

September 22, 2023

ADDENDUM NO. 1

TO: All Prospective Bidders

PROJECT: CDBG No. 20-065-143-C811 COPA
Hazard Mitigation Drainage Improvements – Phase 1

BID DATE: **Thursday, October 12, 2023 @ 3:00 pm**

Prospective bidders are hereby notified of the following modifications to the contract documents. These modifications shall become a part of the contract documents. All provisions of the contract documents not specifically affected by the addenda shall remain unchanged.

A. SPECIFICATIONS:

GENERAL REQUIREMENTS

- 1) Bid Date: The bid date is extended to October 12, 2023.
- 2) Question Deadline: The deadline for questions is extended to October 5, 2023
- 3) 1A3 - Bid Proposal

DELETE: 1A3 – Bid Proposal in its entirety.

ADD: 1A3 – Bid Proposal, **see Attachment 1**

- 4) 1E8 Measurement and Payment Invitation to Bid

DELETE: 1E8 – Measurement and Payment in its entirety.

ADD: 1E8 – Measurement and Payment, **see Attachment 2**

TECHNICAL SPECIFICATIONS

- 1) 2G8 Gate Valves

ADD: Division 2 – Site Work, Section 2G – Site Utilities, 2G8 [4] Gate Valves in its entirety, **see Attachment 3**

B. DRAWINGS:

1) Contract Drawings

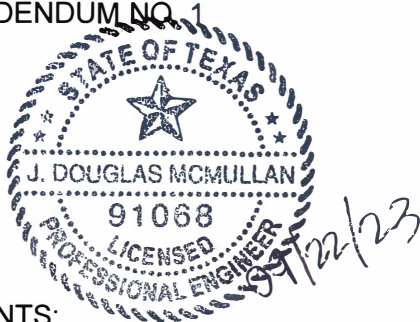
DELETE: Sheets 3 to 11, Sheet 13 and Sheet 14

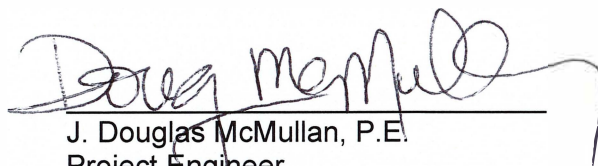
ADD: Sheets 3 to 11, Sheet 13 and Sheet 14, **see Attachment 4**

ACKNOWLEDGEMENT: It is the Bidder's responsibility to acknowledge receipt of this Addendum No. 1 at the appropriate location in Section 1A3 - Proposal for Unit Price Bid.

END OF ADDENDUM NO. 1

URBAN ENGINEERING




J. Douglas McMullan, P.E.
Project Engineer

ATTACHMENTS:

- (1) 1A3 – Proposal for Unit Price Bid
- (2) 1E8 – Measurement and Payment
- (3) 2G8 [4] – Gate Valves
- (4) Plan Sheets 3 to 14

DIVISION 1 - GENERAL REQUIREMENTS**SECTION 1A - BID DOCUMENTS****1A3^[2] PROPOSAL FOR UNIT PRICE BID**

TO: City of Port Aransas
710 West Avenue - A
Port Aransas, Texas 78373

Date: _____

**PROPOSAL FOR THE CONSTRUCTION OF
CDBG No. 20-065-143-C811 COPA
HAZARD MITIGATION DRAINAGE IMPROVEMENTS – PHASE 1**

We, the undersigned, having familiarized itself with local conditions affecting the cost of the work with all requirements of Contract Documents as prepared by the Engineers, and all Addenda to said Documents, hereby proposes to furnish all things as required by said Documents and addenda thereto for the construction of said improvements for the unit prices for work in place for the items as set out hereinafter.

1A3.1 BASE BID FOR CONSTRUCTION OF ENTIRE PROJECT:

_____ Dollars and _____ cents (\$_____).

1A3.2 BID SCHEDULE:

The bid for 1A3.1 is further itemized as follows:

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
GENERAL:					
1.	Mobilization (5%)	1	LS	\$_____	\$_____
2.	Bonds and Insurance (2%)	1	LS	\$_____	\$_____
3.	Project Signs	4	EA	\$_____	\$_____
SUBTOTAL GENERAL:				\$	_____

SITE 1 – AVENUE 'E' (Concrete Ditch to Trojan):

1.	5'x2' Reinforced Concrete Box (RCB)	2,121	LF	\$_____	\$_____
2.	5'x7' Precast Concrete Junction Box with Ring and Cover	9	EA	\$_____	\$_____
3.	5'x10' Precast Concrete Junction Box with Ring and Cover	1	EA	\$_____	\$_____

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE 1 – AVENUE 'E' (Concrete Ditch to Trojan) Continue:					
4.	7'x10' Precast Concrete Junction Box with Ring and Cover	1	EA	\$ _____	\$ _____
5.	Concrete Junction Box with ring and cover at Allister Street (using 7'x4' RCB)	1	EA	\$ _____	\$ _____
6.	Concrete Junction Box with ring and cover at Trojan Junction Box (using 5'x4' RCB)	1	EA	\$ _____	\$ _____
7.	12'x14' Pre-Cast Junction Box with Ring and Cover Connection at Concrete Ditch (Avenue E)	1	EA	\$ _____	\$ _____
8.	Demolition and Removal of Existing Junction Box	1	EA	\$ _____	\$ _____
9.	Connect Existing 27" RCP	6	EA	\$ _____	\$ _____
10.	Connect Existing 24" RCP	12	EA	\$ _____	\$ _____
11.	Connect Existing 18" RCP	2	EA	\$ _____	\$ _____
12.	Connect Existing 15" RCP	7	EA	\$ _____	\$ _____
13.	2" Water Line Adjustment	4	EA	\$ _____	\$ _____
14.	6" Water Line Adjustment	2	EA	\$ _____	\$ _____
15.	8" Water Line Adjustment	1	EA	\$ _____	\$ _____
16.	16" Water Line Adjustment	1	EA	\$ _____	\$ _____
17.	2" Gas Line Adjustments	3	EA	\$ _____	\$ _____
18.	4" Gas Line Adjustments	1	EA	\$ _____	\$ _____
19.	4" Sanitary Line in Steel Casing through Box or Structure	2	EA	\$ _____	\$ _____
20.	6" Sanitary Line in Steel Casing through Box or Structure	3	EA	\$ _____	\$ _____
21.	8" Sanitary Forcemain Adjustment	1	EA	\$ _____	_____
22.	Electrical Adjustment	8	EA	\$ _____	_____

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE 1 – AVENUE 'E' (Concrete Ditch to Trojan) Continue:					
23.	2" HMAC Pavement with Prime Coat	5,940	SY	\$_____	\$_____
24.	8" Cement Stabilized Base, with 2" Crushed Concerete	5,940	SY	\$_____	\$_____
25.	Curb and Gutter	42	LF	\$_____	\$_____
26.	Sidewalk and Curb Ramp (Allister Street)	1	EA	\$_____	\$_____
27.	Well Pointing	2,121	LF	\$_____	\$_____
28.	Trench Safety	2,121	LF	\$_____	\$_____
29.	Storm Water Pollution Prevention Plan	1	EA	\$_____	\$_____
30.	Pre-Construction Exploratory Excavation	1	EA	\$_____	\$_____
31.	Traffic Control Plan	1	EA	\$_____	\$_____
32.	NCWCID#4 – WATER SYSTEM ITEMS				
32.a.	8" Ductile Iron Tee (MJ with Mega Lug Joint Restraint	1	EA	\$_____	\$_____
32.b.	8" Ductile Iron Cap (MJ with Mega Lug Joint Restraint	1	EA	\$_____	\$_____
32.c.	8" Gate Valve	3	EA	\$_____	\$_____
32.d.	8" DR18 C900 PVC Water Line	20	LF	\$_____	\$_____
32.e.	8" Cross (MJ with Mega Lug Joint Restraint)	1	EA	\$_____	\$_____
32.f.	HMAC Pavement Repair	12	SY	\$_____	\$_____
32.g.	Curb and Gutter	10	LF	\$_____	\$_____
SUBTOTAL AVENUE 'E':				\$ _____	
SITE 2 – AVENUE 'F' (Concrete Ditch to Allister):					
1.	4'x2' Reinforced Concrete Box (RCB)	298	LF	\$_____	\$_____

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE 1 – AVENUE 'F' (Concrete Ditch to Allister) Continue:					
2.	24" Reinforced Concrete Pipe (RCP)	476	LF	\$ _____	\$ _____
3.	3'x3' Precast Concrete Grate Inlet and Grate	3	EA	\$ _____	\$ _____
4.	5'x7' Precast Concrete Junction Box with Ring and Cover	3	EA	\$ _____	\$ _____
5.	Pre-Cast Headwall at Concrete Ditch (Avenue F)	1	EA	\$ _____	\$ _____
6.	Connect Existing 24" RCP	2	EA	\$ _____	\$ _____
7.	Connect Existing 18" RCP	2	EA	\$ _____	\$ _____
8.	2" Water Line Adjustment	1	EA	\$ _____	\$ _____
9.	4" Sanitary Line in Steel Casing through Box or Structure	3	EA	\$ _____	\$ _____
10.	Haul-In and Place Fill-In Ditch	116	CY	\$ _____	\$ _____
11.	Concrete Driveway Repairs	1,270	SF	\$ _____	\$ _____
12.	Limestone/Gravel Driveway Repair	2,220	SF	\$ _____	\$ _____
13.	HMAC Pavement Repair	26	SY	\$ _____	\$ _____
14.	Wooden Bollard Replacement	10	EA	\$ _____	\$ _____
15.	Seeding	595	SY	\$ _____	\$ _____
16.	Well Pointing	774	LF	\$ _____	\$ _____
17.	Trench Safety	774	LF	\$ _____	\$ _____
18.	Storm Water Pollution Prevention Plan	1	EA	\$ _____	\$ _____
19.	Pre-Construction Exploratory Excavation	1	EA	\$ _____	\$ _____
20.	Traffic Control Plan	1	EA	\$ _____	\$ _____
SUBTOTAL AVENUE 'F':				\$ _____	

SITE 3A – TWELFTH STREET AND SUMMER PLACE

1.	18" Reinforced Concrete Pipe (RCP)	55	LF	\$ _____	\$ _____
2.	24" Reinforced Concrete Pipe (RCP)	20	LF	\$ _____	\$ _____

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE 3A – TWELFTH STREET AND SUMMER PLACE Continue:					
3.	27" Reinforced Concrete Pipe (RCP)	725	LF	\$_____	\$_____
4.	Connect to Existing Concrete Grate Inlet, and Grate	3	EA	\$_____	\$_____
5.	3'x3' Precast Concrete Grate Inlet, and Grate	1	EA	\$_____	\$_____
6.	4'x4' Precast Concrete Junction Box with Ring and Cover	6	EA	\$_____	\$_____
7.	5'x5' Precast Concrete Junction Box with Ring and Cover	3	EA	\$_____	\$_____
8.	Tie-In to Existing Pre-Cast Junction Box (Summer Place)	1	EA	\$_____	\$_____
9.	2" Gas Line Adjustment	2	EA	\$_____	\$_____
10.	6" Water Line Adjustment	3	EA	\$_____	\$_____
11.	4" Sanitary Line through Box or Structure	7	EA	\$_____	\$_____
12.	6" Sanitary Line through Box or Structure	1	EA	\$_____	\$_____
13.	Electrical Adjustments	2	EA	\$_____	\$_____
14.	HMAC Pavement Repair	640	SY	\$_____	\$_____
15.	Concrete Driveway Repairs	525	SF	\$_____	\$_____
16.	Curb and Gutter	263	LF	\$_____	\$_____
17.	Seeding	82	SY	\$_____	\$_____
18.	Well Pointing	800	LF	\$_____	\$_____
19.	Trench Safety	800	LF	\$_____	\$_____
20.	Storm Water Pollution Prevention Plan	1	EA	\$_____	\$_____
21.	Pre-Construction Exploratory Excavation	1	EA	\$_____	\$_____
22.	Traffic Control Plan	1	EA	\$_____	\$_____

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE 3B – DOLPHIN LANE Continue:					
SUBTOTAL SITE 3A TWELFTH ST AND SUMMER PLACE: \$ _____					
SITE 3B – DOLPHIN LANE					
1.	18" Reinforced Concrete Pipe (RCP)	30	LF	\$ _____	\$ _____
2.	24" Reinforced Concrete Pipe (RCP)	293	LF	\$ _____	\$ _____
3.	3'x3' Precast Grate Inlet, and Grate	1	EA	\$ _____	\$ _____
4.	4'x4' Precast Junction Box with Ring and Cover	4	EA	\$ _____	\$ _____
5.	Tie-In to Existing 24" Storm Sewer (Oceanview/Dolphin Lane)	1	EA	\$ _____	\$ _____
6.	2" Water Line Adjustment	4	EA	\$ _____	\$ _____
7.	2" Gas Line Adjustment	3	EA	\$ _____	\$ _____
8.	4" Sanitary Line through Box or Structure	2	EA	\$ _____	\$ _____
9.	HMAC Pavement Repair	190	SY	\$ _____	\$ _____
10.	Concrete Driveway Repairs	970	SF	\$ _____	\$ _____
11.	Seeding	220	SY	\$ _____	\$ _____
12.	Well Pointing	323	LF	\$ _____	\$ _____
13.	Trench Safety	323	LF	\$ _____	\$ _____
14.	Storm Water Pollution Prevention Plan	1	EA	\$ _____	\$ _____
15.	Pre-Construction Exploratory Excavation	1	EA	\$ _____	\$ _____
16.	Traffic Control Plan	1	EA	\$ _____	\$ _____
SUBTOTAL SITE 3B DOLPHIN LANE: \$ _____					
TOTAL BASE BID: \$ _____					

NOTE: The unit prices stated herein before must include all labor, materials, bailing, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for and the Owner reserves the right to delete all or a portion of any Bid Item. The above quantities are approximate and may vary from the final quantities. Do not order material based on these approximate quantities.

1A3.3 REJECTIONS OF BIDS

We, the undersigned, understands that the Owner reserves the right to reject any or all Bids and to waive any informalities in the bidding.

1A3.4 SITE INVESTIGATIONS

We, the undersigned, have investigated the site conditions, full satisfied ourselves of both the surface and subsurface conditions there, and based our bid accordingly.

1A3.5 TIME OF COMPLETION

We, the undersigned, will commence work within 10 Calendar Days after the date of the written notice to proceed with construction and to substantially complete the entire project within **180 Calendar Days**. Should we fail to comply with this requirement, we agree to pay liquidated damages in the amount of \$ 500 per Calendar Day until the work is completed.

1A3.6 BIDDER QUALIFICATIONS

We, the undersigned, do hereby agree that if requested we will furnish written evidence to demonstrate our qualifications to perform the work.

1A3.7 WAGES AND SALARIES

We, the undersigned, do hereby agree to fully comply with the prevailing wage rates for NUECES County (See Section 19 of the GLO Contract Documents), and that We and our Subcontractors will pay not less than those for each craft or type of "Laborer", "Workman" or "Mechanic" employed on this project.

