5754.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	5632.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	5507.	1		1210	147	1.	1		1825	222	0.	2		0040	297	0.
1		0600	73	5369.	1		1215	148	1.	1		1830	223	0.	2		0045	298	0.
1		0605	74	5210.	1		1220	149	1.	1		1835	224	0.	2		0050	299	0.
1		0610	75	5025.	1		1225	150	1.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6843.	5.08	(CFS)	3088.	787.	759.	759.
		(INCHES)	.871	.888	.888	.888
		(AC-FT)	1531.	1562.	1562.	1562.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .63

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	4720.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	4489.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	4237.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	3972.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	3699.	1		1250	155	0.	1		1905	230	0.
1		0025	6	1.	1		0640	81	3424.	1		1255	156	0.	1		1910	231	0.
1		0030	7	3.	1		0645	82	3153.	1		1300	157	0.	1		1915	232	0.
1		0035	8	6.	1		0650	83	2889.	1		1305	158	0.	1		1920	233	0.
1		0040	9	8.	1		0655	84	2634.	1		1310	159	0.	1		1925	234	0.
1		0045	10	11.	1		0700	85	2392.	1		1315	160	0.	1		1930	235	0.
1		0050	11	12.	1		0705	86	2163.	1		1320	161	0.	1		1935	236	0.
1		0055	12	13.	1		0710	87	1948.	1		1325	162	0.	1		1940	237	0.
1		0100	13	15.	1		0715	88	1748.	1		1330	163	0.	1		1945	238	0.
1		0105	14	17.	1		0720	89	1562.	1		1335	164	0.	1		1950	239	0.
1		0110	15	21.	1		0725	90	1392.	1		1340	165	0.	1		1955	240	0.
1		0115	16	29.	1		0730	91	1237.	1		1345	166	0.	1		2000	241	0.
1		0120	17	39.	1		0735	92	1096.	1		1350	167	0.	1		2005	242	0.
1		0125	18	49.	1		0740	93	969.	1		1355	168	0.	1		2010	243	0.
1		0130	19	60.	1		0745	94	855.	1		1400	169	0.	1		2015	244	0.
1		0135	20	73.	1		0750	95	753.	1		1405	170	0.	1		2020	245	0.
1		0140	21	89.	1		0755	96	662.	1		1410	171	0.	1		2025	246	0.
1		0145	22	106.	1		0800	97	581.	1		1415	172	0.	1		2030	247	0.
1		0150	23	125.	1		0805	98	509.	1		1420	173	0.	1		2035	248	0.
1		0155	24	146.	1		0810	99	446.	1		1425	174	0.	1		2040	249	0.
1		0200	25	171.	1		0815	100	390.	1		1430	175	0.	1		2045	250	0.
1		0205	26	199.	1		0820	101	340.	1		1435	176	0.	1		2050	251	0.
1		0210	27	228.	1		0825	102	297.	1		1440	177	0.	1		2055	252	0.
1		0215	28	254.	1		0830	103	259.	1		1445	178	0.	1		2100	253	0.
1		0220	29	277.	1		0835	104	227.	1		1450	179	0.	1		2105	254	0.
1		0225	30	299.	1		0840	105	197.	1		1455	180	0.	1		2110	255	0.
1		0230	31	322.	1		0845	106	172.	1		1500	181	0.	1		2115	256	0.
1		0235	32	348.	1		0850	107	150.	1		1505	182	0.	1		2120	257	0.
1		0240	33	375.	1		0855	108	131.	1		1510	183	0.	1		2125	258	0.
1		0245	34	408.	1		0900	109	115.	1		1515	184	0.	1		2130	259	0.
1		0250	35	451.	1		0905	110	100.	1		1520	185	0.	1		2135	260	0.
1		0255	36	508.	1		0910	111	87.	1		1525	186	0.	1		2140	261	0.
1		0300	37	581.	1		0915	112	76.	1		1530	187	0.	1		2145	262	0.
1		0305	38	672.	1		0920	113	66.	1		1535	188	0.	1		2150	263	0.
1		0310	39	785.	1		0925	114	58.	1		1540	189	0.	1		2155	264	0.
1		0315	40	934.	1		0930	115	50.	1		1545	190	0.	1		2200	265	0.
1		0320	41	1110.	1		0935	116	44.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1331.	1		0940	117	38.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1624.	1		0945	118	33.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1934.	1		0950	119	29.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2171.	1		0955	120	25.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2350.	1		1000	121	22.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2532.	1		1005	122	19.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2718.	1		1010	123	17.	1		1625	198	0.	1		2240	273	0.
1		0400	49	2896.	1		1015	124	15.	1		1630	199	0.	1		2245	274	0.
1		0405	50	3089.	1		1020	125	13.	1		1635	200	0.	1		2250	275	0.
1		0410	51	3320.	1		1025	126	12.	1		1640	201	0.	1		2255	276	0.
1		0415	52	3599.	1		1030	127	10.	1		1645	202	0.	1		2300	277	0.
1		0420	53	3925.	1		1035	128	9.	1		1650	203	0.	1		2305	278	0.
1		0425	54	4287.	1		1040	129	8.	1		1655	204	0.	1		2310	279	0.
1		0430	55	4679.	1		1045	130	7.	1		1700	205	0.	1		2315	280	0.
1		0435	56	5098.	1		1050	131	6.	1		1705	206	0.	1		2320	281	0.
1		0440	57	5517.	1		1055	132	5.	1		1710	207	0.	1		2325	282	0.
1		0445	58	5907.	1		1100	133	4.	1		1715	208	0.	1		2330	283	0.
1		0450	59	6251.	1		1105	134	4.	1		1720	209	0.	1		2335	284	0.
1		0455	60	6510.	1		1110	135	3.	1		1725	210	0.	1		2340	285	0.
1		0500	61	6656.	1		1115	136	3.	1		1730	211	0.	1		2345	286	0.
1		0505	62	6695.	1		1120	137	2.	1		1735	212	0.	1		2350	287	0.
1		0510	63	6649.	1		1125	138	2.	1		1740	213	0.	1		2355	288	0.
1		0515	64	6537.	1		1130	139	2.	1		1745	214	0.	1		2400	289	0.
1		0520	65	6383.	1		1135	140	2.	1		1750	215	0.	2		0005	290	0.
1		0525	66	6216.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	6052.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	5899.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	5762.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	5638.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	5520.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	5398.	1		1210	147	1.	1		1825	222	0.	2		0040	297	0.
1		0600	73	5264.	1		1215	148	1.	1		1830	223	0.	2		0045	298	0.
1		0605	74	5109.	1		1220	149	1.	1		1835	224	0.	2		0050	299	0.
1		0610	75	4928.	1		1225	150	1.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
6695.	5.08	3021.	770.	742.	742.
		(INCHES) .852	.869	.869	.869
		(AC-FT) 1498.	1527.	1527.	1527.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .54

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	3729.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	3551.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	3357.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	3150.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	2937.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	2722.	1		1255	156	0.	1		1910	231	0.
1		0030	7	1.	1		0645	82	2508.	1		1300	157	0.	1		1915	232	0.
1		0035	8	2.	1		0650	83	2300.	1		1305	158	0.	1		1920	233	0.
1		0040	9	3.	1		0655	84	2100.	1		1310	159	0.	1		1925	234	0.
1		0045	10	4.	1		0700	85	1908.	1		1315	160	0.	1		1930	235	0.
1		0050	11	5.	1		0705	86	1727.	1		1320	161	0.	1		1935	236	0.
1		0055	12	5.	1		0710	87	1557.	1		1325	162	0.	1		1940	237	0.
1		0100	13	6.	1		0715	88	1398.	1		1330	163	0.	1		1945	238	0.
1		0105	14	6.	1		0720	89	1250.	1		1335	164	0.	1		1950	239	0.

1	0110	15	7.		1	0725	90	1115.		1	1340	165	0.		1	1955	240	0.	
1	0115	16	8.		1	0730	91	991.		1	1345	166	0.		1	2000	241	0.	
1	0120	17	11.		1	0735	92	879.		1	1350	167	0.		1	2005	242	0.	
1	0125	18	15.		1	0740	93	778.		1	1355	168	0.		1	2010	243	0.	
1	0130	19	21.		1	0745	94	687.		1	1400	169	0.		1	2015	244	0.	
1	0135	20	30.		1	0750	95	605.		1	1405	170	0.		1	2020	245	0.	
1	0140	21	39.		1	0755	96	532.		1	1410	171	0.		1	2025	246	0.	
1	0145	22	49.		1	0800	97	468.		1	1415	172	0.		1	2030	247	0.	
1	0150	23	59.		1	0805	98	410.		1	1420	173	0.		1	2035	248	0.	
1	0155	24	71.		1	0810	99	360.		1	1425	174	0.		1	2040	249	0.	
1	0200	25	86.		1	0815	100	315.		1	1430	175	0.		1	2045	250	0.	
1	0205	26	104.		1	0820	101	275.		1	1435	176	0.		1	2050	251	0.	
1	0210	27	123.		1	0825	102	240.		1	1440	177	0.		1	2055	252	0.	
1	0215	28	140.		1	0830	103	210.		1	1445	178	0.		1	2100	253	0.	
1	0220	29	156.		1	0835	104	183.		1	1450	179	0.		1	2105	254	0.	
1	0225	30	170.		1	0840	105	160.		1	1455	180	0.		1	2110	255	0.	
1	0230	31	185.		1	0845	106	140.		1	1500	181	0.		1	2115	256	0.	
1	0235	32	201.		1	0850	107	122.		1	1505	182	0.		1	2120	257	0.	
1	0240	33	218.		1	0855	108	107.		1	1510	183	0.		1	2125	258	0.	
1	0245	34	237.		1	0900	109	93.		1	1515	184	0.		1	2130	259	0.	
1	0250	35	263.		1	0905	110	82.		1	1520	185	0.		1	2135	260	0.	
1	0255	36	297.		1	0910	111	71.		1	1525	186	0.		1	2140	261	0.	
1	0300	37	344.		1	0915	112	62.		1	1530	187	0.		1	2145	262	0.	
1	0305	38	404.		1	0920	113	54.		1	1535	188	0.		1	2150	263	0.	
1	0310	39	483.		1	0925	114	47.		1	1540	189	0.		1	2155	264	0.	
1	0315	40	589.		1	0930	115	41.		1	1545	190	0.		1	2200	265	0.	
1	0320	41	718.		1	0935	116	36.		1	1550	191	0.		1	2205	266	0.	
1	0325	42	884.		1	0940	117	32.		1	1555	192	0.		1	2210	267	0.	
1	0330	43	1109.		1	0945	118	27.		1	1600	193	0.		1	2215	268	0.	
1	0335	44	1354.		1	0950	119	24.		1	1605	194	0.		1	2220	269	0.	
1	0340	45	1546.		1	0955	120	21.		1	1610	195	0.		1	2225	270	0.	
1	0345	46	1692.		1	1000	121	18.		1	1615	196	0.		1	2230	271	0.	
1	0350	47	1835.		1	1005	122	16.		1	1620	197	0.		1	2235	272	0.	
1	0355	48	1987.		1	1010	123	14.		1	1625	198	0.		1	2240	273	0.	
1	0400	49	2129.		1	1015	124	12.		1	1630	199	0.		1	2245	274	0.	
1	0405	50	2277.		1	1020	125	11.		1	1635	200	0.		1	2250	275	0.	
1	0410	51	2453.		1	1025	126	10.		1	1640	201	0.		1	2255	276	0.	
1	0415	52	2665.		1	1030	127	9.		1	1645	202	0.		1	2300	277	0.	
1	0420	53	2913.		1	1035	128	8.		1	1650	203	0.		1	2305	278	0.	
1	0425	54	3190.		1	1040	129	6.		1	1655	204	0.		1	2310	279	0.	
1	0430	55	3492.		1	1045	130	6.		1	1700	205	0.		1	2315	280	0.	
1	0435	56	3816.		1	1050	131	5.		1	1705	206	0.		1	2320	281	0.	
1	0440	57	4145.		1	1055	132	4.		1	1710	207	0.		1	2325	282	0.	
1	0445	58	4456.		1	1100	133	4.		1	1715	208	0.		1	2330	283	0.	
1	0450	59	4733.		1	1105	134	3.		1	1720	209	0.		1	2335	284	0.	
1	0455	60	4948.		1	1110	135	3.		1	1725	210	0.		1	2340	285	0.	
1	0500	61	5076.		1	1115	136	2.		1	1730	211	0.		1	2345	286	0.	
1	0505	62	5122.		1	1120	137	2.		1	1735	212	0.		1	2350	287	0.	
1	0510	63	5100.		1	1125	138	2.		1	1740	213	0.		1	2355	288	0.	
1	0515	64	5027.		1	1130	139	2.		1	1745	214	0.		2	0000	289	0.	
1	0520	65	4922.		1	1135	140	1.		1	1750	215	0.		2	0005	290	0.	
1	0525	66	4805.		1	1140	141	1.		1	1755	216	0.		2	0010	291	0.	
1	0530	67	4689.		1	1145	142	1.		1	1800	217	0.		2	0015	292	0.	
1	0535	68	4583.		1	1150	143	1.		1	1805	218	0.		2	0020	293	0.	
1	0540	69	4487.		1	1155	144	1.		1	1810	219	0.		2	0025	294	0.	
1	0545	70	4401.		1	1200	145	1.		1	1815	220	0.		2	0030	295	0.	
1	0550	71	4319.		1	1205	146	1.		1	1820	221	0.		2	0035	296	0.	
1	0555	72	4234.		1	1210	147	1.		1	1825	222	0.		2	0040	297	0.	
1	0600	73	4137.		1	1215	148	1.		1	1830	223	0.		2	0045	298	0.	
1	0605	74	4023.		1	1220	149	1.		1	1835	224	0.		2	0050	299	0.	
1	0610	75	3887.		1	1225	150	0.		1	1840	225	0.		2	0055	300	0.	

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 5122.	5.08		2309.	587.	565.	565.
		(INCHES)	.651	.662	.662	.662
		(AC-FT)	1145.	1164.	1164.	1164.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .53

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DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW
1		0000	1	0.		1		0615	76	3651.		1		1230	151	0.		1		1845	226	0.
1		0005	2	0.		1		0620	77	3477.		1		1235	152	0.		1		1850	227	0.
1		0010	3	0.		1		0625	78	3287.		1		1240	153	0.		1		1855	228	0.
1		0015	4	0.		1		0630	79	3085.		1		1245	154	0.		1		1900	229	0.
1		0020	5	0.		1		0635	80	2877.		1		1250	155	0.		1		1905	230	0.
1		0025	6	0.		1		0640	81	2666.		1		1255	156	0.		1		1910	231	0.
1		0030	7	1.		1		0645	82	2457.		1		1300	157	0.		1		1915	232	0.
1		0035	8	2.		1		0650	83	2254.		1		1305	158	0.		1		1920	233	0.
1		0040	9	3.		1		0655	84	2057.		1		1310	159	0.		1		1925	234	0.
1		0045	10	4.		1		0700	85	1870.		1		1315	160	0.		1		1930	235	0.
1		0050	11	4.		1		0705	86	1692.		1		1320	161	0.		1		1935	236	0.
1		0055	12	5.		1		0710	87	1525.		1		1325	162	0.		1		1940	237	0.
1		0100	13	6.		1		0715	88	1370.		1		1330	163	0.		1		1945	238	0.
1		0105	14	6.		1		0720	89	1225.		1		1335	164	0.		1		1950	239	0.
1		0110	15	6.		1		0725	90	1093.		1		1340	165	0.		1		1955	240	0.
1		0115	16	7.		1		0730	91	972.		1		1345	166	0.		1		2000	241	0.
1		0120	17	10.		1		0735	92	862.		1		1350	167	0.		1		2005	242	0.
1		0125	18	13.		1		0740	93	763.		1		1355	168	0.		1		2010	243	0.
1		0130	19	19.		1		0745	94	673.		1		1400	169	0.		1		2015	244	0.
1		0135	20	27.		1		0750	95	594.		1		1405	170	0.		1		2020	245	0.
1		0140	21	35.		1		0755	96	522.		1		1410	171	0.		1		2025	246	0.
1		0145	22	45.		1		0800	97	458.		1		1415	172	0.		1		2030	247	0.
1		0150	23	55.		1		0805	98	402.		1		1420	173	0.		1		2035	248	0.
1		0155	24	67.		1		0810	99	352.		1		1425	174	0.		1		2040	249	0.
1		0200	25	81.		1		0815	100	308.		1		1430	175	0.		1		2045	250	0.
1		0205	26	98.		1		0820	101	270.		1		1435	176	0.		1		2050	251	0.
1		0210	27	116.		1		0825	102	236.		1		1440	177	0.		1		2055	252	0.
1		0215	28	133.		1		0830	103	206.		1		1445	178	0.		1		2100	253	0.
1		0220	29	148.		1		0835	104	180.		1		1450	179	0.		1		2105	254	0.
1		0225	30	162.		1		0840	105	157.		1		1455	180	0.		1		2110	255	0.
1		0230	31	176.		1		0845	106	137.		1		1500	181	0.		1		2115	256	0.
1		0235	32	191.		1		0850	107	120.		1		1505	182	0.		1		2120	257	0.
1		0240	33	207.		1		0855	108	105.		1		1510	183	0.		1		2125	258	0.

1	0245	34	226.	*	1	0900	109	92.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	250.	*	1	0905	110	80.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	283.	*	1	0910	111	70.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	328.	*	1	0915	112	61.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	385.	*	1	0920	113	53.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	462.	*	1	0925	114	47.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	564.	*	1	0930	115	41.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	690.	*	1	0935	116	35.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	851.	*	1	0940	117	31.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	1068.	*	1	0945	118	27.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	1309.	*	1	0950	119	24.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	1499.	*	1	0955	120	21.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	1640.	*	1	1000	121	18.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	1785.	*	1	1005	122	16.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	1930.	*	1	1010	123	14.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	2070.	*	1	1015	124	12.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	2215.	*	1	1020	125	11.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	2387.	*	1	1025	126	9.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	2594.	*	1	1030	127	8.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	2835.	*	1	1035	128	7.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	3106.	*	1	1040	129	7.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	3400.	*	1	1045	130	6.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	3717.	*	1	1050	131	5.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	4039.	*	1	1055	132	4.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	4343.	*	1	1100	133	4.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	4614.	*	1	1105	134	3.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	4825.	*	1	1110	135	3.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	4951.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	4998.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	4979.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	4909.	*	1	1130	139	2.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	4807.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	4694.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	4582.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	4479.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	4387.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	4304.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	4224.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	4142.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	4048.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	3937.	*	1	1220	149	1.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	3805.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
4998.	5.08	2253.	573.	552.	552.
		(INCHES) .636	.646	.646	.646
		(AC-FT) 1117.	1136.	1136.	1136.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .42

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DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW		DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	2376.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	2270.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	2151.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	2024.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	1892.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	1757.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	1623.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	1491.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	1.	*	1		0655	84	1364.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	1.	*	1		0700	85	1241.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	1.	*	1		0705	86	1125.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	1.	*	1		0710	87	1016.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	1.	*	1		0715	88	914.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	1.	*	1		0720	89	819.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	1.	*	1		0725	90	731.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	1.	*	1		0730	91	651.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	1.	*	1		0735	92	578.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	2.	*	1		0740	93	513.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	3.	*	1		0745	94	453.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	4.	*	1		0750	95	400.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	6.	*	1		0755	96	352.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	8.	*	1		0800	97	310.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	10.	*	1		0805	98	273.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	12.	*	1		0810	99	239.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	15.	*	1		0815	100	210.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	21.	*	1		0820	101	184.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	28.	*	1		0825	102	161.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	35.	*	1		0830	103	141.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	42.	*	1		0835	104	123.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	48.	*	1		0840	105	108.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	55.	*	1		0845	106	94.	*	1		1500	181	0.	*	1		2115	256	0.
1		0235	32	61.	*	1		0850	107	82.	*	1		1505	182	0.	*	1		2120	257	0.
1		0240	33	68.	*	1		0855	108	72.	*	1		1510	183	0.	*	1		2125	258	0.
1		0245	34	75.	*	1		0900	109	63.	*	1		1515	184	0.	*	1		2130	259	0.
1		0250	35	85.	*	1		0905	110	56.	*	1		1520	185	0.	*	1		2135	260	0.
1		0255	36	98.	*	1		0910	111	49.	*	1		1525	186	0.	*	1		2140	261	0.
1		0300	37	117.	*	1		0915	112	43.	*	1		1530	187	0.	*	1		2145	262	0.
1		0305	38	144.	*	1		0920	113	37.	*	1		1535	188	0.	*	1		2150	263	0.
1		0310	39	180.	*	1		0925	114	33.	*	1		1540	189	0.	*	1		2155	264	0.
1		0315	40	231.	*	1		0930	115	29.	*	1		1545	190	0.	*	1		2200	265	0.
1		0320	41	300.	*	1		0935	116	25.	*	1		1550	191	0.	*	1		2205	266	0.
1		0325	42	392.	*	1		0940	117	22.	*	1		1555	192	0.	*	1		2210	267	0.
1		0330	43	522.	*	1		0945	118	19.	*	1		1600	193	0.	*	1		2215	268	0.
1		0335	44	673.	*	1		0950	119	17.	*	1		1605	194	0.	*	1		2220	269	0.
1		0340	45	798.	*	1		0955	120	15.	*	1		1610	195	0.	*	1		2225	270	0.
1		0345	46	891.	*	1		1000	121	13.	*	1		1615	196	0.	*	1		2230	271	0.
1		0350	47	983.	*	1		1005	122	12.	*	1		1620	197	0.	*	1		2235	272	0.
1		0355	48	1079.	*	1		1010	123	10.	*	1		1625	198	0.	*	1		2240	273	0.
1		0400	49	1166.	*	1		1015	124	9.	*	1		1630	199	0.	*	1		2245	274	0.
1		0405	50	1253.	*	1		1020	125	8.	*	1		1635	200	0.	*	1		2250	275	0.
1		0410	51	1354.	*	1		1025	126	7.	*	1		1640	201	0.	*	1		2255	276	0.
1		0415	52	1475.	*	1		1030	127	6.	*	1		1645	202	0.	*	1		2300	277	0.

1	0420	53	1617.	*	1	1035	128	5.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	1777.	*	1	1040	129	5.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	1958.	*	1	1045	130	4.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	2154.	*	1	1050	131	4.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	2359.	*	1	1055	132	3.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	2557.	*	1	1100	133	3.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	2741.	*	1	1105	134	2.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	2890.	*	1	1110	135	2.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	2988.	*	1	1115	136	2.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	3036.	*	1	1120	137	2.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	3042.	*	1	1125	138	2.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	3017.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	2970.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	2916.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	2862.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	2813.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	2769.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	2732.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	2695.	*	1	1205	146	1.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	2655.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	2606.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	2545.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	2468.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 3042.	5.17	1382.	350.	337.	337.
		(INCHES) .390	.394	.394	.394
		(AC-FT) 685.	693.	693.	693.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .41

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	2324.	*	1		1230	151	0.	*	1		1845	226	0.
1		0005	2	0.	*	1		0620	77	2220.	*	1		1235	152	0.	*	1		1850	227	0.
1		0010	3	0.	*	1		0625	78	2105.	*	1		1240	153	0.	*	1		1855	228	0.
1		0015	4	0.	*	1		0630	79	1981.	*	1		1245	154	0.	*	1		1900	229	0.
1		0020	5	0.	*	1		0635	80	1851.	*	1		1250	155	0.	*	1		1905	230	0.
1		0025	6	0.	*	1		0640	81	1720.	*	1		1255	156	0.	*	1		1910	231	0.
1		0030	7	0.	*	1		0645	82	1588.	*	1		1300	157	0.	*	1		1915	232	0.
1		0035	8	0.	*	1		0650	83	1459.	*	1		1305	158	0.	*	1		1920	233	0.
1		0040	9	1.	*	1		0655	84	1335.	*	1		1310	159	0.	*	1		1925	234	0.
1		0045	10	1.	*	1		0700	85	1215.	*	1		1315	160	0.	*	1		1930	235	0.
1		0050	11	1.	*	1		0705	86	1102.	*	1		1320	161	0.	*	1		1935	236	0.
1		0055	12	1.	*	1		0710	87	995.	*	1		1325	162	0.	*	1		1940	237	0.
1		0100	13	1.	*	1		0715	88	895.	*	1		1330	163	0.	*	1		1945	238	0.
1		0105	14	1.	*	1		0720	89	802.	*	1		1335	164	0.	*	1		1950	239	0.
1		0110	15	1.	*	1		0725	90	716.	*	1		1340	165	0.	*	1		1955	240	0.
1		0115	16	1.	*	1		0730	91	638.	*	1		1345	166	0.	*	1		2000	241	0.
1		0120	17	1.	*	1		0735	92	567.	*	1		1350	167	0.	*	1		2005	242	0.
1		0125	18	2.	*	1		0740	93	502.	*	1		1355	168	0.	*	1		2010	243	0.
1		0130	19	2.	*	1		0745	94	444.	*	1		1400	169	0.	*	1		2015	244	0.
1		0135	20	4.	*	1		0750	95	392.	*	1		1405	170	0.	*	1		2020	245	0.
1		0140	21	5.	*	1		0755	96	345.	*	1		1410	171	0.	*	1		2025	246	0.
1		0145	22	7.	*	1		0800	97	304.	*	1		1415	172	0.	*	1		2030	247	0.
1		0150	23	9.	*	1		0805	98	267.	*	1		1420	173	0.	*	1		2035	248	0.
1		0155	24	11.	*	1		0810	99	235.	*	1		1425	174	0.	*	1		2040	249	0.
1		0200	25	14.	*	1		0815	100	205.	*	1		1430	175	0.	*	1		2045	250	0.
1		0205	26	19.	*	1		0820	101	180.	*	1		1435	176	0.	*	1		2050	251	0.
1		0210	27	25.	*	1		0825	102	158.	*	1		1440	177	0.	*	1		2055	252	0.
1		0215	28	32.	*	1		0830	103	138.	*	1		1445	178	0.	*	1		2100	253	0.
1		0220	29	39.	*	1		0835	104	121.	*	1		1450	179	0.	*	1		2105	254	0.
1		0225	30	45.	*	1		0840	105	106.	*	1		1455	180	0.	*	1		2110	255	0.
1		0230	31	51.	*	1		0845	106	92.	*	1		1500	181	0.	*	1		2115	256	0.
1		0235	32	57.	*	1		0850	107	81.	*	1		1505	182	0.	*	1		2120	257	0.
1		0240	33	64.	*	1		0855	108	71.	*	1		1510	183	0.	*	1		2125	258	0.
1		0245	34	71.	*	1		0900	109	62.	*	1		1515	184	0.	*	1		2130	259	0.
1		0250	35	80.	*	1		0905	110	54.	*	1		1520	185	0.	*	1		2135	260	0.
1		0255	36	93.	*	1		0910	111	48.	*	1		1525	186	0.	*	1		2140	261	0.
1		0300	37	111.	*	1		0915	112	42.	*	1		1530	187	0.	*	1		2145	262	0.
1		0305	38	136.	*	1		0920	113	37.	*	1		1535	188	0.	*	1		2150	263	0.
1		0310	39	171.	*	1		0925	114	32.	*	1		1540	189	0.	*	1		2155	264	0.
1		0315	40	220.	*	1		0930	115	28.	*	1		1545	190	0.	*	1		2200	265	0.
1		0320	41	287.	*	1		0935	116	25.	*	1		1550	191	0.	*	1		2205	266	0.
1		0325	42	375.	*	1		0940	117	22.	*	1		1555	192	0.	*	1		2210	267	0.
1		0330	43	502.	*	1		0945	118	19.	*	1		1600	193	0.	*	1		2215	268	0.
1		0335	44	650.	*	1		0950	119	17.	*	1		1605	194	0.	*	1		2220	269	0.
1		0340	45	772.	*	1		0955	120	15.	*	1		1610	195	0.	*	1		2225	270	0.
1		0345	46	864.	*	1		1000	121	13.	*	1		1615	196	0.	*	1		2230	271	0.
1		0350	47	954.	*	1		1005	122	12.	*	1		1620	197	0.	*	1		2235	272	0.
1		0355	48	1047.	*	1		1010	123	10.	*	1		1625	198	0.	*	1		2240	273	0.
1		0400	49	1131.	*	1		1015	124	9.	*	1		1630	199	0.	*	1		2245	274	0.
1		0405	50	1217.	*	1		1020	125	8.	*	1		1635	200	0.	*	1		2250	275	0.
1		0410	51	1314.	*	1		1025	126	7.	*	1		1640	201	0.	*	1		2255	276	0.
1		0415	52	1431.	*	1		1030	127	6.	*	1		1645	202	0.	*	1		2300	277	0.
1		0420	53	1569.	*	1		1035	128	5.	*	1		1650	203	0.	*	1		2305	278	0.
1		0425	54	1725.	*	1		1040	129	5.	*	1		1655	204	0.	*	1		2310	279	0.
1		0430	55	1901.	*	1		1045	130	4.	*	1		1700	205	0.	*	1		2315	280	0.
1		0435	56	2093.	*	1		1050	131	4.	*	1		1705	206	0.	*	1		2320	281	0.
1		0440	57	2292.	*	1		1055	132	3.	*	1		1710	207	0.	*	1		2325	282	0.
1		0445	58	2486.	*	1		1100	133	3.	*	1		1715	208	0.	*	1		2330	283	0.
1		0450	59	2666.	*	1		1105	134	2.	*	1		1720	209	0.	*	1		2335	284	0.
1		0455	60	2812.	*	1		1110	135	2.	*	1		1725	210	0.	*	1		2340	285	0.
1		0500	61	2908.	*	1		1115	136	2.	*	1		1730	211	0.	*	1		2345	286	0.
1		0505	62	2956.	*	1		1120	137	2.	*	1		1735	212	0.	*	1		2350	287	0.
1		0510	63	2964.	*	1		1125	138	2.	*	1		1740	213	0.	*	1		2355	288	0.
1		0515	64	2940.	*	1		1130	139	1.	*	1		1745	214	0.	*	2		0000	289	0.
1		0520	65	2896.	*	1		1135	140	1.	*	1		1750	215	0.	*	2		0005	290	0.
1		0525	66	2844.	*	1		1140	141	1.	*	1		1755	216	0.	*	2		0010	291	0.
1		0530	67	2792.	*	1		1145	142	1.	*	1		1800	217	0.	*	2		0015	292	0.
1		0535	68	2745.	*	1		1150	143	1.	*	1		1805	218	0.	*	2		0020	293	0.
1		0540	69	2703.	*	1		1155	144	1.	*	1		1810	219	0.	*	2		0025	294	0.
1		0545	70	2667.	*	1		1200	145	1.	*	1		1815	220	0.	*	2		0030	295	0.
1		0550	71	2632.	*	1		1205	146	1.	*	1		1820	221	0.	*	2		0035	296	0.

1	0555	72	2594.	*	1	1210	147	1.	*	1	1825	222	0.	*	2	0040	297	0.					
1	0600	73	2547.	*	1	1215	148	1.	*	1	1830	223	0.	*	2	0045	298	0.					
1	0605	74	2488.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.					
1	0610	75	2413.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.					

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
	(CFS)				
2964.	5.17	1347.	341.	328.	328.
	(INCHES)	.380	.384	.384	.384
	(AC-FT)	668.	676.	676.	676.

CUMULATIVE AREA = 32.97 SQ MI

657 KK PEDB

663 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

664 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	STOR	TYPE OF INITIAL CONDITION
RSVRIC	.00	INITIAL CONDITION
X	.00	WORKING R AND D COEFFICIENT

665 SV STORAGE	.0	.8	13.6	53.5	133.0	264.0	306.0	350.0	397.0	448.0
	500.0	554.0	610.0	928.0	1249.0	1636.0	1855.0	2031.0	2216.0	2617.0
667 SE ELEVATION	2461.00	2464.00	2468.00	2472.00	2476.00	2480.00	2481.00	2482.00	2483.00	2484.00
	2485.00	2486.00	2487.00	2492.00	2496.00	2500.00	2502.00	2503.50	2505.00	2508.00
669 SQ DISCHARGE	0.	38.	70.	86.	99.	111.	114.	225.	427.	628.
	666.	701.	748.	924.	1063.	1197.	1262.	11434.	30402.	85914.

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1	0000		1	0.	.0	2461.0	1	0820		101	1185.	1602.6	2499.7	1	1640		201	908.	898.5	2491.5
1	0005		2	0.	.0	2461.0	1	0825		102	1184.	1597.2	2499.6	1	1645		202	904.	892.3	2491.4
1	0010		3	0.	.0	2461.0	1	0830		103	1182.	1591.4	2499.5	1	1650		203	901.	886.1	2491.3
1	0015		4	0.	.0	2461.0	1	0835		104	1179.	1585.3	2499.5	1	1655		204	897.	879.9	2491.2
1	0020		5	0.	.0	2461.0	1	0840		105	1177.	1579.0	2499.4	1	1700		205	894.	873.7	2491.1
1	0025		6	0.	.0	2461.0	1	0845		106	1175.	1572.4	2499.3	1	1705		206	891.	867.6	2491.0
1	0030		7	2.	.0	2461.1	1	0850		107	1173.	1565.7	2499.3	1	1710		207	887.	861.4	2491.0
1	0035		8	4.	.1	2461.4	1	0855		108	1170.	1558.8	2499.2	1	1715		208	884.	855.3	2490.9
1	0040		9	8.	.2	2461.6	1	0900		109	1168.	1551.8	2499.1	1	1720		209	880.	849.3	2490.8
1	0045		10	12.	.3	2461.9	1	0905		110	1165.	1544.7	2499.1	1	1725		210	877.	843.2	2490.7
1	0050		11	16.	.3	2462.2	1	0910		111	1163.	1537.5	2499.0	1	1730		211	874.	837.2	2490.6
1	0055		12	19.	.4	2462.5	1	0915		112	1160.	1530.2	2498.9	1	1735		212	870.	831.2	2490.5
1	0100		13	23.	.5	2462.8	1	0920		113	1158.	1522.8	2498.8	1	1740		213	867.	825.2	2490.4
1	0105		14	29.	.6	2463.3	1	0925		114	1155.	1515.3	2498.8	1	1745		214	864.	819.2	2490.3
1	0110		15	37.	.8	2463.9	1	0930		115	1153.	1507.8	2498.7	1	1750		215	861.	813.3	2490.2
1	0115		16	39.	1.0	2464.1	1	0935		116	1150.	1500.3	2498.6	1	1755		216	857.	807.4	2490.1
1	0120		17	39.	1.3	2464.2	1	0940		117	1147.	1492.7	2498.5	1	1800		217	854.	801.5	2490.0
1	0125		18	40.	1.8	2464.3	1	0945		118	1145.	1485.1	2498.4	1	1805		218	851.	795.6	2489.9
1	0130		19	42.	2.3	2464.5	1	0950		119	1142.	1477.5	2498.4	1	1810		219	847.	789.8	2489.8
1	0135		20	43.	2.9	2464.7	1	0955		120	1139.	1469.9	2498.3	1	1815		220	844.	783.9	2489.7
1	0140		21	45.	3.8	2464.9	1	1000		121	1137.	1462.2	2498.2	1	1820		221	841.	778.1	2489.6
1	0145		22	48.	4.8	2465.2	1	1005		122	1134.	1454.6	2498.1	1	1825		222	838.	772.4	2489.6
1	0150		23	51.	6.0	2465.6	1	1010		123	1132.	1446.9	2498.0	1	1830		223	835.	766.6	2489.5
1	0155		24	54.	7.3	2466.0	1	1015		124	1129.	1439.3	2498.0	1	1835		224	831.	760.9	2489.4
1	0200		25	58.	9.0	2466.5	1	1020		125	1126.	1431.6	2497.9	1	1840		225	828.	755.2	2489.3
1	0205		26	63.	10.8	2467.1	1	1025		126	1124.	1424.0	2497.8	1	1845		226	825.	749.5	2489.2
1	0210		27	68.	12.9	2467.8	1	1030		127	1121.	1416.3	2497.7	1	1850		227	822.	743.8	2489.1
1	0215		28	71.	15.3	2468.2	1	1035		128	1118.	1408.7	2497.7	1	1855		228	819.	738.1	2489.0
1	0220		29	72.	17.9	2468.4	1	1040		129	1116.	1401.1	2497.6	1	1900		229	816.	732.5	2488.9
1	0225		30	73.	20.7	2468.7	1	1045		130	1113.	1393.5	2497.5	1	1905		230	813.	726.9	2488.8
1	0230		31	74.	23.8	2469.0	1	1050		131	1110.	1385.8	2497.4	1	1910		231	810.	721.3	2488.8
1	0235		32	75.	27.2	2469.4	1	1055		132	1108.	1378.3	2497.3	1	1915		232	807.	715.7	2488.7
1	0240		33	77.	30.8	2469.7	1	1100		133	1105.	1370.7	2497.3	1	1920		233	803.	710.2	2488.6
1	0245		34	78.	34.7	2470.1	1	1105		134	1103.	1363.1	2497.2	1	1925		234	800.	704.7	2488.5
1	0250		35	80.	39.1	2470.6	1	1110		135	1100.	1355.5	2497.1	1	1930		235	797.	699.2	2488.4
1	0255		36	82.	43.9	2471.0	1	1115		136	1097.	1348.0	2497.0	1	1935		236	794.	693.7	2488.3
1	0300		37	84.	49.4	2471.6	1	1120		137	1095.	1340.5	2496.9	1	1940		237	791.	688.2	2488.2
1	0305		38	86.	55.7	2472.1	1	1125		138	1092.	1333.0	2496.9	1	1945		238	788.	682.8	2488.1
1	0310		39	88.	63.0	2472.5	1	1130		139	1089.	1325.5	2496.8	1	1950		239	785.	677.4	2488.1
1	0315		40	89.	71.4	2472.9	1	1135		140	1087.	1318.0	2496.7	1	1955		240	782.	672.0	2488.0
1	0320		41	91.	81.4	2473.4	1	1140		141	1084.	1310.5	2496.6	1	2000		241	779.	666.6	2487.9
1	0325		42	92.	93.1	2474.0	1	1145		142	1082.	1303.1	2496.6	1	2005		242	776.	661.2	2487.8
1	0330		43	95.	107.0	2474.7	1	1150		143	1079.	1295.6	2496.5	1	2010		243	773.	655.9	2487.7
1	0335		44	97.	123.6	2475.5	1	1155		144	1077.	1288.2	2496.4	1	2015		244	770.	650.6	2487.6
1	0340		45	100.	142.4	2476.3	1	1200		145	1074.	1280.8	2496.3	1	2020		245	768.	645.3	2487.6
1	0345		46	102.	163.0	2476.9	1	1205		146	1071.	1273.4	2496.3	1	2025		246	765.	640.0	2487.5
1	0350		47	104.	185.0	2477.6	1	1210		147	1069.	1266.1	2496.2	1	2030		247	762.	634.8	2487.4
1	0355		48	106.	208.6	2478.3	1	1215		148	1066.	1258.7	2496.1	1	2035		248	759.	629.5	2487.3
1	0400		49	108.	233.8	2479.1	1	1220		149	1064.	1251.4	2496.0	1	2040		249	756.	624.3	2487.2
1	0405		50	111.	260.5	2479.9	1	1225		150	1061.	1244.1	2495.9	1	2045		250	753.	619.1	2487.1
1	0410		51	113.	289.1	2480.6	1	1230		151	1058.	1236.8	2495.8	1	2050		251	750.	613.9	2487.1
1	0415		52	149.	319.8	2481.3	1	1235		152	1055.	1229.5	2495.8	1	2055		252	747.	608.8	2487.0
1	0420		53	237.	352.8	2482.1	1	1240		153	1051.	1222.3	2495.7	1	2100		253	743.	603.7	2486.9
1	0425		54	388.	388.0	2482.8	1	1245		154	1048.	1215.1	2495.6	1	2105		254	738.	598.6	2486.8
1	0430		55	540.	425.6	2483.6	1	1250		155	1045.	1207.8	2495.5	1	2110		255	734.	593.5	2486.7
1	0435		56	641.	465.8	2484.3	1	1255		156	1042.	1200.7	2495.4	1	2115		256	730.	588.4	2486.6

1	0440	57	672.	509.2	2485.2	*	1	1300	157	1039.	1193.5	2495.3	*	1	2120	257	726.	583.4	2486.5
1	0445	58	703.	555.9	2486.0	*	1	1305	158	1036.	1186.4	2495.2	*	1	2125	258	722.	578.4	2486.4
1	0450	59	744.	605.4	2486.9	*	1	1310	159	1033.	1179.2	2495.1	*	1	2130	259	717.	573.5	2486.3
1	0455	60	774.	657.3	2487.7	*	1	1315	160	1030.	1172.1	2495.0	*	1	2135	260	713.	568.6	2486.3
1	0500	61	804.	710.5	2488.6	*	1	1320	161	1027.	1165.1	2495.0	*	1	2140	261	709.	563.7	2486.2
1	0505	62	833.	764.3	2489.4	*	1	1325	162	1024.	1158.0	2494.9	*	1	2145	262	705.	558.8	2486.1
1	0510	63	863.	817.6	2490.3	*	1	1330	163	1021.	1151.0	2494.8	*	1	2150	263	701.	554.0	2486.0
1	0515	64	892.	870.0	2491.1	*	1	1335	164	1018.	1143.9	2494.7	*	1	2155	264	698.	549.1	2485.9
1	0520	65	920.	920.8	2491.9	*	1	1340	165	1014.	1136.9	2494.6	*	1	2200	265	695.	544.3	2485.8
1	0525	66	942.	969.9	2492.5	*	1	1345	166	1011.	1130.0	2494.5	*	1	2205	266	692.	539.6	2485.7
1	0530	67	963.	1017.3	2493.1	*	1	1350	167	1008.	1123.0	2494.4	*	1	2210	267	689.	534.8	2485.6
1	0535	68	982.	1063.0	2493.7	*	1	1355	168	1005.	1116.1	2494.3	*	1	2215	268	686.	530.1	2485.6
1	0540	69	1002.	1107.2	2494.2	*	1	1400	169	1002.	1109.2	2494.3	*	1	2220	269	682.	525.4	2485.5
1	0545	70	1020.	1150.1	2494.8	*	1	1405	170	999.	1102.3	2494.2	*	1	2225	270	679.	520.7	2485.4
1	0550	71	1038.	1191.6	2495.3	*	1	1410	171	996.	1095.4	2494.1	*	1	2230	271	676.	516.0	2485.3
1	0555	72	1056.	1231.9	2495.8	*	1	1415	172	994.	1088.5	2494.0	*	1	2235	272	673.	511.4	2485.2
1	0600	73	1071.	1270.9	2496.2	*	1	1420	173	991.	1081.7	2493.9	*	1	2240	273	670.	506.7	2485.1
1	0605	74	1084.	1308.4	2496.6	*	1	1425	174	988.	1074.9	2493.8	*	1	2245	274	667.	502.1	2485.0
1	0610	75	1096.	1344.4	2497.0	*	1	1430	175	985.	1068.1	2493.7	*	1	2250	275	664.	497.6	2485.0
1	0615	76	1108.	1378.5	2497.3	*	1	1435	176	982.	1061.3	2493.7	*	1	2255	276	661.	493.0	2484.9
1	0620	77	1119.	1410.6	2497.7	*	1	1440	177	979.	1054.6	2493.6	*	1	2300	277	658.	488.4	2484.8
1	0625	78	1129.	1440.4	2498.0	*	1	1445	178	976.	1047.9	2493.5	*	1	2305	278	654.	483.9	2484.7
1	0630	79	1139.	1468.0	2498.3	*	1	1450	179	973.	1041.2	2493.4	*	1	2310	279	651.	479.4	2484.6
1	0635	80	1148.	1493.1	2498.5	*	1	1455	180	970.	1034.5	2493.3	*	1	2315	280	648.	475.0	2484.5
1	0640	81	1155.	1515.8	2498.8	*	1	1500	181	967.	1027.8	2493.2	*	1	2320	281	644.	470.5	2484.4
1	0645	82	1162.	1536.0	2499.0	*	1	1505	182	964.	1021.1	2493.2	*	1	2325	282	641.	466.1	2484.3
1	0650	83	1169.	1553.9	2499.2	*	1	1510	183	961.	1014.5	2493.1	*	1	2330	283	638.	461.7	2484.3
1	0655	84	1174.	1569.5	2499.3	*	1	1515	184	959.	1007.9	2493.0	*	1	2335	284	635.	457.3	2484.2
1	0700	85	1179.	1582.9	2499.5	*	1	1520	185	956.	1001.3	2492.9	*	1	2340	285	632.	452.9	2484.1
1	0705	86	1183.	1594.3	2499.6	*	1	1525	186	953.	994.7	2492.8	*	1	2345	286	628.	448.6	2484.0
1	0710	87	1186.	1603.7	2499.7	*	1	1530	187	950.	988.2	2492.8	*	1	2350	287	614.	444.3	2483.9
1	0715	88	1188.	1611.3	2499.7	*	1	1535	188	947.	981.6	2492.7	*	1	2355	288	597.	440.2	2483.8
1	0720	89	1191.	1617.3	2499.8	*	1	1540	189	944.	975.1	2492.6	*	2	0000	289	581.	436.1	2483.8
1	0725	90	1192.	1621.7	2499.9	*	1	1545	190	942.	968.6	2492.5	*	2	0005	290	566.	432.1	2483.7
1	0730	91	1193.	1624.7	2499.9	*	1	1550	191	939.	962.2	2492.4	*	2	0010	291	550.	428.3	2483.6
1	0735	92	1194.	1626.4	2499.9	*	1	1555	192	936.	955.7	2492.3	*	2	0015	292	536.	424.6	2483.5
1	0740	93	1194.	1627.0	2499.9	*	1	1600	193	933.	949.3	2492.3	*	2	0020	293	521.	420.9	2483.5
1	0745	94	1194.	1626.6	2499.9	*	1	1605	194	930.	942.9	2492.2	*	2	0025	294	507.	417.4	2483.4
1	0750	95	1193.	1625.2	2499.9	*	1	1610	195	928.	936.5	2492.1	*	2	0030	295	494.	413.9	2483.3
1	0755	96	1192.	1623.0	2499.9	*	1	1615	196	925.	930.1	2492.0	*	2	0035	296	481.	410.6	2483.3
1	0800	97	1191.	1620.1	2499.8	*	1	1620	197	922.	923.7	2491.9	*	2	0040	297	468.	407.3	2483.2
1	0805	98	1190.	1616.5	2499.8	*	1	1625	198	918.	917.4	2491.8	*	2	0045	298	455.	404.1	2483.1
1	0810	99	1189.	1612.3	2499.8	*	1	1630	199	915.	911.1	2491.7	*	2	0050	299	443.	401.0	2483.1
1	0815	100	1187.	1607.7	2499.7	*	1	1635	200	911.	904.8	2491.6	*	2	0055	300	431.	398.0	2483.0
						*							*						

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 1194.	7.67	1145.	799.	770.	770.
		(INCHES) .323	.902	.902	.902
		(AC-FT) 568.	1585.	1585.	1585.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1627.	7.67	1485.	864.	832.	832.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2499.91	7.67	2498.44	2489.09	2488.07	2488.07

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .72

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	*	1		0820	101	1173.	1566.9	2499.3	*	1		1640	201	893.	871.2	2491.1
1		0005	2	0.	.0	2461.0	*	1		0825	102	1171.	1561.5	2499.2	*	1		1645	202	889.	865.1	2491.0
1		0010	3	0.	.0	2461.0	*	1		0830	103	1169.	1555.8	2499.2	*	1		1650	203	886.	858.9	2490.9
1		0015	4	0.	.0	2461.0	*	1		0835	104	1167.	1549.8	2499.1	*	1		1655	204	882.	852.9	2490.8
1		0020	5	0.	.0	2461.0	*	1		0840	105	1165.	1543.5	2499.0	*	1		1700	205	879.	846.8	2490.7
1		0025	6	0.	.0	2461.0	*	1		0845	106	1163.	1537.0	2499.0	*	1		1705	206	876.	840.7	2490.6
1		0030	7	2.	.0	2461.1	*	1		0850	107	1160.	1530.4	2498.9	*	1		1710	207	872.	834.7	2490.5
1		0035	8	4.	.1	2461.3	*	1		0855	108	1158.	1523.5	2498.8	*	1		1715	208	869.	828.7	2490.4
1		0040	9	8.	.2	2461.6	*	1		0900	109	1156.	1516.6	2498.8	*	1		1720	209	866.	822.8	2490.3
1		0045	10	11.	.2	2461.9	*	1		0905	110	1153.	1509.5	2498.7	*	1		1725	210	862.	816.8	2490.3
1		0050	11	15.	.3	2462.2	*	1		0910	111	1151.	1502.4	2498.6	*	1		1730	211	859.	810.9	2490.2
1		0055	12	18.	.4	2462.4	*	1		0915	112	1148.	1495.1	2498.5	*	1		1735	212	856.	805.0	2490.1
1		0100	13	22.	.5	2462.7	*	1		0920	113	1146.	1487.8	2498.5	*	1		1740	213	853.	799.1	2490.0
1		0105	14	27.	.6	2463.1	*	1		0925	114	1143.	1480.4	2498.4	*	1		1745	214	849.	793.2	2489.9
1		0110	15	34.	.7	2463.7	*	1		0930	115	1141.	1473.0	2498.3	*	1		1750	215	846.	787.4	2489.8
1		0115	16	38.	.9	2464.0	*	1		0935	116	1138.	1465.6	2498.2	*	1		1755	216	843.	781.6	2489.7
1		0120	17	39.	1.2	2464.1	*	1		0940	117	1135.	1458.1	2498.2	*	1		1800	217	840.	775.8	2489.6
1		0125	18	40.	1.6	2464.3	*	1		0945	118	1133.	1450.6	2498.1	*	1		1805	218	837.	770.0	2489.5
1		0130	19	41.	2.1	2464.4	*	1		0950	119	1130.	1443.0	2498.0	*	1		1810	219	833.	764.3	2489.4
1		0135	20	43.	2.7	2464.6	*	1		0955	120	1128.	1435.5	2497.9	*	1		1815	220	830.	758.5	2489.3
1		0140	21	45.	3.5	2464.8	*	1		1000	121	1125.	1427.9	2497.8	*	1		1820	221	827.	752.8	2489.2
1		0145	22	47.	4.4	2465.1	*	1		1005	122	1122.	1420.3	2497.8	*	1		1825	222	824.	747.1	2489.2
1		0150	23	50.	5.5	2465.5	*	1		1010	123	1120.	1412.8	2497.7	*	1		1830	223	821.	741.5	2489.1
1		0155	24	53.	6.9	2465.9	*	1		1015	124	1117.	1405.2	2497.6	*	1		1835	224	818.	735.8	2489.0
1		0200	25	57.	8.4	2466.4	*	1		1020	125	1114.	1397.6	2497.5	*	1		1840	225	815.	730.2	2488.9
1		0205	26	61.	10.2	2466.9	*	1		1025	126	1112.	1390.0	2497.5	*	1		1845	226	811.	724.6	2488.8
1		0210	27	66.	12.2	2467.6	*	1		1030	127	1109.	1382.5	2497.4	*	1		1850	227	808.	719.0	2488.7
1		0215	28	70.	14.4	2468.1	*	1		1035	128	1107.	1374.9	2497.3	*	1		1855	228	805.	713.5	2488.6
1		0220	29	71.	16.9	2468.3	*	1		1040	129	1104.	1367.4	2497.2	*	1		1900	229	802.	707.9	2488.5
1		0225	30	72.	19.6	2468.6	*	1		1045	130	1101.	1359.8	2497.1	*	1		1905	230	799.	702.4	2488.5
1		0230	31	74.	22.6	2468.9	*	1		1050	131	1099.	1352.3	2497.1	*	1		1910	231	796.	696.9	2488.4
1		0235	32	75.	25.8	2469.2	*	1		1055	132	1096.	1344.8	2497.0	*	1		1915	232	793.	691.5	2488.3
1		0240	33	76.	29.2	2469.6	*	1		1100	133	1094.	1337.3	2496.9	*	1		1920	233	790.	686.0	2488.2
1		0245	34	78.	33.0	2469.9	*	1		1105	134	1091.	1329.8	2496.8	*	1		1925	234	787.	680.6	2488.1
1		0250	35	79.	37.2	2470.4	*	1		1110	135	1088.	1322.3	2496.8	*	1		1930	235	784.	675.2	2488.0
1		0255	36	81.	41.8	2470.8	*	1		1115	136	1086.	1314.9	2496.7	*	1		1935	236	781.	669.8	2487.9
1		0300	37	83.	47.1	2471.4	*	1		1120	137	1083.	1307.4	2496.6	*	1		1940	237	778.	664.4	2487.9
1		0305	38	86.	53.1	2472.0	*	1		1125	138	1081.	1300.0	2496.5	*	1		1945	238	775.	659.1	2487.8
1		0310	39	87.	60.1	2472.3	*	1		1130	139	1078.	1292.6	2496.5	*	1		1950	239	772.	653.7	2487.7
1		0315	40	88.	68.3	2472.7	*	1		1135	140	1076.	1285.2	2496.4	*	1		1955	240	769.	648.4	2487.6
1		0320	41	90.	77.9	2473.2	*	1		1140	141	1073.	1277.8	2496.3	*	1		2000	241	766.	643.1	2487.5

1	0325	42	92.	89.3	2473.8	•	1	1145	142	1070.	1270.4	2496.2	*	1	2005	242	763.	637.9	2487.4
1	0330	43	94.	102.8	2474.5	•	1	1150	143	1068.	1263.0	2496.1	*	1	2010	243	761.	632.6	2487.4
1	0335	44	97.	118.9	2475.3	•	1	1155	144	1065.	1255.7	2496.1	*	1	2015	244	758.	627.4	2487.3
1	0340	45	99.	137.3	2476.1	•	1	1200	145	1063.	1248.4	2496.0	*	1	2020	245	755.	622.2	2487.2
1	0345	46	101.	157.3	2476.7	•	1	1205	146	1060.	1241.1	2495.9	*	1	2025	246	752.	617.0	2487.1
1	0350	47	103.	178.9	2477.4	•	1	1210	147	1056.	1233.8	2495.8	*	1	2030	247	749.	611.8	2487.0
1	0355	48	105.	201.9	2478.1	•	1	1215	148	1053.	1226.5	2495.7	*	1	2035	248	745.	606.7	2486.9
1	0400	49	108.	226.5	2478.9	•	1	1220	149	1050.	1219.3	2495.6	*	1	2040	249	741.	601.6	2486.8
1	0405	50	110.	252.6	2479.7	•	1	1225	150	1047.	1212.1	2495.5	*	1	2045	250	737.	596.5	2486.8
1	0410	51	112.	280.6	2480.4	*	1	1230	151	1044.	1204.9	2495.5	*	1	2050	251	732.	591.4	2486.7
1	0415	52	126.	310.7	2481.1	*	1	1235	152	1041.	1197.7	2495.4	*	1	2055	252	728.	586.4	2486.6
1	0420	53	208.	343.1	2481.8	•	1	1240	153	1038.	1190.6	2495.3	*	1	2100	253	724.	581.4	2486.5
1	0425	54	344.	377.8	2482.6	•	1	1245	154	1035.	1183.4	2495.2	*	1	2105	254	720.	576.4	2486.4
1	0430	55	497.	414.7	2483.3	•	1	1250	155	1032.	1176.3	2495.1	*	1	2110	255	716.	571.5	2486.3
1	0435	56	633.	454.2	2484.1	•	1	1255	156	1028.	1169.2	2495.0	*	1	2115	256	712.	566.6	2486.2
1	0440	57	664.	496.6	2484.9	•	1	1300	157	1025.	1162.2	2494.9	*	1	2120	257	707.	561.7	2486.1
1	0445	58	693.	542.3	2485.8	•	1	1305	158	1022.	1155.1	2494.8	*	1	2125	258	703.	556.8	2486.1
1	0450	59	732.	590.8	2486.7	•	1	1310	159	1019.	1148.1	2494.7	*	1	2130	259	700.	552.0	2486.0
1	0455	60	765.	641.6	2487.5	•	1	1315	160	1016.	1141.1	2494.7	*	1	2135	260	697.	547.2	2485.9
1	0500	61	794.	693.7	2488.3	*	1	1320	161	1013.	1134.1	2494.6	*	1	2140	261	693.	542.4	2485.8
1	0505	62	823.	746.3	2489.1	•	1	1325	162	1010.	1127.1	2494.5	*	1	2145	262	690.	537.6	2485.7
1	0510	63	852.	798.6	2490.0	•	1	1330	163	1007.	1120.2	2494.4	*	1	2150	263	687.	532.9	2485.6
1	0515	64	881.	849.8	2490.8	•	1	1335	164	1004.	1113.2	2494.3	*	1	2155	264	684.	528.2	2485.5
1	0520	65	908.	899.6	2491.6	•	1	1340	165	1001.	1106.3	2494.2	*	1	2200	265	681.	523.5	2485.4
1	0525	66	933.	947.7	2492.2	•	1	1345	166	998.	1099.5	2494.1	*	1	2205	266	678.	518.8	2485.3
1	0530	67	953.	994.1	2492.8	*	1	1350	167	995.	1092.6	2494.1	*	1	2210	267	675.	514.1	2485.3
1	0535	68	972.	1038.9	2493.4	•	1	1355	168	992.	1085.7	2494.0	*	1	2215	268	672.	509.5	2485.2
1	0540	69	991.	1082.3	2493.9	•	1	1400	169	989.	1078.9	2493.9	*	1	2220	269	669.	504.9	2485.1
1	0545	70	1009.	1124.2	2494.4	*	1	1405	170	986.	1072.1	2493.8	*	1	2225	270	666.	500.3	2485.0
1	0550	71	1027.	1165.0	2495.0	•	1	1410	171	983.	1065.3	2493.7	*	1	2230	271	663.	495.7	2484.9
1	0555	72	1044.	1204.5	2495.4	•	1	1415	172	981.	1058.6	2493.6	*	1	2235	272	660.	491.1	2484.8
1	0600	73	1060.	1242.7	2495.9	•	1	1420	173	978.	1051.8	2493.5	*	1	2240	273	656.	486.6	2484.7
1	0605	74	1074.	1279.5	2496.3	•	1	1425	174	975.	1045.1	2493.5	*	1	2245	274	653.	482.1	2484.7
1	0610	75	1086.	1314.7	2496.7	•	1	1430	175	972.	1038.4	2493.4	*	1	2250	275	650.	477.6	2484.6
1	0615	76	1097.	1348.1	2497.0	•	1	1435	176	969.	1031.7	2493.3	*	1	2255	276	646.	473.1	2484.5
1	0620	77	1108.	1379.6	2497.3	•	1	1440	177	966.	1025.1	2493.2	*	1	2300	277	643.	468.7	2484.4
1	0625	78	1118.	1408.8	2497.7	•	1	1445	178	963.	1018.4	2493.1	*	1	2305	278	640.	464.3	2484.3
1	0630	79	1128.	1435.8	2497.9	•	1	1450	179	960.	1011.8	2493.0	*	1	2310	279	637.	459.9	2484.2
1	0635	80	1136.	1460.4	2498.2	•	1	1455	180	957.	1005.2	2493.0	*	1	2315	280	633.	455.5	2484.1
1	0640	81	1144.	1482.7	2498.4	•	1	1500	181	955.	998.6	2492.9	*	1	2320	281	630.	451.2	2484.1
1	0645	82	1151.	1502.5	2498.6	*	1	1505	182	952.	992.0	2492.8	*	1	2325	282	623.	446.8	2484.0
1	0650	83	1157.	1520.0	2498.8	•	1	1510	183	949.	985.5	2492.7	*	1	2330	283	607.	442.6	2483.9
1	0655	84	1162.	1535.3	2499.0	*	1	1515	184	946.	979.0	2492.6	*	1	2335	284	590.	438.5	2483.8
1	0700	85	1167.	1548.5	2499.1	•	1	1520	185	943.	972.5	2492.6	*	1	2340	285	575.	434.5	2483.7
1	0705	86	1171.	1559.6	2499.2	*	1	1525	186	940.	966.0	2492.5	*	1	2345	286	559.	430.6	2483.7
1	0710	87	1174.	1568.8	2499.3	•	1	1530	187	938.	959.5	2492.4	*	1	2350	287	544.	426.8	2483.6
1	0715	88	1176.	1576.2	2499.4	•	1	1535	188	935.	953.1	2492.3	*	1	2355	288	530.	423.1	2483.5
1	0720	89	1178.	1582.0	2499.4	•	1	1540	189	932.	946.6	2492.2	•	2	0000	289	516.	419.5	2483.4
1	0725	90	1180.	1586.3	2499.5	•	1	1545	190	929.	940.2	2492.2	*	2	0005	290	502.	416.0	2483.4
1	0730	91	1181.	1589.2	2499.5	•	1	1550	191	927.	933.8	2492.1	•	2	0010	291	488.	412.6	2483.3
1	0735	92	1181.	1590.8	2499.5	•	1	1555	192	924.	927.5	2492.0	•	2	0015	292	475.	409.2	2483.2
1	0740	93	1182.	1591.3	2499.5	*	1	1600	193	920.	921.1	2491.9	•	2	0020	293	463.	406.0	2483.2
1	0745	94	1181.	1590.8	2499.5	•	1	1605	194	917.	914.8	2491.8	•	2	0025	294	450.	402.9	2483.1
1	0750	95	1181.	1589.4	2499.5	•	1	1610	195	913.	908.5	2491.7	*	2	0030	295	438.	399.8	2483.1
1	0755	96	1180.	1587.2	2499.5	*	1	1615	196	910.	902.2	2491.6	•	2	0035	296	426.	396.8	2483.0
1	0800	97	1179.	1584.3	2499.5	*	1	1620	197	906.	896.0	2491.5	•	2	0040	297	414.	393.9	2482.9
1	0805	98	1178.	1580.7	2499.4	•	1	1625	198	903.	889.7	2491.4	•	2	0045	298	402.	391.1	2482.9
1	0810	99	1176.	1576.6	2499.4	*	1	1630	199	899.	883.5	2491.3	•	2	0050	299	390.	388.4	2482.8
1	0815	100	1175.	1572.0	2499.3	•	1	1635	200	896.	877.3	2491.2	•	2	0055	300	379.	385.8	2482.8
						*							*						

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 1182.	7.67	1133.	785.	756.	756.
		(INCHES) .320	.885	.886	.886
		(AC-FT) 562.	1557.	1557.	1557.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1591.	7.67	1451.	840.	809.	809.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2499.54	7.67	2498.09	2488.75	2487.75	2487.75

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .64

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE		DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE		DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1	0000		1	0.	.0	2461.0	*	1	0820		101	1057.	1235.5	2495.8	*	1	1640		201	757.	625.7	2487.2
1	0005		2	0.	.0	2461.0	•	1	0825		102	1055.	1230.4	2495.8	•	1	1645		202	754.	620.5	2487.2
1	0010		3	0.	.0	2461.0	*	1	0830		103	1053.	1225.1	2495.7	•	1	1650		203	751.	615.3	2487.1
1	0015		4	0.	.0	2461.0	•	1	0835		104	1050.	1219.6	2495.6	•	1	1655		204	748.	610.2	2487.0
1	0020		5	0.	.0	2461.0	•	1	0840		105	1048.	1213.9	2495.6	•	1	1700		205	744.	605.0	2486.9
1	0025		6	0.	.0	2461.0	*	1	0845		106	1045.	1207.9	2495.5	•	1	1705		206	740.	599.9	2486.8
1	0030		7	1.	.0	2461.1	•	1	0850		107	1043.	1201.9	2495.4	•	1	1710		207	735.	594.9	2486.7
1	0035		8	2.	.0	2461.1	*	1	0855		108	1040.	1195.7	2495.3	*	1	1715		208	731.	589.8	2486.6
1	0040		9	3.	.1	2461.3	*	1	0900		109	1037.	1189.4	2495.3	•	1	1720		209	727.	584.8	2486.5
1	0045		10	5.	.1	2461.4	•	1	0905		110	1034.	1183.0	2495.2	*	1	1725		210	723.	579.8	2486.5
1	0050		11	7.	.2	2461.6	*	1	0910		111	1032.	1176.6	2495.1	*	1	1730		211	718.	574.8	2486.4
1	0055		12	9.	.2	2461.7	*	1	0915		112	1029.	1170.1	2495.0	*	1	1735		212	714.	569.9	2486.3
1	0100		13	11.	.2	2461.9	*	1	0920		113	1026.	1163.5	2494.9	*	1	1740		213	710.	565.0	2486.2
1	0105		14	13.	.3	2462.0	*	1	0925		114	1023.	1156.9	2494.9	*	1	1745		214	706.	560.1	2486.1
1	0110		15	15.	.3	2462.2	*	1	0930		115	1020.	1150.2	2494.8	*	1	1750		215	702.	555.3	2486.0
1	0115		16	19.	.4	2462.5	*	1	0935		116	1017.	1143.5	2494.7	*	1	1755		216	699.	550.4	2485.9
1	0120		17	24.	.5	2462.9	*	1	0940		117	1014.	1136.8	2494.6	*	1	1800		217	696.	545.6	2485.8
1	0125		18	30.	.6	2463.4	*	1	0945		118	1012.	1130.1	2494.5	*	1	1805		218	692.	540.9	2485.8
1	0130		19	38.	.8	2464.0	*	1	0950		119	1009.	1123.3	2494.4	*	1	1810		219	689.	536.1	2485.7
1	0135		20	39.	1.0	2464.1	*	1	0955		120	1006.	1116.6	2494.4	*	1	1815		220	686.	531.4	2485.6
1	0140		21	39.	1.4	2464.2	*	1	1000		121	1003.	1109.8	2494.3	*	1	1820		221	683.	526.6	2485.5
1	0145		22	41.	1.8	2464.3	*	1	1005		122	1000.	1103.1	2494.2	*	1	1825		222	680.	522.0	2485.4
1	0150		23	42.	2.4	2464.5	*	1	1010		123	997.	1096.3	2494.1	•	1	1830		223	677.	517.3	2485.3
1	0155		24	44.	3.1	2464.7	*	1	1015		124	994.	1089.6	2494.0	*	1	1835		224	674.	512.6	2485.2
1	0200		25	46.	3.9	2465.0	*	1	1020		125	991.	1082.9	2493.9	•	1	1840		225	671.	508.0	2485.1
1	0205		26	48.	4.9	2465.3	*	1	1025		126	988.	1076.1	2493.8	*	1	1845		226	668.	503.4	2485.1

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0210	27	51.	6.1	2465.7	1		1030	127	985.	1069.4	2493.8	1		1850	227	665.	498.8	2485.0
1		0215	28	55.	7.5	2466.1	1		1035	128	982.	1062.7	2493.7	1		1855	228	662.	494.2	2484.9
1		0220	29	59.	9.0	2466.6	1		1040	129	979.	1056.0	2493.6	1		1900	229	658.	489.7	2484.8
1		0225	30	63.	10.7	2467.1	1		1045	130	977.	1049.3	2493.5	1		1905	230	655.	485.2	2484.7
1		0230	31	67.	12.5	2467.6	1		1050	131	974.	1042.6	2493.4	1		1910	231	652.	480.7	2484.6
1		0235	32	70.	14.4	2468.1	1		1055	132	971.	1036.0	2493.3	1		1915	232	649.	476.2	2484.5
1		0240	33	71.	16.5	2468.3	1		1100	133	968.	1029.3	2493.3	1		1920	233	645.	471.7	2484.5
1		0245	34	72.	18.8	2468.5	1		1105	134	965.	1022.7	2493.2	1		1925	234	642.	467.3	2484.4
1		0250	35	73.	21.4	2468.8	1		1110	135	962.	1016.1	2493.1	1		1930	235	639.	462.9	2484.3
1		0255	36	74.	24.4	2469.1	1		1115	136	959.	1009.5	2493.0	1		1935	236	636.	458.5	2484.2
1		0300	37	76.	27.8	2469.4	1		1120	137	956.	1002.9	2492.9	1		1940	237	632.	454.1	2484.1
1		0305	38	77.	31.7	2469.8	1		1125	138	954.	996.4	2492.9	1		1945	238	629.	449.8	2484.0
1		0310	39	79.	36.4	2470.3	1		1130	139	951.	989.8	2492.8	1		1950	239	618.	445.5	2484.0
1		0315	40	81.	42.0	2470.8	1		1135	140	948.	983.3	2492.7	1		1955	240	602.	441.3	2483.9
1		0320	41	84.	48.7	2471.5	1		1140	141	945.	976.8	2492.6	1		2000	241	585.	437.2	2483.8
1		0325	42	87.	56.8	2472.2	1		1145	142	942.	970.3	2492.5	1		2005	242	570.	433.2	2483.7
1		0330	43	88.	66.7	2472.7	1		1150	143	940.	963.8	2492.4	1		2010	243	554.	429.3	2483.6
1		0335	44	90.	78.7	2473.3	1		1155	144	937.	957.4	2492.4	1		2015	244	540.	425.6	2483.6
1		0340	45	92.	92.6	2474.0	1		1200	145	934.	950.9	2492.3	1		2020	245	525.	421.9	2483.5
1		0345	46	95.	108.0	2474.7	1		1205	146	931.	944.5	2492.2	1		2025	246	511.	418.3	2483.4
1		0350	47	98.	124.6	2475.6	1		1210	147	928.	938.1	2492.1	1		2030	247	497.	414.9	2483.4
1		0355	48	100.	142.4	2476.3	1		1215	148	926.	931.7	2492.0	1		2035	248	484.	411.5	2483.3
1		0400	49	102.	161.6	2476.9	1		1220	149	923.	925.4	2492.0	1		2040	249	471.	408.2	2483.2
1		0405	50	103.	182.0	2477.5	1		1225	150	919.	919.1	2491.9	1		2045	250	459.	405.0	2483.2
1		0410	51	105.	203.9	2478.2	1		1230	151	916.	912.7	2491.8	1		2050	251	446.	401.9	2483.1
1		0415	52	108.	227.6	2478.9	1		1235	152	912.	906.4	2491.7	1		2055	252	434.	398.8	2483.0
1		0420	53	110.	253.4	2479.7	1		1240	153	909.	900.2	2491.6	1		2100	253	422.	395.9	2483.0
1		0425	54	112.	281.6	2480.4	1		1245	154	905.	893.9	2491.5	1		2105	254	410.	393.0	2482.9
1		0430	55	130.	312.4	2481.1	1		1250	155	902.	887.7	2491.4	1		2110	255	398.	390.3	2482.9
1		0435	56	214.	345.6	2481.9	1		1255	156	898.	881.5	2491.3	1		2115	256	386.	387.6	2482.8
1		0440	57	359.	381.1	2482.7	1		1300	157	895.	875.3	2491.2	1		2120	257	375.	384.9	2482.7
1		0445	58	511.	418.3	2483.4	1		1305	158	891.	869.2	2491.1	1		2125	258	364.	382.4	2482.7
1		0450	59	635.	457.2	2484.2	1		1310	159	888.	863.1	2491.0	1		2130	259	354.	379.9	2482.6
1		0455	60	664.	497.7	2485.0	1		1315	160	885.	857.0	2490.9	1		2135	260	343.	377.5	2482.6
1		0500	61	692.	539.4	2485.7	1		1320	161	881.	850.9	2490.8	1		2140	261	333.	375.2	2482.5
1		0505	62	724.	581.5	2486.5	1		1325	162	878.	844.8	2490.7	1		2145	262	324.	372.9	2482.5
1		0510	63	755.	623.4	2487.2	1		1330	163	875.	838.8	2490.6	1		2150	263	314.	370.7	2482.4
1		0515	64	778.	664.5	2487.9	1		1335	164	871.	832.8	2490.5	1		2155	264	305.	368.6	2482.4
1		0520	65	800.	704.5	2488.5	1		1340	165	868.	826.8	2490.4	1		2200	265	296.	366.5	2482.4
1		0525	66	822.	743.2	2489.1	1		1345	166	865.	820.8	2490.3	1		2205	266	287.	364.5	2482.3
1		0530	67	842.	780.6	2489.7	1		1350	167	861.	814.9	2490.2	1		2210	267	279.	362.6	2482.3
1		0535	68	862.	816.8	2490.3	1		1355	168	858.	809.0	2490.1	1		2215	268	271.	360.7	2482.2
1		0540	69	882.	851.8	2490.8	1		1400	169	855.	803.1	2490.0	1		2220	269	263.	358.8	2482.2
1		0545	70	901.	885.7	2491.3	1		1405	170	852.	797.2	2489.9	1		2225	270	255.	357.0	2482.1
1		0550	71	919.	918.6	2491.9	1		1410	171	848.	791.3	2489.9	1		2230	271	248.	355.3	2482.1
1		0555	72	934.	950.6	2492.3	1		1415	172	845.	785.5	2489.8	1		2235	272	241.	353.6	2482.1
1		0600	73	947.	981.6	2492.7	1		1420	173	842.	779.7	2489.7	1		2240	273	234.	352.0	2482.0
1		0605	74	960.	1011.5	2493.0	1		1425	174	839.	773.9	2489.6	1		2245	274	227.	350.4	2482.0
1		0610	75	973.	1040.0	2493.4	1		1430	175	836.	768.2	2489.5	1		2250	275	222.	348.9	2482.0
1		0615	76	984.	1067.2	2493.7	1		1435	176	832.	762.4	2489.4	1		2255	276	218.	347.4	2481.9
1		0620	77	995.	1092.7	2494.1	1		1440	177	829.	756.7	2489.3	1		2300	277	215.	345.9	2481.9
1		0625	78	1006.	1116.4	2494.3	1		1445	178	826.	751.0	2489.2	1		2305	278	211.	344.4	2481.9
1		0630	79	1015.	1138.3	2494.6	1		1450	179	823.	745.3	2489.1	1		2310	279	207.	343.0	2481.8
1		0635	80	1024.	1158.2	2494.9	1		1455	180	820.	739.7	2489.0	1		2315	280	204.	341.5	2481.8
1		0640	81	1031.	1176.1	2495.1	1		1500	181	817.	734.0	2488.9	1		2320	281	200.	340.2	2481.8
1		0645	82	1038.	1192.1	2495.3	1		1505	182	814.	728.4	2488.9	1		2325	282	197.	338.8	2481.7
1		0650	83	1044.	1206.1	2495.5	1		1510	183	810.	722.8	2488.8	1		2330	283	193.	337.4	2481.7
1		0655	84	1050.	1218.3	2495.6	1		1515	184	807.	717.2	2488.7	1		2335	284	190.	336.1	2481.7
1		0700	85	1054.	1228.6	2495.7	1		1520	185	804.	711.7	2488.6	1		2340	285	187.	334.8	2481.7
1		0705	86	1058.	1237.4	2495.9	1		1525	186	801.	706.2	2488.5	1		2345	286	184.	333.6	2481.6
1		0710	87	1061.	1244.5	2495.9	1		1530	187	798.	700.7	2488.4	1		2350	287	180.	332.3	2481.6
1		0715	88	1063.	1250.1	2496.0	1		1535	188	795.	695.2	2488.3	1		2355	288	177.	331.1	2481.6
1		0720	89	1065.	1254.4	2496.1	1		1540	189	792.	689.7	2488.3	2		0000	289	174.	329.9	2481.5
1		0725	90	1066.	1257.4	2496.1	1		1545	190	789.	684.3	2488.2	2		0005	290	171.	328.7	2481.5
1		0730	91	1067.	1259.3	2496.1	1		1550	191	786.	678.8	2488.1	2		0010	291	168.	327.5	2481.5
1		0735	92	1067.	1260.1	2496.1	1		1555	192	783.	673.4	2488.0	2		0015	292	165.	326.3	2481.5
1		0740	93	1067.	1260.0	2496.1	1		1600	193	780.	668.1	2487.9	2		0020	293	162.	325.2	2481.4
1		0745	94	1066.	1259.1	2496.1	1		1605	194	777.	662.7	2487.8	2		0025	294	160.	324.1	2481.4
1		0750	95	1066.	1257.4	2496.1	1		1610	195	774.	657.4	2487.7	2		0030	295	157.	323.0	2481.4
1		0755	96	1065.	1255.0	2496.1	1		1615	196	771.	652.0	2487.7	2		0035	296	154.	321.9	2481.4
1		0800	97	1064.	1252.0	2496.0	1		1620	197	768.	646.7	2487.6	2		0040	297	152.	320.9	2481.3
1		0805	98	1063.	1248.5	2496.0	1		1625	198	765.	641.4	2487.5	2		0045	298	149.	319.9	2481.3
1		0810	99	1061.	1244.6	2495.9	1		1630	199	762.	636.2	2487.4	2		0050	299	146.	318.8	2481.3
1		0815	100	1059.	1240.2	2495.9	1		1635	200	760.	630.9	2487.3	2		0055	300	144.	317.8	2481.3

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
1067.	7.58	1014.	627.	604.	604.
		(INCHES) .286	.708	.708	.708
		(AC-FT) 503.	1244.	1244.	1244.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
(AC-FT)	(HR)				
1260.	7.58	1136.	633.	610.	610.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
(FEET)	(HR)				
2496.12	7.58	2494.59	2485.63	2484.73	2484.73

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .63

1	0055	12	8.	.2	2461.7	•	1	0915	112	1016.	1141.1	2494.7	•	1	1735	212	698.	549.9	2485.9
1	0100	13	10.	.2	2461.8	•	1	0920	113	1013.	1134.6	2494.6	•	1	1740	213	695.	545.1	2485.8
1	0105	14	12.	.2	2461.9	•	1	0925	114	1011.	1128.1	2494.5	•	1	1745	214	692.	540.3	2485.7
1	0110	15	14.	.3	2462.1	•	1	0930	115	1008.	1121.5	2494.4	•	1	1750	215	689.	535.6	2485.7
1	0115	16	17.	.4	2462.3	•	1	0935	116	1005.	1114.9	2494.3	•	1	1755	216	686.	530.9	2485.6
1	0120	17	22.	.5	2462.7	•	1	0940	117	1002.	1108.3	2494.2	•	1	1800	217	683.	526.1	2485.5
1	0125	18	28.	.6	2463.2	•	1	0945	118	999.	1101.6	2494.2	•	1	1805	218	680.	521.5	2485.4
1	0130	19	35.	.7	2463.8	•	1	0950	119	996.	1095.0	2494.1	•	1	1810	219	677.	516.8	2485.3
1	0135	20	38.	.9	2464.0	*	1	0955	120	993.	1088.3	2494.0	*	1	1815	220	674.	512.1	2485.2
1	0140	21	39.	1.2	2464.1	*	1	1000	121	991.	1081.7	2493.9	*	1	1820	221	671.	507.5	2485.1
1	0145	22	40.	1.6	2464.3	•	1	1005	122	988.	1075.0	2493.8	•	1	1825	222	668.	502.9	2485.1
1	0150	23	41.	2.2	2464.4	•	1	1010	123	985.	1068.3	2493.7	•	1	1830	223	665.	498.3	2485.0
1	0155	24	43.	2.8	2464.6	•	1	1015	124	982.	1061.7	2493.7	•	1	1835	224	661.	493.7	2484.9
1	0200	25	45.	3.6	2464.9	*	1	1020	125	979.	1055.0	2493.6	•	1	1840	225	658.	489.2	2484.8
1	0205	26	47.	4.5	2465.2	•	1	1025	126	976.	1048.3	2493.5	•	1	1845	226	655.	484.7	2484.7
1	0210	27	50.	5.7	2465.5	•	1	1030	127	973.	1041.7	2493.4	•	1	1850	227	652.	480.2	2484.6
1	0215	28	53.	7.0	2465.9	•	1	1035	128	970.	1035.1	2493.3	•	1	1855	228	648.	475.7	2484.5
1	0220	29	57.	8.4	2466.4	•	1	1040	129	968.	1028.5	2493.3	•	1	1900	229	645.	471.2	2484.4
1	0225	30	61.	10.0	2466.9	•	1	1045	130	965.	1021.9	2493.2	•	1	1905	230	642.	466.8	2484.4
1	0230	31	65.	11.7	2467.4	•	1	1050	131	962.	1015.3	2493.1	•	1	1910	231	639.	462.4	2484.3
1	0235	32	70.	13.5	2468.0	*	1	1055	132	959.	1008.7	2493.0	•	1	1915	232	635.	458.0	2484.2
1	0240	33	71.	15.6	2468.2	•	1	1100	133	956.	1002.1	2492.9	*	1	1920	233	632.	453.6	2484.1
1	0245	34	72.	17.8	2468.4	•	1	1105	134	953.	995.6	2492.8	*	1	1925	234	629.	449.3	2484.0
1	0250	35	73.	20.2	2468.7	•	1	1110	135	950.	989.1	2492.8	•	1	1930	235	616.	445.0	2483.9
1	0255	36	74.	23.0	2468.9	•	1	1115	136	948.	982.5	2492.7	•	1	1935	236	600.	440.8	2483.9
1	0300	37	75.	26.3	2469.3	•	1	1120	137	945.	976.0	2492.6	*	1	1940	237	584.	436.8	2483.8
1	0305	38	77.	30.0	2469.6	•	1	1125	138	942.	969.6	2492.5	•	1	1945	238	568.	432.8	2483.7
1	0310	39	78.	34.5	2470.1	•	1	1130	139	939.	963.1	2492.4	•	1	1950	239	553.	428.9	2483.6
1	0315	40	81.	39.9	2470.6	•	1	1135	140	936.	956.6	2492.4	•	1	1955	240	538.	425.2	2483.6
1	0320	41	83.	46.4	2471.3	•	1	1140	141	934.	950.2	2492.3	•	1	2000	241	524.	421.5	2483.5
1	0325	42	86.	54.2	2472.0	•	1	1145	142	931.	943.8	2492.2	*	1	2005	242	510.	418.0	2483.4
1	0330	43	88.	63.8	2472.5	•	1	1150	143	928.	937.4	2492.1	•	1	2010	243	496.	414.5	2483.3
1	0335	44	90.	75.4	2473.1	*	1	1155	144	925.	931.0	2492.0	•	1	2015	244	483.	411.1	2483.3
1	0340	45	92.	88.9	2473.8	•	1	1200	145	922.	924.7	2491.9	*	1	2020	245	470.	407.8	2483.2
1	0345	46	94.	103.9	2474.5	•	1	1205	146	919.	918.4	2491.8	•	1	2025	246	457.	404.7	2483.2
1	0350	47	97.	120.0	2475.3	•	1	1210	147	915.	912.0	2491.7	•	1	2030	247	445.	401.6	2483.1
1	0355	48	99.	137.4	2476.1	•	1	1215	148	912.	905.8	2491.7	•	1	2035	248	433.	398.5	2483.0
1	0400	49	101.	156.1	2476.7	*	1	1220	149	908.	899.5	2491.6	*	1	2040	249	421.	395.6	2483.0
1	0405	50	103.	176.0	2477.3	•	1	1225	150	905.	893.3	2491.5	•	1	2045	250	409.	392.7	2482.9
1	0410	51	105.	197.3	2478.0	•	1	1230	151	901.	887.0	2491.4	•	1	2050	251	397.	390.0	2482.9
1	0415	52	107.	220.4	2478.7	•	1	1235	152	898.	880.8	2491.3	*	1	2055	252	385.	387.3	2482.8
1	0420	53	109.	245.6	2479.4	•	1	1240	153	894.	874.7	2491.2	•	1	2100	253	374.	384.7	2482.7
1	0425	54	112.	273.1	2480.2	•	1	1245	154	891.	868.5	2491.1	*	1	2105	254	363.	382.1	2482.7
1	0430	55	114.	303.2	2480.9	•	1	1250	155	888.	862.4	2491.0	•	1	2110	255	352.	379.6	2482.6
1	0435	56	189.	335.8	2481.7	•	1	1255	156	884.	856.3	2490.9	*	1	2115	256	342.	377.3	2482.6
1	0440	57	314.	370.6	2482.4	•	1	1300	157	881.	850.2	2490.8	•	1	2120	257	332.	374.9	2482.5
1	0445	58	468.	407.3	2483.2	•	1	1305	158	878.	844.2	2490.7	*	1	2125	258	322.	372.7	2482.5
1	0450	59	618.	445.4	2483.9	•	1	1310	159	874.	838.1	2490.6	*	1	2130	259	313.	370.5	2482.4
1	0455	60	655.	485.0	2484.7	•	1	1315	160	871.	832.1	2490.5	•	1	2135	260	304.	368.4	2482.4
1	0500	61	683.	525.7	2485.5	*	1	1320	161	868.	826.2	2490.4	*	1	2140	261	295.	366.3	2482.3
1	0505	62	712.	566.9	2486.2	•	1	1325	162	864.	820.2	2490.3	•	1	2145	262	286.	364.3	2482.3
1	0510	63	746.	607.8	2487.0	•	1	1330	163	861.	814.2	2490.2	*	1	2150	263	278.	362.4	2482.3
1	0515	64	769.	648.0	2487.6	•	1	1335	164	858.	808.3	2490.1	•	1	2155	264	270.	360.5	2482.2
1	0520	65	791.	687.1	2488.2	•	1	1340	165	855.	802.4	2490.0	*	1	2200	265	262.	358.6	2482.2
1	0525	66	812.	725.0	2488.8	*	1	1345	166	851.	796.6	2489.9	•	1	2205	266	254.	356.9	2482.1
1	0530	67	832.	761.6	2489.4	•	1	1350	167	848.	790.7	2489.8	•	1	2210	267	247.	355.1	2482.1
1	0535	68	851.	796.9	2489.9	•	1	1355	168	845.	784.9	2489.7	•	1	2215	268	240.	353.5	2482.1
1	0540	69	870.	831.1	2490.5	*	1	1400	169	842.	779.1	2489.7	•	1	2220	269	233.	351.8	2482.0
1	0545	70	889.	864.3	2491.0	*	1	1405	170	838.	773.3	2489.6	•	1	2225	270	226.	350.2	2482.0
1	0550	71	907.	896.6	2491.5	•	1	1410	171	835.	767.5	2489.5	*	1	2230	271	222.	348.7	2482.0
1	0555	72	924.	927.9	2492.0	•	1	1415	172	832.	761.8	2489.4	•	1	2235	272	218.	347.2	2481.9
1	0600	73	937.	958.2	2492.4	•	1	1420	173	829.	756.1	2489.3	•	1	2240	273	214.	345.7	2481.9
1	0605	74	950.	987.4	2492.7	*	1	1425	174	826.	750.4	2489.2	•	1	2245	274	210.	344.2	2481.9
1	0610	75	962.	1015.4	2493.1	*	1	1430	175	823.	744.7	2489.1	•	1	2250	275	207.	342.8	2481.8
1	0615	76	973.	1041.9	2493.4	•	1	1435	176	819.	739.0	2489.0	•	1	2255	276	203.	341.4	2481.8
1	0620	77	984.	1066.9	2493.7	•	1	1440	177	816.	733.4	2488.9	*	1	2300	277	200.	340.0	2481.8
1	0625	78	994.	1090.1	2494.0	•	1	1445	178	813.	727.8	2488.9	•	1	2305	278	196.	338.6	2481.7
1	0630	79	1003.	1111.5	2494.3	•	1	1450	179	810.	722.2	2488.8	•	1	2310	279	193.	337.3	2481.7
1	0635	80	1012.	1131.0	2494.5	•	1	1455	180	807.	716.6	2488.7	•	1	2315	280	190.	336.0	2481.7
1	0640	81	1019.	1148.5	2494.7	•	1	1500	181	804.	711.1	2488.6	•	1	2320	281	186.	334.7	2481.7
1	0645	82	1026.	1164.1	2494.9	•	1	1505	182	801.	705.6	2488.5	*	1	2325	282	183.	333.4	2481.6
1	0650	83	1032.	1177.9	2495.1	•	1	1510	183	798.	700.1	2488.4	•	1	2330	283	180.	332.2	2481.6
1	0655	84	1037.	1189.8	2495.3	*	1	1515	184	795.	694.6	2488.3	•	1	2335	284	177.	330.9	2481.6
1	0700	85	1042.	1199.9	2495.4	•	1	1520	185	792.	689.1	2488.2	*	1	2340	285	174.	329.7	2481.5
1	0705	86	1045.	1208.4	2495.5	*	1	1525	186	789.	683.7	2488.2	*	1	2345	286	171.	328.5	2481.5
1	0710	87	1048.	1215.3	2495.6	•	1	1530	187	786.	678.3	2488.1	•	1	2350	287	168.	327.4	2481.5
1	0715	88	1051.	1220.8	2495.6	•	1	1535	188	783.	672.9	2488.0	•	1	2355	288	165.	326.2	2481.5
1	0720	89	1053.	1225.0	2495.7	•	1	1540	189	780.	667.5	2487.9	*	2	0000	289	162.	325.1	2481.4
1	0725	90	1054.	1227.9	2495.7	•	1	1545	190	777.	662.1	2487.8	*	2	0005	290	159.	324.0	2481.4
1	0730	91	1055.	1229.7	2495.8	*	1	1550	191	774.	656.8	2487.7	•	2	0010	291	157.	322.9	2481.4
1	0735	92	1055.	1230.5	2495.8	•	1	1555	192	771.	651.5	2487.7	•	2	0015	292	154.	321.8	2481.4
1	0740	93	1055.	1230.3	2495.8	*	1	1600	193	768.	646.2	2487.6	*	2	0020	293	151.	320.8	2481.3
1	0745	94	1054.	1229.3	2495.8	•	1	1605	194	765.	640.9	2487.5	•	2	0025	294	149.	319.8	2481.3
1	0750	95	1054.	1227.6	2495.7	•	1	1610	195	762.	635.6	2487.4	*	2	0030	295	146.	318.7	2481.3
1	0755	96	1053.	1225.2	2495.7	•	1	1615	196	759.	630.4	2487.3	•	2	0035	296	144.	317.7	2481.3
1	0800	97	1051.	1222.3	2495.7	*	1	1620	197	756.	625.2	2487.2	*	2	0040	297	141.	316.8	2481.2
1	0805	98	1050.	1218.8	2495.6	•	1	1625	198	754.	620.0	2487.2	•	2	0045	298	139.	315.8	2481.2
1	0810	99	1048.	1214.9	2495.6	*	1	1630	199	751.	614.8	2487.1	*	2	0050	299	136.	314.8	2481.2
1	0815	100	1046.	1210.5	2495.5	•	1	1635	200	748.	609.6	2487.0	*	2	0055	300	134.	313.9	2481.2
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1055.	7.58		1002.	612.	589.	589.
		(INCHES)	.283	.690	.690	.690
		(AC-FT)	497.	1213.	1214.	1214.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1230.	7.58	1108.	616.	594.	594.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2495.77	7.58	2494.24	2485.35	2484.46	2484.46

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .54

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	907.	897.4	2491.5	1		1640	201	444.	401.4	2483.1
1		0005	2	0.	.0	2461.0	1		0825	102	905.	892.9	2491.4	1		1645	202	433.	398.4	2483.0
1		0010	3	0.	.0	2461.0	1		0830	103	902.	888.2	2491.4	1		1650	203	420.	395.5	2483.0
1		0015	4	0.	.0	2461.0	1		0835	104	899.	883.4	2491.3	1		1655	204	408.	392.6	2482.9
1		0020	5	0.	.0	2461.0	1		0840	105	897.	878.4	2491.2	1		1700	205	396.	389.9	2482.8
1		0025	6	0.	.0	2461.0	1		0845	106	894.	873.3	2491.1	1		1705	206	385.	387.2	2482.8
1		0030	7	0.	.0	2461.0	1		0850	107	891.	868.0	2491.1	1		1710	207	374.	384.6	2482.7
1		0035	8	1.	.0	2461.0	1		0855	108	888.	862.7	2491.0	1		1715	208	363.	382.0	2482.7
1		0040	9	1.	.0	2461.1	1		0900	109	885.	857.3	2490.9	1		1720	209	352.	379.6	2482.6
1		0045	10	2.	.0	2461.1	1		0905	110	882.	851.8	2490.8	1		1725	210	342.	377.2	2482.6
1		0050	11	3.	.1	2461.2	1		0910	111	879.	846.2	2490.7	1		1730	211	332.	374.8	2482.5
1		0055	12	3.	.1	2461.3	1		0915	112	876.	840.7	2490.6	1		1735	212	322.	372.6	2482.5
1		0100	13	4.	.1	2461.3	1		0920	113	873.	835.0	2490.5	1		1740	213	313.	370.4	2482.4
1		0105	14	5.	.1	2461.4	1		0925	114	869.	829.4	2490.4	1		1745	214	304.	368.3	2482.4
1		0110	15	5.	.1	2461.4	1		0930	115	866.	823.7	2490.4	1		1750	215	295.	366.2	2482.3
1		0115	16	6.	.1	2461.5	1		0935	116	863.	818.0	2490.3	1		1755	216	286.	364.2	2482.3
1		0120	17	7.	.1	2461.5	1		0940	117	860.	812.3	2490.2	1		1800	217	278.	362.3	2482.3
1		0125	18	9.	.2	2461.7	1		0945	118	857.	806.6	2490.1	1		1805	218	270.	360.4	2482.2
1		0130	19	11.	.2	2461.9	1		0950	119	854.	800.9	2490.0	1		1810	219	262.	358.6	2482.2
1		0135	20	15.	.3	2462.2	1		0955	120	851.	795.2	2489.9	1		1815	220	254.	356.8	2482.1
1		0140	21	21.	.4	2462.6	1		1000	121	847.	789.5	2489.8	1		1820	221	247.	355.1	2482.1
1		0145	22	27.	.6	2463.1	1		1005	122	844.	783.8	2489.7	1		1825	222	240.	353.4	2482.1
1		0150	23	35.	.7	2463.7	1		1010	123	841.	778.1	2489.6	1		1830	223	233.	351.8	2482.0
1		0155	24	38.	.9	2464.0	1		1015	124	838.	772.4	2489.6	1		1835	224	226.	350.2	2482.0
1		0200	25	39.	1.2	2464.1	1		1020	125	835.	766.7	2489.5	1		1840	225	222.	348.6	2482.0
1		0205	26	40.	1.6	2464.2	1		1025	126	832.	761.1	2489.4	1		1845	226	218.	347.1	2481.9
1		0210	27	41.	2.1	2464.4	1		1030	127	828.	755.4	2489.3	1		1850	227	214.	345.6	2481.9
1		0215	28	43.	2.7	2464.6	1		1035	128	825.	749.8	2489.2	1		1855	228	210.	344.2	2481.9
1		0220	29	45.	3.4	2464.8	1		1040	129	822.	744.1	2489.1	1		1900	229	207.	342.8	2481.8
1		0225	30	47.	4.2	2465.1	1		1045	130	819.	738.5	2489.0	1		1905	230	203.	341.3	2481.8
1		0230	31	49.	5.1	2465.4	1		1050	131	816.	732.9	2488.9	1		1910	231	200.	340.0	2481.8
1		0235	32	51.	6.1	2465.7	1		1055	132	813.	727.4	2488.8	1		1915	232	196.	338.6	2481.7
1		0240	33	54.	7.2	2466.0	1		1100	133	810.	721.8	2488.8	1		1920	233	193.	337.3	2481.7
1		0245	34	57.	8.4	2466.4	1		1105	134	807.	716.2	2488.7	1		1925	234	190.	335.9	2481.7
1		0250	35	60.	9.7	2466.8	1		1110	135	804.	710.7	2488.6	1		1930	235	186.	334.6	2481.7
1		0255	36	64.	11.2	2467.3	1		1115	136	801.	705.2	2488.5	1		1935	236	183.	333.4	2481.6
1		0300	37	68.	13.0	2467.8	1		1120	137	798.	699.7	2488.4	1		1940	237	180.	332.1	2481.6
1		0305	38	71.	15.0	2468.1	1		1125	138	795.	694.3	2488.3	1		1945	238	177.	330.9	2481.6
1		0310	39	72.	17.6	2468.4	1		1130	139	792.	688.8	2488.2	1		1950	239	174.	329.7	2481.5
1		0315	40	73.	20.8	2468.7	1		1135	140	789.	683.4	2488.2	1		1955	240	171.	328.5	2481.5
1		0320	41	74.	24.8	2469.1	1		1140	141	786.	678.0	2488.1	1		2000	241	168.	327.3	2481.5
1		0325	42	76.	29.8	2469.6	1		1145	142	783.	672.6	2488.0	1		2005	242	165.	326.2	2481.5
1		0330	43	79.	36.1	2470.3	1		1150	143	780.	667.2	2487.9	1		2010	243	162.	325.1	2481.4
1		0335	44	82.	44.0	2471.1	1		1155	144	777.	661.8	2487.8	1		2015	244	159.	324.0	2481.4
1		0340	45	86.	53.5	2472.0	1		1200	145	774.	656.5	2487.7	1		2020	245	157.	322.9	2481.4
1		0345	46	88.	64.0	2472.5	1		1205	146	771.	651.2	2487.6	1		2025	246	154.	321.8	2481.4
1		0350	47	90.	75.5	2473.1	1		1210	147	768.	645.9	2487.6	1		2030	247	151.	320.7	2481.3
1		0355	48	92.	88.1	2473.7	1		1215	148	765.	640.6	2487.5	1		2035	248	149.	319.7	2481.3
1		0400	49	94.	101.6	2474.4	1		1220	149	762.	635.4	2487.4	1		2040	249	146.	318.7	2481.3
1		0405	50	96.	116.1	2475.2	1		1225	150	759.	630.1	2487.3	1		2045	250	144.	317.7	2481.3
1		0410	51	99.	131.8	2475.9	1		1230	151	756.	624.9	2487.2	1		2050	251	141.	316.7	2481.2
1		0415	52	100.	148.7	2476.5	1		1235	152	753.	619.7	2487.2	1		2055	252	139.	315.8	2481.2
1		0420	53	102.	167.2	2477.0	1		1240	153	751.	614.6	2487.1	1		2100	253	136.	314.8	2481.2
1		0425	54	104.	187.5	2477.7	1		1245	154	747.	609.4	2487.0	1		2105	254	134.	313.9	2481.2
1		0430	55	106.	209.8	2478.3	1		1250	155	743.	604.3	2486.9	1		2110	255	132.	313.0	2481.2
1		0435	56	108.	234.2	2479.1	1		1255	156	739.	599.2	2486.8	1		2115	256	129.	312.1	2481.1
1		0440	57	111.	260.9	2479.9	1		1300	157	735.	594.1	2486.7	1		2120	257	127.	311.2	2481.1
1		0445	58	113.	289.7	2480.6	1		1305	158	730.	589.1	2486.6	1		2125	258	125.	310.3	2481.1
1		0450	59	150.	320.5	2481.3	1		1310	159	726.	584.0	2486.5	1		2130	259	123.	309.5	2481.1
1		0455	60	236.	352.5	2482.1	1		1315	160	722.	579.1	2486.4	1		2135	260	121.	308.6	2481.1
1		0500	61	375.	384.9	2482.7	1		1320	161	718.	574.1	2486.4	1		2140	261	119.	307.8	2481.0
1		0505	62	506.	417.0	2483.4	1		1325	162	714.	569.2	2486.3	1		2145	262	117.	307.0	2481.0
1		0510	63	628.	448.3	2484.0	1		1330	163	710.	564.3	2486.2	1		2150	263	115.	306.2	2481.0
1		0515	64	650.	478.7	2484.6	1		1335	164	706.	559.4	2486.1	1		2155	264	114.	305.4	2481.0
1		0520	65	671.	508.5	2485.2	1		1340	165	701.	554.6	2486.0	1		2200	265	114.	304.6	2481.0
1		0525	66	690.	537.3	2485.7	1		1345	166	698.	549.7	2485.9	1		2205	266	114.	303.8	2480.9
1		0530	67	710.	565.1	2486.2	1		1350	167	695.	544.9	2485.8	1		2210	267	114.	303.1	2480.9
1		0535	68	733.	592.1	2486.7	1		1355	168	692.	540.2	2485.7	1		2215	268	114.	302.3	2480.9
1		0540	69	753.	618.2	2487.1	1		1400	169	689.	535.4	2485.7	1		2220	269	114.	301.5	2480.9
1		0545	70	767.	643.6	2487.5	1		1405	170	686.	530.7	2485.6	1		2225	270	114.	300.7	2480.9
1		0550	71	780.	668.3	2487.9	1		1410	171	683.	526.0	2485.5	1		2230	271	114.	299.9	2480.9
1		0555	72	794.	692.3	2488.3	1		1415	172	680.	521.3	2485.4	1		2235	272	114.	299.1	2480.8
1		0600	73	806.	715.6	2488.7	1		1420	173	677.	516.6	2485.3	1		2240	273	113.	298.4	2480.8
1		0605	74	819.	738.1	2489.0	1		1425	174	674.	511.9	2485.2	1		2245	274	113.	297.6	2480.8
1		0610	75	831.	759.7	2489.4	1		1430	175	671.	507.3	2485.1	1		2250	275	113.	296.8	2480.8
1		0615	76	842.	780.2	2489.7	1		1435	176	668.	502.7	2485.1	1		2255	276	113.	296.0	2480.8
1		0620	77	853.	799.4	2490.0	1		1440	177	665.	498.1	2485.0	1		2300	277	113.	295.2	2480.7
1		0625	78	863.	817.3	2490.3	1		1445	178	661.	493.6	2484.9	1		2305	278	113.	294.5	2480.7
1		0630	79	872.	833.7	2490.5	1		1450	179	658.	489.0	2484.8	1		2310	279	113.	293.7	2480.7
1		0635	80	880.	848.6	2490.8	1		1455	180	655.	484.5	2484.7	1		2315	280	113.	292.9	2480.7
1		0640	81	887.	862.0	2491.0	1		1500	181	651.	480.0	2484.6	1		2320	281	113.	292.1	2480.7
1		0645	82	894.	873.9	2491.1	1		1505	182	648.	475.5	2484.5	1		2325	282	113.	291.4	2480.7
1		0650	83	900.	884.3	2491.3	1		1510	183	645.	471.1	2484.4	1		2330	283	113.	290.6	2480.6
1		0655	84	905.	893.2	2491.5	1		1515	184	642.	466.6	2484.4	1		2335	284	113.	289.8	2480.6
1		0700	85	909.	900.8	2491.6	1		1520	185	638.	462.2	2484.3	1		2340	285	113.	289.0	2480.6
1		0705	86	912.	907.0	2491.7	1		1525	186	635.	457.8	2484.2	1		2345	286	113.	288.2	2480.6
1		0710	87	915.	912.0	2491.7	1		1530	187	632.	453.5	2484.1	1		2350	287	113.	287.5	2480.6
1		0715	88	917.	915.9	2491.8	1		1535	188	629.	449.1	2484.0	1		2355	288	113.	286.7	2480.5
1		0720	89	919.	918.7	2491.9	1		1540	189	616.	444.9	2483.9	2		0000	289	113.	285.9	2480.5
1		0725	90	920.	920.5	2491.9	1		1545	190	599.	440.7	2483.9	2		0005	290	113.	285.1	2480.5
1		0730	91	920.	921.4	2491.9	1		1550	191	583.	436.6	2483.8	2		0010	291	112.	284.4	2480.5
1		0735	92	920.	921.5	2491.9	1		1555	192	567.	432.6	2483.7	2		0015	292	112.	283.6	2480.5
1		0740	93	920.	920.9	2491.9	1		1600	193	552.	428.8	2483.6	2		0020	293	112.	282.8	2480.4
1		0745	94	919.	919.6	2491.9	1		1605	194	537.	425.0	2483.5	2		0025	294	112.	282.0	2480.4
1		0750	95	918.	917.7	2491.8	1		1610	195	523.	421.4	2483.5	2		0030	295	112.	281.3	2480.4
1		0755	96	917.	915.3	2491.8	1		1615	196	509.	417.8	2483.4	2		0035	296	112.	280.5	2480.4
1		0800	97	915.	912.5	2491.8	1		1620	197	495.	414.4	2483.3	2		0040	297	112.	279.7	2480.4
1		0805	98	914.	909.2	2491.7	1		1625	198	482.	411.0	2483.3	2		0045	298	112.	279.0	2480.4
1		0810	99	912.	905.5	2491.6	1		1630	199	469.	407.7	2483.2	2		0050	299	112.	278.2	2480.3
1		0815	100	909.	901.6	2491.6	1		1635	200	457.	404.5	2483.1	2		0055	300	112.	277.4	2480.3

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)					
		(CFS)				
920.	7.58		863.	447.	431.	431.
		(INCHES)	.243	.504	.504	.504
		(AC-FT)	428.	887.	887.	887.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
(AC-FT)	(HR)				

922.	7.58	817.	451.	435.	435.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2491.90	7.58	2490.25	2482.47	2481.68	2481.68

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .53

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	1		0820	101	894.	874.1	2491.2	1		1640	201	399.	390.5	2482.9
1		0005	2	0.	.0	2461.0	1		0825	102	892.	869.7	2491.1	1		1645	202	387.	387.8	2482.8
1		0010	3	0.	.0	2461.0	1		0830	103	889.	865.0	2491.0	1		1650	203	376.	385.2	2482.7
1		0015	4	0.	.0	2461.0	1		0835	104	887.	860.3	2490.9	1		1655	204	365.	382.6	2482.7
1		0020	5	0.	.0	2461.0	1		0840	105	884.	855.3	2490.9	1		1700	205	354.	380.1	2482.6
1		0025	6	0.	.0	2461.0	1		0845	106	881.	850.3	2490.8	1		1705	206	344.	377.7	2482.6
1		0030	7	0.	.0	2461.0	1		0850	107	878.	845.1	2490.7	1		1710	207	334.	375.4	2482.5
1		0035	8	1.	.0	2461.0	1		0855	108	875.	839.8	2490.6	1		1715	208	324.	373.1	2482.5
1		0040	9	1.	.0	2461.1	1		0900	109	872.	834.5	2490.5	1		1720	209	315.	370.9	2482.4
1		0045	10	2.	.0	2461.1	1		0905	110	869.	829.1	2490.4	1		1725	210	306.	368.8	2482.4
1		0050	11	2.	.1	2461.2	1		0910	111	866.	823.6	2490.4	1		1730	211	297.	366.7	2482.4
1		0055	12	3.	.1	2461.2	1		0915	112	863.	818.1	2490.3	1		1735	212	288.	364.7	2482.3
1		0100	13	4.	.1	2461.3	1		0920	113	860.	812.6	2490.2	1		1740	213	280.	362.7	2482.3
1		0105	14	4.	.1	2461.3	1		0925	114	857.	807.0	2490.1	1		1745	214	272.	360.8	2482.2
1		0110	15	5.	.1	2461.4	1		0930	115	854.	801.4	2490.0	1		1750	215	264.	359.0	2482.2
1		0115	16	5.	.1	2461.4	1		0935	116	851.	795.8	2489.9	1		1755	216	256.	357.2	2482.2
1		0120	17	6.	.1	2461.5	1		0940	117	848.	790.2	2489.8	1		1800	217	248.	355.5	2482.1
1		0125	18	8.	.2	2461.6	1		0945	118	845.	784.6	2489.7	1		1805	218	241.	353.8	2482.1
1		0130	19	10.	.2	2461.8	1		0950	119	841.	778.9	2489.7	1		1810	219	234.	352.1	2482.0
1		0135	20	14.	.3	2462.1	1		0955	120	838.	773.3	2489.6	1		1815	220	227.	350.6	2482.0
1		0140	21	19.	.4	2462.5	1		1000	121	835.	767.7	2489.5	1		1820	221	222.	349.0	2482.0
1		0145	22	25.	.5	2462.9	1		1005	122	832.	762.0	2489.4	1		1825	222	219.	347.5	2481.9
1		0150	23	32.	.7	2463.5	1		1010	123	829.	756.4	2489.3	1		1830	223	215.	346.0	2481.9
1		0155	24	38.	.8	2464.0	1		1015	124	826.	750.8	2489.2	1		1835	224	211.	344.5	2481.9
1		0200	25	39.	1.1	2464.1	1		1020	125	823.	745.2	2489.1	1		1840	225	208.	343.1	2481.8
1		0205	26	40.	1.4	2464.2	1		1025	126	820.	739.6	2489.0	1		1845	226	204.	341.7	2481.8
1		0210	27	41.	1.9	2464.3	1		1030	127	817.	734.1	2489.0	1		1850	227	200.	340.3	2481.8
1		0215	28	42.	2.5	2464.5	1		1035	128	814.	728.5	2488.9	1		1855	228	197.	338.9	2481.7
1		0220	29	44.	3.1	2464.7	1		1040	129	811.	722.9	2488.8	1		1900	229	194.	337.6	2481.7
1		0225	30	46.	3.9	2465.0	1		1045	130	807.	717.4	2488.7	1		1905	230	190.	336.2	2481.7
1		0230	31	48.	4.7	2465.2	1		1050	131	804.	711.9	2488.6	1		1910	231	187.	334.9	2481.7
1		0235	32	50.	5.7	2465.5	1		1055	132	801.	706.4	2488.5	1		1915	232	184.	333.7	2481.6
1		0240	33	53.	6.7	2465.8	1		1100	133	798.	700.9	2488.4	1		1920	233	181.	332.4	2481.6
1		0245	34	55.	7.8	2466.2	1		1105	134	795.	695.5	2488.3	1		1925	234	178.	331.2	2481.6
1		0250	35	59.	9.0	2466.6	1		1110	135	792.	690.0	2488.3	1		1930	235	174.	330.0	2481.5
1		0255	36	62.	10.5	2467.0	1		1115	136	789.	684.6	2488.2	1		1935	236	171.	328.8	2481.5
1		0300	37	66.	12.1	2467.5	1		1120	137	786.	679.2	2488.1	1		1940	237	168.	327.6	2481.5
1		0305	38	70.	14.1	2468.0	1		1125	138	783.	673.8	2488.0	1		1945	238	166.	326.5	2481.5
1		0310	39	71.	16.5	2468.3	1		1130	139	780.	668.4	2487.9	1		1950	239	163.	325.3	2481.4
1		0315	40	72.	19.6	2468.6	1		1135	140	777.	663.1	2487.8	1		1955	240	160.	324.2	2481.4
1		0320	41	74.	23.4	2469.0	1		1140	141	774.	657.7	2487.8	1		2000	241	157.	323.1	2481.4
1		0325	42	76.	28.2	2469.5	1		1145	142	771.	652.4	2487.7	1		2005	242	154.	322.0	2481.4
1		0330	43	78.	34.2	2470.1	1		1150	143	769.	647.1	2487.6	1		2010	243	152.	321.0	2481.3
1		0335	44	81.	41.9	2470.8	1		1155	144	766.	641.8	2487.5	1		2015	244	149.	320.0	2481.3
1		0340	45	85.	51.0	2471.7	1		1200	145	763.	636.6	2487.4	1		2020	245	147.	318.9	2481.3
1		0345	46	87.	61.2	2472.4	1		1205	146	760.	631.3	2487.3	1		2025	246	144.	317.9	2481.3
1		0350	47	89.	72.4	2472.9	1		1210	147	757.	626.1	2487.3	1		2030	247	142.	316.9	2481.2
1		0355	48	91.	84.5	2473.6	1		1215	148	754.	620.9	2487.2	1		2035	248	139.	316.0	2481.2
1		0400	49	93.	97.7	2474.2	1		1220	149	751.	615.7	2487.1	1		2040	249	137.	315.0	2481.2
1		0405	50	96.	111.8	2474.9	1		1225	150	748.	610.6	2487.0	1		2045	250	134.	314.1	2481.2
1		0410	51	98.	127.0	2475.7	1		1230	151	744.	605.4	2486.9	1		2050	251	132.	313.2	2481.2
1		0415	52	100.	143.4	2476.3	1		1235	152	740.	600.3	2486.8	1		2055	252	130.	312.3	2481.1
1		0420	53	102.	161.4	2476.9	1		1240	153	736.	595.3	2486.7	1		2100	253	128.	311.4	2481.1
1		0425	54	103.	181.2	2477.5	1		1245	154	731.	590.2	2486.6	1		2105	254	125.	310.5	2481.1
1		0430	55	105.	202.9	2478.1	1		1250	155	727.	585.2	2486.6	1		2110	255	123.	309.7	2481.1
1		0435	56	108.	226.6	2478.9	1		1255	156	723.	580.2	2486.5	1		2115	256	121.	308.8	2481.1
1		0440	57	110.	252.6	2479.7	1		1300	157	719.	575.2	2486.4	1		2120	257	119.	308.0	2481.0
1		0445	58	112.	280.7	2480.4	1		1305	158	715.	570.3	2486.3	1		2125	258	117.	307.2	2481.0
1		0450	59	126.	310.7	2481.1	1		1310	159	711.	565.4	2486.2	1		2130	259	115.	306.4	2481.0
1		0455	60	205.	342.1	2481.8	1		1315	160	706.	560.5	2486.1	1		2135	260	114.	305.6	2481.0
1		0500	61	328.	373.9	2482.5	1		1320	161	702.	555.7	2486.0	1		2140	261	114.	304.8	2481.0
1		0505	62	460.	405.5	2483.2	1		1325	162	699.	550.8	2485.9	1		2145	262	114.	304.0	2481.0
1		0510	63	582.	436.2	2483.8	1		1330	163	696.	546.0	2485.9	1		2150	263	114.	303.2	2480.9
1		0515	64	641.	466.1	2484.3	1		1335	164	693.	541.3	2485.8	1		2155	264	114.	302.5	2480.9
1		0520	65	662.	495.0	2484.9	1		1340	165	690.	536.5	2485.7	1		2200	265	114.	301.7	2480.9
1		0525	66	681.	523.1	2485.4	1		1345	166	687.	531.8	2485.6	1		2205	266	114.	300.9	2480.9
1		0530	67	699.	550.3	2485.9	1		1350	167	684.	527.0	2485.5	1		2210	267	114.	300.1	2480.9
1		0535	68	720.	576.6	2486.4	1		1355	168	680.	522.3	2485.4	1		2215	268	114.	299.3	2480.8
1		0540	69	741.	602.1	2486.9	1		1400	169	677.	517.7	2485.3	1		2220	269	113.	298.5	2480.8
1		0545	70	757.	626.9	2487.3	1		1405	170	674.	513.0	2485.2	1		2225	270	113.	297.8	2480.8
1		0550	71	771.	651.0	2487.6	1		1410	171	671.	508.4	2485.2	1		2230	271	113.	297.0	2480.8
1		0555	72	784.	674.5	2488.0	1		1415	172	668.	503.8	2485.1	1		2235	272	113.	296.2	2480.8
1		0600	73	796.	697.2	2488.4	1		1420	173	665.	499.2	2485.0	1		2240	273	113.	295.4	2480.7
1		0605	74	808.	719.2	2488.7	1		1425	174	662.	494.6	2484.9	1		2245	274	113.	294.6	2480.7
1		0610	75	820.	740.2	2489.0	1		1430	175	659.	490.1	2484.8	1		2250	275	113.	293.9	2480.7
1		0615	76	831.	760.2	2489.4	1		1435	176	655.	485.5	2484.7	1		2255	276	113.	293.1	2480.7
1		0620	77	842.	779.0	2489.7	1		1440	177	652.	481.0	2484.6	1		2300	277	113.	292.3	2480.7
1		0625	78	851.	796.5	2489.9	1		1445	178	649.	476.6	2484.5	1		2305	278	113.	291.5	2480.7
1		0630	79	860.	812.5	2490.2	1		1450	179	646.	472.1	2484.5	1		2310	279	113.	290.8	2480.6
1		0635	80	868.	827.1	2490.4	1		1455	180	642.	467.7	2484.4	1		2315	280	113.	290.0	2480.6
1		0640	81	875.	840.2	2490.6	1		1500	181	639.	463.3	2484.3	1		2320	281	113.	289.2	2480.6
1		0645	82	882.	851.8	2490.8	1		1505	182	636.	458.9	2484.2	1		2325	282	113.	288.4	2480.6
1		0650	83	887.	861.9	2491.0	1		1510	183	633.	454.5	2484.1	1		2330	283	113.	287.6	2480.6
1		0655	84	892.	870.6	2491.1	1		1515	184	630.	450.1	2484.0	1		2335	284	113.	286.9	2480.5
1		0700	85	896.	878.0	2491.2	1		1520	185	620.	445.8	2484.0	1		2340	285	113.	286.1	2480.5
1		0705	86	900.	884.1	2491.3	1		1525	186	603.	441.6	2483.9	1		2345	286	113.	285.3	2480.5
1		0710	87	902.	888.9	2491.4	1		1530	187	587.	437.5	2483.8	1		2350	287	112.	284.5	2480.5
1		0715	88	904.	892.7	2491.4	1		1535	188	571.	433.6	2483.7	1		2355	288	112.	283.8	2480.5
1		0720	89	906.	895.4	2491.5	1		1540	189	556.	429.7	2483.6	2		0000	289	112.	283.0	2480.5
1		0725	90	907.	897.1	2491.5	1		1545	190	541.	425.9	2483.6	2		0005	290	112.	282.2	2480.4
1		0730	91	907.	898.0	2491.5	1		1550	191	526.	422.2	2483.5	2		0010	291	112.	281.4	2480.4
1		0735	92	907.	898.0	2491.5	1		1555	192	512.	418.6	2483.4	2		0015	292	112.	280.7	2480.4
1		0740	93	907.	897.4	2491.5	1		1600	193	499.	415.2	2483.4	2		0020	293	112.	279.9	2480.4
1		0745	94	906.	896.1	2491.5	1		1605	194	485.	411.8	2483.3	2		0025	294	112.	279.1	2480.4
1		0750	95	905.	894.2	2491.5	1		1610	195	472.	408.5	2483.2	2		0030	295	112.	278.4	2480.3
1		0755	96	904.	891.8	2491.4	1		1615	196	460.	405.3	2483.2	2		0035	296	112.	277.6	2480.3
1		0800	97	902.	889.0	2491.4	1		1620	197	447.	402.1	2483.1	2		0040	297	112.	276.8	2480.3
1		0805	98	901.	885.7	2491.3	1		1625	198	435.	399.1	2483.0	2		0045	298	112.	276.0	2480.3
1		0810	99	899.	882.1	2491.3	1		1630	199	423.	396.2	2483.0	2		0050	299	112.	275.3	2480.3

1	0815	100	896.	878.2	2491.2	*	1	1635	200	411.	393.3	2482.9	*	2	0055	300	112.	274.5	2480.3

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
907.	7.58	850.	434.	418.	418.
		(INCHES) .240	.490	.490	.490
		(AC-FT) 422.	861.	861.	861.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
(AC-FT)	(HR)				
898.	7.58	795.	440.	424.	424.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
(FEET)	(HR)				
2491.53	7.58	2489.91	2482.25	2481.47	2481.47

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .42

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	*	1		0820	101	679.	520.1	2485.4	*	1		1640	201	114.	300.6	2480.9
1		0005	2	0.	.0	2461.0	*	1		0825	102	677.	516.6	2485.3	*	1		1645	202	114.	299.9	2480.9
1		0010	3	0.	.0	2461.0	*	1		0830	103	674.	513.0	2485.2	*	1		1650	203	114.	299.1	2480.8
1		0015	4	0.	.0	2461.0	*	1		0835	104	672.	509.2	2485.2	*	1		1655	204	113.	298.3	2480.8
1		0020	5	0.	.0	2461.0	*	1		0840	105	670.	505.4	2485.1	*	1		1700	205	113.	297.5	2480.8
1		0025	6	0.	.0	2461.0	*	1		0845	106	667.	501.5	2485.0	*	1		1705	206	113.	296.7	2480.8
1		0030	7	0.	.0	2461.0	*	1		0850	107	664.	497.5	2485.0	*	1		1710	207	113.	296.0	2480.8
1		0035	8	0.	.0	2461.0	*	1		0855	108	661.	493.5	2484.9	*	1		1715	208	113.	295.2	2480.7
1		0040	9	0.	.0	2461.0	*	1		0900	109	658.	489.4	2484.8	*	1		1720	209	113.	294.4	2480.7
1		0045	10	0.	.0	2461.0	*	1		0905	110	655.	485.3	2484.7	*	1		1725	210	113.	293.6	2480.7
1		0050	11	1.	.0	2461.0	*	1		0910	111	652.	481.2	2484.6	*	1		1730	211	113.	292.8	2480.7
1		0055	12	1.	.0	2461.1	*	1		0915	112	649.	477.0	2484.6	*	1		1735	212	113.	292.1	2480.7
1		0100	13	1.	.0	2461.1	*	1		0920	113	646.	472.8	2484.5	*	1		1740	213	113.	291.3	2480.6
1		0105	14	1.	.0	2461.1	*	1		0925	114	643.	468.6	2484.4	*	1		1745	214	113.	290.5	2480.6
1		0110	15	1.	.0	2461.1	*	1		0930	115	640.	464.4	2484.3	*	1		1750	215	113.	289.7	2480.6
1		0115	16	1.	.0	2461.1	*	1		0935	116	637.	460.2	2484.2	*	1		1755	216	113.	289.0	2480.6
1		0120	17	1.	.0	2461.1	*	1		0940	117	634.	456.0	2484.2	*	1		1800	217	113.	288.2	2480.6
1		0125	18	1.	.0	2461.1	*	1		0945	118	631.	451.8	2484.1	*	1		1805	218	113.	287.4	2480.6
1		0130	19	2.	.0	2461.1	*	1		0950	119	626.	447.6	2484.0	*	1		1810	219	113.	286.6	2480.5
1		0135	20	2.	.0	2461.2	*	1		0955	120	610.	443.4	2483.9	*	1		1815	220	113.	285.9	2480.5
1		0140	21	3.	.1	2461.2	*	1		1000	121	594.	439.4	2483.8	*	1		1820	221	113.	285.1	2480.5
1		0145	22	4.	.1	2461.3	*	1		1005	122	578.	435.4	2483.8	*	1		1825	222	112.	284.3	2480.5
1		0150	23	5.	.1	2461.4	*	1		1010	123	563.	431.6	2483.7	*	1		1830	223	112.	283.5	2480.5
1		0155	24	7.	.1	2461.5	*	1		1015	124	548.	427.8	2483.6	*	1		1835	224	112.	282.8	2480.4
1		0200	25	9.	.2	2461.7	*	1		1020	125	534.	424.1	2483.5	*	1		1840	225	112.	282.0	2480.4
1		0205	26	11.	.2	2461.9	*	1		1025	126	520.	420.6	2483.5	*	1		1845	226	112.	281.2	2480.4
1		0210	27	15.	.3	2462.2	*	1		1030	127	506.	417.1	2483.4	*	1		1850	227	112.	280.4	2480.4
1		0215	28	20.	.4	2462.6	*	1		1035	128	493.	413.7	2483.3	*	1		1855	228	112.	279.7	2480.4
1		0220	29	25.	.5	2463.0	*	1		1040	129	480.	410.4	2483.3	*	1		1900	229	112.	278.9	2480.4
1		0225	30	31.	.6	2463.4	*	1		1045	130	467.	407.1	2483.2	*	1		1905	230	112.	278.1	2480.3
1		0230	31	37.	.8	2463.9	*	1		1050	131	454.	404.0	2483.1	*	1		1910	231	112.	277.3	2480.3
1		0235	32	38.	.9	2464.0	*	1		1055	132	442.	400.9	2483.1	*	1		1915	232	112.	276.6	2480.3
1		0240	33	39.	1.1	2464.1	*	1		1100	133	431.	397.9	2483.0	*	1		1920	233	112.	275.8	2480.3
1		0245	34	39.	1.3	2464.2	*	1		1105	134	418.	395.0	2483.0	*	1		1925	234	112.	275.0	2480.3
1		0250	35	40.	1.6	2464.2	*	1		1110	135	406.	392.2	2482.9	*	1		1930	235	112.	274.3	2480.2
1		0255	36	41.	1.9	2464.4	*	1		1115	136	395.	389.5	2482.8	*	1		1935	236	112.	273.5	2480.2
1		0300	37	42.	2.4	2464.5	*	1		1120	137	383.	386.8	2482.8	*	1		1940	237	112.	272.7	2480.2
1		0305	38	44.	3.0	2464.7	*	1		1125	138	372.	384.2	2482.7	*	1		1945	238	112.	272.0	2480.2
1		0310	39	46.	3.8	2464.9	*	1		1130	139	361.	381.7	2482.7	*	1		1950	239	112.	271.2	2480.2
1		0315	40	48.	4.9	2465.3	*	1		1135	140	351.	379.2	2482.6	*	1		1955	240	111.	270.4	2480.2
1		0320	41	52.	6.4	2465.7	*	1		1140	141	340.	376.9	2482.6	*	1		2000	241	111.	269.7	2480.1
1		0325	42	57.	8.4	2466.4	*	1		1145	142	331.	374.6	2482.5	*	1		2005	242	111.	268.9	2480.1
1		0330	43	64.	11.1	2467.2	*	1		1150	143	321.	372.3	2482.5	*	1		2010	243	111.	268.1	2480.1
1		0335	44	70.	14.8	2468.1	*	1		1155	144	312.	370.2	2482.4	*	1		2015	244	111.	267.4	2480.1
1		0340	45	72.	19.4	2468.6	*	1		1200	145	303.	368.0	2482.4	*	1		2020	245	111.	266.6	2480.1
1		0345	46	74.	24.7	2469.1	*	1		1205	146	294.	366.0	2482.3	*	1		2025	246	111.	265.8	2480.0
1		0350	47	77.	30.6	2469.7	*	1		1210	147	285.	364.0	2482.3	*	1		2030	247	111.	265.1	2480.0
1		0355	48	79.	37.2	2470.4	*	1		1215	148	277.	362.1	2482.3	*	1		2035	248	111.	264.3	2480.0
1		0400	49	82.	44.3	2471.1	*	1		1220	149	269.	360.2	2482.2	*	1		2040	249	111.	263.5	2480.0
1		0405	50	85.	52.1	2471.9	*	1		1225	150	261.	358.4	2482.2	*	1		2045	250	111.	262.8	2480.0
1		0410	51	87.	60.5	2472.4	*	1		1230	151	253.	356.6	2482.1	*	1		2050	251	111.	262.0	2479.9
1		0415	52	89.	69.6	2472.8	*	1		1235	152	246.	354.9	2482.1	*	1		2055	252	111.	261.2	2479.9
1		0420	53	90.	79.6	2473.3	*	1		1240	153	239.	353.2	2482.1	*	1		2100	253	111.	260.5	2479.9
1		0425	54	92.	90.7	2473.9	*	1		1245	154	232.	351.6	2482.0	*	1		2105	254	111.	259.7	2479.9
1		0430	55	94.	102.9	2474.5	*	1		1250	155	225.	350.0	2482.0	*	1		2110	255	111.	259.0	2479.8
1		0435	56	96.	116.4	2475.2	*	1		1255	156	221.	348.5	2482.0	*	1		2115	256	110.	258.2	2479.8
1		0440	57	99.	131.3	2475.9	*	1		1300	157	217.	347.0	2481.9	*	1		2120	257	110.	257.4	2479.8
1		0445	58	100.	147.5	2476.4	*	1		1305	158	214.	345.5	2481.9	*	1		2125	258	110.	256.7	2479.8
1		0450	59	102.	165.1	2477.0	*	1		1310	159	210.	344.0	2481.9	*	1		2130	259	110.	255.9	2479.8
1		0455	60	104.	183.8	2477.5	*	1		1315	160	206.	342.6	2481.8	*	1		2135	260	110.	255.2	2479.7
1		0500	61	105.	203.3	2478.1	*	1		1320	161	203.	341.2	2481.8	*	1		2140	261	110.	254.4	2479.7
1		0505	62	107.	223.3	2478.8	*	1		1325	162	199.	339.8	2481.8	*	1		2145	262	110.	253.6	2479.7
1		0510	63	109.	243.5	2479.4	*	1		1330	163	196.	338.5	2481.7	*	1		2150	263	110.	252.9	2479.7
1		0515	64	111.	263.6	2480.0	*	1		1335	164	193.	337.1	2481.7	*	1		2155	264	110.	252.1	2479.6
1		0520	65	112.	283.4	2480.5	*	1		1340	165	189.	335.8	2481.7	*	1		2200	265	110.	251.4	2479.6
1		0525	66	114.	302.9	2480.9	*	1		1345	166	186.	334.5	2481.6	*	1		2205	266	110.	250.6	2479.6
1		0530	67	154.	321.9	2481.4	*	1		1350	167	183.	333.3	2481.6	*	1		2210	267	110.	249.9	2479.6
1		0535	68	200.	340.2	2481.8	*	1		1355	168	180.	332.0	2481.6	*	1		2215	268	110.	249.1	2479.5
1		0540	69	259.	357.8	2482.2	*	1		1400	169	177.	330.8	2481.6	*	1		2220	269	110.	248.3	2479.5
1		0545	70	331.	374.8	2482.5	*	1		1405	170	173.	329.6	2481.5	*	1		2225	270	109.	247.6	2479.5
1		0550	71	401.	390.9	2482.9	*	1		1410	171	170.	328.4	2481.5	*	1		2230	271	109.	246.8	2479.5
1		0555	72	464.	406.4	2483.2	*	1		1415	172	168.	327.2	2481.5	*	1		2235	272	109.	246.1	2479.5
1		0600	73	522.	421.1	2483.5	*	1		1420	173	165.	326.1	2481.5	*	1		2240	273	109.	245.3	2479.4
1		0605	74	577.	435.0	2483.7	*	1		1425	174	162.	325.0	2481.4	*	1		2245	274	109.	244.6	2479.4
1		0610	75	628.	448.2	2484.0	*	1		1430	175	159.	323.9	2481.4	*	1		2250	275	109.	243.8	2479.4
1		0615	76	637.	460.5	2484.2	*	1		1435	176	156.	322.8	2481.4	*	1		2255	276	109.	243.1	2479.4
1		0620	77	646.	472.1	2484.5	*	1		1440	177	154.	321.7	2481.4	*	1		2300	277	109.	242.3	2479.3
1		0625	78	653.	482.8	2484.7	*	1		1445	178	151.	320.7	2481.3	*	1		2305	278	109.	241.6	2479.3
1		0630	79	661.	492.7	2484.9	*	1		1450	179	148.	319.6	2481.3	*	1		2310	279	109.	240.8	2479.3
1		0635	80	667.	501.6	2485.0	*	1		1455	180	146.	318.6	2481.3	*	1		2315	280	109.	240.1	2479.3
1		0640	81	672.	509.5	2485.2	*	1		1500	181	143.	317.6	2481.3	*	1		2320	281	109.	239.3	2479.2
1		0645	82	677.	516.5	2485.3	*	1		1505	182	141.	316.6	2481.2	*	1		2325	282	109.	238.6	2479.2
1		0650	83	681.	522.6	2485.4	*	1		1510	183	138.	315.7	2481.2	*	1		2330	283	109.	237.8	2479.2
1		0655	84	684.	527.7	2485.5	*	1		1515	184	136.	314.7	2481.2	*	1		2335	284	109.	237.1	2479.2

1	0700	85	687.	532.0	2485.6	•	1	1520	185	134.	313.8	2481.2	•	1	2340	285	108.	236.3	2479.2
1	0705	86	689.	535.4	2485.7	•	1	1525	186	131.	312.9	2481.2	•	1	2345	286	108.	235.6	2479.1
1	0710	87	691.	538.0	2485.7	*	1	1530	187	129.	312.0	2481.1	•	1	2350	287	108.	234.8	2479.1
1	0715	88	692.	539.9	2485.7	•	1	1535	188	127.	311.1	2481.1	•	1	2355	288	108.	234.1	2479.1
1	0720	89	693.	541.1	2485.8	•	1	1540	189	125.	310.2	2481.1	•	2	0000	289	108.	233.3	2479.1
1	0725	90	693.	541.6	2485.8	•	1	1545	190	123.	309.4	2481.1	•	2	0005	290	108.	232.6	2479.0
1	0730	91	693.	541.6	2485.8	•	1	1550	191	120.	308.6	2481.1	•	2	0010	291	108.	231.9	2479.0
1	0735	92	693.	541.1	2485.8	*	1	1555	192	118.	307.7	2481.0	•	2	0015	292	108.	231.1	2479.0
1	0740	93	692.	540.1	2485.7	•	1	1600	193	116.	306.9	2481.0	•	2	0020	293	108.	230.4	2479.0
1	0745	94	691.	538.6	2485.7	•	1	1605	194	114.	306.1	2481.0	*	2	0025	294	108.	229.6	2479.0
1	0750	95	690.	536.8	2485.7	*	1	1610	195	114.	305.3	2481.0	•	2	0030	295	108.	228.9	2478.9
1	0755	96	688.	534.7	2485.6	•	1	1615	196	114.	304.6	2481.0	*	2	0035	296	108.	228.1	2478.9
1	0800	97	687.	532.2	2485.6	*	1	1620	197	114.	303.8	2480.9	•	2	0040	297	108.	227.4	2478.9
1	0805	98	685.	529.5	2485.5	•	1	1625	198	114.	303.0	2480.9	•	2	0045	298	108.	226.7	2478.9
1	0810	99	683.	526.5	2485.5	•	1	1630	199	114.	302.2	2480.9	•	2	0050	299	108.	225.9	2478.8
1	0815	100	681.	523.4	2485.4	*	1	1635	200	114.	301.4	2480.9	•	2	0055	300	107.	225.2	2478.8

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)				
+ 693.	7.42		592.	236.	227.	227.
		(INCHES)	.167	.266	.266	.266
		(AC-FT)	293.	468.	468.	468.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
542.	7.42	468.	289.	279.	279.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2485.77	7.42	2484.37	2479.10	2478.44	2478.44

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION PEDB
PLAN 1, RATIO = .41

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE		DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE		DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	.0	2461.0	•	1		0820	101	670.	506.8	2485.1	•	1		1640	201	113.	298.4	2480.8
1		0005	2	0.	.0	2461.0	*	1		0825	102	668.	503.3	2485.1	•	1		1645	202	113.	297.6	2480.8
1		0010	3	0.	.0	2461.0	•	1		0830	103	666.	499.8	2485.0	•	1		1650	203	113.	296.9	2480.8
1		0015	4	0.	.0	2461.0	•	1		0835	104	663.	496.1	2484.9	•	1		1655	204	113.	296.1	2480.8
1		0020	5	0.	.0	2461.0	•	1		0840	105	660.	492.3	2484.9	*	1		1700	205	113.	295.3	2480.7
1		0025	6	0.	.0	2461.0	•	1		0845	106	658.	488.5	2484.8	•	1		1705	206	113.	294.5	2480.7
1		0030	7	0.	.0	2461.0	*	1		0850	107	655.	484.5	2484.7	•	1		1710	207	113.	293.7	2480.7
1		0035	8	0.	.0	2461.0	•	1		0855	108	652.	480.6	2484.6	•	1		1715	208	113.	293.0	2480.7
1		0040	9	0.	.0	2461.0	•	1		0900	109	649.	476.5	2484.5	•	1		1720	209	113.	292.2	2480.7
1		0045	10	0.	.0	2461.0	•	1		0905	110	646.	472.5	2484.5	•	1		1725	210	113.	291.4	2480.7
1		0050	11	0.	.0	2461.0	*	1		0910	111	643.	468.4	2484.4	•	1		1730	211	113.	290.6	2480.6
1		0055	12	1.	.0	2461.1	*	1		0915	112	640.	464.3	2484.3	•	1		1735	212	113.	289.9	2480.6
1		0100	13	1.	.0	2461.1	*	1		0920	113	637.	460.2	2484.2	*	1		1740	213	113.	289.1	2480.6
1		0105	14	1.	.0	2461.1	*	1		0925	114	634.	456.0	2484.2	*	1		1745	214	113.	288.3	2480.6
1		0110	15	1.	.0	2461.1	*	1		0930	115	631.	451.9	2484.1	•	1		1750	215	113.	287.5	2480.6
1		0115	16	1.	.0	2461.1	•	1		0935	116	627.	447.7	2484.0	•	1		1755	216	113.	286.7	2480.5
1		0120	17	1.	.0	2461.1	•	1		0940	117	611.	443.6	2483.9	•	1		1800	217	113.	286.0	2480.5
1		0125	18	1.	.0	2461.1	*	1		0945	118	595.	439.6	2483.8	*	1		1805	218	113.	285.2	2480.5
1		0130	19	2.	.0	2461.1	•	1		0950	119	579.	435.7	2483.8	•	1		1810	219	112.	284.4	2480.5
1		0135	20	2.	.0	2461.2	*	1		0955	120	564.	431.9	2483.7	•	1		1815	220	112.	283.6	2480.5
1		0140	21	3.	.1	2461.2	•	1		1000	121	550.	428.1	2483.6	*	1		1820	221	112.	282.9	2480.4
1		0145	22	4.	.1	2461.3	•	1		1005	122	535.	424.5	2483.5	•	1		1825	222	112.	282.1	2480.4
1		0150	23	5.	.1	2461.4	•	1		1010	123	521.	420.9	2483.5	•	1		1830	223	112.	281.3	2480.4
1		0155	24	6.	.1	2461.5	•	1		1015	124	507.	417.4	2483.4	*	1		1835	224	112.	280.6	2480.4
1		0200	25	8.	.2	2461.6	*	1		1020	125	494.	414.0	2483.3	•	1		1840	225	112.	279.8	2480.4
1		0205	26	11.	.2	2461.8	•	1		1025	126	481.	410.7	2483.3	*	1		1845	226	112.	279.0	2480.4
1		0210	27	14.	.3	2462.1	*	1		1030	127	468.	407.5	2483.2	*	1		1850	227	112.	278.2	2480.3
1		0215	28	18.	.4	2462.4	•	1		1035	128	456.	404.3	2483.1	•	1		1855	228	112.	277.5	2480.3
1		0220	29	23.	.5	2462.8	*	1		1040	129	444.	401.3	2483.1	*	1		1900	229	112.	276.7	2480.3
1		0225	30	28.	.6	2463.2	*	1		1045	130	432.	398.3	2483.0	*	1		1905	230	112.	275.9	2480.3
1		0230	31	34.	.7	2463.7	•	1		1050	131	420.	395.4	2483.0	•	1		1910	231	112.	275.2	2480.3
1		0235	32	38.	.8	2464.0	•	1		1055	132	408.	392.6	2482.9	*	1		1915	232	112.	274.4	2480.2
1		0240	33	38.	1.0	2464.1	•	1		1100	133	396.	389.8	2482.8	*	1		1920	233	112.	273.6	2480.2
1		0245	34	39.	1.2	2464.1	*	1		1105	134	385.	387.1	2482.8	*	1		1925	234	112.	272.8	2480.2
1		0250	35	40.	1.4	2464.2	•	1		1110	135	373.	384.5	2482.7	*	1		1930	235	112.	272.1	2480.2
1		0255	36	40.	1.8	2464.3	•	1		1115	136	363.	382.0	2482.7	*	1		1935	236	112.	271.3	2480.2
1		0300	37	41.	2.2	2464.4	*	1		1120	137	352.	379.6	2482.6	*	1		1940	237	111.	270.5	2480.2
1		0305	38	43.	2.7	2464.6	•	1		1125	138	342.	377.2	2482.6	*	1		1945	238	111.	269.8	2480.1
1		0310	39	45.	3.5	2464.8	•	1		1130	139	332.	374.9	2482.5	•	1		1950	239	111.	269.0	2480.1
1		0315	40	47.	4.5	2465.2	•	1		1135	140	322.	372.6	2482.5	*	1		1955	240	111.	268.2	2480.1
1		0320	41	51.	5.9	2465.6	*	1		1140	141	313.	370.5	2482.4	•	1		2000	241	111.	267.5	2480.1
1		0325	42	56.	7.8	2466.2	•	1		1145	142	304.	368.3	2482.4	•	1		2005	242	111.	266.7	2480.1
1		0330	43	62.	10.5	2467.0	•	1		1150	143	295.	366.3	2482.3	*	1		2010	243	111.	265.9	2480.0
1		0335	44	70.	14.0	2468.0	*	1		1155	144	286.	364.3	2482.3	•	1		2015	244	111.	265.2	2480.0
1		0340	45	72.	18.4	2468.5	•	1		1200	145	278.	362.4	2482.3	*	1		2020	245	111.	264.4	2480.0
1		0345	46	74.	23.5	2469.0	*	1		1205	146	270.	360.5	2482.2	•	1		2025	246	111.	263.7	2480.0
1		0350	47	76.	29.2	2469.6	•	1		1210	147	262.	358.6	2482.2	*	1		2030	247	111.	262.9	2480.0
1		0355	48	79.	35.6	2470.2	•	1		1215	148	255.	356.9	2482.1	•	1		2035	248	111.	262.1	2479.9
1		0400	49	82.	42.5	2470.9	•	1		1220	149	247.	355.1	2482.1	•	1		2040	249	111.	261.4	2479.9
1		0405	50	85.	50.1	2471.7	•	1		1225	150	240.	353.5	2482.1	*	1		2045	250	111.	260.6	2479.9
1		0410	51	87.	58.2	2472.2	•	1		1230	151	233.	351.8	2482.0	•	1		2050	251	111.	259.8	2479.9
1		0415	52	88.	67.0	2472.7	•	1		1235	152	226.	350.3	2482.0	•	1		2055	252	111.	259.1	2479.8
1		0420	53	90.	76.8	2473.2	*	1		1240	153	222.	348.7	2482.0	*	1		2100	253	110.	258.3	2479.8
1		0425	54	92.	87.5	2473.7	•	1		1245	154	218.	347.2	2481.9	•	1		2105	254	110.	257.6	2479.8
1		0430	55	93.	99.3	2474.3	•	1		1250	155	214.	345.7	2481.9	•	1		2110	255	110.	256.8	2479.8
1		0435	56	96.	112.4	2475.0	•	1		1255	156	211.	344.3	2481.9	*	1		2115	256	110.	256.0	2479.8
1		0440	57	98.	126.9	2475.7	•	1		1300	157	207.	342.8	2481.8	•	1		2120	257	110.	255.3	2479.7
1		0445	58	100.	142.6	2476.3	*	1		1305	158	203.	341.4	2481.8	*	1		2125	258	110.	254.5	2479.7
1		0450	59	101.	159.7	2476.8	*	1		1310	159	200.	340.0	2481.8	*	1		2130	259	110.	253.8	2479.7
1		0455	60	103.	177.8	2477.4	*	1		1315	160	196.	338.7	2481.7	•	1		2135	260	110.	253.0	2479.7
1		0500	61	105.	196.8	2477.9	•	1		1320	161	193.	337.3	2481.7	•	1		2140	261	110.	252.2	2479.6
1		0505	62	107.	216.3	2478.5	•	1		1325	162	190.	336.0	2481.7	*	1		2145	262	110.	251.5	2479.6
1		0510	63	108.	235.9	2479.1	•	1		1330	163	186.	334.7	2481.7	*	1		2150	263	110.	250.7	2479.6
1		0515	64	110.	255.5	2479.7	*	1		1335	164	183.	333.4	2481.6	•	1		2155	264	110.	250.0	2479.6
1		0520	65	112.	274.8	2480.3	•	1		1340	165	180.	332.2	2481.6	*	1		2200	265	110.	249.2	2479.5
1		0525	66	113.	293.8	2480.7	•	1		1345	166	177.	331.0	2481.6	•	1		2205	266	110.	248.5	2479.5
1		0530	67	130.	312.4	2481.1	•	1		1350	167	174.	329.8	2481.5	*	1		2210	267	110.	247.7	2479.5
1		0535	68	176.	330.4	2481.6	*	1		1355	168	171.	328.6	2481.5	•	1		2215	268	109.	247.0	2479.5
1		0540	69	219.	347.8	2482.0	*	1		1400	169	168.	327.4	2481.5	*	1		2220	269	109.	246.2	2479.5

1	0545	70	288.	364.6	2482.3	•	1	1405	170	165.	326.3	2481.5	•	1	2225	270	109.	245.4	2479.4
1	0550	71	356.	380.6	2482.7	•	1	1410	171	162.	325.1	2481.4	*	1	2230	271	109.	244.7	2479.4
1	0555	72	422.	395.9	2483.0	•	1	1415	172	159.	324.0	2481.4	•	1	2235	272	109.	243.9	2479.4
1	0600	73	480.	410.5	2483.3	•	1	1420	173	157.	322.9	2481.4	•	1	2240	273	109.	243.2	2479.4
1	0605	74	535.	424.3	2483.5	•	1	1425	174	154.	321.9	2481.4	•	1	2245	274	109.	242.4	2479.3
1	0610	75	586.	437.4	2483.8	•	1	1430	175	151.	320.8	2481.3	•	1	2250	275	109.	241.7	2479.3
1	0615	76	629.	449.5	2484.0	•	1	1435	176	149.	319.8	2481.3	•	1	2255	276	109.	240.9	2479.3
1	0620	77	637.	460.8	2484.2	•	1	1440	177	146.	318.8	2481.3	•	1	2300	277	109.	240.2	2479.3
1	0625	78	645.	471.2	2484.4	•	1	1445	178	144.	317.8	2481.3	*	1	2305	278	109.	239.4	2479.3
1	0630	79	652.	480.8	2484.6	•	1	1450	179	141.	316.8	2481.2	•	1	2310	279	109.	238.7	2479.2
1	0635	80	658.	489.5	2484.8	•	1	1455	180	139.	315.8	2481.2	•	1	2315	280	109.	237.9	2479.2
1	0640	81	664.	497.3	2484.9	•	1	1500	181	136.	314.9	2481.2	•	1	2320	281	109.	237.2	2479.2
1	0645	82	669.	504.1	2485.1	•	1	1505	182	134.	313.9	2481.2	*	1	2325	282	108.	236.4	2479.2
1	0650	83	672.	510.0	2485.2	•	1	1510	183	132.	313.0	2481.2	•	1	2330	283	108.	235.7	2479.1
1	0655	84	676.	514.9	2485.3	•	1	1515	184	129.	312.1	2481.1	•	1	2335	284	108.	235.0	2479.1
1	0700	85	678.	519.1	2485.4	•	1	1520	185	127.	311.2	2481.1	•	1	2340	285	108.	234.2	2479.1
1	0705	86	680.	522.4	2485.4	•	1	1525	186	125.	310.4	2481.1	•	1	2345	286	108.	233.5	2479.1
1	0710	87	682.	524.9	2485.5	•	1	1530	187	123.	309.5	2481.1	•	1	2350	287	108.	232.7	2479.0
1	0715	88	683.	526.7	2485.5	•	1	1535	188	121.	308.7	2481.1	•	1	2355	288	108.	232.0	2479.0
1	0720	89	684.	527.8	2485.5	•	1	1540	189	119.	307.9	2481.0	•	2	0000	289	108.	231.2	2479.0
1	0725	90	684.	528.3	2485.5	•	1	1545	190	117.	307.1	2481.0	•	2	0005	290	108.	230.5	2479.0
1	0730	91	684.	528.3	2485.5	•	1	1550	191	115.	306.3	2481.0	*	2	0010	291	108.	229.7	2479.0
1	0735	92	684.	527.7	2485.5	*	1	1555	192	114.	305.5	2481.0	•	2	0015	292	108.	229.0	2478.9
1	0740	93	683.	526.7	2485.5	*	1	1600	193	114.	304.7	2481.0	*	2	0020	293	108.	228.3	2478.9
1	0745	94	682.	525.2	2485.5	*	1	1605	194	114.	303.9	2480.9	•	2	0025	294	108.	227.5	2478.9
1	0750	95	681.	523.4	2485.4	•	1	1610	195	114.	303.1	2480.9	•	2	0030	295	108.	226.8	2478.9
1	0755	96	680.	521.3	2485.4	•	1	1615	196	114.	302.3	2480.9	•	2	0035	296	108.	226.0	2478.8
1	0800	97	678.	518.8	2485.3	•	1	1620	197	114.	301.6	2480.9	•	2	0040	297	107.	225.3	2478.8
1	0805	98	676.	516.1	2485.3	•	1	1625	198	114.	300.8	2480.9	•	2	0045	298	107.	224.6	2478.8
1	0810	99	675.	513.2	2485.2	*	1	1630	199	114.	300.0	2480.9	•	2	0050	299	107.	223.8	2478.8
1	0815	100	673.	510.1	2485.2	*	1	1635	200	114.	299.2	2480.8	•	2	0055	300	107.	223.1	2478.8
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 684.	7.42		571.	228.	220.	220.
		(INCHES)	.161	.257	.257	.257
		(AC-FT)	283.	453.	453.	453.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
528.	7.42	457.	285.	274.	274.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
2485.52	7.42	2484.15	2478.99	2478.33	2478.33

CUMULATIVE AREA = 32.97 SQ MI

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

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*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

					RATIOS APPLIED TO PRECIPITATION							
OPERATION	STATION	AREA	PLAN		RATIO 1 .73	RATIO 2 .72	RATIO 3 .64	RATIO 4 .63	RATIO 5 .54	RATIO 6 .53	RATIO 7 .42	RATIO 8 .41
HYDROGRAPH AT +	F1	9.40	1	FLOW	2670.	2615.	2092.	2044.	1540.	1500.	885.	861.

				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
HYDROGRAPH AT												
+	F2	2.43	1	FLOW	709.	694.	550.	537.	399.	388.	220.	214.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.33	4.33
2 COMBINED AT												
+	CF2	11.83	1	FLOW	3351.	3280.	2616.	2556.	1923.	1874.	1094.	1063.
				TIME	4.33	4.33	4.42	4.42	4.42	4.42	4.42	4.50
ROUTED TO												
+	RF2	11.83	1	FLOW	3250.	3182.	2544.	2486.	1871.	1823.	1069.	1040.
				TIME	4.83	4.92	4.92	4.92	4.92	4.92	5.00	5.00
HYDROGRAPH AT												
+	F3	2.88	1	FLOW	896.	876.	692.	675.	499.	485.	273.	265.
				TIME	4.08	4.08	4.08	4.08	4.08	4.08	4.17	4.17
ROUTED TO												
+	RF3	2.88	1	FLOW	847.	829.	654.	639.	472.	459.	258.	250.
				TIME	4.58	4.58	4.58	4.58	4.58	4.58	4.67	4.67
HYDROGRAPH AT												
+	F4	1.01	1	FLOW	459.	450.	366.	359.	277.	270.	167.	163.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
ROUTED TO												
+	RF4	1.01	1	FLOW	421.	413.	337.	330.	255.	249.	154.	151.
				TIME	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
2 COMBINED AT												
+	CF4	3.89	1	FLOW	1224.	1198.	955.	932.	698.	680.	393.	381.
				TIME	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	F5	1.98	1	FLOW	622.	609.	482.	471.	350.	340.	192.	186.
				TIME	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08
ROUTED TO												
+	RF5	1.98	1	FLOW	598.	585.	463.	452.	336.	327.	184.	179.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.50
3 COMBINED AT												
+	CF5	17.70	1	FLOW	4785.	4683.	3734.	3648.	2735.	2664.	1547.	1503.
				TIME	4.67	4.67	4.75	4.75	4.75	4.75	4.83	4.83
HYDROGRAPH AT												
+	F6	1.58	1	FLOW	621.	609.	495.	485.	374.	365.	225.	219.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
HYDROGRAPH AT												
+	F7	3.87	1	FLOW	1313.	1288.	1058.	1037.	811.	793.	504.	493.
				TIME	4.25	4.25	4.33	4.33	4.33	4.33	4.33	4.33
3 COMBINED AT												
+	CF7	23.14	1	FLOW	6274.	6144.	4934.	4824.	3654.	3562.	2120.	2063.
				TIME	4.58	4.67	4.67	4.67	4.67	4.67	4.75	4.75
ROUTED TO												
+	RF7	23.14	1	FLOW	6137.	6011.	4827.	4719.	3582.	3494.	2096.	2041.
				TIME	5.17	5.17	5.17	5.17	5.25	5.25	5.42	5.42
HYDROGRAPH AT												
+	F10	1.07	1	FLOW	378.	371.	303.	297.	230.	225.	140.	137.
				TIME	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
ROUTED TO												
+	RF10	1.07	1	FLOW	368.	361.	294.	288.	223.	218.	136.	133.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
HYDROGRAPH AT												
+	F9F	.50	1	FLOW	278.	273.	225.	221.	174.	170.	110.	107.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	14-1	.03	1	FLOW	20.	20.	16.	15.	12.	11.	7.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	14-2	.01	1	FLOW	8.	8.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C26	.04	1	FLOW	28.	28.	22.	22.	17.	16.	10.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R14-2	.04	1	FLOW	21.	21.	16.	16.	12.	12.	7.	7.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
3 COMBINED AT												
+	CF9F	1.62	1	FLOW	476.	467.	382.	374.	290.	284.	183.	179.
				TIME	4.17	4.17	4.17	4.17	4.17	4.25	4.92	4.92
HYDROGRAPH AT												
+	F9A	.11	1	FLOW	83.	81.	66.	65.	50.	49.	31.	30.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.11	1	FLOW	70.	69.	56.	55.	43.	42.	26.	26.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	F9B	.49	1	FLOW	253.	248.	197.	192.	143.	139.	79.	76.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R7	.49	1	FLOW	240.	235.	186.	182.	135.	132.	74.	72.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	F8	.76	1	FLOW	340.	332.	256.	249.	178.	173.	88.	85.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
ROUTED TO												
+	R8	.76	1	FLOW	307.	299.	232.	226.	162.	158.	82.	79.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75

HYDROGRAPH AT											
+	F9C	.19	1	FLOW	121.	119.	96.	94.	72.	70.	42.	41.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT											
+	C8	.95	1	FLOW	391.	382.	298.	290.	210.	204.	107.	104.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO											
+	R9	.95	1	FLOW	368.	359.	279.	272.	196.	190.	100.	96.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT											
+	F9E	.39	1	FLOW	256.	251.	206.	202.	158.	154.	98.	96.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT											
+	C9	1.94	1	FLOW	878.	859.	683.	667.	498.	485.	277.	269.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO											
+	R10	1.94	1	FLOW	851.	833.	662.	646.	482.	469.	268.	260.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT											
+	13-16	.03	1	FLOW	13.	12.	9.	9.	7.	6.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT											
+	13-17	.08	1	FLOW	51.	50.	41.	40.	31.	30.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT											
+	13-18	.07	1	FLOW	53.	52.	43.	42.	32.	32.	20.	19.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT											
+	C10	2.12	1	FLOW	911.	891.	710.	693.	518.	505.	290.	282.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO											
+	R11	2.12	1	FLOW	884.	865.	688.	672.	502.	489.	280.	272.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
HYDROGRAPH AT											
+	13-15	.04	1	FLOW	28.	28.	22.	22.	16.	16.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT											
+	C11	2.16	1	FLOW	894.	875.	696.	680.	508.	495.	284.	276.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
ROUTED TO											
+	R12	2.16	1	FLOW	876.	858.	682.	666.	498.	485.	278.	270.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT											
+	F9D	.09	1	FLOW	60.	59.	48.	47.	37.	36.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO											
+	R13	.09	1	FLOW	56.	55.	45.	44.	35.	34.	22.	21.
				TIME	3.58	3.58	3.58	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT											
+	13-22	.02	1	FLOW	9.	9.	7.	7.	5.	5.	3.	2.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT											
+	C12	.11	1	FLOW	65.	64.	52.	51.	39.	38.	24.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT											
+	13-21	.04	1	FLOW	31.	30.	25.	24.	19.	18.	12.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO											
+	R14	.04	1	FLOW	25.	25.	20.	20.	15.	15.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT											
+	13-20	.01	1	FLOW	12.	11.	10.	9.	8.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT											
+	C13	.05	1	FLOW	36.	35.	29.	28.	22.	22.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT											
+	C14	.16	1	FLOW	101.	99.	81.	80.	61.	60.	37.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO											
+	R15	.16	1	FLOW	98.	96.	78.	77.	60.	58.	37.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT											
+	13-14	.04	1	FLOW	19.	18.	14.	14.	10.	10.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT											
+	13-19	.08	1	FLOW	49.	48.	39.	38.	30.	29.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT											
+	C15	2.44	1	FLOW	965.	945.	754.	737.	553.	539.	313.	304.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO											
+	R16	2.44	1	FLOW	956.	935.	745.	728.	545.	531.	309.	300.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	4.00	4.00
HYDROGRAPH AT											
+	13-9	.05	1	FLOW	22.	21.	17.	16.	12.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT											
+	13-12	.03	1	FLOW	21.	21.	17.	17.	14.	13.	9.	9.

