

**CLARK COUNTY  
REGIONAL FLOOD CONTROL DISTRICT**

**AGENDA ITEM**

**SUBJECT:**

**DUCK CREEK HAVEN STREET STORM DRAIN  
PROJECT PRESENTATION – CLA38D20**

**RECOMMENDATION SUMMARY**

**STAFF:** Accept the project presentation.

**TECHNICAL ADVISORY:** The Technical Advisory Committee meeting of March 26, 2020 was cancelled.

**CITIZENS ADVISORY:** The Citizens Advisory Committee meeting of March 30, 2020 was cancelled.

**RFCD AGENDA  
ITEM #11a  
DATE: 04/09/2020**

**CLARK COUNTY  
REGIONAL FLOOD CONTROL DISTRICT**

**AGENDA ITEM**

**SUBJECT:**

DUCK CREEK HAVEN STREET STORM DRAIN

**PETITIONER:**

DENIS CEDERBURG, DIRECTOR OF PUBLIC WORKS

**RECOMMENDATION OF PETITIONER:**

THAT THE CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT ACCEPT THE PROJECT PRESENTATION ON THE PROPOSED DUCK CREEK HAVEN STREET STORM DRAIN CLA38D20 (FOR POSSIBLE ACTION)

**FISCAL IMPACT:** None by this action.

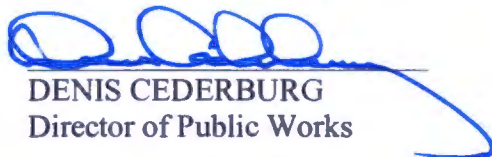
**BACKGROUND:**

The subject project is described in the 2018 Master Plan Update as Facility Numbers DCHV 0026, 0050, and 0057. The project proposes construction of the Duck Creek Haven Street Storm Drain. This project includes 8' x 5' reinforced concrete box, 10' x 5' reinforced concrete box, 12' x 5' reinforced concrete box, transitions, and various storm drain pipe sizes ranging from 24" to 60".

Representatives from the design consultant, Atkins, and Clark County staff will be available to respond to any questions following the brief presentation.

Respectfully submitted,

<b>TAC AGENDA ITEM # Date: 03.26.2020</b>	<b>RFCD AGENDA ITEM # 11a Date: 04.09.2020</b>
<b>CAC AGENDA ITEM # Date: 03.30.2020</b>	

  
DENIS CEDERBURG  
Director of Public Works

Regional Flood Control District  
AGENDA ITEM DEVELOPMENT

<p><b>Staff Discussion:</b></p> <p>DUCK CREEK HAVEN STREET STORM DRAIN PROJECT PRESENTATION – CLA38D20</p> <p>The Duck Creek Haven Street Storm Drain described in the 2018 Master Plan Update as Facility Numbers DCHV 0026, 0050, and 0057. The project proposes construction of the Duck Creek Haven Street Storm Drain. This project includes 8' x 5' reinforced concrete box, 10' x 5' reinforced concrete box, 12' x 5' reinforced concrete box, transitions, and various storm drain pipe sizes ranging from 24" to 60".</p> <p>Representatives from the design consultant, Atkins, and Clark County staff will be available to respond to any questions following the brief presentation.</p>	<p>Date: 03/30/2020</p>
<p><b>Staff Recommendation:</b></p> <p>Accept the project presentation.</p>	
<p><b>Discussion by Technical Advisory Committee:</b></p> <p>The Technical Advisory Committee Meeting was cancelled.</p>	<p>AGENDA # Date: 03/26/2020</p>
<p><b>Recommendation:</b></p>	
<p><b>Discussion by Citizens Advisory Committee:</b></p> <p>The Citizens Advisory Committee Meeting was cancelled.</p>	<p>AGENDA # Date: 03/30/2020</p>
<p><b>Recommendation:</b></p>	





# Department of Public Works

500 S Grand Central Pky • Box 554000 • Las Vegas NV 89155-4000  
(702) 455-6000 • Fax (702) 455-6040

Denis Cederburg, P.E., Director • E-Mail: dlc@ClarkCountyNV.gov



March 17, 2020

Mr. Steven C. Parrish, P.E.  
General Manager/Chief Engineer  
Clark County Regional Flood Control District0  
600 South Grand Central Parkway, Suite 300  
Las Vegas Nevada 89106

## DUCK CREEK HAVEN STREET STORM DRAIN

Dear Mr. Parrish:

The design plans and specifications prepared by Atkins North America, Inc. for the above referenced project, indicated on "Exhibit A", are now 90% complete. The County is pleased to present this project to the Technical Advisory Committee, Citizens Advisory Committee, and the District's Board for approval.