ATTEST:

Contractor

By: _____
(Seal if Corporation)

Address

Telephone

1A3.7 ADDENDUM RECEIPT

Receipt of the following addenda to the Contract Documents is acknowledged:

ADDENDA NO.	DATE RECEIVED	SIGNED	ADDENDA NO.	DATE RECEIVED	SIGNED
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

1A3.8 BID ACCEPTANCE

If written notice of the acceptance of this Bid is mailed, Faxed, or delivered to the Bidder within sixty (60) days after the date for opening of Bids or anytime thereafter before this Bid is withdrawn, the Bidder will, within ten (10) days after the date of such mailing, Faxing, of delivery of such notice, execute and deliver to the Owner, an Agreement in the form included in the Contract Documents and surety bonds in accordance with Section 1 of the GLO Contract Documents Instructions to Bidders. The Bidder hereby designates as his office to which such notice of acceptance may be mailed, Faxed, or delivered:

NOTE: Owner reserves the right to delete all or a portion of any bid Item. Bidder understands that the Owner reserves the right to reject any or all Bids and to waive any informalities in the bidding.

1A3.9 INFORMATION CONCERNING BIDDER

Name of Bidder: _____

Bidder Is: Individual () Partnership () Corporation ()

Residence of Bidder (if individual): _____

Date of Bid: _____

If Bidder is a partnership, fill in the following blanks:

Name of Partners: _____

If Bidder is a corporation, fill in the following blanks.

Organized under the laws of the State of _____

Name and Home address of the President _____

Name and Address of the Treasurer _____

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 1E - SPECIAL CONDITIONS

1E8 MEASUREMENT AND PAYMENT

- 1E8.1.1** General: This is a Unit Price contract but contains some lump sum bid items. See Article TS-3 of the Technical Special Provisions.
- 1E8.1.2** Quantities and Measurements: No extra or customary measurements of any kind will be allowed, but the actual measured and/or computed length, area, solid contents, number and weight only shall be considered. The method of measuring the bid items and payment of bid items is set out hereinafter.
- 1E8.1.3** Mobilization: This item will be measured as a lump sum. Fifty percent of this item may be requested on the first approved monthly pay estimate and the remainder will be due on the final estimate when all work has been completed.
- 1E8.1.4** Bonds and Insurance: This item will be measured as a lump sum and shall include the bonds and insurance required by the Contract Documents. One hundred percent of this item will be due on the first approved monthly pay estimate. Contractor shall provide document to show cost incurred.
- 1E8.1.5** Project Signs: This item will be measured by each sign installed at the project site, see also sign description in Section 20 GLO Signage Requirements. This item includes but is not limited to the following:
- Sign text painting by a professional sign painter (black letters on 4'x8' white plywood base).
 - Construction sign base support structure using appropriate plywood and lumber sizes.
 - Install and maintain sign for duration of project.
 - Remove sign from project site at completion of project.
 - Any other item required the project sign in accordance with the specification that are not measured and paid for in another bid item.
- 1E8.1.6** Reinforced Concrete Box (RCB): This item will be measured by linear foot of each size/classification of box installed as shown on the proposal. This item includes, but is not limited to, the following work:
- Structural excavation including removing all material encountered (including asphalt, concrete pipe and old manholes) and disposing of all unsuitable and/or excess material.
 - Furnishing and installing of the reinforced concrete box, joint material, wrapping joints, concrete, grout, in accordance with the Contract Documents.
 - Providing a complete connection of the inlet and outlet box culvert.
 - Placing and compacting bedding and backfill.
 - Grading and cleaning of affected areas.
 - Any other items required to complete the reinforced concrete box culvert in accordance with the plans that are not measured and paid for under another bid item.
- 1E8.1.7** Reinforced Concrete Pipe (RCP): This item will be measured by linear foot of each size/classification of pipe installed as shown on the proposal. This item includes, but is not limited to, the following work:
- Structural excavation including removing all material encountered (including asphalt, concrete pipe and old manholes) and disposing of all unsuitable and/or excess material.

- b. Furnishing and installing of the reinforced concrete pipe, joint material, wrapping joints, concrete, grout, in accordance with the Contract Documents.
- c. Providing a complete connection of the inlet and outlet pipe.
- d. Placing and compacting bedding and backfill.
- e. Grading and cleaning of affected areas.
- f. Any other items required to complete the reinforced concrete pipe in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.8 Pre-cast Concrete Junction Box and Pre-cast Grate Inlet: This item will be measured by each individual junction box or grate inlet installed and by its classification as shown on the proposal. This item includes, but is not limited to, the following work:

- a. Structural excavation including removing all material encountered (including asphalt, concrete and old manholes) and disposing of all unsuitable and/or excess material.
- b. Furnishing and installing of all material required to complete the junction box or grate inlet in accordance with the plans and these Contract Documents that are not measured and paid for under another bid item.
- c. Providing a complete connection of the inlet and outlet pipe or culvert.
- d. Placing and compacting bedding and backfill.
- e. Grading and cleaning of affected areas.
- f. Any other items required to complete the pre-cast concrete junction box or grate inlet in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.9 Demolition, Removal of Existing Junction Box: This item will be measured by each type of junction box shown on the proposal. The work includes but is not limited to the following:

- a. Demolishing and removal of the existing structure including any concrete, asphalt, sidewalks, utilities or any other structure interfering with the proposed construction.
- b. Plugging and abandoning of exist storm sewer.
- c. Coordinating the relocation of the item with the owner or utility company.
- d. All unsuitable material shall become property of the contractor and shall be properly removed and disposed of according to local laws and regulations.
- e. Any other items required to complete the demolition and removal of the junction box in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.10 Pre-cast Junction Box Connection at Concrete Ditch (Avenue E): Pre-cast junction box connection at concrete ditch will be measured by each. This item includes, but is not limited to the following work:

- a. Install silt fence up stream and down stream of construction activity.
- b. Install cofferdams and dewater to facilitate installation of the new pre-cast junction box
- c. Structural excavation including the removal of all material encountered (including asphalt and concrete) and disposing of all unsuitable and/or excess material.
- d. Saw cutting and removal of existing 6'x2' reinforced concrete boxes to facilitate installation of the new junction box.
- e. Furnishing and installing pre-cast junction box
- f. Providing a complete connection of all the inlet and outlet pipes or culverts.
- g. Furnishing and installing forms, concrete, reinforcing steel, and any other items required to complete the work.
- h. Placing backfill, compacting backfill, and cleaning up of the affected area.
- i. Furnishing and installing or reusing concrete rip rap around the headwall in accordance with the plans.
- j. Any other items required to complete the junction box connection in accordance with the plans that are not measured and paid for under another bid item.

- 1E8.1.11 Pre-cast Headwall at Concrete Ditch (Avenue F):** Pre-cast headwall connection at concrete ditch will be measured by each. This item includes, but is not limited to the following work:
- Install slit fence up stream and down stream of construction activity.
 - Install cofferdams and dewater to facilitate installation of the new pre-cast headwall.
 - Structural excavation including the removal of all material encountered (including asphalt and concrete) and disposing of all unsuitable and/or excess material.
 - Saw cutting and removal of existing ditch lining to facilitate installation of the new pre cast headwall.
 - Furnishing and installing pre-cast or cast-in-place headwall.
 - Providing a complete connection of all the inlet and outlet pipes or culverts.
 - Furnishing and installing forms, concrete, reinforcing steel, and any other items required to complete the work.
 - Placing backfill, compacting backfill, and cleaning up of the affected area.
 - Any other items required to complete the headwall in accordance with the plans that are not measured and paid for under another bid item.
- 1E8.1.12 Tie-into Existing Pre-cast Junction Box (Summer Place):** Tie-in connection at this location will be measured by each. This item includes, but is not limited to the following work:
- Structural excavation including the removal of all material encountered (including asphalt and concrete) and disposing of all unsuitable and/or excess material.
 - Saw cutting existing box to facilitate installation of the new storm sewer pipe.
 - Furnishing and installing reinforced concrete pipe.
 - Providing a complete connection of all the inlet and outlet pipes or culverts.
 - Furnishing and installing forms, concrete, reinforcing steel, and any other items required to complete the work.
 - Placing backfill, compacting backfill, and cleaning up of the affected area.
 - Any other items required to complete the tie-in in accordance with the plans that are not measured and paid for under another bid item.
- 1E8.1.13 Tie-into Existing 24" Storm Sewer (Ocean View/Dolphin Lane):** Tie-in connection at this location will be measured by each. This item includes, but is not limited to the following work:
- Clean and televise existing 24" RCP storm pipe to determine the length, orientation and termination point.
 - Structural excavation including the removal of all material encountered (including asphalt and concrete) and disposing of all unsuitable and/or excess material.
 - Saw cutting existing RCP storm sewer pipe to facilitate connection of the new storm sewer pipe.
 - Furnishing and installing reinforced concrete pipe complete with transition couplings.
 - Providing a complete connection of all the inlet and outlet pipes.
 - Furnishing and installing forms, concrete, reinforcing steel, and any other items required to complete the work.
 - Placing backfill, compacting backfill, and cleaning up of the affected area.
 - Placing topsoil and sod to reinstate the residential area to pre-construction conditions, watering and maintaining the sod until growth is established.
 - Any other items required to complete the tie-in in accordance with the plans that are not measured and paid for under another bid item.

- 1E8.1.14 Connect Existing 27", 24", 18" and 15 RCP:** This item will be measured by each individual connection to a box or structure as shown in the proposal. The item will include, but not be limited to excavation and all materials and work required to tie the specified line into the proposed concrete box or junction box.
- 1E8.1.15 Waterline/Gas Line and Electrical Utility Adjustment:** This item will be measured by each individual water, wastewater, gas or electrical utility adjusted. The item shall include, but not be limited to the following:
- Coordinating work with the utility company or NCWCID#4 and adhering to any special provisions they may require.
 - Removing and disposing of existing excess or unsuitable soil, pavement, etc.
 - Isolating and removing or relocating existing utility.
 - Furnishing and installing any fittings, piping, conduit, cable, polyethylene encasement, concrete thrust blocking or any other joint restraint required to complete the utility adjustment. See also Pipe Crossing Detail Sheet 15.
 - Placing and compacting embedment and trench backfill.
 - Grading and clean-up of trench and affected area.
 - Furnish restoration of property of all disturbed areas as specified in the Contract Documents.
 - All water services shall be continuous from the meter to the main.**
 - Any other items required to complete the utility adjustment in accordance with the plans that are not measured and paid for under another bid item.
- 1E8.1.16 4" Sanitary and 6" Sanitary Sewer Line in Steel Casing Through Structure:** This item will be measured by each sewer line installed through a box culvert or junction box. This item includes but is not limited to the following work:
- Removal of the conflicting segment of existing sewer line
 - Installing a steel casing through the concrete box or junction box
 - Installing a new SDR 26 PVC sewer line, and then grouting around the pipe to seal the junction box.
 - Backfilling and cleaning up around the junction box.
 - Any other items required to complete the work that are not measured and paid for under another bid item.
- 1E8.1.17 2" HMAC Pavement with Prime Coat:** Hot mix-hot laid asphaltic concrete pavement (Type D with prime coat) shall be measured by the square yard of finished pavement of the required thickness and density. This shall include but is not limited to the following work:
- Saw-cutting existing pavement surface.
 - Removal, haul-off and disposal of existing asphalt pavement
 - Installing prime coat on base material
 - Furnishing, installing and compacting new Type 'D' hot mix asphalt concrete.
 - Any other items required to complete the HMAC overlay that are not measured and paid for under another bid item.
- 1E8.1.18 8" Cement Stab. Base w/2" Crushed Conc.:** Cement stabilized base course will be measured by the square yard of completed base in accordance with the Contract Documents. This work includes but is not limited to the following:
- Removal, haul-off and disposal of existing base material
 - Scarifying, removal of excess material,
 - Adding 2" of crushed concrete, furnishing and installing cement as required on the plans

- d. mixing and re-compacting.
- e. Any other items required to complete the cement stabilized base that are not measured and paid for under another bid item.

1E8.1.19 Concrete Sidewalk /Curb Ramp Repair (Avenue E and Allister): This item will be measured by each. It shall include, but is not limited to the following work:

- a. Excavation including the removal of all material encountered.
- b. Compacting the subgrade to the required thickness, grades and density.
- c. Furnishing and installing forms, concrete, reinforcing steel and any other items required to complete the repair to the sidewalk and curb ramp.
- d. Any other items required to complete the repairs in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.20 Curb and Gutter Repair: Concrete curb and gutter shall be measured by the linear foot of repaired curb and gutter. Curb and gutter shall be measured along the back of curb. Gutter transitions at inlets shall be measured as standard curb and gutter. Inlets shall not be included in the measurement for curb and gutter. The work includes, but is not limited to the following:

- a. Street excavation including the removal of all material encountered (including asphalt and concrete) and disposing of all unsuitable and/or excess material.
- b. Furnishing and installing forms, concrete, reinforcing steel and any other items required to complete the curb and gutter.
- c. Placing backfill, compacting backfill, grading and cleaning up of the affected area.
- d. Any other items required to complete the curb and gutter repairs in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.21 Haul In and Place Fill: This item will be measured by the cubic yard and include furnishing, placing and compacting fill material as required to complete the work, as out lined in the Contract Documents.

1E8.1.22 Concrete Driveway Repair: This item will be measured by the square foot. This item includes but is not limited to the following work:

- a. Excavation including the removal of all material encountered.
- b. Compacting the subgrade to the required thickness, grades and density.
Furnishing and installing forms, concrete, reinforcing steel and any other items required to complete the pavement.
- c. Saw cutting existing concrete pavement.
- d. Removal and disposal of existing concrete pavement.
- e. Doweling into existing concrete pavement.
- f. Furnishing and installing all required material as shown on the plans.
- g. Re-striping parking areas to preconstruction condition.
- h. Limits of Measurement: The Contractor shall replace any pavement removed during construction. Only the pavement removed by the trenching operation will be measured for payment. The maximum width of repair is shown on the set of plans.
- i. Any other items required to repair the concrete driveway in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.23 HMAC Pavement Repair: This item shall pertain to repair of existing asphalt pavement that is cut when necessary to construct this project. This item will be measured by the square yard of pavement repaired; however, the Contract Documents show the maximum width of repaired pavement other than those areas shown to be repaired. If the contractor disturbs an area greater than what is depicted on the plans, he shall be responsible for repairing the entire area.

However, the additional area will not be measured for payment. This item includes but is not limited to the following work:

- a. Furnishing, placing and compacting base course.
- b. Furnishing and applying prime coat
- c. Placing and compacting Type "D" asphaltic concrete
- d. Any other items required to complete the HMAC pavement repair in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.24 Wooden Bollard Replacement: This item will be measured by each wooden bollard replaced. It shall include, but is not limited to the following work:

- a. Removal of any existing wooden bollards that may have been damaged or broken during installation of the stormwater improvements.
- b. Furnishing and installing the 6" diameter wooden bollards, with 3-ft embedment and concrete backfill. The bollard height to match existing conditions.
- c. Compacting and grading the disturbed areas to return them to the existing grades and density.
- d. Any other items required to complete the bollard installation and repairs in accordance with the plans that are not measured and paid for under another bid item.