				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	13-13	.01	1	FLOW	11.	11.	9.	9.	7.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R17	.01	1	FLOW	9.	9.	7.	7.	6.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT													
+	C16	.09	1	FLOW	53.	52.	41.	41.	31.	30.	18.	17.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO													
+	R18	.09	1	FLOW	48.	47.	37.	37.	28.	27.	16.	15.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	13-8	.09	1	FLOW	50.	49.	39.	38.	28.	28.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT													
+	C17	2.62	1	FLOW	1006.	985.	785.	767.	575.	560.	324.	315.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT													
+	13-7	.02	1	FLOW	16.	16.	13.	13.	10.	10.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO													
+	R19	.02	1	FLOW	16.	15.	12.	12.	9.	9.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	13-6	.03	1	FLOW	26.	25.	21.	21.	17.	17.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	13-23	.06	1	FLOW	50.	49.	41.	40.	32.	31.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT													
+	C18	.11	1	FLOW	89.	87.	73.	71.	57.	56.	37.	37.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO													
+	R20	.11	1	FLOW	88.	86.	72.	70.	56.	55.	36.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	13-25	.01	1	FLOW	6.	6.	4.	4.	3.	3.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	4.83
ROUTED TO													
+	R21	.01	1	FLOW	5.	5.	4.	4.	2.	2.	1.	1.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	4.92	4.92
HYDROGRAPH AT													
+	13-24	.07	1	FLOW	29.	29.	23.	22.	16.	16.	8.	8.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT													
+	C19	.08	1	FLOW	35.	34.	26.	26.	19.	18.	9.	9.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	13-4	.01	1	FLOW	7.	7.	5.	5.	4.	4.	2.	2.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT													
+	13-5	.14	1	FLOW	78.	77.	62.	61.	47.	46.	28.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C20	.15	1	FLOW	85.	84.	68.	66.	51.	49.	30.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO													
+	R22	.15	1	FLOW	79.	78.	63.	62.	47.	46.	28.	27.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT													
+	13-11	.05	1	FLOW	32.	32.	26.	25.	20.	19.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT													
+	C21	.20	1	FLOW	103.	101.	82.	80.	61.	60.	37.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO													
+	R23	.20	1	FLOW	100.	98.	79.	78.	59.	58.	35.	35.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT													
+	13-10	.02	1	FLOW	16.	15.	13.	13.	11.	11.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT													
+	C22	.21	1	FLOW	108.	106.	86.	84.	64.	63.	38.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO													
+	R24	.21	1	FLOW	106.	104.	85.	83.	64.	62.	38.	37.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT													
+	13-3	.04	1	FLOW	31.	31.	26.	25.	21.	20.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT													
+	C23	.45	1	FLOW	244.	240.	196.	192.	149.	146.	92.	90.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO													
+	R25	.45	1	FLOW	228.	224.	183.	179.	139.	136.	85.	83.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75

HYDROGRAPH AT												
+	13-2	.02	1	FLOW	25.	24.	21.	20.	17.	16.	12.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C24	3.09	1	FLOW	1208.	1183.	948.	927.	700.	682.	402.	391.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	13-1	.07	1	FLOW	50.	49.	41.	40.	31.	30.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C25	3.16	1	FLOW	1231.	1206.	967.	945.	715.	697.	411.	400.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
2 COMBINED AT												
+	CCF9F	4.78	1	FLOW	1689.	1654.	1333.	1303.	991.	967.	579.	564.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	RF9F	4.78	1	FLOW	1613.	1580.	1271.	1243.	944.	921.	553.	538.
				TIME	4.17	4.17	4.17	4.17	4.25	4.25	4.25	4.25
HYDROGRAPH AT												
+	12-1	.13	1	FLOW	81.	79.	65.	64.	50.	49.	32.	31.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C12-1	4.92	1	FLOW	1640.	1606.	1293.	1265.	961.	938.	563.	548.
				TIME	4.17	4.17	4.17	4.17	4.17	4.17	4.25	4.25
ROUTED TO												
+	R12-1	4.92	1	FLOW	1591.	1559.	1255.	1227.	933.	910.	547.	533.
				TIME	4.42	4.42	4.42	4.42	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	11-4	.03	1	FLOW	27.	26.	22.	21.	17.	16.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R2	.03	1	FLOW	19.	18.	15.	15.	11.	11.	7.	7.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-3	.09	1	FLOW	61.	60.	49.	48.	38.	37.	24.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C2	.12	1	FLOW	77.	76.	63.	61.	48.	47.	30.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-2	.06	1	FLOW	50.	49.	42.	41.	34.	33.	23.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C3	.18	1	FLOW	127.	125.	104.	102.	82.	80.	53.	52.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-7	.05	1	FLOW	31.	30.	24.	24.	18.	17.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	11-8	.03	1	FLOW	23.	22.	18.	18.	14.	14.	9.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-9	.06	1	FLOW	36.	35.	28.	27.	20.	20.	12.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-10	.09	1	FLOW	70.	69.	57.	56.	44.	43.	28.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.09	1	FLOW	67.	67.	55.	54.	42.	41.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C4	.23	1	FLOW	154.	152.	123.	121.	93.	91.	56.	54.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R4	.23	1	FLOW	146.	143.	114.	113.	86.	86.	53.	52.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-5	.03	1	FLOW	23.	23.	19.	18.	14.	14.	9.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C5	.26	1	FLOW	167.	163.	131.	130.	97.	95.	57.	57.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	11-6	.13	1	FLOW	96.	94.	78.	76.	60.	59.	39.	38.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C6	.58	1	FLOW	389.	382.	313.	308.	239.	235.	147.	144.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R5	.58	1	FLOW	369.	367.	300.	296.	233.	228.	145.	142.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-1	.09	1	FLOW	66.	65.	54.	53.	42.	41.	26.	26.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C7	.67	1	FLOW	430.	424.	345.	338.	266.	260.	166.	163.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	CC7	5.58	1	FLOW	1675.	1641.	1324.	1295.	990.	966.	586.	570.

				TIME	4.42	4.42	4.42	4.50	4.50	4.50	4.50	4.50
ROUTED TO												
+	RC7	5.58	1	FLOW	1641.	1609.	1299.	1272.	971.	948.	577.	563.
				TIME	4.75	4.75	4.75	4.75	4.75	4.83	4.83	4.83
HYDROGRAPH AT												
+	10-2	.13	1	FLOW	94.	92.	76.	75.	59.	58.	37.	37.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R1	.13	1	FLOW	89.	88.	71.	72.	56.	55.	37.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	10-1	.10	1	FLOW	76.	74.	61.	59.	46.	45.	28.	27.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C1	.23	1	FLOW	146.	143.	116.	115.	89.	87.	55.	53.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	CC1	5.82	1	FLOW	1712.	1679.	1361.	1333.	1023.	999.	612.	597.
				TIME	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
HYDROGRAPH AT												
+	DB1	1.93	1	FLOW	793.	779.	645.	633.	501.	490.	319.	312.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT												
+	CDB1	30.88	1	FLOW	8144.	7979.	6440.	6299.	4808.	4692.	2852.	2778.
				TIME	5.08	5.08	5.08	5.08	5.17	5.17	5.17	5.17
ROUTED TO												
+	RDB1	30.88	1	FLOW	8127.	7962.	6429.	6289.	4807.	4691.	2849.	2775.
				TIME	5.08	5.08	5.17	5.17	5.17	5.17	5.25	5.25
HYDROGRAPH AT												
+	9-19	.02	1	FLOW	12.	12.	10.	10.	8.	8.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-15	.24	1	FLOW	136.	133.	109.	106.	82.	80.	50.	49.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C14	.25	1	FLOW	147.	144.	117.	115.	89.	87.	54.	53.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R13	.25	1	FLOW	145.	142.	116.	113.	88.	86.	53.	52.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-18	.01	1	FLOW	11.	11.	9.	9.	7.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C15	.27	1	FLOW	151.	148.	121.	119.	92.	90.	56.	55.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-16	.02	1	FLOW	14.	14.	12.	12.	9.	9.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-17	.05	1	FLOW	25.	24.	19.	18.	14.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C16	.07	1	FLOW	39.	38.	31.	30.	23.	22.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C17	.33	1	FLOW	182.	178.	145.	142.	110.	108.	67.	65.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R14	.33	1	FLOW	175.	171.	140.	137.	106.	103.	64.	63.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-14	.09	1	FLOW	53.	52.	43.	42.	32.	31.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C18	.42	1	FLOW	219.	215.	174.	171.	131.	128.	79.	77.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R15	.42	1	FLOW	216.	212.	172.	168.	129.	126.	78.	76.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	9-12	.01	1	FLOW	8.	8.	7.	7.	6.	6.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R16	.01	1	FLOW	8.	8.	7.	7.	6.	5.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C19	.43	1	FLOW	218.	214.	174.	170.	131.	128.	79.	77.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R17	.43	1	FLOW	203.	200.	162.	159.	123.	120.	74.	72.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	9-11	.26	1	FLOW	123.	120.	95.	93.	69.	67.	38.	37.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C20	.69	1	FLOW	287.	281.	227.	222.	169.	165.	100.	97.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92

HYDROGRAPH AT												
+	9-6	.03	1	FLOW	25.	25.	21.	21.	17.	17.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C21	.72	1	FLOW	301.	295.	237.	232.	177.	173.	105.	103.
				TIME	3.75	3.75	3.75	3.75	3.83	3.83	3.83	3.83
ROUTED TO												
+	R18	.72	1	FLOW	300.	294.	237.	232.	177.	173.	105.	102.
				TIME	3.75	3.75	3.83	3.83	3.83	3.83	3.83	3.92
HYDROGRAPH AT												
+	9-13	.15	1	FLOW	92.	91.	75.	73.	58.	56.	37.	36.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R19	.15	1	FLOW	92.	90.	74.	73.	58.	56.	36.	36.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-5	.01	1	FLOW	6.	6.	5.	5.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C22	.88	1	FLOW	385.	377.	305.	298.	227.	222.	135.	131.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R20	.88	1	FLOW	383.	375.	303.	296.	227.	221.	135.	131.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-2	.02	1	FLOW	15.	15.	13.	13.	10.	10.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C23	.90	1	FLOW	395.	387.	313.	306.	234.	228.	139.	135.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R21	.90	1	FLOW	392.	384.	310.	303.	232.	227.	139.	135.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-10	.01	1	FLOW	8.	8.	7.	7.	6.	5.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R22	.01	1	FLOW	7.	7.	6.	6.	5.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-9	.02	1	FLOW	17.	17.	14.	14.	11.	11.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C24	.03	1	FLOW	24.	24.	20.	19.	16.	15.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R23	.03	1	FLOW	22.	21.	18.	17.	14.	14.	9.	9.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-8	.15	1	FLOW	90.	88.	72.	71.	56.	55.	35.	35.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R24	.15	1	FLOW	89.	87.	72.	71.	56.	55.	35.	34.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-7	.13	1	FLOW	59.	58.	46.	45.	33.	32.	18.	18.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C25	.31	1	FLOW	170.	166.	136.	133.	103.	101.	63.	61.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R25	.31	1	FLOW	168.	164.	133.	131.	101.	98.	60.	59.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.67
HYDROGRAPH AT												
+	9-4	.04	1	FLOW	27.	27.	22.	22.	17.	17.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C26	.34	1	FLOW	187.	183.	149.	146.	113.	110.	68.	66.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-3	.06	1	FLOW	48.	47.	40.	39.	32.	32.	22.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C27	1.30	1	FLOW	617.	604.	491.	481.	370.	361.	222.	216.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R26	1.30	1	FLOW	607.	593.	482.	470.	362.	352.	219.	214.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-1	.05	1	FLOW	34.	34.	28.	27.	22.	21.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C28	1.34	1	FLOW	633.	620.	503.	492.	379.	369.	227.	222.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	8-3	.08	1	FLOW	56.	55.	46.	45.	35.	35.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-2	.01	1	FLOW	12.	11.	10.	10.	8.	8.	6.	5.

				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C12	.09	1	FLOW	64.	63.	52.	51.	41.	40.	26.	26.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R12	.09	1	FLOW	63.	62.	52.	51.	40.	40.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-1	.02	1	FLOW	19.	18.	15.	15.	12.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C13	.11	1	FLOW	78.	76.	63.	61.	49.	48.	32.	31.
				TIME	3.50	3.50	3.58	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-2	.02	1	FLOW	15.	14.	12.	12.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R11	.02	1	FLOW	14.	13.	11.	11.	9.	8.	6.	5.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-1	.01	1	FLOW	8.	8.	7.	7.	5.	5.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C11	1.48	1	FLOW	705.	690.	562.	550.	425.	414.	256.	250.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	DB2	.60	1	FLOW	296.	290.	239.	234.	184.	180.	115.	112.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75
3 COMBINED AT												
+	CDB2	32.97	1	FLOW	8635.	8462.	6843.	6695.	5122.	4998.	3042.	2964.
				TIME	5.08	5.08	5.08	5.08	5.08	5.08	5.17	5.17
ROUTED TO												
+	PEDB	32.97	1	FLOW	1194.	1182.	1067.	1055.	920.	907.	693.	684.
				TIME	7.67	7.67	7.58	7.58	7.58	7.58	7.42	7.42
			**	PEAK STAGES IN FEET **								
			1	STAGE	2499.91	2499.54	2496.12	2495.77	2491.90	2491.53	2485.77	2485.52
				TIME	7.67	7.67	7.58	7.58	7.58	7.58	7.42	7.42
ROUTED TO												
+	RDB2	32.97	1	FLOW	1194.	1182.	1067.	1055.	920.	907.	693.	684.
				TIME	7.75	7.75	7.67	7.67	7.67	7.67	7.58	7.50
HYDROGRAPH AT												
+	U1	.03	1	FLOW	21.	20.	16.	16.	12.	12.	7.	6.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	20.	20.	16.	16.	11.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-1	.01	1	FLOW	6.	6.	4.	4.	3.	3.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.04	1	FLOW	24.	24.	19.	19.	14.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.04	1	FLOW	24.	24.	19.	18.	13.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W2	.01	1	FLOW	9.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.05	1	FLOW	32.	31.	25.	25.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W1	.03	1	FLOW	22.	21.	17.	17.	13.	13.	7.	7.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.09	1	FLOW	54.	53.	43.	42.	31.	31.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.09	1	FLOW	54.	52.	42.	41.	30.	29.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-2A	.01	1	FLOW	8.	8.	6.	6.	5.	5.	3.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	V2	.03	1	FLOW	24.	23.	20.	19.	15.	14.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	85.	83.	67.	65.	49.	47.	25.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.13	1	FLOW	81.	79.	63.	61.	47.	45.	25.	23.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	V1	.05	1	FLOW	39.	38.	31.	31.	24.	23.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
HYDROGRAPH AT												
+	GB-2B	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

2 COMBINED AT												
+	C	.06	1	FLOW	42.	41.	34.	33.	25.	25.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.19	1	FLOW	123.	121.	95.	93.	67.	65.	37.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.67	3.67	3.67
HYDROGRAPH AT												
+	P1	.09	1	FLOW	63.	61.	50.	49.	36.	35.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-4	.04	1	FLOW	19.	18.	15.	14.	10.	10.	6.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	T2	.02	1	FLOW	13.	13.	10.	10.	7.	7.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.75	3.75
3 COMBINED AT												
+	C	.15	1	FLOW	94.	92.	73.	72.	53.	51.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.15	1	FLOW	91.	89.	69.	68.	48.	47.	26.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-8	.03	1	FLOW	27.	27.	23.	23.	19.	18.	13.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	6-7	.01	1	FLOW	7.	7.	6.	6.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C6	.04	1	FLOW	34.	34.	29.	28.	23.	23.	16.	16.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.04	1	FLOW	32.	32.	27.	26.	22.	21.	15.	15.
				TIME	3.50	3.50	3.58	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-6	.03	1	FLOW	33.	32.	28.	27.	22.	22.	16.	16.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C7	.07	1	FLOW	65.	64.	54.	54.	44.	43.	31.	30.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R7	.07	1	FLOW	54.	53.	46.	45.	37.	36.	26.	25.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-5	.10	1	FLOW	68.	66.	55.	54.	42.	41.	27.	26.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R8	.10	1	FLOW	64.	63.	52.	51.	40.	39.	26.	25.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-4	.19	1	FLOW	84.	82.	65.	63.	46.	45.	25.	24.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
•	C8	.37	1	FLOW	201.	197.	162.	158.	123.	120.	76.	74.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R9	.37	1	FLOW	194.	190.	156.	153.	119.	116.	74.	72.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-3	.02	1	FLOW	13.	12.	10.	10.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R10	.02	1	FLOW	11.	12.	10.	10.	8.	7.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	6-2	.05	1	FLOW	44.	43.	35.	34.	27.	26.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C9	.43	1	FLOW	219.	215.	176.	172.	133.	130.	82.	80.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	6-1	.03	1	FLOW	18.	18.	15.	14.	11.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C10	.46	1	FLOW	230.	226.	185.	181.	140.	137.	86.	84.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.46	1	FLOW	229.	225.	183.	180.	138.	135.	86.	83.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.75
HYDROGRAPH AT												
+	T1	.04	1	FLOW	25.	25.	20.	19.	15.	14.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-3	.02	1	FLOW	10.	10.	8.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	U2	.02	1	FLOW	15.	15.	12.	12.	9.	9.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
4 COMBINED AT												
+	C	.54	1	FLOW	265.	260.	210.	205.	159.	156.	97.	94.

				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.54	1	FLOW	261.	256.	209.	205.	158.	155.	96.	94.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
2 COMBINED AT												
+	C	.69	1	FLOW	348.	340.	272.	267.	206.	201.	120.	117.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.69	1	FLOW	341.	334.	272.	266.	203.	198.	120.	116.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-5A	.03	1	FLOW	19.	19.	15.	14.	11.	10.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.72	1	FLOW	349.	342.	278.	272.	207.	202.	122.	118.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	Q1	.02	1	FLOW	15.	15.	12.	12.	9.	9.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	S1	.05	1	FLOW	31.	31.	25.	24.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.79	1	FLOW	394.	385.	305.	297.	228.	222.	132.	129.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.79	1	FLOW	385.	377.	304.	297.	222.	217.	130.	127.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.83
HYDROGRAPH AT												
+	S2	.02	1	FLOW	15.	14.	12.	11.	8.	8.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-5B	.01	1	FLOW	7.	7.	5.	5.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.83	1	FLOW	398.	390.	314.	307.	231.	224.	135.	130.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-6	.03	1	FLOW	15.	15.	12.	12.	9.	8.	5.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.03	1	FLOW	14.	14.	11.	11.	8.	8.	5.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	R2	.04	1	FLOW	23.	23.	19.	18.	14.	14.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.06	1	FLOW	38.	37.	30.	29.	22.	22.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	37.	36.	29.	28.	21.	21.	11.	11.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	R1	.03	1	FLOW	20.	20.	16.	16.	12.	11.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.09	1	FLOW	57.	56.	44.	43.	31.	30.	17.	16.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C	.92	1	FLOW	446.	437.	355.	347.	261.	255.	150.	146.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GB-14	.01	1	FLOW	8.	8.	6.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	F	.00	1	FLOW	6.	6.	5.	5.	4.	4.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	CF	1.13	1	FLOW	570.	557.	444.	434.	330.	322.	187.	181.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
2 COMBINED AT												
+	CCF	34.10	1	FLOW	1196.	1184.	1069.	1057.	923.	910.	695.	686.
				TIME	7.67	7.67	7.58	7.67	7.58	7.58	7.50	7.50
ROUTED TO												
+	RF	34.10	1	FLOW	1196.	1184.	1069.	1057.	922.	910.	695.	686.
				TIME	7.75	7.75	7.75	7.75	7.67	7.67	7.58	7.58
HYDROGRAPH AT												
+	5-7	.01	1	FLOW	8.	8.	7.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R1	.01	1	FLOW	7.	7.	6.	5.	4.	4.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-6	.04	1	FLOW	30.	29.	24.	24.	19.	19.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C1	.05	1	FLOW	36.	36.	30.	30.	24.	23.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58

ROUTED TO												
+	R2	.05	1	FLOW	34.	33.	28.	27.	22.	22.	15.	14.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-5	.05	1	FLOW	29.	29.	23.	22.	16.	16.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-8	.04	1	FLOW	33.	33.	28.	27.	22.	21.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C2	.14	1	FLOW	91.	89.	74.	72.	57.	56.	36.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.14	1	FLOW	80.	78.	65.	64.	50.	49.	32.	31.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-4	.12	1	FLOW	52.	50.	39.	38.	27.	27.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C3	.25	1	FLOW	128.	126.	102.	99.	76.	74.	45.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R4	.25	1	FLOW	127.	125.	101.	98.	75.	73.	44.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-2	.03	1	FLOW	24.	24.	20.	19.	15.	15.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C4	.28	1	FLOW	135.	132.	107.	104.	80.	78.	47.	46.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-3	.06	1	FLOW	40.	39.	32.	31.	25.	24.	15.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R5	.06	1	FLOW	38.	38.	31.	30.	23.	23.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-1	.02	1	FLOW	11.	11.	9.	8.	7.	6.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C5	.36	1	FLOW	182.	178.	144.	140.	107.	104.	64.	62.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.36	1	FLOW	181.	177.	143.	140.	107.	104.	63.	62.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GC-5A	.05	1	FLOW	26.	26.	20.	20.	15.	14.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	N1	.05	1	FLOW	24.	23.	17.	17.	12.	11.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.83	3.83
ROUTED TO												
+	R	.05	1	FLOW	23.	22.	17.	16.	11.	11.	5.	5.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.92	3.92
3 COMBINED AT												
+	C	.45	1	FLOW	220.	216.	173.	170.	128.	124.	71.	69.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GC-5B	.02	1	FLOW	20.	19.	17.	16.	14.	13.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	19.	19.	16.	16.	13.	13.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.47	1	FLOW	230.	225.	181.	177.	135.	131.	75.	72.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	GC-4A	.03	1	FLOW	15.	14.	11.	11.	8.	8.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.03	1	FLOW	14.	14.	11.	11.	8.	8.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
ROUTED TO												
+	R	.03	1	FLOW	14.	13.	10.	10.	8.	7.	4.	4.
				TIME	3.58	3.58	3.58	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	GC-4B	.06	1	FLOW	29.	28.	22.	22.	16.	16.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	29.	28.	22.	21.	16.	15.	8.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
3 COMBINED AT												
+	C	.56	1	FLOW	272.	266.	211.	207.	157.	153.	87.	85.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	0	.01	1	FLOW	14.	13.	11.	11.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R	.01	1	FLOW	12.	12.	10.	10.	8.	8.	5.	5.

				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.57	1	FLOW	284.	278.	221.	216.	164.	159.	92.	89.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.57	1	FLOW	281.	275.	220.	215.	161.	157.	91.	88.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	H3	.02	1	FLOW	13.	13.	10.	10.	7.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	11.	11.	9.	9.	7.	7.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GC-1A	.02	1	FLOW	12.	11.	9.	9.	7.	6.	4.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.61	1	FLOW	293.	288.	231.	226.	169.	165.	95.	92.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	P2	.07	1	FLOW	40.	39.	29.	29.	21.	20.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.07	1	FLOW	37.	36.	28.	28.	20.	19.	10.	9.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.83	3.83
2 COMBINED AT												
+	C	.67	1	FLOW	330.	323.	259.	254.	189.	184.	104.	101.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.67	1	FLOW	321.	314.	253.	248.	188.	183.	103.	100.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	Y	.02	1	FLOW	15.	15.	12.	12.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	H1	.05	1	FLOW	35.	34.	27.	26.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GC-18	.02	1	FLOW	12.	12.	10.	9.	7.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	GC-1C	.02	1	FLOW	10.	10.	8.	8.	6.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
5 COMBINED AT												
+	C	.79	1	FLOW	365.	358.	282.	275.	209.	204.	116.	113.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	.79	1	FLOW	359.	351.	280.	274.	207.	201.	115.	112.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	C1D1GC	.03	1	FLOW	19.	19.	15.	15.	11.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.81	1	FLOW	364.	356.	284.	278.	210.	204.	118.	114.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	Q2	.08	1	FLOW	63.	62.	52.	51.	41.	40.	26.	25.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.08	1	FLOW	62.	61.	50.	49.	38.	37.	25.	24.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	G1	.04	1	FLOW	26.	25.	21.	21.	16.	16.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	G2	.02	1	FLOW	13.	13.	11.	10.	8.	8.	5.	5.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	100.	99.	82.	80.	62.	61.	37.	36.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.94	1	FLOW	439.	430.	343.	335.	249.	243.	141.	137.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	.94	1	FLOW	438.	429.	340.	332.	249.	243.	140.	137.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	E	.05	1	FLOW	36.	36.	30.	29.	23.	22.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-7	.03	1	FLOW	17.	16.	13.	13.	9.	9.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	1.02	1	FLOW	469.	458.	365.	357.	264.	257.	150.	146.
				TIME	3.58	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	1.02	1	FLOW	468.	458.	364.	356.	264.	257.	149.	145.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83

HYDROGRAPH AT												
+	8	.04	1	FLOW	32.	31.	26.	25.	19.	19.	13.	12.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	1.06	1	FLOW	487.	476.	377.	369.	272.	265.	154.	150.
				TIME	3.58	3.58	3.67	3.67	3.67	3.75	3.83	3.83
HYDROGRAPH AT												
+	GB-10	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.01	1	FLOW	3.	3.	3.	2.	2.	2.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-9	.01	1	FLOW	7.	6.	5.	5.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.02	1	FLOW	10.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	9.	9.	7.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	C2+ST	.04	1	FLOW	24.	23.	19.	18.	13.	13.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	ST	.00	1	FLOW	2.	2.	2.	2.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.06	1	FLOW	33.	33.	26.	25.	19.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	33.	32.	26.	25.	18.	17.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-8	.02	1	FLOW	10.	10.	8.	8.	6.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	EN+ST	.02	1	FLOW	16.	16.	13.	13.	11.	10.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	COM	.02	1	FLOW	20.	20.	17.	17.	13.	13.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	C	.11	1	FLOW	76.	75.	60.	59.	44.	43.	27.	26.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C	1.16	1	FLOW	557.	544.	424.	414.	304.	295.	168.	164.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.83	3.83
ROUTED TO												
+	RCOM	1.16	1	FLOW	541.	529.	420.	410.	300.	292.	167.	163.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	DSDB	.61	1	FLOW	195.	191.	152.	149.	112.	109.	64.	63.
				TIME	3.92	3.92	3.92	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT												
+	CDSDB	35.87	1	FLOW	1479.	1461.	1240.	1215.	932.	914.	700.	691.
				TIME	5.08	5.08	5.08	5.17	5.42	7.58	7.42	7.42

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
FOR PLAN = 1 RATIO= .00									
R13	MANE	2.31	58.36	216.82	1.19	5.00	56.32	215.00	1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5680E+01 EXCESS= .0000E+00 OUTFLOW= .5680E+01 BASIN STORAGE= .5082E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.32	57.13	218.02	1.17	5.00	55.18	215.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5567E+01 EXCESS= .0000E+00 OUTFLOW= .5567E+01 BASIN STORAGE= .5059E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.46	46.47	218.74	.95	5.00	45.01	215.00	.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4523E+01 EXCESS= .0000E+00 OUTFLOW= .4523E+01 BASIN STORAGE= .5998E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.47	46.42	217.58	.93	5.00	44.49	220.00	.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4428E+01 EXCESS= .0000E+00 OUTFLOW= .4429E+01 BASIN STORAGE= .5954E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.66	36.07	218.03	.72	5.00	34.72	220.00	.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3423E+01 EXCESS= .0000E+00 OUTFLOW= .3423E+01 BASIN STORAGE= .5862E-03 PERCENT ERROR= .0

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 FOR PLAN = 1  RATIO=  .00
      R13  MANE          2.68     34.87    216.79       .70       5.00     33.91    220.00          .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3340E+01 EXCESS= .0000E+00 OUTFLOW= .3340E+01 BASIN STORAGE= .5790E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R13  MANE          3.06     22.08    217.22       .44       5.00     21.86    220.00          .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2096E+01 EXCESS= .0000E+00 OUTFLOW= .2097E+01 BASIN STORAGE= .6028E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R13  MANE          3.08     21.74    218.75       .43       5.00     21.22    220.00          .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2046E+01 EXCESS= .0000E+00 OUTFLOW= .2047E+01 BASIN STORAGE= .6087E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          2.61     68.06    216.30      1.26       5.00     67.41    215.00         1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6315E+01 EXCESS= .0000E+00 OUTFLOW= .6316E+01 BASIN STORAGE= .1063E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          2.62     66.97    215.06      1.23       5.00     66.90    215.00         1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6197E+01 EXCESS= .0000E+00 OUTFLOW= .6198E+01 BASIN STORAGE= .1061E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          2.80     55.20    215.85      1.00       5.00     54.53    215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5044E+01 EXCESS= .0000E+00 OUTFLOW= .5045E+01 BASIN STORAGE= .1004E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          2.82     53.96    217.33       .98       5.00     53.68    215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4941E+01 EXCESS= .0000E+00 OUTFLOW= .4941E+01 BASIN STORAGE= .1001E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          3.07     42.40    217.81       .76       5.00     42.19    215.00          .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3830E+01 EXCESS= .0000E+00 OUTFLOW= .3830E+01 BASIN STORAGE= .1090E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          3.09     41.71    216.37       .74       5.00     40.75    215.00          .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3743E+01 EXCESS= .0000E+00 OUTFLOW= .3744E+01 BASIN STORAGE= .1087E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          3.60     26.69    216.03       .47       5.00     25.68    215.00          .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2363E+01 EXCESS= .0000E+00 OUTFLOW= .2364E+01 BASIN STORAGE= .1144E-02 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .00
       R3  MANE          3.63     26.35    217.75       .46       5.00     25.13    215.00          .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2307E+01 EXCESS= .0000E+00 OUTFLOW= .2308E+01 BASIN STORAGE= .1213E-02 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          3.42    149.27    215.72      1.13       5.00    145.82    215.00         1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1400E+02 EXCESS= .0000E+00 OUTFLOW= .1401E+02 BASIN STORAGE= .1643E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          3.44    148.14    216.75      1.11       5.00    142.57    215.00         1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1373E+02 EXCESS= .0000E+00 OUTFLOW= .1373E+02 BASIN STORAGE= .1319E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          3.68    120.16    217.20       .89       5.00    114.22    215.00          .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1104E+02 EXCESS= .0000E+00 OUTFLOW= .1104E+02 BASIN STORAGE= .1359E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          3.70    118.29    218.55       .87       5.00    113.23    215.00          .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1081E+02 EXCESS= .0000E+00 OUTFLOW= .1082E+02 BASIN STORAGE= .1522E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          4.02     90.45    217.35       .67       5.00     85.78    220.00          .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8228E+01 EXCESS= .0000E+00 OUTFLOW= .8230E+01 BASIN STORAGE= .1540E-02 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
       R4  MANE          4.06     88.00    219.41       .65       5.00     86.15    220.00          .65
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .8052E+01 EXCESS= .0000E+00 OUTFLOW= .8054E+01 BASIN STORAGE= .1561E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	4.75	54.20	218.71	.40	5.00	52.62	220.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4923E+01 EXCESS= .0000E+00 OUTFLOW= .4925E+01 BASIN STORAGE= .1665E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R4	MANE	4.79	52.79	220.45	.39	5.00	52.37	220.00	.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4793E+01 EXCESS= .0000E+00 OUTFLOW= .4794E+01 BASIN STORAGE= .1271E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R5	MANE	2.54	380.83	218.59	1.24	5.00	369.16	220.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3801E+02 EXCESS= .0000E+00 OUTFLOW= .3801E+02 BASIN STORAGE= .1549E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.56	377.00	217.40	1.21	5.00	367.18	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3730E+02 EXCESS= .0000E+00 OUTFLOW= .3730E+02 BASIN STORAGE= .1580E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.73	308.41	218.13	.99	5.00	300.25	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3039E+02 EXCESS= .0000E+00 OUTFLOW= .3039E+02 BASIN STORAGE= .1484E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.74	301.20	219.20	.97	5.00	295.60	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2977E+02 EXCESS= .0000E+00 OUTFLOW= .2977E+02 BASIN STORAGE= .1567E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.97	232.73	220.11	.75	5.00	232.71	220.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2309E+02 EXCESS= .0000E+00 OUTFLOW= .2309E+02 BASIN STORAGE= .1523E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.99	231.80	218.42	.74	5.00	227.71	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2262E+02 EXCESS= .0000E+00 OUTFLOW= .2262E+02 BASIN STORAGE= .1679E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	3.47	146.16	218.90	.47	5.00	144.90	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1435E+02 EXCESS= .0000E+00 OUTFLOW= .1435E+02 BASIN STORAGE= .1398E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	3.50	142.34	220.39	.46	5.00	141.85	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1401E+02 EXCESS= .0000E+00 OUTFLOW= .1401E+02 BASIN STORAGE= .1559E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R1	MANE	4.05	92.26	218.76	1.24	5.00	88.95	220.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8843E+01 EXCESS= .0000E+00 OUTFLOW= .8845E+01 BASIN STORAGE= .1990E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.08	87.56	220.14	1.21	5.00	87.53	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8660E+01 EXCESS= .0000E+00 OUTFLOW= .8662E+01 BASIN STORAGE= .2367E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.35	73.62	217.72	.99	5.00	70.81	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7071E+01 EXCESS= .0000E+00 OUTFLOW= .7073E+01 BASIN STORAGE= .1812E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.38	73.77	219.20	.97	5.00	71.96	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6945E+01 EXCESS= .0000E+00 OUTFLOW= .6947E+01 BASIN STORAGE= .2079E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.76	57.74	218.97	.76	5.00	56.22	220.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5405E+01 EXCESS= .0000E+00 OUTFLOW= .5407E+01 BASIN STORAGE= .1637E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.80	55.70	220.61	.74	5.00	55.28	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5279E+01 EXCESS= .0000E+00 OUTFLOW= .5281E+01 BASIN STORAGE= .1913E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	5.00	37.33	220.00	.47	5.00	37.33	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3367E+01 EXCESS= .0000E+00 OUTFLOW= .3369E+01 BASIN STORAGE= .1914E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	5.00	36.50	220.00	.46	5.00	36.50	220.00	.46	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3290E+01 EXCESS= .0000E+00 OUTFLOW= .3292E+01 BASIN STORAGE= .1896E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

RDB1	MANE	.92	8140.10	307.08	1.13	5.00	8127.43	305.00	1.13	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1855E+04 EXCESS= .0000E+00 OUTFLOW= .1856E+04 BASIN STORAGE= .1402E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

RDB1	MANE	.91	7975.36	306.51	1.10	5.00	7962.32	305.00	1.10	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1817E+04 EXCESS= .0000E+00 OUTFLOW= .1817E+04 BASIN STORAGE= .1123E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

RDB1	MANE	.97	6439.14	306.98	.89	5.00	6428.64	310.00	.89	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1460E+04 EXCESS= .0000E+00 OUTFLOW= .1460E+04 BASIN STORAGE= .1388E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

RDB1	MANE	.94	6297.21	307.37	.87	5.00	6289.16	310.00	.87	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1427E+04 EXCESS= .0000E+00 OUTFLOW= .1428E+04 BASIN STORAGE= .1588E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

RDB1	MANE	1.09	4807.20	311.28	.66	5.00	4807.08	310.00	.66	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1087E+04 EXCESS= .0000E+00 OUTFLOW= .1087E+04 BASIN STORAGE= .1488E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

RDB1	MANE	1.05	4691.61	311.43	.64	5.00	4690.85	310.00	.64	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1060E+04 EXCESS= .0000E+00 OUTFLOW= .1061E+04 BASIN STORAGE= .1251E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

RDB1	MANE	1.29	2852.25	312.61	.39	5.00	2849.10	315.00	.39	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6458E+03 EXCESS= .0000E+00 OUTFLOW= .6460E+03 BASIN STORAGE= .1380E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

RDB1	MANE	1.32	2777.39	313.00	.38	5.00	2775.20	315.00	.38	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6294E+03 EXCESS= .0000E+00 OUTFLOW= .6295E+03 BASIN STORAGE= .1206E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	.87	218.29	221.29	1.13	5.00	215.92	220.00	1.13	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2534E+02 EXCESS= .0000E+00 OUTFLOW= .2534E+02 BASIN STORAGE= .2885E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	.87	214.25	220.82	1.11	5.00	211.87	220.00	1.11	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2484E+02 EXCESS= .0000E+00 OUTFLOW= .2484E+02 BASIN STORAGE= .2876E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	.93	174.01	220.81	.90	5.00	171.83	220.00	.90	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2007E+02 EXCESS= .0000E+00 OUTFLOW= .2007E+02 BASIN STORAGE= .2894E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	.93	170.41	221.27	.88	5.00	168.14	220.00	.88	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1963E+02 EXCESS= .0000E+00 OUTFLOW= .1963E+02 BASIN STORAGE= .2872E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	1.01	131.18	221.82	.67	5.00	129.20	220.00	.67	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1506E+02 EXCESS= .0000E+00 OUTFLOW= .1506E+02 BASIN STORAGE= .2837E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	1.02	128.26	221.35	.66	5.00	126.12	220.00	.66	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1471E+02 EXCESS= .0000E+00 OUTFLOW= .1471E+02 BASIN STORAGE= .2796E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	1.17	79.00	221.37	.41	5.00	78.22	225.00	.41	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9100E+01 EXCESS= .0000E+00 OUTFLOW= .9100E+01 BASIN STORAGE= .2944E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R15	MANE	1.18	77.07	221.87	.40	5.00	76.16	225.00	.40	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8877E+01 EXCESS= .0000E+00 OUTFLOW= .8877E+01 BASIN STORAGE= .2633E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.44	8.03	210.30	1.72	5.00	7.94	210.00	1.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6437E+00 EXCESS= .0000E+00 OUTFLOW= .6437E+00 BASIN STORAGE= .1668E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.45	8.01	211.17	1.69	5.00	7.82	210.00	1.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6335E+00 EXCESS= .0000E+00 OUTFLOW= .6335E+00 BASIN STORAGE= .2212E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.51	6.92	211.38	1.44	5.00	6.76	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5393E+00 EXCESS= .0000E+00 OUTFLOW= .5394E+00 BASIN STORAGE= .2172E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.52	6.77	210.78	1.41	5.00	6.61	210.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5300E+00 EXCESS= .0000E+00 OUTFLOW= .5300E+00 BASIN STORAGE= .2106E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.60	5.66	210.86	1.16	5.00	5.52	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4358E+00 EXCESS= .0000E+00 OUTFLOW= .4358E+00 BASIN STORAGE= .1719E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.60	5.51	210.24	1.14	5.00	5.46	210.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4281E+00 EXCESS= .0000E+00 OUTFLOW= .4281E+00 BASIN STORAGE= .2280E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R16	MANE	1.76	4.06	210.88	.81	5.00	3.96	210.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3042E+00 EXCESS= .0000E+00 OUTFLOW= .3042E+00 BASIN STORAGE= .1929E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R16	MANE	1.77	4.03	211.85	.80	5.00	3.93	210.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2992E+00 EXCESS= .0000E+00 OUTFLOW= .2992E+00 BASIN STORAGE= .1936E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R18	MANE	.45	300.60	225.55	1.08	5.00	300.10	225.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4143E+02 EXCESS= .0000E+00 OUTFLOW= .4143E+02 BASIN STORAGE= .5387E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.45	294.57	225.55	1.06	5.00	294.06	225.00	1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4058E+02 EXCESS= .0000E+00 OUTFLOW= .4058E+02 BASIN STORAGE= .5611E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.47	237.29	226.04	.85	5.00	236.81	230.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3265E+02 EXCESS= .0000E+00 OUTFLOW= .3265E+02 BASIN STORAGE= .5584E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.48	232.06	226.09	.83	5.00	231.72	230.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3193E+02 EXCESS= .0000E+00 OUTFLOW= .3193E+02 BASIN STORAGE= .5446E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.50	177.37	230.51	.63	5.00	177.35	230.00	.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2436E+02 EXCESS= .0000E+00 OUTFLOW= .2436E+02 BASIN STORAGE= .5417E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.51	173.08	230.12	.62	5.00	173.06	230.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2377E+02 EXCESS= .0000E+00 OUTFLOW= .2377E+02 BASIN STORAGE= .5572E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.56	105.31	230.71	.38	5.00	105.08	230.00	.38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1456E+02 EXCESS= .0000E+00 OUTFLOW= .1456E+02 BASIN STORAGE= .5489E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.56	102.53	230.83	.37	5.00	102.31	235.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1419E+02 EXCESS= .0000E+00 OUTFLOW= .1419E+02 BASIN STORAGE= .5618E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

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          R19  MANE          .40     92.33    215.69      1.23      5.00     91.72    220.00        1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9971E+01 EXCESS= .0000E+00 OUTFLOW= .9971E+01 BASIN STORAGE= .3862E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .40     90.65    215.68      1.21      5.00     90.07    220.00        1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9781E+01 EXCESS= .0000E+00 OUTFLOW= .9781E+01 BASIN STORAGE= .3835E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .42     74.74    215.87       .99      5.00     74.49    220.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7992E+01 EXCESS= .0000E+00 OUTFLOW= .7992E+01 BASIN STORAGE= .3908E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .42     73.26    215.89       .97      5.00     73.04    220.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7829E+01 EXCESS= .0000E+00 OUTFLOW= .7829E+01 BASIN STORAGE= .3852E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .44     57.60    219.86       .75      5.00     57.58    220.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6097E+01 EXCESS= .0000E+00 OUTFLOW= .6097E+01 BASIN STORAGE= .3775E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .44     56.38    219.92       .74      5.00     56.36    220.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5961E+01 EXCESS= .0000E+00 OUTFLOW= .5961E+01 BASIN STORAGE= .3867E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .48     36.50    220.13       .47      5.00     36.50    220.00         .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3802E+01 EXCESS= .0000E+00 OUTFLOW= .3802E+01 BASIN STORAGE= .3813E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R19  MANE          .48     35.69    220.16       .46      5.00     35.68    220.00         .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3714E+01 EXCESS= .0000E+00 OUTFLOW= .3714E+01 BASIN STORAGE= .3772E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .46    384.83    220.73      1.11      5.00    382.69    220.00        1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5189E+02 EXCESS= .0000E+00 OUTFLOW= .5189E+02 BASIN STORAGE= .5719E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .47    377.17    220.65      1.09      5.00    375.01    220.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5085E+02 EXCESS= .0000E+00 OUTFLOW= .5085E+02 BASIN STORAGE= .5616E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .51    304.59    220.97       .88      5.00    302.63    220.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4104E+02 EXCESS= .0000E+00 OUTFLOW= .4104E+02 BASIN STORAGE= .5607E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .51    297.95    220.87       .86      5.00    295.91    220.00         .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4015E+02 EXCESS= .0000E+00 OUTFLOW= .4015E+02 BASIN STORAGE= .5590E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .57    227.51    220.84       .66      5.00    226.68    225.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3076E+02 EXCESS= .0000E+00 OUTFLOW= .3076E+02 BASIN STORAGE= .5812E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .58    221.97    220.70       .64      5.00    221.22    225.00         .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3003E+02 EXCESS= .0000E+00 OUTFLOW= .3003E+02 BASIN STORAGE= .5817E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .71    134.86    225.46       .40      5.00    134.80    225.00         .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1855E+02 EXCESS= .0000E+00 OUTFLOW= .1855E+02 BASIN STORAGE= .5556E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R20  MANE          .71    131.37    225.70       .39      5.00    131.30    225.00         .39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1809E+02 EXCESS= .0000E+00 OUTFLOW= .1809E+02 BASIN STORAGE= .5585E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R21  MANE          .58    394.71    220.59      1.12      5.00    392.18    220.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5340E+02 EXCESS= .0000E+00 OUTFLOW= .5340E+02 BASIN STORAGE= .7409E-03 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .00
R21 MANE .59 386.85 220.61 1.09 5.00 384.32 220.00 1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5233E+02 EXCESS= .0000E+00 OUTFLOW= .5233E+02 BASIN STORAGE= .7071E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .64 312.67 220.98 .88 5.00 310.18 220.00 .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4228E+02 EXCESS= .0000E+00 OUTFLOW= .4228E+02 BASIN STORAGE= .7157E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .65 305.80 221.02 .87 5.00 303.32 220.00 .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4137E+02 EXCESS= .0000E+00 OUTFLOW= .4137E+02 BASIN STORAGE= .7526E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .72 233.82 220.94 .66 5.00 232.43 225.00 .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3175E+02 EXCESS= .0000E+00 OUTFLOW= .3175E+02 BASIN STORAGE= .7590E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .73 228.22 220.91 .65 5.00 226.88 225.00 .65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3100E+02 EXCESS= .0000E+00 OUTFLOW= .3100E+02 BASIN STORAGE= .7451E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .89 138.67 225.21 .40 5.00 138.63 225.00 .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1921E+02 EXCESS= .0000E+00 OUTFLOW= .1921E+02 BASIN STORAGE= .7623E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .90 135.08 225.77 .39 5.00 135.03 225.00 .39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1874E+02 EXCESS= .0000E+00 OUTFLOW= .1874E+02 BASIN STORAGE= .7241E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.07 89.64 216.56 1.23 5.00 88.88 220.00 1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9652E+01 EXCESS= .0000E+00 OUTFLOW= .9652E+01 BASIN STORAGE= .2630E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.07 88.03 216.66 1.21 5.00 87.31 220.00 1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9468E+01 EXCESS= .0000E+00 OUTFLOW= .9468E+01 BASIN STORAGE= .2519E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.14 72.63 216.88 .99 5.00 72.11 220.00 .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7737E+01 EXCESS= .0000E+00 OUTFLOW= .7737E+01 BASIN STORAGE= .2542E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.14 71.23 217.01 .97 5.00 70.69 220.00 .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7579E+01 EXCESS= .0000E+00 OUTFLOW= .7579E+01 BASIN STORAGE= .2794E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.23 55.94 217.01 .75 5.00 55.70 220.00 .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5901E+01 EXCESS= .0000E+00 OUTFLOW= .5901E+01 BASIN STORAGE= .2641E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.23 54.77 217.15 .74 5.00 54.55 220.00 .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5771E+01 EXCESS= .0000E+00 OUTFLOW= .5771E+01 BASIN STORAGE= .2526E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.40 35.30 220.07 .47 5.00 35.29 220.00 .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3680E+01 EXCESS= .0000E+00 OUTFLOW= .3680E+01 BASIN STORAGE= .2555E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R24 MANE 1.41 34.51 220.13 .46 5.00 34.49 220.00 .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3596E+01 EXCESS= .0000E+00 OUTFLOW= .3596E+01 BASIN STORAGE= .2530E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R25 MANE 2.72 168.80 220.36 1.11 5.00 168.16 220.00 1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1815E+02 EXCESS= .0000E+00 OUTFLOW= .1815E+02 BASIN STORAGE= .1293E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R25 MANE 2.74 164.27 221.72 1.09 5.00 163.86 220.00 1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1778E+02 EXCESS= .0000E+00 OUTFLOW= .1778E+02 BASIN STORAGE= .1291E-02 PERCENT ERROR= .0

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 FOR PLAN = 1  RATIO=  .00
      R25  MANE          2.92    134.00    222.11       .88      5.00    133.35    220.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1438E+02 EXCESS= .0000E+00 OUTFLOW= .1438E+02 BASIN STORAGE= .1137E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R25  MANE          2.94    132.05    220.67       .86      5.00    130.93    220.00         .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1407E+02 EXCESS= .0000E+00 OUTFLOW= .1407E+02 BASIN STORAGE= .1130E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R25  MANE          3.19    101.55    220.39       .66      5.00    100.76    220.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1080E+02 EXCESS= .0000E+00 OUTFLOW= .1080E+02 BASIN STORAGE= .1159E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R25  MANE          3.22     99.75    222.01       .65      5.00     98.05    220.00         .65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1055E+02 EXCESS= .0000E+00 OUTFLOW= .1055E+02 BASIN STORAGE= .1153E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R25  MANE          3.74     61.19    220.88       .40      5.00     60.45    225.00         .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6547E+01 EXCESS= .0000E+00 OUTFLOW= .6548E+01 BASIN STORAGE= .1023E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R25  MANE          3.77     60.81    222.65       .39      5.00     58.73    220.00         .39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6388E+01 EXCESS= .0000E+00 OUTFLOW= .6390E+01 BASIN STORAGE= .1041E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          1.96    611.44    221.49      1.14      5.00    606.66    220.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7864E+02 EXCESS= .0000E+00 OUTFLOW= .7864E+02 BASIN STORAGE= .1185E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          1.97    598.18    223.02      1.12      5.00    593.26    220.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7707E+02 EXCESS= .0000E+00 OUTFLOW= .7707E+02 BASIN STORAGE= .1265E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.11    485.05    223.66       .90      5.00    481.55    220.00         .90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6245E+02 EXCESS= .0000E+00 OUTFLOW= .6245E+02 BASIN STORAGE= .1138E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.12    476.39    223.04       .88      5.00    470.46    220.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6112E+02 EXCESS= .0000E+00 OUTFLOW= .6112E+02 BASIN STORAGE= .1267E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.31    365.96    224.16       .68      5.00    361.83    220.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4709E+02 EXCESS= .0000E+00 OUTFLOW= .4709E+02 BASIN STORAGE= .1345E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.33    357.39    223.61       .67      5.00    352.47    225.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4599E+02 EXCESS= .0000E+00 OUTFLOW= .4599E+02 BASIN STORAGE= .1136E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.73    219.59    223.48       .42      5.00    219.06    225.00         .42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2874E+02 EXCESS= .0000E+00 OUTFLOW= .2874E+02 BASIN STORAGE= .1382E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R26  MANE          2.75    214.43    225.20       .41      5.00    214.43    225.00         .41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2805E+02 EXCESS= .0000E+00 OUTFLOW= .2805E+02 BASIN STORAGE= .1235E-02 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          1.96     64.45    213.89      1.27      5.00     62.96    215.00        1.27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5936E+01 EXCESS= .0000E+00 OUTFLOW= .5936E+01 BASIN STORAGE= .5311E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          1.97     63.06    213.04      1.25      5.00     62.25    215.00        1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5825E+01 EXCESS= .0000E+00 OUTFLOW= .5825E+01 BASIN STORAGE= .5190E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.08     52.36    212.56      1.02      5.00     51.86    215.00        1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4778E+01 EXCESS= .0000E+00 OUTFLOW= .4778E+01 BASIN STORAGE= .4950E-03 PERCENT ERROR=     .0
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 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.10      51.50     213.76       1.00       5.00      50.51     215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4683E+01 EXCESS= .0000E+00 OUTFLOW= .4683E+01 BASIN STORAGE= .4821E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.24      40.84     213.17        .79       5.00      40.36     215.00          .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3667E+01 EXCESS= .0000E+00 OUTFLOW= .3667E+01 BASIN STORAGE= .4758E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.26      40.13     214.49        .77       5.00      39.67     215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3590E+01 EXCESS= .0000E+00 OUTFLOW= .3590E+01 BASIN STORAGE= .4488E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.56      26.41     214.76        .50       5.00      26.28     215.00          .50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2316E+01 EXCESS= .0000E+00 OUTFLOW= .2316E+01 BASIN STORAGE= .4171E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R12  MANE          2.57      25.83     213.57        .49       5.00      25.46     215.00          .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2264E+01 EXCESS= .0000E+00 OUTFLOW= .2264E+01 BASIN STORAGE= .4132E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.42      14.42     211.89       1.23       5.00      13.59     210.00         1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1223E+01 EXCESS= .0000E+00 OUTFLOW= .1223E+01 BASIN STORAGE= .2201E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.43      14.19     211.58       1.21       5.00      13.37     210.00         1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1200E+01 EXCESS= .0000E+00 OUTFLOW= .1200E+01 BASIN STORAGE= .1977E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.51      11.74     211.63        .99       5.00      11.02     210.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9806E+00 EXCESS= .0000E+00 OUTFLOW= .9806E+00 BASIN STORAGE= .2379E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.52      11.42     211.33        .97       5.00      10.80     210.00          .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9603E+00 EXCESS= .0000E+00 OUTFLOW= .9603E+00 BASIN STORAGE= .2156E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.63       9.07     211.92        .75       5.00       8.52     215.00          .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7478E+00 EXCESS= .0000E+00 OUTFLOW= .7478E+00 BASIN STORAGE= .2336E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.64       8.88     211.62        .74       5.00       8.31     215.00          .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7313E+00 EXCESS= .0000E+00 OUTFLOW= .7313E+00 BASIN STORAGE= .2104E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.86       5.75     212.42        .47       5.00       5.52     215.00          .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4660E+00 EXCESS= .0000E+00 OUTFLOW= .4660E+00 BASIN STORAGE= .2180E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .00
      R11  MANE          1.88       5.65     211.96        .46       5.00       5.37     215.00          .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4556E+00 EXCESS= .0000E+00 OUTFLOW= .4556E+00 BASIN STORAGE= .1982E-03 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .73
      RDB2  MANE          2.18    1193.85     463.49        .90       5.00    1193.85     465.00          .90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1585E+04 EXCESS= .0000E+00 OUTFLOW= .1580E+04 BASIN STORAGE= .5599E+01 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .72
      RDB2  MANE          2.15    1181.51     465.07        .88       5.00    1181.51     465.00          .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1557E+04 EXCESS= .0000E+00 OUTFLOW= .1552E+04 BASIN STORAGE= .5160E+01 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .64
      RDB2  MANE          2.35    1066.85     461.40        .71       5.00    1066.83     460.00          .71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1244E+04 EXCESS= .0000E+00 OUTFLOW= .1242E+04 BASIN STORAGE= .2793E+01 PERCENT ERROR=     .0

 FOR PLAN = 1  RATIO=  .63
      RDB2  MANE          2.38    1054.98     459.72        .69       5.00    1054.97     460.00          .69
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .1214E+04 EXCESS= .0000E+00 OUTFLOW= .1210E+04 BASIN STORAGE= .2690E+01 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
              RDB2  MANE          2.48    920.40    458.55       .50      5.00    920.36    460.00         .50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8866E+03 EXCESS= .0000E+00 OUTFLOW= .8842E+03 BASIN STORAGE= .2362E+01 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
              RDB2  MANE          2.39    907.41    458.68       .49      5.00    907.37    460.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8613E+03 EXCESS= .0000E+00 OUTFLOW= .8589E+03 BASIN STORAGE= .2360E+01 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
              RDB2  MANE          2.63    692.99    451.25       .27      5.00    692.94    455.00         .26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4681E+03 EXCESS= .0000E+00 OUTFLOW= .4661E+03 BASIN STORAGE= .2302E+01 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
              RDB2  MANE          2.77    684.36    451.20       .26      5.00    684.31    450.00         .26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4527E+03 EXCESS= .0000E+00 OUTFLOW= .4504E+03 BASIN STORAGE= .2300E+01 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                U1  MANE          1.01     38.24    211.29      1.65      5.00     36.39    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2731E+01 OUTFLOW= .2733E+01 BASIN STORAGE= .1645E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                U1  MANE          1.26     22.76    212.99      1.00      5.00     20.73    210.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1654E+01 OUTFLOW= .1654E+01 BASIN STORAGE= .1474E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                U1  MANE          1.18     22.18    212.65       .98      5.00     20.12    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1619E+01 OUTFLOW= .1620E+01 BASIN STORAGE= .1489E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                U1  MANE          1.31     17.53    213.15       .79      5.00     16.36    215.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1299E+01 OUTFLOW= .1300E+01 BASIN STORAGE= .1598E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                U1  MANE          1.32     17.13    212.98       .77      5.00     16.04    215.00         .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1270E+01 OUTFLOW= .1270E+01 BASIN STORAGE= .1553E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
                U1  MANE          1.49     12.60    214.33       .58      5.00     12.31    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9647E+00 OUTFLOW= .9644E+00 BASIN STORAGE= .1580E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                U1  MANE          1.45     12.28    213.83       .57      5.00     12.04    215.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9410E+00 OUTFLOW= .9407E+00 BASIN STORAGE= .1616E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                U1  MANE          1.88      6.88    215.67       .34      5.00      6.75    215.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5699E+00 OUTFLOW= .5684E+00 BASIN STORAGE= .1461E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .41
                U1  MANE          2.00      6.58    216.69       .33      5.00      6.44    215.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5552E+00 OUTFLOW= .5538E+00 BASIN STORAGE= .1459E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
                 R  MANE          1.01     20.63    212.90      1.00      5.00     20.42    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1655E+01 EXCESS= .0000E+00 OUTFLOW= .1657E+01 BASIN STORAGE= .1060E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .72
                 R  MANE          1.03     20.06    212.95       .98      5.00     19.94    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1620E+01 EXCESS= .0000E+00 OUTFLOW= .1622E+01 BASIN STORAGE= .9810E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                 R  MANE          1.16     16.10    216.86       .79      5.00     15.96    215.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1299E+01 EXCESS= .0000E+00 OUTFLOW= .1300E+01 BASIN STORAGE= .1017E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                 R  MANE          1.07     15.91    216.78       .77      5.00     15.61    215.00         .77
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .1270E+01 EXCESS= .0000E+00 OUTFLOW= .1272E+01 BASIN STORAGE= .1064E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	1.30	12.00	216.77	.58	5.00	11.48	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9641E+00 EXCESS= .0000E+00 OUTFLOW= .9651E+00 BASIN STORAGE= .9971E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.25	11.92	217.48	.57	5.00	11.15	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9405E+00 EXCESS= .0000E+00 OUTFLOW= .9418E+00 BASIN STORAGE= .1038E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	1.48	6.66	218.47	.34	5.00	6.42	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5678E+00 EXCESS= .0000E+00 OUTFLOW= .5675E+00 BASIN STORAGE= .9792E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	1.62	6.39	218.17	.33	5.00	6.19	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5531E+00 EXCESS= .0000E+00 OUTFLOW= .5530E+00 BASIN STORAGE= .9860E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.64	24.24	215.57	.96	5.00	24.21	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2056E+01 EXCESS= .0000E+00 OUTFLOW= .2057E+01 BASIN STORAGE= .7250E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.68	23.65	215.47	.94	5.00	23.62	215.00	.94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2012E+01 EXCESS= .0000E+00 OUTFLOW= .2013E+01 BASIN STORAGE= .7188E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	.59	18.95	216.01	.75	5.00	18.68	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1607E+01 EXCESS= .0000E+00 OUTFLOW= .1608E+01 BASIN STORAGE= .7301E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	.59	18.50	215.93	.74	5.00	18.22	215.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1570E+01 EXCESS= .0000E+00 OUTFLOW= .1571E+01 BASIN STORAGE= .7376E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

R	MANE	.70	13.61	216.56	.56	5.00	13.22	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1185E+01 EXCESS= .0000E+00 OUTFLOW= .1186E+01 BASIN STORAGE= .7270E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	.81	13.20	216.53	.54	5.00	12.82	215.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1155E+01 EXCESS= .0000E+00 OUTFLOW= .1156E+01 BASIN STORAGE= .7413E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	.95	6.99	221.95	.32	5.00	6.89	220.00	.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6880E+00 EXCESS= .0000E+00 OUTFLOW= .6882E+00 BASIN STORAGE= .7230E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.92	6.76	221.74	.31	5.00	6.64	220.00	.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6705E+00 EXCESS= .0000E+00 OUTFLOW= .6706E+00 BASIN STORAGE= .7412E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

W2	MANE	.72	16.39	211.20	1.65	5.00	15.90	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1145E+01 OUTFLOW= .1146E+01 BASIN STORAGE= .4773E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

W2	MANE	.80	9.86	211.72	1.00	5.00	9.25	210.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6935E+00 OUTFLOW= .6941E+00 BASIN STORAGE= .4925E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

W2	MANE	.84	9.59	211.77	.98	5.00	8.99	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6791E+00 OUTFLOW= .6796E+00 BASIN STORAGE= .5133E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

W2	MANE	.91	7.59	212.07	.79	5.00	6.96	210.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5448E+00 OUTFLOW= .5452E+00 BASIN STORAGE= .5077E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

W2	MANE	.98	7.41	212.80	.77	5.00	6.79	210.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5326E+00 OUTFLOW= .5329E+00 BASIN STORAGE= .4981E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

W2	MANE	1.06	5.48	212.84	.58	5.00	5.12	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4045E+00 OUTFLOW= .4046E+00 BASIN STORAGE= .4793E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

W2	MANE	.97	5.34	212.57	.57	5.00	5.02	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3946E+00 OUTFLOW= .3946E+00 BASIN STORAGE= .5059E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

W2	MANE	1.22	3.00	214.83	.34	5.00	2.99	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2390E+00 OUTFLOW= .2386E+00 BASIN STORAGE= .4758E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .41

W2	MANE	1.30	2.88	214.62	.34	5.00	2.86	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2328E+00 OUTFLOW= .2325E+00 BASIN STORAGE= .5016E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

W1	MANE	.76	40.21	211.91	1.65	5.00	38.47	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2907E+01 OUTFLOW= .2910E+01 BASIN STORAGE= .1658E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

W1	MANE	.99	23.99	212.19	1.00	5.00	21.72	210.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1760E+01 OUTFLOW= .1761E+01 BASIN STORAGE= .1797E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

W1	MANE	.92	23.36	212.94	.98	5.00	21.21	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1724E+01 OUTFLOW= .1725E+01 BASIN STORAGE= .1794E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

W1	MANE	.99	18.50	213.21	.79	5.00	17.47	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1383E+01 OUTFLOW= .1383E+01 BASIN STORAGE= .1769E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

W1	MANE	.98	18.04	213.12	.77	5.00	17.10	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1352E+01 OUTFLOW= .1352E+01 BASIN STORAGE= .1707E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

W1	MANE	1.11	13.26	213.88	.58	5.00	13.05	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1027E+01 OUTFLOW= .1026E+01 BASIN STORAGE= .1751E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

W1	MANE	1.17	12.90	213.95	.57	5.00	12.73	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1002E+01 OUTFLOW= .1001E+01 BASIN STORAGE= .1653E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

W1	MANE	1.47	7.10	215.58	.34	5.00	7.00	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6066E+00 OUTFLOW= .6051E+00 BASIN STORAGE= .1679E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

W1	MANE	1.41	6.88	216.52	.34	5.00	6.76	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5910E+00 OUTFLOW= .5896E+00 BASIN STORAGE= .1676E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

R	MANE	.89	53.57	215.80	.98	5.00	53.57	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4514E+01 EXCESS= .0000E+00 OUTFLOW= .4517E+01 BASIN STORAGE= .2388E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.84	52.36	215.23	.96	5.00	52.33	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4419E+01 EXCESS= .0000E+00 OUTFLOW= .4422E+01 BASIN STORAGE= .2315E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	.91	42.27	216.03	.77	5.00	41.68	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3538E+01 EXCESS= .0000E+00 OUTFLOW= .3541E+01 BASIN STORAGE= .2364E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

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                R  MANE          .92     41.30    216.13       .75      5.00     40.68    215.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3457E+01 EXCESS= .0000E+00 OUTFLOW= .3461E+01 BASIN STORAGE= .2312E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          .97     30.90    216.47       .57      5.00     29.59    215.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2618E+01 EXCESS= .0000E+00 OUTFLOW= .2620E+01 BASIN STORAGE= .2381E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE         1.05     29.94    216.45       .56      5.00     28.70    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2554E+01 EXCESS= .0000E+00 OUTFLOW= .2555E+01 BASIN STORAGE= .2278E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.22     15.86    217.90       .33      5.00     15.72    220.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1532E+01 EXCESS= .0000E+00 OUTFLOW= .1532E+01 BASIN STORAGE= .2259E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.22     15.25    217.46       .33      5.00     15.17    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1492E+01 EXCESS= .0000E+00 OUTFLOW= .1492E+01 BASIN STORAGE= .2322E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               V2  MANE         1.46     41.42    212.02      1.84      5.00     38.42    210.00        1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3143E+01 OUTFLOW= .3143E+01 BASIN STORAGE= .2075E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               V2  MANE         1.74     25.31    212.16      1.16      5.00     23.78    215.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1973E+01 OUTFLOW= .1973E+01 BASIN STORAGE= .2296E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               V2  MANE         1.71     24.99    213.13      1.13      5.00     23.48    215.00        1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1935E+01 OUTFLOW= .1934E+01 BASIN STORAGE= .2445E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               V2  MANE         1.91     20.18    212.78       .93      5.00     19.56    215.00         .93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1580E+01 OUTFLOW= .1579E+01 BASIN STORAGE= .2116E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               V2  MANE         1.89     19.70    213.74       .91      5.00     18.99    215.00         .91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1548E+01 OUTFLOW= .1547E+01 BASIN STORAGE= .2431E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               V2  MANE         2.07     14.90    214.49       .71      5.00     14.71    215.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1204E+01 OUTFLOW= .1203E+01 BASIN STORAGE= .2288E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
               V2  MANE         2.21     14.41    213.32       .69      5.00     14.38    215.00         .69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1178E+01 OUTFLOW= .1176E+01 BASIN STORAGE= .2382E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               V2  MANE         2.59      8.64    216.10       .44      5.00      8.39    215.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7498E+00 OUTFLOW= .7483E+00 BASIN STORAGE= .2068E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .41
               V2  MANE         2.72      8.35    217.41       .43      5.00      8.20    215.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7326E+00 OUTFLOW= .7311E+00 BASIN STORAGE= .2136E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.66     83.81    217.61      1.01      5.00     81.14    215.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7148E+01 EXCESS= .0000E+00 OUTFLOW= .7159E+01 BASIN STORAGE= .1884E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .72
                R  MANE         1.68     81.76    217.37       .99      5.00     79.19    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7000E+01 EXCESS= .0000E+00 OUTFLOW= .7010E+01 BASIN STORAGE= .1851E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE         1.85     65.33    217.76       .79      5.00     62.58    220.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5622E+01 EXCESS= .0000E+00 OUTFLOW= .5625E+01 BASIN STORAGE= .1845E-03 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .63
                R  MANE          1.81     64.56    218.77       .78      5.00     61.17    220.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5498E+01 EXCESS= .0000E+00 OUTFLOW= .5506E+01 BASIN STORAGE= .1814E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          2.05     47.99    219.03       .59      5.00     46.67    220.00          .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4182E+01 EXCESS= .0000E+00 OUTFLOW= .4185E+01 BASIN STORAGE= .1809E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          2.00     45.69    218.17       .58      5.00     45.40    220.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4080E+01 EXCESS= .0000E+00 OUTFLOW= .4085E+01 BASIN STORAGE= .1850E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          2.42     24.63    224.88       .35      5.00     24.54    225.00          .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2474E+01 EXCESS= .0000E+00 OUTFLOW= .2475E+01 BASIN STORAGE= .1790E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          2.39     23.84    223.78       .34      5.00     23.46    225.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2413E+01 EXCESS= .0000E+00 OUTFLOW= .2412E+01 BASIN STORAGE= .1812E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               V1  MANE          1.29     65.82    212.11      1.83      5.00     60.57    210.00         1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5082E+01 OUTFLOW= .5081E+01 BASIN STORAGE= .4694E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               V1  MANE          1.55     40.63    213.30      1.15      5.00     39.15    215.00         1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3188E+01 OUTFLOW= .3188E+01 BASIN STORAGE= .3938E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               V1  MANE          1.66     39.70    212.74      1.13      5.00     38.42    215.00         1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3127E+01 OUTFLOW= .3127E+01 BASIN STORAGE= .4549E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               V1  MANE          1.73     31.78    213.39       .92      5.00     31.48    215.00          .92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2553E+01 OUTFLOW= .2552E+01 BASIN STORAGE= .4240E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               V1  MANE          1.73     31.41    214.47       .90      5.00     30.92    215.00          .90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2501E+01 OUTFLOW= .2500E+01 BASIN STORAGE= .4782E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               V1  MANE          2.02     23.62    214.31       .70      5.00     23.51    215.00          .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1946E+01 OUTFLOW= .1944E+01 BASIN STORAGE= .4209E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
               V1  MANE          1.94     23.14    215.27       .68      5.00     23.04    215.00          .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1902E+01 OUTFLOW= .1899E+01 BASIN STORAGE= .4077E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               V1  MANE          2.35     13.62    217.97       .44      5.00     13.04    215.00          .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1210E+01 OUTFLOW= .1207E+01 BASIN STORAGE= .4363E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .41
               V1  MANE          2.43     13.19    218.33       .43      5.00     12.58    220.00          .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1182E+01 OUTFLOW= .1180E+01 BASIN STORAGE= .4687E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
               P1  MANE          1.36    111.68    212.62      1.65      5.00    103.78    210.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8282E+01 OUTFLOW= .8286E+01 BASIN STORAGE= .6239E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               P1  MANE          1.64     66.15    212.76      1.00      5.00     62.98    215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5014E+01 OUTFLOW= .5014E+01 BASIN STORAGE= .6507E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               P1  MANE          1.69     63.89    214.03       .98      5.00     61.41    215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4910E+01 OUTFLOW= .4909E+01 BASIN STORAGE= .5947E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .64
               P1  MANE          1.91      50.68     214.22        .79       5.00      49.53     215.00          .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3939E+01 OUTFLOW= .3938E+01 BASIN STORAGE= .6235E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .63
               P1  MANE          1.89      49.00     213.19        .77       5.00      48.79     215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3851E+01 OUTFLOW= .3848E+01 BASIN STORAGE= .6073E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .54
               P1  MANE          2.13      35.90     214.43        .58       5.00      35.69     215.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2925E+01 OUTFLOW= .2922E+01 BASIN STORAGE= .6149E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .53
               P1  MANE          2.08      35.27     215.51        .57       5.00      34.99     215.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2853E+01 OUTFLOW= .2850E+01 BASIN STORAGE= .6183E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .42
               P1  MANE          2.71      19.07     218.72        .34       5.00      18.38     220.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1728E+01 OUTFLOW= .1721E+01 BASIN STORAGE= .6568E-03 PERCENT ERROR=     .4

          FOR PLAN = 1  RATIO=  .41
               P1  MANE          2.72      18.17     216.94        .33       5.00      17.83     220.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1684E+01 OUTFLOW= .1677E+01 BASIN STORAGE= .5810E-03 PERCENT ERROR=     .4

          FOR PLAN = 1  RATIO=  .73
               T2  MANE          2.27      22.88     211.66       1.65       5.00      21.57     215.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1850E+01 OUTFLOW= .1849E+01 BASIN STORAGE= .2551E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .73
               T2  MANE          2.80      13.34     214.97       1.00       5.00      13.33     215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1120E+01 OUTFLOW= .1119E+01 BASIN STORAGE= .2654E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .72
               T2  MANE          2.96      12.94     213.22        .98       5.00      12.76     215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1097E+01 OUTFLOW= .1095E+01 BASIN STORAGE= .2253E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .64
               T2  MANE          3.20       9.89     216.98        .78       5.00       9.88     215.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8801E+00 OUTFLOW= .8778E+00 BASIN STORAGE= .2084E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .63
               T2  MANE          3.18       9.90     215.11        .77       5.00       9.87     215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8604E+00 OUTFLOW= .8582E+00 BASIN STORAGE= .2345E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .54
               T2  MANE          3.67       7.09     216.13        .58       5.00       6.83     215.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6535E+00 OUTFLOW= .6517E+00 BASIN STORAGE= .2585E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .53
               T2  MANE          3.73       6.89     217.19        .57       5.00       6.57     215.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6375E+00 OUTFLOW= .6349E+00 BASIN STORAGE= .2506E-03 PERCENT ERROR=     .4

          FOR PLAN = 1  RATIO=  .42
               T2  MANE          4.93       3.52     222.55        .34       5.00       3.34     225.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3860E+00 OUTFLOW= .3835E+00 BASIN STORAGE= .2524E-03 PERCENT ERROR=     .6

          FOR PLAN = 1  RATIO=  .41
               T2  MANE          4.99       3.36     223.58        .33       5.00       3.25     225.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3761E+00 OUTFLOW= .3738E+00 BASIN STORAGE= .2063E-03 PERCENT ERROR=     .6

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.18      93.19     217.28        .96       5.00      91.46     215.00          .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7684E+01 EXCESS= .0000E+00 OUTFLOW= .7693E+01 BASIN STORAGE= .1163E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          1.15      91.07     217.24        .94       5.00      88.83     215.00          .94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7516E+01 EXCESS= .0000E+00 OUTFLOW= .7526E+01 BASIN STORAGE= .1162E-03 PERCENT ERROR=    -.1
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          FOR PLAN = 1  RATIO=  .64
               R  MANE          1.18     72.77    217.05       .75      5.00     69.27    215.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6003E+01 EXCESS= .0000E+00 OUTFLOW= .6011E+01 BASIN STORAGE= .1188E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
               R  MANE          1.20     71.10    216.81       .73      5.00     67.77    215.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5863E+01 EXCESS= .0000E+00 OUTFLOW= .5870E+01 BASIN STORAGE= .1200E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
               R  MANE          1.33     51.90    217.27       .55      5.00     47.98    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4427E+01 EXCESS= .0000E+00 OUTFLOW= .4433E+01 BASIN STORAGE= .1205E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
               R  MANE          1.36     50.12    217.02       .54      5.00     46.58    220.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4311E+01 EXCESS= .0000E+00 OUTFLOW= .4316E+01 BASIN STORAGE= .1201E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
               R  MANE          1.69     25.57    219.56       .32      5.00     25.52    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2573E+01 EXCESS= .0000E+00 OUTFLOW= .2574E+01 BASIN STORAGE= .1160E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               R  MANE          1.74     24.49    219.22       .31      5.00     24.46    220.00         .31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2506E+01 EXCESS= .0000E+00 OUTFLOW= .2505E+01 BASIN STORAGE= .1174E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.47     33.82    212.29      1.59      5.00     32.03    210.00        1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3142E+01 EXCESS= .0000E+00 OUTFLOW= .3142E+01 BASIN STORAGE= .1825E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.48     33.44    211.61      1.56      5.00     31.62    210.00        1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3091E+01 EXCESS= .0000E+00 OUTFLOW= .3091E+01 BASIN STORAGE= .1806E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.54     28.42    212.46      1.32      5.00     26.88    215.00        1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2603E+01 EXCESS= .0000E+00 OUTFLOW= .2603E+01 BASIN STORAGE= .1930E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.55     28.06    211.77      1.30      5.00     26.44    210.00        1.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2560E+01 EXCESS= .0000E+00 OUTFLOW= .2560E+01 BASIN STORAGE= .1904E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.62     23.04    212.57      1.05      5.00     21.87    215.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2075E+01 EXCESS= .0000E+00 OUTFLOW= .2076E+01 BASIN STORAGE= .2129E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.63     22.71    211.86      1.03      5.00     21.40    215.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2038E+01 EXCESS= .0000E+00 OUTFLOW= .2038E+01 BASIN STORAGE= .2091E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.78     16.06    213.11       .71      5.00     15.35    215.00         .71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1411E+01 EXCESS= .0000E+00 OUTFLOW= .1411E+01 BASIN STORAGE= .1830E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.78     15.81    212.26       .70      5.00     15.13    215.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1385E+01 EXCESS= .0000E+00 OUTFLOW= .1385E+01 BASIN STORAGE= .1829E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          1.97     66.89    216.83      1.23      5.00     64.32    215.00        1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6703E+01 EXCESS= .0000E+00 OUTFLOW= .6703E+01 BASIN STORAGE= .4931E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          1.98     65.25    218.00      1.21      5.00     62.87    215.00        1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6575E+01 EXCESS= .0000E+00 OUTFLOW= .6575E+01 BASIN STORAGE= .4772E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          2.10     53.92    218.05       .99      5.00     51.82    220.00         .99
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .5373E+01 EXCESS= .0000E+00 OUTFLOW= .5373E+01 BASIN STORAGE= .4817E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.11	53.29	217.20	.97	5.00	50.92	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5263E+01 EXCESS= .0000E+00 OUTFLOW= .5263E+01 BASIN STORAGE= .4525E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.26	41.94	217.22	.75	5.00	40.46	220.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4100E+01 EXCESS= .0000E+00 OUTFLOW= .4100E+01 BASIN STORAGE= .4704E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.28	40.60	218.61	.74	5.00	39.33	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4005E+01 EXCESS= .0000E+00 OUTFLOW= .4006E+01 BASIN STORAGE= .4389E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.59	26.52	217.59	.47	5.00	26.05	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2558E+01 EXCESS= .0000E+00 OUTFLOW= .2558E+01 BASIN STORAGE= .4582E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.61	25.67	219.06	.46	5.00	25.15	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2497E+01 EXCESS= .0000E+00 OUTFLOW= .2497E+01 BASIN STORAGE= .4471E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R10	MANE	4.95	11.72	217.71	1.23	5.00	11.40	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1049E+01 EXCESS= .0000E+00 OUTFLOW= .1049E+01 BASIN STORAGE= .8329E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	4.97	11.58	213.89	1.21	5.00	11.50	215.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1029E+01 EXCESS= .0000E+00 OUTFLOW= .1029E+01 BASIN STORAGE= .6804E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	10.03	215.00	.99	5.00	10.03	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8406E+00 EXCESS= .0000E+00 OUTFLOW= .8408E+00 BASIN STORAGE= .8102E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	9.83	215.00	.97	5.00	9.83	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8234E+00 EXCESS= .0000E+00 OUTFLOW= .8236E+00 BASIN STORAGE= .8027E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	7.66	215.00	.75	5.00	7.66	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6412E+00 EXCESS= .0000E+00 OUTFLOW= .6414E+00 BASIN STORAGE= .7175E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	7.49	215.00	.74	5.00	7.49	215.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6270E+00 EXCESS= .0000E+00 OUTFLOW= .6272E+00 BASIN STORAGE= .7104E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	4.95	220.00	.47	5.00	4.95	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3998E+00 EXCESS= .0000E+00 OUTFLOW= .3999E+00 BASIN STORAGE= .9330E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .00

R10	MANE	5.00	4.85	220.00	.46	5.00	4.85	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3907E+00 EXCESS= .0000E+00 OUTFLOW= .3907E+00 BASIN STORAGE= .9241E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

R	MANE	1.23	229.58	222.13	1.12	5.00	228.96	220.00	1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2763E+02 EXCESS= .0000E+00 OUTFLOW= .2765E+02 BASIN STORAGE= .2936E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	1.24	225.35	222.36	1.10	5.00	224.73	220.00	1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2709E+02 EXCESS= .0000E+00 OUTFLOW= .2711E+02 BASIN STORAGE= .3761E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	1.18	184.49	221.93	.89	5.00	183.30	220.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2196E+02 EXCESS= .0000E+00 OUTFLOW= .2198E+02 BASIN STORAGE= .3454E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	1.20	180.72	221.78	.87	5.00	179.61	220.00	.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2149E+02 EXCESS= .0000E+00 OUTFLOW= .2151E+02 BASIN STORAGE= .4735E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

R	MANE	1.42	139.95	222.32	.67	5.00	138.48	220.00	.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1658E+02 EXCESS= .0000E+00 OUTFLOW= .1659E+02 BASIN STORAGE= .3272E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.26	136.82	222.74	.66	5.00	135.15	225.00	.66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1619E+02 EXCESS= .0000E+00 OUTFLOW= .1621E+02 BASIN STORAGE= .4343E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	1.50	85.80	222.98	.41	5.00	85.61	225.00	.41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1016E+02 EXCESS= .0000E+00 OUTFLOW= .1018E+02 BASIN STORAGE= .3905E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	1.48	83.46	223.85	.40	5.00	83.35	225.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9920E+01 EXCESS= .0000E+00 OUTFLOW= .9930E+01 BASIN STORAGE= .3753E-06 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

T1	MANE	1.35	45.21	212.63	1.65	5.00	42.51	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3348E+01 OUTFLOW= .3349E+01 BASIN STORAGE= .2422E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

T1	MANE	1.64	26.70	213.69	1.00	5.00	25.13	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2027E+01 OUTFLOW= .2028E+01 BASIN STORAGE= .2392E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

T1	MANE	1.70	26.16	213.18	.98	5.00	24.75	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1985E+01 OUTFLOW= .1984E+01 BASIN STORAGE= .2481E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

T1	MANE	1.93	20.40	212.83	.79	5.00	20.04	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1592E+01 OUTFLOW= .1592E+01 BASIN STORAGE= .2677E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

T1	MANE	1.85	20.03	213.89	.77	5.00	19.45	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1557E+01 OUTFLOW= .1556E+01 BASIN STORAGE= .2672E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

T1	MANE	2.17	14.66	214.73	.58	5.00	14.57	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1183E+01 OUTFLOW= .1181E+01 BASIN STORAGE= .2385E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

T1	MANE	2.27	14.20	215.94	.57	5.00	14.17	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1153E+01 OUTFLOW= .1152E+01 BASIN STORAGE= .2440E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

T1	MANE	2.80	7.72	218.51	.34	5.00	7.36	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6986E+00 OUTFLOW= .6959E+00 BASIN STORAGE= .2573E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

T1	MANE	2.81	7.41	216.67	.33	5.00	7.17	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6806E+00 OUTFLOW= .6778E+00 BASIN STORAGE= .2646E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .73

U2	MANE	1.50	27.65	212.11	1.65	5.00	25.89	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2026E+01 OUTFLOW= .2026E+01 BASIN STORAGE= .1415E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

U2	MANE	1.68	16.35	212.69	1.00	5.00	15.08	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1227E+01 OUTFLOW= .1227E+01 BASIN STORAGE= .1515E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

U2	MANE	1.72	15.92	213.50	.98	5.00	14.91	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1201E+01 OUTFLOW= .1201E+01 BASIN STORAGE= .1387E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

U2	MANE	1.88	12.40	212.84	.79	5.00	12.04	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9639E+00 OUTFLOW= .9635E+00 BASIN STORAGE= .1237E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

U2	MANE	1.96	12.15	214.04	.77	5.00	11.73	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9423E+00 OUTFLOW= .9418E+00 BASIN STORAGE= .1505E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

U2	MANE	2.20	8.90	214.67	.58	5.00	8.83	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7157E+00 OUTFLOW= .7149E+00 BASIN STORAGE= .1453E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

U2	MANE	2.31	8.61	213.57	.57	5.00	8.59	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6982E+00 OUTFLOW= .6974E+00 BASIN STORAGE= .1491E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

U2	MANE	2.85	4.69	218.14	.34	5.00	4.53	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4228E+00 OUTFLOW= .4212E+00 BASIN STORAGE= .1262E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

U2	MANE	2.86	4.50	216.28	.33	5.00	4.29	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+00 OUTFLOW= .4104E+00 BASIN STORAGE= .1410E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

R	MANE	.63	264.83	216.21	1.10	5.00	260.76	220.00	1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3165E+02 EXCESS= .0000E+00 OUTFLOW= .3166E+02 BASIN STORAGE= .5178E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.79	259.64	216.52	1.08	5.00	256.07	220.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3102E+02 EXCESS= .0000E+00 OUTFLOW= .3103E+02 BASIN STORAGE= .5194E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.75	209.98	216.68	.87	5.00	209.43	220.00	.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2510E+02 EXCESS= .0000E+00 OUTFLOW= .2511E+02 BASIN STORAGE= .5298E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R	MANE	.80	205.25	217.03	.85	5.00	205.11	220.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2457E+02 EXCESS= .0000E+00 OUTFLOW= .2457E+02 BASIN STORAGE= .5294E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R	MANE	.86	158.99	221.29	.66	5.00	158.38	220.00	.66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1890E+02 EXCESS= .0000E+00 OUTFLOW= .1891E+02 BASIN STORAGE= .5299E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.90	155.25	221.33	.64	5.00	154.56	220.00	.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1845E+02 EXCESS= .0000E+00 OUTFLOW= .1845E+02 BASIN STORAGE= .5136E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	.97	96.41	222.81	.40	5.00	96.19	225.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1151E+02 EXCESS= .0000E+00 OUTFLOW= .1152E+02 BASIN STORAGE= .5317E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.88	93.96	221.99	.39	5.00	93.68	225.00	.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1123E+02 EXCESS= .0000E+00 OUTFLOW= .1124E+02 BASIN STORAGE= .5300E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.69	346.91	216.70	1.07	5.00	340.51	220.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3936E+02 EXCESS= .0000E+00 OUTFLOW= .3938E+02 BASIN STORAGE= .1509E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.74	338.91	216.95	1.05	5.00	333.81	220.00	1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3856E+02 EXCESS= .0000E+00 OUTFLOW= .3857E+02 BASIN STORAGE= .1502E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.74	271.92	220.93	.85	5.00	271.68	220.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3113E+02 EXCESS= .0000E+00 OUTFLOW= .3114E+02 BASIN STORAGE= .1466E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

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                R  MANE          .80    266.48    220.62       .83      5.00    266.17    220.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3045E+02 EXCESS= .0000E+00 OUTFLOW= .3046E+02 BASIN STORAGE= .1505E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
                R  MANE          .86    205.15    221.40       .64      5.00    202.78    220.00         .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2334E+02 EXCESS= .0000E+00 OUTFLOW= .2335E+02 BASIN STORAGE= .1493E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .80    200.60    221.75       .62      5.00    197.67    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2277E+02 EXCESS= .0000E+00 OUTFLOW= .2278E+02 BASIN STORAGE= .1495E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE          .90    119.70    226.14       .38      5.00    119.66    225.00         .38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1409E+02 EXCESS= .0000E+00 OUTFLOW= .1410E+02 BASIN STORAGE= .1460E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.06    116.32    225.38       .37      5.00    116.27    225.00         .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1374E+02 EXCESS= .0000E+00 OUTFLOW= .1375E+02 BASIN STORAGE= .1482E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               Q1  MANE         1.14     27.64    212.07      1.64      5.00     26.15    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2005E+01 OUTFLOW= .2006E+01 BASIN STORAGE= .1267E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               Q1  MANE         1.47     16.33    212.01       .99      5.00     15.02    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1213E+01 OUTFLOW= .1213E+01 BASIN STORAGE= .1199E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               Q1  MANE         1.39     16.10    212.84       .97      5.00     14.63    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1187E+01 OUTFLOW= .1188E+01 BASIN STORAGE= .1257E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               Q1  MANE         1.62     12.71    213.18       .78      5.00     12.11    215.00         .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9521E+00 OUTFLOW= .9519E+00 BASIN STORAGE= .1157E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               Q1  MANE         1.59     12.32    212.57       .76      5.00     11.77    215.00         .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9307E+00 OUTFLOW= .9305E+00 BASIN STORAGE= .1202E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               Q1  MANE         1.81      8.98    213.37       .58      5.00      8.93    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7064E+00 OUTFLOW= .7058E+00 BASIN STORAGE= .1219E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
               Q1  MANE         1.79      8.81    214.23       .56      5.00      8.66    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6890E+00 OUTFLOW= .6885E+00 BASIN STORAGE= .1139E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               Q1  MANE         2.35      4.80    216.21       .34      5.00      4.60    215.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4165E+00 OUTFLOW= .4154E+00 BASIN STORAGE= .1264E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .41
               Q1  MANE         2.34      4.65    217.03       .33      5.00      4.46    215.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4058E+00 OUTFLOW= .4045E+00 BASIN STORAGE= .1173E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .73
               S1  MANE         1.10     56.75    211.79      1.64      5.00     53.08    210.00        1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+01 OUTFLOW= .4121E+01 BASIN STORAGE= .2613E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               S1  MANE         1.29     33.67    212.72       .99      5.00     31.29    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2493E+01 OUTFLOW= .2493E+01 BASIN STORAGE= .2688E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               S1  MANE         1.26     32.65    213.56       .97      5.00     30.66    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2441E+01 OUTFLOW= .2441E+01 BASIN STORAGE= .3012E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .64
               S1  MANE          1.37     25.73    213.61       .78       5.00      24.99     215.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1958E+01 OUTFLOW= .1957E+01 BASIN STORAGE= .2839E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               S1  MANE          1.40     25.06    213.38       .76       5.00      24.42     215.00          .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1914E+01 OUTFLOW= .1913E+01 BASIN STORAGE= .2900E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               S1  MANE          1.59     18.46    214.46       .58       5.00      18.29     215.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1453E+01 OUTFLOW= .1452E+01 BASIN STORAGE= .2823E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
               S1  MANE          1.56     17.86    213.92       .56       5.00      17.80     215.00          .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1417E+01 OUTFLOW= .1416E+01 BASIN STORAGE= .2877E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               S1  MANE          2.02      9.77    216.44       .34       5.00       9.33     215.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8576E+00 OUTFLOW= .8550E+00 BASIN STORAGE= .2961E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .41
               S1  MANE          1.95      9.48    217.51       .33       5.00       8.93     215.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8355E+00 OUTFLOW= .8326E+00 BASIN STORAGE= .2644E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.27    391.22    218.27      1.06       5.00     385.43     220.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4454E+02 EXCESS= .0000E+00 OUTFLOW= .4458E+02 BASIN STORAGE= .3605E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          1.27    381.76    218.53      1.03       5.00     377.41     220.00         1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4363E+02 EXCESS= .0000E+00 OUTFLOW= .4366E+02 BASIN STORAGE= .3668E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          1.45    304.54    218.39       .83       5.00     303.95     220.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3516E+02 EXCESS= .0000E+00 OUTFLOW= .3519E+02 BASIN STORAGE= .3602E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          1.42    297.28    219.07       .81       5.00     297.21     220.00          .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3439E+02 EXCESS= .0000E+00 OUTFLOW= .3442E+02 BASIN STORAGE= .3589E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          1.46    227.50    223.04       .62       5.00     222.39     220.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2631E+02 EXCESS= .0000E+00 OUTFLOW= .2633E+02 BASIN STORAGE= .3651E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          1.48    221.59    222.68       .61       5.00     216.87     225.00          .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2566E+02 EXCESS= .0000E+00 OUTFLOW= .2569E+02 BASIN STORAGE= .3604E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          1.73    131.52    227.26       .37       5.00     130.45     225.00          .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1581E+02 EXCESS= .0000E+00 OUTFLOW= .1582E+02 BASIN STORAGE= .3530E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          1.70    128.30    228.16       .36       5.00     126.57     230.00          .36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1541E+02 EXCESS= .0000E+00 OUTFLOW= .1542E+02 BASIN STORAGE= .3680E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               S2  MANE          1.29     25.87    212.67      1.64       5.00      24.29     210.00         1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1918E+01 OUTFLOW= .1919E+01 BASIN STORAGE= .1548E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               S2  MANE          1.53     15.38    213.02       .99       5.00      14.52     215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1160E+01 OUTFLOW= .1160E+01 BASIN STORAGE= .1328E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               S2  MANE          1.52     14.91    212.43       .97       5.00      14.23     215.00          .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1136E+01 OUTFLOW= .1136E+01 BASIN STORAGE= .1332E-03 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .64

S2	MANE	1.79	11.84	213.43	.78	5.00	11.58	215.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9107E+00 OUTFLOW= .9103E+00 BASIN STORAGE= .1496E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

S2	MANE	1.71	11.50	214.30	.76	5.00	11.24	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8903E+00 OUTFLOW= .8898E+00 BASIN STORAGE= .1517E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

S2	MANE	1.94	8.38	214.43	.58	5.00	8.33	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6757E+00 OUTFLOW= .6750E+00 BASIN STORAGE= .1583E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

S2	MANE	2.06	8.16	215.62	.56	5.00	8.11	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6590E+00 OUTFLOW= .6582E+00 BASIN STORAGE= .1567E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

S2	MANE	2.60	4.43	217.44	.34	5.00	4.26	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3984E+00 OUTFLOW= .3971E+00 BASIN STORAGE= .1398E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

S2	MANE	2.60	4.29	218.27	.33	5.00	4.12	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3882E+00 OUTFLOW= .3867E+00 BASIN STORAGE= .1438E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

R	MANE	1.06	15.26	212.75	.82	5.00	14.50	215.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1216E+01 EXCESS= .0000E+00 OUTFLOW= .1220E+01 BASIN STORAGE= .1129E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .72

R	MANE	1.10	14.86	211.87	.80	5.00	14.19	215.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1188E+01 EXCESS= .0000E+00 OUTFLOW= .1192E+01 BASIN STORAGE= .9416E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .64

R	MANE	1.31	11.67	213.46	.62	5.00	11.29	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9302E+00 EXCESS= .0000E+00 OUTFLOW= .9330E+00 BASIN STORAGE= .8400E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .63

R	MANE	1.18	11.44	213.23	.61	5.00	11.02	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9071E+00 EXCESS= .0000E+00 OUTFLOW= .9102E+00 BASIN STORAGE= .8277E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .54

R	MANE	1.38	8.54	212.67	.45	5.00	8.22	215.00	.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6664E+00 EXCESS= .0000E+00 OUTFLOW= .6696E+00 BASIN STORAGE= .1009E-04 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .53

R	MANE	1.45	8.17	212.53	.44	5.00	8.01	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6480E+00 EXCESS= .0000E+00 OUTFLOW= .6506E+00 BASIN STORAGE= .8211E-05 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .42

R	MANE	1.83	4.54	214.92	.25	5.00	4.54	215.00	.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3653E+00 EXCESS= .0000E+00 OUTFLOW= .3668E+00 BASIN STORAGE= .9668E-05 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .41

R	MANE	1.79	4.45	214.12	.24	5.00	4.40	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3545E+00 EXCESS= .0000E+00 OUTFLOW= .3560E+00 BASIN STORAGE= .8251E-05 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .73

R2	MANE	.98	43.27	211.18	1.63	5.00	41.30	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3122E+01 OUTFLOW= .3124E+01 BASIN STORAGE= .1933E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R2	MANE	1.18	25.70	212.21	.98	5.00	23.32	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1887E+01 OUTFLOW= .1888E+01 BASIN STORAGE= .1797E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R2	MANE	1.21	25.06	213.09	.96	5.00	22.88	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1848E+01 OUTFLOW= .1848E+01 BASIN STORAGE= .1925E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R2	MANE	1.25	19.82	213.64	.77	5.00	18.86	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1481E+01 OUTFLOW= .1481E+01 BASIN STORAGE= .2002E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R2	MANE	1.32	19.48	213.47	.75	5.00	18.47	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1448E+01 OUTFLOW= .1448E+01 BASIN STORAGE= .1935E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R2	MANE	1.47	14.19	213.42	.57	5.00	14.08	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1098E+01 OUTFLOW= .1098E+01 BASIN STORAGE= .1949E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R2	MANE	1.58	13.74	214.75	.56	5.00	13.63	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1071E+01 OUTFLOW= .1071E+01 BASIN STORAGE= .1973E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R2	MANE	1.96	7.60	216.83	.34	5.00	7.42	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6471E+00 OUTFLOW= .6453E+00 BASIN STORAGE= .1834E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

R2	MANE	1.96	7.29	217.50	.33	5.00	7.11	215.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6304E+00 OUTFLOW= .6288E+00 BASIN STORAGE= .1918E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

R	MANE	1.92	37.41	217.03	.91	5.00	36.90	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3106E+01 EXCESS= .0000E+00 OUTFLOW= .3114E+01 BASIN STORAGE= .3830E-03 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .72

R	MANE	1.98	36.60	217.97	.89	5.00	36.10	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3038E+01 EXCESS= .0000E+00 OUTFLOW= .3047E+01 BASIN STORAGE= .3763E-03 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .64

R	MANE	2.07	29.91	219.27	.71	5.00	28.54	220.00	.71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2412E+01 EXCESS= .0000E+00 OUTFLOW= .2424E+01 BASIN STORAGE= .3332E-03 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .63

R	MANE	2.07	28.98	218.23	.69	5.00	27.61	220.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2354E+01 EXCESS= .0000E+00 OUTFLOW= .2364E+01 BASIN STORAGE= .3823E-03 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .54

R	MANE	2.27	21.28	218.28	.52	5.00	21.21	220.00	.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1765E+01 EXCESS= .0000E+00 OUTFLOW= .1768E+01 BASIN STORAGE= .3470E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .53

R	MANE	2.45	21.17	220.17	.50	5.00	21.11	220.00	.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1720E+01 EXCESS= .0000E+00 OUTFLOW= .1723E+01 BASIN STORAGE= .3395E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .42

R	MANE	3.03	11.55	222.48	.30	5.00	10.96	220.00	.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1012E+01 EXCESS= .0000E+00 OUTFLOW= .1016E+01 BASIN STORAGE= .3618E-03 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .41

R	MANE	2.99	11.15	220.47	.29	5.00	10.61	220.00	.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9848E+00 EXCESS= .0000E+00 OUTFLOW= .9909E+00 BASIN STORAGE= .3773E-03 PERCENT ERROR= -.7

FOR PLAN = 1 RATIO= .73

R1	MANE	1.32	36.29	212.27	1.63	5.00	33.55	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2688E+01 OUTFLOW= .2689E+01 BASIN STORAGE= .2077E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R1	MANE	1.62	21.31	212.60	.98	5.00	20.34	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1625E+01 OUTFLOW= .1625E+01 BASIN STORAGE= .2088E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R1	MANE	1.67	20.82	213.45	.96	5.00	19.99	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1591E+01 OUTFLOW= .1590E+01 BASIN STORAGE= .2343E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R1	MANE	1.88	16.26	213.32	.77	5.00	16.11	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1275E+01 OUTFLOW= .1274E+01 BASIN STORAGE= .2029E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .63

R1	MANE	1.86	16.00	214.45	.75	5.00	15.73	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1247E+01 OUTFLOW= .1246E+01 BASIN STORAGE= .2323E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R1	MANE	2.08	11.70	215.55	.57	5.00	11.61	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9457E+00 OUTFLOW= .9446E+00 BASIN STORAGE= .1971E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

R1	MANE	2.20	11.24	214.53	.56	5.00	11.21	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9224E+00 OUTFLOW= .9212E+00 BASIN STORAGE= .2357E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

R1	MANE	2.73	6.01	217.05	.34	5.00	5.91	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5572E+00 OUTFLOW= .5549E+00 BASIN STORAGE= .2241E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .41

R1	MANE	2.73	5.90	218.14	.33	5.00	5.72	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5428E+00 OUTFLOW= .5412E+00 BASIN STORAGE= .1962E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

F	MANE	.55	8.22	209.74	2.31	5.00	8.18	210.00	2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6167E+00 OUTFLOW= .6166E+00 BASIN STORAGE= .9472E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

F	MANE	.53	5.68	209.84	1.57	5.00	5.68	210.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4185E+00 OUTFLOW= .4186E+00 BASIN STORAGE= .9856E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

F	MANE	.54	5.60	209.78	1.54	5.00	5.60	210.00	1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+00 OUTFLOW= .4119E+00 BASIN STORAGE= .9567E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

F	MANE	.55	4.81	210.36	1.31	5.00	4.80	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3496E+00 OUTFLOW= .3495E+00 BASIN STORAGE= .9307E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

F	MANE	.68	4.75	209.83	1.29	5.00	4.74	210.00	1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3438E+00 OUTFLOW= .3438E+00 BASIN STORAGE= .9229E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

F	MANE	.75	3.92	210.26	1.06	5.00	3.91	210.00	1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2817E+00 OUTFLOW= .2817E+00 BASIN STORAGE= .1002E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

F	MANE	.60	3.86	210.23	1.04	5.00	3.85	210.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2767E+00 OUTFLOW= .2768E+00 BASIN STORAGE= .9568E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

F	MANE	.75	2.75	210.40	.73	5.00	2.73	210.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1954E+00 OUTFLOW= .1955E+00 BASIN STORAGE= .9752E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

F	MANE	.69	2.71	210.47	.72	5.00	2.68	210.00	.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1920E+00 OUTFLOW= .1920E+00 BASIN STORAGE= .9128E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

RF	MANE	2.64	1195.92	466.84	.90	5.00	1195.90	465.00	.90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1642E+04 EXCESS= .0000E+00 OUTFLOW= .1635E+04 BASIN STORAGE= .6854E+01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

RF	MANE	2.69	1183.59	465.23	.88	5.00	1183.58	465.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1613E+04 EXCESS= .0000E+00 OUTFLOW= .1607E+04 BASIN STORAGE= .6321E+01 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

RF	MANE	2.72	1068.98	462.86	.71	5.00	1068.96	465.00	.71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1290E+04 EXCESS= .0000E+00 OUTFLOW= .1287E+04 BASIN STORAGE= .3448E+01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

RF	MANE	2.79	1057.08	463.42	.69	5.00	1057.06	465.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1259E+04 EXCESS= .0000E+00 OUTFLOW= .1256E+04 BASIN STORAGE= .3283E+01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

RF	MANE	2.94	922.53	461.44	.50	5.00	922.49	460.00	.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9208E+03 EXCESS= .0000E+00 OUTFLOW= .9176E+03 BASIN STORAGE= .2837E+01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

RF	MANE	2.86	909.55	460.21	.49	5.00	909.55	460.00	.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8946E+03 EXCESS= .0000E+00 OUTFLOW= .8922E+03 BASIN STORAGE= .2833E+01 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

RF	MANE	3.14	695.10	455.10	.27	5.00	695.10	455.00	.27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4876E+03 EXCESS= .0000E+00 OUTFLOW= .4853E+03 BASIN STORAGE= .2765E+01 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

RF	MANE	3.26	686.45	454.05	.26	5.00	686.45	455.00	.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4716E+03 EXCESS= .0000E+00 OUTFLOW= .4692E+03 BASIN STORAGE= .2762E+01 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R4	MANE	.60	128.08	220.68	1.04	5.00	127.40	220.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1388E+02 EXCESS= .0000E+00 OUTFLOW= .1388E+02 BASIN STORAGE= .6162E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.60	125.34	220.38	1.02	5.00	124.78	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1359E+02 EXCESS= .0000E+00 OUTFLOW= .1359E+02 BASIN STORAGE= .6154E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.63	101.32	220.67	.82	5.00	100.60	220.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1091E+02 EXCESS= .0000E+00 OUTFLOW= .1091E+02 BASIN STORAGE= .6084E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.63	98.86	220.39	.80	5.00	98.33	220.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1067E+02 EXCESS= .0000E+00 OUTFLOW= .1067E+02 BASIN STORAGE= .5970E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.66	75.57	220.74	.61	5.00	74.87	220.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8124E+01 EXCESS= .0000E+00 OUTFLOW= .8124E+01 BASIN STORAGE= .6287E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.67	73.59	220.50	.59	5.00	73.01	220.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7926E+01 EXCESS= .0000E+00 OUTFLOW= .7926E+01 BASIN STORAGE= .6142E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.74	44.45	221.15	.36	5.00	43.77	220.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4840E+01 EXCESS= .0000E+00 OUTFLOW= .4840E+01 BASIN STORAGE= .6267E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.74	43.29	220.86	.35	5.00	42.62	220.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4719E+01 EXCESS= .0000E+00 OUTFLOW= .4719E+01 BASIN STORAGE= .6154E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.49	39.50	216.31	1.17	5.00	38.38	215.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3778E+01 EXCESS= .0000E+00 OUTFLOW= .3778E+01 BASIN STORAGE= .2100E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.50	38.41	215.83	1.14	5.00	37.61	215.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3703E+01 EXCESS= .0000E+00 OUTFLOW= .3703E+01 BASIN STORAGE= .1987E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.57	31.46	217.32	.93	5.00	30.76	215.00	.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3005E+01 EXCESS= .0000E+00 OUTFLOW= .3005E+01 BASIN STORAGE= .2054E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.58	31.12	216.84	.91	5.00	30.16	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2942E+01 EXCESS= .0000E+00 OUTFLOW= .2942E+01 BASIN STORAGE= .1916E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.68	24.16	217.25	.70	5.00	23.39	215.00	.70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2270E+01 EXCESS= .0000E+00 OUTFLOW= .2270E+01 BASIN STORAGE= .1836E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.69	23.83	216.78	.68	5.00	22.87	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2218E+01 EXCESS= .0000E+00 OUTFLOW= .2218E+01 BASIN STORAGE= .2046E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.90	14.88	216.43	.43	5.00	14.34	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1387E+01 EXCESS= .0000E+00 OUTFLOW= .1388E+01 BASIN STORAGE= .1998E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.91	14.57	217.73	.42	5.00	13.96	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1354E+01 EXCESS= .0000E+00 OUTFLOW= .1354E+01 BASIN STORAGE= .1865E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	1.84	181.50	219.10	1.07	5.00	180.91	220.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2039E+02 EXCESS= .0000E+00 OUTFLOW= .2042E+02 BASIN STORAGE= .1570E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .72

R	MANE	1.87	177.38	219.87	1.05	5.00	177.30	220.00	1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1997E+02 EXCESS= .0000E+00 OUTFLOW= .2000E+02 BASIN STORAGE= .1849E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .64

R	MANE	2.04	142.98	220.72	.85	5.00	142.71	220.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1608E+02 EXCESS= .0000E+00 OUTFLOW= .1611E+02 BASIN STORAGE= .1714E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

R	MANE	2.01	140.01	220.06	.83	5.00	139.92	220.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1573E+02 EXCESS= .0000E+00 OUTFLOW= .1576E+02 BASIN STORAGE= .1922E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	2.09	106.78	219.87	.63	5.00	106.78	220.00	.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1202E+02 EXCESS= .0000E+00 OUTFLOW= .1204E+02 BASIN STORAGE= .1829E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .53

R	MANE	2.26	104.13	221.53	.62	5.00	103.79	220.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1173E+02 EXCESS= .0000E+00 OUTFLOW= .1176E+02 BASIN STORAGE= .2033E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .42

R	MANE	2.57	63.39	224.72	.38	5.00	63.19	225.00	.38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7216E+01 EXCESS= .0000E+00 OUTFLOW= .7227E+01 BASIN STORAGE= .1864E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .41

R	MANE	2.44	61.71	223.22	.37	5.00	61.54	225.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7037E+01 EXCESS= .0000E+00 OUTFLOW= .7050E+01 BASIN STORAGE= .1919E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

N1	MANE	1.64	44.48	213.56	1.50	5.00	43.31	215.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3691E+01 OUTFLOW= .3689E+01 BASIN STORAGE= .6323E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

N1	MANE	1.98	24.01	215.40	.88	5.00	23.83	215.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2169E+01 OUTFLOW= .2165E+01 BASIN STORAGE= .5675E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .72

N1	MANE	2.02	23.45	216.53	.86	5.00	23.30	215.00	.86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2121E+01 OUTFLOW= .2117E+01 BASIN STORAGE= .5568E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .64

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          N1  MANE        2.24     17.51    217.58       .68       5.00     16.97    215.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1676E+01 OUTFLOW= .1671E+01 BASIN STORAGE= .5858E-03 PERCENT ERROR=    .2

     FOR PLAN = 1  RATIO=  .63
          N1  MANE        2.37     17.16    216.46       .66       5.00     16.50    215.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1636E+01 OUTFLOW= .1631E+01 BASIN STORAGE= .5990E-03 PERCENT ERROR=    .2

     FOR PLAN = 1  RATIO=  .54
          N1  MANE        2.72     11.70    220.15       .49       5.00     11.68    220.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1217E+01 OUTFLOW= .1211E+01 BASIN STORAGE= .6289E-03 PERCENT ERROR=    .4

     FOR PLAN = 1  RATIO=  .53
          N1  MANE        2.74     11.15    221.13       .48       5.00     11.11    220.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1185E+01 OUTFLOW= .1179E+01 BASIN STORAGE= .6126E-03 PERCENT ERROR=    .4

     FOR PLAN = 1  RATIO=  .42
          N1  MANE        3.81      5.16    231.61       .28       5.00      5.11    230.00         .28

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6864E+00 OUTFLOW= .6803E+00 BASIN STORAGE= .5703E-03 PERCENT ERROR=    .8

     FOR PLAN = 1  RATIO=  .41
          N1  MANE        3.87      4.94    232.58       .27       5.00      4.87    230.00         .27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6670E+00 OUTFLOW= .6610E+00 BASIN STORAGE= .6009E-03 PERCENT ERROR=    .8

     FOR PLAN = 1  RATIO=  .73
           R  MANE         .70     23.61    216.56       .88       5.00     22.66    215.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2167E+01 EXCESS= .0000E+00 OUTFLOW= .2167E+01 BASIN STORAGE= .1260E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .72
           R  MANE         .69     23.15    216.33       .86       5.00     22.04    215.00         .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2116E+01 EXCESS= .0000E+00 OUTFLOW= .2117E+01 BASIN STORAGE= .1264E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .64
           R  MANE         .77     16.95    216.63       .68       5.00     16.74    220.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1672E+01 EXCESS= .0000E+00 OUTFLOW= .1672E+01 BASIN STORAGE= .1269E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .63
           R  MANE         .66     16.50    216.40       .66       5.00     16.37    220.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1630E+01 EXCESS= .0000E+00 OUTFLOW= .1631E+01 BASIN STORAGE= .1271E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .54
           R  MANE         .73     11.60    221.19       .49       5.00     11.28    220.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1212E+01 EXCESS= .0000E+00 OUTFLOW= .1212E+01 BASIN STORAGE= .1262E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .53
           R  MANE         .80     11.04    221.46       .48       5.00     10.69    220.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1178E+01 EXCESS= .0000E+00 OUTFLOW= .1178E+01 BASIN STORAGE= .1264E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .42
           R  MANE         .93      5.10    232.03       .28       5.00      5.03    235.00         .28

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6795E+00 EXCESS= .0000E+00 OUTFLOW= .6795E+00 BASIN STORAGE= .1238E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .41
           R  MANE         .94      4.86    232.73       .27       5.00      4.84    235.00         .27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6611E+00 EXCESS= .0000E+00 OUTFLOW= .6612E+00 BASIN STORAGE= .1251E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
           R  MANE         .40     19.47    210.81      1.58       5.00     19.03    210.00        1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1689E+01 EXCESS= .0000E+00 OUTFLOW= .1689E+01 BASIN STORAGE= .6837E-06 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .72
           R  MANE         .38     19.17    210.84      1.56       5.00     18.75    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1662E+01 EXCESS= .0000E+00 OUTFLOW= .1663E+01 BASIN STORAGE= .6175E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .64
           R  MANE         .38     16.51    210.59      1.32       5.00     16.12    210.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1411E+01 EXCESS= .0000E+00 OUTFLOW= .1412E+01 BASIN STORAGE= .5446E-06 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .63
                R  MANE          .48     16.19    210.64      1.30      5.00     15.86    210.00         1.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1388E+01 EXCESS= .0000E+00 OUTFLOW= .1389E+01 BASIN STORAGE= .5816E-06 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
                R  MANE          .44     13.58    210.84      1.07      5.00     13.20    210.00         1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1138E+01 EXCESS= .0000E+00 OUTFLOW= .1138E+01 BASIN STORAGE= .6119E-06 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .40     13.36    210.68      1.05      5.00     12.98    210.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1118E+01 EXCESS= .0000E+00 OUTFLOW= .1118E+01 BASIN STORAGE= .6614E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          .44      9.70    210.69       .74      5.00      9.38    210.00          .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7895E+00 EXCESS= .0000E+00 OUTFLOW= .7904E+00 BASIN STORAGE= .7015E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          .46      9.59    210.88       .73      5.00      9.23    210.00          .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7758E+00 EXCESS= .0000E+00 OUTFLOW= .7767E+00 BASIN STORAGE= .7451E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.91     14.70    213.87       .83      5.00     14.49    215.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1195E+01 EXCESS= .0000E+00 OUTFLOW= .1199E+01 BASIN STORAGE= .8288E-06 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .72
                R  MANE         1.92     14.12    215.31       .81      5.00     14.11    215.00          .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1168E+01 EXCESS= .0000E+00 OUTFLOW= .1173E+01 BASIN STORAGE= .1134E-05 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .64
                R  MANE         2.05     11.35    214.18       .64      5.00     11.24    215.00          .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9156E+00 EXCESS= .0000E+00 OUTFLOW= .9191E+00 BASIN STORAGE= .7892E-06 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .63
                R  MANE         2.11     10.91    215.52       .62      5.00     10.83    215.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8930E+00 EXCESS= .0000E+00 OUTFLOW= .8957E+00 BASIN STORAGE= .9927E-06 PERCENT ERROR=   -.3

          FOR PLAN = 1  RATIO=  .54
                R  MANE         2.34      8.16    214.82       .46      5.00      8.14    215.00          .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6571E+00 EXCESS= .0000E+00 OUTFLOW= .6602E+00 BASIN STORAGE= .7970E-06 PERCENT ERROR=   -.5

          FOR PLAN = 1  RATIO=  .53
                R  MANE         2.24      7.85    215.99       .45      5.00      7.74    215.00          .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6390E+00 EXCESS= .0000E+00 OUTFLOW= .6418E+00 BASIN STORAGE= .1040E-05 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .42
                R  MANE         2.66      4.38    217.82       .25      5.00      4.31    215.00          .25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3615E+00 EXCESS= .0000E+00 OUTFLOW= .3638E+00 BASIN STORAGE= .1157E-05 PERCENT ERROR=   -.6

          FOR PLAN = 1  RATIO=  .41
                R  MANE         2.79      4.26    216.66       .24      5.00      4.10    220.00          .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3508E+00 EXCESS= .0000E+00 OUTFLOW= .3519E+00 BASIN STORAGE= .8978E-06 PERCENT ERROR=   -.3

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .81     14.27    216.25       .83      5.00     13.58    215.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1200E+01 EXCESS= .0000E+00 OUTFLOW= .1202E+01 BASIN STORAGE= .8150E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          .73     13.97    216.22       .82      5.00     13.22    215.00          .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1173E+01 EXCESS= .0000E+00 OUTFLOW= .1174E+01 BASIN STORAGE= .6743E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          .90     11.12    217.03       .64      5.00     10.33    215.00          .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9189E+00 EXCESS= .0000E+00 OUTFLOW= .9203E+00 BASIN STORAGE= .6992E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .63
                R  MANE          .90     10.72    217.19       .62      5.00     10.15    220.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8959E+00 EXCESS= .0000E+00 OUTFLOW= .8973E+00 BASIN STORAGE= .7482E-05 PERCENT ERROR=   -.2
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          FOR PLAN = 1  RATIO=  .54
                R  MANE          .92       8.11    217.06       .46       5.00       7.71    220.00        .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6616E+00 EXCESS= .0000E+00 OUTFLOW= .6629E+00 BASIN STORAGE= .6695E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .98       7.72    217.05       .45       5.00       7.38    220.00        .45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6407E+00 EXCESS= .0000E+00 OUTFLOW= .6421E+00 BASIN STORAGE= .6392E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.24       4.31    218.19       .25       5.00       4.31    220.00        .25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3654E+00 EXCESS= .0000E+00 OUTFLOW= .3659E+00 BASIN STORAGE= .6482E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.25       4.07    221.35       .24       5.00       4.04    220.00        .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3517E+00 EXCESS= .0000E+00 OUTFLOW= .3521E+00 BASIN STORAGE= .6767E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.72      28.59    216.95       .82       5.00      28.50    215.00        .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2447E+01 EXCESS= .0000E+00 OUTFLOW= .2457E+01 BASIN STORAGE= .5706E-04 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .72
                R  MANE         1.65      28.03    217.83       .80       5.00      27.87    215.00        .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2391E+01 EXCESS= .0000E+00 OUTFLOW= .2401E+01 BASIN STORAGE= .5748E-04 PERCENT ERROR=   -.4

          FOR PLAN = 1  RATIO=  .64
                R  MANE         1.76      22.18    217.01       .63       5.00      21.95    215.00        .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1873E+01 EXCESS= .0000E+00 OUTFLOW= .1883E+01 BASIN STORAGE= .5532E-04 PERCENT ERROR=   -.5

          FOR PLAN = 1  RATIO=  .63
                R  MANE         1.79      21.84    218.56       .62       5.00      21.42    215.00        .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1827E+01 EXCESS= .0000E+00 OUTFLOW= .1838E+01 BASIN STORAGE= .5281E-04 PERCENT ERROR=   -.6

          FOR PLAN = 1  RATIO=  .54
                R  MANE         2.10      16.04    218.86       .45       5.00      15.73    215.00        .45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1343E+01 EXCESS= .0000E+00 OUTFLOW= .1352E+01 BASIN STORAGE= .4878E-04 PERCENT ERROR=   -.7

          FOR PLAN = 1  RATIO=  .53
                R  MANE         2.01      15.63    217.74       .44       5.00      15.10    215.00        .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1306E+01 EXCESS= .0000E+00 OUTFLOW= .1314E+01 BASIN STORAGE= .5277E-04 PERCENT ERROR=   -.6

          FOR PLAN = 1  RATIO=  .42
                R  MANE         2.55       8.75    218.70       .25       5.00       8.50    220.00        .25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7370E+00 EXCESS= .0000E+00 OUTFLOW= .7407E+00 BASIN STORAGE= .4964E-04 PERCENT ERROR=   -.5

          FOR PLAN = 1  RATIO=  .41
                R  MANE         2.67       8.58    219.99       .24       5.00       8.57    220.00        .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7152E+00 EXCESS= .0000E+00 OUTFLOW= .7193E+00 BASIN STORAGE= .5448E-04 PERCENT ERROR=   -.6

          FOR PLAN = 1  RATIO=  .73
                0  MANE          .88      21.67    210.66      2.05       5.00      21.22    210.00       2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1638E+01 OUTFLOW= .1638E+01 BASIN STORAGE= .6241E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                0  MANE         1.03      14.10    211.31      1.33       5.00      13.60    210.00       1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1065E+01 OUTFLOW= .1066E+01 BASIN STORAGE= .6540E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                0  MANE         1.04      13.92    212.00      1.31       5.00      13.36    210.00       1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1047E+01 OUTFLOW= .1047E+01 BASIN STORAGE= .6626E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                0  MANE         1.13      11.59    211.98      1.09       5.00      10.88    210.00       1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8699E+00 OUTFLOW= .8701E+00 BASIN STORAGE= .6364E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                0  MANE         1.13      11.36    211.93      1.07       5.00      10.70    210.00       1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8536E+00 OUTFLOW= .8541E+00 BASIN STORAGE= .6328E-04 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .54
                0  MANE          1.33       8.98    212.40        .85       5.00       8.25    210.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6800E+00 OUTFLOW= .6802E+00 BASIN STORAGE= .5749E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                0  MANE          1.38       8.80    212.21        .83       5.00       8.06    210.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6663E+00 OUTFLOW= .6664E+00 BASIN STORAGE= .5661E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                0  MANE          1.54       5.65    212.58        .56       5.00       5.44    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4449E+00 OUTFLOW= .4447E+00 BASIN STORAGE= .6695E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                0  MANE          1.52       5.55    213.83        .54       5.00       5.34    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4358E+00 OUTFLOW= .4356E+00 BASIN STORAGE= .6621E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .89      13.47    211.66       1.33       5.00      12.22    210.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1066E+01 EXCESS= .0000E+00 OUTFLOW= .1067E+01 BASIN STORAGE= .4576E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .99      13.11    212.23       1.31       5.00      11.94    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1046E+01 EXCESS= .0000E+00 OUTFLOW= .1048E+01 BASIN STORAGE= .4567E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .64
                R  MANE          1.02      10.75    211.86       1.09       5.00      10.11    215.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8701E+00 EXCESS= .0000E+00 OUTFLOW= .8713E+00 BASIN STORAGE= .4542E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          1.04      10.48    212.76       1.07       5.00       9.95    215.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8536E+00 EXCESS= .0000E+00 OUTFLOW= .8549E+00 BASIN STORAGE= .4615E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .54
                R  MANE          1.06       8.23    212.30        .85       5.00       8.08    215.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6800E+00 EXCESS= .0000E+00 OUTFLOW= .6810E+00 BASIN STORAGE= .4962E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .53
                R  MANE          1.05       8.04    212.36        .83       5.00       7.93    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6665E+00 EXCESS= .0000E+00 OUTFLOW= .6675E+00 BASIN STORAGE= .4763E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .42
                R  MANE          1.34       5.33    216.60        .56       5.00       5.20    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4449E+00 EXCESS= .0000E+00 OUTFLOW= .4454E+00 BASIN STORAGE= .4831E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          1.36       5.23    216.50        .55       5.00       5.09    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4356E+00 EXCESS= .0000E+00 OUTFLOW= .4362E+00 BASIN STORAGE= .4801E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.50     282.52    217.86       1.03       5.00     280.67    220.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3120E+02 EXCESS= .0000E+00 OUTFLOW= .3125E+02 BASIN STORAGE= .3358E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          1.56     276.83    217.97       1.01       5.00     275.12    220.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3057E+02 EXCESS= .0000E+00 OUTFLOW= .3062E+02 BASIN STORAGE= .3527E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          1.72     220.88    218.63        .81       5.00     220.18    220.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2456E+02 EXCESS= .0000E+00 OUTFLOW= .2459E+02 BASIN STORAGE= .3385E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          1.63     215.65    218.98        .79       5.00     215.32    220.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2403E+02 EXCESS= .0000E+00 OUTFLOW= .2405E+02 BASIN STORAGE= .3580E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          1.83     162.88    223.38        .60       5.00     160.86    220.00         .60
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .1831E+02 EXCESS= .0000E+00 OUTFLOW= .1834E+02 BASIN STORAGE= .3356E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.80	158.17	222.73	.59	5.00	156.62	220.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1787E+02 EXCESS= .0000E+00 OUTFLOW= .1790E+02 BASIN STORAGE= .3550E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	2.11	90.87	225.39	.36	5.00	90.86	225.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1092E+02 EXCESS= .0000E+00 OUTFLOW= .1094E+02 BASIN STORAGE= .3264E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .41

R	MANE	2.14	88.24	225.40	.35	5.00	88.20	225.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1065E+02 EXCESS= .0000E+00 OUTFLOW= .1067E+02 BASIN STORAGE= .3520E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

H3	MANE	.17	21.76	210.06	1.63	5.00	21.75	210.00	1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1482E+01 OUTFLOW= .1482E+01 BASIN STORAGE= .2467E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

H3	MANE	.25	13.24	210.48	.99	5.00	13.12	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8963E+00 OUTFLOW= .8961E+00 BASIN STORAGE= .2409E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

H3	MANE	.13	12.94	210.54	.97	5.00	12.83	210.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8777E+00 OUTFLOW= .8775E+00 BASIN STORAGE= .2329E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

H3	MANE	.14	10.37	210.91	.78	5.00	10.27	210.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7037E+00 OUTFLOW= .7036E+00 BASIN STORAGE= .2289E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

H3	MANE	.14	10.07	210.69	.76	5.00	9.94	210.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6879E+00 OUTFLOW= .6878E+00 BASIN STORAGE= .2320E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

H3	MANE	.26	7.48	211.19	.58	5.00	7.28	210.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5221E+00 OUTFLOW= .5221E+00 BASIN STORAGE= .2364E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

H3	MANE	.26	7.27	210.98	.56	5.00	7.06	210.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5092E+00 OUTFLOW= .5092E+00 BASIN STORAGE= .2345E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

H3	MANE	.22	4.10	211.85	.34	5.00	3.83	210.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3079E+00 OUTFLOW= .3075E+00 BASIN STORAGE= .2231E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .41

H3	MANE	.27	3.99	211.73	.33	5.00	3.71	210.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2999E+00 OUTFLOW= .2997E+00 BASIN STORAGE= .2393E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

R	MANE	1.42	12.83	213.20	.99	5.00	11.14	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8971E+00 EXCESS= .0000E+00 OUTFLOW= .9000E+00 BASIN STORAGE= .1657E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .72

R	MANE	1.43	12.81	212.91	.97	5.00	10.93	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8780E+00 EXCESS= .0000E+00 OUTFLOW= .8812E+00 BASIN STORAGE= .1659E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .64

R	MANE	1.58	10.17	213.04	.78	5.00	9.08	215.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7046E+00 EXCESS= .0000E+00 OUTFLOW= .7065E+00 BASIN STORAGE= .1656E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .63

R	MANE	1.68	9.54	212.76	.76	5.00	8.88	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6891E+00 EXCESS= .0000E+00 OUTFLOW= .6905E+00 BASIN STORAGE= .1556E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	1.86	7.11	213.47	.58	5.00	6.76	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5225E+00 EXCESS= .0000E+00 OUTFLOW= .5237E+00 BASIN STORAGE= .1608E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .53

R	MANE	1.82	6.74	214.58	.56	5.00	6.61	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5094E+00 EXCESS= .0000E+00 OUTFLOW= .5106E+00 BASIN STORAGE= .1669E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .42

R	MANE	2.21	3.74	214.08	.34	5.00	3.74	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3077E+00 EXCESS= .0000E+00 OUTFLOW= .3080E+00 BASIN STORAGE= .1572E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	2.14	3.70	214.50	.33	5.00	3.68	215.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2997E+00 EXCESS= .0000E+00 OUTFLOW= .2998E+00 BASIN STORAGE= .1685E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

P2	MANE	2.41	70.50	213.77	1.65	5.00	68.29	215.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5815E+01 OUTFLOW= .5809E+01 BASIN STORAGE= .1077E-02 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

P2	MANE	2.99	39.99	216.59	1.00	5.00	39.60	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3521E+01 OUTFLOW= .3514E+01 BASIN STORAGE= .1035E-02 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .72

P2	MANE	2.98	39.08	214.70	.98	5.00	38.98	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3448E+01 OUTFLOW= .3441E+01 BASIN STORAGE= .9004E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .64

P2	MANE	3.44	30.28	216.98	.78	5.00	29.04	215.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2766E+01 OUTFLOW= .2759E+01 BASIN STORAGE= .9713E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .63

P2	MANE	3.31	29.32	217.99	.77	5.00	28.71	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2704E+01 OUTFLOW= .2697E+01 BASIN STORAGE= .1087E-02 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .54

P2	MANE	3.87	20.88	217.55	.58	5.00	20.55	220.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2054E+01 OUTFLOW= .2047E+01 BASIN STORAGE= .9663E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .53

P2	MANE	3.89	20.44	218.74	.57	5.00	20.03	220.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2003E+01 OUTFLOW= .1996E+01 BASIN STORAGE= .8822E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .42

P2	MANE	5.00	10.13	227.62	.34	5.00	9.90	225.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1213E+01 OUTFLOW= .1204E+01 BASIN STORAGE= .9538E-03 PERCENT ERROR= .7

FOR PLAN = 1 RATIO= .41

P2	MANE	5.00	9.64	228.67	.33	5.00	9.50	225.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1182E+01 OUTFLOW= .1172E+01 BASIN STORAGE= .1069E-02 PERCENT ERROR= .8

FOR PLAN = 1 RATIO= .73

R	MANE	.88	39.13	217.05	1.00	5.00	37.14	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3514E+01 EXCESS= .0000E+00 OUTFLOW= .3516E+01 BASIN STORAGE= .6774E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.86	38.55	216.50	.98	5.00	36.38	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3439E+01 EXCESS= .0000E+00 OUTFLOW= .3440E+01 BASIN STORAGE= .6634E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.90	28.92	216.72	.78	5.00	28.50	220.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2759E+01 EXCESS= .0000E+00 OUTFLOW= .2760E+01 BASIN STORAGE= .6698E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	.86	28.69	216.78	.77	5.00	27.90	220.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2700E+01 EXCESS= .0000E+00 OUTFLOW= .2701E+01 BASIN STORAGE= .6659E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

R	MANE	.93	20.39	222.15	.58	5.00	19.94	220.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2045E+01 EXCESS= .0000E+00 OUTFLOW= .2046E+01 BASIN STORAGE= .6683E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.96	19.84	222.23	.57	5.00	19.45	220.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1995E+01 EXCESS= .0000E+00 OUTFLOW= .1996E+01 BASIN STORAGE= .6635E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	1.22	9.89	227.59	.34	5.00	9.77	230.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1202E+01 EXCESS= .0000E+00 OUTFLOW= .1202E+01 BASIN STORAGE= .6528E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	1.28	9.49	227.95	.33	5.00	9.44	230.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1172E+01 EXCESS= .0000E+00 OUTFLOW= .1172E+01 BASIN STORAGE= .6680E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	1.58	329.36	223.15	1.02	5.00	320.65	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3656E+02 EXCESS= .0000E+00 OUTFLOW= .3660E+02 BASIN STORAGE= .6070E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	1.56	321.74	222.65	1.00	5.00	313.67	220.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3581E+02 EXCESS= .0000E+00 OUTFLOW= .3586E+02 BASIN STORAGE= .6091E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	1.73	258.25	223.57	.80	5.00	253.16	225.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2874E+02 EXCESS= .0000E+00 OUTFLOW= .2877E+02 BASIN STORAGE= .5756E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	1.66	250.42	222.60	.78	5.00	247.86	225.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2811E+02 EXCESS= .0000E+00 OUTFLOW= .2814E+02 BASIN STORAGE= .6100E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

R	MANE	1.87	187.54	224.97	.60	5.00	187.50	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2140E+02 EXCESS= .0000E+00 OUTFLOW= .2142E+02 BASIN STORAGE= .5908E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.90	183.19	224.52	.58	5.00	182.63	225.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2088E+02 EXCESS= .0000E+00 OUTFLOW= .2091E+02 BASIN STORAGE= .5856E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	2.22	103.03	230.33	.35	5.00	102.95	230.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1273E+02 EXCESS= .0000E+00 OUTFLOW= .1273E+02 BASIN STORAGE= .5748E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	2.32	100.36	229.76	.35	5.00	100.18	230.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1241E+02 EXCESS= .0000E+00 OUTFLOW= .1241E+02 BASIN STORAGE= .5986E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

Y	MANE	1.01	24.41	211.35	2.05	5.00	23.50	210.00	2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1857E+01 OUTFLOW= .1857E+01 BASIN STORAGE= .8194E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

Y	MANE	1.24	15.88	211.54	1.33	5.00	14.90	210.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1207E+01 OUTFLOW= .1208E+01 BASIN STORAGE= .9427E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

Y	MANE	1.15	15.58	212.18	1.31	5.00	14.61	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1186E+01 OUTFLOW= .1187E+01 BASIN STORAGE= .8281E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

Y	MANE	1.27	12.87	212.78	1.09	5.00	11.84	210.00	1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9858E+00 OUTFLOW= .9861E+00 BASIN STORAGE= .8078E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

Y	MANE	1.34	12.66	212.58	1.07	5.00	11.65	210.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9674E+00 OUTFLOW= .9679E+00 BASIN STORAGE= .9062E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

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                Y  MANE          1.41      9.91    212.13        .85       5.00       9.27     215.00          .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7707E+00 OUTFLOW= .7710E+00 BASIN STORAGE= .9149E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .53
                Y  MANE          1.44      9.75    213.33        .83       5.00       9.09     215.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7552E+00 OUTFLOW= .7553E+00 BASIN STORAGE= .8482E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .42
                Y  MANE          1.76      6.29    213.71        .56       5.00       6.17     215.00          .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5042E+00 OUTFLOW= .5040E+00 BASIN STORAGE= .8862E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .41
                Y  MANE          1.65      6.12    214.76        .54       5.00       6.06     215.00          .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4939E+00 OUTFLOW= .4938E+00 BASIN STORAGE= .9020E-04 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
               H1  MANE          1.40     60.22    212.73       1.62       5.00      55.99     215.00         1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4658E+01 OUTFLOW= .4658E+01 BASIN STORAGE= .4945E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
               H1  MANE          1.86     35.14    214.62        .98       5.00      34.80     215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2814E+01 OUTFLOW= .2812E+01 BASIN STORAGE= .5318E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .72
               H1  MANE          1.82     34.13    213.93        .96       5.00      33.77     215.00          .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2755E+01 OUTFLOW= .2754E+01 BASIN STORAGE= .5042E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .64
               H1  MANE          1.94     26.79    215.12        .77       5.00      26.73     215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2208E+01 OUTFLOW= .2205E+01 BASIN STORAGE= .5511E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .63
               H1  MANE          2.02     25.77    214.34        .75       5.00      25.75     215.00          .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2158E+01 OUTFLOW= .2156E+01 BASIN STORAGE= .4804E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .54
               H1  MANE          2.23     18.67    217.02        .57       5.00      18.32     215.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1636E+01 OUTFLOW= .1633E+01 BASIN STORAGE= .5302E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .53
               H1  MANE          2.38     18.16    215.92        .55       5.00      17.59     215.00          .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1596E+01 OUTFLOW= .1592E+01 BASIN STORAGE= .4998E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .42
               H1  MANE          2.93      9.54    221.94        .33       5.00       9.47     220.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9633E+00 OUTFLOW= .9580E+00 BASIN STORAGE= .5387E-03 PERCENT ERROR=     .5

          FOR PLAN = 1  RATIO=  .41
               H1  MANE          2.98      9.17    219.83        .32       5.00       9.16     220.00          .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9384E+00 OUTFLOW= .9332E+00 BASIN STORAGE= .5031E-03 PERCENT ERROR=     .5

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .69    364.23    221.49       1.01       5.00     359.43     220.00         1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4236E+02 EXCESS= .0000E+00 OUTFLOW= .4236E+02 BASIN STORAGE= .2367E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .69    356.24    221.11        .99       5.00     351.44     220.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4150E+02 EXCESS= .0000E+00 OUTFLOW= .4151E+02 BASIN STORAGE= .2410E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .69    282.33    221.42        .79       5.00     280.22     225.00          .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3329E+02 EXCESS= .0000E+00 OUTFLOW= .3330E+02 BASIN STORAGE= .2364E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .72    275.31    221.49        .78       5.00     274.18     225.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3257E+02 EXCESS= .0000E+00 OUTFLOW= .3257E+02 BASIN STORAGE= .2385E-03 PERCENT ERROR=     .0
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 FOR PLAN = 1  RATIO=  .54
       R  MANE          .68    209.00    226.40       .59      5.00    206.74    225.00         .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2480E+02 EXCESS= .0000E+00 OUTFLOW= .2480E+02 BASIN STORAGE= .2350E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .53
       R  MANE          .81    203.05    226.70       .58      5.00    201.12    225.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2421E+02 EXCESS= .0000E+00 OUTFLOW= .2421E+02 BASIN STORAGE= .2378E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .42
       R  MANE          .91    115.55    231.85       .35      5.00    114.90    230.00         .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1473E+02 EXCESS= .0000E+00 OUTFLOW= .1473E+02 BASIN STORAGE= .2379E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .41
       R  MANE          .88    112.59    231.75       .34      5.00    111.83    230.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1436E+02 EXCESS= .0000E+00 OUTFLOW= .1436E+02 BASIN STORAGE= .2343E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
      Q2  MANE          1.09    104.43    212.37      2.05      5.00     98.11    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8301E+01 OUTFLOW= .8301E+01 BASIN STORAGE= .5765E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
      Q2  MANE          1.31     67.05    213.37      1.33      5.00     62.80    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5398E+01 OUTFLOW= .5397E+01 BASIN STORAGE= .5956E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .72
      Q2  MANE          1.33     66.18    213.12      1.31      5.00     61.90    215.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5303E+01 OUTFLOW= .5302E+01 BASIN STORAGE= .5840E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .64
      Q2  MANE          1.46     54.29    213.10      1.09      5.00     52.22    215.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4407E+01 OUTFLOW= .4406E+01 BASIN STORAGE= .5775E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .63
      Q2  MANE          1.45     53.16    212.61      1.07      5.00     51.31    215.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4325E+01 OUTFLOW= .4324E+01 BASIN STORAGE= .5609E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .54
      Q2  MANE          1.62     41.93    214.21       .85      5.00     41.19    215.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3446E+01 OUTFLOW= .3443E+01 BASIN STORAGE= .6033E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .53
      Q2  MANE          1.68     41.03    213.97       .83      5.00     40.36    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3376E+01 OUTFLOW= .3374E+01 BASIN STORAGE= .5840E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .42
      Q2  MANE          1.95     26.09    215.51       .56      5.00     25.86    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2254E+01 OUTFLOW= .2251E+01 BASIN STORAGE= .6025E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .41
      Q2  MANE          1.90     25.40    216.23       .54      5.00     25.23    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2208E+01 OUTFLOW= .2205E+01 BASIN STORAGE= .5604E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .73
       R  MANE          1.29     62.16    215.99      1.33      5.00     61.77    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5397E+01 EXCESS= .0000E+00 OUTFLOW= .5404E+01 BASIN STORAGE= .4496E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .72
       R  MANE          1.28     61.21    216.53      1.31      5.00     60.71    215.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5303E+01 EXCESS= .0000E+00 OUTFLOW= .5311E+01 BASIN STORAGE= .4531E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .64
       R  MANE          1.31     51.29    216.57      1.09      5.00     50.02    215.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4407E+01 EXCESS= .0000E+00 OUTFLOW= .4416E+01 BASIN STORAGE= .4603E-03 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .63
       R  MANE          1.28     51.03    217.47      1.07      5.00     49.09    215.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4319E+01 EXCESS= .0000E+00 OUTFLOW= .4327E+01 BASIN STORAGE= .4539E-03 PERCENT ERROR=   -.2
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          FOR PLAN = 1  RATIO=  .54
                R  MANE          1.42     40.95    217.81        .85       5.00     37.97    215.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3443E+01 EXCESS= .0000E+00 OUTFLOW= .3447E+01 BASIN STORAGE= .4563E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          1.36     40.21    217.55        .83       5.00     37.04    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3375E+01 EXCESS= .0000E+00 OUTFLOW= .3379E+01 BASIN STORAGE= .4489E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          1.74     25.45    218.18        .56       5.00     24.73    220.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2249E+01 EXCESS= .0000E+00 OUTFLOW= .2252E+01 BASIN STORAGE= .4437E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          1.64     25.10    218.48        .54       5.00     24.16    220.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2206E+01 EXCESS= .0000E+00 OUTFLOW= .2209E+01 BASIN STORAGE= .4423E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               G1  MANE           .93     44.63    212.03       1.82       5.00     41.97    210.00        1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3387E+01 OUTFLOW= .3389E+01 BASIN STORAGE= .2339E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               G1  MANE          1.14     27.39    213.41       1.14       5.00     25.59    215.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2123E+01 OUTFLOW= .2123E+01 BASIN STORAGE= .2500E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               G1  MANE          1.16     26.96    213.24       1.12       5.00     25.20    215.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2082E+01 OUTFLOW= .2083E+01 BASIN STORAGE= .2514E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
               G1  MANE          1.27     21.66    213.83        .91       5.00     20.94    215.00         .91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1699E+01 OUTFLOW= .1699E+01 BASIN STORAGE= .2292E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               G1  MANE          1.34     21.15    213.74        .89       5.00     20.51    215.00         .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1664E+01 OUTFLOW= .1664E+01 BASIN STORAGE= .2321E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               G1  MANE          1.39     15.98    214.01        .69       5.00     15.83    215.00         .69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1294E+01 OUTFLOW= .1293E+01 BASIN STORAGE= .2226E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
               G1  MANE          1.54     15.52    215.13        .68       5.00     15.52    215.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1265E+01 OUTFLOW= .1264E+01 BASIN STORAGE= .2418E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               G1  MANE          1.82      9.27    215.98        .43       5.00      9.05    215.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8038E+00 OUTFLOW= .8024E+00 BASIN STORAGE= .2372E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .41
               G1  MANE          1.81      8.97    216.97        .42       5.00      8.84    215.00         .42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7852E+00 OUTFLOW= .7837E+00 BASIN STORAGE= .2504E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
               G2  MANE          1.17     23.17    211.85       1.81       5.00     22.12    210.00        1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1742E+01 BASIN STORAGE= .1053E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               G2  MANE          1.36     14.33    212.21       1.14       5.00     13.09    210.00        1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1092E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .1048E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               G2  MANE          1.39     14.00    211.82       1.12       5.00     12.83    210.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1071E+01 OUTFLOW= .1071E+01 BASIN STORAGE= .1033E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               G2  MANE          1.52     11.30    212.45        .91       5.00     10.54    215.00         .91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8738E+00 OUTFLOW= .8737E+00 BASIN STORAGE= .9619E-04 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .63

G2	MANE	1.49	10.98	213.48	.89	5.00	10.38	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8559E+00 OUTFLOW= .8557E+00 BASIN STORAGE= .9521E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

G2	MANE	1.64	8.42	213.40	.69	5.00	8.19	215.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6654E+00 OUTFLOW= .6649E+00 BASIN STORAGE= .1116E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

G2	MANE	1.76	8.10	212.97	.68	5.00	7.95	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6505E+00 OUTFLOW= .6500E+00 BASIN STORAGE= .1078E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

G2	MANE	2.12	4.83	216.19	.43	5.00	4.79	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4134E+00 OUTFLOW= .4128E+00 BASIN STORAGE= .1047E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .41

G2	MANE	2.02	4.71	215.05	.42	5.00	4.70	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4038E+00 OUTFLOW= .4032E+00 BASIN STORAGE= .1109E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

R	MANE	.49	438.48	220.60	1.04	5.00	437.92	220.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5224E+02 EXCESS= .0000E+00 OUTFLOW= .5224E+02 BASIN STORAGE= .2708E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.52	429.30	220.40	1.02	5.00	428.64	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5120E+02 EXCESS= .0000E+00 OUTFLOW= .5120E+02 BASIN STORAGE= .2689E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.45	342.54	220.73	.82	5.00	339.81	220.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4126E+02 EXCESS= .0000E+00 OUTFLOW= .4127E+02 BASIN STORAGE= .2695E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R	MANE	.50	334.51	220.74	.81	5.00	332.07	220.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4037E+02 EXCESS= .0000E+00 OUTFLOW= .4037E+02 BASIN STORAGE= .2681E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R	MANE	.50	249.18	225.47	.62	5.00	249.06	225.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3093E+02 EXCESS= .0000E+00 OUTFLOW= .3093E+02 BASIN STORAGE= .2679E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.56	242.89	225.56	.60	5.00	242.68	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3020E+02 EXCESS= .0000E+00 OUTFLOW= .3021E+02 BASIN STORAGE= .2666E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	.65	140.49	230.42	.37	5.00	140.36	230.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1861E+02 EXCESS= .0000E+00 OUTFLOW= .1861E+02 BASIN STORAGE= .2643E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.63	137.12	231.06	.36	5.00	136.85	230.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1816E+02 EXCESS= .0000E+00 OUTFLOW= .1816E+02 BASIN STORAGE= .2674E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.74	63.71	212.13	1.82	5.00	59.97	210.00	1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4838E+01 OUTFLOW= .4840E+01 BASIN STORAGE= .3419E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.92	39.37	212.86	1.14	5.00	36.48	215.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3032E+01 OUTFLOW= .3033E+01 BASIN STORAGE= .3320E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

E	MANE	.90	38.69	212.98	1.12	5.00	35.97	215.00	1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2974E+01 OUTFLOW= .2975E+01 BASIN STORAGE= .3263E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

E	MANE	.98	30.85	212.92	.91	5.00	29.86	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2427E+01 OUTFLOW= .2427E+01 BASIN STORAGE= .3561E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

E	MANE	.96	30.10	213.15	.89	5.00	29.09	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2377E+01 OUTFLOW= .2377E+01 BASIN STORAGE= .3385E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

E	MANE	1.15	22.84	213.63	.69	5.00	22.59	215.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1848E+01 OUTFLOW= .1847E+01 BASIN STORAGE= .3540E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

E	MANE	1.17	22.26	214.76	.68	5.00	22.11	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1807E+01 OUTFLOW= .1806E+01 BASIN STORAGE= .3317E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

E	MANE	1.47	13.24	215.81	.43	5.00	12.98	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1148E+01 OUTFLOW= .1146E+01 BASIN STORAGE= .3277E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .41

E	MANE	1.35	12.81	216.78	.42	5.00	12.62	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1122E+01 OUTFLOW= .1120E+01 BASIN STORAGE= .3252E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .73

R	MANE	.30	468.83	215.76	1.04	5.00	467.95	220.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5655E+02 EXCESS= .0000E+00 OUTFLOW= .5655E+02 BASIN STORAGE= .2723E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.36	458.22	220.01	1.02	5.00	458.22	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5543E+02 EXCESS= .0000E+00 OUTFLOW= .5543E+02 BASIN STORAGE= .2738E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.31	365.14	220.56	.82	5.00	363.88	220.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4467E+02 EXCESS= .0000E+00 OUTFLOW= .4467E+02 BASIN STORAGE= .2714E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R	MANE	.30	357.04	220.72	.80	5.00	355.88	220.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4371E+02 EXCESS= .0000E+00 OUTFLOW= .4371E+02 BASIN STORAGE= .2735E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R	MANE	.40	264.05	225.17	.62	5.00	264.04	225.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3348E+02 EXCESS= .0000E+00 OUTFLOW= .3348E+02 BASIN STORAGE= .2706E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.40	257.33	225.20	.60	5.00	257.29	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3270E+02 EXCESS= .0000E+00 OUTFLOW= .3270E+02 BASIN STORAGE= .2714E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	.45	149.50	230.48	.37	5.00	149.25	230.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2015E+02 EXCESS= .0000E+00 OUTFLOW= .2015E+02 BASIN STORAGE= .2702E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.54	145.67	230.87	.36	5.00	145.43	230.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1966E+02 EXCESS= .0000E+00 OUTFLOW= .1966E+02 BASIN STORAGE= .2688E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

8	MANE	.54	51.35	211.20	2.03	5.00	50.16	210.00	2.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3896E+01 OUTFLOW= .3895E+01 BASIN STORAGE= .1367E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

8	MANE	.52	33.50	211.89	1.32	5.00	32.02	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2531E+01 OUTFLOW= .2531E+01 BASIN STORAGE= .1372E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

8	MANE	.56	32.87	211.62	1.30	5.00	31.33	210.00	1.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2487E+01 OUTFLOW= .2487E+01 BASIN STORAGE= .1340E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

8	MANE	.55	27.12	211.85	1.08	5.00	25.61	210.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2066E+01 OUTFLOW= .2066E+01 BASIN STORAGE= .1337E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

8	MANE	.61	26.54	211.78	1.06	5.00	25.01	210.00	1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2028E+01 OUTFLOW= .2027E+01 BASIN STORAGE= .1313E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

8	MANE	.53	20.97	212.05	.84	5.00	19.33	210.00	.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1614E+01 OUTFLOW= .1614E+01 BASIN STORAGE= .1194E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

8	MANE	.67	20.54	212.11	.82	5.00	18.88	210.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1582E+01 OUTFLOW= .1581E+01 BASIN STORAGE= .1367E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

8	MANE	.64	13.30	213.41	.55	5.00	12.84	215.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1055E+01 OUTFLOW= .1054E+01 BASIN STORAGE= .1238E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .41

8	MANE	.70	12.89	212.97	.54	5.00	12.45	215.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1034E+01 OUTFLOW= .1033E+01 BASIN STORAGE= .1298E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	1.38	3.50	212.15	.81	5.00	3.19	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2588E+00 EXCESS= .0000E+00 OUTFLOW= .2596E+00 BASIN STORAGE= .2069E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .72

R	MANE	1.38	3.53	212.64	.79	5.00	3.12	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2529E+00 EXCESS= .0000E+00 OUTFLOW= .2537E+00 BASIN STORAGE= .1573E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .64

R	MANE	1.56	2.72	213.58	.62	5.00	2.51	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1980E+00 EXCESS= .0000E+00 OUTFLOW= .1986E+00 BASIN STORAGE= .2017E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .63

R	MANE	1.62	2.66	213.54	.61	5.00	2.46	215.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1930E+00 EXCESS= .0000E+00 OUTFLOW= .1937E+00 BASIN STORAGE= .1647E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .54

R	MANE	1.64	1.94	212.52	.44	5.00	1.85	215.00	.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1417E+00 EXCESS= .0000E+00 OUTFLOW= .1422E+00 BASIN STORAGE= .1578E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .53

R	MANE	1.63	1.95	213.49	.43	5.00	1.80	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1378E+00 EXCESS= .0000E+00 OUTFLOW= .1385E+00 BASIN STORAGE= .2087E-07 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .42

R	MANE	2.05	1.04	215.21	.24	5.00	1.04	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7761E-01 EXCESS= .0000E+00 OUTFLOW= .7790E-01 BASIN STORAGE= .2500E-07 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .41

R	MANE	2.10	1.03	214.86	.24	5.00	1.02	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7529E-01 EXCESS= .0000E+00 OUTFLOW= .7559E-01 BASIN STORAGE= .2123E-07 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .73

R	MANE	.73	9.51	211.67	.81	5.00	8.93	210.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7336E+00 EXCESS= .0000E+00 OUTFLOW= .7347E+00 BASIN STORAGE= .1820E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.74	9.28	211.21	.79	5.00	8.73	210.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7166E+00 EXCESS= .0000E+00 OUTFLOW= .7176E+00 BASIN STORAGE= .1758E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	.83	7.26	211.29	.62	5.00	6.78	210.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5613E+00 EXCESS= .0000E+00 OUTFLOW= .5622E+00 BASIN STORAGE= .2069E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

R	MANE	.76	7.12	211.95	.60	5.00	6.61	210.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5473E+00 EXCESS= .0000E+00 OUTFLOW= .5482E+00 BASIN STORAGE= .2267E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	.81	5.21	211.39	.44	5.00	4.83	215.00	.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4018E+00 EXCESS= .0000E+00 OUTFLOW= .4027E+00 BASIN STORAGE= .1636E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .53

R	MANE	.94	5.08	212.08	.43	5.00	4.71	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3910E+00 EXCESS= .0000E+00 OUTFLOW= .3918E+00 BASIN STORAGE= .1922E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .42

