

April 20, 2021

RE: ADDENDUM NO. 1
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 1**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 1** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 1** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

Enclosures
MLS/jdc

April 20, 2021

ADDENDUM NO. 1

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

1. **All construction drawings** have been revised and now include a Professional Engineer’s stamp and may include additional details. As a result, our office is extending the due date on Pre-Bid Meeting, Questions, Answers and Bid Opening dates of the aforementioned project as follows:
 - a. Replace any reference to the **Pre-Bid Meeting** date of Thursday, April 22, 2021 to **Thursday, April 29, 2021**.
 - b. Replace any reference to the **Questions** due date from Monday, April 26, 2021 at 5:00pm to **Monday, May 03, 2021 at 5:00pm**.
 - c. Replace any reference to the **Answers** for the submitted questions from Thursday, April 29, 2021 to **Thursday, May 6, 2021**.
 - d. Replace any reference to the **Bid Opening** date of Wednesday, May 5, 2021 at 9:30am with **Wednesday, May 12, 2021 at 9:30am**.

I acknowledge receipt of ADDENDUM NO. 1 dated, April 20, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

April 23, 2021

RE: ADDENDUM NO. 2
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 2**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 2** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 2** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

Enclosures
MLS/jdc

April 23, 2021

ADDENDUM NO. 2

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

All questions will be due **Monday May 3, 2021 @ 5PM.**

I acknowledge receipt of ADDENDUM NO. 2 dated, April 23, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

May 6, 2021

RE: ADDENDUM NO. 3
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 3**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 3** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 3** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

Enclosures
MLS/jdc

May 6, 2021

ADDENDUM NO. 3

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

Hidalgo County is going to extend the following:

- Questions Due Date and Time – TBD via Addendum #4
- Answers Due Date and Time – TBD via Addendum #4
- Bid Opening Date and Time – TBD via Addendum #4

Hidalgo County will also incorporate a jobsite walk with all interested/perspective bidders. Date and time of jobsite walk will be determined via Addendum #4 and will occur before the Questions Due Date.

Addendum #4 will be released in the coming days.

I acknowledge receipt of ADDENDUM NO. 3 dated, May 6, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

Attachments: **None**

May 17, 2021

RE: ADDENDUM NO. 4
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 4**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 4** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 4** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

Enclosures
MLS/jdc

May 17, 2021

ADDENDUM NO. 4

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

Hidalgo County new dates for the following:

- General Contractors non-mandatory Pre-Bid Site Visit – Friday, May 21 @ 2:00PM – *highly encouraged*
- Questions Due Date and Time – Monday, May 24 @ 5:00PM
- Answers Due Date and Time – Thursday, May 27 @ 5:00PM
- Bid Opening Date and Time – Wednesday, June 2 @ 3:00PM

I acknowledge receipt of ADDENDUM NO. 4 dated, May 17, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

Attachments: **None**

May 27, 2021

RE: ADDENDUM NO. 5
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 5**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 5** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 5** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

May 27, 2021

ADDENDUM NO. 5

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

Hidalgo County new dates for the following:

- Answers Due Date and Time – Tuesday, June 1 @ 5:00PM
- Bid Opening Date and Time – Wednesday, June 9 @ 3:00PM

Topic: Bid Opening - Construction of New Justice Center - PCT 4

Time: Jun 9, 2021 03:00 PM Central Time (US and Canada)

Join Zoom Meeting

<https://hidalgocounty.zoom.us/j/89960235028>

Meeting ID: 899 6023 5028

One tap mobile

+13462487799,,89960235028# US (Houston)

+16699006833,,89960235028# US (San Jose)

Also,

- The statement below, on page 25 of the RFP packet, under “Statement of Credentials” has been **removed**.

“Except as otherwise provided, the general contractor/bidder shall perform no less than eighty percent (80%) of the work with their own organization. Not more than twenty percent (20%) of the work may be subcontracted.”

I acknowledge receipt of ADDENDUM NO. 5 dated, May 27, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

Attachments: **None**

June 1, 2021

RE: ADDENDUM NO. 6
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 6**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 6** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 6** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III



June 1, 2021

ADDENDUM NO. 6

**RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”**

PLEASE NOTE THE FOLLOWING CHANGES:

Below are the responses to all inquiries made on or before Monday May 24, 2021 @ 5:00PM

I acknowledge receipt of ADDENDUM NO. 6 dated, June 1, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

Enclosure

ADDENDUM NO. 6 : HIDALGO COUNTY, TEXAS PRECINCT No.4
NEW JUSTICE CENTER
EDINBURG, TX

ISSUED: May 28, 2021



ARCHITECT: Rike–Ogden–Figueroa–Alex Architects, Inc.
1007 Walnut Ave.
McAllen, Texas 78501

5/28/2021

(23) 24" x 36" sheets

Total Pages Including Cover – (60) 8 ½" X 11" sheets

NOTICE:

- A. *The following changes, omissions or alterations to the specifications and drawings shall be made and insofar as specifications and drawings are inconsistent with the following, this addendum shall govern.*
- B. *Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.*
- C. *It's imperative that this addendum be inserted INTO set of specifications.*

ITEM NO. 1: BIDDERS QUESTIONS ANSWERED BY THE COUNTY

Question: Page 25 of the RFP states that following: "5. PERFORMANCE OF WORK BY OFFEROR: Except as otherwise provided, shall perform no less than eighty percent (80%) of the work with their own organization. Not more than twenty percent (20%) of the work may be subcontracted eighty percent (80%) of the work with their own organization. Not more than twenty percent (20%) of the work may be subcontracted." Is this correct?

Answer: *This statement is to be removed from Specification Section*

Question: Can the list of subcontractors (Item #4 on Statement of Credentials) be turned in 24 hours after the bid is submitted? Likewise can the list of HUB Subcontractors (as requested in Section E) be turned in 24 hours after the bid is submitted?

Answer: *For subcontractors, yes. Not for General Contractors*

Question: As stated in the FRP, (2) electronic copies of the proposal are required to be submitted along with (1) original hard copy. It would be difficult to scan handwritten numbers, save on the electronic devices, and submit by the electronic copies at the same time the original copy is due. Would it be acceptable to turn in the Electronic Copies within 24 hours after the original copy is submitted?

Answer: *No, (2) electronic copies must be submitted along with the original.*

Question: Page 48 of the RFP stipulates a goal of 30% HUB Subcontractor Participation on this project. Is it mandatory to achieve 30% or only a recommended goal? If 30% participation cannot be achieved is there another form (Good Faith Effort) to be submitted?

Answer: *It is recommended, not mandatory. If unable to meet recommended goal a form of Good Faith Effort is not required.*

Question: Is there an area in the proposal package where the GC is required to provide the project duration/schedule?

Answer: *Please place General Contractors proposed schedule behind the Proposal Cost section.*

Question: The RFP provide a bid bond form however, no percentage of the project amount to be bonded is provided. Please provide what percentage of the overall project amount the bid bond should be made out for.

Answer: Bid bond should be made out to 5% of the budget/estimated cost.

Question: Page 38 of the revised RFCSP for this project references Document 00 43 23 – Alternates Form as an attachment and integral part of the proposal form. However, after searching through the entire packet we cannot locate this form. Will it be required after all? If so, can you please provide the form?

Answer: Alternates form (Document 00 43 23) not required for this project; it was inadvertently mentioned to this packet.

ITEM NO. 2: FOLDING PARTITION SPECIFICATION SECTION – 10650

Per the attached, please add Specification Section 10650 to the original specification manual.

ITEM NO. 3: COURTROOM BENCHES

Court Room benches shall be manufactured by Ratigan-Schottler, style PB -100, with legs, w/o continuous book rack bottom and front. Layout and location as shown on drawings. Stain color to be selected by architect.

- Ratigan-Schottler Manufacturing
201 South 2nd Street
Beatrice, Nebraska 68310
1-800-383-1000

ITEM NO. 4: VINYL LOGOS @ EXTERIOR DOORS

The vinyl logos at the exterior doors shall be 1 ½" letters with a 12" diameter County Seal.

ITEM NO. 5: PROJECTION SCREEN

A. The projection screen for the Constables Conference Room shall be

(1) Luma Spring Roller Operated Projection Screen projection screen with wall brackets. Case of 22 ga. steel, fat back design, with scratch-resistant white polyester finish. Friction-free closure. Viewing surface shall be flame and mildew resistant. Matt White XT1000E and Contrast Grey XH800E viewing surfaces are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg. Endcaps finished to match case, with integral roller brackets, concealing roller ends. With matching universal mounting brackets. Fabric securely attached to one-piece rigid steel roller. Bottom of viewing surface attached to weighted dowel. Saddle and pull attached by screws.

- Sizes - 84" x 84"

ITEM NO. 6: BALLISTIC TRANSACTION WINDOWS

Where shown on the plans provide:

Bullet-resistant level III transaction window, 1 ¼" LP 1250 laminated polycarbonate as manufactured by Total Security Solutions, P: 517-223-7807/ F:517-223-0805 at 935 Garden Lane, Fowlerville, MI

- 36" x 42"
- 1 ¾" x 4" Level III alum. Tube (clear satin anodized)
- 1 ¼" Level III bullet resistant glazing (LP 1250)
- Norcon T TU-1 AB unit continuous power level III
- Level III alum, 2 PC channel (clear satin anodized)
- Level III alum 44-250, 1 PC channel (clear satin anodized)
- Recessed currency deal tray stainless steel, 16" x 10" x 1 ½"
- #10-3 ½ FHP for installation on both verticals
- Level III stainless steel ballistic counter
- TSS-BL1.75 ballistic framing

ITEM NO. 7: FINISH HARDWARE SPECIFICATION SECTION - 08710

Per the attached, please add Specification Section 08710 to the original specification manual. It shall supersede previous.

ITEM NO. 8: DOOR SCHEDULE CHANGE

The door schedule shall be modified as follows:

C107B	Single	3'-0"	7'-0"	1 3/4"	F	Solid Core Wood	Natural	H	Hollow Mt.	Paint	7/A6.8	8/A6.8	9/A6.8		
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ITEM NO. 9: MILLWORK REVEALS

The aluminum millwork reveals by Fry Reglet noted on the interior elevations are to have a powder coated finish.

ITEM NO. 10 : CEILING CLARIFICATIONS

All suspended ceiling grid and tile shall be 2' x 2' ceilings. There are (2) types of ceiling tiles.

As indicated in the Room Finish Schedule:

C.1 shall be Armstrong, #1713 - School Zone Fine Fissured

C.2 shall be Armstrong, #868 – Clean Room

ITEM NO. 11 : METAL STUD SIZES

All metal studs shall be 4".

ITEM NO. 12 : ELECTRIC GATE OPENERS/OPERATORS ALLOWANCE

Contractor shall provide a \$10,000 allowance for the electric gate openers and operators for the secure parking lot.

ITEM NO. 13 : BABY CHANGING STATIONS

1. Products: Subject to compliance with requirements, provide one of the following:
 - a. American Specialties, Inc. (ASI); 9012 Baby Changing Station - Solid Plastic, Horizontal, Surface Mounted.
 - b. Bradley Corporation; 963, Baby Changing Station.
 - c. Foundations Worldwide, Inc.; Foundations Horizontal Surface Mount Baby Changing Station (EZ™ Mount Backer-100-EH-BP Plate Included).
 - d. GAMCO Specialty Accessories; a division of Bobrick; BCS, Horizontal Wall-Mounted Baby Changing Station.
 - e. Koala Kare Products; a Division of Bobrick; KB200, Horizontal Wall-Mounted Baby Changing Station.
2. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
 - a. Engineered to support minimum of 250-lb static load when opened.
3. Mounting: Surface mounted, with unit projecting not more than 4 inches from wall when closed.
4. Operation: By pneumatic shock-absorbing mechanism.
5. Material and Finish: HDPE in manufacturer's standard color.
6. Liner Dispenser: Provide built-in dispenser for disposable sanitary liners.

ITEM NO. 14 : FLAG POLE SPECIFICATION SECTION 10350

Per the attached, please add Specification Section 10350 to the original specification manual.

ITEM NO. 15 : CHAIN LINK FENCE

Chain link fences shall be 7 feet tall.

ITEM NO. 16 : ARCHITECTURAL SITE PLAN CHANGES

Per the attached Sheet AS1.1, AS1.2, AS1.3 & AS1.4 please find Architectural Site Plan Changes.

ITEM NO. 17 : FIBERGLASS BULLET RESISTANT PANELS

At locations described on the plans, provide Fiberglass Bullet Resistant Panels as follows:

FIBERGLASS BR OPAQUE ARMOR

Product: BB-3

By: Total Security Solutions
935 Garden Lane
Fowlerville, MI
917.223.7807

ITEM NO. 18 : FLOOR AND WALL TILE CLARIFICATION

Restroom tile shall be;

Daltile – Volume 1.0, Glazed Porcelain Tile

Walls – 12 x 24

Floors – 12 x 12

ITEM NO. 19 : CIVIL ENGINEERING CLARIFICATION

Per the attached, please find Civil Engineering sheets from MEG Engineering.

ITEM NO. 20 : STRUCTURAL ENGINEERING CLARIFICATION

Per the attached, please find Structural Engineering clarification from Miguel Chanin Engineering.

ITEM NO. 21 : MEP ENGINEERING CLARIFICATION

Per the attached, please find MEP Engineering clarification from Trinity Engineering.

ITEM NO. 22 : GEOTECH REPORT

Per the attached, please find the Geotech Report.

ITEM NO. 23 : DELETE STRUCTURAL STEEL ALLOWANCE

Delete Note: No. 10, Sheet S1.1.

END OF ADDENDUM No. 6

SECTION 10650
FOLDING PARTITIONS

PART 1: GENERAL

1.01 SUMMARY:

- A. Provide where shown on the Drawing, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.02 SUBMITTALS:

- A. Comply with pertinent provisions of Section 01340.
- B. Product Data: Within 45 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Material list of items proposed to be provided under this section;
 - 2. Manufacturer's specification and other data needed to prove compliance with the specified requirements;
 - 3. Shop Drawings showing complete details of installation, anchorage, and interface with the work of other trades;
 - 4. Samples of the manufacturer's standard colors available in the specified materials;
 - 5. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.03 QUALITY ASSURANCE:

- A. Use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.04 DELIVERY, STORAGE, AND HANDLING:

- A. Comply with pertinent provisions of Section 01620.

PART 2 - PRODUCTS

2.01 FOLDING PARTITIONS:

- A. Provide a folding partition system of the dimensions and arrangements shown on the Drawings, utilizing the standard products of MODERNFOLD, 1711 "I" Avenue, New Castle, Indiana, 47362 -(317)529-1450, or approved equal, with the following attributes:
 - 1. Product: ACOUSTI-SEAL 900 Series, paired panels, Model 932 with top supporters and operable floor seals. Flat steel panel construction.
 - 2. Operation and Stack: Manual, center stack (panel stacking option 4).
 - 3. Panel: Constructed of all steel with steel skins roll formed and welded directly to steel panel frame for unitized construction. Mechanically fastened skins are not acceptable. Rigid backing and interior insulation shall provide structural integrity. Wrap-around skin/panel construction shall not require or permit vertical trim on panel faces and shall provide a minimum "Groove" appearance at each vertical panel joint.
 - 4. Panel Finish: Factory-applied Class "A" rated material; Harris Tweed Fabric, several colors available. Submit color samples to Architect.
 - 5. Sound Seals: Vertical seals between panels consisting of tongue and groove configuration, allowing reversible panel operation, with steel astragals incorporating vinyl acoustic seals. Plastic or aluminum astragals not acceptable. Horizontal top seals shall be continuous contact, extruded vinyl shape. Operable floor seals shall provide 2.5" travel and nominal 2" clearance.
 - 6. Suspension System: Shall consist on a continuous shaped track selected from standard manufacturer's offering. Paired panels shall have one carrier per panel.
 - 7. STC Rating, 46 (Laboratory Acoustical Performance Test).
 - 8. Fire Rating: 1-Hour rating, U.L. classified.

SECTION 10650
FOLDING PARTITIONS

9. Track System: #14 track system secured to steel beam above as recommended by manufacturer.
Ceiling Height: 9 feet nominal, verify on jobsite.

2.02 OTHER MATERIALS:

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3: EXECUTION

3.01 SURFACE CONDITIONS:

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until satisfactory conditions are corrected.

3.02 INSTALLATION:

- A. Coordinate as necessary with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Install the work of this Section in strict accordance with pertinent requirements of governmental agencies having jurisdiction, with the approved Shop Drawings, and with the manufacturer's recommendations as approved by the Architect, anchoring all components firmly into position.

END OF SECTION

SECTION 08710 - FINISH HARDWARE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Work under this section comprises of furnishing hardware specified herein and noted on drawings for a complete and operational system, including any electrified hardware components, systems, controls and hardware for aluminum entrance doors. Any door shown on the drawing and not specifically referenced in the hardware sets shall be provided with identical hardware as specified on other similar openings and shall be included in the General Contractor's base bid. All fire rated door shall be provided with fire rated hardware as required by local code Authority as part of the General Contractor's base bid. The hardware supplier shall verify all cylinder types specified for locking devices supplied as part of the door system with the door manufacturer and/or door supplies.
- B. The General Contractor shall notify the Architect in writing of any discrepancies (five (5) days prior to bid date) that could and/or would result in hardware being supplied that is none functional, hardware specified and/or hardware that has not been specified that will result in any code violations and any door that is not covered in this specification. Failure of the General Contractor to address any such issue could be considered acceptance of the hardware specified and any and/or all discrepancies could be corrected at the General Contractor's expense.
- C. Items include but are not limited to the following:
 - 1. Hinges - Pivots
 - 2. Flush Bolts
 - 3. Exit Devices
 - 4. Locksets and Cylinders
 - 5. Push Plates - Pulls
 - 6. Coordinators
 - 7. Closers
 - 8. Kick, Mop and Protection Plates
 - 9. Stops, Wall Bumpers, Overhead Controls
 - 10. Electrified Hold Open Devices
 - 11. Thresholds, Seals and Door Bottoms
 - 12. Silencers
 - 13. Miscellaneous Trim and Accessories

1.02 RELATED DOCUMENTS, drawings and general provisions of contract, including General and Supplementary Conditions, and Division 1 Specification sections, apply to this section.

1.03 RELATED WORK specified elsewhere that should be examined for its effect upon this section:

- A. Section 06 20 00 - Finish Carpentry
- B. Section 08 11 13 – Steel Doors and Frames
- C. Section 08 14 16 – Flush Wood Doors
- D. Sections 08 31 13 – Access Doors
- E. Section 08 39 00 – Watertight Doors
- E. Section 08 41 13 – Aluminum Entrances, Storefront and Window Framing
- F. Sections 08 80 00 – Glass and Glazing
- G. Sections 09 91 00 - Painting

- H. Division 26 – Electrical
- I. Division 28 – Access Control

1.04 REFERENCES SPECIFIED in this section subject to compliance as directed:

- A. NFPA-80 - Standard for Fire Doors and Windows
- B. NFPA-101 - Life Safety Code
- C. ADA - The Americans with Disabilities Act - Title III - Public Accommodations
- D. ANSI-A 117.1 - American National Standards Institute - Accessible and Usable Buildings and Facilities
- E. ANSI-A 156.5 - American National Standards institute -Auxiliary Locks and Associated Products
- F. UFAS - Uniform Federal Accessibility Standards
- G. UL - Underwriter's Laboratories
- H. WHI - Warnock Hersey International, Testing Services
- I. State and Local Codes including Authority Having Jurisdiction
- J. UL10C – Positive Pressure
- K. IBC-2018 – International Building Code
- L. NFPA-70 – International Electrical Code

1.05 SUBMITTALS

- A. **HARDWARE SCHEDULES** submit copies of schedule in accordance with Division 1, General Requirements. Schedule to be in vertical format, listing each door opening, including: handing of opening, all hardware scheduled for opening or otherwise required to allow for proper function of door opening as intended, and finish of hardware. At doors with door closers or door controls include degree of door opening. Supply the schedules all Finish Hardware within two (2) weeks from date purchase order is received by the hardware supplier.
- B. Submit manufacturer's cut/catalog sheets on all hardware items and any required special mounting instructions with the hardware schedule.
- C. Certification of Compliance:
 - 1. Submit any information necessary to indicate compliance to these specifications as required.
 - 2. Submit a statement from the manufacturer that electronic hardware and systems being supplied comply with the operational descriptions exactly as specified.
- D. Submit any samples necessary as required by the Architect.
- E. Templates for finish hardware items to be sent to related door and frame suppliers within three (3) working days of receipt of approved hardware schedule.
- F. Doors and Frames used in positive pressure opening assemblies shall meet UL10C in areas where this specification includes Seals for smoke door.

1.06 QUALITY ASSURANCE

- A. Hardware supplier to be a qualified, Factory Authorized, direct distributor of the products to be furnished. In addition, the supplier to have in their regular employment an AHC or AHC /CDC and/or a person of equivalent experience (minimum fifteen (15) years in the industry) who will be made available at reasonable times to consult with the Architect/Contractor and/or the Owners

Representative regarding any matters affecting the finish hardware on this project.

- B. All hardware used in labeled fire or smoke rated openings to be listed for those types of openings and bear the identifying label or mark indicating UL. (Underwriter's Laboratories) approved for fire. Exit devices in non-labeled openings to be listed for panic.

1.07 DELIVERY, HANDLING AND PACKAGING

- A. Furnish all hardware with each unit clearly marked and numbered in accordance with the hardware schedule. Include door and item number for each.
- B. Pack each item of hardware completes with all necessary parts and fasteners.
- C. Properly wrap and cushion each item to prevent scratches and dents during delivery and storage.

1.08 SEQUENCING AND SCHEDULING

Any part of the finish hardware required by the frame or door manufacturers or other suppliers that is needed to produce doors or frames is to be sent to those suppliers in a timely manner, so as not to interrupt job progress.

1.09 WARRANTY

All finish hardware shall be supplied with a one- (1) year warranty against defects in materials and workmanship, commencing with substantial completion of the project except as follows:

- 1. All Closers shall have a thirty- (30) year written warranty.
- 2. All Grade 1 "ND" Locksets shall have a ten- (10) year written warranty.
- 3. All Exit Devices shall have a three (3) year written warranty.
- 4. All Continuous Hinges shall have a ten-(10) year written warranty.

PART 2 – PRODUCTS

2.01 FASTENERS

- A. Furnish with finish hardware all necessary screws, bolts and other fasteners of suitable size and type to anchor the hardware in position for a long life under hard use.
- B. Furnish fastenings where necessary with expansion shields, toggle bolts and other anchors designated by the Architect according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer. All closers and exit devices on labeled wood doors shall be through-bolted if required by the door manufacturer. All thresholds shall be fastened with wood screws and plastic anchors. Where specified in the hardware sets, security type fasteners of the type called for are to be supplied.
- C. Design of all fastenings shall harmonize with the hardware as to material and finish.
- D. All hardware shall be installed with the Manufacturers standard screws as provided. The use of any other type of fasteners shall not be permitted. The

general contractor shall provide wood blocking in all stud walls specified and/or scheduled to receive wall stops, No Exception.

2.02 ENVIRONMENTAL CONCERN FOR PACKAGING

The hardware shall ship to the job site is to be packaged in biodegradable packs such as paper or cardboard boxes and wrapping.

2.03 HINGES

- A. All hinges to be of one manufacturer as hereafter listed for continuity and consideration of warranty. Provide one of the following manufacturers Ives, Hager, Mc Kinney or Stanley.
- B. Unless otherwise specified provide five-knuckle, heavy-duty, button tip, full mortise template type hinges with non-rising loose pins. Provide non-removable pins for out swinging doors at secured areas or as called for in this specification (Refer to 3.02 Hardware Sets).
- C. Provide all out-swinging doors with non-removable pins or security studs as called for in 3.02 Hardware Sets. Furnish three (3) hinges up to 90 inches high and one (1) additional hinge for every 30 inches or fraction thereof.
- D. Furnish three (3) hinges up to 90 inches high and one (1) additional hinge for every 30 inches or fraction thereof.
- E. Provide size 4½" x 4½" for all 1¾" thick doors up to and including 36 inches wide. Doors over 1¾" through 2¼" thick, use 5" x 5" hinges. Doors over 36 inches use 5" x 4½" unless otherwise noted in 3.02 Hardware Sets.
- F. Were required to clear the trim and/or to permit the doors to swing 180 degrees furnish hinges of sufficient throw.
- G. Provide heavy weight hinges on all doors over 36 inches in width.
- H. At labeled door's steel or stainless steel, bearing-type hinges shall be provided. For all doors equipped with closers provide bearing-type hinges.