The following project information is being submitted to comply with NRS 543.580;

**Project History and Description:** The project includes construction of the Duck Creek Haven Street Storm Drain located east of I-15 on Haven St. The storm drain starts at Cactus Ave and extends approximately 300 feet north of Pyle Ave. This facility will tie into the Duck Creek Wash.

- **Project Cost:** A detailed cost estimate for construction is attached as Exhibit "B". Project costs are estimated to be:

Design Engineering	\$	354,000.00
Construction	\$	4,694,417.00
Construction Management	\$	380,000.00
Entity Construction Labor Costs	\$	42,000.00
TOTAL	\$	5,470,417.00

- **Outside Funding Sources:** CCRFCD is the sole funding agency for this project since the project entails construction of a segment of flood control conveyance facility that is part of the Master Plan Update (MPU).
- **Projected Construction Schedule:** If funding were made available today, listed below are the estimated dates for construction of the project:

Award of Bid	August 2020
Construction Start Date	December 2020
Construction Duration	4 months

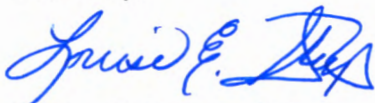
- **Cash Flow Projection:** Attached is a cash flow projection for construction, Exhibit "C".
- **Right-of-Way:** The necessary rights-of-way have been obtained.
- **Economic Benefit:** This project proposes to construct a portion of the CCRFCD MPU network. In September of 2005, CCRFCD received the document titled "Benefit to Cost Analysis of Capital Programs" prepared by Hobbs, Ong & Associates, Inc., Restrepo Consulting Group/Applied Market Analysis, Post, Buckley, Schuh & Jernigan, Inc. and Public Financial Management, Inc.

The report concludes, "the quantifiable public benefits associated with flood control projects, when compared to costs, show that flood control projects have provided a return of \$2.21 for each dollar expended. When those benefits that are not readily quantifiable are taken into consideration, the contribution that these facilities provide to the welfare of Clark County's residents and the vitality of the local economy increases beyond the calculated ratio. It is expected that the benefit to cost ratio of the District construction program will remain at a level that approximates 2 to 1 through buildout of the Master Plan and over the useful life of the facilities."

- **Environmental Requirements:** Clark County has met all the necessary environmental requirements for this project. A Chapter 8 Resource Screening Analysis was previously submitted and approved by CCRFCD.
- **Project Enhancements:** None.

If you have any questions, or require additional information, please contact me at (702) 455-6216 or [louise.steeps@clarkcountynv.gov](mailto:louise.steeps@clarkcountynv.gov).