R	MANE	1.18	2.76	213.15	.24	5.00	2.68	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2202E+00 EXCESS= .0000E+00 OUTFLOW= .2206E+00 BASIN STORAGE= .1899E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .41

R	MANE	1.12	2.69	212.79	.24	5.00	2.60	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2138E+00 EXCESS= .0000E+00 OUTFLOW= .2143E+00 BASIN STORAGE= .1774E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

C2+ST	MANE	1.11	42.19	211.89	1.62	5.00	38.96	210.00	1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3192E+01 OUTFLOW= .3193E+01 BASIN STORAGE= .2742E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

C2+ST	MANE	1.46	24.65	213.80	.98	5.00	23.77	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1928E+01 OUTFLOW= .1927E+01 BASIN STORAGE= .2659E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

C2+ST	MANE	1.38	24.20	213.39	.96	5.00	23.34	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1888E+01 OUTFLOW= .1887E+01 BASIN STORAGE= .2728E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

C2+ST	MANE	1.54	18.89	213.65	.77	5.00	18.74	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1513E+01 OUTFLOW= .1511E+01 BASIN STORAGE= .2835E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .63

C2+ST	MANE	1.58	18.34	214.76	.75	5.00	18.21	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1479E+01 OUTFLOW= .1478E+01 BASIN STORAGE= .2438E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

C2+ST	MANE	1.78	13.35	214.56	.57	5.00	13.32	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1121E+01 OUTFLOW= .1120E+01 BASIN STORAGE= .2764E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

C2+ST	MANE	1.77	12.94	215.72	.55	5.00	12.84	215.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1094E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .2577E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

C2+ST	MANE	2.25	6.83	217.36	.33	5.00	6.74	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6601E+00 OUTFLOW= .6574E+00 BASIN STORAGE= .2637E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .41

C2+ST	MANE	2.40	6.68	218.18	.32	5.00	6.58	220.00	.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6430E+00 OUTFLOW= .6402E+00 BASIN STORAGE= .2637E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .73

R	MANE	.73	33.03	215.94	.95	5.00	33.00	215.00	.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2829E+01 EXCESS= .0000E+00 OUTFLOW= .2832E+01 BASIN STORAGE= .1241E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.80	32.39	215.90	.93	5.00	32.36	215.00	.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2772E+01 EXCESS= .0000E+00 OUTFLOW= .2774E+01 BASIN STORAGE= .1188E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	.82	25.92	216.59	.74	5.00	25.62	215.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2214E+01 EXCESS= .0000E+00 OUTFLOW= .2217E+01 BASIN STORAGE= .1196E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

```
                R  MANE          .74     25.32    216.03       .73      5.00     24.94    215.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2165E+01 EXCESS= .0000E+00 OUTFLOW= .2168E+01 BASIN STORAGE= .1179E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          .92     18.63    216.57       .55      5.00     18.06    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1634E+01 EXCESS= .0000E+00 OUTFLOW= .1636E+01 BASIN STORAGE= .1205E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .90     18.04    216.54       .53      5.00     17.44    215.00         .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1594E+01 EXCESS= .0000E+00 OUTFLOW= .1596E+01 BASIN STORAGE= .1188E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.16      9.31    218.04       .32      5.00      9.17    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9565E+00 EXCESS= .0000E+00 OUTFLOW= .9576E+00 BASIN STORAGE= .1199E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.18      8.95    217.30       .31      5.00      8.87    220.00         .31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9310E+00 EXCESS= .0000E+00 OUTFLOW= .9317E+00 BASIN STORAGE= .1215E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
             EN+ST  MANE          .85     25.62    211.47      2.31      5.00     24.78    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2097E+01 OUTFLOW= .2097E+01 BASIN STORAGE= .1040E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
             EN+ST  MANE          .87     17.36    211.91      1.57      5.00     16.31    210.00        1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1423E+01 OUTFLOW= .1423E+01 BASIN STORAGE= .1045E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
             EN+ST  MANE          .85     17.01    211.75      1.54      5.00     16.11    210.00        1.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1401E+01 OUTFLOW= .1400E+01 BASIN STORAGE= .1070E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
             EN+ST  MANE          .91     14.34    211.77      1.31      5.00     13.42    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1189E+01 OUTFLOW= .1189E+01 BASIN STORAGE= .1081E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
             EN+ST  MANE          .97     14.22    212.28      1.29      5.00     13.19    210.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1169E+01 OUTFLOW= .1169E+01 BASIN STORAGE= .9800E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
             EN+ST  MANE         1.04     11.55    212.52      1.06      5.00     10.60    215.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9578E+00 OUTFLOW= .9577E+00 BASIN STORAGE= .1064E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
             EN+ST  MANE         1.13     11.31    212.87      1.04      5.00     10.46    215.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9409E+00 OUTFLOW= .9409E+00 BASIN STORAGE= .1041E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
             EN+ST  MANE         1.29      7.83    213.00       .73      5.00      7.59    215.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6643E+00 OUTFLOW= .6639E+00 BASIN STORAGE= .9481E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
             EN+ST  MANE         1.26      7.65    213.81       .72      5.00      7.46    215.00         .72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6527E+00 OUTFLOW= .6523E+00 BASIN STORAGE= .9564E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              COM  MANE          .46     30.06    210.66      2.31      5.00     29.73    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2344E+01 OUTFLOW= .2344E+01 BASIN STORAGE= .4366E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              COM  MANE          .59     20.66    210.74      1.57      5.00     20.27    210.00        1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1590E+01 OUTFLOW= .1590E+01 BASIN STORAGE= .4252E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
              COM  MANE          .60     20.31    210.83      1.54      5.00     19.88    210.00        1.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1565E+01 OUTFLOW= .1565E+01 BASIN STORAGE= .4559E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .64
               COM  MANE          .54     17.26    211.31      1.31      5.00     16.86    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1328E+01 OUTFLOW= .1328E+01 BASIN STORAGE= .4568E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               COM  MANE          .54     17.02    211.44      1.29      5.00     16.61    210.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1307E+01 OUTFLOW= .1307E+01 BASIN STORAGE= .4674E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               COM  MANE          .60     13.95    211.51      1.06      5.00     13.47    210.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1070E+01 OUTFLOW= .1070E+01 BASIN STORAGE= .4444E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
               COM  MANE          .62     13.77    211.53      1.04      5.00     13.29    210.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1052E+01 OUTFLOW= .1052E+01 BASIN STORAGE= .4110E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               COM  MANE          .76      9.67    211.86       .73      5.00      9.06    210.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7424E+00 OUTFLOW= .7427E+00 BASIN STORAGE= .4422E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               COM  MANE          .68      9.49    211.85       .72      5.00      8.91    210.00         .72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7295E+00 OUTFLOW= .7297E+00 BASIN STORAGE= .4185E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               RCOM  MANE         1.17    554.46    217.68      1.06      5.00    541.02    220.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6569E+02 EXCESS= .0000E+00 OUTFLOW= .6573E+02 BASIN STORAGE= .2489E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
               RCOM  MANE         1.16    539.45    218.12      1.04      5.00    529.46    220.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6440E+02 EXCESS= .0000E+00 OUTFLOW= .6445E+02 BASIN STORAGE= .2437E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
               RCOM  MANE         1.30    423.60    217.65       .84      5.00    419.64    220.00         .84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5206E+02 EXCESS= .0000E+00 OUTFLOW= .5210E+02 BASIN STORAGE= .2483E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
               RCOM  MANE         1.42    411.81    219.01       .82      5.00    410.36    220.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5095E+02 EXCESS= .0000E+00 OUTFLOW= .5099E+02 BASIN STORAGE= .2355E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
               RCOM  MANE         1.43    302.97    223.18       .63      5.00    299.67    225.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3918E+02 EXCESS= .0000E+00 OUTFLOW= .3920E+02 BASIN STORAGE= .2397E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
               RCOM  MANE         1.58    293.88    223.63       .62      5.00    291.74    225.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3827E+02 EXCESS= .0000E+00 OUTFLOW= .3829E+02 BASIN STORAGE= .2429E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               RCOM  MANE         1.78    167.93    232.32       .38      5.00    167.28    230.00         .38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2379E+02 EXCESS= .0000E+00 OUTFLOW= .2380E+02 BASIN STORAGE= .2379E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               RCOM  MANE         1.78    164.13    233.46       .37      5.00    162.59    230.00         .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2322E+02 EXCESS= .0000E+00 OUTFLOW= .2323E+02 BASIN STORAGE= .2369E-02 PERCENT ERROR=    .0



*** NORMAL END OF HEC-1 ***
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HEC-1 Output File "2A-5NODB.OUT" with flow splits, modified from Pittman East Detention Basin CLOMR

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
* RUN DATE   24NOV03  TIME  10:59:28    *
*                                       *
*****************************************
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*****************************************
*                                       *
*   U.S. ARMY CORPS OF ENGINEERS        *
*   HYDROLOGIC ENGINEERING CENTER       *
*         609 SECOND STREET             *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```


```
X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX          XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
                    *DIAGRAM
*** FREE ***
               1    ID
               2    ID    PITTMAN EAST DETENTION BASIN
               3    ID    PBS&J, February 2000
               4    ID
               5    ID    THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
               6    ID    "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
               7    ID    1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
               8    ID    DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
               9    ID    CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
              10    ID    MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
              11    ID    CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
              12    ID    ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
              13    ID    CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
              14    ID
              15    ID    THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE
              16    ID    DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF
              17    ID    LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.
              18    ID
              19    ID
              20    ID    100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
              21    ID    DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
              22    ID    100-YEAR,  50-YEAR, 25-YEAR AND 10-YEAR EVENTS.
              23    ID
              24    IT       5       0       0     300
              25    IO       5       0       0
              26    IN       5       0       0
              27    JR    PREC   0.731   0.722   0.636   0.628   0.541   0.534   0.417   0.412
                    *
              28    KK      F1
              29    BA     9.4
              30    PB    3.38
              31    PC   0.000   0.020   0.058   0.075   0.099   0.126   0.137   0.145   0.149   0.151
              32    PC   0.155   0.156   0.159   0.162   0.169   0.172   0.179   0.189   0.201   0.211
              33    PC   0.220   0.228   0.232   0.240   0.246   0.252   0.260   0.269   0.276   0.283
              34    PC   0.286   0.292   0.302   0.312   0.321   0.332   0.352   0.376   0.415   0.462
              35    PC   0.530   0.610   0.710   0.732   0.756   0.782   0.799   0.813   0.823   0.830
              36    PC   0.835   0.844   0.851   0.864   0.885   0.908   0.924   0.944   0.968   0.973
              37    PC   0.978   0.982   0.984   0.986   0.988   0.991   0.992   0.993   0.994   0.997
              38    PC   0.998   0.999       1
              39    LS       0    84.5
              40    UD    0.97
                    *
              41    KK      F2
              42    BA  2.4345
              43    PB     3.3
              44    LS       0    83.5
              45    UD     .79
                    *
```

2A-5 NODB w/ flow splits


```
          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
              46    KK      CF2
              47    HC        2
                    *
              48    KK      RF2
              49    RM        6     .48    0.15
                    *
              50    KK      F3
              51    BA   2.875
              52    PB    3.25
              53    LS       0    83.3
              54    UD     .65
                    *
              55    KK      RF3
              56    RM        6     .49    0.15
                    *
              57    KK      F4
              58    BA  1.0125
              59    PB    3.22
              60    LS       0    87.1
```

```
     61          UD      .45
                 *

     62          KK      RF4
     63          RM        6      .46     0.15
                 *

     64          KK      CF4
     65          KM   IntermCombine
     66          HC        2
                 *

     67          KK       F5
     68          BA   1.9765
     69          PB     3.19
     70          LS        0     83.8
     71          UD      .63
                 *

     72          KK      RF5
     73          RM        4      .33     0.15
                 *

     74          KK      CF5
     75          HC        3
                 *
```



```
   LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

     76          KK       F6
     77          BA   1.5766
     78          PB     3.23
     79          LS        0     86.9
     80          UD      .59
                 *

     81          KK       F7
     82          BA   3.8656
     83          PB     3.23
     84          LS        0     88.3
     85          UD      .88
                 *

     86          KK      CF7
     87          HC        3
                 *

     88          KK      RF7
     89          RM        6      .51     0.15
                 *

     90          KK      F10
     91          BA   1.0741
     92          PB     3.15
     93          LS        0     87.7
     94          UD      .73
                 *

     95          KK     RF10
     96          RM        3      .27     0.15
                 *

     97          KK      F9F
     98          BA    .5035
     99          PB     3.11
    100          LS        0     89.2
    101          UD     .324
                 *

    102          KK     14-1
    103          BA   .02922
    104          PB     3.15
    105          LS        0       84
    106          UD     .089
                 *

    107          KK     14-2
    108          BA   .01094
    109          PB     3.15
    110          LS        0       87
    111          UD     .098
                 *
```



```
   LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    112          KK      C26
    113          HC        2
                 *

    114          KK    R14-2
    115          RM        4       .3     0.15
                 *

    116          KK     CF9F
    117          HC        3
                 *

    118          KK      F9A
    119          BA    .1130
    120          PB     3.12
    121          LS        0     87.2
    122          UD     .109
                 *

    123          KK       R6
    124          RM        1     .144       .2
                 *

    125          KK      F9B
    126          BA    .4926
    127          PB     3.15
    128          LS        0     83.9
    129          UD     .211
                 *
```

```
130          KK       R7
131          RM        1    .084       .2
             *

132          KK       F8
133          BA    .7602
134          PB    3.17
135          LS        0       81
136          UD     .205
             *

137          KK       R8
138          RM        1    .113       .2
             *

139          KK     F9C
140          BA    .1894
141          PB    3.15
142          LS        0    85.3
143          UD     .136
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

144          KK       C8
145          HC        2
             *

146          KK       R9
147          RM        1    .119       .2
             *

148          KK     F9E
149          BA    .3882
150          PB    3.11
151          LS        0       88
152          UD     .189
             *

153          KK       C9
154          HC        4
             *

155          KK      R10
156          RM        1    .074       .2
             *

157          KK    13-16
158          BA   .02906
159          PB    3.15
160          LS        0       81
161          UD     .211
             *

162          KK    13-17
163          BA   .07578
164          PB    3.15
165          LS        0       87
166          UD     .166
             *

167          KK    13-18
168          BA   .07453
169          PB    3.15
170          LS        0       87
171          UD     .116
             *

172          KK      C10
173          HC        4
             *

174          KK      R11
175          RM        1    .095       .2
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

176          KK    13-15
177          BA   .03672
178          PB    3.15
179          LS        0       84
180          UD     .061
             *

181          KK      C11
182          HC        2
             *

183          KK      R12
184          RM        1    .076       .2
             *

185          KK     F9D
186          BA   .0895
187          PB    3.11
188          LS        0       88
189          UD     .184
             *

190          KK      R13
191          RD     1100    .073      .04        0    TRAP       10        3
             *

192          KK    13-22
193          BA   .01781
194          PB    3.15
195          LS        0       81
196          UD     .119
             *

197          KK      C12
198          HC        2
```

```
                *
  199           KK   13-21
  200           BA  .03906
  201           PB    3.15
  202           LS       0      87
  203           UD    .091
                *
  204           KK     R14
  205           RM       1    .150      .2
                *
  206           KK   13-20
  207           BA  .01344
  208           PB    3.15
  209           LS       0      91
  210           UD    .116
                *
1                                       HEC-1 INPUT                                    PAGE  7
 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  211           KK     C13
  212           HC       2
                *
  213           KK     C14
  214           HC       2
                *
  215           KK     R15
  216           RM       1    .053      .2
                *
  217           KK   13-14
  218           BA  .04234
  219           PB    3.15
  220           LS       0      81
  221           UD    .204
                *
  222           KK   13-19
  223           BA  .07828
  224           PB    3.15
  225           LS       0      87
  226           UD    .198
                *
  227           KK     C15
  228           HC       4
                *
  229           KK     R16
  230           RM       1    .061      .2
                *
  231           KK    13-9
  232           BA  .04953
  233           PB    3.07
  234           LS       0      82
  235           UD    .208
                *
  236           KK   13-12
  237           BA  .02813
  238           PB    3.15
  239           LS       0      89
  240           UD    .143
                *
  241           KK   13-13
  242           BA  .01375
  243           PB    3.15
  244           LS       0      85
  245           UD    .050
                *
1                                       HEC-1 INPUT                                    PAGE  8
 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  246           KK     R17
  247           RM       1    .076      .2
                *
  248           KK     C16
  249           HC       3
                *
  250           KK     R18
  251           RM       1    .108      .2
                *
  252           KK    13-8
  253           BA  .08859
  254           PB    3.15
  255           LS       0      83
  256           UD    .139
                *
  257           KK     C17
  258           HC       3
                *
  259           KK    13-7
  260           BA  .02172
  261           PB    3.22
  262           LS       0      87
  263           UD    .116
                *
  264           KK     R19
  265           RM       1    .065      .2
                *
  266           KK    13-6
```

```
                267          BA   .02922
                268          PB     3.22
                269          LS         0      92
                270          UD      .147
                             *

                271          KK    13-23
                272          BA   .06156
                273          PB     3.22
                274          LS         0      89
                275          UD      .115
                             *

                276          KK       C18
                277          HC         3
                             *
1                                                HEC-1 INPUT                                                PAGE  9

               LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                278          KK       R20
                279          RM         1    .053       .2
                             *

                280          KK    13-25
                281          BA   .01375
                282          PB     3.22
                283          LS         0      77
                284          UD      .145
                             *

                285          KK       R21
                286          RM         1    .064       .2
                             *

                287          KK    13-24
                288          BA   .06594
                289          PB     3.22
                290          LS         0      82
                291          UD      .254
                             *

                292          KK       C19
                293          HC         2
                             *

                294          KK     13-4
                295          BA   .01469
                296          PB     3.07
                297          LS         0      81
                298          UD      .131
                             *

                299          KK     13-5
                300          BA   .13578
                301          PB     3.07
                302          LS         0      87
                303          UD      .215
                             *

                304          KK       C20
                305          HC         2
                             *

                306          KK       R22
                307          RM         1    .098       .2
                             *

                308          KK    13-11
                309          BA   .04844
                310          PB     3.07
                311          LS         0      87
                312          UD      .145
                             *
1                                                HEC-1 INPUT                                                PAGE 10

               LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                313          KK       C21
                314          HC         2
                             *

                315          KK       R23
                316          RM         1    .065       .2
                             *

                317          KK    13-10
                318          BA   .01594
                319          PB     3.07
                320          LS         0      94
                321          UD      .102
                             *

                322          KK       C22
                323          HC         2
                             *

                324          KK       R24
                325          RM         1    .056       .2
                             *

                326          KK     13-3
                327          BA   .04078
                328          PB     3.07
                329          LS         0      92
                330          UD      .197
                             *

                331          KK       C23
                332          HC         4
                             *

                333          KK       R25
                334          RM         1    .130       .2
                             *
```

```
335          KK    13-2
336          BA  .02438
337          PB    3.15
338          LS       0      93
339          UD    .092
             *

340          KK      C24
341          HC        3
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

342          KK    13-1
343          BA  .07250
344          PB    3.15
345          LS       0      88
346          UD    .174
             *

347          KK      C25
348          HC        2
             *

349          KK    CCF9F
350          HC        2
             *

351          KK     RF9F
352          RM        3     .29    0.15
             *

353          KK    12-1
354          BA  .13281
355          PB    3.07
356          LS       0      89
357          UD    .234
             *

358          KK    C12-1
359          HC        2
             *

360          KK    R12-1
361          RM        3     .25    0.15
             *

362          KK    11-4
363          BA  .02906
364          PB    3.15
365          LS       0      87
366          UD    .048
             *

367          KK       R2
368          RM        2    .246      .2
             *

369          KK    11-3
370          BA  .08750
371          PB    3.07
372          LS       0      89
373          UD    .177
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

374          KK       C2
375          HC        2
             *

376          KK    11-2
377          BA  .06219
378          PB    3.07
379          LS       0      93
380          UD    .191
             *

381          KK       C3
382          HC        2
             *

383          KK    11-7
384          BA  .04703
385          PB    3.22
386          LS       0      84
387          UD    .108
             *

388          KK    11-8
389          BA  .03203
390          PB    3.22
391          LS       0      87
392          UD    .152
             *

393          KK    11-9
394          BA  .05875
395          PB    3.22
396          LS       0      84
397          UD    .161
             *

398          KK   11-10
399          BA  .09422
400          PB    3.22
401          LS       0      88
402          UD    .150
             *

403          KK       R3
404          RD      950    .095     .04       0    TRAP       50        4
             *
```

```
405          KK       C4
406          HC        4
             *
1                                        HEC-1 INPUT                                        PAGE 13

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


407          KK       R4
408          RD     1000    .025      .04        0    TRAP       50        8
             *

409          KK     11-5
410          BA    .03219
411          PB     3.07
412          LS         0       87
413          UD     .104
             *

414          KK       C5
415          HC        2
             *

416          KK     11-6
417          BA    .13375
418          PB     3.22
419          LS         0       89
420          UD     .196
             *

421          KK       C6
422          HC        3
             *

423          KK       R5
424          RD     1000    .025      .04        0    TRAP       50        8
             *

425          KK     11-1
426          BA    .09234
427          PB     3.07
428          LS         0       89
429          UD     .162
             *

430          KK       C7
431          HC        2
             *

432          KK      CC7
433          HC        2
             *

434          KK      RC7
435          RM        3     .28    0.15
             *
1                                        HEC-1 INPUT                                        PAGE 14

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


436          KK     10-2
437          BA    .13422
438          PB     3.07
439          LS         0       89
440          UD     .174
             *

441          KK       R1
442          RD     1500    .073      .04        0    TRAP       50        4
             *

443          KK     10-1
444          BA    .09938
445          PB     3.07
446          LS         0       87
447          UD     .090
             *

448          KK       C1
449          HC        2
             *

450          KK      CC1
451          HC        2
             *

452          KK      DB1
453          BA   1.9261
454          PB     3.04
455          LS         0       90
456          UD     .614
             *

457          KK     CDB1
458          HC        3
             *

459          KKDVCDB1NW
460          KM   DIVERT FIFTY PERCENT OF THE FLOW FROM COMBINATION POINT CDB1 TOWARD
461          KM   NORTHWESTERLY DIRECTION
462          DTDVCDB1NW
463          DI         0    1000   10000
464          DQ         0     500    5000
             *

465          KK     RDB1
466          RK     4000    .016   0.035        0    TRAP       60        2
             *
1                                        HEC-1 INPUT                                        PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


467          KK     9-19
468          BA    .01547
469          PB     3.07
470          LS         0       91
```

```
 471          UD    .150
              *

 472          KK     9-15
 473          BA   .23781
 474          PB    3.15
 475          LS       0      87
 476          UD    .238
              *

 477          KK      C14
 478          HC        2
              *

 479          KK      R13
 480          RM        1    .059       .2
              *

 481          KK     9-18
 482          BA   .01266
 483          PB    3.22
 484          LS       0      91
 485          UD    .115
              *

 486          KK      C15
 487          HC        2
              *

 488          KK     9-16
 489          BA   .01781
 490          PB    3.07
 491          LS       0      91
 492          UD    .138
              *

 493          KK     9-17
 494          BA   .04750
 495          PB    3.07
 496          LS       0      83
 497          UD    .171
              *

 498          KK      C16
 499          HC        2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 500          KK      C17
 501          HC        2
              *

 502          KK      R14
 503          RM        1    .090       .2
              *

 504          KK     9-14
 505          BA   .08766
 506          PB    3.07
 507          LS       0      87
 508          UD    .193
              *

 509          KK      C18
 510          HC        2
              *

 511          KK      R15
 512          RD      750    .133      .04       0    TRAP      10       3
              *

 513          KK     9-12
 514          BA   .00703
 515          PB    3.07
 516          LS       0      95
 517          UD    .050
              *

 518          KK      R16
 519          RD      550    .200      .04       0    TRAP      10       3
              *

 520          KK      C19
 521          HC        2
              *

 522          KK      R17
 523          RM        2    .203       .2
              *

 524          KK     9-11
 525          BA   .26313
 526          PB    3.07
 527          LS       0      84
 528          UD    .241
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 529          KK      C20
 530          HC        2
              *

 531          KK      9-6
 532          BA   .03047
 533          PB    3.07
 534          LS       0      93
 535          UD    .173
              *

 536          KK      C21
 537          HC        2
              *
```

```
538          KK     R18
539          RD     700    .021    .013       0    CIRC     7.5
             *

540          KK    9-13
541          BA  .15156
542          PB    3.07
543          LS       0      89
544          UD    .233
             *

545          KK     R19
546          RD     850    .100    .013       0    CIRC     4.5
             *

547          KK     9-5
548          BA  .00734
549          PB    3.07
550          LS       0      89
551          UD    .076
             *

552          KK     C22
553          HC       3
             *

554          KK     R20
555          RD     600    .025    .015       0    TRAP      20       0
             *

556          KK     9-2
557          BA  .01813
558          PB    3.07
559          LS       0      93
560          UD    .163
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

561          KK     C23
562          HC       2
             *

563          KK     R21
564          RD    1050    .029    .015       0    TRAP      10       0
             *

565          KK    9-10
566          BA  .00703
567          PB    3.07
568          LS       0      95
569          UD    .071
             *

570          KK     R22
571          RM       1    .067      .2
             *

572          KK     9-9
573          BA  .02344
574          PB    3.07
575          LS       0      89
576          UD    .129
             *

577          KK     C24
578          HC       2
             *

579          KK     R23
580          RM       1    .136      .2
             *

581          KK     9-8
582          BA  .14672
583          PB    3.07
584          LS       0      89
585          UD    .232
             *

586          KK     R24
587          RD     600    .083     .04       0    TRAP      10       3
             *

588          KK     9-7
589          BA  .12828
590          PB    3.07
591          LS       0      84
592          UD    .250
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

593          KK     C25
594          HC       3
             *

595          KK     R25
596          RD     900    .033     .04       0    TRAP      50       8
             *

597          KK     9-4
598          BA  .03688
599          PB    3.07
600          LS       0      89
601          UD    .138
             *

602          KK     C26
603          HC       2
             *

604          KK     9-3
```

```
605          BA  .05656
606          PB    3.07
607          LS       0      93
608          UD    .163
             *

609          KK     C27
610          HC       3
             *

611          KK     R26
612          RD     800    .018     .04       0    TRAP      50       8
             *

613          KK     9-1
614          BA  .04766
615          PB    3.07
616          LS       0      89
617          UD    .160
             *

618          KK     C28
619          HC       2
             *

620          KK     8-3
621          BA  .07656
622          PB    3.07
623          LS       0      89
624          UD    .142
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

625          KK     8-2
626          BA  .01094
627          PB    3.07
628          LS       0      93
629          UD    .066
             *

630          KK     C12
631          HC       2
             *

632          KK     R12
633          RD     800    .044     .04       0    TRAP      10       3
             *

634          KK     8-1
635          BA  .02234
636          PB    3.07
637          LS       0      88
638          UD    .080
             *

639          KK     C13
640          HC       2
             *

641          KK     7-2
642          BA  .01859
643          PB    3.07
644          LS       0      89
645          UD    .108
             *

646          KK     R11
647          RD     500    .100     .04       0    TRAP      10       3
             *

648          KK     7-1
649          BA  .01266
650          PB    3.07
651          LS       0      87
652          UD    .130
             *

653          KK     C11
654          HC       4
             *

655          KK     DB2
656          BA   .5965
657          PB    2.91
658          LS       0    89.3
659          UD    .331
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

660          KKDIVDB2NW
661          KM   DIVERT TWENTY-FIVE PERCENT OF THE FLOW FROM SUB-BASIN DB2 TOWARD
662          KM   NORTHWESTERLY DIRECTION
663          DTDIVDB2NW
664          DI       0    1000   10000
665          DQ       0     250    2500
             *

666          KK    CDB2
667          KO       1
668          HC       3
             *
             * KKPEDB
             * KMPITTMAN EAST DETENTION BASIN
             * KMTOP OF EMBANKMENT ELEVATION 2510
             * KMSPILLWAY CREST ELEVATION 2502, TWO LEVEL OUTLET
             * KM36" RCP LOW LEVEL OUTLET ELEVATION 2461
             * KM6'X8' RCB HIGH LEVEL OUTLET ELEVATION 2481
             * KO1
             * RS1        STOR         0
             * SV0          .8      13.6      53.5       133       264       306       350       397         4
             * SV500       554       610       928      1249      1636      1855      2031      2216        26
             * SE2461     2464      2468      2472      2476      2480      2481      2482      2483        24
```

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                * SE2485     2486     2487     2492     2496     2500     2502  2503.5     2505     25
                * SQ0           38       70       86       99      111      114      225      427      6
                * SQ666        701      748      924     1063     1197     1262    11434    30402    859
                *

      669       KK     RDB2
      670       RK     5000    .015    0.035        0    TRAP       60        2
                *

      671       KK       U1
      672       PB    2.900
      673       BA    0.031
      674       LS        0       87
      675       UK      100     0.02     0.08      100
      676       RK      300     0.03    0.017   0.0022    TRAP       60        0
      677       RK     1300     0.03    0.017    0.031    TRAP       60        0
                *

      678       KK        R
      679       RK      900     0.04    0.017        0    TRAP       80        0
                *

      680       KK     GB-1
      681       PB     2.91
      682       BA    0.009
      683       LS        0       84
      684       UD    0.074
                *
1                                          HEC-1 INPUT                                          PAGE 22

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

      685       KK        C
      686       HC        2
                *

      687       KK        R
      688       RK      550     0.04    0.017        0    TRAP       80        0
                *

      689       KK       W2
      690       PB    2.900
      691       BA    0.013
      692       LS        0       87
      693       UK      100     0.02     0.08      100
      694       RK      300     0.03    0.017   0.0022    TRAP       60        0
      695       RK      600     0.03    0.017    0.013    TRAP       60        0
                *

      696       KK        C
      697       HC        2
                *

      698       KK       W1
      699       PB    2.900
      700       BA    0.033
      701       LS        0       87
      702       UK      100    0.017     0.08      100
      703       RK      400     0.02    0.017   0.0029    TRAP       60        0
      704       RK     1000     0.03    0.017    0.033    TRAP       60        0
                *

      705       KK        C
      706       HC        2
                *

      707       KK        R
      708       RK     1600     0.02    0.015        0    TRAP       20        0
                *

      709       KK     GB-2A
      710       PB     2.88
      711       BA    0.015
      712       LS        0       84
      713       UD    0.102
                *

      714       KK       V2
      715       PB     2.89
      716       BA    0.032
      717       LS        0     89.5
      718       UK      100     0.02     0.08      100
      719       RK      300     0.03    0.017   0.0022    TRAP       60        0
      720       RK     2000     0.03    0.017    0.032    TRAP       60        0
                *
1                                          HEC-1 INPUT                                          PAGE 23

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

      721       KK        C
      722       HC        3
                *

      723       KK        R
      724       RK     1300    0.004     0.03        0    TRAP       10        4
                *

      725       KK       V1
      726       PB     2.88
      727       BA    0.052
      728       LS        0     89.5
      729       UK      100     0.02     0.08      100
      730       RK      500     0.02    0.017   0.0036    TRAP       60        0
      731       RK     2200     0.03    0.017    0.052    TRAP       60        0
                *

      732       KK     GB-2B
      733       PB     2.88
      734       BA    0.007
      735       LS        0       84
      736       UD    0.079
                *

      737       KK        C
      738       HC        2
                *
```

```
739          KK       C
740          HC       2
             *

741          KK      P1
742          PB   2.900
743          BA   0.094
744          LS       0      87
745          UK     100    0.02    0.08     100
746          RK     300    0.02   0.017  0.0022    TRAP       60        0
747          RK    2800    0.03   0.017   0.083    TRAP       60        0
             *

748          KK    GB-4
749          PB     2.9
750          BA   0.035
751          LS       0      84
752          UD   0.112
             *

753          KK      T2
754          PB   2.900
755          BA   0.021
756          LS       0      87
757          UK     100    0.02    0.08     100
758          RK     100    0.02   0.017  0.0004    TRAP       60        0
1                                    HEC-1 INPUT                                    PAGE 24

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

759          RK    2300    0.03   0.017   0.021    TRAP       80        0
             *

760          KK       C
761          HC       3
             *

762          KK       R
763          RK     900   0.004    0.03       0    TRAP       10        4
             *

764          KK     6-8
765          BA  .03031
766          PB    3.07
767          LS       0      94
768          UD    .124
             *

769          KK     6-7
770          BA  .00672
771          PB    3.15
772          LS       0      91
773          UD    .071
             *

774          KK      C6
775          HC       2
             *

776          KK      R6
777          RD     550    .036    .016       0    TRAP        0       50
             *

778          KK     6-6
779          BA  .03453
780          PB    3.07
781          LS       0      94
782          UD    .112
             *

783          KK      C7
784          HC       2
             *

785          KK      R7
786          RM       2    .218      .2
             *

787          KK     6-5
788          BA  .10188
789          PB    3.07
790          LS       0      89
791          UD    .199
             *
1                                    HEC-1 INPUT                                    PAGE 25

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

792          KK      R8
793          RD    1050    .090     .04       0    TRAP       10        3
             *

794          KK     6-4
795          BA  .19188
796          PB    3.07
797          LS       0      83
798          UD    .246
             *

799          KK      C8
800          HC       3
             *

801          KK      R9
802          RM       1    .059      .2
             *

803          KK     6-3
804          BA  .01594
805          PB    3.07
806          LS       0      89
807          UD    .106
             *

808          KK     R10
809          RD    1400    .061     .04       0    TRAP       10        3
```

```
                *
 810            KK     6-2
 811            BA  .05281
 812            PB    3.07
 813            LS       0      88
 814            UD    .082
                *

 815            KK      C9
 816            HC       3
                *

 817            KK     6-1
 818            BA  .02719
 819            PB    3.07
 820            LS       0      87
 821            UD    .121
                *

 822            KK     C10
 823            HC       2
                *
1                                        HEC-1 INPUT                                        PAGE 26

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 824            KK       R
 825            RK    2100   0.023   0.025       0    TRAP      15       8
                *

 826            KK      T1
 827            PB   2.900
 828            BA   0.038
 829            LS       0      87
 830            UK     100    0.02    0.08     100
 831            RK     200    0.02   0.017  0.0014    TRAP      60       0
 832            RK    1800    0.03   0.017   0.038    TRAP      80       0
                *

 833            KK    GB-3
 834            PB   2.900
 835            BA   0.017
 836            LS       0      84
 837            UD   0.096
                *

 838            KK      U2
 839            PB   2.900
 840            BA   0.023
 841            LS       0      87
 842            UK     100    0.02    0.08     100
 843            RK     150    0.02   0.017  0.0011    TRAP      60       0
 844            RK    1500    0.03   0.017   0.023    TRAP      80       0
                *

 845            KK       C
 846            HC       4
                *

 847            KK       R
 848            RK     700   0.004    0.03       0    TRAP      10       4
                *

 849            KK       C
 850            HC       2
                *

 851            KK       R
 852            RK     800   0.004    0.03       0    TRAP      10       4
                *

 853            KK   GB-5A
 854            PB    2.88
 855            BA   0.033
 856            LS       0      84
 857            UD   0.093
                *
1                                        HEC-1 INPUT                                        PAGE 27

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 858            KK       C
 859            HC       2
                *

 860            KK      Q1
 861            PB    2.88
 862            BA   0.023
 863            LS       0      87
 864            UK     100    0.02    0.08     100
 865            RK     200    0.02   0.017  0.0014    TRAP      60       0
 866            RK    1300   0.025   0.017   0.023    TRAP      60       0
                *

 867            KK      S1
 868            PB    2.89
 869            BA   0.047
 870            LS       0      87
 871            UK     100    0.02    0.08     100
 872            RK     400    0.02   0.017  0.0029    TRAP      60       0
 873            RK    1400    0.02   0.017   0.049    TRAP      60       0
                *

 874            KK       C
 875            HC       3
                *

 876            KK       R
 877            RK    1500   0.004    0.03       0    TRAP      10       4
                *

 878            KK      S2
 879            PB    2.88
 880            BA   0.022
 881            LS       0      87
```

```
882          UK     100    0.02    0.08     100
883          RK     300    0.02   0.017  0.0022    TRAP      60       0
884          RK    1300    0.02   0.017   0.022    TRAP      60       0
             *

885          KK   GB-5B
886          PB    2.88
887          BA   0.012
888          LS       0      84
889          UD    0.09
             *

890          KK       C
891          HC       3
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

892          KK    GB-6
893          PB    2.87
894          BA   0.028
895          LS       0      84
896          UD   0.102
             *

897          KK       R
898          RK     600    0.01   0.017       0    TRAP      80       0
             *

899          KK      R2
900          PB    2.87
901          BA   0.036
902          LS       0      87
903          UK     100    0.02    0.08     100
904          RK     300    0.02   0.017  0.0022    TRAP      60       0
905          RK    1200    0.02   0.017   0.036    TRAP      60       0
             *

906          KK       C
907          HC       2
             *

908          KK       R
909          RK    1500    0.01   0.017       0    TRAP      80       0
             *

910          KK      R1
911          PB    2.87
912          BA   0.031
913          LS       0      87
914          UK     100    0.02    0.08     100
915          RK     300    0.02   0.017  0.0022    TRAP      60       0
916          RK    1300    0.01   0.017   0.031    TRAP      60       0
             *

917          KK       C
918          HC       2
             *

919          KK       C
920          HC       2
             *

921          KK   GB-14
922          PB    2.88
923          BA   0.012
924          LS       0      84
925          UD    0.05
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

926          KK       F
927          PB    2.86
928          BA   0.005
929          LS       0      95
930          UK     100    0.02    0.05     100
931          RK     300    0.02   0.017  0.0022    TRAP      60       0
             *

932          KK      CF
933          HC       4
             *

934          KK     CCF
935          HC       2
             *

936          KK      RF
937          RK    6000    .015   0.035       0    TRAP      60       2
             *

938          KK     5-7
939          BA  .00891
940          PB    3.15
941          LS       0      91
942          UD    .104
             *

943          KK      R1
944          RM       1    .136      .2
             *

945          KK     5-6
946          BA  .03656
947          PB    3.15
948          LS       0      91
949          UD    .160
             *

950          KK      C1
951          HC       2
             *
```

```
  952          KK       R2
  953          RM        1    .091      .2
               *

  954          KK      5-5
  955          BA   .05016
  956          PB     3.07
  957          LS        0      84
  958          UD     .117
               *
1                                        HEC-1 INPUT                                        PAGE 30

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  959          KK      5-8
  960          BA   .03969
  961          PB     3.07
  962          LS        0      91
  963          UD     .111
               *

  964          KK       C2
  965          HC        3
               *

  966          KK       R3
  967          RM        2    .174      .2
               *

  968          KK      5-4
  969          BA   .11563
  970          PB     3.07
  971          LS        0      82
  972          UD     .206
               *

  973          KK       C3
  974          HC        2
               *

  975          KK       R4
  976          RD      800    .025     .013       0    CIRC      5.5
               *

  977          KK      5-2
  978          BA   .02859
  979          PB     3.07
  980          LS        0      88
  981          UD     .074
               *

  982          KK       C4
  983          HC        2
               *

  984          KK      5-3
  985          BA   .06078
  986          PB     3.07
  987          LS        0      88
  988          UD     .182
               *

  989          KK       R5
  990          RD      900    .117     .016       0    TRAP        0       50
               *
1                                        HEC-1 INPUT                                        PAGE 31

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  991          KK      5-1
  992          BA   .01609
  993          PB     3.07
  994          LS        0      87
  995          UD     .140
               *

  996          KK       C5
  997          HC        3
               *

  998          KK        R
  999          RK     3100    0.02    0.025       0    TRAP       15        8
               *

 1000          KK    GC-5A
 1001          PB    2.900
 1002          BA    0.050
 1003          LS        0      84
 1004          UD    0.128
               *

 1005          KK       N1
 1006          PB    2.900
 1007          BA    0.046
 1008          LS        0      85
 1009          UK      200    0.02     0.1      100
 1010          RK      300   0.035   0.017   0.0022    TRAP       60        0
 1011          RK     2200   0.025   0.017    0.046    TRAP       60        0
               *

 1012          KK        R
 1013          RK     1500    0.02    0.013       0    CIRC        2        0
               *

 1014          KK        C
 1015          HC        3
               *

 1016          KK    GC-5B
 1017          PB    2.88
 1018          BA    0.02
 1019          LS        0      95
 1020          UD    0.09
               *

 1021          KK        R
```

```
1022          RK     200    0.01   0.017       0    TRAP      80       0
              *
1                                    HEC-1 INPUT                                    PAGE 32

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1023          KK       C
1024          HC       2
              *
1025          KK   GC-4A
1026          PB     2.9
1027          BA   0.027
1028          LS       0      84
1029          UD   0.109
              *
1030          KK       R
1031          RK     800   0.004    0.03       0    TRAP      20       4
              *
1032          KK       R
1033          RK     400    0.01   0.017       0    TRAP      80       0
              *
1034          KK   GC-4B
1035          PB    2.88
1036          BA   0.056
1037          LS       0      84
1038          UD   0.123
              *
1039          KK       R
1040          RK    1300   0.015   0.017       0    TRAP      80       0
              *
1041          KK       C
1042          HC       3
              *
1043          KK       0
1044          PB    2.88
1045          BA   0.015
1046          LS       0      92
1047          UK     100    0.02    0.08     100
1048          RK     200    0.05   0.017  0.0014    TRAP      60       0
1049          RK     700    0.03    0.03   0.017    TRAP      60       0
              *
1050          KK       R
1051          RK     450    0.01   0.017       0    TRAP      80       0
              *
1052          KK       C
1053          HC       2
              *
1                                    HEC-1 INPUT                                    PAGE 33

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1054          KK       R
1055          RK    1600   0.004    0.03       0    TRAP      20       4
              *
1056          KK      H3
1057          PB    2.88
1058          BA   0.017
1059          LS       0      87
1060          UK     100    0.02    0.08     100
1061          RK     200    0.05   0.017  0.0014    TRAP      60       0
1062          RK     100    0.03   0.017   0.017    TRAP      60       0
              *
1063          KK       R
1064          RK     600   0.004    0.03       0    TRAP      20       4
              *
1065          KK   GC-1A
1066          PB    2.88
1067          BA   0.021
1068          LS       0      84
1069          UD   0.101
              *
1070          KK       C
1071          HC       3
              *
1072          KK      P2
1073          PB   2.900
1074          BA   0.066
1075          LS       0      87
1076          UK     100    0.02     0.1     100
1077          RK     400    0.03   0.017  0.0029    TRAP      60       0
1078          RK    3700    0.02   0.017   0.066    TRAP      60       0
              *
1079          KK       R
1080          RK     500   0.004    0.03       0    TRAP      10       4
              *
1081          KK       C
1082          HC       2
              *
1083          KK       R
1084          RK    1800   0.004    0.03       0    TRAP      15       4
              *
1                                    HEC-1 INPUT                                    PAGE 34

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1085          KK       Y
1086          PB    2.88
1087          BA   0.017
```

```
1088          LS       0      92
1089          UK     100    0.02    0.08     100
1090          RK     200    0.02   0.017  0.0014    TRAP      60         0
1091          RK    1000    0.02   0.017   0.017    TRAP      60         0
              *

1092          KK      H1
1093          PB    2.86
1094          BA   0.054
1095          LS       0      87
1096          UK     100    0.02    0.10     100
1097          RK     450    0.02   0.017  0.0032    TRAP      60         0
1098          RK    2100    0.02   0.017   0.054    TRAP      60         0
              *

1099          KK   GC-18
1100          PB    2.87
1101          BA   0.023
1102          LS       0      84
1103          UD   0.106
              *

1104          KK   GC-1C
1105          PB    2.86
1106          BA   0.018
1107          LS       0      84
1108          UD   0.096
              *

1109          KK       C
1110          HC       5
              *

1111          KK       R
1112          RK     700   0.004   0.030        0    TRAP      10         4
              *

1113          KK  C1D1GC
1114          PB    2.86
1115          BA   0.025
1116          LS       0    86.2
1117          UD    0.05
              *

1118          KK       C
1119          HC       2
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1120          KK      Q2
1121          PB    2.88
1122          BA   0.076
1123          LS       0      92
1124          UK     100   0.020    0.10     100
1125          RK     400    0.02   0.017  0.0029    TRAP      60         0
1126          RK    2000    0.02   0.017   0.076    TRAP      60         0
              *

1127          KK       R
1128          RK    1400    0.02   0.017        0    TRAP      80         0
              *

1129          KK      G1
1130          PB    2.86
1131          BA   0.035
1132          LS       0    89.5
1133          UK     100    0.02    0.10     100
1134          RK     400    0.02   0.017  0.0029    TRAP      60         0
1135          RK    1000    0.01   0.017   0.035    TRAP      60         0
              *

1136          KK      G2
1137          PB    2.86
1138          BA   0.018
1139          LS       0    89.5
1140          UK     100    0.02    0.10     100
1141          RK     150    0.02   0.017  0.0011    TRAP      60         0
1142          RK    1000   0.015   0.017   0.018    TRAP      60         0
              *

1143          KK       C
1144          HC       3
              *

1145          KK       C
1146          HC       2
              *

1147          KK       R
1148          RK     500   0.004   0.030        0    TRAP      15         4
              *

1149          KK       E
1150          PB    2.86
1151          BA   0.050
1152          LS       0    89.5
1153          UK     100    0.02    0.10     100
1154          RK     400    0.01   0.017  0.0029    TRAP      60         0
1155          RK    1000   0.015   0.017   0.050    TRAP      60         0
              *
```



```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1156          KK    GB-7
1157          PB    2.86
1158          BA   0.029
1159          LS       0      84
1160          UD   0.090
              *

1161          KK       C
1162          HC       3
              *
```

```
1163          KK        R
1164          RK     1000   0.015   0.015       0    TRAP      15       2
              *

1165          KK        8
1166          PB     2.86
1167          BA    0.036
1168          LS        0      92
1169          UK      100    0.02    0.08     100
1170          RK      400    0.01   0.017  0.0029    TRAP      60       0
1171          RK      800   0.015   0.015   0.036    TRAP      15       2
              *

1172          KK        C
1173          HC        2
              *

1174          KK    GB-10
1175          PB     2.86
1176          BA    0.006
1177          LS        0      84
1178          UD    0.079
              *

1179          KK        R
1180          RK      800    0.02   0.030       0    TRAP      10       4
              *

1181          KK     GB-9
1182          PB     2.86
1183          BA    0.011
1184          LS        0      84
1185          UD    0.081
              *

1186          KK        C
1187          HC        2
              *
1                                        HEC-1 INPUT                                    PAGE 37

              LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1188          KK        R
1189          RK      400   0.015   0.017       0    TRAP      50       0
              *

1190          KK    C2+ST
1191          BA    0.037
1192          PB     2.86
1193          LS        0      87
1194          UK      100    0.01    0.08     100
1195          RK      300    0.02   0.017  0.0022    TRAP      60       0
1196          RK     1300   0.015   0.017  0.0406    TRAP      60       0
              *

1197          KK       ST
1198          BA    0.002
1199          LS        0      95
1200          UD     0.05
              *

1201          KK        C
1202          HC        3
              *

1203          KK        R
1204          RK      700   0.015   0.017       0    TRAP      50       0
              *

1205          KK     GB-8
1206          PB     2.86
1207          BA    0.017
1208          LS        0      84
1209          UD    0.087
              *

1210          KK    EN+ST
1211          BA    0.017
1212          PB     2.86
1213          LS        0      95
1214          UK      100    0.01    0.08     100
1215          RK      300    0.02   0.017  0.0022    TRAP      60       0
1216          RK      700   0.015   0.017  0.0172    TRAP      60       0
              *

1217          KK      COM
1218          BA    0.019
1219          PB     2.86
1220          LS        0      95
1221          UK      100    0.01    0.05     100
1222          RK      300    0.02   0.017  0.0022    TRAP      60       0
1223          RK      600    0.03   0.025   0.025    TRAP      20       2
              *
1                                        HEC-1 INPUT                                    PAGE 38

              LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1224          KK        C
1225          HC        4
              *

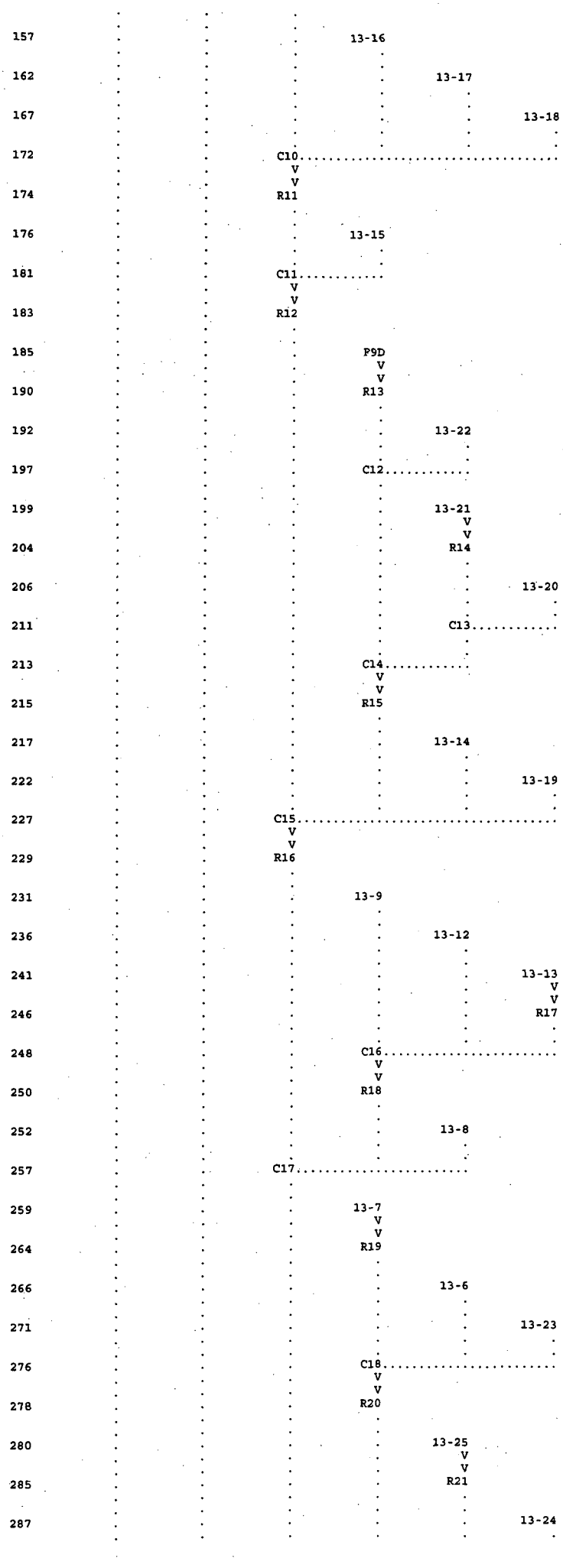
1226          KK        C
1227          HC        2
              *

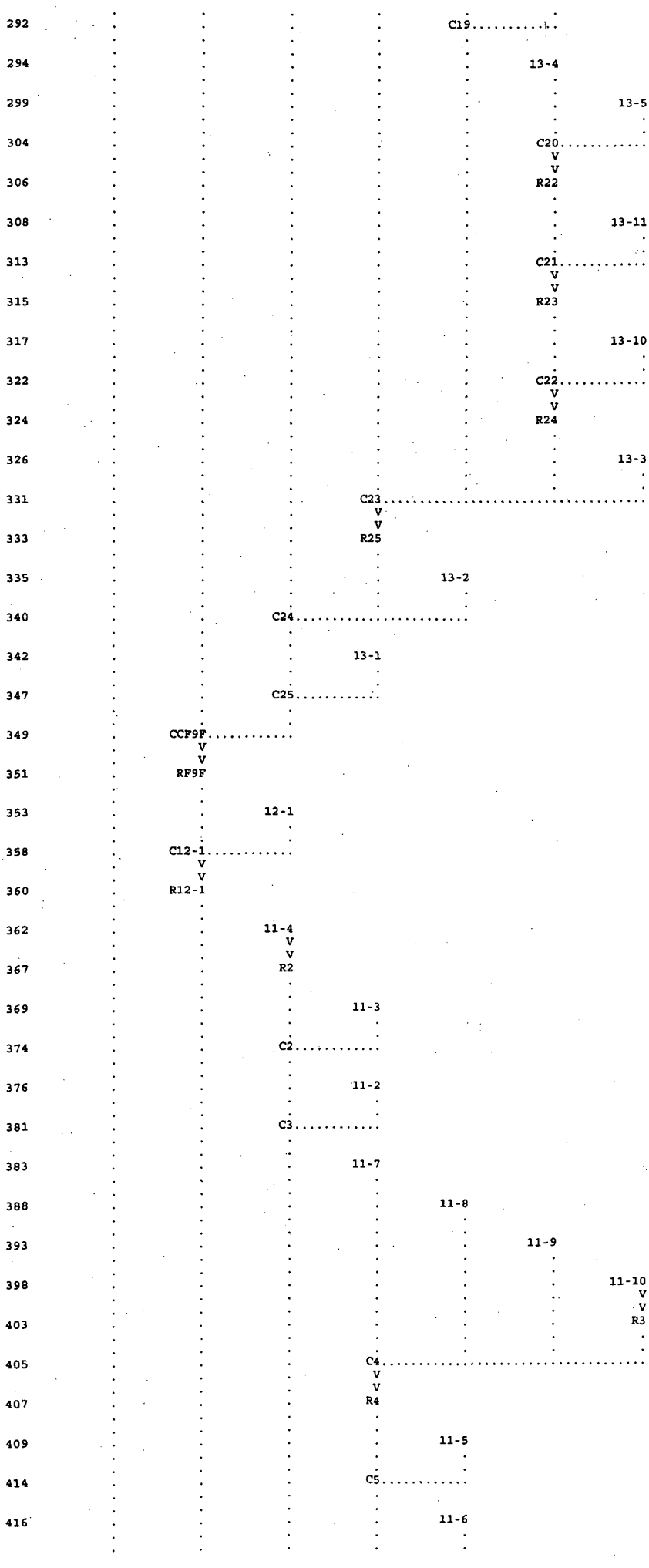
1228          KK     RCOM
1229          RK     2300    .017   0.035       0    TRAP      40       2
              *

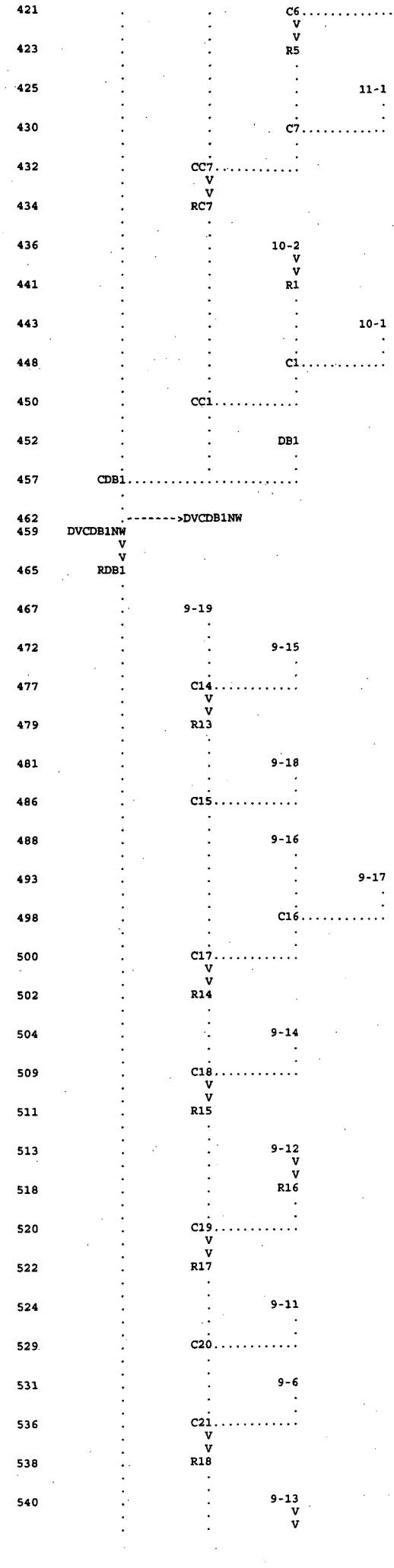
1230          KK     DSDB
1231          BA    .6092
1232          PB     2.81
1233          LS        0     86.6
1234          UD     .548
              *
```

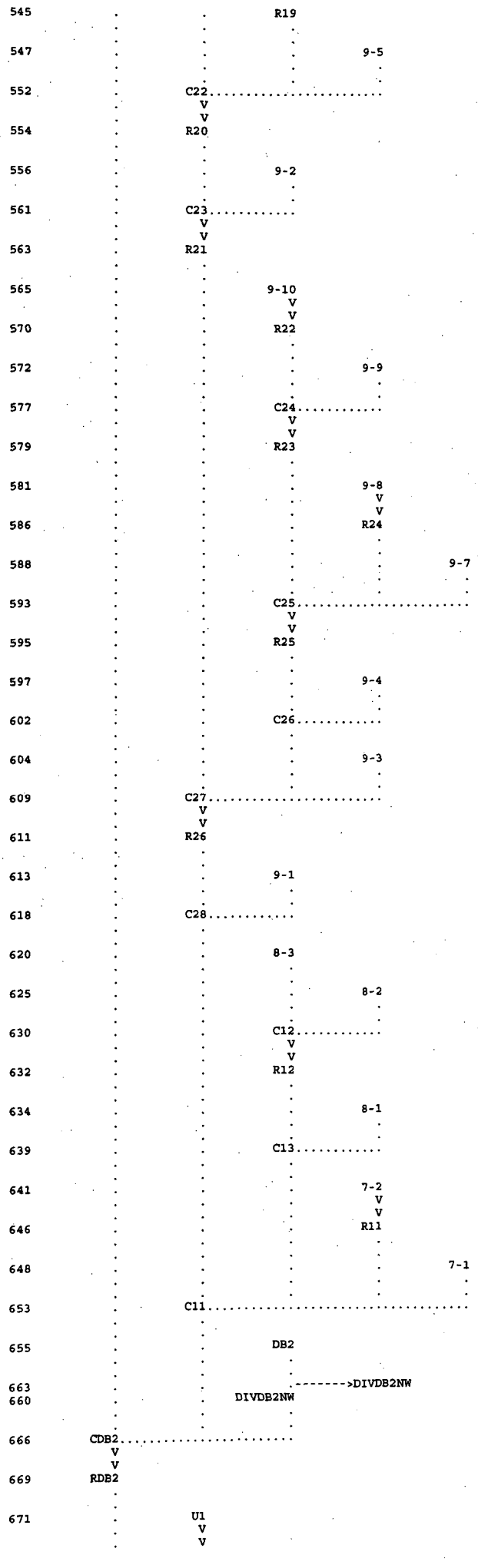
```
          1235          KK   CDSDB
          1236          HC       3
                        *
          1237          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE       (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

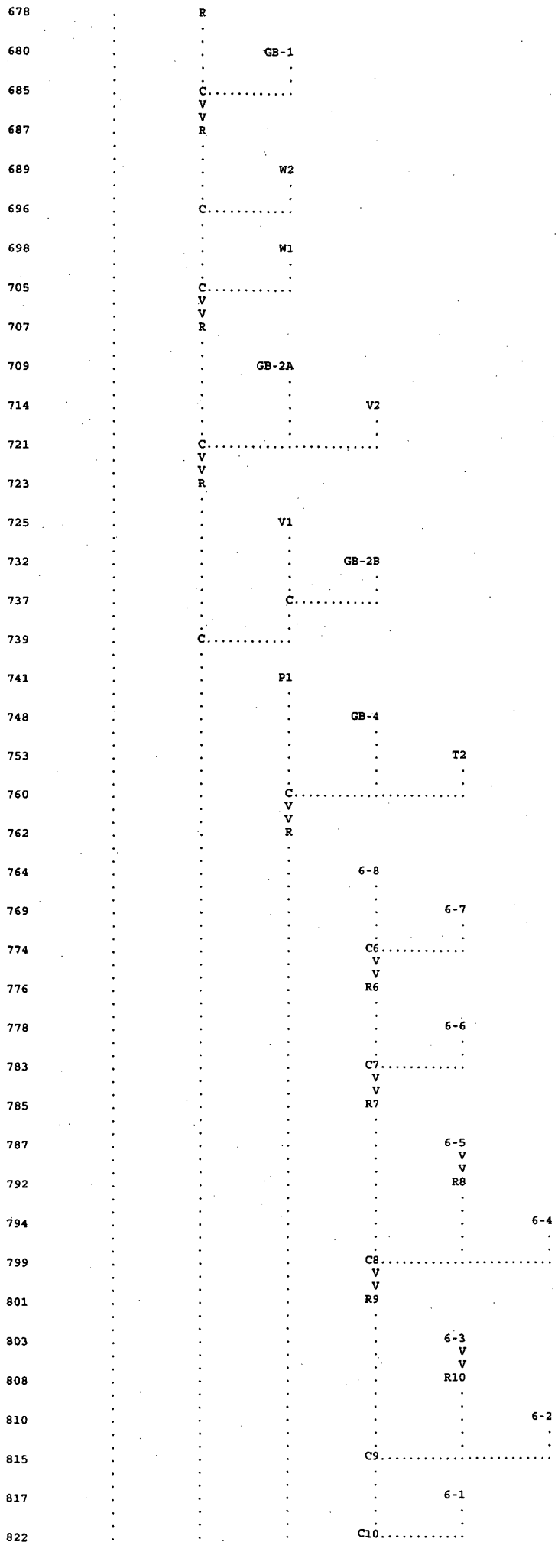
   28           F1
                 .
                 .
   41            .          F2
                 .           .
                 .           .
   46           CF2.....     .
                 V
                 V
   48           RF2
                 .
                 .
   50            .          F3
                 .           V
                 .           V
   55            .         RF3
                 .           .
                 .           .
   57            .           .          F4
                 .           .           V
                 .           .           V
   62            .           .         RF4
                 .           .           .
                 .           .           .
   64            .         CF4.....      .
                 .           .           .
                 .           .           .
   67            .           .          F5
                 .           .           V
                 .           .           V
   72            .           .         RF5
                 .           .           .
                 .           .           .
   74           CF5.....................
                 .
                 .
   76            .          F6
                 .           .
                 .           .
   81            .           .          F7
                 .           .           .
                 .           .           .
   86           CF7.....................
                 V
                 V
   88           RF7
                 .
                 .
   90            .         F10
                 .           V
                 .           V
   95            .        RF10
                 .           .
                 .           .
   97            .           .         F9F
                 .           .          .
                 .           .          .
  102            .           .         14-1
                 .           .          .
                 .           .          .
  107            .           .          .          14-2
                 .           .          .           .
                 .           .          .           .
  112            .           .         C26.....     .
                 .           .          V           .
                 .           .          V           .
  114            .           .        R14-2         .
                 .           .          .           .
                 .           .          .           .
  116            .         CF9F.....................
                 .           .
                 .           .
  118            .           .         F9A
                 .           .          V
                 .           .          V
  123            .           .         R6
                 .           .          .
                 .           .          .
  125            .           .          .         F9B
                 .           .          .          V
                 .           .          .          V
  130            .           .          .         R7
                 .           .          .          .
                 .           .          .          .
  132            .           .          .          .          F8
                 .           .          .          .           V
                 .           .          .          .           V
  137            .           .          .          .          R8
                 .           .          .          .           .
                 .           .          .          .           .
  139            .           .          .          .          .          F9C
                 .           .          .          .          .           .
                 .           .          .          .          .           .
  144            .           .          .          .          C8.....     .
                 .           .          .          .           V          .
                 .           .          .          .           V          .
  146            .           .          .          .          R9          .
                 .           .          .          .           .          .
                 .           .          .          .           .          .
  148            .           .          .          .          .          F9E
                 .           .          .          .          .           .
                 .           .          .          .          .           .
  153            .           .          C9.....................................
                 .           .          V
                 .           .          V
  155            .           .         R10
```

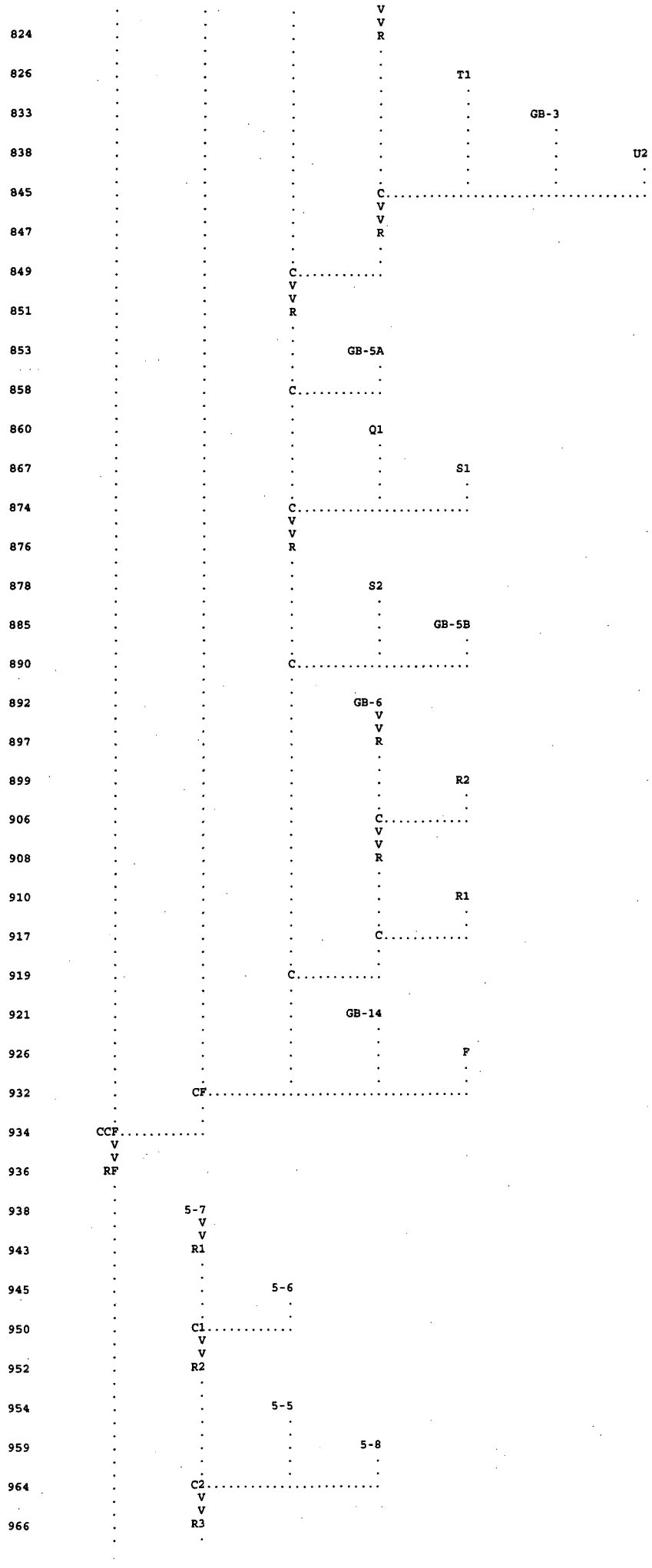

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C10
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R11
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C11
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R12
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P9D
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R13
192
13-22
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C12
199
13-21
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R14
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211
C13
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C14
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R15
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13-19
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C15
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C17
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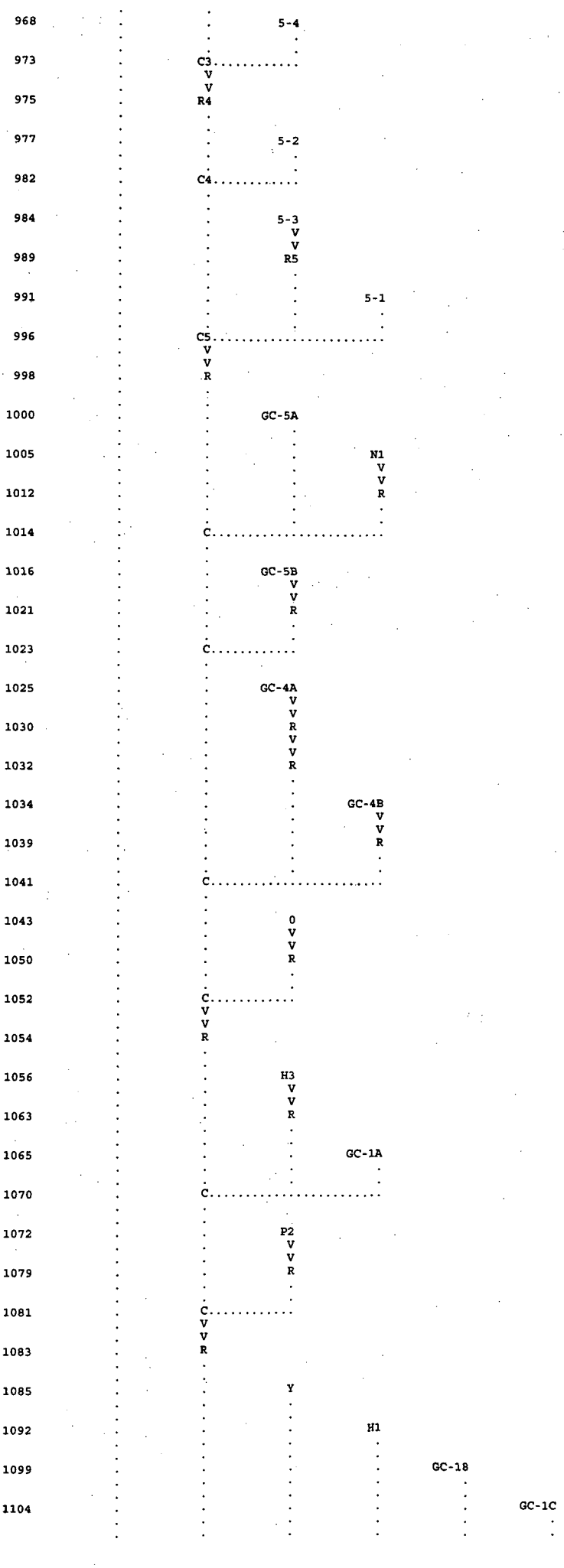

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C19
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R23
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C22
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R24
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C23
V
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R25
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13-2
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C24
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C25
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CCF9F
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V
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RF9F
353
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358
C12-1
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V
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R12-1
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11-4
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V
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R2
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C2
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C3
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C5
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11-6

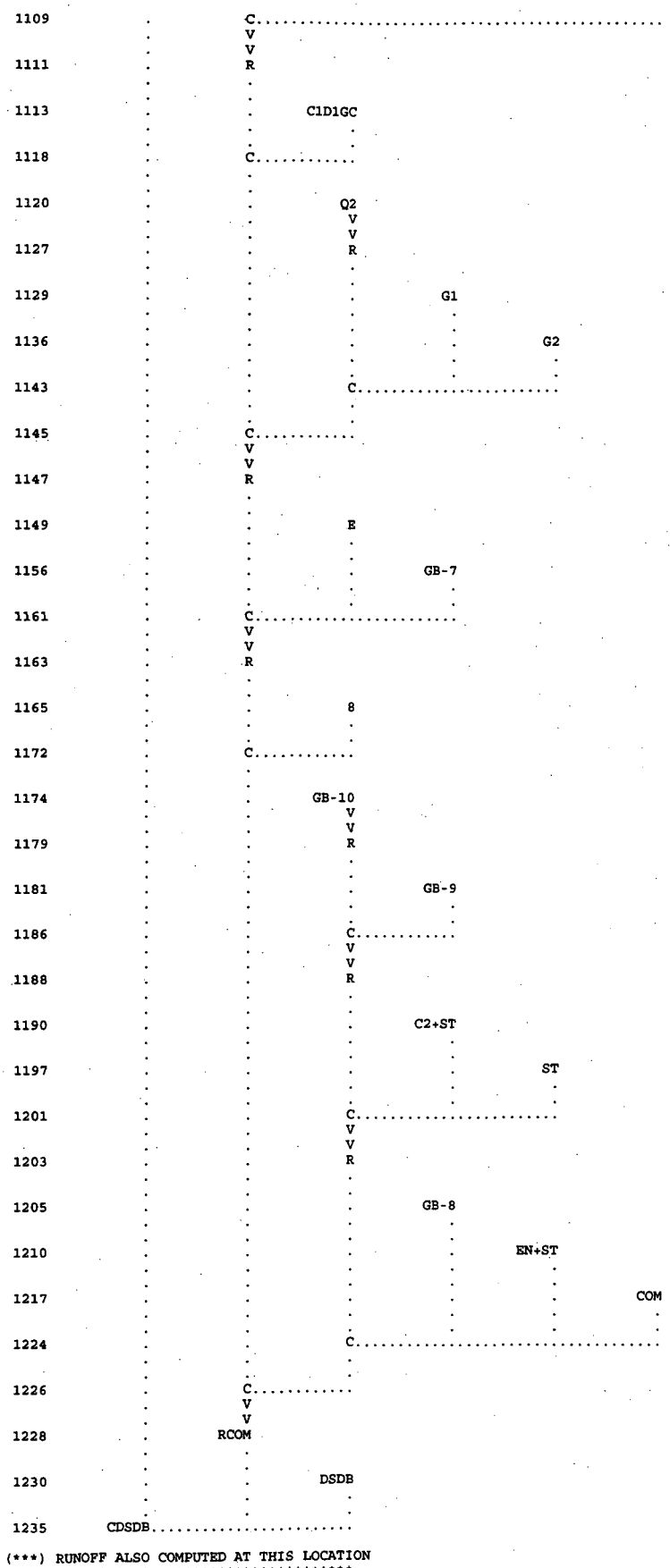

421 C6
423 R5
425 11-1
430 C7
432 CC7
434 RC7
436 10-2
441 R1
443 10-1
448 C1
450 CC1
452 DB1
457 CDB1
462 DVCDB1NW
459 DVCDB1NW
465 RDB1
467 9-19
472 9-15
477 C14
479 R13
481 9-18
486 C15
488 9-16
493 9-17
498 C16
500 C17
502 R14
504 9-14
509 C18
511 R15
513 9-12
518 R16
520 C19
522 R17
524 9-11
529 C20
531 9-6
536 C21
538 R18
540 9-13


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GC-5B
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C
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1030
1032
R
1034
GC-4B
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R
1041
C
1043
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1050
R
1052
C
1054
R
1056
H3
1063
R
1065
GC-1A
1070
C
1072
P2
1079
R
1081
C
1083
R
1085
Y
1092
H1
1099
GC-18
1104
GC-1C



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*    FLOOD HYDROGRAPH PACKAGE (HEC-1)   *
*              JUN  1998                *
*            VERSION 4.1                *
*                                       *
*  RUN DATE   24NOV03  TIME  10:59:28   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN

PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC., DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR ALL AREAS TRIBUTARY TO THE DETENTION BASIN AND THE DOWNSTREAM AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE.

100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN5
DARF RATIOS FOR AREAS OF 33 AND 36 SQUARE MILES FOR THE
100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR EVENTS.

```
 25 IO          OUTPUT CONTROL VARIABLES
                     IPRNT          5  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                      NMIN          5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1   0  STARTING DATE
                     ITIME       0000  STARTING TIME
                        NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      2   0  ENDING DATE
                    NDTIME       0055  ENDING TIME
                     ICENT         19  CENTURY MARK

                  COMPUTATION INTERVAL      .08 HOURS
                     TOTAL TIME BASE    24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
               FLOW                   CUBIC FEET PER SECOND
               STORAGE VOLUME         ACRE-FEET
               SURFACE AREA           ACRES
               TEMPERATURE            DEGREES FAHRENHEIT

    JP          MULTI-PLAN OPTION
                     NPLAN          1  NUMBER OF PLANS

    JR          MULTI-RATIO OPTION
                    RATIOS OF PRECIPITATION
                   .73       .72       .64       .63       .54       .53       .42       .41

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
666 KK      *      CDB2  *
            *            *
            **************

667 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

668 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                  ***
```

****

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .73

****

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2904.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	2732.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	2556.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	2377.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	2199.	1		1250	155	0.	1		1905	230	0.
1		0025	6	1.	1		0640	81	2025.	1		1255	156	0.	1		1910	231	0.
1		0030	7	4.	1		0645	82	1855.	1		1300	157	0.	1		1915	232	0.
1		0035	8	8.	1		0650	83	1693.	1		1305	158	0.	1		1920	233	0.
1		0040	9	11.	1		0655	84	1538.	1		1310	159	0.	1		1925	234	0.
1		0045	10	13.	1		0700	85	1392.	1		1315	160	0.	1		1930	235	0.
1		0050	11	13.	1		0705	86	1256.	1		1320	161	0.	1		1935	236	0.
1		0055	12	13.	1		0710	87	1129.	1		1325	162	0.	1		1940	237	0.
1		0100	13	12.	1		0715	88	1011.	1		1330	163	0.	1		1945	238	0.
1		0105	14	12.	1		0720	89	902.	1		1335	164	0.	1		1950	239	0.
1		0110	15	13.	1		0725	90	803.	1		1340	165	0.	1		1955	240	0.
1		0115	16	17.	1		0730	91	713.	1		1345	166	0.	1		2000	241	0.
1		0120	17	23.	1		0735	92	632.	1		1350	167	0.	1		2005	242	0.
1		0125	18	29.	1		0740	93	558.	1		1355	168	0.	1		2010	243	0.
1		0130	19	38.	1		0745	94	492.	1		1400	169	0.	1		2015	244	0.
1		0135	20	49.	1		0750	95	434.	1		1405	170	0.	1		2020	245	0.
1		0140	21	62.	1		0755	96	382.	1		1410	171	0.	1		2025	246	0.
1		0145	22	75.	1		0800	97	335.	1		1415	172	0.	1		2030	247	0.
1		0150	23	88.	1		0805	98	294.	1		1420	173	0.	1		2035	248	0.
1		0155	24	99.	1		0810	99	258.	1		1425	174	0.	1		2040	249	0.
1		0200	25	110.	1		0815	100	226.	1		1430	175	0.	1		2045	250	0.
1		0205	26	122.	1		0820	101	198.	1		1435	176	0.	1		2050	251	0.
1		0210	27	135.	1		0825	102	173.	1		1440	177	0.	1		2055	252	0.
1		0215	28	148.	1		0830	103	151.	1		1445	178	0.	1		2100	253	0.
1		0220	29	165.	1		0835	104	132.	1		1450	179	0.	1		2105	254	0.
1		0225	30	183.	1		0840	105	115.	1		1455	180	0.	1		2110	255	0.
1		0230	31	201.	1		0845	106	101.	1		1500	181	0.	1		2115	256	0.
1		0235	32	217.	1		0850	107	88.	1		1505	182	0.	1		2120	257	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0240	33	236.	1		0855	108	77.	1		1510	183	0.	1		2125	258	0.
1		0245	34	259.	1		0900	109	68.	1		1515	184	0.	1		2130	259	0.
1		0250	35	287.	1		0905	110	59.	1		1520	185	0.	1		2135	260	0.
1		0255	36	318.	1		0910	111	52.	1		1525	186	0.	1		2140	261	0.
1		0300	37	356.	1		0915	112	45.	1		1530	187	0.	1		2145	262	0.
1		0305	38	408.	1		0920	113	39.	1		1535	188	0.	1		2150	263	0.
1		0310	39	482.	1		0925	114	34.	1		1540	189	0.	1		2155	264	0.
1		0315	40	596.	1		0930	115	30.	1		1545	190	0.	1		2200	265	0.
1		0320	41	764.	1		0935	116	26.	1		1550	191	0.	1		2205	266	0.
1		0325	42	1004.	1		0940	117	23.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1336.	1		0945	118	20.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1678.	1		0950	119	17.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1919.	1		0955	120	15.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2063.	1		1000	121	13.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2169.	1		1005	122	12.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2242.	1		1010	123	11.	1		1625	198	0.	1		2240	273	0.
1		0400	49	2300.	1		1015	124	9.	1		1630	199	0.	1		2245	274	0.
1		0405	50	2366.	1		1020	125	8.	1		1635	200	0.	1		2250	275	0.
1		0410	51	2460.	1		1025	126	7.	1		1640	201	0.	1		2255	276	0.
1		0415	52	2599.	1		1030	127	6.	1		1645	202	0.	1		2300	277	0.
1		0420	53	2792.	1		1035	128	5.	1		1650	203	0.	1		2305	278	0.
1		0425	54	3035.	1		1040	129	5.	1		1655	204	0.	1		2310	279	0.
1		0430	55	3328.	1		1045	130	4.	1		1700	205	0.	1		2315	280	0.
1		0435	56	3658.	1		1050	131	4.	1		1705	206	0.	1		2320	281	0.
1		0440	57	3995.	1		1055	132	3.	1		1710	207	0.	1		2325	282	0.
1		0445	58	4305.	1		1100	133	3.	1		1715	208	0.	1		2330	283	0.
1		0450	59	4575.	1		1105	134	2.	1		1720	209	0.	1		2335	284	0.
1		0455	60	4778.	1		1110	135	2.	1		1725	210	0.	1		2340	285	0.
1		0500	61	4888.	1		1115	136	2.	1		1730	211	0.	1		2345	286	0.
1		0505	62	4909.	1		1120	137	2.	1		1735	212	0.	1		2350	287	0.
1		0510	63	4859.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	4753.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	4610.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	4450.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	4284.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	4119.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	3960.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	3809.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	3664.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	3521.	1		1210	147	1.	1		1825	222	0.	2		0040	297	0.
1		0600	73	3377.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	3227.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	3070.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
4909.	5.08	2074.	528.	508.	508.
		(INCHES) .585	.595	.595	.595
		(AC-FT) 1028.	1046.	1046.	1046.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .72

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2852.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	2684.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	2510.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	2335.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	2161.	1		1250	155	0.	1		1905	230	0.
1		0025	6	1.	1		0640	81	1989.	1		1255	156	0.	1		1910	231	0.
1		0030	7	4.	1		0645	82	1823.	1		1300	157	0.	1		1915	232	0.
1		0035	8	7.	1		0650	83	1663.	1		1305	158	0.	1		1920	233	0.
1		0040	9	10.	1		0655	84	1512.	1		1310	159	0.	1		1925	234	0.
1		0045	10	12.	1		0700	85	1368.	1		1315	160	0.	1		1930	235	0.
1		0050	11	12.	1		0705	86	1234.	1		1320	161	0.	1		1935	236	0.
1		0055	12	12.	1		0710	87	1109.	1		1325	162	0.	1		1940	237	0.
1		0100	13	11.	1		0715	88	993.	1		1330	163	0.	1		1945	238	0.
1		0105	14	11.	1		0720	89	887.	1		1335	164	0.	1		1950	239	0.
1		0110	15	12.	1		0725	90	790.	1		1340	165	0.	1		1955	240	0.
1		0115	16	16.	1		0730	91	701.	1		1345	166	0.	1		2000	241	0.
1		0120	17	21.	1		0735	92	621.	1		1350	167	0.	1		2005	242	0.
1		0125	18	27.	1		0740	93	549.	1		1355	168	0.	1		2010	243	0.
1		0130	19	36.	1		0745	94	484.	1		1400	169	0.	1		2015	244	0.
1		0135	20	46.	1		0750	95	427.	1		1405	170	0.	1		2020	245	0.
1		0140	21	59.	1		0755	96	376.	1		1410	171	0.	1		2025	246	0.
1		0145	22	71.	1		0800	97	330.	1		1415	172	0.	1		2030	247	0.
1		0150	23	83.	1		0805	98	289.	1		1420	173	0.	1		2035	248	0.
1		0155	24	94.	1		0810	99	254.	1		1425	174	0.	1		2040	249	0.
1		0200	25	105.	1		0815	100	222.	1		1430	175	0.	1		2045	250	0.
1		0205	26	117.	1		0820	101	194.	1		1435	176	0.	1		2050	251	0.
1		0210	27	129.	1		0825	102	170.	1		1440	177	0.	1		2055	252	0.
1		0215	28	142.	1		0830	103	149.	1		1445	178	0.	1		2100	253	0.
1		0220	29	158.	1		0835	104	130.	1		1450	179	0.	1		2105	254	0.
1		0225	30	175.	1		0840	105	114.	1		1455	180	0.	1		2110	255	0.
1		0230	31	192.	1		0845	106	99.	1		1500	181	0.	1		2115	256	0.
1		0235	32	208.	1		0850	107	87.	1		1505	182	0.	1		2120	257	0.
1		0240	33	226.	1		0855	108	76.	1		1510	183	0.	1		2125	258	0.
1		0245	34	249.	1		0900	109	66.	1		1515	184	0.	1		2130	259	0.
1		0250	35	276.	1		0905	110	58.	1		1520	185	0.	1		2135	260	0.
1		0255	36	306.	1		0910	111	51.	1		1525	186	0.	1		2140	261	0.
1		0300	37	342.	1		0915	112	44.	1		1530	187	0.	1		2145	262	0.
1		0305	38	392.	1		0920	113	39.	1		1535	188	0.	1		2150	263	0.
1		0310	39	466.	1		0925	114	34.	1		1540	189	0.	1		2155	264	0.
1		0315	40	576.	1		0930	115	30.	1		1545	190	0.	1		2200	265	0.
1		0320	41	740.	1		0935	116	26.	1		1550	191	0.	1		2205	266	0.
1		0325	42	976.	1		0940	117	22.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1301.	1		0945	118	20.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1637.	1		0950	119	17.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1872.	1		0955	120	15.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2017.	1		1000	121	13.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2118.	1		1005	122	12.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2191.	1		1010	123	10.	1		1625	198	0.	1		2240	273	0.
1		0400	49	2249.	1		1015	124	9.	1		1630	199	0.	1		2245	274	0.
1		0405	50	2313.	1		1020	125	8.	1		1635	200	0.	1		2250	275	0.
1		0410	51	2406.	1		1025	126	7.	1		1640	201	0.	1		2255	276	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0415	52	2543.	1		1030	127	6.	1		1645	202	0.	1		2300	277	0.
1		0420	53	2731.	1		1035	128	5.	1		1650	203	0.	1		2305	278	0.
1		0425	54	2970.	1		1040	129	5.	1		1655	204	0.	1		2310	279	0.
1		0430	55	3256.	1		1045	130	4.	1		1700	205	0.	1		2315	280	0.
1		0435	56	3580.	1		1050	131	4.	1		1705	206	0.	1		2320	281	0.
1		0440	57	3910.	1		1055	132	3.	1		1710	207	0.	1		2325	282	0.
1		0445	58	4215.	1		1100	133	3.	1		1715	208	0.	1		2330	283	0.
1		0450	59	4481.	1		1105	134	2.	1		1720	209	0.	1		2335	284	0.
1		0455	60	4680.	1		1110	135	2.	1		1725	210	0.	1		2340	285	0.
1		0500	61	4789.	1		1115	136	2.	1		1730	211	0.	1		2345	286	0.
1		0505	62	4811.	1		1120	137	2.	1		1735	212	0.	1		2350	287	0.
1		0510	63	4762.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	4659.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	4520.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	4363.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	4202.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	4041.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	3885.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	3737.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	3596.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	3456.	1		1210	147	1.	1		1825	222	0.	2		0040	297	0.
1		0600	73	3315.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	3169.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	3015.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
4811.	5.08	2032.	517.	498.	498.
		(INCHES) .573	.583	.583	.583
		(AC-FT) 1007.	1025.	1025.	1025.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .64

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2359.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	2222.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	2081.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	1938.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	1795.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	1654.	1		1255	156	0.	1		1910	231	0.
1		0030	7	1.	1		0645	82	1517.	1		1300	157	0.	1		1915	232	0.
1		0035	8	3.	1		0650	83	1385.	1		1305	158	0.	1		1920	233	0.
1		0040	9	5.	1		0655	84	1259.	1		1310	159	0.	1		1925	234	0.
1		0045	10	6.	1		0700	85	1141.	1		1315	160	0.	1		1930	235	0.
1		0050	11	6.	1		0705	86	1030.	1		1320	161	0.	1		1935	236	0.
1		0055	12	6.	1		0710	87	926.	1		1325	162	0.	1		1940	237	0.
1		0100	13	6.	1		0715	88	830.	1		1330	163	0.	1		1945	238	0.
1		0105	14	5.	1		0720	89	742.	1		1335	164	0.	1		1950	239	0.
1		0110	15	6.	1		0725	90	661.	1		1340	165	0.	1		1955	240	0.
1		0115	16	7.	1		0730	91	587.	1		1345	166	0.	1		2000	241	0.
1		0120	17	8.	1		0735	92	520.	1		1350	167	0.	1		2005	242	0.
1		0125	18	11.	1		0740	93	460.	1		1355	168	0.	1		2010	243	0.
1		0130	19	16.	1		0745	94	407.	1		1400	169	0.	1		2015	244	0.
1		0135	20	23.	1		0750	95	358.	1		1405	170	0.	1		2020	245	0.
1		0140	21	31.	1		0755	96	316.	1		1410	171	0.	1		2025	246	0.
1		0145	22	38.	1		0800	97	277.	1		1415	172	0.	1		2030	247	0.
1		0150	23	46.	1		0805	98	243.	1		1420	173	0.	1		2035	248	0.
1		0155	24	53.	1		0810	99	214.	1		1425	174	0.	1		2040	249	0.
1		0200	25	60.	1		0815	100	187.	1		1430	175	0.	1		2045	250	0.
1		0205	26	68.	1		0820	101	164.	1		1435	176	0.	1		2050	251	0.
1		0210	27	77.	1		0825	102	143.	1		1440	177	0.	1		2055	252	0.
1		0215	28	87.	1		0830	103	125.	1		1445	178	0.	1		2100	253	0.
1		0220	29	99.	1		0835	104	110.	1		1450	179	0.	1		2105	254	0.
1		0225	30	111.	1		0840	105	96.	1		1455	180	0.	1		2110	255	0.
1		0230	31	123.	1		0845	106	84.	1		1500	181	0.	1		2115	256	0.
1		0235	32	134.	1		0850	107	74.	1		1505	182	0.	1		2120	257	0.
1		0240	33	146.	1		0855	108	64.	1		1510	183	0.	1		2125	258	0.
1		0245	34	161.	1		0900	109	56.	1		1515	184	0.	1		2130	259	0.
1		0250	35	180.	1		0905	110	49.	1		1520	185	0.	1		2135	260	0.
1		0255	36	200.	1		0910	111	43.	1		1525	186	0.	1		2140	261	0.
1		0300	37	226.	1		0915	112	38.	1		1530	187	0.	1		2145	262	0.
1		0305	38	261.	1		0920	113	33.	1		1535	188	0.	1		2150	263	0.
1		0310	39	316.	1		0925	114	29.	1		1540	189	0.	1		2155	264	0.
1		0315	40	399.	1		0930	115	25.	1		1545	190	0.	1		2200	265	0.
1		0320	41	526.	1		0935	116	22.	1		1550	191	0.	1		2205	266	0.
1		0325	42	712.	1		0940	117	19.	1		1555	192	0.	1		2210	267	0.
1		0330	43	974.	1		0945	118	17.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1252.	1		0950	119	15.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1449.	1		0955	120	13.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1575.	1		1000	121	11.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1665.	1		1005	122	10.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1728.	1		1010	123	9.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1778.	1		1015	124	8.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1831.	1		1020	125	7.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1904.	1		1025	126	6.	1		1640	201	0.	1		2255	276	0.
1		0415	52	2011.	1		1030	127	5.	1		1645	202	0.	1		2300	277	0.
1		0420	53	2162.	1		1035	128	5.	1		1650	203	0.	1		2305	278	0.
1		0425	54	2354.	1		1040	129	4.	1		1655	204	0.	1		2310	279	0.
1		0430	55	2585.	1		1045	130	4.	1		1700	205	0.	1		2315	280	0.
1		0435	56	2848.	1		1050	131	3.	1		1705	206	0.	1		2320	281	0.
1		0440	57	3119.	1		1055	132	3.	1		1710	207	0.	1		2325	282	0.
1		0445	58	3371.	1		1100	133	2.	1		1715	208	0.	1		2330	283	0.
1		0450	59	3593.	1		1105	134	2.	1		1720	209	0.	1		2335	284	0.
1		0455	60	3763.	1		1110	135	2.	1		1725	210	0.	1		2340	285	0.
1		0500	61	3859.	1		1115	136	2.	1		1730	211	0.	1		2345	286	0.
1		0505	62	3885.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	3853.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	3777.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	3670.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	3549.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	3423.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	3298.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	3176.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	3061.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.

1	0550	71	2951.	1	1205	146	1.	1	1820	221	0.	2	0035	296	0.				
1	0555	72	2841.	1	1210	147	0.	1	1825	222	0.	2	0040	297	0.				
1	0600	73	2729.	1	1215	148	0.	1	1830	223	0.	2	0045	298	0.				
1	0605	74	2613.	1	1220	149	0.	1	1835	224	0.	2	0050	299	0.				
1	0610	75	2489.	1	1225	150	0.	1	1840	225	0.	2	0055	300	0.				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
3885.	5.08	1638.	416.	400.	400.
		(INCHES) .462	.469	.469	.469
		(AC-FT) 812.	825.	825.	825.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .63

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2313.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	2179.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	2041.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	1901.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	1761.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	1623.	1		1255	156	0.	1		1910	231	0.
1		0030	7	1.	1		0645	82	1488.	1		1300	157	0.	1		1915	232	0.
1		0035	8	3.	1		0650	83	1359.	1		1305	158	0.	1		1920	233	0.
1		0040	9	5.	1		0655	84	1236.	1		1310	159	0.	1		1925	234	0.
1		0045	10	5.	1		0700	85	1120.	1		1315	160	0.	1		1930	235	0.
1		0050	11	6.	1		0705	86	1011.	1		1320	161	0.	1		1935	236	0.
1		0055	12	5.	1		0710	87	909.	1		1325	162	0.	1		1940	237	0.
1		0100	13	5.	1		0715	88	815.	1		1330	163	0.	1		1945	238	0.
1		0105	14	5.	1		0720	89	728.	1		1335	164	0.	1		1950	239	0.
1		0110	15	5.	1		0725	90	649.	1		1340	165	0.	1		1955	240	0.
1		0115	16	6.	1		0730	91	576.	1		1345	166	0.	1		2000	241	0.
1		0120	17	8.	1		0735	92	511.	1		1350	167	0.	1		2005	242	0.
1		0125	18	10.	1		0740	93	452.	1		1355	168	0.	1		2010	243	0.
1		0130	19	15.	1		0745	94	399.	1		1400	169	0.	1		2015	244	0.
1		0135	20	21.	1		0750	95	352.	1		1405	170	0.	1		2020	245	0.
1		0140	21	28.	1		0755	96	310.	1		1410	171	0.	1		2025	246	0.
1		0145	22	36.	1		0800	97	273.	1		1415	172	0.	1		2030	247	0.
1		0150	23	43.	1		0805	98	239.	1		1420	173	0.	1		2035	248	0.
1		0155	24	49.	1		0810	99	210.	1		1425	174	0.	1		2040	249	0.
1		0200	25	56.	1		0815	100	184.	1		1430	175	0.	1		2045	250	0.
1		0205	26	64.	1		0820	101	161.	1		1435	176	0.	1		2050	251	0.
1		0210	27	73.	1		0825	102	141.	1		1440	177	0.	1		2055	252	0.
1		0215	28	83.	1		0830	103	123.	1		1445	178	0.	1		2100	253	0.
1		0220	29	94.	1		0835	104	108.	1		1450	179	0.	1		2105	254	0.
1		0225	30	106.	1		0840	105	94.	1		1455	180	0.	1		2110	255	0.
1		0230	31	117.	1		0845	106	83.	1		1500	181	0.	1		2115	256	0.
1		0235	32	128.	1		0850	107	72.	1		1505	182	0.	1		2120	257	0.
1		0240	33	139.	1		0855	108	63.	1		1510	183	0.	1		2125	258	0.
1		0245	34	154.	1		0900	109	56.	1		1515	184	0.	1		2130	259	0.
1		0250	35	172.	1		0905	110	49.	1		1520	185	0.	1		2135	260	0.
1		0255	36	192.	1		0910	111	43.	1		1525	186	0.	1		2140	261	0.
1		0300	37	216.	1		0915	112	37.	1		1530	187	0.	1		2145	262	0.
1		0305	38	250.	1		0920	113	33.	1		1535	188	0.	1		2150	263	0.
1		0310	39	302.	1		0925	114	29.	1		1540	189	0.	1		2155	264	0.
1		0315	40	384.	1		0930	115	25.	1		1545	190	0.	1		2200	265	0.
1		0320	41	508.	1		0935	116	22.	1		1550	191	0.	1		2205	266	0.
1		0325	42	691.	1		0940	117	19.	1		1555	192	0.	1		2210	267	0.
1		0330	43	946.	1		0945	118	17.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1215.	1		0950	119	15.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1414.	1		0955	120	13.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1535.	1		1000	121	11.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1623.	1		1005	122	10.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1685.	1		1010	123	9.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1735.	1		1015	124	8.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1787.	1		1020	125	7.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1859.	1		1025	126	6.	1		1640	201	0.	1		2255	276	0.
1		0415	52	1964.	1		1030	127	5.	1		1645	202	0.	1		2300	277	0.
1		0420	53	2111.	1		1035	128	5.	1		1650	203	0.	1		2305	278	0.
1		0425	54	2298.	1		1040	129	4.	1		1655	204	0.	1		2310	279	0.
1		0430	55	2524.	1		1045	130	4.	1		1700	205	0.	1		2315	280	0.
1		0435	56	2780.	1		1050	131	3.	1		1705	206	0.	1		2320	281	0.
1		0440	57	3047.	1		1055	132	3.	1		1710	207	0.	1		2325	282	0.
1		0445	58	3295.	1		1100	133	2.	1		1715	208	0.	1		2330	283	0.
1		0450	59	3512.	1		1105	134	2.	1		1720	209	0.	1		2335	284	0.
1		0455	60	3680.	1		1110	135	2.	1		1725	210	0.	1		2340	285	0.
1		0500	61	3775.	1		1115	136	2.	1		1730	211	0.	1		2345	286	0.
1		0505	62	3801.	1		1120	137	2.	1		1735	212	0.	1		2350	287	0.
1		0510	63	3770.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	3696.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	3592.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	3474.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	3352.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	3230.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	3111.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	2999.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	2891.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	2784.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	2675.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	2562.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	2441.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
3801.	5.08	1602.	407.	392.	392.
		(INCHES) .452	.459	.459	.459
		(AC-FT) 794.	806.	806.	806.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .54

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1825.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	1722.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	1616.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	1507.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	1397.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	1289.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	1184.	1		1300	157	0.	1		1915	232	0.
1		0035	8	1.	1		0650	83	1082.	1		1305	158	0.	1		1920	233	0.
1		0040	9	2.	1		0655	84	985.	1		1310	159	0.	1		1925	234	0.
1		0045	10	2.	1		0700	85	894.	1		1315	160	0.	1		1930	235	0.
1		0050	11	2.	1		0705	86	807.	1		1320	161	0.	1		1935	236	0.
1		0055	12	2.	1		0710	87	727.	1		1325	162	0.	1		1940	237	0.
1		0100	13	2.	1		0715	88	652.	1		1330	163	0.	1		1945	238	0.
1		0105	14	2.	1		0720	89	583.	1		1335	164	0.	1		1950	239	0.
1		0110	15	2.	1		0725	90	520.	1		1340	165	0.	1		1955	240	0.
1		0115	16	2.	1		0730	91	462.	1		1345	166	0.	1		2000	241	0.
1		0120	17	3.	1		0735	92	410.	1		1350	167	0.	1		2005	242	0.
1		0125	18	4.	1		0740	93	363.	1		1355	168	0.	1		2010	243	0.
1		0130	19	6.	1		0745	94	321.	1		1400	169	0.	1		2015	244	0.
1		0135	20	9.	1		0750	95	283.	1		1405	170	0.	1		2020	245	0.
1		0140	21	12.	1		0755	96	250.	1		1410	171	0.	1		2025	246	0.
1		0145	22	16.	1		0800	97	220.	1		1415	172	0.	1		2030	247	0.
1		0150	23	19.	1		0805	98	193.	1		1420	173	0.	1		2035	248	0.
1		0155	24	21.	1		0810	99	170.	1		1425	174	0.	1		2040	249	0.
1		0200	25	25.	1		0815	100	149.	1		1430	175	0.	1		2045	250	0.
1		0205	26	29.	1		0820	101	130.	1		1435	176	0.	1		2050	251	0.
1		0210	27	34.	1		0825	102	114.	1		1440	177	0.	1		2055	252	0.
1		0215	28	41.	1		0830	103	100.	1		1445	178	0.	1		2100	253	0.
1		0220	29	48.	1		0835	104	88.	1		1450	179	0.	1		2105	254	0.
1		0225	30	56.	1		0840	105	77.	1		1455	180	0.	1		2110	255	0.
1		0230	31	63.	1		0845	106	67.	1		1500	181	0.	1		2115	256	0.
1		0235	32	70.	1		0850	107	59.	1		1505	182	0.	1		2120	257	0.
1		0240	33	77.	1		0855	108	52.	1		1510	183	0.	1		2125	258	0.
1		0245	34	86.	1		0900	109	45.	1		1515	184	0.	1		2130	259	0.
1		0250	35	97.	1		0905	110	40.	1		1520	185	0.	1		2135	260	0.
1		0255	36	110.	1		0910	111	35.	1		1525	186	0.	1		2140	261	0.
1		0300	37	125.	1		0915	112	31.	1		1530	187	0.	1		2145	262	0.
1		0305	38	148.	1		0920	113	27.	1		1535	188	0.	1		2150	263	0.
1		0310	39	183.	1		0925	114	24.	1		1540	189	0.	1		2155	264	0.
1		0315	40	238.	1		0930	115	21.	1		1545	190	0.	1		2200	265	0.
1		0320	41	326.	1		0935	116	18.	1		1550	191	0.	1		2205	266	0.
1		0325	42	461.	1		0940	117	16.	1		1555	192	0.	1		2210	267	0.
1		0330	43	653.	1		0945	118	14.	1		1600	193	0.	1		2215	268	0.
1		0335	44	865.	1		0950	119	12.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1024.	1		0955	120	11.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1124.	1		1000	121	9.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1195.	1		1005	122	8.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1248.	1		1010	123	7.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1290.	1		1015	124	7.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1330.	1		1020	125	6.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1383.	1		1025	126	5.	1		1640	201	0.	1		2255	276	0.
1		0415	52	1459.	1		1030	127	5.	1		1645	202	0.	1		2300	277	0.
1		0420	53	1570.	1		1035	128	4.	1		1650	203	0.	1		2305	278	0.
1		0425	54	1710.	1		1040	129	4.	1		1655	204	0.	1		2310	279	0.
1		0430	55	1882.	1		1045	130	3.	1		1700	205	0.	1		2315	280	0.
1		0435	56	2080.	1		1050	131	3.	1		1705	206	0.	1		2320	281	0.
1		0440	57	2287.	1		1055	132	2.	1		1710	207	0.	1		2325	282	0.
1		0445	58	2483.	1		1100	133	2.	1		1715	208	0.	1		2330	283	0.
1		0450	59	2656.	1		1105	134	2.	1		1720	209	0.	1		2335	284	0.
1		0455	60	2793.	1		1110	135	2.	1		1725	210	0.	1		2340	285	0.
1		0500	61	2874.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	2903.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	2887.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	2837.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	2763.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	2679.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	2591.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	2503.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	2417.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	2335.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	2257.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	2179.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	2098.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	2013.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	1923.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
2903.	5.08	1225.	310.	299.	299.
		(INCHES) .345	.350	.350	.350
		(AC-FT) 607.	615.	615.	615.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .53

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1786.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	1686.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	1582.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	1475.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	1368.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	1263.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	1160.	1		1300	157	0.	1		1915	232	0.
1		0035	8	1.	1		0650	83	1060.	1		1305	158	0.	1		1920	233	0.
1		0040	9	2.	1		0655	84	965.	1		1310	159	0.	1		1925	234	0.

1	0045	10	2.	*	1	0700	85	876.	*	1	1315	160	0.	*	1	1930	235	0.
1	0050	11	2.	*	1	0705	86	791.	*	1	1320	161	0.	*	1	1935	236	0.
1	0055	12	2.	*	1	0710	87	712.	*	1	1325	162	0.	*	1	1940	237	0.
1	0100	13	2.	*	1	0715	88	639.	*	1	1330	163	0.	*	1	1945	238	0.
1	0105	14	2.	*	1	0720	89	572.	*	1	1335	164	0.	*	1	1950	239	0.
1	0110	15	2.	*	1	0725	90	510.	*	1	1340	165	0.	*	1	1955	240	0.
1	0115	16	2.	*	1	0730	91	453.	*	1	1345	166	0.	*	1	2000	241	0.
1	0120	17	3.	*	1	0735	92	402.	*	1	1350	167	0.	*	1	2005	242	0.
1	0125	18	4.	*	1	0740	93	356.	*	1	1355	168	0.	*	1	2010	243	0.
1	0130	19	5.	*	1	0745	94	315.	*	1	1400	169	0.	*	1	2015	244	0.
1	0135	20	8.	*	1	0750	95	278.	*	1	1405	170	0.	*	1	2020	245	0.
1	0140	21	11.	*	1	0755	96	245.	*	1	1410	171	0.	*	1	2025	246	0.
1	0145	22	15.	*	1	0800	97	215.	*	1	1415	172	0.	*	1	2030	247	0.
1	0150	23	18.	*	1	0805	98	189.	*	1	1420	173	0.	*	1	2035	248	0.
1	0155	24	20.	*	1	0810	99	166.	*	1	1425	174	0.	*	1	2040	249	0.
1	0200	25	23.	*	1	0815	100	146.	*	1	1430	175	0.	*	1	2045	250	0.
1	0205	26	26.	*	1	0820	101	128.	*	1	1435	176	0.	*	1	2050	251	0.
1	0210	27	32.	*	1	0825	102	112.	*	1	1440	177	0.	*	1	2055	252	0.
1	0215	28	38.	*	1	0830	103	98.	*	1	1445	178	0.	*	1	2100	253	0.
1	0220	29	45.	*	1	0835	104	86.	*	1	1450	179	0.	*	1	2105	254	0.
1	0225	30	53.	*	1	0840	105	75.	*	1	1455	180	0.	*	1	2110	255	0.
1	0230	31	60.	*	1	0845	106	66.	*	1	1500	181	0.	*	1	2115	256	0.
1	0235	32	66.	*	1	0850	107	58.	*	1	1505	182	0.	*	1	2120	257	0.
1	0240	33	73.	*	1	0855	108	51.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	81.	*	1	0900	109	45.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	92.	*	1	0905	110	39.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	104.	*	1	0910	111	34.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	119.	*	1	0915	112	30.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	141.	*	1	0920	113	26.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	174.	*	1	0925	114	23.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	228.	*	1	0930	115	20.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	314.	*	1	0935	116	18.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	445.	*	1	0940	117	16.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	632.	*	1	0945	118	14.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	839.	*	1	0950	119	12.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	995.	*	1	0955	120	11.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	1092.	*	1	1000	121	9.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	1164.	*	1	1005	122	8.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	1217.	*	1	1010	123	7.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	1255.	*	1	1015	124	6.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	1295.	*	1	1020	125	6.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	1346.	*	1	1025	126	5.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	1422.	*	1	1030	127	4.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	1527.	*	1	1035	128	4.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	1665.	*	1	1040	129	4.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	1831.	*	1	1045	130	3.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	2026.	*	1	1050	131	3.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	2228.	*	1	1055	132	2.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	2419.	*	1	1100	133	2.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	2589.	*	1	1105	134	2.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	2723.	*	1	1110	135	2.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	2804.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	2832.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	2818.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	2769.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	2698.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	2616.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	2531.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	2445.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	2362.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	2283.	*	1	1200	145	1.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	2207.	*	1	1205	146	0.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	2131.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	2053.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	1970.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	1881.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
2832.	5.08	1195.	303.	291.	291.
		(INCHES) .337	.341	.341	.341
		(AC-FT) 593.	600.	600.	600.

CUMULATIVE AREA = 32.97 SQ MI

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HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .42

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1160.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	1098.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	1034.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	967.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	899.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	832.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	766.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	701.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	640.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	582.	1		1315	160	0.	1		1930	235	0.
1		0050	11	1.	1		0705	86	527.	1		1320	161	0.	1		1935	236	0.
1		0055	12	1.	1		0710	87	475.	1		1325	162	0.	1		1940	237	0.
1		0100	13	1.	1		0715	88	427.	1		1330	163	0.	1		1945	238	0.
1		0105	14	1.	1		0720	89	383.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	342.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	305.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	271.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	240.	1		1355	168	0.	1		2010	243	0.
1		0130	19	1.	1		0745	94	213.	1		1400	169	0.	1		2015	244	0.
1		0135	20	2.	1		0750	95	188.	1		1405	170	0.	1		2020	245	0.
1		0140	21	2.	1		0755	96	166.	1		1410	171	0.	1		2025	246	0.
1		0145	22	3.	1		0800	97	146.	1		1415	172	0.	1		2030	247	0.
1		0150	23	4.	1		0805	98	129.	1		1420	173	0.	1		2035	248	0.
1		0155	24	5.	1		0810	99	113.	1		1425	174	0.	1		2040	249	0.
1		0200	25	5.	1		0815	100	100.	1		1430	175	0.	1		2045	250	0.
1		0205	26	6.	1		0820	101	88.	1		1435	176	0.	1		2050	251	0.
1		0210	27	7.	1		0825	102	77.	1		1440	177	0.	1		2055	252	0.
1		0215	28	8.	1		0830	103	67.	1		1445	178	0.	1		2100	253	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0220	29	10.	1		0835	104	59.	1		1450	179	0.	1		2105	254	0.
1		0225	30	12.	1		0840	105	52.	1		1455	180	0.	1		2110	255	0.
1		0230	31	14.	1		0845	106	46.	1		1500	181	0.	1		2115	256	0.
1		0235	32	16.	1		0850	107	40.	1		1505	182	0.	1		2120	257	0.
1		0240	33	19.	1		0855	108	35.	1		1510	183	0.	1		2125	258	0.
1		0245	34	23.	1		0900	109	31.	1		1515	184	0.	1		2130	259	0.
1		0250	35	27.	1		0905	110	27.	1		1520	185	0.	1		2135	260	0.
1		0255	36	33.	1		0910	111	24.	1		1525	186	0.	1		2140	261	0.
1		0300	37	39.	1		0915	112	21.	1		1530	187	0.	1		2145	262	0.
1		0305	38	49.	1		0920	113	19.	1		1535	188	0.	1		2150	263	0.
1		0310	39	64.	1		0925	114	16.	1		1540	189	0.	1		2155	264	0.
1		0315	40	91.	1		0930	115	15.	1		1545	190	0.	1		2200	265	0.
1		0320	41	135.	1		0935	116	13.	1		1550	191	0.	1		2205	266	0.
1		0325	42	207.	1		0940	117	11.	1		1555	192	0.	1		2210	267	0.
1		0330	43	317.	1		0945	118	10.	1		1600	193	0.	1		2215	268	0.
1		0335	44	445.	1		0950	119	9.	1		1605	194	0.	1		2220	269	0.
1		0340	45	551.	1		0955	120	8.	1		1610	195	0.	1		2225	270	0.
1		0345	46	620.	1		1000	121	7.	1		1615	196	0.	1		2230	271	0.
1		0350	47	670.	1		1005	122	6.	1		1620	197	0.	1		2235	272	0.
1		0355	48	706.	1		1010	123	5.	1		1625	198	0.	1		2240	273	0.
1		0400	49	734.	1		1015	124	5.	1		1630	199	0.	1		2245	274	0.
1		0405	50	757.	1		1020	125	4.	1		1635	200	0.	1		2250	275	0.
1		0410	51	784.	1		1025	126	4.	1		1640	201	0.	1		2255	276	0.
1		0415	52	824.	1		1030	127	3.	1		1645	202	0.	1		2300	277	0.
1		0420	53	883.	1		1035	128	3.	1		1650	203	0.	1		2305	278	0.
1		0425	54	960.	1		1040	129	3.	1		1655	204	0.	1		2310	279	0.
1		0430	55	1059.	1		1045	130	2.	1		1700	205	0.	1		2315	280	0.
1		0435	56	1175.	1		1050	131	2.	1		1705	206	0.	1		2320	281	0.
1		0440	57	1302.	1		1055	132	2.	1		1710	207	0.	1		2325	282	0.
1		0445	58	1424.	1		1100	133	2.	1		1715	208	0.	1		2330	283	0.
1		0450	59	1536.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	1628.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	1688.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	1715.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	1716.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	1695.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	1660.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	1618.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	1573.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	1528.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	1484.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	1442.	1		1200	145	0.	1		1815	220	0.	2		0030	295	0.
1		0550	71	1401.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	1360.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	1316.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	1269.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	1217.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)				
		(CFS)			
1716.	5.17	733.	185.	178.	178.
		(INCHES) .207	.209	.209	.209
		(AC-FT) 364.	367.	367.	367.

CUMULATIVE AREA = 32.97 SQ MI

HYDROGRAPH AT STATION CDB2
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .41

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1134.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	1074.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	1011.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	946.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	880.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	814.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	749.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	687.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	627.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	570.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	516.	1		1320	161	0.	1		1935	236	0.
1		0055	12	1.	1		0710	87	465.	1		1325	162	0.	1		1940	237	0.
1		0100	13	1.	1		0715	88	418.	1		1330	163	0.	1		1945	238	0.
1		0105	14	1.	1		0720	89	375.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	335.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	298.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	265.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	235.	1		1355	168	0.	1		2010	243	0.
1		0130	19	1.	1		0745	94	208.	1		1400	169	0.	1		2015	244	0.
1		0135	20	2.	1		0750	95	184.	1		1405	170	0.	1		2020	245	0.
1		0140	21	2.	1		0755	96	163.	1		1410	171	0.	1		2025	246	0.
1		0145	22	3.	1		0800	97	144.	1		1415	172	0.	1		2030	247	0.
1		0150	23	4.	1		0805	98	126.	1		1420	173	0.	1		2035	248	0.
1		0155	24	4.	1		0810	99	111.	1		1425	174	0.	1		2040	249	0.
1		0200	25	5.	1		0815	100	98.	1		1430	175	0.	1		2045	250	0.
1		0205	26	6.	1		0820	101	86.	1		1435	176	0.	1		2050	251	0.
1		0210	27	7.	1		0825	102	75.	1		1440	177	0.	1		2055	252	0.
1		0215	28	8.	1		0830	103	66.	1		1445	178	0.	1		2100	253	0.
1		0220	29	9.	1		0835	104	58.	1		1450	179	0.	1		2105	254	0.
1		0225	30	11.	1		0840	105	51.	1		1455	180	0.	1		2110	255	0.
1		0230	31	13.	1		0845	106	45.	1		1500	181	0.	1		2115	256	0.
1		0235	32	15.	1		0850	107	39.	1		1505	182	0.	1		2120	257	0.
1		0240	33	17.	1		0855	108	35.	1		1510	183	0.	1		2125	258	0.
1		0245	34	21.	1		0900	109	31.	1		1515	184	0.	1		2130	259	0.
1		0250	35	25.	1		0905	110	27.	1		1520	185	0.	1		2135	260	0.
1		0255	36	30.	1		0910	111	24.	1		1525	186	0.	1		2140	261	0.
1		0300	37	37.	1		0915	112	21.	1		1530	187	0.	1		2145	262	0.
1		0305	38	46.	1		0920	113	18.	1		1535	188	0.	1		2150	263	0.
1		0310	39	61.	1		0925	114	16.	1		1540	189	0.	1		2155	264	0.
1		0315	40	86.	1		0930	115	14.	1		1545	190	0.	1		2200	265	0.
1		0320	41	129.	1		0935	116	13.	1		1550	191	0.	1		2205	266	0.
1		0325	42	199.	1		0940	117	11.	1		1555	192	0.	1		2210	267	0.
1		0330	43	306.	1		0945	118	10.	1		1600	193	0.	1		2215	268	0.
1		0335	44	430.	1		0950	119	9.	1		1605	194	0.	1		2220	269	0.
1		0340	45	532.	1		0955	120	8.	1		1610	195	0.	1		2225	270	0.
1		0345	46	600.	1		1000	121	7.	1		1615	196	0.	1		2230	271	0.
1		0350	47	650.	1		1005	122	6.	1		1620	197	0.	1		2235	272	0.

1	0355	48	686.	*	1	1010	123	5.	*	1	1625	198	0.	*	1	2240	273	0.	
1	0400	49	713.	*	1	1015	124	5.	*	1	1630	199	0.	*	1	2245	274	0.	
1	0405	50	736.	*	1	1020	125	4.	*	1	1635	200	0.	*	1	2250	275	0.	
1	0410	51	763.	*	1	1025	126	4.	*	1	1640	201	0.	*	1	2255	276	0.	
1	0415	52	800.	*	1	1030	127	3.	*	1	1645	202	0.	*	1	2300	277	0.	
1	0420	53	857.	*	1	1035	128	3.	*	1	1650	203	0.	*	1	2305	278	0.	
1	0425	54	932.	*	1	1040	129	3.	*	1	1655	204	0.	*	1	2310	279	0.	
1	0430	55	1029.	*	1	1045	130	2.	*	1	1700	205	0.	*	1	2315	280	0.	
1	0435	56	1143.	*	1	1050	131	2.	*	1	1705	206	0.	*	1	2320	281	0.	
1	0440	57	1266.	*	1	1055	132	2.	*	1	1710	207	0.	*	1	2325	282	0.	
1	0445	58	1385.	*	1	1100	133	2.	*	1	1715	208	0.	*	1	2330	283	0.	
1	0450	59	1494.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.	
1	0455	60	1584.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.	
1	0500	61	1643.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.	
1	0505	62	1670.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.	
1	0510	63	1672.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.	
1	0515	64	1652.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.	
1	0520	65	1618.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.	
1	0525	66	1577.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.	
1	0530	67	1534.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.	
1	0535	68	1491.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.	
1	0540	69	1448.	*	1	1155	144	0.	*	1	1810	219	0.	*	2	0025	294	0.	
1	0545	70	1407.	*	1	1200	145	0.	*	1	1815	220	0.	*	2	0030	295	0.	
1	0550	71	1368.	*	1	1205	146	0.	*	1	1820	221	0.	*	2	0035	296	0.	
1	0555	72	1328.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.	
1	0600	73	1286.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.	
1	0605	74	1240.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.	
1	0610	75	1189.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.	

****

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 1672.	5.17	715.	180.	174.	174.
		(INCHES) .202	.203	.203	.203
		(AC-FT) 355.	358.	358.	358.

CUMULATIVE AREA = 32.97 SQ MI

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

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*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 2

*** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION= 1

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1 .73	RATIO 2 .72	RATIO 3 .64	RATIO 4 .63	RATIO 5 .54	RATIO 6 .53	RATIO 7 .42	RATIO 8 .41
HYDROGRAPH AT												
+	F1	9.40	1	FLOW	3034.	2970.	2376.	2322.	1751.	1707.	1002.	974.
				TIME	4.42	4.42	4.50	4.50	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	F2	2.43	1	FLOW	818.	800.	633.	618.	457.	445.	253.	245.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.33	4.33
2 COMBINED AT												
+	CF2	11.83	1	FLOW	3817.	3737.	2982.	2913.	2186.	2130.	1243.	1208.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
ROUTED TO												
+	RF2	11.83	1	FLOW	3697.	3619.	2889.	2822.	2119.	2064.	1209.	1175.
				TIME	4.92	4.92	4.92	4.92	4.92	4.92	5.00	5.00

HYDROGRAPH AT												
+	F3	2.88	1	FLOW	1046.	1023.	806.	786.	581.	565.	317.	308.
				TIME	4.08	4.08	4.08	4.08	4.17	4.17	4.17	4.17
ROUTED TO												
+	RF3	2.88	1	FLOW	979.	957.	754.	736.	544.	530.	297.	288.
				TIME	4.58	4.58	4.67	4.67	4.67	4.67	4.67	4.67
HYDROGRAPH AT												
+	F4	1.01	1	FLOW	544.	533.	434.	425.	329.	321.	200.	195.
				TIME	3.83	3.83	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	RF4	1.01	1	FLOW	498.	488.	397.	388.	299.	292.	181.	177.
				TIME	4.33	4.33	4.33	4.33	4.33	4.33	4.42	4.42
2 COMBINED AT												
+	CF4	3.89	1	FLOW	1419.	1389.	1105.	1079.	806.	785.	454.	441.
				TIME	4.50	4.50	4.50	4.50	4.50	4.50	4.58	4.58
HYDROGRAPH AT												
+	F5	1.98	1	FLOW	731.	715.	565.	551.	408.	397.	224.	217.
				TIME	4.08	4.08	4.08	4.08	4.08	4.08	4.17	4.17
ROUTED TO												
+	RF5	1.98	1	FLOW	696.	681.	538.	525.	388.	378.	214.	207.
				TIME	4.42	4.42	4.42	4.42	4.42	4.42	4.50	4.50
3 COMBINED AT												
+	CF5	17.70	1	FLOW	5444.	5328.	4242.	4143.	3099.	3018.	1750.	1700.
				TIME	4.75	4.75	4.75	4.75	4.75	4.75	4.83	4.83
HYDROGRAPH AT												
+	F6	1.58	1	FLOW	731.	716.	581.	569.	438.	427.	264.	258.
				TIME	4.00	4.00	4.00	4.00	4.08	4.08	4.08	4.08
HYDROGRAPH AT												
+	F7	3.87	1	FLOW	1508.	1480.	1214.	1190.	928.	907.	575.	562.
				TIME	4.33	4.33	4.33	4.33	4.33	4.33	4.42	4.42
3 COMBINED AT												
+	CF7	23.14	1	FLOW	7116.	6969.	5587.	5461.	4127.	4022.	2385.	2320.
				TIME	4.67	4.67	4.67	4.67	4.67	4.67	4.75	4.75
ROUTED TO												
+	RF7	23.14	1	FLOW	6917.	6773.	5430.	5309.	4023.	3922.	2336.	2273.
				TIME	5.17	5.17	5.25	5.25	5.25	5.25	5.33	5.33
HYDROGRAPH AT												
+	F10	1.07	1	FLOW	440.	432.	352.	344.	266.	260.	162.	158.
				TIME	4.17	4.17	4.17	4.17	4.17	4.17	4.25	4.25
ROUTED TO												
+	RF10	1.07	1	FLOW	424.	416.	339.	332.	257.	251.	157.	153.
				TIME	4.42	4.42	4.50	4.50	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	F9F	.50	1	FLOW	337.	331.	273.	268.	211.	206.	133.	130.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	14-1	.03	1	FLOW	24.	23.	19.	18.	14.	13.	8.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	14-2	.01	1	FLOW	10.	10.	8.	8.	6.	6.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C26	.04	1	FLOW	34.	33.	27.	26.	20.	19.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R14-2	.04	1	FLOW	26.	25.	20.	20.	15.	14.	9.	8.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
3 COMBINED AT												
+	CF9F	1.62	1	FLOW	534.	524.	428.	419.	325.	318.	199.	194.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.33	4.33
HYDROGRAPH AT												
+	F9A	.11	1	FLOW	99.	97.	79.	77.	60.	58.	36.	35.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R6	.11	1	FLOW	86.	84.	69.	67.	52.	51.	32.	31.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	F9B	.49	1	FLOW	301.	294.	234.	228.	170.	166.	95.	92.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R7	.49	1	FLOW	287.	281.	223.	218.	162.	158.	90.	87.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	F8	.76	1	FLOW	399.	390.	302.	294.	211.	205.	106.	102.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R8	.76	1	FLOW	374.	366.	282.	275.	196.	190.	96.	93.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	F9C	.19	1	FLOW	149.	146.	118.	115.	87.	85.	51.	50.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C8	.95	1	FLOW	470.	459.	355.	346.	249.	241.	127.	122.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R9	.95	1	FLOW	442.	432.	336.	327.	236.	229.	120.	116.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83
HYDROGRAPH AT												

+	F9E	.39	1	FLOW	308.	302.	247.	242.	188.	184.	116.	113.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C9	1.94	1	FLOW	1038.	1015.	804.	785.	583.	567.	322.	312.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R10	1.94	1	FLOW	1013.	991.	785.	766.	569.	553.	314.	305.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	13-16	.03	1	FLOW	15.	15.	11.	11.	8.	8.	4.	4.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-17	.08	1	FLOW	62.	61.	49.	48.	37.	36.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-18	.07	1	FLOW	64.	63.	51.	50.	39.	38.	24.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C10	2.12	1	FLOW	1099.	1075.	854.	833.	621.	604.	345.	335.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R11	2.12	1	FLOW	1058.	1035.	821.	802.	597.	581.	333.	323.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
HYDROGRAPH AT												
+	13-15	.04	1	FLOW	34.	33.	27.	26.	20.	19.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C11	2.16	1	FLOW	1067.	1044.	829.	809.	602.	586.	335.	326.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
ROUTED TO												
+	R12	2.16	1	FLOW	1048.	1025.	814.	795.	592.	576.	329.	319.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	4.00	4.00
HYDROGRAPH AT												
+	F9D	.09	1	FLOW	72.	71.	58.	57.	44.	43.	27.	26.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R13	.09	1	FLOW	68.	68.	55.	55.	43.	42.	26.	26.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-22	.02	1	FLOW	11.	11.	9.	8.	6.	6.	3.	3.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C12	.11	1	FLOW	79.	77.	62.	61.	47.	46.	29.	28.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-21	.04	1	FLOW	37.	36.	30.	29.	22.	22.	14.	13.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R14	.04	1	FLOW	30.	29.	24.	23.	18.	18.	11.	11.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-20	.01	1	FLOW	14.	14.	11.	11.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C13	.05	1	FLOW	43.	43.	35.	34.	27.	26.	17.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C14	.16	1	FLOW	122.	120.	97.	95.	73.	71.	44.	43.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R15	.16	1	FLOW	119.	118.	95.	94.	72.	71.	44.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-14	.04	1	FLOW	22.	21.	17.	16.	12.	11.	6.	6.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-19	.08	1	FLOW	59.	58.	47.	46.	35.	34.	21.	21.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C15	2.44	1	FLOW	1161.	1136.	905.	884.	662.	645.	372.	362.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	R16	2.44	1	FLOW	1146.	1122.	894.	874.	655.	638.	369.	358.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
HYDROGRAPH AT												
+	13-9	.05	1	FLOW	26.	25.	20.	19.	14.	14.	7.	7.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-12	.03	1	FLOW	26.	26.	21.	21.	17.	16.	11.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-13	.01	1	FLOW	14.	14.	11.	11.	8.	8.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R17	.01	1	FLOW	12.	11.	9.	9.	7.	7.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C16	.09	1	FLOW	64.	62.	50.	49.	37.	36.	21.	21.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58

ROUTED TO												
+	R18	.09	1	FLOW	57.	56.	45.	44.	33.	32.	19.	18.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-8	.09	1	FLOW	61.	60.	47.	46.	34.	33.	19.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C17	2.62	1	FLOW	1195.	1170.	933.	912.	684.	666.	386.	375.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
HYDROGRAPH AT												
+	13-7	.02	1	FLOW	19.	19.	16.	15.	12.	12.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R19	.02	1	FLOW	19.	18.	15.	15.	11.	11.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-6	.03	1	FLOW	32.	31.	26.	26.	21.	21.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-23	.06	1	FLOW	60.	59.	49.	48.	38.	37.	25.	24.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C18	.11	1	FLOW	110.	108.	90.	88.	71.	69.	46.	45.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R20	.11	1	FLOW	106.	104.	87.	85.	67.	66.	43.	42.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-25	.01	1	FLOW	7.	7.	5.	5.	3.	3.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R21	.01	1	FLOW	6.	6.	5.	4.	3.	3.	1.	1.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-24	.07	1	FLOW	36.	35.	27.	26.	19.	19.	10.	9.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C19	.08	1	FLOW	42.	41.	32.	31.	22.	21.	11.	11.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	13-4	.01	1	FLOW	9.	9.	7.	6.	5.	4.	2.	2.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	13-5	.14	1	FLOW	93.	91.	74.	73.	56.	55.	34.	33.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C20	.15	1	FLOW	102.	100.	80.	78.	60.	58.	36.	35.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
ROUTED TO												
+	R22	.15	1	FLOW	95.	94.	76.	74.	57.	55.	34.	33.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	13-11	.05	1	FLOW	39.	39.	31.	31.	24.	23.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C21	.20	1	FLOW	125.	123.	99.	97.	74.	72.	44.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R23	.20	1	FLOW	122.	120.	97.	95.	73.	71.	43.	42.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	13-10	.02	1	FLOW	19.	19.	16.	16.	13.	13.	9.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C22	.21	1	FLOW	130.	128.	104.	102.	78.	76.	47.	46.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R24	.21	1	FLOW	129.	126.	102.	100.	77.	75.	46.	45.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	13-3	.04	1	FLOW	38.	37.	31.	31.	25.	24.	17.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C23	.45	1	FLOW	296.	290.	237.	232.	180.	176.	110.	107.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R25	.45	1	FLOW	271.	266.	216.	212.	164.	160.	99.	97.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.83
HYDROGRAPH AT												
+	13-2	.02	1	FLOW	30.	29.	25.	25.	20.	20.	14.	14.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C24	3.09	1	FLOW	1444.	1414.	1131.	1105.	832.	811.	475.	462.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
HYDROGRAPH AT												
+	13-1	.07	1	FLOW	61.	60.	49.	48.	37.	37.	23.	23.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												

+	C25	3.16	1	FLOW	1471.	1440.	1153.	1127.	850.	828.	487.	473.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
2 COMBINED AT												
+	CCF9F	4.78	1	FLOW	1987.	1946.	1565.	1530.	1161.	1132.	676.	658.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
ROUTED TO												
+	RF9F	4.78	1	FLOW	1882.	1844.	1483.	1451.	1102.	1074.	642.	625.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
HYDROGRAPH AT												
+	12-1	.13	1	FLOW	99.	97.	80.	79.	62.	61.	39.	38.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C12-1	4.92	1	FLOW	1906.	1868.	1503.	1470.	1118.	1090.	653.	636.
				TIME	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
ROUTED TO												
+	R12-1	4.92	1	FLOW	1845.	1807.	1455.	1423.	1081.	1055.	632.	615.
				TIME	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
HYDROGRAPH AT												
+	11-4	.03	1	FLOW	33.	32.	26.	26.	20.	20.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R2	.03	1	FLOW	23.	22.	18.	18.	14.	13.	8.	8.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-3	.09	1	FLOW	74.	72.	60.	59.	46.	45.	29.	28.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C2	.12	1	FLOW	93.	91.	75.	73.	57.	56.	36.	35.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-2	.06	1	FLOW	61.	60.	51.	50.	41.	40.	28.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C3	.18	1	FLOW	154.	151.	126.	123.	98.	96.	64.	62.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-7	.05	1	FLOW	37.	36.	29.	28.	21.	20.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-8	.03	1	FLOW	28.	27.	22.	22.	17.	17.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-9	.06	1	FLOW	43.	42.	33.	33.	24.	24.	14.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	11-10	.09	1	FLOW	86.	84.	69.	68.	53.	52.	33.	33.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.09	1	FLOW	82.	81.	66.	64.	51.	49.	31.	30.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
4 COMBINED AT												
+	C4	.23	1	FLOW	188.	185.	150.	146.	113.	110.	67.	65.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R4	.23	1	FLOW	177.	173.	141.	138.	108.	103.	66.	61.
				TIME	3.58	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-5	.03	1	FLOW	28.	27.	22.	22.	17.	16.	10.	10.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C5	.26	1	FLOW	204.	198.	159.	155.	119.	114.	72.	68.
				TIME	3.58	3.58	3.58	3.58	3.67	3.58	3.67	3.67
HYDROGRAPH AT												
+	11-6	.13	1	FLOW	115.	113.	94.	92.	72.	71.	46.	45.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C6	.58	1	FLOW	473.	462.	378.	370.	287.	281.	178.	171.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R5	.58	1	FLOW	462.	448.	371.	365.	284.	279.	177.	171.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	11-1	.09	1	FLOW	80.	79.	65.	64.	50.	49.	32.	31.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C7	.67	1	FLOW	530.	515.	426.	419.	328.	322.	204.	198.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	CC7	5.58	1	FLOW	1931.	1893.	1527.	1494.	1139.	1111.	670.	653.
				TIME	4.50	4.50	4.50	4.50	4.50	4.50	4.58	4.58
ROUTED TO												
+	RC7	5.58	1	FLOW	1879.	1841.	1486.	1454.	1111.	1084.	657.	640.
				TIME	4.75	4.75	4.83	4.83	4.83	4.83	4.83	4.83
HYDROGRAPH AT												
+	10-2	.13	1	FLOW	114.	112.	92.	90.	71.	70.	45.	44.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R1	.13	1	FLOW	110.	106.	90.	86.	68.	68.	45.	44.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67

HYDROGRAPH AT												
+	10-1	.10	1	FLOW	91.	89.	72.	71.	55.	53.	33.	32.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C1	.23	1	FLOW	180.	177.	144.	141.	109.	107.	66.	65.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	CC1	5.82	1	FLOW	1941.	1903.	1539.	1506.	1153.	1125.	686.	668.
				TIME	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
HYDROGRAPH AT												
+	DB1	1.93	1	FLOW	929.	913.	756.	742.	587.	575.	375.	367.
				TIME	4.00	4.00	4.08	4.08	4.08	4.08	4.08	4.08
3 COMBINED AT												
+	CDB1	30.88	1	FLOW	9043.	8860.	7133.	6976.	5304.	5175.	3123.	3041.
				TIME	5.08	5.08	5.08	5.08	5.08	5.17	5.17	5.17
DIVERSION TO												
+	DVCDB1NW	30.88	1	FLOW	4522.	4430.	3567.	3488.	2652.	2587.	1562.	1521.
				TIME	5.08	5.08	5.08	5.08	5.08	5.17	5.17	5.17
HYDROGRAPH AT												
+	DVCDB1NW	30.88	1	FLOW	4522.	4430.	3567.	3488.	2652.	2587.	1562.	1521.
				TIME	5.08	5.08	5.08	5.08	5.08	5.17	5.17	5.17
ROUTED TO												
+	RDB1	30.88	1	FLOW	4508.	4417.	3561.	3482.	2652.	2587.	1559.	1518.
				TIME	5.08	5.17	5.17	5.17	5.17	5.17	5.25	5.25
HYDROGRAPH AT												
+	9-19	.02	1	FLOW	15.	15.	12.	12.	10.	10.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-15	.24	1	FLOW	167.	163.	133.	130.	100.	98.	61.	59.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C14	.25	1	FLOW	179.	175.	143.	140.	108.	106.	66.	64.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R13	.25	1	FLOW	173.	170.	138.	135.	104.	102.	64.	62.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-18	.01	1	FLOW	14.	13.	11.	11.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												
+	C15	.27	1	FLOW	182.	179.	145.	142.	110.	107.	67.	65.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	9-16	.02	1	FLOW	18.	17.	14.	14.	11.	11.	8.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-17	.05	1	FLOW	29.	29.	23.	22.	16.	16.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C16	.07	1	FLOW	47.	46.	37.	36.	28.	27.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C17	.33	1	FLOW	222.	218.	177.	173.	133.	130.	80.	78.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R14	.33	1	FLOW	213.	209.	170.	166.	128.	125.	77.	75.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-14	.09	1	FLOW	64.	63.	51.	50.	38.	37.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C18	.42	1	FLOW	262.	257.	209.	205.	158.	154.	95.	93.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R15	.42	1	FLOW	262.	257.	209.	204.	157.	154.	95.	92.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-12	.01	1	FLOW	10.	10.	9.	9.	7.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R16	.01	1	FLOW	10.	10.	8.	8.	7.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C19	.43	1	FLOW	265.	260.	211.	207.	160.	156.	96.	94.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
ROUTED TO												
+	R17	.43	1	FLOW	245.	241.	195.	191.	147.	143.	89.	87.
				TIME	3.92	3.92	3.92	3.92	3.92	3.92	4.00	4.00
HYDROGRAPH AT												
+	9-11	.26	1	FLOW	149.	146.	115.	113.	83.	81.	45.	44.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C20	.69	1	FLOW	347.	340.	273.	267.	203.	198.	120.	117.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
HYDROGRAPH AT												
+	9-6	.03	1	FLOW	31.	30.	26.	25.	21.	20.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												

+	C21	.72	1	FLOW	363.	355.	287.	281.	214.	209.	126.	123.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
ROUTED TO												
+	R18	.72	1	FLOW	362.	355.	286.	280.	213.	208.	126.	123.
				TIME	3.83	3.83	3.83	3.83	3.83	3.83	3.92	3.92
HYDROGRAPH AT												
+	9-13	.15	1	FLOW	113.	111.	92.	90.	71.	69.	45.	44.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R19	.15	1	FLOW	113.	111.	91.	90.	70.	69.	44.	43.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-5	.01	1	FLOW	8.	8.	6.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C22	.88	1	FLOW	457.	448.	362.	354.	271.	264.	161.	157.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
ROUTED TO												
+	R20	.88	1	FLOW	456.	447.	361.	353.	270.	263.	161.	157.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	9-2	.02	1	FLOW	19.	19.	16.	15.	13.	12.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C23	.90	1	FLOW	468.	458.	371.	363.	278.	271.	165.	161.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
ROUTED TO												
+	R21	.90	1	FLOW	467.	457.	370.	362.	276.	270.	165.	161.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	9-10	.01	1	FLOW	10.	9.	8.	8.	7.	7.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R22	.01	1	FLOW	9.	8.	7.	7.	6.	6.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	9-9	.02	1	FLOW	21.	21.	17.	17.	13.	13.	9.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C24	.03	1	FLOW	30.	29.	25.	24.	19.	19.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R23	.03	1	FLOW	26.	26.	22.	21.	17.	17.	11.	11.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-8	.15	1	FLOW	110.	108.	89.	87.	69.	67.	43.	42.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R24	.15	1	FLOW	109.	107.	88.	86.	68.	66.	43.	42.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	9-7	.13	1	FLOW	72.	70.	55.	54.	40.	39.	22.	21.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C25	.31	1	FLOW	207.	203.	165.	162.	125.	122.	75.	73.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R25	.31	1	FLOW	201.	197.	160.	156.	121.	117.	73.	72.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-4	.04	1	FLOW	33.	33.	27.	27.	21.	20.	13.	13.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C26	.34	1	FLOW	227.	222.	181.	177.	136.	133.	81.	79.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	9-3	.06	1	FLOW	59.	58.	49.	48.	40.	39.	27.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C27	1.30	1	FLOW	726.	712.	576.	564.	434.	423.	262.	256.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
ROUTED TO												
+	R26	1.30	1	FLOW	720.	707.	576.	562.	433.	423.	261.	253.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	9-1	.05	1	FLOW	42.	41.	34.	33.	26.	26.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C28	1.34	1	FLOW	747.	732.	597.	583.	450.	439.	272.	264.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	8-3	.08	1	FLOW	69.	68.	56.	55.	43.	42.	27.	27.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-2	.01	1	FLOW	14.	14.	12.	12.	10.	9.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C12	.09	1	FLOW	78.	77.	64.	63.	50.	49.	32.	31.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58

ROUTED TO												
+	R12	.09	1	FLOW	78.	76.	63.	62.	49.	48.	32.	31.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	8-1	.02	1	FLOW	22.	22.	18.	18.	14.	13.	9.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C13	.11	1	FLOW	95.	93.	77.	76.	60.	59.	38.	37.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-2	.02	1	FLOW	17.	17.	14.	14.	11.	11.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R11	.02	1	FLOW	17.	17.	14.	13.	11.	10.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	7-1	.01	1	FLOW	10.	10.	8.	8.	6.	6.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
4 COMBINED AT												
+	C11	1.48	1	FLOW	835.	818.	663.	651.	499.	487.	303.	294.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	DB2	.60	1	FLOW	361.	354.	291.	285.	223.	218.	139.	136.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
DIVERSION TO												
+	DIVDB2NW	.60	1	FLOW	90.	88.	73.	71.	56.	55.	35.	34.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	DIVDB2NW	.60	1	FLOW	270.	265.	218.	214.	167.	164.	104.	102.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
3 COMBINED AT												
+	CDB2	32.97	1	FLOW	4909.	4811.	3885.	3801.	2903.	2832.	1716.	1672.
				TIME	5.08	5.08	5.08	5.08	5.08	5.08	5.17	5.17
ROUTED TO												
+	RDB2	32.97	1	FLOW	4898.	4800.	3871.	3787.	2897.	2827.	1716.	1671.
				TIME	5.08	5.08	5.17	5.17	5.17	5.17	5.17	5.17
HYDROGRAPH AT												
+	U1	.03	1	FLOW	26.	25.	20.	20.	15.	15.	8.	8.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	25.	25.	20.	19.	14.	14.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-1	.01	1	FLOW	7.	7.	5.	5.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.04	1	FLOW	30.	30.	24.	23.	17.	17.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.04	1	FLOW	30.	30.	23.	23.	16.	16.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W2	.01	1	FLOW	11.	11.	9.	8.	6.	6.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.05	1	FLOW	40.	39.	32.	31.	23.	22.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	W1	.03	1	FLOW	27.	26.	22.	21.	16.	16.	9.	8.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.09	1	FLOW	67.	65.	53.	52.	39.	38.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.09	1	FLOW	67.	65.	52.	51.	36.	35.	19.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-2A	.01	1	FLOW	10.	10.	8.	7.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	V2	.03	1	FLOW	29.	29.	24.	24.	18.	18.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	105.	103.	83.	81.	60.	58.	31.	29.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.13	1	FLOW	101.	99.	77.	76.	58.	56.	30.	29.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	V1	.05	1	FLOW	49.	48.	40.	39.	30.	29.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-2B	.01	1	FLOW	5.	5.	4.	4.	3.	3.	2.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.06	1	FLOW	53.	52.	43.	42.	32.	31.	17.	17.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.67
2 COMBINED AT												

+	C	.19	1	FLOW	154.	150.	118.	115.	83.	81.	43.	42.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.75
HYDROGRAPH AT												
+	P1	.09	1	FLOW	79.	77.	62.	60.	45.	43.	23.	22.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-4	.04	1	FLOW	22.	22.	17.	17.	13.	12.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	T2	.02	1	FLOW	16.	16.	12.	12.	8.	8.	4.	4.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.75	3.75
3 COMBINED AT												
+	C	.15	1	FLOW	118.	115.	92.	89.	66.	64.	31.	31.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.15	1	FLOW	113.	111.	86.	84.	59.	58.	30.	29.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.75
HYDROGRAPH AT												
+	6-8	.03	1	FLOW	34.	33.	28.	28.	23.	23.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-7	.01	1	FLOW	8.	8.	7.	7.	5.	5.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C6	.04	1	FLOW	42.	41.	35.	34.	28.	28.	19.	19.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R6	.04	1	FLOW	40.	39.	34.	33.	27.	27.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	6-6	.03	1	FLOW	40.	39.	33.	33.	27.	27.	19.	19.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C7	.07	1	FLOW	79.	78.	66.	65.	53.	52.	38.	37.
				TIME	3.50	3.50	3.50	3.50	3.58	3.50	3.58	3.58
ROUTED TO												
+	R7	.07	1	FLOW	67.	66.	57.	56.	46.	45.	32.	31.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-5	.10	1	FLOW	81.	80.	66.	64.	50.	49.	32.	31.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R8	.10	1	FLOW	78.	77.	64.	63.	49.	48.	31.	31.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	6-4	.19	1	FLOW	102.	99.	78.	76.	55.	54.	29.	28.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C8	.37	1	FLOW	245.	240.	196.	192.	148.	145.	90.	88.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R9	.37	1	FLOW	239.	234.	191.	187.	145.	142.	89.	87.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-3	.02	1	FLOW	15.	15.	12.	12.	9.	9.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R10	.02	1	FLOW	14.	14.	12.	12.	9.	9.	6.	6.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	6-2	.05	1	FLOW	52.	51.	42.	41.	32.	32.	20.	20.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C9	.43	1	FLOW	268.	263.	215.	211.	164.	161.	102.	99.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	6-1	.03	1	FLOW	22.	22.	18.	18.	14.	13.	8.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C10	.46	1	FLOW	282.	276.	225.	220.	171.	168.	106.	103.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.46	1	FLOW	280.	275.	225.	220.	171.	167.	104.	101.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	T1	.04	1	FLOW	31.	31.	25.	24.	18.	18.	9.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-3	.02	1	FLOW	12.	11.	9.	9.	6.	6.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	U2	.02	1	FLOW	19.	18.	15.	15.	11.	11.	6.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
4 COMBINED AT												
+	C	.54	1	FLOW	314.	307.	251.	246.	190.	186.	118.	115.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
ROUTED TO												
+	R	.54	1	FLOW	312.	305.	249.	244.	190.	186.	116.	113.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.75	3.75

2 COMBINED AT											
+	C	.69	1	FLOW	408.	399.	327.	320.	246.	240.	146.	142.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.69	1	FLOW	407.	399.	323.	316.	240.	234.	143.	139.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GB-5A	.03	1	FLOW	23.	22.	17.	17.	12.	12.	7.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.72	1	FLOW	420.	411.	333.	326.	246.	240.	147.	143.
				TIME	3.67	3.67	3.67	3.67	3.67	3.75	3.75	3.75
HYDROGRAPH AT												
+	Q1	.02	1	FLOW	19.	18.	15.	15.	11.	11.	6.	5.
				TIME	3.50	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	S1	.05	1	FLOW	39.	38.	31.	30.	23.	22.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
3 COMBINED AT												
+	C	.79	1	FLOW	461.	451.	364.	357.	272.	265.	160.	156.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R	.79	1	FLOW	458.	448.	359.	351.	268.	262.	158.	154.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	S2	.02	1	FLOW	18.	18.	14.	14.	10.	10.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-5B	.01	1	FLOW	8.	8.	6.	6.	5.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.83	1	FLOW	474.	464.	373.	364.	276.	270.	162.	158.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	GB-6	.03	1	FLOW	18.	18.	14.	14.	10.	10.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	18.	17.	14.	13.	10.	10.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	R2	.04	1	FLOW	29.	28.	23.	23.	17.	17.	9.	9.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.06	1	FLOW	46.	46.	37.	36.	27.	27.	14.	14.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	46.	45.	35.	34.	26.	25.	13.	13.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	R1	.03	1	FLOW	25.	25.	20.	20.	14.	14.	7.	7.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.09	1	FLOW	71.	69.	54.	53.	38.	37.	19.	20.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.75	3.67
2 COMBINED AT												
+	C	.92	1	FLOW	533.	522.	422.	412.	308.	299.	178.	174.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.83	3.83
HYDROGRAPH AT												
+	GB-14	.01	1	FLOW	10.	10.	8.	8.	6.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	F	.00	1	FLOW	7.	7.	6.	6.	5.	5.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	CF	1.13	1	FLOW	675.	660.	533.	522.	394.	383.	222.	216.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.75	3.75
2 COMBINED AT												
+	CCF	34.10	1	FLOW	5127.	5025.	4063.	3975.	3040.	2967.	1812.	1765.
				TIME	5.08	5.08	5.08	5.08	5.08	5.08	5.17	5.17
ROUTED TO												
+	RF	34.10	1	FLOW	5109.	5008.	4055.	3968.	3038.	2965.	1810.	1763.
				TIME	5.17	5.17	5.17	5.17	5.17	5.17	5.25	5.25
HYDROGRAPH AT												
+	5-7	.01	1	FLOW	10.	9.	8.	8.	6.	6.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R1	.01	1	FLOW	8.	8.	7.	7.	5.	5.	4.	4.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	5-6	.04	1	FLOW	36.	36.	30.	29.	24.	23.	16.	15.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C1	.05	1	FLOW	44.	44.	37.	36.	29.	28.	19.	19.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R2	.05	1	FLOW	41.	40.	34.	33.	27.	26.	18.	17.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												

+	5-5	.05	1	FLOW	36.	35.	28.	27.	20.	20.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	5-8	.04	1	FLOW	40.	40.	33.	33.	26.	26.	17.	17.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C2	.14	1	FLOW	111.	109.	90.	88.	70.	68.	44.	43.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R3	.14	1	FLOW	98.	97.	80.	78.	61.	60.	39.	38.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-4	.12	1	FLOW	61.	59.	46.	45.	33.	32.	17.	16.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
2 COMBINED AT												
+	C3	.25	1	FLOW	154.	151.	121.	119.	90.	88.	54.	52.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
ROUTED TO												
+	R4	.25	1	FLOW	152.	149.	120.	117.	90.	87.	53.	52.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-2	.03	1	FLOW	29.	29.	24.	23.	18.	18.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C4	.28	1	FLOW	165.	162.	130.	127.	96.	94.	58.	56.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	5-3	.06	1	FLOW	48.	47.	39.	38.	29.	29.	18.	18.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R5	.06	1	FLOW	46.	45.	37.	36.	28.	27.	17.	17.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	5-1	.02	1	FLOW	13.	13.	11.	10.	8.	8.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C5	.36	1	FLOW	220.	216.	174.	171.	130.	127.	77.	75.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67
ROUTED TO												
+	R	.36	1	FLOW	216.	212.	171.	168.	129.	126.	76.	74.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GC-5A	.05	1	FLOW	32.	31.	25.	24.	18.	17.	10.	9.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	N1	.05	1	FLOW	30.	29.	21.	21.	14.	14.	6.	6.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.83	3.92
ROUTED TO												
+	R	.05	1	FLOW	28.	27.	21.	20.	14.	13.	6.	6.
				TIME	3.58	3.58	3.67	3.67	3.75	3.75	3.92	3.92
3 COMBINED AT												
+	C	.45	1	FLOW	267.	261.	209.	204.	152.	149.	86.	84.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	GC-5B	.02	1	FLOW	24.	24.	20.	20.	17.	16.	12.	12.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	23.	23.	20.	19.	16.	16.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.47	1	FLOW	280.	274.	220.	215.	161.	156.	91.	89.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	GC-4A	.03	1	FLOW	17.	17.	13.	13.	10.	9.	5.	5.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.03	1	FLOW	17.	17.	13.	13.	10.	9.	5.	5.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.03	1	FLOW	16.	16.	13.	12.	9.	9.	5.	5.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.67	3.67
HYDROGRAPH AT												
+	GC-4B	.06	1	FLOW	36.	35.	27.	27.	20.	19.	11.	10.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.06	1	FLOW	34.	33.	26.	25.	18.	18.	10.	10.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.67	3.67
3 COMBINED AT												
+	C	.56	1	FLOW	328.	321.	258.	252.	189.	183.	104.	101.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.75	3.75
HYDROGRAPH AT												
+	0	.01	1	FLOW	17.	17.	14.	13.	10.	10.	7.	7.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
ROUTED TO												
+	R	.01	1	FLOW	16.	15.	12.	12.	10.	10.	7.	6.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	.57	1	FLOW	338.	331.	267.	261.	196.	191.	108.	105.
				TIME	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.75