1E8.1.25 Seeding: This item will be measured by the square yard. This item includes, but is not limited to the following work:

- a. Seed, fertilize, water and maintain through specified establishment of grass cover.
- b. Any other items required to complete the seeding that are not covered by another bid item.

1E8.1.26 Well Pointing: This item will be measured by the linear foot. This item includes, but is not limited to the following work:

- a. All pumps, piping, hoses well points and material required to provide a suitable working environment.
- b. Disposal of water.
- c. Any other items required to complete the well pointing that are not covered by another bid item.

1E8.1.27 OSHA Trench Safety: This item shall be measured by the linear foot for all trenches and shall include the cost to provide trench safety as set out in Specification 2B3 Pipe Trench Excavation and Backfill.

1E8.1.28 Storm Water Pollution Prevention Plan (SWPPP): This item will be measured by each SWPPP installed. There will be one (1) SWPPP installed at each site. The sites are, Site 1 – Avenue E, Site 2-Avenue F, Site 3A-Tweleth and Summer, and Site 3B – Dolphin Lane. This plan includes, but is not limited to the following work:

- a. Providing silt fencing along project boundary as illustrated on pollution prevention plan sheet.
- b. Prepare notices, inspections, and follow guidelines in Section 1E20 of these contract documents.
- c. Provide dust control using approved methods.
- d. Any other items required to complete the pollution prevention that are not covered by another bid item.

1E8.1.29 Pre-Construction Exploratory Excavation:

Measurement for Pre-Construction Exploratory Excavation shall be for exploratory excavations made at each site and shall be full compensation for all labor, materials, and

equipment required to provide a complete and functioning system as required by the Contract Documents. The sites are, Site 1 – Avenue E, Site 2-Avenue F, Site 3A-Tweleth and Summer, and Site 3B – Dolphin Lane. This item includes, but is not limited to the following work:

- a. Excavation and expose existing pipelines that cross within 20 feet of project pipelines prior to any work at each site. Survey the line to determine its exact vertical and horizontal location at each point the existing pipeline may potentially conflict with the work.
- b. Excavate and expose existing parallel pipelines at 300 feet intervals (maximum) for existing pipelines which are within 10 feet of project pipelines at each site. Survey the line to determine its exact vertical and horizontal location at each point where the line is excavated and exposed.
- c. Prepare a Plan of Action for each site indicating the owner of pipelines excavated and surveyed and all pertinent survey data, including the station where lines cross or conflicts may exist and the distance to the pavement centerline and elevations of the top of existing pipelines.
- d. Do not perform work on the project until all exploratory excavations have been completed and the Plan of Action has been approved by the Designer.
- e. Pavement repairs associated with exploratory excavations will be paid for at the unit prices for pavement repair.
- f. Any other items required to complete the pre-construction exploratory that are not covered by another bid item.

1E8.1.30 Traffic Control Plan: This item shall be measured by each for installation, maintenance, and removal of items required to provide traffic control as outlined in the Contract Documents. Each site shall have its own traffic control plan. The sites are, Site 1 – Avenue E, Site 2-Avenue F, Site 3A-Tweleth and Summer, and Site 3B – Dolphin Lane.

1E8.1.31 NCWCID#4 Water System Items: The items listed in this section are required by the NCWCID#4 to minimize impact to the water system and to prevent having to repair pavement to install the improvements in the future. These items will be paid by the city at the contract unit prices and the city will be reimbursed the NCWCID#4 at the same unit prices. This item includes but is not limited to furnish and install waterline pipe by the linear foot, furnish and install gate valves by each, furnish and install fittings by each. Any other items required to complete the listed water system items that are not covered by another bid item.

1E8.2 PAYMENT: The work to complete this project shall be paid for at the Contract price bid. Payment shall be full compensation for all materials required, all operations, all labor, all tools, all equipment, and all other incidentals required to complete the work as shown on the drawings and specified herein.

1E8.3 PARTIAL PAYMENTS AND RETAINAGE: On or before the 5th day of each month, the Contractor shall submit to the Engineer for approval a statement, on a form furnished by the Engineer, showing as completely as practicable the total value of the work done by the Contractor up to and including the last day of the preceding month; The Owner shall then pay the Contractor on or before the 25th day of the same month the total amount of the Contractor's Statement, less 10% of the amount thereof, which 10% shall be retained until final payment (if contract amount is under \$400,000. If contract amount is \$400,000 or more, retainage amount will be 5%), and further less all previous payments and all further sums that may be retained by the Owner under the terms of the Agreement.

- 1E8.4 FINAL PAYMENT:** See Section 14, Item 6 and Section 31 of the GLO Contract Documents of the Construction Contract. Payment shall be full compensation for all materials, supplies, machinery, power, fuel, transportation, royalty fees and any other facilities necessary for the execution and completion of the project.
- 1E8.5 ITEMS NOT LISTED ON THE PROPOSAL:** Items of work not listed on the Proposal form necessary to complete the project as shown on the drawings and as specified are considered as subsidiary to the established bid items and there will be no separate payment. Their cost should be included in the appropriate bid item.

DIVISION 2 - SITE WORK

SECTION 2G - SITE UTILITIES

2G8^[4] GATE VALVES

2G8.1 SCOPE:

This specification shall govern for all work necessary to furnish and install the gate valves with box and cover as required to complete the project. This specification is a performance specification as defined in Section 1D General Conditions, Subsection "Supplemental General Conditions" Art. SC-1 Definitions.

2G8.2 GENERAL:

All valves shall comply with the latest requirements of applicable A.W.W.A. Specifications. All valves shall open in a counter-clockwise direction. Valves to provide an unobstructed waterway of a diameter of a circle not less than the full nominal diameter of the valve when the gate is open. All valves shall be installed vertically unless shown specifically otherwise on the drawings.

2G8.3 VALVES 2-INCHES THROUGH 24-INCHES:

2G8.4.1 General:

Valves shall be resilient-seated gate valves by Mueller, East Jordan Iron Works Flowmaster or American. Resilient-seated valves shall conform to A.W.W.A. C-509, latest edition and be as follows:

- a. The valve body, bonnet and gate castings shall be ductile iron.
- b. The resilient-seated gate valves shall have non-rising stems.
- c. Valve ends shall be mechanical joint type. A complete set of joint materials shall be furnished with each valve.
- c. Stem seals shall be the O-ring type.
- d. Valves shall open left (counter clockwise).
- e. Tapping valves to be used with tapping saddles shall have one end mechanical joint.

2G8.4.2 Protective Coatings:

- a. Interior Of Valve:
 - (1) Body And Bonnet: Factory applied epoxy coating conforming to A.W.W.A. C550.
 - (2) Gate: Factory applied rubber encapsulated conforming to A.W.W.A. C509.
- b. Exterior Of Valve: Factory applied epoxy coating conforming to A.W.W.A. C550.

2G8.4.4 Valve Ends:

Gate valves shall be furnished with mechanical joint ends. Mechanical joints shall conform to A.N.S.I./A.W.W.A. C111/A21.11.

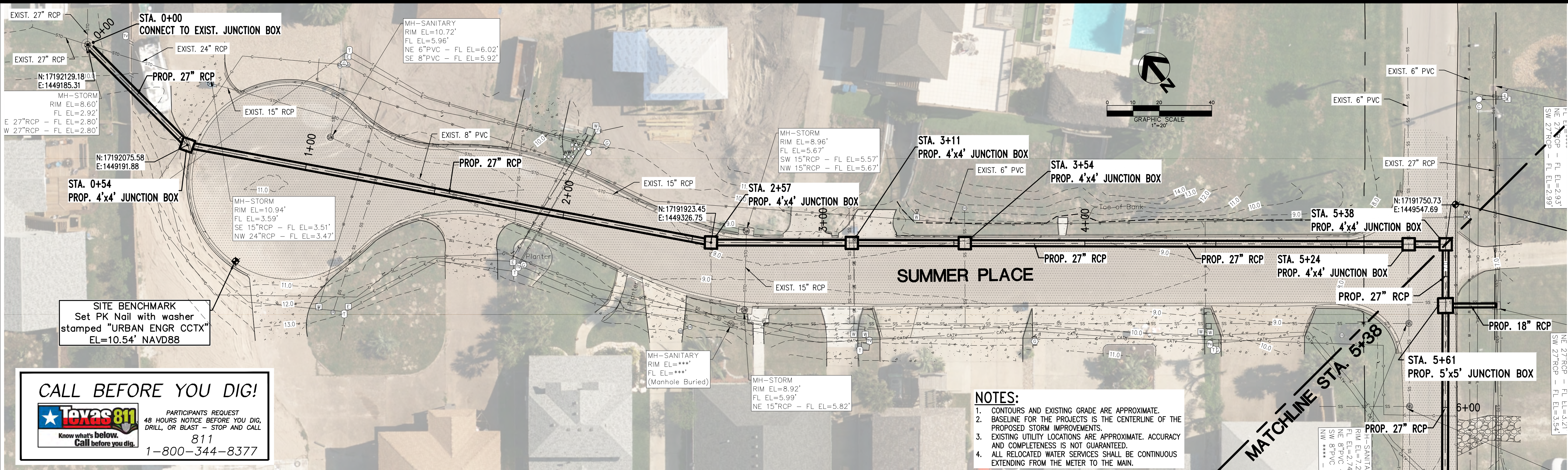
2G8.4.5 Valve Boxes:

Gate valves shall be furnished with wrench nut, an extension to within 6" of top of valve box and cast iron valve box. Valve box shall be an adjustable road type valve box with a minimum opening of 5-inches. Valve box shall be cast iron and shall be complete with base, extension, top section and cover. The base shall be of proper size to fit the valves on which the base is installed. Valve boxes shall be 461S Tyler Union, East Jordan Iron Works, or approved equal.

2G8.5

SUBMITTAL DATA:

The manufacture shall upon request furnish two (2) certified sets of prints showing complete details, dimensions and materials used. The manufacturer shall also upon request furnish a certified letter of compliance stating that their valve meets these specifications. Also, the manufacturer shall upon request furnish one (1) certified copy of the physical tests of all metals used in the manufacture of the valve.

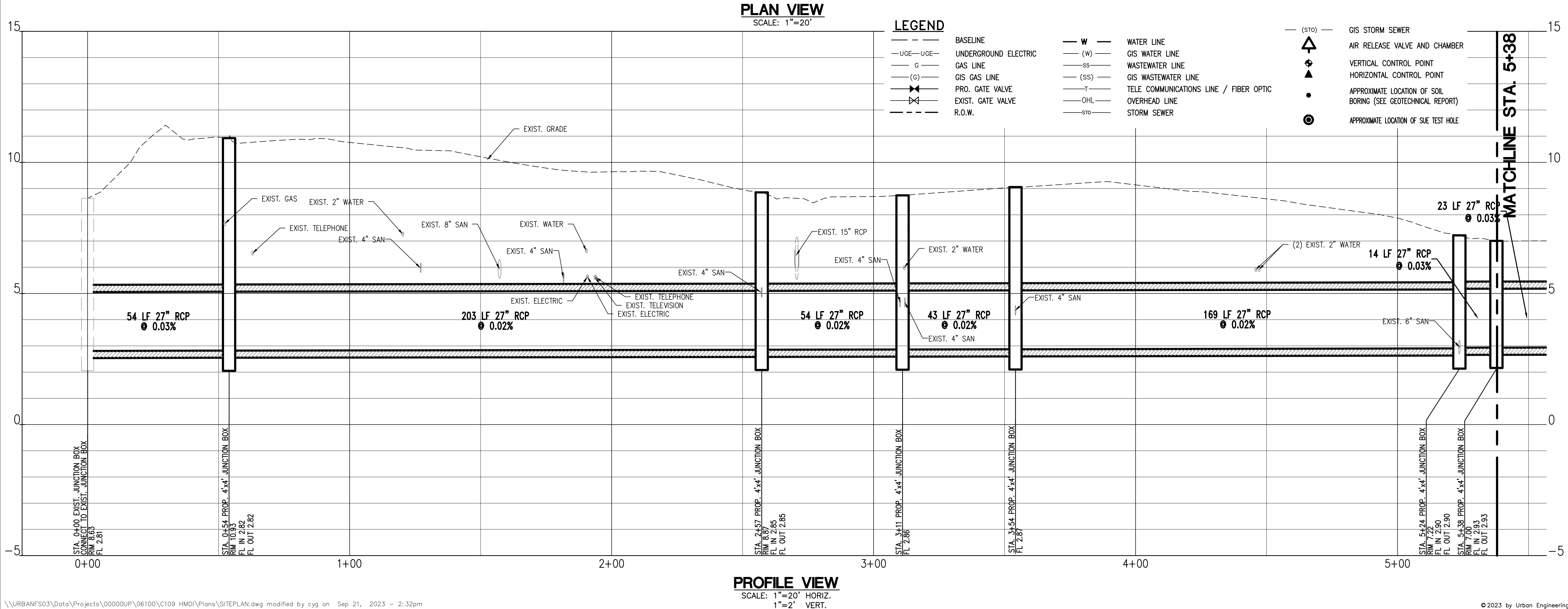


CALL BEFORE YOU DIG!

Texas 811
Know what's below.
Call before you dig.

PARTICIPANTS REQUEST
48 HOURS NOTICE BEFORE YOU DIG,
DRILL, OR BLAST - STOP AND CALL
811
1-800-344-8377

- NOTES:**
1. CONTOURS AND EXISTING GRADE ARE APPROXIMATE.
 2. BASELINE FOR THE PROJECTS IS THE CENTERLINE OF THE PROPOSED STORM IMPROVEMENTS.
 3. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. ACCURACY AND COMPLETENESS IS NOT GUARANTEED.
 4. ALL RELOCATED WATER SERVICES SHALL BE CONTINUOUS EXTENDING FROM THE METER TO THE MAIN.