2.04 LOCK AND LOCK TRIM

- A. All locksets, latch sets, and trim to be of one manufacturer as hereafter listed for continuity of design and consideration of warranty. Locksets specified are Schlage "ND" series with the Sparta levers and shall be provided as specified or acceptable products manufactured by Falcon (T Series) or Sargent (11 Line).
- B. Provide metal wrought box strike boxes and curved lip strikes with proper lip length to protect trim of the frame, but not to project more than 1/8 inch beyond frame trim or the inactive leaf of a pair of doors.
- C. Mechanical Locks shall meet ANSI Operational Grade 1, Series 4000 as specified.
 - 1. Hand of lock is to be field reversible or non-handed.
 - 2. All lever trim is to be through-bolted through the door.

2.05 CYLINDERS AND KEYING

- A. Provide all exterior and interior locks or Exit Devices requiring cylinders keyed to the New Large Format Interchangeable Core Everest Master Key System as instructed by the Owners Representative. Cylinders shall comply with performance requirements of ANSI A156.5. All keys shall be of nickel silver material only. The hardware supplier shall meet with the General Contractor, the Architect and the Owners Representative at the project jobsite to determine all permanent keying requirements.
- B. Cylinders shall be factory keyed and factory maintained as directed by the owners Representative and the Architect. Provide two- (2) keys per cylinder and four- (4) master keys per master used.
- C. Factory stamp all keys "Do not duplicate" and with key symbol as directed by the Owners Representative. Visual key control shall be provided on all permanent keys and cylinders.
- D. Provide temporary keyed construction cores for the duration of the construction phase. Provide ten (10) construction keys and two (2) construction control keys. All construction cores shall be returned to the hardware supplier upon installation of permanent cores.

2.06 EXIT DEVICES

- A. All exit devices and trim, including electrified items, to be of one manufacturer as hereafter listed and in the hardware sets for continuity of design and consideration of warranty; electrified devices and trim to be the same series and design as mechanical devices and trim.
- B. Exit Devices to be "UL" listed for life safety. All exit devices for labeled doors shall have "UL" label for "Fire Exit Hardware". All devices mounted on labeled wood doors are to be through-bolted or per the manufacturer's listing requirements. All devices shall conform to NFPA 80 and NFPA 101 requirements.
- C. All exit devices to be of a heavy duty, chassis mounted design, with a one-piece removable cover, eliminating necessity of removing the device from the door for standard maintenance and keying requirements.
- D. All trims to be through-bolted to the lock stile case. Lever design to be the same as specified with the lock sets.
- E. Exit Devices shall be the modern push rail design. All exit devices shall be mounted with sex bolts and installed with the manufactures standard screws. Exit Hardware Devices found to be installed with self-drilling and self-tapping screws shall be removed and reinstalled at the installer expenses.
- F. All devices shall carry a three- (3) year warranty against manufacturing defects and workmanship.
- G. Furnish roller strikes for all rim and surface vertical rod exit devices. Internal springs shall be coil compression type. Furnish security dead latching for all active latch bolts.
- H. All Exit Devices shall be field modifiable as incorporate an Electric Latch Retraction Feature without the purchase of new Panic Exit Hardware.

- J. Exit Devices shall be the Von Duprin "99" series as specified.

2.07 SURFACE MOUNTED DOOR CLOSERS

- A. All closers for this project shall be the products of a single manufacturer for continuity of design and consideration of warranty. All door closers shall be mounted as to achieve the maximum degree of opening (trim permitting).
- B. All closers to be heavy duty, surface-mounted, fully hydraulic, rack and pinion action with high strength case iron cylinder to provide control throughout the entire door opening and closing cycle.
- C. Size all closers in accordance with the manufacturer's recommendations at the factory.
- D. All closers to have adjustable spring power sizes 1 or 2 through 4 or 6 and non-critical regulating screw valves for closing speed, latching speed and back-check control as a standard feature unless specified otherwise.
- E. Provide closer covers only if provided as a standard part of the door closer package.
- F. The hardware supplier shall provide all required brackets, spacers or filler plates as required by the manufacture for a proper and functional installation as part of their base bid.
- G. Supply appropriate arm assembly for each closer so that closer body and arm are mounted on non-public side of door opening and on the interior side of exterior openings, except where required otherwise in the hardware sets.
- H. Provide drop plates and any additional mounting brackets required for the proper installation of the door closer shall be included in the hardware supplier's base bid.
- I. Finish: Baked on Powder Coated finish shall match other hardware.
- J. Provide and mount all door closers with sex bolts as provided by the manufacturer.
- K. Closers shall be LCN 4040XP & 1461 series as specified or acceptable products manufactured by Sargent "281" series and Norton (7501BF) series.

2.08 DOOR STOPS AND HOLDERS

- A. Door stops are to be furnished for every door leaf. Every door is to have a floor, wall, or an overhead stop.
- B. Place doorstops in such a position that they permit maximum door swing, but do not present a hazard of obstruction. Furnish floor strikes for floor holders of proper height to engage holders of doors.
- C. Where overhead stops and holders are specified, or otherwise required for proper door operation, they are to be heavy duty and of extruded brass, bronze or stainless steel with no plastic parts as specified. The General Contractor shall provide wood blocking in all stud walls specified and scheduled to receive wall stops.

- D. Finish: Shall match other hardware where available.
- E. Acceptable Products
 - 1. Floor and wall stops as listed in hardware sets. Equivalent products as manufactured by Ives, ABH and Trimco are acceptable.

2.09 PUSH PLATES, DOOR PULLS, AND KICKPLATES

- A. All push plates, door pull, kick plates and other miscellaneous hardware as listed in hardware sets. Equivalent products as manufactured by Ives, Hager and Trimco are acceptable.
- B. Kick plates to be 10 inches high and Mop plates to be 6 inches high, both by 1-½ inches or 1 inch less than door width (LDW) as specified. They are to be of 16-gauge thick base metal. For door with louvers or narrow bottom rails, kick plate height to be 1 inch less dimension shown from the bottom of the door to the bottom of the louver or glass.
- C. Where required armor plates, edge guards and other protective hardware shall be supplied in sizes as scheduled in the hardware sets.
- D. Finish: Same as other hardware where available.

2.10 FLUSH BOLTS AND COORDINATORS

- A. Provide Flush bolts with Dust Proof Strikes as indicated in the individual hardware sets by Ives, Hager and Trimco are acceptable. Finish shall match the adjacent hardware.

2.11 THRESHOLDS AND SEALS

- A. Provide materials and finishes as listed in hardware sets. Zero products have been specified to set a high level of quality, equivalent product by manufactured by National Guard Products and Pemko shall be acceptable. All thresholds must be in accordance with the requirements of the ADA and ANSI A117.1.
- B. Provide thresholds with Zero 224 MSLA-4 anchoring application. Supply all necessary anchoring devices as supplied by the product manufacturer for the installation of weather strip and sound seal.
- C. Seals shall comply with requirements of UL10C. All thresholds, door bottoms and weather strip inserts shall be a silicone based product as specified in 3.02 Hardware Sets. Other materials used shall be rejected, unless originally specified.
- D. Seals shall comply with the requirements of the Wood Door Manufacturer's certification requirements.
- E. Install all Threshold in a full bed of sealant as to prevent water & insect penetration inside of the building.

2.12 FINISHES

- A. Finishes for all hardware are as required in this specification and the hardware sets.
- B. Special care is to be taken to make uniform the finish of all various manufactured items.

2.13 DOOR SILENCERS

- A. Provide door silencers at all openings without gasket. Provide two- (2) each at pair of doors and three- (3) or four- (4) each for each single door (coordinate with the frame manufacturer).

2.14 PROPRIETARY PRODUCTS

- A. References to specific products are used to establish quality standards of utility and performance. Unless otherwise approved provide only the specified product.
- B. All other materials, not specifically described, but required for a complete and proper finish hardware installation, are to be selected by the Contractor, subject to the approval of the Architect and the Owners Representative.
- C. Architect and the Owners Representative reserve the right to approve all the substitutions proposed for this specification. All requests for substitution to be made prior to bid in accordance with Division 1, General Requirements, and are to be in writing, hand delivered to the Architect. Two (2) copies of the manufacturer's brochures and a physical sample of each item in the appropriate design and finish shall accompany requests for substitution.

PART 3 - EXECUTION

3.01 INSTALLATION AND SERVICE ITEMS OF FINISH HARDWARE

- A. All finish hardware shall be installed by an experienced finish hardware installer with at least ten (10) years of experience after a pre-installation meeting between the contractor, hardware Manufacturers representative, the hardware supplier, the hollow metal supplier and the wood door supplier. The finish hardware installer shall be responsible for the proper installation and function of all doors and hardware.
- B. The hardware supplier's office and/or warehouse shall be located within a one seventy-five (75) mile radius of the project site as to better service the general contractor and the Owners Representative during this project.
- C. Check hardware against the reviewed hardware schedule upon delivery. Store the hardware in a dry and secure location to protect against loss and damage.
- D. Install finish hardware in accordance with approved hardware schedule and manufacturers' printed instructions. Pre-fit hardware before finish is applied to door; remove and reinstall after finish is complete and dry. Install and adjust hardware so that parts operate smoothly, close tightly, and do not rattle.
- E. Mortise and cutting to be done neatly, and evidence of cutting to be concealed in the finished work. Protect all Finish hardware from scratching or other damage.

3.02 HARDWARE SETS

48220 OPT0194106 Version 1

Hardware Group No. 002

For use on Door #(s):

A104B	A106	A108	A109A	C104B	C105A
C106	C108				

Provide each CO door(s) with the following:

QTY	DESCRIPTION NOTE	CATALOG NUMBER CASED OPENING, NO HARDWARE	FINISH	MFR
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Hardware Group No. 101

For use on Door #(s):

A105A	A105B	A107B	A114	A120A	A123
B105	B110	B115	B119	B123	C107B
C109A	C109B	C112	C114A	C121	

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ENTRANCE LOCK	ND53TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 103

For use on Door #(s):

B109B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ENTRANCE LOCK	ND53TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 201

For use on Door #(s):

A119 B121 C117

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 201C

For use on Door #(s):

B104 C119

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 SCUSH FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 205

For use on Door #(s):

C124

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EA	STOREROOM LOCK	ND80TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH SNB	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	GASKETING	328AA (2PCS JAMB HEIGHT)	AA	ZER
1	EA	GASKETING	429AA (1PC HEADER WIDTH)	AA	ZER
1	EA	DOOR SWEEP	39A-DOOR WIDTH	A	ZER
1	EA	THRESHOLD	65A-FRAME WIDTH	A	ZER

Hardware Group No. 341

For use on Door #(s):

A102	A103	A118	B117	C102	C103
C115	C118				

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	ND10S SPA	626	SCH
1	EA	DOOR BOLT OCC IND	B571 X (6) 61-509	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	COAT AND HAT HOOK	582M	626	IVE
1	EA	SILENCER	SR64	GRY	IVE

-INDICATOR ON OUTSIDE OF DOOR.

Hardware Group No. 341C

For use on Door #(s):

B108

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	ND10S SPA	626	SCH
1	EA	DOOR BOLT OCC IND	B571 X (6) 61-509	626	SCH
1	EA	SURFACE CLOSER	1461 SCUSH FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	COAT AND HAT HOOK	582M	626	IVE
1	EA	SILENCER	SR64	GRY	IVE

-INDICATOR ON OUTSIDE OF DOOR.

Hardware Group No. 343

For use on Door #(s):

A121	B112
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Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	ND10S SPA	626	SCH
1	EA	DOOR BOLT OCC IND	B571 X (6) 61-509	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	COAT AND HAT HOOK	582M	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

-INDICATOR ON OUTSIDE OF DOOR.

Hardware Group No. 501

For use on Door #(s):

A122 B109A B114 C113

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 701

For use on Door #(s):

A104A C104A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	PANIC HARDWARE	99-L-17-SNB	628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 714

For use on Door #(s):

B125

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EA	PANIC HARDWARE	9949-EO-SNB	628	VON
1	EA	PANIC HARDWARE	9949-NL-SNB	628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH SNB	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	GASKETING	328AA-2PCS JAMB HEIGHT	AA	ZER
1	EA	GASKETING	429AA-1PC HEADER WIDTH	AA	ZER
1	EA	ASTRAGAL	8194AA-2 PCS DOOR HEIGHT	AL	ZER
2	EA	DOOR SWEEP	39A-DOOR WIDTH	A	ZER
1	EA	THRESHOLD	65A-FRAME WIDTH	A	ZER

Hardware Group No. C201 - ACCESS CONTROLLED

For use on Door #(s):

A115 A116 B101 B102 B106 B124
C120

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	✓ 652	IVE
1	EA	EU STOREROOM LOCK	ND80BDEU SPA RX	✓ 626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
		POWER SUPPLY	BY SECURITY CONTRACTOR	✓	
		CARD READER	BY SECURITY CONTRACTOR	✓	

Hardware Group No. C201D - ACCESS CONTROLLED

For use on Door #(s):

A109B C105B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	✓ 652	IVE
1	EA	EL MORTISE LOCK	L9095TDEL 17A RX CON 12/24 VDC	✓ 626	SCH
2	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
1	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY	PS902 900-BBK 900-4RL 900-4R	✓ LGR	SCE
		CARD READER	BY SECURITY CONTRACTOR	✓	

Hardware Group No. C201F - ACCESS CONTROLLED

For use on Door #(s):
B118

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	✓ 652	IVE
1	EA	EU STOREROOM LOCK	ND80BDEU SPA RX	✓ 626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	FLOOR STOP	FS410	626	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
		POWER SUPPLY	BY SECURITY CONTRACTOR	✓	
		CARD READER	BY SECURITY CONTRACTOR	✓	

Hardware Group No. C711 - ACCESS CONTROLLED

For use on Door #(s):
B103

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONTINUOUS HINGE	224HD TWP-DR HEIGHT	✓ 628	IVE
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL-CON-SNB 24 VDC	✓ 628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 HD/HDPA FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
1	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY	PS902 900-BBK 900-4RL 900-4R	✓ LGR	SCE
		CARD READER	BY SECURITY CONTRACTOR	✓	

Hardware Group No. C711C - ACCESS CONTROLLED

For use on Door #(s):

A111 C111

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONTINUOUS HINGE	224HD TWP-DR HEIGHT	✓ 628	IVE
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL-CON-SNB 24 VDC	✓ 628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461 SCUSH FC TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
1	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY CARD READER	PS902 900-BBK 900-4RL 900-4R BY SECURITY CONTRACTOR	✓ LGR ✓	SCE

Hardware Group No. C714A - ACCESS CONTROLLED

For use on Door #(s):

A100 C100

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONTINUOUS HINGE	224HD TWP-DR HEIGHT	✓ 628	IVE
1	EA	ELEC PANIC HARDWARE	RX-QEL-9949-DT-CON-SNB 24 VDC	✓ 628	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-9949-NL-CON-SNB 24 VDC	✓ 628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH SNB	689	LCN
2	EA	PA MOUNTING PLATE	4040XP-18PA	689	LCN
2	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
2	EA	DOOR SWEEP	39A-DOOR WIDTH	A	ZER
1	EA	THRESHOLD	655A-V3E-FRAME WIDTH	A	ZER
4	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
2	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY PERIMETER SEAL MEETING STILE SEAL CARD READER	PS902 900-BBK 900-4RL 900-4R BY FRAME MFR. BY DOOR MFR. BY SECURITY CONTRACTOR	✓ LGR ✓	SCE

Hardware Group No. C715 - ACCESS CONTROLLED

For use on Door #(s):

A107A A117 A120B B113 C107A C114B
C116

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONTINUOUS HINGE	224HD TWP-DR HEIGHT	✓ 628	IVE
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL-CON-SNB 24 VDC	✓ 628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH SNB	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	GASKETING	328AA-2PCS JAMB HEIGHT	AA	ZER
1	EA	GASKETING	429AA-1PC HEADER WIDTH	AA	ZER
1	EA	DOOR SWEEP	39A-DOOR WIDTH	A	ZER
1	EA	THRESHOLD	655A-V3E-FRAME WIDTH	A	ZER
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
1	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY CARD READER	PS902 900-BBK 900-4RL 900-4R BY SECURITY CONTRACTOR	✓ LGR ✓	SCE

Hardware Group No. C715A - ACCESS CONTROLLED

For use on Door #(s):

B100

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONTINUOUS HINGE	224HD TWP-DR HEIGHT	✓ 628	IVE
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL-CON-SNB 24 VDC	✓ 628	VON
1	EA	RIM CYLINDER	20-057 ICX W/CONST. CORE	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH SNB	689	LCN
1	EA	PA MOUNTING PLATE	4040XP-18PA	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	DOOR SWEEP	39A-DOOR WIDTH	A	ZER
1	EA	THRESHOLD	655A-V3E-FRAME WIDTH	A	ZER
2	EA	HARNESS (1 IN DOOR & 1 IN FRAME)	ALLEGION CONNECT TYPE & LENGTH AS REQ		SCH
1	EA	HARNESS (TO POWER SUPPLY)	CON-6W - CONNECTION LEADS		SCH
1	EA	POWER SUPPLY CARD READER SEAL	PS902 900-BBK 900-4RL 900-4R BY SECURITY CONTRACTOR PERIMETER SEAL BY FRAME MFR.	✓ LGR ✓	SCE

Door#	Hw Set#
A100	C714A
A102	341
A103	341
A104A	701
A104B	002
A105A	101
A105B	101
A106	002
A107A	C715
A107B	101
A108	002
A109A	002
A109B	C201D
A111	C711C
A114	101
A115	C201
A116	C201
A117	C715
A118	341
A119	201
A120A	101
A120B	C715
A121	343
A122	501
A123	101
B100	C715A
B101	C201
B102	C201
B103	C711
B104	201C
B105	101
B106	C201
B108	341C
B109A	501
B109B	103
B110	101
B112	343
B113	C715
B114	501
B115	101
B117	341
B118	C201F
B119	101
B121	201
B123	101
B124	C201
B125	714
C100	C714A
C102	341
C103	341

Door#	Hw Set#
C104A	701
C104B	002
C105A	002
C105B	C201D
C106	002
C107A	C715
C107B	101
C108	002
C109A	101
C109B	101
C111	C711C
C112	101
C113	501
C114A	101
C114B	C715
C115	341
C116	C715
C117	201
C118	341
C119	201C
C120	C201
C121	101
C124	205

END OF SECTION

SECTION 10350
FLAGPOLE

PART 1: GENERAL:

1.01 SCOPE:

- A. Perform all work required to complete the Flagpole indicated by the Contract Documents and furnish all supplementary items necessary for its proper installation.
- B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual shall apply to all Work required for this Section.

1.02 SUBMITTALS:

- A. SHOP DRAWINGS:
 - 1. Submit manufacturer's literature and mark sufficiently to indicate compliance with these specifications.

PART 2: PRODUCTS:

2.01 ACCEPTABLE MANUFACTURERS:

- A. Material manufactured by any of the following manufacturers is acceptable, provided it complies with the Contract Documents:
 - 1. FLAGPOLE: Concord Industries, or approved equal.

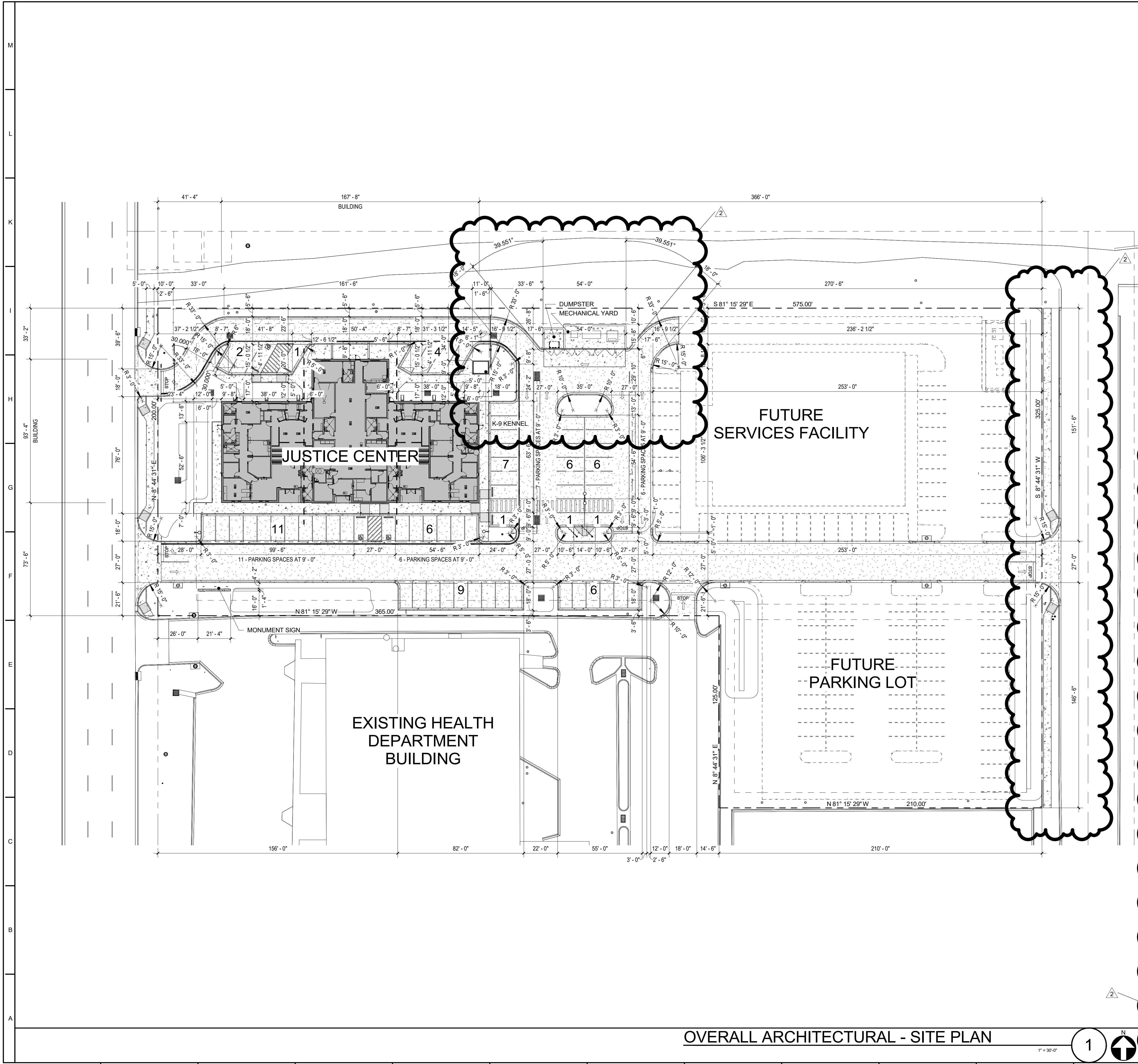
2.02 MATERIALS:

- A. Pole shall be cone tapered aluminum commercial ground set flagpole complete with all standard fittings as below listed:
- B. Install concrete foundation with 16 gauge galvanized corrugated steel 12" Ø with, 6"x6"x1/4" base plate, 6" x 6" x 1/4" plate support, 3/4" Ø x 18" long steel lightning ground spike welded to plates, four (4) welded steel wedges.
- C. Pole shall be standard type 30' exposed height, 3'-0" setting depth; 33' total length. Outside butt diameter shall be 6", tapered top dia. 3 1/2", 6" dia. ball, provide four (4) bronze swivel type snap nooks, with aluminum flash collar.
- D. Flagpole shall have wall thickness throughout of not less than .188" and shall have uniform conical taper throughout tapered portion. Pole shall be machine made of 6063-T6 seamless extruded aluminum; NOT from rolled plate with welded seam. Pole must have smooth uninterrupted exterior surface without visible offsets. Pole shall be shipped in one piece. Exterior surface shall have "ultrasheen" finish. Painting will not be permitted. Prior to shipment, pole shall be heavily spiral-wrapped with polyethylene and further protected during transit.

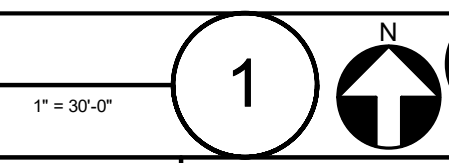
PART 3: EXECUTION:

- A. Install in accordance with manufacturer's written requirements and details.