ROUTED TO												
+	R	.57	1	FLOW	335.	328.	261.	254.	193.	188.	108.	104.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	H3	.02	1	FLOW	16.	16.	12.	12.	9.	9.	5.	5.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.02	1	FLOW	14.	13.	11.	11.	8.	8.	5.	5.
				TIME	3.50	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GC-1A	.02	1	FLOW	14.	14.	11.	10.	8.	7.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
3 COMBINED AT												
+	C	.61	1	FLOW	352.	345.	275.	268.	201.	196.	113.	110.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.75
HYDROGRAPH AT												
+	P2	.07	1	FLOW	50.	48.	36.	35.	26.	25.	12.	12.
				TIME	3.58	3.58	3.58	3.58	3.67	3.67	3.83	3.83
ROUTED TO												
+	R	.07	1	FLOW	46.	45.	35.	34.	24.	23.	12.	12.
				TIME	3.58	3.58	3.67	3.67	3.67	3.67	3.83	3.83
2 COMBINED AT												
+	C	.67	1	FLOW	398.	389.	310.	302.	224.	218.	124.	120.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.75	3.83
ROUTED TO												
+	R	.67	1	FLOW	387.	380.	306.	299.	223.	216.	123.	119.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	Y	.02	1	FLOW	19.	18.	15.	15.	11.	11.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	H1	.05	1	FLOW	43.	43.	33.	32.	23.	21.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.75
HYDROGRAPH AT												
+	GC-18	.02	1	FLOW	15.	14.	11.	11.	8.	8.	4.	4.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GC-1C	.02	1	FLOW	12.	12.	9.	9.	7.	6.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
5 COMBINED AT												
+	C	.79	1	FLOW	437.	427.	342.	334.	252.	245.	139.	135.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	.79	1	FLOW	431.	423.	340.	332.	246.	239.	137.	133.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	C1D1GC	.03	1	FLOW	23.	23.	18.	18.	14.	13.	8.	8.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.81	1	FLOW	439.	430.	346.	337.	251.	243.	139.	135.
				TIME	3.75	3.75	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	Q2	.08	1	FLOW	78.	77.	66.	64.	52.	51.	33.	32.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
ROUTED TO												
+	R	.08	1	FLOW	78.	76.	63.	62.	48.	47.	31.	30.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	G1	.04	1	FLOW	32.	31.	26.	25.	20.	20.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	G2	.02	1	FLOW	17.	16.	13.	13.	10.	10.	6.	6.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
3 COMBINED AT												
+	C	.13	1	FLOW	125.	123.	102.	100.	78.	77.	46.	45.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
2 COMBINED AT												
+	C	.94	1	FLOW	527.	515.	409.	397.	300.	292.	168.	163.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	.94	1	FLOW	523.	510.	404.	395.	298.	290.	167.	162.
				TIME	3.67	3.67	3.75	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	E	.05	1	FLOW	45.	44.	37.	36.	28.	28.	16.	16.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-7	.03	1	FLOW	20.	19.	15.	15.	11.	11.	6.	6.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	1.02	1	FLOW	563.	549.	436.	423.	318.	310.	178.	173.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	R	1.02	1	FLOW	561.	547.	432.	419.	316.	308.	177.	172.
				TIME	3.67	3.67	3.67	3.75	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	8	.04	1	FLOW	40.	39.	32.	31.	25.	24.	16.	16.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
2 COMBINED AT												

+	C	1.06	1	FLOW	580.	566.	449.	436.	327.	319.	184.	178.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.83	3.83
HYDROGRAPH AT												
+	GB-10	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
ROUTED TO												
+	R	.01	1	FLOW	4.	4.	3.	3.	2.	2.	1.	1.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	GB-9	.01	1	FLOW	8.	8.	6.	6.	4.	4.	2.	2.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
2 COMBINED AT												
+	C	.02	1	FLOW	12.	11.	9.	9.	6.	6.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.58
ROUTED TO												
+	R	.02	1	FLOW	11.	10.	8.	8.	6.	6.	3.	3.
				TIME	3.50	3.50	3.58	3.58	3.58	3.58	3.58	3.58
HYDROGRAPH AT												
+	C2+ST	.04	1	FLOW	30.	29.	23.	23.	17.	16.	9.	8.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	ST	.00	1	FLOW	3.	3.	2.	2.	2.	2.	1.	1.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
3 COMBINED AT												
+	C	.06	1	FLOW	42.	41.	33.	32.	24.	23.	12.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
ROUTED TO												
+	R	.06	1	FLOW	41.	40.	32.	31.	22.	21.	11.	11.
				TIME	3.58	3.58	3.58	3.58	3.58	3.58	3.67	3.67
HYDROGRAPH AT												
+	GB-8	.02	1	FLOW	12.	12.	9.	9.	7.	6.	3.	3.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
HYDROGRAPH AT												
+	EN+ST	.02	1	FLOW	21.	20.	17.	17.	13.	13.	10.	9.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.58	3.58
HYDROGRAPH AT												
+	COM	.02	1	FLOW	25.	25.	21.	21.	17.	16.	11.	11.
				TIME	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
4 COMBINED AT												
+	C	.11	1	FLOW	94.	92.	73.	72.	54.	53.	31.	30.
				TIME	3.50	3.50	3.50	3.50	3.58	3.58	3.58	3.58
2 COMBINED AT												
+	C	1.16	1	FLOW	650.	634.	499.	485.	358.	349.	201.	196.
				TIME	3.58	3.58	3.67	3.67	3.75	3.75	3.83	3.83
ROUTED TO												
+	RCOM	1.16	1	FLOW	643.	628.	494.	479.	356.	347.	199.	193.
				TIME	3.67	3.67	3.67	3.67	3.75	3.75	3.92	3.92
HYDROGRAPH AT												
+	DSDB	.61	1	FLOW	231.	226.	181.	176.	133.	129.	76.	73.
				TIME	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3 COMBINED AT												
+	CDSDB	35.87	1	FLOW	5456.	5348.	4333.	4241.	3259.	3182.	1948.	1900.
				TIME	5.08	5.08	5.17	5.17	5.17	5.17	5.25	5.25

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
FOR PLAN = 1 RATIO= .00									
R13	MANE	2.18	70.89	218.21	1.19	5.00	68.42	220.00	1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5678E+01 EXCESS= .0000E+00 OUTFLOW= .5678E+01 BASIN STORAGE= .5672E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.19	70.06	217.25	1.17	5.00	67.52	220.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5569E+01 EXCESS= .0000E+00 OUTFLOW= .5569E+01 BASIN STORAGE= .5565E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.33	56.79	218.81	.95	5.00	55.23	220.00	.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4521E+01 EXCESS= .0000E+00 OUTFLOW= .4522E+01 BASIN STORAGE= .5259E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.34	56.01	217.80	.93	5.00	54.61	220.00	.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4429E+01 EXCESS= .0000E+00 OUTFLOW= .4429E+01 BASIN STORAGE= .5137E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.52	43.24	219.42	.72	5.00	42.61	220.00	.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3421E+01 EXCESS= .0000E+00 OUTFLOW= .3421E+01 BASIN STORAGE= .5261E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00									
R13	MANE	2.54	42.51	218.36	.70	5.00	41.55	220.00	.70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3341E+01 EXCESS= .0000E+00 OUTFLOW= .3342E+01 BASIN STORAGE= .5104E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R13	MANE	2.91	26.78	218.35	.44	5.00	26.48	220.00	.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2097E+01 EXCESS= .0000E+00 OUTFLOW= .2097E+01 BASIN STORAGE= .6253E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R13	MANE	2.93	26.09	219.92	.43	5.00	26.05	220.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2047E+01 EXCESS= .0000E+00 OUTFLOW= .2047E+01 BASIN STORAGE= .6202E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.43	83.23	216.20	1.26	5.00	81.78	215.00	1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6315E+01 EXCESS= .0000E+00 OUTFLOW= .6316E+01 BASIN STORAGE= .9685E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.44	82.01	217.60	1.23	5.00	80.92	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6197E+01 EXCESS= .0000E+00 OUTFLOW= .6198E+01 BASIN STORAGE= .9472E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.62	67.50	217.11	1.00	5.00	66.01	215.00	1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5046E+01 EXCESS= .0000E+00 OUTFLOW= .5047E+01 BASIN STORAGE= .1245E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.63	65.61	215.99	.98	5.00	64.41	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4939E+01 EXCESS= .0000E+00 OUTFLOW= .4940E+01 BASIN STORAGE= .1218E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.87	52.05	217.85	.76	5.00	50.71	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3833E+01 EXCESS= .0000E+00 OUTFLOW= .3834E+01 BASIN STORAGE= .9868E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	2.89	50.37	216.64	.74	5.00	48.89	215.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3741E+01 EXCESS= .0000E+00 OUTFLOW= .3742E+01 BASIN STORAGE= .9600E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R3	MANE	3.37	31.67	215.91	.47	5.00	30.96	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2364E+01 EXCESS= .0000E+00 OUTFLOW= .2365E+01 BASIN STORAGE= .1132E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R3	MANE	3.40	31.73	217.66	.46	5.00	30.17	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2308E+01 EXCESS= .0000E+00 OUTFLOW= .2309E+01 BASIN STORAGE= .1141E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R4	MANE	3.21	183.87	218.36	1.13	5.00	177.48	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1401E+02 EXCESS= .0000E+00 OUTFLOW= .1401E+02 BASIN STORAGE= .1336E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	3.23	178.92	216.27	1.11	5.00	172.69	220.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1373E+02 EXCESS= .0000E+00 OUTFLOW= .1374E+02 BASIN STORAGE= .1498E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	3.46	146.58	217.70	.89	5.00	140.66	220.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1105E+02 EXCESS= .0000E+00 OUTFLOW= .1105E+02 BASIN STORAGE= .1857E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	3.48	140.52	219.35	.87	5.00	138.11	220.00	.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1079E+02 EXCESS= .0000E+00 OUTFLOW= .1080E+02 BASIN STORAGE= .1286E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	3.79	109.36	219.57	.67	5.00	108.15	220.00	.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8246E+01 EXCESS= .0000E+00 OUTFLOW= .8248E+01 BASIN STORAGE= .1520E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	3.82	107.12	217.89	.65	5.00	103.45	220.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8043E+01 EXCESS= .0000E+00 OUTFLOW= .8045E+01 BASIN STORAGE= .1493E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	4.49	66.06	219.91	.40	5.00	65.93	220.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4926E+01 EXCESS= .0000E+00 OUTFLOW= .4928E+01 BASIN STORAGE= .1461E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R4	MANE	4.52	61.74	221.72	.39	5.00	61.21	220.00	.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4789E+01 EXCESS= .0000E+00 OUTFLOW= .4791E+01 BASIN STORAGE= .1628E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R5	MANE	2.39	468.64	217.29	1.24	5.00	461.85	220.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3802E+02 EXCESS= .0000E+00 OUTFLOW= .3802E+02 BASIN STORAGE= .1549E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.41	457.39	218.86	1.21	5.00	448.49	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3727E+02 EXCESS= .0000E+00 OUTFLOW= .3727E+02 BASIN STORAGE= .1413E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.57	375.77	218.10	.99	5.00	370.90	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3040E+02 EXCESS= .0000E+00 OUTFLOW= .3040E+02 BASIN STORAGE= .1402E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.58	367.22	219.64	.97	5.00	364.56	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2976E+02 EXCESS= .0000E+00 OUTFLOW= .2977E+02 BASIN STORAGE= .1380E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.80	286.65	218.63	.75	5.00	284.48	220.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2312E+02 EXCESS= .0000E+00 OUTFLOW= .2312E+02 BASIN STORAGE= .1486E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	2.82	279.83	220.29	.73	5.00	279.48	220.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2259E+02 EXCESS= .0000E+00 OUTFLOW= .2259E+02 BASIN STORAGE= .1440E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	3.27	176.74	222.46	.47	5.00	176.64	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1436E+02 EXCESS= .0000E+00 OUTFLOW= .1436E+02 BASIN STORAGE= .1343E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	3.31	171.27	222.08	.46	5.00	170.68	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1400E+02 EXCESS= .0000E+00 OUTFLOW= .1400E+02 BASIN STORAGE= .1467E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R1	MANE	3.79	110.62	219.65	1.23	5.00	109.69	220.00	1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8832E+01 EXCESS= .0000E+00 OUTFLOW= .8834E+01 BASIN STORAGE= .1750E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R1	MANE	3.81	107.98	217.24	1.21	5.00	105.80	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8656E+01 EXCESS= .0000E+00 OUTFLOW= .8658E+01 BASIN STORAGE= .1941E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.08	89.67	220.06	.99	5.00	89.61	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7077E+01 EXCESS= .0000E+00 OUTFLOW= .7079E+01 BASIN STORAGE= .1851E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.10	87.07	217.47	.97	5.00	85.54	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6927E+01 EXCESS= .0000E+00 OUTFLOW= .6929E+01 BASIN STORAGE= .2055E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.46	69.70	218.63	.76	5.00	68.24	220.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5404E+01 EXCESS= .0000E+00 OUTFLOW= .5406E+01 BASIN STORAGE= .1907E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	4.50	68.15	220.29	.74	5.00	67.78	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5279E+01 EXCESS= .0000E+00 OUTFLOW= .5281E+01 BASIN STORAGE= .2108E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R1	MANE	5.00	44.86	220.00	.47	5.00	44.86	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3367E+01 EXCESS= .0000E+00 OUTFLOW= .3369E+01 BASIN STORAGE= .1704E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

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          R1  MANE         5.00     43.83    220.00       .46       5.00     43.83    220.00         .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3290E+01 EXCESS= .0000E+00 OUTFLOW= .3292E+01 BASIN STORAGE= .1688E-02 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
         RDB1  MANE         1.07   4519.16    307.60       .56       5.00   4508.34    305.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9277E+03 EXCESS= .0000E+00 OUTFLOW= .9279E+03 BASIN STORAGE= .1440E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .72
         RDB1  MANE         1.12   4428.56    307.35       .55       5.00   4416.85    310.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9085E+03 EXCESS= .0000E+00 OUTFLOW= .9087E+03 BASIN STORAGE= .1348E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .64
         RDB1  MANE         1.27   3565.17    307.92       .44       5.00   3560.69    310.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7299E+03 EXCESS= .0000E+00 OUTFLOW= .7301E+03 BASIN STORAGE= .1103E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .63
         RDB1  MANE         1.26   3486.62    307.86       .43       5.00   3482.39    310.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7138E+03 EXCESS= .0000E+00 OUTFLOW= .7140E+03 BASIN STORAGE= .1409E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .54
         RDB1  MANE         1.34   2652.09    308.91       .33       5.00   2652.06    310.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5433E+03 EXCESS= .0000E+00 OUTFLOW= .5435E+03 BASIN STORAGE= .1388E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .53
         RDB1  MANE         1.28   2587.20    311.38       .32       5.00   2587.09    310.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5301E+03 EXCESS= .0000E+00 OUTFLOW= .5303E+03 BASIN STORAGE= .1447E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .42
         RDB1  MANE         1.55   1561.07    312.90       .20       5.00   1558.81    315.00         .20

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3229E+03 EXCESS= .0000E+00 OUTFLOW= .3230E+03 BASIN STORAGE= .1437E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .41
         RDB1  MANE         1.56   1519.60    312.64       .19       5.00   1518.16    315.00         .19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3147E+03 EXCESS= .0000E+00 OUTFLOW= .3148E+03 BASIN STORAGE= .1482E-02 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .82    261.82    225.42      1.13       5.00    261.70    225.00        1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2534E+02 EXCESS= .0000E+00 OUTFLOW= .2534E+02 BASIN STORAGE= .2834E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .83    256.86    225.07      1.11       5.00    256.79    225.00        1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2484E+02 EXCESS= .0000E+00 OUTFLOW= .2484E+02 BASIN STORAGE= .2791E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .88    208.79    225.09       .90       5.00    208.72    225.00         .90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2007E+02 EXCESS= .0000E+00 OUTFLOW= .2007E+02 BASIN STORAGE= .2636E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .88    204.47    225.62       .88       5.00    204.18    225.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1963E+02 EXCESS= .0000E+00 OUTFLOW= .1963E+02 BASIN STORAGE= .2853E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .96    157.54    225.40       .67       5.00    157.29    225.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1506E+02 EXCESS= .0000E+00 OUTFLOW= .1506E+02 BASIN STORAGE= .2906E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE          .96    153.99    226.01       .66       5.00    153.63    225.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1471E+02 EXCESS= .0000E+00 OUTFLOW= .1471E+02 BASIN STORAGE= .2830E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE         1.11     95.15    226.09       .41       5.00     94.69    225.00         .41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9100E+01 EXCESS= .0000E+00 OUTFLOW= .9100E+01 BASIN STORAGE= .2766E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .00
          R15  MANE         1.12     92.44    226.67       .40       5.00     92.21    225.00         .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8877E+01 EXCESS= .0000E+00 OUTFLOW= .8877E+01 BASIN STORAGE= .2757E-03 PERCENT ERROR=    .0
```

FOR PLAN = 1 RATIO= .00

R16	MANE	1.36	10.05	211.38	1.72	5.00	9.81	210.00	1.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6440E+00 EXCESS= .0000E+00 OUTFLOW= .6441E+00 BASIN STORAGE= .2132E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.36	9.84	210.90	1.69	5.00	9.61	210.00	1.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6334E+00 EXCESS= .0000E+00 OUTFLOW= .6334E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.42	8.39	211.68	1.44	5.00	8.29	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5391E+00 EXCESS= .0000E+00 OUTFLOW= .5391E+00 BASIN STORAGE= .2184E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.43	8.40	211.18	1.41	5.00	8.17	210.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5304E+00 EXCESS= .0000E+00 OUTFLOW= .5304E+00 BASIN STORAGE= .2081E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.50	6.92	210.50	1.16	5.00	6.79	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4356E+00 EXCESS= .0000E+00 OUTFLOW= .4356E+00 BASIN STORAGE= .1754E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.51	6.94	211.49	1.14	5.00	6.74	210.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4287E+00 EXCESS= .0000E+00 OUTFLOW= .4287E+00 BASIN STORAGE= .1668E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R16	MANE	1.66	4.99	211.87	.81	5.00	4.88	210.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3042E+00 EXCESS= .0000E+00 OUTFLOW= .3043E+00 BASIN STORAGE= .1685E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R16	MANE	1.66	4.95	211.18	.80	5.00	4.77	210.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2990E+00 EXCESS= .0000E+00 OUTFLOW= .2991E+00 BASIN STORAGE= .2234E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .00

R18	MANE	.44	362.37	230.34	1.08	5.00	362.01	230.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4143E+02 EXCESS= .0000E+00 OUTFLOW= .4143E+02 BASIN STORAGE= .5469E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.44	355.23	230.39	1.06	5.00	354.82	230.00	1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4059E+02 EXCESS= .0000E+00 OUTFLOW= .4059E+02 BASIN STORAGE= .5355E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.46	286.67	230.43	.85	5.00	286.18	230.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3265E+02 EXCESS= .0000E+00 OUTFLOW= .3265E+02 BASIN STORAGE= .5614E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.46	280.41	230.53	.83	5.00	279.92	230.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3194E+02 EXCESS= .0000E+00 OUTFLOW= .3194E+02 BASIN STORAGE= .5383E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.48	213.86	230.76	.63	5.00	213.29	230.00	.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2436E+02 EXCESS= .0000E+00 OUTFLOW= .2436E+02 BASIN STORAGE= .5488E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.49	208.64	230.44	.62	5.00	208.10	230.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2378E+02 EXCESS= .0000E+00 OUTFLOW= .2378E+02 BASIN STORAGE= .5543E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.54	126.36	234.82	.38	5.00	126.36	235.00	.38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1456E+02 EXCESS= .0000E+00 OUTFLOW= .1456E+02 BASIN STORAGE= .5584E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R18	MANE	.54	123.13	234.96	.37	5.00	123.13	235.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1419E+02 EXCESS= .0000E+00 OUTFLOW= .1419E+02 BASIN STORAGE= .5386E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R19	MANE	.38	113.07	220.42	1.23	5.00	113.01	220.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9971E+01 EXCESS= .0000E+00 OUTFLOW= .9971E+01 BASIN STORAGE= .3727E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .38 110.99 220.07 1.21 5.00 110.94 220.00 1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9780E+01 EXCESS= .0000E+00 OUTFLOW= .9781E+01 BASIN STORAGE= .3866E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .40 91.61 220.30 .99 5.00 91.48 220.00 .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7992E+01 EXCESS= .0000E+00 OUTFLOW= .7992E+01 BASIN STORAGE= .3788E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .40 89.84 220.37 .97 5.00 89.71 220.00 .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7829E+01 EXCESS= .0000E+00 OUTFLOW= .7829E+01 BASIN STORAGE= .3869E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .42 70.59 220.28 .75 5.00 70.46 220.00 .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6097E+01 EXCESS= .0000E+00 OUTFLOW= .6097E+01 BASIN STORAGE= .3859E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .42 69.11 220.40 .74 5.00 68.96 220.00 .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5961E+01 EXCESS= .0000E+00 OUTFLOW= .5961E+01 BASIN STORAGE= .3742E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .46 44.46 220.36 .47 5.00 44.32 220.00 .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3801E+01 EXCESS= .0000E+00 OUTFLOW= .3801E+01 BASIN STORAGE= .3897E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R19 MANE .46 43.48 220.45 .46 5.00 43.32 220.00 .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3715E+01 EXCESS= .0000E+00 OUTFLOW= .3715E+01 BASIN STORAGE= .3821E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .43 456.67 225.61 1.11 5.00 455.98 225.00 1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5190E+02 EXCESS= .0000E+00 OUTFLOW= .5190E+02 BASIN STORAGE= .5534E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .44 447.48 225.69 1.09 5.00 446.87 225.00 1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5085E+02 EXCESS= .0000E+00 OUTFLOW= .5085E+02 BASIN STORAGE= .5671E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .48 361.63 225.77 .88 5.00 360.87 225.00 .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4104E+02 EXCESS= .0000E+00 OUTFLOW= .4104E+02 BASIN STORAGE= .5705E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .48 353.83 225.83 .86 5.00 353.11 225.00 .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4015E+02 EXCESS= .0000E+00 OUTFLOW= .4015E+02 BASIN STORAGE= .5539E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .54 270.46 225.82 .66 5.00 269.51 225.00 .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3076E+02 EXCESS= .0000E+00 OUTFLOW= .3076E+02 BASIN STORAGE= .5588E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .54 263.92 225.89 .64 5.00 262.96 225.00 .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3003E+02 EXCESS= .0000E+00 OUTFLOW= .3003E+02 BASIN STORAGE= .5787E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .66 160.67 229.97 .40 5.00 160.67 230.00 .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1855E+02 EXCESS= .0000E+00 OUTFLOW= .1855E+02 BASIN STORAGE= .5541E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R20 MANE .67 156.57 230.36 .39 5.00 156.53 230.00 .39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1809E+02 EXCESS= .0000E+00 OUTFLOW= .1809E+02 BASIN STORAGE= .5827E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .55 467.22 225.75 1.12 5.00 466.52 225.00 1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5340E+02 EXCESS= .0000E+00 OUTFLOW= .5340E+02 BASIN STORAGE= .7033E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00
R21 MANE .55 457.97 225.37 1.09 5.00 457.24 225.00 1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5233E+02 EXCESS= .0000E+00 OUTFLOW= .5233E+02 BASIN STORAGE= .7126E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.60	370.64	225.60	.88	5.00	369.66	225.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4229E+02 EXCESS= .0000E+00 OUTFLOW= .4229E+02 BASIN STORAGE= .7028E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.60	362.61	225.75	.87	5.00	361.65	225.00	.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4137E+02 EXCESS= .0000E+00 OUTFLOW= .4138E+02 BASIN STORAGE= .7147E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.67	277.46	225.76	.66	5.00	276.36	225.00	.66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3175E+02 EXCESS= .0000E+00 OUTFLOW= .3175E+02 BASIN STORAGE= .7375E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.68	270.74	225.94	.65	5.00	269.64	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3100E+02 EXCESS= .0000E+00 OUTFLOW= .3100E+02 BASIN STORAGE= .7491E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.83	165.03	229.91	.40	5.00	165.02	230.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1922E+02 EXCESS= .0000E+00 OUTFLOW= .1922E+02 BASIN STORAGE= .7038E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R21	MANE	.84	160.77	229.80	.39	5.00	160.76	230.00	.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1875E+02 EXCESS= .0000E+00 OUTFLOW= .1875E+02 BASIN STORAGE= .7126E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.00	109.38	221.01	1.23	5.00	109.03	220.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9653E+01 EXCESS= .0000E+00 OUTFLOW= .9653E+01 BASIN STORAGE= .2538E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.01	107.10	220.18	1.21	5.00	107.03	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9468E+01 EXCESS= .0000E+00 OUTFLOW= .9468E+01 BASIN STORAGE= .2745E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.07	88.29	221.25	.99	5.00	88.21	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7737E+01 EXCESS= .0000E+00 OUTFLOW= .7737E+01 BASIN STORAGE= .2715E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.08	86.56	220.39	.97	5.00	86.46	220.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7579E+01 EXCESS= .0000E+00 OUTFLOW= .7579E+01 BASIN STORAGE= .2614E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.15	68.05	220.41	.75	5.00	67.85	220.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5902E+01 EXCESS= .0000E+00 OUTFLOW= .5902E+01 BASIN STORAGE= .2569E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.16	66.59	220.66	.74	5.00	66.41	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5771E+01 EXCESS= .0000E+00 OUTFLOW= .5771E+01 BASIN STORAGE= .2770E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.32	42.90	220.79	.47	5.00	42.50	220.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3680E+01 EXCESS= .0000E+00 OUTFLOW= .3680E+01 BASIN STORAGE= .2775E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R24	MANE	1.33	41.95	220.96	.46	5.00	41.54	220.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3596E+01 EXCESS= .0000E+00 OUTFLOW= .3596E+01 BASIN STORAGE= .2706E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	2.55	203.80	221.92	1.11	5.00	201.20	220.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1815E+02 EXCESS= .0000E+00 OUTFLOW= .1815E+02 BASIN STORAGE= .1248E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	2.57	199.22	220.76	1.09	5.00	197.04	220.00	1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1778E+02 EXCESS= .0000E+00 OUTFLOW= .1778E+02 BASIN STORAGE= .1169E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	2.74	162.79	222.19	.88	5.00	159.74	220.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1438E+02 EXCESS= .0000E+00 OUTFLOW= .1438E+02 BASIN STORAGE= .1130E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	2.76	158.66	220.95	.86	5.00	156.12	220.00	.86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1407E+02 EXCESS= .0000E+00 OUTFLOW= .1407E+02 BASIN STORAGE= .1102E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	3.00	123.01	222.18	.66	5.00	120.79	225.00	.66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1080E+02 EXCESS= .0000E+00 OUTFLOW= .1080E+02 BASIN STORAGE= .1141E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	3.03	119.05	220.83	.65	5.00	117.50	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1055E+02 EXCESS= .0000E+00 OUTFLOW= .1055E+02 BASIN STORAGE= .1110E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	3.53	74.45	222.53	.40	5.00	73.16	225.00	.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6547E+01 EXCESS= .0000E+00 OUTFLOW= .6548E+01 BASIN STORAGE= .1113E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R25	MANE	3.56	72.49	224.34	.39	5.00	71.95	225.00	.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6387E+01 EXCESS= .0000E+00 OUTFLOW= .6388E+01 BASIN STORAGE= .1113E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	1.86	726.69	223.20	1.14	5.00	720.36	225.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7864E+02 EXCESS= .0000E+00 OUTFLOW= .7864E+02 BASIN STORAGE= .1366E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	1.87	712.62	222.78	1.12	5.00	706.58	225.00	1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7707E+02 EXCESS= .0000E+00 OUTFLOW= .7707E+02 BASIN STORAGE= .1173E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.00	577.39	224.40	.90	5.00	575.71	225.00	.90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6247E+02 EXCESS= .0000E+00 OUTFLOW= .6247E+02 BASIN STORAGE= .1321E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.02	565.99	223.97	.88	5.00	562.21	225.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6112E+02 EXCESS= .0000E+00 OUTFLOW= .6112E+02 BASIN STORAGE= .1401E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.20	435.59	223.92	.68	5.00	433.39	225.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4709E+02 EXCESS= .0000E+00 OUTFLOW= .4709E+02 BASIN STORAGE= .1149E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.21	424.36	223.51	.67	5.00	422.68	225.00	.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4600E+02 EXCESS= .0000E+00 OUTFLOW= .4600E+02 BASIN STORAGE= .1223E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.58	261.11	224.79	.42	5.00	260.97	225.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2876E+02 EXCESS= .0000E+00 OUTFLOW= .2876E+02 BASIN STORAGE= .1134E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R26	MANE	2.60	254.36	226.48	.41	5.00	253.07	225.00	.41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2805E+02 EXCESS= .0000E+00 OUTFLOW= .2805E+02 BASIN STORAGE= .1379E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	1.85	77.83	212.97	1.27	5.00	77.60	215.00	1.27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5935E+01 EXCESS= .0000E+00 OUTFLOW= .5935E+01 BASIN STORAGE= .4436E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	1.86	76.81	214.08	1.25	5.00	76.13	215.00	1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5823E+01 EXCESS= .0000E+00 OUTFLOW= .5823E+01 BASIN STORAGE= .4282E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	1.97	63.70	214.33	1.02	5.00	63.27	215.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4779E+01 EXCESS= .0000E+00 OUTFLOW= .4779E+01 BASIN STORAGE= .4458E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	1.98	62.39	213.56	1.00	5.00	61.82	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4683E+01 EXCESS= .0000E+00 OUTFLOW= .4683E+01 BASIN STORAGE= .4288E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	2.12	49.37	213.82	.79	5.00	48.99	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3668E+01 EXCESS= .0000E+00 OUTFLOW= .3668E+01 BASIN STORAGE= .4605E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	2.13	48.30	215.14	.77	5.00	48.27	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3589E+01 EXCESS= .0000E+00 OUTFLOW= .3589E+01 BASIN STORAGE= .4388E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	2.41	31.72	214.60	.50	5.00	31.60	215.00	.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2316E+01 EXCESS= .0000E+00 OUTFLOW= .2317E+01 BASIN STORAGE= .5173E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R12	MANE	2.43	30.72	215.99	.49	5.00	30.70	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2263E+01 EXCESS= .0000E+00 OUTFLOW= .2263E+01 BASIN STORAGE= .5061E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.35	17.40	211.64	1.23	5.00	16.78	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1223E+01 EXCESS= .0000E+00 OUTFLOW= .1223E+01 BASIN STORAGE= .2196E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.36	17.08	211.43	1.21	5.00	16.51	215.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1200E+01 EXCESS= .0000E+00 OUTFLOW= .1200E+01 BASIN STORAGE= .1936E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.43	14.10	212.32	.99	5.00	13.70	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9803E+00 EXCESS= .0000E+00 OUTFLOW= .9803E+00 BASIN STORAGE= .2288E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.44	13.82	212.12	.97	5.00	13.43	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9604E+00 EXCESS= .0000E+00 OUTFLOW= .9604E+00 BASIN STORAGE= .2018E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.55	10.87	212.26	.75	5.00	10.60	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7475E+00 EXCESS= .0000E+00 OUTFLOW= .7475E+00 BASIN STORAGE= .2117E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.56	10.63	212.07	.74	5.00	10.36	215.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7312E+00 EXCESS= .0000E+00 OUTFLOW= .7312E+00 BASIN STORAGE= .2281E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.78	6.89	213.18	.47	5.00	6.74	215.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4665E+00 EXCESS= .0000E+00 OUTFLOW= .4665E+00 BASIN STORAGE= .2363E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R11	MANE	1.79	6.71	212.85	.46	5.00	6.61	215.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4555E+00 EXCESS= .0000E+00 OUTFLOW= .4555E+00 BASIN STORAGE= .2121E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

RDB2	MANE	1.32	4905.16	306.70	.60	5.00	4898.36	305.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1046E+04 EXCESS= .0000E+00 OUTFLOW= .1047E+04 BASIN STORAGE= .5249E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

RDB2	MANE	1.29	4810.17	307.44	.58	5.00	4799.97	305.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1025E+04 EXCESS= .0000E+00 OUTFLOW= .1025E+04 BASIN STORAGE= .5686E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

RDB2	MANE	1.48	3881.83	307.33	.47	5.00	3871.05	310.00	.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8246E+03 EXCESS= .0000E+00 OUTFLOW= .8248E+03 BASIN STORAGE= .5825E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

RDB2	MANE	1.54	3798.16	307.80	.46	5.00	3787.19	310.00	.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8064E+03 EXCESS= .0000E+00 OUTFLOW= .8067E+03 BASIN STORAGE= .5349E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

RDB2	MANE	1.60	2900.35	307.79	.35	5.00	2896.67	310.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6150E+03 EXCESS= .0000E+00 OUTFLOW= .6151E+03 BASIN STORAGE= .4701E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

RDB2	MANE	1.57	2830.14	307.79	.34	5.00	2826.72	310.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6001E+03 EXCESS= .0000E+00 OUTFLOW= .6003E+03 BASIN STORAGE= .4973E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

RDB2	MANE	1.87	1715.96	313.49	.21	5.00	1715.56	310.00	.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3669E+03 EXCESS= .0000E+00 OUTFLOW= .3670E+03 BASIN STORAGE= .5730E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

RDB2	MANE	1.94	1671.14	312.84	.20	5.00	1670.70	310.00	.20

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3576E+03 EXCESS= .0000E+00 OUTFLOW= .3577E+03 BASIN STORAGE= .5252E-02 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

U1	MANE	.95	47.42	211.67	1.65	5.00	44.90	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2731E+01 OUTFLOW= .2734E+01 BASIN STORAGE= .1516E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

U1	MANE	1.09	28.17	212.82	1.00	5.00	25.86	210.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1654E+01 OUTFLOW= .1655E+01 BASIN STORAGE= .1425E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

U1	MANE	1.12	27.79	212.49	.98	5.00	25.27	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1619E+01 OUTFLOW= .1620E+01 BASIN STORAGE= .1646E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

U1	MANE	1.27	21.91	212.51	.79	5.00	20.34	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1299E+01 OUTFLOW= .1299E+01 BASIN STORAGE= .1589E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

U1	MANE	1.30	21.30	212.25	.77	5.00	19.88	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1270E+01 OUTFLOW= .1270E+01 BASIN STORAGE= .1636E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

U1	MANE	1.44	15.73	214.28	.58	5.00	15.32	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9647E+00 OUTFLOW= .9641E+00 BASIN STORAGE= .1469E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

U1	MANE	1.32	15.37	213.83	.57	5.00	14.99	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9410E+00 OUTFLOW= .9406E+00 BASIN STORAGE= .1577E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

U1	MANE	1.76	8.38	215.93	.34	5.00	8.18	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5699E+00 OUTFLOW= .5679E+00 BASIN STORAGE= .1468E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

U1	MANE	1.76	8.09	216.53	.33	5.00	7.90	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5552E+00 OUTFLOW= .5534E+00 BASIN STORAGE= .1549E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

R	MANE	.89	25.85	211.78	1.00	5.00	25.23	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1653E+01 EXCESS= .0000E+00 OUTFLOW= .1656E+01 BASIN STORAGE= .9921E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.96	25.23	211.98	.98	5.00	24.74	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1619E+01 EXCESS= .0000E+00 OUTFLOW= .1621E+01 BASIN STORAGE= .9993E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	1.10	20.07	216.35	.79	5.00	19.92	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1298E+01 EXCESS= .0000E+00 OUTFLOW= .1299E+01 BASIN STORAGE= .1023E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	.96	19.74	216.36	.77	5.00	19.45	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1270E+01 EXCESS= .0000E+00 OUTFLOW= .1271E+01 BASIN STORAGE= .1032E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

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                R  MANE         1.13     14.93    216.43        .58       5.00     14.29    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9638E+00 EXCESS= .0000E+00 OUTFLOW= .9641E+00 BASIN STORAGE= .1026E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                R  MANE         1.22     14.58    216.69        .57       5.00     13.86    215.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9403E+00 EXCESS= .0000E+00 OUTFLOW= .9403E+00 BASIN STORAGE= .1027E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.39      8.12    218.09        .34       5.00      7.82    220.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5676E+00 EXCESS= .0000E+00 OUTFLOW= .5667E+00 BASIN STORAGE= .1009E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.39      7.79    218.59        .33       5.00      7.61    220.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5541E+00 EXCESS= .0000E+00 OUTFLOW= .5533E+00 BASIN STORAGE= .1028E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .49     30.33    215.80        .96       5.00     30.22    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2056E+01 EXCESS= .0000E+00 OUTFLOW= .2057E+01 BASIN STORAGE= .7210E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          .64     29.60    215.12        .94       5.00     29.58    215.00         .95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2013E+01 EXCESS= .0000E+00 OUTFLOW= .2014E+01 BASIN STORAGE= .7507E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          .61     23.73    215.91        .75       5.00     23.44    215.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1606E+01 EXCESS= .0000E+00 OUTFLOW= .1607E+01 BASIN STORAGE= .7357E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          .59     23.22    216.07        .74       5.00     22.86    215.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1570E+01 EXCESS= .0000E+00 OUTFLOW= .1571E+01 BASIN STORAGE= .7135E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          .62     17.07    216.02        .55       5.00     16.38    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1183E+01 EXCESS= .0000E+00 OUTFLOW= .1184E+01 BASIN STORAGE= .7352E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .74     16.46    216.07        .54       5.00     15.85    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1154E+01 EXCESS= .0000E+00 OUTFLOW= .1154E+01 BASIN STORAGE= .7398E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE          .84      8.79    221.79        .32       5.00      8.42    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6869E+00 EXCESS= .0000E+00 OUTFLOW= .6870E+00 BASIN STORAGE= .7410E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE          .82      8.55    221.52        .31       5.00      8.09    220.00         .31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6698E+00 EXCESS= .0000E+00 OUTFLOW= .6697E+00 BASIN STORAGE= .7103E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                W2 MANE          .55     20.24    211.39       1.65       5.00     19.47    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1145E+01 OUTFLOW= .1147E+01 BASIN STORAGE= .5191E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                W2 MANE          .78     12.19    211.61       1.00       5.00     11.45    210.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6935E+00 OUTFLOW= .6942E+00 BASIN STORAGE= .5122E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                W2 MANE          .69     11.96    211.69        .98       5.00     11.11    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6791E+00 OUTFLOW= .6798E+00 BASIN STORAGE= .5273E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                W2 MANE          .80      9.48    211.97        .79       5.00      8.66    210.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5448E+00 OUTFLOW= .5451E+00 BASIN STORAGE= .5069E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                W2 MANE          .86      9.22    212.02        .77       5.00      8.45    210.00         .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5326E+00 OUTFLOW= .5328E+00 BASIN STORAGE= .4752E-04 PERCENT ERROR=    .0
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FOR PLAN = 1 RATIO= .54

W2	MANE	.90	6.86	212.51	.58	5.00	6.34	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4045E+00 OUTFLOW= .4046E+00 BASIN STORAGE= .4958E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

W2	MANE	.95	6.66	212.84	.57	5.00	6.18	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3946E+00 OUTFLOW= .3947E+00 BASIN STORAGE= .4977E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

W2	MANE	1.15	3.68	214.08	.34	5.00	3.68	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2390E+00 OUTFLOW= .2385E+00 BASIN STORAGE= .5110E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

W2	MANE	1.11	3.58	214.79	.34	5.00	3.57	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2328E+00 OUTFLOW= .2324E+00 BASIN STORAGE= .4994E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

W1	MANE	.72	49.96	211.55	1.65	5.00	47.49	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2907E+01 OUTFLOW= .2910E+01 BASIN STORAGE= .1745E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

W1	MANE	.86	29.85	212.45	1.00	5.00	27.32	210.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1760E+01 OUTFLOW= .1762E+01 BASIN STORAGE= .1699E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

W1	MANE	.82	29.28	212.59	.98	5.00	26.45	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1724E+01 OUTFLOW= .1725E+01 BASIN STORAGE= .1820E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

W1	MANE	.98	23.18	212.98	.79	5.00	21.56	215.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1383E+01 OUTFLOW= .1383E+01 BASIN STORAGE= .1649E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

W1	MANE	1.01	22.50	212.96	.77	5.00	21.14	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1352E+01 OUTFLOW= .1352E+01 BASIN STORAGE= .1780E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

W1	MANE	1.05	16.60	213.92	.58	5.00	16.25	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1027E+01 OUTFLOW= .1026E+01 BASIN STORAGE= .1719E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

W1	MANE	1.12	16.15	213.98	.57	5.00	15.82	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1002E+01 OUTFLOW= .1001E+01 BASIN STORAGE= .1607E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

W1	MANE	1.36	8.86	215.87	.34	5.00	8.64	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6066E+00 OUTFLOW= .6045E+00 BASIN STORAGE= .1665E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

W1	MANE	1.37	8.52	216.41	.33	5.00	8.27	215.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5910E+00 OUTFLOW= .5891E+00 BASIN STORAGE= .1691E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

R	MANE	.80	66.51	214.79	.99	5.00	66.51	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4517E+01 EXCESS= .0000E+00 OUTFLOW= .4521E+01 BASIN STORAGE= .2266E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.86	65.09	215.48	.96	5.00	65.05	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4421E+01 EXCESS= .0000E+00 OUTFLOW= .4424E+01 BASIN STORAGE= .2366E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	.80	52.61	215.92	.77	5.00	51.85	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3538E+01 EXCESS= .0000E+00 OUTFLOW= .3540E+01 BASIN STORAGE= .2289E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	.87	51.34	216.35	.75	5.00	50.55	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3458E+01 EXCESS= .0000E+00 OUTFLOW= .3460E+01 BASIN STORAGE= .2263E-03 PERCENT ERROR= -.1

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 FOR PLAN = 1  RATIO=  .54
      R  MANE          1.00     38.40    216.84       .57      5.00     36.40    215.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2617E+01 EXCESS= .0000E+00 OUTFLOW= .2618E+01 BASIN STORAGE= .2301E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .53
      R  MANE           .95     37.29    216.60       .56      5.00     35.23    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2552E+01 EXCESS= .0000E+00 OUTFLOW= .2552E+01 BASIN STORAGE= .2332E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .42
      R  MANE          1.18     19.21    222.33       .33      5.00     18.80    220.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1531E+01 EXCESS= .0000E+00 OUTFLOW= .1529E+01 BASIN STORAGE= .2245E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .41
      R  MANE          1.19     18.43    222.72       .33      5.00     18.00    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1492E+01 EXCESS= .0000E+00 OUTFLOW= .1491E+01 BASIN STORAGE= .2276E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .73
      V2  MANE         1.28     51.50    211.64      1.84      5.00     48.52    210.00        1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3143E+01 OUTFLOW= .3144E+01 BASIN STORAGE= .2198E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
      V2  MANE         1.53     31.68    212.04      1.16      5.00     29.47    215.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1973E+01 OUTFLOW= .1972E+01 BASIN STORAGE= .2507E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .72
      V2  MANE         1.56     31.33    212.84      1.13      5.00     28.97    215.00        1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1935E+01 OUTFLOW= .1935E+01 BASIN STORAGE= .2342E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .64
      V2  MANE         1.69     25.19    213.70       .93      5.00     24.12    215.00         .92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1580E+01 OUTFLOW= .1580E+01 BASIN STORAGE= .2111E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .63
      V2  MANE         1.75     24.71    212.91       .91      5.00     23.72    215.00         .91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1548E+01 OUTFLOW= .1547E+01 BASIN STORAGE= .2234E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .54
      V2  MANE         1.89     18.63    214.43       .70      5.00     18.35    215.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1204E+01 OUTFLOW= .1203E+01 BASIN STORAGE= .2107E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .53
      V2  MANE         2.04     18.25    213.51       .69      5.00     18.05    215.00         .69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1178E+01 OUTFLOW= .1176E+01 BASIN STORAGE= .2185E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .42
      V2  MANE         2.47     10.76    216.86       .44      5.00     10.36    215.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7498E+00 OUTFLOW= .7477E+00 BASIN STORAGE= .2237E-03 PERCENT ERROR=    .3

 FOR PLAN = 1  RATIO=  .41
      V2  MANE         2.46     10.32    217.65       .43      5.00     10.07    215.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7326E+00 OUTFLOW= .7303E+00 BASIN STORAGE= .2430E-03 PERCENT ERROR=    .3

 FOR PLAN = 1  RATIO=  .73
      R  MANE          1.52    103.70    216.84      1.01      5.00    101.09    215.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7155E+01 EXCESS= .0000E+00 OUTFLOW= .7161E+01 BASIN STORAGE= .1809E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .72
      R  MANE          1.52    102.19    218.05       .99      5.00     98.61    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7002E+01 EXCESS= .0000E+00 OUTFLOW= .7013E+01 BASIN STORAGE= .1810E-03 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .64
      R  MANE          1.65     80.97    217.28       .79      5.00     76.92    220.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5622E+01 EXCESS= .0000E+00 OUTFLOW= .5628E+01 BASIN STORAGE= .1873E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .63
      R  MANE          1.67     81.04    218.38       .78      5.00     75.59    220.00         .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5500E+01 EXCESS= .0000E+00 OUTFLOW= .5505E+01 BASIN STORAGE= .1835E-03 PERCENT ERROR=   -.1
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 FOR PLAN = 1  RATIO=  .54
       R  MANE          1.89     58.26    218.16       .59       5.00     57.56    220.00         .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4180E+01 EXCESS= .0000E+00 OUTFLOW= .4186E+01 BASIN STORAGE= .1811E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .53
       R  MANE          1.92     57.55    219.15       .57       5.00     56.24    220.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4077E+01 EXCESS= .0000E+00 OUTFLOW= .4078E+01 BASIN STORAGE= .1853E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .42
       R  MANE          2.19     30.38    224.24       .35       5.00     29.88    225.00         .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2469E+01 EXCESS= .0000E+00 OUTFLOW= .2468E+01 BASIN STORAGE= .1798E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .41
       R  MANE          2.24     28.81    225.32       .34       5.00     28.74    225.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2410E+01 EXCESS= .0000E+00 OUTFLOW= .2411E+01 BASIN STORAGE= .1824E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
       V1  MANE         1.25     82.11    212.68      1.83       5.00     76.48    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5082E+01 OUTFLOW= .5083E+01 BASIN STORAGE= .4729E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
       V1  MANE         1.43     50.79    212.55      1.15       5.00     48.50    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3188E+01 OUTFLOW= .3187E+01 BASIN STORAGE= .4539E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .72
       V1  MANE         1.46     49.97    213.42      1.13       5.00     47.74    215.00        1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3127E+01 OUTFLOW= .3127E+01 BASIN STORAGE= .4176E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .64
       V1  MANE         1.64     40.19    213.47       .92       5.00     39.52    215.00         .92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2553E+01 OUTFLOW= .2552E+01 BASIN STORAGE= .4224E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .63
       V1  MANE         1.63     39.34    214.33       .90       5.00     38.63    215.00         .90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2501E+01 OUTFLOW= .2499E+01 BASIN STORAGE= .4463E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .54
       V1  MANE         1.76     29.80    215.04       .70       5.00     29.78    215.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1946E+01 OUTFLOW= .1943E+01 BASIN STORAGE= .4261E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .53
       V1  MANE         1.75     28.86    214.31       .69       5.00     28.76    215.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1902E+01 OUTFLOW= .1900E+01 BASIN STORAGE= .4177E-03 PERCENT ERROR=    .1

 FOR PLAN = 1  RATIO=  .42
       V1  MANE         2.29     17.07    216.96       .43       5.00     16.06    220.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1210E+01 OUTFLOW= .1206E+01 BASIN STORAGE= .4511E-03 PERCENT ERROR=    .3

 FOR PLAN = 1  RATIO=  .41
       V1  MANE         2.27     16.56    217.73       .42       5.00     15.77    220.00         .42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1182E+01 OUTFLOW= .1178E+01 BASIN STORAGE= .4134E-03 PERCENT ERROR=    .3

 FOR PLAN = 1  RATIO=  .73
       P1  MANE         1.25    138.50    212.61      1.65       5.00    129.47    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8282E+01 OUTFLOW= .8288E+01 BASIN STORAGE= .6932E-03 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .73
       P1  MANE         1.57     83.03    213.09      1.00       5.00     78.89    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5014E+01 OUTFLOW= .5014E+01 BASIN STORAGE= .6099E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .72
       P1  MANE         1.54     80.75    213.88       .98       5.00     77.13    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4910E+01 OUTFLOW= .4909E+01 BASIN STORAGE= .5975E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .64
       P1  MANE         1.67     63.69    213.73       .79       5.00     62.06    215.00         .79
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3939E+01 OUTFLOW= .3937E+01 BASIN STORAGE= .6212E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

P1	MANE	1.65	61.50	214.55	.77	5.00	60.43	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3851E+01 OUTFLOW= .3849E+01 BASIN STORAGE= .6559E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

P1	MANE	1.90	45.20	215.09	.58	5.00	45.13	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2925E+01 OUTFLOW= .2921E+01 BASIN STORAGE= .6929E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

P1	MANE	2.02	43.38	216.07	.57	5.00	43.35	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2853E+01 OUTFLOW= .2848E+01 BASIN STORAGE= .6631E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

P1	MANE	2.45	23.50	218.61	.34	5.00	22.78	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1728E+01 OUTFLOW= .1719E+01 BASIN STORAGE= .5752E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .41

P1	MANE	2.62	22.70	219.41	.33	5.00	22.30	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1684E+01 OUTFLOW= .1674E+01 BASIN STORAGE= .6028E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .73

T2	MANE	2.04	29.11	213.13	1.65	5.00	26.91	215.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1850E+01 OUTFLOW= .1849E+01 BASIN STORAGE= .2534E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

T2	MANE	2.69	16.83	214.26	1.00	5.00	16.49	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1120E+01 OUTFLOW= .1118E+01 BASIN STORAGE= .2045E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .72

T2	MANE	2.63	16.37	213.56	.98	5.00	16.05	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1097E+01 OUTFLOW= .1096E+01 BASIN STORAGE= .2633E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .64

T2	MANE	2.92	12.49	214.61	.78	5.00	12.45	215.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8801E+00 OUTFLOW= .8780E+00 BASIN STORAGE= .2153E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .63

T2	MANE	3.01	12.21	216.44	.77	5.00	12.05	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8604E+00 OUTFLOW= .8570E+00 BASIN STORAGE= .2634E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .54

T2	MANE	3.37	8.82	217.18	.58	5.00	8.27	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6535E+00 OUTFLOW= .6510E+00 BASIN STORAGE= .2117E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .53

T2	MANE	3.40	8.50	218.07	.57	5.00	8.05	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6375E+00 OUTFLOW= .6352E+00 BASIN STORAGE= .2621E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .42

T2	MANE	4.62	4.19	222.50	.34	5.00	4.08	225.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3860E+00 OUTFLOW= .3829E+00 BASIN STORAGE= .2343E-03 PERCENT ERROR= .8

FOR PLAN = 1 RATIO= .41

T2	MANE	3.47	4.07	226.04	.33	5.00	4.07	225.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3761E+00 OUTFLOW= .3737E+00 BASIN STORAGE= .2667E-03 PERCENT ERROR= .6

FOR PLAN = 1 RATIO= .73

R	MANE	1.04	115.88	216.30	.96	5.00	112.83	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7672E+01 EXCESS= .0000E+00 OUTFLOW= .7681E+01 BASIN STORAGE= .1197E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	1.08	113.93	217.23	.94	5.00	110.73	215.00	.94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7513E+01 EXCESS= .0000E+00 OUTFLOW= .7522E+01 BASIN STORAGE= .1176E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	1.25	89.49	216.46	.75	5.00	86.12	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6004E+01 EXCESS= .0000E+00 OUTFLOW= .6008E+01 BASIN STORAGE= .1166E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	1.21	87.89	217.55	.73	5.00	83.77	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5860E+01 EXCESS= .0000E+00 OUTFLOW= .5865E+01 BASIN STORAGE= .1177E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .54

R	MANE	1.20	65.48	217.60	.55	5.00	59.45	220.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4425E+01 EXCESS= .0000E+00 OUTFLOW= .4429E+01 BASIN STORAGE= .1188E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.23	63.21	217.34	.54	5.00	57.86	220.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4314E+01 EXCESS= .0000E+00 OUTFLOW= .4317E+01 BASIN STORAGE= .1189E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	1.48	31.11	223.27	.32	5.00	29.90	220.00	.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2567E+01 EXCESS= .0000E+00 OUTFLOW= .2567E+01 BASIN STORAGE= .1175E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	1.55	30.14	222.42	.31	5.00	28.86	225.00	.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2503E+01 EXCESS= .0000E+00 OUTFLOW= .2503E+01 BASIN STORAGE= .1189E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.40	41.39	212.00	1.59	5.00	39.84	215.00	1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3142E+01 EXCESS= .0000E+00 OUTFLOW= .3142E+01 BASIN STORAGE= .1992E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.41	40.77	211.41	1.57	5.00	39.23	215.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3091E+01 EXCESS= .0000E+00 OUTFLOW= .3091E+01 BASIN STORAGE= .1948E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.47	34.73	212.73	1.32	5.00	33.53	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2603E+01 EXCESS= .0000E+00 OUTFLOW= .2604E+01 BASIN STORAGE= .1782E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.47	34.17	212.13	1.30	5.00	33.04	215.00	1.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2559E+01 EXCESS= .0000E+00 OUTFLOW= .2559E+01 BASIN STORAGE= .2153E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.55	28.08	212.00	1.05	5.00	27.20	215.00	1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2076E+01 EXCESS= .0000E+00 OUTFLOW= .2076E+01 BASIN STORAGE= .2048E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.55	27.63	212.93	1.03	5.00	26.70	215.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2038E+01 EXCESS= .0000E+00 OUTFLOW= .2038E+01 BASIN STORAGE= .1990E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.70	19.46	212.02	.71	5.00	19.01	215.00	.71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1411E+01 EXCESS= .0000E+00 OUTFLOW= .1411E+01 BASIN STORAGE= .2083E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R6	MANE	1.70	19.20	212.97	.70	5.00	18.69	215.00	.70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1385E+01 EXCESS= .0000E+00 OUTFLOW= .1385E+01 BASIN STORAGE= .2058E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.87	80.69	218.41	1.23	5.00	78.34	220.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6703E+01 EXCESS= .0000E+00 OUTFLOW= .6703E+01 BASIN STORAGE= .4771E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.88	79.46	217.73	1.21	5.00	77.24	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6574E+01 EXCESS= .0000E+00 OUTFLOW= .6575E+01 BASIN STORAGE= .4433E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	1.99	65.32	218.65	.99	5.00	63.68	220.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5372E+01 EXCESS= .0000E+00 OUTFLOW= .5373E+01 BASIN STORAGE= .4730E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R8	MANE	2.00	64.17	217.94	.97	5.00	62.68	220.00	.97

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CONTINUITY SUMMARY (AC-FT) - INFLOW= .5262E+01 EXCESS= .0000E+00 OUTFLOW= .5263E+01 BASIN STORAGE= .4381E-03 PERCENT ERROR=    .0

        FOR PLAN = 1  RATIO=  .00
             R8  MANE          2.15     50.30    219.14       .75      5.00     49.43    220.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4098E+01 EXCESS= .0000E+00 OUTFLOW= .4099E+01 BASIN STORAGE= .4499E-03 PERCENT ERROR=    .0

        FOR PLAN = 1  RATIO=  .00
             R8  MANE          2.16     49.24    218.40       .74      5.00     48.27    220.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4007E+01 EXCESS= .0000E+00 OUTFLOW= .4007E+01 BASIN STORAGE= .4240E-03 PERCENT ERROR=    .0

        FOR PLAN = 1  RATIO=  .00
             R8  MANE          2.47     31.67    219.57       .47      5.00     31.44    220.00         .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2555E+01 EXCESS= .0000E+00 OUTFLOW= .2555E+01 BASIN STORAGE= .4859E-03 PERCENT ERROR=    .0

        FOR PLAN = 1  RATIO=  .00
             R8  MANE          2.48     30.86    218.60       .46      5.00     30.53    220.00         .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2497E+01 EXCESS= .0000E+00 OUTFLOW= .2497E+01 BASIN STORAGE= .4547E-03 PERCENT ERROR=    .0

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          4.69     14.82    215.74      1.23      5.00     14.47    215.00        1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1048E+01 EXCESS= .0000E+00 OUTFLOW= .1049E+01 BASIN STORAGE= .8210E-03 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          4.72     14.36    216.91      1.21      5.00     13.85    215.00        1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1027E+01 EXCESS= .0000E+00 OUTFLOW= .1027E+01 BASIN STORAGE= .6775E-03 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          4.99     11.91    214.61       .99      5.00     11.88    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8406E+00 EXCESS= .0000E+00 OUTFLOW= .8409E+00 BASIN STORAGE= .7988E-03 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          5.00     11.87    215.00       .97      5.00     11.87    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8234E+00 EXCESS= .0000E+00 OUTFLOW= .8237E+00 BASIN STORAGE= .7125E-03 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          5.00      9.24    215.00       .75      5.00      9.24    215.00         .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6412E+00 EXCESS= .0000E+00 OUTFLOW= .6415E+00 BASIN STORAGE= .1072E-02 PERCENT ERROR=   -.2

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          5.00      9.03    215.00       .74      5.00      9.03    215.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6270E+00 EXCESS= .0000E+00 OUTFLOW= .6273E+00 BASIN STORAGE= .1061E-02 PERCENT ERROR=   -.2

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          5.00      5.99    220.00       .47      5.00      5.99    220.00         .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3998E+00 EXCESS= .0000E+00 OUTFLOW= .4001E+00 BASIN STORAGE= .8644E-03 PERCENT ERROR=   -.3

        FOR PLAN = 1  RATIO=  .00
            R10  MANE          5.00      5.86    220.00       .46      5.00      5.86    220.00         .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3907E+00 EXCESS= .0000E+00 OUTFLOW= .3910E+00 BASIN STORAGE= .8554E-03 PERCENT ERROR=   -.3

        FOR PLAN = 1  RATIO=  .73
             R  MANE          1.07    281.20    222.91      1.12      5.00    280.33    225.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2764E+02 EXCESS= .0000E+00 OUTFLOW= .2766E+02 BASIN STORAGE= .4438E-06 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .72
             R  MANE          1.03    275.57    222.61      1.10      5.00    275.08    225.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2708E+02 EXCESS= .0000E+00 OUTFLOW= .2711E+02 BASIN STORAGE= .3169E-06 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .64
             R  MANE          1.16    224.70    222.96       .89      5.00    224.65    225.00         .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2196E+02 EXCESS= .0000E+00 OUTFLOW= .2198E+02 BASIN STORAGE= .4680E-06 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .63
             R  MANE          1.15    220.17    222.94       .87      5.00    220.12    225.00         .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2149E+02 EXCESS= .0000E+00 OUTFLOW= .2152E+02 BASIN STORAGE= .3556E-06 PERCENT ERROR=   -.1

        FOR PLAN = 1  RATIO=  .54
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                R  MANE          1.22    171.09    226.54       .67      5.00    170.70    225.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1658E+02 EXCESS= .0000E+00 OUTFLOW= .1659E+02 BASIN STORAGE= .4655E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          1.29    167.11    226.72       .66      5.00    166.73    225.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1620E+02 EXCESS= .0000E+00 OUTFLOW= .1621E+02 BASIN STORAGE= .3572E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          1.44    105.61    227.30       .41      5.00    104.19    225.00         .41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1016E+02 EXCESS= .0000E+00 OUTFLOW= .1017E+02 BASIN STORAGE= .4140E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          1.41    103.14    227.91       .40      5.00    101.48    225.00         .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9919E+01 EXCESS= .0000E+00 OUTFLOW= .9933E+01 BASIN STORAGE= .2912E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                T1 MANE          1.30     56.38    212.38      1.65      5.00     52.81    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3348E+01 OUTFLOW= .3350E+01 BASIN STORAGE= .2519E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                T1 MANE          1.51     33.28    212.13      1.00      5.00     31.17    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2027E+01 OUTFLOW= .2027E+01 BASIN STORAGE= .2566E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                T1 MANE          1.63     32.91    212.92       .98      5.00     30.61    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1985E+01 OUTFLOW= .1984E+01 BASIN STORAGE= .2542E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                T1 MANE          1.71     25.77    214.02       .79      5.00     24.90    215.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1592E+01 OUTFLOW= .1592E+01 BASIN STORAGE= .2687E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                T1 MANE          1.70     25.10    213.15       .77      5.00     24.39    215.00         .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1557E+01 OUTFLOW= .1556E+01 BASIN STORAGE= .2511E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .54
                T1 MANE          1.96     18.35    215.06       .58      5.00     18.34    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1183E+01 OUTFLOW= .1181E+01 BASIN STORAGE= .2677E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
                T1 MANE          2.08     17.70    213.94       .57      5.00     17.60    215.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1153E+01 OUTFLOW= .1152E+01 BASIN STORAGE= .2506E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
                T1 MANE          2.53      9.55    218.35       .34      5.00      9.16    220.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6986E+00 OUTFLOW= .6951E+00 BASIN STORAGE= .2369E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .41
                T1 MANE          2.70      9.19    219.15       .33      5.00      8.94    220.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6806E+00 OUTFLOW= .6769E+00 BASIN STORAGE= .2488E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .73
                U2 MANE          1.32     34.25    211.49      1.65      5.00     32.32    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2026E+01 OUTFLOW= .2027E+01 BASIN STORAGE= .1513E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                U2 MANE          1.54     20.32    212.26      1.00      5.00     18.62    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1227E+01 OUTFLOW= .1227E+01 BASIN STORAGE= .1455E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                U2 MANE          1.65     19.89    213.01       .98      5.00     18.38    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1201E+01 OUTFLOW= .1201E+01 BASIN STORAGE= .1554E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                U2 MANE          1.74     15.61    213.89       .79      5.00     14.98    215.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9639E+00 OUTFLOW= .9629E+00 BASIN STORAGE= .1459E-03 PERCENT ERROR=    .1
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          FOR PLAN = 1  RATIO=  .63
               U2  MANE          1.72     15.29    213.10       .77      5.00     14.70    215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9423E+00 OUTFLOW= .9415E+00 BASIN STORAGE= .1504E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .54
               U2  MANE          2.01     11.14    214.69       .58      5.00     11.04    215.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7157E+00 OUTFLOW= .7147E+00 BASIN STORAGE= .1545E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
               U2  MANE          2.12     10.74    213.69       .57      5.00     10.67    215.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6982E+00 OUTFLOW= .6971E+00 BASIN STORAGE= .1398E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
               U2  MANE          2.57      5.81    218.02       .34      5.00      5.51    220.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4228E+00 OUTFLOW= .4208E+00 BASIN STORAGE= .1447E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .41
               U2  MANE          2.75      5.59    218.83       .33      5.00      5.38    220.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+00 OUTFLOW= .4098E+00 BASIN STORAGE= .1239E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .61    313.32    221.44      1.10      5.00    311.76    220.00         1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3166E+02 EXCESS= .0000E+00 OUTFLOW= .3167E+02 BASIN STORAGE= .5205E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .75    306.58    221.69      1.08      5.00    305.21    220.00         1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3102E+02 EXCESS= .0000E+00 OUTFLOW= .3103E+02 BASIN STORAGE= .5156E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .66    250.99    221.57       .87      5.00    249.30    225.00          .87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2510E+02 EXCESS= .0000E+00 OUTFLOW= .2511E+02 BASIN STORAGE= .5281E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .71    245.72    221.28       .85      5.00    244.38    225.00          .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2456E+02 EXCESS= .0000E+00 OUTFLOW= .2457E+02 BASIN STORAGE= .5214E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
                R  MANE           .84    190.25    225.19       .66      5.00    190.24    225.00          .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1889E+02 EXCESS= .0000E+00 OUTFLOW= .1890E+02 BASIN STORAGE= .5238E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                R  MANE           .76    185.91    225.66       .64      5.00    185.87    225.00          .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1845E+02 EXCESS= .0000E+00 OUTFLOW= .1846E+02 BASIN STORAGE= .5247E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE           .87    117.50    226.59       .40      5.00    116.35    225.00          .40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1151E+02 EXCESS= .0000E+00 OUTFLOW= .1151E+02 BASIN STORAGE= .5209E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE           .93    114.34    226.26       .39      5.00    113.41    225.00          .39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1123E+02 EXCESS= .0000E+00 OUTFLOW= .1124E+02 BASIN STORAGE= .5299E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .63    407.70    221.16      1.07      5.00    407.18    220.00         1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3936E+02 EXCESS= .0000E+00 OUTFLOW= .3937E+02 BASIN STORAGE= .1500E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .64    399.16    220.84      1.05      5.00    398.78    220.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3856E+02 EXCESS= .0000E+00 OUTFLOW= .3858E+02 BASIN STORAGE= .1483E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .71    326.15    221.16       .85      5.00    323.46    220.00          .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3113E+02 EXCESS= .0000E+00 OUTFLOW= .3114E+02 BASIN STORAGE= .1470E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .70    319.46    221.53       .83      5.00    316.37    220.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3044E+02 EXCESS= .0000E+00 OUTFLOW= .3046E+02 BASIN STORAGE= .1456E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .54
               R  MANE          .87    244.56    222.22       .63      5.00    239.58    225.00         .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2333E+02 EXCESS= .0000E+00 OUTFLOW= .2334E+02 BASIN STORAGE= .1491E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
               R  MANE          .87    238.99    221.63       .62      5.00    234.19    225.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2278E+02 EXCESS= .0000E+00 OUTFLOW= .2279E+02 BASIN STORAGE= .1463E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               R  MANE          .85    145.73    226.67       .38      5.00    143.18    225.00         .38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1408E+02 EXCESS= .0000E+00 OUTFLOW= .1409E+02 BASIN STORAGE= .1486E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               R  MANE          .99    141.85    226.86       .37      5.00    139.34    225.00         .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1374E+02 EXCESS= .0000E+00 OUTFLOW= .1375E+02 BASIN STORAGE= .1489E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
              Q1  MANE         1.16     34.34    211.24      1.64      5.00     32.61    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2005E+01 OUTFLOW= .2006E+01 BASIN STORAGE= .1253E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              Q1  MANE         1.34     20.33    211.84       .99      5.00     18.51    210.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1213E+01 OUTFLOW= .1213E+01 BASIN STORAGE= .1180E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
              Q1  MANE         1.38     20.08    212.75       .97      5.00     18.11    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1187E+01 OUTFLOW= .1187E+01 BASIN STORAGE= .1133E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
              Q1  MANE         1.39     15.72    213.66       .78      5.00     14.93    215.00         .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9521E+00 OUTFLOW= .9520E+00 BASIN STORAGE= .1164E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
              Q1  MANE         1.43     15.47    213.08       .76      5.00     14.62    215.00         .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9307E+00 OUTFLOW= .9305E+00 BASIN STORAGE= .1136E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
              Q1  MANE         1.59     11.29    213.40       .58      5.00     11.19    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7064E+00 OUTFLOW= .7058E+00 BASIN STORAGE= .1276E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
              Q1  MANE         1.71     11.01    214.45       .56      5.00     10.83    215.00         .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6890E+00 OUTFLOW= .6886E+00 BASIN STORAGE= .1206E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
              Q1  MANE         2.15      5.95    217.24       .34      5.00      5.69    215.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4165E+00 OUTFLOW= .4148E+00 BASIN STORAGE= .1115E-03 PERCENT ERROR=    .4

          FOR PLAN = 1  RATIO=  .41
              Q1  MANE         2.14      5.72    217.98       .33      5.00      5.38    215.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4058E+00 OUTFLOW= .4040E+00 BASIN STORAGE= .1164E-03 PERCENT ERROR=    .4

          FOR PLAN = 1  RATIO=  .73
              S1  MANE          .95     70.11    211.59      1.64      5.00     65.98    210.00        1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+01 OUTFLOW= .4121E+01 BASIN STORAGE= .2891E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
              S1  MANE         1.09     41.81    212.33       .99      5.00     38.55    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2493E+01 OUTFLOW= .2494E+01 BASIN STORAGE= .2757E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
              S1  MANE         1.21     41.03    212.18       .97      5.00     37.96    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2441E+01 OUTFLOW= .2441E+01 BASIN STORAGE= .2799E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
              S1  MANE         1.19     32.57    212.82       .78      5.00     31.17    215.00         .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1958E+01 OUTFLOW= .1957E+01 BASIN STORAGE= .2667E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .63
               S1  MANE          1.21     31.62    213.79       .76       5.00      30.49    215.00          .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1914E+01 OUTFLOW= .1913E+01 BASIN STORAGE= .2874E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .54
               S1  MANE          1.46     23.15    214.25       .58       5.00      22.91    215.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1453E+01 OUTFLOW= .1451E+01 BASIN STORAGE= .2723E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .53
               S1  MANE          1.44     22.37    215.09       .56       5.00      22.36    215.00          .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1417E+01 OUTFLOW= .1416E+01 BASIN STORAGE= .2872E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .42
               S1  MANE          1.81     12.07    218.04       .34       5.00      11.44    220.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8576E+00 OUTFLOW= .8540E+00 BASIN STORAGE= .2777E-03 PERCENT ERROR=     .4

          FOR PLAN = 1  RATIO=  .41
               S1  MANE          1.82     11.67    216.86       .33       5.00      11.14    220.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8355E+00 OUTFLOW= .8318E+00 BASIN STORAGE= .2600E-03 PERCENT ERROR=     .4

          FOR PLAN = 1  RATIO=  .73
                R  MANE          1.24    459.89    217.95      1.05       5.00     457.90    220.00         1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4455E+02 EXCESS= .0000E+00 OUTFLOW= .4457E+02 BASIN STORAGE= .3607E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          1.23    450.53    217.57      1.03       5.00     448.47    220.00         1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4364E+02 EXCESS= .0000E+00 OUTFLOW= .4367E+02 BASIN STORAGE= .3549E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          1.27    363.03    221.93       .83       5.00     359.46    220.00          .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3517E+02 EXCESS= .0000E+00 OUTFLOW= .3521E+02 BASIN STORAGE= .3555E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          1.23    355.39    221.92       .81       5.00     350.98    220.00          .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3440E+02 EXCESS= .0000E+00 OUTFLOW= .3442E+02 BASIN STORAGE= .3605E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE          1.46    271.28    223.10       .62       5.00     268.17    225.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2630E+02 EXCESS= .0000E+00 OUTFLOW= .2632E+02 BASIN STORAGE= .3659E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE          1.41    263.63    223.64       .61       5.00     261.73    225.00          .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2568E+02 EXCESS= .0000E+00 OUTFLOW= .2570E+02 BASIN STORAGE= .3540E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          1.58    159.27    228.56       .37       5.00     157.98    230.00          .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1580E+02 EXCESS= .0000E+00 OUTFLOW= .1581E+02 BASIN STORAGE= .3548E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          1.65    154.48    229.44       .36       5.00     154.05    230.00          .36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1541E+02 EXCESS= .0000E+00 OUTFLOW= .1542E+02 BASIN STORAGE= .3500E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .73
               S2  MANE          1.23     32.45    212.02      1.64       5.00      30.25    210.00         1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1918E+01 OUTFLOW= .1919E+01 BASIN STORAGE= .1449E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
               S2  MANE          1.36     19.15    213.62       .99       5.00      17.98    215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1160E+01 OUTFLOW= .1160E+01 BASIN STORAGE= .1541E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .72
               S2  MANE          1.38     18.60    213.06       .97       5.00      17.61    215.00          .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1136E+01 OUTFLOW= .1136E+01 BASIN STORAGE= .1548E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .64
               S2  MANE          1.56     14.77    213.30       .78       5.00      14.38    215.00          .78
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9107E+00 OUTFLOW= .9100E+00 BASIN STORAGE= .1487E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .63

S2	MANE	1.62	14.39	214.47	.76	5.00	14.11	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8903E+00 OUTFLOW= .8901E+00 BASIN STORAGE= .1443E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

S2	MANE	1.87	10.51	215.44	.58	5.00	10.47	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6757E+00 OUTFLOW= .6747E+00 BASIN STORAGE= .1430E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .53

S2	MANE	1.77	10.22	214.53	.56	5.00	10.16	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6590E+00 OUTFLOW= .6581E+00 BASIN STORAGE= .1327E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

S2	MANE	2.30	5.49	217.74	.34	5.00	5.31	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3984E+00 OUTFLOW= .3964E+00 BASIN STORAGE= .1504E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .41

S2	MANE	2.32	5.32	218.45	.33	5.00	5.14	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3882E+00 OUTFLOW= .3861E+00 BASIN STORAGE= .1351E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .73

R	MANE	1.03	18.24	212.18	.82	5.00	17.72	215.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1216E+01 EXCESS= .0000E+00 OUTFLOW= .1219E+01 BASIN STORAGE= .1029E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .72

R	MANE	1.08	17.71	212.01	.80	5.00	17.34	215.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1188E+01 EXCESS= .0000E+00 OUTFLOW= .1191E+01 BASIN STORAGE= .1007E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .64

R	MANE	1.13	13.91	213.15	.62	5.00	13.71	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9302E+00 EXCESS= .0000E+00 OUTFLOW= .9329E+00 BASIN STORAGE= .8825E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .63

R	MANE	1.19	13.56	213.17	.61	5.00	13.37	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9071E+00 EXCESS= .0000E+00 OUTFLOW= .9096E+00 BASIN STORAGE= .1002E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .54

R	MANE	1.28	9.97	213.05	.45	5.00	9.88	215.00	.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6664E+00 EXCESS= .0000E+00 OUTFLOW= .6684E+00 BASIN STORAGE= .1035E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .53

R	MANE	1.33	9.69	212.93	.44	5.00	9.60	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6480E+00 EXCESS= .0000E+00 OUTFLOW= .6497E+00 BASIN STORAGE= .1081E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .42

R	MANE	1.61	5.37	218.24	.25	5.00	5.30	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3653E+00 EXCESS= .0000E+00 OUTFLOW= .3663E+00 BASIN STORAGE= .9538E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .41

R	MANE	1.71	5.16	218.14	.24	5.00	5.13	215.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3545E+00 EXCESS= .0000E+00 OUTFLOW= .3553E+00 BASIN STORAGE= .1010E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

R2	MANE	.92	54.10	211.62	1.63	5.00	51.09	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3122E+01 OUTFLOW= .3125E+01 BASIN STORAGE= .1757E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R2	MANE	1.11	32.14	212.13	.98	5.00	29.20	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1887E+01 OUTFLOW= .1887E+01 BASIN STORAGE= .1888E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R2	MANE	1.13	31.32	211.93	.96	5.00	28.47	210.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1848E+01 OUTFLOW= .1848E+01 BASIN STORAGE= .1864E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R2	MANE	1.18	24.82	213.11	.77	5.00	23.27	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1481E+01 OUTFLOW= .1481E+01 BASIN STORAGE= .1868E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R2	MANE	1.26	24.19	212.97	.75	5.00	22.80	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1448E+01 OUTFLOW= .1448E+01 BASIN STORAGE= .1756E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R2	MANE	1.33	17.78	213.61	.57	5.00	17.49	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1098E+01 OUTFLOW= .1098E+01 BASIN STORAGE= .1691E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R2	MANE	1.43	17.16	214.75	.56	5.00	17.01	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1071E+01 OUTFLOW= .1071E+01 BASIN STORAGE= .1962E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R2	MANE	1.74	9.38	216.67	.34	5.00	9.10	215.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6471E+00 OUTFLOW= .6448E+00 BASIN STORAGE= .1759E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .41

R2	MANE	1.72	9.11	217.35	.33	5.00	8.71	215.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6304E+00 OUTFLOW= .6277E+00 BASIN STORAGE= .1655E-03 PERCENT ERROR= .4

FOR PLAN = 1 RATIO= .73

R	MANE	1.83	45.91	216.20	.91	5.00	45.66	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3103E+01 EXCESS= .0000E+00 OUTFLOW= .3105E+01 BASIN STORAGE= .3307E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	1.78	45.34	218.48	.89	5.00	44.63	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3035E+01 EXCESS= .0000E+00 OUTFLOW= .3040E+01 BASIN STORAGE= .3898E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .64

R	MANE	1.94	36.06	217.47	.71	5.00	34.51	220.00	.71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2413E+01 EXCESS= .0000E+00 OUTFLOW= .2418E+01 BASIN STORAGE= .3524E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

R	MANE	2.02	35.69	218.90	.69	5.00	33.82	220.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2355E+01 EXCESS= .0000E+00 OUTFLOW= .2358E+01 BASIN STORAGE= .3433E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	2.17	26.16	218.14	.52	5.00	26.13	220.00	.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1764E+01 EXCESS= .0000E+00 OUTFLOW= .1765E+01 BASIN STORAGE= .3320E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	2.14	25.67	218.31	.50	5.00	25.28	220.00	.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1719E+01 EXCESS= .0000E+00 OUTFLOW= .1718E+01 BASIN STORAGE= .3786E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	2.78	14.22	221.24	.30	5.00	13.23	225.00	.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1011E+01 EXCESS= .0000E+00 OUTFLOW= .1016E+01 BASIN STORAGE= .3306E-03 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .41

R	MANE	2.88	13.53	222.35	.29	5.00	13.10	225.00	.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9832E+00 EXCESS= .0000E+00 OUTFLOW= .9962E+00 BASIN STORAGE= .3734E-03 PERCENT ERROR= -1.4

FOR PLAN = 1 RATIO= .73

R1	MANE	1.19	45.36	212.54	1.63	5.00	42.21	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2688E+01 OUTFLOW= .2690E+01 BASIN STORAGE= .2006E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R1	MANE	1.48	26.59	212.51	.98	5.00	25.19	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1625E+01 OUTFLOW= .1625E+01 BASIN STORAGE= .1961E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R1	MANE	1.58	26.11	213.32	.96	5.00	24.84	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1591E+01 OUTFLOW= .1590E+01 BASIN STORAGE= .2060E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R1	MANE	1.66	20.35	214.60	.77	5.00	20.03	215.00	.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1275E+01 OUTFLOW= .1274E+01 BASIN STORAGE= .2324E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R1	MANE	1.77	20.04	214.01	.75	5.00	19.54	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1247E+01 OUTFLOW= .1246E+01 BASIN STORAGE= .2202E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .54

R1	MANE	2.03	14.38	216.06	.57	5.00	14.37	215.00	.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9457E+00 OUTFLOW= .9441E+00 BASIN STORAGE= .2279E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .53

R1	MANE	2.00	14.10	214.88	.56	5.00	14.08	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9224E+00 OUTFLOW= .9209E+00 BASIN STORAGE= .2208E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .42

R1	MANE	2.63	7.49	219.44	.34	5.00	7.37	220.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5572E+00 OUTFLOW= .5540E+00 BASIN STORAGE= .2130E-03 PERCENT ERROR= .5

FOR PLAN = 1 RATIO= .41

R1	MANE	2.64	7.20	220.10	.33	5.00	7.19	220.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5428E+00 OUTFLOW= .5395E+00 BASIN STORAGE= .2090E-03 PERCENT ERROR= .6

FOR PLAN = 1 RATIO= .73

F	MANE	.51	10.29	209.91	2.31	5.00	10.26	210.00	2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6167E+00 OUTFLOW= .6166E+00 BASIN STORAGE= .9398E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

F	MANE	.51	7.10	210.20	1.57	5.00	7.09	210.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4185E+00 OUTFLOW= .4185E+00 BASIN STORAGE= .9817E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

F	MANE	.53	7.01	210.06	1.54	5.00	7.00	210.00	1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+00 OUTFLOW= .4119E+00 BASIN STORAGE= .9215E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

F	MANE	.51	5.98	209.95	1.31	5.00	5.98	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3496E+00 OUTFLOW= .3496E+00 BASIN STORAGE= .9923E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

F	MANE	.50	5.87	210.07	1.29	5.00	5.86	210.00	1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3438E+00 OUTFLOW= .3438E+00 BASIN STORAGE= .9677E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

F	MANE	.65	4.86	210.05	1.06	5.00	4.85	210.00	1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2817E+00 OUTFLOW= .2817E+00 BASIN STORAGE= .9050E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

F	MANE	.62	4.78	209.95	1.04	5.00	4.77	210.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2767E+00 OUTFLOW= .2767E+00 BASIN STORAGE= .9957E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

F	MANE	.72	3.42	210.58	.73	5.00	3.40	210.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1954E+00 OUTFLOW= .1954E+00 BASIN STORAGE= .9105E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

F	MANE	.78	3.34	210.07	.72	5.00	3.33	210.00	.72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1920E+00 OUTFLOW= .1920E+00 BASIN STORAGE= .9786E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

RF	MANE	1.62	5120.84	307.59	.61	5.00	5108.68	310.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1109E+04 EXCESS= .0000E+00 OUTFLOW= .1110E+04 BASIN STORAGE= .1657E-01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

RF	MANE	1.51	5020.39	307.47	.60	5.00	5007.90	310.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1087E+04 EXCESS= .0000E+00 OUTFLOW= .1087E+04 BASIN STORAGE= .1710E-01 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

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      RF  MANE          1.76   4059.39    308.18        .48       5.00   4054.82    310.00          .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8742E+03 EXCESS= .0000E+00 OUTFLOW= .8743E+03 BASIN STORAGE= .1531E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .63
      RF  MANE          1.66   3974.56    308.23        .47       5.00   3967.67    310.00          .47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8548E+03 EXCESS= .0000E+00 OUTFLOW= .8550E+03 BASIN STORAGE= .1746E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .54
      RF  MANE          1.88   3038.55    308.64        .36       5.00   3038.06    310.00          .36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6520E+03 EXCESS= .0000E+00 OUTFLOW= .6521E+03 BASIN STORAGE= .1654E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .53
      RF  MANE          1.89   2965.28    310.12        .35       5.00   2965.00    310.00          .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6363E+03 EXCESS= .0000E+00 OUTFLOW= .6363E+03 BASIN STORAGE= .1641E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .42
      RF  MANE          2.28   1810.68    314.70        .21       5.00   1809.70    315.00          .21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3891E+03 EXCESS= .0000E+00 OUTFLOW= .3890E+03 BASIN STORAGE= .1539E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .41
      RF  MANE          2.35   1764.14    314.75        .21       5.00   1763.41    315.00          .21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3792E+03 EXCESS= .0000E+00 OUTFLOW= .3792E+03 BASIN STORAGE= .1545E-01 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .57    154.10    220.79       1.04       5.00    152.33    220.00         1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1388E+02 EXCESS= .0000E+00 OUTFLOW= .1388E+02 BASIN STORAGE= .6314E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .58    150.94    221.13       1.02       5.00    149.26    220.00         1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1359E+02 EXCESS= .0000E+00 OUTFLOW= .1359E+02 BASIN STORAGE= .6222E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .60    121.26    220.79        .82       5.00    119.60    220.00          .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1091E+02 EXCESS= .0000E+00 OUTFLOW= .1091E+02 BASIN STORAGE= .6120E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .61    118.66    221.19        .80       5.00    116.96    225.00          .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1067E+02 EXCESS= .0000E+00 OUTFLOW= .1067E+02 BASIN STORAGE= .5943E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .64     89.94    221.01        .61       5.00     89.63    225.00          .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8123E+01 EXCESS= .0000E+00 OUTFLOW= .8123E+01 BASIN STORAGE= .6215E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .64     87.68    221.49        .59       5.00     87.47    225.00          .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7926E+01 EXCESS= .0000E+00 OUTFLOW= .7926E+01 BASIN STORAGE= .5935E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .71     53.34    225.25        .36       5.00     53.28    225.00          .36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4840E+01 EXCESS= .0000E+00 OUTFLOW= .4840E+01 BASIN STORAGE= .6302E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R4  MANE           .71     52.03    225.71        .35       5.00     51.93    225.00          .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4718E+01 EXCESS= .0000E+00 OUTFLOW= .4718E+01 BASIN STORAGE= .6193E-04 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.42     47.82    216.30       1.17       5.00     46.17    215.00         1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3778E+01 EXCESS= .0000E+00 OUTFLOW= .3778E+01 BASIN STORAGE= .2117E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.43     46.62    217.33       1.14       5.00     45.18    215.00         1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3703E+01 EXCESS= .0000E+00 OUTFLOW= .3703E+01 BASIN STORAGE= .1980E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.50     38.49    216.52        .93       5.00     36.88    215.00          .93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3006E+01 EXCESS= .0000E+00 OUTFLOW= .3006E+01 BASIN STORAGE= .2095E-03 PERCENT ERROR=     .0
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 FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.51     37.35    216.13       .91       5.00     36.02    215.00         .91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2942E+01 EXCESS= .0000E+00 OUTFLOW= .2942E+01 BASIN STORAGE= .1953E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.61     29.12    217.36       .70       5.00     27.81    215.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2270E+01 EXCESS= .0000E+00 OUTFLOW= .2270E+01 BASIN STORAGE= .1845E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.62     28.55    216.99       .68       5.00     27.17    215.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2218E+01 EXCESS= .0000E+00 OUTFLOW= .2218E+01 BASIN STORAGE= .2015E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.82     17.83    218.40       .43       5.00     17.16    220.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1388E+01 EXCESS= .0000E+00 OUTFLOW= .1388E+01 BASIN STORAGE= .2073E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .00
      R5  MANE          1.83     17.45    217.91       .42       5.00     16.83    220.00         .42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1354E+01 EXCESS= .0000E+00 OUTFLOW= .1354E+01 BASIN STORAGE= .1933E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
       R  MANE          1.85    218.64    222.75      1.07       5.00    215.65    225.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2039E+02 EXCESS= .0000E+00 OUTFLOW= .2042E+02 BASIN STORAGE= .1752E-05 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .72
       R  MANE          1.74    215.20    223.07      1.05       5.00    211.53    225.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1997E+02 EXCESS= .0000E+00 OUTFLOW= .2000E+02 BASIN STORAGE= .1645E-05 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .64
       R  MANE          1.94    173.62    223.73       .85       5.00    171.45    225.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1608E+02 EXCESS= .0000E+00 OUTFLOW= .1611E+02 BASIN STORAGE= .1456E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .63
       R  MANE          1.97    169.54    223.36       .83       5.00    167.79    225.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1573E+02 EXCESS= .0000E+00 OUTFLOW= .1575E+02 BASIN STORAGE= .1695E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .54
       R  MANE          2.10    129.26    223.49       .63       5.00    128.62    225.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1202E+02 EXCESS= .0000E+00 OUTFLOW= .1204E+02 BASIN STORAGE= .1785E-05 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .53
       R  MANE          2.15    126.05    224.92       .62       5.00    125.95    225.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1173E+02 EXCESS= .0000E+00 OUTFLOW= .1175E+02 BASIN STORAGE= .1675E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .42
       R  MANE          2.38     76.55    225.59       .38       5.00     76.20    225.00         .38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7216E+01 EXCESS= .0000E+00 OUTFLOW= .7223E+01 BASIN STORAGE= .1950E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .41
       R  MANE          2.44     74.72    225.37       .37       5.00     74.44    225.00         .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7037E+01 EXCESS= .0000E+00 OUTFLOW= .7047E+01 BASIN STORAGE= .1487E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .73
      N1  MANE          1.42     55.93    214.04      1.50       5.00     54.33    215.00        1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3691E+01 OUTFLOW= .3689E+01 BASIN STORAGE= .5342E-03 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .73
      N1  MANE          1.92     29.98    216.57       .88       5.00     29.80    215.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2169E+01 OUTFLOW= .2165E+01 BASIN STORAGE= .5232E-03 PERCENT ERROR=    .2

 FOR PLAN = 1  RATIO=  .72
      N1  MANE          1.83     29.34    215.57       .86       5.00     28.96    215.00         .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2121E+01 OUTFLOW= .2116E+01 BASIN STORAGE= .5847E-03 PERCENT ERROR=    .2

 FOR PLAN = 1  RATIO=  .64
      N1  MANE          2.15     21.89    217.15       .68       5.00     21.09    220.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1676E+01 OUTFLOW= .1670E+01 BASIN STORAGE= .5407E-03 PERCENT ERROR=    .3
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          FOR PLAN = 1  RATIO=  .63
               N1  MANE          2.14     21.22    218.03        .66      5.00     20.57    220.00         .66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1636E+01 OUTFLOW= .1630E+01 BASIN STORAGE= .6126E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .54
               N1  MANE          2.44     14.36    220.72        .49      5.00     14.18    220.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1217E+01 OUTFLOW= .1210E+01 BASIN STORAGE= .5990E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .53
               N1  MANE          2.47     13.87    221.58        .48      5.00     13.65    220.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1185E+01 OUTFLOW= .1178E+01 BASIN STORAGE= .5400E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .42
               N1  MANE          3.38      6.29    230.69        .28      5.00      6.18    230.00         .28

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6864E+00 OUTFLOW= .6795E+00 BASIN STORAGE= .5319E-03 PERCENT ERROR=    .9

          FOR PLAN = 1  RATIO=  .41
               N1  MANE          3.44      6.02    231.18        .27      5.00      5.86    235.00         .27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6670E+00 OUTFLOW= .6600E+00 BASIN STORAGE= .6062E-03 PERCENT ERROR=   1.0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .67     29.47    216.65        .88      5.00     27.88    215.00         .88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2166E+01 EXCESS= .0000E+00 OUTFLOW= .2166E+01 BASIN STORAGE= .1258E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .58     28.91    216.15        .86      5.00     27.03    215.00         .86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2115E+01 EXCESS= .0000E+00 OUTFLOW= .2116E+01 BASIN STORAGE= .1264E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .72     21.00    220.85        .68      5.00     20.99    220.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1671E+01 EXCESS= .0000E+00 OUTFLOW= .1672E+01 BASIN STORAGE= .1243E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .60     20.51    220.88        .66      5.00     20.35    220.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1630E+01 EXCESS= .0000E+00 OUTFLOW= .1631E+01 BASIN STORAGE= .1255E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
                R  MANE           .66     14.12    221.57        .49      5.00     13.55    225.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1210E+01 EXCESS= .0000E+00 OUTFLOW= .1210E+01 BASIN STORAGE= .1258E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
                R  MANE           .72     13.57    221.87        .48      5.00     13.16    225.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1176E+01 EXCESS= .0000E+00 OUTFLOW= .1176E+01 BASIN STORAGE= .1254E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE           .89      6.16    232.34        .28      5.00      6.09    235.00         .28

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6792E+00 EXCESS= .0000E+00 OUTFLOW= .6792E+00 BASIN STORAGE= .1243E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE           .78      5.85    236.12        .27      5.00      5.85    235.00         .27

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6601E+00 EXCESS= .0000E+00 OUTFLOW= .6603E+00 BASIN STORAGE= .1244E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .43     23.63    210.49       1.58      5.00     23.26    210.00        1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1689E+01 EXCESS= .0000E+00 OUTFLOW= .1690E+01 BASIN STORAGE= .6310E-06 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .43     23.32    210.73       1.56      5.00     22.91    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1662E+01 EXCESS= .0000E+00 OUTFLOW= .1663E+01 BASIN STORAGE= .6976E-06 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .45     20.02    210.53       1.32      5.00     19.67    210.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1411E+01 EXCESS= .0000E+00 OUTFLOW= .1412E+01 BASIN STORAGE= .6397E-06 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .35     19.82    210.80       1.30      5.00     19.37    210.00        1.30

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1388E+01 EXCESS= .0000E+00 OUTFLOW= .1389E+01 BASIN STORAGE= .7315E-06 PERCENT ERROR=    .0
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 FOR PLAN = 1  RATIO=  .54
       R  MANE          .41     16.43    210.98      1.07      5.00     16.08    210.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1138E+01 EXCESS= .0000E+00 OUTFLOW= .1138E+01 BASIN STORAGE= .5959E-06 PERCENT ERROR=    .0

 FOR PLAN = 1  RATIO=  .53
       R  MANE          .48     16.13    210.58      1.05      5.00     15.81    210.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1118E+01 EXCESS= .0000E+00 OUTFLOW= .1118E+01 BASIN STORAGE= .6791E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .42
       R  MANE          .45     11.76    210.95       .74      5.00     11.39    210.00         .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7895E+00 EXCESS= .0000E+00 OUTFLOW= .7901E+00 BASIN STORAGE= .5877E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .41
       R  MANE          .42     11.59    210.91       .73      5.00     11.20    210.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7758E+00 EXCESS= .0000E+00 OUTFLOW= .7763E+00 BASIN STORAGE= .7029E-06 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .73
       R  MANE         1.73     17.35    214.59       .83      5.00     17.34    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1195E+01 EXCESS= .0000E+00 OUTFLOW= .1199E+01 BASIN STORAGE= .8526E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .72
       R  MANE         1.89     16.94    215.58       .81      5.00     16.94    215.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1168E+01 EXCESS= .0000E+00 OUTFLOW= .1171E+01 BASIN STORAGE= .1112E-05 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .64
       R  MANE         2.03     13.35    216.56       .64      5.00     13.34    215.00         .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9156E+00 EXCESS= .0000E+00 OUTFLOW= .9181E+00 BASIN STORAGE= .7971E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .63
       R  MANE         1.93     13.07    218.80       .62      5.00     13.01    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8930E+00 EXCESS= .0000E+00 OUTFLOW= .8959E+00 BASIN STORAGE= .1163E-05 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .54
       R  MANE         2.19      9.61    218.77       .46      5.00      9.53    215.00         .46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6571E+00 EXCESS= .0000E+00 OUTFLOW= .6592E+00 BASIN STORAGE= .9609E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .53
       R  MANE         2.26      9.32    218.33       .45      5.00      9.10    215.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6390E+00 EXCESS= .0000E+00 OUTFLOW= .6410E+00 BASIN STORAGE= .8344E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .42
       R  MANE         2.58      5.27    220.36       .25      5.00      5.26    220.00         .25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3615E+00 EXCESS= .0000E+00 OUTFLOW= .3627E+00 BASIN STORAGE= .8070E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .41
       R  MANE         2.57      5.05    218.35       .24      5.00      5.00    220.00         .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3508E+00 EXCESS= .0000E+00 OUTFLOW= .3520E+00 BASIN STORAGE= .7598E-06 PERCENT ERROR=   -.3

 FOR PLAN = 1  RATIO=  .73
       R  MANE          .79     17.11    216.24       .83      5.00     16.34    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1199E+01 EXCESS= .0000E+00 OUTFLOW= .1200E+01 BASIN STORAGE= .7391E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .72
       R  MANE          .68     16.89    216.29       .81      5.00     15.94    215.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1171E+01 EXCESS= .0000E+00 OUTFLOW= .1172E+01 BASIN STORAGE= .6546E-05 PERCENT ERROR=   -.2

 FOR PLAN = 1  RATIO=  .64
       R  MANE          .89     13.27    216.83       .64      5.00     12.64    220.00         .64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9189E+00 EXCESS= .0000E+00 OUTFLOW= .9199E+00 BASIN STORAGE= .8557E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .63
       R  MANE          .84     12.90    216.53       .62      5.00     12.36    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8958E+00 EXCESS= .0000E+00 OUTFLOW= .8970E+00 BASIN STORAGE= .7941E-05 PERCENT ERROR=   -.1

 FOR PLAN = 1  RATIO=  .54
       R  MANE          .89      9.53    216.80       .46      5.00      9.26    220.00         .46
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .6583E+00 EXCESS= .0000E+00 OUTFLOW= .6592E+00 BASIN STORAGE= .7408E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	.91	9.06	217.60	.44	5.00	8.95	220.00	.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6393E+00 EXCESS= .0000E+00 OUTFLOW= .6401E+00 BASIN STORAGE= .7642E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	1.11	5.21	221.62	.25	5.00	5.11	220.00	.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3641E+00 EXCESS= .0000E+00 OUTFLOW= .3644E+00 BASIN STORAGE= .8562E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	1.21	4.93	221.96	.24	5.00	4.80	220.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3521E+00 EXCESS= .0000E+00 OUTFLOW= .3523E+00 BASIN STORAGE= .7597E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.54	35.22	218.08	.82	5.00	34.23	215.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2447E+01 EXCESS= .0000E+00 OUTFLOW= .2456E+01 BASIN STORAGE= .5473E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .72

R	MANE	1.57	34.24	217.40	.80	5.00	33.44	215.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2391E+01 EXCESS= .0000E+00 OUTFLOW= .2398E+01 BASIN STORAGE= .5347E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .64

R	MANE	1.68	27.14	217.82	.63	5.00	26.13	215.00	.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1873E+01 EXCESS= .0000E+00 OUTFLOW= .1878E+01 BASIN STORAGE= .5136E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .63

R	MANE	1.66	26.27	217.04	.61	5.00	25.47	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1827E+01 EXCESS= .0000E+00 OUTFLOW= .1833E+01 BASIN STORAGE= .4711E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .54

R	MANE	1.88	19.78	218.75	.45	5.00	18.50	220.00	.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1343E+01 EXCESS= .0000E+00 OUTFLOW= .1347E+01 BASIN STORAGE= .5185E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .53

R	MANE	1.86	18.84	217.52	.44	5.00	18.05	220.00	.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1306E+01 EXCESS= .0000E+00 OUTFLOW= .1310E+01 BASIN STORAGE= .4342E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .42

R	MANE	2.40	10.65	219.45	.25	5.00	10.43	220.00	.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7370E+00 EXCESS= .0000E+00 OUTFLOW= .7400E+00 BASIN STORAGE= .5111E-04 PERCENT ERROR= -.4

FOR PLAN = 1 RATIO= .41

R	MANE	2.51	9.97	220.85	.24	5.00	9.96	220.00	.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7152E+00 EXCESS= .0000E+00 OUTFLOW= .7172E+00 BASIN STORAGE= .5263E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

0	MANE	.82	27.13	210.99	2.05	5.00	26.26	210.00	2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1638E+01 OUTFLOW= .1639E+01 BASIN STORAGE= .6612E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

0	MANE	1.01	17.70	211.23	1.33	5.00	16.92	210.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1065E+01 OUTFLOW= .1066E+01 BASIN STORAGE= .5971E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

0	MANE	1.05	17.34	211.17	1.31	5.00	16.60	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1047E+01 OUTFLOW= .1047E+01 BASIN STORAGE= .6571E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

0	MANE	1.04	14.54	211.70	1.09	5.00	13.53	210.00	1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8699E+00 OUTFLOW= .8703E+00 BASIN STORAGE= .5765E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

0	MANE	1.03	14.11	212.42	1.07	5.00	13.37	210.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8536E+00 OUTFLOW= .8540E+00 BASIN STORAGE= .6765E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

0	MANE	1.23	11.21	211.90	.85	5.00	10.37	210.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6800E+00 OUTFLOW= .6802E+00 BASIN STORAGE= .6713E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

0	MANE	1.22	10.92	212.75	.83	5.00	10.16	210.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6663E+00 OUTFLOW= .6665E+00 BASIN STORAGE= .5754E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

0	MANE	1.50	7.14	213.59	.56	5.00	6.81	215.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4449E+00 OUTFLOW= .4447E+00 BASIN STORAGE= .6551E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

0	MANE	1.51	6.99	212.89	.54	5.00	6.66	215.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4358E+00 OUTFLOW= .4356E+00 BASIN STORAGE= .6707E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.92	16.65	211.65	1.33	5.00	15.56	210.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1066E+01 EXCESS= .0000E+00 OUTFLOW= .1067E+01 BASIN STORAGE= .4574E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

R	MANE	.78	16.40	211.33	1.31	5.00	15.22	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1047E+01 EXCESS= .0000E+00 OUTFLOW= .1049E+01 BASIN STORAGE= .4638E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .64

R	MANE	1.01	13.38	211.92	1.09	5.00	12.48	215.00	1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8695E+00 EXCESS= .0000E+00 OUTFLOW= .8706E+00 BASIN STORAGE= .4785E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .63

R	MANE	.98	13.24	211.85	1.07	5.00	12.29	215.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8540E+00 EXCESS= .0000E+00 OUTFLOW= .8554E+00 BASIN STORAGE= .4650E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	1.00	10.35	212.04	.85	5.00	10.03	215.00	.85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6801E+00 EXCESS= .0000E+00 OUTFLOW= .6810E+00 BASIN STORAGE= .4497E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	.95	10.13	212.14	.83	5.00	9.84	215.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6658E+00 EXCESS= .0000E+00 OUTFLOW= .6669E+00 BASIN STORAGE= .4932E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .42

R	MANE	1.17	6.75	217.29	.56	5.00	6.55	215.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4447E+00 EXCESS= .0000E+00 OUTFLOW= .4451E+00 BASIN STORAGE= .4620E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	1.14	6.60	216.92	.55	5.00	6.39	215.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4355E+00 EXCESS= .0000E+00 OUTFLOW= .4360E+00 BASIN STORAGE= .4845E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.53	336.17	222.53	1.03	5.00	335.10	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3121E+02 EXCESS= .0000E+00 OUTFLOW= .3126E+02 BASIN STORAGE= .3610E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .72

R	MANE	1.39	330.92	222.64	1.01	5.00	327.85	220.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3056E+02 EXCESS= .0000E+00 OUTFLOW= .3060E+02 BASIN STORAGE= .3422E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .64

R	MANE	1.59	265.21	223.33	.81	5.00	260.51	220.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2456E+02 EXCESS= .0000E+00 OUTFLOW= .2460E+02 BASIN STORAGE= .3293E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

R	MANE	1.54	259.69	222.83	.79	5.00	253.90	220.00	.79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2401E+02 EXCESS= .0000E+00 OUTFLOW= .2404E+02 BASIN STORAGE= .3355E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .54

R	MANE	1.75	194.25	222.80	.60	5.00	192.78	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1831E+02 EXCESS= .0000E+00 OUTFLOW= .1832E+02 BASIN STORAGE= .3360E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.80	189.17	224.11	.59	5.00	187.64	225.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1785E+02 EXCESS= .0000E+00 OUTFLOW= .1788E+02 BASIN STORAGE= .3544E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	2.07	108.03	224.74	.36	5.00	108.03	225.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1091E+02 EXCESS= .0000E+00 OUTFLOW= .1092E+02 BASIN STORAGE= .3440E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	2.11	104.93	227.97	.35	5.00	104.41	225.00	.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1064E+02 EXCESS= .0000E+00 OUTFLOW= .1065E+02 BASIN STORAGE= .3385E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

H3	MANE	.12	26.95	210.42	1.63	5.00	26.92	210.00	1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1482E+01 OUTFLOW= .1482E+01 BASIN STORAGE= .2356E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

H3	MANE	.23	16.33	210.52	.99	5.00	16.15	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8963E+00 OUTFLOW= .8962E+00 BASIN STORAGE= .2387E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

H3	MANE	.11	15.97	210.58	.97	5.00	15.85	210.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8777E+00 OUTFLOW= .8773E+00 BASIN STORAGE= .2376E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

H3	MANE	.26	12.70	210.74	.78	5.00	12.49	210.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7037E+00 OUTFLOW= .7037E+00 BASIN STORAGE= .2447E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

H3	MANE	.15	12.52	210.83	.76	5.00	12.35	210.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6879E+00 OUTFLOW= .6876E+00 BASIN STORAGE= .2300E-04 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .54

H3	MANE	.20	9.26	211.15	.58	5.00	9.02	210.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5221E+00 OUTFLOW= .5220E+00 BASIN STORAGE= .2334E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

H3	MANE	.20	9.02	210.95	.56	5.00	8.80	210.00	.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5092E+00 OUTFLOW= .5090E+00 BASIN STORAGE= .2419E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

H3	MANE	.25	5.07	211.93	.34	5.00	4.68	210.00	.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3079E+00 OUTFLOW= .3073E+00 BASIN STORAGE= .2395E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

H3	MANE	.18	4.96	211.82	.33	5.00	4.57	210.00	.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2999E+00 OUTFLOW= .2993E+00 BASIN STORAGE= .2351E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

R	MANE	1.49	15.74	212.79	.99	5.00	13.70	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8965E+00 EXCESS= .0000E+00 OUTFLOW= .8984E+00 BASIN STORAGE= .1588E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .72

R	MANE	1.49	15.34	213.18	.97	5.00	13.43	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8777E+00 EXCESS= .0000E+00 OUTFLOW= .8798E+00 BASIN STORAGE= .1661E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .64

R	MANE	1.46	12.13	213.43	.78	5.00	10.98	215.00	.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7046E+00 EXCESS= .0000E+00 OUTFLOW= .7061E+00 BASIN STORAGE= .1597E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .63

R	MANE	1.44	12.22	213.09	.76	5.00	10.84	215.00	.76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6890E+00 EXCESS= .0000E+00 OUTFLOW= .6914E+00 BASIN STORAGE= .1588E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .54

R	MANE	1.75	8.70	213.03	.58	5.00	8.34	215.00	.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5232E+00 EXCESS= .0000E+00 OUTFLOW= .5237E+00 BASIN STORAGE= .1667E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

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                R  MANE          1.64      8.59    213.80       .56       5.00       8.12     215.00          .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5097E+00 EXCESS= .0000E+00 OUTFLOW= .5103E+00 BASIN STORAGE= .1607E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE          2.00      4.65    214.89       .34       5.00       4.64     215.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3073E+00 EXCESS= .0000E+00 OUTFLOW= .3075E+00 BASIN STORAGE= .1577E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          2.11      4.56    214.22       .33       5.00       4.52     215.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2992E+00 EXCESS= .0000E+00 OUTFLOW= .2995E+00 BASIN STORAGE= .1630E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                P2  MANE         2.22     88.59    213.05      1.65       5.00      86.03     215.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5815E+01 OUTFLOW= .5809E+01 BASIN STORAGE= .1089E-02 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
                P2  MANE         2.80     50.47    215.76      1.00       5.00      49.63     215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3521E+01 OUTFLOW= .3513E+01 BASIN STORAGE= .1027E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .72
                P2  MANE         2.77     48.74    216.72       .98       5.00      48.25     215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3448E+01 OUTFLOW= .3440E+01 BASIN STORAGE= .9013E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .64
                P2  MANE         3.01     37.82    216.31       .78       5.00      35.90     215.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2766E+01 OUTFLOW= .2759E+01 BASIN STORAGE= .9677E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .63
                P2  MANE         3.04     36.29    215.79       .77       5.00      34.84     215.00          .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2704E+01 OUTFLOW= .2694E+01 BASIN STORAGE= .9649E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .54
                P2  MANE         3.62     25.76    218.09       .58       5.00      25.54     220.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2054E+01 OUTFLOW= .2045E+01 BASIN STORAGE= .1004E-02 PERCENT ERROR=    .4

          FOR PLAN = 1  RATIO=  .53
                P2  MANE         3.55     25.26    219.14       .57       5.00      24.90     220.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2003E+01 OUTFLOW= .1993E+01 BASIN STORAGE= .1051E-02 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .42
                P2  MANE         3.59     12.38    225.93       .34       5.00      12.15     230.00          .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1213E+01 OUTFLOW= .1204E+01 BASIN STORAGE= .9651E-03 PERCENT ERROR=    .7

          FOR PLAN = 1  RATIO=  .41
                P2  MANE         3.64     11.94    226.58       .33       5.00      11.79     230.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1182E+01 OUTFLOW= .1172E+01 BASIN STORAGE= .1083E-02 PERCENT ERROR=    .7

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .84     49.31    216.67      1.00       5.00      45.97     215.00         1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3515E+01 EXCESS= .0000E+00 OUTFLOW= .3517E+01 BASIN STORAGE= .6687E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE           .82     47.83    216.84       .98       5.00      44.59     215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3434E+01 EXCESS= .0000E+00 OUTFLOW= .3436E+01 BASIN STORAGE= .6642E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE           .87     35.74    217.53       .78       5.00      35.32     220.00          .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2754E+01 EXCESS= .0000E+00 OUTFLOW= .2756E+01 BASIN STORAGE= .6705E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE           .88     34.80    216.97       .76       5.00      34.49     220.00          .76

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2687E+01 EXCESS= .0000E+00 OUTFLOW= .2689E+01 BASIN STORAGE= .6701E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE           .89     25.32    222.10       .58       5.00      24.25     220.00          .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2041E+01 EXCESS= .0000E+00 OUTFLOW= .2042E+01 BASIN STORAGE= .6711E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .53
                R  MANE          .96     24.71    222.08       .57      5.00     23.45    220.00         .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1996E+01 EXCESS= .0000E+00 OUTFLOW= .1996E+01 BASIN STORAGE= .6633E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.18     12.09    231.37       .34      5.00     12.03    230.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1204E+01 EXCESS= .0000E+00 OUTFLOW= .1204E+01 BASIN STORAGE= .6511E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE         1.18     11.70    231.86       .33      5.00     11.50    230.00         .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1172E+01 EXCESS= .0000E+00 OUTFLOW= .1172E+01 BASIN STORAGE= .6526E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.52    393.10    223.84      1.02      5.00    387.44    225.00        1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3656E+02 EXCESS= .0000E+00 OUTFLOW= .3660E+02 BASIN STORAGE= .5867E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE         1.52    387.82    223.22      1.00      5.00    379.66    225.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3578E+02 EXCESS= .0000E+00 OUTFLOW= .3581E+02 BASIN STORAGE= .5807E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE         1.62    307.29    222.89       .80      5.00    305.94    225.00         .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2874E+02 EXCESS= .0000E+00 OUTFLOW= .2877E+02 BASIN STORAGE= .5737E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE         1.69    300.62    224.03       .78      5.00    298.74    225.00         .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2808E+02 EXCESS= .0000E+00 OUTFLOW= .2811E+02 BASIN STORAGE= .6142E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE         1.75    223.72    227.24       .59      5.00    222.71    225.00         .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2137E+02 EXCESS= .0000E+00 OUTFLOW= .2140E+02 BASIN STORAGE= .6077E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
                R  MANE         1.74    217.96    228.64       .58      5.00    216.13    225.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2086E+02 EXCESS= .0000E+00 OUTFLOW= .2088E+02 BASIN STORAGE= .5876E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
                R  MANE         2.14    123.52    230.40       .35      5.00    123.07    230.00         .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1271E+02 EXCESS= .0000E+00 OUTFLOW= .1271E+02 BASIN STORAGE= .6031E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE         2.21    119.47    231.81       .35      5.00    119.30    230.00         .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1240E+02 EXCESS= .0000E+00 OUTFLOW= .1241E+02 BASIN STORAGE= .5953E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
                Y  MANE          .88     30.36    211.12      2.05      5.00     29.07    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1857E+01 OUTFLOW= .1857E+01 BASIN STORAGE= .8070E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                Y  MANE         1.06     19.68    211.35      1.33      5.00     18.58    210.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1207E+01 OUTFLOW= .1208E+01 BASIN STORAGE= .8676E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                Y  MANE         1.18     19.45    212.15      1.31      5.00     18.32    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1186E+01 OUTFLOW= .1186E+01 BASIN STORAGE= .8372E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
                Y  MANE         1.22     16.14    211.79      1.09      5.00     15.02    210.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9858E+00 OUTFLOW= .9862E+00 BASIN STORAGE= .9404E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                Y  MANE         1.19     15.77    212.73      1.07      5.00     14.73    210.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9674E+00 OUTFLOW= .9680E+00 BASIN STORAGE= .9164E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
                Y  MANE         1.38     12.51    212.32       .85      5.00     11.48    215.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7707E+00 OUTFLOW= .7709E+00 BASIN STORAGE= .8966E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .53
               Y  MANE          1.40     12.23    212.09       .83       5.00     11.26    215.00        .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7552E+00 OUTFLOW= .7552E+00 BASIN STORAGE= .9412E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               Y  MANE          1.49      7.95    213.78       .56       5.00      7.75    215.00        .56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5042E+00 OUTFLOW= .5041E+00 BASIN STORAGE= .8101E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               Y  MANE          1.65      7.72    213.11       .54       5.00      7.61    215.00        .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4939E+00 OUTFLOW= .4936E+00 BASIN STORAGE= .9043E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               H1  MANE          1.39     75.58    212.68      1.62       5.00     69.34    215.00       1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4658E+01 OUTFLOW= .4660E+01 BASIN STORAGE= .5577E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               H1  MANE          1.68     44.10    214.23       .98       5.00     43.30    215.00        .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2814E+01 OUTFLOW= .2813E+01 BASIN STORAGE= .4688E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               H1  MANE          1.66     42.80    213.44       .96       5.00     42.54    215.00        .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2755E+01 OUTFLOW= .2752E+01 BASIN STORAGE= .5577E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .64
               H1  MANE          1.78     33.41    214.42       .77       5.00     33.35    215.00        .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2208E+01 OUTFLOW= .2205E+01 BASIN STORAGE= .4935E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .63
               H1  MANE          1.79     32.66    215.28       .75       5.00     32.49    215.00        .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2158E+01 OUTFLOW= .2155E+01 BASIN STORAGE= .5023E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .54
               H1  MANE          2.12     23.58    216.74       .57       5.00     22.70    215.00        .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1636E+01 OUTFLOW= .1632E+01 BASIN STORAGE= .5038E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .53
               H1  MANE          2.13     22.79    217.53       .55       5.00     21.41    215.00        .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1596E+01 OUTFLOW= .1592E+01 BASIN STORAGE= .5265E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .42
               H1  MANE          2.83     11.59    223.22       .33       5.00     11.23    220.00        .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9633E+00 OUTFLOW= .9562E+00 BASIN STORAGE= .4708E-03 PERCENT ERROR=    .7

          FOR PLAN = 1  RATIO=  .41
               H1  MANE          2.85     11.17    221.06       .32       5.00     10.72    225.00        .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9384E+00 OUTFLOW= .9317E+00 BASIN STORAGE= .4654E-03 PERCENT ERROR=    .7

          FOR PLAN = 1  RATIO=  .73
               R  MANE           .56    436.43    221.51      1.01       5.00    431.46    225.00       1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4236E+02 EXCESS= .0000E+00 OUTFLOW= .4237E+02 BASIN STORAGE= .2374E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               R  MANE           .62    426.07    221.70       .99       5.00    422.66    225.00        .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4144E+02 EXCESS= .0000E+00 OUTFLOW= .4145E+02 BASIN STORAGE= .2379E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               R  MANE           .67    341.02    225.96       .79       5.00    339.99    225.00        .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3330E+02 EXCESS= .0000E+00 OUTFLOW= .3331E+02 BASIN STORAGE= .2343E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
               R  MANE           .63    333.20    225.87       .78       5.00    331.68    225.00        .78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3255E+02 EXCESS= .0000E+00 OUTFLOW= .3256E+02 BASIN STORAGE= .2345E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               R  MANE           .67    250.88    226.71       .59       5.00    245.99    225.00        .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2476E+02 EXCESS= .0000E+00 OUTFLOW= .2476E+02 BASIN STORAGE= .2329E-03 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .53
                R  MANE          .75    244.17    226.61       .58      5.00    238.97    225.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2416E+02 EXCESS= .0000E+00 OUTFLOW= .2417E+02 BASIN STORAGE= .2358E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .42
                R  MANE          .81    139.02    231.66       .35      5.00    136.65    230.00         .35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1471E+02 EXCESS= .0000E+00 OUTFLOW= .1472E+02 BASIN STORAGE= .2320E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .41
                R  MANE          .82    134.83    231.83       .34      5.00    132.55    230.00         .34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1436E+02 EXCESS= .0000E+00 OUTFLOW= .1437E+02 BASIN STORAGE= .2306E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                Q2  MANE         1.04    131.16    212.05      2.05      5.00    123.53    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8301E+01 OUTFLOW= .8304E+01 BASIN STORAGE= .5612E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .73
                Q2  MANE         1.23     84.77    212.96      1.33      5.00     77.74    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5398E+01 OUTFLOW= .5399E+01 BASIN STORAGE= .5672E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .72
                Q2  MANE         1.25     83.48    212.82      1.31      5.00     76.76    215.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5303E+01 OUTFLOW= .5305E+01 BASIN STORAGE= .5699E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .64
                Q2  MANE         1.34     69.08    212.90      1.09      5.00     65.58    215.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4407E+01 OUTFLOW= .4408E+01 BASIN STORAGE= .6070E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .63
                Q2  MANE         1.41     66.95    212.57      1.07      5.00     63.92    215.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4325E+01 OUTFLOW= .4325E+01 BASIN STORAGE= .6047E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .54
                Q2  MANE         1.43     52.75    213.49       .85      5.00     51.83    215.00         .85

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3446E+01 OUTFLOW= .3443E+01 BASIN STORAGE= .5753E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .53
                Q2  MANE         1.42     51.48    214.37       .83      5.00     50.63    215.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3376E+01 OUTFLOW= .3374E+01 BASIN STORAGE= .6002E-03 PERCENT ERROR=     .0

          FOR PLAN = 1  RATIO=  .42
                Q2  MANE         1.70     32.79    214.79       .56      5.00     32.78    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2254E+01 OUTFLOW= .2250E+01 BASIN STORAGE= .6089E-03 PERCENT ERROR=     .2

          FOR PLAN = 1  RATIO=  .41
                Q2  MANE         1.75     32.05    215.69       .54      5.00     31.60    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2208E+01 OUTFLOW= .2204E+01 BASIN STORAGE= .6175E-03 PERCENT ERROR=     .1

          FOR PLAN = 1  RATIO=  .73
                R  MANE         1.04     77.86    217.02      1.33      5.00     77.52    215.00        1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5396E+01 EXCESS= .0000E+00 OUTFLOW= .5404E+01 BASIN STORAGE= .4586E-03 PERCENT ERROR=    -.2

          FOR PLAN = 1  RATIO=  .72
                R  MANE         1.15     76.51    216.04      1.31      5.00     76.33    215.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5306E+01 EXCESS= .0000E+00 OUTFLOW= .5312E+01 BASIN STORAGE= .4253E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE         1.24     64.55    217.52      1.09      5.00     62.77    215.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4400E+01 EXCESS= .0000E+00 OUTFLOW= .4405E+01 BASIN STORAGE= .4568E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE         1.17     63.27    216.72      1.07      5.00     61.88    215.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4322E+01 EXCESS= .0000E+00 OUTFLOW= .4326E+01 BASIN STORAGE= .4642E-03 PERCENT ERROR=    -.1

          FOR PLAN = 1  RATIO=  .54
                R  MANE         1.28     51.17    217.17       .85      5.00     48.38    215.00         .85
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .3445E+01 EXCESS= .0000E+00 OUTFLOW= .3447E+01 BASIN STORAGE= .4629E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .53

R	MANE	1.32	49.92	217.78	.83	5.00	47.16	215.00	.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3374E+01 EXCESS= .0000E+00 OUTFLOW= .3377E+01 BASIN STORAGE= .4380E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .42

R	MANE	1.59	32.58	218.18	.56	5.00	30.88	220.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2249E+01 EXCESS= .0000E+00 OUTFLOW= .2250E+01 BASIN STORAGE= .4457E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .41

R	MANE	1.65	30.69	219.18	.54	5.00	30.04	220.00	.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2205E+01 EXCESS= .0000E+00 OUTFLOW= .2205E+01 BASIN STORAGE= .4524E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G1	MANE	1.00	55.70	211.65	1.82	5.00	52.36	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3387E+01 OUTFLOW= .3390E+01 BASIN STORAGE= .2516E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

G1	MANE	1.13	34.56	212.74	1.14	5.00	31.77	215.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2123E+01 OUTFLOW= .2124E+01 BASIN STORAGE= .2428E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

G1	MANE	1.14	33.73	212.64	1.12	5.00	31.28	215.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2082E+01 OUTFLOW= .2082E+01 BASIN STORAGE= .2384E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

G1	MANE	1.26	27.15	213.51	.91	5.00	25.98	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1699E+01 OUTFLOW= .1699E+01 BASIN STORAGE= .2332E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

G1	MANE	1.13	26.61	213.10	.89	5.00	25.46	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1664E+01 OUTFLOW= .1664E+01 BASIN STORAGE= .2417E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

G1	MANE	1.40	20.22	214.00	.69	5.00	19.89	215.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1294E+01 OUTFLOW= .1293E+01 BASIN STORAGE= .2426E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

G1	MANE	1.39	19.82	214.95	.68	5.00	19.78	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1265E+01 OUTFLOW= .1264E+01 BASIN STORAGE= .2367E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

G1	MANE	1.59	11.53	215.75	.43	5.00	11.29	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8038E+00 OUTFLOW= .8017E+00 BASIN STORAGE= .2230E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

G1	MANE	1.73	11.34	216.59	.42	5.00	11.01	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7852E+00 OUTFLOW= .7830E+00 BASIN STORAGE= .2496E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

G2	MANE	1.02	28.87	211.86	1.82	5.00	27.55	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1743E+01 BASIN STORAGE= .9813E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G2	MANE	1.22	17.97	212.54	1.14	5.00	16.58	210.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1092E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .1116E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

G2	MANE	1.24	17.58	212.30	1.12	5.00	16.19	210.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1071E+01 OUTFLOW= .1071E+01 BASIN STORAGE= .9136E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

G2	MANE	1.39	14.05	212.09	.91	5.00	13.08	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8738E+00 OUTFLOW= .8738E+00 BASIN STORAGE= .9369E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

G2	MANE	1.37	13.81	212.90	.89	5.00	12.84	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8559E+00 OUTFLOW= .8557E+00 BASIN STORAGE= .1036E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

G2	MANE	1.54	10.52	213.70	.69	5.00	10.17	215.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6654E+00 OUTFLOW= .6651E+00 BASIN STORAGE= .1100E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

G2	MANE	1.48	10.23	213.16	.68	5.00	9.92	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6505E+00 OUTFLOW= .6502E+00 BASIN STORAGE= .1082E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

G2	MANE	1.93	6.00	214.64	.43	5.00	6.00	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4134E+00 OUTFLOW= .4124E+00 BASIN STORAGE= .9844E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

G2	MANE	1.85	5.87	215.45	.42	5.00	5.82	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4038E+00 OUTFLOW= .4031E+00 BASIN STORAGE= .9842E-04 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

R	MANE	.39	526.19	220.63	1.04	5.00	522.77	220.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5225E+02 EXCESS= .0000E+00 OUTFLOW= .5225E+02 BASIN STORAGE= .2715E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.46	513.64	221.03	1.02	5.00	510.28	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5115E+02 EXCESS= .0000E+00 OUTFLOW= .5115E+02 BASIN STORAGE= .2668E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.53	408.25	221.05	.82	5.00	404.08	225.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4127E+02 EXCESS= .0000E+00 OUTFLOW= .4127E+02 BASIN STORAGE= .2676E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R	MANE	.57	396.33	221.36	.80	5.00	394.56	225.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4036E+02 EXCESS= .0000E+00 OUTFLOW= .4036E+02 BASIN STORAGE= .2681E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R	MANE	.53	299.41	226.04	.62	5.00	297.62	225.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3088E+02 EXCESS= .0000E+00 OUTFLOW= .3089E+02 BASIN STORAGE= .2658E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.50	291.59	225.75	.60	5.00	289.77	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3016E+02 EXCESS= .0000E+00 OUTFLOW= .3017E+02 BASIN STORAGE= .2659E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	.54	167.78	230.89	.37	5.00	166.64	230.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1859E+02 EXCESS= .0000E+00 OUTFLOW= .1859E+02 BASIN STORAGE= .2657E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.68	162.90	230.87	.36	5.00	161.92	230.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1816E+02 EXCESS= .0000E+00 OUTFLOW= .1816E+02 BASIN STORAGE= .2648E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.68	79.38	211.72	1.82	5.00	75.06	210.00	1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4838E+01 OUTFLOW= .4842E+01 BASIN STORAGE= .3512E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

E	MANE	.83	49.11	212.72	1.14	5.00	44.96	215.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3032E+01 OUTFLOW= .3035E+01 BASIN STORAGE= .3304E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .72

E	MANE	.92	48.17	213.06	1.12	5.00	44.26	215.00	1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2974E+01 OUTFLOW= .2975E+01 BASIN STORAGE= .3483E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

E	MANE	.89	38.78	212.85	.91	5.00	36.97	215.00	.91

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2427E+01 OUTFLOW= .2428E+01 BASIN STORAGE= .3217E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

E	MANE	.87	37.76	213.06	.89	5.00	36.16	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2377E+01 OUTFLOW= .2378E+01 BASIN STORAGE= .3280E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

E	MANE	1.03	28.72	213.78	.69	5.00	28.32	215.00	.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1848E+01 OUTFLOW= .1848E+01 BASIN STORAGE= .3454E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

E	MANE	1.12	28.31	213.85	.68	5.00	27.86	215.00	.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1807E+01 OUTFLOW= .1806E+01 BASIN STORAGE= .3493E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

E	MANE	1.32	16.45	216.31	.43	5.00	16.24	215.00	.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1148E+01 OUTFLOW= .1145E+01 BASIN STORAGE= .3439E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .41

E	MANE	1.31	16.02	215.72	.42	5.00	15.69	215.00	.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1122E+01 OUTFLOW= .1119E+01 BASIN STORAGE= .3258E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .73

R	MANE	.37	561.68	220.39	1.04	5.00	560.60	220.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5657E+02 EXCESS= .0000E+00 OUTFLOW= .5657E+02 BASIN STORAGE= .2739E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

R	MANE	.32	548.47	220.42	1.02	5.00	547.16	220.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5538E+02 EXCESS= .0000E+00 OUTFLOW= .5538E+02 BASIN STORAGE= .2705E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

R	MANE	.33	435.47	220.69	.82	5.00	431.88	220.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4469E+02 EXCESS= .0000E+00 OUTFLOW= .4469E+02 BASIN STORAGE= .2704E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

R	MANE	.33	422.81	220.70	.80	5.00	419.41	225.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4370E+02 EXCESS= .0000E+00 OUTFLOW= .4371E+02 BASIN STORAGE= .2714E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .54

R	MANE	.33	317.65	225.61	.62	5.00	316.40	225.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3344E+02 EXCESS= .0000E+00 OUTFLOW= .3344E+02 BASIN STORAGE= .2676E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .53

R	MANE	.41	309.20	225.79	.60	5.00	308.11	225.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3266E+02 EXCESS= .0000E+00 OUTFLOW= .3266E+02 BASIN STORAGE= .2694E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .42

R	MANE	.44	177.93	230.91	.37	5.00	176.95	230.00	.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2012E+02 EXCESS= .0000E+00 OUTFLOW= .2012E+02 BASIN STORAGE= .2694E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .41

R	MANE	.43	172.99	230.78	.36	5.00	171.91	230.00	.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1966E+02 EXCESS= .0000E+00 OUTFLOW= .1966E+02 BASIN STORAGE= .2690E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

8	MANE	.37	63.79	210.93	2.03	5.00	62.19	210.00	2.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3896E+01 OUTFLOW= .3895E+01 BASIN STORAGE= .1291E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

8	MANE	.50	41.57	211.56	1.32	5.00	39.85	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2531E+01 OUTFLOW= .2532E+01 BASIN STORAGE= .1382E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .72

8	MANE	.43	40.90	211.86	1.30	5.00	39.12	210.00	1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2487E+01 OUTFLOW= .2487E+01 BASIN STORAGE= .1366E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .64

8	MANE	.48	33.86	211.87	1.08	5.00	32.16	210.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2066E+01 OUTFLOW= .2066E+01 BASIN STORAGE= .1309E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .63

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          8  MANE          .54     33.28    211.77      1.06      5.00     31.38    210.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2028E+01 OUTFLOW= .2028E+01 BASIN STORAGE= .1150E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .54
          8  MANE          .55     26.38    212.26       .84      5.00     24.62    210.00         .84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1614E+01 OUTFLOW= .1614E+01 BASIN STORAGE= .1345E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .53
          8  MANE          .58     25.88    212.15       .82      5.00     23.72    210.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1582E+01 OUTFLOW= .1582E+01 BASIN STORAGE= .1370E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .42
          8  MANE          .73     16.69    213.26       .55      5.00     16.03    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1055E+01 OUTFLOW= .1054E+01 BASIN STORAGE= .1376E-03 PERCENT ERROR=    .1

     FOR PLAN = 1  RATIO=  .41
          8  MANE          .69     16.33    213.16       .54      5.00     15.73    215.00         .54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1034E+01 OUTFLOW= .1033E+01 BASIN STORAGE= .1136E-03 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .73
          R  MANE          1.40      4.22    213.16       .81      5.00      3.90    215.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2588E+00 EXCESS= .0000E+00 OUTFLOW= .2594E+00 BASIN STORAGE= .2264E-07 PERCENT ERROR=   -.2

     FOR PLAN = 1  RATIO=  .72
          R  MANE          1.31      4.20    212.70       .79      5.00      3.82    215.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2529E+00 EXCESS= .0000E+00 OUTFLOW= .2538E+00 BASIN STORAGE= .2113E-07 PERCENT ERROR=   -.4

     FOR PLAN = 1  RATIO=  .64
          R  MANE          1.41      3.26    212.51       .62      5.00      3.04    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1980E+00 EXCESS= .0000E+00 OUTFLOW= .1985E+00 BASIN STORAGE= .2361E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .63
          R  MANE          1.42      3.17    212.45       .60      5.00      2.97    215.00         .60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1930E+00 EXCESS= .0000E+00 OUTFLOW= .1935E+00 BASIN STORAGE= .1868E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .54
          R  MANE          1.57      2.33    213.75       .44      5.00      2.22    215.00         .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1417E+00 EXCESS= .0000E+00 OUTFLOW= .1420E+00 BASIN STORAGE= .1790E-07 PERCENT ERROR=   -.2

     FOR PLAN = 1  RATIO=  .53
          R  MANE          1.67      2.30    213.37       .43      5.00      2.16    215.00         .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1378E+00 EXCESS= .0000E+00 OUTFLOW= .1382E+00 BASIN STORAGE= .2022E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .42
          R  MANE          1.97      1.23    215.13       .24      5.00      1.23    215.00         .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7761E-01 EXCESS= .0000E+00 OUTFLOW= .7776E-01 BASIN STORAGE= .1628E-07 PERCENT ERROR=   -.2

     FOR PLAN = 1  RATIO=  .41
          R  MANE          1.86      1.22    214.38       .24      5.00      1.19    215.00         .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7529E-01 EXCESS= .0000E+00 OUTFLOW= .7552E-01 BASIN STORAGE= .2204E-07 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .73
          R  MANE           .65     11.39    211.59       .81      5.00     10.70    210.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7335E+00 EXCESS= .0000E+00 OUTFLOW= .7346E+00 BASIN STORAGE= .2099E-05 PERCENT ERROR=   -.2

     FOR PLAN = 1  RATIO=  .72
          R  MANE           .67     11.19    211.36       .79      5.00     10.44    210.00         .79

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7168E+00 EXCESS= .0000E+00 OUTFLOW= .7179E+00 BASIN STORAGE= .2088E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .64
          R  MANE           .78      8.70    211.44       .62      5.00      8.18    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5609E+00 EXCESS= .0000E+00 OUTFLOW= .5617E+00 BASIN STORAGE= .2175E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .63
          R  MANE           .78      8.49    211.73       .60      5.00      7.98    215.00         .60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5470E+00 EXCESS= .0000E+00 OUTFLOW= .5477E+00 BASIN STORAGE= .1760E-05 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .54
                R  MANE          .90       6.15    211.65        .44       5.00       5.92    215.00          .44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4015E+00 EXCESS= .0000E+00 OUTFLOW= .4021E+00 BASIN STORAGE= .2130E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .53
                R  MANE          .91       6.02    211.83        .43       5.00       5.77    215.00          .43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3906E+00 EXCESS= .0000E+00 OUTFLOW= .3912E+00 BASIN STORAGE= .1916E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .42
                R  MANE         1.07       3.21    212.49        .24       5.00       3.21    215.00          .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2200E+00 EXCESS= .0000E+00 OUTFLOW= .2203E+00 BASIN STORAGE= .2020E-05 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
                R  MANE          .98       3.12    216.91        .24       5.00       3.11    215.00          .24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2135E+00 EXCESS= .0000E+00 OUTFLOW= .2139E+00 BASIN STORAGE= .1843E-05 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .73
             C2+ST  MANE         1.00      52.95    212.27       1.62       5.00      49.10    210.00         1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3192E+01 OUTFLOW= .3194E+01 BASIN STORAGE= .2614E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
             C2+ST  MANE         1.33      31.14    213.66        .98       5.00      29.83    215.00          .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1928E+01 OUTFLOW= .1927E+01 BASIN STORAGE= .2608E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
             C2+ST  MANE         1.30      30.30    213.21        .96       5.00      28.94    215.00          .96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1888E+01 OUTFLOW= .1887E+01 BASIN STORAGE= .2606E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
             C2+ST  MANE         1.49      23.58    213.34        .77       5.00      23.40    215.00          .77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1513E+01 OUTFLOW= .1512E+01 BASIN STORAGE= .2478E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
             C2+ST  MANE         1.46      23.08    214.22        .75       5.00      22.70    215.00          .75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1479E+01 OUTFLOW= .1478E+01 BASIN STORAGE= .2497E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
             C2+ST  MANE         1.63      16.67    214.80        .57       5.00      16.65    215.00          .57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1121E+01 OUTFLOW= .1120E+01 BASIN STORAGE= .2577E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .53
             C2+ST  MANE         1.62      16.30    215.71        .55       5.00      16.14    215.00          .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1094E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .2514E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .42
             C2+ST  MANE         2.21       8.50    220.00        .33       5.00       8.50    220.00          .33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6601E+00 OUTFLOW= .6564E+00 BASIN STORAGE= .2680E-03 PERCENT ERROR=    .5

          FOR PLAN = 1  RATIO=  .41
             C2+ST  MANE         2.23       8.11    220.62        .32       5.00       8.10    220.00          .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6430E+00 OUTFLOW= .6390E+00 BASIN STORAGE= .2691E-03 PERCENT ERROR=    .6

          FOR PLAN = 1  RATIO=  .73
                R  MANE          .71      41.42    215.41        .95       5.00      41.29    215.00          .95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2830E+01 EXCESS= .0000E+00 OUTFLOW= .2832E+01 BASIN STORAGE= .1222E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
                R  MANE          .77      40.31    215.28        .93       5.00      40.25    215.00          .93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2770E+01 EXCESS= .0000E+00 OUTFLOW= .2773E+01 BASIN STORAGE= .1258E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
                R  MANE          .79      32.34    215.94        .74       5.00      31.88    215.00          .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2215E+01 EXCESS= .0000E+00 OUTFLOW= .2217E+01 BASIN STORAGE= .1208E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
                R  MANE          .82      31.42    215.77        .73       5.00      30.99    215.00          .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2163E+01 EXCESS= .0000E+00 OUTFLOW= .2165E+01 BASIN STORAGE= .1188E-03 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .54
               R  MANE          .85     23.34    216.75       .55      5.00     22.19    215.00         .55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1634E+01 EXCESS= .0000E+00 OUTFLOW= .1636E+01 BASIN STORAGE= .1174E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
               R  MANE          .79     22.73    216.47       .53      5.00     21.46    215.00         .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1594E+01 EXCESS= .0000E+00 OUTFLOW= .1595E+01 BASIN STORAGE= .1246E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .42
               R  MANE         1.13     11.46    221.87       .32      5.00     11.17    220.00         .32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9550E+00 EXCESS= .0000E+00 OUTFLOW= .9562E+00 BASIN STORAGE= .1163E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
               R  MANE         1.10     11.04    222.10       .31      5.00     10.58    220.00         .31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9294E+00 EXCESS= .0000E+00 OUTFLOW= .9302E+00 BASIN STORAGE= .1223E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
            EN+ST  MANE          .76     31.89    211.15      2.31      5.00     30.90    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2097E+01 OUTFLOW= .2097E+01 BASIN STORAGE= .1069E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
            EN+ST  MANE          .87     21.66    211.80      1.57      5.00     20.64    210.00        1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1423E+01 OUTFLOW= .1423E+01 BASIN STORAGE= .1066E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
            EN+ST  MANE          .76     21.27    212.33      1.55      5.00     20.36    210.00        1.54

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1401E+01 OUTFLOW= .1401E+01 BASIN STORAGE= .1057E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
            EN+ST  MANE          .97     18.15    211.97      1.31      5.00     17.09    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1189E+01 OUTFLOW= .1189E+01 BASIN STORAGE= .1028E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .63
            EN+ST  MANE          .89     17.71    211.60      1.29      5.00     16.72    210.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1169E+01 OUTFLOW= .1169E+01 BASIN STORAGE= .1025E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
            EN+ST  MANE          .90     14.53    212.37      1.06      5.00     13.46    210.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9578E+00 OUTFLOW= .9583E+00 BASIN STORAGE= .1019E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .53
            EN+ST  MANE          .99     14.27    212.63      1.04      5.00     13.20    210.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .9409E+00 OUTFLOW= .9411E+00 BASIN STORAGE= .1022E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
            EN+ST  MANE         1.16      9.92    212.93       .73      5.00      9.51    215.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6643E+00 OUTFLOW= .6642E+00 BASIN STORAGE= .1017E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
            EN+ST  MANE         1.20      9.69    212.67       .72      5.00      9.36    215.00         .72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6527E+00 OUTFLOW= .6524E+00 BASIN STORAGE= .1027E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               COM  MANE          .40     37.30    210.68      2.31      5.00     36.88    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2344E+01 OUTFLOW= .2344E+01 BASIN STORAGE= .4154E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               COM  MANE          .57     25.62    211.27      1.57      5.00     25.02    210.00        1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1590E+01 OUTFLOW= .1590E+01 BASIN STORAGE= .4294E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .72
               COM  MANE          .50     25.23    211.11      1.55      5.00     24.58    210.00        1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1565E+01 OUTFLOW= .1566E+01 BASIN STORAGE= .4731E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .64
               COM  MANE          .61     21.49    211.40      1.31      5.00     20.83    210.00        1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1328E+01 OUTFLOW= .1329E+01 BASIN STORAGE= .4722E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .63
               COM  MANE          .61     21.27    211.21      1.29      5.00     20.58    210.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1307E+01 OUTFLOW= .1307E+01 BASIN STORAGE= .4259E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .54
               COM  MANE          .55     17.37    211.52      1.06      5.00     16.74    210.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1070E+01 OUTFLOW= .1071E+01 BASIN STORAGE= .4242E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
               COM  MANE          .64     17.13    211.30      1.04      5.00     16.47    210.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1052E+01 OUTFLOW= .1052E+01 BASIN STORAGE= .4521E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               COM  MANE          .62     12.07    211.87       .73      5.00     11.45    210.00         .73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7424E+00 OUTFLOW= .7430E+00 BASIN STORAGE= .4415E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .41
               COM  MANE          .66     11.86    211.86       .72      5.00     11.21    210.00         .72

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7295E+00 OUTFLOW= .7297E+00 BASIN STORAGE= .4565E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               RCOM  MANE         1.23    646.86    217.32      1.06      5.00    643.45    220.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6572E+02 EXCESS= .0000E+00 OUTFLOW= .6577E+02 BASIN STORAGE= .2485E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .72
               RCOM  MANE         1.17    632.30    217.94      1.04      5.00    628.26    220.00        1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6436E+02 EXCESS= .0000E+00 OUTFLOW= .6441E+02 BASIN STORAGE= .2373E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .64
               RCOM  MANE         1.25    497.17    221.89       .84      5.00    493.55    220.00         .84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5208E+02 EXCESS= .0000E+00 OUTFLOW= .5211E+02 BASIN STORAGE= .2383E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .63
               RCOM  MANE         1.20    483.82    222.62       .82      5.00    479.36    220.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5095E+02 EXCESS= .0000E+00 OUTFLOW= .5100E+02 BASIN STORAGE= .2436E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .54
               RCOM  MANE         1.41    357.11    227.27       .63      5.00    356.27    225.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3915E+02 EXCESS= .0000E+00 OUTFLOW= .3916E+02 BASIN STORAGE= .2487E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .53
               RCOM  MANE         1.38    347.98    226.74       .62      5.00    346.70    225.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3825E+02 EXCESS= .0000E+00 OUTFLOW= .3826E+02 BASIN STORAGE= .2442E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .42
               RCOM  MANE         1.70    200.88    233.15       .38      5.00    198.64    235.00         .38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2377E+02 EXCESS= .0000E+00 OUTFLOW= .2378E+02 BASIN STORAGE= .2347E-02 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .41
               RCOM  MANE         1.76    195.01    232.96       .37      5.00    193.46    235.00         .37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2323E+02 EXCESS= .0000E+00 OUTFLOW= .2323E+02 BASIN STORAGE= .2409E-02 PERCENT ERROR=    .0


*** NORMAL END OF HEC-1 ***
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HEC-1 Output File "DSDB-3.OUT" from Pittman East Detention Basin CLOMR

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   25NOV03  TIME  13:41:31   *
*                                   *
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*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*         609 SECOND STREET         *
*       DAVIS, CALIFORNIA 95616     *
*         (916) 756-1104            *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                    *DIAGRAM
*** FREE ***
               1    ID
               2    ID    PITTMAN EAST DETENTION BASIN
               3    ID    PBS&J, February 2000
               4    ID
               5    ID    THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE
               6    ID    "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY
               7    ID    1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC.,
               8    ID    DATED APRIL 1997.  THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER
               9    ID    CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED.
              10    ID    MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO
              11    ID    CONFORM TO EXISTING DRAINAGE PATTERENS.  ULTIMATE CONDITION LAND USE BASED
              12    ID    ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS.  THE SUBBASIN AREAS,
              13    ID    CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.
              14    ID
              15    ID    THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE
              16    ID    INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE
              17    ID
              18    ID
              19    ID   100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN3
              20    ID   DARF RATIOS FOR AN AREA OF 2.9 SQUARE MILES FOR
              21    ID   THE 100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR EVENTS.
              22    ID
              23    IT       5       0       0     300
              24    IO       5       0       0
              25    IN       5       0       0
              26    JR    PREC   0.921   0.806   0.728   0.559
                    *
              27    KK    GB-1
              28    BA    .009
              29    PB    2.91
              30    PC   0.000   0.020   0.057   0.070   0.087   0.108   0.124   0.130   0.130   0.130
              31    PC   0.130   0.130   0.130   0.133   0.140   0.142   0.148   0.158   0.172   0.181
              32    PC   0.190   0.197   0.199   0.200   0.201   0.204   0.214   0.229   0.241   0.249
              33    PC   0.251   0.256   0.270   0.278   0.281   0.283   0.295   0.322   0.352   0.409
              34    PC   0.499   0.590   0.710   0.744   0.781   0.812   0.819   0.835   0.851   0.856
              35    PC   0.860   0.868   0.876   0.888   0.910   0.926   0.937   0.950   0.970   0.976
              36    PC   0.982   0.985   0.987   0.989   0.990   0.993   0.993   0.994   0.995   0.998
              37    PC   0.998   0.999   1.000
              38    LS       0      84
              39    UD    .074
                    *
              40    KK      U1
              41    PB    2.90
              42    BA   0.031
              43    LS       0      87
              44    UK     100    0.02    0.08     100
              45    RK     300    0.03   0.017  0.0022    TRAP      60       0
              46    RK    1300    0.03   0.017   0.031    TRAP      60       0
                    *
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          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

              47    KK       R
              48    RK     900    0.04   0.017       0    TRAP      80       0
                    *
              49    KK       C
              50    HC       2
                    *
              51    KK       R
              52    RK     550    0.04   0.017       0    TRAP      80       0
                    *
              53    KK      W2
              54    PB    2.90
              55    BA   0.013
              56    LS       0      87
              57    UK     100    0.02    0.08     100
              58    RK     300    0.03   0.017  0.0022    TRAP      60       0
              59    RK     600    0.03   0.017   0.013    TRAP      60       0
                    *
              60    KK       C
```

```
   61          HC        2
               *

   62          KK       W1
   63          PB     2.90
   64          BA    0.033
   65          LS        0      87
   66          UK      100   0.017    0.08     100
   67          RK      400    0.02   0.017  0.0029    TRAP       60        0
   68          RK     1000    0.03   0.017   0.033    TRAP       60        0
               *

   69          KK        C
   70          HC        2
               *

   71          KK        R
   72          RK     1600    0.02   0.015       0    TRAP       20        0
               *

   73          KK    GB-2A
   74          PB     2.88
   75          BA    0.015
   76          LS        0      84
   77          UD    0.102
               *
1                                        HEC-1 INPUT                                    PAGE  3

  LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

   78          KK       V2
   79          PB     2.89
   80          BA    0.032
   81          LS        0    89.5
   82          UK      100    0.02    0.08     100
   83          RK      300    0.03   0.017  0.0022    TRAP       60        0
   84          RK     2000    0.03   0.017   0.032    TRAP       60        0
               *

   85          KK        C
   86          HC        3
               *

   87          KK        R
   88          RK     1300   0.004    0.03       0    TRAP       10        4
               *

   89          KK       V1
   90          PB     2.88
   91          BA    0.052
   92          LS        0    89.5
   93          UK      100    0.02    0.08     100
   94          RK      500    0.02   0.017  0.0036    TRAP       60        0
   95          RK     2200    0.03   0.017   0.052    TRAP       60        0
               *

   96          KK    GB-2B
   97          PB     2.88
   98          BA    0.007
   99          LS        0      84
  100          UD    0.079
               *

  101          KK        C
  102          HC        2
               *

  103          KK        C
  104          HC        2
               *

  105          KK       P1
  106          PB     2.90
  107          BA    0.094
  108          LS        0      87
  109          UK      100    0.02    0.08     100
  110          RK      300    0.02   0.017  0.0022    TRAP       60        0
  111          RK     2800    0.03   0.017   0.083    TRAP       60        0
               *
1                                        HEC-1 INPUT                                    PAGE  4

  LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  112          KK    GB-4
  113          PB     2.9
  114          BA    0.035
  115          LS        0      84
  116          UD    0.112
               *

  117          KK       T2
  118          PB     2.90
  119          BA    0.021
  120          LS        0      87
  121          UK      100    0.02    0.08     100
  122          RK      100    0.02   0.017  0.0004    TRAP       60        0
  123          RK     2300    0.03   0.017   0.021    TRAP       80        0
               *

  124          KK        C
  125          HC        3
               *

  126          KK        R
  127          RK      900   0.004    0.03       0    TRAP       10        4
               *

  128          KK     6-8
  129          BA  .03031
  130          PB     3.07
  131          LS        0      94
  132          UD     .124
               *

  133          KK     6-7
  134          BA  .00672
```

```
 135          PB    3.15
 136          LS       0      91
 137          UD    .071
              *

 138          KK      C6
 139          HC       2
              *

 140          KK      R6
 141          RD     550    .036    .016       0    TRAP       0       50
              *

 142          KK     6-6
 143          BA  .03453
 144          PB    3.07
 145          LS       0      94
 146          UD    .112
              *
1                                        HEC-1 INPUT                                        PAGE  5

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 147          KK      C7
 148          HC       2
              *

 149          KK      R7
 150          RM       2    .218      .2
              *

 151          KK     6-5
 152          BA  .10188
 153          PB    3.07
 154          LS       0      89
 155          UD    .199
              *

 156          KK      R8
 157          RD    1050    .090     .04       0    TRAP      10        3
              *

 158          KK     6-4
 159          BA  .19188
 160          PB    3.07
 161          LS       0      83
 162          UD    .246
              *

 163          KK      C8
 164          HC       3
              *

 165          KK      R9
 166          RM       1    .059      .2
              *

 167          KK     6-3
 168          BA  .01594
 169          PB    3.07
 170          LS       0      89
 171          UD    .106
              *

 172          KK     R10
 173          RD    1400    .061     .04       0    TRAP      10        3
              *

 174          KK     6-2
 175          BA  .05281
 176          PB    3.07
 177          LS       0      88
 178          UD    .082
              *
1                                        HEC-1 INPUT                                        PAGE  6

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 179          KK      C9
 180          HC       3
              *

 181          KK     6-1
 182          BA  .02719
 183          PB    3.07
 184          LS       0      87
 185          UD    .121
              *

 186          KK     C10
 187          HC       2
              *

 188          KK       R
 189          RK    2100   0.023   0.025       0    TRAP      15        8
              *

 190          KK      T1
 191          PB    2.90
 192          BA   0.038
 193          LS       0      87
 194          UK     100    0.02    0.08     100
 195          RK     200    0.02   0.017  0.0014    TRAP      60        0
 196          RK    1800    0.03   0.017   0.038    TRAP      80        0
              *

 197          KK    GB-3
 198          PB    2.90
 199          BA   0.017
 200          LS       0      84
 201          UD   0.096
              *

 202          KK      U2
 203          PB    2.90
 204          BA   0.023
```

```
205          LS       0      87
206          UK     100    0.02    0.08     100
207          RK     150    0.02   0.017  0.0011    TRAP      60       0
208          RK    1500    0.03   0.017   0.023    TRAP      80       0
             *

209          KK       C
210          HC       4
             *

211          KK       R
212          RK     700   0.004    0.03       0    TRAP      10       4
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

213          KK       R
214          RK     800   0.004    0.03       0    TRAP      10       4
             *

215          KK   GB-5A
216          PB    2.88
217          BA   0.033
218          LS       0      84
219          UD   0.093
             *

220          KK       C
221          HC       2
             *

222          KK      Q1
223          PB    2.88
224          BA   0.023
225          LS       0      87
226          UK     100    0.02    0.08     100
227          RK     200    0.02   0.017  0.0014    TRAP      60       0
228          RK    1300   0.025   0.017   0.023    TRAP      60       0
             *

229          KK      S1
230          PB    2.89
231          BA   0.047
232          LS       0      87
233          UK     100    0.02    0.08     100
234          RK     400    0.02   0.017  0.0029    TRAP      60       0
235          RK    1400    0.02   0.017   0.049    TRAP      60       0
             *

236          KK       C
237          HC       3
             *

238          KK       R
239          RK    1500   0.004    0.03       0    TRAP      10       4
             *

240          KK      S2
241          PB    2.88
242          BA   0.022
243          LS       0      87
244          UK     100    0.02    0.08     100
245          RK     300    0.02   0.017  0.0022    TRAP      60       0
246          RK    1300    0.02   0.017   0.022    TRAP      60       0
             *
```



```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

247          KK   GB-5B
248          PB    2.88
249          BA   0.012
250          LS       0      84
251          UD    0.09
             *

252          KK       C
253          HC       3
             *

254          KK    GB-6
255          PB    2.87
256          BA   0.028
257          LS       0      84
258          UD   0.102
             *

259          KK       R
260          RK     600    0.01   0.017       0    TRAP      80       0
             *

261          KK      R2
262          PB    2.87
263          BA   0.036
264          LS       0      87
265          UK     100    0.02    0.08     100
266          RK     300    0.02   0.017  0.0022    TRAP      60       0
267          RK    1200    0.02   0.017   0.036    TRAP      60       0
             *

268          KK       C
269          HC       2
             *

270          KK       R
271          RK    1500    0.01   0.017       0    TRAP      80       0
             *

272          KK      R1
273          PB    2.87
274          BA   0.031
275          LS       0      87
276          UK     100    0.02    0.08     100
277          RK     300    0.02   0.017  0.0022    TRAP      60       0
278          RK    1300    0.01   0.017   0.031    TRAP      60       0
```

```
                *
          279   KK       C
          280   HC       2
                *
1                                        HEC-1 INPUT                                        PAGE  9

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          281   KK       C
          282   HC       2
                *
          283   KK    GB-14
          284   PB     2.88
          285   BA    0.012
          286   LS        0      84
          287   UD     0.05
                *
          288   KK       F
          289   PB     2.86
          290   BA    0.005
          291   LS        0      95
          292   UK      100    0.02    0.05     100
          293   RK      300    0.02   0.017  0.0022    TRAP      60        0
                *
          294   KK      CF
          295   HC       4
                *
          296   KK     CCF
          297   HC       2
                *
          298   KK      RF
          299   RK     6000    .015   0.035       0    TRAP      60        2
                *
          300   KK     5-7
          301   BA   .00891
          302   PB    3.15
          303   LS        0      91
          304   UD    .104
                *
          305   KK      R1
          306   RM       1    .136      .2
                *
          307   KK     5-6
          308   BA   .03656
          309   PB    3.15
          310   LS        0      91
          311   UD    .160
                *
1                                        HEC-1 INPUT                                        PAGE 10

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          312   KK      C1
          313   HC       2
                *
          314   KK      R2
          315   RM       1    .091      .2
                *
          316   KK     5-5
          317   BA   .05016
          318   PB    3.07
          319   LS        0      84
          320   UD    .117
                *
          321   KK     5-8
          322   BA   .03969
          323   PB    3.07
          324   LS        0      91
          325   UD    .111
                *
          326   KK      C2
          327   HC       3
                *
          328   KK      R3
          329   RM       2    .174      .2
                *
          330   KK     5-4
          331   BA   .11563
          332   PB    3.07
          333   LS        0      82
          334   UD    .206
                *
          335   KK      C3
          336   HC       2
                *
          337   KK      R4
          338   RD     800    .025    .013       0    CIRC     5.5
                *
          339   KK     5-2
          340   BA   .02859
          341   PB    3.07
          342   LS        0      88
          343   UD    .074
                *
1                                        HEC-1 INPUT                                        PAGE 11

     LINE       ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
```

```
  344          KK       C4
  345          HC        2
               *

  346          KK      5-3
  347          BA   .06078
  348          PB     3.07
  349          LS        0       88
  350          UD     .182
               *

  351          KK       R5
  352          RD      900     .117     .016        0    TRAP        0       50
               *

  353          KK      5-1
  354          BA   .01609
  355          PB     3.07
  356          LS        0       87
  357          UD     .140
               *

  358          KK       C5
  359          HC        3
               *

  360          KK        R
  361          RK     3100     0.02    0.025        0    TRAP       15        8
               *

  362          KK    GC-5A
  363          PB     2.90
  364          BA    0.050
  365          LS        0       84
  366          UD    0.128
               *

  367          KK       N1
  368          PB     2.90
  369          BA    0.046
  370          LS        0       85
  371          UK      200     0.02      0.1      100
  372          RK      300    0.035    0.017   0.0022    TRAP       60        0
  373          RK     2200    0.025    0.017    0.046    TRAP       60        0
               *

  374          KK        R
  375          RK     1500     0.02    0.013        0    CIRC        2        0
               *
1                                        HEC-1 INPUT                                        PAGE 12

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  376          KK        C
  377          HC        3
               *

  378          KK    GC-5B
  379          PB     2.88
  380          BA     0.02
  381          LS        0       95
  382          UD     0.09
               *

  383          KK        R
  384          RK      200     0.01    0.017        0    TRAP       80        0
               *

  385          KK        C
  386          HC        2
               *

  387          KK    GC-4A
  388          PB      2.9
  389          BA    0.027
  390          LS        0       84
  391          UD    0.109
               *

  392          KK        R
  393          RK      800    0.004     0.03        0    TRAP       20        4
               *

  394          KK        R
  395          RK      400     0.01    0.017        0    TRAP       80        0
               *

  396          KK    GC-4B
  397          PB     2.88
  398          BA    0.056
  399          LS        0       84
  400          UD    0.123
               *

  401          KK        R
  402          RK     1300    0.015    0.017        0    TRAP       80        0
               *

  403          KK        C
  404          HC        3
               *
1                                        HEC-1 INPUT                                        PAGE 13

 LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  405          KK        0
  406          PB     2.88
  407          BA    0.015
  408          LS        0       92
  409          UK      100     0.02     0.08      100
  410          RK      200     0.05    0.017   0.0014    TRAP       60        0
  411          RK      700     0.03     0.03    0.017    TRAP       60        0
               *

  412          KK        R
```

```
413          RK     450    0.01    0.017       0    TRAP      80       0
             *

414          KK       C
415          HC       2
             *

416          KK       R
417          RK    1600   0.004     0.03       0    TRAP      20       4
             *

418          KK      H3
419          PB    2.88
420          BA   0.017
421          LS       0      87
422          UK     100    0.02    0.08     100
423          RK     200    0.05   0.017  0.0014    TRAP      60       0
424          RK     100    0.03   0.017   0.017    TRAP      60       0
             *

425          KK       R
426          RK     600   0.004    0.03       0    TRAP      20       4
             *

427          KK   GC-1A
428          PB    2.88
429          BA   0.021
430          LS       0      84
431          UD   0.101
             *

432          KK       C
433          HC       3
             *

434          KK      P2
435          PB    2.90
436          BA   0.066
437          LS       0      87
438          UK     100    0.02     0.1     100
439          RK     400    0.03   0.017  0.0029    TRAP      60       0
440          RK    3700    0.02   0.017   0.066    TRAP      60       0
             *
1                                    HEC-1 INPUT                                 PAGE 14

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

441          KK       R
442          RK     500   0.004    0.03       0    TRAP      10       4
             *

443          KK       C
444          HC       2
             *

445          KK       R
446          RK    1800   0.004    0.03       0    TRAP      15       4
             *

447          KK       Y
448          PB    2.88
449          BA   0.017
450          LS       0      92
451          UK     100    0.02    0.08     100
452          RK     200    0.02   0.017  0.0014    TRAP      60       0
453          RK    1000    0.02   0.017   0.017    TRAP      60       0
             *

454          KK      H1
455          PB    2.86
456          BA   0.054
457          LS       3      87
458          UK     100    0.02    0.10     100
459          RK     450    0.02   0.017  0.0032    TRAP      60       0
460          RK    2100    0.02   0.017   0.054    TRAP      60       0
             *

461          KK   GC-1B
462          PB    2.87
463          BA   0.023
464          LS       0      84
465          UD   0.106
             *

466          KK   GC-1C
467          PB    2.86
468          BA   0.018
469          LS       0      84
470          UD   0.096
             *

471          KK       C
472          HC       5
             *

473          KK       R
474          RK     700   0.004    0.030       0    TRAP      10       4
             *
1                                    HEC-1 INPUT                                 PAGE 15

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

475          KK  C1D1GC
476          PB    2.86
477          BA   0.025
478          LS       0    86.2
479          UD    0.05
             *

480          KK       C
481          HC       2
             *

482          KK      Q2
483          PB    2.88
484          BA   0.076
```

```
485          LS      0      92
486          UK    100   0.020    0.10     100
487          RK    400    0.02   0.017  0.0029    TRAP      60       0
488          RK   2000    0.02   0.017   0.076    TRAP      60       0
             *

489          KK       R
490          RK   1400    0.02   0.017       0    TRAP      80       0
             *

491          KK      G1
492          PB    2.86
493          BA   0.035
494          LS       0    89.5
495          UK     100    0.02    0.10     100
496          RK     400    0.02   0.017  0.0029    TRAP      60       0
497          RK    1000    0.01   0.017   0.035    TRAP      60       0
             *

498          KK      G2
499          PB    2.86
500          BA   0.018
501          LS       0    89.5
502          UK     100    0.02    0.10     100
503          RK     150    0.02   0.017  0.0011    TRAP      60       0
504          RK    1000   0.015   0.017   0.018    TRAP      60       0
             *

505          KK       C
506          HC       3
             *

507          KK       C
508          HC       2
             *
1                                    HEC-1 INPUT                                    PAGE 16

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

509          KK       R
510          RK     500   0.004   0.030       0    TRAP      15       4
             *

511          KK       E
512          PB    2.86
513          BA   0.050
514          LS       0    89.5
515          UK     100    0.02    0.10     100
516          RK     400    0.01   0.017  0.0029    TRAP      60       0
517          RK    1000   0.015   0.017   0.050    TRAP      60       0
             *

518          KK    GB-7
519          PB    2.86
520          BA   0.029
521          LS       0      84
522          UD   0.090
             *

523          KK       C
524          HC       3
             *

525          KK       R
526          RK    1000   0.015   0.015       0    TRAP      15       2
             *

527          KK       8
528          PB    2.86
529          BA   0.036
530          LS       0      92
531          UK     100    0.02    0.08     100
532          RK     400    0.01   0.017  0.0029    TRAP      60       0
533          RK     800   0.015   0.015   0.036    TRAP      15       2
             *

534          KK       C
535          HC       2
             *

536          KK   GB-10
537          PB    2.86
538          BA   0.006
539          LS       0      84
540          UD   0.079
             *

541          KK       R
542          RK     800    0.02   0.030       0    TRAP      10       4
             *
1                                    HEC-1 INPUT                                    PAGE 17

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

543          KK    GB-9
544          PB    2.86
545          BA   0.011
546          LS       0      84
547          UD   0.081
             *

548          KK       C
549          HC       2
             *

550          KK       R
551          RK     400   0.015   0.017       0    TRAP      50       0
             *

552          KK   C2+ST
553          BA   0.037
554          PB    2.86
555          LS       0      87
556          UK     100    0.01    0.08     100
557          RK     300    0.02   0.017  0.0022    TRAP      60       0
558          RK    1300   0.015   0.017  0.0406    TRAP      60       0
```

```
                *
          559   KK      ST
          560   BA   0.002
          561   LS       0      95
          562   UD    0.05
                *

          563   KK       C
          564   HC       3
                *

          565   KK       R
          566   RK     700   0.015   0.017       0    TRAP      50       0
                *

          567   KK    GB-8
          568   PB    2.86
          569   BA   0.017
          570   LS       0      84
          571   UD   0.087
                *

          572   KK   EN+ST
          573   BA   0.017
          574   PB    2.86
          575   LS       0      95
          576   UK     100    0.01    0.08     100
          577   RK     300    0.02   0.017  0.0022    TRAP      60       0
          578   RK     700   0.015   0.017  0.0172    TRAP      60       0
                *
1                                          HEC-1 INPUT                                          PAGE 18

        LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          579   KK     COM
          580   BA   0.019
          581   PB    2.86
          582   LS       0      95
          583   UK     100    0.01    0.05     100
          584   RK     300    0.02   0.017  0.0022    TRAP      60       0
          585   RK     600    0.03   0.025   0.025    TRAP      20       2
                *

          586   KK       C
          587   HC       4
                *

          588   KK       C
          589   HC       2
                *

          590   KK    RCOM
          591   RK    2300    .017   0.035       0    TRAP      40       2
                *

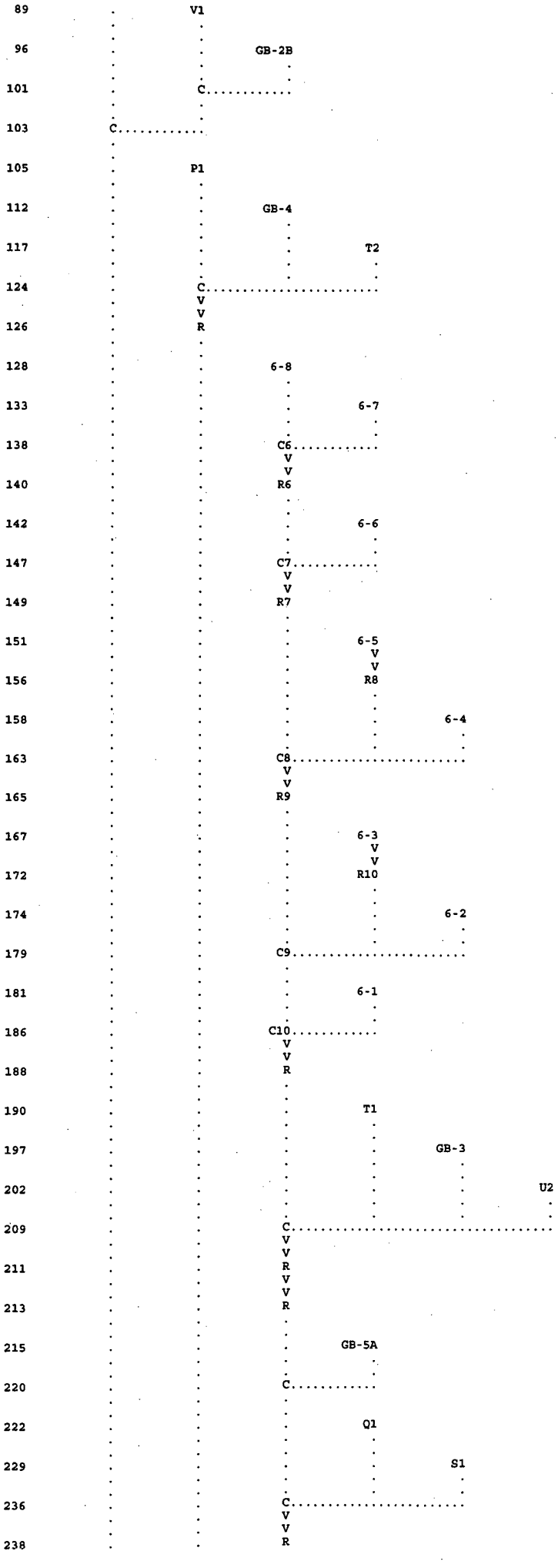
          592   KK    DSDB
          593   BA   .6092
          594   PB    2.81
          595   LS       0   86.57
          596   UD    .548
                *

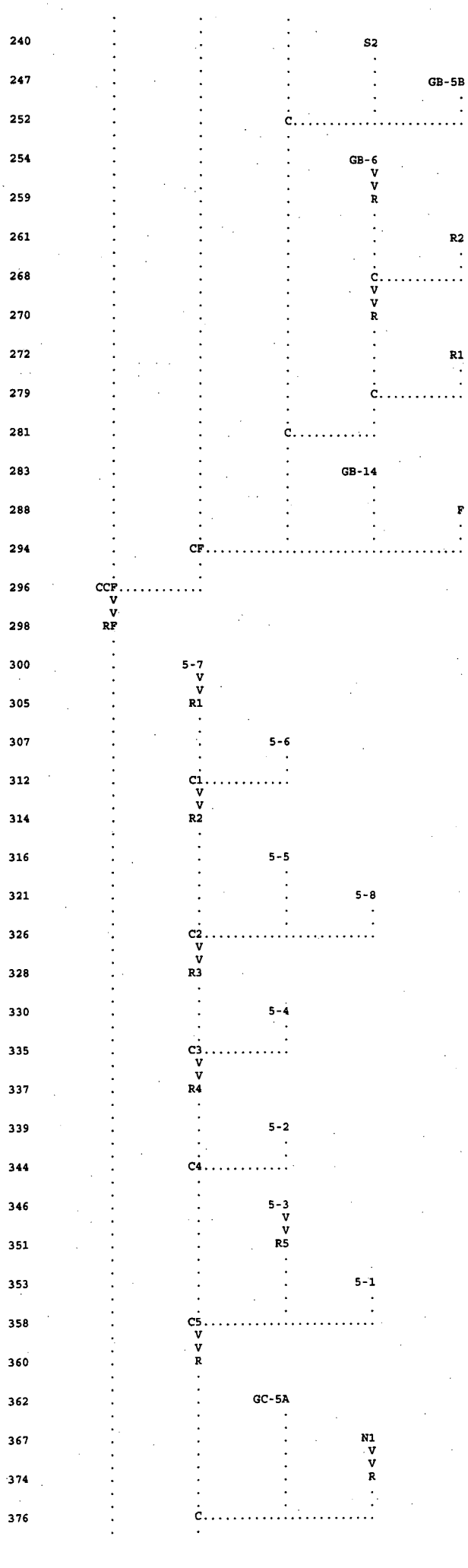
          597   KK   CDSDB
          598   KO       1
          599   HC       3
                *
          600   ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK

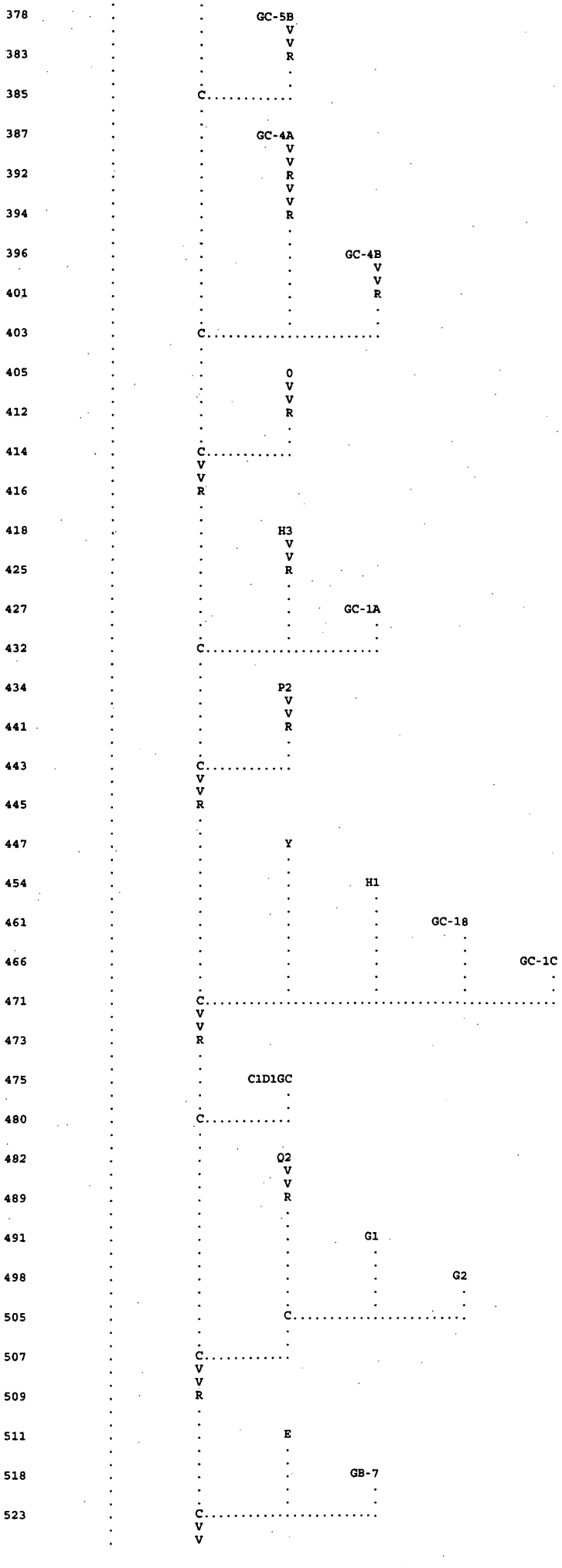
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

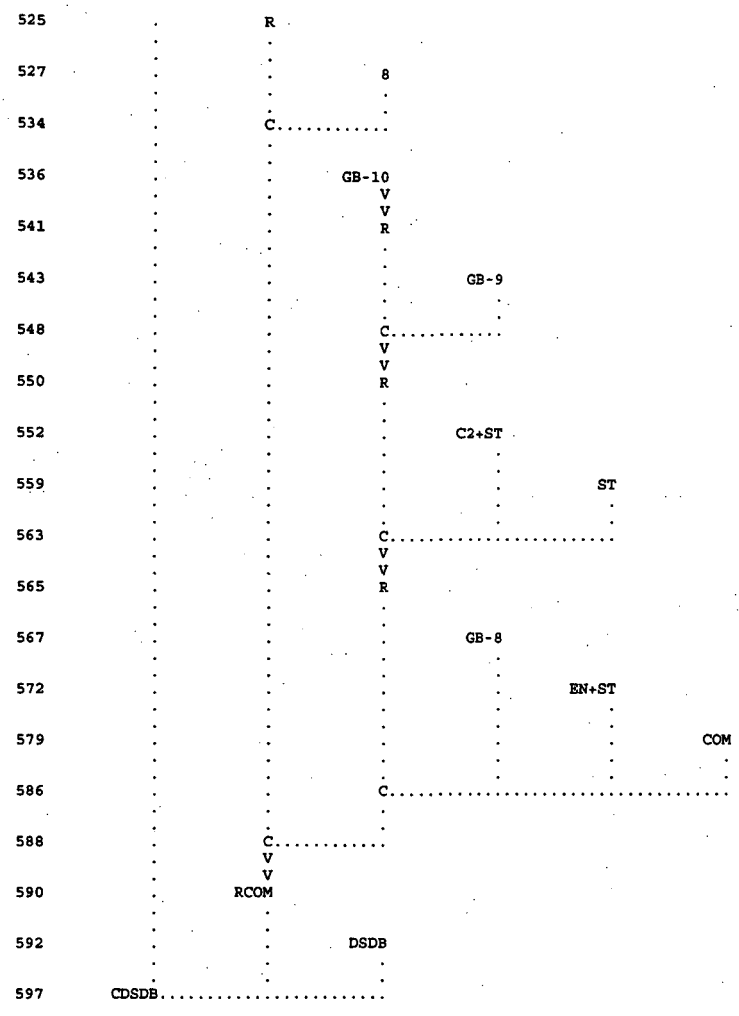
   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    27        GB-1
                .
                .
    40          .          U1
                .           V
                .           V
    47          .           R
                .           .
                .           .
    49          C............
                V
                V
    51          R
                .
                .
    53          .          W2
                .           .
                .           .
    60          C............
                .
                .
    62          .          W1
                .           .
                .           .
    69          C............
                V
                V
    71          R
                .
                .
    73          .       GB-2A
                .           .
                .           .
    78          .           .          V2
                .           .           .
                .           .           .
    85          C.......................
                V
                V
    87          R
                .
                .
```


89
V1
96
GB-2B
101
C
103
C
105
P1
112
GB-4
117
T2
124
C
V
V
126
R
128
6-8
133
6-7
138
C6
V
V
140
R6
142
6-6
147
C7
V
V
149
R7
151
6-5
V
V
156
R8
158
6-4
163
C8
V
V
165
R9
167
6-3
V
V
172
R10
174
6-2
179
C9
181
6-1
186
C10
V
V
188
R
190
T1
197
GB-3
202
U2
209
C
V
V
211
R
V
V
213
R
215
GB-5A
220
C
222
Q1
229
S1
236
C
V
V
238
R


240
S2
247
GB-5B
252
C
254
GB-6
259
R
261
R2
268
C
270
R
272
R1
279
C
281
C
283
GB-14
288
F
294
CF
296
CCF
298
RF
300
5-7
305
R1
307
5-6
312
C1
314
R2
316
5-5
321
5-8
326
C2
328
R3
330
5-4
335
C3
337
R4
339
5-2
344
C4
346
5-3
351
R5
353
5-1
358
C5
360
R
362
GC-5A
367
N1
374
R
376
C


378
GC-5B
383
385
387
GC-4A
392
394
396
GC-4B
401
403
405
0
412
414
416
418
H3
425
427
GC-1A
432
434
P2
441
443
445
447
Y
454
H1
461
GC-18
466
GC-1C
471
473
475
C1D1GC
480
482
Q2
489
491
G1
498
G2
505
507
509
511
E
518
GB-7
523



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN   1998                *
*          VERSION 4.1                  *
*                                       *
*  RUN DATE   25NOV03  TIME  13:41:31   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*   U.S. ARMY CORPS OF ENGINEERS        *
*   HYDROLOGIC ENGINEERING CENTER       *
*        609 SECOND STREET              *
*      DAVIS, CALIFORNIA 95616          *
*         (916) 756-1104                *
*                                       *
*****************************************
```

PITTMAN EAST DETENTION BASIN
PBS&J, February 2000

THIS HEC-1 MODEL WAS DEVELOPED FROM THE 1996 MASTER PLAN UPDATE (MPU), THE "SILVER CANYON DRAINAGE STUDY UPDATE" BY G.C. WALLACE, INC., DATED JULY 1993, AND THE "DEL WEBB 5000 MASTER DRAINAGE STUDY" BY G.C. WALLACE, INC., DATED APRIL 1997. THE ONSITE SUBBASINS AND DRAINAGE PATTERNS FOR THE SILVER CANYON (7-HILLS) AND DEL WEBB 5000 PORTIONS OF THE MODEL WERE NOT MODIFIED. MINOR MODIFICATIONS WERE MADE TO THE OFFSITE SUBBASINS AND MPU SUBBASINS TO CONFORM TO EXISTING DRAINAGE PATTERENS. ULTIMATE CONDITION LAND USE BASED ON THE 1996 MPU WAS USED TO CALCULATE CURVE NUMBERS. THE SUBBASIN AREAS, CURVE NUMBERS, AND RAINFALL PARAMETERS WERE CALCULATED USING GIS.

THIS MODEL IS FOR THE AREA BETWEEN THE DETENTION BASIN AND THE INTERSECTION OF LAKE MEAD DRIVE AND SEVEN HILLS DRIVE

100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR 6-HOUR STORM, SDN3
DARF RATIOS FOR AN AREA OF 2.9 SQUARE MILES FOR
THE 100-YEAR, 50-YEAR, 25-YEAR AND 10-YEAR EVENTS.