REV.	BY	DATE	DESCRIPTION
1	CG	07/25/23	BID SET
2	CG	08/25/23	REVISED BID SET
3	CG	09/12/23	REVISED BID SET
4	CG	09/20/23	REVISED BID SET

SCALE: 1"=20'

DRAWN: CG

CHECKED: JDM

DATE: SEPT. 2023

URBAN ENGINEERING

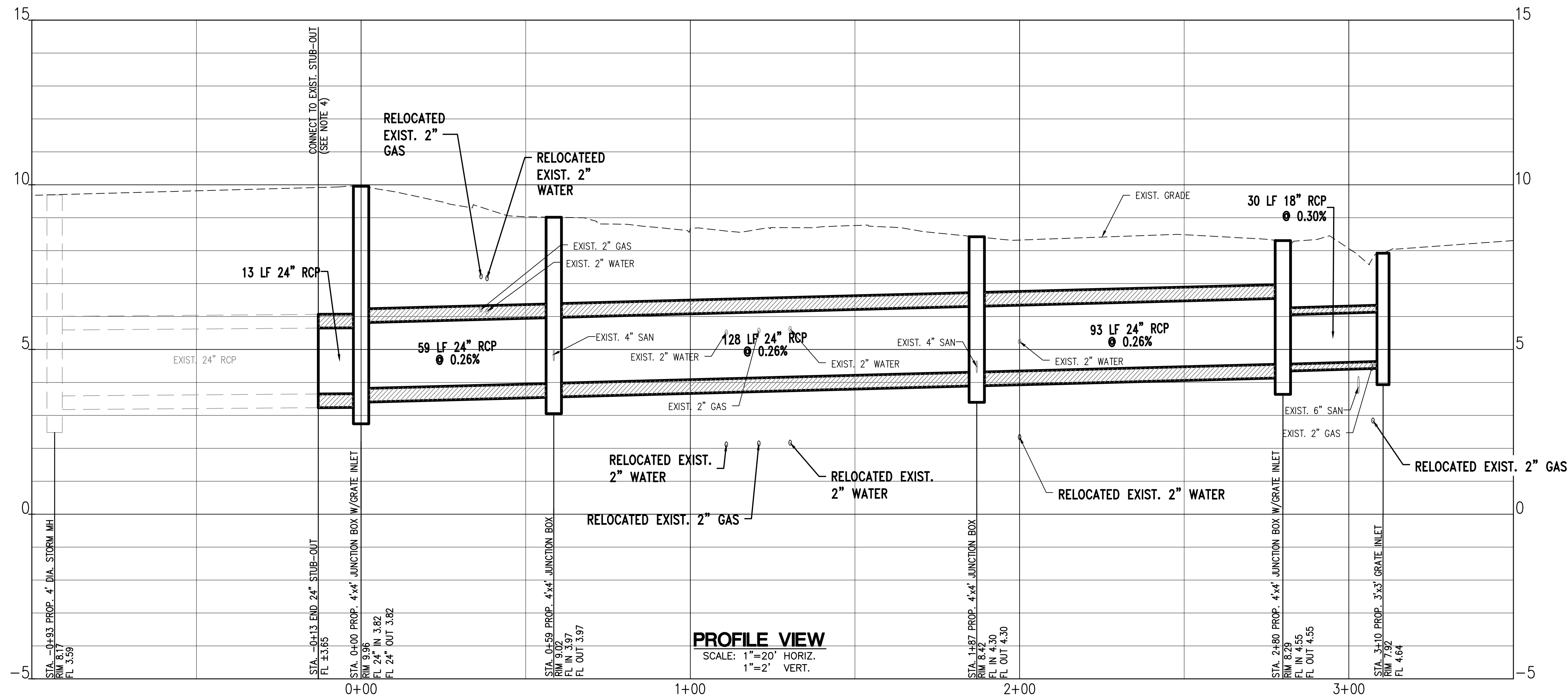
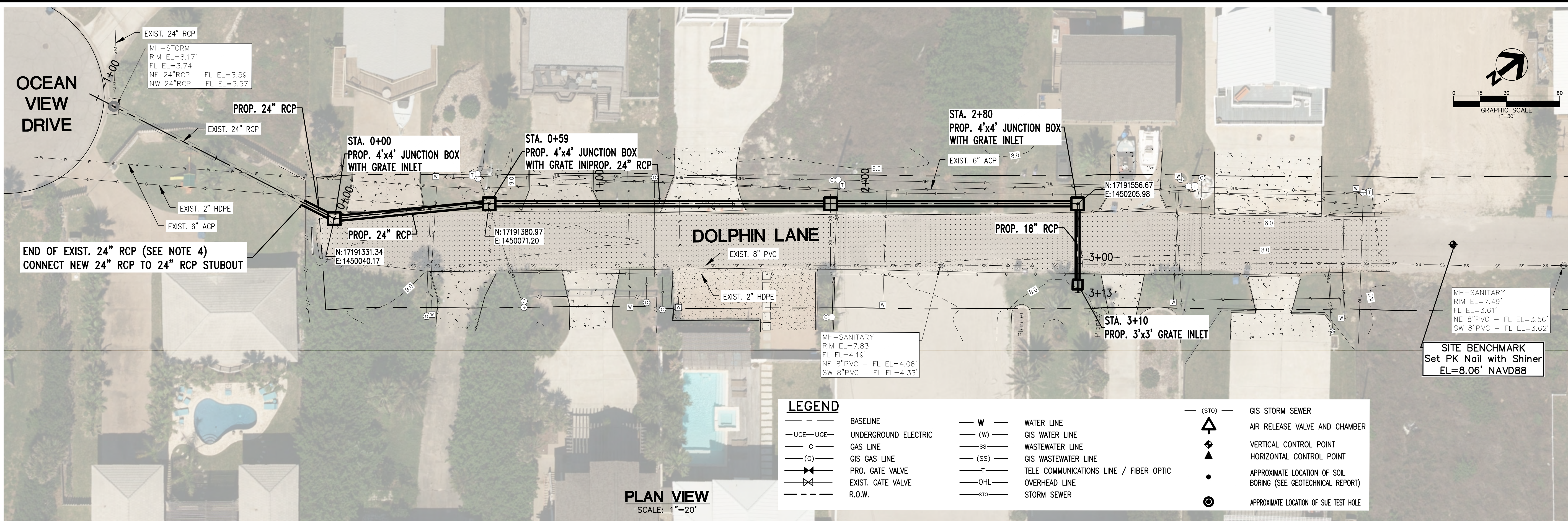
2725 SWIMMER DR. CORPUS CHRISTI, TX 78404
PHONE: 361.854.3101
WWW.URBANEENGINEERING.COM

SHEET 9 OF 26

JOB NO. 06100.C1.09

**TWELFTH STREET PLAN AND PROFILE
STA. 0+00 TO STA. 5+38**

CDBG No. 20-065-143-C811 CITY OF PORT ARANSAS
HAZARD MITIGATION DRAINAGE IMPROVEMENTS - PHASE 1
PORT ARANSAS, TEXAS



- NOTES:
1. CONTOURS AND EXISTING GRADE ARE APPROXIMATE.
 2. BASELINE FOR THE PROJECTS IS THE CENTERLINE OF THE PROPOSED STORM IMPROVEMENTS.
 3. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. ACCURACY AND COMPLETENESS IS NOT GUARANTEED.
 4. CONTRACTOR TO TELEVIEW EXISTING 24" RCP TO DETERMINE ORIENTATION AND LENGTH. CONTRACTOR WILL THEN EXCAVATE AND LOCATE EXISTING 24" RCP STUB-OUT BEFORE CONSTRUCTING JUNCTION BOX.
 5. ALL RELOCATED WATER SERVICES SHALL BE CONTINUOUS EXTENDING FROM THE METER TO THE MAIN.

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Texas 811
Know what's below.
Call before you dig.

PARTICIPANTS REQUEST
48 HOURS NOTICE BEFORE YOU DIG,
DRILL, OR BLAST - STOP AND CALL
811
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REV.	BY	DATE	DESCRIPTION
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3	CG	09/12/23	REVISED BID SET
4	CG	09/20/23	REVISED BID SET

SCALE: 1"=20'

DRAWN: CG

CHECKED: JDM

DATE: SEPT. 2023

DOLPHIN LANE PLAN AND PROFILE
STA. 0+00 TO END

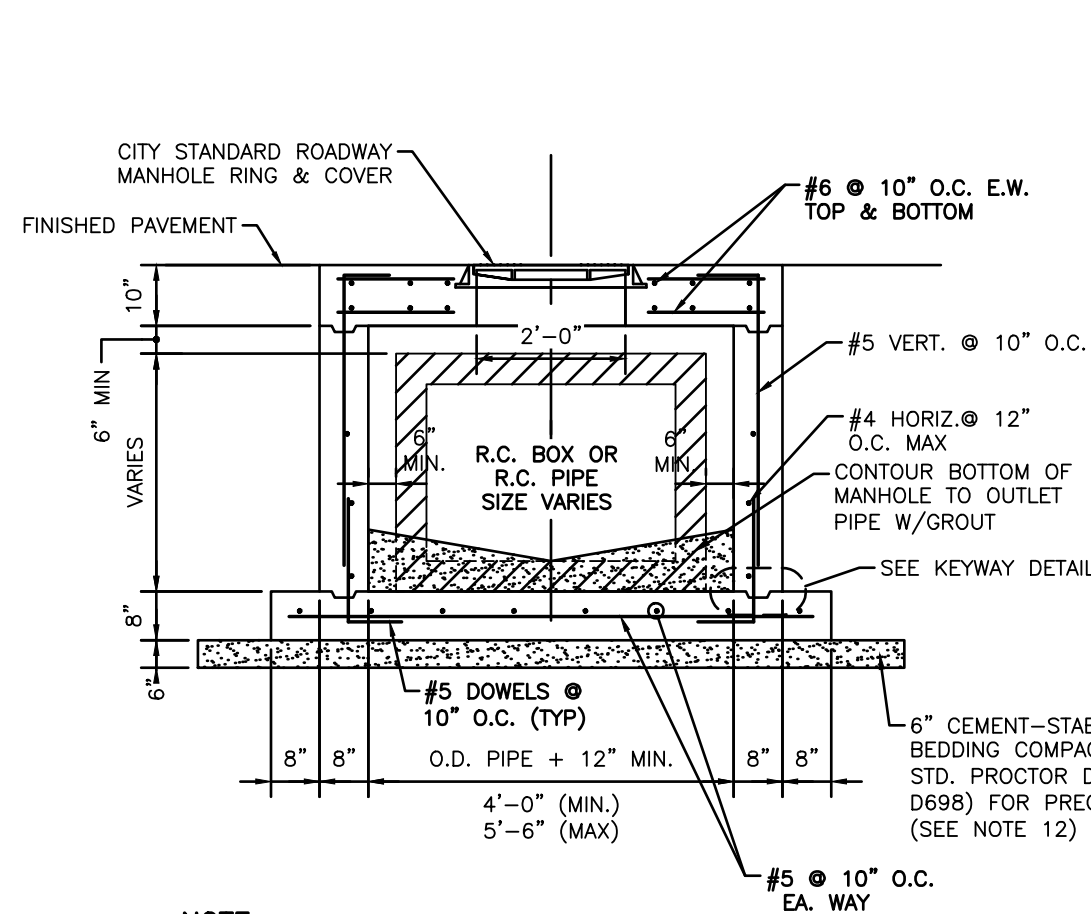
CDBG No. 20-085-143-C811 CITY OF PORT ARANSAS
HAZARD MITIGATION DRAINAGE IMPROVEMENTS - PHASE 1
PORT ARANSAS, TEXAS

URBAN ENGINEERING

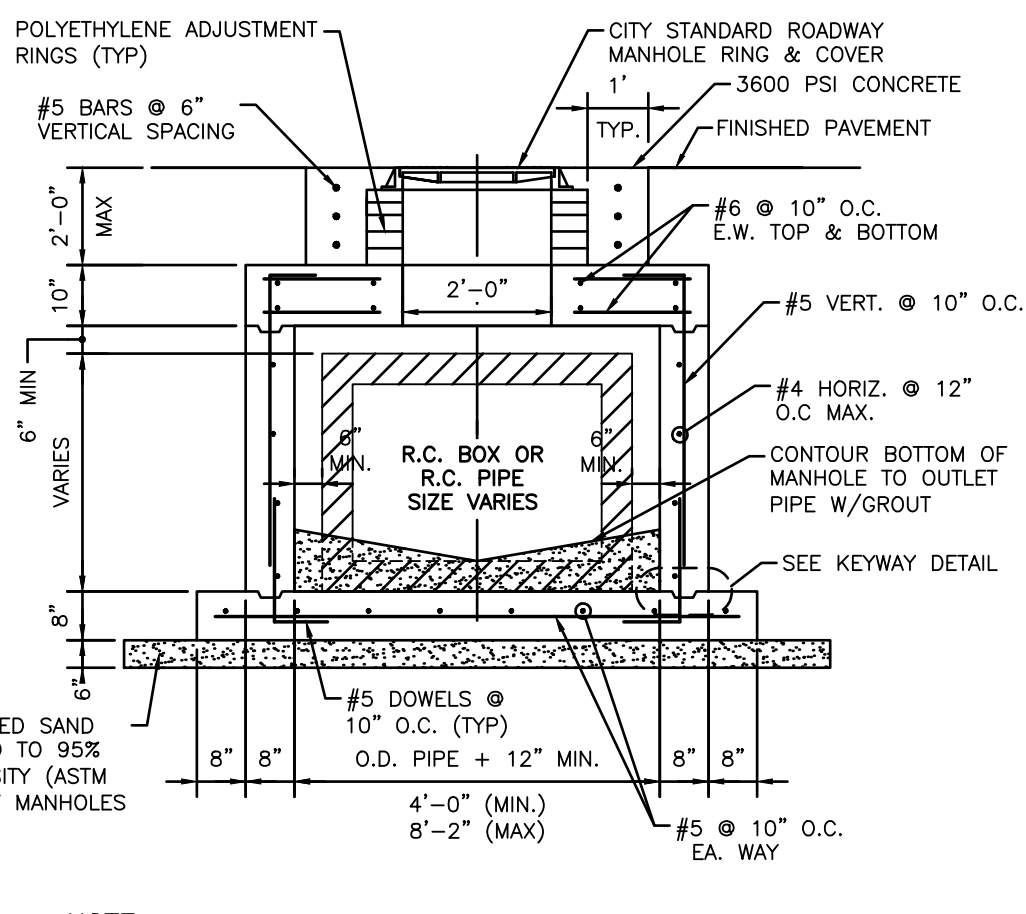
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PHONE: 361.854.3101