END OF SECTION



OVERALL ARCHITECTURAL - SITE PLAN



ARTICLE 9 PARKING, LOADING, ACCESS, AND LIGHTING
DIVISION 9.200 PARKING AND LOADING CALCULATIONS
SEC. 9.201 PARKING AND LOADING REQUIREMENTS TABLE

A. MINIMUM OFF-STREET PARKING AND LOADING REQUIREMENTS.
THE MINIMUM OFF-STREET PARKING AND LOADING REQUIREMENTS FOR THE USES SET OUT IN THIS CODE ARE SET OUT IN TABLE 9.201, *MINIMUM PARKING AND LOADING REQUIREMENTS*, BELOW.

LAND USE	TABLE 9.201 MINIMUM PARKING AND LOADING REQUIREMENTS	
	PARKING	LOADING
<u>COMMERCIAL USES</u>		
OFFICES - GENERAL	3 SPACES / 1,000 SF.	1 SPACE / 33,000 SF.

SEC. 9.302 ACCESSIBLE PARKING CALCULATIONS:

A. NUMBER OF ACCESSIBLE PARKING SPACES.

1. IN GENERAL, THE NUMBER OF ACCESSIBLE SPACES SHALL BE IN ACCORDANCE WITH TABLE 9.302A, *REQUIRED NUMBER OF OFF-STREET ACCESSIBLE PARKING SPACES*.

TABLE 9.302A REQUIRED NUMBER OF OFF-STREET ACCESSIBLE PARKING SPACES	
NUMBER OF PARKING SPACES PROVIDED	NUMBER OF ACCESSIBLE SPACES REQUIRED
51-75	3

PARKING CALCULATIONS:

12,442 S.F. TOTAL *JUSTICE CENTER* FLOOR AREA -
3 SPACES / 1,000 SF. = 38 PARKING SPACES

LOADING CALCULATIONS:

12,442 S.F. TOTAL *BUILDINGS* FLOOR AREA -
1 SPACE / 33,000 SF. = 0 LOADING SPACES

TOTAL PARKING REQUIRED:

TOTAL REQUIRED = 38 PARKING SPACES

TOTAL PARKING PROVIDED:

TOTAL PROVIDED = 61 PARKING SPACES
TOTAL ACCESSIBLE PROVIDED = 3 ACCESSIBLE PARKING SPACES

64 TOTAL COMBINED PARKING SPACES PROVIDED

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McAllen, Texas 78501
V. 956.686.7771
F. 956.687.3433
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CONSULTANTS:

REGISTERED ARCHITECT
MICHAEL E. ALLEY
STATE OF TEXAS
15101
02.05.2021

NO.

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REVISIONS

HIDALGO COUNTY PRECINCT No.4
NEW JUSTICE CENTER

HIDALGO COUNTY, TEXAS
EDINBURG, TEXAS 78542
1212 SOUTH 25TH AVENUE.

PROJECT NO: 2018.19

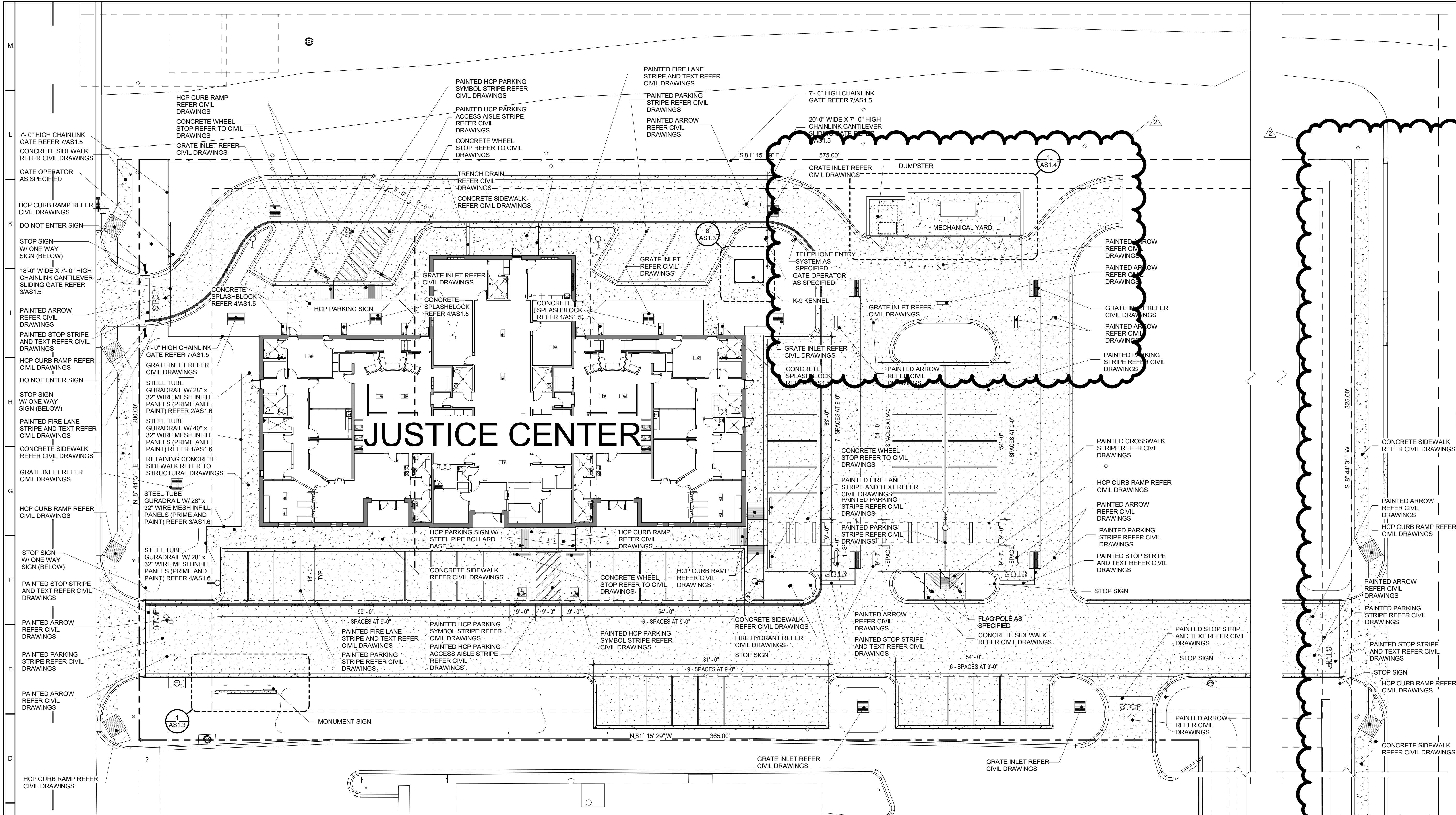
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STARTING DATE:

CK BY: Checker | DWN BY: Author

OVERALL
ARCHITECTURAL -
SITE PLAN

AS1.1



ARCHITECTURAL - PARTIAL SITE PLAN

GENERAL SITE NOTES

- REFER TO CIVIL DRAWINGS FOR SITE WORK. CONTRACTOR IS RESPONSIBLE FOR CONTRACTING ARCHITECT IN CASE OF DISCREPANCIES AND COORDINATING WITH CIVIL ENGINEER PRIOR TO PROCEEDING.
- ALL EXTERIOR DOORS SHALL HAVE A LEVEL AREA IN FRONT OF THE DOOR WITH A 1:50 MAXIMUM SLOPE IN ALL DIRECTIONS. THE AREA SHALL BE A MINIMUM OF 5 FT. IN THE DIRECTION OF TRAVEL BY THE WIDTH OF THE SIDEWALK.
- ALL EXTERIOR ALCOVES SHALL HAVE A 1:50 MAXIMUM SLOPE AND SHALL HAVE NO DROPS AT DOORS NOR AT CONNECTING SIDEWALKS.
- ALL COVERED WALKWAYS SHALL HAVE 1:50 MAXIMUM CROSS SLOPE. THERE SHALL BE NO ABRUPT CHANGE IN ELEVATION ALONG ACCESSIBLE ROUTES AT SIDEWALKS AND COVERED WALKWAYS.
- PROVIDE 2' X 4' CONCRETE SPLASH BLOCK AT DOWNSPOUT LOCATIONS. REFER TO 4/AS1.4

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McAllen, Texas 78501
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F. 956.687.3433
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02.05.2021

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DESCRIPTION

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1212 SOUTH 25TH AVENUE,

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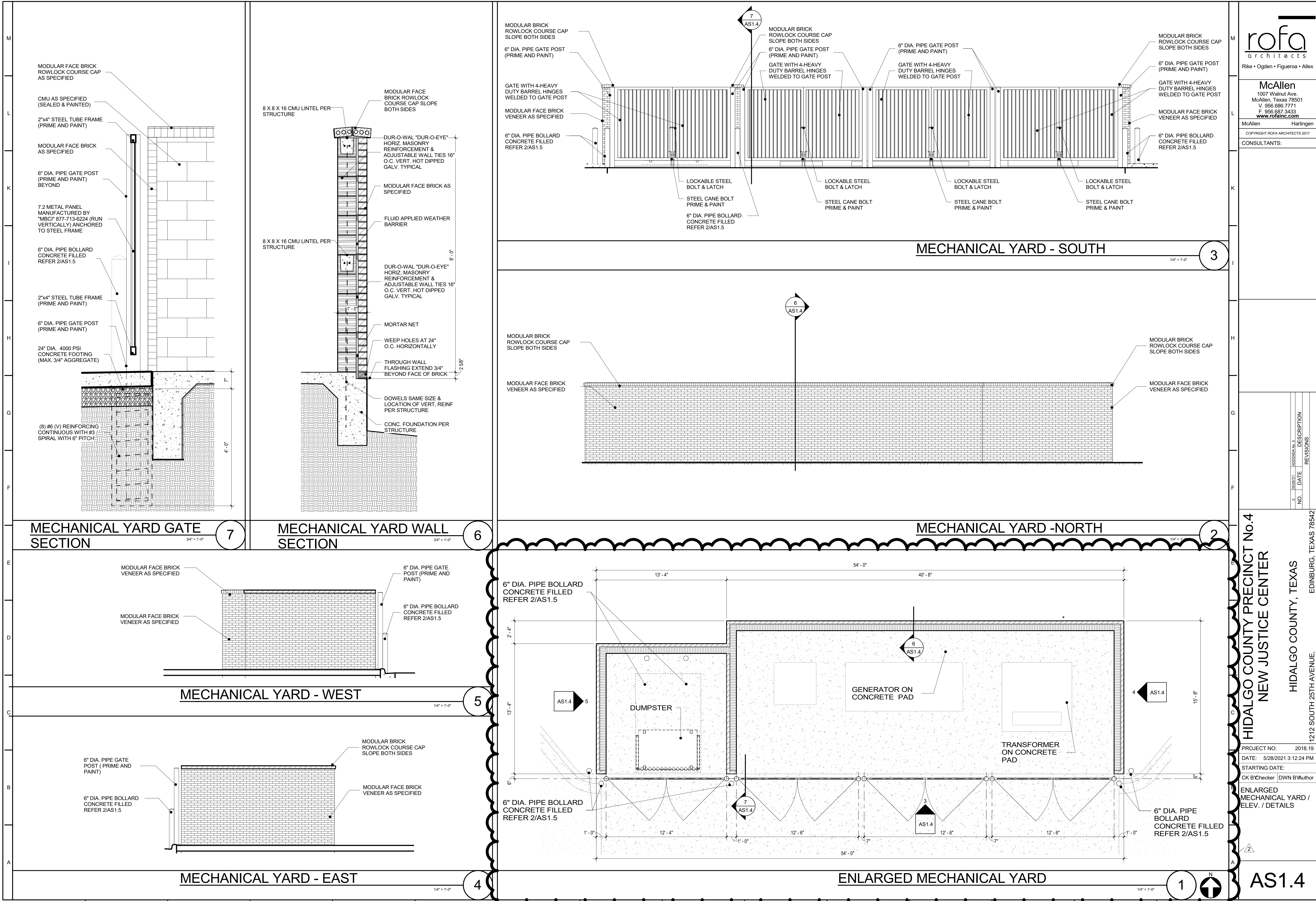
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PARTIAL

ARCHITECTURAL -

SITE PLAN

AS1.2



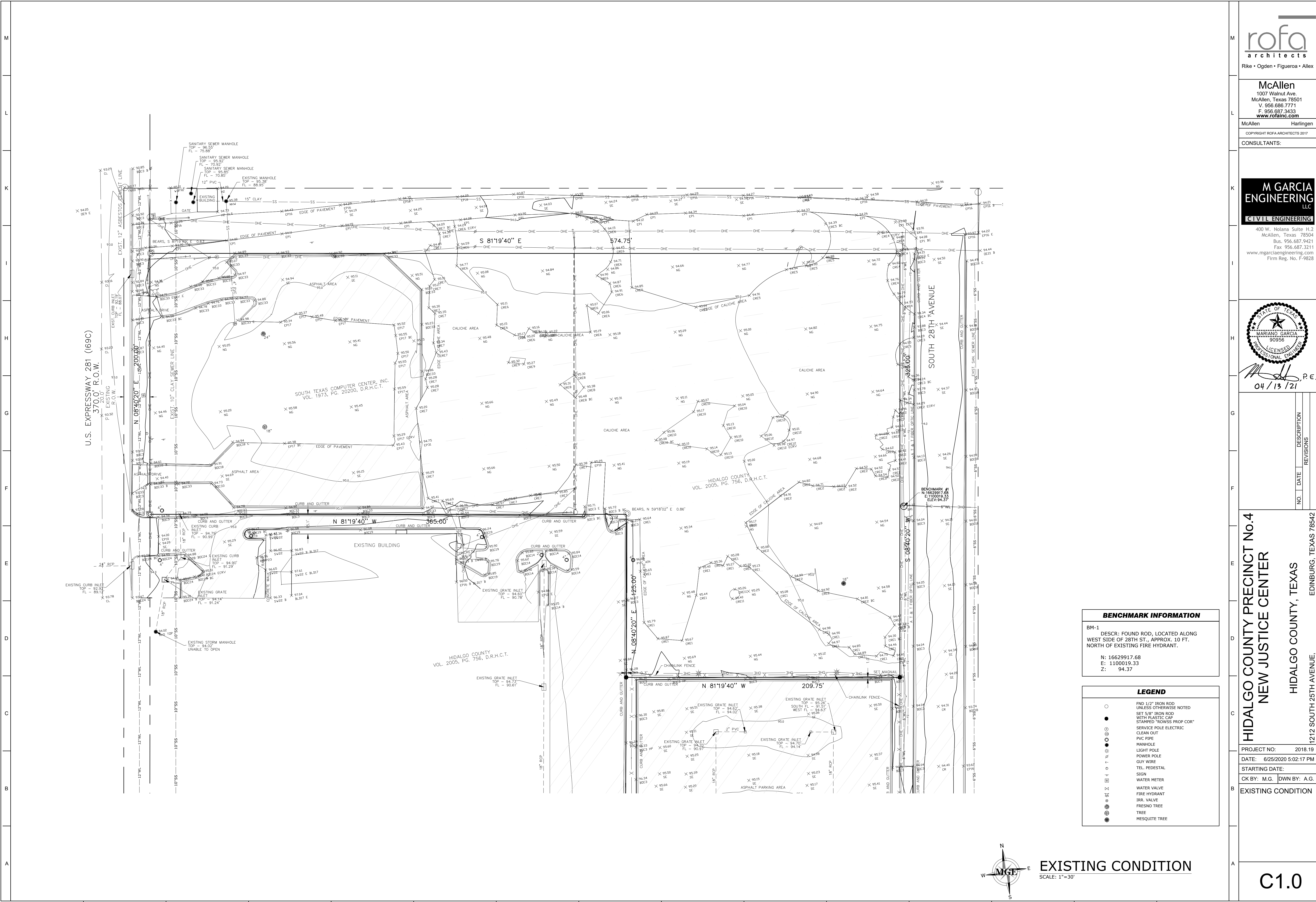
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1	5/28/2021	AS1.4	

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ENLARGED
MECHANICAL YARD /
ELEV. / DETAILS



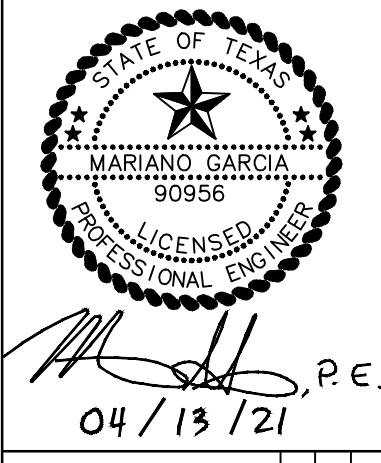
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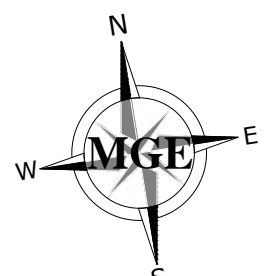
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DATE: 8/25/2020 5:02:17 PM
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EXISTING CONDITION

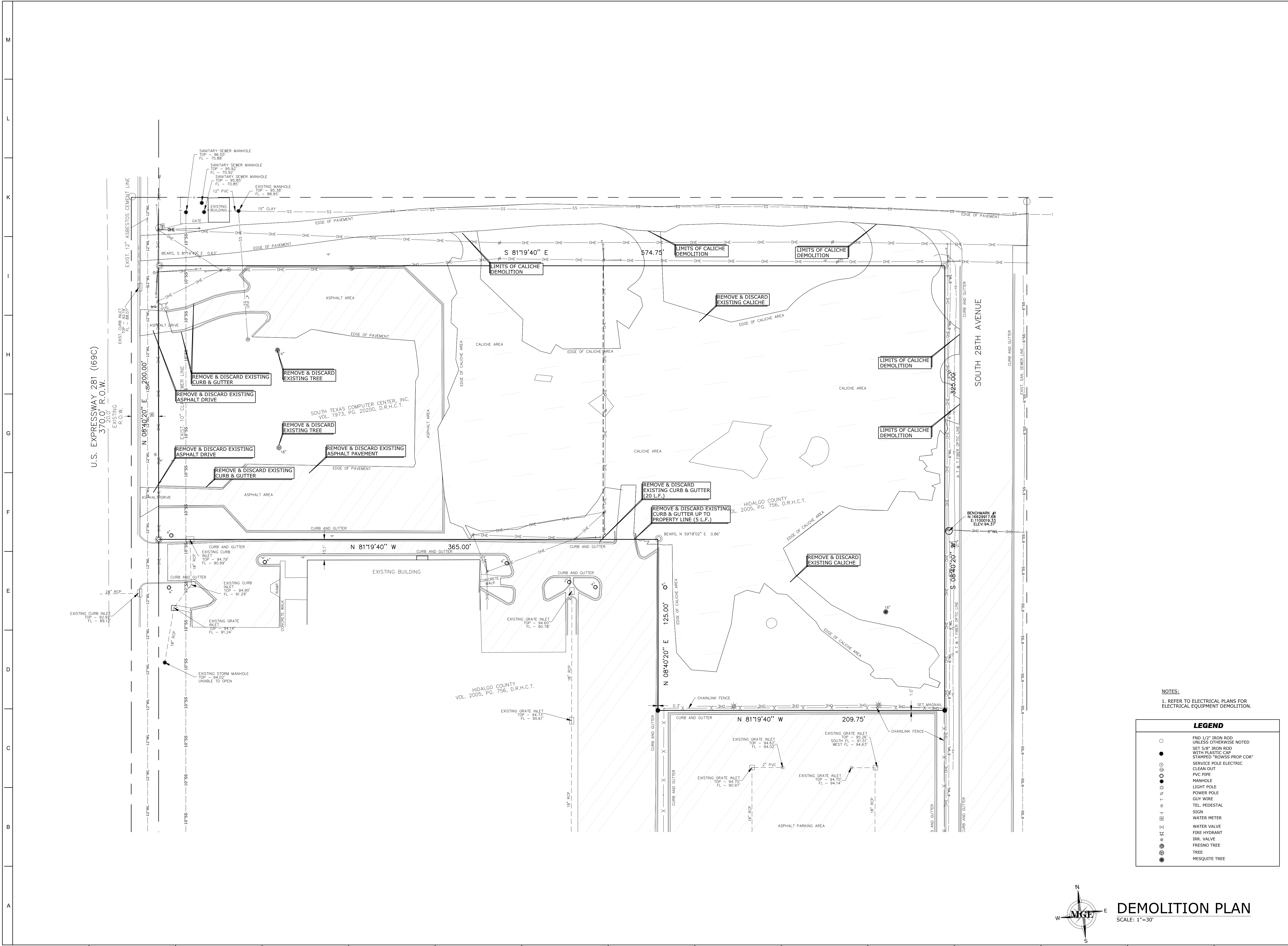
C1.0

BENCHMARK INFORMATION
BM-1
DESCR: FOUND ROD, LOCATED ALONG
WEST SIDE OF 28TH ST., APPROX. 10 FT.
NORTH OF EXISTING FIRE HYDRANT.
N: 16629917.68
E: 1100019.33
Z: 94.37

- LEGEND**
- FND 1/2" IRON ROD
UNLESS OTHERWISE NOTED
 - SET 5/8" IRON ROD
WITH PLASTIC CAP
STAMPED "TOWNS PROP COR"
 - SERVICE POLE ELECTRIC
 - CLEAN OUT
 - PVC PIPE
 - MANHOLE
 - LIGHT POLE
 - POWER POLE
 - GUY WIRE
 - TEL. PEDESTAL
 - SIGN
 - WATER METER
 - WATER VALVE
 - FIRE HYDRANT
 - IRR. VALVE
 - FRESNO TREE
 - MESQUITE TREE



EXISTING CONDITION
SCALE: 1"=30'



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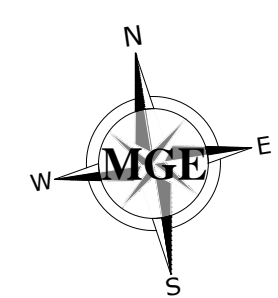
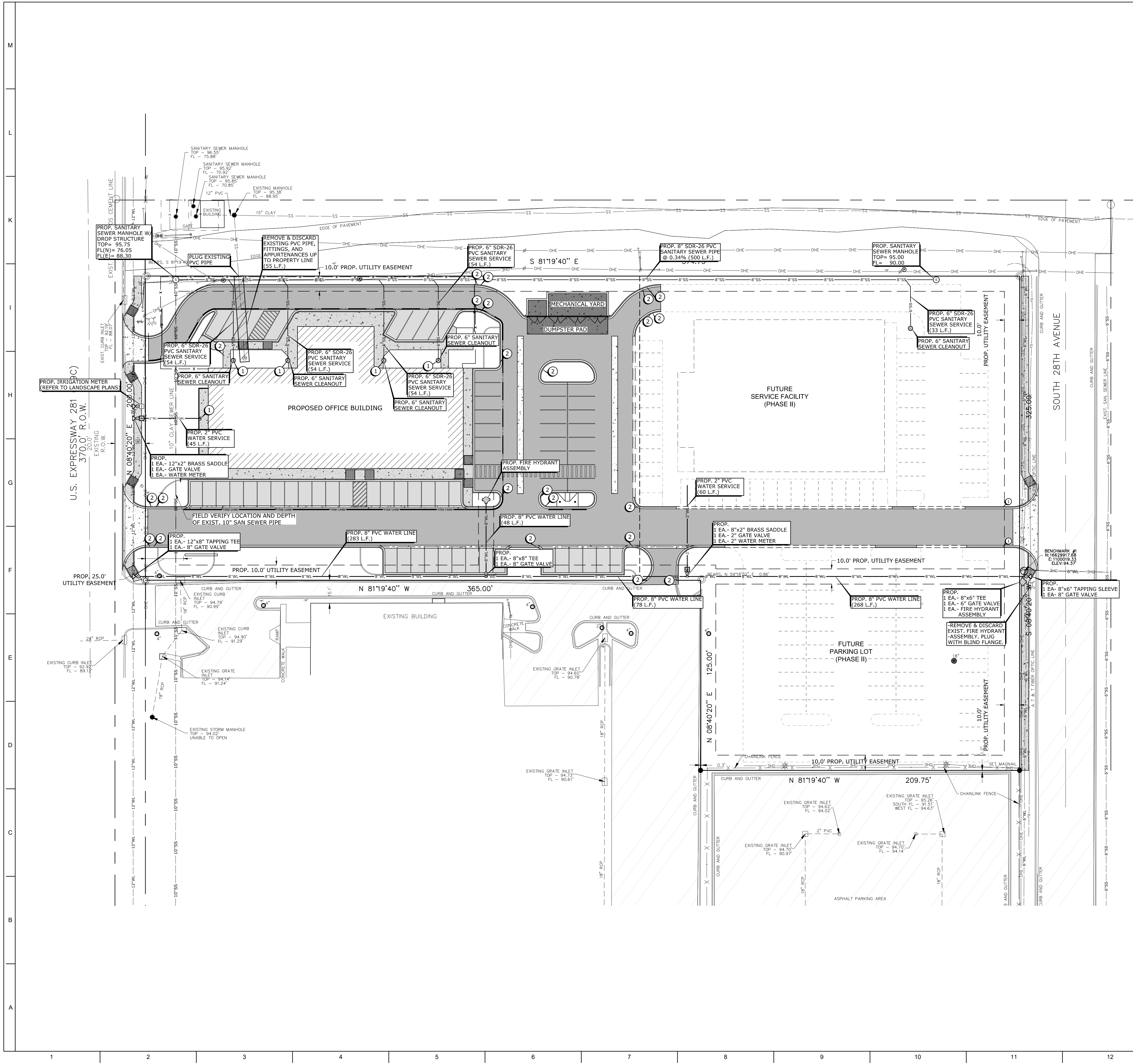
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DEMOLITION PLAN

C2.0



UTILITY LAYOUT
SCALE: 1"=30'

NOTES:
1. COMPACTION DENSITY TESTING WILL BE REQUIRED FOR ALL PUBLIC INFRASTRUCTURE BEING INSTALLED.