```
24 IO          OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                    NMIN           5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                      NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL      .08 HOURS
                     TOTAL TIME BASE    24.92 HOURS

       ENGLISH UNITS
            DRAINAGE AREA          SQUARE MILES
            PRECIPITATION DEPTH    INCHES
            LENGTH, ELEVATION      FEET
```

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          FLOW                    CUBIC FEET PER SECOND
          STORAGE VOLUME          ACRE-FEET
          SURFACE AREA            ACRES
          TEMPERATURE             DEGREES FAHRENHEIT

JP          MULTI-PLAN OPTION
                NPLAN             1  NUMBER OF PLANS

JR          MULTI-RATIO OPTION
              RATIOS OF PRECIPITATION
               .92       .81       .73       .56

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

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     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2

     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  1

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT

     *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2


     *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  2


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
```

597 KK CDSDB

598 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

599 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

***

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .92

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	94.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	84.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	75.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	67.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	60.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	53.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	46.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	41.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	36.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	31.	1		1315	160	0.	1		1930	235	0.
1		0050	11	1.	1		0705	86	27.	1		1320	161	0.	1		1935	236	0.
1		0055	12	2.	1		0710	87	24.	1		1325	162	0.	1		1940	237	0.
1		0100	13	3.	1		0715	88	21.	1		1330	163	0.	1		1945	238	0.
1		0105	14	3.	1		0720	89	18.	1		1335	164	0.	1		1950	239	0.
1		0110	15	3.	1		0725	90	16.	1		1340	165	0.	1		1955	240	0.
1		0115	16	3.	1		0730	91	14.	1		1345	166	0.	1		2000	241	0.
1		0120	17	3.	1		0735	92	12.	1		1350	167	0.	1		2005	242	0.
1		0125	18	4.	1		0740	93	11.	1		1355	168	0.	1		2010	243	0.
1		0130	19	6.	1		0745	94	10.	1		1400	169	0.	1		2015	244	0.
1		0135	20	8.	1		0750	95	9.	1		1405	170	0.	1		2020	245	0.
1		0140	21	12.	1		0755	96	8.	1		1410	171	0.	1		2025	246	0.
1		0145	22	18.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	24.	1		0805	98	7.	1		1420	173	0.	1		2035	248	0.
1		0155	24	28.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	32.	1		0815	100	6.	1		1430	175	0.	1		2045	250	0.
1		0205	26	37.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	42.	1		0825	102	5.	1		1440	177	0.	1		2055	252	0.
1		0215	28	49.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	58.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	69.	1		0840	105	4.	1		1455	180	0.	1		2110	255	0.
1		0230	31	80.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	89.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	97.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	108.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	125.	1		0905	110	3.	1		1520	185	0.	1		2135	260	0.
1		0255	36	139.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	150.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	159.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	175.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	214.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	342.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	668.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	1318.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	2123.	1		0950	119	2.	1		1605	194	0.	1		2220	269	0.
1		0340	45	2476.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	2400.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	2223.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	2020.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1795.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1568.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1351.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	1150.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	972.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	821.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	712.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	646.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	622.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	631.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	665.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	691.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	696.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	681.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	643.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	583.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	514.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	445.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	380.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	322.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	270.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	227.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	193.	1		1205	146	1.	1		1820	221	0.	2		0035	296	0.
1		0555	72	165.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	142.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	123.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	108.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
2476.	3.67	460.	116.	111.	111.
		(INCHES) 1.472	1.481	1.481	1.481
		(AC-FT) 228.	229.	229.	229.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS

PLAN 1, RATIO = .81

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	84.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	74.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	65.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	59.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	52.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	46.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	42.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	37.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	33.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	28.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	25.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	22.	1		1325	162	0.	1		1940	237	0.
1		0100	13	2.	1		0715	88	19.	1		1330	163	0.	1		1945	238	0.
1		0105	14	2.	1		0720	89	17.	1		1335	164	0.	1		1950	239	0.
1		0110	15	2.	1		0725	90	15.	1		1340	165	0.	1		1955	240	0.
1		0115	16	2.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	12.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	11.	1		1355	168	0.	1		2010	243	0.
1		0130	19	2.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	2.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	4.	1		0755	96	8.	1		1410	171	0.	1		2025	246	0.
1		0145	22	6.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	9.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	13.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	16.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	18.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	21.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	24.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	29.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	36.	1		0840	105	4.	1		1455	180	0.	1		2110	255	0.
1		0230	31	44.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	51.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	57.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	64.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	73.	1		0905	110	3.	1		1520	185	0.	1		2135	260	0.
1		0255	36	84.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	95.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	106.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	120.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	148.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	228.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	451.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	894.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1539.	1		0950	119	2.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1978.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1976.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1857.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1696.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1516.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1330.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1149.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	981.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	831.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	704.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	609.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	549.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	522.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	522.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	544.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	571.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	582.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	574.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	548.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	502.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	446.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	388.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	333.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	283.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	239.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	201.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	171.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	146.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	126.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	109.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	95.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)			
1978.	3.67	373.	94.	90.	90.
		(INCHES) 1.194	1.201	1.201	1.201
		(AC-FT) 185.	186.	186.	186.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .73

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	76.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	67.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	60.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	53.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	48.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	42.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	38.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	34.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	30.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	26.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	23.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	21.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	18.	1		1330	163	0.	1		1945	238	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0105	14	1.	1		0720	89	16.	1		1335	164	0.	1		1950	239	0.
1		0110	15	1.	1		0725	90	14.	1		1340	165	0.	1		1955	240	0.
1		0115	16	1.	1		0730	91	13.	1		1345	166	0.	1		2000	241	0.
1		0120	17	1.	1		0735	92	11.	1		1350	167	0.	1		2005	242	0.
1		0125	18	1.	1		0740	93	10.	1		1355	168	0.	1		2010	243	0.
1		0130	19	1.	1		0745	94	9.	1		1400	169	0.	1		2015	244	0.
1		0135	20	1.	1		0750	95	8.	1		1405	170	0.	1		2020	245	0.
1		0140	21	2.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	3.	1		0800	97	7.	1		1415	172	0.	1		2030	247	0.
1		0150	23	4.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	6.	1		0810	99	6.	1		1425	174	0.	1		2040	249	0.
1		0200	25	8.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	9.	1		0820	101	5.	1		1435	176	0.	1		2050	251	0.
1		0210	27	10.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	11.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	15.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	20.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	26.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	31.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.
1		0240	33	36.	1		0855	108	3.	1		1510	183	0.	1		2125	258	0.
1		0245	34	40.	1		0900	109	3.	1		1515	184	0.	1		2130	259	0.
1		0250	35	46.	1		0905	110	2.	1		1520	185	0.	1		2135	260	0.
1		0255	36	53.	1		0910	111	2.	1		1525	186	0.	1		2140	261	0.
1		0300	37	59.	1		0915	112	2.	1		1530	187	0.	1		2145	262	0.
1		0305	38	69.	1		0920	113	2.	1		1535	188	0.	1		2150	263	0.
1		0310	39	81.	1		0925	114	2.	1		1540	189	0.	1		2155	264	0.
1		0315	40	102.	1		0930	115	2.	1		1545	190	0.	1		2200	265	0.
1		0320	41	158.	1		0935	116	2.	1		1550	191	0.	1		2205	266	0.
1		0325	42	316.	1		0940	117	2.	1		1555	192	0.	1		2210	267	0.
1		0330	43	642.	1		0945	118	2.	1		1600	193	0.	1		2215	268	0.
1		0335	44	1143.	1		0950	119	1.	1		1605	194	0.	1		2220	269	0.
1		0340	45	1613.	1		0955	120	1.	1		1610	195	0.	1		2225	270	0.
1		0345	46	1684.	1		1000	121	1.	1		1615	196	0.	1		2230	271	0.
1		0350	47	1605.	1		1005	122	1.	1		1620	197	0.	1		2235	272	0.
1		0355	48	1473.	1		1010	123	1.	1		1625	198	0.	1		2240	273	0.
1		0400	49	1325.	1		1015	124	1.	1		1630	199	0.	1		2245	274	0.
1		0405	50	1168.	1		1020	125	1.	1		1635	200	0.	1		2250	275	0.
1		0410	51	1011.	1		1025	126	1.	1		1640	201	0.	1		2255	276	0.
1		0415	52	866.	1		1030	127	1.	1		1645	202	0.	1		2300	277	0.
1		0420	53	735.	1		1035	128	1.	1		1650	203	0.	1		2305	278	0.
1		0425	54	624.	1		1040	129	1.	1		1655	204	0.	1		2310	279	0.
1		0430	55	539.	1		1045	130	1.	1		1700	205	0.	1		2315	280	0.
1		0435	56	483.	1		1050	131	1.	1		1705	206	0.	1		2320	281	0.
1		0440	57	455.	1		1055	132	1.	1		1710	207	0.	1		2325	282	0.
1		0445	58	450.	1		1100	133	1.	1		1715	208	0.	1		2330	283	0.
1		0450	59	465.	1		1105	134	1.	1		1720	209	0.	1		2335	284	0.
1		0455	60	490.	1		1110	135	1.	1		1725	210	0.	1		2340	285	0.
1		0500	61	503.	1		1115	136	1.	1		1730	211	0.	1		2345	286	0.
1		0505	62	500.	1		1120	137	1.	1		1735	212	0.	1		2350	287	0.
1		0510	63	481.	1		1125	138	1.	1		1740	213	0.	1		2355	288	0.
1		0515	64	444.	1		1130	139	1.	1		1745	214	0.	2		0000	289	0.
1		0520	65	397.	1		1135	140	1.	1		1750	215	0.	2		0005	290	0.
1		0525	66	348.	1		1140	141	1.	1		1755	216	0.	2		0010	291	0.
1		0530	67	300.	1		1145	142	1.	1		1800	217	0.	2		0015	292	0.
1		0535	68	256.	1		1150	143	1.	1		1805	218	0.	2		0020	293	0.
1		0540	69	217.	1		1155	144	1.	1		1810	219	0.	2		0025	294	0.
1		0545	70	183.	1		1200	145	1.	1		1815	220	0.	2		0030	295	0.
1		0550	71	156.	1		1205	146	0.	1		1820	221	0.	2		0035	296	0.
1		0555	72	133.	1		1210	147	0.	1		1825	222	0.	2		0040	297	0.
1		0600	73	115.	1		1215	148	0.	1		1830	223	0.	2		0045	298	0.
1		0605	74	99.	1		1220	149	0.	1		1835	224	0.	2		0050	299	0.
1		0610	75	87.	1		1225	150	0.	1		1840	225	0.	2		0055	300	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
(CFS)	(HR)					
		(CFS)				
1684.	3.75		315.	79.	76.	76.
		(INCHES)	1.010	1.016	1.016	1.016
		(AC-FT)	156.	157.	157.	157.

CUMULATIVE AREA = 2.90 SQ MI

HYDROGRAPH AT STATION CDSDB
SUM OF 3 HYDROGRAPHS
PLAN 1, RATIO = .56

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	60.	1		1230	151	0.	1		1845	226	0.
1		0005	2	0.	1		0620	77	53.	1		1235	152	0.	1		1850	227	0.
1		0010	3	0.	1		0625	78	46.	1		1240	153	0.	1		1855	228	0.
1		0015	4	0.	1		0630	79	42.	1		1245	154	0.	1		1900	229	0.
1		0020	5	0.	1		0635	80	37.	1		1250	155	0.	1		1905	230	0.
1		0025	6	0.	1		0640	81	33.	1		1255	156	0.	1		1910	231	0.
1		0030	7	0.	1		0645	82	30.	1		1300	157	0.	1		1915	232	0.
1		0035	8	0.	1		0650	83	27.	1		1305	158	0.	1		1920	233	0.
1		0040	9	0.	1		0655	84	24.	1		1310	159	0.	1		1925	234	0.
1		0045	10	0.	1		0700	85	21.	1		1315	160	0.	1		1930	235	0.
1		0050	11	0.	1		0705	86	19.	1		1320	161	0.	1		1935	236	0.
1		0055	12	0.	1		0710	87	17.	1		1325	162	0.	1		1940	237	0.
1		0100	13	0.	1		0715	88	15.	1		1330	163	0.	1		1945	238	0.
1		0105	14	0.	1		0720	89	14.	1		1335	164	0.	1		1950	239	0.
1		0110	15	0.	1		0725	90	12.	1		1340	165	0.	1		1955	240	0.
1		0115	16	0.	1		0730	91	11.	1		1345	166	0.	1		2000	241	0.
1		0120	17	0.	1		0735	92	10.	1		1350	167	0.	1		2005	242	0.
1		0125	18	0.	1		0740	93	9.	1		1355	168	0.	1		2010	243	0.
1		0130	19	0.	1		0745	94	8.	1		1400	169	0.	1		2015	244	0.
1		0135	20	0.	1		0750	95	7.	1		1405	170	0.	1		2020	245	0.
1		0140	21	0.	1		0755	96	7.	1		1410	171	0.	1		2025	246	0.
1		0145	22	0.	1		0800	97	6.	1		1415	172	0.	1		2030	247	0.
1		0150	23	0.	1		0805	98	6.	1		1420	173	0.	1		2035	248	0.
1		0155	24	0.	1		0810	99	5.	1		1425	174	0.	1		2040	249	0.
1		0200	25	1.	1		0815	100	5.	1		1430	175	0.	1		2045	250	0.
1		0205	26	1.	1		0820	101	4.	1		1435	176	0.	1		2050	251	0.
1		0210	27	2.	1		0825	102	4.	1		1440	177	0.	1		2055	252	0.
1		0215	28	2.	1		0830	103	4.	1		1445	178	0.	1		2100	253	0.
1		0220	29	2.	1		0835	104	4.	1		1450	179	0.	1		2105	254	0.
1		0225	30	2.	1		0840	105	3.	1		1455	180	0.	1		2110	255	0.
1		0230	31	3.	1		0845	106	3.	1		1500	181	0.	1		2115	256	0.
1		0235	32	4.	1		0850	107	3.	1		1505	182	0.	1		2120	257	0.

1	0240	33	6.	*	1	0855	108	3.	*	1	1510	183	0.	*	1	2125	258	0.
1	0245	34	8.	*	1	0900	109	3.	*	1	1515	184	0.	*	1	2130	259	0.
1	0250	35	10.	*	1	0905	110	2.	*	1	1520	185	0.	*	1	2135	260	0.
1	0255	36	12.	*	1	0910	111	2.	*	1	1525	186	0.	*	1	2140	261	0.
1	0300	37	15.	*	1	0915	112	2.	*	1	1530	187	0.	*	1	2145	262	0.
1	0305	38	18.	*	1	0920	113	2.	*	1	1535	188	0.	*	1	2150	263	0.
1	0310	39	21.	*	1	0925	114	2.	*	1	1540	189	0.	*	1	2155	264	0.
1	0315	40	29.	*	1	0930	115	2.	*	1	1545	190	0.	*	1	2200	265	0.
1	0320	41	48.	*	1	0935	116	2.	*	1	1550	191	0.	*	1	2205	266	0.
1	0325	42	101.	*	1	0940	117	2.	*	1	1555	192	0.	*	1	2210	267	0.
1	0330	43	233.	*	1	0945	118	2.	*	1	1600	193	0.	*	1	2215	268	0.
1	0335	44	438.	*	1	0950	119	1.	*	1	1605	194	0.	*	1	2220	269	0.
1	0340	45	713.	*	1	0955	120	1.	*	1	1610	195	0.	*	1	2225	270	0.
1	0345	46	989.	*	1	1000	121	1.	*	1	1615	196	0.	*	1	2230	271	0.
1	0350	47	1044.	*	1	1005	122	1.	*	1	1620	197	0.	*	1	2235	272	0.
1	0355	48	991.	*	1	1010	123	1.	*	1	1625	198	0.	*	1	2240	273	0.
1	0400	49	908.	*	1	1015	124	1.	*	1	1630	199	0.	*	1	2245	274	0.
1	0405	50	813.	*	1	1020	125	1.	*	1	1635	200	0.	*	1	2250	275	0.
1	0410	51	711.	*	1	1025	126	1.	*	1	1640	201	0.	*	1	2255	276	0.
1	0415	52	614.	*	1	1030	127	1.	*	1	1645	202	0.	*	1	2300	277	0.
1	0420	53	525.	*	1	1035	128	1.	*	1	1650	203	0.	*	1	2305	278	0.
1	0425	54	448.	*	1	1040	129	1.	*	1	1655	204	0.	*	1	2310	279	0.
1	0430	55	387.	*	1	1045	130	1.	*	1	1700	205	0.	*	1	2315	280	0.
1	0435	56	344.	*	1	1050	131	1.	*	1	1705	206	0.	*	1	2320	281	0.
1	0440	57	317.	*	1	1055	132	1.	*	1	1710	207	0.	*	1	2325	282	0.
1	0445	58	305.	*	1	1100	133	1.	*	1	1715	208	0.	*	1	2330	283	0.
1	0450	59	306.	*	1	1105	134	1.	*	1	1720	209	0.	*	1	2335	284	0.
1	0455	60	320.	*	1	1110	135	1.	*	1	1725	210	0.	*	1	2340	285	0.
1	0500	61	334.	*	1	1115	136	1.	*	1	1730	211	0.	*	1	2345	286	0.
1	0505	62	339.	*	1	1120	137	1.	*	1	1735	212	0.	*	1	2350	287	0.
1	0510	63	334.	*	1	1125	138	1.	*	1	1740	213	0.	*	1	2355	288	0.
1	0515	64	316.	*	1	1130	139	1.	*	1	1745	214	0.	*	2	0000	289	0.
1	0520	65	289.	*	1	1135	140	1.	*	1	1750	215	0.	*	2	0005	290	0.
1	0525	66	257.	*	1	1140	141	1.	*	1	1755	216	0.	*	2	0010	291	0.
1	0530	67	226.	*	1	1145	142	1.	*	1	1800	217	0.	*	2	0015	292	0.
1	0535	68	195.	*	1	1150	143	1.	*	1	1805	218	0.	*	2	0020	293	0.
1	0540	69	167.	*	1	1155	144	1.	*	1	1810	219	0.	*	2	0025	294	0.
1	0545	70	142.	*	1	1200	145	0.	*	1	1815	220	0.	*	2	0030	295	0.
1	0550	71	122.	*	1	1205	146	0.	*	1	1820	221	0.	*	2	0035	296	0.
1	0555	72	104.	*	1	1210	147	0.	*	1	1825	222	0.	*	2	0040	297	0.
1	0600	73	90.	*	1	1215	148	0.	*	1	1830	223	0.	*	2	0045	298	0.
1	0605	74	78.	*	1	1220	149	0.	*	1	1835	224	0.	*	2	0050	299	0.
1	0610	75	68.	*	1	1225	150	0.	*	1	1840	225	0.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1044.	3.83		198.	50.	48.	48.
		(INCHES)	.635	.639	.639	.639
		(AC-FT)	98.	99.	99.	99.

CUMULATIVE AREA = 2.90 SQ MI

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1 .92	RATIO 2 .81	RATIO 3 .73	RATIO 4 .56
HYDROGRAPH AT								
+	GB-1	.01	1	FLOW	12.	9.	8.	5.
				TIME	3.50	3.50	3.50	3.50
HYDROGRAPH AT								
+	U1	.03	1	FLOW	47.	37.	30.	19.
				TIME	3.50	3.50	3.50	3.58
ROUTED TO								
+	R	.03	1	FLOW	43.	34.	30.	18.
				TIME	3.50	3.58	3.58	3.58
2 COMBINED AT								
+	C	.04	1	FLOW	55.	43.	36.	22.
				TIME	3.50	3.50	3.58	3.58
ROUTED TO								
+	R	.04	1	FLOW	52.	42.	36.	21.
				TIME	3.50	3.58	3.58	3.58
HYDROGRAPH AT								
+	W2	.01	1	FLOW	20.	16.	13.	8.
				TIME	3.50	3.50	3.50	3.58
2 COMBINED AT								
+	C	.05	1	FLOW	73.	56.	47.	29.
				TIME	3.50	3.50	3.58	3.58
HYDROGRAPH AT								
+	W1	.03	1	FLOW	49.	39.	32.	21.
				TIME	3.50	3.50	3.50	3.58
2 COMBINED AT								
+	C	.09	1	FLOW	122.	95.	79.	49.
				TIME	3.50	3.50	3.58	3.58
ROUTED TO								
+	R	.09	1	FLOW	114.	92.	78.	46.
				TIME	3.50	3.58	3.58	3.58
HYDROGRAPH AT								
+	GB-2A	.01	1	FLOW	17.	13.	11.	7.
				TIME	3.50	3.50	3.58	3.58
HYDROGRAPH AT								
+	V2	.03	1	FLOW	51.	41.	35.	23.
				TIME	3.50	3.50	3.58	3.58
3 COMBINED AT								
+	C	.13	1	FLOW	182.	145.	124.	76.
				TIME	3.50	3.58	3.58	3.58

ROUTED TO								
+	R	.13	1	FLOW	178.	143.	119.	73.
				TIME	3.58	3.58	3.58	3.67
HYDROGRAPH AT								
+	V1	.05	1	FLOW	81.	66.	57.	38.
				TIME	3.50	3.58	3.58	3.58
HYDROGRAPH AT								
+	GB-2B	.01	1	FLOW	9.	7.	6.	3.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C	.06	1	FLOW	89.	72.	62.	41.
				TIME	3.50	3.58	3.58	3.58
2 COMBINED AT								
+	C	.19	1	FLOW	263.	215.	181.	104.
				TIME	3.58	3.58	3.58	3.67
HYDROGRAPH AT								
+	P1	.09	1	FLOW	134.	107.	92.	57.
				TIME	3.50	3.58	3.58	3.58
HYDROGRAPH AT								
+	GB-4	.04	1	FLOW	39.	32.	26.	16.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	T2	.02	1	FLOW	29.	23.	20.	11.
				TIME	3.58	3.58	3.58	3.58
3 COMBINED AT								
+	C	.15	1	FLOW	199.	161.	138.	84.
				TIME	3.50	3.58	3.58	3.58
ROUTED TO								
+	R	.15	1	FLOW	196.	159.	133.	75.
				TIME	3.58	3.58	3.58	3.67
HYDROGRAPH AT								
+	6-8	.03	1	FLOW	53.	45.	40.	29.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	6-7	.01	1	FLOW	13.	11.	10.	7.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C6	.04	1	FLOW	65.	55.	48.	34.
				TIME	3.50	3.50	3.50	3.50
ROUTED TO								
+	R6	.04	1	FLOW	63.	54.	48.	34.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	6-6	.03	1	FLOW	61.	52.	46.	33.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C7	.07	1	FLOW	123.	105.	93.	67.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R7	.07	1	FLOW	106.	90.	80.	57.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	6-5	.10	1	FLOW	132.	109.	93.	61.
				TIME	3.58	3.58	3.58	3.67
ROUTED TO								
+	R8	.10	1	FLOW	129.	107.	92.	61.
				TIME	3.67	3.67	3.67	3.67
HYDROGRAPH AT								
+	6-4	.19	1	FLOW	178.	141.	117.	68.
				TIME	3.67	3.67	3.67	3.67
3 COMBINED AT								
+	C8	.37	1	FLOW	407.	333.	284.	182.
				TIME	3.67	3.67	3.67	3.67
ROUTED TO								
+	R9	.37	1	FLOW	400.	328.	280.	180.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	6-3	.02	1	FLOW	24.	20.	17.	11.
				TIME	3.50	3.50	3.50	3.58
ROUTED TO								
+	R10	.02	1	FLOW	24.	20.	17.	11.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	6-2	.05	1	FLOW	85.	70.	60.	39.
				TIME	3.50	3.50	3.50	3.50
3 COMBINED AT								
+	C9	.43	1	FLOW	452.	372.	318.	207.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	6-1	.03	1	FLOW	38.	31.	27.	17.
				TIME	3.58	3.58	3.58	3.58
2 COMBINED AT								
+	C10	.46	1	FLOW	474.	390.	334.	217.
				TIME	3.75	3.75	3.75	3.75
ROUTED TO								
+	R	.46	1	FLOW	472.	388.	331.	213.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								

+	T1	.04	1	FLOW	54.	43.	37.	23.
				TIME	3.50	3.50	3.58	3.58
HYDROGRAPH AT								
+	GB-3	.02	1	FLOW	20.	16.	13.	8.
				TIME	3.50	3.50	3.50	3.50
HYDROGRAPH AT								
+	U2	.02	1	FLOW	33.	26.	22.	14.
				TIME	3.50	3.50	3.58	3.58
4 COMBINED AT								
+	C	.54	1	FLOW	521.	429.	368.	239.
				TIME	3.75	3.75	3.75	3.75
ROUTED TO								
+	R	.54	1	FLOW	520.	428.	366.	237.
				TIME	3.75	3.75	3.75	3.75
ROUTED TO								
+	R	.54	1	FLOW	519.	426.	364.	233.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	GB-5A	.03	1	FLOW	39.	31.	26.	15.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C	.57	1	FLOW	538.	442.	377.	242.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	Q1	.02	1	FLOW	34.	27.	22.	14.
				TIME	3.50	3.50	3.50	3.58
HYDROGRAPH AT								
+	S1	.05	1	FLOW	68.	53.	45.	29.
				TIME	3.50	3.50	3.58	3.58
3 COMBINED AT								
+	C	.64	1	FLOW	585.	479.	410.	266.
				TIME	3.67	3.75	3.75	3.75
ROUTED TO								
+	R	.64	1	FLOW	583.	479.	409.	262.
				TIME	3.75	3.75	3.75	3.83
HYDROGRAPH AT								
+	S2	.02	1	FLOW	31.	25.	21.	13.
				TIME	3.50	3.58	3.58	3.58
HYDROGRAPH AT								
+	GB-5B	.01	1	FLOW	14.	11.	9.	6.
				TIME	3.50	3.50	3.50	3.50
3 COMBINED AT								
+	C	.68	1	FLOW	609.	497.	425.	272.
				TIME	3.67	3.75	3.75	3.75
HYDROGRAPH AT								
+	GB-6	.03	1	FLOW	31.	25.	21.	12.
				TIME	3.50	3.50	3.58	3.58
ROUTED TO								
+	R	.03	1	FLOW	31.	25.	21.	12.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	R2	.04	1	FLOW	53.	41.	34.	22.
				TIME	3.50	3.50	3.50	3.58
2 COMBINED AT								
+	C	.06	1	FLOW	81.	64.	54.	34.
				TIME	3.50	3.50	3.58	3.58
ROUTED TO								
+	R	.06	1	FLOW	79.	64.	53.	32.
				TIME	3.58	3.58	3.58	3.67
HYDROGRAPH AT								
+	R1	.03	1	FLOW	44.	35.	30.	18.
				TIME	3.50	3.58	3.58	3.58
2 COMBINED AT								
+	C	.09	1	FLOW	120.	98.	83.	48.
				TIME	3.58	3.58	3.58	3.58
2 COMBINED AT								
+	C	.77	1	FLOW	701.	576.	489.	309.
				TIME	3.67	3.67	3.67	3.75
HYDROGRAPH AT								
+	GB-14	.01	1	FLOW	17.	14.	12.	7.
				TIME	3.50	3.50	3.50	3.50
HYDROGRAPH AT								
+	F	.00	1	FLOW	11.	10.	8.	6.
				TIME	3.50	3.50	3.50	3.50
4 COMBINED AT								
+	CF	.94	1	FLOW	909.	727.	611.	384.
				TIME	3.58	3.58	3.67	3.67
2 COMBINED AT								
+	CCF	1.13	1	FLOW	1172.	941.	785.	488.
				TIME	3.58	3.58	3.58	3.67
ROUTED TO								
+	RF	1.13	1	FLOW	1148.	912.	767.	470.
				TIME	3.67	3.67	3.75	3.83
HYDROGRAPH AT								
+	5-7	.01	1	FLOW	15.	13.	11.	8.
				TIME	3.50	3.50	3.50	3.50
ROUTED TO								
+	R1	.01	1	FLOW	13.	11.	10.	7.
				TIME	3.67	3.67	3.67	3.67

HYDROGRAPH AT								
+	5-6	.04	1	FLOW	58.	49.	42.	29.
				TIME	3.58	3.58	3.58	3.58
2 COMBINED AT								
+	C1	.05	1	FLOW	71.	59.	52.	35.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R2	.05	1	FLOW	66.	55.	48.	33.
				TIME	3.67	3.67	3.67	3.67
HYDROGRAPH AT								
+	5-5	.05	1	FLOW	62.	50.	42.	25.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	5-8	.04	1	FLOW	64.	54.	47.	32.
				TIME	3.50	3.50	3.58	3.58
3 COMBINED AT								
+	C2	.14	1	FLOW	183.	151.	130.	86.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R3	.14	1	FLOW	162.	134.	115.	76.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	5-4	.12	1	FLOW	109.	86.	71.	41.
				TIME	3.67	3.67	3.67	3.67
2 COMBINED AT								
+	C3	.25	1	FLOW	259.	211.	179.	113.
				TIME	3.67	3.75	3.75	3.75
ROUTED TO								
+	R4	.25	1	FLOW	259.	211.	179.	113.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	5-2	.03	1	FLOW	48.	39.	34.	22.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C4	.28	1	FLOW	280.	227.	193.	123.
				TIME	3.67	3.75	3.75	3.75
HYDROGRAPH AT								
+	5-3	.06	1	FLOW	79.	65.	56.	36.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R5	.06	1	FLOW	76.	62.	53.	35.
				TIME	3.58	3.67	3.67	3.67
HYDROGRAPH AT								
+	5-1	.02	1	FLOW	22.	18.	15.	10.
				TIME	3.58	3.58	3.58	3.58
3 COMBINED AT								
+	C5	.36	1	FLOW	374.	304.	257.	162.
				TIME	3.67	3.67	3.67	3.67
ROUTED TO								
+	R	.36	1	FLOW	366.	299.	255.	161.
				TIME	3.75	3.75	3.75	3.75
HYDROGRAPH AT								
+	GC-5A	.05	1	FLOW	56.	45.	37.	22.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	N1	.05	1	FLOW	57.	44.	35.	18.
				TIME	3.58	3.58	3.58	3.67
ROUTED TO								
+	R	.05	1	FLOW	55.	42.	33.	18.
				TIME	3.58	3.58	3.67	3.75
3 COMBINED AT								
+	C	.45	1	FLOW	452.	366.	308.	193.
				TIME	3.67	3.67	3.67	3.75
HYDROGRAPH AT								
+	GC-5B	.02	1	FLOW	37.	31.	28.	20.
				TIME	3.50	3.50	3.50	3.50
ROUTED TO								
+	R	.02	1	FLOW	36.	31.	27.	20.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C	.47	1	FLOW	474.	385.	325.	203.
				TIME	3.67	3.67	3.67	3.75
HYDROGRAPH AT								
+	GC-4A	.03	1	FLOW	30.	24.	20.	12.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R	.03	1	FLOW	30.	24.	20.	12.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R	.03	1	FLOW	29.	23.	19.	12.
				TIME	3.58	3.58	3.67	3.67
HYDROGRAPH AT								
+	GC-4B	.06	1	FLOW	62.	50.	41.	25.
				TIME	3.58	3.58	3.58	3.58
ROUTED TO								
+	R	.06	1	FLOW	60.	47.	39.	23.
				TIME	3.58	3.58	3.58	3.67
3 COMBINED AT								

+	C	.56	1	FLOW	557.	452.	382.	233.
				TIME	3.67	3.67	3.67	3.67
HYDROGRAPH AT								
+	0	.01	1	FLOW	28.	23.	20.	13.
				TIME	3.50	3.50	3.50	3.50
ROUTED TO								
+	R	.01	1	FLOW	27.	22.	19.	12.
				TIME	3.50	3.50	3.50	3.58
2 COMBINED AT								
+	C	.57	1	FLOW	571.	465.	394.	242.
				TIME	3.67	3.67	3.67	3.67
ROUTED TO								
+	R	.57	1	FLOW	568.	458.	383.	241.
				TIME	3.67	3.67	3.75	3.75
HYDROGRAPH AT								
+	H3	.02	1	FLOW	28.	23.	19.	11.
				TIME	3.50	3.50	3.50	3.50
ROUTED TO								
+	R	.02	1	FLOW	25.	20.	16.	10.
				TIME	3.50	3.50	3.50	3.58
HYDROGRAPH AT								
+	GC-1A	.02	1	FLOW	24.	19.	16.	9.
				TIME	3.50	3.50	3.50	3.58
3 COMBINED AT								
+	C	.61	1	FLOW	598.	483.	405.	252.
				TIME	3.67	3.67	3.67	3.75
HYDROGRAPH AT								
+	P2	.07	1	FLOW	90.	72.	60.	32.
				TIME	3.58	3.58	3.58	3.67
ROUTED TO								
+	R	.07	1	FLOW	87.	68.	54.	30.
				TIME	3.58	3.58	3.58	3.67
2 COMBINED AT								
+	C	.67	1	FLOW	671.	545.	459.	281.
				TIME	3.67	3.67	3.67	3.75
ROUTED TO								
+	R	.67	1	FLOW	655.	532.	452.	275.
				TIME	3.67	3.75	3.75	3.83
HYDROGRAPH AT								
+	Y	.02	1	FLOW	31.	26.	22.	14.
				TIME	3.50	3.50	3.50	3.50
HYDROGRAPH AT								
+	H1	.05	1	FLOW	74.	61.	51.	29.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	GC-1B	.02	1	FLOW	25.	20.	17.	10.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	GC-1C	.02	1	FLOW	21.	16.	14.	8.
				TIME	3.50	3.50	3.50	3.50
5 COMBINED AT								
+	C	.79	1	FLOW	750.	602.	506.	312.
				TIME	3.67	3.67	3.75	3.75
ROUTED TO								
+	R	.79	1	FLOW	740.	596.	505.	306.
				TIME	3.67	3.75	3.75	3.83
HYDROGRAPH AT								
+	C1D1GC	.03	1	FLOW	39.	32.	27.	17.
				TIME	3.50	3.50	3.50	3.50
2 COMBINED AT								
+	C	.81	1	FLOW	756.	607.	514.	310.
				TIME	3.67	3.75	3.75	3.75
HYDROGRAPH AT								
+	Q2	.08	1	FLOW	132.	108.	92.	65.
				TIME	3.50	3.50	3.58	3.58
ROUTED TO								
+	R	.08	1	FLOW	124.	105.	92.	62.
				TIME	3.58	3.58	3.58	3.58
HYDROGRAPH AT								
+	G1	.04	1	FLOW	55.	44.	37.	25.
				TIME	3.50	3.50	3.58	3.58
HYDROGRAPH AT								
+	G2	.02	1	FLOW	29.	23.	20.	13.
				TIME	3.50	3.50	3.50	3.58
3 COMBINED AT								
+	C	.13	1	FLOW	205.	169.	148.	100.
				TIME	3.50	3.58	3.58	3.58
2 COMBINED AT								
+	C	.94	1	FLOW	893.	724.	606.	372.
				TIME	3.67	3.67	3.67	3.75
ROUTED TO								
+	R	.94	1	FLOW	891.	718.	598.	368.
				TIME	3.67	3.67	3.67	3.75
HYDROGRAPH AT								
+	E	.05	1	FLOW	79.	63.	53.	36.
				TIME	3.50	3.50	3.58	3.58
HYDROGRAPH AT								
+	GB-7	.03	1	FLOW	34.	27.	23.	13.
				TIME	3.50	3.50	3.50	3.50

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  3 COMBINED AT
+                    C       1.02     1   FLOW        955.     773.     647.     395.
                                          TIME       3.67     3.67     3.67     3.75

 ROUTED TO
+                    R       1.02     1   FLOW        955.     771.     643.     393.
                                          TIME       3.67     3.67     3.67     3.75

 HYDROGRAPH AT
+                    8        .04     1   FLOW         66.      55.      47.      31.
                                          TIME       3.50     3.50     3.50     3.50

  2 COMBINED AT
+                    C       1.06     1   FLOW        987.     797.     667.     407.
                                          TIME       3.58     3.67     3.67     3.75

 HYDROGRAPH AT
+                GB-10        .01     1   FLOW          7.       6.       5.       3.
                                          TIME       3.50     3.50     3.50     3.50

 ROUTED TO
+                    R        .01     1   FLOW          7.       5.       5.       3.
                                          TIME       3.58     3.58     3.58     3.58

 HYDROGRAPH AT
+                 GB-9        .01     1   FLOW         13.      11.       9.       5.
                                          TIME       3.50     3.50     3.50     3.50

  2 COMBINED AT
+                    C        .02     1   FLOW         20.      16.      13.       8.
                                          TIME       3.50     3.50     3.50     3.50

 ROUTED TO
+                    R        .02     1   FLOW         19.      15.      12.       7.
                                          TIME       3.50     3.58     3.58     3.58

 HYDROGRAPH AT
+               C2+ST        .04     1   FLOW         50.      41.      35.      21.
                                          TIME       3.50     3.58     3.58     3.58

 HYDROGRAPH AT
+                   ST        .00     1   FLOW          4.       4.       3.       2.
                                          TIME       3.50     3.50     3.50     3.50

  3 COMBINED AT
+                    C        .06     1   FLOW         73.      58.      49.      30.
                                          TIME       3.50     3.50     3.58     3.58

 ROUTED TO
+                    R        .06     1   FLOW         70.      58.      49.      28.
                                          TIME       3.58     3.58     3.58     3.58

 HYDROGRAPH AT
+                 GB-8        .02     1   FLOW         20.      16.      13.       8.
                                          TIME       3.50     3.50     3.50     3.50

 HYDROGRAPH AT
+               EN+ST        .02     1   FLOW         33.      28.      25.      17.
                                          TIME       3.50     3.50     3.50     3.50

 HYDROGRAPH AT
+                 COM        .02     1   FLOW         40.      34.      30.      21.
                                          TIME       3.50     3.50     3.50     3.50

  4 COMBINED AT
+                    C        .11     1   FLOW        163.     131.     110.      68.
                                          TIME       3.50     3.50     3.50     3.58

  2 COMBINED AT
+                    C       1.16     1   FLOW       1127.     890.     739.     448.
                                          TIME       3.58     3.58     3.67     3.75

 ROUTED TO
+                 RCOM       1.16     1   FLOW       1096.     883.     734.     441.
                                          TIME       3.67     3.67     3.67     3.75

 HYDROGRAPH AT
+                 DSDB        .61     1   FLOW        386.     312.     262.     161.
                                          TIME       4.00     4.00     4.00     4.00

  3 COMBINED AT
+                CDSDB       2.90     1   FLOW       2476.    1978.    1684.    1044.
                                          TIME       3.67     3.67     3.75     3.83
1
                                 SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                     (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                    INTERPOLATED TO
                                                                    COMPUTATION INTERVAL
          ISTAQ    ELEMENT      DT        PEAK     TIME TO        VOLUME      DT        PEAK     TIME TO        VOLUME
                                                     PEAK                                          PEAK

                                (MIN)      (CFS)      (MIN)        (IN)     (MIN)      (CFS)      (MIN)        (IN)

          FOR PLAN = 1  RATIO=  .92
               U1  MANE          .93      56.88     211.47        1.65      5.00      53.30     210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2731E+01 OUTFLOW= .2731E+01 BASIN STORAGE= .1568E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               U1  MANE          .94      49.71     211.87        1.46      5.00      46.69     210.00        1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2406E+01 OUTFLOW= .2406E+01 BASIN STORAGE= .1430E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               U1  MANE         1.04      40.15     212.34        1.18      5.00      36.75     210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1945E+01 OUTFLOW= .1944E+01 BASIN STORAGE= .1450E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               U1  MANE         1.09      33.41     211.93         .99      5.00      30.23     210.00         .99
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1642E+01 OUTFLOW= .1642E+01 BASIN STORAGE= .1359E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

U1	MANE	1.27	19.95	214.02	.62	5.00	19.29	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1026E+01 OUTFLOW= .1025E+01 BASIN STORAGE= .1417E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	.71	46.09	211.76	1.46	5.00	43.32	210.00	1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2406E+01 EXCESS= .0000E+00 OUTFLOW= .2409E+01 BASIN STORAGE= .1003E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.87	36.57	211.73	1.17	5.00	34.42	215.00	1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1941E+01 EXCESS= .0000E+00 OUTFLOW= .1942E+01 BASIN STORAGE= .1044E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.94	30.13	212.17	.99	5.00	29.64	215.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1641E+01 EXCESS= .0000E+00 OUTFLOW= .1641E+01 BASIN STORAGE= .9997E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.97	19.22	216.99	.62	5.00	18.21	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1024E+01 EXCESS= .0000E+00 OUTFLOW= .1024E+01 BASIN STORAGE= .9679E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.41	54.82	210.97	1.41	5.00	52.33	210.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3015E+01 EXCESS= .0000E+00 OUTFLOW= .3017E+01 BASIN STORAGE= .7523E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.60	42.70	211.56	1.14	5.00	42.03	215.00	1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2422E+01 EXCESS= .0000E+00 OUTFLOW= .2424E+01 BASIN STORAGE= .7187E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.56	35.75	215.24	.96	5.00	35.69	215.00	.96

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2040E+01 EXCESS= .0000E+00 OUTFLOW= .2041E+01 BASIN STORAGE= .7468E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.62	21.88	216.37	.59	5.00	20.99	215.00	.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1258E+01 EXCESS= .0000E+00 OUTFLOW= .1259E+01 BASIN STORAGE= .7389E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

W2	MANE	.65	24.30	211.57	1.65	5.00	23.16	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1145E+01 OUTFLOW= .1146E+01 BASIN STORAGE= .4992E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

W2	MANE	.59	21.18	211.65	1.46	5.00	20.31	210.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1009E+01 OUTFLOW= .1009E+01 BASIN STORAGE= .5141E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

W2	MANE	.73	17.20	211.78	1.18	5.00	16.07	210.00	1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8155E+00 OUTFLOW= .8154E+00 BASIN STORAGE= .4868E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

W2	MANE	.75	14.38	212.27	.99	5.00	13.40	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6887E+00 OUTFLOW= .6890E+00 BASIN STORAGE= .5048E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

W2	MANE	.80	8.67	212.97	.62	5.00	7.93	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4304E+00 OUTFLOW= .4302E+00 BASIN STORAGE= .4741E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

W1	MANE	.73	59.89	211.50	1.65	5.00	56.27	210.00	1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2907E+01 OUTFLOW= .2908E+01 BASIN STORAGE= .1737E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

W1	MANE	.66	52.68	211.76	1.46	5.00	49.32	210.00	1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2561E+01 OUTFLOW= .2563E+01 BASIN STORAGE= .1825E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

W1	MANE	.76	42.32	212.37	1.18	5.00	39.00	210.00	1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2070E+01 OUTFLOW= .2071E+01 BASIN STORAGE= .1709E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

W1	MANE	.87	35.43	212.16	.99	5.00	32.08	210.00	.99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1748E+01 OUTFLOW= .1747E+01 BASIN STORAGE= .1679E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

W1	MANE	.93	21.17	213.14	.62	5.00	20.55	215.00	.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1092E+01 OUTFLOW= .1092E+01 BASIN STORAGE= .1765E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	.70	120.59	211.24	1.44	5.00	114.05	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6595E+01 EXCESS= .0000E+00 OUTFLOW= .6599E+01 BASIN STORAGE= .2257E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.64	94.95	211.48	1.16	5.00	91.91	215.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5313E+01 EXCESS= .0000E+00 OUTFLOW= .5318E+01 BASIN STORAGE= .2253E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.73	78.45	215.61	.98	5.00	78.36	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4482E+01 EXCESS= .0000E+00 OUTFLOW= .4485E+01 BASIN STORAGE= .2353E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.80	49.05	216.74	.61	5.00	46.31	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2784E+01 EXCESS= .0000E+00 OUTFLOW= .2784E+01 BASIN STORAGE= .2324E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

V2	MANE	1.30	61.15	211.33	1.84	5.00	57.60	210.00	1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3143E+01 OUTFLOW= .3141E+01 BASIN STORAGE= .2502E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

V2	MANE	1.32	54.68	212.20	1.64	5.00	50.70	210.00	1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2792E+01 OUTFLOW= .2793E+01 BASIN STORAGE= .2433E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

V2	MANE	1.47	44.75	212.82	1.34	5.00	40.91	210.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2291E+01 OUTFLOW= .2291E+01 BASIN STORAGE= .2173E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

V2	MANE	1.50	37.94	212.78	1.15	5.00	34.84	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1960E+01 OUTFLOW= .1958E+01 BASIN STORAGE= .2157E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

V2	MANE	1.78	23.80	213.56	.75	5.00	23.33	215.00	.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1274E+01 OUTFLOW= .1274E+01 BASIN STORAGE= .2188E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	1.46	180.79	213.20	1.47	5.00	178.32	215.00	1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1040E+02 EXCESS= .0000E+00 OUTFLOW= .1041E+02 BASIN STORAGE= .1853E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.51	143.80	216.85	1.18	5.00	143.15	215.00	1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8396E+01 EXCESS= .0000E+00 OUTFLOW= .8402E+01 BASIN STORAGE= .1817E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.60	122.63	218.18	1.00	5.00	118.68	215.00	1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7100E+01 EXCESS= .0000E+00 OUTFLOW= .7104E+01 BASIN STORAGE= .1795E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	1.70	76.19	218.41	.63	5.00	72.65	220.00	.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4445E+01 EXCESS= .0000E+00 OUTFLOW= .4456E+01 BASIN STORAGE= .1822E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

V1	MANE	1.07	98.83	212.36	1.83	5.00	91.57	210.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5082E+01 OUTFLOW= .5082E+01 BASIN STORAGE= .4279E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

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          V1  MANE          1.13     87.50    212.05      1.63      5.00     80.52    210.00         1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4515E+01 OUTFLOW= .4514E+01 BASIN STORAGE= .3977E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .81
          V1  MANE          1.35     71.51    213.13      1.33      5.00     65.88    215.00         1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3704E+01 OUTFLOW= .3702E+01 BASIN STORAGE= .4669E-03 PERCENT ERROR=     .1

     FOR PLAN = 1  RATIO=  .73
          V1  MANE          1.29     60.71    212.65      1.14      5.00     57.41    215.00         1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3168E+01 OUTFLOW= .3165E+01 BASIN STORAGE= .4554E-03 PERCENT ERROR=     .1

     FOR PLAN = 1  RATIO=  .56
          V1  MANE          1.66     37.94    214.91       .74      5.00     37.85    215.00          .74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2058E+01 OUTFLOW= .2055E+01 BASIN STORAGE= .4413E-03 PERCENT ERROR=     .1

     FOR PLAN = 1  RATIO=  .92
          P1  MANE          1.20    165.90    212.62      1.65      5.00    154.01    210.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8282E+01 OUTFLOW= .8282E+01 BASIN STORAGE= .5843E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .92
          P1  MANE          1.23    145.54    212.74      1.45      5.00    133.78    210.00         1.46

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7295E+01 OUTFLOW= .7294E+01 BASIN STORAGE= .5981E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .81
          P1  MANE          1.38    117.34    213.00      1.18      5.00    106.56    215.00         1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5897E+01 OUTFLOW= .5893E+01 BASIN STORAGE= .6514E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .73
          P1  MANE          1.44     98.03    213.06       .99      5.00     92.25    215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4980E+01 OUTFLOW= .4979E+01 BASIN STORAGE= .6443E-03 PERCENT ERROR=     .0

     FOR PLAN = 1  RATIO=  .56
          P1  MANE          1.77     57.62    214.19       .62      5.00     57.17    215.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3112E+01 OUTFLOW= .3103E+01 BASIN STORAGE= .5846E-03 PERCENT ERROR=     .3

     FOR PLAN = 1  RATIO=  .92
          T2  MANE          1.97     35.09    212.51      1.65      5.00     32.13    215.00         1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1850E+01 OUTFLOW= .1847E+01 BASIN STORAGE= .2174E-03 PERCENT ERROR=     .2

     FOR PLAN = 1  RATIO=  .92
          T2  MANE          2.12     30.48    212.31      1.45      5.00     28.65    215.00         1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1630E+01 OUTFLOW= .1627E+01 BASIN STORAGE= .2673E-03 PERCENT ERROR=     .2

     FOR PLAN = 1  RATIO=  .81
          T2  MANE          2.31     24.22    213.65      1.17      5.00     23.27    215.00         1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1317E+01 OUTFLOW= .1315E+01 BASIN STORAGE= .2326E-03 PERCENT ERROR=     .2

     FOR PLAN = 1  RATIO=  .73
          T2  MANE          2.49     19.95    214.72       .99      5.00     19.76    215.00          .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1112E+01 OUTFLOW= .1109E+01 BASIN STORAGE= .2039E-03 PERCENT ERROR=     .3

     FOR PLAN = 1  RATIO=  .56
          T2  MANE          3.13     11.20    217.82       .62      5.00     10.55    215.00          .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6952E+00 OUTFLOW= .6913E+00 BASIN STORAGE= .2031E-03 PERCENT ERROR=     .5

     FOR PLAN = 1  RATIO=  .92
           R  MANE           .96    198.69    212.04      1.41      5.00    196.49    215.00         1.41

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1126E+02 EXCESS= .0000E+00 OUTFLOW= .1127E+02 BASIN STORAGE= .1184E-03 PERCENT ERROR=    -.1

     FOR PLAN = 1  RATIO=  .81
           R  MANE          1.02    159.91    216.49      1.13      5.00    159.06    215.00         1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9053E+01 EXCESS= .0000E+00 OUTFLOW= .9061E+01 BASIN STORAGE= .1192E-03 PERCENT ERROR=    -.1

     FOR PLAN = 1  RATIO=  .73
           R  MANE          1.00    137.69    216.82       .95      5.00    133.45    215.00          .95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7628E+01 EXCESS= .0000E+00 OUTFLOW= .7636E+01 BASIN STORAGE= .1197E-03 PERCENT ERROR=    -.1
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          FOR PLAN = 1  RATIO=  .56
               R  MANE          1.16     81.57    217.91       .59       5.00     75.13    220.00        .59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4707E+01 EXCESS= .0000E+00 OUTFLOW= .4709E+01 BASIN STORAGE= .1173E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.26     64.63    212.46      2.15       5.00     63.33    215.00       2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4239E+01 EXCESS= .0000E+00 OUTFLOW= .4240E+01 BASIN STORAGE= .1937E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.31     55.00    212.04      1.81       5.00     53.78    215.00       1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3572E+01 EXCESS= .0000E+00 OUTFLOW= .3572E+01 BASIN STORAGE= .2018E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.35     48.50    212.10      1.58       5.00     47.55    215.00       1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3124E+01 EXCESS= .0000E+00 OUTFLOW= .3125E+01 BASIN STORAGE= .1747E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R6  MANE          1.47     34.38    212.08      1.10       5.00     33.95    215.00       1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2175E+01 EXCESS= .0000E+00 OUTFLOW= .2175E+01 BASIN STORAGE= .1795E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          1.62    131.76    216.99      1.74       5.00    129.18    220.00       1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9481E+01 EXCESS= .0000E+00 OUTFLOW= .9481E+01 BASIN STORAGE= .4954E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          1.71    109.06    217.55      1.43       5.00    107.40    220.00       1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7781E+01 EXCESS= .0000E+00 OUTFLOW= .7781E+01 BASIN STORAGE= .4415E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          1.79     93.99    218.55      1.23       5.00     92.22    220.00       1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6661E+01 EXCESS= .0000E+00 OUTFLOW= .6661E+01 BASIN STORAGE= .4397E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
              R8  MANE          2.03     61.98    218.98       .80       5.00     61.21    220.00        .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4335E+01 EXCESS= .0000E+00 OUTFLOW= .4336E+01 BASIN STORAGE= .4474E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .00
             R10  MANE          3.50     24.29    217.00      1.75       5.00     24.09    215.00       1.75

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1484E+01 EXCESS= .0000E+00 OUTFLOW= .1486E+01 BASIN STORAGE= .8031E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .00
             R10  MANE          3.75     20.14    217.50      1.43       5.00     19.94    215.00       1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1218E+01 EXCESS= .0000E+00 OUTFLOW= .1220E+01 BASIN STORAGE= .6488E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .00
             R10  MANE          4.50     17.25    216.00      1.23       5.00     16.76    215.00       1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1041E+01 EXCESS= .0000E+00 OUTFLOW= .1042E+01 BASIN STORAGE= .9991E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .00
             R10  MANE          4.25     11.46    216.75       .80       5.00     10.87    215.00        .80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6765E+00 EXCESS= .0000E+00 OUTFLOW= .6772E+00 BASIN STORAGE= .7858E-03 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .92
               R  MANE          1.00    472.65    225.41      1.61       5.00    472.31    225.00       1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3962E+02 EXCESS= .0000E+00 OUTFLOW= .3965E+02 BASIN STORAGE= .3980E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE           .98    389.51    226.92      1.31       5.00    387.72    225.00       1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3228E+02 EXCESS= .0000E+00 OUTFLOW= .3231E+02 BASIN STORAGE= .3667E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE          1.01    332.80    226.29      1.12       5.00    331.17    225.00       1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2745E+02 EXCESS= .0000E+00 OUTFLOW= .2748E+02 BASIN STORAGE= .3261E-06 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
               R  MANE          1.20    215.62    227.54       .71       5.00    212.95    225.00        .71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1757E+02 EXCESS= .0000E+00 OUTFLOW= .1758E+02 BASIN STORAGE= .4348E-06 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .92
               T1  MANE          1.15     67.75    212.16      1.65      5.00     62.82    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3348E+01 OUTFLOW= .3347E+01 BASIN STORAGE= .2691E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               T1  MANE          1.22     59.26    212.10      1.45      5.00     54.38    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2949E+01 OUTFLOW= .2948E+01 BASIN STORAGE= .2495E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               T1  MANE          1.42     47.27    213.17      1.18      5.00     42.86    210.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2384E+01 OUTFLOW= .2383E+01 BASIN STORAGE= .2250E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               T1  MANE          1.53     39.61    213.44       .99      5.00     37.06    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2013E+01 OUTFLOW= .2012E+01 BASIN STORAGE= .2386E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               T1  MANE          1.83     23.46    214.03       .62      5.00     23.12    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1258E+01 OUTFLOW= .1255E+01 BASIN STORAGE= .2278E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
               U2  MANE          1.19     40.83    212.32      1.65      5.00     38.44    210.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2026E+01 OUTFLOW= .2026E+01 BASIN STORAGE= .1349E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               U2  MANE          1.27     35.93    212.30      1.45      5.00     33.38    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1785E+01 OUTFLOW= .1784E+01 BASIN STORAGE= .1590E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .81
               U2  MANE          1.43     28.93    212.11      1.18      5.00     26.09    210.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1443E+01 OUTFLOW= .1442E+01 BASIN STORAGE= .1541E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .73
               U2  MANE          1.43     24.03    212.01       .99      5.00     22.13    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1218E+01 OUTFLOW= .1218E+01 BASIN STORAGE= .1354E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               U2  MANE          1.87     14.24    213.77       .62      5.00     14.00    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7614E+00 OUTFLOW= .7595E+00 BASIN STORAGE= .1232E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .59    520.60    225.48      1.58      5.00    520.33    225.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4552E+02 EXCESS= .0000E+00 OUTFLOW= .4553E+02 BASIN STORAGE= .5214E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .68    428.46    225.77      1.29      5.00    428.10    225.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3703E+02 EXCESS= .0000E+00 OUTFLOW= .3703E+02 BASIN STORAGE= .5179E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .66    366.95    225.58      1.09      5.00    366.34    225.00        1.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3145E+02 EXCESS= .0000E+00 OUTFLOW= .3146E+02 BASIN STORAGE= .5273E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
                R  MANE           .69    238.60    226.26       .70      5.00    236.93    225.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2003E+02 EXCESS= .0000E+00 OUTFLOW= .2004E+02 BASIN STORAGE= .5271E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
                R  MANE           .65    519.54    225.83      1.59      5.00    518.70    225.00        1.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4557E+02 EXCESS= .0000E+00 OUTFLOW= .4559E+02 BASIN STORAGE= .6502E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
                R  MANE           .68    427.58    226.32      1.29      5.00    425.99    225.00        1.29

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3706E+02 EXCESS= .0000E+00 OUTFLOW= .3708E+02 BASIN STORAGE= .6543E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
                R  MANE           .73    365.36    225.88      1.10      5.00    363.92    225.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3149E+02 EXCESS= .0000E+00 OUTFLOW= .3150E+02 BASIN STORAGE= .6443E-04 PERCENT ERROR=    .0
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          FOR PLAN = 1  RATIO=  .56
               R  MANE          .87    236.28    226.95       .70      5.00    233.44    225.00         .70

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2006E+02 EXCESS= .0000E+00 OUTFLOW= .2007E+02 BASIN STORAGE= .6542E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              Q1  MANE          .99     40.92    211.25      1.64      5.00     38.55    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2005E+01 OUTFLOW= .2006E+01 BASIN STORAGE= .1138E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              Q1  MANE         1.06     36.13    211.89      1.44      5.00     33.55    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1766E+01 OUTFLOW= .1766E+01 BASIN STORAGE= .1301E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
              Q1  MANE         1.09     29.12    212.27      1.16      5.00     26.64    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1427E+01 OUTFLOW= .1427E+01 BASIN STORAGE= .1208E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              Q1  MANE         1.16     24.08    212.82       .98      5.00     21.76    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1204E+01 OUTFLOW= .1204E+01 BASIN STORAGE= .1232E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
              Q1  MANE         1.57     14.49    213.65       .61      5.00     14.13    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7516E+00 OUTFLOW= .7503E+00 BASIN STORAGE= .1271E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
              S1  MANE          .87     84.08    212.18      1.64      5.00     78.39    210.00        1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4119E+01 OUTFLOW= .4122E+01 BASIN STORAGE= .2896E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
              S1  MANE          .94     73.66    211.70      1.45      5.00     68.09    210.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3628E+01 OUTFLOW= .3628E+01 BASIN STORAGE= .3000E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
              S1  MANE          .99     59.48    212.71      1.17      5.00     53.07    210.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2932E+01 OUTFLOW= .2932E+01 BASIN STORAGE= .2767E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              S1  MANE         1.10     49.23    212.26       .99      5.00     45.44    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2475E+01 OUTFLOW= .2474E+01 BASIN STORAGE= .2869E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
              S1  MANE         1.35     29.41    213.67       .62      5.00     29.17    215.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1546E+01 OUTFLOW= .1543E+01 BASIN STORAGE= .2734E-03 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .92
               R  MANE         1.16    584.19    222.82      1.55      5.00    582.78    225.00        1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5318E+02 EXCESS= .0000E+00 OUTFLOW= .5323E+02 BASIN STORAGE= .2181E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE         1.30    478.95    224.87      1.26      5.00    478.94    225.00        1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4319E+02 EXCESS= .0000E+00 OUTFLOW= .4322E+02 BASIN STORAGE= .2118E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE         1.34    409.71    226.01      1.07      5.00    409.32    225.00        1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3662E+02 EXCESS= .0000E+00 OUTFLOW= .3665E+02 BASIN STORAGE= .2076E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
               R  MANE         1.42    264.68    228.36       .68      5.00    261.79    230.00         .68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2322E+02 EXCESS= .0000E+00 OUTFLOW= .2323E+02 BASIN STORAGE= .2087E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              S2  MANE         1.15     38.63    212.50      1.63      5.00     35.95    210.00        1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1918E+01 OUTFLOW= .1918E+01 BASIN STORAGE= .1404E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              S2  MANE         1.11     33.84    211.62      1.44      5.00     31.12    210.00        1.44
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1689E+01 OUTFLOW= .1689E+01 BASIN STORAGE= .1480E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

S2	MANE	1.18	27.21	212.68	1.16	5.00	24.56	215.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1365E+01 OUTFLOW= .1365E+01 BASIN STORAGE= .1476E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

S2	MANE	1.36	22.76	212.59	.98	5.00	21.21	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1152E+01 OUTFLOW= .1151E+01 BASIN STORAGE= .1563E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

S2	MANE	1.70	13.45	214.99	.61	5.00	13.44	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7189E+00 OUTFLOW= .7173E+00 BASIN STORAGE= .1570E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .92

R	MANE	.98	31.23	212.19	1.23	5.00	30.90	215.00	1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1834E+01 EXCESS= .0000E+00 OUTFLOW= .1838E+01 BASIN STORAGE= .1148E-04 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81

R	MANE	.94	24.81	212.70	.98	5.00	24.72	215.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1453E+01 EXCESS= .0000E+00 OUTFLOW= .1457E+01 BASIN STORAGE= .9296E-05 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

R	MANE	.96	20.64	215.81	.81	5.00	20.63	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1206E+01 EXCESS= .0000E+00 OUTFLOW= .1210E+01 BASIN STORAGE= .1069E-04 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .56

R	MANE	1.28	12.32	216.02	.48	5.00	12.23	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7145E+00 EXCESS= .0000E+00 OUTFLOW= .7160E+00 BASIN STORAGE= .8857E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R2	MANE	.87	64.38	211.75	1.63	5.00	60.43	210.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3122E+01 OUTFLOW= .3123E+01 BASIN STORAGE= .2001E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R2	MANE	.86	56.69	212.12	1.43	5.00	52.95	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2749E+01 OUTFLOW= .2750E+01 BASIN STORAGE= .1873E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R2	MANE	1.01	45.42	211.92	1.16	5.00	41.41	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2220E+01 OUTFLOW= .2221E+01 BASIN STORAGE= .1984E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R2	MANE	.97	38.03	212.41	.98	5.00	34.30	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1874E+01 OUTFLOW= .1874E+01 BASIN STORAGE= .1903E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R2	MANE	1.18	22.76	213.53	.61	5.00	22.07	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1169E+01 OUTFLOW= .1167E+01 BASIN STORAGE= .1912E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	1.44	81.09	212.84	1.35	5.00	79.12	215.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4586E+01 EXCESS= .0000E+00 OUTFLOW= .4594E+01 BASIN STORAGE= .3860E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81

R	MANE	1.61	63.63	213.61	1.08	5.00	63.57	215.00	1.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3677E+01 EXCESS= .0000E+00 OUTFLOW= .3680E+01 BASIN STORAGE= .3817E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.63	54.10	217.70	.90	5.00	53.13	215.00	.90

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3082E+01 EXCESS= .0000E+00 OUTFLOW= .3084E+01 BASIN STORAGE= .3322E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	2.05	33.44	218.55	.55	5.00	32.31	220.00	.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1883E+01 EXCESS= .0000E+00 OUTFLOW= .1886E+01 BASIN STORAGE= .3675E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

R1	MANE	1.23	53.96	212.37	1.63	5.00	49.70	210.00	1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2688E+01 OUTFLOW= .2688E+01 BASIN STORAGE= .2137E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R1	MANE	1.22	47.54	212.27	1.43	5.00	43.55	210.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2367E+01 OUTFLOW= .2366E+01 BASIN STORAGE= .2206E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R1	MANE	1.30	37.95	212.70	1.16	5.00	34.52	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1912E+01 OUTFLOW= .1911E+01 BASIN STORAGE= .2058E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R1	MANE	1.52	31.49	213.78	.98	5.00	29.87	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1614E+01 OUTFLOW= .1612E+01 BASIN STORAGE= .2081E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

R1	MANE	1.71	18.50	214.87	.61	5.00	18.46	215.00	.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1006E+01 OUTFLOW= .1004E+01 BASIN STORAGE= .2016E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .92

F	MANE	.52	12.30	209.60	2.31	5.00	12.29	210.00	2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6167E+00 OUTFLOW= .6166E+00 BASIN STORAGE= .8879E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

F	MANE	.40	11.26	210.05	2.09	5.00	11.25	210.00	2.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5581E+00 OUTFLOW= .5580E+00 BASIN STORAGE= .9053E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

F	MANE	.45	9.59	210.11	1.77	5.00	9.58	210.00	1.78

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4734E+00 OUTFLOW= .4732E+00 BASIN STORAGE= .9150E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

F	MANE	.54	8.51	210.18	1.56	5.00	8.48	210.00	1.57

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4163E+00 OUTFLOW= .4161E+00 BASIN STORAGE= .9449E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

F	MANE	.59	6.11	210.19	1.10	5.00	6.08	210.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2945E+00 OUTFLOW= .2944E+00 BASIN STORAGE= .9442E-05 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

RF	MANE	2.68	1150.36	219.79	1.50	5.00	1148.49	220.00	1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9058E+02 EXCESS= .0000E+00 OUTFLOW= .9067E+02 BASIN STORAGE= .8980E-02 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

RF	MANE	2.81	935.03	220.44	1.22	5.00	911.66	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7338E+02 EXCESS= .0000E+00 OUTFLOW= .7359E+02 BASIN STORAGE= .8375E-02 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

RF	MANE	3.16	781.77	221.75	1.03	5.00	766.98	225.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6210E+02 EXCESS= .0000E+00 OUTFLOW= .6238E+02 BASIN STORAGE= .9857E-02 PERCENT ERROR= -.5

FOR PLAN = 1 RATIO= .56

RF	MANE	3.58	480.59	227.97	.65	5.00	469.80	230.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3910E+02 EXCESS= .0000E+00 OUTFLOW= .3904E+02 BASIN STORAGE= .9884E-02 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .00

R4	MANE	.52	259.28	220.80	1.51	5.00	258.51	225.00	1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2020E+02 EXCESS= .0000E+00 OUTFLOW= .2020E+02 BASIN STORAGE= .6105E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.54	210.70	224.68	1.22	5.00	210.67	225.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1632E+02 EXCESS= .0000E+00 OUTFLOW= .1632E+02 BASIN STORAGE= .6229E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.56	178.94	224.85	1.03	5.00	178.94	225.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1379E+02 EXCESS= .0000E+00 OUTFLOW= .1379E+02 BASIN STORAGE= .5982E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R4	MANE	.61	113.26	225.60	.65	5.00	113.01	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8637E+01 EXCESS= .0000E+00 OUTFLOW= .8637E+01 BASIN STORAGE= .6098E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.26	78.73	216.26	1.67	5.00	76.15	215.00	1.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5400E+01 EXCESS= .0000E+00 OUTFLOW= .5400E+01 BASIN STORAGE= .1849E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.32	64.66	216.57	1.36	5.00	62.23	220.00	1.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4408E+01 EXCESS= .0000E+00 OUTFLOW= .4408E+01 BASIN STORAGE= .2085E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.37	55.27	216.98	1.16	5.00	53.38	220.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3753E+01 EXCESS= .0000E+00 OUTFLOW= .3753E+01 BASIN STORAGE= .1974E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .00

R5	MANE	1.53	35.72	217.65	.74	5.00	34.85	220.00	.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2406E+01 EXCESS= .0000E+00 OUTFLOW= .2406E+01 BASIN STORAGE= .1880E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	1.58	372.25	223.33	1.55	5.00	366.41	225.00	1.55

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2952E+02 EXCESS= .0000E+00 OUTFLOW= .2955E+02 BASIN STORAGE= .1966E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.72	302.54	223.61	1.26	5.00	299.20	225.00	1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2392E+02 EXCESS= .0000E+00 OUTFLOW= .2396E+02 BASIN STORAGE= .1445E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .73

R	MANE	1.70	257.13	223.48	1.07	5.00	254.56	225.00	1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2025E+02 EXCESS= .0000E+00 OUTFLOW= .2028E+02 BASIN STORAGE= .1432E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	1.91	161.29	224.75	.67	5.00	161.19	225.00	.67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1277E+02 EXCESS= .0000E+00 OUTFLOW= .1279E+02 BASIN STORAGE= .1364E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

N1	MANE	1.43	67.17	213.89	1.50	5.00	65.02	215.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3691E+01 OUTFLOW= .3685E+01 BASIN STORAGE= .5678E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .92

N1	MANE	1.43	57.69	213.53	1.31	5.00	56.96	215.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3228E+01 OUTFLOW= .3223E+01 BASIN STORAGE= .5778E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .81

N1	MANE	1.61	44.49	214.41	1.05	5.00	44.30	215.00	1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2577E+01 OUTFLOW= .2570E+01 BASIN STORAGE= .5555E-03 PERCENT ERROR= .2

FOR PLAN = 1 RATIO= .73

N1	MANE	1.82	35.98	215.46	.87	5.00	35.44	215.00	.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2153E+01 OUTFLOW= .2146E+01 BASIN STORAGE= .6065E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .56

N1	MANE	2.22	18.59	220.28	.53	5.00	18.41	220.00	.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1301E+01 OUTFLOW= .1291E+01 BASIN STORAGE= .6062E-03 PERCENT ERROR= .7

FOR PLAN = 1 RATIO= .92

R	MANE	.60	56.21	215.83	1.31	5.00	55.02	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3224E+01 EXCESS= .0000E+00 OUTFLOW= .3224E+01 BASIN STORAGE= .1259E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.51	44.09	215.93	1.05	5.00	41.66	215.00	1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2568E+01 EXCESS= .0000E+00 OUTFLOW= .2569E+01 BASIN STORAGE= .1261E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.64	35.10	216.58	.87	5.00	32.83	220.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2143E+01 EXCESS= .0000E+00 OUTFLOW= .2144E+01 BASIN STORAGE= .1260E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

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          R  MANE          .75     18.24    221.98       .53      5.00     17.57    225.00         .53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1292E+01 EXCESS= .0000E+00 OUTFLOW= .1292E+01 BASIN STORAGE= .1253E-04 PERCENT ERROR=    .0

     FOR PLAN = 1  RATIO=  .92
          R  MANE          .30     36.46    210.68      2.11      5.00     35.93    210.00        2.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2252E+01 EXCESS= .0000E+00 OUTFLOW= .2253E+01 BASIN STORAGE= .5447E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .37     31.27    210.76      1.79      5.00     30.79    210.00        1.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1910E+01 EXCESS= .0000E+00 OUTFLOW= .1912E+01 BASIN STORAGE= .6694E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .38     27.75    210.62      1.58      5.00     27.29    210.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1680E+01 EXCESS= .0000E+00 OUTFLOW= .1681E+01 BASIN STORAGE= .5847E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .39     20.13    210.68      1.12      5.00     19.69    210.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1189E+01 EXCESS= .0000E+00 OUTFLOW= .1190E+01 BASIN STORAGE= .6190E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE         1.51     30.20    217.39      1.25      5.00     29.99    215.00        1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1800E+01 EXCESS= .0000E+00 OUTFLOW= .1806E+01 BASIN STORAGE= .9704E-06 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .81
          R  MANE         1.72     24.04    216.09       .99      5.00     23.87    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1427E+01 EXCESS= .0000E+00 OUTFLOW= .1432E+01 BASIN STORAGE= .8936E-06 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .73
          R  MANE         1.69     20.28    218.46       .83      5.00     19.83    215.00         .82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1186E+01 EXCESS= .0000E+00 OUTFLOW= .1190E+01 BASIN STORAGE= .1067E-05 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .56
          R  MANE         1.99     12.23    218.87       .49      5.00     11.57    215.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7042E+00 EXCESS= .0000E+00 OUTFLOW= .7051E+00 BASIN STORAGE= .9769E-06 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE          .55     29.94    216.16      1.25      5.00     28.80    215.00        1.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1803E+01 EXCESS= .0000E+00 OUTFLOW= .1805E+01 BASIN STORAGE= .7246E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .81
          R  MANE          .74     23.70    216.64      1.00      5.00     22.70    215.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1432E+01 EXCESS= .0000E+00 OUTFLOW= .1433E+01 BASIN STORAGE= .6309E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .73
          R  MANE          .82     19.71    216.74       .83      5.00     18.89    220.00         .83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1188E+01 EXCESS= .0000E+00 OUTFLOW= .1189E+01 BASIN STORAGE= .6775E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .56
          R  MANE          .92     11.57    217.00       .49      5.00     11.56    220.00         .49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7054E+00 EXCESS= .0000E+00 OUTFLOW= .7059E+00 BASIN STORAGE= .6925E-05 PERCENT ERROR=   -.1

     FOR PLAN = 1  RATIO=  .92
          R  MANE         1.24     61.39    217.02      1.24      5.00     59.77    215.00        1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3690E+01 EXCESS= .0000E+00 OUTFLOW= .3704E+01 BASIN STORAGE= .4425E-04 PERCENT ERROR=   -.4

     FOR PLAN = 1  RATIO=  .81
          R  MANE         1.30     49.36    217.36       .98      5.00     47.35    215.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2924E+01 EXCESS= .0000E+00 OUTFLOW= .2937E+01 BASIN STORAGE= .4986E-04 PERCENT ERROR=   -.4

     FOR PLAN = 1  RATIO=  .73
          R  MANE         1.40     40.69    216.84       .82      5.00     39.18    215.00         .81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2428E+01 EXCESS= .0000E+00 OUTFLOW= .2435E+01 BASIN STORAGE= .4209E-04 PERCENT ERROR=   -.3

     FOR PLAN = 1  RATIO=  .56
          R  MANE         1.78     24.45    218.72       .48      5.00     23.28    220.00         .48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1439E+01 EXCESS= .0000E+00 OUTFLOW= .1446E+01 BASIN STORAGE= .4876E-04 PERCENT ERROR=   -.5
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FOR PLAN = 1 RATIO= .92

0	MANE	.75	32.46	210.91	2.05	5.00	31.26	210.00	2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1638E+01 OUTFLOW= .1639E+01 BASIN STORAGE= .6804E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

0	MANE	.90	29.19	211.31	1.83	5.00	28.08	210.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1468E+01 OUTFLOW= .1468E+01 BASIN STORAGE= .6648E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

0	MANE	.91	24.28	211.08	1.53	5.00	23.22	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1223E+01 OUTFLOW= .1223E+01 BASIN STORAGE= .6819E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

0	MANE	1.02	21.11	211.73	1.32	5.00	19.98	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1059E+01 OUTFLOW= .1059E+01 BASIN STORAGE= .6696E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

0	MANE	1.10	14.12	212.20	.89	5.00	13.09	210.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7155E+00 OUTFLOW= .7151E+00 BASIN STORAGE= .5578E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.69	27.57	210.93	1.84	5.00	26.55	210.00	1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1467E+01 EXCESS= .0000E+00 OUTFLOW= .1468E+01 BASIN STORAGE= .4770E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.83	22.91	211.66	1.53	5.00	21.81	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1222E+01 EXCESS= .0000E+00 OUTFLOW= .1224E+01 BASIN STORAGE= .4962E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.77	19.83	211.64	1.32	5.00	18.59	210.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1058E+01 EXCESS= .0000E+00 OUTFLOW= .1059E+01 BASIN STORAGE= .4912E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.96	12.94	212.51	.89	5.00	12.48	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7151E+00 EXCESS= .0000E+00 OUTFLOW= .7157E+00 BASIN STORAGE= .4693E-04 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .92

R	MANE	1.20	570.07	221.58	1.49	5.00	567.95	220.00	1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4532E+02 EXCESS= .0000E+00 OUTFLOW= .4537E+02 BASIN STORAGE= .3462E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.34	462.62	221.92	1.21	5.00	457.59	220.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3666E+02 EXCESS= .0000E+00 OUTFLOW= .3671E+02 BASIN STORAGE= .3545E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.39	392.55	222.92	1.02	5.00	383.21	225.00	1.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3096E+02 EXCESS= .0000E+00 OUTFLOW= .3099E+02 BASIN STORAGE= .3449E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	1.58	241.60	223.05	.64	5.00	240.59	225.00	.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1945E+02 EXCESS= .0000E+00 OUTFLOW= .1949E+02 BASIN STORAGE= .3313E-03 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

H3	MANE	.15	32.12	210.27	1.63	5.00	32.01	210.00	1.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1482E+01 OUTFLOW= .1482E+01 BASIN STORAGE= .2457E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

H3	MANE	.17	28.46	210.46	1.44	5.00	28.31	210.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1305E+01 OUTFLOW= .1305E+01 BASIN STORAGE= .2365E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

H3	MANE	.24	22.98	210.59	1.16	5.00	22.66	210.00	1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1054E+01 OUTFLOW= .1054E+01 BASIN STORAGE= .2337E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

H3	MANE	.20	19.25	210.82	.98	5.00	18.98	210.00	.98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8901E+00 OUTFLOW= .8898E+00 BASIN STORAGE= .2319E-04 PERCENT ERROR= .0

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          FOR PLAN = 1  RATIO=  .56
               H3  MANE          .23     11.77    211.02       .61      5.00     11.36    210.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5555E+00 OUTFLOW= .5552E+00 BASIN STORAGE= .2435E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               R  MANE          1.17     27.93    212.17      1.45      5.00     24.80    210.00        1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1308E+01 EXCESS= .0000E+00 OUTFLOW= .1311E+01 BASIN STORAGE= .1616E-04 PERCENT ERROR=   -.2

          FOR PLAN = 1  RATIO=  .81
               R  MANE          1.35     21.75    212.07      1.17      5.00     19.51    210.00        1.16

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1055E+01 EXCESS= .0000E+00 OUTFLOW= .1056E+01 BASIN STORAGE= .1593E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE          1.35     18.31    213.11       .98      5.00     16.14    210.00         .98

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8911E+00 EXCESS= .0000E+00 OUTFLOW= .8918E+00 BASIN STORAGE= .1673E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
               R  MANE          1.52     11.11    213.52       .61      5.00     10.36    215.00         .61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5553E+00 EXCESS= .0000E+00 OUTFLOW= .5555E+00 BASIN STORAGE= .1583E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               P2  MANE          2.05    106.70    213.25      1.65      5.00    102.86    215.00        1.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5815E+01 OUTFLOW= .5810E+01 BASIN STORAGE= .9145E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .92
               P2  MANE          2.18     92.66    213.69      1.45      5.00     90.13    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5122E+01 OUTFLOW= .5112E+01 BASIN STORAGE= .1036E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .81
               P2  MANE          2.38     72.71    215.42      1.17      5.00     72.22    215.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4140E+01 OUTFLOW= .4132E+01 BASIN STORAGE= .1070E-02 PERCENT ERROR=    .2

          FOR PLAN = 1  RATIO=  .73
               P2  MANE          2.53     59.79    214.85       .99      5.00     59.70    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3496E+01 OUTFLOW= .3485E+01 BASIN STORAGE= .9357E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .56
               P2  MANE          3.22     32.68    218.12       .62      5.00     32.48    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2185E+01 OUTFLOW= .2171E+01 BASIN STORAGE= .9128E-03 PERCENT ERROR=    .6

          FOR PLAN = 1  RATIO=  .92
               R  MANE           .65     88.98    215.85      1.45      5.00     86.87    215.00        1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5110E+01 EXCESS= .0000E+00 OUTFLOW= .5113E+01 BASIN STORAGE= .6707E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE           .80     70.81    216.83      1.17      5.00     67.71    215.00        1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4130E+01 EXCESS= .0000E+00 OUTFLOW= .4132E+01 BASIN STORAGE= .6727E-04 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE           .85     59.09    216.64       .99      5.00     54.23    215.00         .99

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3492E+01 EXCESS= .0000E+00 OUTFLOW= .3493E+01 BASIN STORAGE= .6656E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               R  MANE           .98     32.12    222.06       .62      5.00     30.43    220.00         .62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2171E+01 EXCESS= .0000E+00 OUTFLOW= .2171E+01 BASIN STORAGE= .6591E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               R  MANE          1.37    668.52    222.57      1.48      5.00    655.05    220.00        1.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5313E+02 EXCESS= .0000E+00 OUTFLOW= .5318E+02 BASIN STORAGE= .6077E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
               R  MANE          1.41    541.10    222.41      1.20      5.00    531.87    225.00        1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4297E+02 EXCESS= .0000E+00 OUTFLOW= .4300E+02 BASIN STORAGE= .5892E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
               R  MANE          1.38    456.93    223.33      1.01      5.00    451.59    225.00        1.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3624E+02 EXCESS= .0000E+00 OUTFLOW= .3627E+02 BASIN STORAGE= .5902E-03 PERCENT ERROR=   -.1
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          FOR PLAN = 1  RATIO=  .56
               R  MANE          1.72    280.10    228.11       .63      5.00    274.87    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2274E+02 EXCESS= .0000E+00 OUTFLOW= .2274E+02 BASIN STORAGE= .5909E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               Y  MANE           .87     36.37    211.46      2.05      5.00     34.81    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1857E+01 OUTFLOW= .1857E+01 BASIN STORAGE= .9299E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               Y  MANE           .85     32.61    211.65      1.84      5.00     31.20    210.00        1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1663E+01 OUTFLOW= .1664E+01 BASIN STORAGE= .8053E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               Y  MANE          1.02     27.25    211.76      1.53      5.00     25.70    210.00        1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1386E+01 OUTFLOW= .1386E+01 BASIN STORAGE= .8025E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               Y  MANE          1.02     23.76    212.09      1.32      5.00     22.14    210.00        1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1200E+01 OUTFLOW= .1201E+01 BASIN STORAGE= .8462E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               Y  MANE          1.30     15.81    212.20       .89      5.00     14.40    210.00         .89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8109E+00 OUTFLOW= .8105E+00 BASIN STORAGE= .8429E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               H1  MANE          1.32     90.41    213.17      1.62      5.00     82.60    215.00        1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4658E+01 OUTFLOW= .4657E+01 BASIN STORAGE= .4815E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               H1  MANE          1.37     79.16    212.95      1.42      5.00     73.70    215.00        1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4101E+01 OUTFLOW= .4099E+01 BASIN STORAGE= .5305E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               H1  MANE          1.37     63.35    213.20      1.15      5.00     60.86    215.00        1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3311E+01 OUTFLOW= .3310E+01 BASIN STORAGE= .5078E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               H1  MANE          1.59     52.30    213.79       .97      5.00     51.46    215.00         .97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2794E+01 OUTFLOW= .2790E+01 BASIN STORAGE= .5256E-03 PERCENT ERROR=    .1

          FOR PLAN = 1  RATIO=  .56
               H1  MANE          1.92     30.28    216.65       .60      5.00     29.42    215.00         .60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1735E+01 BASIN STORAGE= .5165E-03 PERCENT ERROR=    .3

          FOR PLAN = 1  RATIO=  .92
               R  MANE           .47    748.83    221.13      1.47      5.00    739.69    220.00        1.47

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6158E+02 EXCESS= .0000E+00 OUTFLOW= .6159E+02 BASIN STORAGE= .2406E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
               R  MANE           .60    601.92    221.19      1.19      5.00    595.61    225.00        1.19

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4975E+02 EXCESS= .0000E+00 OUTFLOW= .4976E+02 BASIN STORAGE= .2348E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
               R  MANE           .63    505.26    225.75      1.00      5.00    504.87    225.00        1.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4197E+02 EXCESS= .0000E+00 OUTFLOW= .4198E+02 BASIN STORAGE= .2386E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
               R  MANE           .64    311.51    226.16       .63      5.00    306.33    230.00         .63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2632E+02 EXCESS= .0000E+00 OUTFLOW= .2633E+02 BASIN STORAGE= .2364E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               Q2  MANE          .99    156.40    211.53      2.05      5.00    147.58    210.00        2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .8301E+01 OUTFLOW= .8301E+01 BASIN STORAGE= .5963E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
               Q2  MANE          1.06    140.90    212.24      1.84      5.00    131.61    210.00        1.83
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7437E+01 OUTFLOW= .7438E+01 BASIN STORAGE= .5892E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

Q2	MANE	1.14	116.71	212.29	1.53	5.00	108.26	210.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6195E+01 OUTFLOW= .6195E+01 BASIN STORAGE= .6268E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

Q2	MANE	1.10	101.23	212.10	1.32	5.00	92.30	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5366E+01 OUTFLOW= .5365E+01 BASIN STORAGE= .6403E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

Q2	MANE	1.38	67.09	213.82	.89	5.00	65.21	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3625E+01 OUTFLOW= .3621E+01 BASIN STORAGE= .5471E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	1.01	130.15	212.32	1.83	5.00	123.85	215.00	1.83

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7426E+01 EXCESS= .0000E+00 OUTFLOW= .7433E+01 BASIN STORAGE= .4481E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	1.02	107.88	212.22	1.53	5.00	105.19	215.00	1.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6187E+01 EXCESS= .0000E+00 OUTFLOW= .6195E+01 BASIN STORAGE= .4567E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	1.10	92.29	214.20	1.33	5.00	92.28	215.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5366E+01 EXCESS= .0000E+00 OUTFLOW= .5371E+01 BASIN STORAGE= .4218E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	1.22	64.24	217.54	.89	5.00	61.74	215.00	.89

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3622E+01 EXCESS= .0000E+00 OUTFLOW= .3622E+01 BASIN STORAGE= .4451E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G1	MANE	.84	66.30	212.17	1.82	5.00	62.24	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3387E+01 OUTFLOW= .3388E+01 BASIN STORAGE= .2329E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G1	MANE	.94	59.00	212.29	1.61	5.00	54.81	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3008E+01 OUTFLOW= .3009E+01 BASIN STORAGE= .2438E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

G1	MANE	.97	48.33	212.44	1.32	5.00	44.21	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2467E+01 OUTFLOW= .2467E+01 BASIN STORAGE= .2383E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G1	MANE	1.08	41.01	212.78	1.13	5.00	37.40	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2109E+01 OUTFLOW= .2109E+01 BASIN STORAGE= .2545E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

G1	MANE	1.17	25.69	213.74	.73	5.00	25.21	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1369E+01 OUTFLOW= .1367E+01 BASIN STORAGE= .2574E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

G2	MANE	.99	34.44	211.68	1.81	5.00	32.69	210.00	1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1742E+01 OUTFLOW= .1742E+01 BASIN STORAGE= .9556E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

G2	MANE	1.07	30.44	212.24	1.61	5.00	28.94	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1547E+01 OUTFLOW= .1547E+01 BASIN STORAGE= .9438E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

G2	MANE	1.03	24.99	212.22	1.32	5.00	23.40	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1269E+01 OUTFLOW= .1269E+01 BASIN STORAGE= .9976E-04 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

G2	MANE	1.17	21.23	212.62	1.13	5.00	19.53	210.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1085E+01 OUTFLOW= .1084E+01 BASIN STORAGE= .1123E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .56

G2	MANE	1.43	13.33	212.66	.73	5.00	12.78	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .7040E+00 OUTFLOW= .7032E+00 BASIN STORAGE= .1050E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	.47	891.21	220.20	1.50	5.00	890.68	220.00	1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7546E+02 EXCESS= .0000E+00 OUTFLOW= .7546E+02 BASIN STORAGE= .2700E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.45	721.60	220.59	1.22	5.00	718.04	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6121E+02 EXCESS= .0000E+00 OUTFLOW= .6122E+02 BASIN STORAGE= .2691E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.48	604.56	221.27	1.03	5.00	597.91	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5180E+02 EXCESS= .0000E+00 OUTFLOW= .5181E+02 BASIN STORAGE= .2681E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.53	371.13	226.25	.65	5.00	368.37	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3279E+02 EXCESS= .0000E+00 OUTFLOW= .3280E+02 BASIN STORAGE= .2653E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

E	MANE	.64	94.79	211.92	1.82	5.00	89.39	210.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4838E+01 OUTFLOW= .4840E+01 BASIN STORAGE= .3316E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

E	MANE	.75	84.08	211.71	1.61	5.00	79.11	210.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .4297E+01 OUTFLOW= .4297E+01 BASIN STORAGE= .3577E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

E	MANE	.83	68.59	212.26	1.32	5.00	63.37	210.00	1.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3524E+01 OUTFLOW= .3524E+01 BASIN STORAGE= .3443E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

E	MANE	.78	58.39	212.20	1.13	5.00	53.28	215.00	1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3013E+01 OUTFLOW= .3012E+01 BASIN STORAGE= .3504E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

E	MANE	.89	36.58	213.99	.73	5.00	35.89	215.00	.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1956E+01 OUTFLOW= .1954E+01 BASIN STORAGE= .3177E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

R	MANE	.31	954.77	219.82	1.50	5.00	954.71	220.00	1.50

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8171E+02 EXCESS= .0000E+00 OUTFLOW= .8170E+02 BASIN STORAGE= .2721E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

R	MANE	.25	772.71	220.38	1.22	5.00	770.82	220.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6629E+02 EXCESS= .0000E+00 OUTFLOW= .6629E+02 BASIN STORAGE= .2723E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

R	MANE	.26	646.75	220.47	1.03	5.00	642.75	220.00	1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5611E+02 EXCESS= .0000E+00 OUTFLOW= .5611E+02 BASIN STORAGE= .2692E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

R	MANE	.29	395.02	225.70	.65	5.00	392.79	225.00	.65

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3552E+02 EXCESS= .0000E+00 OUTFLOW= .3552E+02 BASIN STORAGE= .2700E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

8	MANE	.46	76.48	211.11	2.03	5.00	74.09	210.00	2.03

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3896E+01 OUTFLOW= .3895E+01 BASIN STORAGE= .1301E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

8	MANE	.46	68.50	211.53	1.82	5.00	66.09	210.00	1.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3490E+01 OUTFLOW= .3489E+01 BASIN STORAGE= .1130E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

8	MANE	.39	57.02	211.72	1.51	5.00	54.86	210.00	1.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2906E+01 OUTFLOW= .2905E+01 BASIN STORAGE= .1205E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

8	MANE	.40	49.74	211.59	1.31	5.00	47.29	210.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2517E+01 OUTFLOW= .2516E+01 BASIN STORAGE= .1306E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

8	MANE	.49	33.14	211.98	.88	5.00	31.00	210.00	.88

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1699E+01 OUTFLOW= .1698E+01 BASIN STORAGE= .1199E-03 PERCENT ERROR= .1

FOR PLAN = 1 RATIO= .92

R	MANE	1.22	7.34	212.50	1.22	5.00	6.73	215.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3907E+00 EXCESS= .0000E+00 OUTFLOW= .3916E+00 BASIN STORAGE= .1866E-07 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .81

R	MANE	1.30	5.74	213.25	.97	5.00	5.42	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3094E+00 EXCESS= .0000E+00 OUTFLOW= .3104E+00 BASIN STORAGE= .2189E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .73

R	MANE	1.41	4.87	212.82	.80	5.00	4.55	215.00	.80

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2568E+00 EXCESS= .0000E+00 OUTFLOW= .2575E+00 BASIN STORAGE= .2255E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .56

R	MANE	1.58	2.84	212.88	.48	5.00	2.75	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1520E+00 EXCESS= .0000E+00 OUTFLOW= .1524E+00 BASIN STORAGE= .2211E-07 PERCENT ERROR= -.3

FOR PLAN = 1 RATIO= .92

R	MANE	.63	19.76	211.18	1.22	5.00	18.85	210.00	1.22

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1107E+01 EXCESS= .0000E+00 OUTFLOW= .1108E+01 BASIN STORAGE= .2045E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.60	15.66	211.51	.97	5.00	14.83	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8770E+00 EXCESS= .0000E+00 OUTFLOW= .8782E+00 BASIN STORAGE= .2118E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

R	MANE	.67	13.02	211.40	.80	5.00	12.43	215.00	.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7279E+00 EXCESS= .0000E+00 OUTFLOW= .7288E+00 BASIN STORAGE= .1699E-05 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .56

R	MANE	.73	7.55	211.60	.48	5.00	7.46	215.00	.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4308E+00 EXCESS= .0000E+00 OUTFLOW= .4316E+00 BASIN STORAGE= .2031E-05 PERCENT ERROR= -.2

FOR PLAN = 1 RATIO= .92

C2+ST	MANE	1.00	63.26	212.41	1.62	5.00	58.59	210.00	1.62

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .3192E+01 OUTFLOW= .3192E+01 BASIN STORAGE= .2541E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .92

C2+ST	MANE	1.10	55.37	212.52	1.42	5.00	50.44	210.00	1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2810E+01 OUTFLOW= .2810E+01 BASIN STORAGE= .2888E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .81

C2+ST	MANE	1.07	44.04	212.37	1.15	5.00	40.68	215.00	1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2269E+01 OUTFLOW= .2269E+01 BASIN STORAGE= .2845E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .73

C2+ST	MANE	1.28	36.94	212.85	.97	5.00	35.03	215.00	.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1914E+01 OUTFLOW= .1914E+01 BASIN STORAGE= .2740E-03 PERCENT ERROR= .0

FOR PLAN = 1 RATIO= .56

C2+ST	MANE	1.43	21.43	214.53	.60	5.00	21.38	215.00	.60

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1193E+01 OUTFLOW= .1190E+01 BASIN STORAGE= .2804E-03 PERCENT ERROR= .3

FOR PLAN = 1 RATIO= .92

R	MANE	.65	73.09	211.46	1.39	5.00	70.46	215.00	1.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4143E+01 EXCESS= .0000E+00 OUTFLOW= .4146E+01 BASIN STORAGE= .1260E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .81

R	MANE	.53	57.63	211.41	1.12	5.00	57.53	215.00	1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3335E+01 EXCESS= .0000E+00 OUTFLOW= .3338E+01 BASIN STORAGE= .1252E-03 PERCENT ERROR= -.1

FOR PLAN = 1 RATIO= .73

```
                R  MANE          .65     48.90    215.90       .94       5.00     48.72    215.00         .94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2810E+01 EXCESS= .0000E+00 OUTFLOW= .2813E+01 BASIN STORAGE= .1198E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
                R  MANE          .74     29.80    216.27       .58       5.00     28.26    215.00         .58

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+01 EXCESS= .0000E+00 OUTFLOW= .1742E+01 BASIN STORAGE= .1175E-03 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .92
             EN+ST  MANE          .75     38.15    211.69      2.31       5.00     36.72    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2097E+01 OUTFLOW= .2097E+01 BASIN STORAGE= .1035E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             EN+ST  MANE          .65     34.62    211.43      2.09       5.00     33.24    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1898E+01 OUTFLOW= .1898E+01 BASIN STORAGE= .1011E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
             EN+ST  MANE          .68     29.41    211.64      1.78       5.00     28.04    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1609E+01 OUTFLOW= .1609E+01 BASIN STORAGE= .1061E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
             EN+ST  MANE          .83     25.99    211.92      1.56       5.00     24.71    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1415E+01 OUTFLOW= .1415E+01 BASIN STORAGE= .1083E-03 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
             EN+ST  MANE          .91     18.31    212.20      1.10       5.00     17.18    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1001E+01 OUTFLOW= .1001E+01 BASIN STORAGE= .9930E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              COM  MANE          .39     44.87    210.73      2.31       5.00     44.16    210.00        2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2344E+01 OUTFLOW= .2343E+01 BASIN STORAGE= .4364E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
              COM  MANE          .39     40.81    210.69      2.09       5.00     40.01    210.00        2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .2121E+01 OUTFLOW= .2121E+01 BASIN STORAGE= .4333E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .81
              COM  MANE          .41     34.79    210.78      1.77       5.00     33.87    210.00        1.77

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1799E+01 OUTFLOW= .1798E+01 BASIN STORAGE= .4369E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .73
              COM  MANE          .52     30.70    211.19      1.56       5.00     29.67    210.00        1.56

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1582E+01 OUTFLOW= .1582E+01 BASIN STORAGE= .4578E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .56
              COM  MANE          .60     21.84    211.56      1.10       5.00     20.83    210.00        1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1119E+01 OUTFLOW= .1119E+01 BASIN STORAGE= .4504E-04 PERCENT ERROR=    .0

          FOR PLAN = 1  RATIO=  .92
             RCOM  MANE          .94   1124.29    217.00      1.52       5.00   1095.95    220.00        1.52

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9453E+02 EXCESS= .0000E+00 OUTFLOW= .9459E+02 BASIN STORAGE= .2410E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .81
             RCOM  MANE         1.03    888.95    217.18      1.24       5.00    882.95    220.00        1.24

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7687E+02 EXCESS= .0000E+00 OUTFLOW= .7693E+02 BASIN STORAGE= .2436E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .73
             RCOM  MANE         1.07    738.09    222.24      1.05       5.00    734.01    220.00        1.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6521E+02 EXCESS= .0000E+00 OUTFLOW= .6525E+02 BASIN STORAGE= .2394E-02 PERCENT ERROR=   -.1

          FOR PLAN = 1  RATIO=  .56
             RCOM  MANE         1.36    446.27    227.55       .67       5.00    441.07    225.00         .67

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4154E+02 EXCESS= .0000E+00 OUTFLOW= .4154E+02 BASIN STORAGE= .2479E-02 PERCENT ERROR=    .0



*** NORMAL END OF HEC-1 ***
```

APPENDIX D

Hydraulics

Worksheet 12
Worksheet for Irregular Channel

At Spencer St.

Project Description	
Worksheet	Irregular Channel - 12
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	1.7900	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.017	
Water Surface Elevation	2,289.55	ft
Elevation Range	2,288.34 to 2,290.00	
Flow Area	266.8	ft²
Wetted Perimeter	374.53	ft
Top Width	374.52	ft
Actual Depth	1.21	ft
Critical Elevation	2,289.96	ft
Critical Slope	0.4141	%
Velocity	9.33	ft/s
Velocity Head	1.35	ft
Specific Energy	2,290.91	ft
Froude Number	1.95	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	4+07.00	0.017

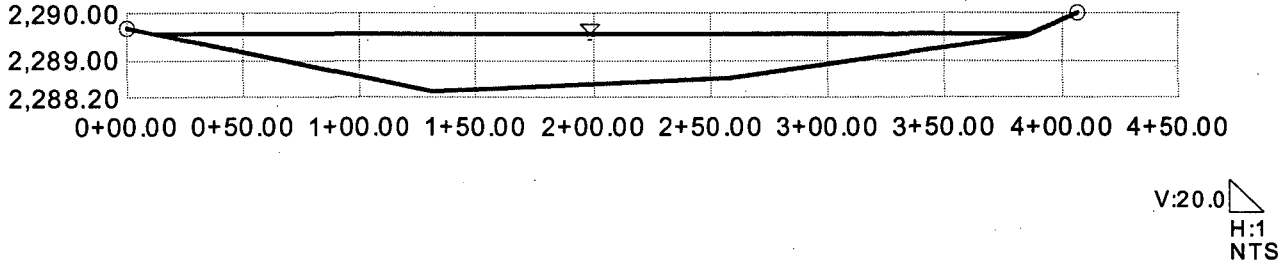
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	2,289.67
1+31.00	2,288.34
2+58.00	2,288.64
3+85.00	2,289.53
4+07.00	2,290.00

Cross Section 12
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 12
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.017	
Slope	1.7900	%
Water Surface Elevation	2,289.55	ft
Elevation Range	2,288.34 to 2,290.00	
Discharge	2,489.00	cfs



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Worksheet 13
Worksheet for Irregular Channel

Berm #1 assumed to be in place

Project Description	
Worksheet	Irregular Channel - 13
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	1.5000	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,281.10	ft
Elevation Range	2,279.00 to 2,283.00	
Flow Area	423.6	ft²
Wetted Perimeter	352.54	ft
Top Width	352.29	ft
Actual Depth	2.10	ft
Critical Elevation	2,281.05	ft
Critical Slope	1.6984	%
Velocity	5.88	ft/s
Velocity Head	0.54	ft
Specific Energy	2,281.63	ft
Froude Number	0.94	
Flow Type	Subcritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	4+12.00	0.035

Natural Channel Points

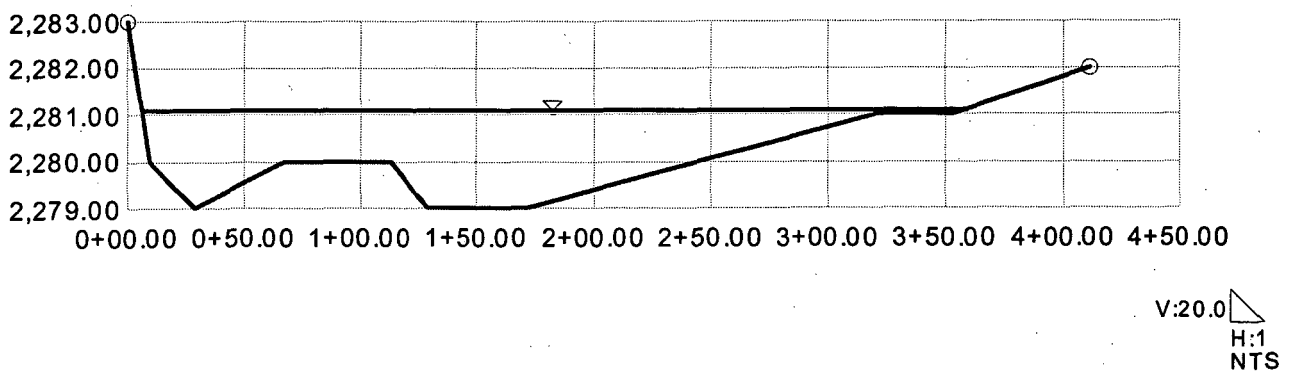
Station (ft)	Elevation (ft)
0+00.00	2,283.00
0+10.00	2,280.00
0+29.00	2,279.00
0+67.00	2,280.00
1+13.00	2,280.00
1+28.00	2,279.00
1+72.00	2,279.00
2+44.00	2,280.00
3+21.00	2,281.00
3+53.00	2,281.00
4+12.00	2,282.00

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Cross Section 13
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 13
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	1.5000	%
Water Surface Elevation	2,281.10	ft
Elevation Range	2,279.00 to 2,283.00	
Discharge	2,489.00	cfs



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Worksheet 14
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 14
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Berm #1 assumed to be in place

Input Data		
Slope	2.8000	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,276.44	ft
Elevation Range	2,274.00 to 2,280.00	
Flow Area	229.9	ft²
Wetted Perimeter	122.22	ft
Top Width	122.00	ft
Actual Depth	2.44	ft
Critical Elevation	2,276.95	ft
Critical Slope	1.3685	%
Velocity	10.83	ft/s
Velocity Head	1.82	ft
Specific Energy	2,278.27	ft
Froude Number	1.39	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	2+34.00	0.035

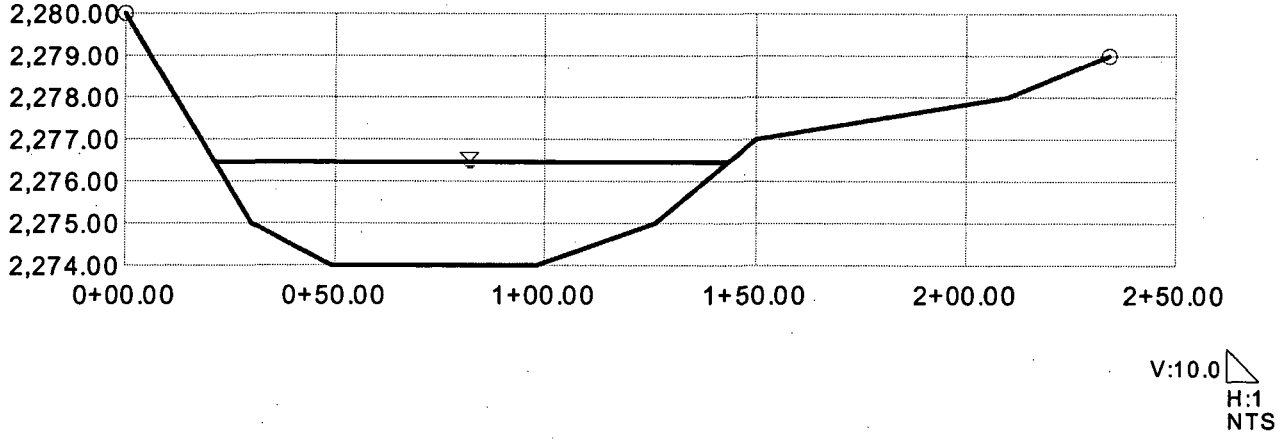
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	2,280.00
0+30.00	2,275.00
0+49.00	2,274.00
0+67.00	2,274.00
0+98.00	2,274.00
1+26.00	2,275.00
1+50.00	2,277.00
2+10.00	2,278.00
2+34.00	2,279.00

Cross Section 14
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 14
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	2.8000	%
Water Surface Elevation	2,276.44	ft
Elevation Range	2,274.00 to 2,280.00	
Discharge	2,489.00	cfs



Worksheet 15
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 15
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	2.6700	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,273.70	ft
Elevation Range	2,271.74 to 2,276.00	
Flow Area	253.6	ft²
Wetted Perimeter	150.72	ft
Top Width	150.30	ft
Actual Depth	1.96	ft
Critical Elevation	2,274.20	ft
Critical Slope	1.5000	%
Velocity	9.81	ft/s
Velocity Head	1.50	ft
Specific Energy	2,275.20	ft
Froude Number	1.33	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	3+81.00	0.035

Natural Channel Points

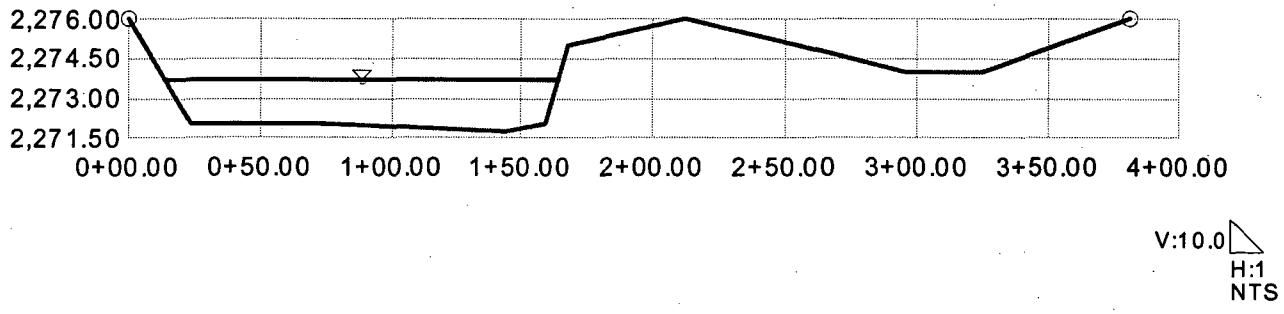
Station (ft)	Elevation (ft)
0+00.00	2,276.00
0+24.00	2,272.00
0+74.00	2,272.00
1+44.00	2,271.74
1+59.00	2,272.00
1+68.00	2,275.00
2+12.00	2,276.00
2+55.00	2,275.00
2+96.00	2,274.00
3+25.00	2,274.00
3+81.00	2,276.00

Cross Section 15
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 15
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Berm 1 removed

Section Data		
Mannings Coefficient	0.035	
Slope	2.6700	%
Water Surface Elevation	2,273.70	ft
Elevation Range	2,271.74 to 2,276.00	
Discharge	2,489.00	cfs



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Worksheet 16
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 16
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Berms #2 & 3 removed

Input Data		
Slope	1.8500	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,270.90	ft
Elevation Range	2,267.00 to 2,275.00	
Flow Area	288.0	ft²
Wetted Perimeter	157.31	ft
Top Width	156.45	ft
Actual Depth	3.90	ft
Critical Elevation	2,271.06	ft
Critical Slope	1.4366	%
Velocity	8.64	ft/s
Velocity Head	1.16	ft
Specific Energy	2,272.06	ft
Froude Number	1.12	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
-0+04.30	2+19.00	0.035

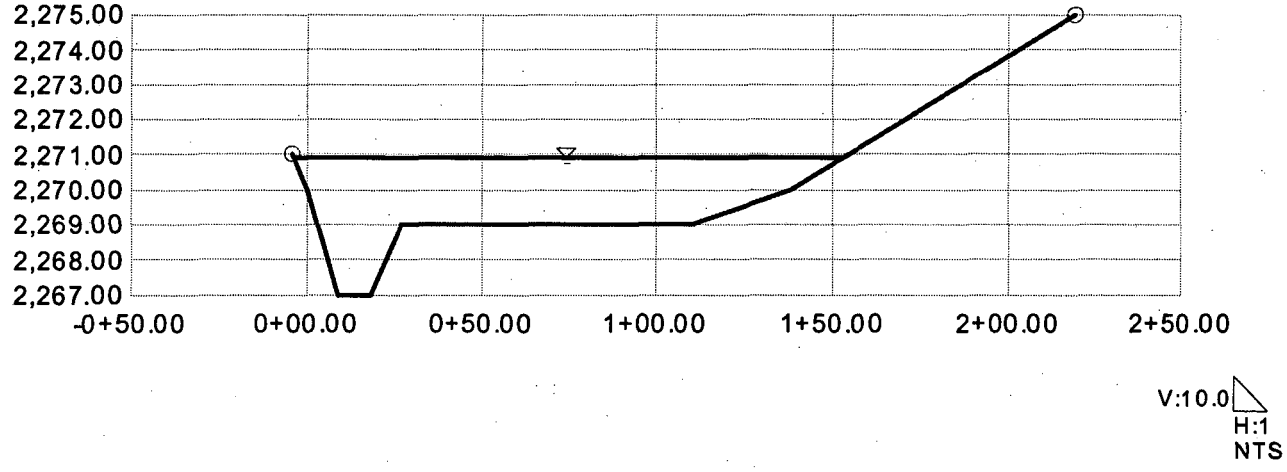
Natural Channel Points

Station (ft)	Elevation (ft)
-0+04.30	2,271.00
0+00.00	2,270.00
0+09.00	2,267.00
0+18.00	2,267.00
0+27.00	2,269.00
1+10.00	2,269.00
1+38.00	2,270.00
2+19.00	2,275.00

Cross Section 16
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 16
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	1.8500	%
Water Surface Elevation	2,270.90	ft
Elevation Range	2,267.00 to 2,275.00	
Discharge	2,489.00	cfs



Worksheet 17
Worksheet for Irregular Channel

Berms #2+3 removed

Project Description	
Worksheet	Irregular Channel - 17
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	1.6700	%
Discharge	2,489.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	69.86	ft
Elevation Range	66.00 to 75.00	
Flow Area	328.1	ft²
Wetted Perimeter	201.79	ft
Top Width	200.48	ft
Actual Depth	3.86	ft
Critical Elevation	69.91	ft
Critical Slope	1.5177	%
Velocity	7.59	ft/s
Velocity Head	0.89	ft
Specific Energy	70.75	ft
Froude Number	1.05	
Flow Type	Supercritical	

Calculation Messages:
Flow is divided.

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	5+29.00	0.035

Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	71.00
0+61.00	71.00
0+76.00	71.00
0+80.00	71.00
0+92.00	71.00
1+06.00	71.00
1+19.00	71.00
1+22.00	71.00
1+39.00	66.00
1+43.00	66.00

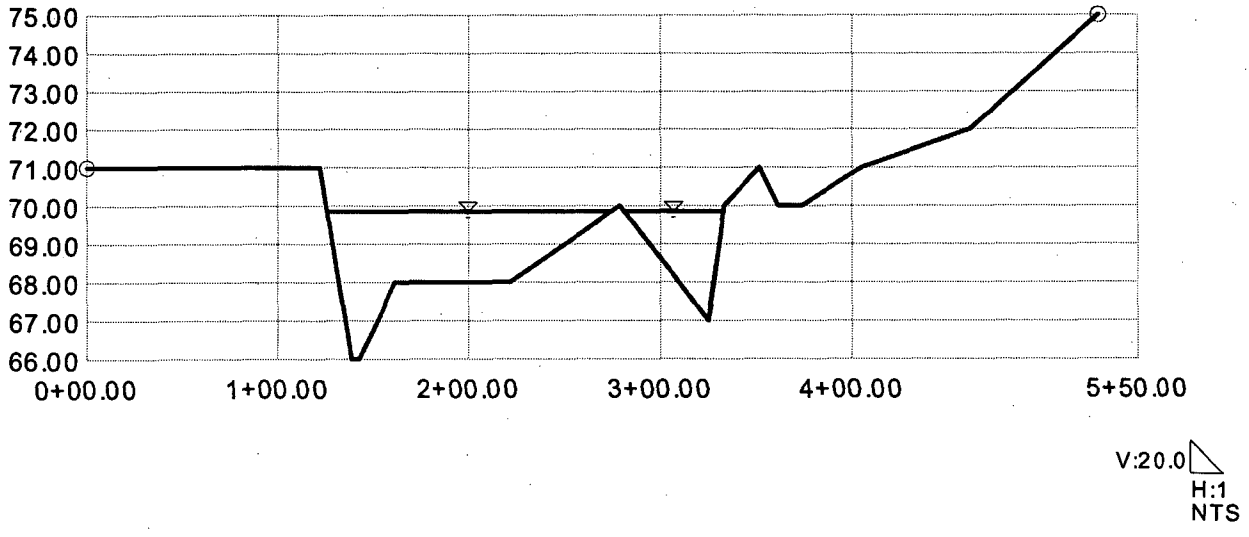
Worksheet 17
Worksheet for Irregular Channel

Natural Channel Points	
Station (ft)	Elevation (ft)
1+61.00	68.00
2+22.00	68.00
2+79.00	70.00
3+25.00	67.00
3+33.00	70.00
3+51.00	71.00
3+61.00	70.00
3+74.00	70.00
4+05.00	71.00
4+62.00	72.00
5+29.00	75.00

Cross Section 17
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 17
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	1.6700	%
Water Surface Elevation	69.86	ft
Elevation Range	66.00 to 75.00	
Discharge	2,489.00	cfs

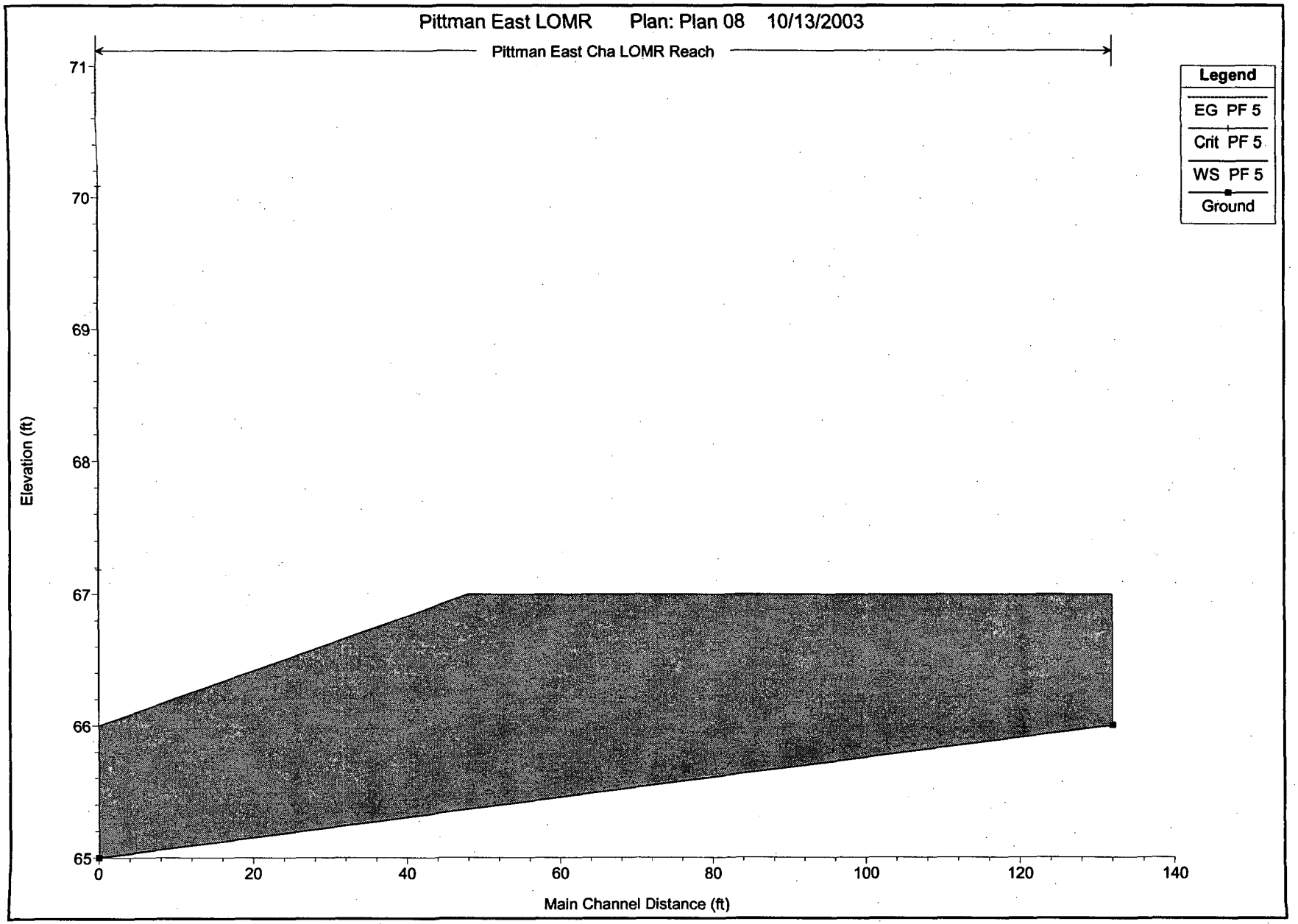


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HEC-RAS Plan: Plan 08 River: Pittman East Cha Reach: LOMR Reach Profile: PF 5

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
LOMR Reach	2	PF 5	2489.00	66.00	70.08	70.08	70.99	0.015206	7.63	326.41	182.53	1.00
LOMR Reach	1.5		Lat Struct									
LOMR Reach	1	PF 5	1803.00	65.00	66.11	67.18	70.63	0.167418	17.05	105.74	108.51	3.04

Cross-Section 18, Berm #243 removed, HEC-Ras Lateral Weir to determine Flow split, 686 cfs splits and drains North towards Dave street, 1,803 cfs continues Easterly towards Jeffries St.


Pittman East LOMR Plan: Plan 08 10/13/2003
Pittman East Cha LOMR Reach
Legend
EG PF 5
Crit PF 5
WS PF 5
Ground
Elevation (ft)
71
70
69
68
67
66
65
0
20
40
60
80
100
120
140
Main Channel Distance (ft)

Worksheet 19
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 19
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	2.1900	%
Discharge	1,803.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,266.18	ft
Elevation Range	2,264.00 to 2,270.00	
Flow Area	223.5	ft²
Wetted Perimeter	153.59	ft
Top Width	153.18	ft
Actual Depth	2.18	ft
Critical Elevation	2,266.35	ft
Critical Slope	1.5262	%
Velocity	8.07	ft/s
Velocity Head	1.01	ft
Specific Energy	2,267.19	ft
Froude Number	1.18	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	2+57.00	0.035

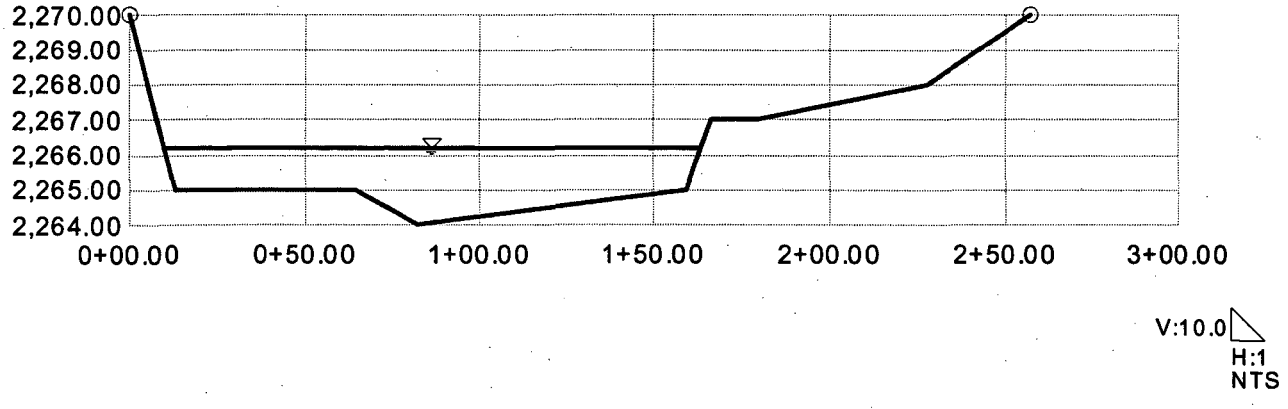
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	2,270.00
0+13.00	2,265.00
0+64.00	2,265.00
0+82.00	2,264.00
1+59.00	2,265.00
1+66.00	2,267.00
1+79.00	2,267.00
2+28.00	2,268.00
2+57.00	2,270.00

Cross Section 19
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 19
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	2.1900	%
Water Surface Elevation	2,266.18	ft
Elevation Range	2,264.00 to 2,270.00	
Discharge	1,803.00	cfs



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Worksheet 20
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 20
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	1.1751	%
Discharge	1,803.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	65.43	ft
Elevation Range	62.00 to 70.00	
Flow Area	221.6	ft²
Wetted Perimeter	94.25	ft
Top Width	92.93	ft
Actual Depth	3.43	ft
Critical Elevation	65.30	ft
Critical Slope	1.3767	%
Velocity	8.14	ft/s
Velocity Head	1.03	ft
Specific Energy	66.46	ft
Froude Number	0.93	
Flow Type	Subcritical	

Calculation Messages:
Flow is divided.

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	3+72.00	0.035

Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	66.00
0+90.00	66.00
1+01.00	62.00
1+30.00	62.00
1+53.00	63.00
1+63.00	64.00
1+67.00	66.00
1+78.00	64.00
1+83.00	64.00
1+91.00	66.00

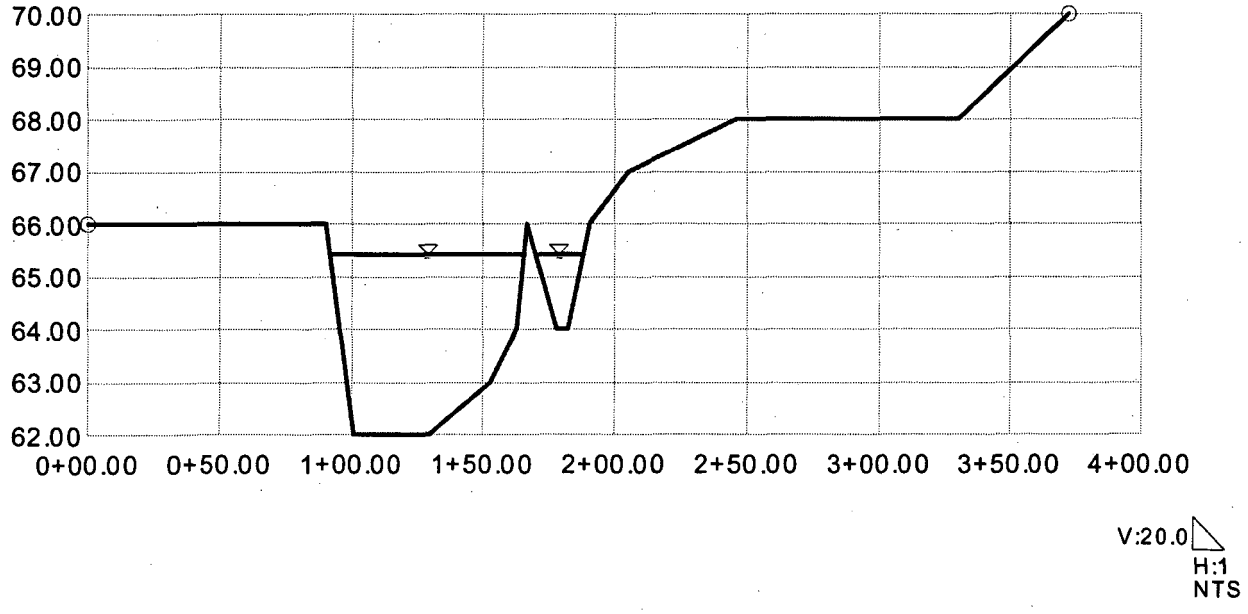
Worksheet 20
Worksheet for Irregular Channel

Natural Channel Points	
Station (ft)	Elevation (ft)
2+05.00	67.00
2+46.00	68.00
3+30.00	68.00
3+72.00	70.00

Cross Section 20
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 20
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	1.1751	%
Water Surface Elevation	65.43	ft
Elevation Range	62.00 to 70.00	
Discharge	1,803.00	cfs



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Worksheet 21
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 21
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	3.2200	%
Discharge	1,803.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	2,256.62	ft
Elevation Range	2,253.00 to 2,264.00	
Flow Area	120.1	ft²
Wetted Perimeter	43.38	ft
Top Width	41.92	ft
Actual Depth	3.62	ft
Critical Elevation	2,257.69	ft
Critical Slope	1.2318	%
Velocity	15.02	ft/s
Velocity Head	3.50	ft
Specific Energy	2,260.12	ft
Froude Number	1.56	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	0+61.00	0.035

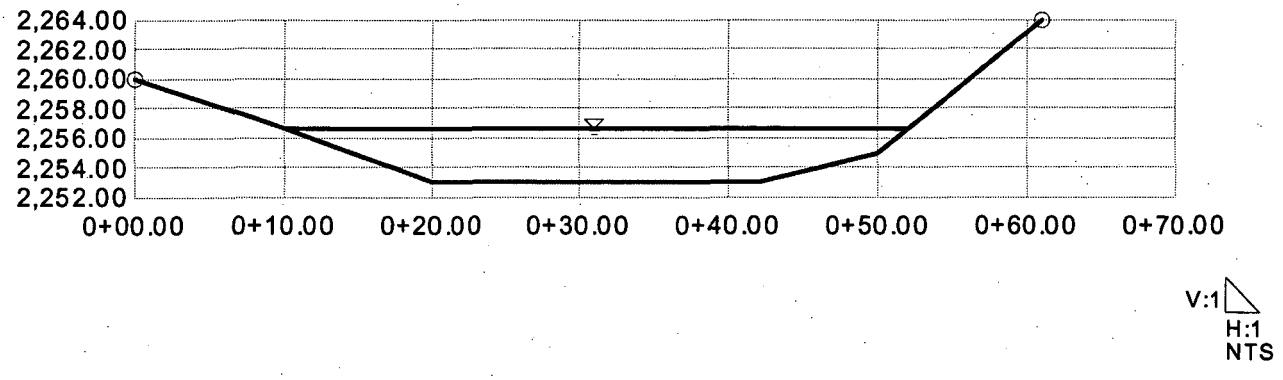
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	2,260.00
0+09.00	2,257.00
0+20.00	2,253.00
0+42.00	2,253.00
0+50.00	2,255.00
0+61.00	2,264.00

Cross Section 21
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 21
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	3.2200	%
Water Surface Elevation	2,256.62	ft
Elevation Range	2,253.00 to 2,264.00	
Discharge	1,803.00	cfs



Worksheet 22
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 22
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	0.3015	%
Discharge	686.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.035	
Water Surface Elevation	61.04	ft
Elevation Range	58.00 to 62.00	
Flow Area	196.5	ft²
Wetted Perimeter	107.16	ft
Top Width	106.30	ft
Actual Depth	3.04	ft
Critical Elevation	60.23	ft
Critical Slope	1.7259	%
Velocity	3.49	ft/s
Velocity Head	0.19	ft
Specific Energy	61.23	ft
Froude Number	0.45	
Flow Type	Subcritical	

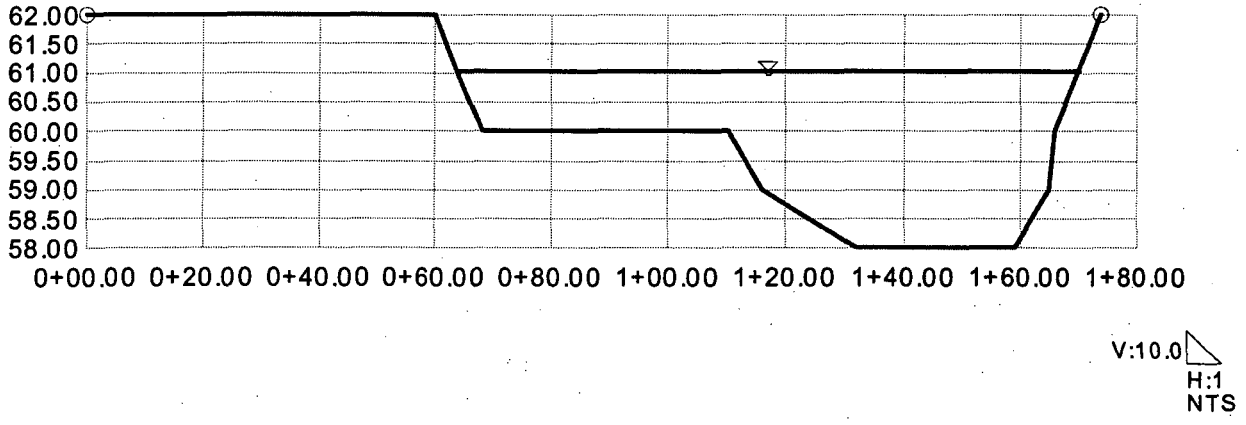
Roughness Segments		
Start Station	End Station	Mannings Coefficient
0+00.00	1+74.00	0.035

Natural Channel Points	
Station (ft)	Elevation (ft)
0+00.00	62.00
0+60.00	62.00
0+64.00	61.00
0+68.00	60.00
1+10.00	60.00
1+16.00	59.00
1+32.00	58.00
1+59.00	58.00
1+65.00	59.00
1+66.00	60.00
1+70.00	61.00
1+74.00	62.00

Cross Section 22
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 22
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	0.3015	%
Water Surface Elevation	61.04	ft
Elevation Range	58.00 to 62.00	
Discharge	686.00	cfs

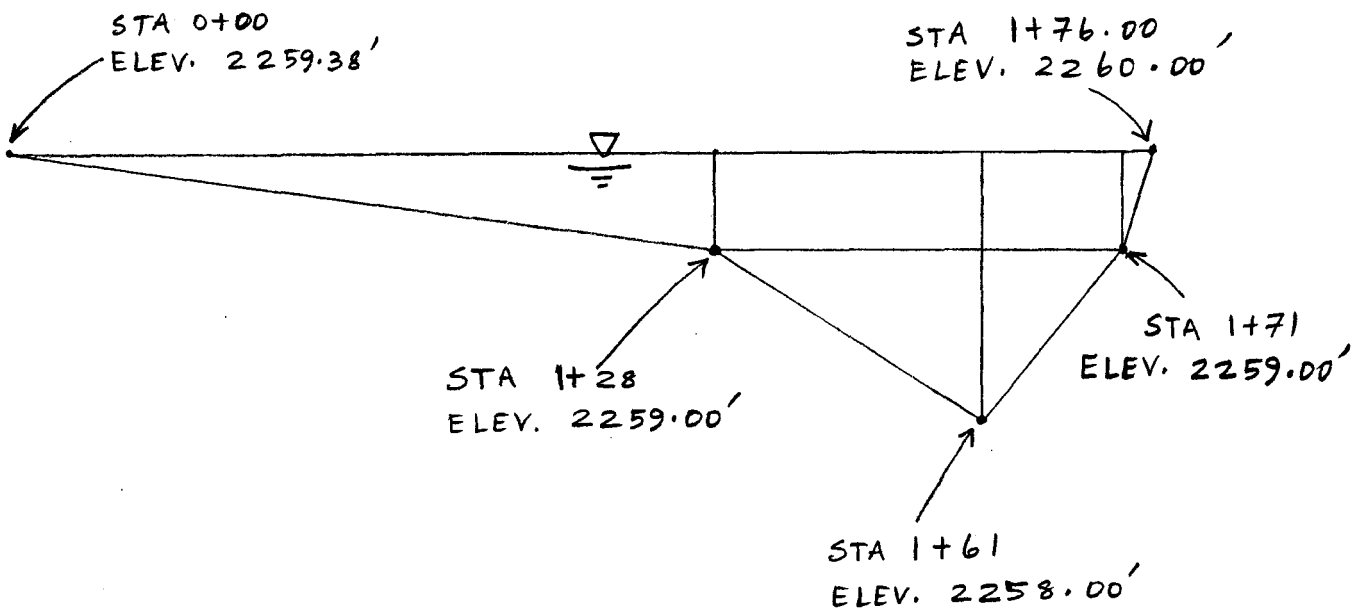


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COMP. BY: AKS
CHK.BY:
DATE: 11-24-2003
SHEET NO.: 1 of 2
JOB NO.: 51-1542

Subject: Pittman East Detention Basin
Weir Calculations @ Intersection of
Dave & Stinnet Streets.