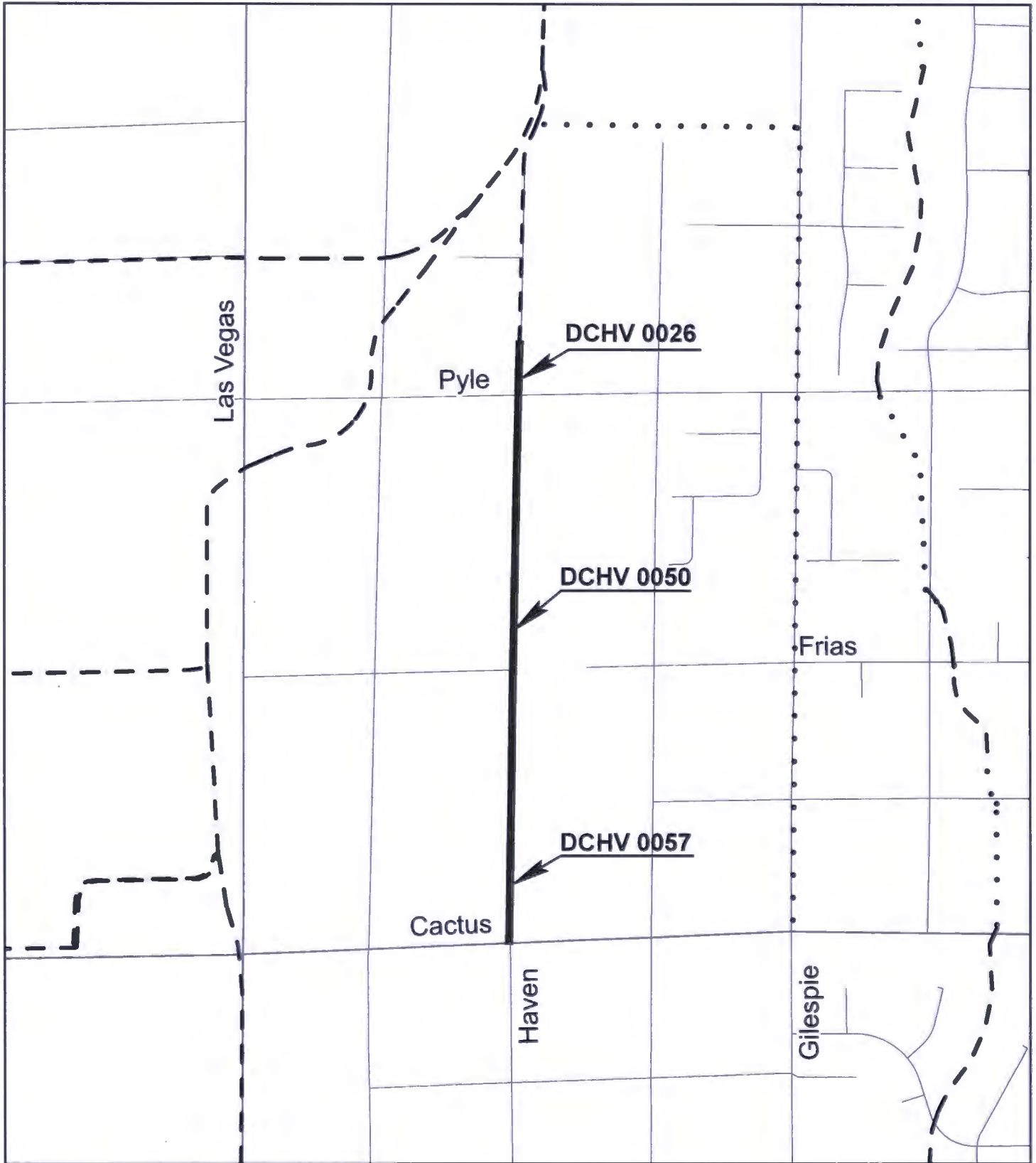
Sincerely,



Louise E. Steeps, P.E.  
Principal Civil Engineer

LES:ajb

Enclosures: Project Map – Exhibit "A"  
Detailed Cost Estimate – Exhibit "B"  
Cash Flow Projection – Exhibit "C"



- Legend**
- Proposed
  - Existing
  - Future

## Exhibit A



**Project Number: CLA38D20**

**Duck Creek Haven Street Storm Drain**

CLARK COUNTY PUBLIC WORKS

SCALE: NOT TO SCALE

DATE: 03-16-2020

SHEET NUMBER: 1 OF 1



Project Name: DUCK CREEK HAVEN STREET STORM DRAIN

Project Number:

EXHIBIT B

Bid Number: XXXXX-XX

Opening Date: XXXXXX XX, XXXX

L Number:

Design Division Work Order Number: (enter in Bid Tab cell)