KEYED NOTES	
①	REFER TO PLUMBING PLANS FOR CONTINUATION
②	PROVIDE CURB STAMPED WITH "I" (MIN. 3" HIGH) FOR PROPOSED AND FUTURE IRRIGATION SLEEVES. REFER TO IRRIGATION PLANS FOR EXACT LOCATION

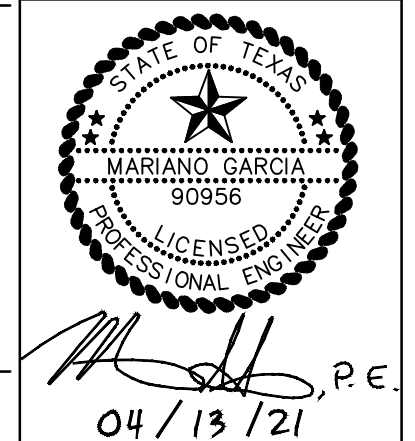
LEGEND	
— WL —	PROPOSED WATER LINE
— SS —	PROPOSED SANITARY SEWER LINE

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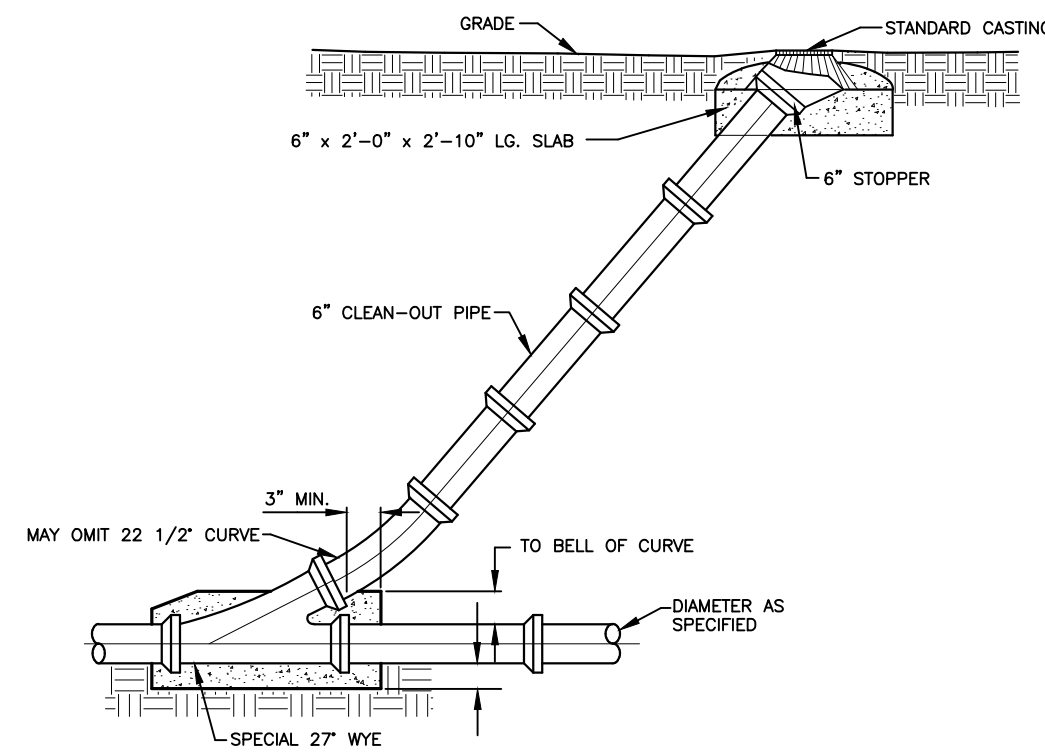
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STARTING DATE:
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UTILITY LAYOUT

C3.0



STANDARD CLEANOUT

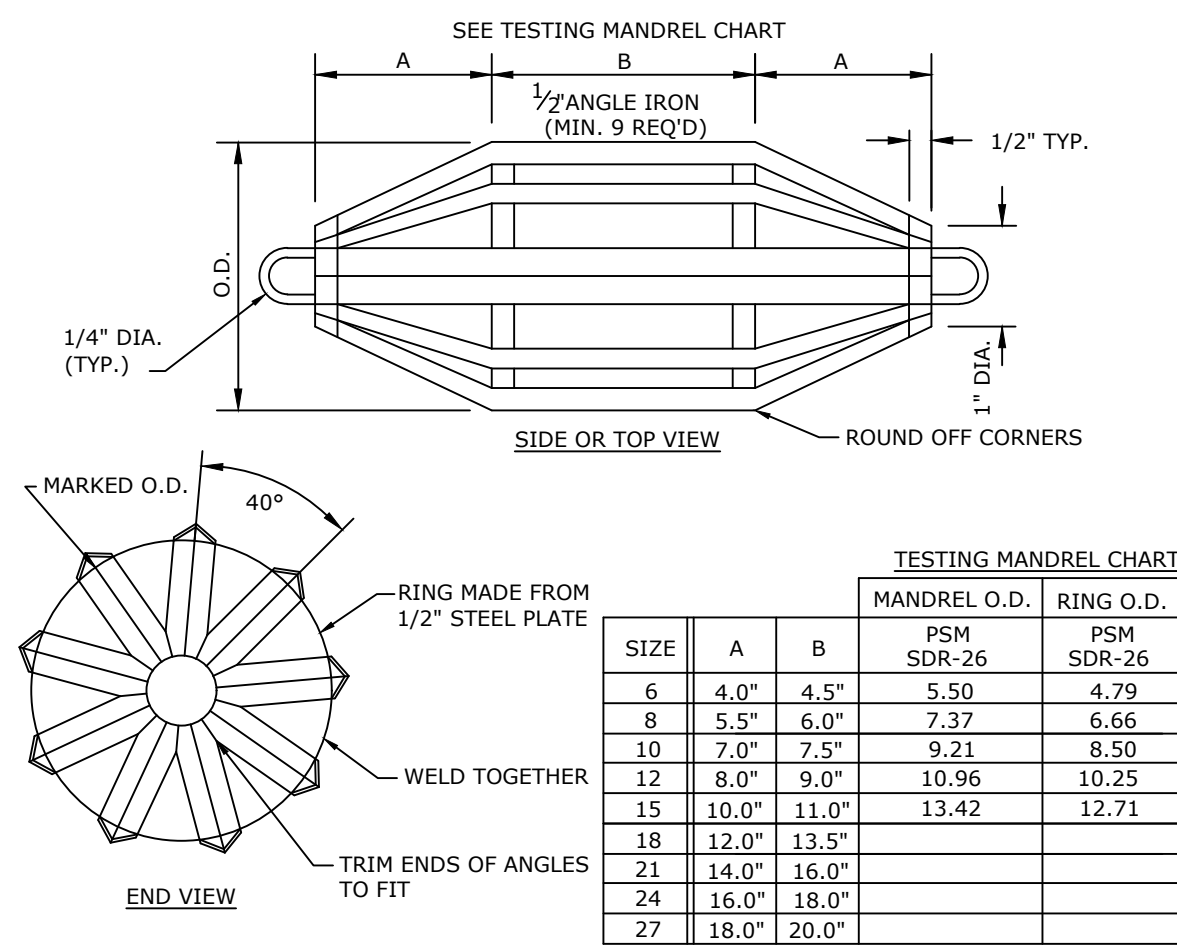
1

NOT USED

NOT USED

NOT USED

NOT USED



GO NO-GO DEFLECTION TESTING MANDREL DETAIL

2

NOT USED

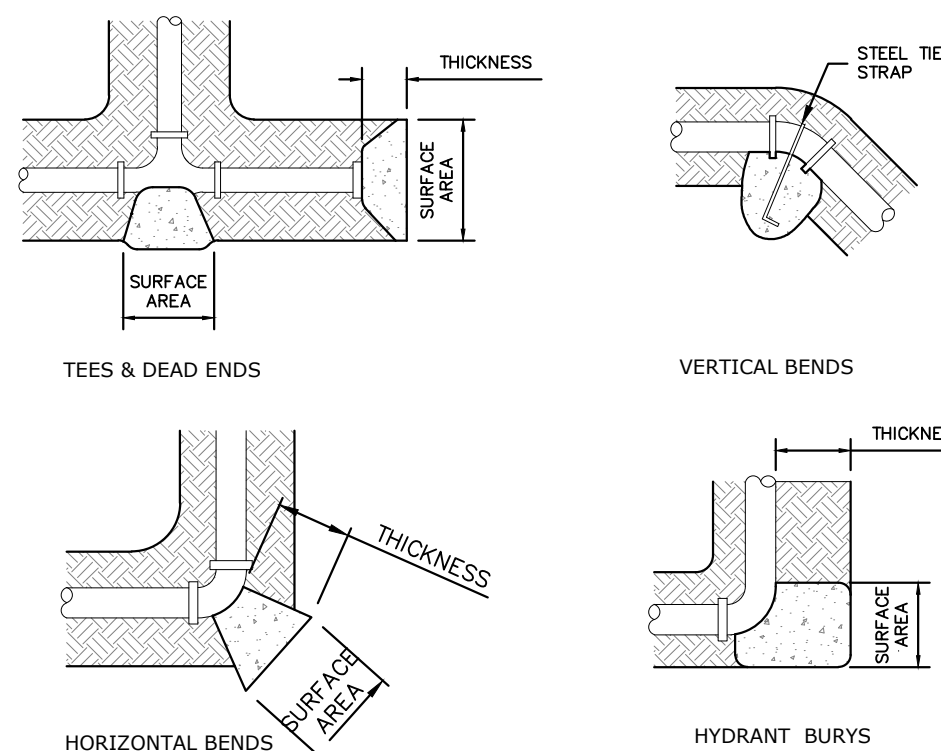
NOT USED

NOT USED

NOT USED

THRUST BLOCK SIZE			
HORIZONTAL BENDS			
DIAMETER OF PIPE IN INCHES	SURFACE AREA SQ. FT.	THICKNESS IN INCHES	WEIGHT AT VERTICAL BENDS—LBS.
22 1/2" BENDS			
6 OR LESS	2	8	1,700
8	3	12	3,000
10	3.5	12	4,500
12	4	14	6,600
14	5	18	9,000
16	6	18	11,800
45° BEND			
6 OR LESS	4	12	3,200
8	5	14	5,800
10	6	18	9,000
12	7	18	13,000
14	8	24	17,000
16	11.5	24	23,200
90° BEND			
6 OR LESS	6	12	6,000
8	8	15	10,700
10	10	18	16,700
12	12	18	24,000
14	18	24	32,600
16	21	24	42,700
TEES & DEAD ENDS			
6 OR LESS	3	12	**
8	4	15	**
10	6	18	**
12	8.5	18	**
14	11.5	24	**
16	15	24	**

NOTE:
ALL VALUES SHOWN ARE MIN. FOR A HYDROSTATIC
PRESSURE OF 150 P.S.I. AND A SOIL RESISTANCE OF 2,000
LBS. PER SQ./FT. WITH PIPELINE HAVING A MIN. OF 3 FT. OF
COVER WITH CURB & GUTTER AND A 5 FT. MIN. WITHOUT
CURB & GUTTER



THRUST BLOCKS DETAILS

NOT USED

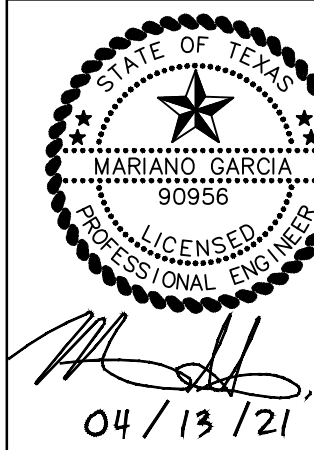
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NOT USED

UTILITY DETAILS

SCALE: NTS

C3.1



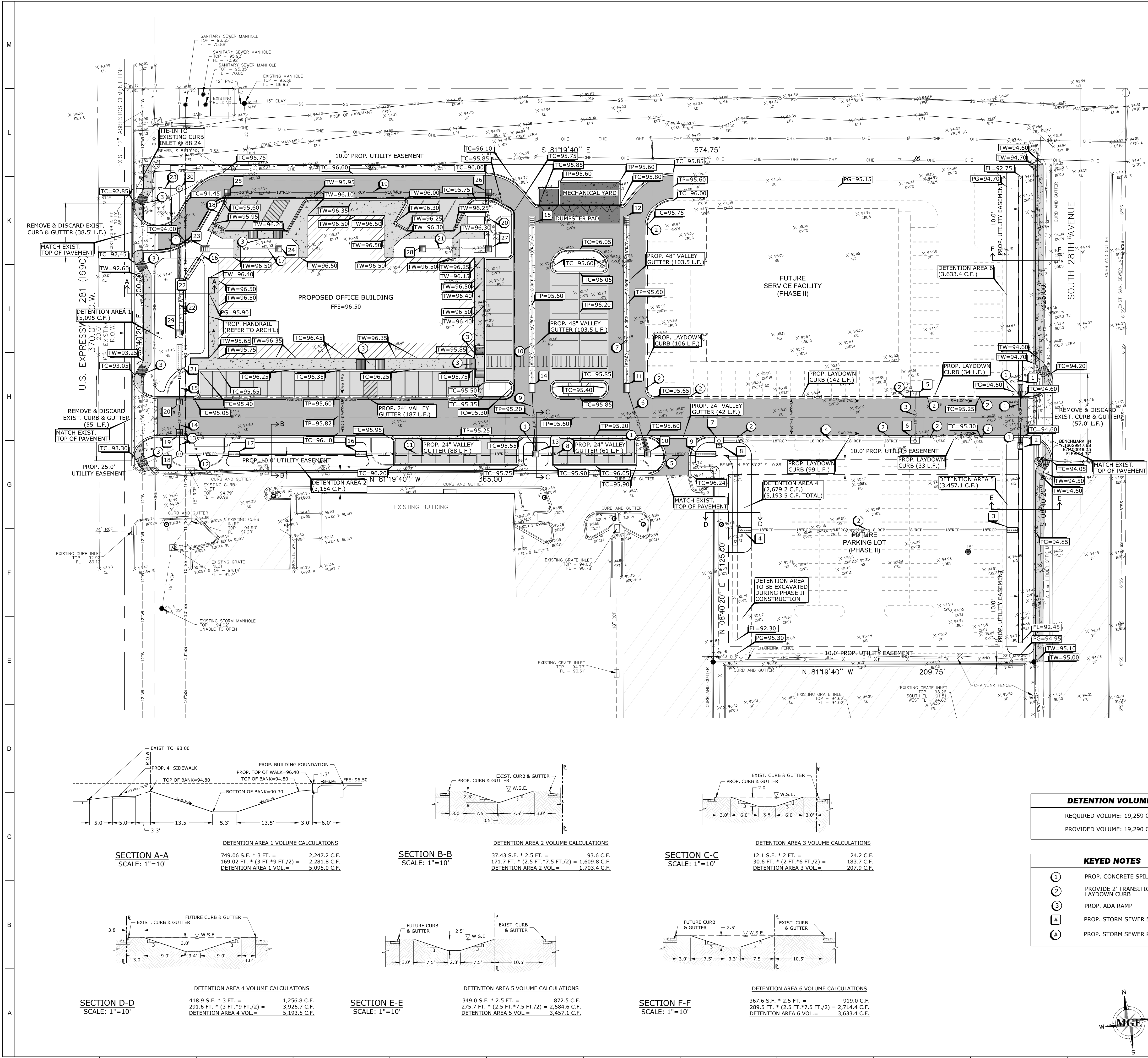
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HIDALGO COUNTY, TEXAS

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UTILITY DETAILS



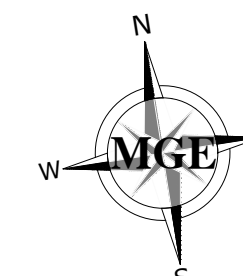
STORM SEWER PIPE SCHEDULE							
#	DESC.	SLOPE (%)	LENGTH (FT.)	#	DESC.	SLOPE (%)	LENGTH (FT.)
1	12" RCP	0.20	44.50	12	18" RCP	0.200	43.75
2	18" RCP	0.125	183.00	13	18" RCP	0.200	14.25
3	18" RCP	0.125	31.00	14	18" RCP	0.200	20.00
4	18" RCP	0.125	128.25	15	18" RCP	2.000	37.00
5	18" RCP	0.125	44.50	16	24" RCP	0.100	19.00
6	18" RCP	0.125	44.00	17	12" RCP	0.200	48.00
7	18" RCP	0.125	109.50	18	18" RCP	0.125	39.50
8	18" RCP	0.125	73.00	19	18" RCP	0.125	171.00
9	18" RCP	0.125	43.50	20	12" RCP	0.200	37.00
10	18" RCP	0.125	109.50	21	12" RCP	0.200	43.00
11	18" RCP	0.125	117.75	22	8" HDPE	0.300	94.50
				23	8" HDPE	0.300	28.00

STORM SEWER STRUCTURE							
#	DESC.	TOP	FL	#	DESC.	TOP	FL
1	SAFETY END TREATMENT	N/A	92.50	16	SAFETY END TREATMENT	N/A	91.70
2	SAFETY END TREATMENT	N/A	92.40	17	SAFETY END TREATMENT	N/A	91.45
3	SAFETY END TREATMENT	N/A	92.32	18	STORM SEWER MANHOLE	94.75	91.35
4	SAFETY END TREATMENT	N/A	92.09	19	TY. 'F' INLET	94.5	91.30
5	TY. 'A' CURB INLET	95.65	92.40	20	TY. 'F' INLET	94.5	91.25
6	TY. 'A' CURB INLET	96.15	92.36	21	SAFETY END TREATMENT	N/A	90.50
7	TY. 'A' CURB INLET	95.95	92.20	22	SAFETY END TREATMENT	N/A	90.75
8	SAFETY END TREATMENT	N/A	92.15	23	TY. 'C-C' GRATE INLET	95.4	90.77
9	SAFETY END TREATMENT	N/A	92.00	24	TY. 'C' GRATE INLET	95.75	90.87
10	TY. 'C' GRATE INLET	93.95	91.95	25	TY. 'C' GRATE INLET	95.1	90.82
11	TY. 'C-C' GRATE INLET	94.6	92.00	26	TY. 'C' GRATE INLET	95.2	91.05
12	TY. 'C-C' GRATE INLET	95.05	92.15	27	TY. 'C' GRATE INLET	95.75	91.12
13	TY. 'C' GRATE INLET	94.65	91.85	28	TY. 'C' GRATE INLET	95.75	91.21
14	TY. 'C-C' GRATE INLET	94.7	91.90	29	TY. 'C' GRATE INLET	90.25	88.60
15	TY. 'C-C' GRATE INLET	95.05	92.05	30	STORM SEWER MANHOLE	94.5	88.32

LEGEND	
	NEW LIGHT DUTY ASPHALT PAVEMENT
	NEW HEAVY DUTY ASPHALT PAVEMENT
	NEW CONCRETE SIDEWALK
	NEW CONCRETE DUMPSTER PAD
	NEW CONCRETE PAVEMENT
	NEW TOP OF CURB ELEVATION
	NEW TOP OF WALK ELEVATION
	NEW TOP OF PAVEMENT ELEVATION
	NEW TOP OF INLET ELEVATION
	NEW FLOW LINE ELEVATION
	NEW PROPOSED GRADE ELEVATION
	NEW DIRECTION OF RUN-OFF
	PROPOSED STORM SEWER LINE

DETENTION VOLUMES	
REQUIRED VOLUME:	19,259 C.F.
PROVIDED VOLUME:	19,290 C.F.

KEYED NOTES	
1	PROP. CONCRETE SPILLWAY
2	PROVIDE 2' TRANSITION TO LAYDOWN CURB
3	PROP. ADA RAMP
4	PROP. STORM SEWER STRUCTURE
5	PROP. STORM SEWER PIPE



PAVING & GRADING LAYOUT
SCALE: 1"=30'

SECTION A-A
SCALE: 1"=10'

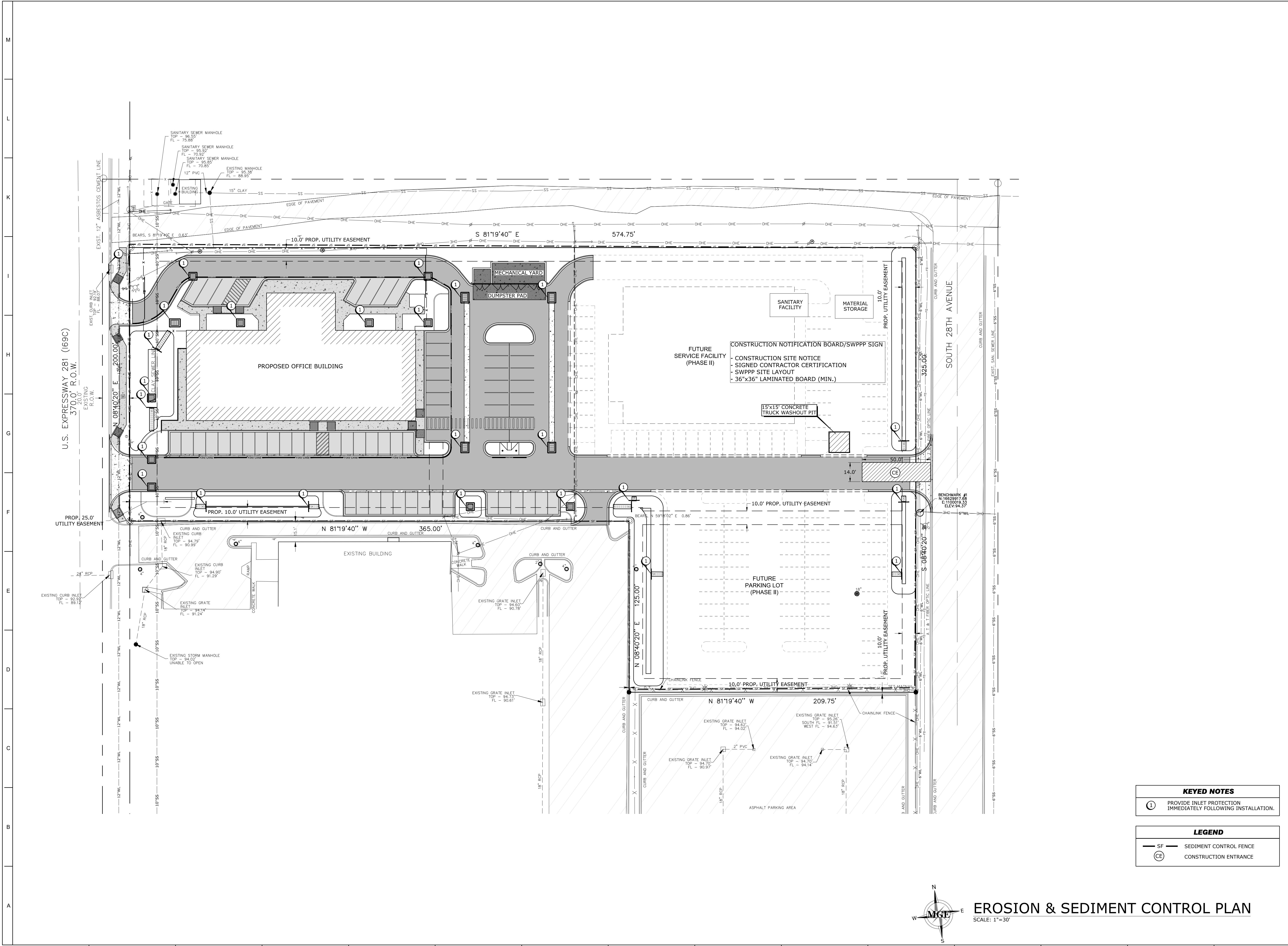
SECTION B-B
SCALE: 1"=10'

SECTION C-C
SCALE: 1"=10'

SECTION D-D
SCALE: 1"=10'

SECTION E-E
SCALE: 1"=10'

SECTION F-F
SCALE: 1"=10'

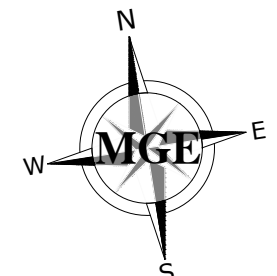


KEYED NOTES

1 PROVIDE INLET PROTECTION IMMEDIATELY FOLLOWING INSTALLATION.

LEGEND

SF SEDIMENT CONTROL FENCE
CE CONSTRUCTION ENTRANCE



EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=30'

rofa

architects

Rike • Ogden • Figueroa • Allex

McAllen

1007 Walnut Ave.
McAllen, Texas 78501
V. 956.686.7771
F. 956.687.3433
www.rofainc.com

McAllen

Harlingen

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CONSULTANTS:

M GARCIA

ENGINEERING

LLC

CIVIL ENGINEERING

400 W. Nolana Suite H.2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com
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STATE OF TEXAS

LICENSED PROFESSIONAL ENGINEER

04/13/21

NO.