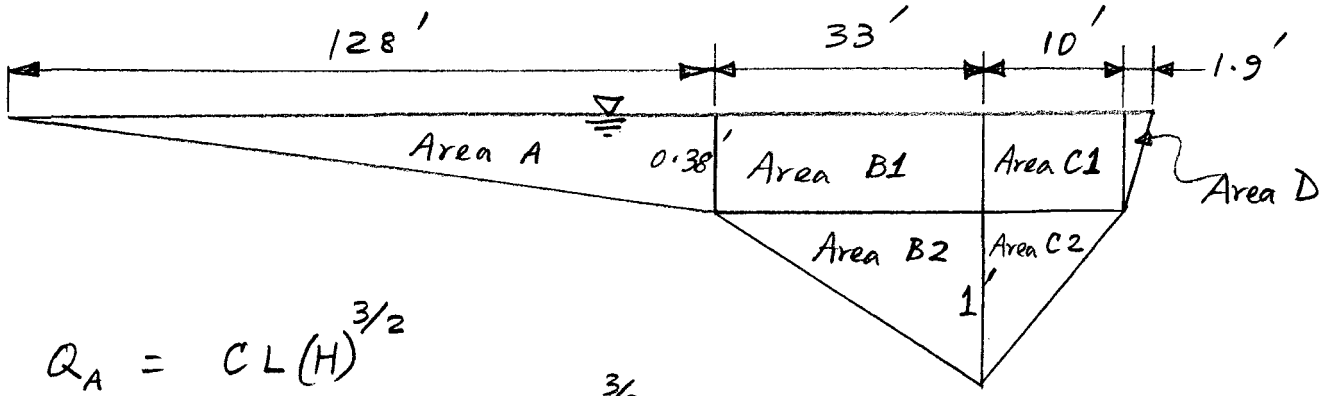


Cross- Section CS-23

PBS&J

COMP. BY: AKS
CHK.BY:
DATE: 11-24-2003
SHEET NO.: 2 of 2
JOB NO.: 51-1542_F1S

Subject: Pittman East Detention Basin
Weir Calculations @ Intersection
of Dave Street & Stinnet Street



$$Q_A = C L (H)^{3/2}$$

$$= 3.0 \times 128 \times \left(\frac{0.38}{2}\right)^{3/2} = 31.80 \text{ cfs}$$

$$Q_{B1} = 3 \times 33 \times (0.38)^{3/2} = 23.19 \text{ cfs}$$

$$Q_{B2} = 3 \times 33 \times \left(\frac{1}{2}\right)^{3/2} = 35.00 \text{ cfs}$$

$$Q_{C1} = 3 \times 10 \times (0.38)^{3/2} = 7.03 \text{ cfs}$$

$$Q_{C2} = 3 \times 10 \times \left(\frac{1}{2}\right)^{3/2} = 10.61 \text{ cfs}$$

$$Q_D = 3 \times 1.9 \times \left(\frac{0.38}{2}\right)^{3/2} = 0.47 \text{ cfs}$$

$Q_{WEIR\ TOTAL} = Q_A + Q_{B1} + Q_{B2} + Q_{C1} + Q_{C2} + Q_D$

$= \boxed{108.1 \text{ cfs}}$

Worksheet 24
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 24 (60' ROW HALF STREET)
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Slope	2.0000 %
Discharge	108.10 cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.014	
Water Surface Elevation	0.84	ft
Elevation Range	0.00 to 4.00	
Flow Area	12.8	ft²
Wetted Perimeter	31.00	ft
Top Width	30.00	ft
Actual Depth	0.84	ft
Critical Elevation	1.15	ft
Critical Slope	0.3317	%
Velocity	8.43	ft/s
Velocity Head	1.10	ft
Specific Energy	1.94	ft
Froude Number	2.27	
Flow Type	Supercritical	

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	0+24.50	0.013
0+24.50	0+30.00	0.017

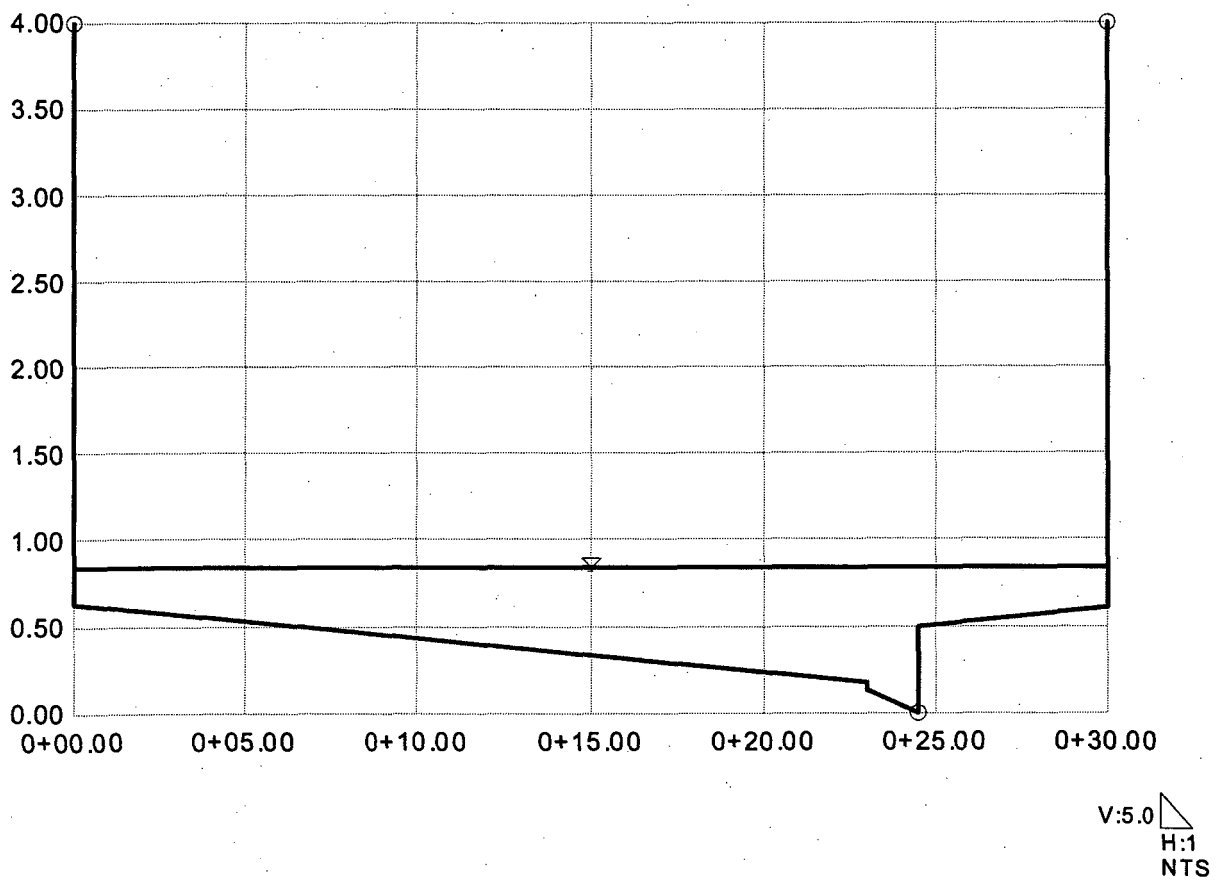
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	4.00
0+00.00	0.63
0+23.00	0.17
0+23.00	0.13
0+24.50	0.00
0+24.50	0.50
0+30.00	0.60
0+30.00	4.00

Cross Section 24
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 24 (60' ROW HALF STREET)
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.014	
Slope	2.0000	%
Water Surface Elevation	0.84	ft
Elevation Range	0.00 to 4.00	
Discharge	108.10	cfs



Worksheet 25
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 25
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Slope	0.3173 %
Discharge	686.00 cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results	
Mannings Coefficient	0.017
Water Surface Elevation	59.38 ft
Elevation Range	58.00 to 62.00
Flow Area	156.2 ft²
Wetted Perimeter	180.08 ft
Top Width	179.66 ft
Actual Depth	1.38 ft
Critical Elevation	59.28 ft
Critical Slope	0.4785 %
Velocity	4.39 ft/s
Velocity Head	0.30 ft
Specific Energy	59.68 ft
Froude Number	0.83
Flow Type	Subcritical

Calculation Messages:
Water elevation exceeds lowest end station by 0.37947047 ft.

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	1+77.00	0.017
1+77.00	1+88.00	0.035

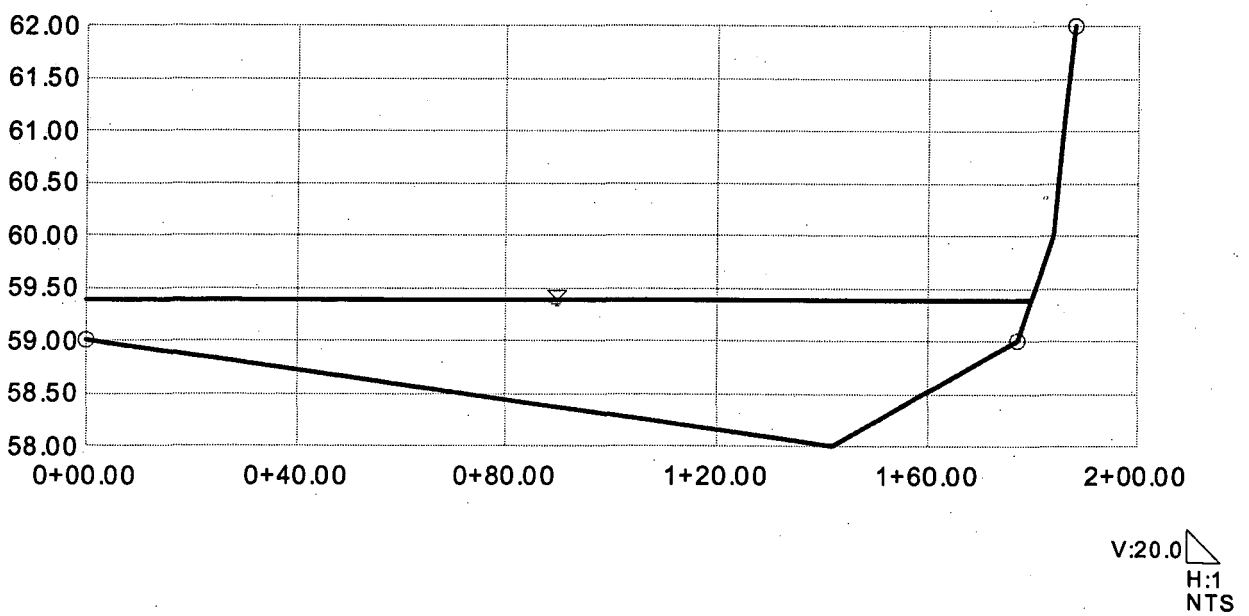
Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	59.00
1+42.00	58.00
1+77.00	59.00
1+84.00	60.00
1+86.00	61.00
1+88.00	62.00

Cross Section 25
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 25
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.017	
Slope	0.3173	%
Water Surface Elevation	59.38	ft
Elevation Range	58.00 to 62.00	
Discharge	686.00	cfs



Worksheet 26
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 26
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	0.7600	%
Discharge	578.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.016	
Water Surface Elevation	2,258.74	ft
Elevation Range	2,257.00 to 2,262.00	
Flow Area	63.9	ft²
Wetted Perimeter	54.23	ft
Top Width	53.46	ft
Actual Depth	1.74	ft
Critical Elevation	2,259.11	ft
Critical Slope	0.3355	%
Velocity	9.05	ft/s
Velocity Head	1.27	ft
Specific Energy	2,260.01	ft
Froude Number	1.46	
Flow Type	Supercritical	

Calculation Messages:
Flow is divided.

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	0+06.93	0.035
0+06.93	0+15.33	0.015
0+15.33	0+53.92	0.017
0+53.92	0+63.00	0.035

Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	2,259.00
0+02.08	2,258.00
0+06.93	2,259.00
0+15.33	2,258.00
0+23.73	2,257.00
0+38.50	2,257.43
0+53.92	2,257.00

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Project Engineer: Post, Buckley, Schuh & Jernigan, Inc.

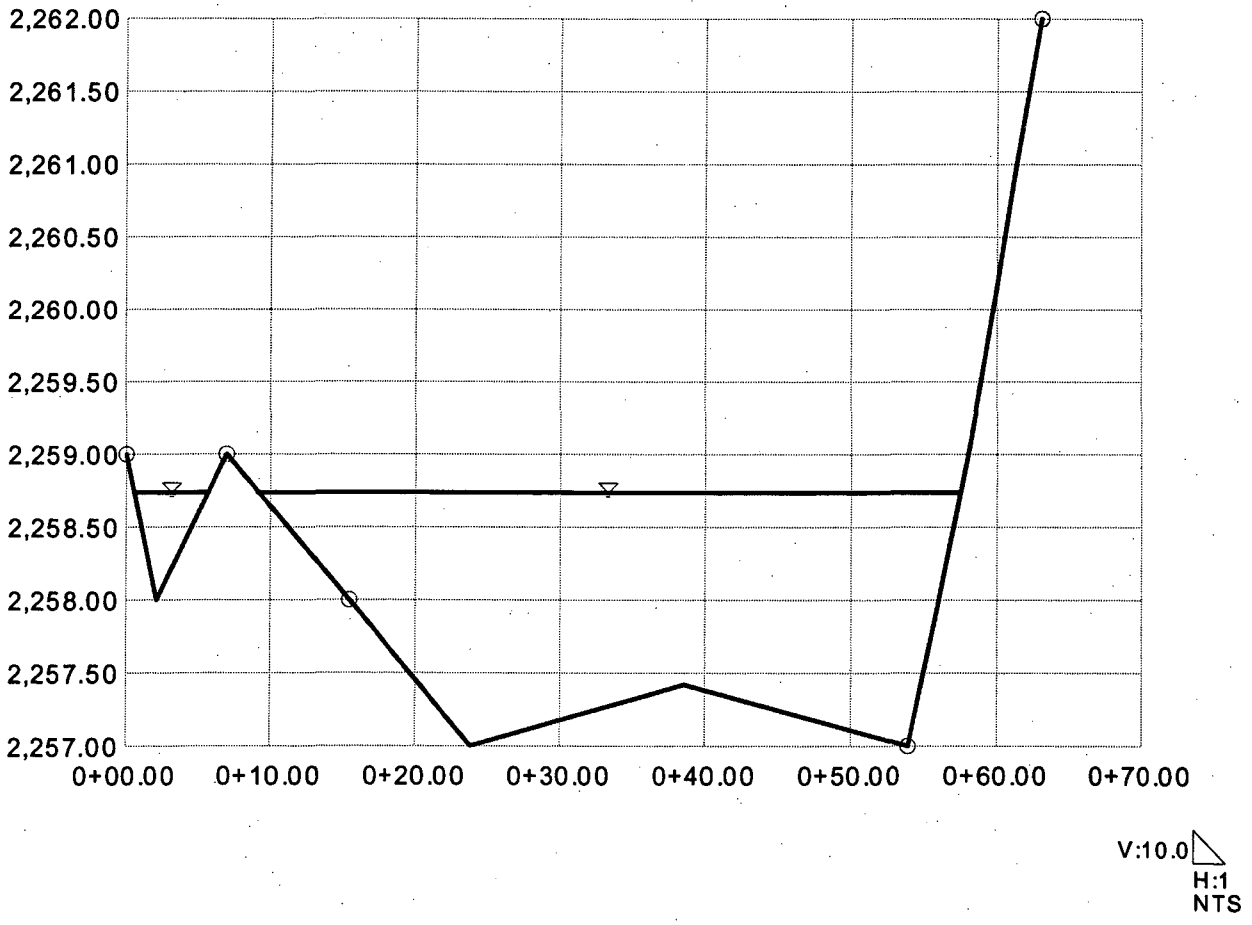
Worksheet 26
Worksheet for Irregular Channel

Natural Channel Points	
Station (ft)	Elevation (ft)
0+56.06	2,258.00
0+57.92	2,259.00
0+59.62	2,260.00
0+61.29	2,261.00
0+63.00	2,262.00

CROSS-SECTION - 26
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 26
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.016	
Slope	0.7600	%
Water Surface Elevation	2,258.74	ft
Elevation Range	2,257.00 to 2,262.00	
Discharge	578.00	cfs



Worksheet 27
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 27
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	2.0500	%
Discharge	578.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.031	
Water Surface Elevation	50.47	ft
Elevation Range	49.47 to 51.00	
Flow Area	171.8	ft²
Wetted Perimeter	499.08	ft
Top Width	498.51	ft
Actual Depth	1.00	ft
Critical Elevation	50.47	ft
Critical Slope	2.0054	%
Velocity	3.36	ft/s
Velocity Head	0.18	ft
Specific Energy	50.65	ft
Froude Number	1.01	
Flow Type	Supercritical	

Calculation Messages:
Flow is divided.

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.00	1+28.79	0.017
1+28.79	5+83.00	0.035

Natural Channel Points

Station (ft)	Elevation (ft)
0+00.00	50.50
1+07.54	49.97
1+07.54	49.47
1+28.79	50.28
2+75.44	50.00
2+92.00	49.50
3+27.00	50.50
3+58.00	49.50
3+72.00	50.00

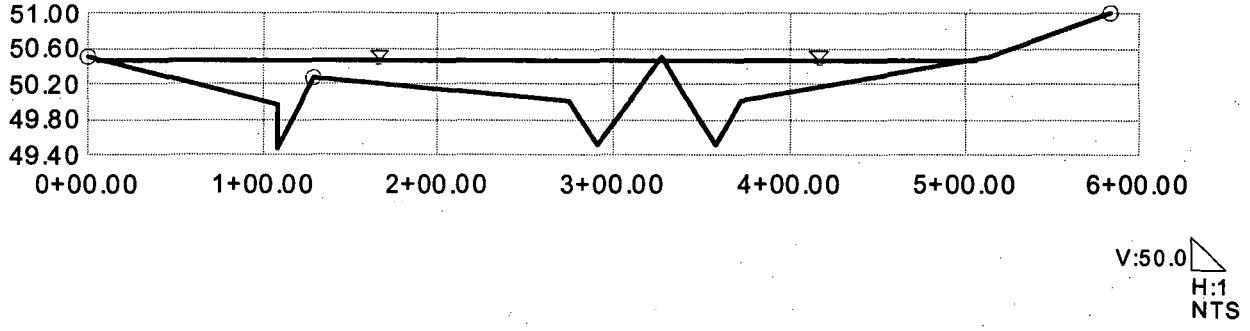
Worksheet 27
Worksheet for Irregular Channel

Natural Channel Points	
Station (ft)	Elevation (ft)
5+14.00	50.50
5+83.00	51.00

Cross Section 27
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 27
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.031	
Slope	2.0500	%
Water Surface Elevation	50.47	ft
Elevation Range	49.47 to 51.00	
Discharge	578.00	cfs



Worksheet 28
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 28
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Slope	2.6450 %
Discharge	578.00 cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results	
Mannings Coefficient	0.035
Water Surface Elevation	39.22 ft
Elevation Range	37.00 to 42.00
Flow Area	107.8 ft²
Wetted Perimeter	157.63 ft
Top Width	157.48 ft
Actual Depth	2.22 ft
Critical Elevation	39.30 ft
Critical Slope	2.0019 %
Velocity	5.36 ft/s
Velocity Head	0.45 ft
Specific Energy	39.67 ft
Froude Number	1.14
Flow Type	Supercritical

Calculation Messages:
Flow is divided.

Roughness Segments		
Start Station	End Station	Mannings Coefficient
0+00.00	8+46.00	0.035

Natural Channel Points	
Station (ft)	Elevation (ft)
0+00.00	40.00
1+61.00	40.00
2+31.00	41.00
2+85.00	40.00
3+28.00	37.00
3+77.00	40.00
5+00.00	40.00
5+80.00	42.00
6+60.00	40.00
7+34.00	38.50

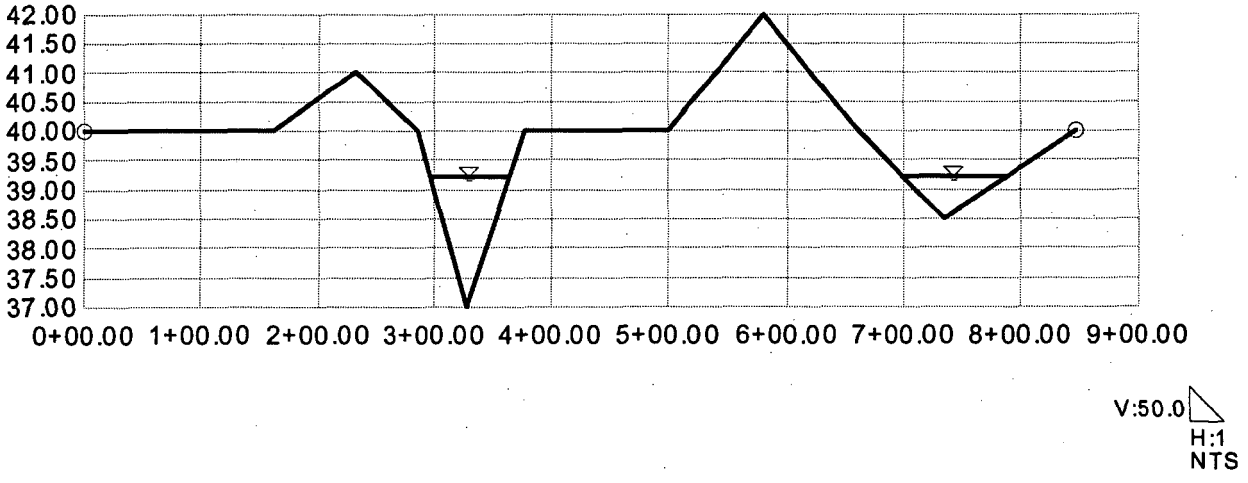
Worksheet 28
Worksheet for Irregular Channel

Natural Channel Points	
Station (ft)	Elevation (ft)
8+46.00	40.00

Cross Section 28
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 28
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.035	
Slope	2.6450	%
Water Surface Elevation	39.22	ft
Elevation Range	37.00 to 42.00	
Discharge	578.00	cfs



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Worksheet 29
Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 29
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Slope	0.9688	%
Discharge	578.00	cfs

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results		
Mannings Coefficient	0.032	
Water Surface Elevation	29.62	ft
Elevation Range	27.00 to 30.50	
Flow Area	135.4	ft²
Wetted Perimeter	151.84	ft
Top Width	151.68	ft
Actual Depth	2.62	ft
Critical Elevation	29.44	ft
Critical Slope	1.5429	%
Velocity	4.27	ft/s
Velocity Head	0.28	ft
Specific Energy	29.90	ft
Froude Number	0.80	
Flow Type	Subcritical	

Calculation Messages:
Flow is divided.

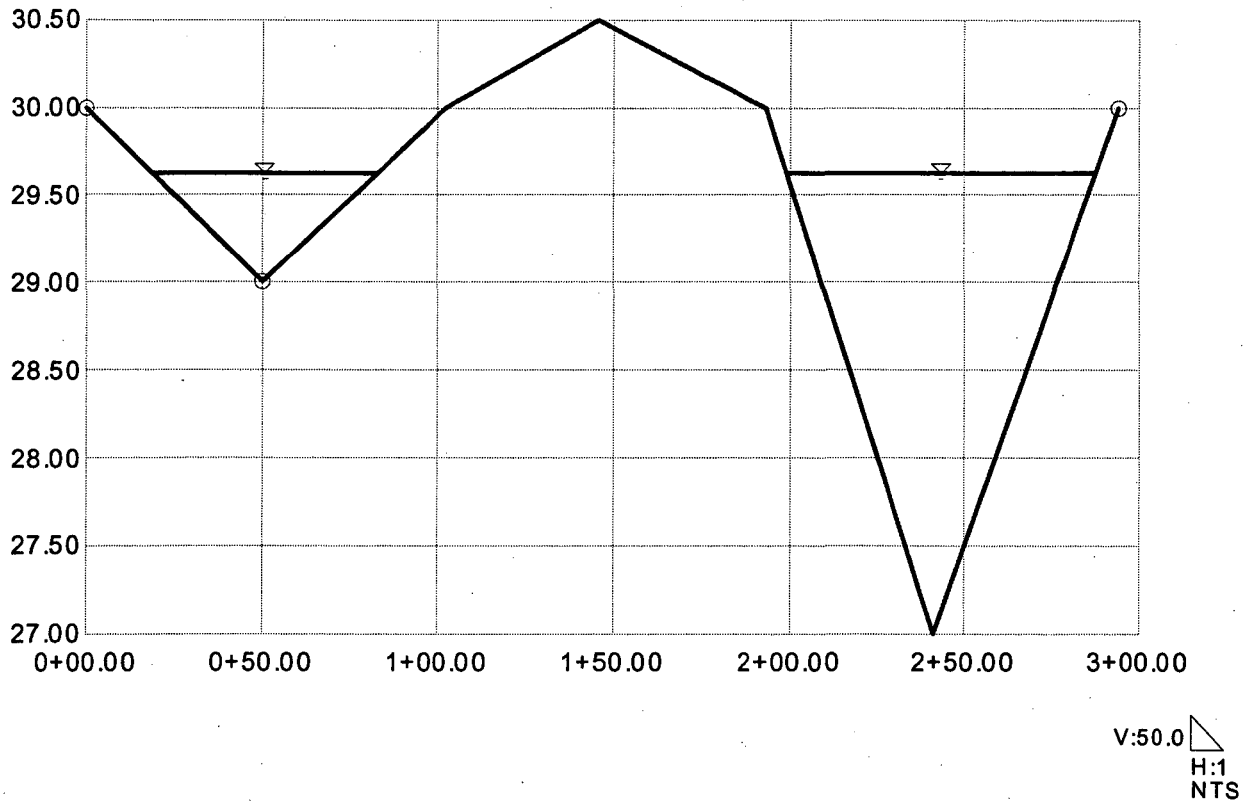
Roughness Segments		
Start Station	End Station	Mannings Coefficient
0+00.00	0+50.00	0.017
0+50.00	2+94.00	0.035

Natural Channel Points	
Station (ft)	Elevation (ft)
0+00.00	30.00
0+50.00	29.00
1+02.00	30.00
1+46.00	30.50
1+93.00	30.00
2+41.00	27.00
2+94.00	30.00

Cross Section 29
Cross Section for Irregular Channel

Project Description	
Worksheet	Irregular Channel - 29
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

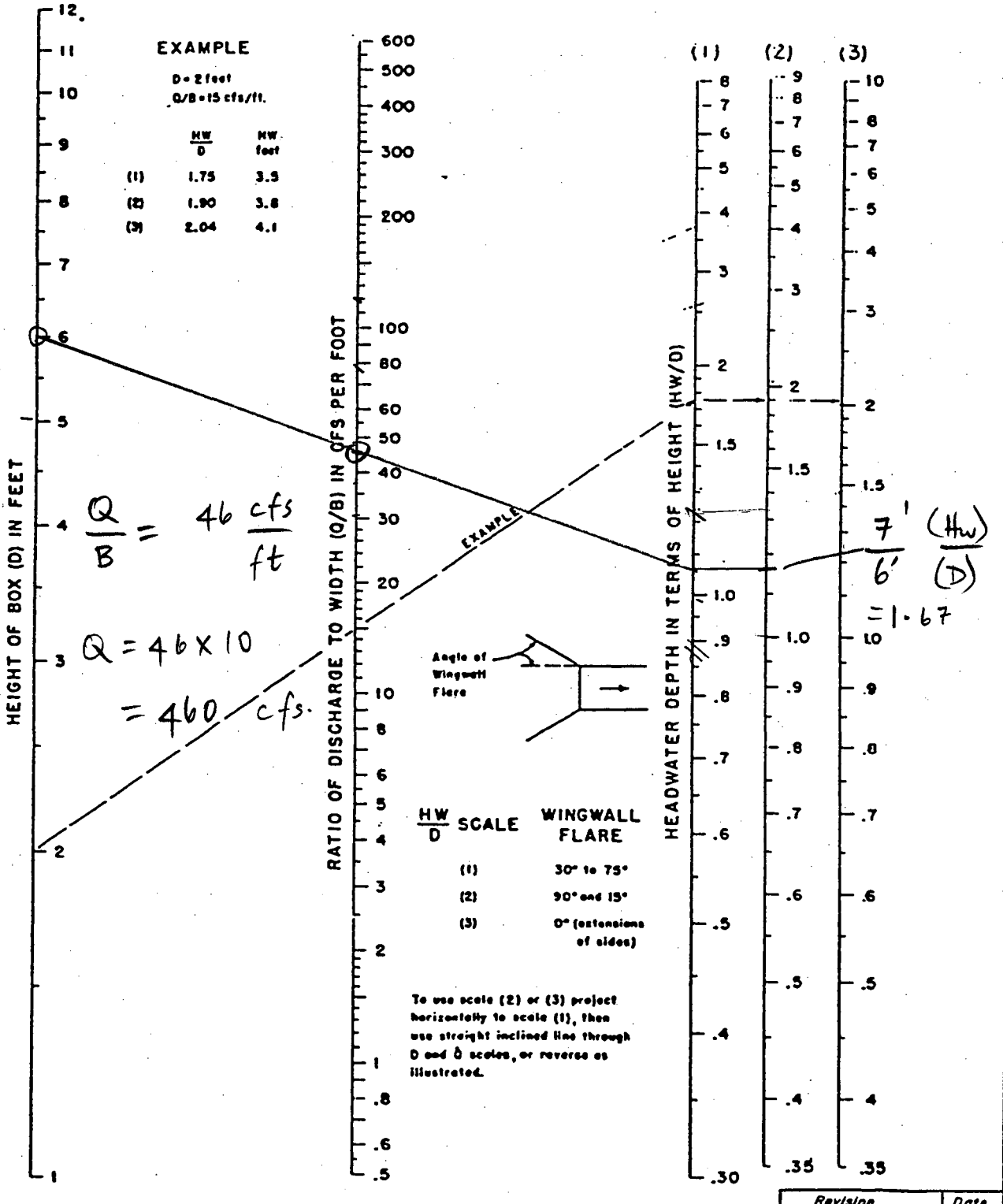
Section Data		
Mannings Coefficient	0.032	
Slope	0.9688	%
Water Surface Elevation	29.62	ft
Elevation Range	27.00 to 30.50	
Discharge	578.00	cfs



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Existing 10'x6' RCB under St. Rose Pkwy.

NOMOGRAPH – INLET CONTROL BOX CULVERT



Revision	Date

WRC ENGINEERING

REFERENCE: USDOT, FHWA, HDS No.5, 1985

FIGURE 1004

APPENDIX E

As-Built Plans

PBS&J

ENGINEERING · PLANNING
CONSTRUCTION SERVICES
SURVEYING

December 1, 2003

Mr. Max H. Yuan, P.E.
Federal Emergency Management Agency
Mitigation Hazard Identification Branch
500 C Street, SW
Washington, DC 20472

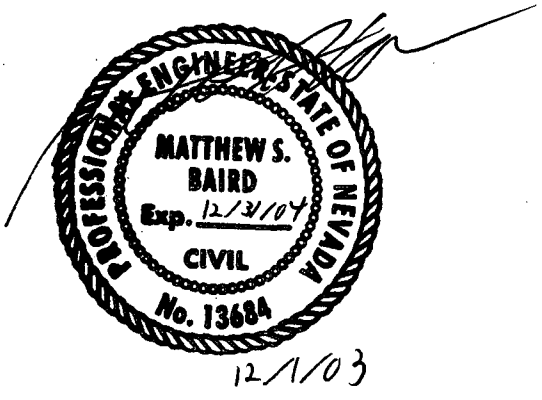
RE: AS-BUILT CERTIFICATION FOR LETTER OF MAP REVISION APPLICATION FOR PITTMAN EAST DETENTION BASIN
PBS&J REFERNCE NO.: 511542.00
FEMA CASE NO.: 02-09-1171R

Dear Mr. Yuan,

I, Matt Baird, hereby certify that the Jeffreys Apartment development was built in substantial conformance with the grading plans, included in this LOMR, by VPoint sheets 8 through 15.

Sincerely,

PBS&J

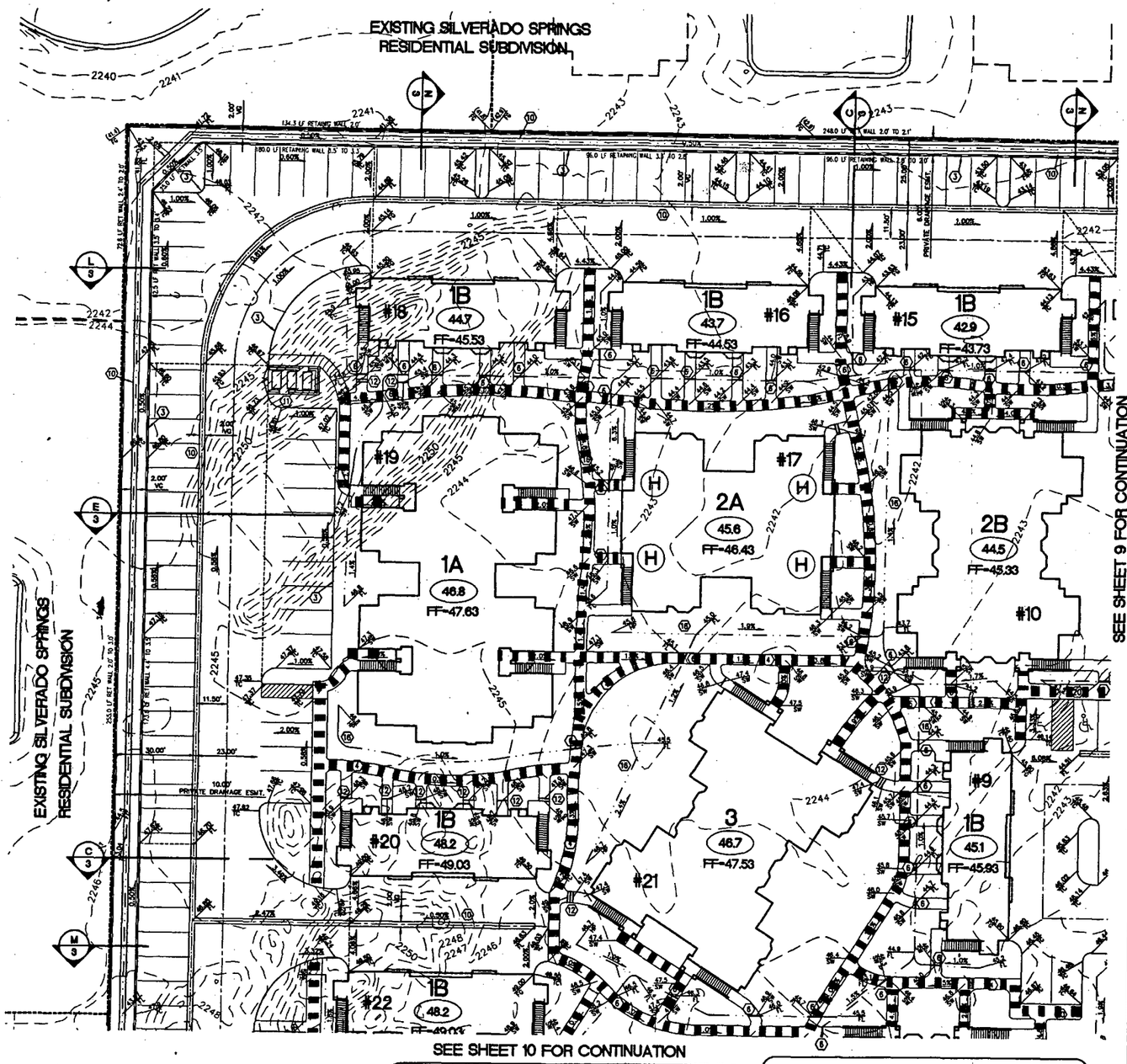


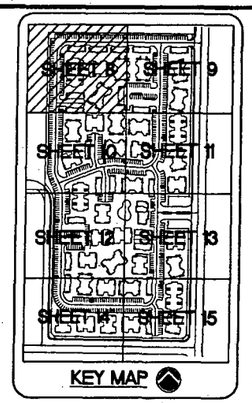
12/1/03

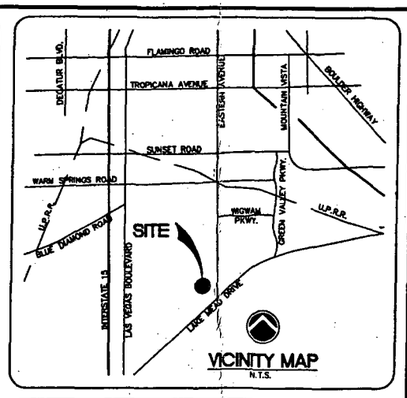
Matthew S. Baird, P.E., CFM
Lic. 13684, Nevada

2270 Corporate Circle · Suite 100 · Henderson, Nevada 89074-6382 · Telephone 702/263-7275 · Fax 702/263-7200

Grading Plans for Jeffreys Apartment development







STREETNAME STREETNAME STREETNAME STREETNAME

NOTE:
SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

S.V.R.E. DETAIL

NOTE:
NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
S1	N00°38'08"W	37.16'
S2	N90°41'52"E	45.32'
S3	N00°18'25"E	33.09'
S4	N44°31'00"W	8.97'
S5	S89°20'35"E	61.00'
S6	S84°42'53"E	25.63'
S7	S00°25'10"E	33.06'
S8	S45°29'41"E	27.16'
S9	N89°20'35"W	22.80'
S10	N00°18'52"E	30.88'
S11	S44°41'08"E	23.39'
S12	S04°47'18"E	36.29'
S13	S00°18'52"W	36.00'
S14	S45°18'52"W	23.39'
S15	N05°22'00"W	36.88'
S16	N00°18'52"E	39.00'
S17	S44°37'21"E	15.29'
S18	S03°56'48"E	35.38'
S19	S00°21'08"W	31.01'
S20	N45°22'49"E	15.40'
S21	S00°07'46"W	8.15'
S22	S89°38'48"E	3.41'
S23	N00°21'08"E	3.00'

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
SC1	15.00'	89°38'59"	23.47'	14.91'
SC2	25.00'	90°00'43"	39.27'	25.00'
SC3	20.00'	90°00'00"	31.42'	20.00'
SC4	15.00'	89°59'17"	23.56'	14.99'
SC5	15.00'	90°03'06"	23.58'	15.01'

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING
BY: _____
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		SCREEN WALL
		RETAINING WALL
		SWALE
	(H)	DESIGNATED HANDICAP UNIT
	#10	UNIT NUMBER
	(1)	BLOCK NUMBER
2700	2700	CONTOUR
	BFE=00.00	BASE FLOOD ELEV.
	FF=00.00	FINISH FLOOR ELEV.
	00.0	PAD ELEVATION
		FINISH GRADE
		FLOW LINE
		TOP OF CURB
		HIGH POINT
		EDGE OF PAVEMENT
		SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
(1.00%)	1.00%	RATE & DIR. OF FLOW
		HANDICAP ACCESS ROUTE
		SIDEWALK UNDER DRAIN
[ ]		FUTURE
( )		EXISTING

CONSTRUCTION NOTES

1. CONST. "L" TYPE CURB PER C.C. AREA STD. DWG. #216
2. CONST. ROLL TYPE CURB PER C.C. AREA STD. DWG. #217
3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
4. CONST. 4' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
5. CONST. 8' CROSS GUTTER PER C.C. AREA STD. DWG. #228
6. CONST. SIDEWALK UNDER DRAIN PER DETAIL "I" SHEET 4
7. CONST. CASE I HANDICAP RAMP PER C.C. AREA STD. DWG. #235
8. CONST. 2' SIDEWALK UNDER DRAIN PER C.C. AREA STD. DWG. #236
9. CONST. 8' HALF ST. CROSS GUTTER PER C.C. AREA STD. DWG. #229
10. CONST. 2' CONCRETE CROSS GUTTER PER DETAIL "O" SHEET 3
11. CONST. TRASH ENCLOSURE PER DETAIL "A" SHEET 4
12. CONST. STEP PER DETAIL "E" SHEET 4
13. CONST. CURB CUT PER DETAIL "C" SHEET 4
14. CONST. HANDICAP RAMP PER DETAIL "G" SHEET 4
15. CONST. HANDICAP LOADING ZONE PER DETAIL "F" SHEET 4
16. CONST. 1' EARTH SWALE PER DETAIL "B" SHEET 4
17. INSTALL 30" PVC DRAINAGE PIPE
18. CONST. 6' CONCRETE CROSS GUTTER PER DETAIL "P" SHEET 3
19. CONST. 5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
20. CONST. 5.5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
21. CONST. 5.0' WIDE CONC. GUTTER PER DETAIL "K" SHEET 4

GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 inch = 20 ft.

BENCHMARK

CLARK COUNTY BENCHMARK OC21-2SWC:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146.
NAD88 DATUM 690.680 METERS (2266.006 FEET)

BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTHERLY LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 28, TOWNSHIP 22 SOUTH, RANGE 61 EAST, M.D.M., CITY OF HENDERSON, CLARK COUNTY, NEVADA, WHICH BEARS, SOUTH 89°21'41" EAST, AS PER MAP RECORDED IN FILE 88, PAGE 98 OF PARCEL MAPS IN THE OFFICE OF SAID COUNTY RECORDER.

GENERAL NOTES

1. SEE IMPROVEMENT PLANS FOR STREET SECTIONS AND DETAILS. SEE HORIZONTAL CONTROL FOR EXACT BEARINGS AND DISTANCES.
2. *THE QUANTITIES SHOWN HERON ARE ESTIMATES ONLY AND ARE* NOT TO BE USED FOR BIDDING PURPOSES.
3. CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DESCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123

PROFESSIONAL ENGINEER-STATE OF NEVADA PETER K. LAU No. 14444
5/31/01

CAUTION TO CONTRACTOR !

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

CALL BEFORE YOU DO OVERHEAD
1-702-593-6111
NEVADA POWER COMPANY & SIERRA PACIFIC POWER COMPANY

Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

APPROVED	DATE	BY	REVISION
A			

TITLE: GRADING PLAN I

PROJECT: JEFFREYS APARTMENT
CLARK COUNTY

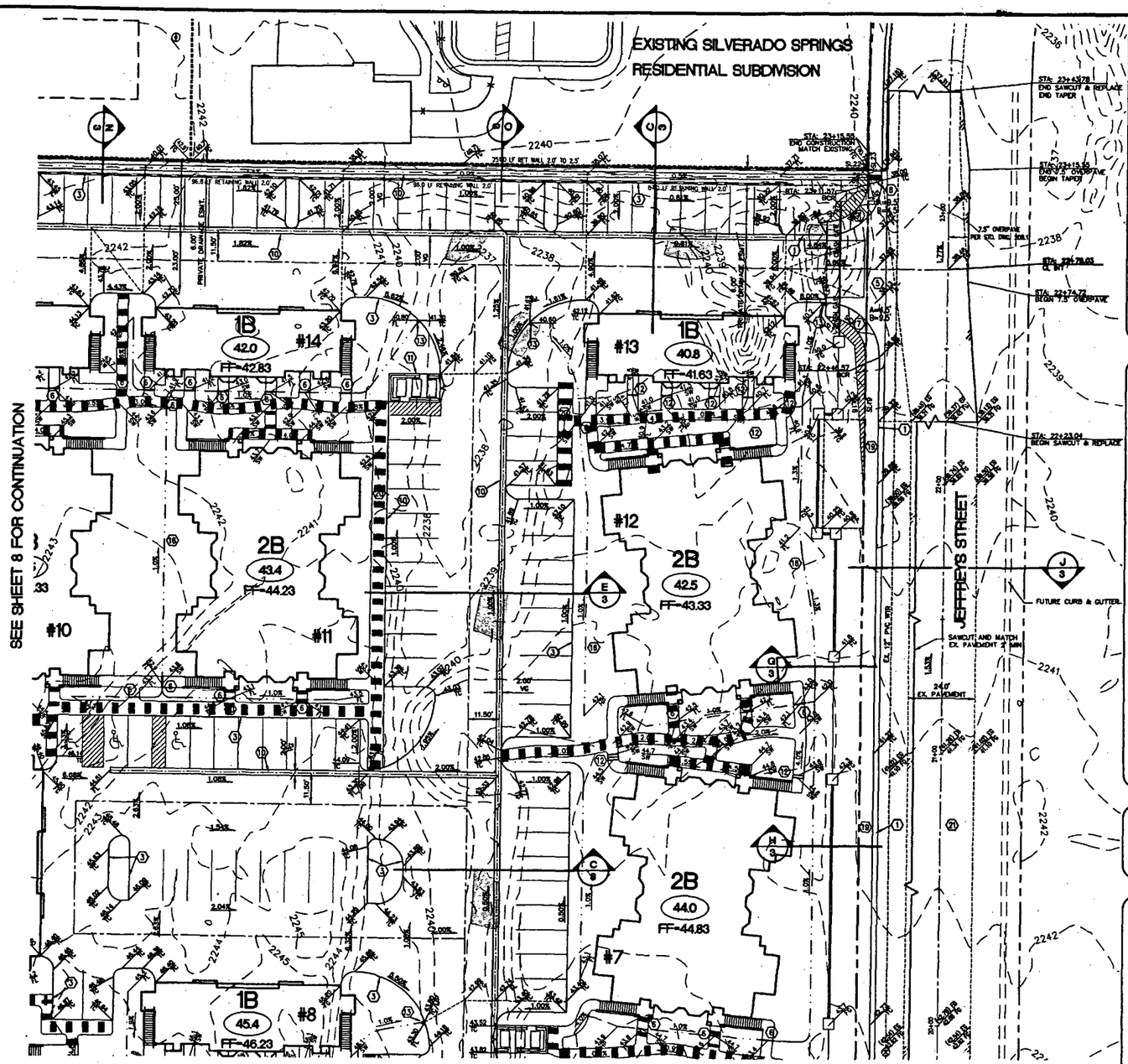
PETER K. LAU No. 14444 PROFESSIONAL ENGINEER STATE OF NEVADA
5/31/01

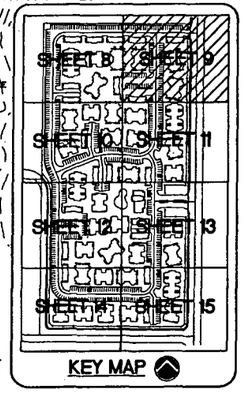
VPOINT
DESIGNING FOR THE FUTURE
PLANNING • CONSULTING ENGINEERS • SURVEYORS
7548 WEST SAHARA AVENUE, LAS VEGAS, NEVADA 89117 (702) 256-8401

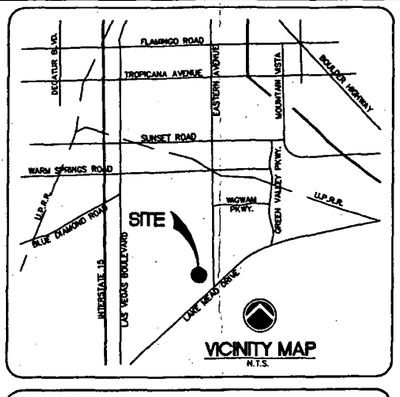
W.O. #	662-0530
BY :	REH
DATE :	07/28/00
SCALE :	1"=20'

SHEET 8 OF 23 SHEETS

CO-34532







S.V.R.E. DETAIL

STREETNAME STREETNAME STREETNAME

NOTE:
SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

NOTE:
NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
L1	N00°35'09"W	37.19'
L2	N84°19'28"W	48.32'
L3	N00°18'29"E	33.09'
L4	N44°31'09"E	8.97'
L5	S89°20'32"E	41.09'
L6	S84°42'33"E	25.63'
L7	S00°25'10"W	33.99'
L8	S45°39'14"W	27.40'
L9	N89°20'25"W	22.69'
L10	N00°18'29"E	30.89'
L11	S44°41'38"E	21.59'
L12	S04°47'19"E	38.69'
L13	S00°18'29"W	39.00'
L14	S45°18'52"W	21.45'
L15	N00°29'09"E	38.98'
L16	N00°18'29"E	36.00'
L17	S44°37'31"E	15.20'
L18	S03°36'48"E	55.38'
L19	S00°21'09"W	51.01'
L20	N45°22'39"E	13.45'
L21	S00°07'08"W	8.10'
L22	S84°50'48"E	3.41'
L23	N00°21'08"E	3.99'

SVRE CURVE TABLE

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SC3	20.00'	90°00'00"	31.42'	20.00'
SC4	15.00'	89°38'54"	23.47'	14.99'
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CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING
BY: _____ DATE: 3/8/01
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

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		CENTERLINE
		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		SCREEN WALL
		RETAINING WALL
		SWALE
(H)	(H)	DESIGNATED HANDICAP UNIT
#10	#10	UNIT NUMBER
(1)	(1)	BLOCK NUMBER
2700	2700	CONTOUR
	BFE=00.00	BASE FLOOD ELEV.
	FF=00.00	FINISH FLOOR ELEV.
	00.0	PAD ELEVATION
	00.0	FINISH GRADE
		FLOW LINE
		TOP OF CURB
		HIGH POINT
		EDGE OF PAVEMENT
		SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
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[ ]		FUTURE
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20. CONST. 5.5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
21. CONST. 1" OVERLAY ON EXISTING PAVEMENT

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

BENCHMARK

CLARK COUNTY BENCHMARK DC21-25WE:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146.
NAVD88 DATUM 690.680 METERS (2266.006 FEET)

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4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123

PROFESSIONAL ENGINEER-STATE OF NEVADA
PETER J. LAAS
No. 14444
5/31/01

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Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

APPRV'L	REV	DATE	BY	REVISION
	1	P.L.	MARK	RAISE SITE 0.6'

TITLE: GRADING PLAN II

PROJECT: JEFFREYS APARTMENT
CLARK COUNTY

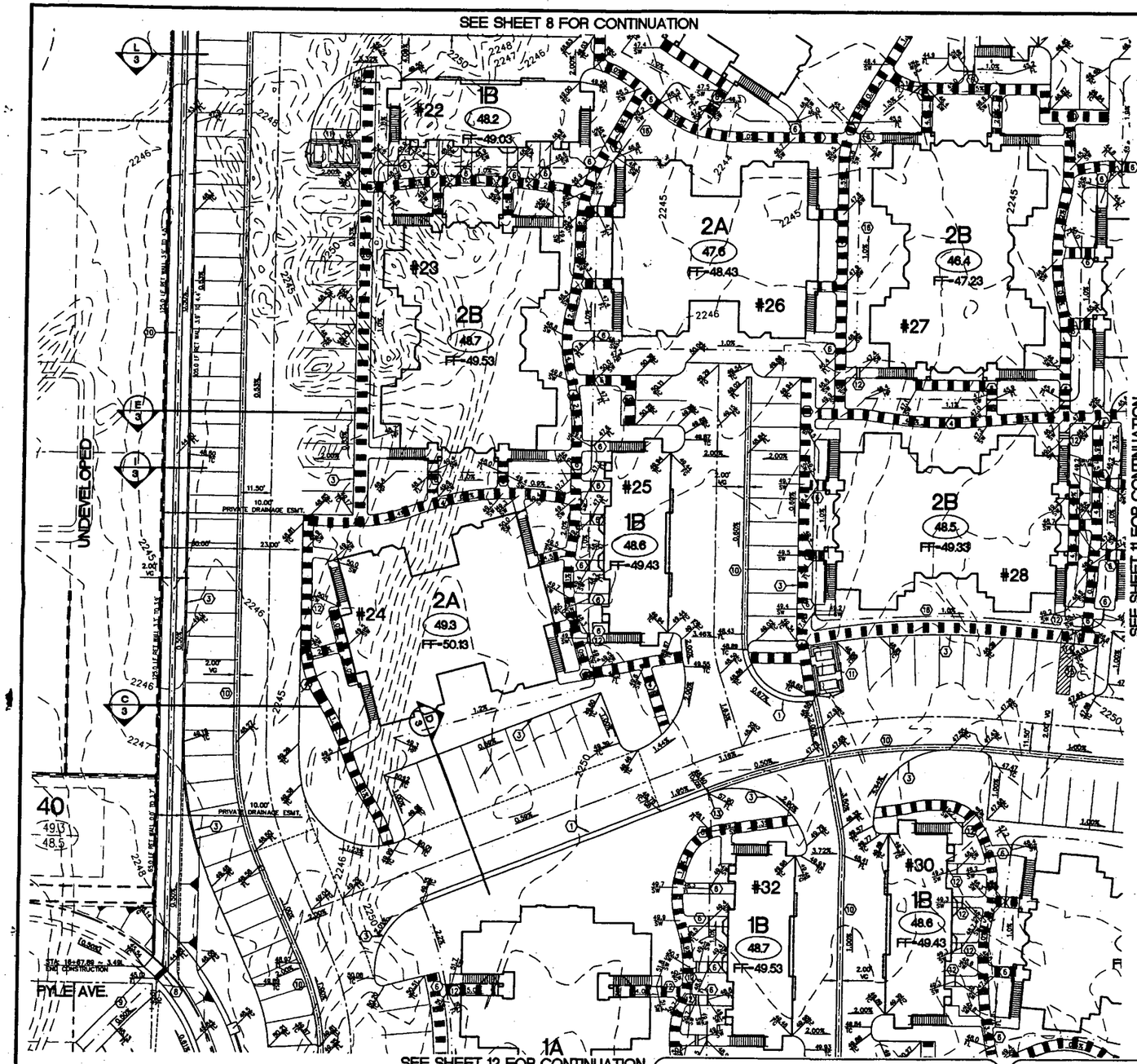
PETER J. LAAS
No. 14444
STATE OF NEVADA
PROFESSIONAL ENGINEER
3/8/01

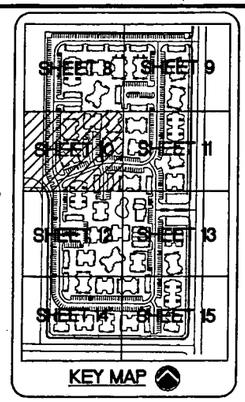
VPOINT
DESIGNING FOR THE FUTURE
PLANNERS · CONSULTING ENGINEERS · SURVEYORS
7345 WEST SAHARA AVENUE · LAS VEGAS, NEVADA 89117 · (702) 254-6313

W.O. # : 662-0530
BY : REH
DATE : 07/25/00
SCALE : 1"=20'

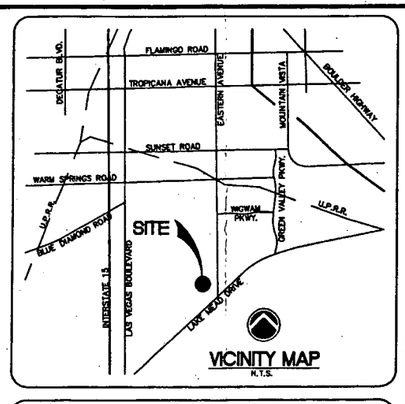
SHEET 9 OF 23 SHEETS

00-34532





KEY MAP



VICINITY MAP
N.T.S.

STREETNAME STREETNAME

NOTE:
SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

S.V.R.E. DETAIL

NOTE:
NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
SL1	N05°39'08"W	37.18'
SL2	N69°47'29"W	45.32'
SL3	N00°16'25"E	33.09'
SL4	N44°31'00"W	9.97'
SL5	S89°27'25"E	41.86'
SL6	S89°47'43"W	20.63'
SL7	S00°25'10"W	33.99'
SL8	S45°29'14"W	27.35'
SL9	N89°47'43"E	22.85'
SL10	N00°18'54"E	30.85'
SL11	S44°41'08"E	23.99'
SL12	S89°47'18"E	36.86'
SL13	S00°16'54"W	36.00'
SL14	S45°18'52"W	23.99'
SL15	N00°25'10"E	39.88'
SL16	N00°16'53"E	36.00'
SL17	S44°37'21"E	15.29'
SL18	N00°34'48"E	54.36'
SL19	S00°25'08"W	51.26'
SL20	N45°22'39"E	15.45'
SL21	S00°34'48"W	8.10'
SL22	S89°39'48"E	3.17'
SL23	N00°21'08"E	3.98'

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
SC1	15.00'	89°36'56"	23.47'	14.91'
SC2	25.00'	90°20'43"	39.42'	25.13'
SC3	20.00'	90°00'00"	31.42'	20.00'
SC4	15.00'	89°56'54"	23.55'	14.99'
SC5	15.00'	90°03'08"	23.58'	15.01'

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING
BY: _____ 3/6/01

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LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
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		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		SCREEN WALL
		RETAINING WALL
		SWALE
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	#10	UNIT NUMBER
	(1)	BLOCK NUMBER
2700	2700	CONTOUR
	BFE=00.00	BASE FLOOD ELEV.
	FF=00.00	FINISH FLOOR ELEV.
	00.0	PAD ELEVATION
100.00	100.00	FINISH GRADE
100.00	100.00	FLOW LINE
100.00	100.00	TOP OF CURB
100.00	100.00	HIGH POINT
100.00	100.00	EDGE OF PAVEMENT
100.00	100.00	SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
(1.00%)	1.00%	RATE & DIR. OF FLOW
		HANDICAP ACCESS ROUTE
		SIDEWALK UNDER DRAIN
[ ]		FUTURE
( )		EXISTING

CONSTRUCTION NOTES

1. CONST. "L" TYPE CURB PER C.C. AREA STD. DWG. #216
2. CONST. ROLL TYPE CURB PER C.C. AREA STD. DWG. #217A
3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
4. CONST. 4' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
5. CONST. 8' CROSS GUTTER PER C.C. AREA STD. DWG. #228
6. CONST. SIDEWALK UNDER DRAIN PER DETAIL "I" SHEET 4
7. CONST. CASE I HANDICAP RAMP PER C.C. AREA STD. DWG. #235
8. CONST. 2' SIDEWALK UNDER DRAIN PER C.C. AREA STD. DWG. #236
9. CONST. 8' HALF ST. CROSS GUTTER PER C.C. AREA STD. DWG. #229
10. CONST. 2' CONCRETE CROSS GUTTER PER DETAIL "G" SHEET 3
11. CONST. TRASH ENCLOSURE PER DETAIL "A" SHEET 4
12. CONST. STEP PER DETAIL "E" SHEET 4
13. CONST. CURB CUT PER DETAIL "C" SHEET 4
14. CONST. HANDICAP RAMP PER DETAIL "G" SHEET 4
15. CONST. HANDICAP LOADING ZONE PER DETAIL "F" SHEET 4
16. CONST. 1' EARTH SWALE PER DETAIL "B" SHEET 4
17. INSTALL 30" PVC DRAINAGE PIPE
18. CONST. 6' CONCRETE CROSS GUTTER PER DETAIL "P" SHEET 3
19. CONST. 5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
20. CONST. 5.5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234

GRAPHIC SCALE
0 10 20 30 40 60
(IN FEET)
1 inch = 20 ft.

APPROVAL REV	DATE	BY	REVISION
A	P.W.	KAHN	BASE SITE G.P.

GRADING PLAN III

JEFFREYS APARTMENT
CLARK COUNTY

PROJECT

PETER L. WARK
No. 14444
REGISTERED PROFESSIONAL ENGINEER-STATE OF NEVADA
6/31/01

PETER L. WARK
No. 14444
REGISTERED PROFESSIONAL ENGINEER-STATE OF NEVADA
3/6/01

CAUTION TO CONTRACTOR !

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Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

BENCHMARK

CLARK COUNTY BENCHMARK 0C21-25WB:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146.
NAVD88 DATUM 690.680 METERS (2268.006 FEET)

BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTHERLY LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 61 EAST, M.D.M., CITY OF HENDERSON, CLARK COUNTY, NEVADA, WHICH BEARS, SOUTH 89°21'41" EAST, AS PER MAP RECORDED IN FILE 88, PAGE 98 OF PARCEL MAPS IN THE OFFICE OF SAID COUNTY RECORDER.

GENERAL NOTES

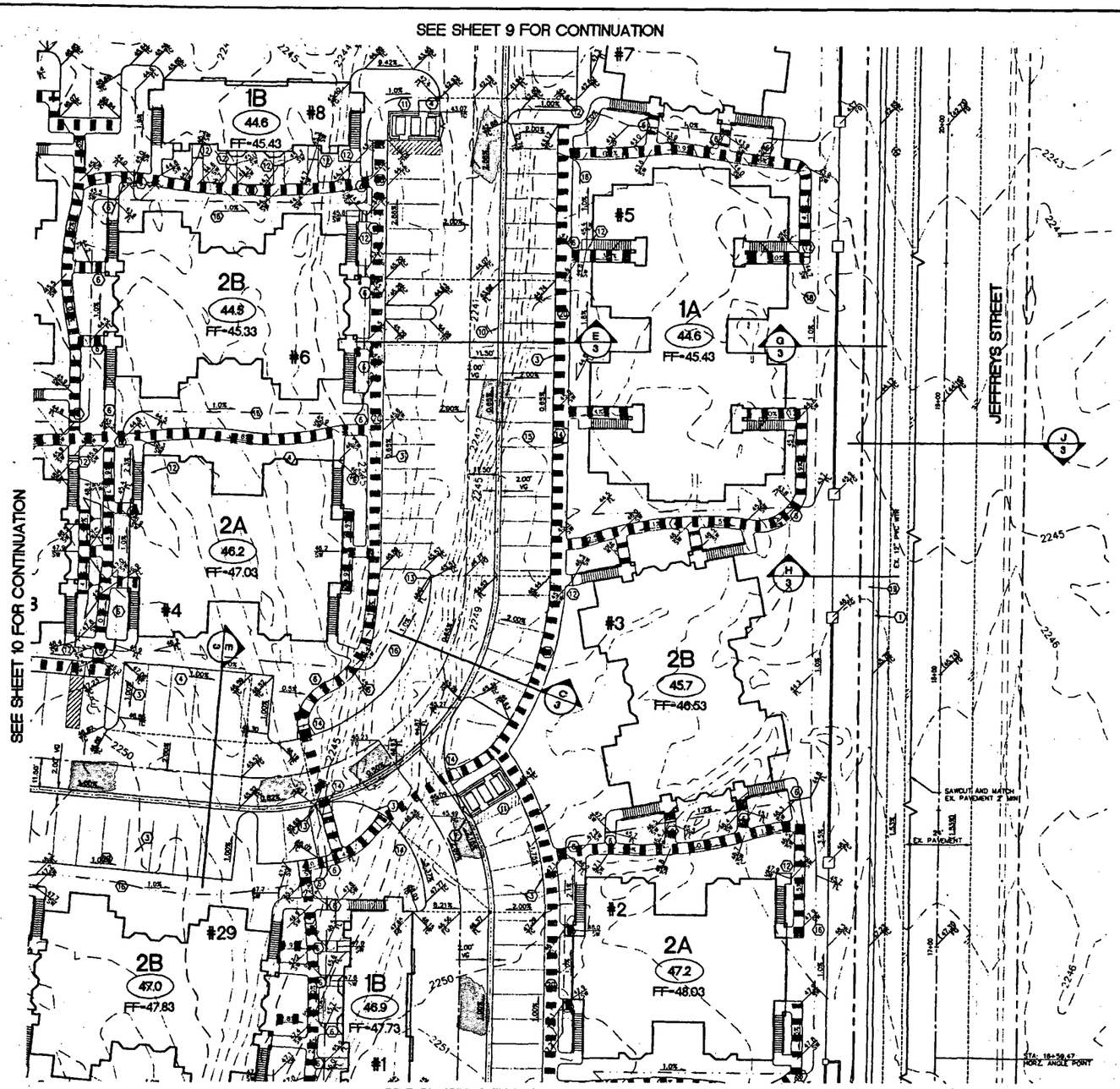
1. SEE IMPROVEMENT PLANS FOR STREET SECTIONS AND DETAILS. SEE HORIZONTAL CONTROL FOR EXACT BEARINGS AND DISTANCES.
2. THE QUANTITIES SHOWN HERON ARE ESTIMATES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
3. CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DESCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123

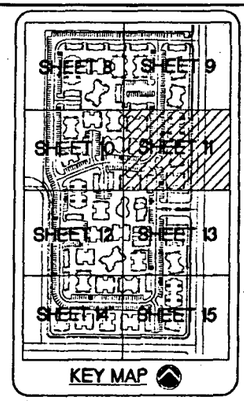
VPOINT
DESIGNING FOR THE FUTURE
CIVIL ENGINEERING • SURVEYING
7345 WEST SAHARA AVENUE • LAS VEGAS, NEVADA 89117 • (702) 240-8415

W.O. # : 682-0530
BY: REH
DATE : 07/28/00
SCALE : 1"=20'

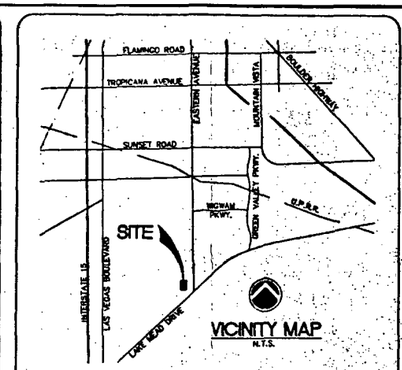
SHEET 10 OF 23 SHEETS

00-34532





KEY MAP



VICINITY MAP
N.T.S.

APPR.	INIT.	DATE	BY	REVISION

STREETNAME STREETNAME STREETNAME STREETNAME

NOTE: SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

S.V.R.E. DETAIL

NOTE: NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
SL1	N05°36'09"W	37.18'
SL2	N84°14'28"W	45.37'
SL3	N00°18'25"E	33.09'
SL4	N44°31'07"W	9.97'
SL5	S89°20'25"E	41.09'
SL6	S84°42'33"W	25.63'
SL7	S05°39'07"W	33.99'
SL8	S10°29'14"W	27.43'
SL9	N88°20'23"W	22.85'
SL10	N00°18'52"E	30.80'
SL11	S44°41'08"E	33.93'
SL12	S04°47'19"E	38.88'
SL13	S00°18'52"W	36.00'
SL14	S45°18'52"W	33.94'
SL15	N00°23'00"E	38.69'
SL16	N00°18'52"E	36.00'
SL17	S44°37'21"E	55.21'
SL18	S03°39'49"E	55.38'
SL19	S00°21'08"W	51.01'
SL20	S45°22'08"E	15.43'
SL21	S05°07'46"W	8.10'
SL22	S89°35'48"E	3.41'
SL23	N00°21'08"E	3.99'

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
SC1	15.00'	89°38'50"	23.47'	14.87'
SC2	25.00'	90°00'43"	39.28'	25.15'
SC3	20.00'	90°00'00"	31.42'	20.00'
SC4	15.00'	89°54'54"	23.55'	14.98'
SC5	15.00'	90°53'19"	23.79'	15.28'

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING
BY: _____
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		RETAINING WALL
		RETAINING WALL
		SWALE
	(H)	DESIGNATED HANDICAP UNIT
	#10	UNIT NUMBER
	(1)	BLOCK NUMBER
2700	2700	CONTOUR
	BFE=00.00	BASE FLOOD ELEV.
	FF=00.00	FINISH FLOOR ELEV.
	00.0	PAD ELEVATION
00.00	00.00	FINISH GRADE
00.00	00.00	FLOW LINE
00.00	00.00	TOP OF CURB
00.00	00.00	HIGH POINT
00.00	00.00	EDGE OF PAVEMENT
00.00	00.00	SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
(1.00%)	1.00%	RATE & DIR. OF FLOW
		HANDICAP ACCESS ROUTE
		SIDEWALK UNDER DRAIN
	[ ]	FUTURE
	( )	EXISTING

CONSTRUCTION NOTES

1. CONST. "L" TYPE CURB PER C.C. AREA STD. DWG. #216
2. CONST. ROLL TYPE CURB PER C.C. AREA STD. DWG. #217
3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
4. CONST. 4' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
5. CONST. 8' CROSS GUTTER PER C.C. AREA STD. DWG. #228
6. CONST. SIDEWALK UNDER DRAIN PER DETAIL "Y" SHEET 4
7. CONST. CASE I HANDICAP RAMP PER C.C. AREA STD. DWG. #235
8. CONST. 2' SIDEWALK UNDER DRAIN PER C.C. AREA STD. DWG. #236
9. CONST. 8' HALF ST. CROSS GUTTER PER C.C. AREA STD. DWG. #229
10. CONST. 2' CONCRETE CROSS GUTTER PER DETAIL "G" SHEET 3
11. CONST. TRASH ENCLOSURE PER DETAIL "A" SHEET 4
12. CONST. STEP PER DETAIL "E" SHEET 4
13. CONST. CURB CUT PER DETAIL "C" SHEET 4
14. CONST. HANDICAP RAMP PER DETAIL "G" SHEET 4
15. CONST. HANDICAP LOADING ZONE PER DETAIL "F" SHEET 4
16. CONST. 1' EARTH SWALE PER DETAIL "B" SHEET 4
17. INSTALL 30" PVC DRAINAGE PIPE
18. CONST. 6" CONCRETE CROSS GUTTER PER DETAIL "P" SHEET 3
19. CONST. 5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
20. CONST. 5.5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

GRADING PLAN IV

JEFFREYS APARTMENT
CLARK COUNTY

PETER R. FRONTERO — REGISTERED PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 14044 — 12/19/00

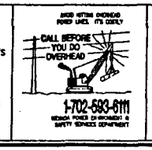
VPOINT
DESIGNING FOR THE FUTURE
PLANNERS - CONSULTING ENGINEERS - SURVEYORS
2764 WEST SAHARA AVENUE LAS VEGAS, NEVADA 89117 (702) 341-8383

W.O. # :	662-0530
BY:	REH
DATE :	07/28/00
SCALE :	1"=20'

SHEET 11 OF 23 SHEETS

CAUTION TO CONTRACTOR !

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Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

BENCHMARK

CLARK COUNTY BENCHMARK CC21-25MB:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146.
NAVD88 DATUM 690.680 METERS (2266.006 FEET)

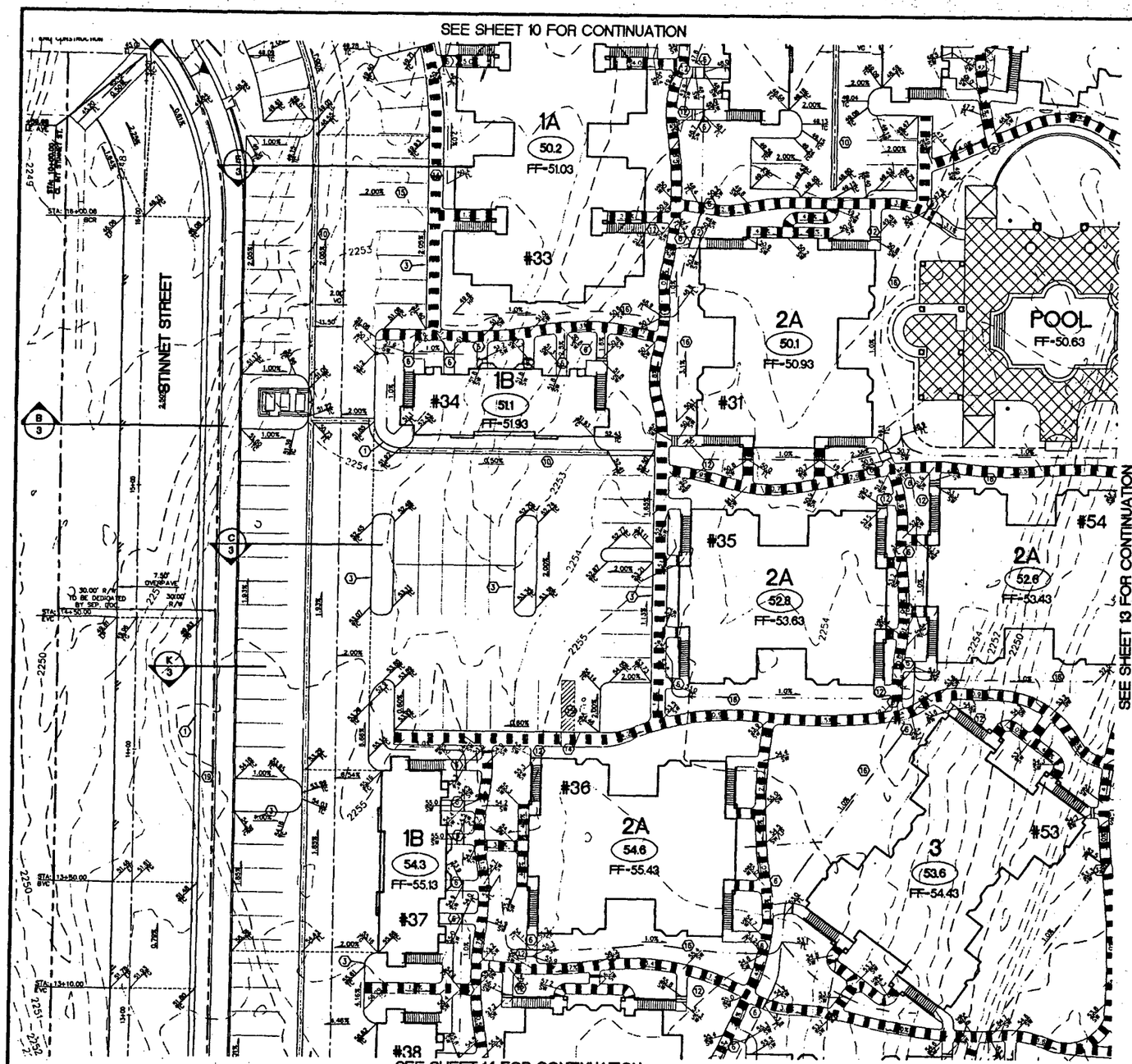
BASIS OF BEARINGS

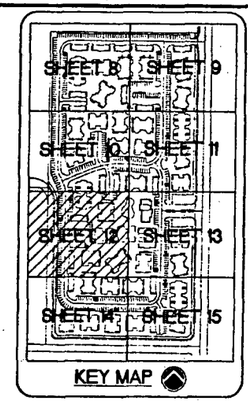
THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTHERLY LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 61 EAST, M.D.M., CITY OF HENDERSON, CLARK COUNTY, NEVADA, WHICH BEARS, SOUTH 89°21'41" EAST, AS PER MAP RECORDED IN FILE 88, PAGE 98 OF PARCEL MAPS IN THE OFFICE OF SAID COUNTY RECORDER.

GENERAL NOTES

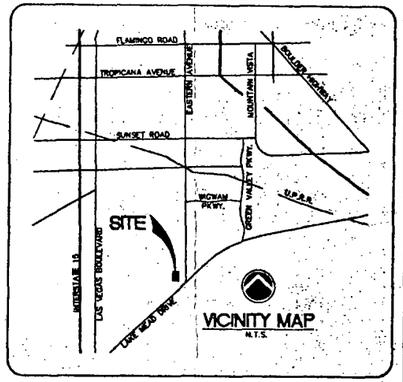
1. SEE IMPROVEMENT PLANS FOR STREET SECTIONS AND DETAILS. SEE HORIZONTAL CONTROL FOR EXACT BEARINGS AND DISTANCES.
2. THE QUANTITIES SHOWN HERON ARE ESTIMATES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
3. CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DESCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123

I:\Engineering\662-0530\Engineering\Improvement plans\662-0530 grd.dwg 12 DEC 12 16:03:29 2000 PLAS





KEY MAP



VICINITY MAP
N.T.S.

STREETNAME STREETNAME

NOTE:
SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

S.V.R.E. DETAIL

NOTE:
NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
L1	N05°18'08"W	37.18
L2	N54°14'28"W	45.32
L3	N00°18'53"E	33.08
L4	N44°59'09"W	8.37
L5	S89°20'25"E	41.08
L6	S84°42'33"W	25.63
L7	S08°25'01"W	33.80
L8	S45°29'11"W	27.45
L9	N89°20'25"W	22.85
L10	N00°18'53"E	30.80
L11	S44°18'53"E	23.29
L12	S04°47'18"E	39.69
L13	S00°18'53"W	38.00
L14	S45°18'53"W	33.29
L15	N00°25'00"E	38.69
L16	N00°18'53"E	38.00
L17	S44°37'27"E	13.59
L18	S01°56'49"E	55.38
L19	S00°21'08"W	51.04
L20	N45°22'38"E	19.45
L21	S00°07'48"W	9.10
L22	S89°35'48"E	3.47
L23	N00°21'08"E	3.89

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
C1	15.00'	89°38'50"	23.47'	14.91'
C2	25.00'	90°20'43"	39.43'	25.15'
C3	20.00'	90°07'09"	31.47'	20.00'
C4	15.00'	89°56'54"	23.55'	14.99'
C5	15.00'	90°03'06"	23.56'	15.01'

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING BY:
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

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LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		RETAINING WALL
		RETAINING WALL
		SWALE
	(H)	DESIGNATED HANDICAP UNIT
	#10	UNIT NUMBER
	(1)	BLOCK NUMBER
2700	2700	CONTOUR
	BFE=00.00	BASE FLOOD ELEV.
	FF=00.00	FINISH FLOOR ELEV.
	(00.0)	PAD ELEVATION
		FINISH GRADE
		FLOW LINE
		TOP OF CURB
		HIGH POINT
		EDGE OF PAVEMENT
		SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
(1.00%)	1.00%	RATE & DIR. OF FLOW
		HANDICAP ACCESS ROUTE
		SIDEWALK UNDER DRAIN
[ ]		FUTURE
( )		EXISTING

CONSTRUCTION NOTES

1. CONST. "L" TYPE CURB PER C.C.A.A. STD. DWG. #216
2. CONST. ROLL TYPE CURB PER C.C. AREA STD. DWG. #217
3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
4. CONST. 4' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
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14. CONST. HANDICAP RAMP PER DETAIL "G" SHEET 4
15. CONST. HANDICAP LOADING ZONE PER DETAIL "F" SHEET 4
16. CONST. 1' EARTH SWALE PER DETAIL "B" SHEET 4
17. INSTALL GALVANIZED REMOVABLE LOCKING BOLLARDS PER DETAIL "H" SHEET 4
18. CONST. 6' CONCRETE CROSS GUTTER PER DETAIL "P" SHEET 3
19. CONST. 5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234

GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.

NO.	REVISION	DATE	BY

TITLE: GRADING PLAN V
PROJECT: JEFFREYS APARTMENT
CLARK COUNTY, NEVADA

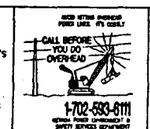
PETER L. MAY — NEVADA No. 7243 — REGISTERED PROFESSIONAL ENGINEER — STATE OF NEVADA — 12/21/00

VPOINT
DESIGNING FOR THE FUTURE
PLANNERS • CONSULTING ENGINEERS • SURVEYORS
7345 WEST SUNSET ROAD, LAS VEGAS, NEVADA 89117 • (702) 240-8515

W.O. #	862-0530
BY:	REH
DATE:	07/28/00
SCALE:	1"=20'
SHEET	12 OF 23 SHEETS

CAUTION TO CONTRACTOR!

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Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

BENCHMARK

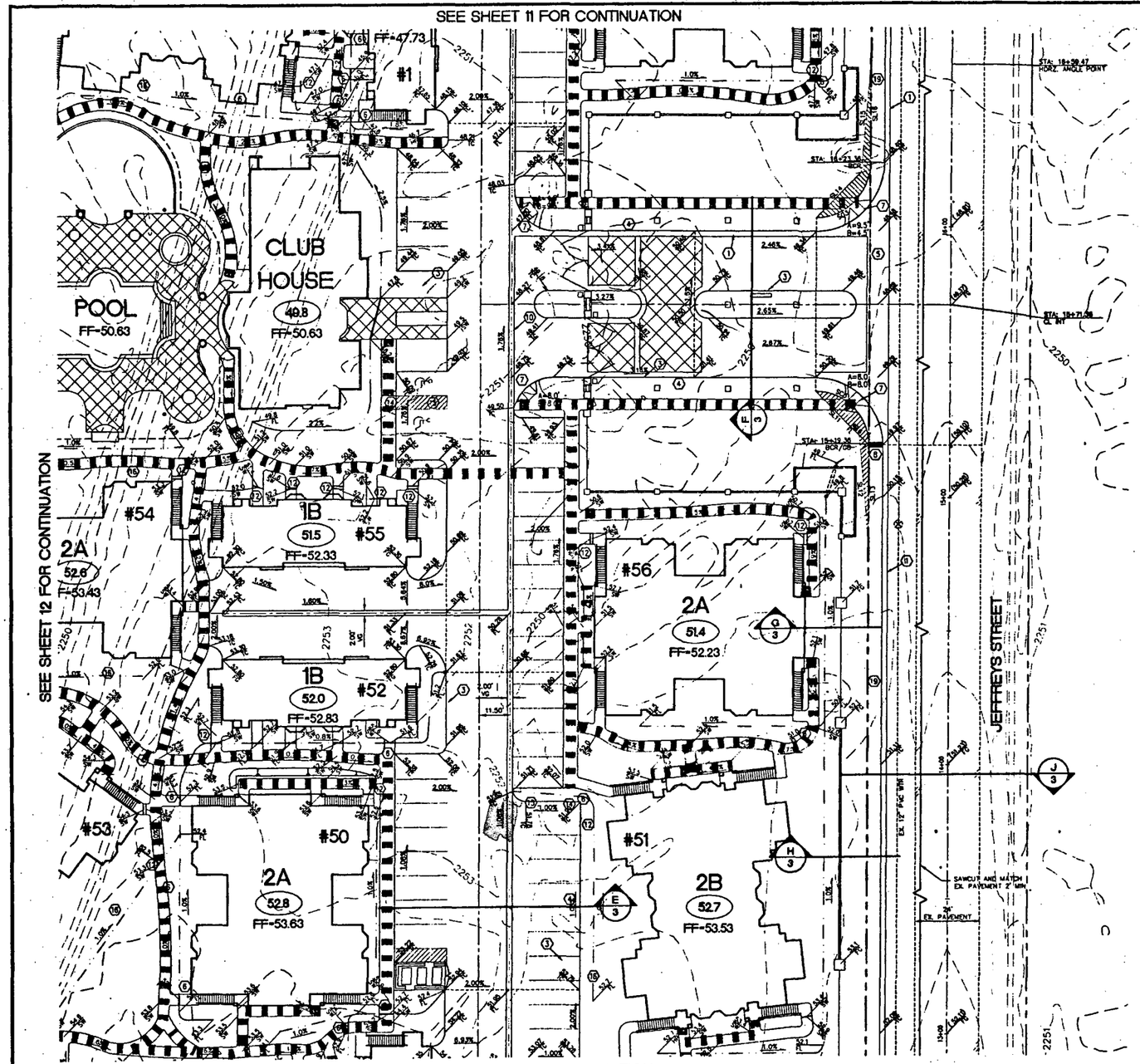
CLARK COUNTY BENCHMARK CC21-2598:
BRASS CAP STATE HWY MARKER, STAMPED: STA #217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146. NAVD88 DATUM 690.680 METERS (2266.006 FEET)

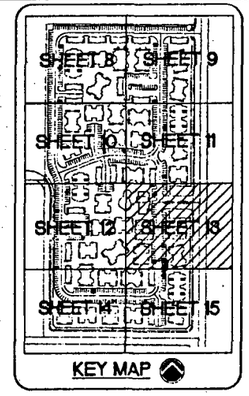
BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTHERLY LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 61 EAST, M.D.M., CITY OF HENDERSON, CLARK COUNTY, NEVADA, WHICH BEARS, SOUTH 89°21'41" EAST, AS PER MAP RECORDED IN FILE 88, PAGE 98 OF PARCEL MAPS IN THE OFFICE OF SAID COUNTY RECORDER.

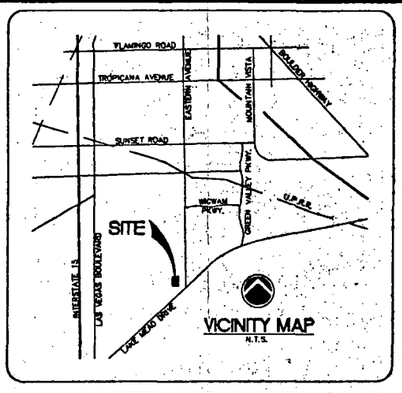
GENERAL NOTES

1. SEE IMPROVEMENT PLANS FOR STREET SECTIONS AND DETAILS. SEE HORIZONTAL CONTROL FOR EXACT BEARINGS AND DISTANCES.
2. THE QUANTITIES SHOWN HERON ARE ESTIMATES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
3. CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DESCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123





KEY MAP



VICINITY MAP
N.T.S.

REVISION	DATE	BY
APPR'VL REV.		

STREETNAME STREETNAME STREETNAME STREETNAME

NOTE:
SEE PLAN VIEW, CURVE & LINE DATA TABLES FOR DIMENSIONS

S.V.R.E. DETAIL

NOTE:
NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.		
S.1	N05°38'08"W	37.18
S.2	N84°14'29"W	43.32
S.3	N00°11'51"E	33.06
S.4	N44°31'00"W	9.97
S.5	S89°20'25"E	41.08
S.6	S84°43'10"W	25.63
S.7	S05°20'10"E	13.80
S.8	S45°29'14"W	27.45
S.9	N89°20'25"W	22.85
S.10	N00°11'51"E	30.80
S.11	S44°41'08"E	33.29
S.12	S84°43'10"E	38.83
S.13	S00°11'51"W	36.00
S.14	S45°18'52"W	33.29
S.15	N05°38'08"E	36.88
S.16	N00°11'51"E	31.00
S.17	S44°37'21"E	15.29
S.18	S03°54'49"E	55.36
S.19	S00°20'08"W	31.00
S.20	N40°52'29"E	13.40
S.21	S05°07'48"E	6.10
S.22	S89°52'48"E	3.41
S.23	N00°21'08"E	3.89

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
SC1	15.00'	89°38'50"	23.47'	14.91'
SC2	23.00'	90°15'43"	36.42'	23.15'
SC3	20.00'	90°00'00"	31.42'	20.00'
SC4	15.00'	89°36'04"	23.53'	14.98'
SC5	15.00'	90°03'06"	23.58'	15.01'

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING
BY:
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
		PROPERTY LINE
		EASEMENT
		CURB & GUTTER
		RETAINING WALL
		RETAINING WALL
		SWALE
	(H)	DESIGNATED HANDICAP UNIT
	#10	UNIT NUMBER
	(1)	BLOCK NUMBER
2700	2700	CONTOUR
BFE=00.00	BFE=00.00	BASE FLOOD ELEV.
FF=00.00	FF=00.00	FINISH FLOOR ELEV.
000	000	PAD ELEVATION
00.00	00.00	FINISH GRADE
00.00	00.00	FLOW LINE
00.00	00.00	TOP OF CURB
00.00	00.00	HIGH POINT
00.00	00.00	EDGE OF PAVEMENT
00.00	00.00	SIDEWALK
		2:1 SCARP
		SIDEWALK RAMP
		SVRE
		EDGE OF PAVEMENT
		SAWCUT & MATCH
(1.00%)	1.00%	RATE & DIR. OF FLOW
		HANDICAP ACCESS ROUTE
		SIDEWALK UNDER DRAIN
[ ]		FUTURE
( )		EXISTING

CONSTRUCTION NOTES

1. CONST. "L" TYPE CURB PER C.C. AREA STD. DWG. #216
2. CONST. ROLL TYPE CURB PER C.C. AREA STD. DWG. #217
3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
4. CONST. 4' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234
5. CONST. 8' CROSS GUTTER PER C.C. AREA STD. DWG. #228
6. CONST. SIDEWALK UNDER DRAIN PER DETAIL "I" SHEET 4
7. CONST. CASE I HANDICAP RAMP PER C.C. AREA STD. DWG. #235
8. CONST. 2' SIDEWALK UNDER DRAIN PER C.C. AREA STD. DWG. #236
9. CONST. 6' HALF ST. CROSS GUTTER PER C.C. AREA STD. DWG. #229
10. CONST. 2' CONCRETE CROSS GUTTER PER DETAIL "G" SHEET 3
11. CONST. TRASH ENCLOSURE PER DETAIL "A" SHEET 4
12. CONST. STEP PER DETAIL "E" SHEET 4
13. CONST. CURB CUT PER DETAIL "C" SHEET 4
14. CONST. HANDICAP RAMP PER DETAIL "G" SHEET 4
15. CONST. HANDICAP LOADING ZONE PER DETAIL "F" SHEET 4
16. CONST. 1' EARTH SWALE PER DETAIL "B" SHEET 4
17. INSTALL GALVANIZED REMOVABLE LOCKING BOLLARDS PER DETAIL "H" SHEET 4
18. CONST. 6' CONCRETE CROSS GUTTER PER DETAIL "F" SHEET 3
19. CONST. 5' WIDE CONC. SIDEWALK PER C.C. AREA STD. DWG. #234

GRAPHIC SCALE
0 5 10 15 20 30 40
(IN FEET)
1 inch = 20 ft.

GRADING PLAN VI

JEFFREY'S APARTMENT
CLARK COUNTY

PETER E. GUBLER — STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — 12/19/00

VPOINT
DESIGNING FOR THE FUTURE
PLANNERS · CONSULTING ENGINEERS · SURVEYORS
7345 WEST SUNSET ROAD, SUITE 210, LAS VEGAS, NEVADA 89117 (702) 240-4445

W.O. # :	662-0530
BY :	REH
DATE :	07/28/00
SCALE :	1"=20'
SHEETS	23
SHEET	13

CAUTION TO CONTRACTOR !

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.



Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (UBA)

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

BENCHMARK

CLARK COUNTY BENCHMARK OC21-25WB:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146.
NAVD88 DATUM 690.660 METERS (2266.006 FEET)

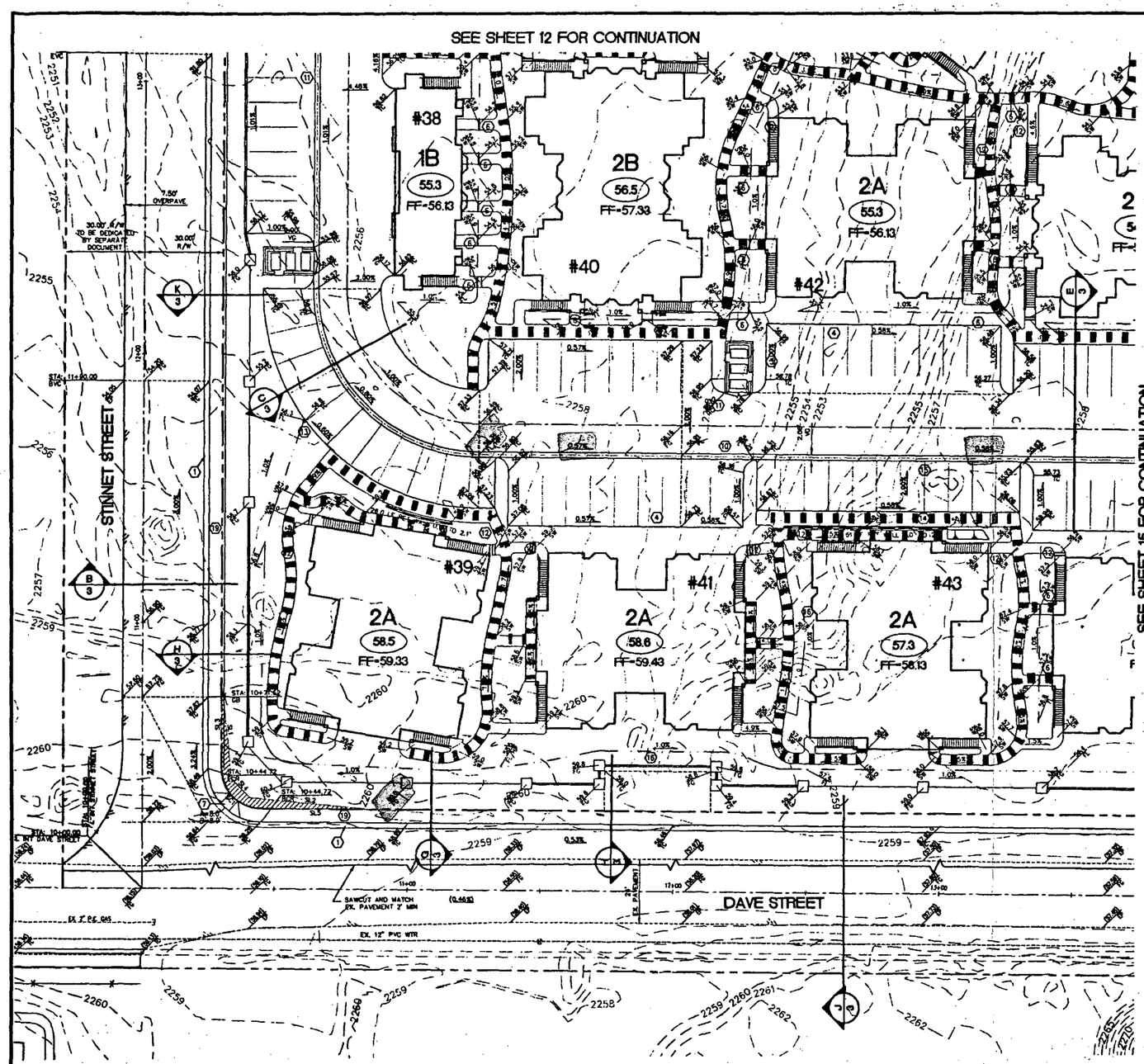
BASIS OF BEARINGS

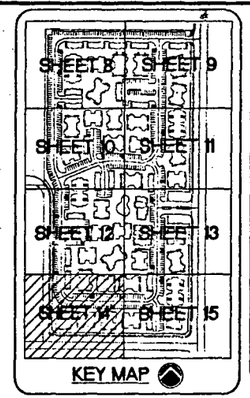
THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTHERLY LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 61 EAST, M.D.M., CITY OF HENDERSON, CLARK COUNTY, NEVADA, WHICH BEARS, SOUTH 89°21'41" EAST, AS PER MAP RECORDED IN FILE 88, PAGE 98 OF PARCEL MAPS IN THE OFFICE OF SAID COUNTY RECORDER.

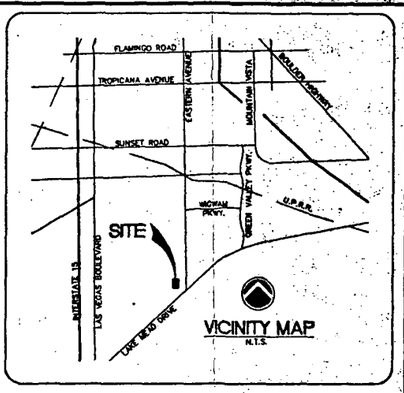
GENERAL NOTES

1. SEE IMPROVEMENT PLANS FOR STREET SECTIONS AND DETAILS; SEE HORIZONTAL CONTROL FOR EXACT BEARINGS AND DISTANCES.
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4. ALL GRADING WORK TO CONFORM TO SOILS REPORT BY TERRACON DATED: APRIL 20, 2000 JOB NO. 64005123

V:\Eng\Jobs\662-0530\Improvement Plans\0530-GP3.dwg Tue Dec 12 15:51:51 2000 PLAS







APPROV.	REV.	DATE	BY	REVISION

STREETNAME STREETNAME STREETNAME STREETNAME

NOTE: SEE PLAN VIEW, CURVE, & LINE DATA TABLES FOR DIMENSIONS

SVRE DETAIL

NOTE: NO VIEW OBSTRUCTION OVER 24" ABOVE TOP OF CURB ALLOWED IN SHADED AREA

SVRE LINE TABLE

No.	BEARING	LENGTH
SL1	N05°39'08"W	37.18'
SL2	N84°14'28"W	49.37'
SL3	N00°11'25"E	33.09'
SL4	N44°31'00"W	9.87'
SL5	S88°20'23"E	41.08'
SL6	S84°42'33"W	23.63'
SL7	S05°55'10"W	33.99'
SL8	S43°23'14"W	27.43'
SL9	N69°20'25"W	22.85'
SL10	N00°11'53"E	41.80'
SL11	S44°41'08"E	23.79'
SL12	S04°47'48"E	38.69'
SL13	S00°18'53"W	38.00'
SL14	S05°18'53"W	38.29'
SL15	N05°23'09"E	38.89'
SL16	N00°18'53"E	38.00'
SL17	S44°27'25"E	38.38'
SL18	S01°56'49"E	55.36'
SL19	S00°21'08"W	51.01'
SL20	N45°57'38"E	13.45'
SL21	S00°07'48"W	8.10'
SL22	S89°37'49"E	5.41'
SL23	N00°21'08"E	3.99'

SVRE CURVE TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
SC1	15.00'	89°36'54"	23.47'	14.91'
SC2	25.00'	90°20'43"	39.42'	25.13'
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SC5	15.00'	90°03'06"	23.58'	15.01'

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ACCEPTANCE OF PLANS FOR FILING BY:
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE *FROM DAMAGES WHICH MAY RESULT FROM* THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

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LEGEND

EXISTING	PROPOSED
	RIGHT-OF-WAY
	CENTERLINE
	PROPERTY LINE
	EASEMENT
	CURB & GUTTER
	RETAINING WALL
	RETAINING WALL
	SWALE
	(H) DESIGNATED HANDICAP UNIT
	#10 UNIT NUMBER
	(1) BLOCK NUMBER
2700	2700 CONTOUR
	BFE=00.00 BASE FLOOD ELEV.
	FF=00.00 FINISH FLOOR ELEV.
	(00.0) PAD ELEVATION
	FINISH GRADE
	FLOW LINE
	TOP OF CURB
	HIGH POINT
	EDGE OF PAVEMENT
	SIDEWALK
	2:1 SCARP
	SIDEWALK RAMP
	SVRE
	EDGE OF PAVEMENT
	SAWCUT & MATCH
(1.00%)	1.00% RATE & DIR. OF FLOW
	HANDICAP ACCESS ROUTE
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[ ]	FUTURE
( )	EXISTING

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3. CONST. "A" TYPE CURB PER DETAIL "D" SHEET 4
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5. CONST. 8' CROSS GUTTER PER C.C. AREA STD. DWG. #226
6. CONST. SIDEWALK UNDER DRAIN PER DETAIL "I" SHEET 4
7. CONST. CASE I HANDICAP RAMP PER C.C. AREA STD. DWG. #235
8. CONST. 2' SIDEWALK UNDER DRAIN PER C.C. AREA STD. DWG. #238
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GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft

GRADING PLAN VII

JEFFREYS APARTMENT
CLARK COUNTY

TITLE / PROJECT



VICINITY
DESIGNING FOR THE FUTURE
PLANNERS • CONSULTING ENGINEERS • SURVEYORS
7345 WEST SAHARA AVENUE • LAS VEGAS, NEVADA 89117 • (702) 255-4335

W.O. #	662-0530
BY:	RDH
DATE	07/28/00
SCALE	1"=20'

SHEET 14 OF 23 SHEETS

CAUTION TO CONTRACTOR !

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AVOID NEVADA OVERHEAD POWER LINES. IT'S COSTLY!
CALL BEFORE YOU DIG OVERHEAD
1-702-563-8111
NEVADA POWER CUSTOMER SERVICE & SAFETY SERVICES DEPARTMENT

Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

CUT/FILL QUANTITY

TOTAL SITE
CUT = 35,000 CY
FILL = 15,000 CY

BENCHMARK

CLARK COUNTY BENCHMARK 0C21-25WG:
BRASS CAP STATE HWY MARKER, STAMPED: STA H217+83.79 POT DATE 12/21/56 LOCATED 250 FT. EAST OF P.I. OF EASTERN AVE. AND LAKE MEAD DR. AND NORTH SIDE OF SR 146. NAVD88 DATUM 690.680 METERS (2266.006 FEET)

BASIS OF BEARINGS

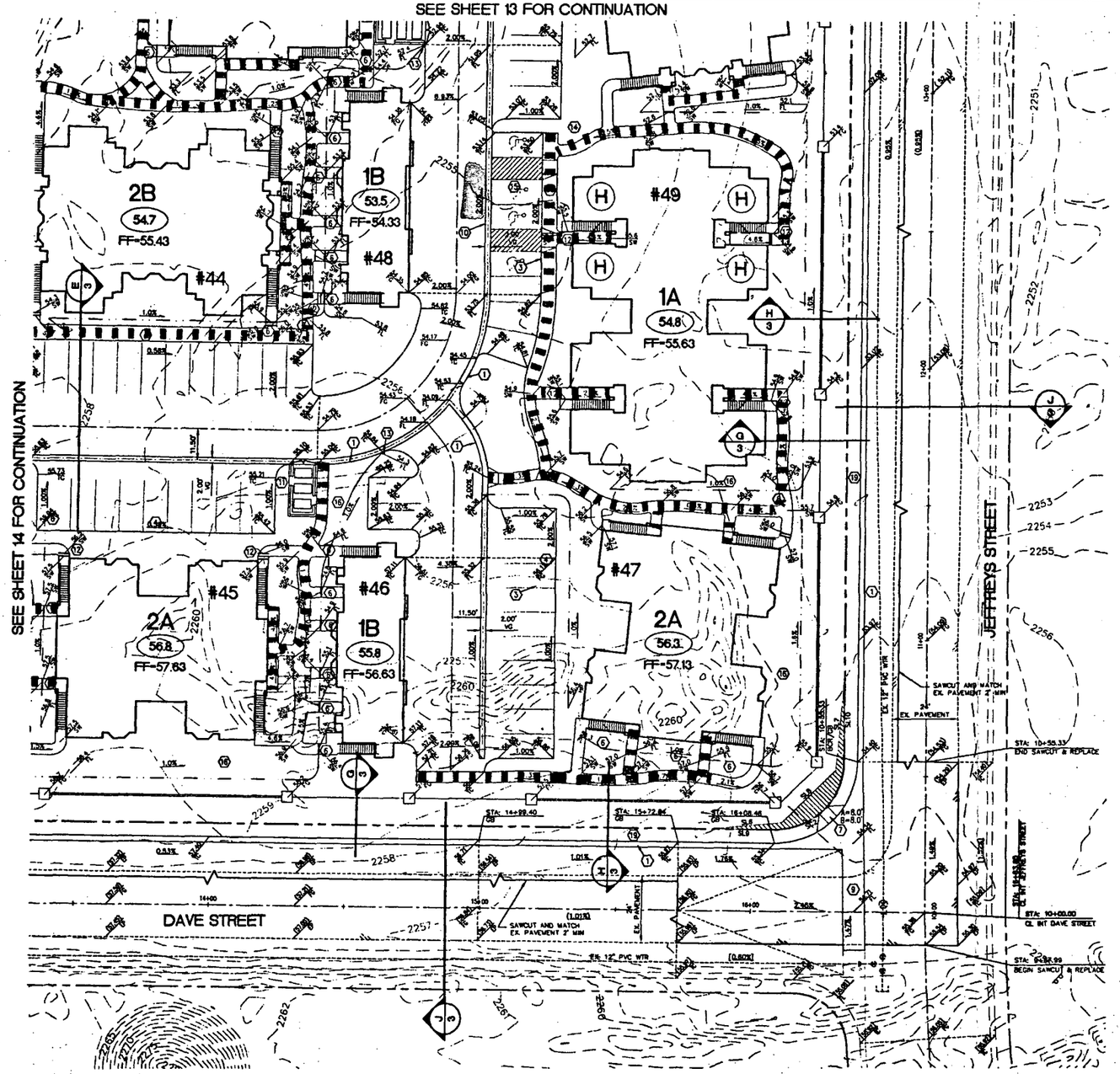
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SEE SHEET 13 FOR CONTINUATION

SEE SHEET 14 FOR CONTINUATION


2B
54.7
FF=55.43
#44
1B
53.5
FF=54.33
#48
#49
1A
54.8
FF=55.63
#45
2A
56.8
FF=57.63
#46
1B
55.8
FF=56.63
#47
2A
56.3
FF=57.13
JEFFREYS STREET
DAVE STREET
SAWCUT AND MATCH EX. PAVEMENT 2' MIN
24" EX. PAVEMENT
EX. 12" PVC WTR
STA: 10+55.33 END SAWCUT & REPLACE
STA: 10+00.00 CL INT DAVE STREET
STA: 9+88.99 BEGIN SAWCUT & REPLACE
STA: 14+99.40 PC
STA: 15+72.84
STA: 16+08.46 PT
R=8.0
R=8.0
14+00
15.00
16+00
2.95%
(1.01%)
(0.82%)
(0.83%)
(0.82%)
(0.83%)
(0.82%)
(0.83

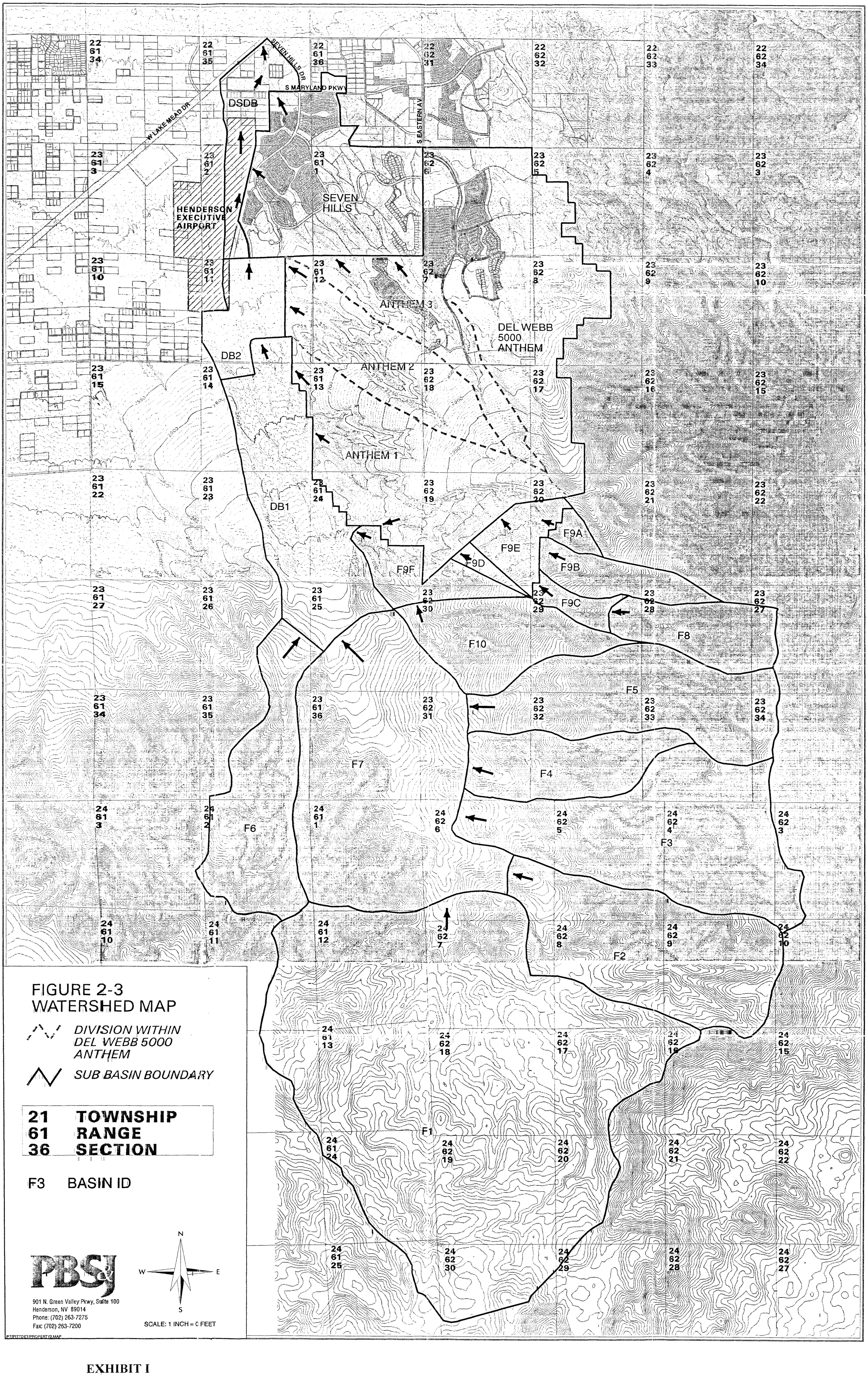


FIGURE 2-3
WATERSHED MAP

DIVISION WITHIN DEL WEBB 5000 ANTHEM

SUB BASIN BOUNDARY

21 TOWNSHIP
61 RANGE
36 SECTION

F3 BASIN ID

PBS&J
901 N. Green Valley Pkwy, Suite 100
Henderson, NV 89014
Phone: (702) 263-7275
Fax: (702) 263-7200

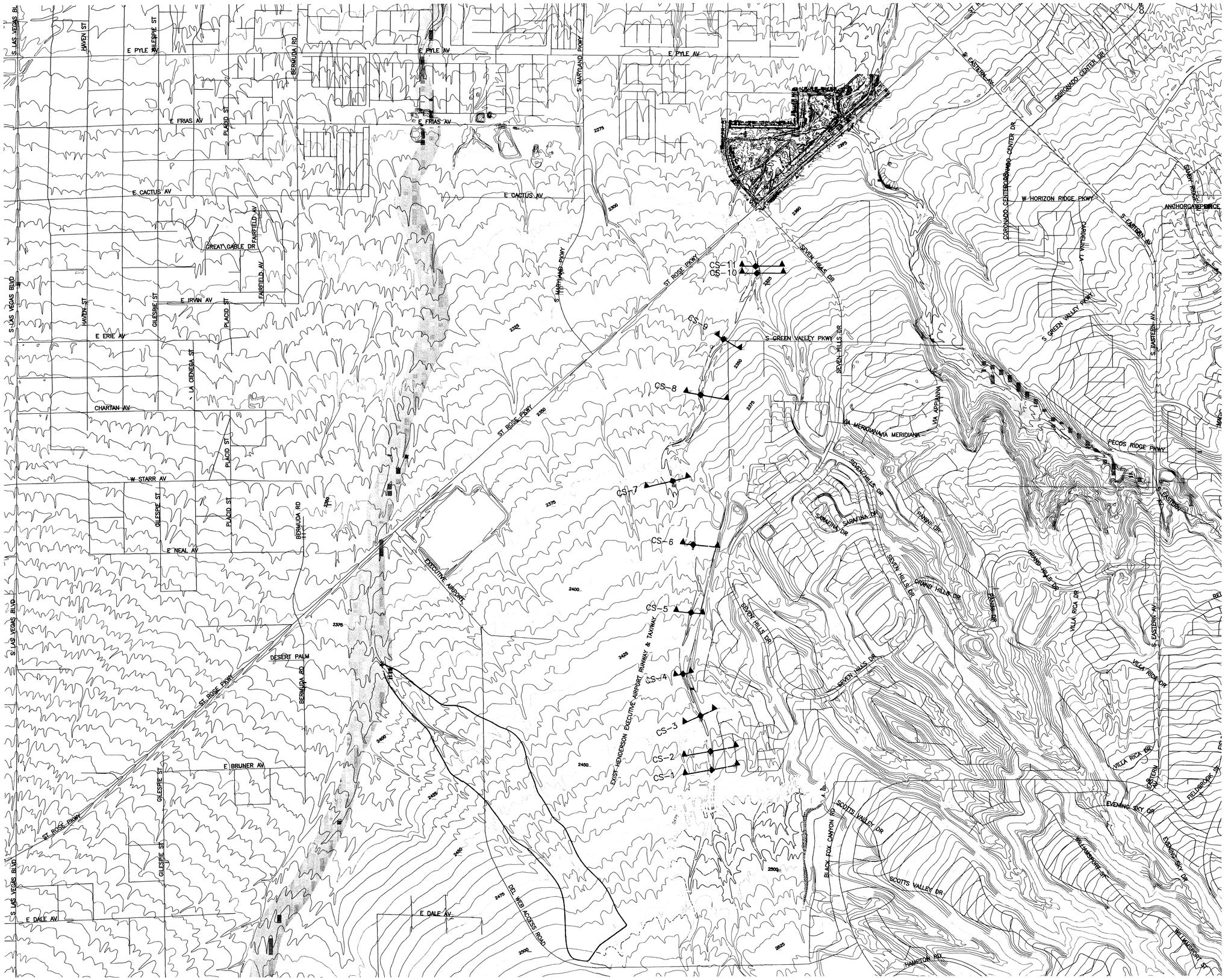
N W E S

SCALE: 1 INCH = 0 FEET

/E7/PITTDET/PROPERTY2.MAP

EXHIBIT I

EXHIBIT V – PITTMAN EAST DETENTION BASIN CROSS SECTION MAP (WORK MAP)



N

PBSJ

GRAPHIC SCALE

800 0 400 800 1600 3200

(IN FEET)
1 inch = 800 ft.

LEGEND:

- WASH WAYPOINTS AND CROSS-SECTIONS
- BASIN DOWN - 1
- DETENTION BASIN

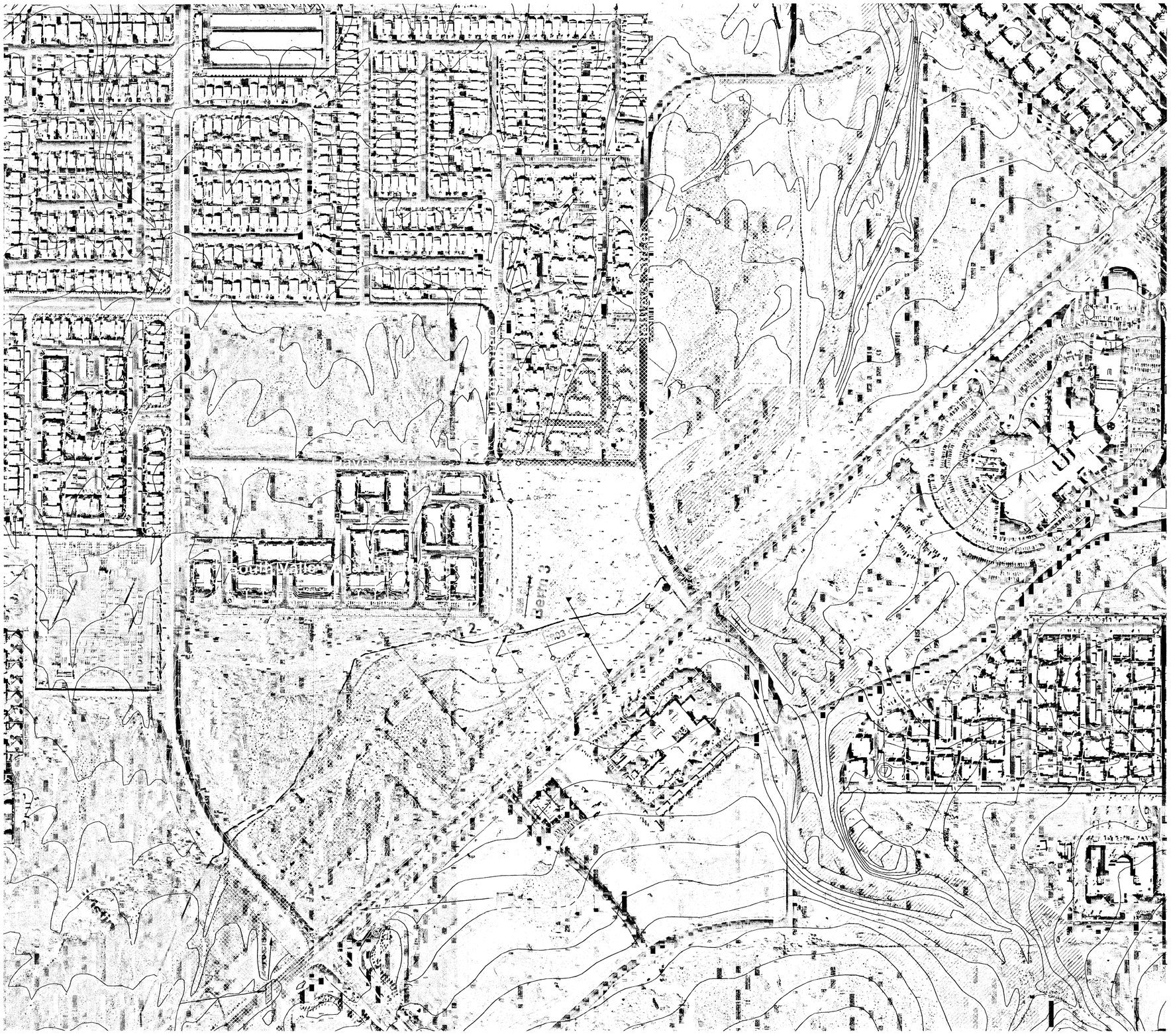
FEMA:

- D-FIRM EXIST ZONE A (100 YR)
- ANNOTATED D-FIRM NEW ZONE A (100-YR)

- 5 FT. CONTOURS
- 25 FT. INDEX COUNTORS

PBS&J
901 N. Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200

ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES



LEGEND

CROSS-SECTIONS

PROPOSED FLOOD ZONE

EXISTING FLOOD ZONE

N

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

FIGURE 3

WORK MAP

(PITTMAN EAST DETENTION BASIN LOMR)

PBS&J

2270 Corporate Circle
Suite 100
Henderson, Nevada 89074-6382
Telephone: 702/263-7275
Fax: 702/263-7200

ENGINEERING PLANNING SURVEYING CONSTRUCTION SERVICES

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES HENDERSON, NEVADA

Contract No. 99-00*12

FUNDED BY CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

PBS&J

901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200

ENGINEERING • PLANNING • SURVEYING • CONSTRUCTION SERVICES

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.

Call before you Overhead

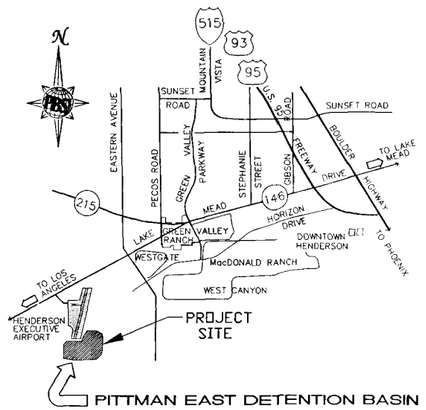
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call before you Dig

1-800-227-2600
UNDERGROUND SERVICE (USA)

VICINITY MAP



PITTMAN EAST DETENTION BASIN

Revisions

No.	DESCRIPTION	BY	DATE	APPROVAL

City Of Henderson

Clark County, Nevada

Department Of Public Works

THE CITY OF HENDERSON

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

Mayor
James B. Gibson

City Council
Arthur A. Hafen
Jack Clark
Amanda M. Cyphers
Steven D. Kirk

City Manager
Philip D. Speight

Director Of Public Works
Mark T. Calhoun

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C3	WATERSHED BOUNDARY MAP
C4	CAPACITY CURVES AND HYDROLOGIC INFORMATION
C5	GEOTECHNICAL TESTING LOCATIONS - PLAN VIEW
C6	GEOTECHNICAL TESTING - ALIGNMENT #1 AND #2 PROFILES
C7	GEOTECHNICAL TESTING - ALIGNMENT #3 AND #4 PROFILES
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C15	DETENTION BASIN GRADING - PLAN 3
C16	DETENTION BASIN GRADING - PLAN 4
C17	DETENTION BASIN GRADING - PLAN 5
C18	DETENTION BASIN GRADING - PLAN 6
C19	DETENTION BASIN GRADING - PLAN 7
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C23	OUTFALL PLAN AND PROFILE - HIGH LEVEL AND LOW LEVEL OUTFALLS
C24	TYPICAL SECTIONS
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C27	MISCELLANEOUS ENLARGEMENTS
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C35	CROSS SECTIONS - STA 18+00.00 TO STA 24+00.00
C36	CROSS SECTIONS - STA 26+00.00 TO STA 31+00.00
C37	CROSS SECTIONS - STA 32+00.00 AND STA 33+00.00
C38	CROSS SECTIONS - STA 34+00.00 TO STA 38+00.00
C39	CROSS SECTIONS - STA 40+00.00 AND STA 42+00.00
C40	CROSS SECTIONS - STA 44+00.00 AND STA 46+00.00
C41	CROSS SECTIONS - STA 48+00.00 TO STA 54+00.00
C42	CROSS SECTIONS - STA 56+00.00 TO STA 62+00.00
S1	GENERAL NOTES AND SECTIONS
S2	LOW LEVEL OUTLET - PLAN AND SECTIONS
S3	HIGH LEVEL OUTLET - PLAN
S4	TRASH RACK DETAILS
S5	HIGH LEVEL OUTLET - SECTIONS
S6	HIGH LEVEL OUTLET - SECTIONS
S7	OUTFALL STRUCTURE - PLAN
S8	OUTFALL STRUCTURE - PLAN
S9	OUTFALL STRUCTURE - PROFILE
S10	OUTFALL STRUCTURE - SECTIONS
S11	OUTFALL STRUCTURE - SECTIONS
G1	GRADING PLAN & GENERAL NOTES
G2	TYPICAL SECTIONS

APPROVALS:

GALE WM. FRASER II, P.E. — DATE
GENERAL MANAGER / CHIEF ENGINEER, CCRFCD

TITLE	APPROVED	DATE
DIRECTOR OF PUBLIC WORKS		
FLOOD CONTROL COORDINATOR		
UTILITY SERVICES MANAGER		
ENGINEERING SERVICES MANAGER		
SURVEY / RIGHT OF WAY		
NEW DEVELOPMENT		
FIRE PROTECTION		

AGENCY APPROVAL:

AGENCY	NO SERVICE	REVIEWED BY	DATE
NEVADA POWER COMPANY			
SPRINT TELEPHONE			
SOUTHWEST GAS			
BASIC WATER COMPANY			
FIRE SAFETY DIVISION			

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES
Contract No. 99-00*12

DATE: JULY 21, 2000

DRAWING No.
C1

SHEET No. 1

ABBREVIATIONS

@	AT
AB	ABANDONED UTILITY
AC	ASPHALTIC CONCRETE
AGG	AGGREGATE
AL	ALUMINUM
BMI	BASIC MANAGEMENT INC.
BC	BACK OF CURB
BCR	BACK OF CURB RADIUS
BM	BENCHMARK
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
CATV	CABLE T.V.
CLR	CLEAR
CCRFCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
COH	CITY OF HENDERSON
CCPW	CLARK COUNTY PUBLIC WORKS
CONC, PCC	CONCRETE
CONST	CONSTRUCTION
CCSD	CLARK COUNTY STANDARD DRAWING
CNDT	CONDUIT
C&G	CURB & GUTTER
℄	CENTERLINE
D	DEPTH
DET	DETAIL
DG	DESIGN GRADE
DIA	DIAMETER
DIAG	DIAGONAL
DI	DROP INLET
D/W	DRIVEWAY
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EG	EXISTING GROUND
EOP, EP	EDGE OF PAVEMENT
ELEC	UNDERGROUND POWER
ELEV	ELEVATION
EQ.	EQUAL
EVC	END VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
EXP. JT.	EXPANSION JOINT
FOC	FACE OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
FH	FIRE HYDRANT
FT	FOOT/FEET
GB	GRADE BREAK
GL	GRATE LENGTH
GM	GAS METER
GV	GATE VALVE
H	HEIGHT
HE	HORIZONTAL ELLIPTICAL
HOR/HORIZ	HORIZONTAL
HP	HIGH POINT
ID	INSIDE DIAMETER
INV	INVERT
KV	KILOVOLT
L	LENGTH
LF	LINEAR FEET
LP	LOW POINT
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
MTL	MATERIAL
N	NORTH / MANNINGS ROUGHNESS COEFFICIENT
NAP	NOT A PART
N.D.O.T.	NEVADA DEPARTMENT OF TRANSPORTATION
NG	NUMBER OF GRATES / NATURAL GRADE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVER HEAD
OH P	OVER HEAD POWER
PVMT.	PAVEMENT
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PB	PULL BOX
PET	EXISTING CAL/NEV PETROLEUM LINE (CAUTION)
PH	POT HOLE (LOCATION)
ℙ	PROPERTY LINE
PLCS	PLACES
PLS	PROFESSIONAL LAND SURVEYOR
PRVC	POINT OF REVERSE VERTICAL CURVE
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
P.U.E.	PUBLIC UTILITY EASEMENT
R	RADIUS
(R)	RADIAL
RCC	ROLLER COMPACTED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RCB	REINFORCED CONCRETE BOX
RE	REGISTERED ENGINEER
RT	RIGHT
R/W	RIGHT OF WAY
RP	RADIUS POINT
S	SOUTH / SLOPE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SS	SANITARY SEWER
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
SY	SQUARE YARD
S/W	SIDEWALK
TC	TOP OF CURB
TEMP	TEMPORARY
TW	TOP OF WALL
TYP	TYPICAL
UPRR	UNION PACIFIC RAILROAD
UDACS	STD. FOR WATER DISTRIBUTION SYSTEMS UNIFORM DESIGN AND CONSTRUCTION
USD	UNIFORM STANDARD DRAWING
UNO	UNLESS NOTED OTHERWISE
VC	VERTICAL CURVE
VG	VALLEY GUTTER
VERT	VERTICAL
W	WEST / WATER
WM	WATER METER
W	WEAKENED PLANE JOINT
WV	WATER VALVE
W/	WITH

LEGEND

EXISTING CHAIN LINK FENCE

EXISTING BLOCK WALL

EXISTING POWER — P —

EXISTING SEWER — 10"SS —

EXISTING WATER — 10"W —

EXISTING GAS — 2"G —

EXISTING OVERHEAD ELECTRIC — E —

EXISTING UNDERGROUND ELECTRIC — UE —

EXISTING CABLE T.V. — CATV —

EXISTING STORM DRAIN — EX 24"SD —

EXISTING UNDERGROUND TELEPHONE — EX T —

EXISTING DRIVEWAY

EXISTING CURB AND GUTTER

EXISTING EDGE OF PAVEMENT

EXISTING GUARDRAIL

EXISTING FIRE HYDRANT

EXISTING UTILITY VALVE

EXISTING SEWER MANHOLE (S)

EXISTING STORM DRAIN MANHOLE (D)

EXISTING ELECTRICAL MANHOLE (E)

EXISTING TELEPHONE MANHOLE (T)

EXISTING STREETLIGHT

EXISTING POWER POLE

EXISTING ELEVATION (90.23 TC)

COORDINATE POINT NUMBER

NEW AC PAVEMENT

NEW BLOCK WALL

NEW STORM DRAIN W/MANHOLE — 10"SD —

NEW UNDERGROUND TELEPHONE — T —

NEW CHAIN LINK FENCE — x — x —

NEW STREETLIGHT CONDUIT

NEW DRIVEWAY

NEW CURB AND GUTTER

NEW FIRE HYDRANT

NEW WATER VALVE

NEW ELEVATION (90.23 TC)

DIRECTION OF FLOW OR SLOPE

EDGE OF PAVEMENT

CENTERLINE

RIGHT-OF-WAY LINE

PROPERTY LINE

POT HOLE LOCATION & NUMBER PH-1

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "858" AND "SLOAN" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53.

BENCHMARK

CLARK COUNTY BENCHMARK NO. OC314E4 – N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.50, 250 FT. WEST OF BERMUDA RD.
NAVD 1988 DATUM
ELEVATION = 724.279 METERS
2376.24 FEET

CITY OF HENDERSON GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, 1986, AND THE UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, 1988.
2. APPLICATION FOR INSPECTION BY THE CITY OF HENDERSON PUBLIC WORKS SHALL BE MADE BY THE CONTRACTOR AT LEAST 24 HOURS BEFORE THE INSPECTION SERVICES WILL BE REQUIRED, 565-2136 OR 565-2140.
3. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH DETENTION BASIN CONSTRUCTION.
5. PRIOR TO FINAL ACCEPTANCE, BOND RELEASES, AND A CERTIFICATE OF OCCUPANCY, A CERTIFIED LEGIBLE AS-BUILT DRAWING MUST BE SUBMITTED TO THE CITY OF HENDERSON. AS-BUILT MUST SHOW ALL CHANGES AND ACTUAL FIELD LOCATIONS. IN THE ABSENCE OF CHANGES, A COPY OF APPROVED DRAWINGS WILL BE REQUIRED, STATING "INSTALLED AS PER DRAWINGS", AND CERTIFIED AS SUCH BY THE DEVELOPER'S ENGINEER.
6. APPROVAL OF THESE PLANS IS FOR THE CONSTRUCTION OF OFFSITE IMPROVEMENTS ONLY. ALL ONSITE IMPROVEMENTS, AS DEFINED BY THE CITY OF HENDERSON, INCLUDING BLOCK WALLS, MUST BE APPROVED BY THE BUILDING AND PLANNING DIVISIONS OF THE CITY OF HENDERSON.
7. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITIONS TO BE DETERMINED BY THE CITY ENGINEER.
8. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AND THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. THIS INCLUDES ALL SERVICE LATERALS OF ANY KIND.
9. POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO THE CITY OF HENDERSON.
10. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING No. 235. EXACT LOCATION OF RAMPS SHALL BE DETERMINED IN THE FIELD BY A CITY INSPECTOR, OR AS SHOWN ON PLAN.
11. CURB AND GUTTER WITH A GRADE OF LESS THAN FOUR-TENTHS OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
12. ALL GRADING SHALL CONFORM TO THE SOILS REPORT:
    ENGINEER: WESTERN TECHNOLOGIES INC.
    DATE: FEBRUARY 23, 2000
    JOB NUMBER: 4128JS216
13. EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
14. ALL STREET STRUCTURAL SECTIONS SHALL BE PER THE RECOMMENDATIONS OF THE SOILS ENGINEER. BASED ON CBR OR R-VALUES. NO PAVING OR BASE WORK SHALL COMMENCE UNTIL A STREET STRUCTURAL SECTION IS APPROVED BY THE CITY ENGINEER, CITY OF HENDERSON.
15. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING PUBLIC STREETS IMMEDIATELY AFTER THE FIRST GRADING WORK IS ACCOMPLISHED AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "NEVADA TRAFFIC CONTROL MANUAL"- CURRENT EDITION AND TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES"- CURRENT EDITION AND BE APPROVED BY THE CITY OF HENDERSON BEFORE CONSTRUCTION BEGINS.
16. WHERE EXISTING PAVEMENT IS CUT TO INSTALL UTILITY SERVICE LINES, BACKFILL AND PAVEMENT REPLACEMENT SHALL BE DONE PER STANDARD DRAWING No. 502 AND SECTIONS 206, 207, AND 208 OF THE STANDARD SPECIFICATION ISSUE, LATEST EDITION.
17. ALL STATIONING IS REFERENCED TO CENTERLINE.
18. EXACT LOCATION OF ALL SAWCUT LINES SHALL BE DETERMINED IN THE FIELD BY A CITY OF HENDERSON INSPECTOR.
19. PROTECTION AND REPLACEMENT OF SURVEY MONUMENTS OR PROPERTY STAKES NOT DELINEATED ON THE CONTRACT DRAWINGS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. REPLACEMENT OF SURVEY MONUMENTS OR PROPERTY STAKES SHALL BE DONE TO THE CITY OF HENDERSON SURVEY SECTION'S SATISFACTION.
20. AFFECTED UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST FIVE (5) WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
21. CALL BEFORE YOU DIG: 1-800-227-2600.
22. MODIFICATIONS TO EXISTING UTILITIES SHALL CONFORM TO THE OWNERS' UTILITY STANDARDS AND SPECIFICATIONS.
23. THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE, AND ALL SUCH IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO THE ENGINEER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
24. CITY APPROVAL OF THE IMPROVEMENT PLANS IS GRANTED FOR ONE (1) YEAR ONLY. PLANS MUST BE RESUBMITTED FOR REVIEW AND APPROVAL TO THE DEPARTMENT OF PUBLIC WORKS, CITY OF HENDERSON, IF WORK IS NOT COMPLETED BY _____, 20____
25. ALL OFFSITE AND ONSITE WATER AND SEWER FACILITIES UP TO WITHIN FIVE (5) FEET OF BUILDINGS SHALL BE CONSTRUCTED TO PUBLIC WORKS STANDARDS.
26. IF SEWER OR WATER LINES WITHIN THE PUBLIC UTILITY EASEMENTS REQUIRE REPAIRS, ALL SUCH REPAIRS WILL BE DONE IN ACCORDANCE WITH PUBLIC WORKS DEPARTMENT STANDARDS. CURBS AND GUTTERS AND SPECIAL PAVING REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-02
SCALE: HORIZ.: NONE
VERT.: NONE

PBS&J
901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES

SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GENERAL NOTES, LEGEND & ABBREVIATIONS

99-00-12

DRAWING NO. C2

DETENTION BASIN CHARACTERISTICS

DRAINAGE AREA :	33 SQUARE MILES
DESIGN STORMS:	
MAJOR STORM	
PROBABILITY:	100-YEAR
DURATION:	6-HOURS
RAINFALL DISTRIBUTION:	SCS, II
DEPTH AREA REDUCTION FACTOR:	0.731
POINT PRECIPITATION	3 IN (AVERAGE)
PEAK INFLOW:	8,640 CFS
PROBABLE MAXIMUM FLOOD	
TRIBUTARY AREA:	33 SQUARE MILES
AREAL REDUCED PMP:	10.5 IN
PEAK INFLOW:	73,230 CFS
DETENTION BASIN EMBANKMENT:	
TYPE:	HOMOGENEOUS EARTHFILL
LENGTH:	4,273 FT.
MAXIMUM HEIGHT ABOVE EXISTING GRADE:	52 FT.
EMBANKMENT CREST ELEVATION:	2,510 FT.
SPILLWAY CREST ELEVATION:	2,502 FT.
FREEBOARD:	
MAJOR STORM:	1.25 FT TO SPILLWAY CREST
PROBABLE MAXIMUM FLOOD:	2.5 FT TO EMBANKMENT CREST
SLOPES:	
UPSTREAM SLOPE:	3:1
DOWNSTREAM SLOPE:	3:1
IMPOUNDMENT AREA:	
MAJOR STORM:	
WATER SURFACE ELEVATION:	2,500.75 FT.
SURFACE AREA AT ELEVATION 2,500.75:	106.09 ACRES
STORAGE VOLUME AT ELEVATION 2,500.75:	1,718 AC.-FT
PROBABLE MAXIMUM FLOOD:	
WATER SURFACE ELEVATION:	2,507.5 FT.
SURFACE AREA AT ELEVATION 2,507.5:	141.23 ACRES
STORAGE VOLUME AT ELEVATION 2,507.5:	2,548 AC.-FT
SPILLWAY:	
TYPE:	UNCONTROLLED FREE WEIR
CREST ELEVATION:	2,502 FT.
CREST LENGTH:	1,731.5 FT.
DISCHARGE MAJOR STORM:	0 CFS
DISCHARGE PROBABLE MAXIMUM FLOOD:	72,811 CFS
OUTLET WORKS:	
TYPE:	ROP W/ TRASH RACK
OUTLET CONTROL PIPE:	36 IN ROP AND 8'x6' RCB
INVERT ELEVATION:	2,461.0 FT AND 2,461.0 FT
PEAK DISCHARGE MAJOR STORM:	1,221 CFS
PEAK DISCHARGE PROBABLE MAXIMUM FLOOD:	1,187 CFS

APPROXIMATE WATERSHED BOUNDARY
33± SQUARE MILES

PITTMAN EAST DETENTION BASIN

HENDERSON EXECUTIVE AIRPORT

LAKE MEAD BLVD

TOWNSHIP 22 SOUTH
TOWNSHIP 23 SOUTH
TOWNSHIP 24 SOUTH
TOWNSHIP 25 SOUTH

RANGE 62 EAST
RANGE 61 EAST

-RECORD DRAWING-

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DRAWN BY: A. SPATA
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-03
SCALE: HORIZ.: 1"=2000'
VERT.:

PBS&J
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SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

WATERSHED BOUNDARY MAP

99-00-12

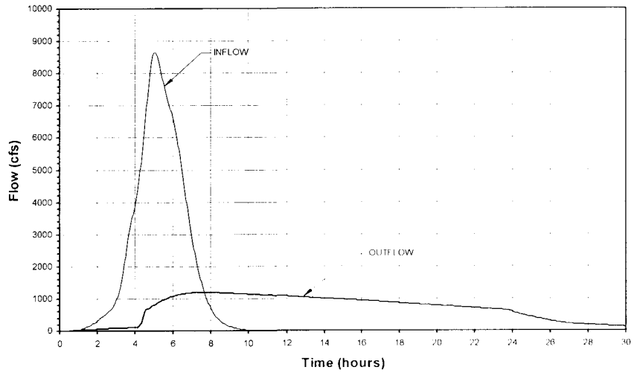
DRAWING NO. C3

3/53

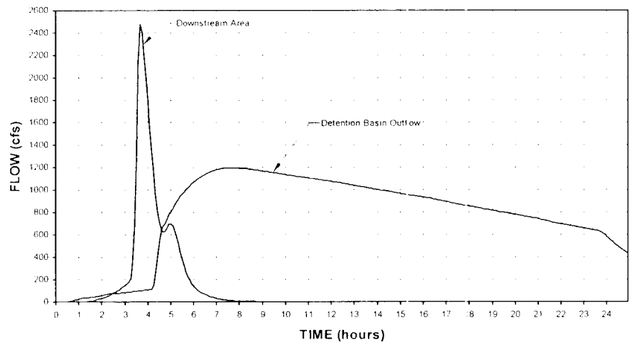
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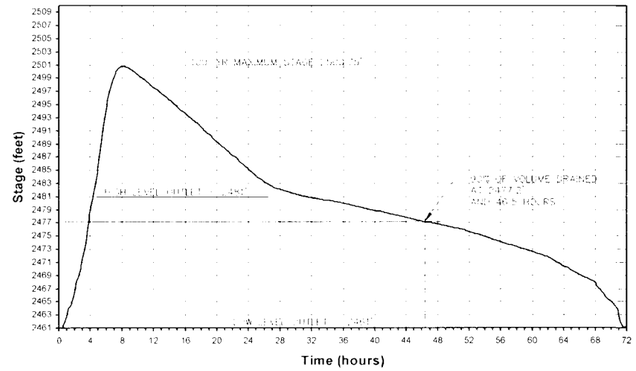
Inflow/Outflow Hydrographs



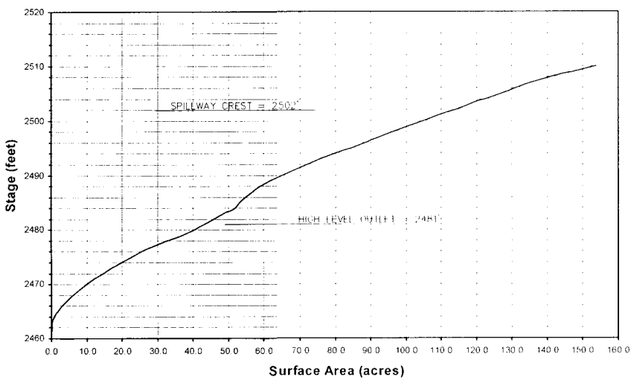
HYDROGRAPHS FOR DETENTION BASIN OUTFLOW AND FLOW AT LAKE MEAD DRIVE FROM DOWNSTREAM AREA ONLY



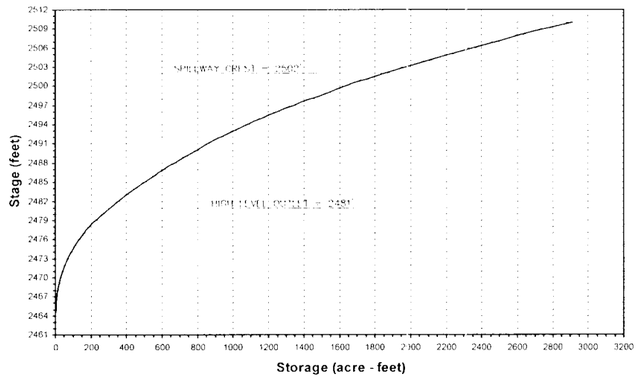
Drain Time



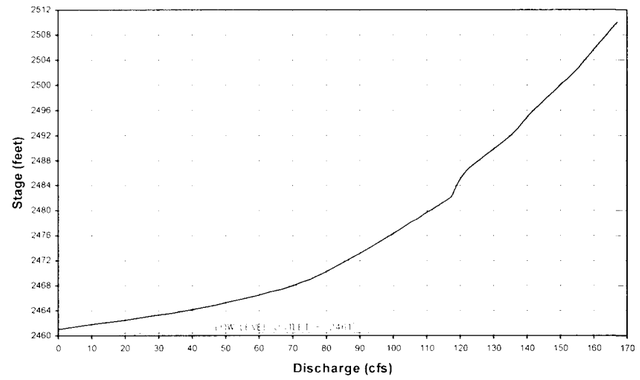
Stage/Surface Area



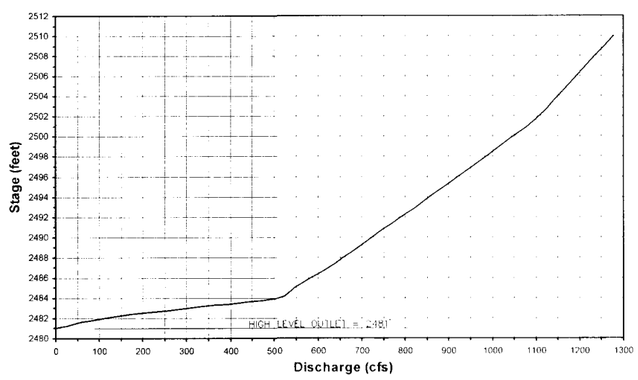
Stage/Storage



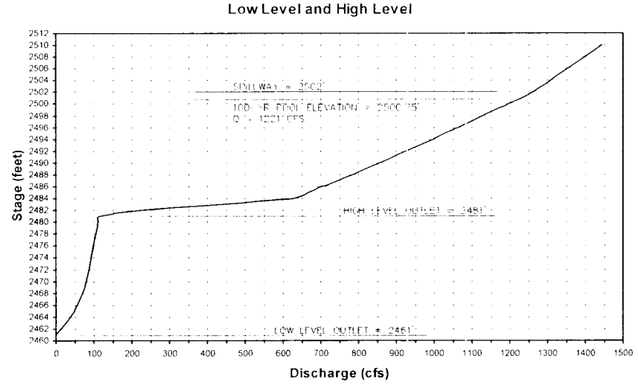
Stage/Discharge Low Level



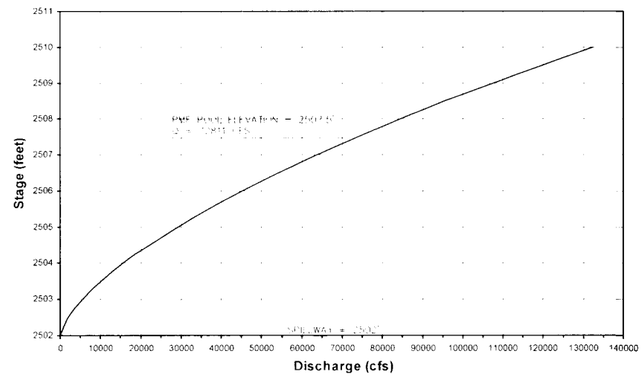
Stage/Discharge High Level



Stage/Discharge Combined Low Level and High Level



Stage/Discharge Spillway



-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: A. SPATA
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-04
SCALE: HORIZ.: NO SCALE
VERT.:

PBS&J
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES
931 North Green Valley Pkwy.
Suite 100
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Telephone: 702/263-7275
Fax: 702/263-7200

SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CAPACITY CURVES & HYDROLOGIC INFORMATION

99-00-12

DRAWING NO. C4

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

SEVEN HILLS

GEOTECHNICAL TESTING ALIGNMENT NO.6 SEE DRAWING C8

GEOTECHNICAL TESTING ALIGNMENT NO.5 SEE DRAWING C8

GEOTECHNICAL TESTING ALIGNMENT NO.4 SEE DRAWING C7

GEOTECHNICAL TESTING ALIGNMENT NO.3 SEE DRAWING C7

GEOTECHNICAL TESTING ALIGNMENT NO.2 SEE DRAWING C6

GEOTECHNICAL TESTING ALIGNMENT NO.1 SEE DRAWING C6

B-1 B-5 B-6 B-7 B-8 B-9 B-10 B-11 B-12 B-13 B-14 B-15 B-16 B-17 B-18 B-19 B-20 B-21 B-22 B-23 B-24 B-25 B-26 B-27 B-28 B-29 B-30 B-31 B-32 B-33

100YR WATER SURFACE ELEVATION 2500.75

PMF WATER SURFACE ELEVATION 2507.5

HENDERSON EXECUTIVE AIRPORT

ANTHEM BY DEL WEBB CO

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

NOTE:
THIS DRAWING IS FOR INFORMATION ONLY. REFER TO GEOTECHNICAL EXPLORATION REPORT PREPARED BY WESTERN TECHNOLOGIES INC. PROJECT NO. 4128JS216. DATED FEBRUARY 23, 2000

N

GRAPHIC SCALE
200 0 100 200 400 600
(IN FEET)
1 inch = 200 ft.