				CCPW Estimate - CCRFCD Funding	
Item No.	Description	Quantity	Unit	Unit Price	Amount
105.01	QUALITY CONTROL ADMINISTRATIVE INCENTIVE	1	LS	\$40,000.00	\$40,000.00
107.01	TRAFFIC CONTROL	134	DAY	\$810.00	\$108,540.00
109.01	CONSTRUCTION CONFLICTS AND ADDITIONAL WORK	1	LS	\$100,000.00	\$100,000.00
109.02	HISTORICAL OWNER CAUSED DELAY ALLOWANCE	10	DAY	\$1,300.00	\$13,000.00
109.03	ADDITIONAL AMOUNT OVER \$1300/DAY AS DETERMINED BY BIDDER	10	DAY	\$250.00	\$2,500.00
200.01	MOBILIZATION	1	LS	\$240,000.00	\$240,000.00
201.01	CLEARING AND GRUBBING	1	LS	\$5,000.00	\$5,000.00
202.01	REMOVE AND RESET EXISTING SIGN AND POST	8	EA	\$250.00	\$2,000.00
202.02	REMOVE 8-FOOT X 5-FOOT PRECAST REINFORCED CONCRETE BOX PLUG	1	EA	\$1,000.00	\$1,000.00
203.01	ROADWAY EXCAVATION	694	CY	\$15.00	\$10,410.00
302.01	TYPE II AGGREGATE BASE	711	CY	\$50.00	\$35,566.67
402.01	PLANTMIX BITUMINOUS SURFACE	1048	TONS	\$131.00	\$137,235.60
502.01	8-FOOT X 5-FOOT PRECAST REINFORCED CONCRETE BOX	1218	LF	\$1,000.00	\$1,218,000.00
502.02	10-FOOT X 5-FOOT PRECAST REINFORCED CONCRETE BOX	1575	LF	\$1,200.00	\$1,890,000.00
502.03	10-FOOT X 5-FOOT RCB TO 8-FOOT X 5-FOOT RCB TRANSITION STRUCTURE	1	EA	\$24,000.00	\$24,000.00
502.04	8-FOOT X 5-FOOT RCB TO 12-FOOT X 3-FOOT RCB TRANSITION STRUCTURE	1	EA	\$20,000.00	\$20,000.00
502.05	12-FOOT X 3-FOOT PRECAST REINFORCED CONCRETE BOX	37	LF	\$1,600.00	\$59,200.00
502.06	12-FOOT X 3-FOOT RCB TO 8-FOOT X 5-FOOT RCB TRANSITION STRUCTURE	1	EA	\$20,000.00	\$20,000.00
502.07	10-FOOT X 5-FOOT PRECAST REINFORCED CONCRETE BOX PLUG	1	EA	\$6,000.00	\$6,000.00
603.01	24-INCH REINFORCED CONCRETE PIPE (CLASS III)	85	LF	\$250.00	\$21,250.00
603.02	48-INCH REINFORCED CONCRETE PIPE (CLASS III)	50	LF	\$500.00	\$25,000.00
603.03	60-INCH REINFORCED CONCRETE PIPE (CLASS III)	80	LF	\$750.00	\$60,000.00
603.04	36-INCH C900 PVC PIPE	150	LF	\$350.00	\$52,500.00
603.05	68-INCH X 43-INCH HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE (CLASS III)	65	LF	\$400.00	\$26,000.00
603.06	24-INCH PRECAST RCP PLUG	9	EA	\$1,600.00	\$14,400.00
603.07	48-INCH PRECAST RCP PLUG	1	EA	\$2,000.00	\$2,000.00
603.08	60-INCH PRECAST RCP PLUG	1	EA	\$2,400.00	\$2,400.00
603.09	36-INCH PVC PLUG	1	EA	\$1,500.00	\$1,500.00
603.10	68-INCH X 43-INCH PRECAST HERCP PLUG	1	EA	\$2,000.00	\$2,000.00
609.01	48-INCH ACCESS MANHOLE	8	EA	\$4,000.00	\$32,000.00
609.02	STORM DRAIN MANHOLE (TYPE II)	1	EA	\$15,000.00	\$15,000.00
609.03	STORM DRAIN MANHOLE (TYPE III)	1	EA	\$7,500.00	\$7,500.00
626.01	FINAL CLEANUP	1	LS	\$3,500.00	\$3,500.00
628.01	POLYUREA PAVEMENT MARKINGS (6-INCH SOLID WHITE)	2900	LF	\$1.50	\$4,350.00
628.02	POLYUREA PAVEMENT MARKINGS (4-INCH SOLID YELLOW)	5800	LF	\$1.00	\$5,800.00
637.01	DUST CONTROL	120	DAY	\$500.00	\$60,000.00
<b>ACTUAL TOTAL OF ITEMS</b>					<b>\$4,267,652</b>
10% CONTINGENCY					<b>\$426,765</b>
<b>Total</b>					<b>\$4,694,417</b>