DATE

DESCRIPTION

REVISIONS

HIDALGO COUNTY PRECINCT No.4

NEW JUSTICE CENTER

HIDALGO COUNTY, TEXAS

EDINBURG, TEXAS 78542

PROJECT NO: 2018.19

DATE: 6/25/2020 5:02:17 PM

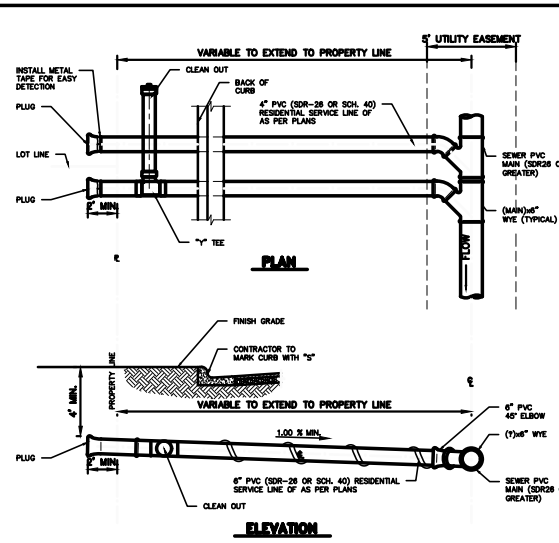
STARTING DATE:

CK BY: M.G. DWN BY: A.G.

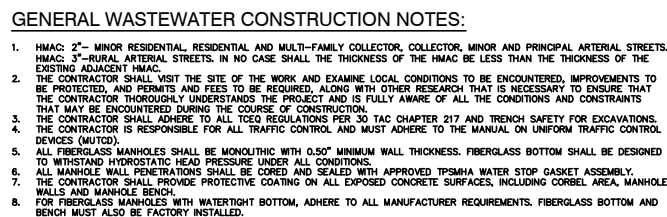
EROSION & SEDIMENT CONTROL PLAN

C5.0





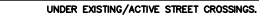
NOTE: SEE DETAIL S-5 FOR BACKFILL REQUIREMENTS.



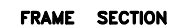
- NOTE:** ALL EXISTING/ACTIVE STREET CROSSINGS SHALL REQUIRE SAND BACKFILL OF ENTIRE TRENCH. (SEE DETAIL S-6)

(PARALLEL WITHIN EXIST. STREET)

- NOTE:** ALL EXISTING/ACTIVE STREET CROSSINGS SHALL REQUIRE SAND BACKFILL OF ENTIRE TRENCH. (SEE DETAIL S-6)



- GENERAL NOTES:
1. ALL STEEL CASING SHALL BE WELDED.
 2. STEEL CASING SHALL BE CLOSED AT EACH END USING BRICK OR BLOCK AND MORTAR GROUTED.
 3. CASING SPACERS SHALL BE USED TO INSTALL THE CARRIER PIPE INSIDE THE ENCASEMENT PIPE. CASING SPACERS SHALL FASTEN TIGHTLY ONTO THE CARRIER PIPE SUCH THAT WHEN THE CARRIER PIPE IS BEING LIFTED THE SPACERS WILL NOT MOVE. ALONG THE PIPELINE. CASING SPACERS SHALL BE DOUBLED ON EACH END OF THE ENCASEMENT.
 4. PROTECTION - TYPE CASING SPACERS SHALL BE CONSTRUCTED OF PRECAST CONCRETE OF HIGH DENSITY POLYETHYLENE. THE FLEXIBLE SECTIONS SHALL BE JOINED TOGETHER AROUND THE PIPE TO PROVIDE A MINIMUM OF 16 PLASTIC PROJECTIONS PER SPACER SECTION.
 5. INSTALLATION AND SIZE OF SPACERS SHALL BE AS PER MANUFACTURER'S INSTRUCTIONS.



**CITY STANDARD ROADWAY MANHOLE
RING AND COVER CASTING DETAIL**

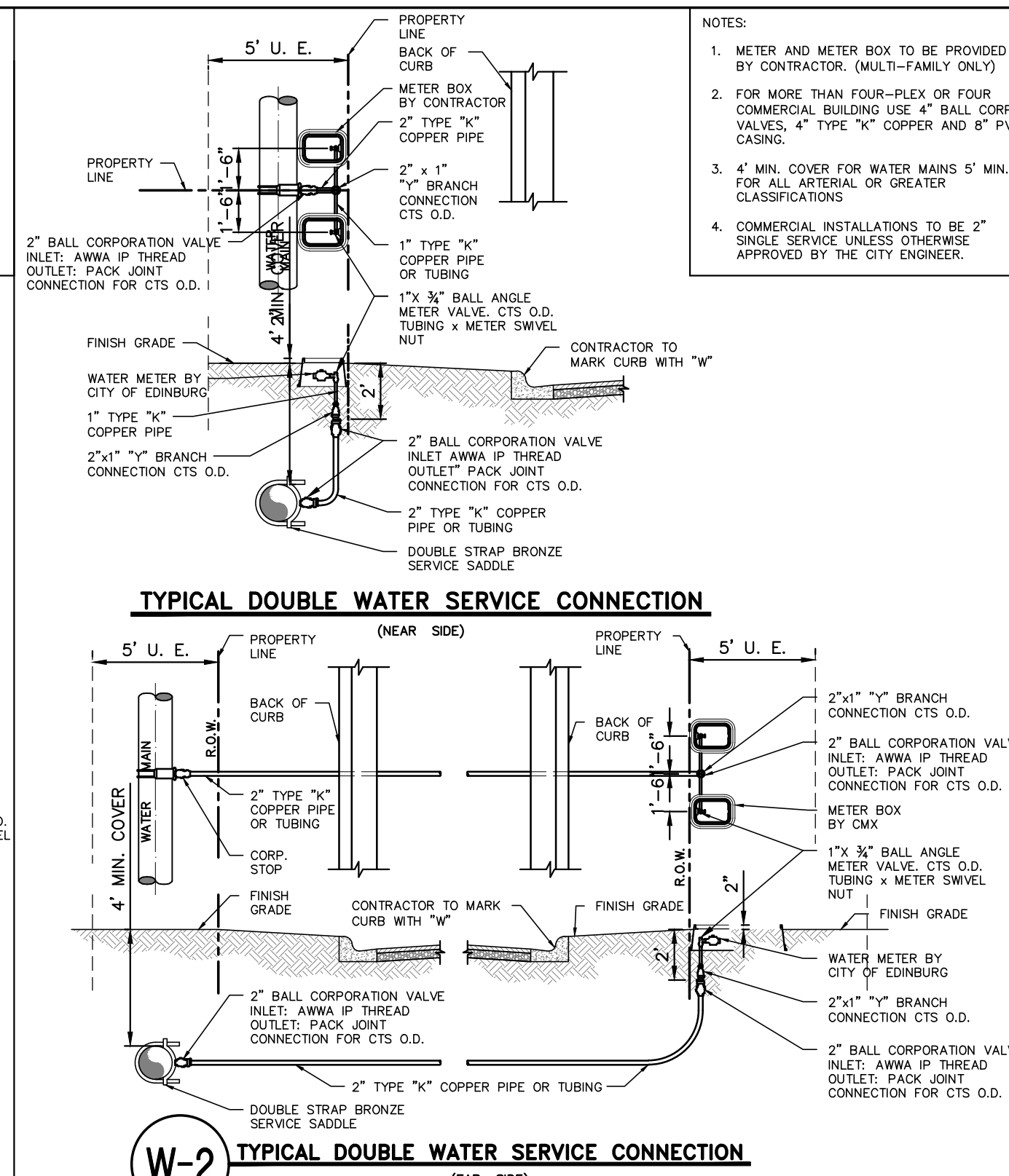
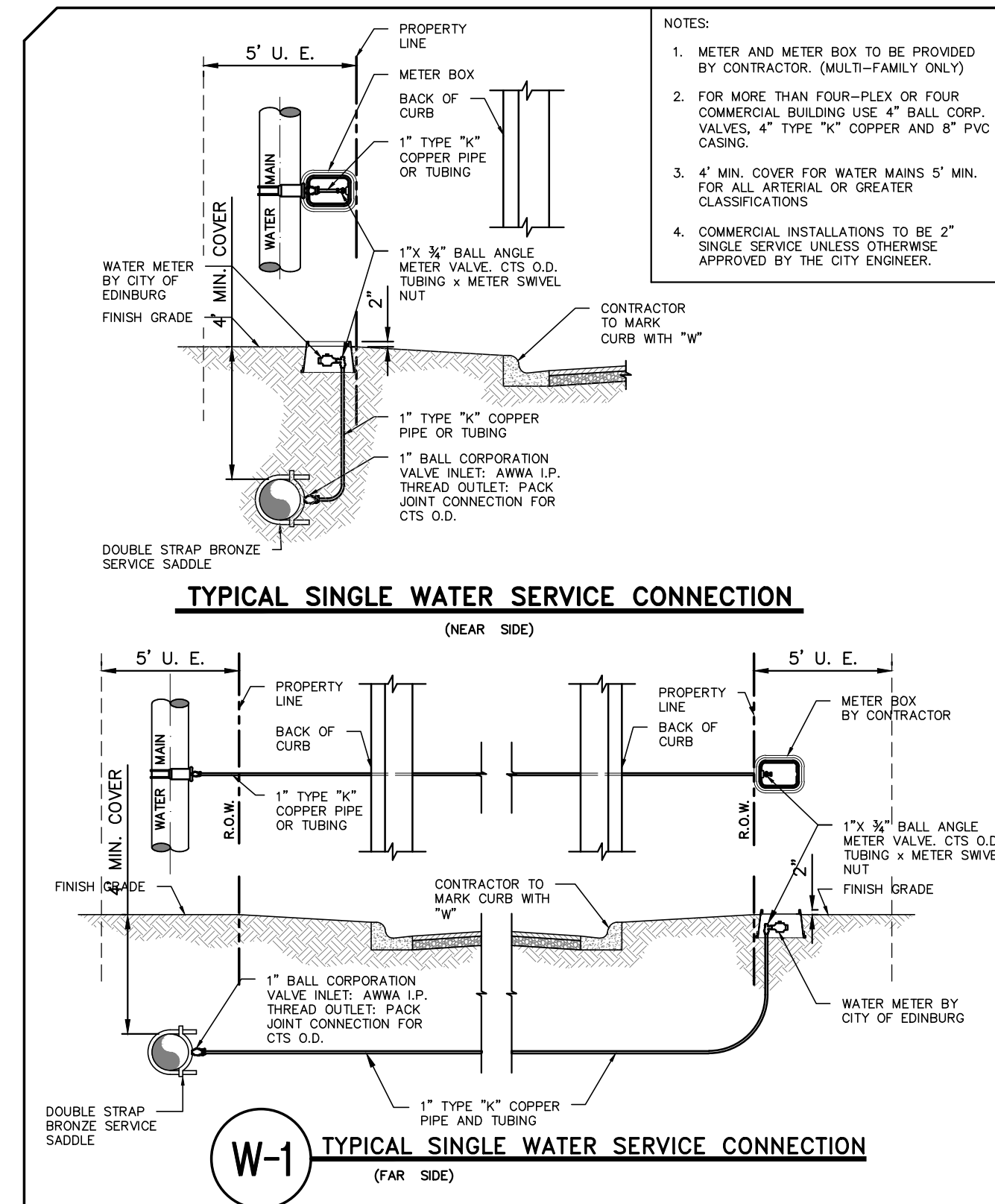
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DATE: _____

SHEET NO.: _____

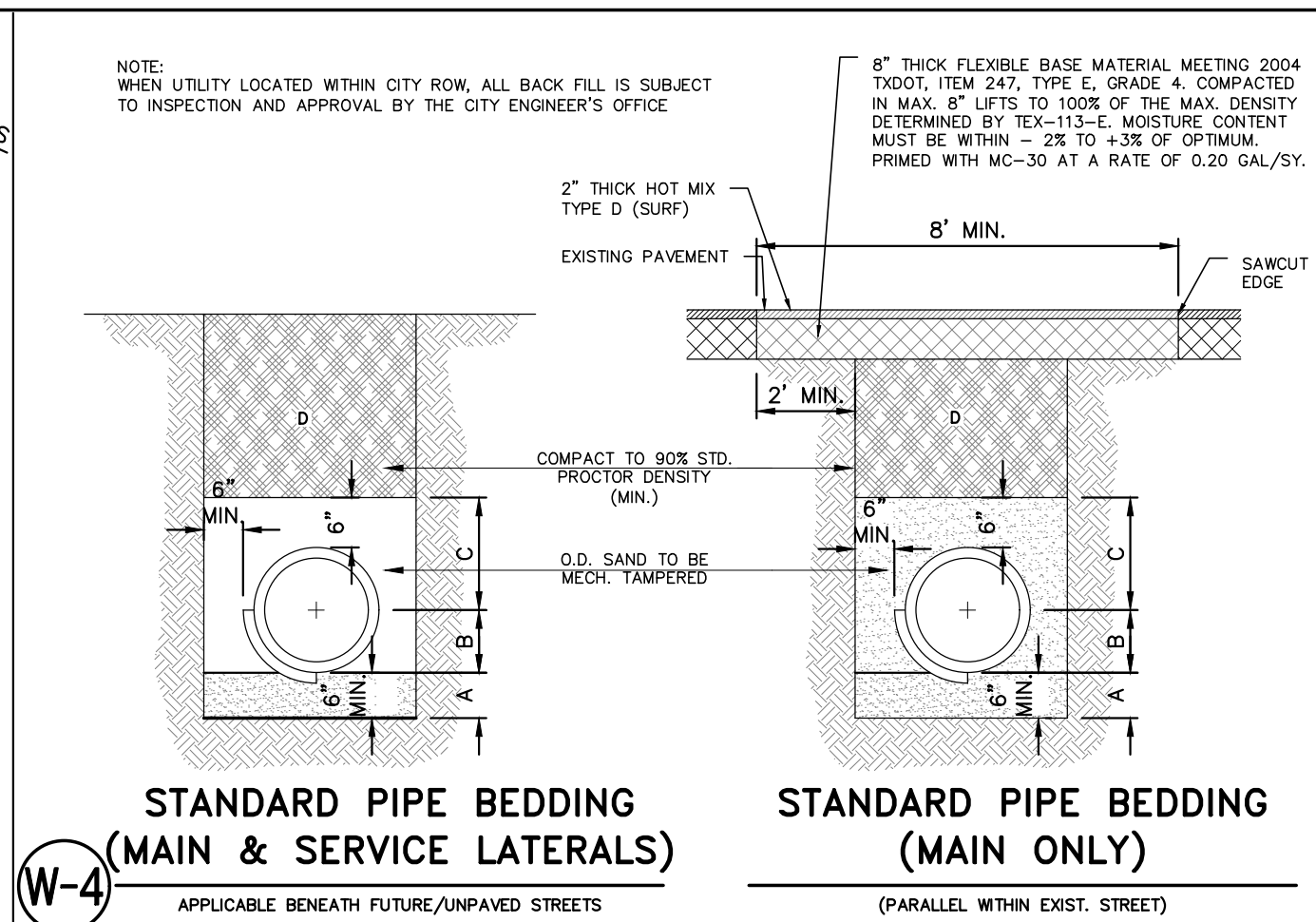
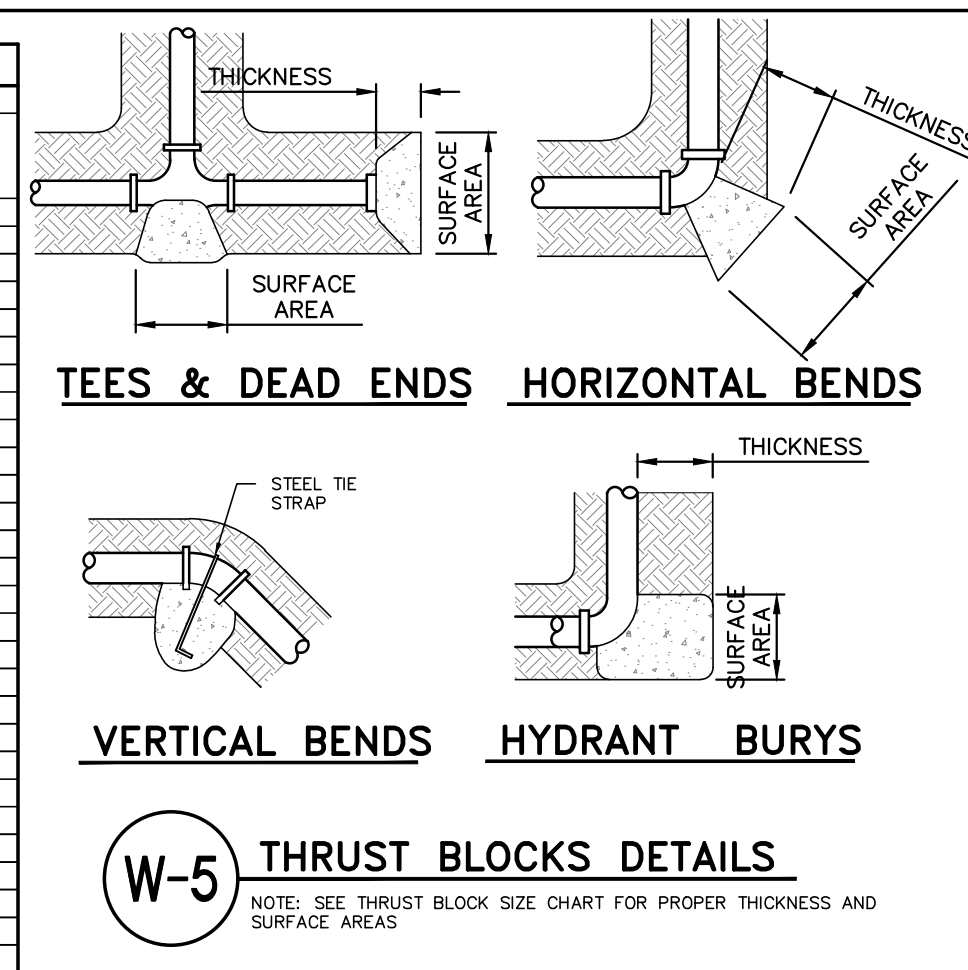
1 OF 1



THURST BLOCK SIZE

HORIZONTAL BENDS			
DIAMETER OF PIPE IN INCHES	SURFACE AREA SQ. FT.	THICKNESS IN INCHES	WEIGHT AT VERTICAL BENDS-LBS.
22-1/2" BENDS			
6 OR LESS	2	8	1,700
8	3	12	3,000
10	3.5	12	4,500
12	4	14	6,800
14	5	18	9,000
16	6	18	11,800
45° BEND			
6 OR LESS	4	12	3,200
8	5	14	5,000
10	6	18	9,000
12	7	18	13,000
14	8	24	17,000
16	11.5	24	23,200
90° BEND			
6 OR LESS	6	12	6,000
8	8	15	10,700
10	10	18	16,700
12	12	18	24,000
14	18	24	32,600
16	21	24	42,700
TEES & DEAD ENDS			
6 OR LESS	3	12	---
8	4	15	---
10	6	18	---
12	8.5	18	---
14	11.5	24	---
16	15	24	---