SHEET
11
OF 26

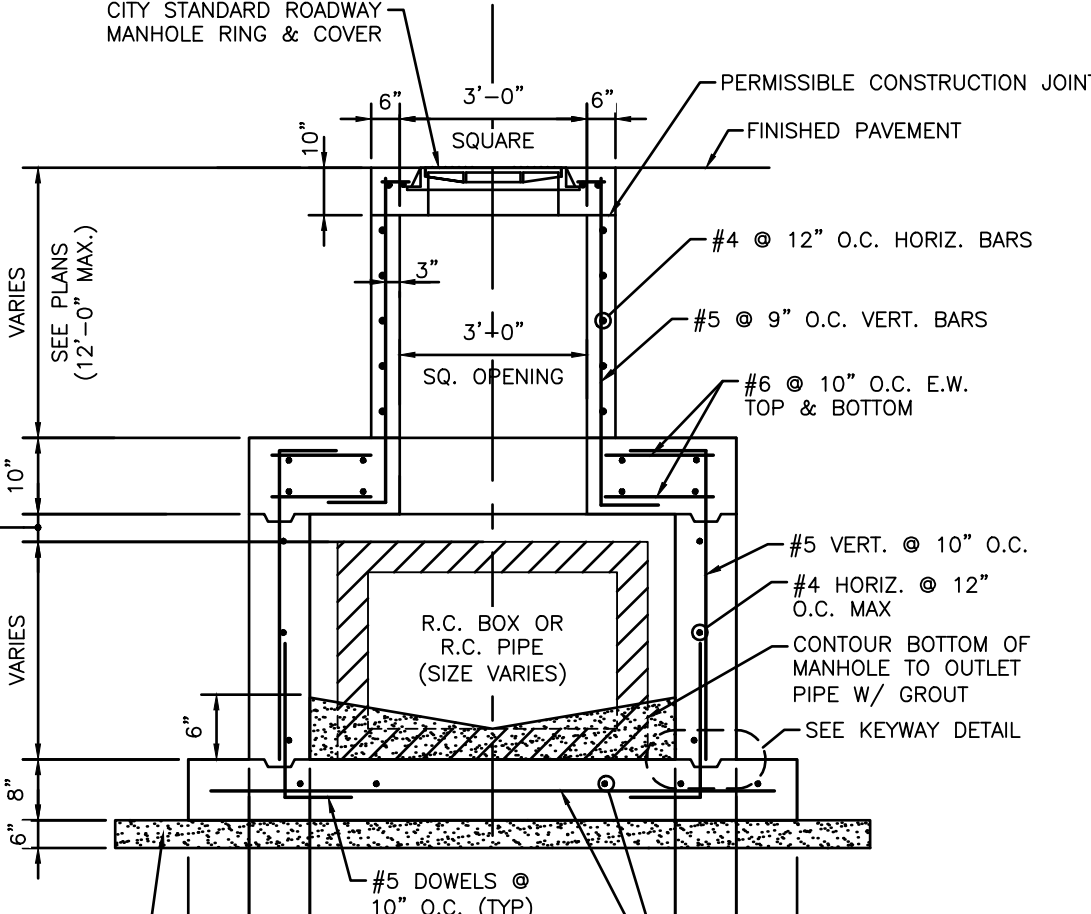
JOB NO.
06100.C1.09



SECTION
TYPE 'B' MANHOLE/JUNCTION BOX
NOT TO SCALE



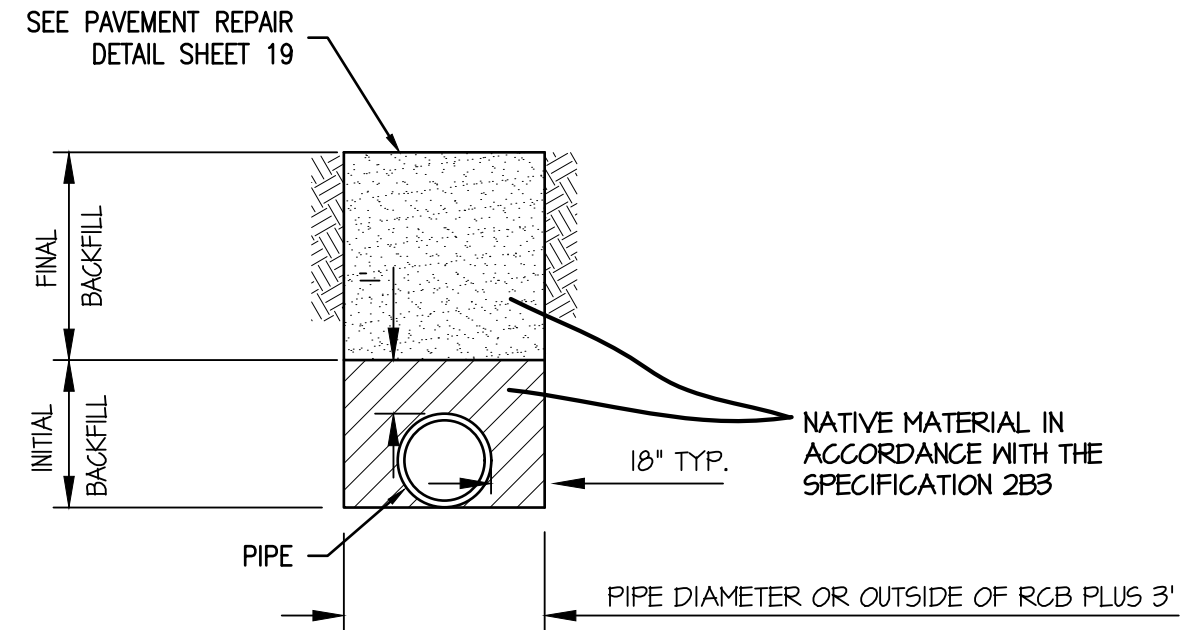
SECTION
TYPE 'C' MANHOLE/JUNCTION BOX
NOT TO SCALE



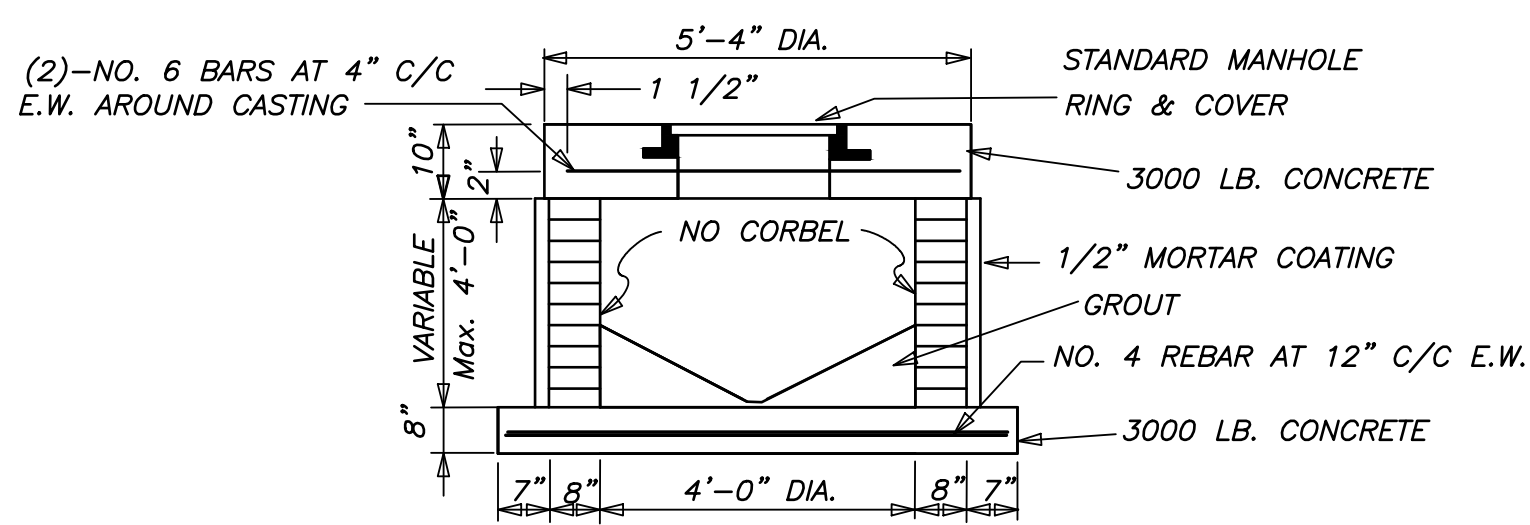
SECTION
TYPE 'D' MANHOLE/JUNCTION BOX
NOT TO SCALE

GENERAL NOTES FOR CONCRETE DRAINAGE STRUCTURES:

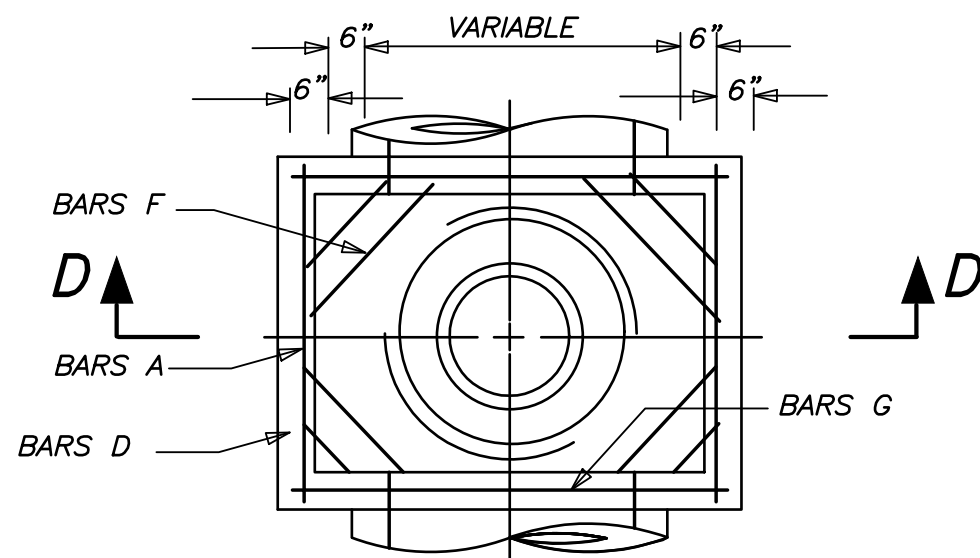
1. ALL CONCRETE SHALL BE CLASS "C" (3600 PSI) EXCEPT CITY STANDARD CURB INLETS AND CONCRETE COLLARS MAY BE CLASS "A".
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.
5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. CHAMFER ALL EXPOSED EDGES 3/4".
7. PROVIDE CITY STANDARD SIDEWALK MANHOLE RING AND COVER FOR CITY STANDARD CURB INLET. PROVIDE CITY STANDARD ROADWAY STORM WATER MANHOLE RING AND COVER FOR SPECIAL CURB INLET.
8. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS AND MANHOLES, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION. PRECAST MANHOLE WITHIN THE ROADWAY SHALL BE DESIGNED TO SUPPORT HS 20 TRAFFIC LOADING AND SEALED BY A LICENSED ENGINEER.
9. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
10. INVERT OF INLET SHALL BE SLOPED 1:20 WITH GROUT.
11. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED EXCEPT WHERE OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.
12. IN DEEP EXCAVATIONS (> 20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.



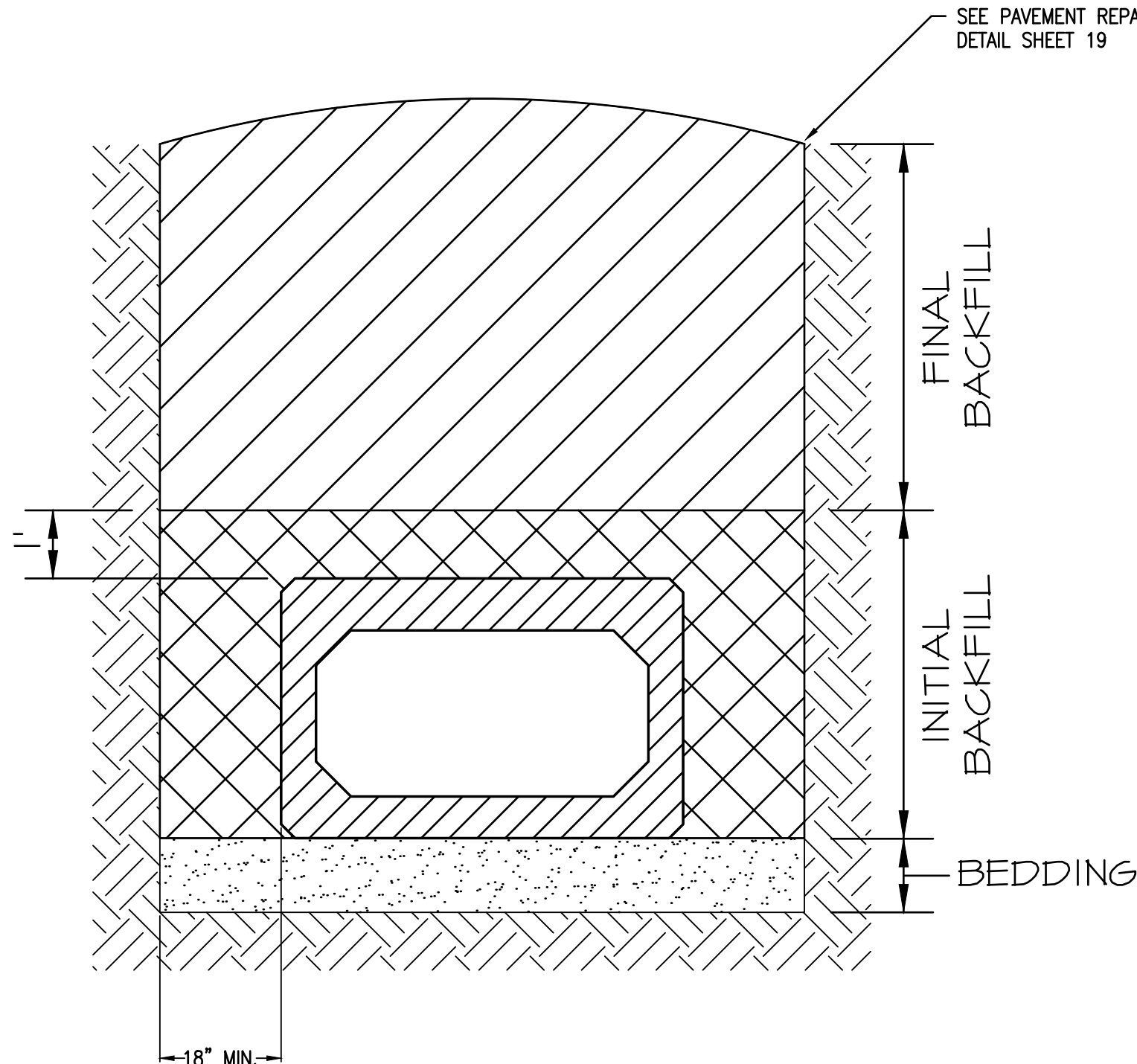
EMBEDMENT DETAIL FOR RCP
SCALE: N.T.S.



SECTION D-D
N.T.S.