**EXHIBIT C**

Clark County Regional Flood Control District Cash Flow Projection

Today's Date: 2/26/2020

Project Number: CLA38D20

**DUCK CREEK HAVEN STREET STORM DRAIN**

Project Name:

Project Type: Storm Drain

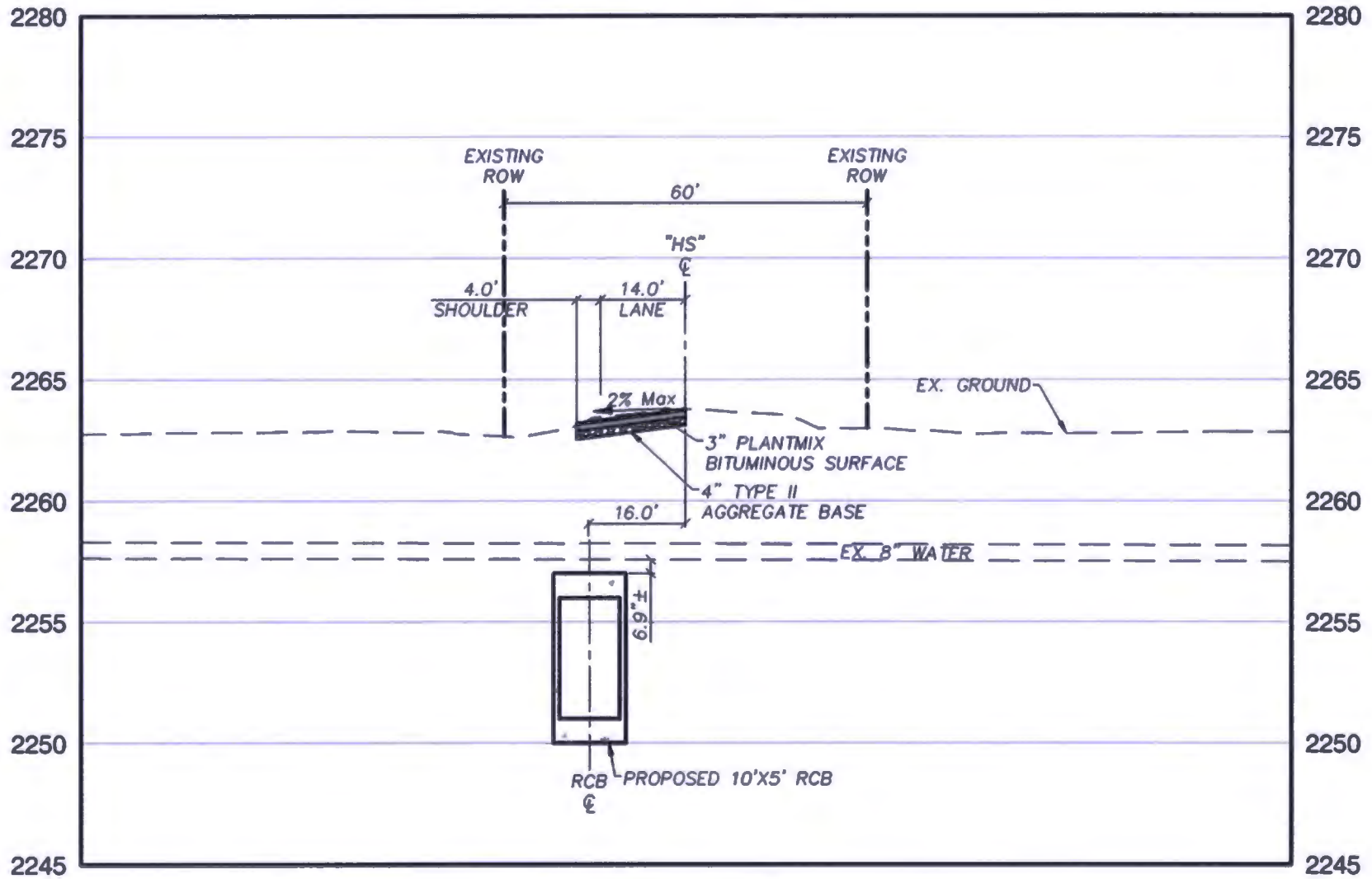
ILC Amount: \$ 5,116,417.00

Construction Schedule			
Milestone	Estimate	Revised	Actual
Award of Bid	August-20		
CONS Start	December-20		
CONS Complete	March-21		
Project Duration	4 months		

Billing Month	Original Estimate		Actual Drawdowns		Variance		Revised Estimate	
	\$	%	\$	%	\$	%	\$	%
Jun-20	0							
Jul-20	0							
Aug-20	0							
Sep-20	0							
Oct-20	0							
Nov-20	0							
Dec-20	511,642	10%						
Jan-21	1,790,746	35%						
Feb-21	1,790,746	35%						
Mar-21	1,023,283	20%						
Apr-21	0							
May-21	0							
Jun-21	0							
Jul-21	0							
Aug-21	0							
Sep-21	0							
Oct-21	0							
Nov-21	0							
Dec-21	0							
<b>Total</b>	<b>\$ 5,116,417</b>	<b>100%</b>					<b>\$ -</b>	<b>0%</b>