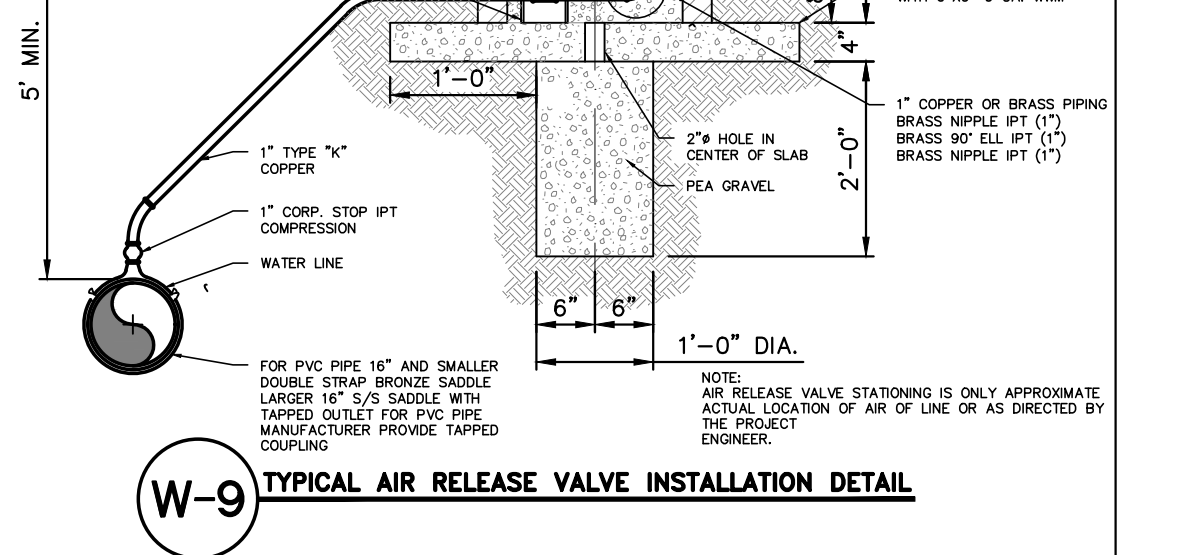
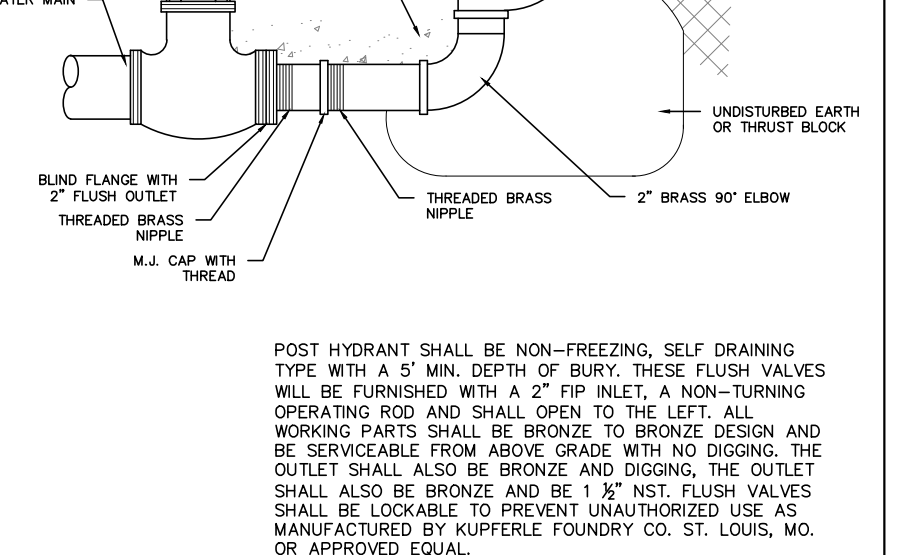
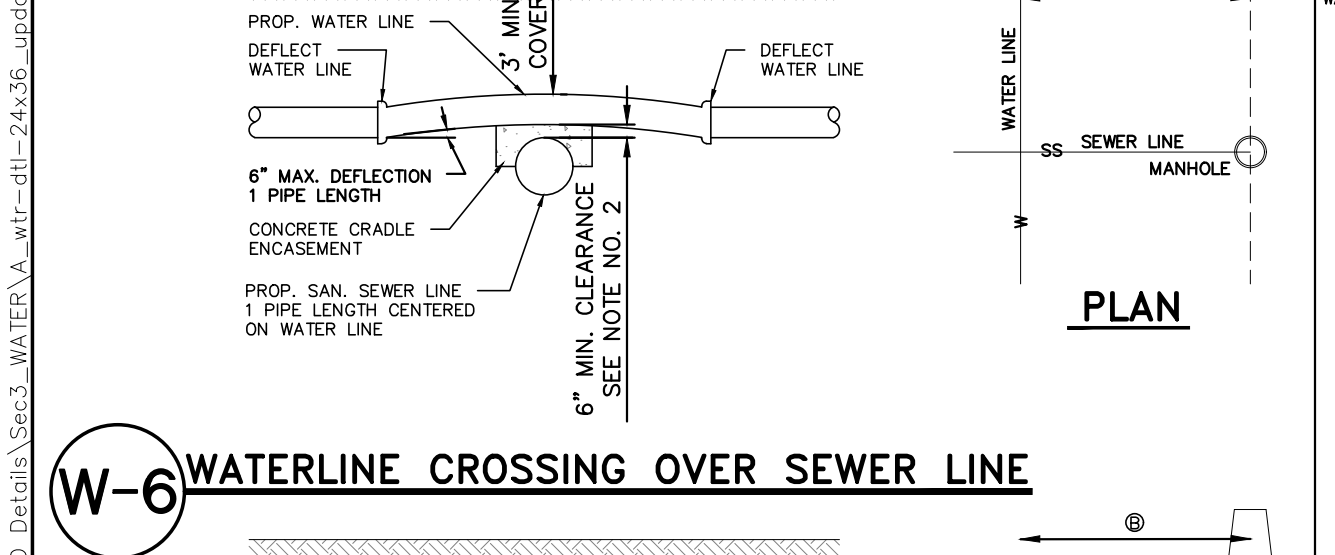
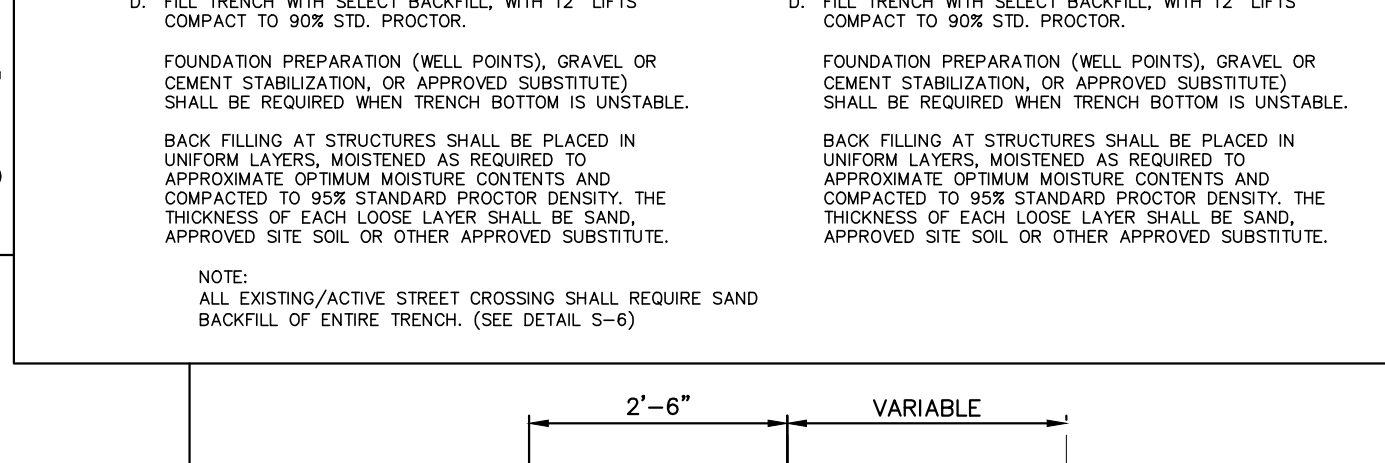
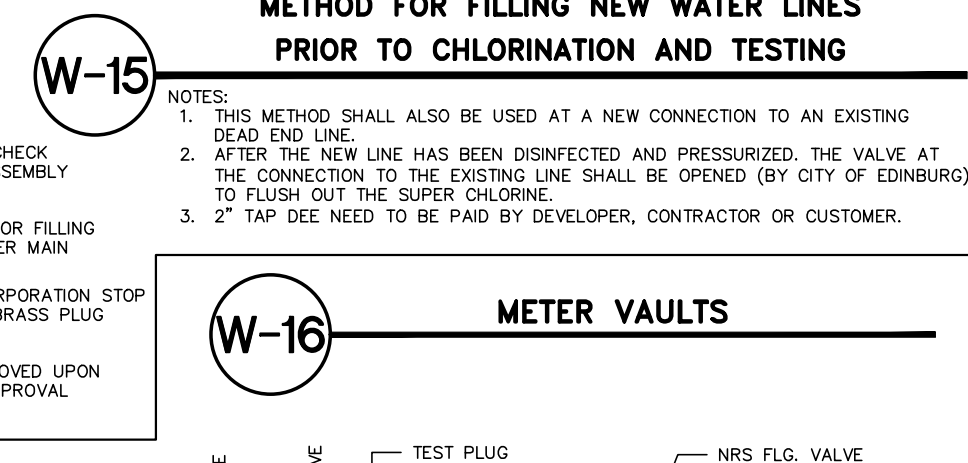
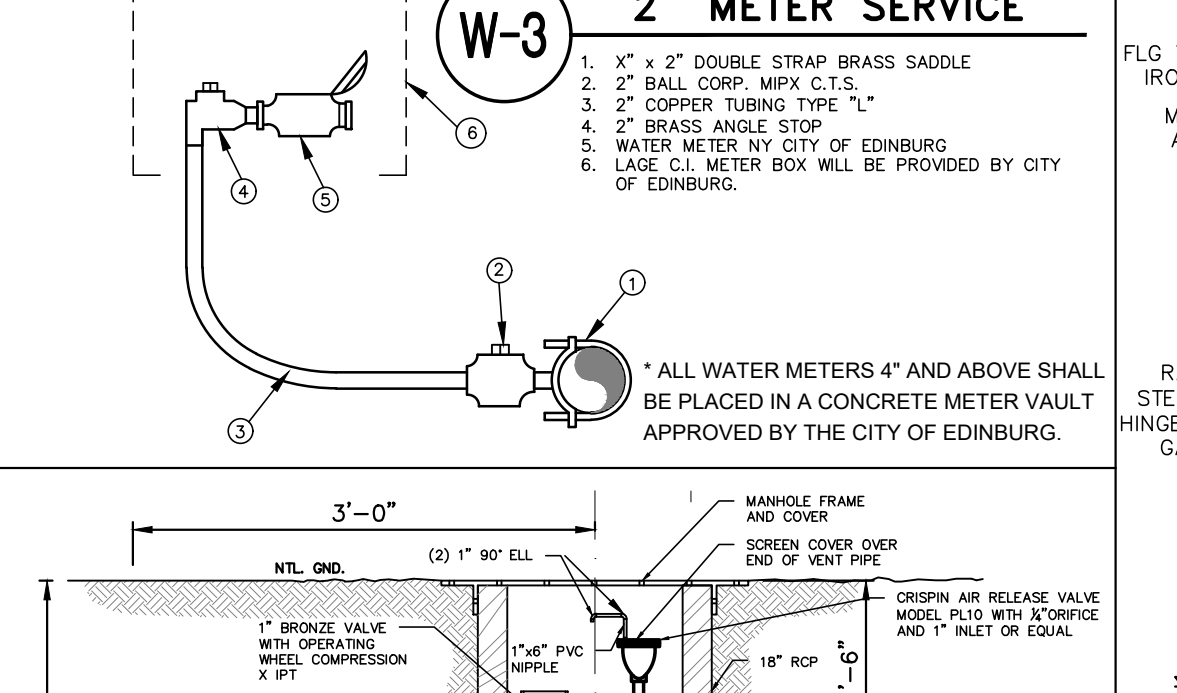
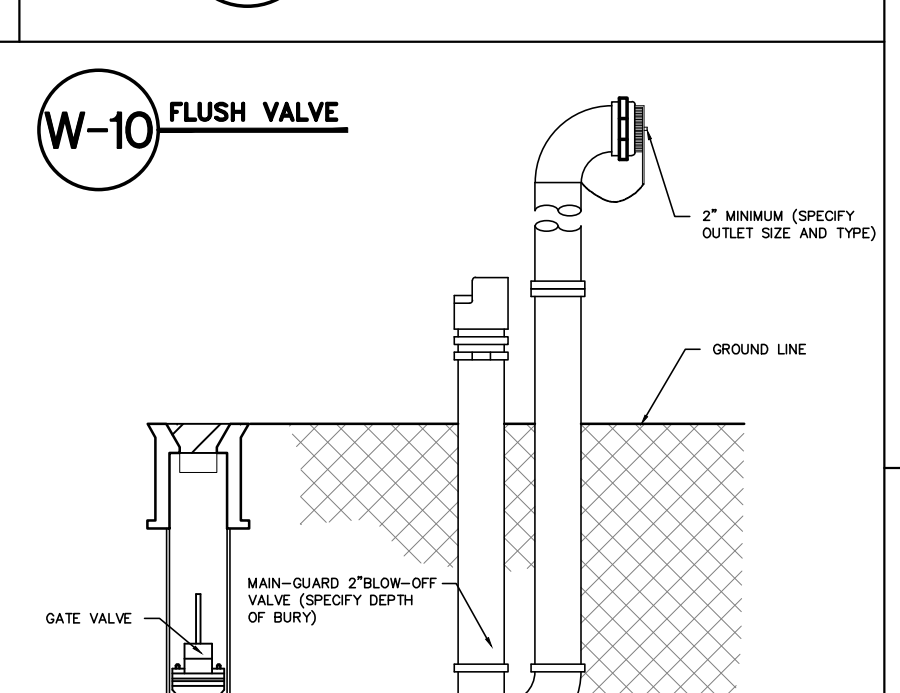
NOTE: VALUES SHOWN ARE MIN. FOR A HYDROSTATIC PRESSURE OF 150 PSI AND A SOIL RESISTANCE OF 2,000 LBS. PER SQ. FT. WITH PIPELINE HAVING A MIN. OF 3 FT. OF COVER WITH CURB AND GUTTER AND A 5 FT. MIN. WITHOUT CURB AND GUTTER.



NOTES AS PER TEXAS DEPT. OF HEALTH MANUAL:

A. WATER LINE/NEW SEWER LINE SEPARATION:
WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATERLINE THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES, WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY:
1. WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETER. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
2. WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 6 INCHES BETWEEN OUTSIDE DIAMETER SHALL BE MAINTAINED. IN ADDITION THE SEWER SHALL BE LOCATED BELOW THE WATERLINE. WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
3. WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETS, A MINIMUM TWO FEET SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF WATERLINE. THE INITIAL BACK FILL BE FROM ONE QUARTER DIAMETER.

B. WATER LINE/MAHOLE SEPARATION:
UNLESS SANITARY SEWER MANHOLES AND THE CONNECTING SEWER CAN BE MADE WATER TIGHT AND TESTED FOR LEAKAGE, THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATERLINE, WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, A CARRIER PIPE AS DESCRIBED IN SUBSECTION A-4 OF THIS SECTION MAY BE USED WHERE APPROPRIATE.

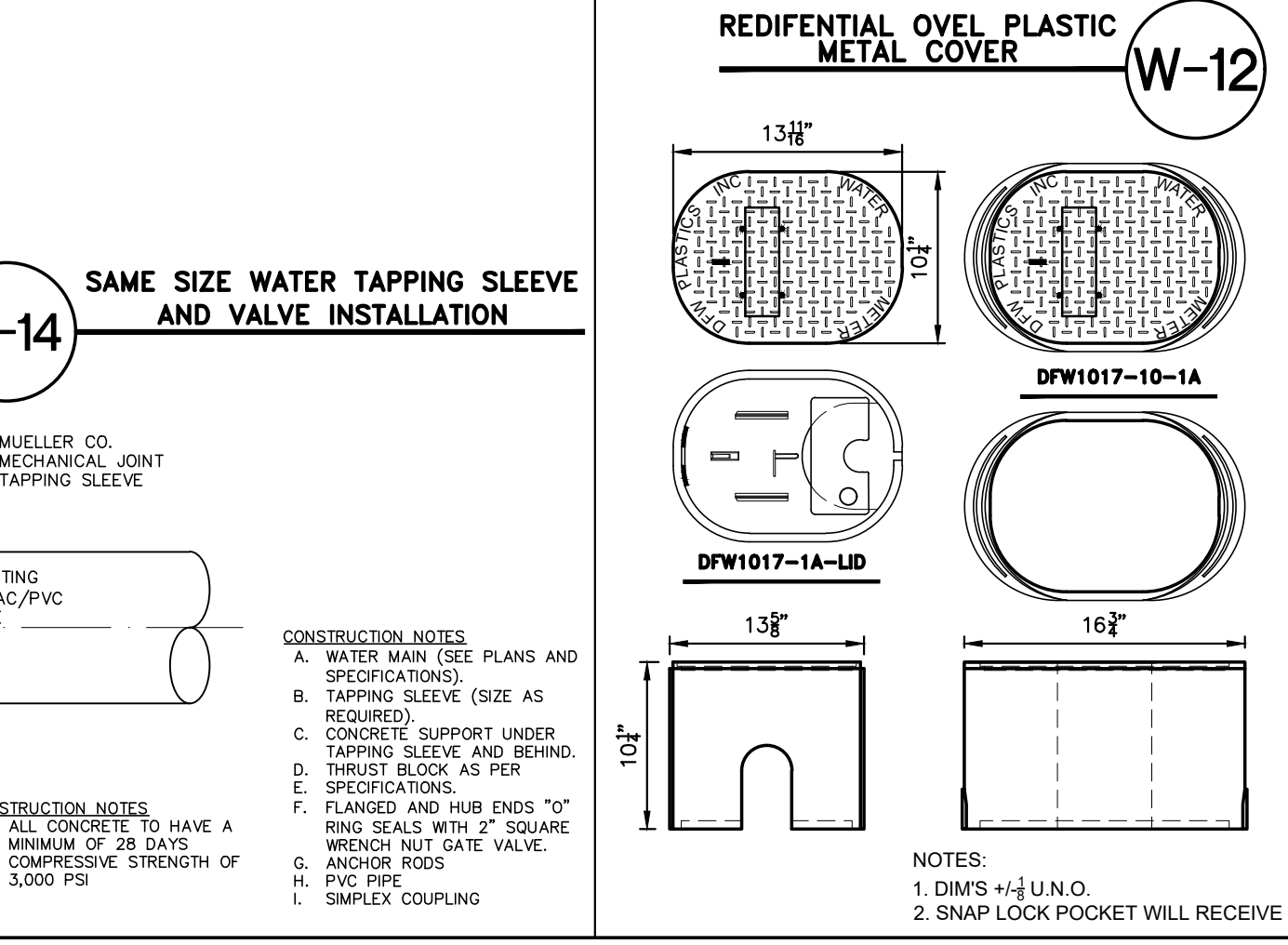
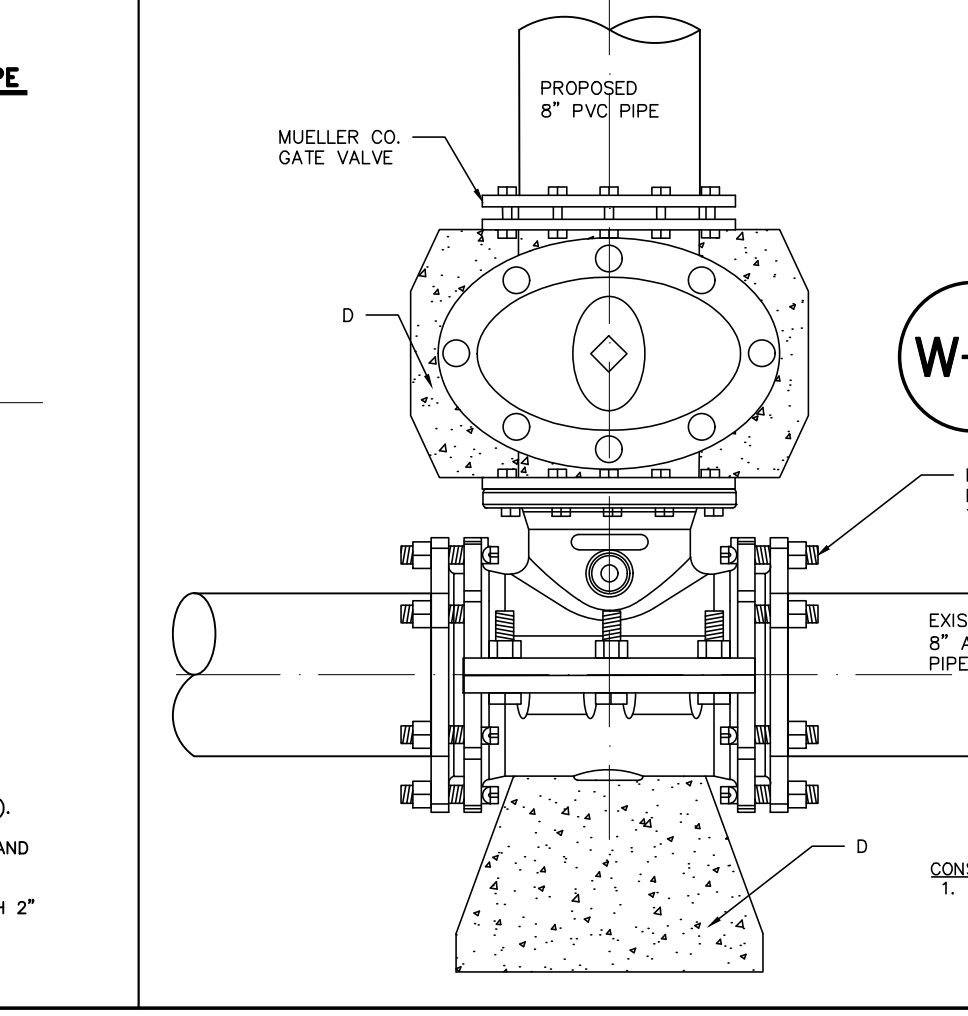
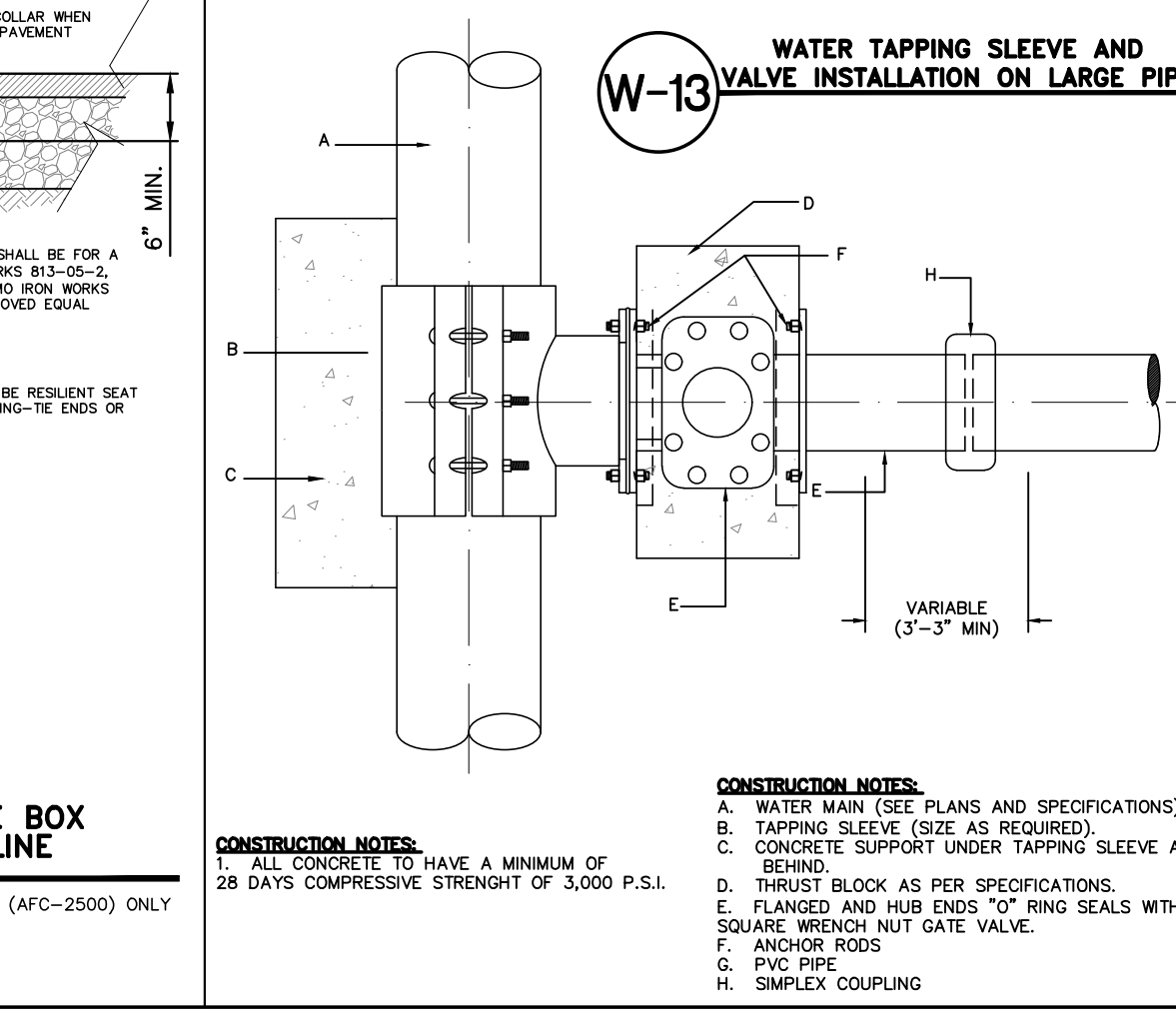
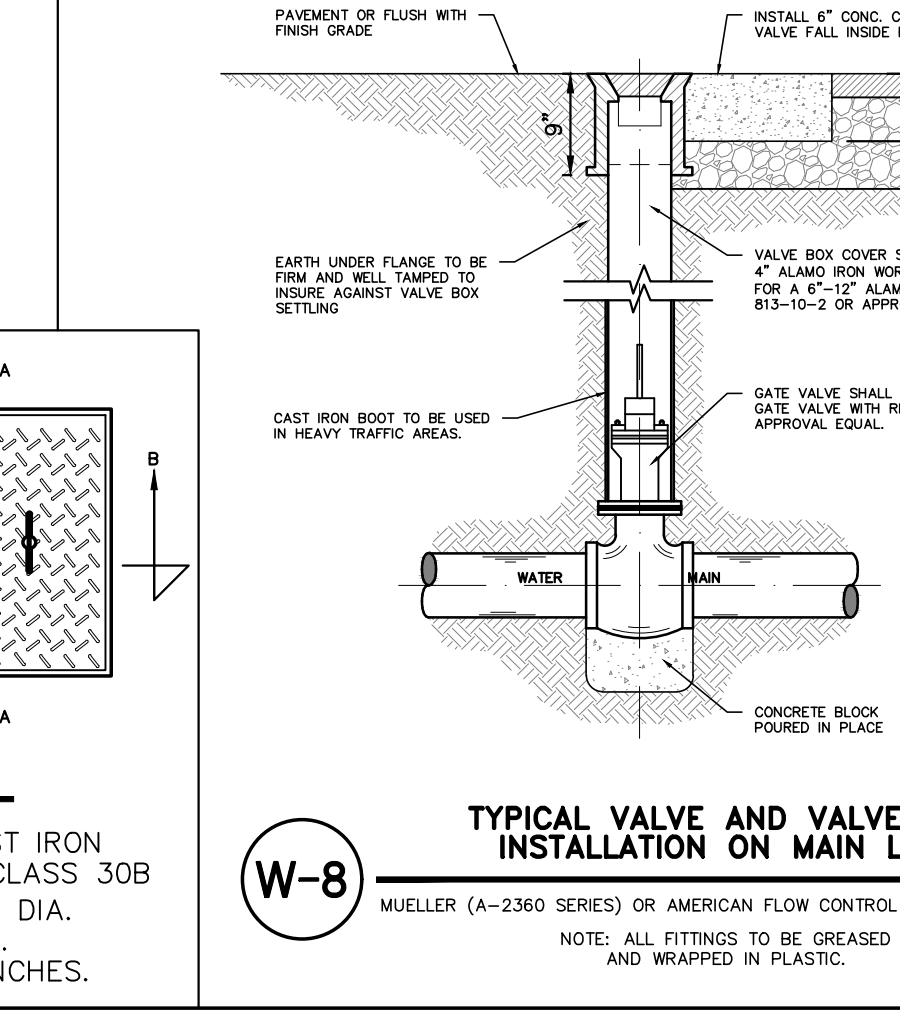
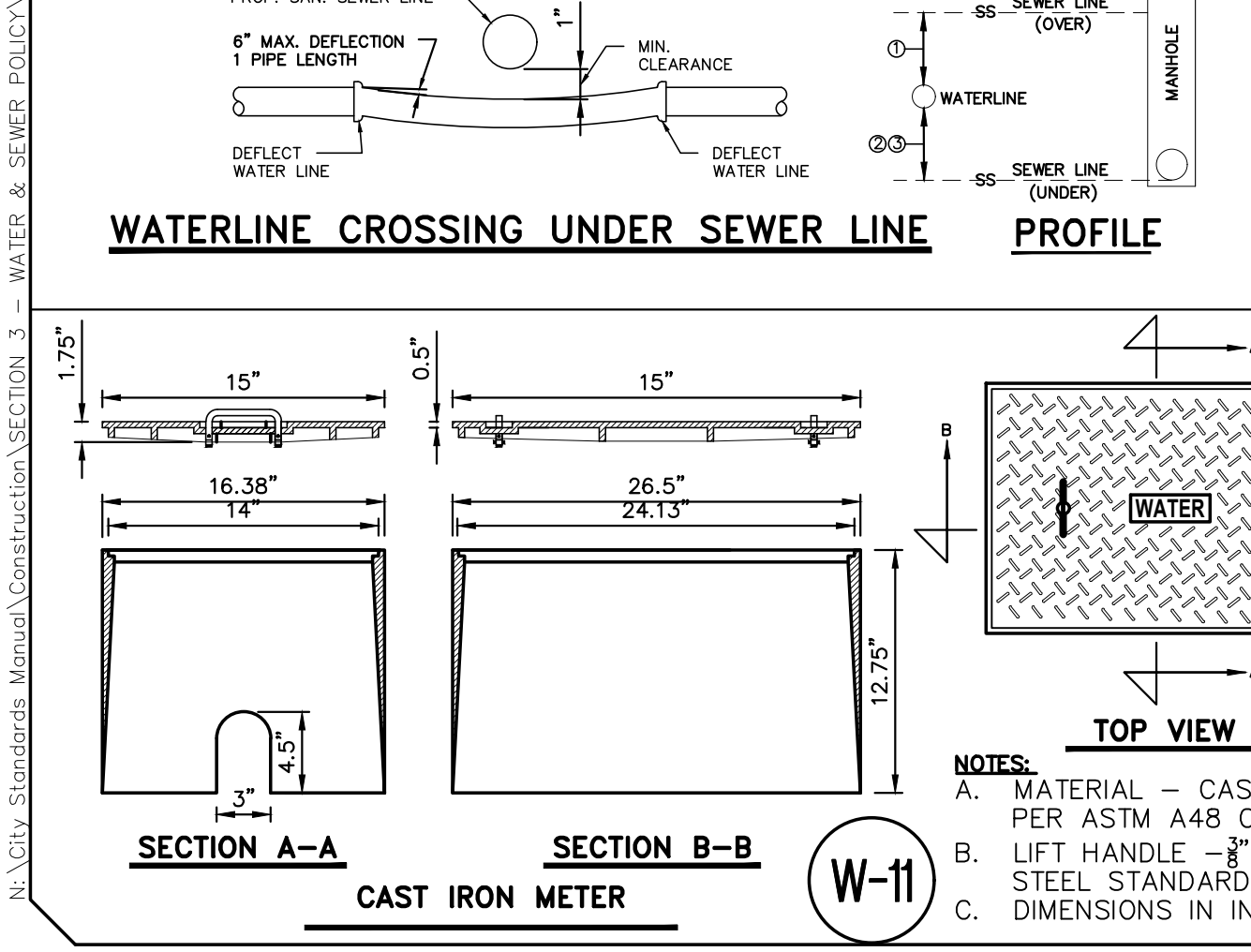
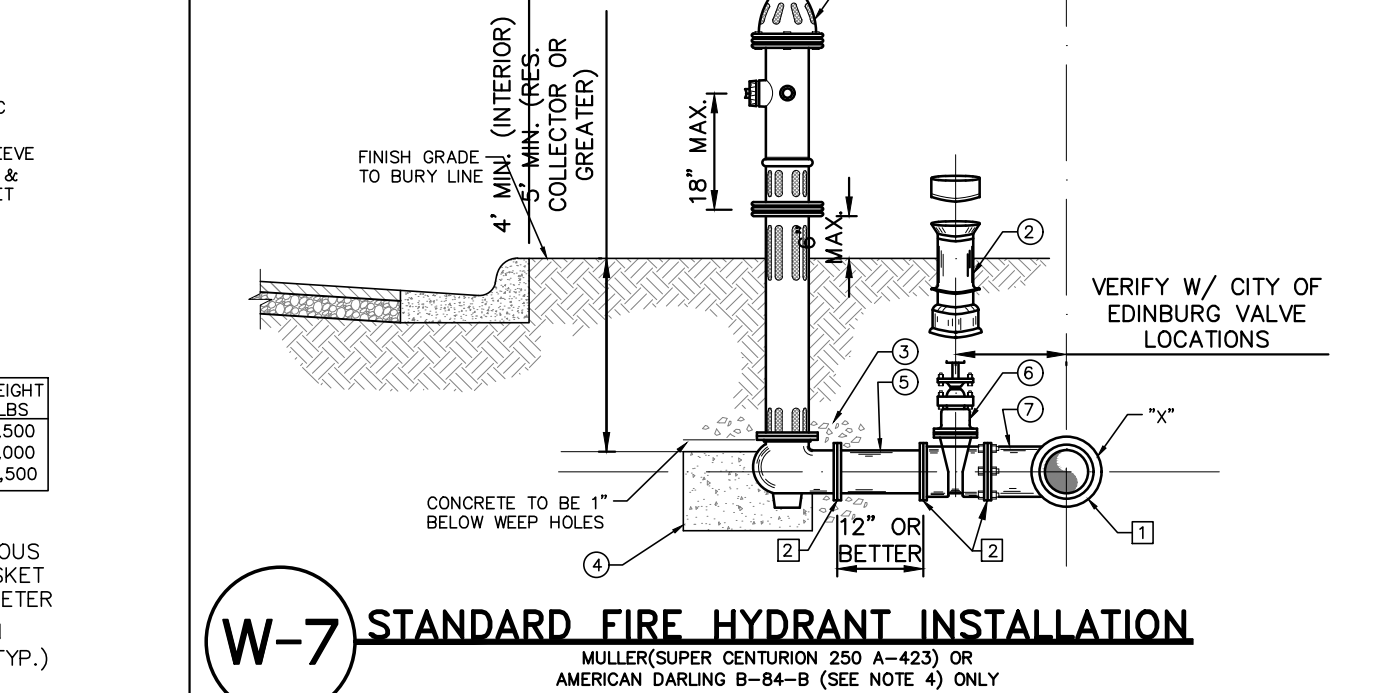