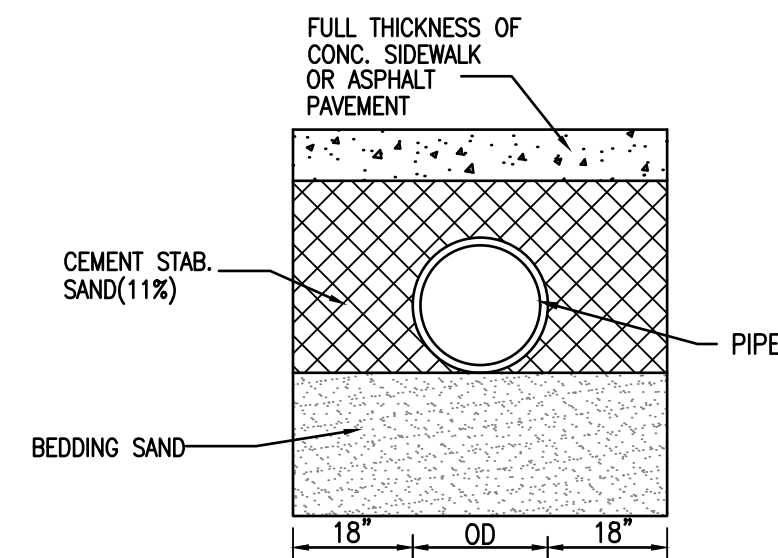
PLAN OF SPECIAL
SHALLOW MANHOLE
NOT TO SCALE



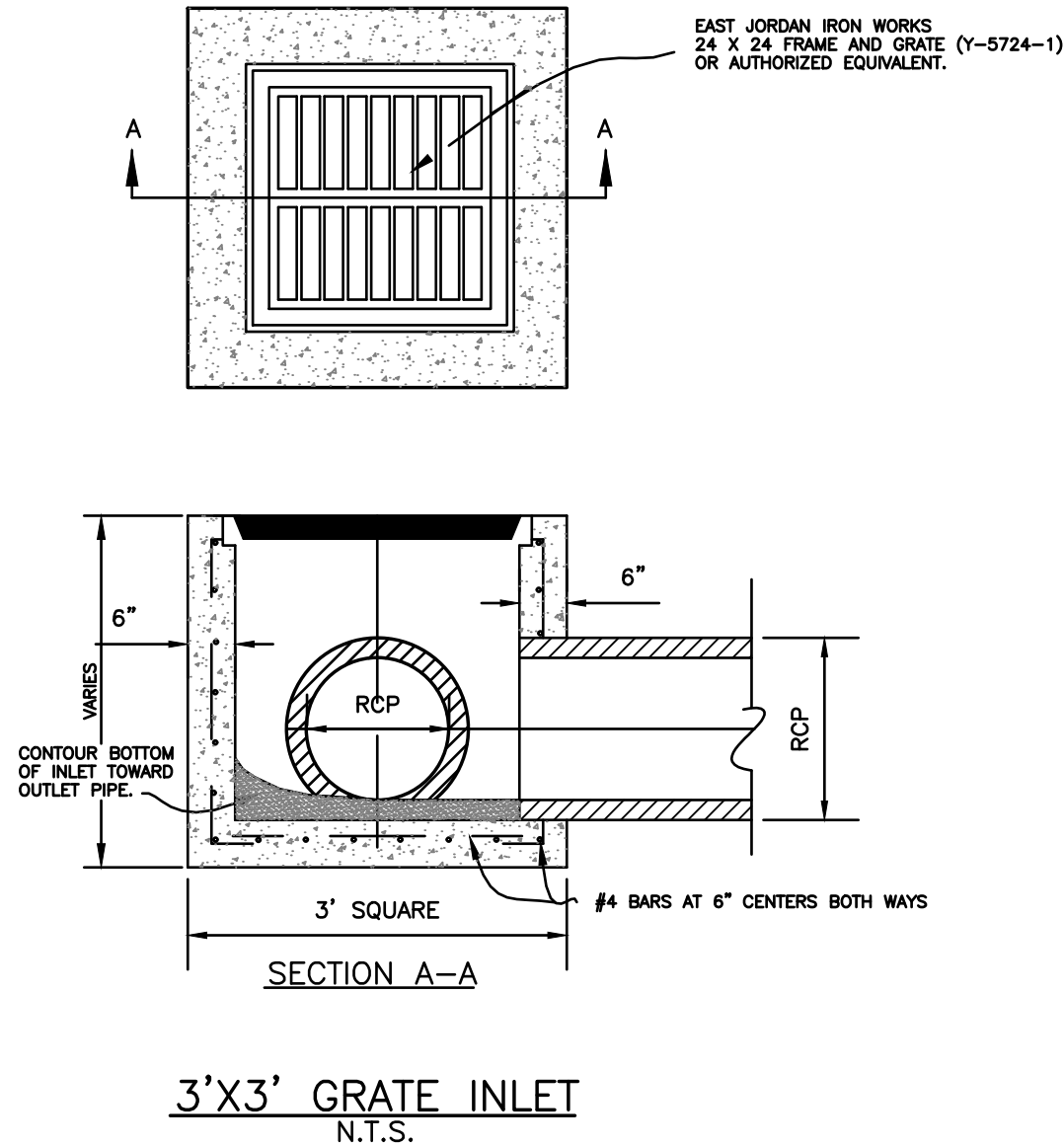
EMBEDMENT DETAIL FOR PRECAST CONCRETE BOX CULVERT

1. BEDDING FOR TRENCH SHALL BE 4" OF CRUSHED ROCK OR LIMESTONE COMPACTED TO 95% STD. PROCTOR DENSITY. CRUSHED ROCK OR LIMESTONE SHALL CONFORM TO THE LATEST TxDOT STANDARDS.
2. INITIAL BACKFILL SHALL BE 8" LIFTS (LOOSE MEASURE) SELECT GRANULAR MATERIAL MECHANICALLY TAMPED TO A MINIMUM DENSITY OF EQUAL TO AT LEAST 95% OF THE MAXIMUM DENSITY AT A MOISTURE CONTENT BETWEEN (-)1 AND (+)3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM SPECIFICATION D-698.
3. FINAL BACKFILL SHALL BE 8" LIFTS (LOOSE MEASURE) MECHANICALLY COMPACTED TO A MINIMUM DENSITY OF AT LEAST 95% OF THE MAXIMUM DENSITY AT A MOISTURE CONTENT BETWEEN (-)1 AND (+)3 PERCENT OF THE OPTIMUM MOISTURE CONTENT PER ASTM D-698.
4. CONTRACTOR SHALL SEAL THE JOINTS WITH RUB'NEK BRAND OR EQUAL EXTERNAL CONCRETE JOINT WRAP ON THE SIDES AND TOP. THE BOTTOM JOINT SHALL BE PROTECTED BY 8 OZ/SY NON-WOVEN GEOTEX I.E. AMACO 4508, LAPPED A MINIMUM OF 2' ON BOTH SIDES.

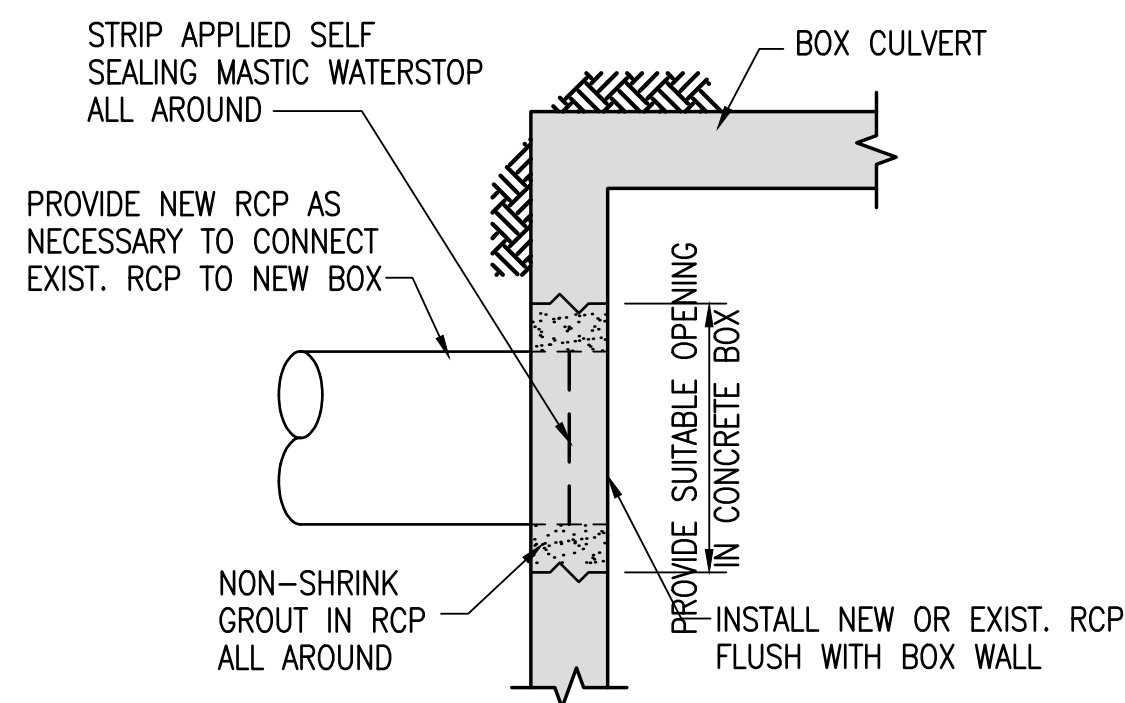
EMBEDMENT DETAIL FOR STORM SEWER W/LESS THAN 12" OF COVER



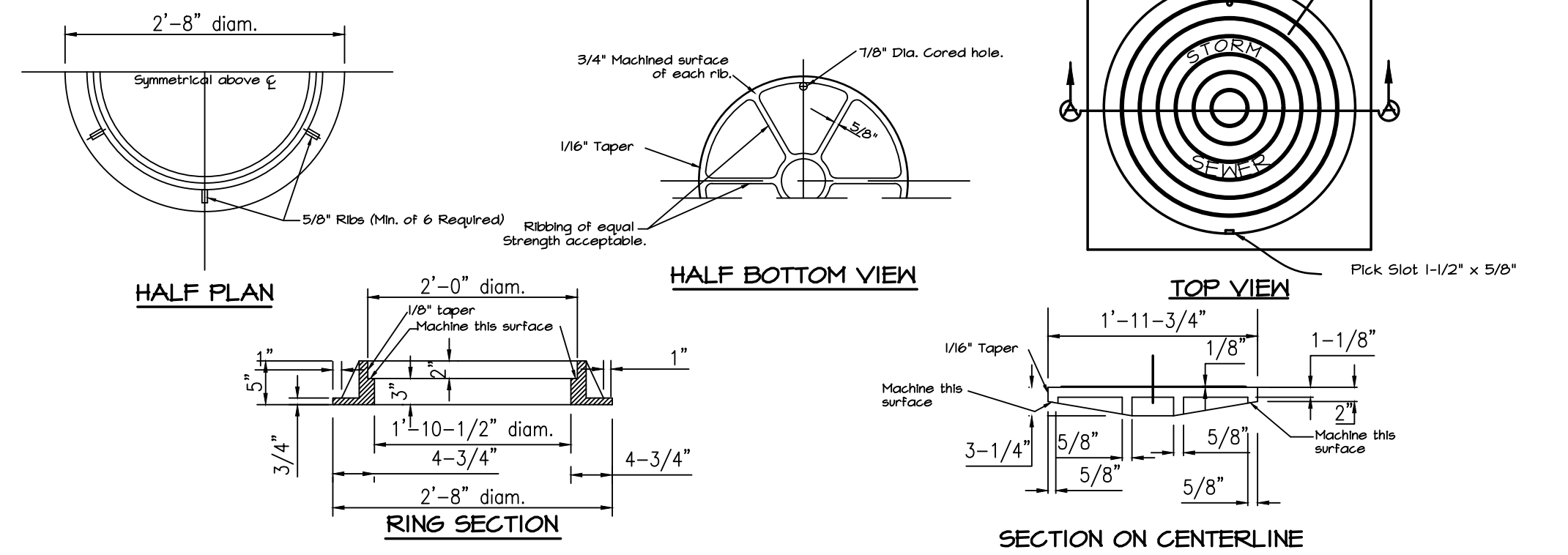
N.T.S.



3'X3' GRATE INLET
N.T.S.



RCP TIE-IN TO RCB DETAIL
SCALE: 1/2" = 1'-0"



REV.	BY	DATE	DESCRIPTION
1	CG	07/25/23	BID SET
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3	CG	09/20/23	REVISED BID SET

SCALE: AS NOTED	DRAWN: CG	CHECKED: JDM	DATE: SEPT. 2023
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URBAN ENGINEERING

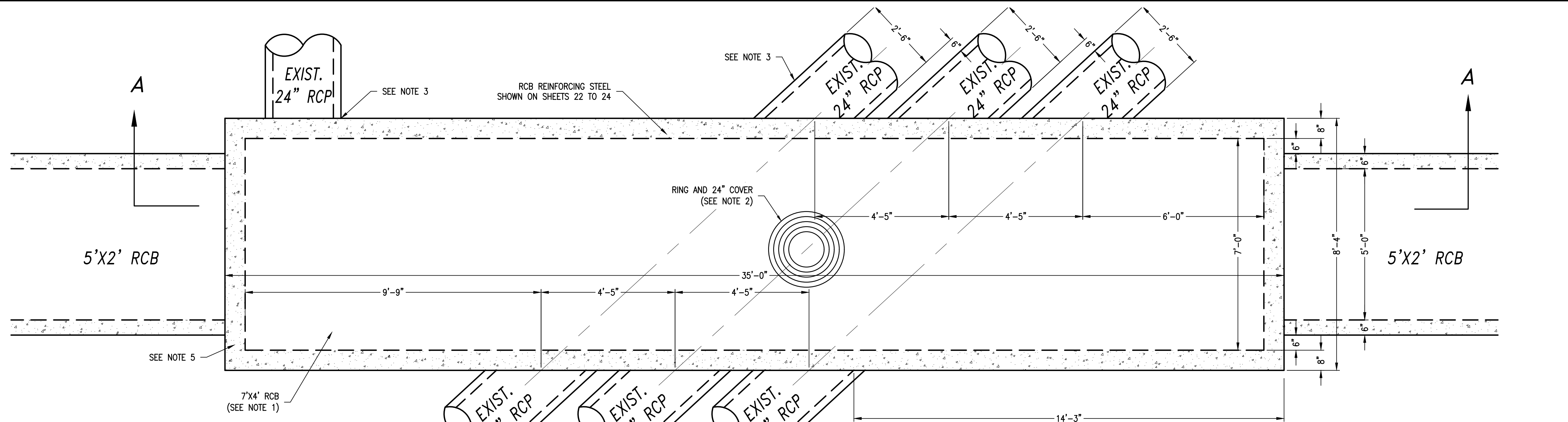
SHEET 12 OF 26

JOB NO. 06100.C1.09

STORM WATER DETAILS (1)