CONSTRUCTION DETAILS – DUCK CREEK HAVEN STREET STORM DRAIN

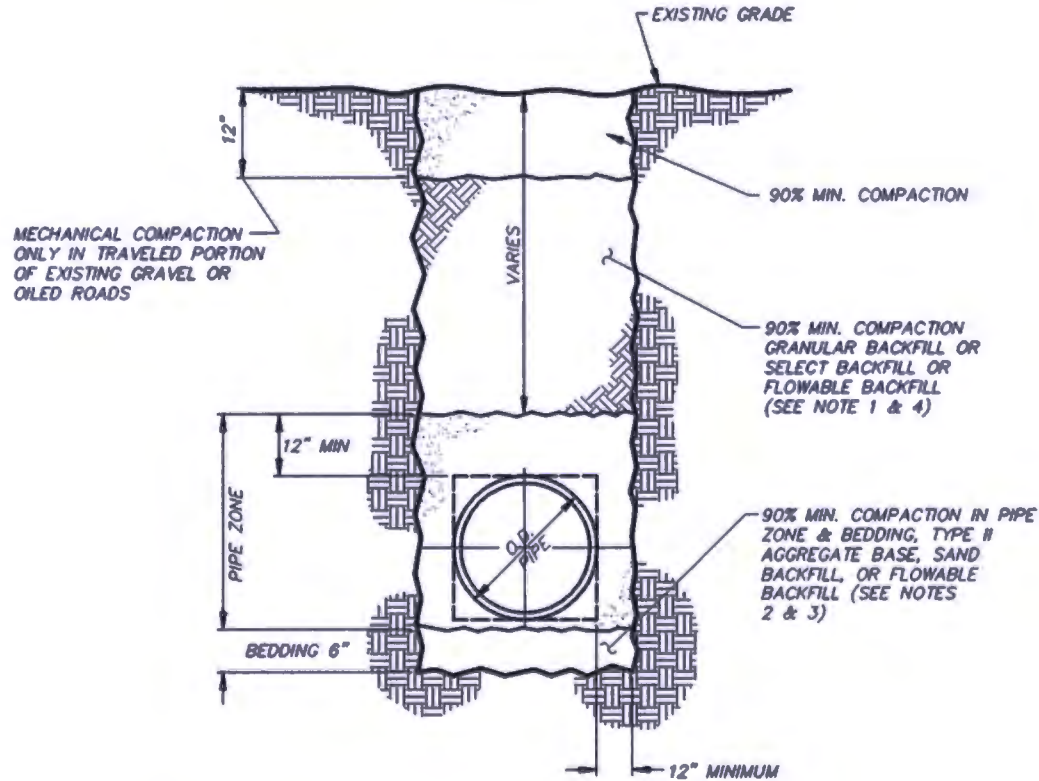


**HAVEN STREET - 10'X5' RCB**

"HS" STA 26+27



## CONSTRUCTION DETAILS – DUCK CREEK HAVEN STREET STORM DRAIN

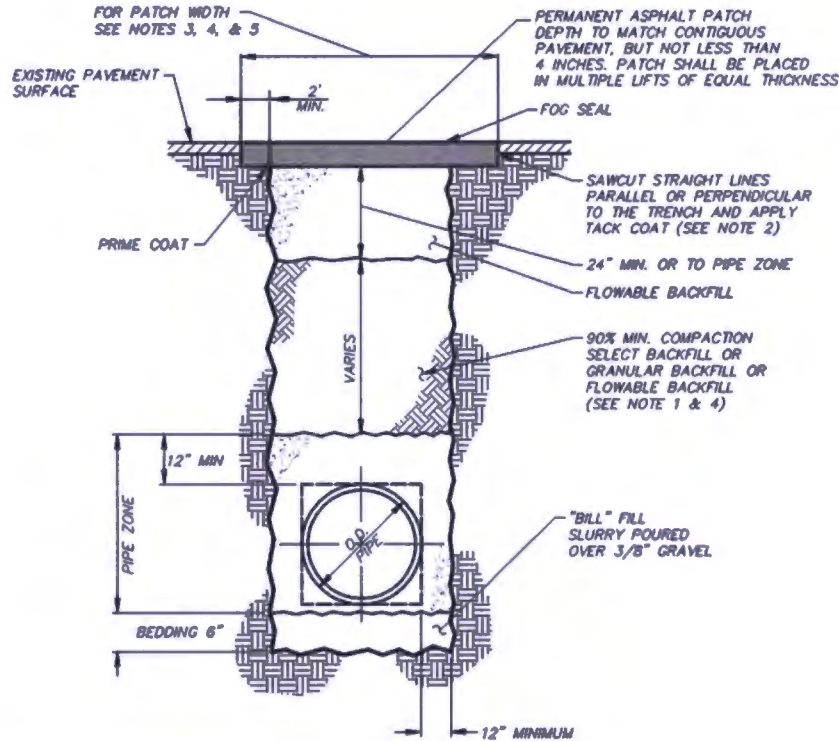


### RCP OR RCB TYPICAL BACKFILL UNPAVED AREAS

#### NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS. CRUSHED ROCK SHALL NOT BE USED IN PIPE ZONE UNLESS SPECIFICALLY PRE-APPROVED BY THE GOVERNING AGENCY.
3. BEDDING IS NOT REQUIRED FOR CAST-IN-PLACE BOX IF CAST DIRECTLY ON UNDISTURBED MEDIUM DENSE TO DENSE NATIVE SOILS OR CEMENTED SOILS; BEDDING FOR PRE-CAST BOX SHALL BE 95% MINIMUM COMPACTION.
4. WHERE C-905 PVC STORM DRAIN IS INSTALLED CLSM SHALL BE USED.