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-05
SCALE: HORIZ.: 1"=200'
VERT.:

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501 North Green Valley Pkwy.
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Henderson, Nevada 89014
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Fax: 702/263-7200
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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GEOTECHNICAL TESTING LOCATIONS - PLAN VIEW -

99-00-12

DRAWING NO. C5

5/53

NOTE:
THIS DRAWING IS FOR INFORMATION ONLY
REFER TO GEOTECHNICAL EXPLORATION
REPORT PREPARED BY WESTERN TECHNOLOGIES
INC. PROJECT NO. 412BJS216.
DATED FEBRUARY 23, 2000

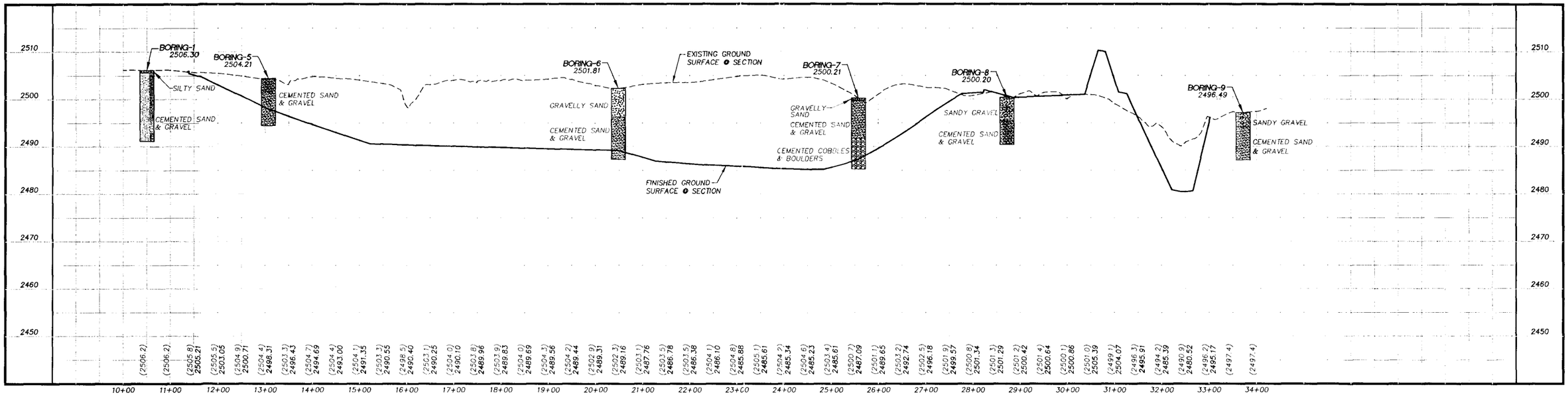
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

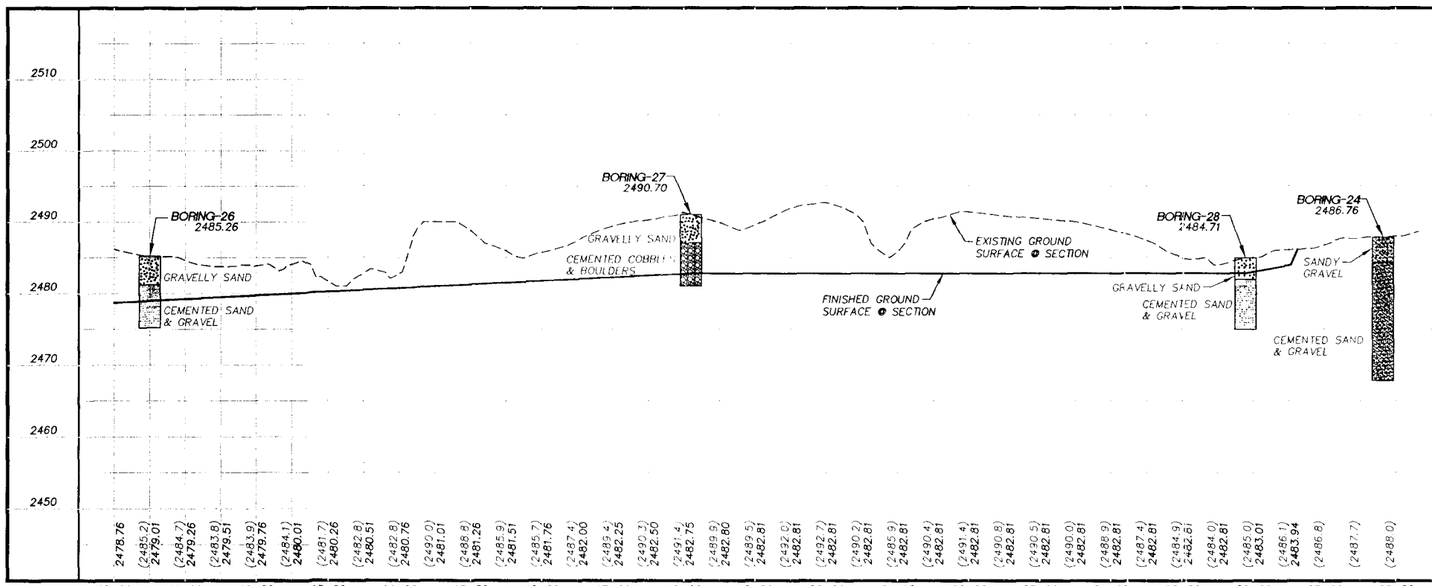
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UNDERGROUND SERVICE (USA)



GEOTCHNICAL TESTING ALIGNMENT NO. 1

SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



GEOTCHNICAL TESTING ALIGNMENT NO. 2

SCALE: HORIZ.; 1"=100'
VERT.; 1"=0'

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

SOILS LEGEND

- SANDY GRAVEL
- GRAVELLY SAND
- SILTY SAND
- COBBLES & BOULDERS
- CEMENTED SAND & GRAVEL
- CEMENTED COBBLES & BOULDERS

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-06
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GEOTECHNICAL TESTING - ALIGNMENT #1 AND #2 PROFILES -

99-00-12

DRAWING NO. C6

6/53

NOTE:
THIS DRAWING IS FOR INFORMATION ONLY
REFER TO GEOTECHNICAL EXPLORATION
REPORT PREPARED BY WESTERN TECHNOLOGIES
INC. PROJECT NO. 4128JS216.
DATED FEBRUARY 23, 2000

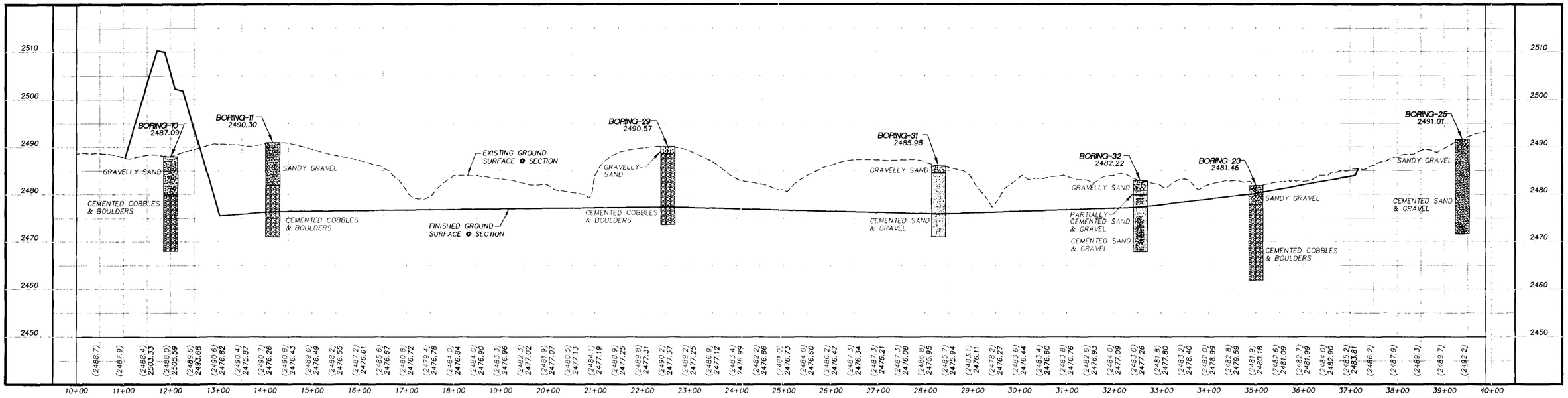
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

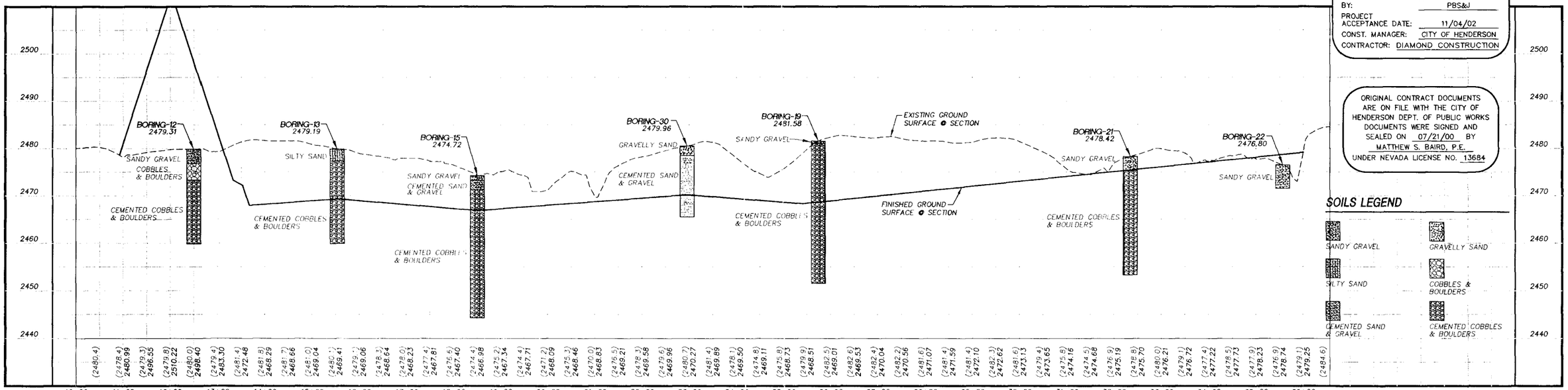
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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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UNDERGROUND SERVICE (USA)



GEOTCHNICAL TESTING ALIGNMENT NO. 3

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



GEOTCHNICAL TESTING ALIGNMENT NO. 4

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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SOILS LEGEND

- SANDY GRAVEL
- GRAVELLY SAND
- SILTY SAND
- COBBLES & BOULDERS
- CEMENTED SAND & GRAVEL
- CEMENTED COBBLES & BOULDERS

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-07
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GEOTECHNICAL TESTING - ALIGNMENT #3 AND #4 PROFILES -

99-00-12

DRAWING NO. C7

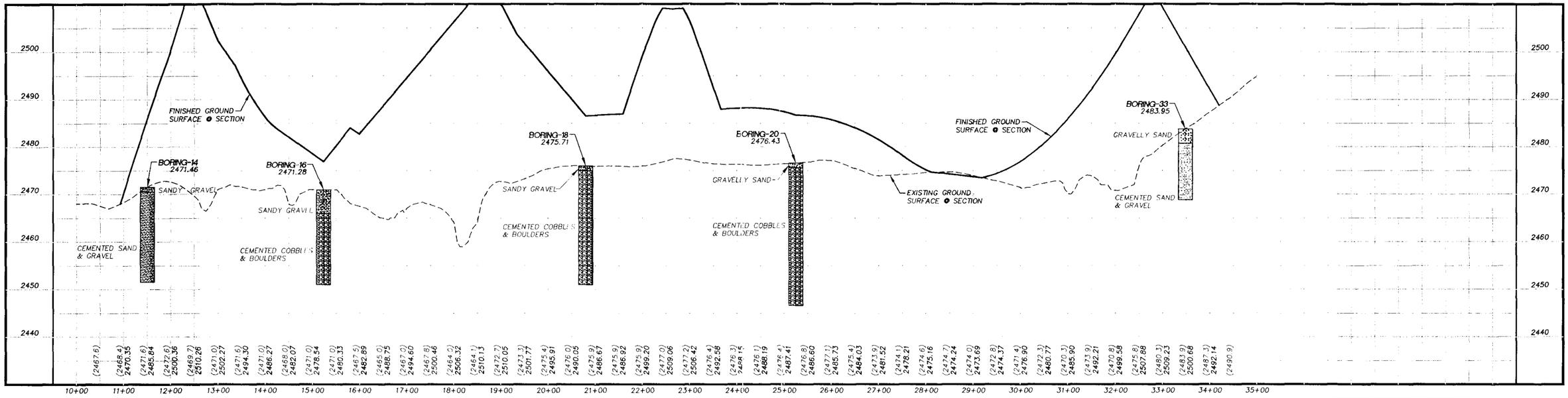
7 / 53

NOTE:
THIS DRAWING IS FOR INFORMATION ONLY
REFER TO GEOTECHNICAL EXPLORATION
REPORT PREPARED BY WESTERN TECHNOLOGIES
INC. PROJECT NO. 4128JS216.
DATED FEBRUARY 23, 2000

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
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UNDERGROUND SERVICE (USA)

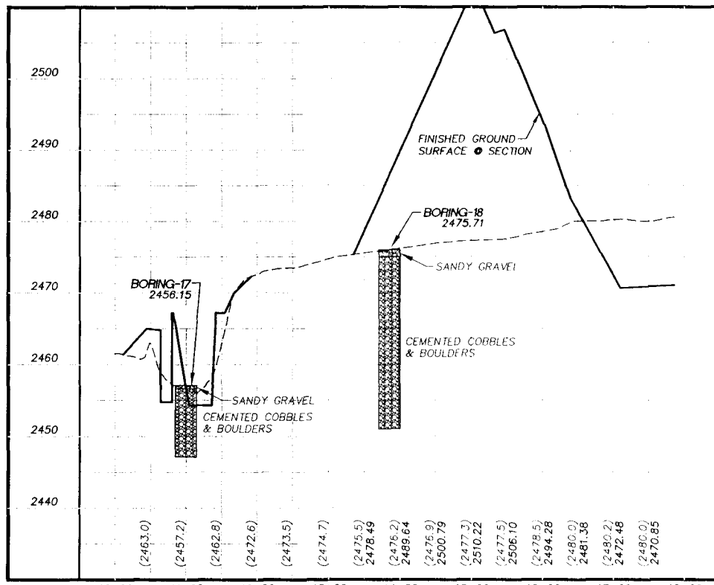


GEOTCHNICAL TESTING ALIGNMENT NO. 5

SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684



GEOTCHNICAL TESTING ALIGNMENT NO. 6

SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'

SOILS LEGEND

- SANDY GRAVEL
- GRAVELLY SAND
- SILTY SAND
- COBBLES & BOULDERS
- CEMENTED SAND & GRAVEL
- CEMENTED COBBLES & BOULDERS

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-08
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GEOTECHNICAL TESTING
- ALIGNMENT #5 AND #6 PROFILES -

99-00-12

DRAWING NO. C8

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft

LINE TABLE

LINE	LENGTH	BEARING
L1	117.49	N00°23'25"E
L2	50.00	N89°36'35"W
L3	110.00	N00°23'25"E
L4	195.00	N89°36'35"W
L5	135.00	N00°23'25"E
L6	100.00	S89°36'35"E
L7	265.34	N00°23'25"E
L8	167.42	N37°04'00"E
L9	686.49	N00°23'25"E
L10	188.42	N04°17'55"E
L11	148.06	N06°31'52"W
L12	454.33	N00°23'25"E
L13	146.68	N20°19'12"E
L14	232.74	N00°23'25"E
L15	2258.30	S00°23'25"W
L16	7.70	N81°41'55"E
L17	2.22	N89°14'21"E

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "858" AND "SLOAN" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53.

BENCHMARK

CLARK COUNTY BENCHMARK NO. 0C314E4 – N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 17-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
NAVD 1988 DATUM ELEVATION = 724.279 METERS – 2376.24 FEET

NOTES & LEGEND

REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWINGS C10 & C11 FOR DETENTION BASIN HORIZONTAL CONTROL.

(#) COORDINATE POINT (TYP)

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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FOUND BRASS & PLASTIC CAP RLS 4046

S00°23'18"W 2637.62'

S00°22'50"W 2637.45'

ANTHEM BY DEL WEBB CO.

SEVEN HILLS

PITTMAN EAST DETENTION BASIN

FOUND PLASTIC CAP RLS 4046

FOUND 2" ALUMINUM CAP PLS 4046

S00°33'42"E 5457.44'

S00°23'40"W 2579.59'

S00°23'11"W 2579.67'

S00°23'25"W 2608.54'

S00°23'13"W 2608.66'

LIMITS OF BLM GRANT #N62387 TYPICAL

EXISTING INUNDATION EASEMENT

Δ = 03°10'59"
R = 1800.00'
L = 236.89'
T = 118.62'

℄ "H" STREET R/W 100'

LIMITS OF BLM GRANT

EXISTING 100' DRAINAGE EASEMENT

S12°52'33"W 5658.50'

S00°29'16"W 2231.99'

S14°18'16"W

℄ EXISTING RUNWAY

HENDERSON EXECUTIVE AIRPORT

100' R/W

℄ "H" STREET 100' R/W

S00°32'07"W 317.06'

Δ = 04°10'01"
R = 1375.00'
L = 128.94'
T = 64.52'

FOUND BML BRASS CAP "1956"

FOUND ALUMINUM CAP PLS 5269

FOUND BLM BRASS CAP "1956"

FOUND BRASS CAP IN CONCRETE PLS 7008

S00°34'56"E 5584.02'

S00°35'01"W 2522.10'

S00°34'43"W 2522.18'

S04°24'59"W (R)

TOWNSHIP 22 SOUTH RANGE 61 EAST

TOWNSHIP 23 SOUTH RANGE 61 EAST

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-09
SCALE: HORIZ.: 1"=300'
VERT.:

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THE CITY OF HENDERSON

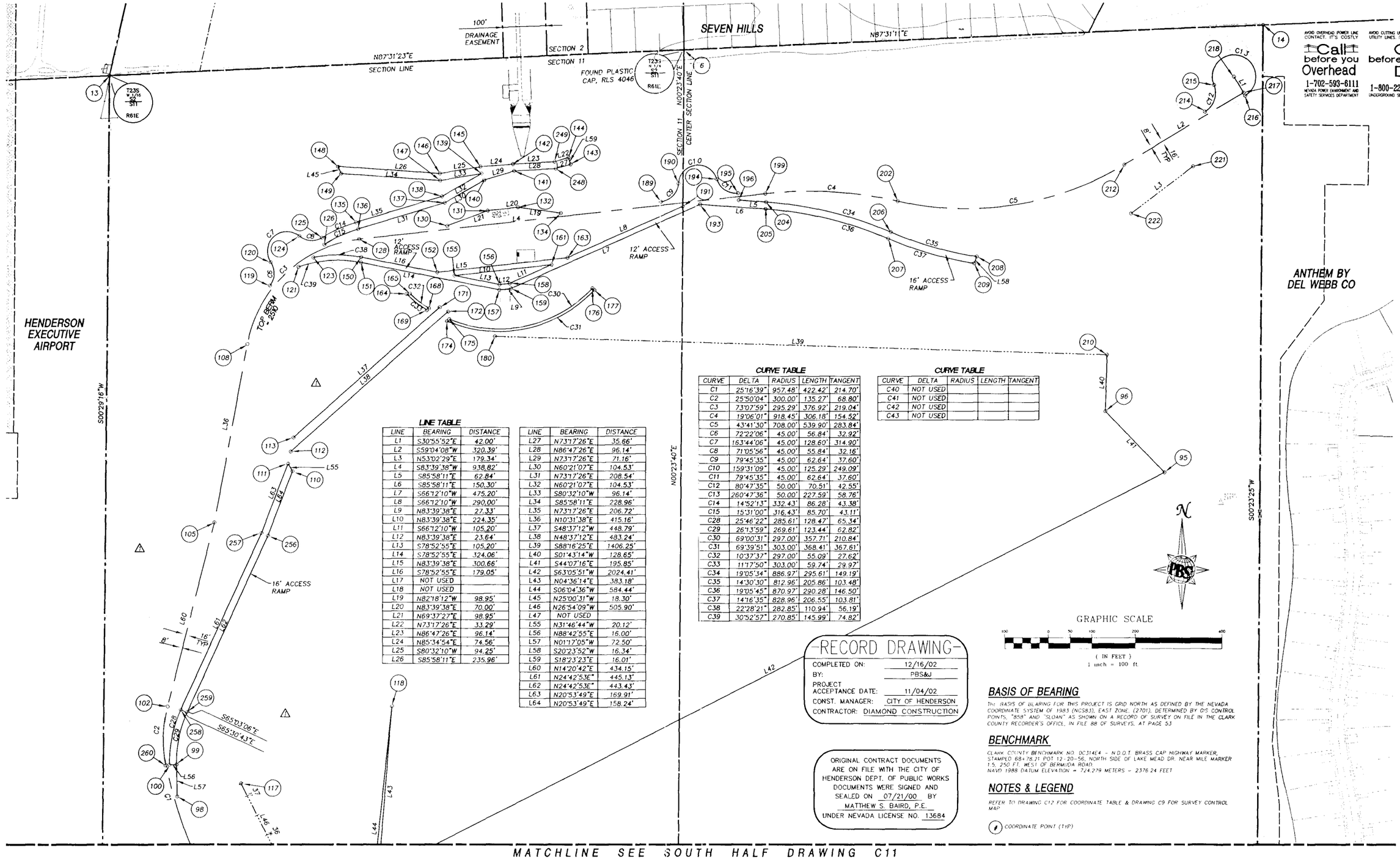
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

SURVEY CONTROL MAP

99-00-12

DRAWING NO. C9 | 9/53



LINE TABLE

LINE	BEARING	DISTANCE
L1	S30°55'52"E	42.00'
L2	S59°04'08"W	320.39'
L3	N53°02'29"E	179.34'
L4	S83°39'38"W	938.82'
L5	S85°58'11"E	62.84'
L6	S85°58'11"E	150.30'
L7	S66°12'10"W	475.20'
L8	S66°12'10"W	290.00'
L9	N83°39'38"E	27.33'
L10	N83°39'38"E	224.35'
L11	S66°12'10"W	105.20'
L12	N83°39'38"E	23.64'
L13	S78°52'55"E	105.20'
L14	S78°52'55"E	324.06'
L15	N83°39'38"E	300.66'
L16	S78°52'55"E	179.05'
L17	NOT USED	
L18	NOT USED	
L19	N82°18'12"W	98.95'
L20	N83°39'38"E	70.00'
L21	N69°37'27"E	98.95'
L22	N73°17'26"E	33.29'
L23	N86°47'26"E	96.14'
L24	N85°34'54"E	74.56'
L25	S80°32'10"W	94.25'
L26	S85°58'11"E	235.96'

LINE	BEARING	DISTANCE
L27	N73°17'26"E	35.66'
L28	N86°47'26"E	96.14'
L29	N73°17'26"E	71.16'
L30	N60°21'07"E	104.53'
L31	N73°17'26"E	208.54'
L32	N60°21'07"E	104.53'
L33	S80°32'10"W	96.14'
L34	S85°58'11"E	228.96'
L35	N73°17'26"E	206.72'
L36	N10°31'38"E	415.16'
L37	S48°37'12"W	448.79'
L38	N48°37'12"E	483.24'
L39	S88°16'25"E	1406.25'
L40	S01°43'14"W	128.65'
L41	S44°07'16"E	195.85'
L42	S63°05'51"W	2024.41'
L43	N04°36'14"E	383.18'
L44	S06°04'36"W	584.44'
L45	N25°00'31"W	18.30'
L46	N26°54'09"W	505.90'
L47	NOT USED	
L55	N31°46'44"W	20.12'
L56	N88°42'55"E	16.00'
L57	N01°17'05"W	72.50'
L58	S20°23'52"W	16.34'
L59	S18°23'23"E	16.01'
L60	N14°20'42"E	434.15'
L61	N24°42'53"E	445.13'
L62	N24°42'53"E	443.43'
L63	N20°53'49"E	169.91'
L64	N20°53'49"E	158.24'

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	25°16'39"	957.48'	422.42'	214.70'
C2	25°50'04"	300.00'	135.27'	68.80'
C3	73°07'59"	295.29'	376.92'	219.04'
C4	19°06'01"	918.45'	306.18'	154.52'
C5	43°41'30"	708.00'	539.90'	283.84'
C6	72°22'06"	45.00'	56.84'	32.92'
C7	163°44'06"	45.00'	128.60'	314.90'
C8	71°05'56"	45.00'	55.84'	32.16'
C9	79°45'35"	45.00'	62.64'	37.60'
C10	159°31'09"	45.00'	125.29'	249.09'
C11	79°45'35"	45.00'	62.64'	37.60'
C12	80°47'35"	50.00'	70.51'	42.55'
C13	260°47'36"	50.00'	227.59'	58.76'
C14	14°52'13"	332.43'	86.28'	43.38'
C15	15°31'00"	316.43'	85.70'	43.11'
C28	25°46'22"	285.61'	128.47'	65.34'
C29	26°13'59"	269.61'	123.44'	62.82'
C30	69°00'31"	297.00'	357.71'	210.84'
C31	69°39'51"	303.00'	368.41'	367.61'
C32	10°37'37"	297.00'	55.09'	27.62'
C33	11°17'50"	303.00'	59.74'	29.97'
C34	19°05'34"	886.97'	295.61'	149.19'
C35	14°30'30"	812.96'	205.86'	103.48'
C36	19°05'45"	870.97'	290.28'	146.50'
C37	14°16'35"	828.96'	206.55'	103.81'
C38	22°28'21"	282.85'	110.94'	56.19'
C39	30°52'57"	270.85'	145.99'	74.82'

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C40	NOT USED			
C41	NOT USED			
C42	NOT USED			
C43	NOT USED			

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "BSB" AND "SUSAN" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53

BENCHMARK

CLARK COUNTY BENCHMARK NO. 0C314E4 - N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
NAVD 1988 DATUM ELEVATION = 724.279 METERS = 2376.24 FEET

NOTES & LEGEND

REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL MAP.

(#) COORDINATE POINT (TYP)

MATCHLINE SEE SOUTH HALF DRAWING C11

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-10
SCALE: HORIZ.: 1"=100'
VERT.:

PBSJ
301 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone: 702/263-7275 Fax: 702/263-7200
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES

SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN HORIZONTAL CONTROL PLAN 1 - (NORTH HALF)

99-00*12

DRAWING NO. C10 | 10/53

MATCHLINE SEE NORTH HALF DRAWING C10

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "858" AND "SLOAN" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53.

BENCHMARK

CLARK COUNTY BENCHMARK NO. 0C314E4 – N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21, POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
NAVD 1988 DATUM ELEVATION = 724.279 METERS – 2376.24 FEET.

NOTES & LEGEND

REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C10 FOR SURVEY CONTROL MAP.

(#) COORDINATE POINT (TYP)

HENDERSON EXECUTIVE AIRPORT

CONTRACTOR STAGING AREA

SPILLWAY - 2502

INFLOW CHANNEL "A"

INFLOW CHANNEL "B"

16' ACCESS RAMP

CENTER SECTION LINE SECTION 11 S88°46'21"W

S88°37'00"W

S00°32'07"W

N00°34'43"E SECTION LINE SECTION 10 SECTION 11

N00°23'40"E SECTION LINE SECTION 11 CENTER SECTION LINE N00°23'11"E

T23S R61E S 1/4 W 1/4 11/10

FOUND BLM BRASS CAP – 1956

T23S R61E S 1/4 S 11

BLM

DEL WEBB ACCESS R/W S89°02'37"W

50' 100' R/W

SEE C10 FOR C1

SEE C10 FOR L46

SEE C10 FOR L42, L43, & L44

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C16	19°08'39"	491.00'	164.06'	82.80'
C17	03°26'13"	491.00'	29.45'	14.73'
C18	36°06'51"	991.00'	624.64'	323.09'
C19	42°00'54"	509.00'	373.25'	195.46'
C20	56°34'17"	41.50'	40.98'	22.33'
C21	04°17'27"	685.20'	51.31'	25.67'
C22	29°15'16"	643.70'	328.66'	168.00'
C23	55°54'58"	100.00'	97.59'	53.08'
C24	36°06'51"	847.00'	533.87'	276.14'
C25	23°49'35"	653.00'	271.55'	137.77'
C26	80°34'47"	320.00'	450.04'	271.28'
C27	47°30'29"	700.00'	580.42'	308.07'
C44	55°54'58"	100.00'	97.59'	53.08'
C45	55°54'58"	100.00'	97.59'	53.08'
C46	13°34'13"	320.00'	75.79'	38.07'
C47	180°00'00"	8.00'	25.13'	(INF)
C48	12°09'13"	690.68'	146.51'	73.53'
C49	12°02'01"	674.68'	141.70'	71.11'
C50	19°24'31"	739.21'	250.41'	126.41'
C51	19°24'31"	490.26'	166.07'	83.84'

LINE TABLE

LINE	BEARING	DISTANCE
L48	N13°19'55"W	66.82'
L49	N13°19'55"W	138.56'
L50	S54°57'35"W	755.58'
L51	S32°22'42"W	200.77'
L52	S54°57'35"W	465.64'
L53	S89°02'37"W	125.00'
L54	S00°57'23"E	330.99'
L60	S00°57'23"E	264.52'
L61	S89°02'37"W	125.00'
L62	S00°57'23"E	397.46'
L63	N55°54'04"E	16.00'
L64	N73°05'46"E	16.06'
L65	S06°04'36"W	87.71'

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft

N

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN HORIZONTAL CONTROL PLAN 2 - (SOUTH HALF)

99-00-12

DRAWING NO. C11

11/53

COORDINATE TABLE

#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	690889.1549	788426.7312		CONTROL POINT
2	690888.4348	791087.6592		CONTROL POINT
3	690887.9027	793748.5202		CONTROL POINT
4	693525.2911	793766.0326		CONTROL POINT
5	696162.8485	793783.9141		CONTROL POINT
6	696047.5845	791122.8163		CONTROL POINT / PROPERTY CORNER
7	695933.1758	788477.8841		CONTROL POINT
8	693411.2021	788452.2005		CONTROL POINT / PROPERTY CORNER
9	693468.0509	791105.0596		CONTROL POINT
10	698576.6241	788451.0266		CONTROL POINT
11	701516.9028	788421.1531		CONTROL POINT
12	701504.7617	791069.3127		CONTROL POINT
13	695990.3801	789800.3502		CONTROL POINT / PROPERTY CORNER
14	696105.2153	792453.3376		CONTROL POINT / PROPERTY CORNER
15	693496.7345	792435.5701		CONTROL POINT
16	690888.1327	792417.9527		CONTROL POINT
17	701510.8007	789745.2371		CONTROL POINT
18	693758.4707	789781.3450		CONTROL POINT / PROPERTY CORNER
19	693742.4598	789118.3780		CONTROL POINT / PROPERTY CORNER
20	693425.4143	789115.4152		CONTROL POINT / PROPERTY CORNER
21	692562.6454	788443.6312		CONTROL POINT / PROPERTY CORNER
22	692558.7543	788572.4613		CONTROL POINT / PROPERTY CORNER
23	692600.8981	791096.9949		CONTROL POINT / PROPERTY CORNER
24	692600.9275	791099.2105		CONTROL POINT
25	692615.3620	792186.1542		CONTROL POINT / PROPERTY CORNER
26	692634.0631	792422.1370		CONTROL POINT / PROPERTY CORNER
27	692635.1782	792429.7789		CONTROL POINT / PROPERTY CORNER
28				
29				
30	692652.9496	788462.6149	2509.34	CENTERLINE OF SPILLWAY / CONTROL
31	692822.5090	788570.1309	2504.97	CENTERLINE OF SPILLWAY / CONTROL / PC
32	692943.9560	788679.2926	2501.34	CENTERLINE OF SPILLWAY / CONTROL / CB
33	692961.5800	788702.8865	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PT
34	692597.7469	789110.8888	2509.00	GRADE BREAK
35	692595.6604	788985.9062	2509.00	FLOWLINE
36	692593.5740	788860.9236	2509.00	GRADE BREAK
37	692858.0597	788856.5084	2490.49	GRADE BREAK
38	692860.1461	788981.4910	2489.82	FLOWLINE / GRADE BREAK
39	692862.2325	789106.4736	2489.75	GRADE BREAK
40	692928.6922	789105.3641	2489.41	TOE OF BERM
41	692995.1518	789104.2547	2489.08	TOE OF BERM
42	693078.6958	789146.8255	2488.59	TOE OF BERM
43	692926.6057	788980.3815	2489.48	FLOWLINE / PC
44	693010.1498	789022.9524	2489.00	FLOWLINE / PT
45	692941.6037	788899.0793	2490.00	TOE OF BERM
46	692828.4955	788451.3103		CENTERLINE CONTROL VEHICLE BARRICADE
47	692628.5057	788449.2886		CENTERLINE CONTROL VEHICLE BARRICADE
48	692628.3222	788467.4498		CENTERLINE CONTROL VEHICLE BARRICADE
49	692573.5508	788859.7003		CENTERLINE CONTROL VEHICLE BARRICADE
50	692577.8879	789119.5058		CENTERLINE CONTROL VEHICLE BARRICADE
51	692721.6501	789258.5469		CENTERLINE CONTROL VEHICLE BARRICADE
52	693395.3958	789321.5141	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PC
53	693574.8417	789909.0713	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PRC
54	693265.2147	789412.8042	2486.97	TOE OF BERM
55	693277.4960	789404.1919	2486.67	FLOWLINE / PC
56	693289.7772	789395.5797	2486.97	TOE OF BERM
57	693415.8696	789906.0914	2484.25	TOE OF BERM
58	693430.8670	789906.3725	2483.99	FLOWLINE / PRC
59	693445.8643	789906.6536	2484.25	TOE OF BERM
60	693699.2621	790252.1497	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PC
61	693736.0364	790266.0993	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PCC
62	693786.6105	790257.4927	2501.34	CENTERLINE OF SPILLWAY / CONTROL / PT
63	693788.9458	790265.1771	2501.18	EDGE OF PAVEMENT / PT
64	693784.2750	790249.8075	2501.50	EDGE OF PAVEMENT / PT
65	693731.6565	790232.8868	2510.00	TOP OF BERM
66	693729.5646	790217.0242	2510.32	TOP OF BERM
67	693730.6105	790224.9555	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
68	693918.0357	790196.4747	2509.68	TOP OF BERM / ACCESS RAMP
69	693909.0657	790183.2256	2510.00	TOP OF BERM / ACCESS RAMP
70	694036.5323	790108.8433	2510.00	TOP OF BERM

COORDINATE TABLE

#	NORTHING	EASTING	ELEVATION	DESCRIPTION
71	694031.7438	790102.4347	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
72	694026.9553	790096.0260	2510.32	TOP OF BERM
73	693467.7331	790176.9599	2482.92	TOE OF BERM
74	693481.5658	790171.1587	2482.63	FLOWLINE / PCC
75	693495.3986	790165.3574	2482.92	TOE OF BERM
76	693087.5430	790316.5318	2500.00	TOE OF BERM
77	693095.9691	790304.1221	2499.70	FLOWLINE / PC
78	693104.3952	790291.7123	2500.00	TOE OF BERM
79	693654.0601	790420.7318	2483.29	TOE OF BERM
80	693650.6012	790406.1361	2482.99	FLOWLINE / PT
81	693647.1423	790391.5403	2483.29	TOE OF BERM
82	693719.0842	790405.3224	2481.37	TOE OF BERM
83	693715.6254	790390.7266	2481.07	FLOWLINE
84	693712.1679	790376.1234	2481.36	TOE OF BERM
85	693880.5752	790380.2688	2480.27	TOE OF BERM
86	693850.4550	790358.7745	2480.38	FLOWLINE / PC
87	693949.2674	790387.5816	2480.00	TOE OF BERM
88	693921.4558	790332.7677	2480.00	FLOWLINE / PT
89	693914.6688	790319.3910	2480.30	TOE OF BERM
90	694092.1821	790183.7347	2478.90	TOE OF BERM
91	693967.7956	790389.5541	2479.92	TOE OF BERM
92	693987.9165	790299.0468	2479.62	FLOWLINE
93	694167.0040	790420.6658	2484.00	TOE OF SLOPE / CONTROL
94	694399.4824	790856.7576		SEDIMENT MARKER
95	695082.9935	792225.9937	2484.00	TOE OF SLOPE / CONTROL
96	695223.5851	792089.6509	2480.26	TOE OF SLOPE / CONTROL
97	695050.5850	792140.0213		SEDIMENT MARKER
98	694343.6107	789956.6168	2510.00	TOP OF BERM / GRADE BREAK
99	694416.0920	789954.9913	2509.67	TOP OF BERM / ACCESS RAMP
100	694415.7333	789938.9953	2510.00	TOP OF BERM / ACCESS RAMP
101	694546.2416	789942.2484	2510.00	TOP OF BERM
102	694548.2237	789934.4978	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
103	694550.2058	789926.7473	2510.32	TOP OF BERM
104	694967.1129	790049.8799	2510.00	TOP OF BERM
105	694968.8367	790042.0632	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
106	694970.5605	790034.2466	2510.32	TOP OF BERM
107	695375.5460	790125.7796	2510.00	TOP OF BERM
108	695377.0077	790117.9143	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
109	695378.4693	790110.0489	2510.32	TOP OF BERM
110	695086.5009	790221.9227	2465.80	TOE OF BERM / ACCESS RAMP
111	695103.6048	790211.3265	2465.39	TOE OF BERM / ACCESS RAMP
112	695131.8156	790217.9211	2464.96	TOE OF BERM
113	695164.1071	790224.3196	2464.83	TOE OF BERM
114	694418.3391	790055.3489	2476.21	TOE OF BERM / GRADE BREAK
115	694359.4953	790054.3441	2477.25	TOE OF BERM / GRADE BREAK
116	694348.8090	790056.9592	2477.47	TOE OF BERM / GRADE BREAK
117	694312.6067	790103.8623	2477.47	FLOW LINE / GRADE BREAK
118	694548.9523	790451.4226	2477.47	GRADE BREAK
119	695510.6572	790169.9249	2510.32	TOP OF BERM
120	695563.7585	790171.8032	2509.64	TOP OF BERM
121	695553.0070	790236.0160	2510.00	TOP OF BERM
122	695563.1264	790272.3645	2509.76	TOP OF BERM / ACCESS RAMP
123	695574.8829	790269.9591	2510.00	TOP OF BERM / ACCESS RAMP
124	695623.7100	790237.7101	2509.54	TOP OF BERM
125	695620.0352	790289.9074	2510.00	TOP OF BERM / ACCESS RAMP
126	695604.5167	790295.2467	2510.32	TOP OF BERM / ACCESS RAMP
127	695608.5926	790376.5136	2510.00	TOP OF BERM
128	695616.5437	790375.6302	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
129	695624.4948	790374.7468	2510.32	TOP OF BERM
130	695647.1462	790578.6297	2510.32	TOP OF BERM
131	695681.5998	790671.3925	2509.84	TOP OF BERM
132	695689.3293	790740.9645	2509.84	TOP OF BERM
133				
134	695676.0764	790839.0275	2510.32	TOP OF BERM
135	695655.1485	790368.4512	2504.86	CONTROL POINT
136	695639.8218	790373.0440	2505.18	CONTROL POINT
137	695699.7815	790572.7819	2492.67	CONTROL POINT
138	695714.5843	790566.4459	2492.35	CONTROL POINT
139	695766.2926	790657.2898	2486.08	CONTROL POINT
140	695751.4898	790663.6277	2486.40	CONTROL POINT

COORDINATE TABLE

#	NORTHING	EASTING	ELEVATION	DESCRIPTION
141	695771.9501	790731.7853	2482.13	CONTROL POINT
142	695787.8190	790728.9988	2481.81	CONTROL POINT
143	695787.5846	790861.9293	2474.22	TOE OF BERM / ACCESS RAMP
144	695802.7741	790856.8795	2474.04	TOE OF BERM / ACCESS RAMP
145	695782.0748	790654.6590	2485.76	CONTROL POINT
146	695766.5777	790561.6917	2479.99	CONTROL POINT
147	695750.4842	790562.4554	2480.31	CONTROL POINT
148	695783.1611	790326.3201	2465.83	TOE OF BERM / ACCESS RAMP
149	695766.5763	790334.0568	2466.57	TOE OF BERM / ACCESS RAMP
150	695575.5118	790380.1889	2498.91	CONTROL POINT
151	695563.3441	790379.8746	2498.46	CONTROL POINT
152	695540.9850	790555.8808	2481.00	CONTROL POINT
153	695529.2103	790553.5668	2480.76	CONTROL POINT
154	695521.4970	790592.8161	2480.52	CONTROL POINT
155	695533.2718	790595.1301	2480.76	CONTROL POINT
156	695512.9860	790698.3557	2470.24	CONTROL POINT
157	695500.8560	790697.8496	2470.00	CONTROL POINT
158	695515.5964	790721.8515	2470.24	CONTROL POINT
159	695503.8732	790725.0077	2470.00	CONTROL POINT
160	695547.0649	790822.9494	2480.52	CONTROL POINT
161	695558.0446	790818.1074	2480.76	CONTROL POINT
162	695563.2049	790859.5485	2480.76	CONTROL POINT
163	695574.1846	790854.7065	2481.00	CONTROL POINT
164	695491.4399	790485.0085	2470.00	TOE OF BERM
165	695492.2091	790492.8756	2470.00	TOE OF BERM
166	695474.2492	790485.8731	2464.02	TOE OF BERM
167	695475.4029	790537.0069	2462.69	TOE OF BERM
168	695458.3574	790536.2336	2470.00	TOP OF BERM
169	695454.2015	790531.6046	2470.00	TOP OF BERM
170	695436.2158	790533.1847	2462.77	TOE OF BERM
171	695460.7805	790561.0676	2462.62	TOE OF BERM
172	695451.2638	790580.5204	2462.54	TOE OF BERM
173	695425.8335	790551.6550	2462.73	TOE OF BERM
174	695429.4783	790578.1107	2470.00	TOP OF BERM
175	695433.8584	790583.1842	2470.00	TOP OF BERM
176	695504.1919	790912.2331	2470.00	TOP OF BERM
177	695500.3935	790916.8990	2470.00	TOP OF BERM
178	695500.9230	790924.6671	2467.33	TOE OF BERM
179	695512.7809	790911.6277	2466.86	TOE OF BERM
180	695394.5462	790687.9037	2464.52	TOE OF BERM / FLOWLINE
181	695429.3235	790719.5435	2461.48	GRADE BREAK
182	695474.0095	790714.5789		GRADE BREAK
183	695500.0170	790711.5627		OUTFALL CENTERLINE CONTROL
184	695900.0158	790712.5468		OUTFALL CENTERLINE CONTROL
185	695960.6574	790712.6960	2454.70	OUTFALL CENTERLINE CONTROL
186	695961.7995	790745.4009	2454.25	OUTFALL CENTERLINE CONTROL
187	695591.6622	790758.3264		OUTFALL CENTERLINE CONTROL
188	696131.1962	790739.4854	2452.50	OUTFALL CENTERLINE CONTROL
189	695701.7391	791070.0145	2510.32	TOP OF BERM
190	695743.4027	791109.9413	2509.58	TOP OF BERM
191	695691.1997	791120.0506	2510.00	TOP OF BERM / ACCESS RAMP
192	695680.2199	791124.8926	2509.76	TOP OF BERM / ACCESS RAMP
193	695695.6165	791159.8060	2510.00	TOP OF BERM
194	695753.1822	791197.9661	2509.58	TOP OF BERM
195	695721.2983	791246.0640	2510.32	TOP OF BERM
196	695705.4317	791248.1513	2510.00	TOP OF BERM / ACCESS RAMP
197	695689.4713	791247.0268	2509.68	TOP OF BERM / ACCESS RAMP
198	695728.1599	791307.8248	2510.32	TOP OF BERM
199	695720.2088	791308.7081	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
200	695712.2577	791309.5915	2510.00	TOP OF BERM
201	695695.3385	791611.2224	2510.00	TOP OF BERM
202	695703.1409	791612.9894	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
203	695710.9433	791614.7565	2510.32	TOP OF BERM
204	695701.0149	791310.8406	2506.23	CONTROL POINT
205	695685.0535	791309.7298	2505.91	CONTROL POINT
206	695632.4273	791596.9749	2488.49	CONTROL POINT
207	695617.7043	791590.7112	2488.17	CONTROL POINT
208	695576.4852	791794.5140	2476.14	TOE OF BERM / ACCESS RAMP
209	695561.1690	791788.8186	2476.02	TOE OF BERM / ACCESS RAMP
210	695352.1818	792093.5134	2478.00	FLOWLINE

COORDINATE TABLE

#	NORTHING	EASTING	ELEVATION	DESCRIPTION
211	695779.4796	792137.3998	2510.00	TOP OF BERM
212	695786.3419	792133.2878	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
213	695793.2042	792129.1757	2510.32	TOP OF BERM
214	695907.1495	792319.3303	2510.32	TOP OF BERM
215	695968.5457	792340.0788	2510.90	TOP OF BERM
216	695944.1634	792412.2279	2510.00	TOP OF BERM
217	695951.0256	792408.1159		CENTERLINE OF EMBANKMENT / CONTROL
218	695987.0527	792386.5276	2511.00	CENTERLINE OF EMBANKMENT / CONTROL
219	695602.6764	792134.3132	2479.58	CONTROL POINT / EDGE OF RIP-RAP
220	695647.9274	792080.9058	2479.27	CONTROL POINT / EDGE OF RIP-RAP
221	695782.4196	792291.7751	2486.42	FLOWLINE / EDGE OF RIP-RAP
222	695674.5934	792148.4692	2480.05	FLOWLINE / GRADE BREAK
223	692648.1300	788470.2157	2509.18	EDGE OF RIP-RAP
224	695419.9189	790552.5043		SEDIMENT MARKER
225	695987.7251	792452.5373		LIMITS OF EXISTING INUNDATION EASEMENT
226	695987.3845	792502.5361		LIMITS OF EXISTING INUNDATION EASEMENT
227	695877.3871	792501.7869		LIMITS OF EXISTING INUNDATION EASEMENT
228	695876.0589	792696.7824		LIMITS OF EXISTING INUNDATION EASEMENT
229	695741.0620	792695.8628		LIMITS OF EXISTING INUNDATION EASEMENT
230	695741.7432	792595.8652		LIMITS OF EXISTING INUNDATION EASEMENT
231	695476.4060	792594.0578		LIMITS OF EXISTING INUNDATION EASEMENT
232	695342.8145	792493.1456		LIMITS OF EXISTING INUNDATION EASEMENT
233	694656.3404	792488.4697		LIMITS OF EXISTING INUNDATION EASEMENT
234	694468.4504	792474.3468		LIMITS OF EXISTING INUNDATION EASEMENT
235	694321.3479	792491.1881		LIMITS OF EXISTING INUNDATION EASEMENT
236	693867.0294	792488.0935		LIMITS OF EXISTING INUNDATION EASEMENT
237	693729.4735	792437.1554		LIMITS OF EXISTING INUNDATION EASEMENT
238	695930.1472	790655.6289	2461.33	TOE OF BERM
239	696003.9860	790671.0229	2459.40	FLOWLINE
240	696018.1321	790686.8269	2458.82	FLOWLINE
241	696021.1777	790718.8124	2458.00	FLOWLINE
242	696186.3488	790762.4502	2454.73	TOE OF BERM
243	696137.2807	790774.9428	2454.89	GB
244	696033.2631	790784.4306	2464.55	GB
245	695938.0583	790787.7552	2465.17	GB
246	695869.2179	790820.2584	2472.78	TOE OF BERM
247				
248	695777.3326	790827.7779	2476.36	CONTROL POINT
249	695793.2015	790824.9914	2476.04	CONTROL POINT
250	693078.8255	788885.7556	2501.18	TOP OF BERM
251	693078.3121	788981.0095	2498.42	TOP OF BERM
252	NOT USED			
253	NOT USED			
254	NOT USED			
255	NOT USED			
256	694938.6692	790165.4800	2475.26	TOP OF BERM / ACCESS RAMP
257	694944.8744	790150.7227	2475.58	TOP OF BERM / ACCESS RAMP
258	694540.5218	789964.6143	2502.29	TOP OF BERM / ACCESS RAMP
259	694535.8574	789980.0808	2501.84	TOP OF BERM / ACCESS RAMP
260	694414.1398	789931.1556	2510.16	CENTERLINE OF EMBANKMENT / CONTROL
261	694412.5463	789923.3159	2510.32	TOP OF BERM

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-12
SCALE: HORIZ.: NO SCALE
VERT.:

PBS&J
501 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES

SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

COORDINATE TABLE

99-00-12

DRAWING NO. C12

MATCHLINE SEE PLAN 2 DRAWING C14

HENDERSON EXECUTIVE AIRPORT

PROPERTY LINE

CENTER SECTION LINE SECTION 11

S88°46'21"W

FOUND BLM BRASS CAP - 1956

T23S R61E 11/10

EX 12"W

N00°34'43"E

SECTION LINE SECTION 11 SECTION 10

BLM

100 YR WATER SURFACE ELEVATION 2500.75

SLOPE 6:1 TO MATCH EXISTING (TYPICAL)

LIMITS OF STOCKPILE

APPROXIMATE LIMITS OF GRADING

100' R/W

50' 50'

S89°02'37"W

PT = 14+28.58

PC = 13+30.99

REFER TO DRAWING C22 FOR INFLOW CHANNEL "A" PROFILE

INFLOW CHANNEL "A"

FOR ENLARGEMENT REFER TO DETAIL "A" THIS SHEET

EXISTING 32' ARCH CULVERT

"H" STREET R/W

EX 12"W

EX 21'55"

SLOPE 2:1 TO MATCH EXISTING (TYPICAL)

APPROXIMATE LIMITS OF GRADING

PMF WATER SURFACE ELEVATION 2507.50

APPROXIMATE LIMITS OF GRADING

SEE SHEETS G1 & G2 FOR GRADING DETAILS THIS AREA

SLOPE 0.5% (CUT) OR 10:1 (FILL) TO MATCH EXISTING

SPILLWAY - 2502

VARIES

APPROXIMATE LIMITS OF GRADING

GRADE BREAK

A C24 SIMILAR

10:1

0.50%

0.5%

2%

7.25%

7.85%

N = 692663.3515
E = 789056.8647

04.17 FL

S00°57'23"E

09.00 TW

09.66 TW

(12.50) TW

(14.50) TW

05.82 INV

(14.58) TW

09.67 TW

(12.53) TW

SEE NOTE 1.

EXISTING RIP-RAP

EXISTING HEAD WALL & WING WALL

SLOPE 2:1 TO MATCH (TYPICAL)

ANGLE CUT-OFF WALL TO MATCH EXISTING HEADWALL (TYPICAL BOTH SIDES)

EXISTING 32' ARCH CULVERT

"H" STREET R/W

APPROXIMATE LIMITS OF GRADING

SEE NOTE 1.

SLOPE 2:1 TO MATCH EXISTING (TYPICAL)

DETAIL "A"
SCALE: 1" = 20'

KEY NOTES

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AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call before you Dig 1-800-227-2600 UNDERGROUND SERVICE (USA)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
HORZ: 1 inch = 50 ft.
VERT: 1 inch = 5 ft.

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "858" AND "SLOAN" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53.

BENCHMARK

CLARK COUNTY BENCHMARK NO. 0C314E4 - N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
NAVD 1988 DATUM ELEVATION = 724.279 METERS - 2376.24 FEET.

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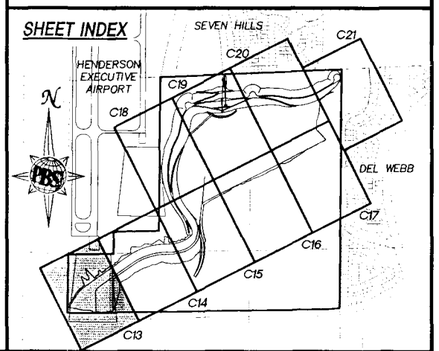
-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

SHEET INDEX



REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-13
SCALE: HORIZ.: 1"=50' VERT.:

PBS&J
911 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone: 702/263-7275 Fax: 702/263-7200
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

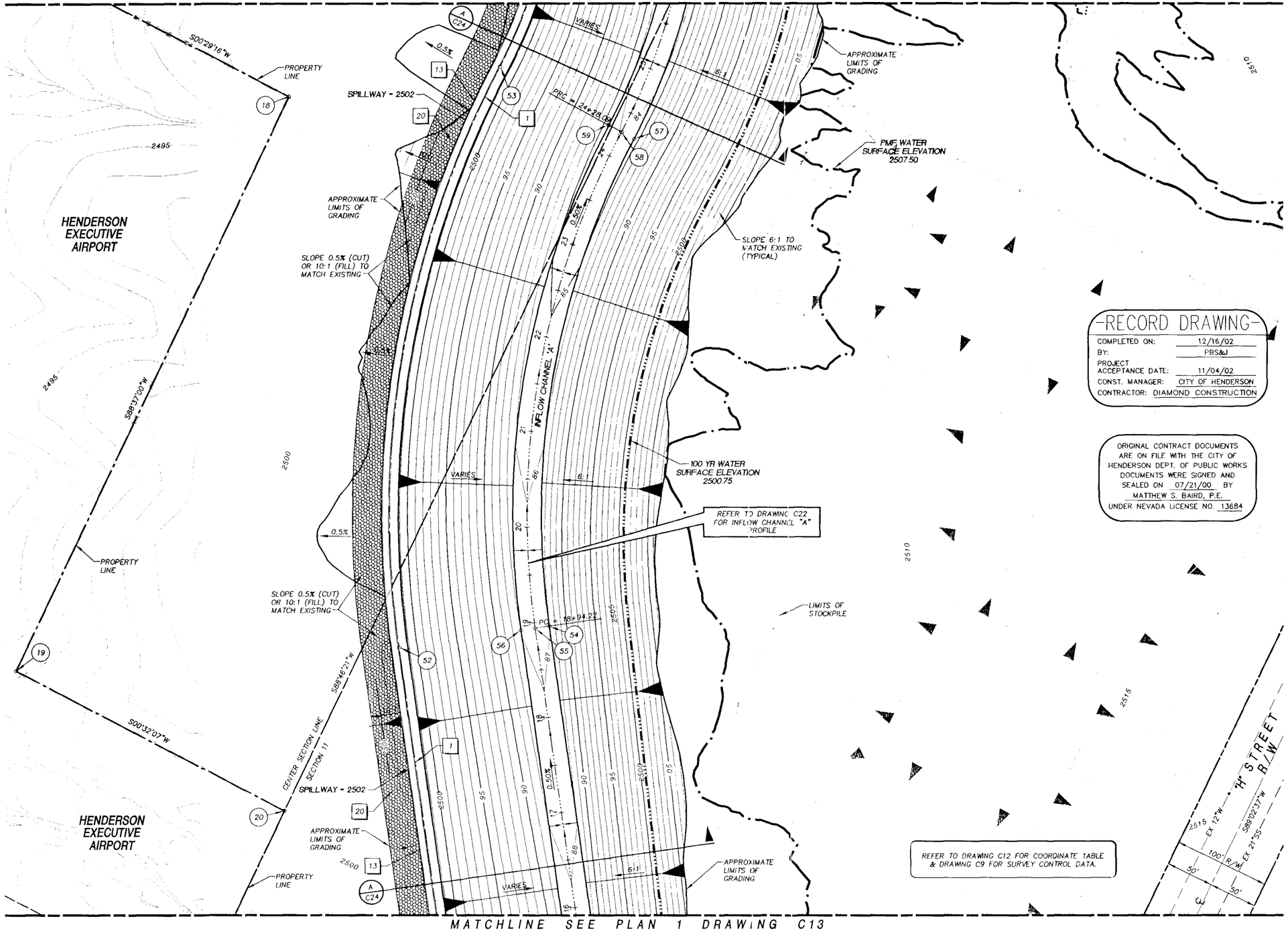
DETENTION BASIN GRADING
- PLAN 1 -

99-00-12

DRAWING NO. C13

13 / 53

MATCHLINE SEE PLAN 3 DRAWING C15



MATCHLINE SEE PLAN 1 DRAWING C13

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-RECORD DRAWING-

COMPLETED ON:	12/16/02
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50 0 25 50 100 200

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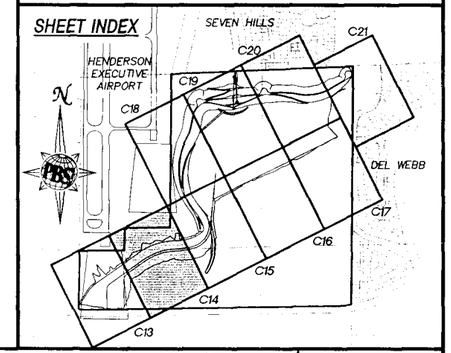
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BENCHMARK

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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING - PLAN 2 -

99-00-12

DRAWING NO. C14

14 / 53

MATCHLINE SEE PLAN 4 DRAWING C16

MATCHLINE SEE PLAN 6 DRAWING C18

MATCHLINE SEE PLAN 2 DRAWING C14

-RECORD DRAWING-

COMPLETED ON: 12/16/02
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CONST. MANAGER: CITY OF HENDERSON
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2.0% N26°54'09"W
SLOPE 4:1 TO MATCH EXISTING (TYPICAL)
APPROXIMATE LIMITS OF GRADING
S63°05'51"W
S06°04'36"W
SLOPE @ 2:1 TO MATCH
0.50% N26°54'09"W
SLOPE 2:1 TO MATCH EXISTING (TYPICAL)
APPROXIMATE LIMITS OF GRADING
INFLOW CHANNEL 'A'
TOE OF SLOPE
16' ACCESS RAMP
6%
TOP BERM = 2510
APPROXIMATE LIMITS OF EMBANKMENT
SLOPE 3:1 TO MATCH EXISTING (TYPICAL)
APPROXIMATE LIMITS OF OVEREXCAVATION & GRADING
SLOPE @ 0.5% (CUT) OR 10:1 (FILL) TO MATCH EXISTING
SPILLWAY - 2502
PROPERTY LINE
S00°29'16"W
PI = 32+23.47
PI = 29+24.47
PCC = 26+99.64
2510 PC = 21+63.87
VARIES
INFLOW CHANNEL 'A'
INFLOW CHANNEL 'B'
REFER TO DRAWING C22 FOR INFLOW CHANNEL "B" PROFILE
REFER TO DRAWING C22 FOR INFLOW CHANNEL "A" PROFILE
SLOPE 6:1 TO MATCH EXISTING (TYPICAL)
100 YR WATER SURFACE ELEVATION 2500.75
PMF WATER SURFACE ELEVATION 2507.50
CENTER SECTION LINE SECTION 11
N00°23'11"E
S88°46'22"W
REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

KEY NOTES

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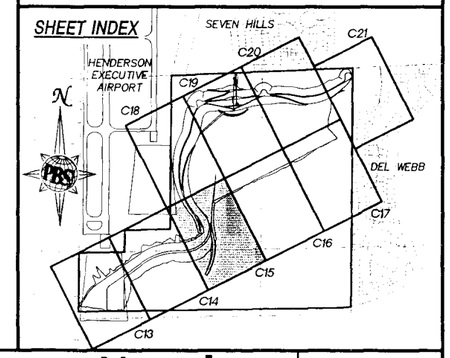
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SHEET INDEX



REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-15
SCALE: HORIZ.: 1"=50' VERT.:

PBS&J
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES
901 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone: 702/263-7275 Fax: 702/263-7200

SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

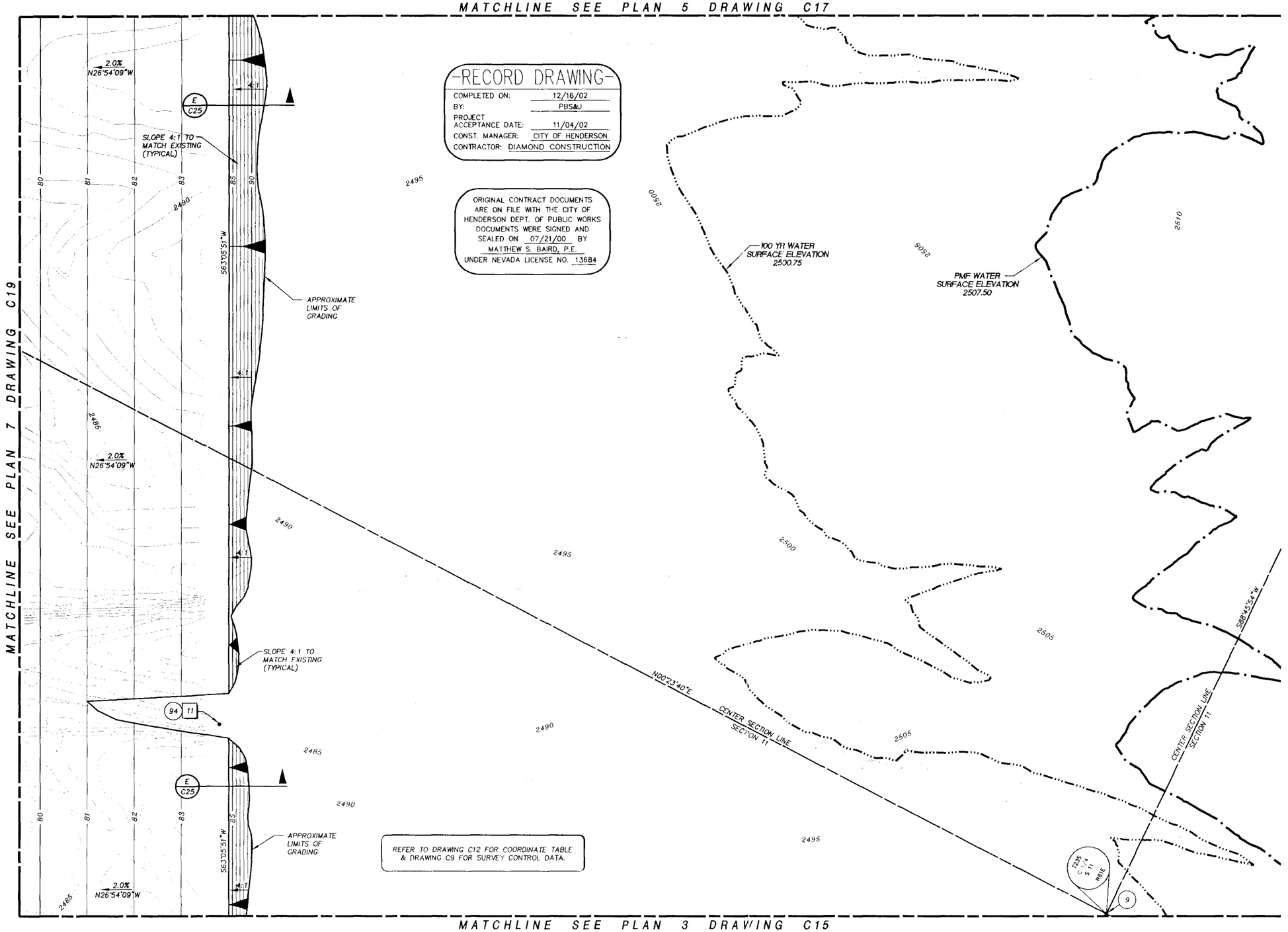
DETENTION BASIN GRADING - PLAN 3 -

99-00-12

DRAWING NO. C15 15/53

MATCHLINE SEE PLAN 5 DRAWING C17

MATCHLINE SEE PLAN 7 DRAWING C19



REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

MATCHLINE SEE PLAN 3 DRAWING C15

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

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GRAPHIC SCALE

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(IN FEET)
HORZ. 1 inch = 50 ft.
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BASIS OF BEARING

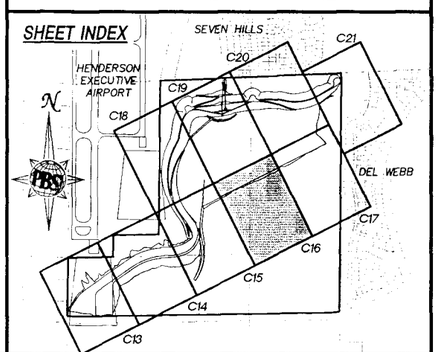
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CLARK COUNTY BENCHMARK NO. 0C314E4 – N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
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DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-16
SCALE: HORIZ.: 1"=50' VERT.:

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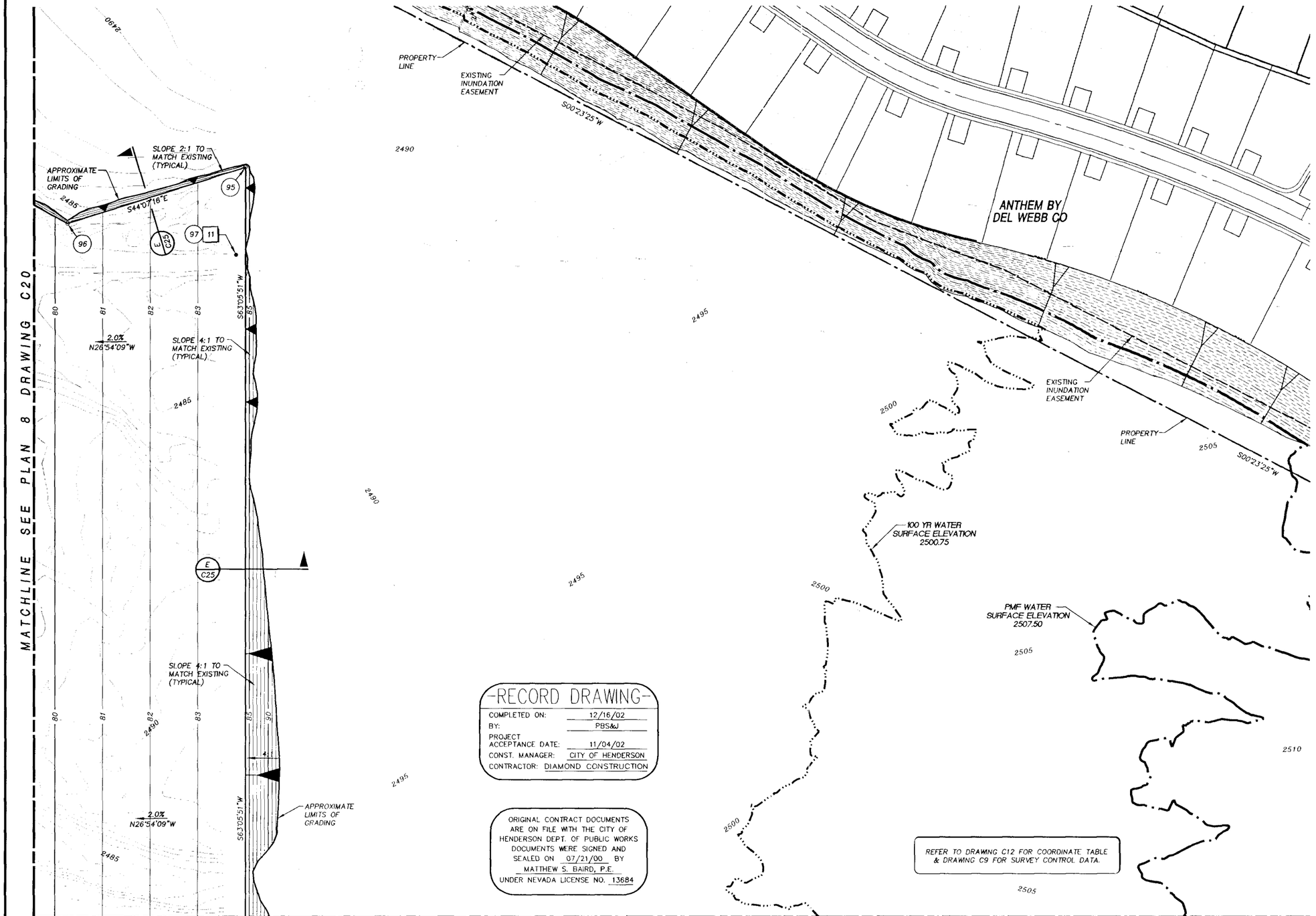
PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING - PLAN 4 -

99-00-12

DRAWING NO. C16

16 / 53



-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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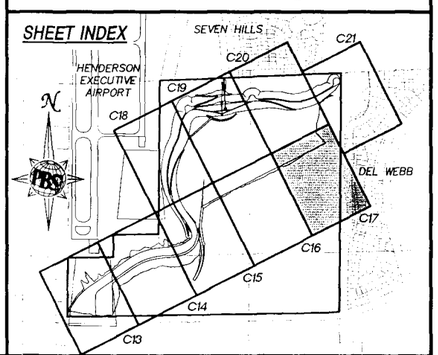
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DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-17
SCALE: HORIZ.: 1"=50' VERT.:

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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING
- PLAN 5 -

99-00-12

DRAWING NO. C17

17/53

MATCHLINE SEE PLAN 7 DRAWING C19

MATCHLINE SEE PLAN 3 DRAWING C15

APPROXIMATE LIMITS OF OVEREXCAVATION & GRADING

APPROXIMATE LIMITS OF EMBANKMENT

TOP BERM = 2510

TOE OF SLOPE

16' ACCESS RAMP

SLOPE 3:1 TO MATCH EXISTING (TYPICAL)

PROPERTY LINE

S00°29'16"W

HENDERSON EXECUTIVE AIRPORT

GRADE BREAK

S63°05'51"W

S06°04'35"W

2.0% N26°54'09"W

0.50% N26°54'09"W

6%

3:1

2500

2485

2490

2480

2475

2470

SLOPE 3:1 TO MATCH EXISTING (TYPICAL)

APPROXIMATE LIMITS OF EMBANKMENT

PROPERTY LINE

HENDERSON EXECUTIVE AIRPORT

S00°29'16"W

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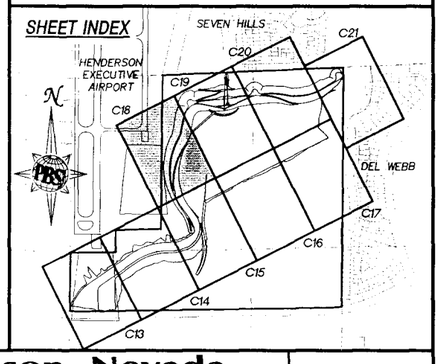
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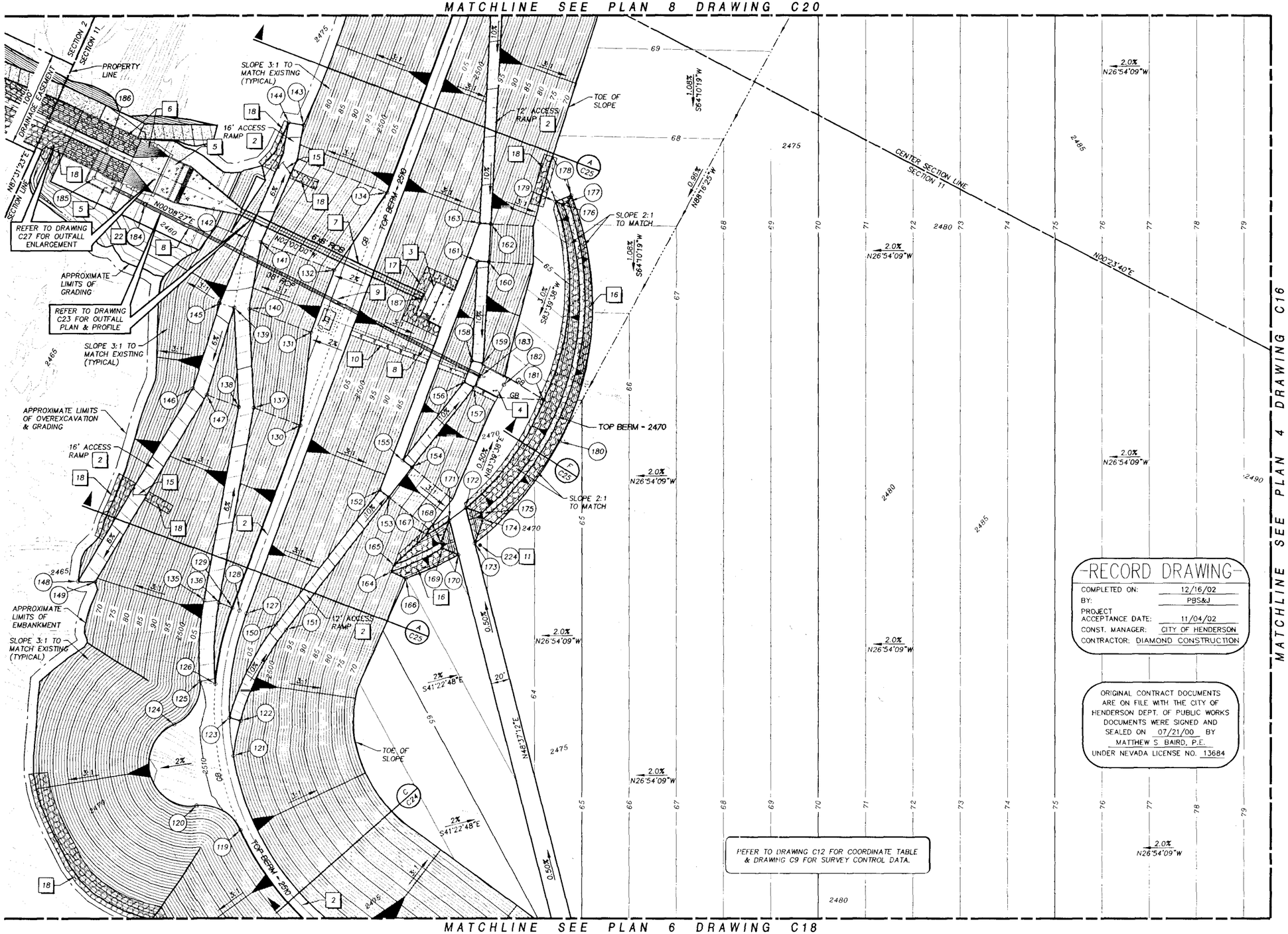
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DETENTION BASIN GRADING
- PLAN 6 -

99-00-12

DRAWING NO. C18 | 18/53

MATCHLINE SEE PLAN 8 DRAWING C20



MATCHLINE SEE PLAN 4 DRAWING C16

MATCHLINE SEE PLAN 6 DRAWING C18

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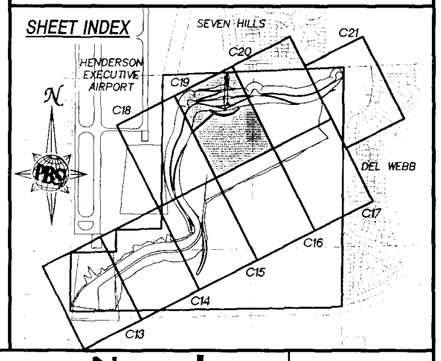
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SEAL

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING
- PLAN 7 -

99-00-12

DRAWING NO. 19 / 53

C19

MATCHLINE SEE PLAN 9 DRAWING C21

MATCHLINE SEE PLAN 5 DRAWING C17

MATCHLINE SEE PLAN 7 DRAWING C19

SEVEN HILLS

APPROXIMATE LIMITS OF EMBANKMENT

APPROXIMATE LIMITS OF GRADING

APPROXIMATE LIMITS OF OVEREXCAVATION & GRADING

TOP BERM = 2490

TOP BERM = 2500

TOE OF SLOPE

SLOPE 3:1 TO MATCH EXISTING (TYPICAL)

16' ACCESS RAMP [2]

12' ACCESS RAMP [2]

PROPERTY LINE

SECTION LINE

SECTION 2

SECTION 11

CENTER SECTION LINE SECTION 2

CENTER SECTION LINE SECTION 11

N87°51'11"E

N87°51'23"E

N00°03'42"W

N00°23'40"E

FOUND PLASTIC CAP RLS 4046

POB T 16S R 61E

1.08% S64°10'19"W

2.0% N26°54'09"W

0.86% N88°18'25"W

N01°43'14"E

2.0% SIMILAR

REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

-RECORD DRAWING-

COMPLETED ON: 12/16/02

BY: PBS&J

PROJECT ACCEPTANCE DATE: 11/04/02

CONST. MANAGER: CITY OF HENDERSON

CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

KEY NOTES

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10. INSTALL CONCRETE DEPTH GAGE PER DRAWING C28 DETAIL 2
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14. INSTALL CONC. VEHICLE BARRICADE PER DRAWING C28 DETAIL 5
15. INSTALL PIPE RAIL GATE PER DRAWING C28 DETAIL 1
16. INSTALL SEDIMENT BERM PER DRAWING C25 SECTION F
17. INSTALL 2' THICK RIP-RAP D_{50}=12" W/ FILTER FABRIC UNDER ALL UNEXPOSED SURFACES (TYP)
18. INSTALL 3' THICK HEAVY RIP-RAP D_{50}=18" W/ FILTER FABRIC UNDER ALL UNEXPOSED SURFACES (TYP), AS DIRECTED BY THE ENGINEER
19. NOT USED
20. INSTALL HEAVY RIP-RAP D_{50}=18" W/ FILTER FABRIC UNDER ALL UNEXPOSED SURFACES (TYP) PER DRAWING C24 SECTION "A"
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AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

HORZ: 1 inch = 50 ft.

VERT: 1 inch = 5 ft.

BASIS OF BEARING

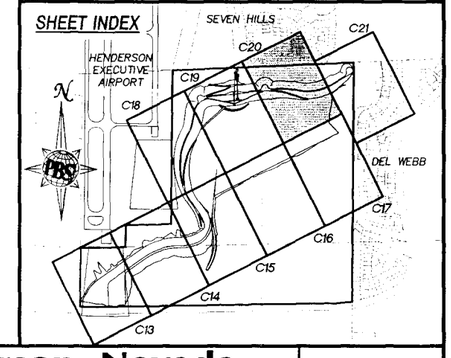
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BENCHMARK

CLARK COUNTY BENCHMARK NO. 0C314E4 – N.D.O.T. BRASS CAP HIGHWAY MARKER, STAMPED 68+78.21 POT 12-20-56, NORTH SIDE OF LAKE MEAD DR. NEAR MILE MARKER 1.5, 250 FT. WEST OF BERMUDA ROAD.
NAVD 1988 DATUM ELEVATION = 724.279 METERS – 2376.24 FEET.

CAUTION:
EXISTING UTILITIES ARE LOCATED ON THE PLANS FROM A SEARCH OF AVAILABLE RECORDS. CONTRACTOR TO VERIFY LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION

SHEET INDEX



REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-20
SCALE: HORIZ.: 1"=50'
VERT.:

PBS&J
911 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014
Telephone: 702/263-7275 Fax: 702/263-7200
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING
- PLAN 8 -

99-00-12

DRAWING NO. C20

20/53

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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UNDERGROUND SERVICE (USA)

GRAPHIC SCALE

50 0 25 50 100 200
(IN FEET)
HORZ: 1 inch = 50 ft.
VERT: 1 inch = 5 ft.

BASIS OF BEARING

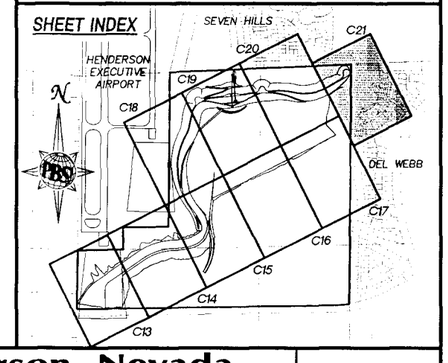
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DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-21
SCALE: HORIZ.: 1"=50'
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Telephone: 702/263-7275
Fax: 702/263-7200
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

DETENTION BASIN GRADING - PLAN 9 -

99-00-12

DRAWING NO. C21
21/53

REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

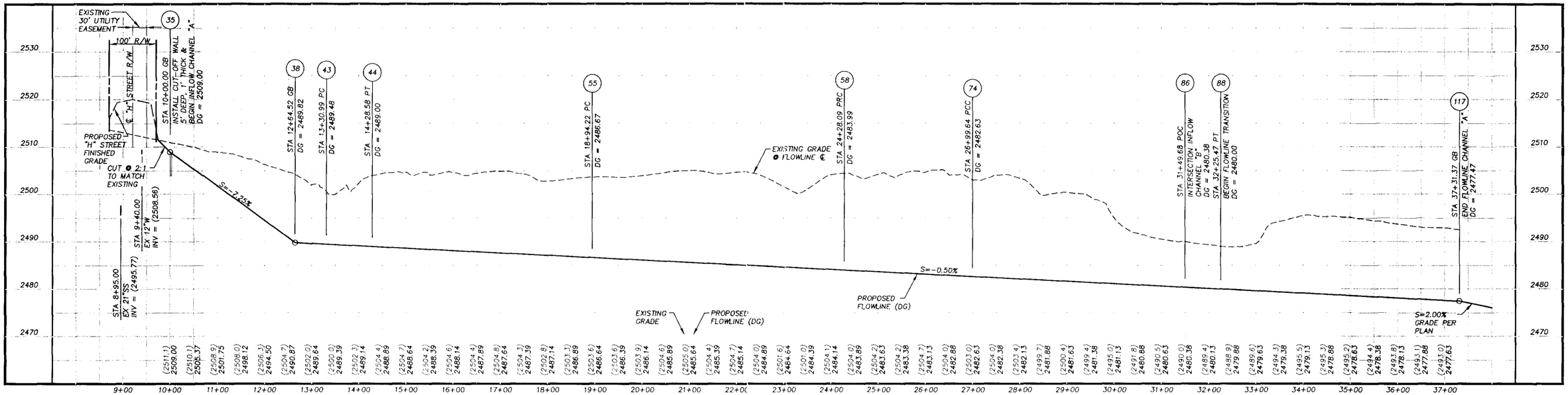
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft. HORZ
1 inch = 10 ft. VERT

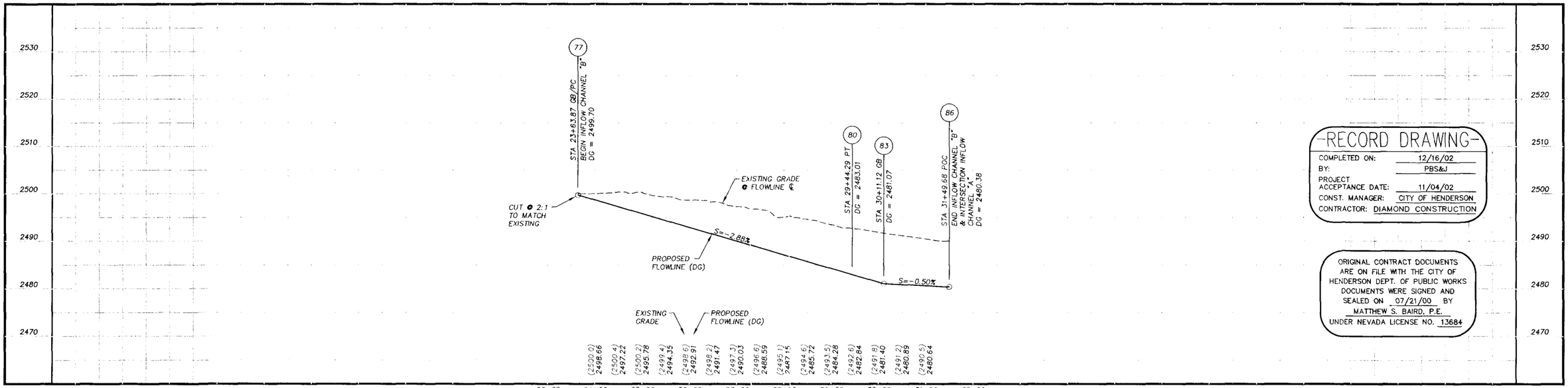
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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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INFLOW CHANNEL "A"

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



INFLOW CHANNEL "B"

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-22
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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Suite 100
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SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

INFLOW CHANNEL PROFILES - CHANNEL "A" & "B" -

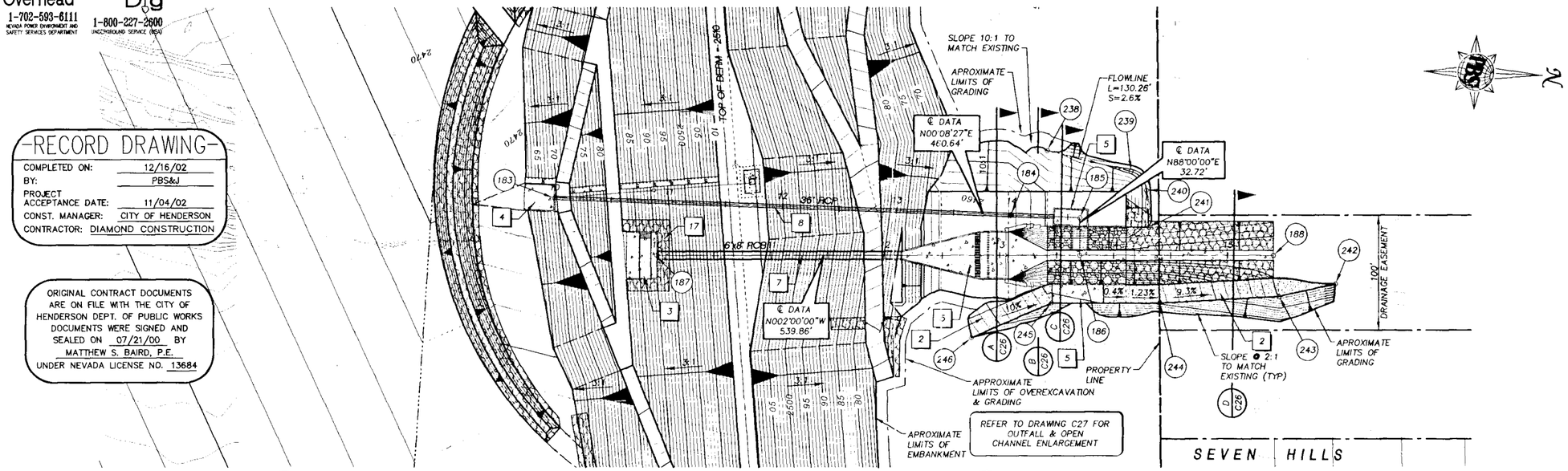
99-00-12

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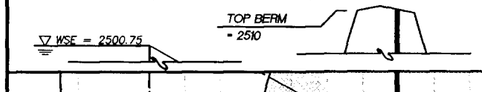
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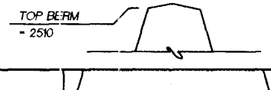
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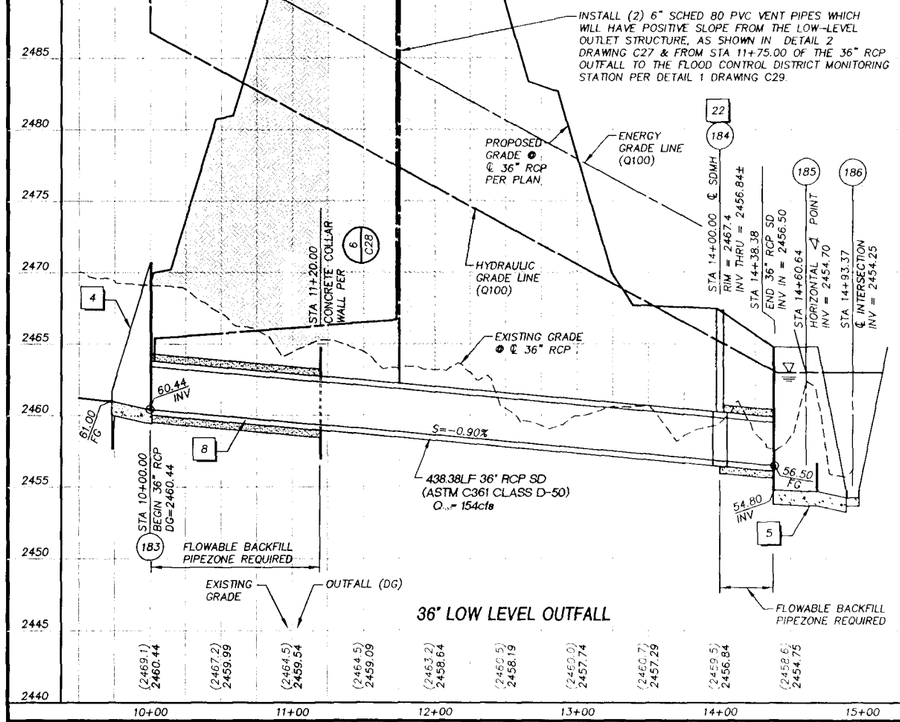
RECORD DRAWING

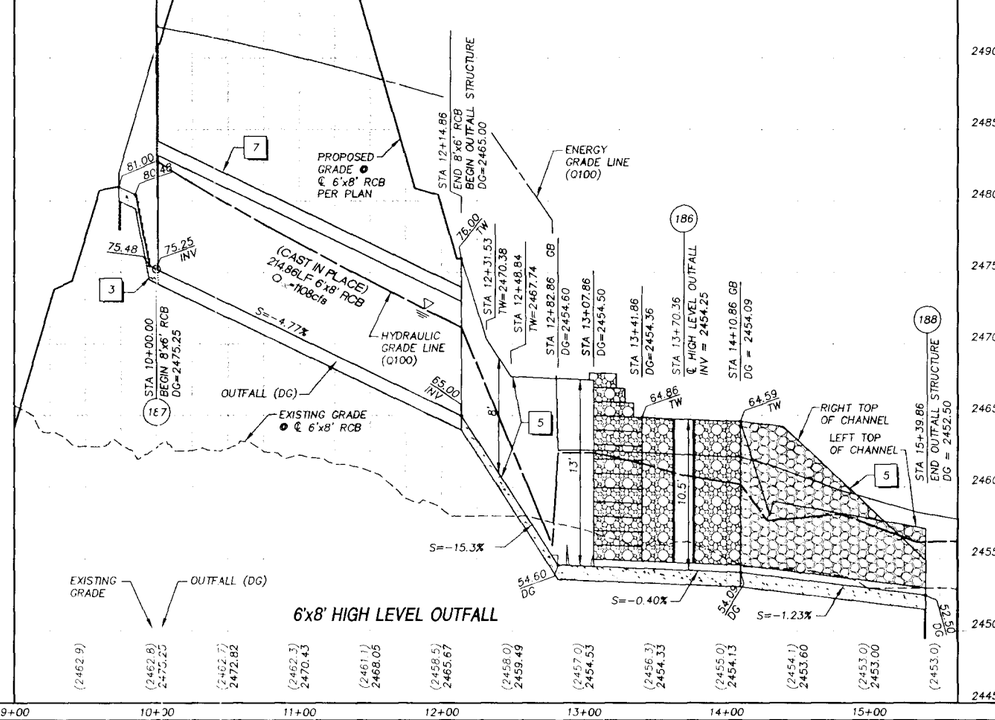
COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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50 0 25 50 100 200

(IN FEET)
HORZ: 1 inch = 50 ft.
VERT: 1 inch = 5 ft.

BASIS OF BEARING

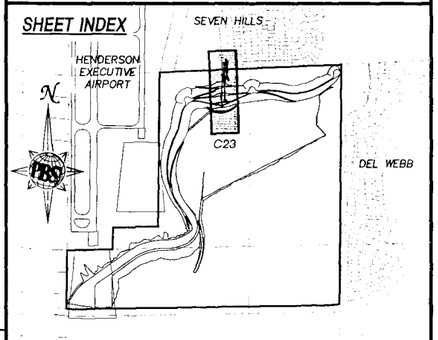
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DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
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DRAWING NO.: 302-23
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

OUTFALL PLAN AND PROFILE - HIGH LEVEL & LOW LEVEL OUTFALLS -

99-00-12

DRAWING NO. C23

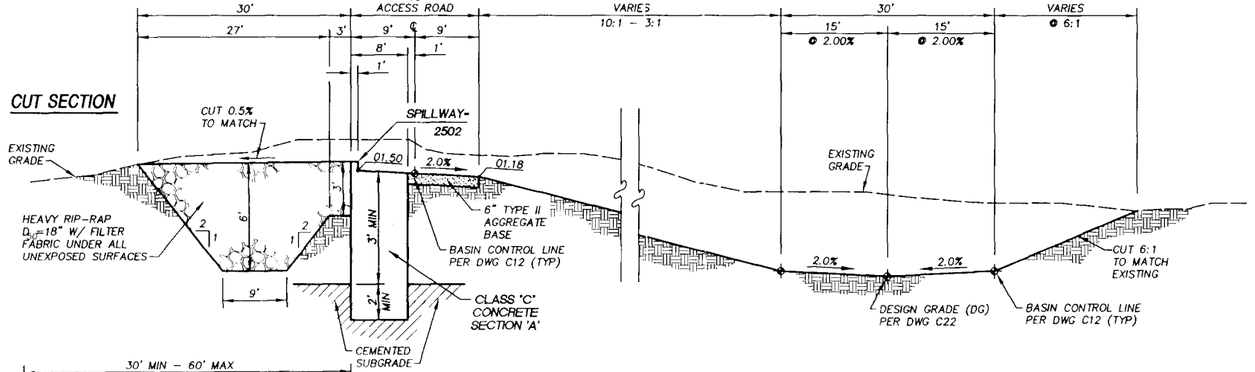
23/53

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NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

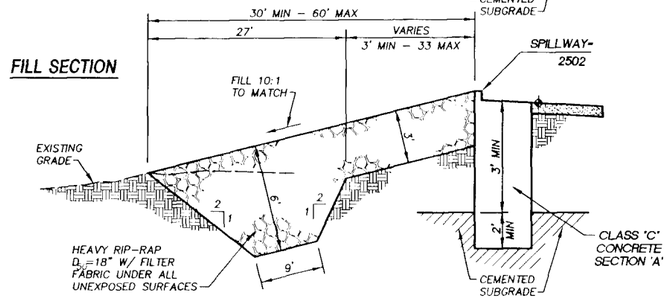
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
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1-800-227-2600
UNDERGROUND SERVICE (USA)

CEMENTED SOILS WILL NOT BE EXCAVATED FOR THE PLACEMENT OF RIP-RAP. WHERE CEMENTED MATERIAL INTERFERES WITH THE PLACEMENT OF RIP-RAP AS SHOWN, THICKNESS OF RIP-RAP WILL BE REDUCED AS NEEDED.

CUT SECTION



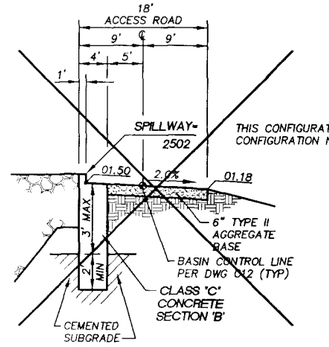
FILL SECTION



WHERE CEMENTED MATERIAL BEGINS BELOW ELEVATION 2498.5 CLASS "C" CONCRETE SECTION 'A' WILL BE USED. WHERE CEMENTED MATERIAL BEGINS AT OR ABOVE ELEVATION 2498.5 CLASS "C" CONCRETE SECTION 'B' MAY BE USED. CLASS "C" CONCRETE SECTION 'A' & 'B' WILL BE KEYED INTO CEMENTED MATERIAL A MINIMUM OF 2 FEET AND THE MINIMUM THICKNESS OF CLASS "C" CONCRETE SECTION 'B' IS 2.5 FEET MEASURED FROM ELEVATION 2502.

CURB IS TACK-ON WITH REZIWELD 1000

SECTION A / C24
SCALE: 1" = 10'

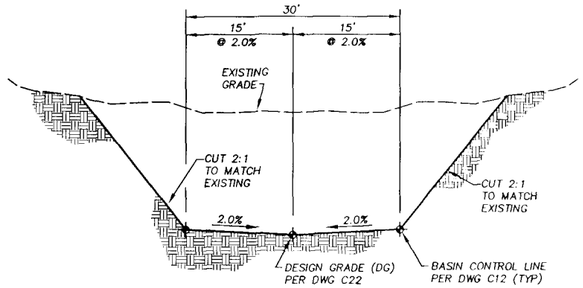


CLASS 'C' CONCRETE SECTION 'B'

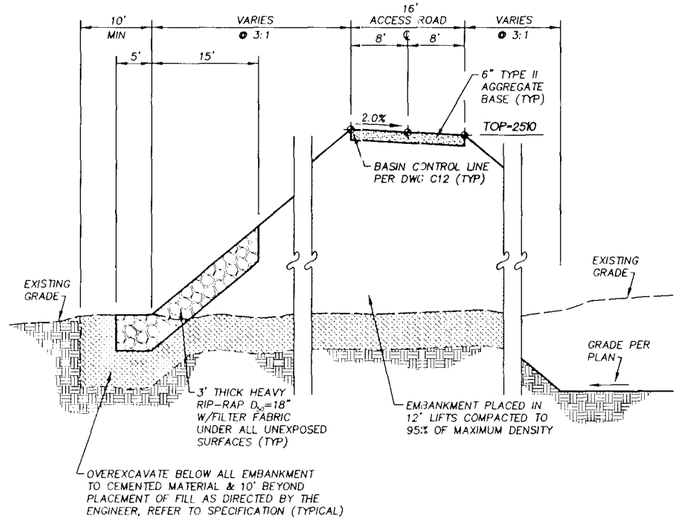
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COMPLETED ON:	12/16/02
BY:	PBS&J
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CONTRACTOR:	DIAMOND CONSTRUCTION

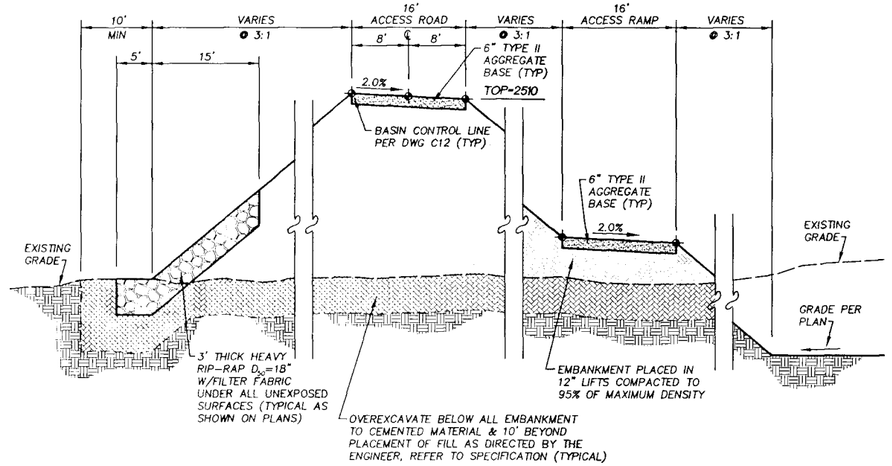
ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684



SECTION B / C24
SCALE: 1" = 10'



SECTION C / C24
SCALE: 1" = 10'



SECTION D / C24
SCALE: 1" = 10'

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-24
SCALE: HORIZ.: 1" = 10'
VERT.:

PBS&J
901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200
ENGINEERING · PLANNING · SURVEYING · CONSTRUCTION SERVICES

SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

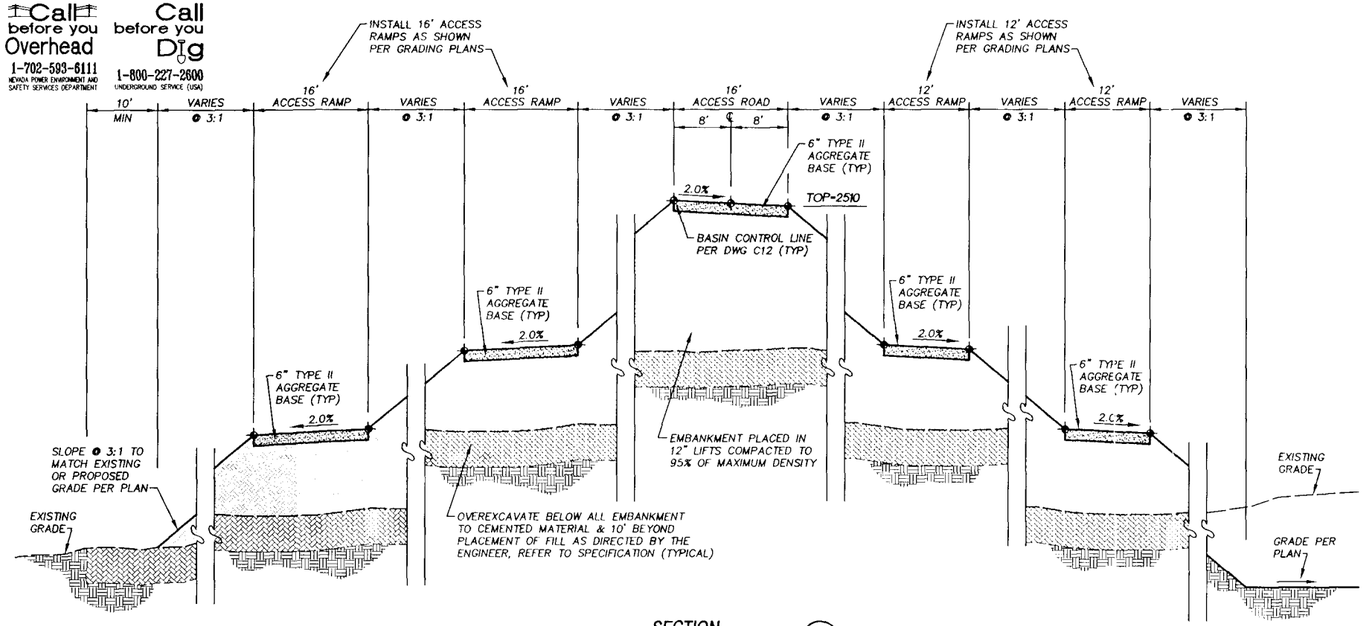
TYPICAL SECTIONS

99-00*12

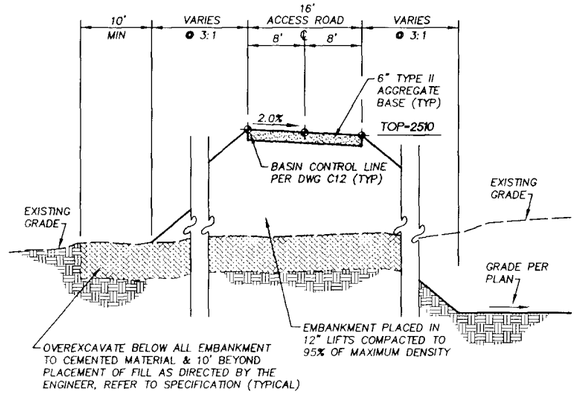
DRAWING NO. C24

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

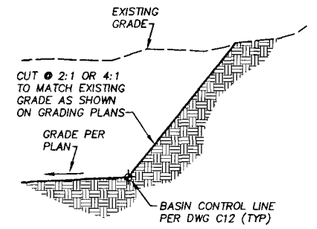
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)



SECTION A C25
SCALE: 1" = 10'



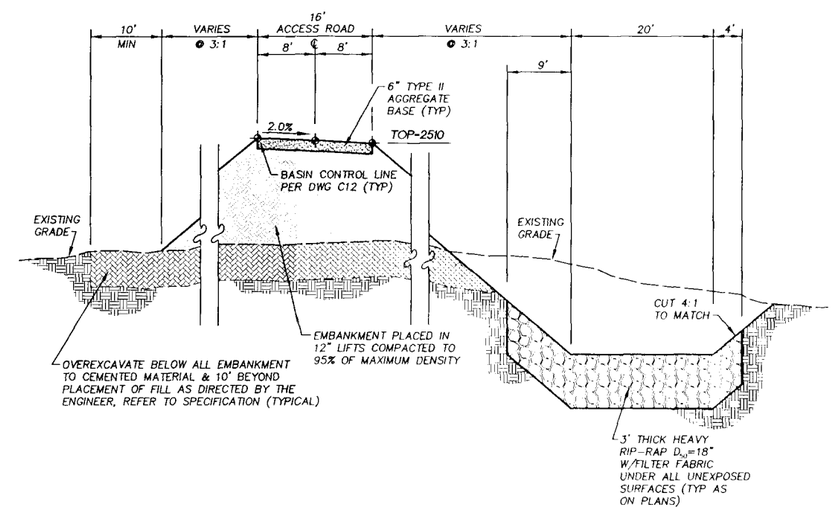
SECTION B C25
SCALE: 1" = 10'



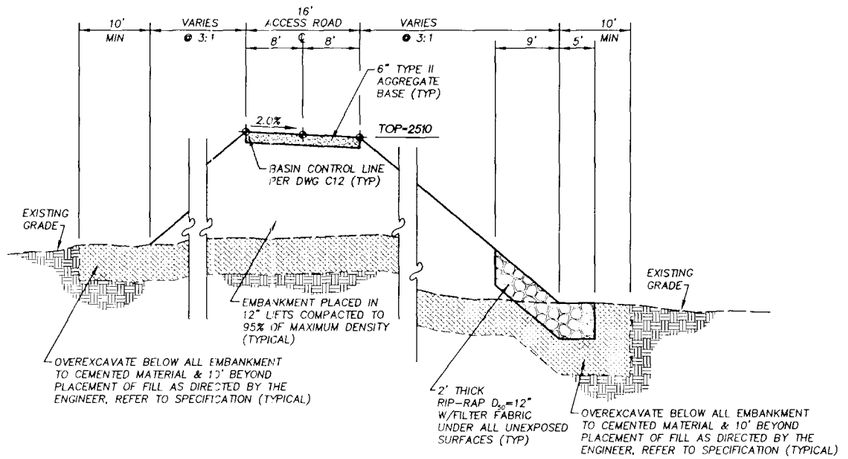
SECTION E C25
SCALE: 1" = 10'

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

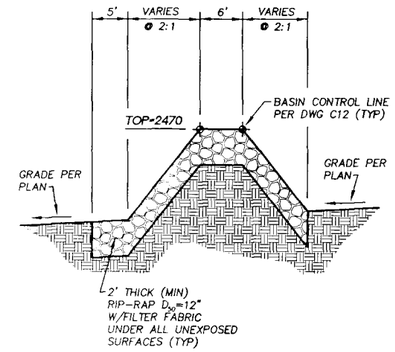


SECTION C C25
SCALE: 1" = 10'



SECTION D C25
SCALE: 1" = 10'

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SECTION F C25
SCALE: 1" = 10'

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: A. SPATA
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-25
SCALE: HORIZ.: 1" = 10'
VERT.:

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901 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone: 702/263-7275 Fax: 702/263-7200
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SEAL

THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

TYPICAL SECTIONS

99-00-12

DRAWING NO. 25 / 53

C25

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY

Call before you Overhead

1-702-593-6111

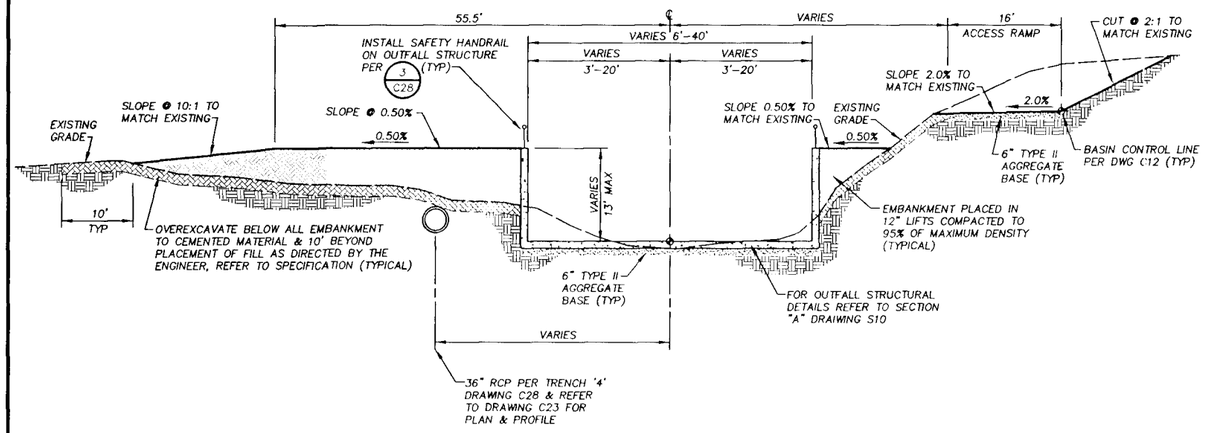
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call before you Dig

1-800-227-2600

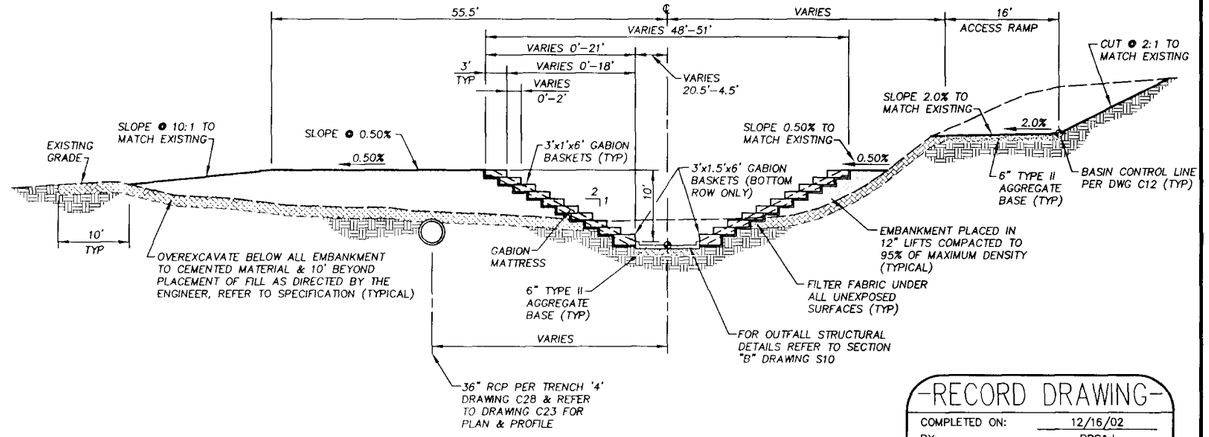
UNDERGROUND SERVICE (USA)



SECTION (A / C26)

SCALE: 1" = 10'

STA 12+14.86 TO STA 13+07.86



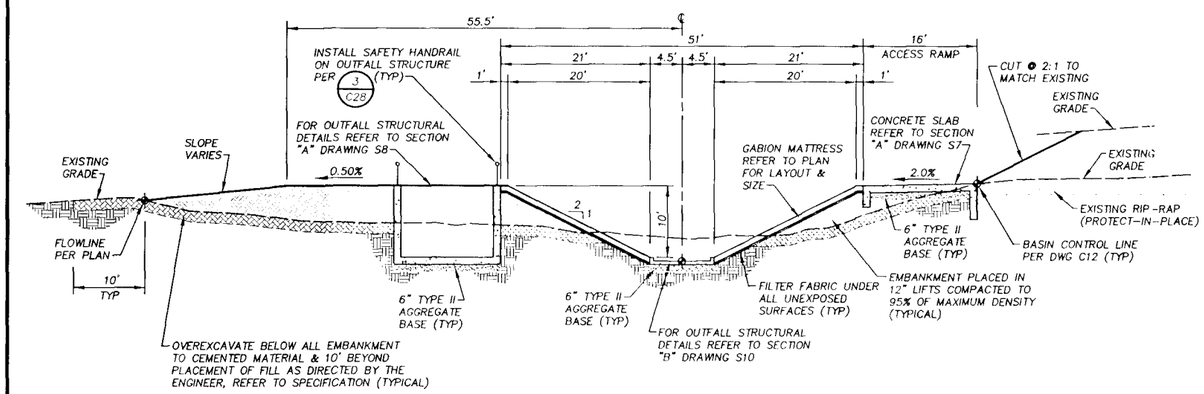
SECTION (B / C26)

SCALE: 1" = 10'

STA 13+07.86 TO STA 13+41.86

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

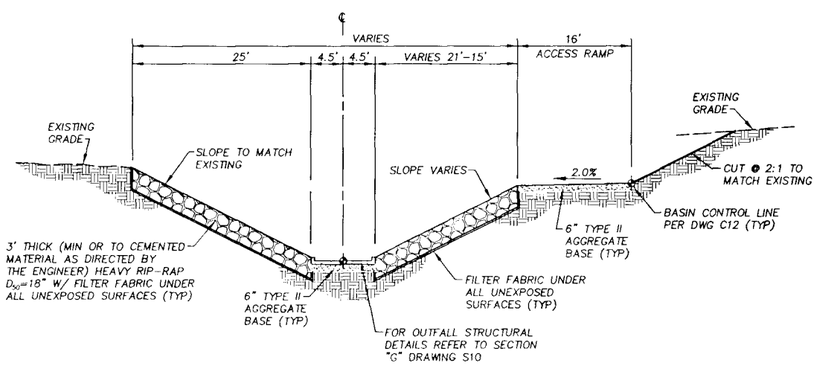


SECTION (C / C26)

SCALE: 1" = 10'

STA 13+41.86 TO STA 14+10.86

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SECTION (D / C26)

SCALE: 1" = 10'

STA 14+10.86 TO STA 15+39.86

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: A. SPATA
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-26
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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

TYPICAL SECTIONS

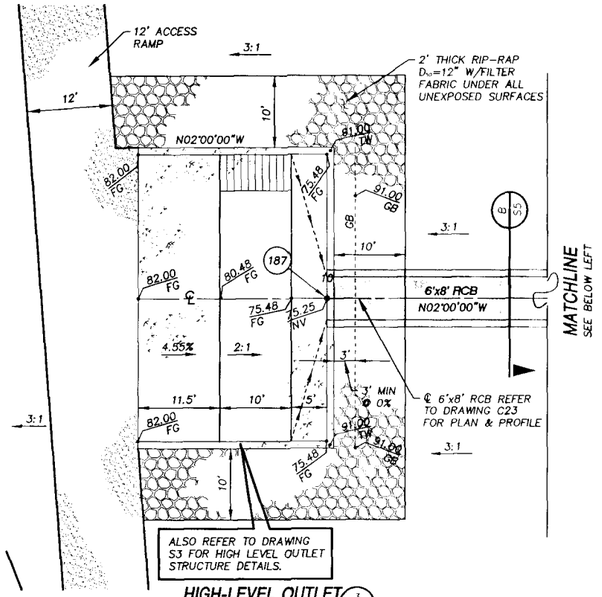
99-00-12

DRAWING NO. C26

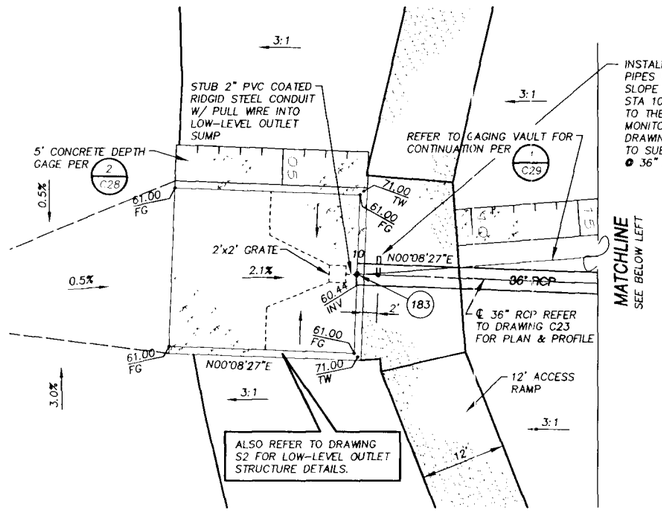
REFER TO DRAWING C12 FOR COORDINATE TABLE & DRAWING C9 FOR SURVEY CONTROL DATA.

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY. Call before you Overhead 1-702-593-6111 NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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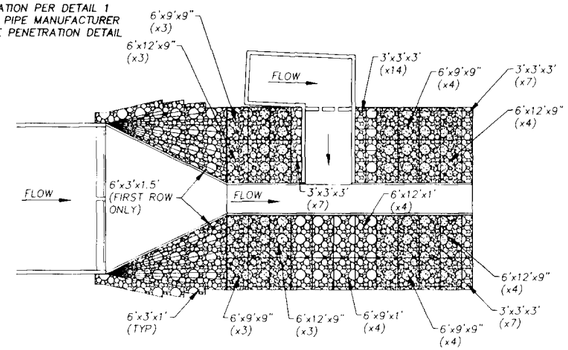


HIGH-LEVEL OUTLET (3/C27)
SCALE: 1" = 10'



INSTALL (2) 6" SCHED 80 PVC VENT PIPES WHICH WILL HAVE POSITIVE SLOPE FROM THE 36" RCP SD ● STA 10+03.00 & STA 11+75.00 TO THE FLOOD CONTROL DISTRICT MONITORING STATION PER DETAIL 1 DRAWING C29. PIPE MANUFACTURER TO SUBMIT PIPE PENETRATION DETAIL ● 36" RCP.

LOW-LEVEL OUTLET (2/C27)
SCALE: 1" = 10'



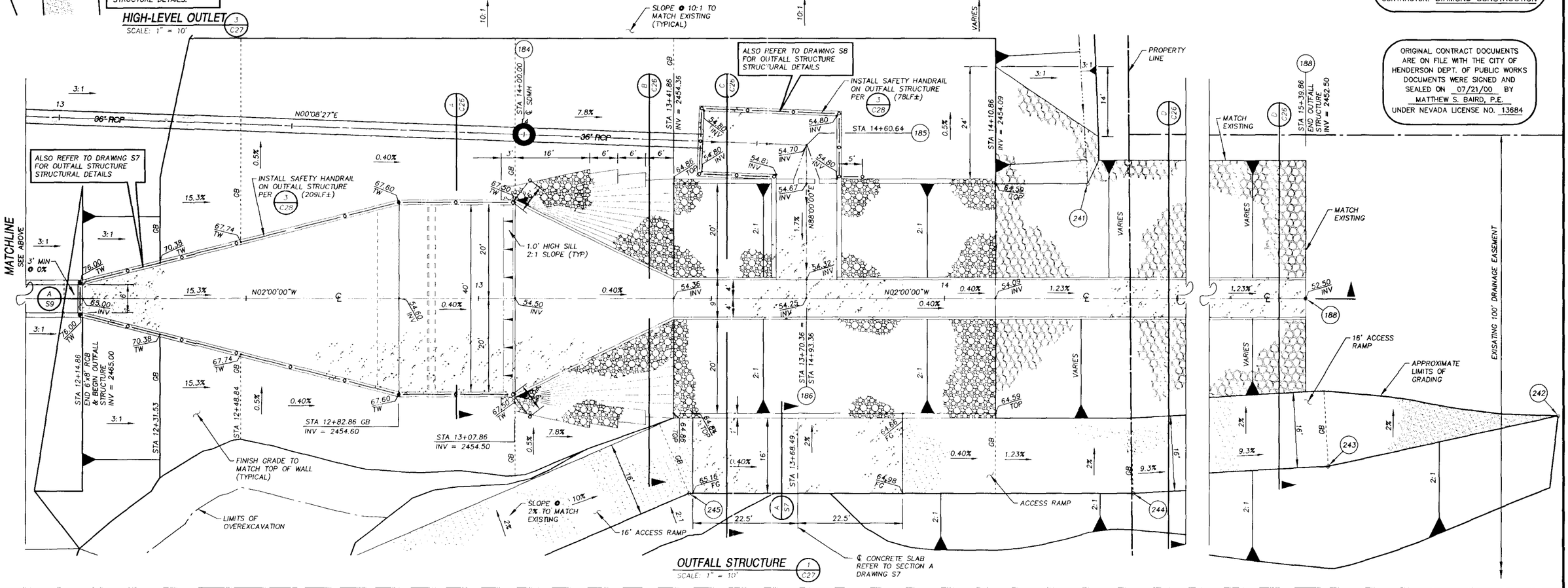
GABION LAYOUT
SCALE: 1" = 20'

- 3' THICK GABION BASKET
- 9" THICK GABION MATTRESS
- 1' THICK GABION MATTRESS
- 1.5' THICK GABION MATTRESS

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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OUTFALL STRUCTURE (1/C27)
SCALE: 1" = 10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-27
SCALE: HORIZ.: 1"=10' VERT.:

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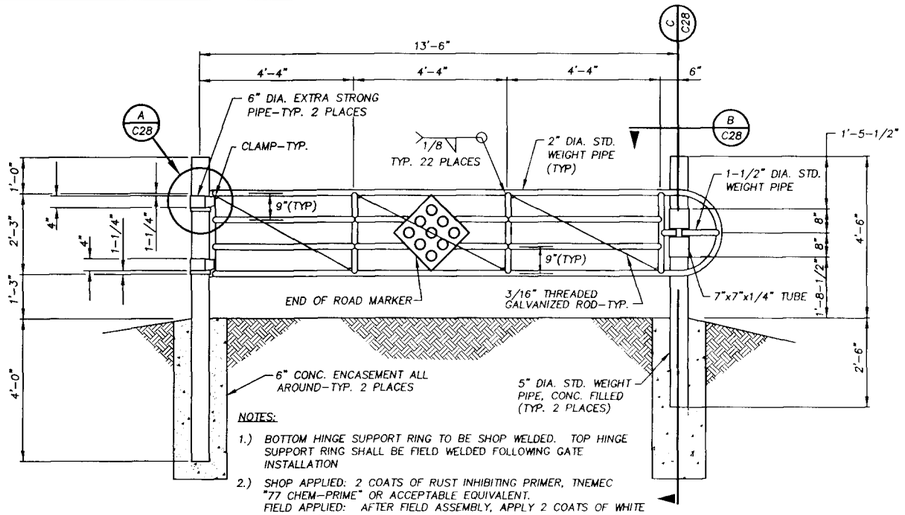
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

MISCELLANEOUS ENLARGEMENTS

99-00-12

DRAWING NO. C27 27/53

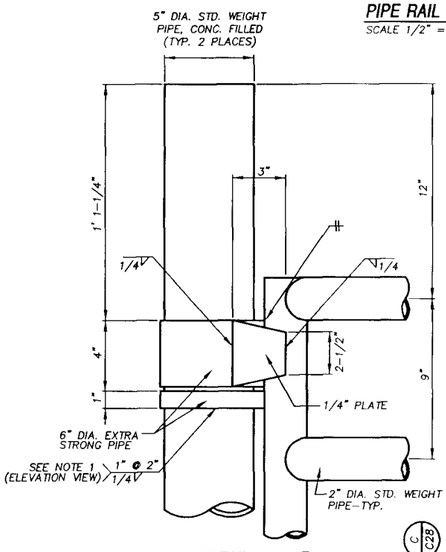


NOTES:

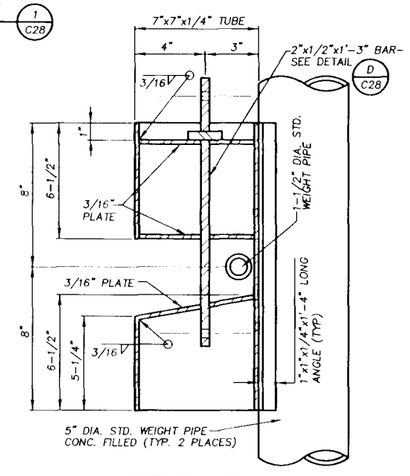
1.) BOTTOM HINGE SUPPORT RING TO BE SHOP WELDED. TOP HINGE SUPPORT RING SHALL BE FIELD WELDED FOLLOWING GATE INSTALLATION

2.) SHOP APPLIED: 2 COATS OF RUST INHIBITING PRIMER, TNEMEC "77 CHEM-PRIME" OR ACCEPTABLE EQUIVALENT.
FIELD APPLIED: AFTER FIELD ASSEMBLY, APPLY 2 COATS OF WHITE SEMI-GLOSS ALKYD ENAMEL, TNEMEC "SERIES 23 ENDURATONE" OR ACCEPTABLE EQUIVALENT.

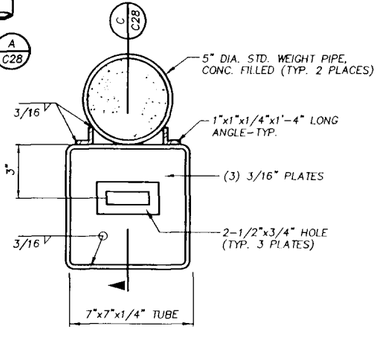
PIPE RAIL GATE
SCALE 1/2" = 1'-0" (1 C28)



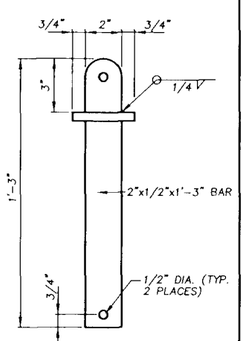
DETAIL
SCALE 1" = 3" (A C28)



SECTION
SCALE 1" = 4" (C C28)



DETAIL PLAN VIEW
SCALE 1" = 4" (B C28)

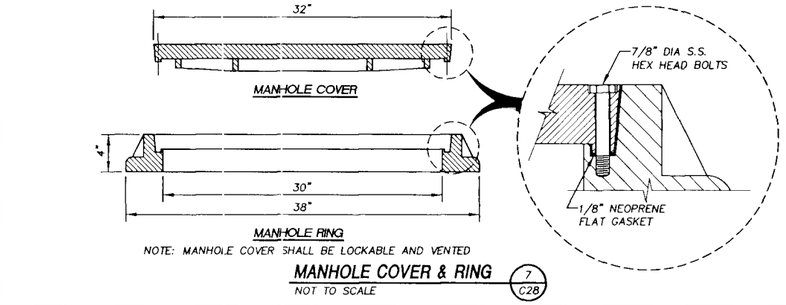


DETAIL
SCALE 1" = 3" (D C28)

-RECORD DRAWING-

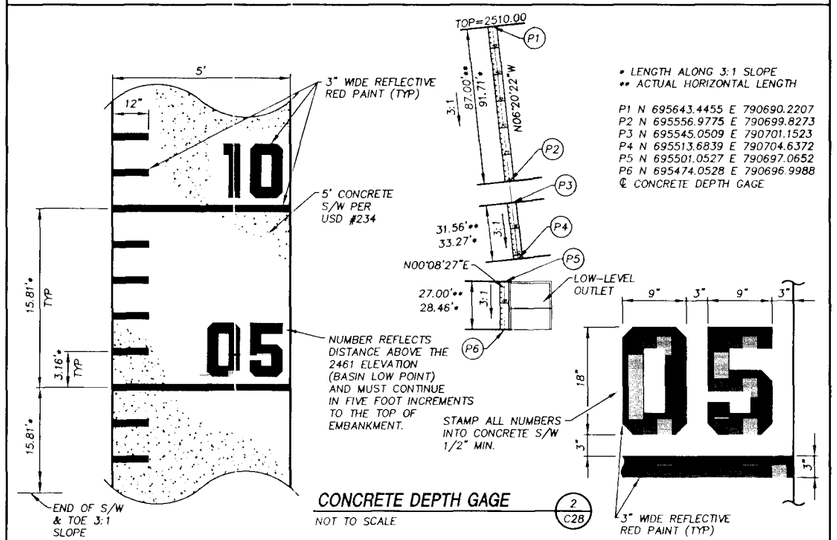
COMPLETED ON:	12/16/02
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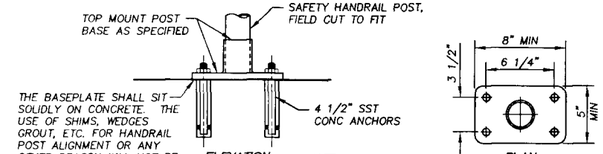


NOTE: MANHOLE COVER SHALL BE LOCKABLE AND VENTED

MANHOLE COVER & RING
NOT TO SCALE (7 C28)

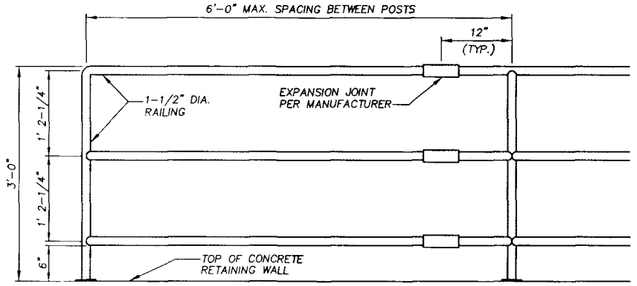


CONCRETE DEPTH GAGE
NOT TO SCALE (2 C28)



NOTE:
PROVIDE PROTECTION FOR DISSIMILAR METALS AND CONCRETE PER SPECIFICATIONS

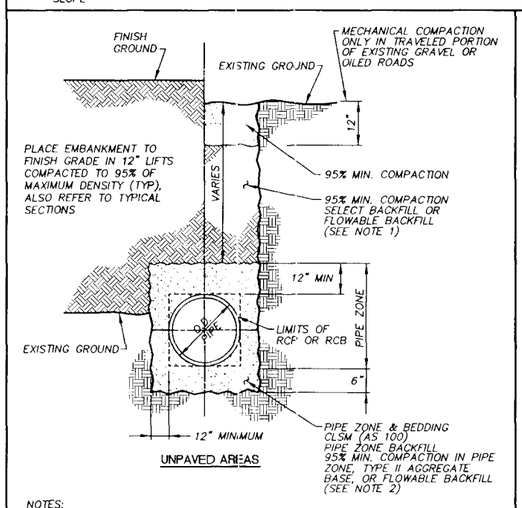
DETAIL A
NOT TO SCALE



NOTES:

1. ALL PARTS SHALL BE ALUMINUM SCHED. 40 NON-WELDED: CONNECTORAIL SYSTEM, SUPERIOR SERIES 500, THOMPSON RAILING SYSTEMS OR AN APPROVED EQUAL.
2. USE MANUFACTURERS PLANS FOR CONSTRUCTION.
3. ATTACH TO TOP OF CONCRETE WALL PER DETAIL "A" AS SHOWN ABOVE. REFER TO DETAIL 5 DRAWING C29 (SIMILAR) WHEN INSTALLING SAFETY HANDRAIL IN FINISH GRADE.

TYPICAL SAFETY HANDRAIL DETAIL
SCALE 1" = 1'-0" (3 C28)

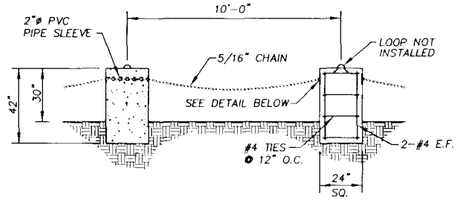


UNPAVED AREAS

NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. FLOODING AND JETTING IS NOT PERMITTED.

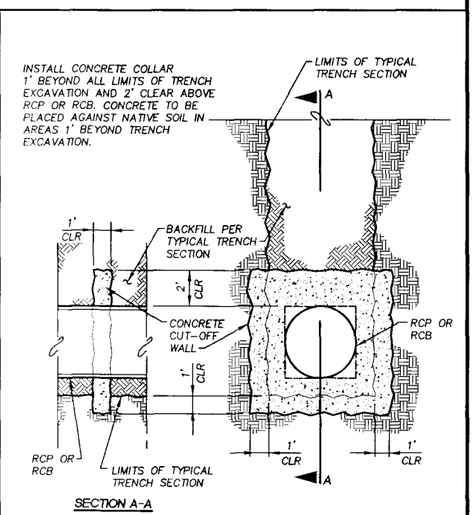
RCP OR RCB TYPICAL BACKFILL TRENCH SECTION
NOT TO SCALE (4 C28)



NOTES:

1. PROVIDE ANCHOR BLOCKS AT 30'-0" O.C. MINIMUM.
2. REINFORCING IS TYPICAL W/ ANCHOR BLOCKS & INTERIOR BLOCKS.

CONCRETE VEHICLE BARRICADE
NOT TO SCALE (5 C28)



SECTION A-A

CONCRETE COLLAR
NOT TO SCALE (6 C28)

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

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DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
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THE CITY OF HENDERSON

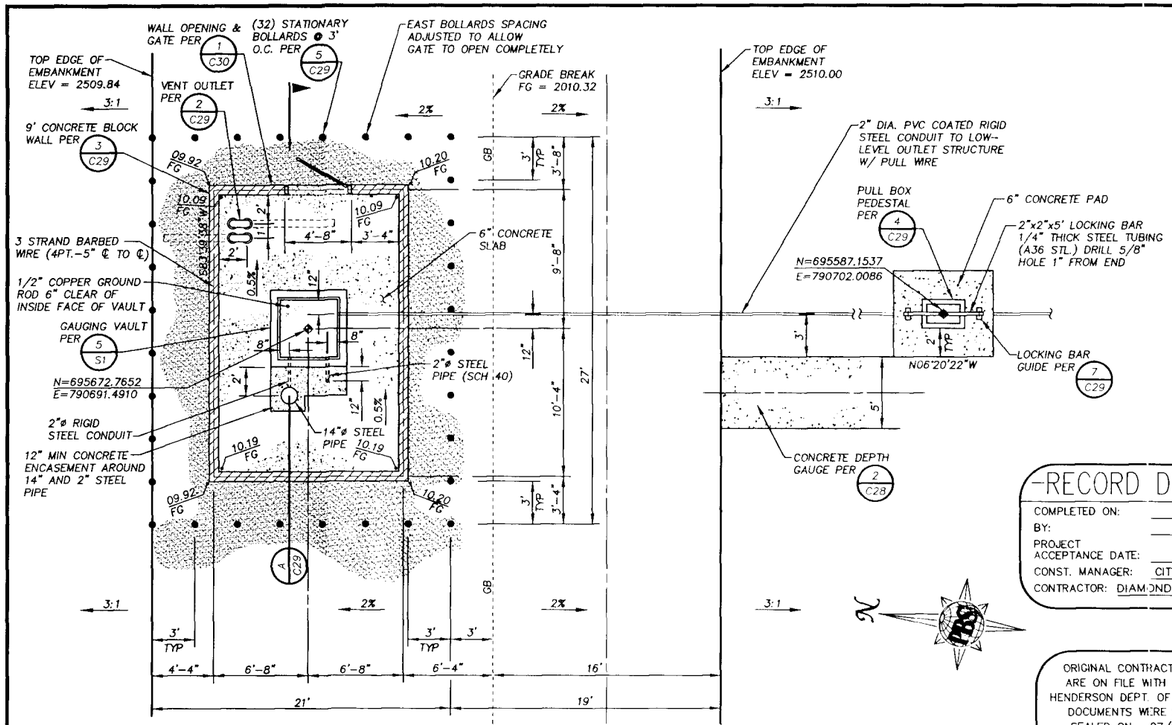
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PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

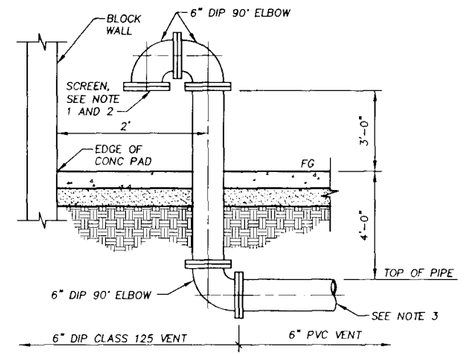
MISCELLANEOUS DETAILS

99-00-12

DRAWING NO. 28
C28
53



FLOOD CONTROL MONITORING STATION (1/C29)
SCALE: 1" = 5'



VENT OUTLET (2/C29)
NOT TO SCALE

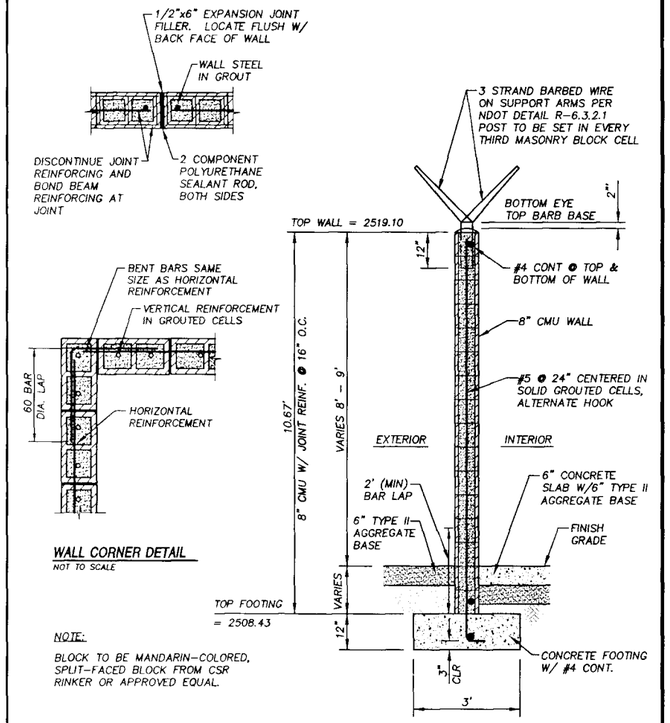
NOTES:

1. THE SCREEN SHALL BE GALVANIZED WIRE MESH WITH 1/4-INCH CLEAR OPENINGS WITH A FIBERGLASS MESH INSECT SCREEN.
2. USE A 1/4-INCH FLANGE WITH OPENING EQUAL TO VENT PIPE DIAMETER TO RETAIN THE SCREEN IN PLACE.
3. 6" SCHED 80 PVC VENT PIPE WILL HAVE CONTINUOUS POSITIVE SLOPE FROM THE 36" RCP TO FLOOD CONTROL DISTRICT MONITORING STATION. SEE DRAWING C23 FOR CONTINUATION.

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
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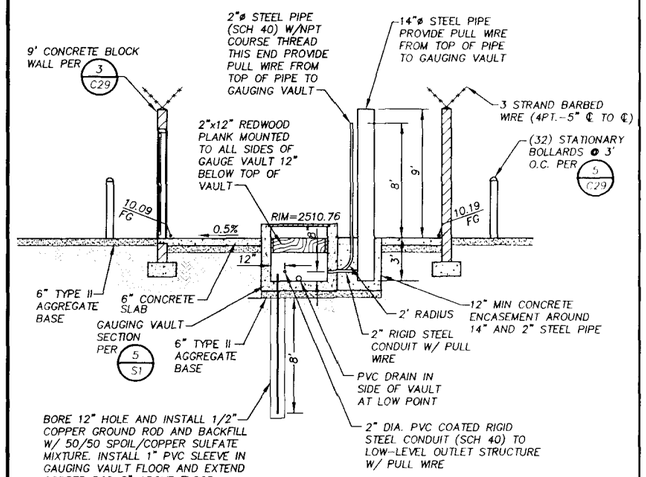
ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684



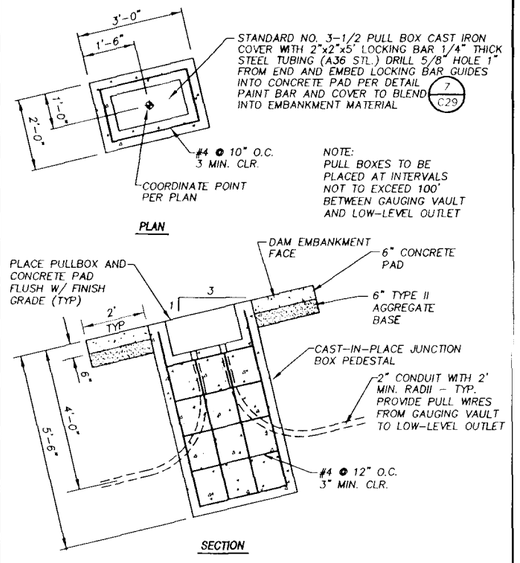
WALL CORNER DETAIL
NOT TO SCALE

NOTE:
BLOCK TO BE MANDARIN-COLORED, SPLIT-FACED BLOCK FROM CSR RINKER OR APPROVED EQUAL.

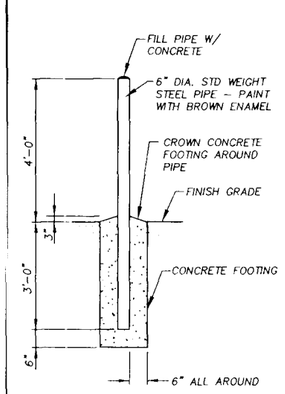
9' CONCRETE BLOCK WALL (3/C29)
NOT TO SCALE



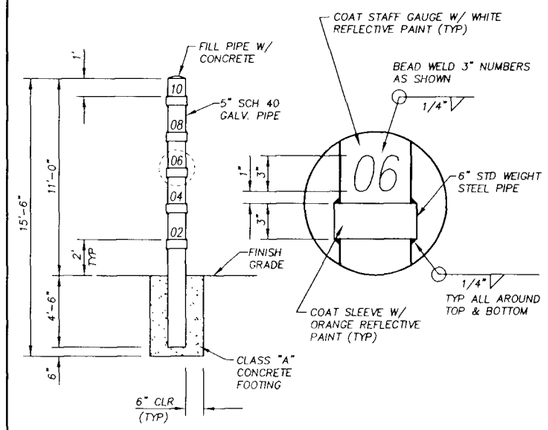
SECTION (A/C29)
SCALE: 1" = 5'



PULL BOX PEDESTAL DETAIL (4/C29)
SCALE 1/2" = 1'-0"

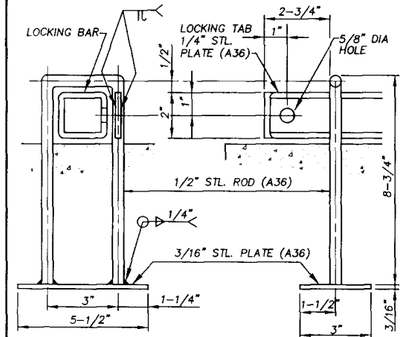


STATIONARY BOLLARD DETAIL (5/C29)
SCALE 1" = 1'-0"



NOTE:
GALVANIZE UNITS AFTER FABRICATION

SEDIMENT MARKER (6/C29)
NOT TO SCALE



NOTE:
2 REQUIRED PER MANHOLE.
ONE W/ LOCKING TAB,
ONE W/O LOCKING TAB.
-PADLOCK PROVIDED BY DISTRICT

LOCKING BAR GUIDE (7/C29)
SCALE 1" = 3"

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-29
SCALE: HORIZ.: AS SHOWN
VERT.:

PBS&J
901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263 7275
Fax: 702/263-7700
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SEAL

THE CITY OF HENDERSON

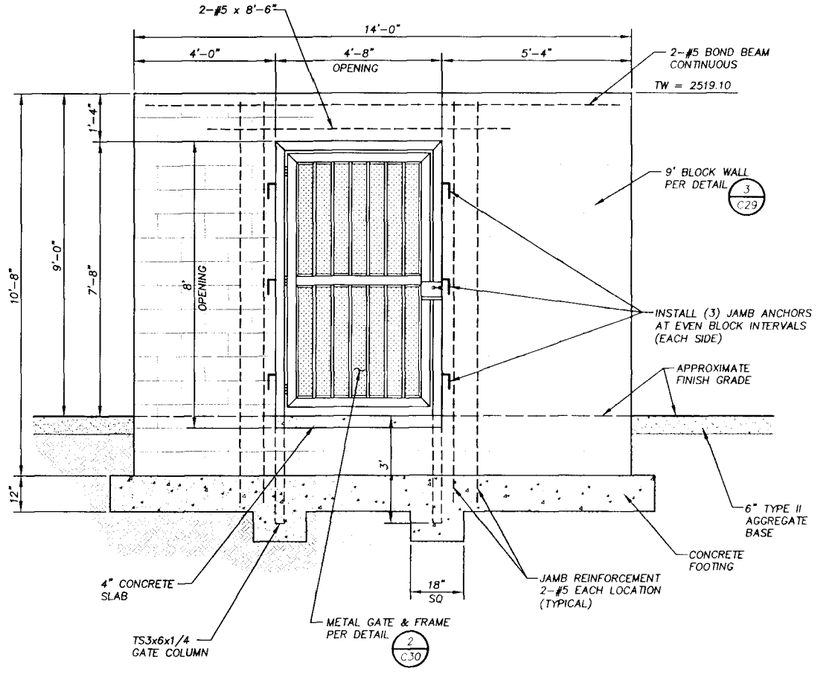
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

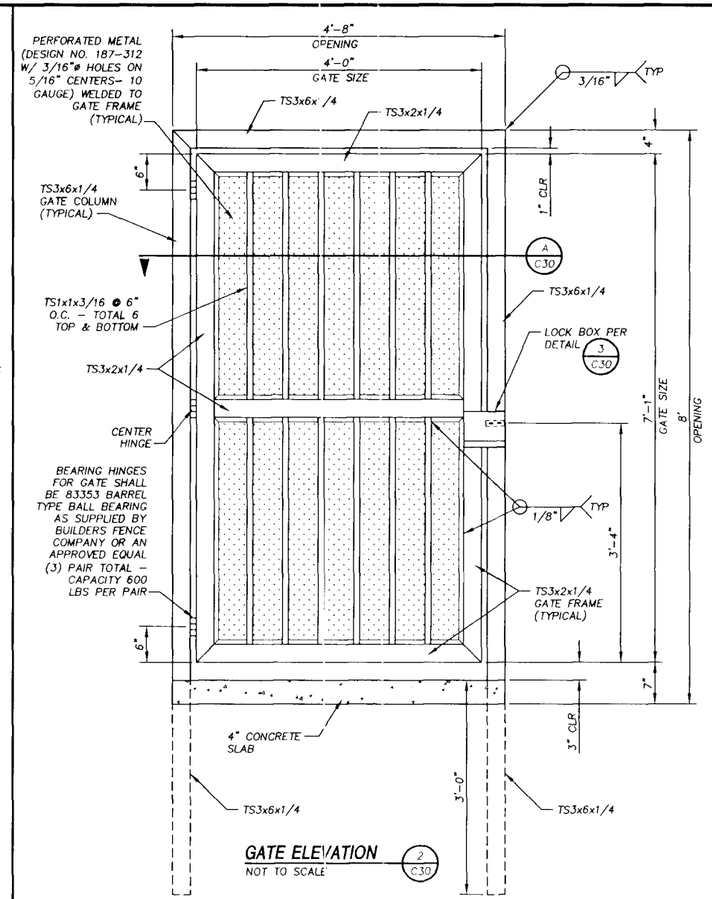
MISCELLANEOUS DETAILS

L-XXXX

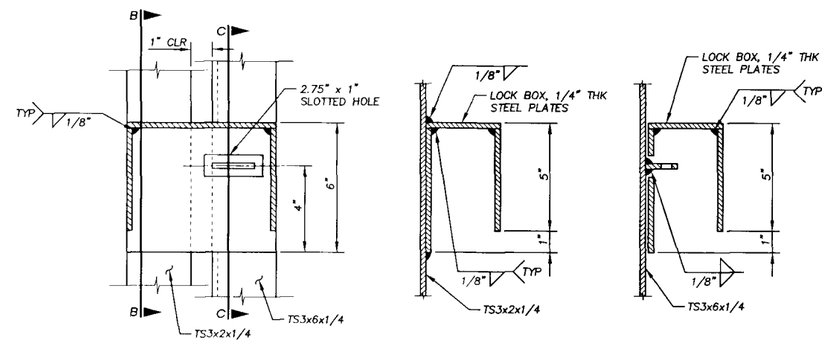
DRAWING NO. C29 29/53

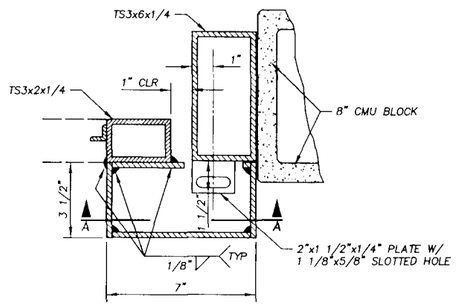


3' WALL OPENING & GATE 1/C30
NOT TO SCALE



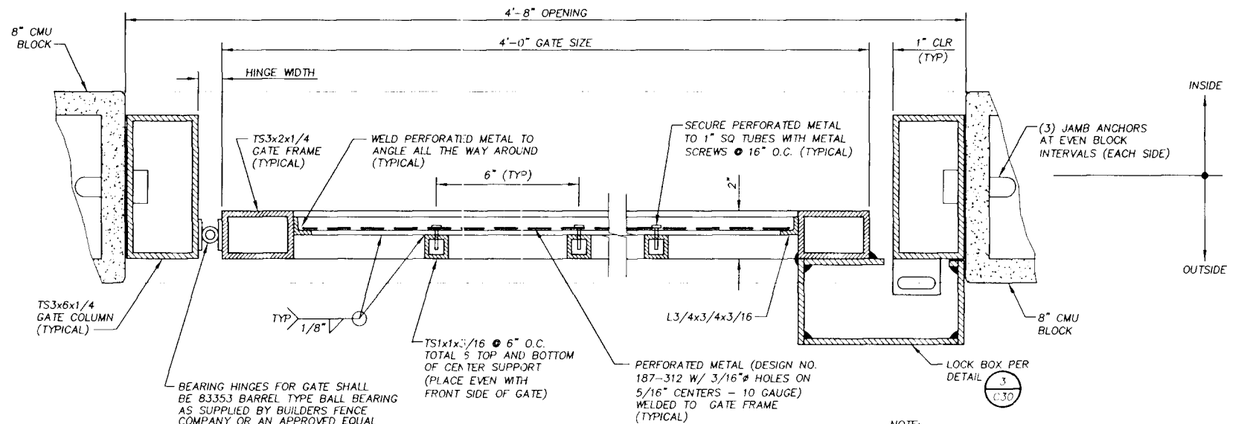
GATE ELEVATION 2/C30
NOT TO SCALE





NOTE: LOCK BOX TO BE FINISHED WITH CORROSION RESISTANT PAINT OF NEUTRAL EARTH TONE.

LOCK BOX DETAILS 3/C30
NOT TO SCALE



GATE & LOCK BOX SECTION A/C30
NOT TO SCALE

NOTE:

1. GATE SHALL BE FINISHED WITH CORROSION RESISTANT PAINT OF NEUTRAL EARTH TONE.
2. GATE SHALL SWING IN THE OUTWARD DIRECTION ONLY.

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: W. WITMER
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-30
SCALE: HORIZ.: AS SHOWN
VERT.:

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901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
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Fax: 702/263-7200
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SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

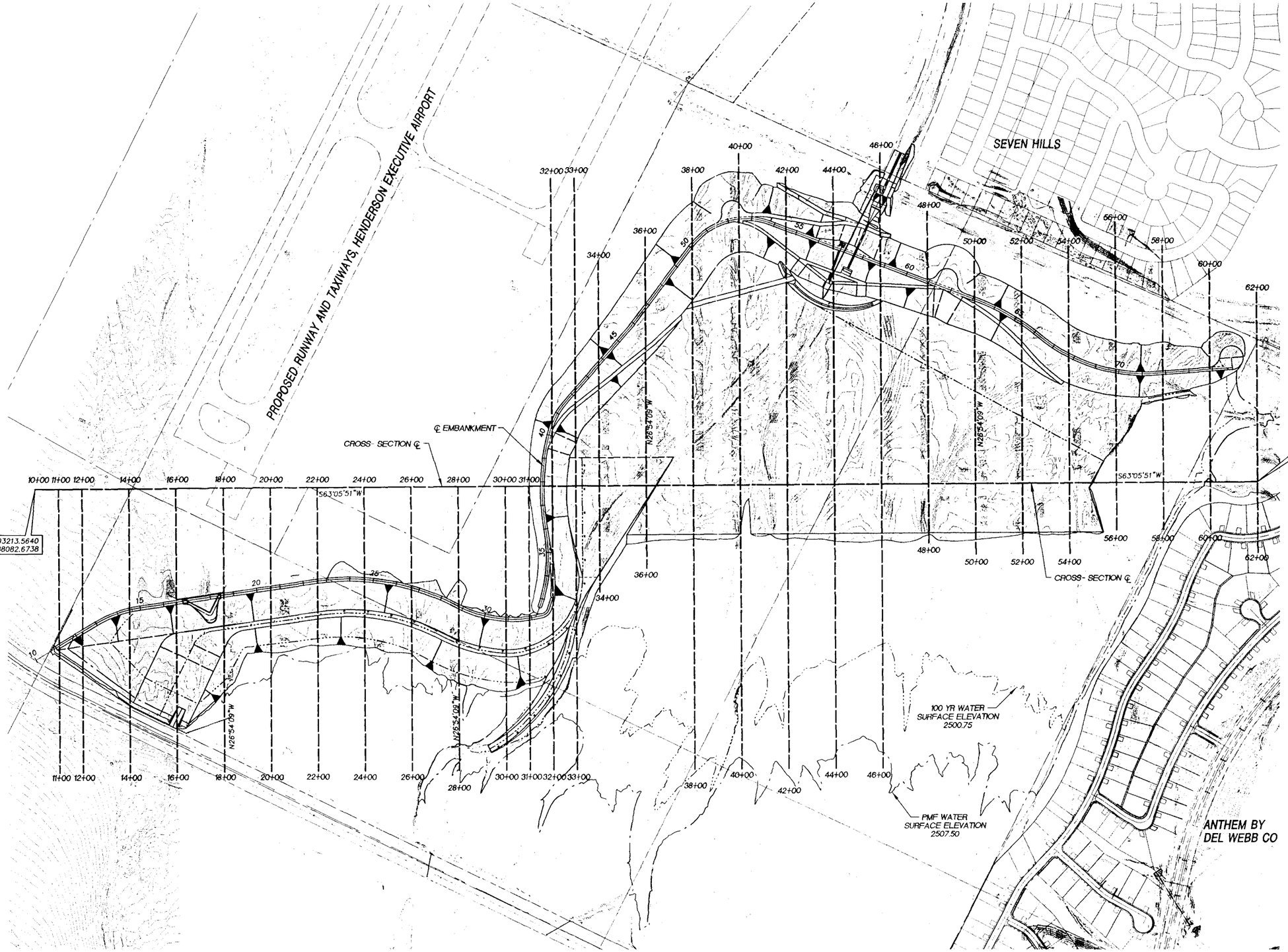
MISCELLANEOUS DETAILS

L-XXXX

DRAWING NO. C30

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)



-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-31
SCALE: HORIZ.: 1"=200'
VERT.:

PBSJ
301 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS SECTION PLAN VIEW

99-00*12

DRAWING NO. C31

31/53

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

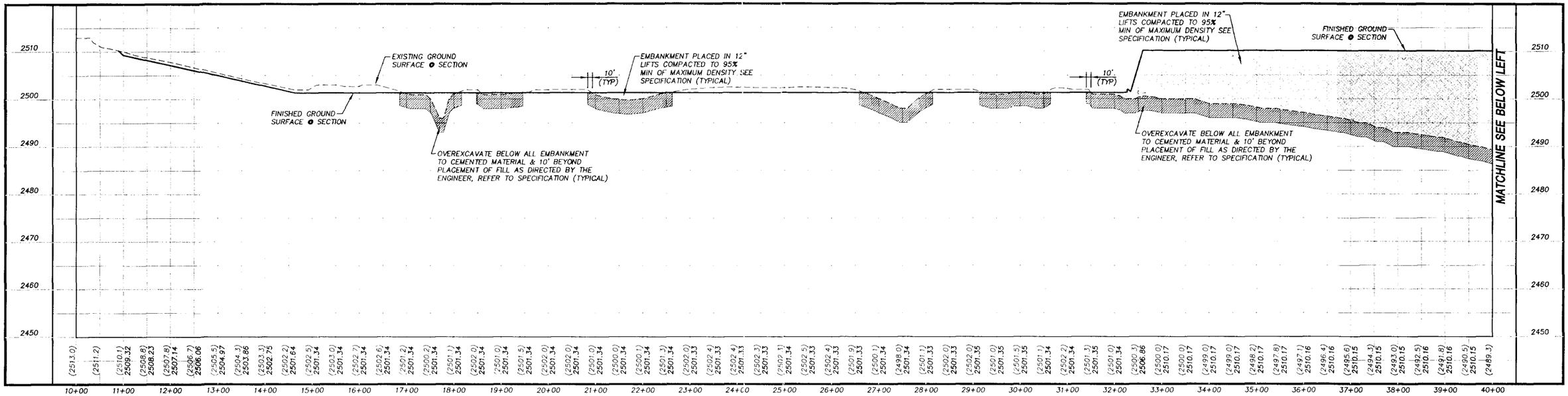
-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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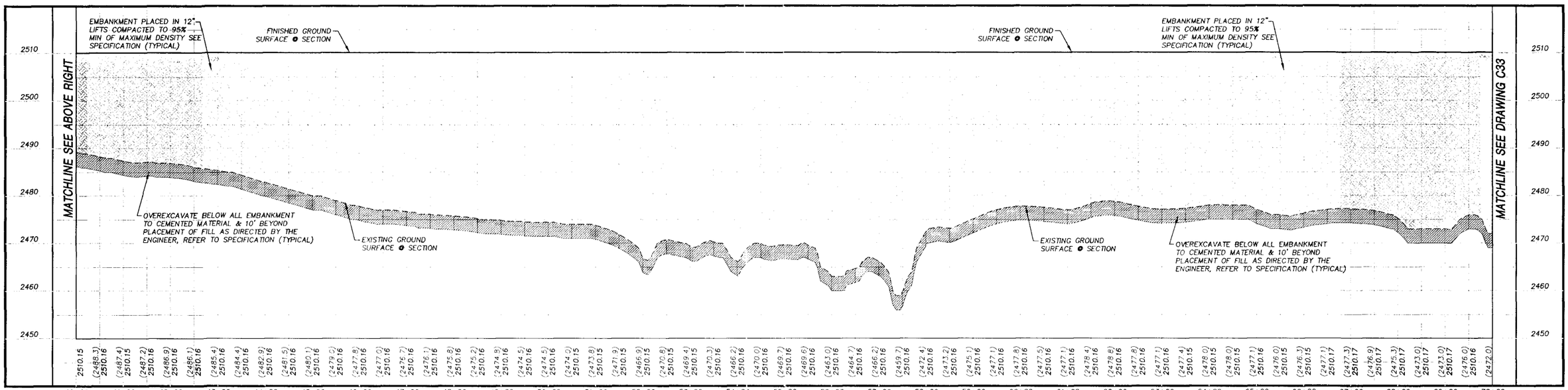
GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

THIS DRAWING IS FOR INFORMATION PURPOSES ONLY, REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



CENTERLINE EMBANKMENT STATIONS 10+00.00 TO 40+00.00

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CENTERLINE EMBANKMENT STATIONS 40+00.00 TO 70+00.00

SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-32
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CENTERLINE EMBANKMENT STA 10+00.00 TO STA 70+00.00

99-00-12

DRAWING NO. C32

32/53

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-

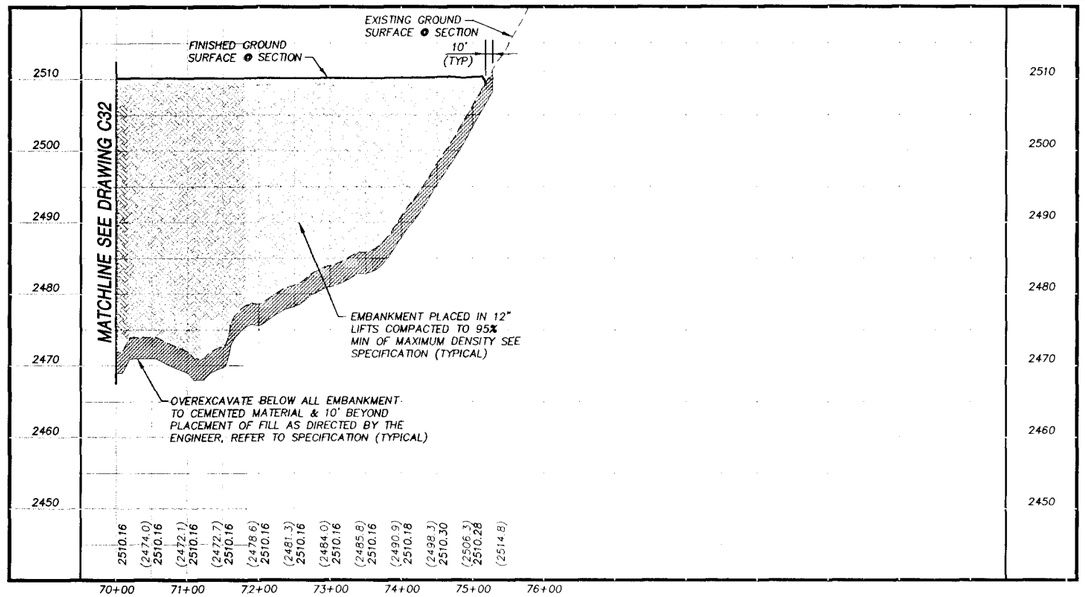
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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GRAPHIC SCALE

100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

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CENTERLINE EMBANKMENT STATION 70+00.00 TO 76+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-33
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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501 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200
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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CENTERLINE EMBANKMENT
STA 70+00.00 TO STA 76+00.00

99-00-12

DRAWING NO. C33

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

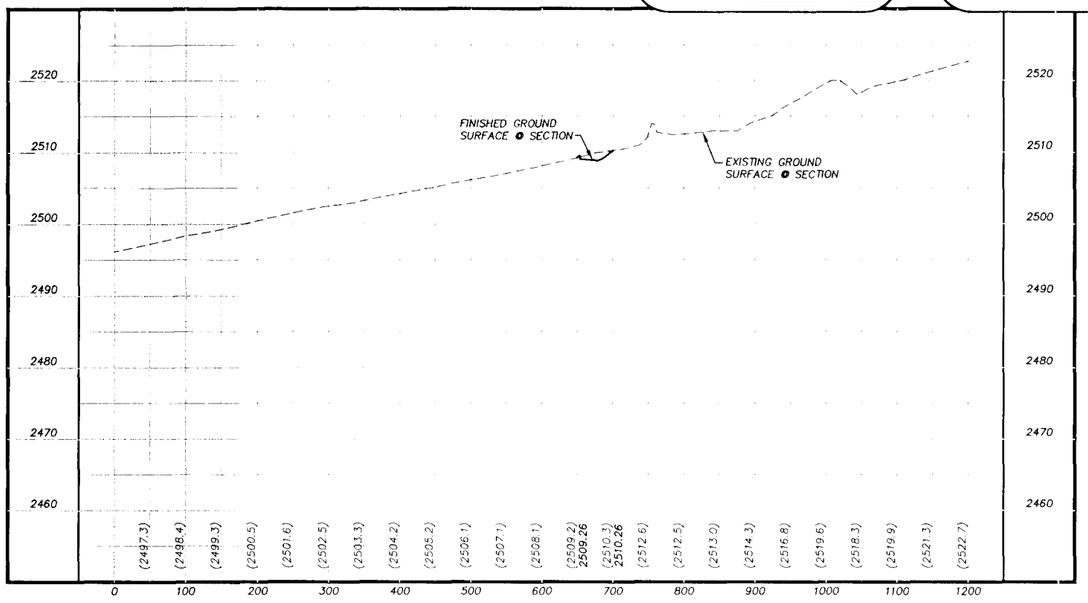
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

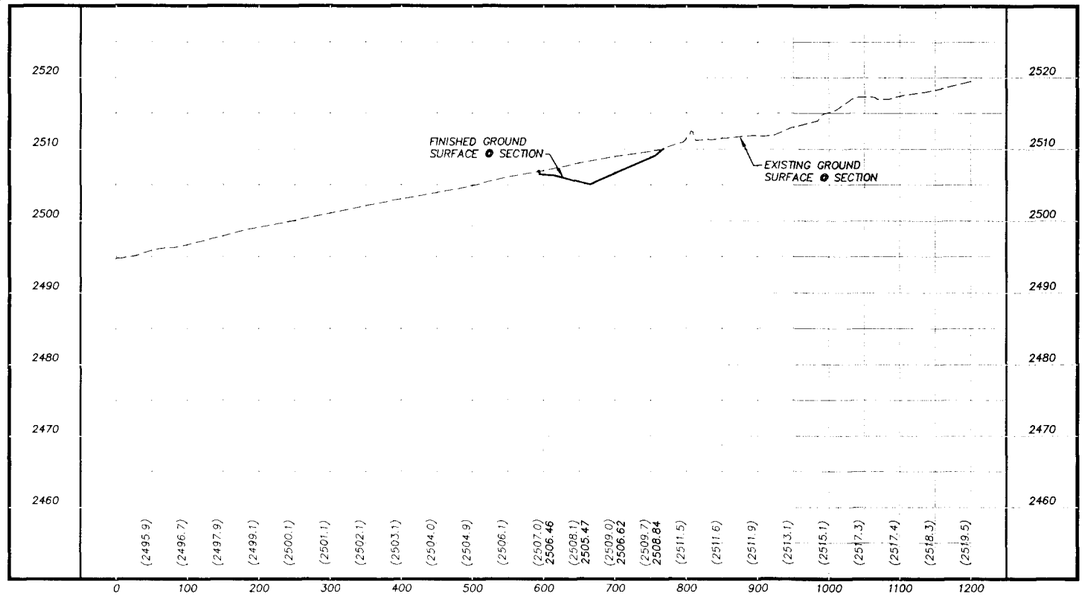
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
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1 inch = 10 ft. VERT.