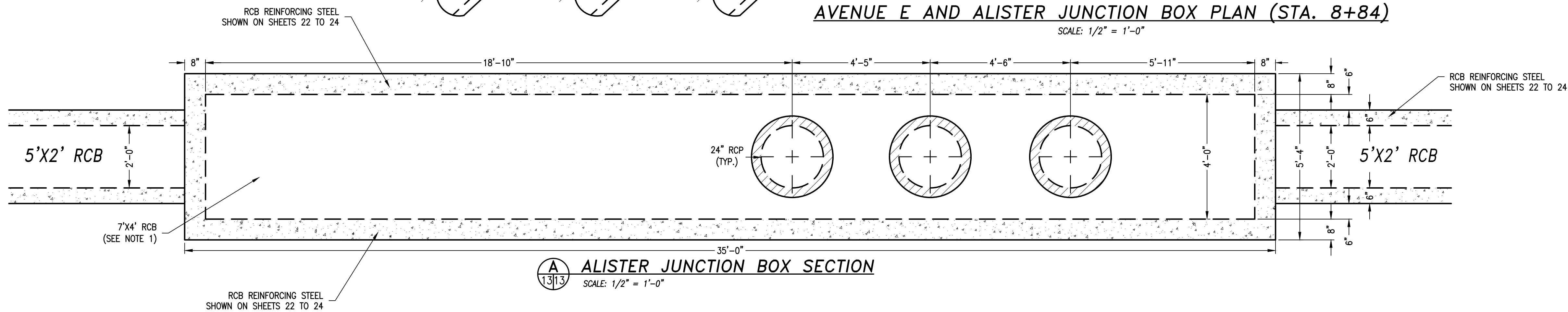
CDBG No. 20-065-143-C811 CITY OF PORT ARANSAS
HAZARD MITIGATION DRAINAGE IMPROVEMENTS - PHASE 1
PORT ARANSAS, TEXAS

DESIGNED BY: J. DOUGLAS MCNULLEN, P.E.
CHECKED BY: J. DOUGLAS MCNULLEN, P.E.
DATE: 09/20/2023
TX REG. 91086 (09/20/2023)



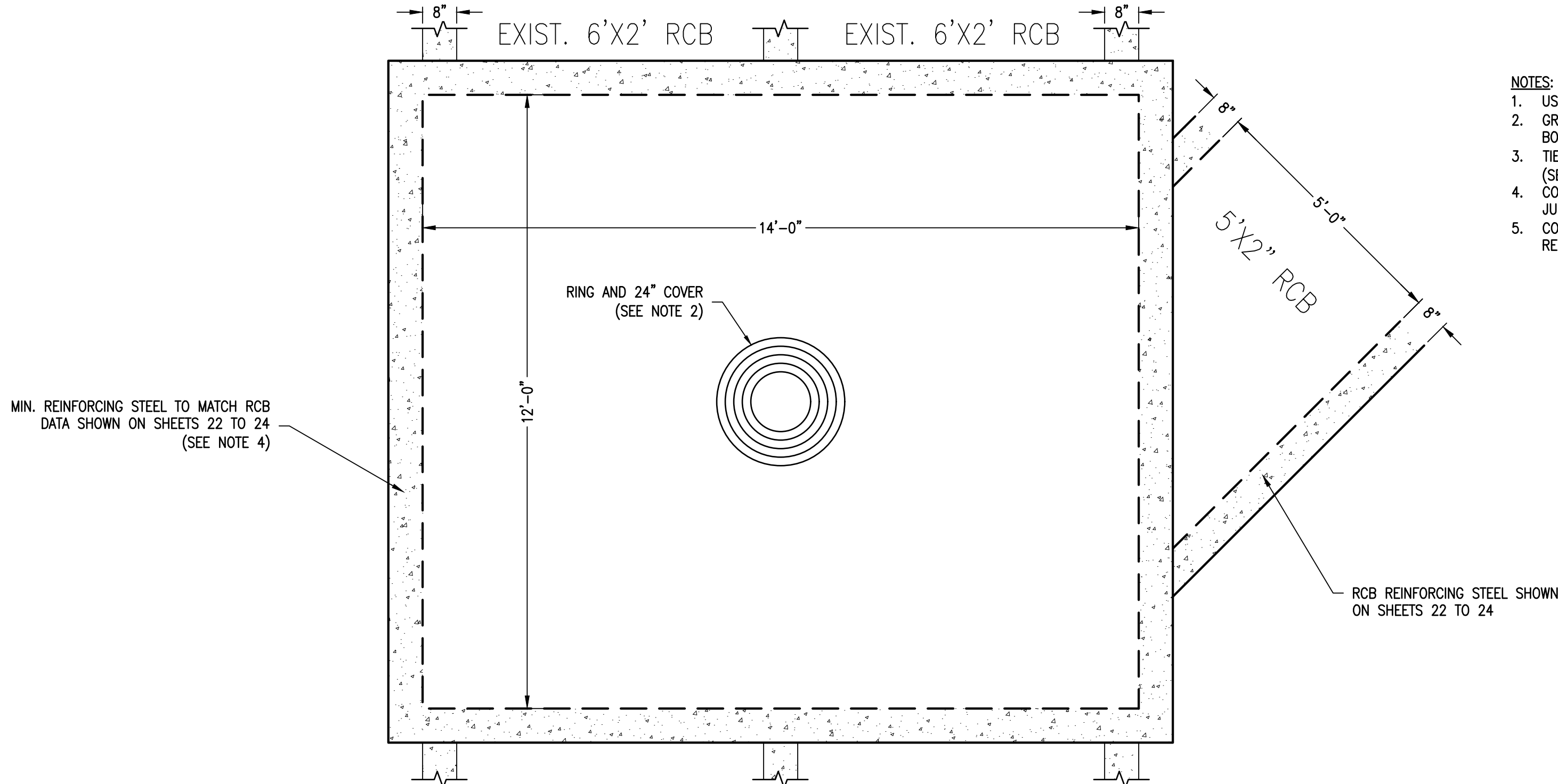
AVENUE E AND ALISTER JUNCTION BOX PLAN (STA. 8+84)

SCALE: 1/2" = 1'-0"



ALISTER JUNCTION BOX SECTION

SCALE: 1/2" = 1'-0"



AVENUE E JUNCTION BOX (STA. 0+00)

SCALE: 1/2" = 1'-0"

- NOTES:
1. USE STANDARD SECTIONS OF 7'x4' RCB TO FABRICATE JUNCTION BOX.
 2. GRATE INLET AND MANWAY CONSTRUCTED AS SHOWN ON APPLICABLE MANHOLE/JUNCTION BOX DETAIL OR GRATE INLET DETAIL ON SHEET 12.
 3. TIE-IN EXISTING 15", 18", 24" AND 27" RCP PIPES WITH GROUT AND SEALING COMPOUND. (SEE DETAIL SHEET 12)
 4. CONTRACTOR TO PROVIDE SHOP DRAWING SEALED BY A TEXAS PE FOR ALL NON STANDARD JUNCTION BOXES.
 5. CONTRACTOR TO CONSTRUCT CONCRETE WALL TO CLOSE-IN ENDS OF 7'x4' RCB. THE WALL REINFORCING STEEL TO MATCH RCB REINFORCING STEEL.

REV.	BY	DATE	DESCRIPTION
1	CG	07/25/23	BID SET
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3	CG	09/20/23	REVISED BID SET

SCALE: AS NOTED
DRAWN: CG
CHECKED: JDM
DATE: SEPT. 2023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. DOUGLAS MCULLIN, P.E. TX. REG. 91086 (09/20/2023)

STORM WATER DETAILS (2)

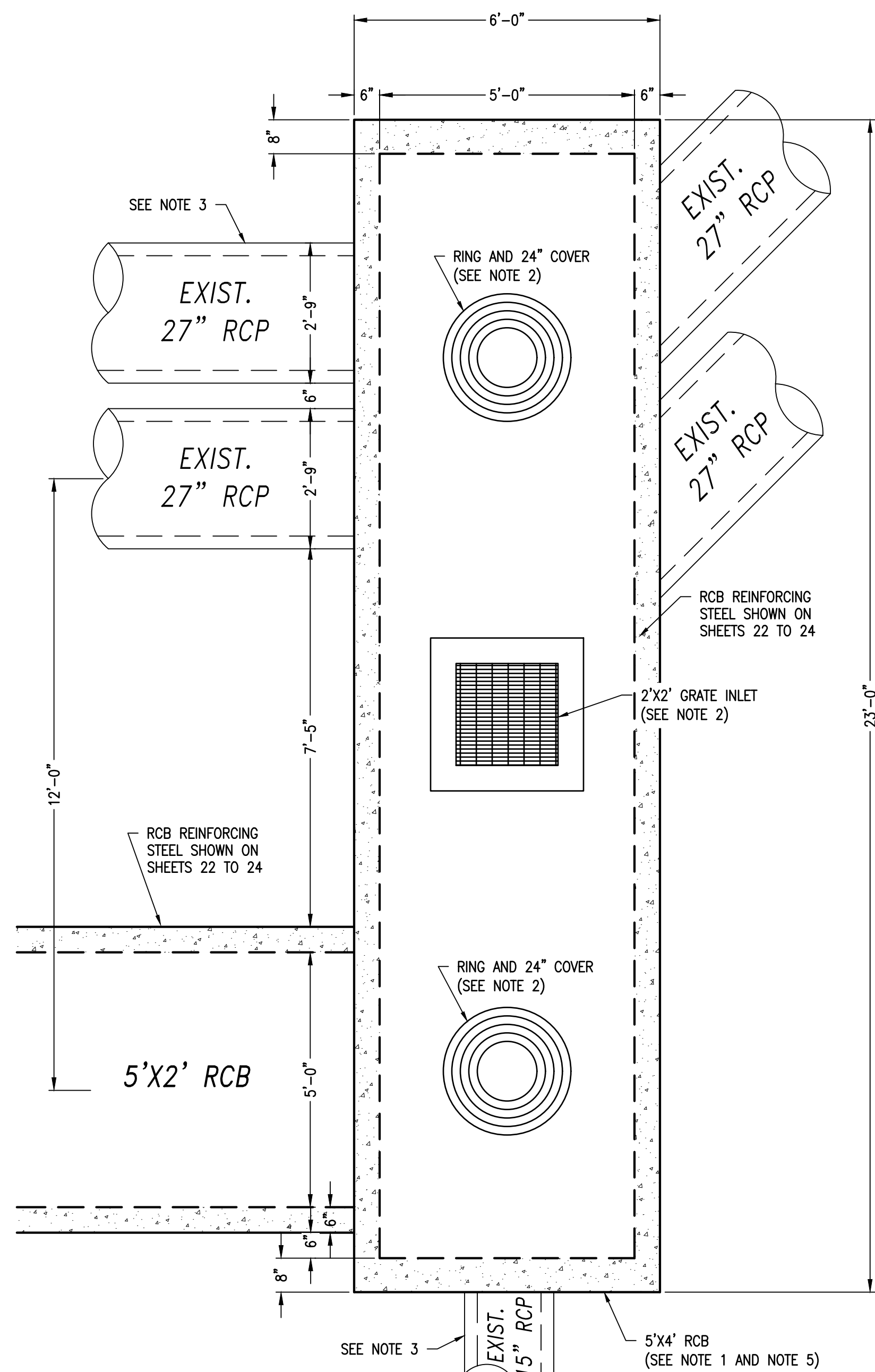
CDBG No. 20-065-143-C811 CITY OF PORT ARANSAS
HAZARD MITIGATION DRAINAGE IMPROVEMENTS - PHASE 1
PORT ARANSAS, TEXAS