## CONSTRUCTION DETAILS – DUCK CREEK HAVEN STREET STORM DRAIN

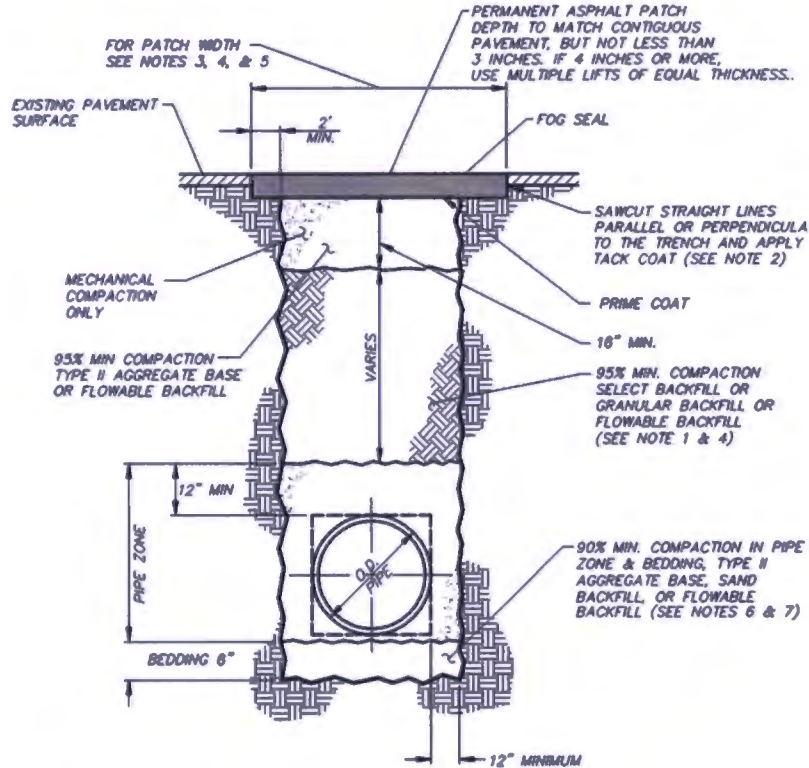


### PAVED AREAS (STREETS GREATER THAN 60' R/W)

#### NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. TRANSVERSE PATCHES SHALL BE WIDTH (4 FEET MINIMUM) SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT, ROLLING AND COMPACTION PER UNIFORM STANDARD SECTION 401.03.11
4. LONGITUDINAL PATCHES SHALL BE ONE TRAVEL LANE IN WIDTH; SAWCUTS ARE TO BE MADE AT THE EDGE OF THE TRAVEL LANE.
5. FOR CONDUIT TRENCHES 6 INCHES WIDE OR LESS WITHIN 2 FEET OF THE CURB, PATCHES SHALL EXTEND A MINIMUM OF 4 FEET FROM LIP OF GUTTER AND PAVEMENT SHALL BE REMOVED TO CURB AND GUTTER WIDTH SHALL BE SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11. SAWCUT SHALL NOT BE PLACED IN THE WHEEL PATH AREA.
6. TRENCH WIDTH, BEDDING, AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS. CRUSHED ROCK SHALL NOT BE USED IN PIPE ZONE UNLESS SPECIALLY PRE-APPROVED BY THE GOVERNING AGENCY.
7. BEDDING IS NOT REQUIRED FOR CAST-IN-PLACE BOX IF CAST DIRECTLY ON UNDISTURBED MEDIUM DENSE TO DENSE NATIVE SOILS OR CEMENTED SOILS; BEDDING FOR PRE-CAST BOX SHALL BE 95% MINIMUM COMPACTION.
8. WHERE C-900 PVC STORM DRAIN IS INSTALLED CLSM SHALL BE USED.

## CONSTRUCTION DETAILS – DUCK CREEK HAVEN STREET STORM DRAIN



### PAVED AREAS (STREETS WITH 60' OR LESS R/W)

#### NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. TRANSVERSE PATCHES SHALL BE WIDTH (4 FEET MINIMUM) SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT, ROLLING AND COMPACTION PER UNIFORM STANDARD SECTION 401.03.11
4. LONGITUDINAL PATCHES SHALL BE ONE TRAVEL LANE IN WIDTH; SAWCUTS ARE TO BE MADE AT THE EDGE OF THE TRAVEL LANE.
5. FOR CONDUIT TRENCHES 6 INCHES WIDE OR LESS WITHIN 2 FEET OF THE CURB, PATCHES SHALL EXTEND A MINIMUM OF 4 FEET FROM LIP OF GUTTER AND PAVEMENT SHALL BE REMOVED TO CURB AND GUTTER WIDTH SHALL BE SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11. SAWCUT SHALL NOT BE PLACED IN THE WHEEL PATH AREA.
6. TRENCH WIDTH, BEDDING, AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS. CRUSHED ROCK SHALL NOT BE USED IN PIPE ZONE UNLESS SPECIALLY PRE-APPROVED BY THE GOVERNING AGENCY.
7. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
8. WHERE C-800 PVC STORM DRAIN IS INSTALLED CLSM SHALL BE USED.