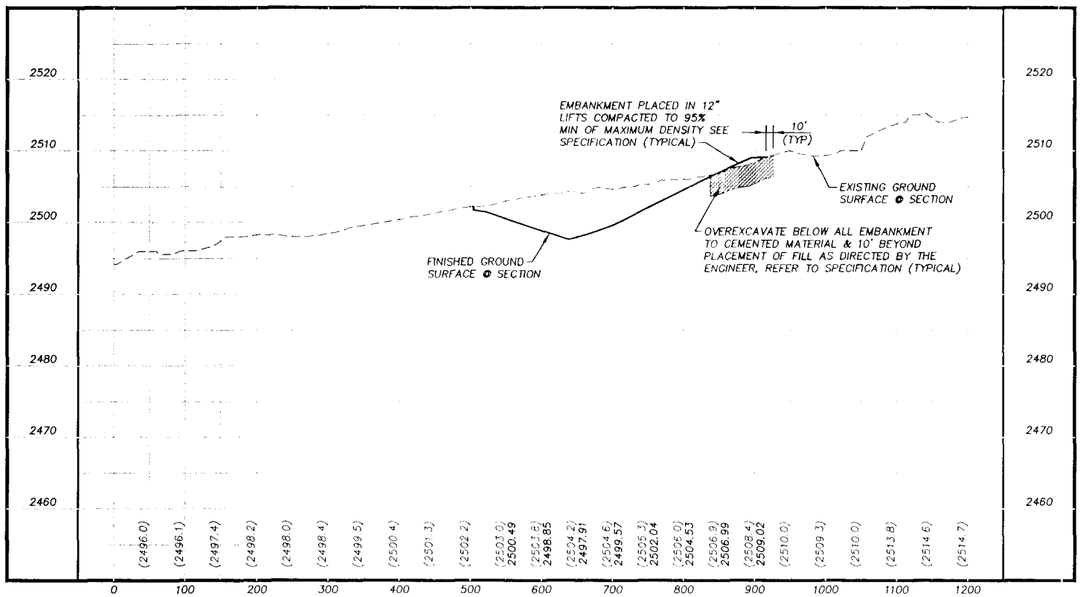
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



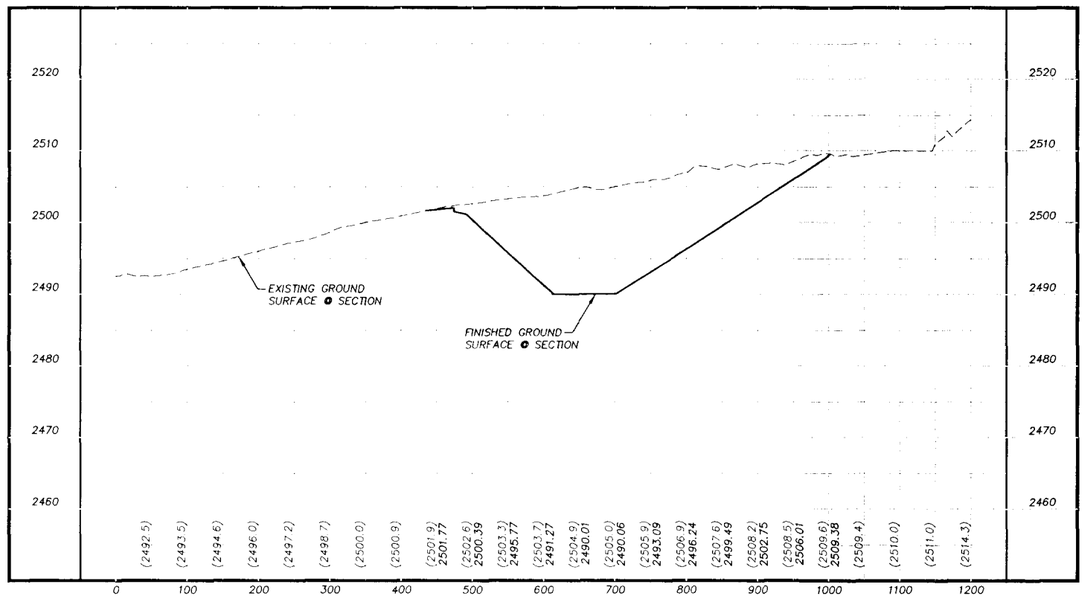
CROSS-SECTION STA 11+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CROSS-SECTION STA 12+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CROSS-SECTION STA 14+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CROSS-SECTION STA 16+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-34
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

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Telephone: 702/263-7275
Fax: 702/263-7200

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 11+00.00 TO STA 16+00.00

99-00-12

DRAWING NO. 34
C34
53

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

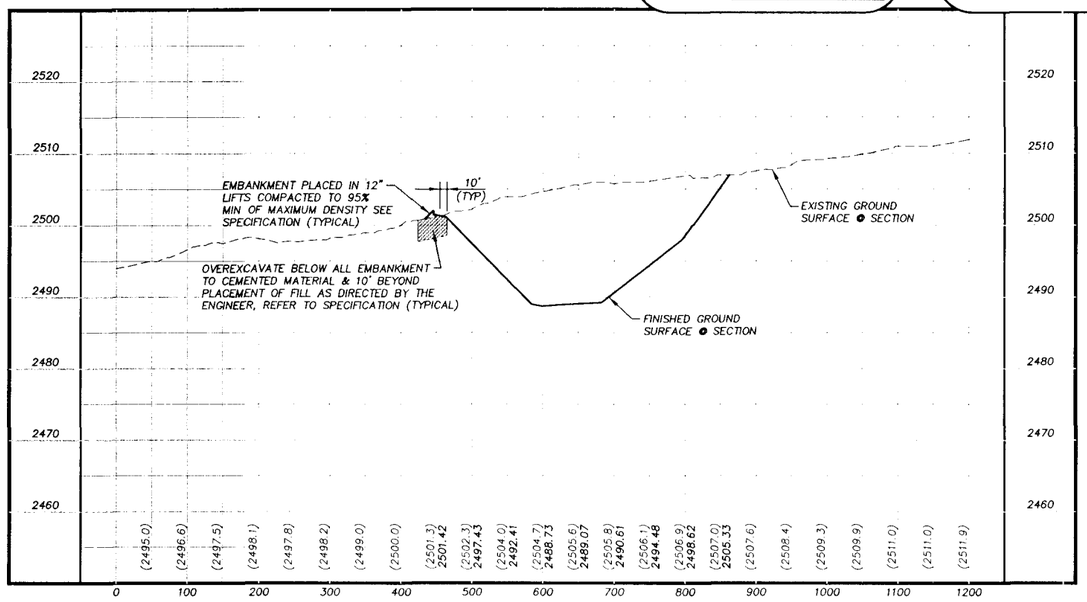
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

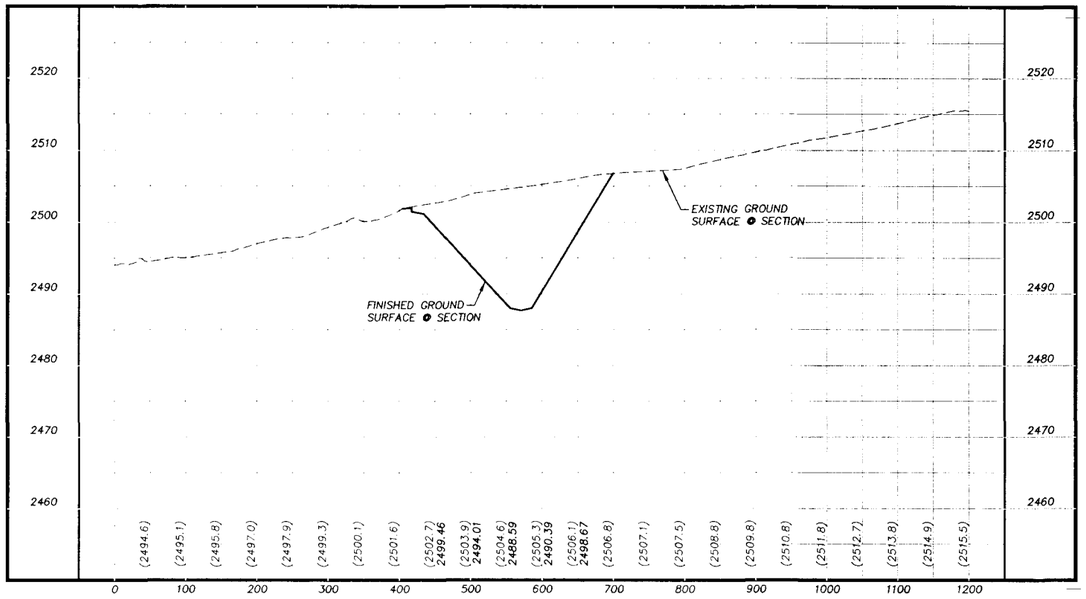
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

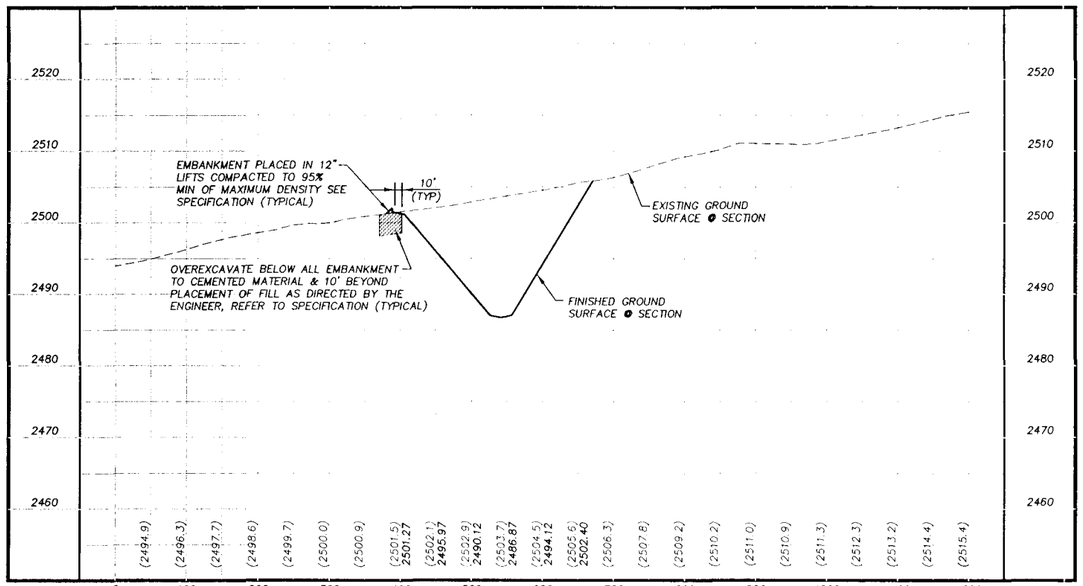
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY, REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



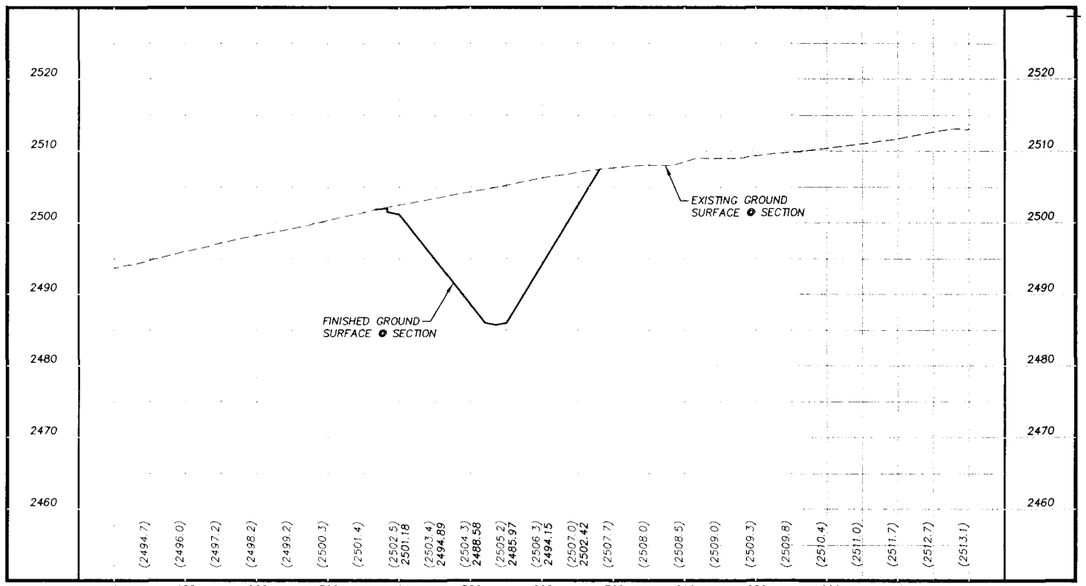
CROSS-SECTION STA 18+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 20+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 22+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 24+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-35
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

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901 North Green Valley Pkwy.
Suite 100
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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 18+00.00 TO STA 24+00.00

99-00-12

DRAWING NO. C35

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

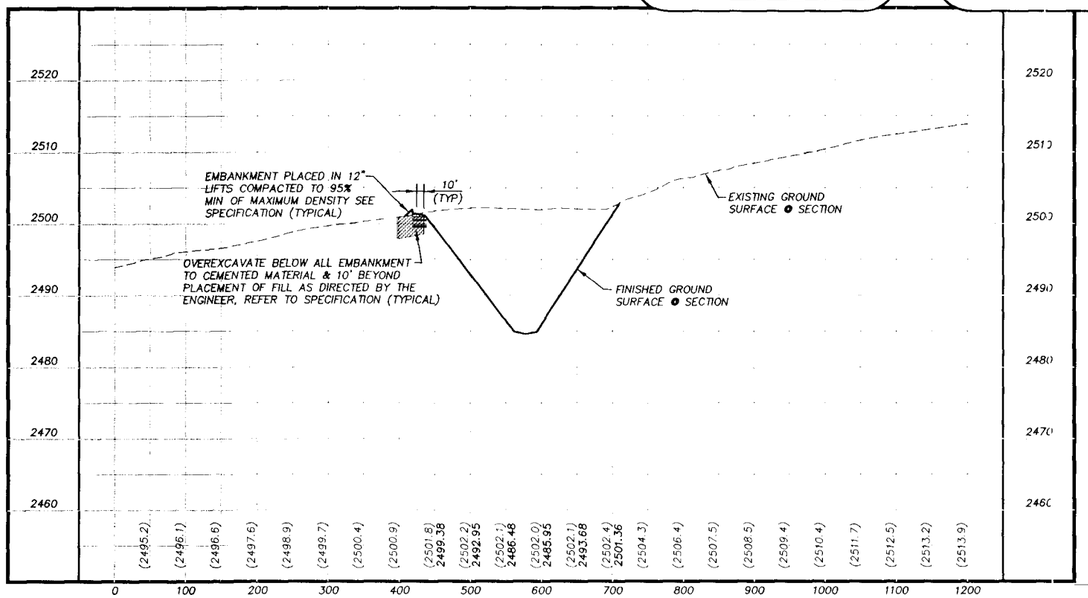
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

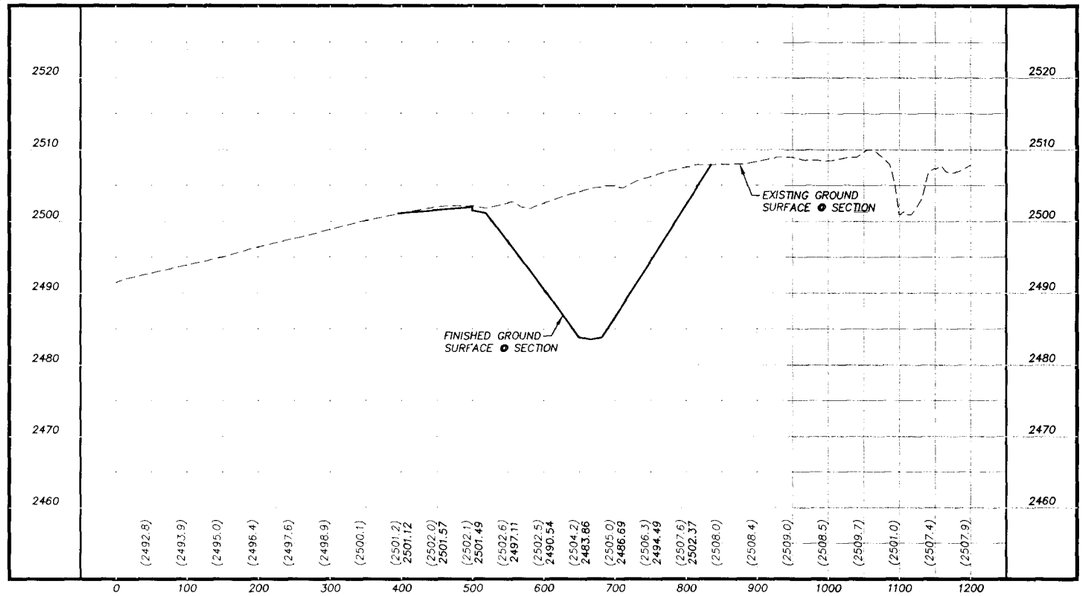
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GRAPHIC SCALE
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(IN FEET)
1 inch = 100 ft HORZ
1 inch = 10 ft VERT

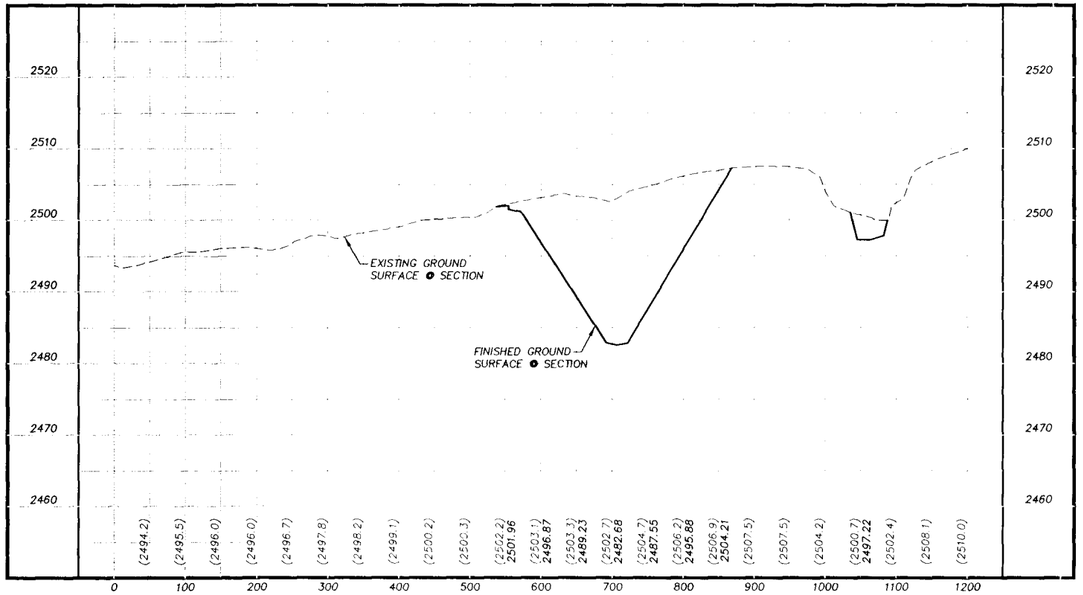
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



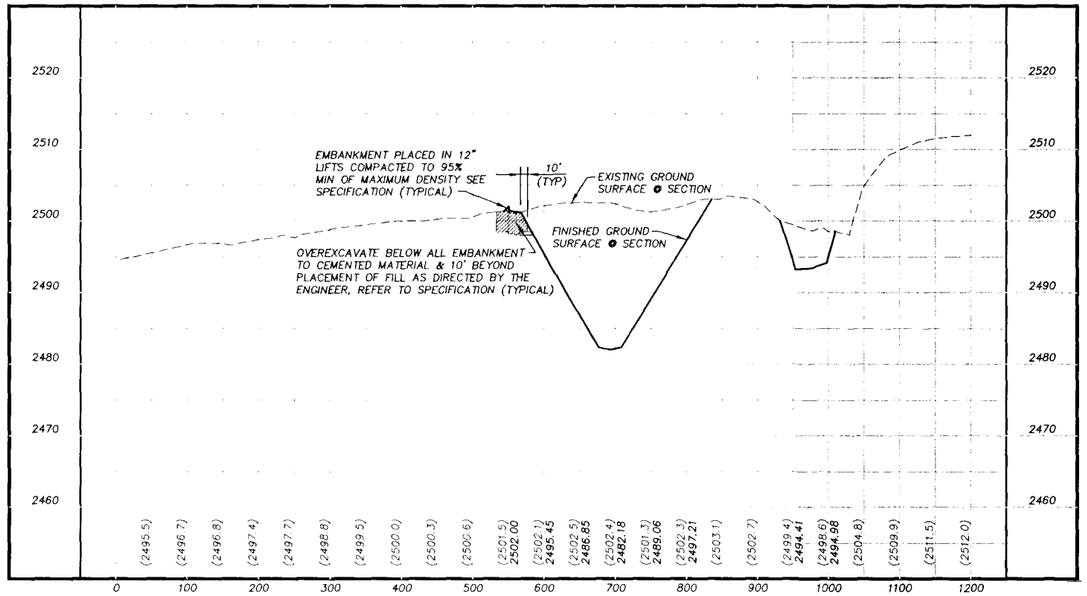
CROSS-SECTION STA 26+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 28+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 30+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 31+00.00
SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-36
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

PBS&J
901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
Telephone: 702/263-7275
Fax: 702/263-7200
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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 26+00.00 TO STA 31+00.00

99-00-12

DRAWING NO. C36

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

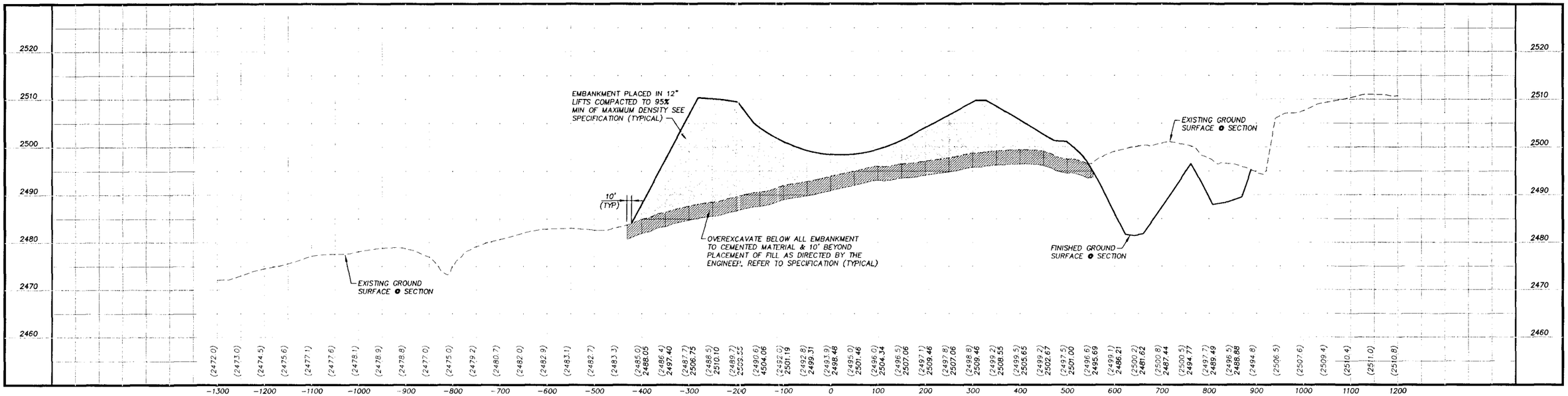
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

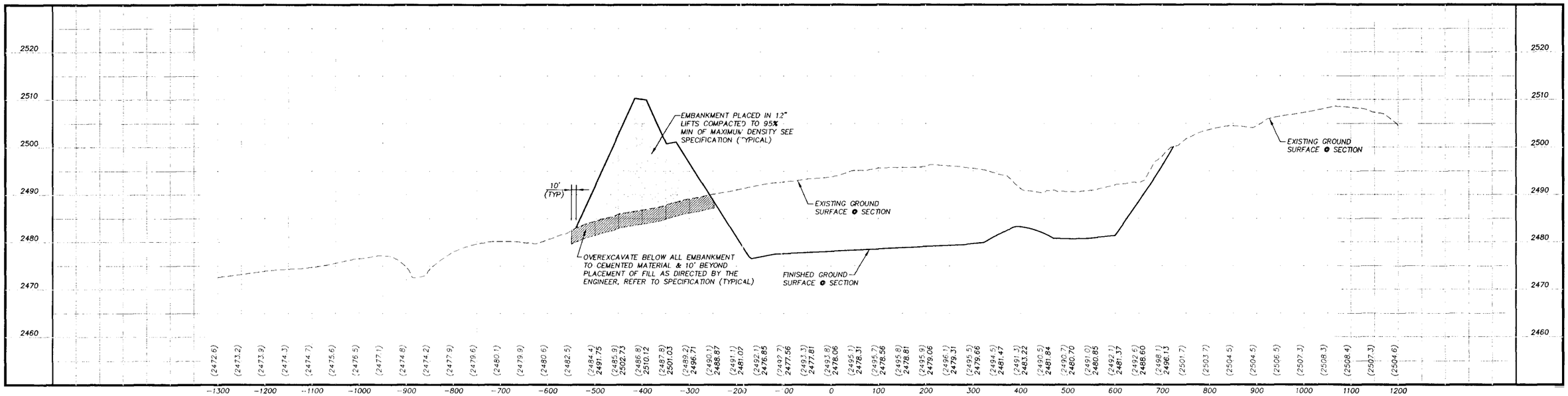
ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



CROSS-SECTION STA 32+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CROSS-SECTION STA 33+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-37
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 32+00.00 AND STA 33+00.00

99-00-12

DRAWING NO. C37

37 / 53

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

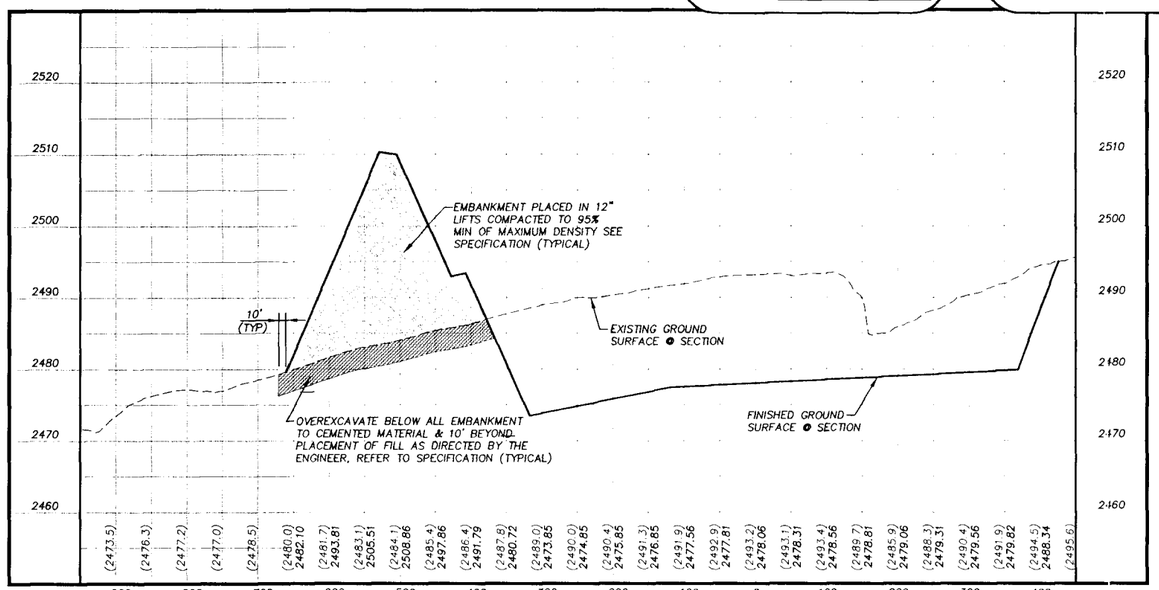
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

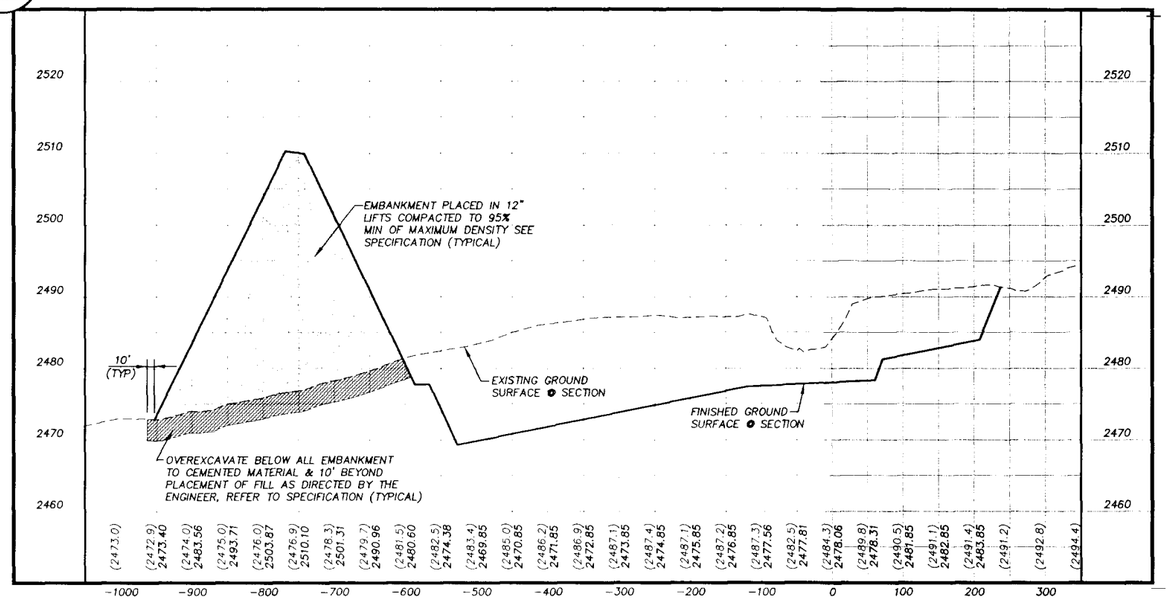
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

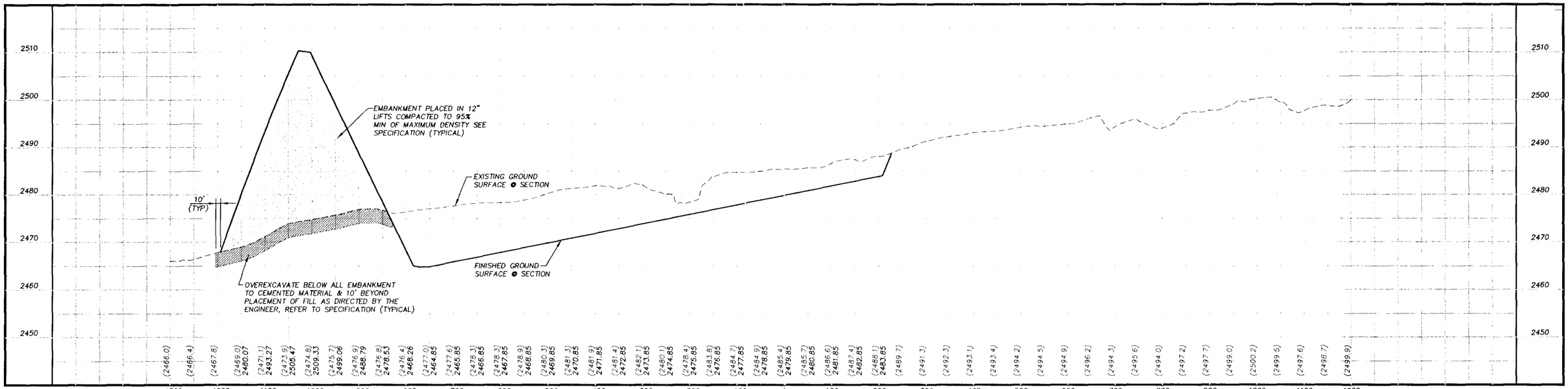
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



CROSS-SECTION STA 34+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'



CROSS-SECTION STA 36+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'



CROSS-SECTION STA 38+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-38
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 34+00.00 TO STA 38+00.00

99-00-12

DRAWING NO. C38

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

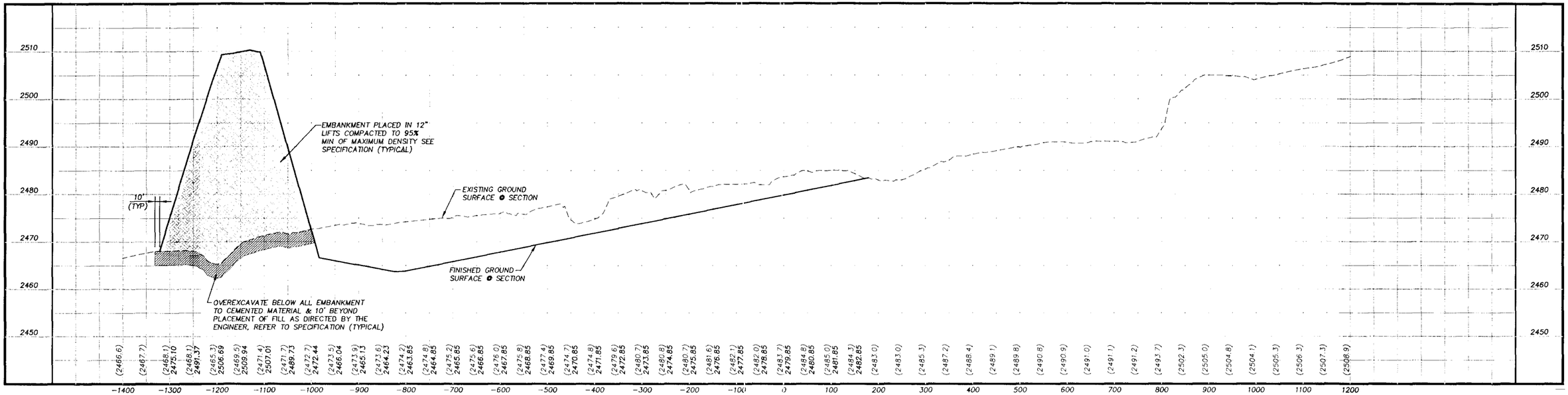
-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

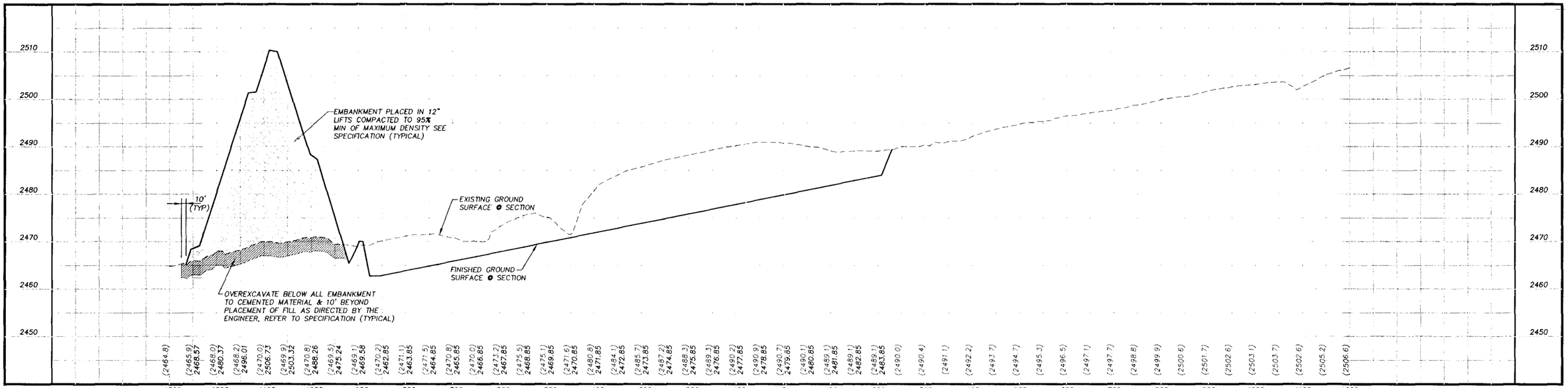
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

THIS DRAWING IS FOR INFORMATION PURPOSES ONLY, REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



CROSS-SECTION STA 40+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'



CROSS-SECTION STA 42+00.00
SCALE: HORIZ.: 1"=100'
VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-39
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 40+00.00 AND STA 42+00.00

99-00-12

DRAWING NO. C39

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY

Call before you Overhead

1-702-593-6111

NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call before you Dig

1-800-227-2600

UNDERGROUND SERVICE (USA)

-RECORD DRAWING-

COMPLETED ON: 12/16/02

BY: PBS&J

PROJECT ACCEPTANCE DATE: 11/04/02

CONST. MANAGER: CITY OF HENDERSON

CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/21/00 BY MATTHEW S. BAIRD, P.E. UNDER NEVADA LICENSE NO. 13684

GRAPHIC SCALE

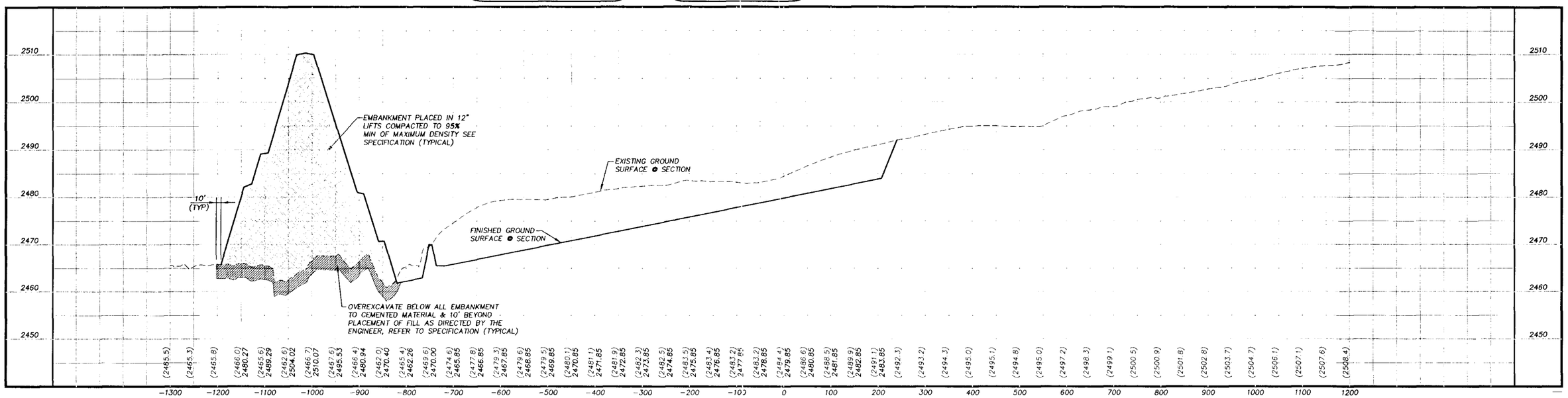
100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft. HORZ.

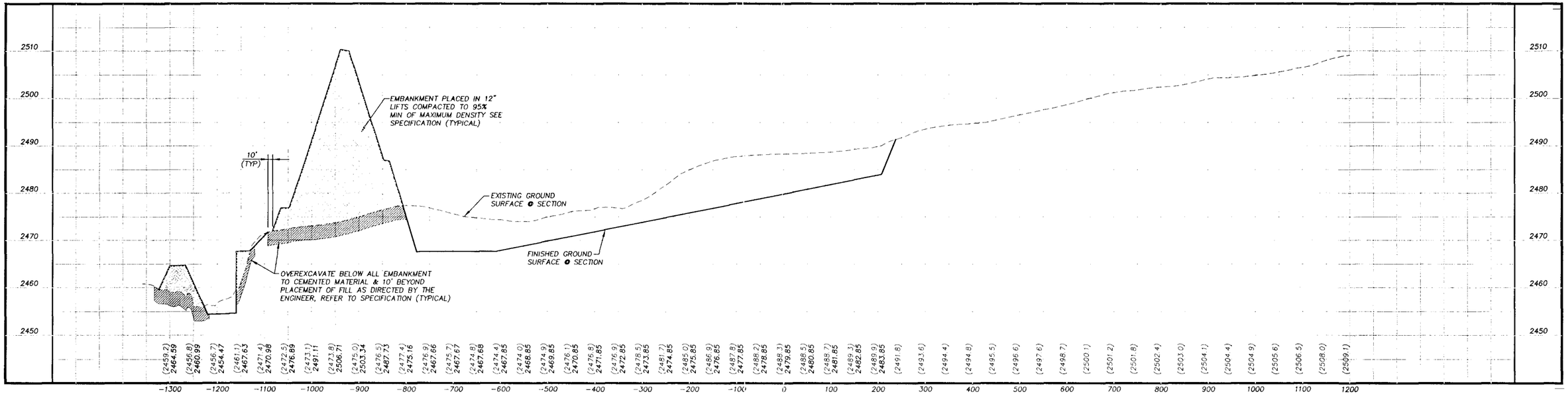
1 inch = 10 ft. VERT.

THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



CROSS-SECTION STA 44+00.00

SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'



CROSS-SECTION STA 46+00.00

SCALE: HORIZ.; 1"=100'
VERT.; 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA

DRAWN BY: C. LUQUETTE

CHECKED BY: M. BAIRD/S. PUTMAN

DATE: JULY 21, 2000

JOB NO.: 51302

DRAWING NO.: 302-40

SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS STA 44+00.00 AND STA 46+00.00

99-00-12

DRAWING NO. C40

40 / 53

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

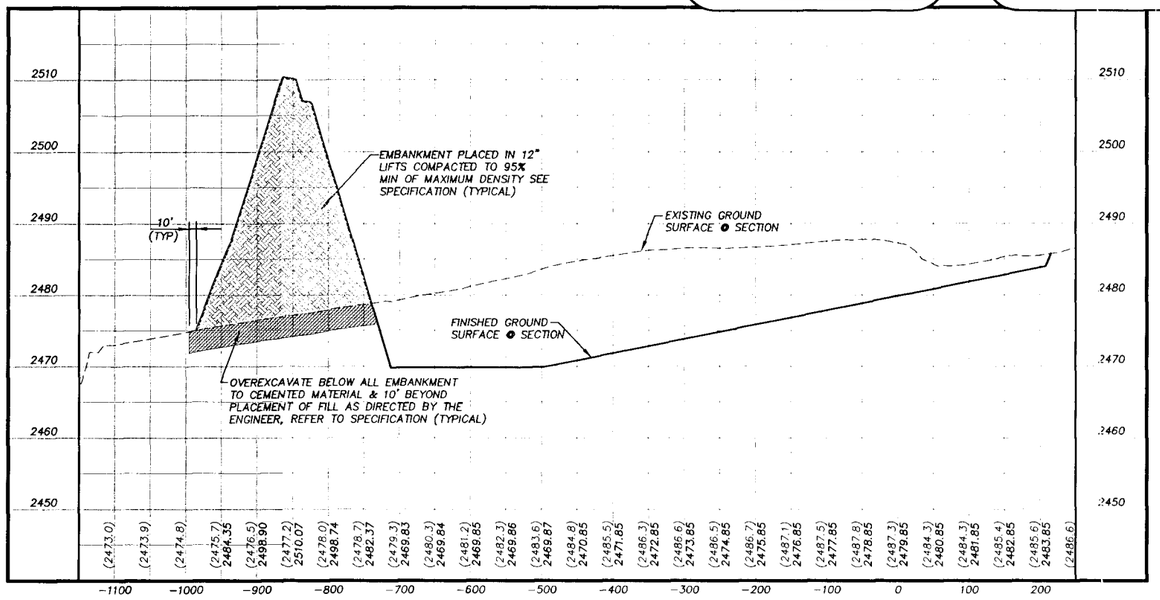
-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

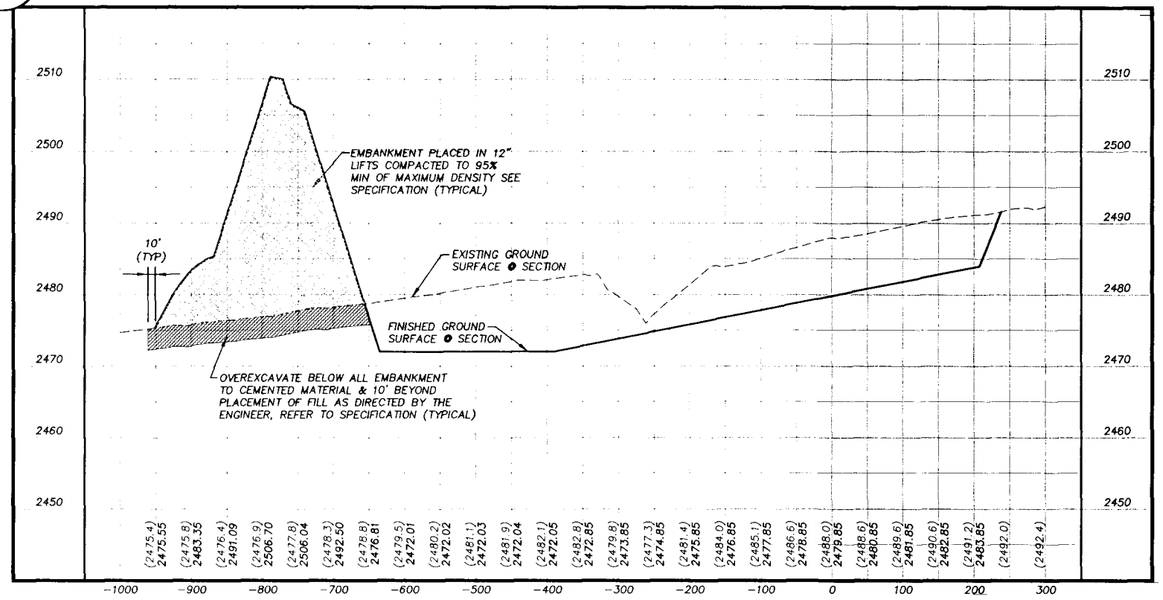
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT.

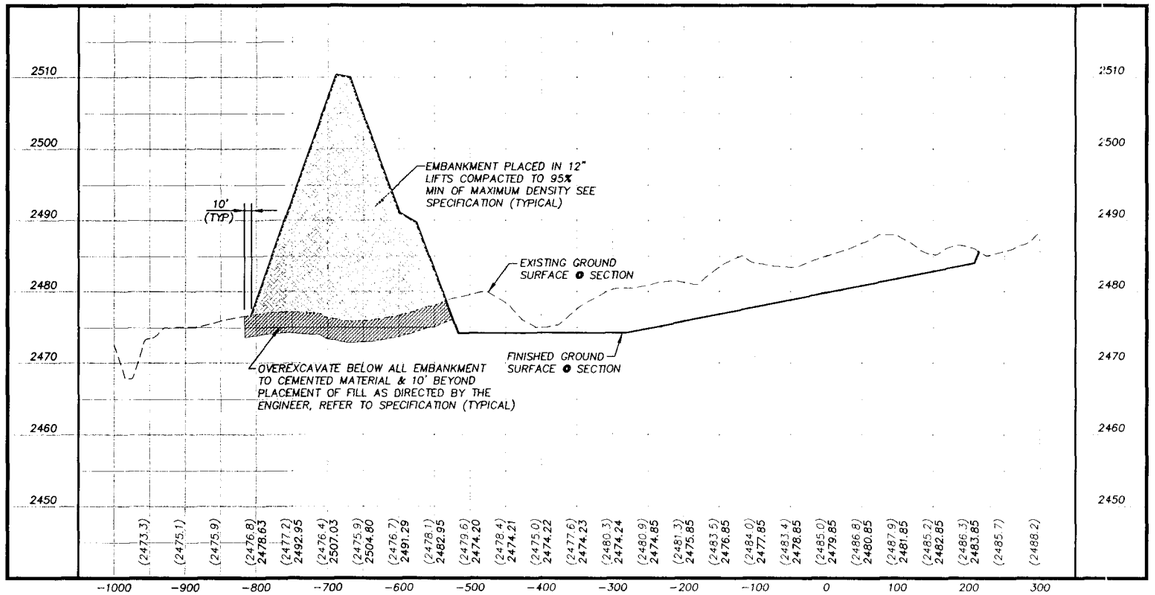
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. REFER TO DETENTION BASIN GRADING PLANS 1-9 SHOWN ON DRAWINGS C13 THRU C21.



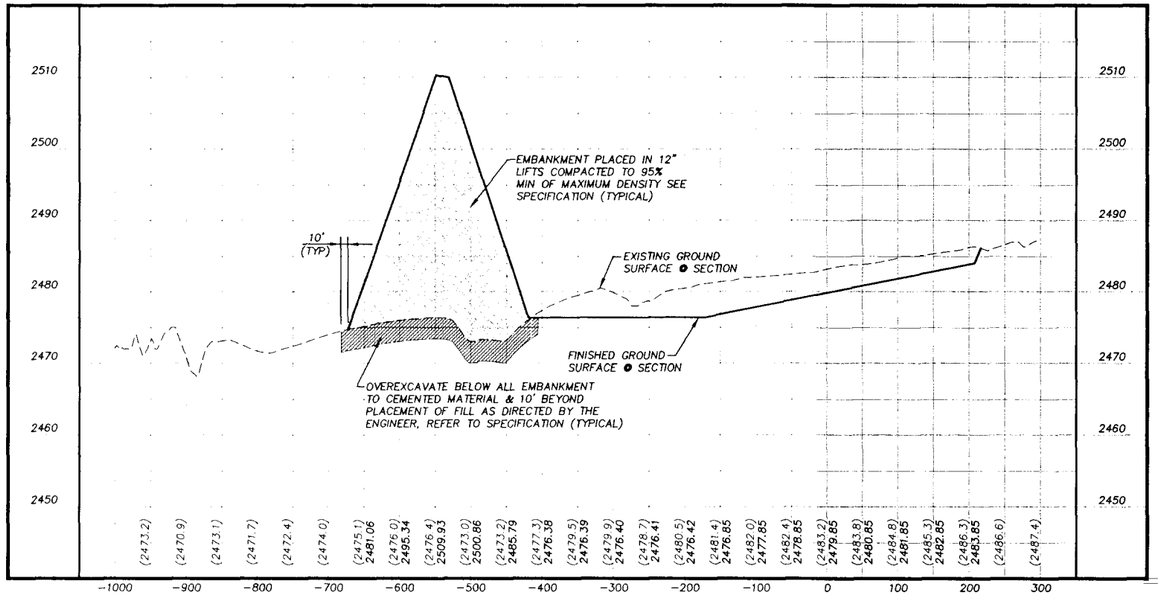
CROSS-SECTION STA 48+00.00
SCALE: HORIZ.; 1"=100' VERT.; 1"=10'



CROSS-SECTION STA 50+00.00
SCALE: HORIZ.; 1"=100' VERT.; 1"=10'



CROSS-SECTION STA 52+00.00
SCALE: HORIZ.; 1"=100' VERT.; 1"=10'



CROSS-SECTION STA 54+00.00
SCALE: HORIZ.; 1"=100' VERT.; 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-41
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 48+00.00 TO STA 54+00.00

99-00-12

DRAWING NO. C41

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

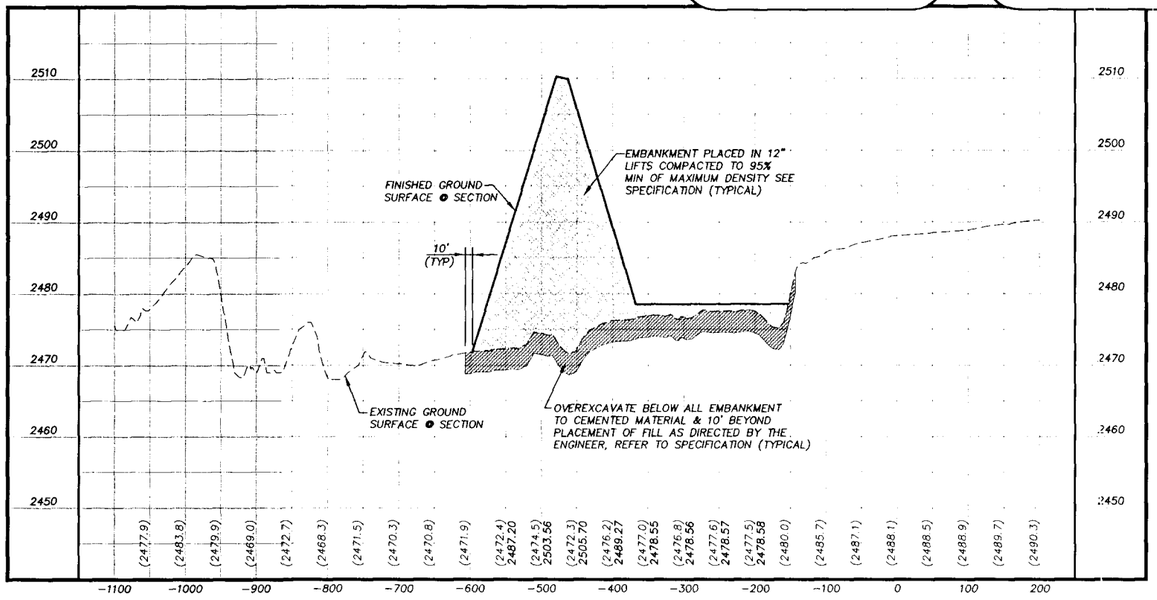
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

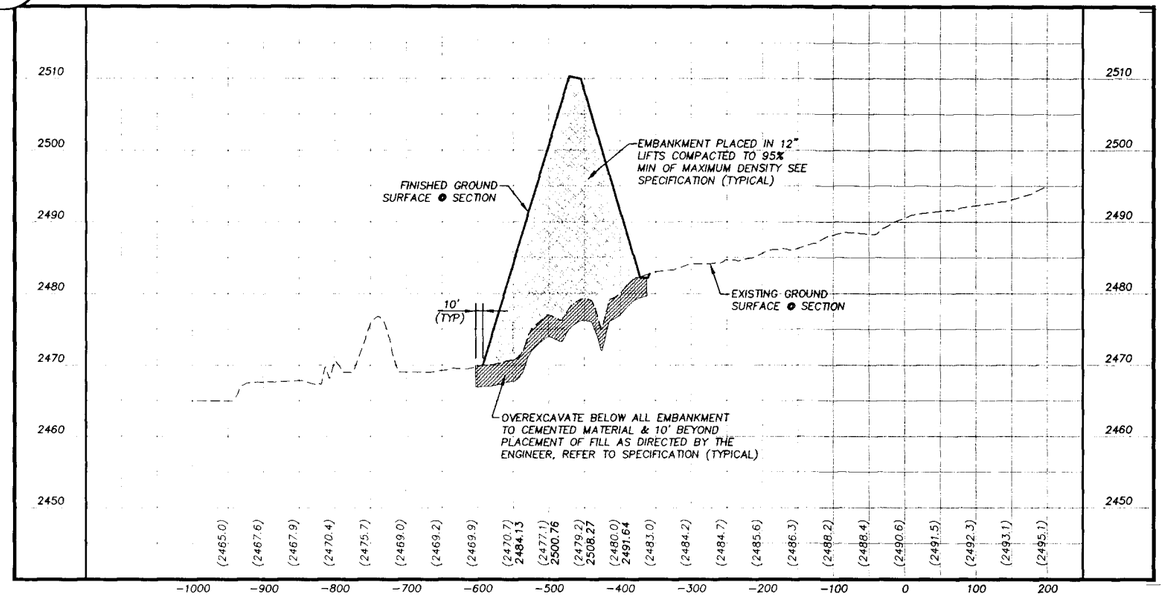
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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft. HORZ.
1 inch = 10 ft. VERT

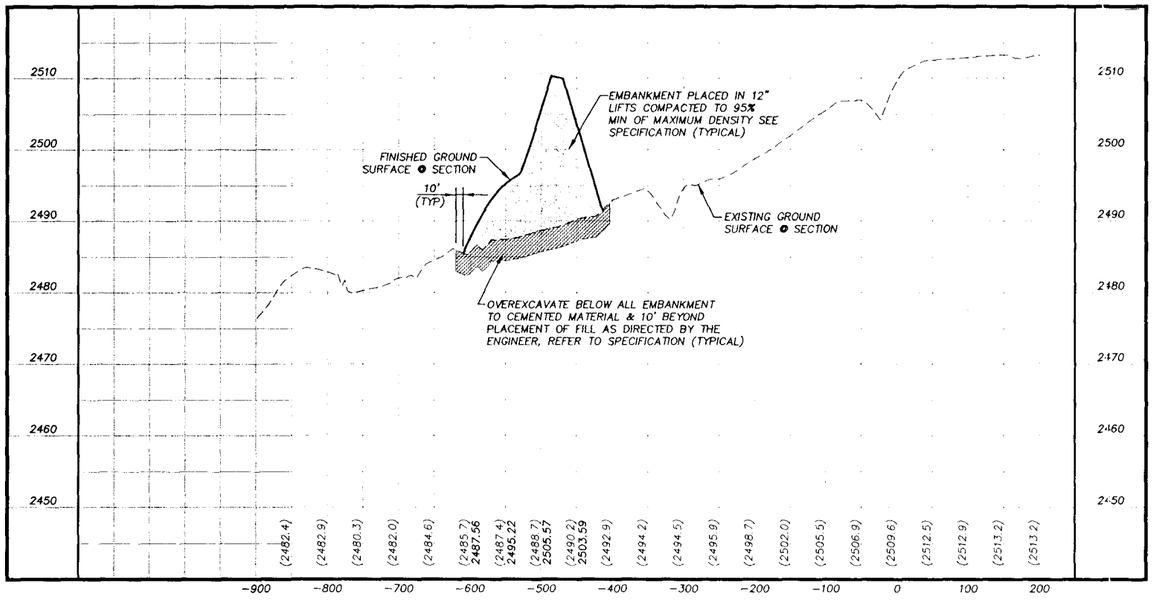
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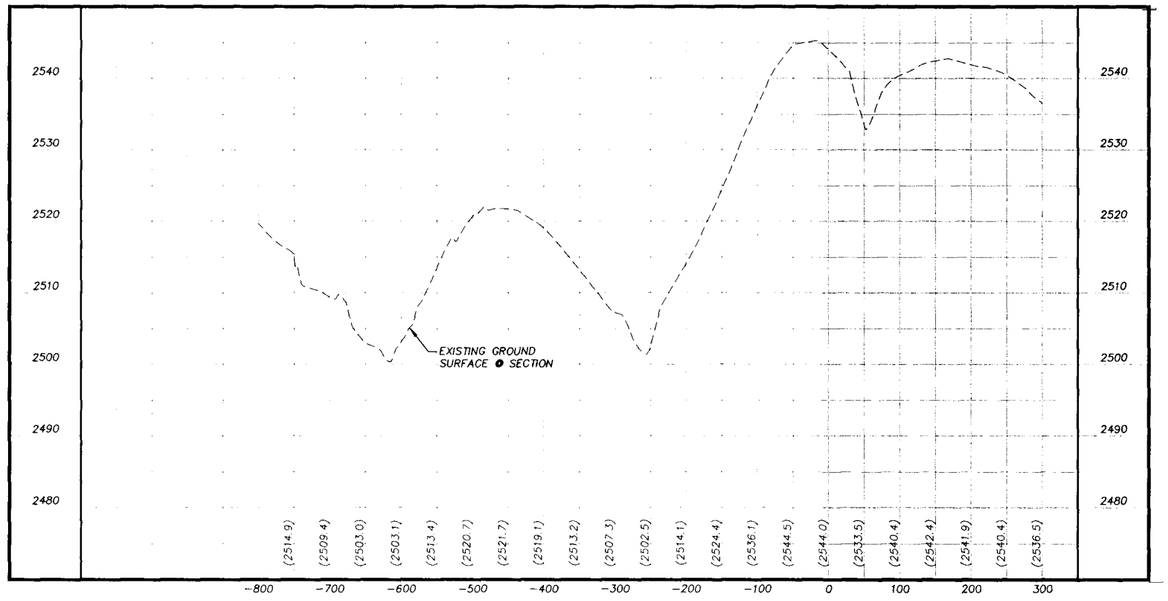
CROSS-SECTION STA 56+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'



CROSS-SECTION STA 58+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'



CROSS-SECTION STA 60+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'



CROSS-SECTION STA 62+00.00
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: A. SPATA
DRAWN BY: C. LUQUETTE
CHECKED BY: M. BAIRD/S. PUTMAN
DATE: JULY 21, 2000

JOB NO.: 51302
DRAWING NO.: 302-42
SCALE: HORIZ.: 1"=100' VERT.: 1"=10'

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Suite 100
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THE CITY OF HENDERSON

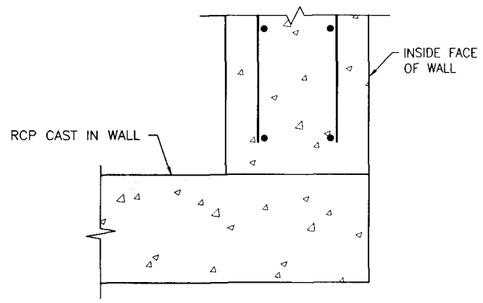
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

CROSS-SECTIONS
STA 56+00.00 TO STA 62+00.00

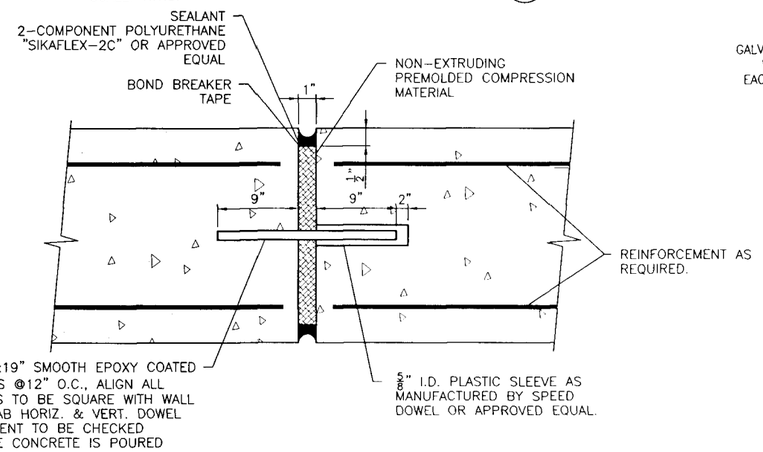
99-00-12

DRAWING NO. C42



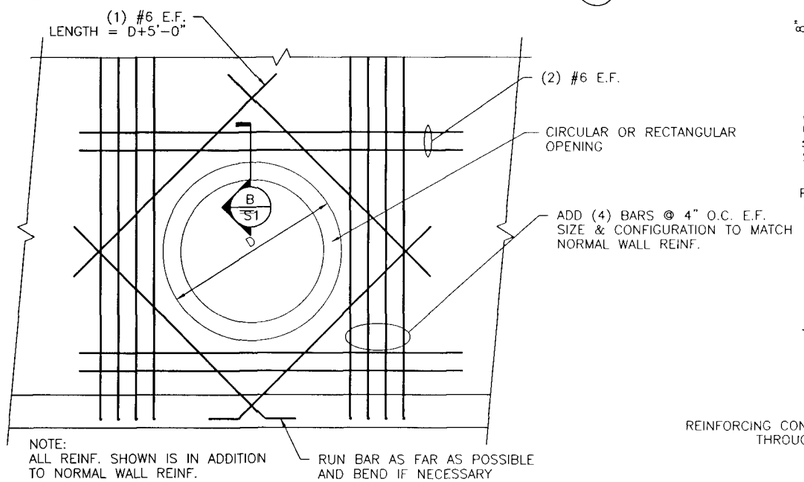
PENETRATION SECTION

SCALE: N.T.S. — B / S1



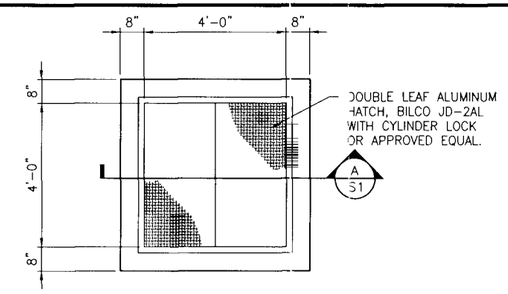
WALL AND SLAB EXPANSION JOINT DETAIL

SCALE: N.T.S. — 4 / S1



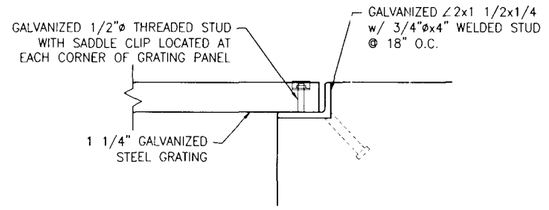
TYP. REINF. AT WALL PENETRATION

SCALE: N.T.S. — 1 / S1



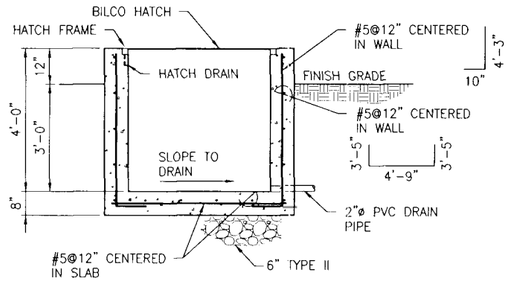
GAUGING VAULT PLAN

SCALE: 1/2" = 1'-0" — 5 / S1



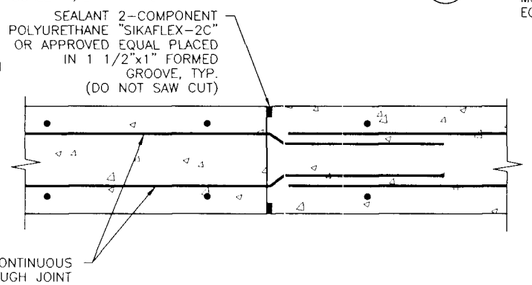
GRATING ATTACHMENT DETAIL

SCALE: N.T.S. — 6 / S1



SECTION

SCALE: 1/2" = 1'-0" — A / S1



WALL AND SLAB CONSTRUCTION JOINT DETAIL

SCALE: N.T.S. — 2 / S1

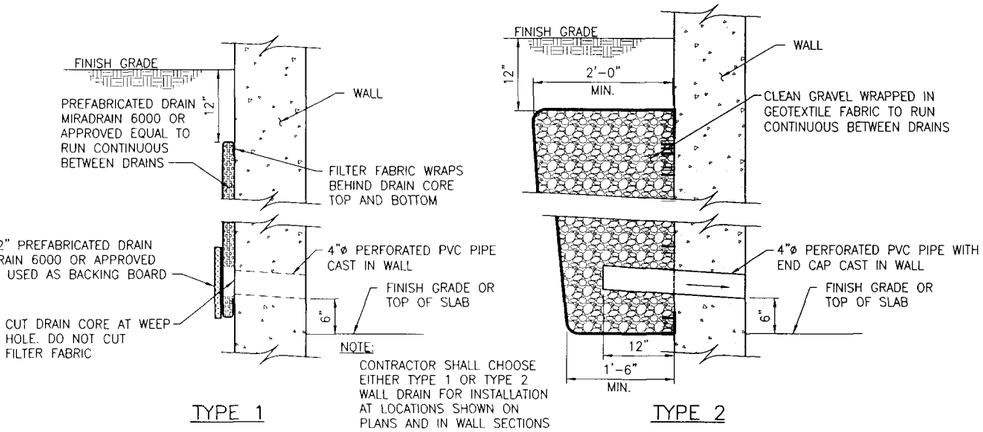
GENERAL NOTES:

1. DESIGN CRITERIA: ACI 318-95
2. PORTLAND CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE V
3. AGGREGATE SHALL CONFORM TO A.S.T.M. C-33.
4. ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
5. ALL REINFORCEMENT STEEL SHALL BE ASTM DESIGNATION A615 GRADE 60.
6. COVERAGE FOR REINFORCING BARS, EXCEPT WHERE OTHERWISE SHOWN, SHALL BE: 3" FOR CONCRETE PLACED AGAINST EARTH; 2" FOR OTHERS.
7. DOWELS, PIPES, WATER STOPS AND OTHER INSTALLED MATERIALS OR ACCESSORIES SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
8. ALL KEY WAYS AND CONSTRUCTION JOINTS IN CONCRETE SHALL BE CLEAN FOR BOND. CONSTRUCTION JOINTS BETWEEN FOOTINGS AND WALLS SHALL BE COVERED WITH POLYETHYLENE-COATED BURLAP MATS WHICH SHALL BE KEPT WET WITH WATER UNTIL CONCRETE IN WALLS IS PLACED. NO CURING COMPOUND SHALL BE APPLIED IN CONSTRUCTION JOINTS BETWEEN FOOTINGS AND WALLS.
9. USE 3/4" CHAMFER ON ALL EXPOSED CORNERS.
10. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PART EMBEDDED IN CONCRETE.
11. ALL REINFORCING BAR LAP SPLICES SHALL CONFORM TO ACI 318-95.
12. SPLICE LENGTHS OF DIFFERENT BARS SHALL BE THE SPLICE LENGTH OF THE SMALLER BAR

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/19/00 BY DAVID W. SEELEY, P.E. UNDER NEVADA LICENSE NO. 11751



WEEP HOLE DETAIL

SCALE: NONE — 3 / S1

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REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S1
SCALE: HORIZ.: VERT.:

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THE CITY OF HENDERSON

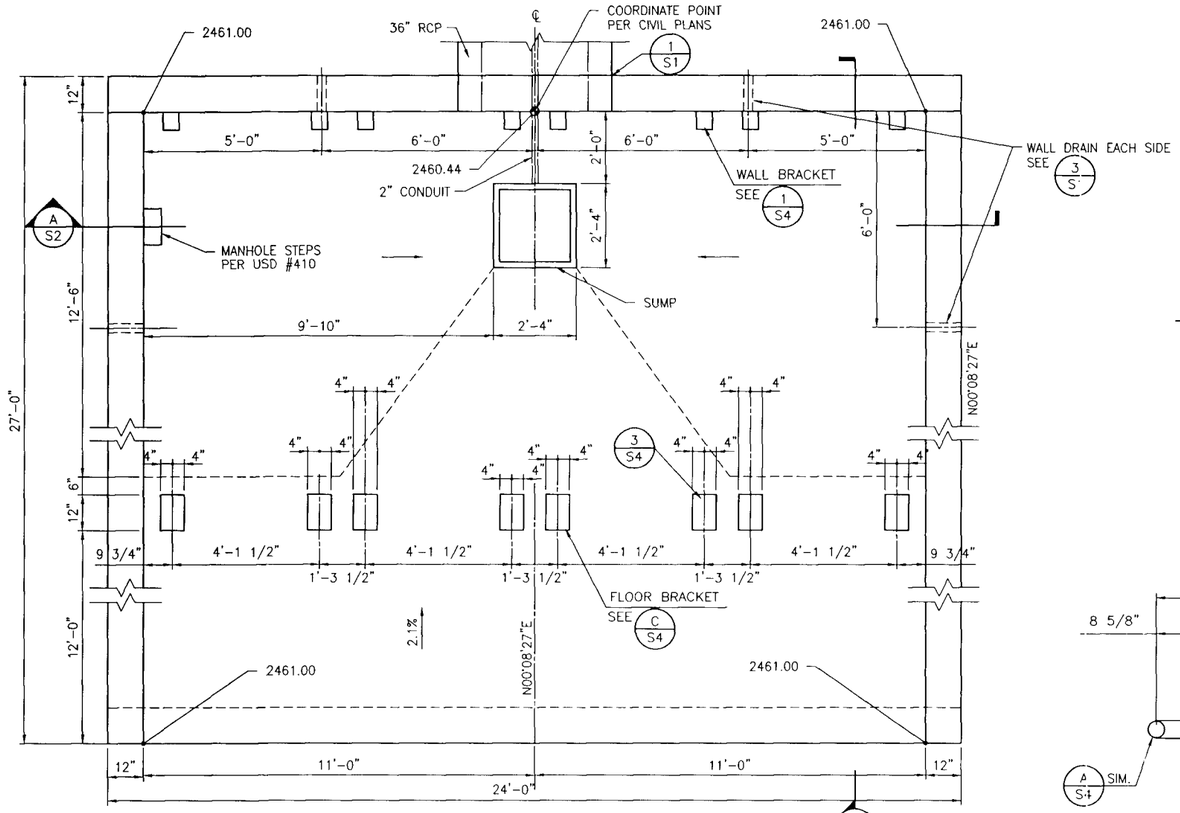
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GENERIAL NOTES AND SECTIONS

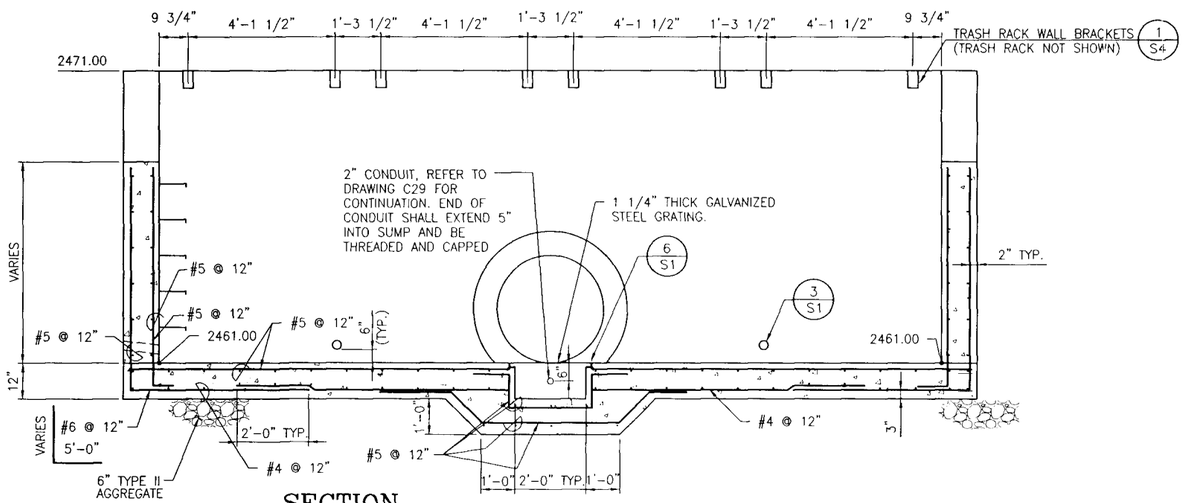
99-00-12

DRAWING NO. S1 — 43 / 53



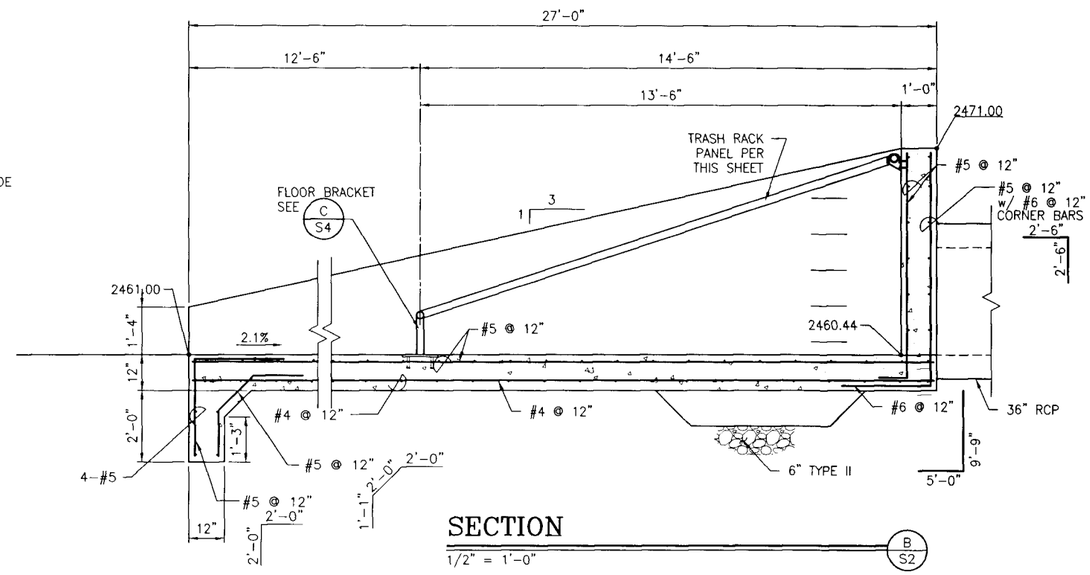
LOW LEVEL OUTLET

1/2" = 1'-0" (TRASH RACK NOT SHOWN) — 1 S2



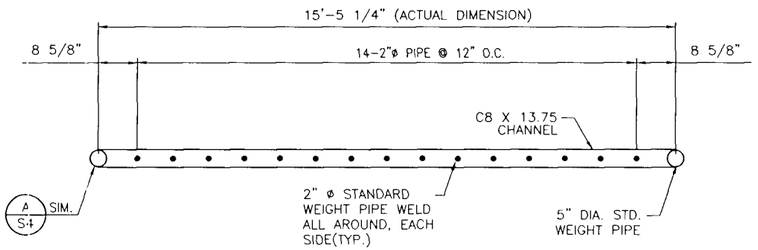
SECTION

1/2" = 1'-0" — A S2



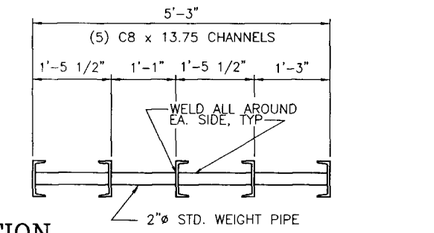
SECTION

1/2" = 1'-0" — B S2



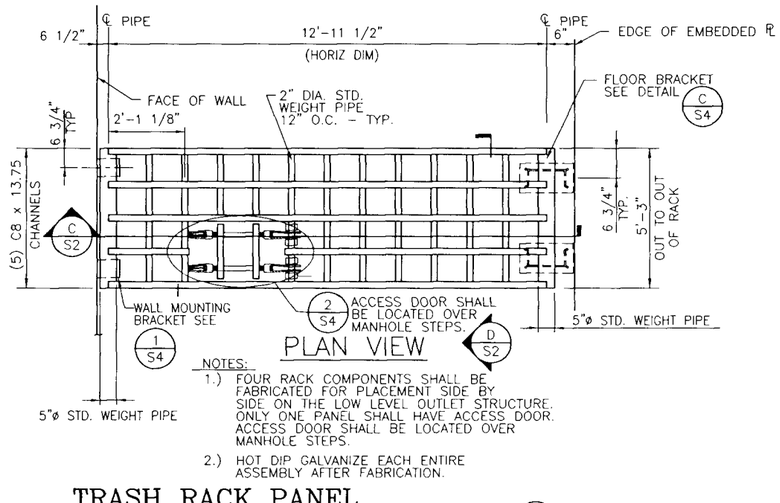
SECTION

SCALE: N.T.S. — C S2



SECTION

SCALE: N.T.S. — D S2



PLAN VIEW

NOTES:

1.) FOUR RACK COMPONENTS SHALL BE FABRICATED FOR PLACEMENT SIDE BY SIDE ON THE LOW LEVEL OUTLET STRUCTURE. ONLY ONE PANEL SHALL HAVE ACCESS DOOR. ACCESS DOOR SHALL BE LOCATED OVER MANHOLE STEPS.

2.) HOT DIP GALVANIZE EACH ENTIRE ASSEMBLY AFTER FABRICATION.

TRASH RACK PANEL

SCALE: N.T.S. — 2 S2

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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FAX (702) 260-7070

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S2
SCALE: HORIZ.: VERT.:

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THE CITY OF HENDERSON

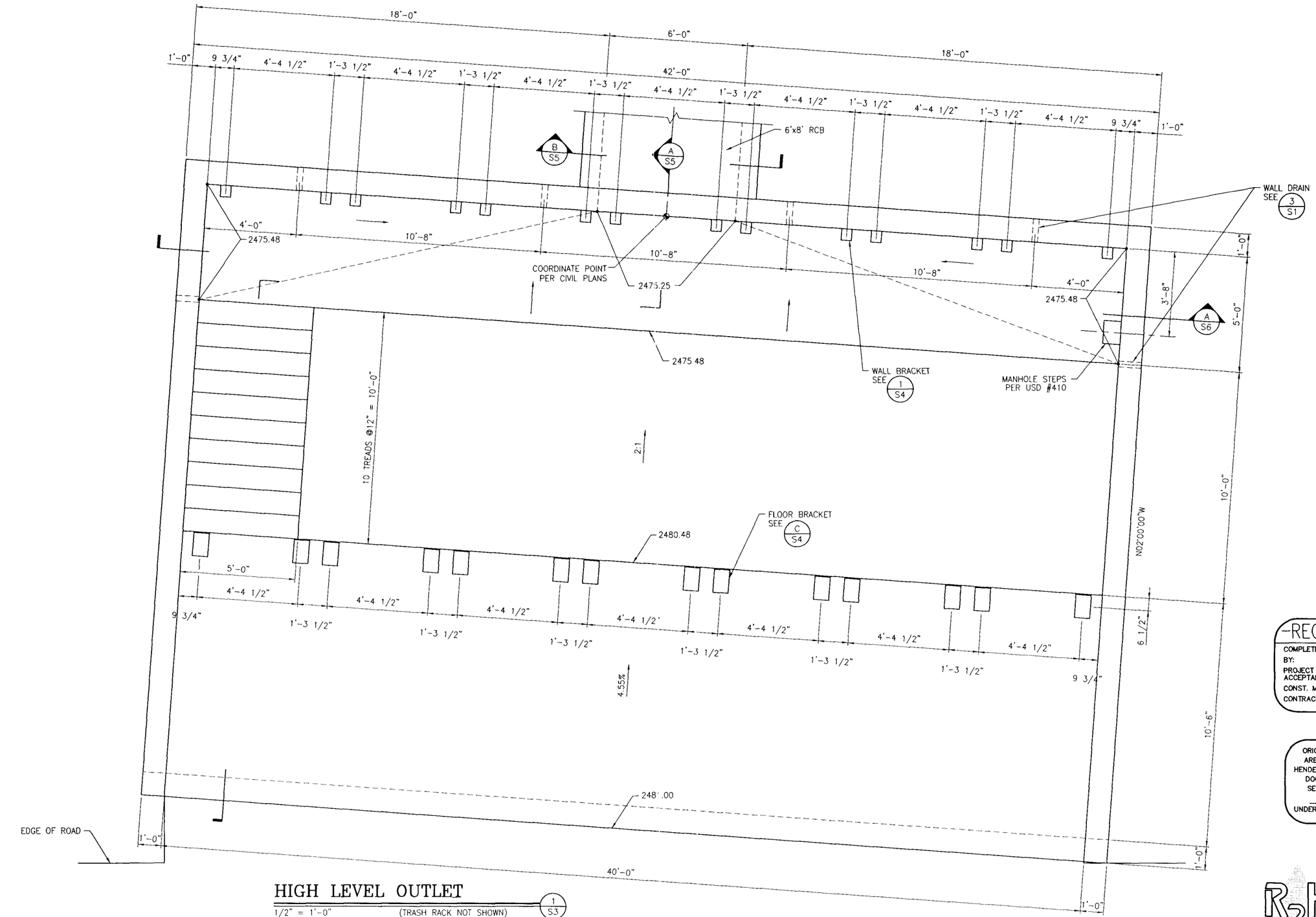
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

LOW LEVEL OUTLET - PLAN & SECTIONS

99-00-12

DRAWING NO. S2



HIGH LEVEL OUTLET

1/2" = 1'-0" (TRASH RACK NOT SHOWN) — 1 / S3

-RECORD DRAWING-

COMPLETED ON:	12/16/02
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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S3
SCALE: HORIZ.: VERT.:

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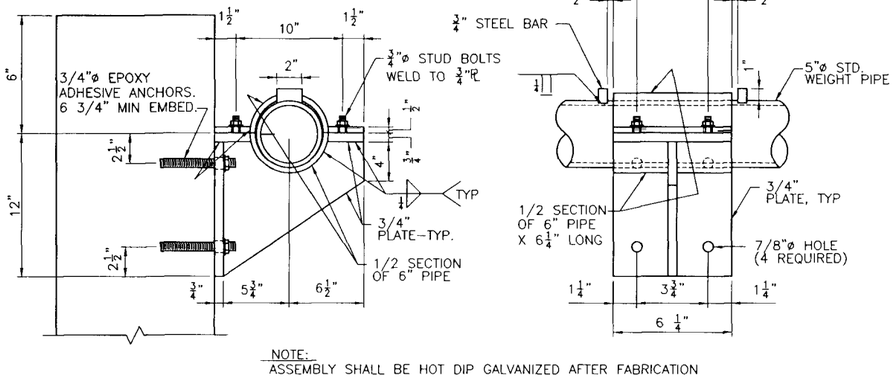
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

HIGH LEVEL OUTLET - PLAN

99-00-12

DRAWING NO. S3

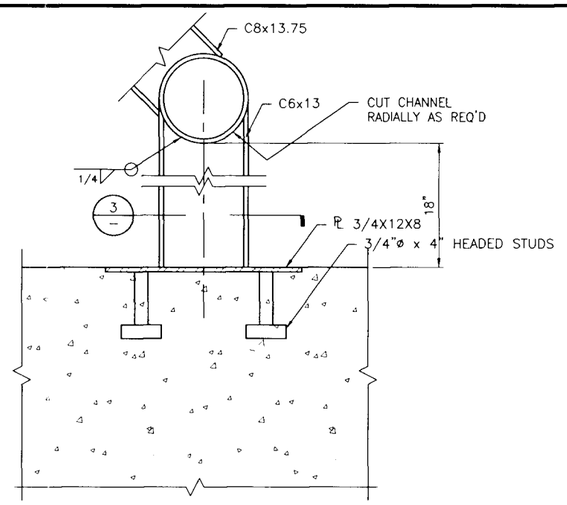


NOTE:
ASSEMBLY SHALL BE HOT DIP GALVANIZED AFTER FABRICATION

TRASH RACK WALL BRACKET

SCALE: N.T.S.

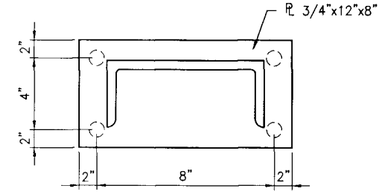
1 / S4



TRASH RACK FLOOR BRACKET SECTION

SCALE: N.T.S.

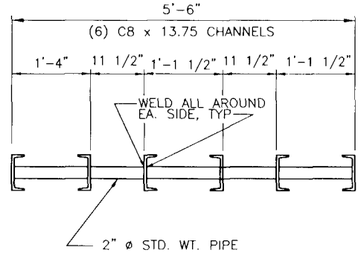
C / S4



PLAN VIEW FLOOR BRACKET

SCALE: N.T.S.

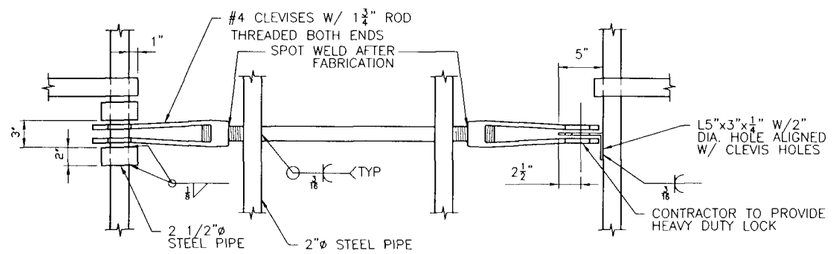
3 / S4



SECTION

SCALE: N.T.S.

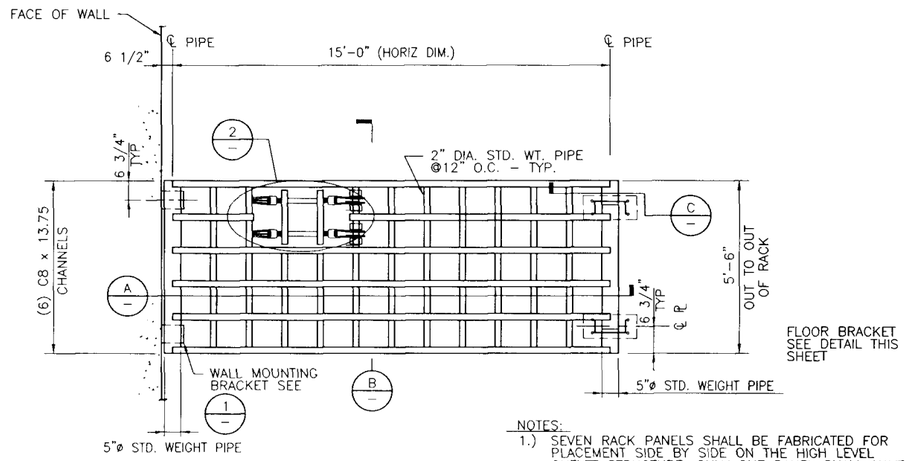
B / S4



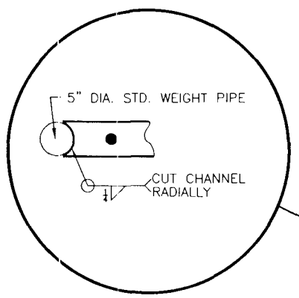
ACCESS DOOR DETAIL

SCALE: N.T.S.

2 / S4

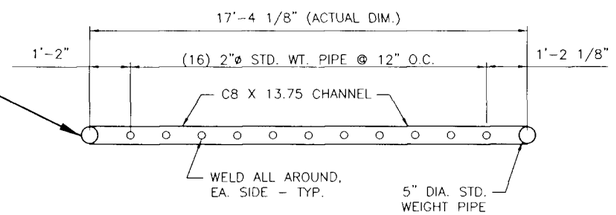


NOTES:
1.) SEVEN RACK PANELS SHALL BE FABRICATED FOR PLACEMENT SIDE BY SIDE ON THE HIGH LEVEL OUTLET STRUCTURE. ONLY ONE PANEL SHALL HAVE ACCESS DOOR. ACCESS DOOR TO BE LOCATED OVER MANHOLE STEPS IN HIGH LEVEL OUTLET STRUCTURE. SEE PLAN ON DRAWING S3.
2.) HOT DIP GALVANIZE EACH ENTIRE ASSEMBLY AFTER FABRICATION.



PLAN VIEW TRASH RACK PANEL

SCALE: N.T.S.



SECTION

SCALE: N.T.S.

A / S4

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S4
SCALE: HORIZ.: VERT.:

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901 North Green Valley Pkwy, Suite 100
Henderson, Nevada 89014
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City of Henderson, Nevada

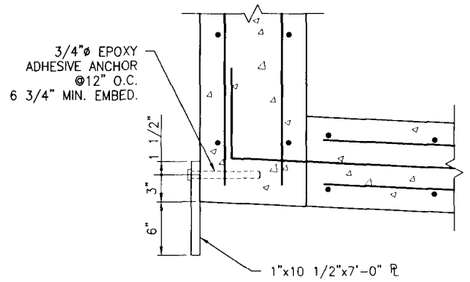
PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

TRASH RACK DETAILS

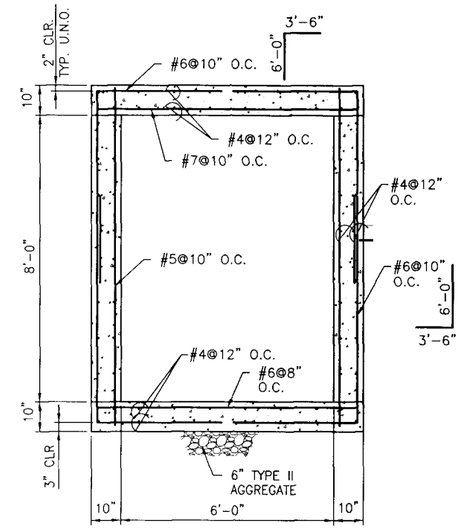
99-00-12

DRAWING NO. S4

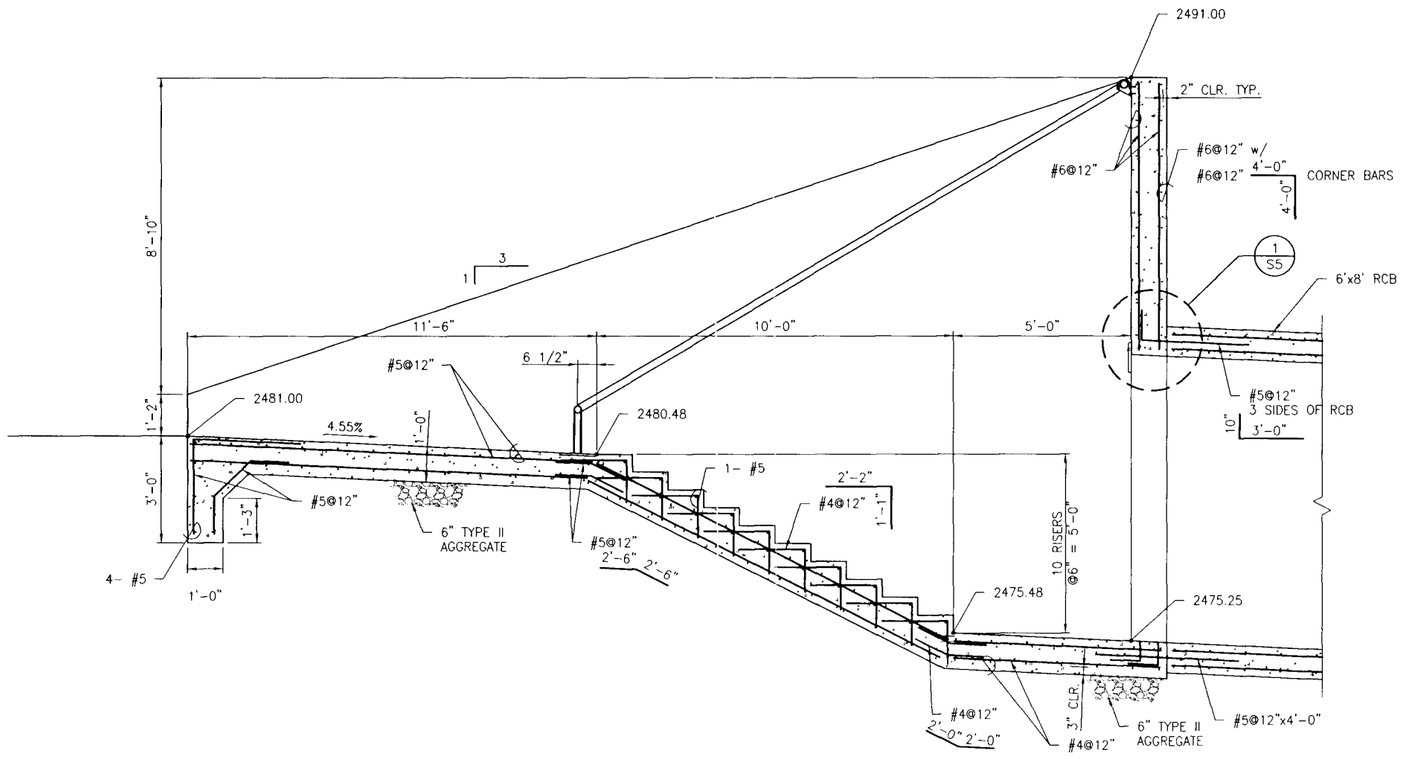
46 / 53



DETAIL
1 1/2" = 1'-0"
1 S5



6' x 8' RCB SECTION
1/2" = 1'-0"
B S5



SECTION
1/2" = 1'-0"
A S5

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S5
SCALE: HORIZ.: VERT.:

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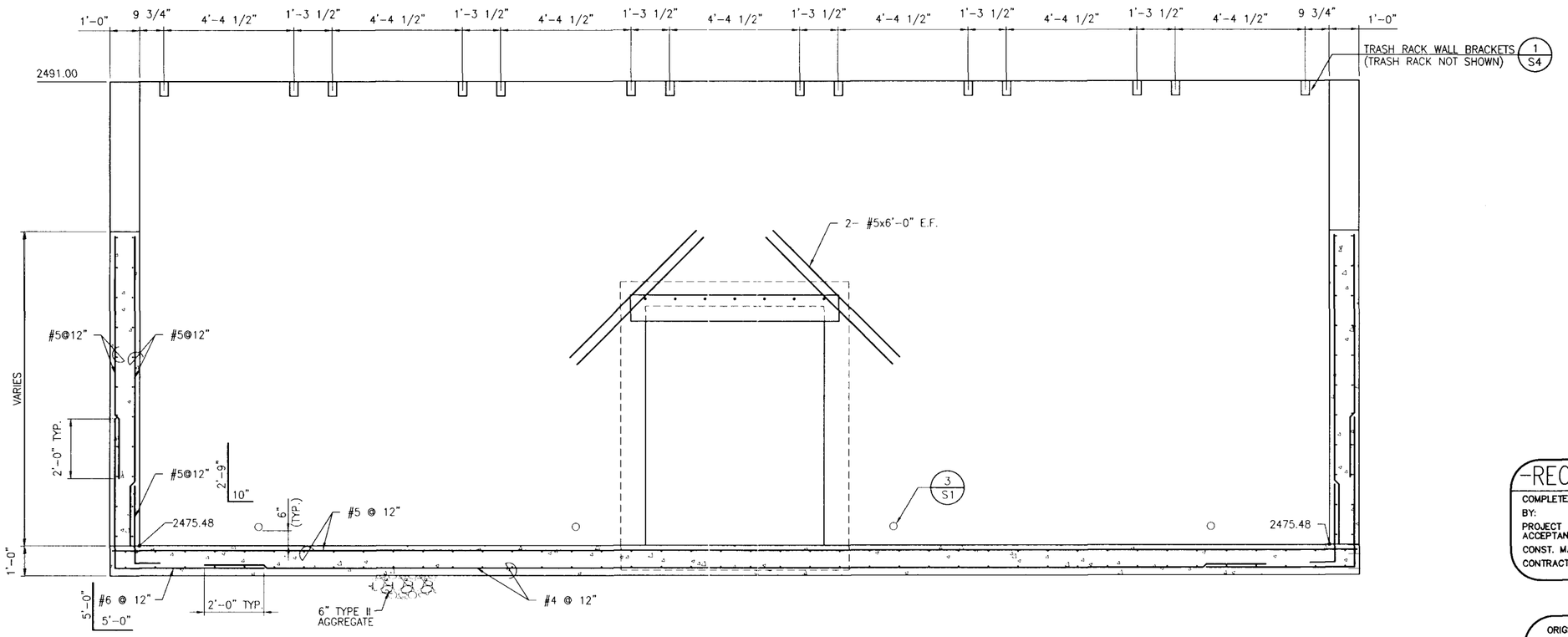
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

HIGH LEVEL OUTLET - SECTIONS

99-00*12

DRAWING NO. S5



SECTION

1/2" = 1'-0"

A S6

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S6
SCALE: HORIZ.: VERT.:

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THE CITY OF HENDERSON

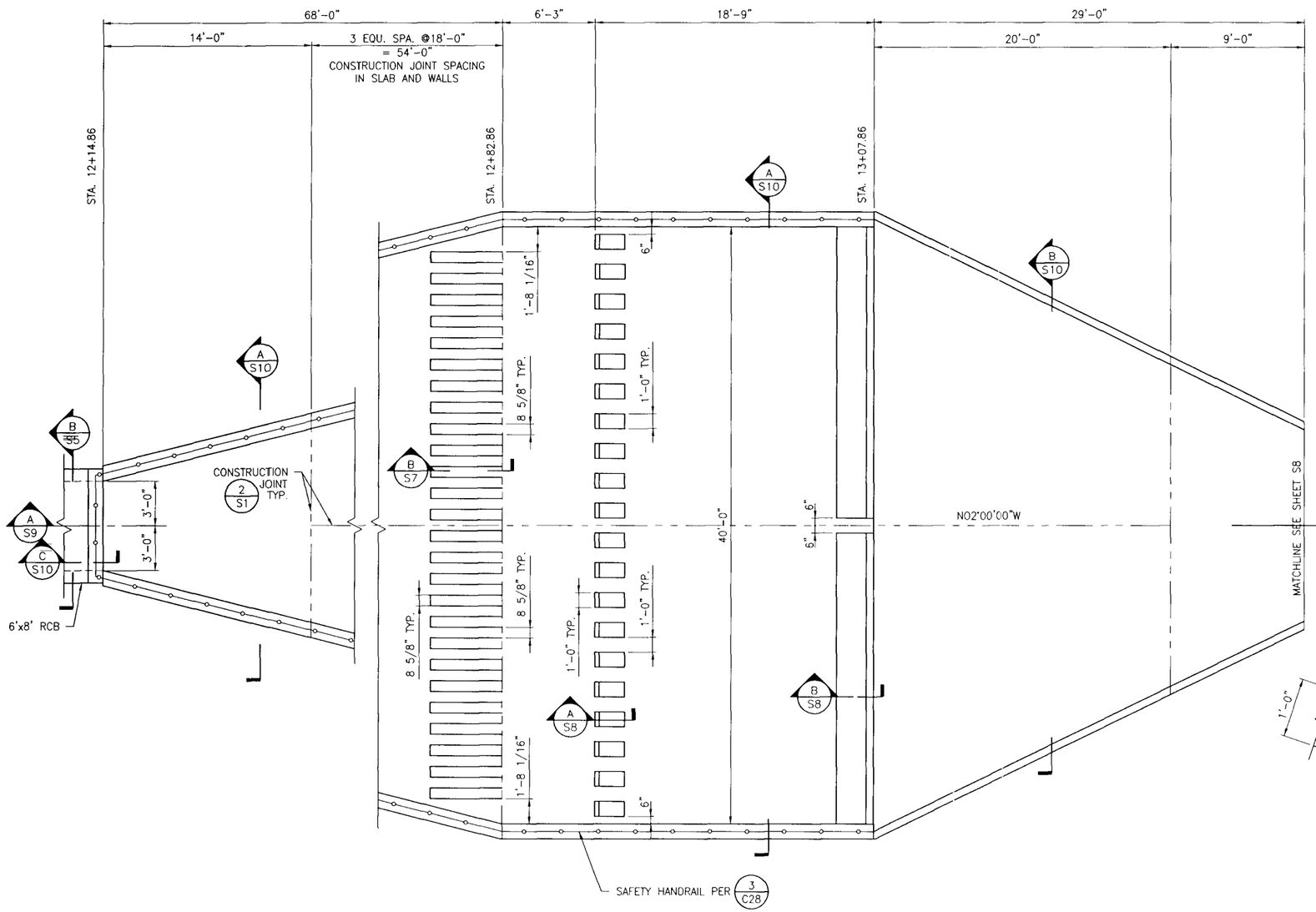
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

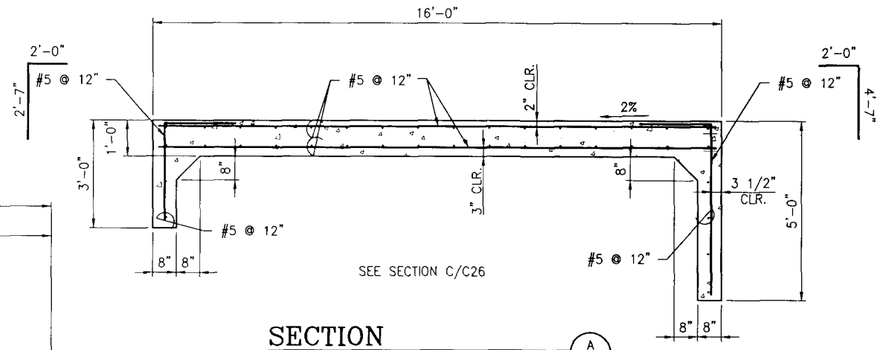
HIGH LEVEL OUTLET - SECTIONS

99-00-12

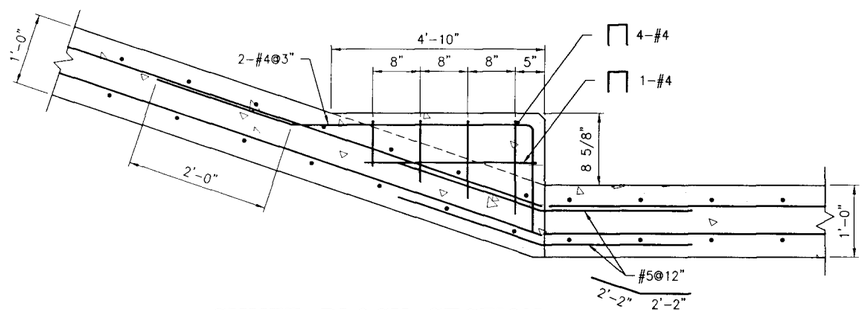
DRAWING NO. S6



OUTFALL STRUCTURE 1 S7
1/4" = 1'-0"



SECTION A S7
1/2" = 1'-0"



CHUTE BLOCK SECTION B S7
N.T.S.

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S7
SCALE: HORIZ.: VERT.:

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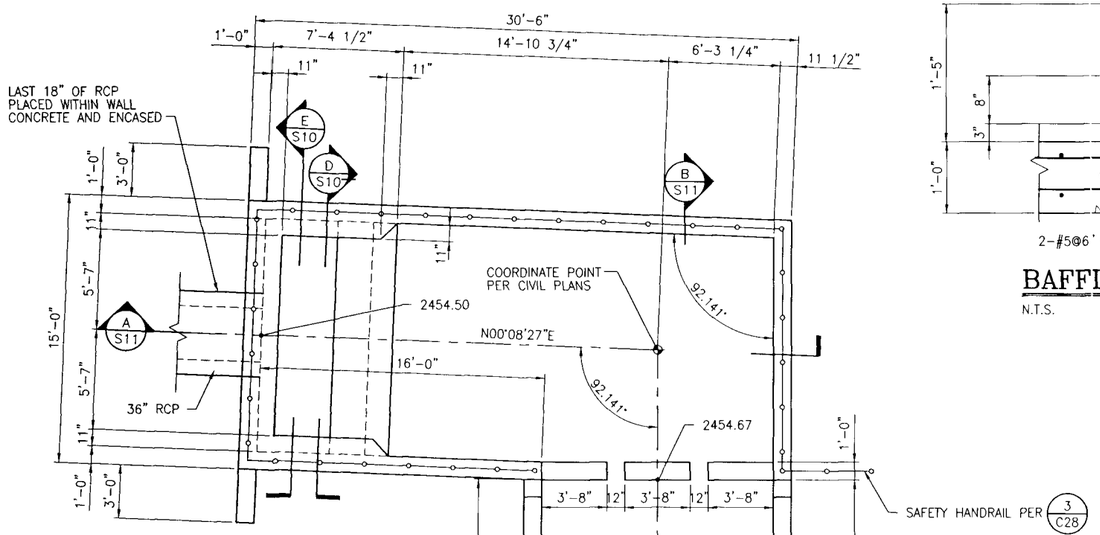
SEAL

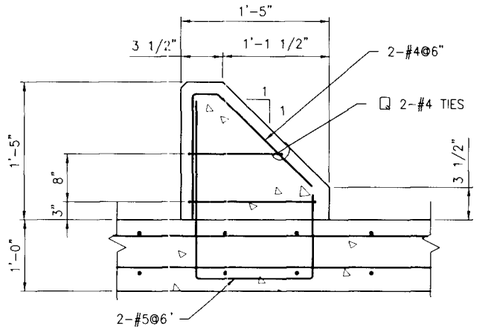
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES
OUTFALL STRUCTURE - PLAN

99-00-12

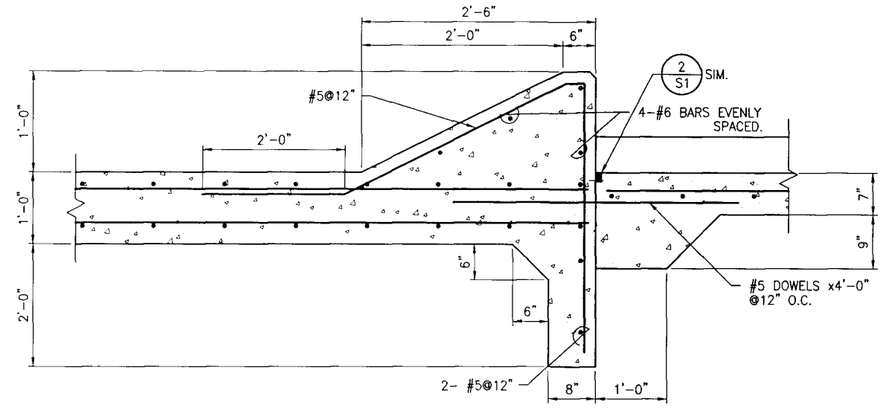
DRAWING NO. ~~S7~~ 49 / 53





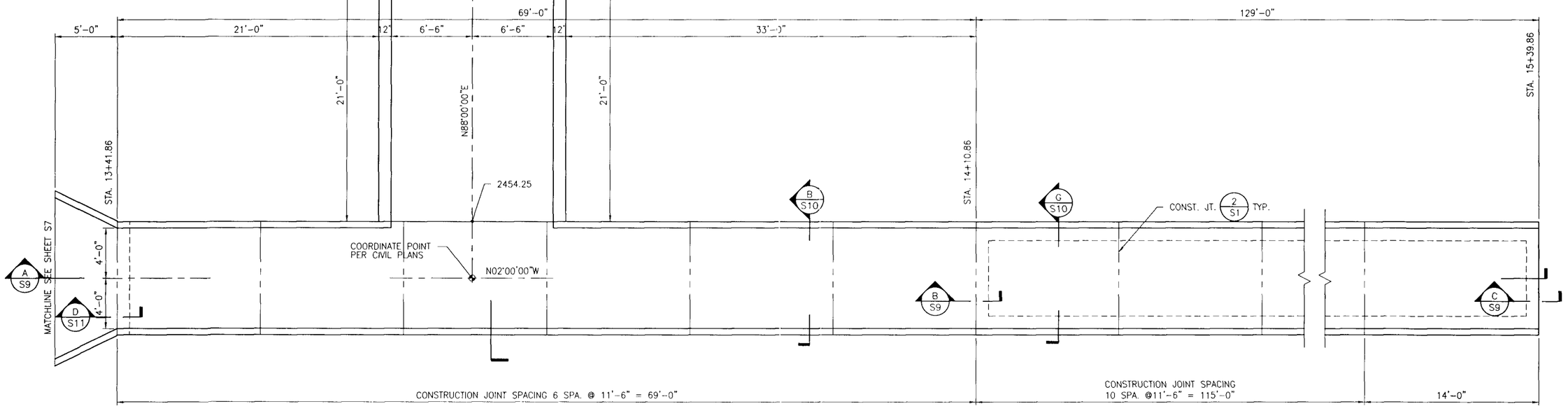
BAFFLE BLOCK SECTION (A S8)

N.T.S.



END SILL SECTION (B S8)

N.T.S.



OUTFALL STRUCTURE (1 S8)

1/4" = 1'-0"

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

ORIGINAL CONTRACT DOCUMENTS ARE ON FILE WITH THE CITY OF HENDERSON DEPT. OF PUBLIC WORKS DOCUMENTS WERE SIGNED AND SEALED ON 07/19/00 BY DAVID W. SEELEY, P.E. UNDER NEVADA LICENSE NO. 11751

$R_2H \cdot GB\&L$ ENGINEERING
CONSULTING STRUCTURAL ENGINEERS
840 GRIER DRIVE, SUITE 320
LAS VEGAS, NEVADA 89119
PHONE (702) 260-7000
FAX (702) 260-7070

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S8
SCALE: HORIZ.: VERT.:

PBSJ
901 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone 702/263-7275 Fax 702/263-7200
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SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES
OUTFALL STRUCTURE - PLAN

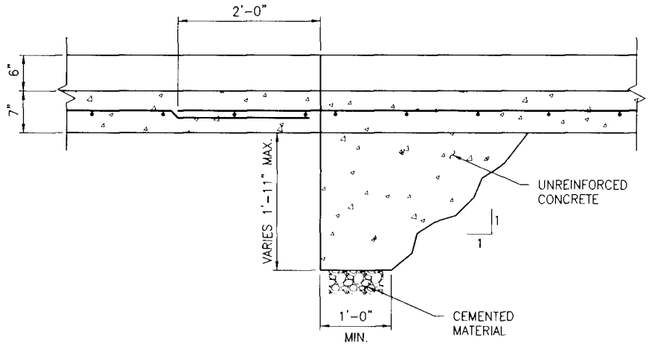
99-00-12

DRAWING NO. S8 | 50 / 53

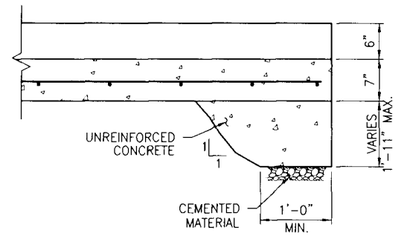
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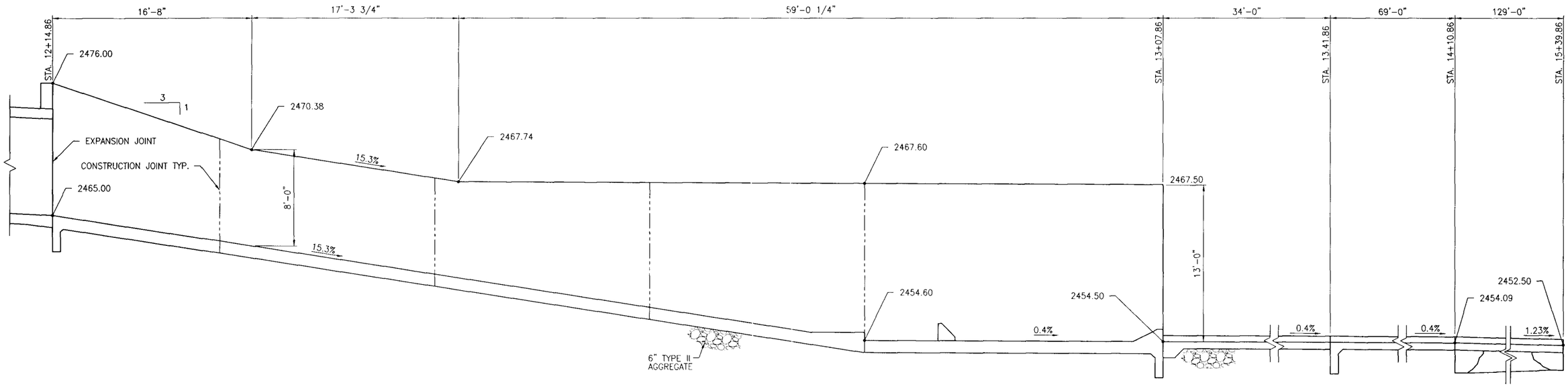
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SECTION B/S9
1" = 1'-0"



SECTION C/S9
1" = 1'-0"



PROFILE A/S9
1/4" = 1'-0"

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REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S9
SCALE: HORIZ.: VERT.:

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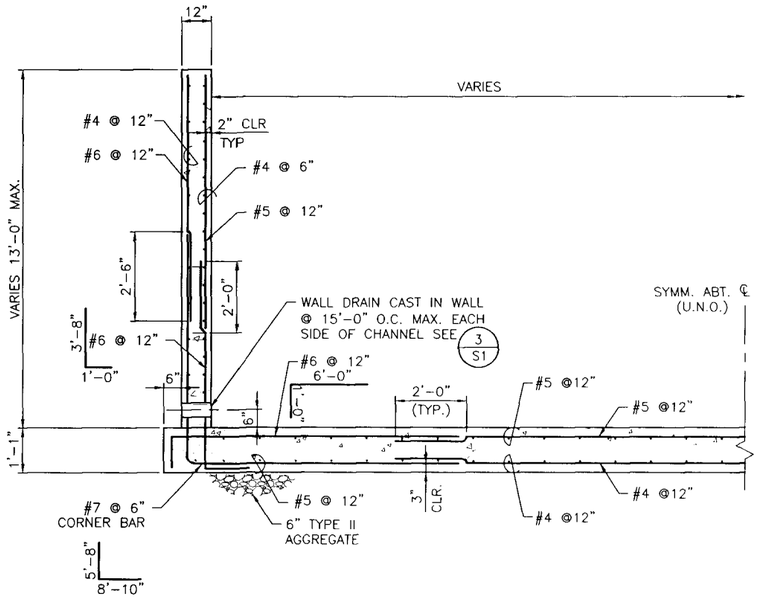
SEAL

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES
OUTFALL STRUCTURE - PROFILE

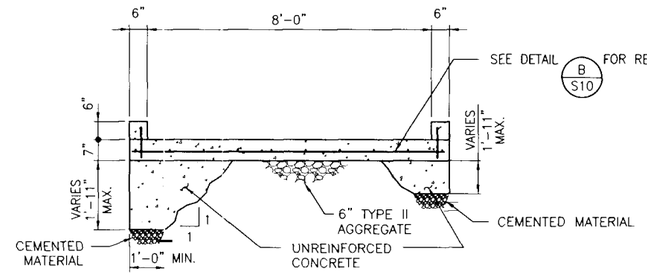
99-00-12

DRAWING NO. S9 51/53



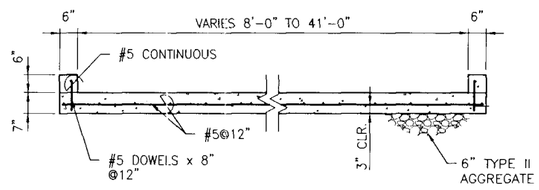
TYPICAL WALL SECTION

SCALE: 1/2" = 1'-0" — A/S10



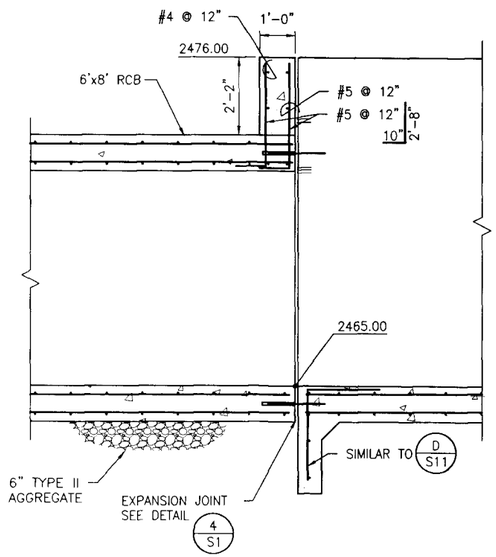
SECTION

SCALE: 1/2" = 1'-0" — G/S10



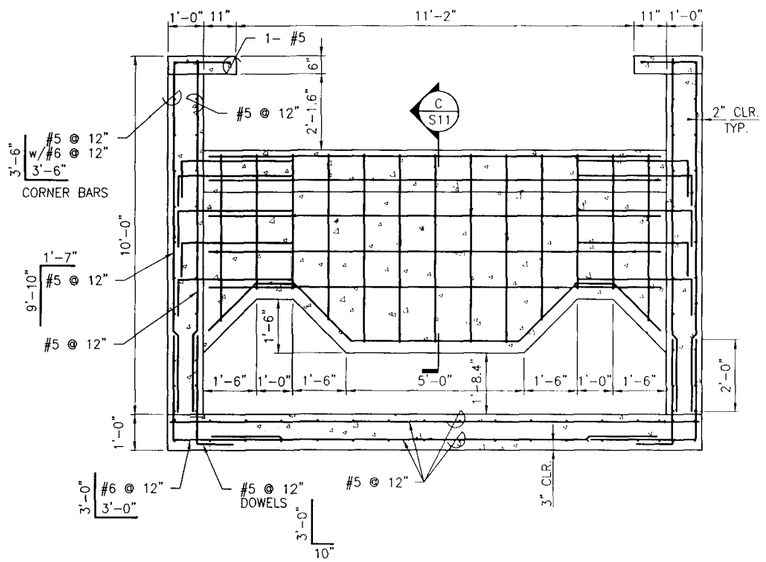
SECTION

SCALE: 1/2" = 1'-0" — B/S10



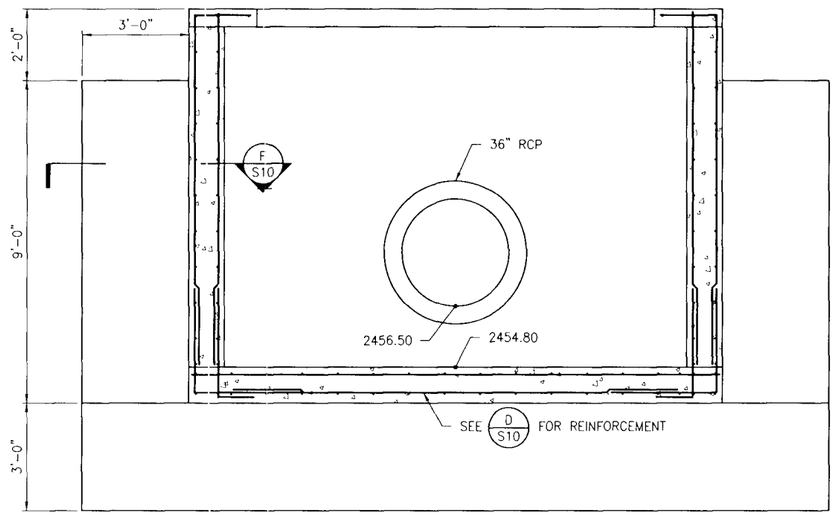
SECTION

SCALE: 1/2" = 1'-0" — C/S10



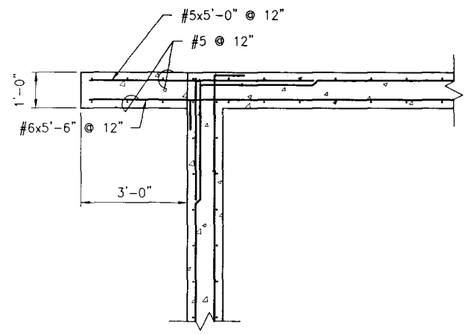
SECTION

1/2" = 1'-0" — D/S10



SECTION

1/2" = 1'-0" — F/S10



SECTION

1/2" = 1'-0" — F/S10

-RECORD DRAWING-

COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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REVISIONS				
REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S10
SCALE: HORIZ.: VERT.:

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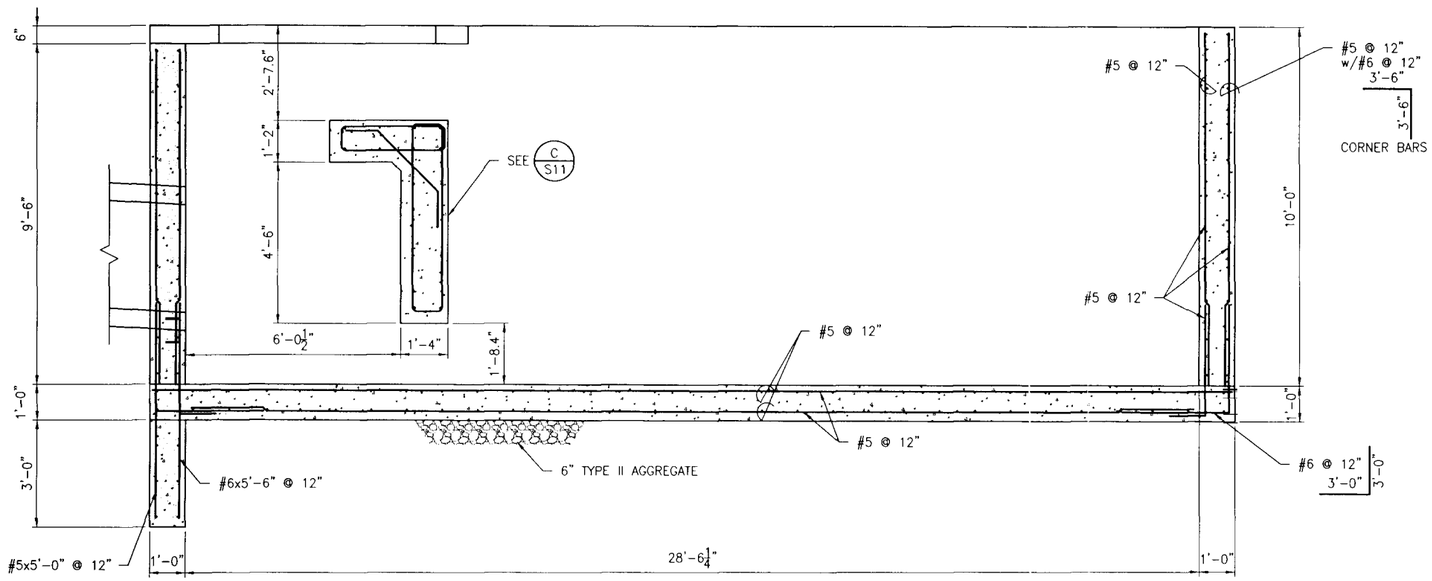
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

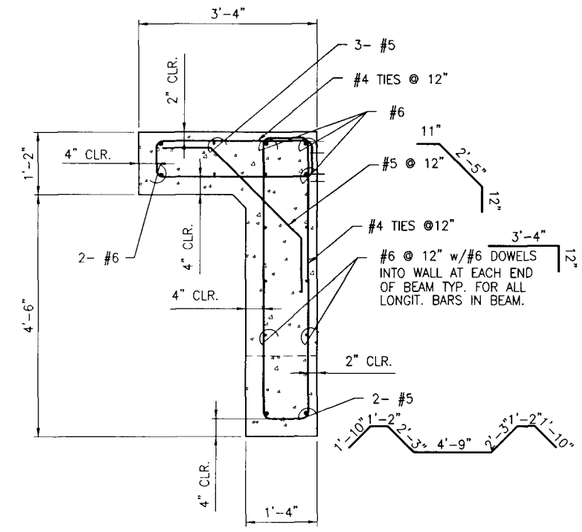
OUTFALL STRUCTURE - SECTIONS

99-00-12

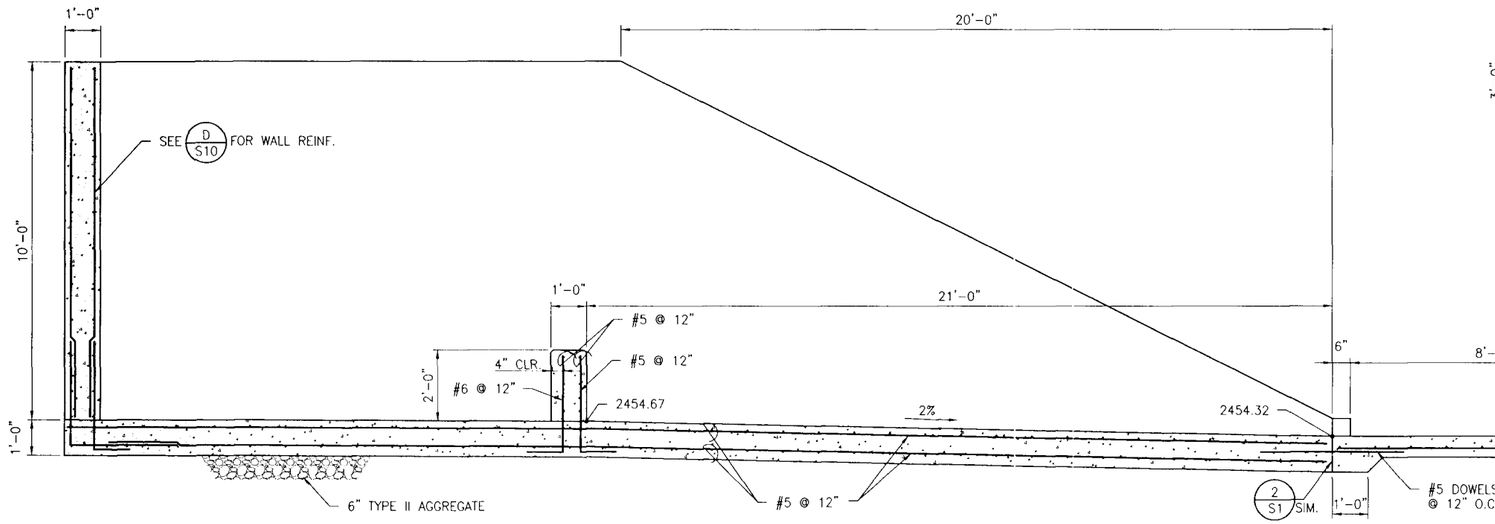
DRAWING NO. S10



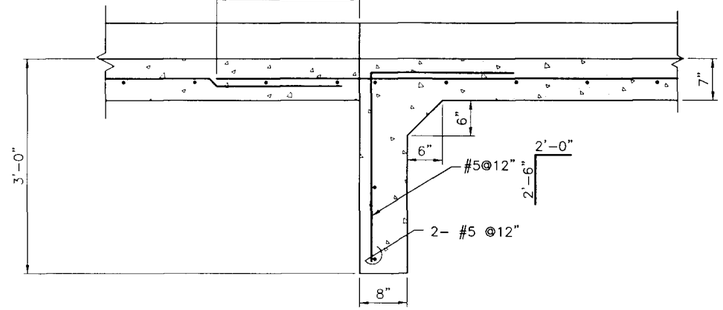
SECTION
1/2" = 1'-0"
A S11



SECTION
3/4" = 1'-0"
C S11



SECTION
1/2" = 1'-0"
B S11



CUTOFF WALL SECTION
1" = 1'-0"
D S11

-RECORD DRAWING-

COMPLETED ON:	12/16/02
BY:	PBS&J
PROJECT ACCEPTANCE DATE:	11/04/02
CONST. MANAGER:	CITY OF HENDERSON
CONTRACTOR:	DIAMOND CONSTRUCTION

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LAS VEGAS, NEVADA 89119
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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

DESIGNED BY: DWS
DRAWN BY: ALA
CHECKED BY: DWS
DATE: 7/19/00

JOB NO.: 97055.001
DRAWING NO.: S11
SCALE: HORIZ.: VERT.:

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901 North Green Valley Pkwy. Suite 100 Henderson, Nevada 89014 Telephone 702/263-7279 fax 702/263-7200
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SEAL

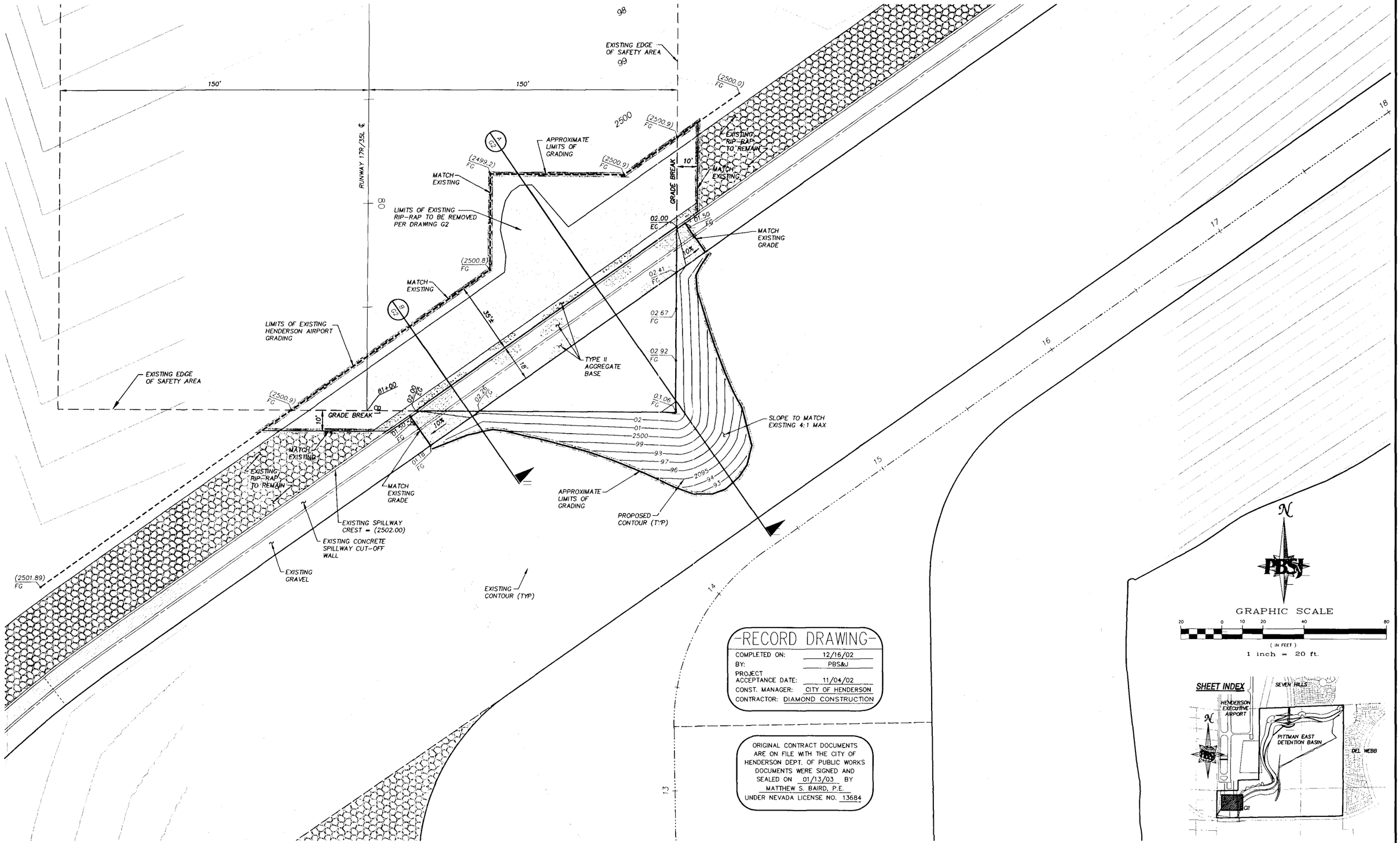
City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

OUTFALL STRUCTURE - SECTIONS

99-00-12

DRAWING NO. S11



-RECORD DRAWING-

COMPLETED ON:	12/16/02
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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL
1	MODIFY SPILLWAY GRADING FOR RUNWAY SAFETY AREA – NEW SHEET	MSB	01/13/03	

DESIGNED BY: A. SPATA
DRAWN BY: A. VIDOVIC
CHECKED BY: D. KNOTT
DATE: JANUARY 13, 2003

JOB NO.: 510302
DRAWING NO.: 302-G001
SCALE: HORIZ.: 1"=20'
VERT.: NONE

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901 North Green Valley Pkwy.
Suite 100
Henderson, Nevada 89014
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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

GRADING PLAN & GENERAL NOTES

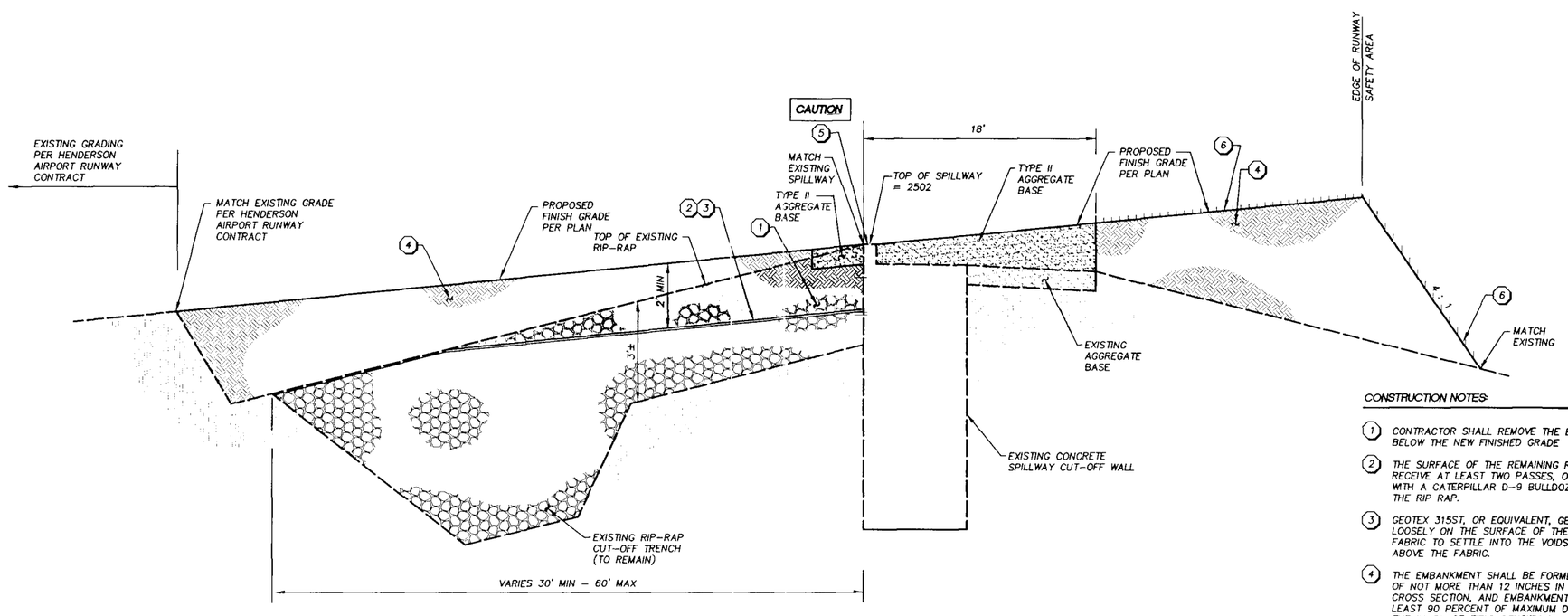
99-00-12

DRAWING NO. XX / G1 / XX

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

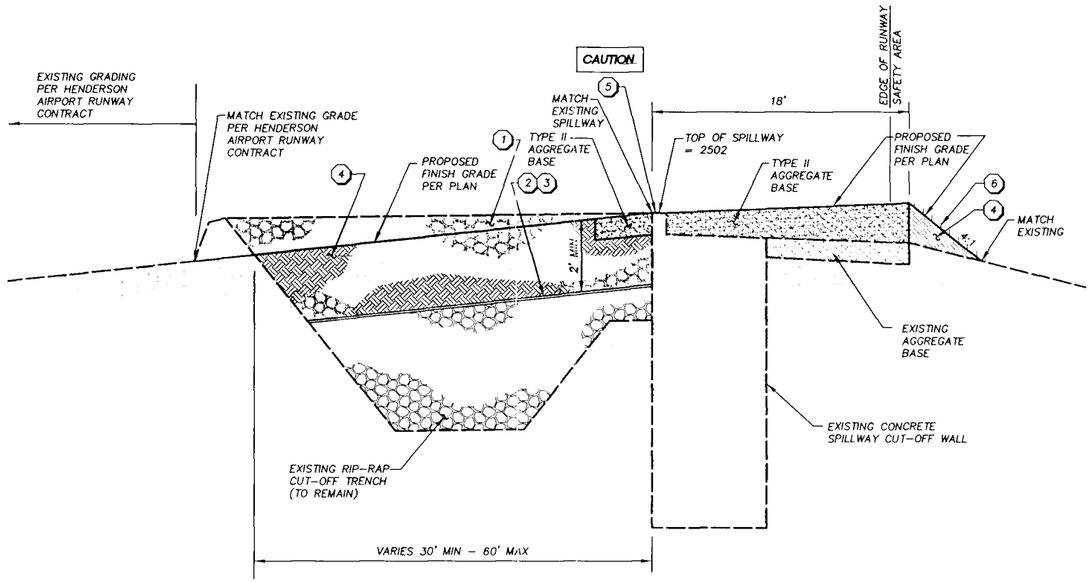
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

FILL SECTION



SECTION (A / G2)
SCALE: HORIZONTAL 1" = 5'
VERTICAL 1" = 2'

CUT SECTION



SECTION (B / G2)
SCALE: HORIZONTAL 1" = 5'
VERTICAL 1" = 2'

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL REMOVE THE EXISTING RIP RAP TO LEVEL AT LEAST 2 FEET BELOW THE NEW FINISHED GRADE
2. THE SURFACE OF THE REMAINING RIP RAP SHALL BE MADE UNIFORM AND RECEIVE AT LEAST TWO PASSES, OR UNTIL THERE IS NO EVIDENCE OF YIELDING, WITH A CATERPILLAR D-9 BULLDOZER, OR EQUIVALENT, IN ORDER TO STABILIZE THE RIP RAP.
3. GEOTEX 315ST, OR EQUIVALENT, GEOTEXTILE FILTER FABRIC SHALL BE PLACED LOOSELY ON THE SURFACE OF THE REMAINING RIP RAP TO ALLOW FOR THE FABRIC TO SETTLE INTO THE VOIDS WHEN THE FIRST LIFT OF SOIL IS PLACED ABOVE THE FABRIC.
4. THE EMBANKMENT SHALL BE FORMED IN SUCCESSIVE NEAR HORIZONTAL LAYERS OF NOT MORE THAN 12 INCHES IN LOOSE DEPTH FOR THE FULL WIDTH OF THE CROSS SECTION, AND EMBANKMENT SHALL BE COMPACTED TO A DENSITY OF AT LEAST 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557. THE IN-PLACE FIELD DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D 1556, ASTM D 2922, OR ASTM D 2167. IN CASE OF DISPUTE, ASTM D 1556 SHALL CONTROL. THE DENSITY OF THE BOTTOM 6" OF EMBANKMENT PLACED ON TOP OF THE FILTER FABRIC WILL NOT BE TESTED.

   EMBANKMENT MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZES	PERCENTAGE BY DRY-WEIGHT PASSING SIEVE
3-INCH	100
1-INCH	70-100
No. 4	30-70
No. 16	15-40

5. THE CONTRACTOR SHALL NOT CROSS SPILLWAY CREST WITH ANY TYPE OF HEAVY EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SPILLWAY.
6. APPLY DUST PALLIATIVE PER BELOW SPECIFICATIONS TO AREAS SOUTH OF THE SPILLWAY WHICH ARE DISTURBED AS A PART OF THIS WORK, EXCLUDING THE TYPE II AGGREGATE BASE. CONTRACTOR SHALL MINIMIZE THE DISTURBED AREA.

POST CONSTRUCTION DUST PALLIATIVE

DUST CONTROL PALLIATIVE SHALL BE A MIXTURE OF PLASTER AND NATURAL CELLULOSE FIBER MULCH. THE PLASTER/CELLULOSE FIBER MULCH PALLIATIVE SHALL BE PLASTEX AS SUPPLIED BY SOUTHERN NEVADA HYDROSEEDING OR APPROVED EQUAL.

THE PLASTER SHALL CONSIST OF NATURALLY-OCCURING HIGH PURITY PROCESSED GYPSUM AND NECESSARY ADDITIVES, SUCH AS RETARDERS AND ACCELERATORS AND WATER TO FORMULATE A CEMENTITIOUS BINDER THAT WILL PRODUCE A PROTECTIVE CRUST-LIKE BARRIER WITHIN FOUR (4) TO EIGHT (8) HOURS AFTER APPLICATION.

THE GYPSUM SHALL BE PRODUCED FROM A QUARRIED OR MINED SOURCE. IN ADDITION, THE GYPSUM SHALL BE PROCESSED TO BE COMPOSED OF A CRUSHED, DRY CALCIUM SULFATE HEMIHYDRATE (CA SO4, 1/2 H2O) HAVING A PURITY OF NOT LESS THAN 88 PERCENT. THE PROCESSED GYPSUM PLUS NECESSARY ADDITIVES SHALL BE FURNISHED EITHER IN BAGS OR BULK AND BE ACCOMPANIED BY BILLS OF LADING AND SHIPPING INVOICES STATING THE GYPSUM PURITY CONTENT, DRY WEIGHT AND SOURCE OF MANUFACTURE. PROCESSED GYPSUM, WHICH HAS BECOME PARTIALLY AIR SET, LUMPY OR CAKED, SHALL NOT BE USED. THE CELLULOSE FIBER MULCH SHALL BE PRODUCED FROM GRINDING CLEAN, WHOLE WOOD CHIPS, OR FIBER PRODUCED FROM GROUND NEWSPRINT WITH A LABELED ASH CONTENT NOT TO EXCEED SEVEN (7) PERCENT.

THE PLASTER/CELLULOSE FIBER MULCH PALLIATIVE SHALL BE APPLIED AT THE RATE OF THREE (3) TONS OF PLASTER PER ACRE AND ONE (1) TON OF FIBER PER ACRE. THE MULCH SHALL BE SUCH THAT WHEN APPLIED, THE MATERIAL SHALL FORM A PROTECTIVE CRUST-LIKE BARRIER THAT REDUCES WATER AND WIND INDUCED EROSION. APPLICATION WILL NOT BE PERMITTED WHEN WEATHER CONDITIONS ARE UNSUITABLE.

POST CONSTRUCTION DUST PALLIATIVE WORK DOES NOT INCLUDE DUST CONTROL MEASURES REQUIRED DUE TO CONSTRUCTION OPERATION.

-RECORD DRAWING-
COMPLETED ON: 12/16/02
BY: PBS&J
PROJECT ACCEPTANCE DATE: 11/04/02
CONST. MANAGER: CITY OF HENDERSON
CONTRACTOR: DIAMOND CONSTRUCTION

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DESIGNED BY: A. SPATA
DRAWN BY: A. VIDOVIC
CHECKED BY: D. KNOTT
DATE: JANUARY 13, 2003

JOB NO.: 510302
DRAWING NO.: 302-G002
SCALE: HORIZ.: 1" = 5'
VERT.: 1" = 2'

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THE CITY OF HENDERSON

City of Henderson, Nevada

PITTMAN EAST DETENTION BASIN & ASSOCIATED OUTFALL FACILITIES

TYPICAL SECTIONS

99-00-12

DRAWING NO. G2 XX/XX