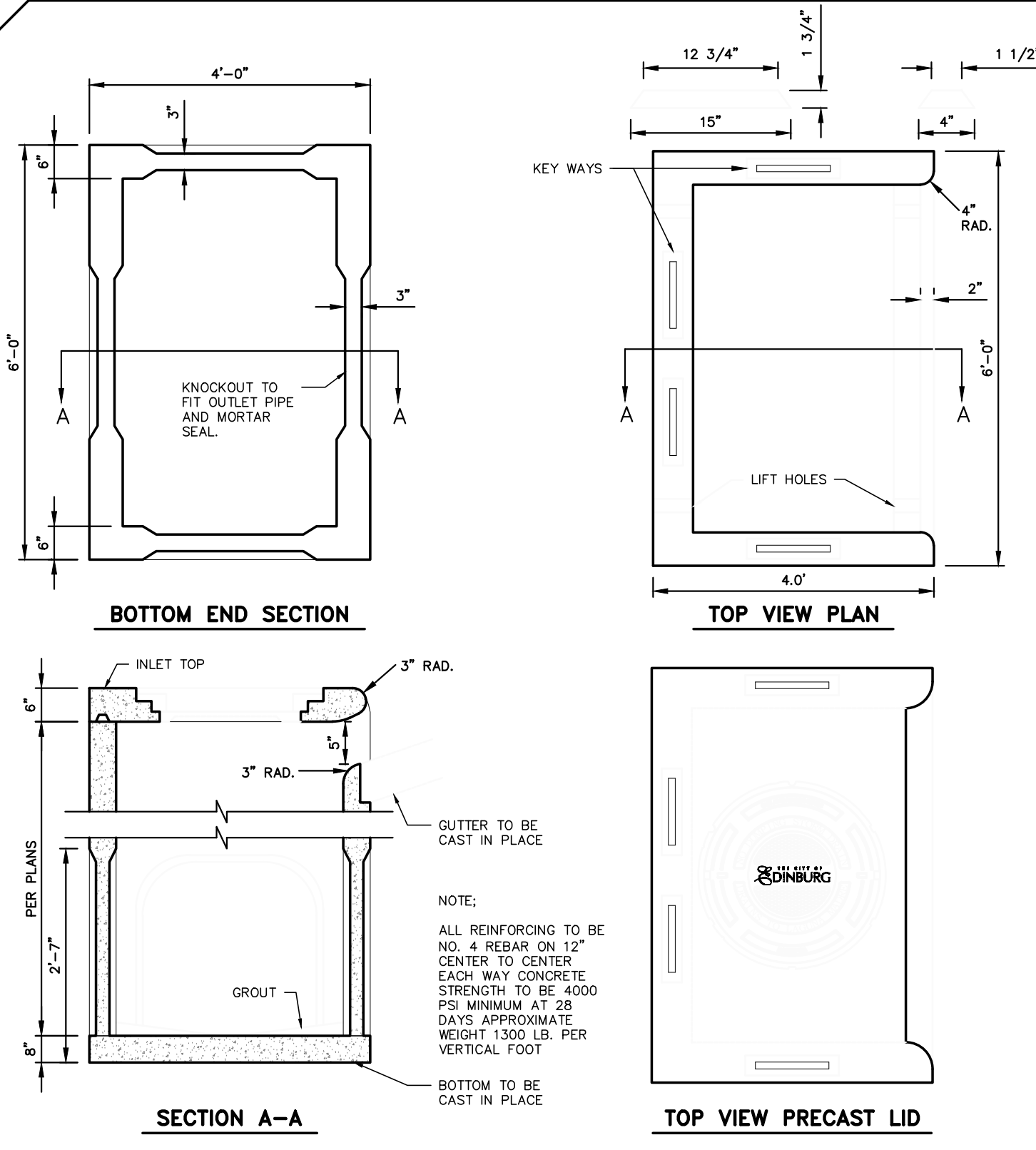
PLAN VIEW

MODEL	SIZE	BY	L1	W1	H1	WEIGHT
DMC0043	3"	2"	11'-6"	6'-0"	4'-3"	14,500
DMC0044	4"	2"	11'-6"	6'-0"	4'-3"	15,000
DMC0046	6"	4"	13'-6"	6'-0"	4'-3"	15,500

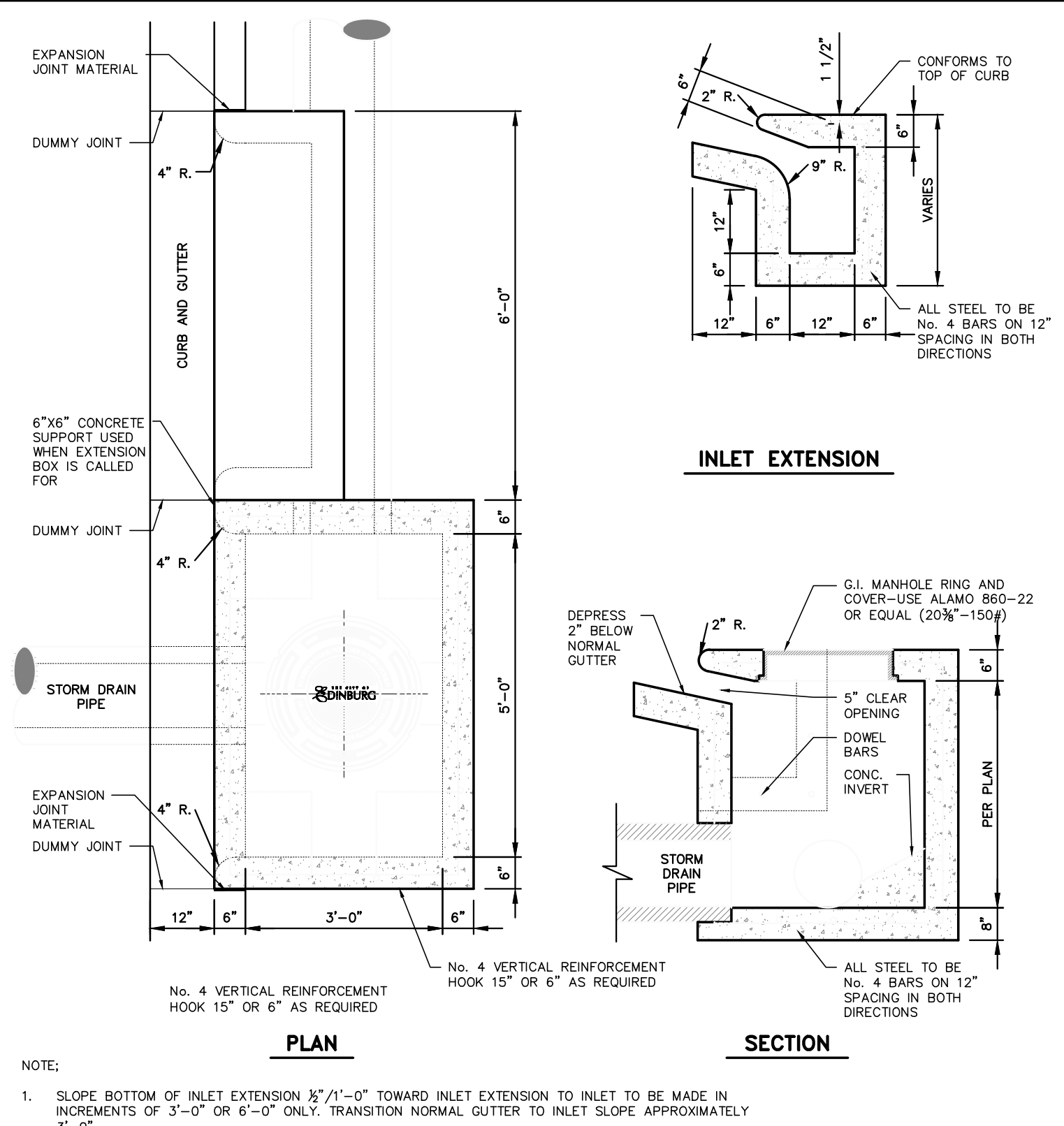
ELEVATION

12"x12" SUMP WITH CAST IRON GRATE

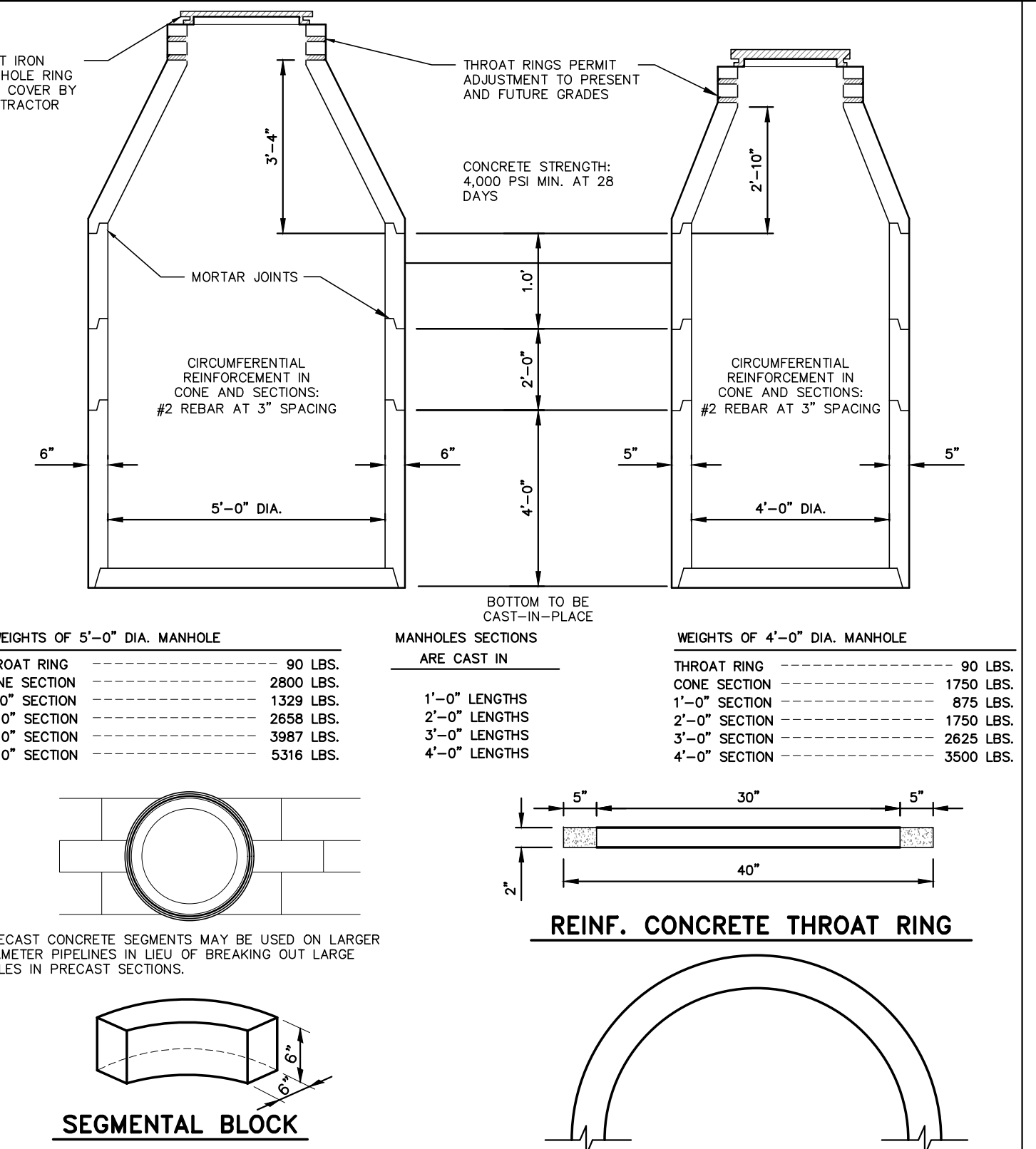




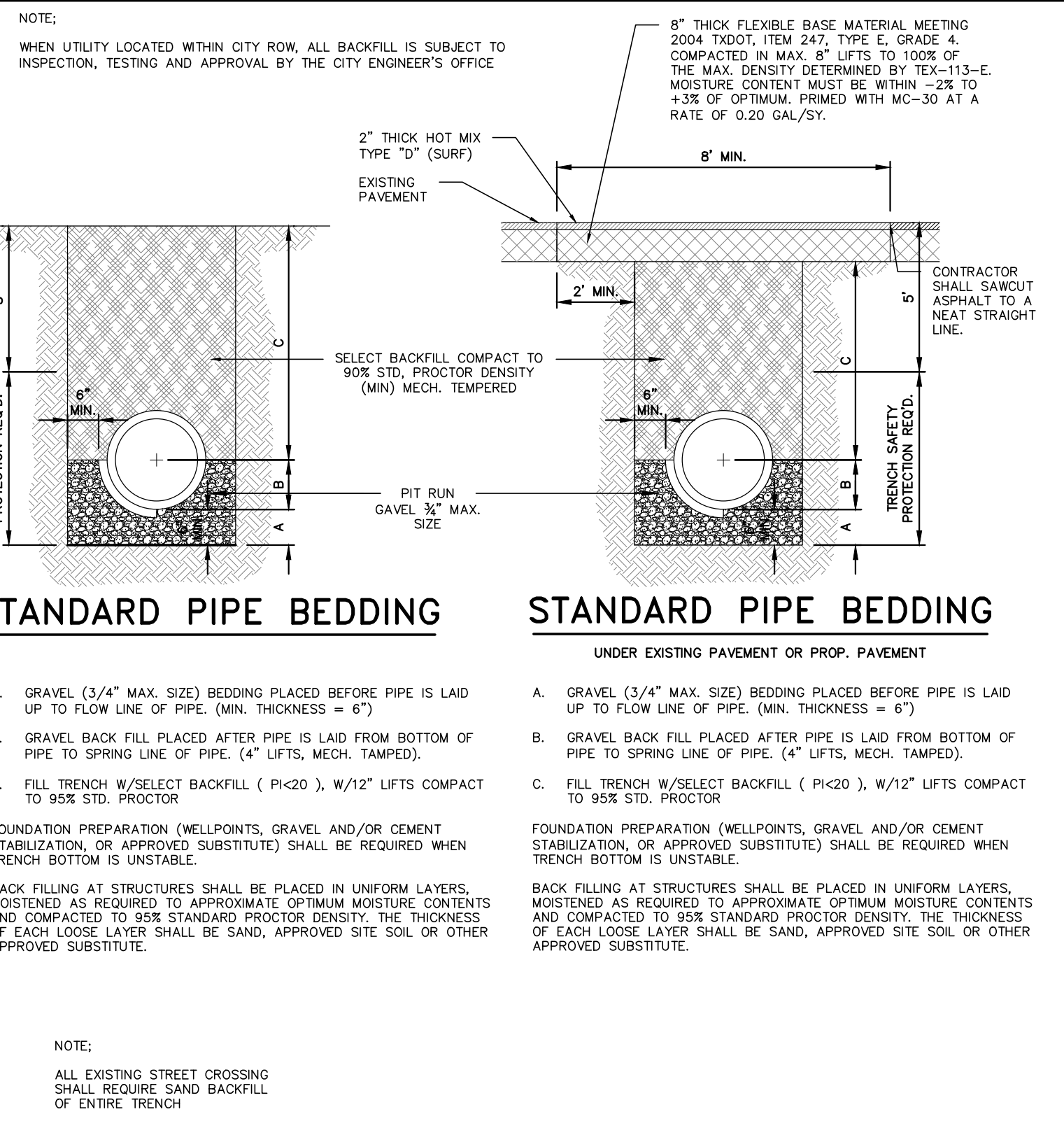
D-1 PRECAST TYPE "A" INLET



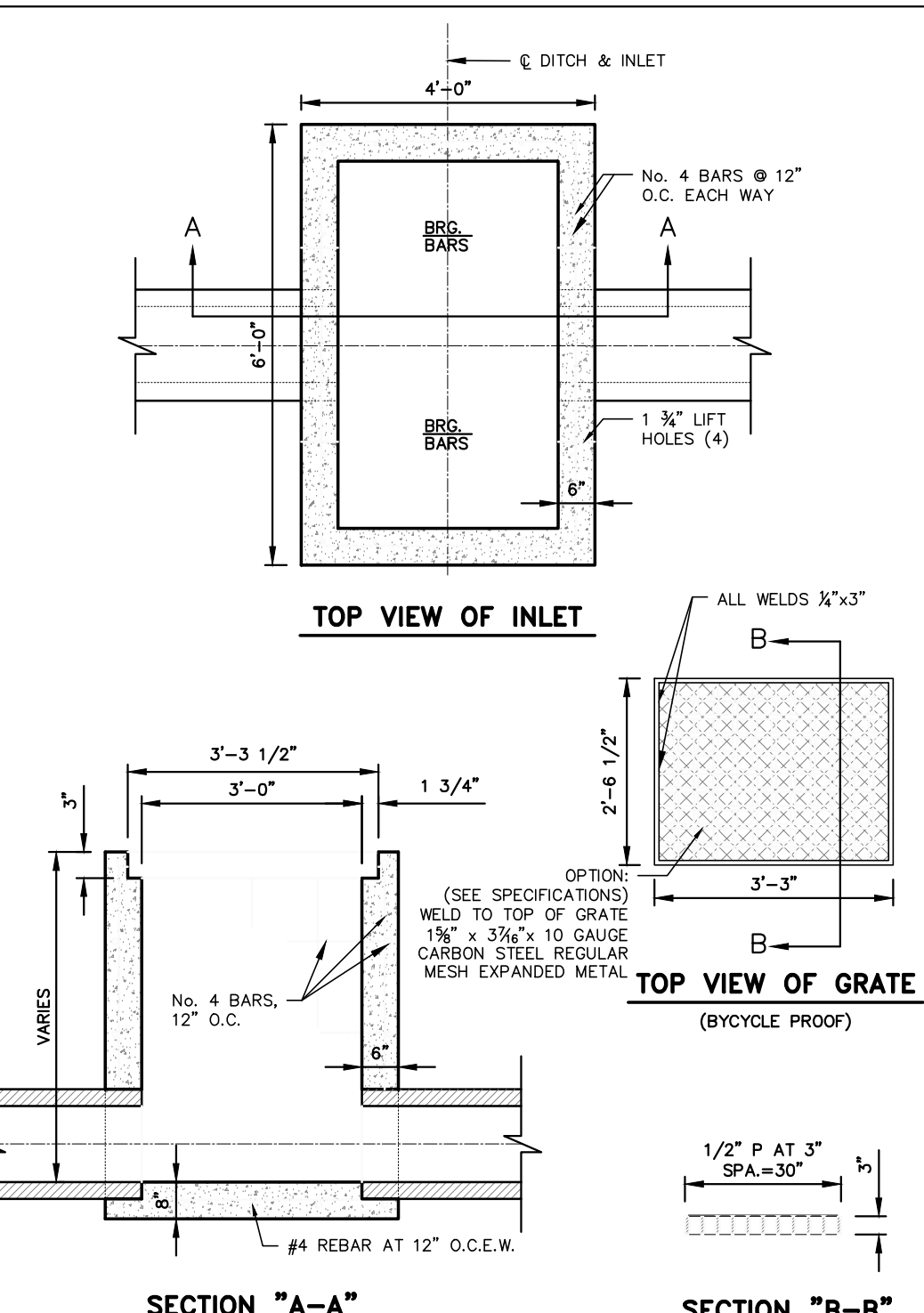
D-2 TYPE "A" INLET WITH EXTENSION - DETAILS