URBAN ENGINEERING

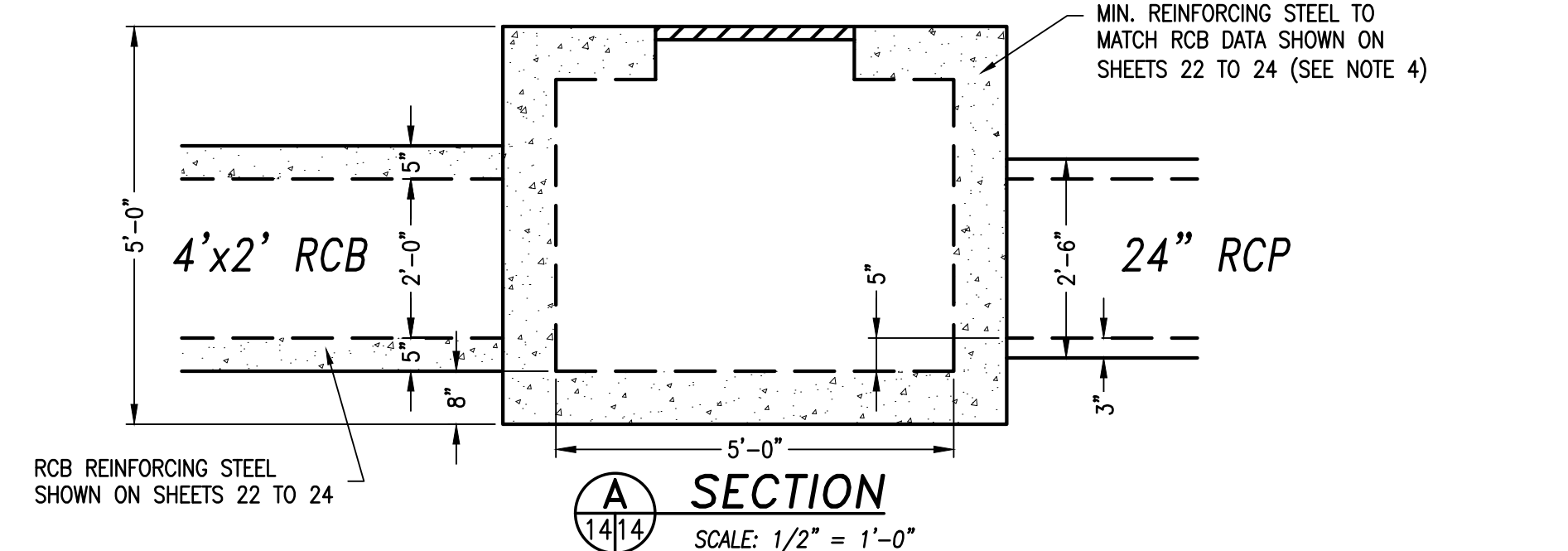
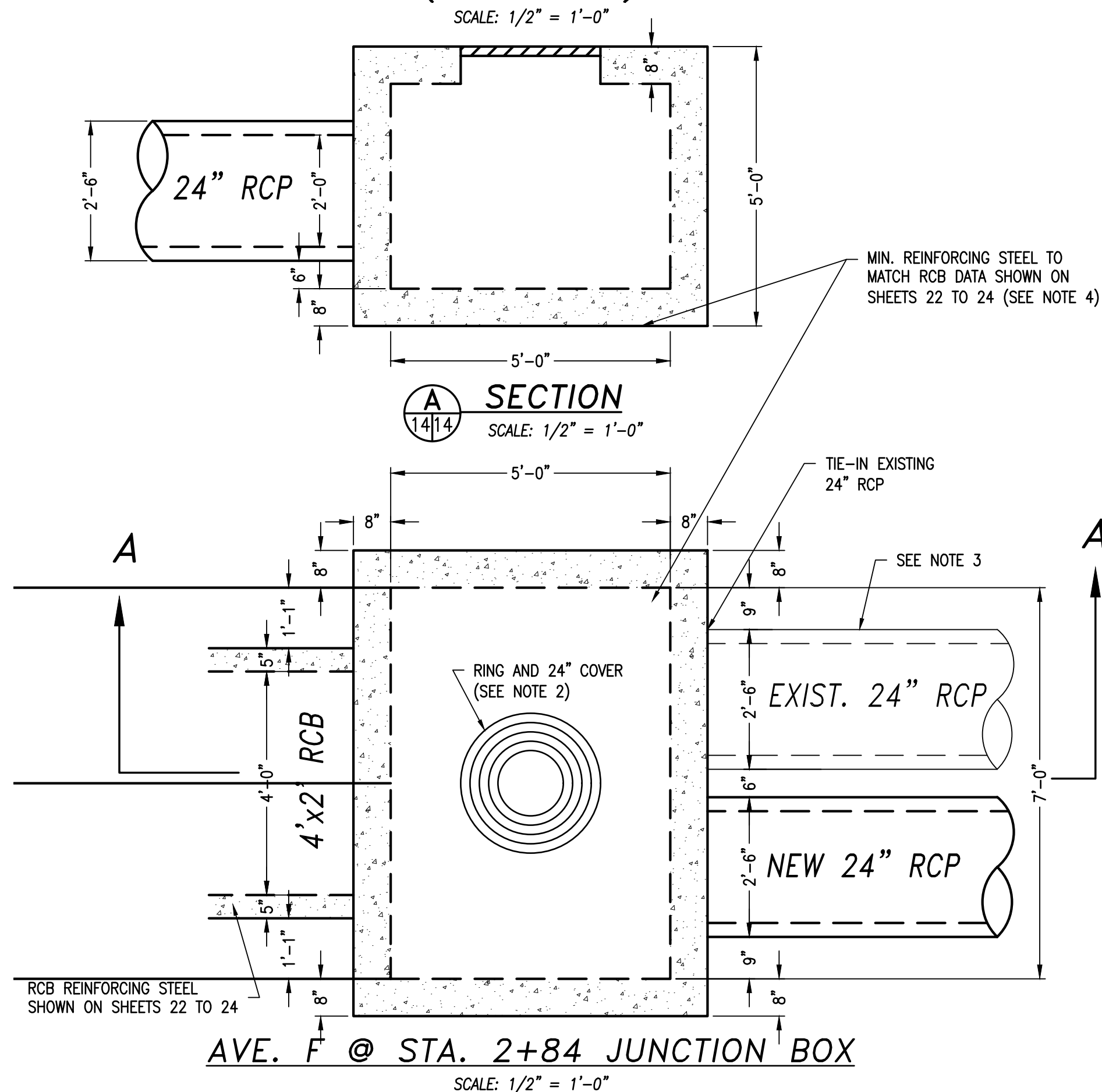
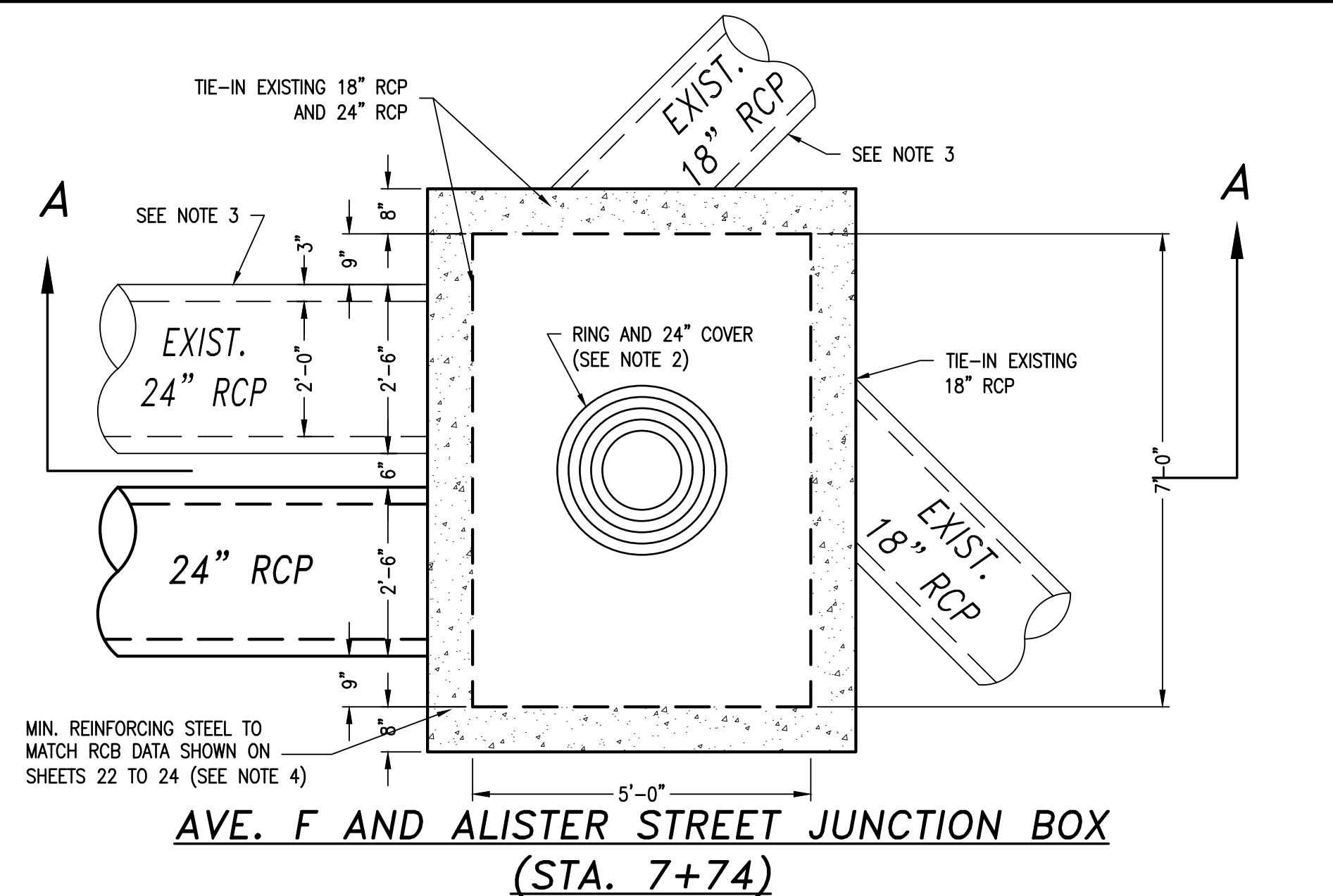
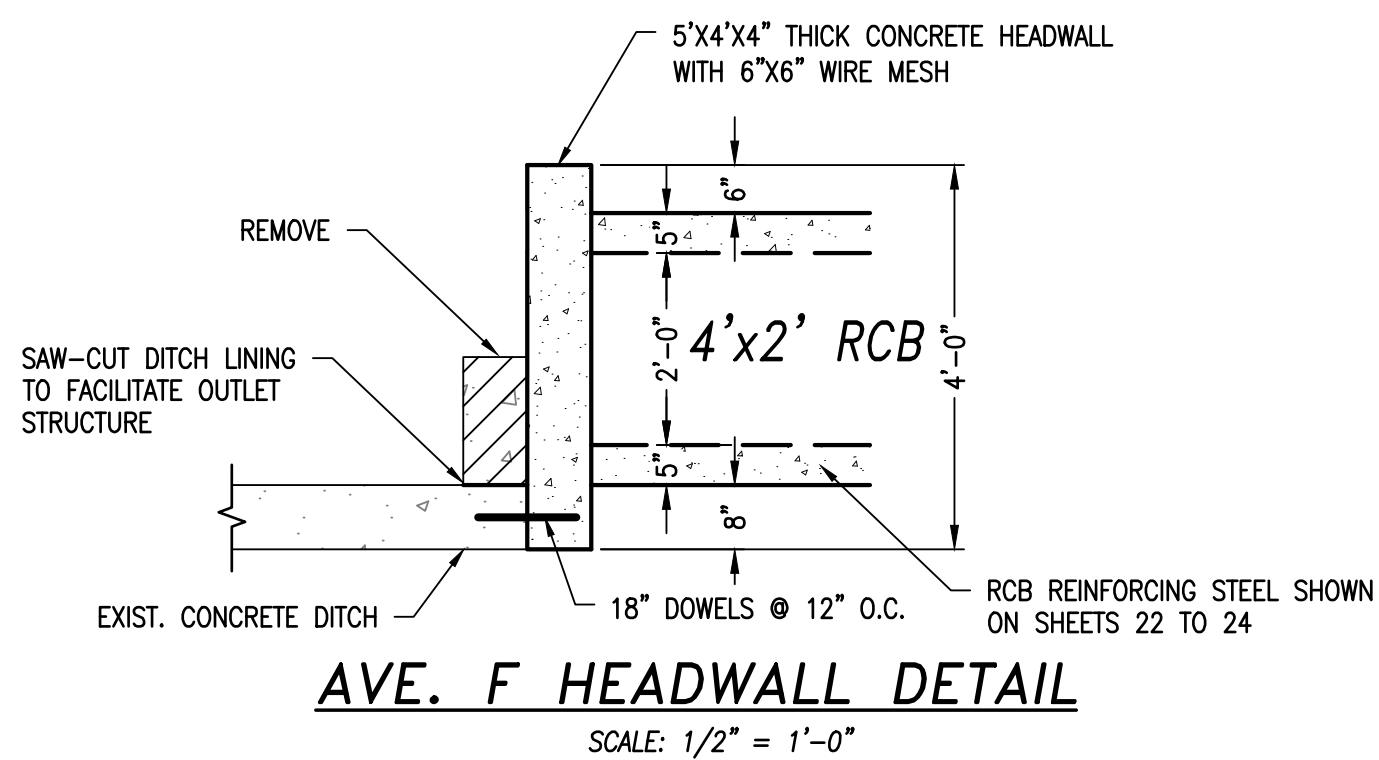
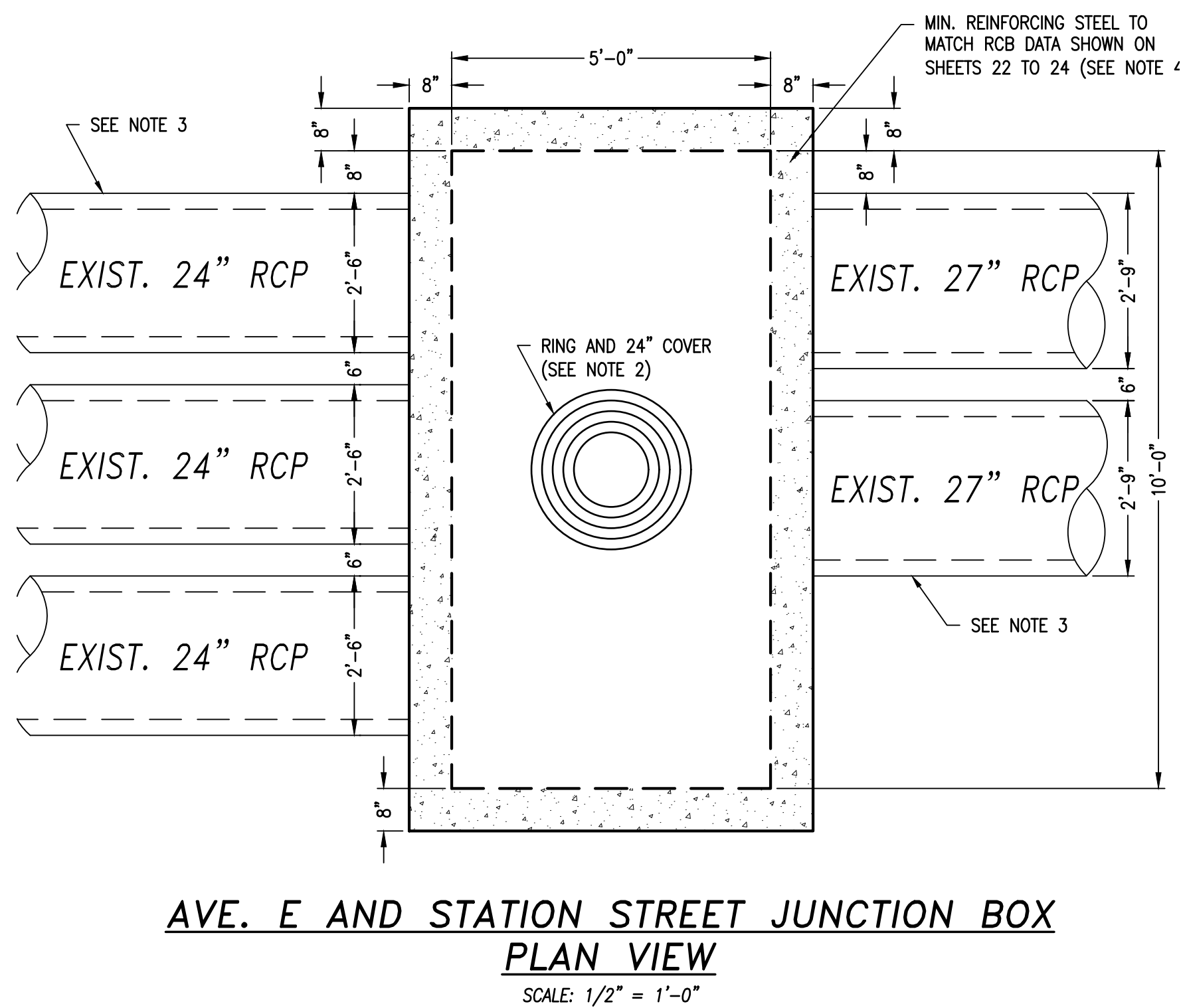
13 OF 26

JOB NO. 06100.C1.09

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- NOTES:**
1. USE STANDARD SECTIONS OF 5'x4' RCB TO FABRICATE JUNCTION BOX.
 2. GRATE INLET AND MANWAY CONSTRUCTED AS SHOWN ON APPLICABLE MANHOLE/JUNCTION BOX DETAIL OR GRATE INLET DETAIL ON SHEET 12.
 3. TIE-IN EXISTING 15", 18", 24" AND 27" RCP PIPES WITH GROUT AND SEALING COMPOUND. (SEE DETAIL SHEET 12)
 4. CONTRACTOR TO PROVIDE SHOP DRAWING SEALED BY A TEXAS PE FOR ALL NON STANDARD JUNCTION BOXES.
 5. CONTRACTOR TO CONSTRUCT CONCRETE WALL TO CLOSE-END OF 7'x4' RCB. THE WALL REINFORCING STEEL TO MATCH RCB REINFORCING STEEL.



REV.	BY	DATE	DESCRIPTION
1	CG	07/25/23	BID SET
2	CG	08/25/23	REVISED BID SET
3	CG	09/20/23	REVISED BID SET

SCALE: AS NOTED	DRAWN: CG	CHECKED: JDM	DATE: SEPT. 2023
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STORM WATER DETAILS (3)

CDBG No. 20-065-143-C811 CITY OF PORT ARANSAS HAZARD MITIGATION DRAINAGE IMPROVEMENTS - PHASE 1 PORT ARANSAS, TEXAS

SHEET 14 OF 26

JOB NO. 06100.C1.09