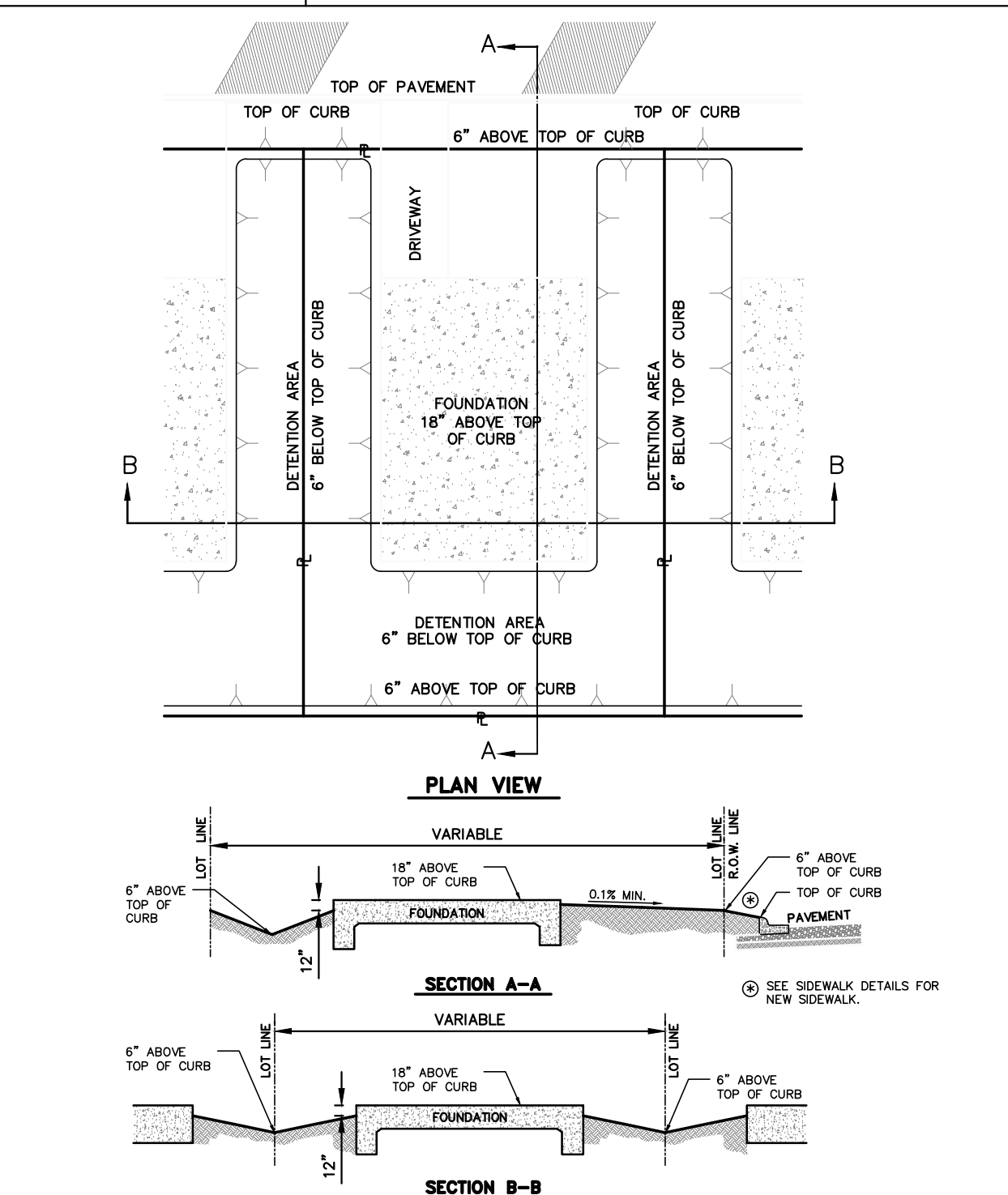
D-4 PRECAST CONCRETE MANHOLES - DETAILS



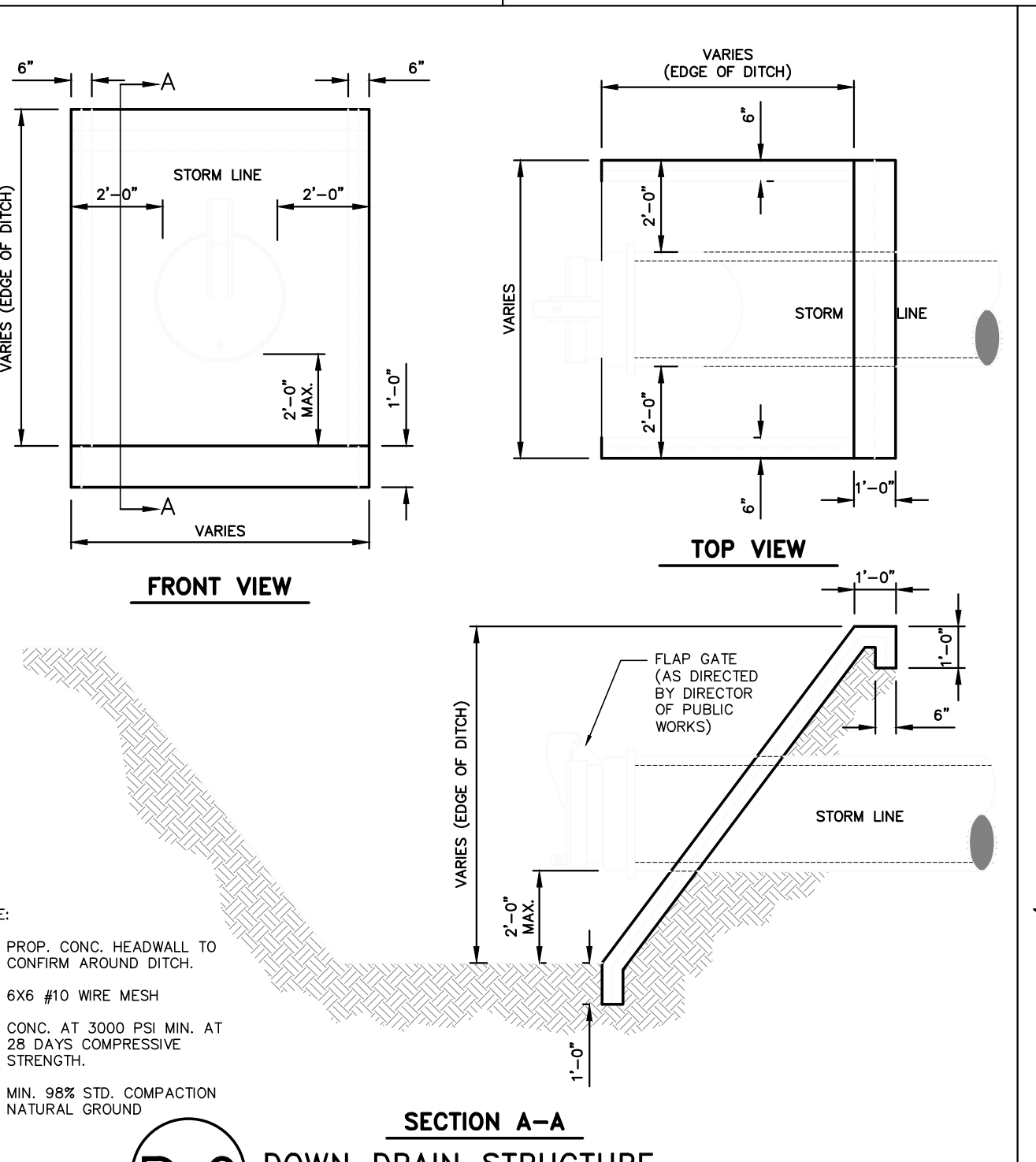
D-8 STANDARD PIPE BEDDING - DETAILS



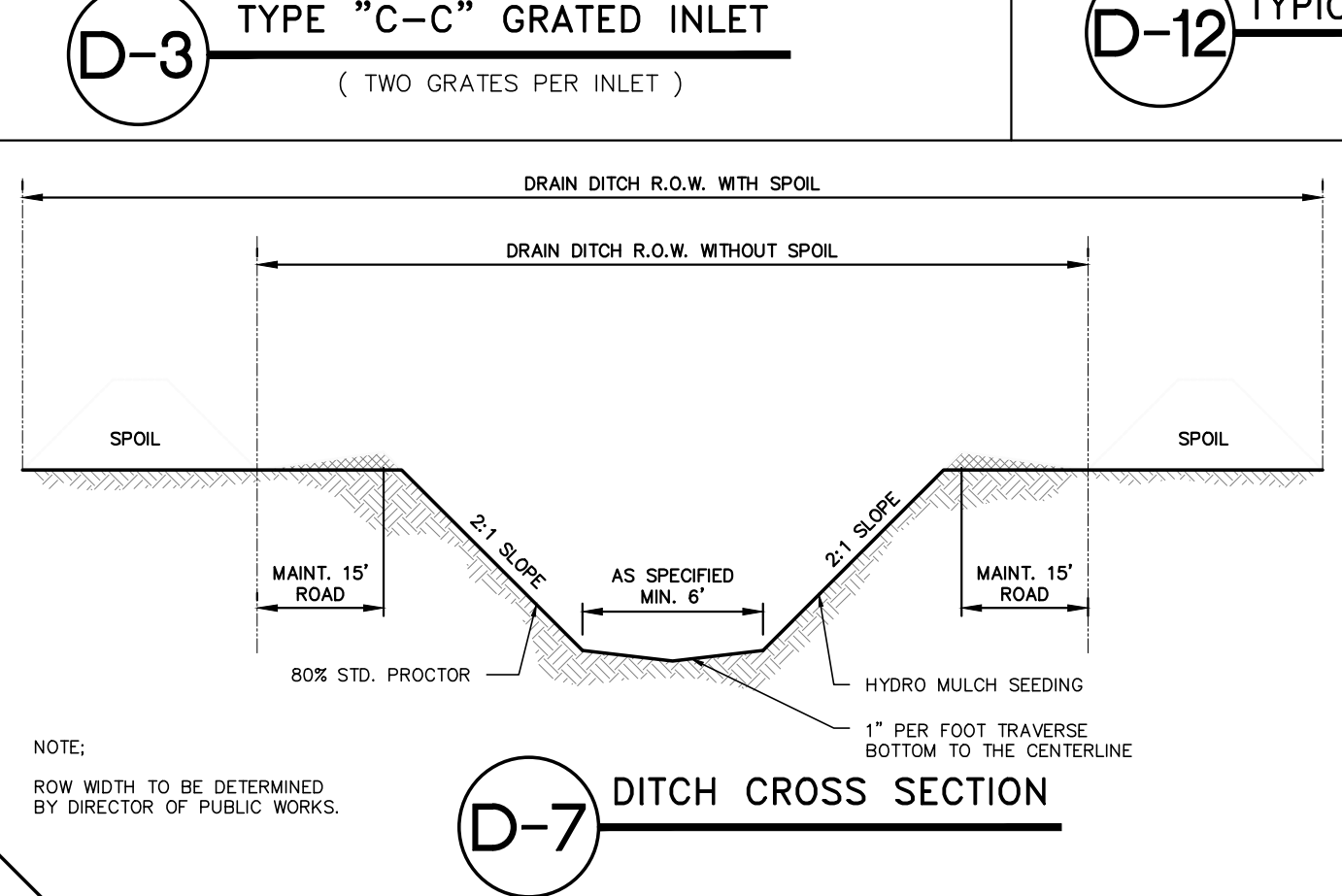
D-3 TYPE "C-C" GRATED INLET (TWO GRATES PER INLET)



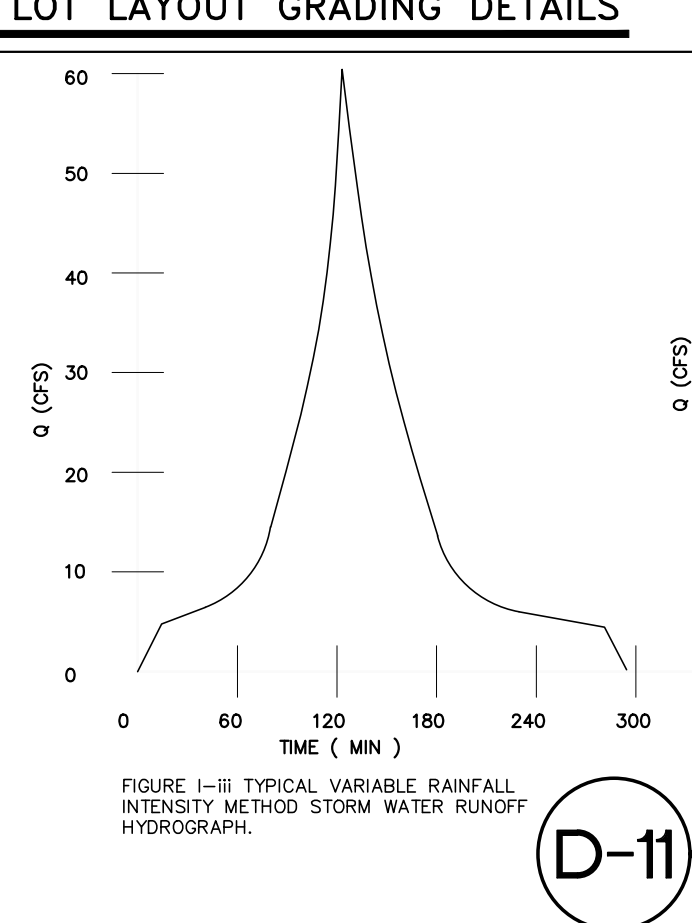
D-12 TYPICAL LOT LAYOUT GRADING DETAILS



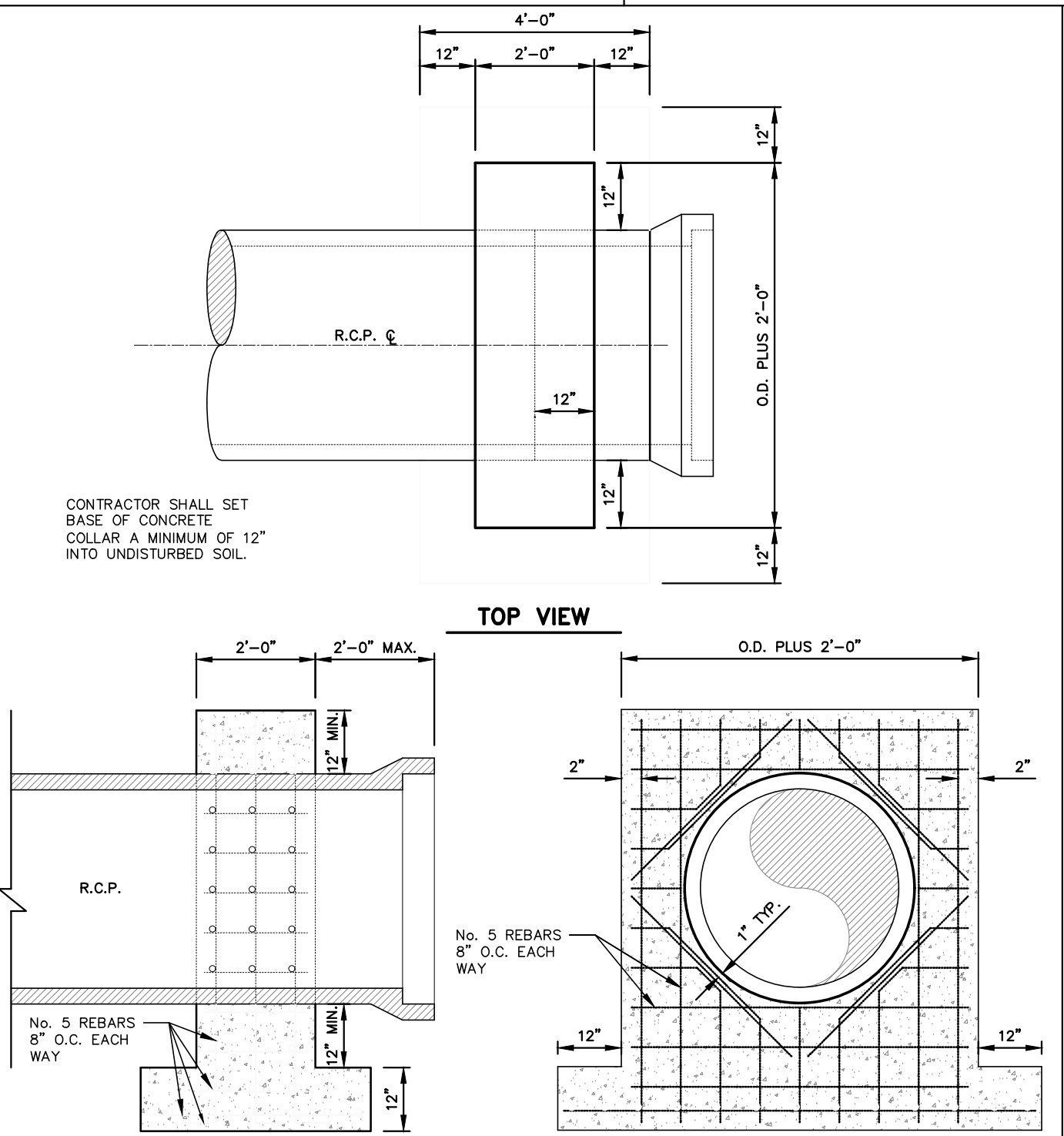
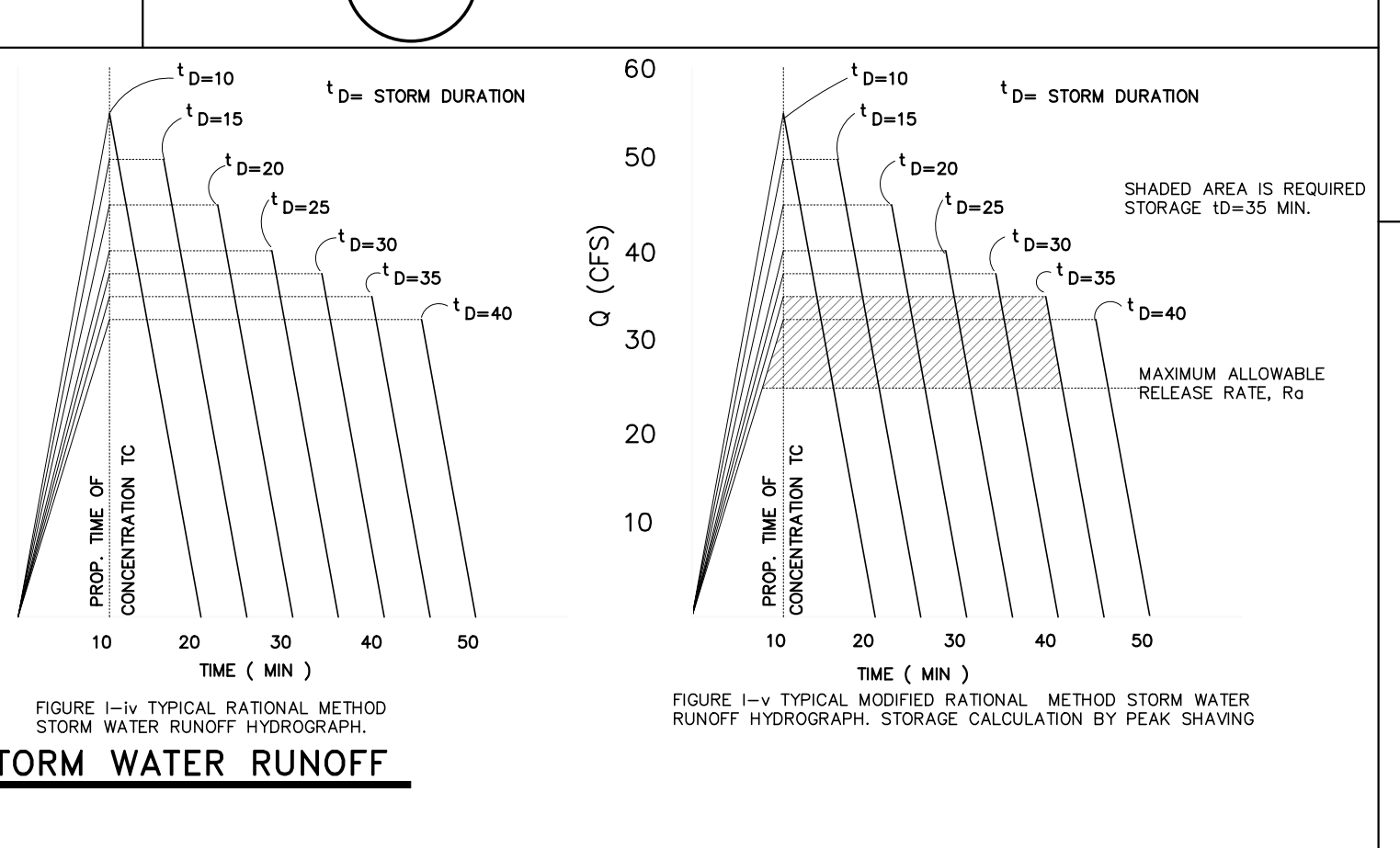
D-6 DOWN DRAIN STRUCTURE



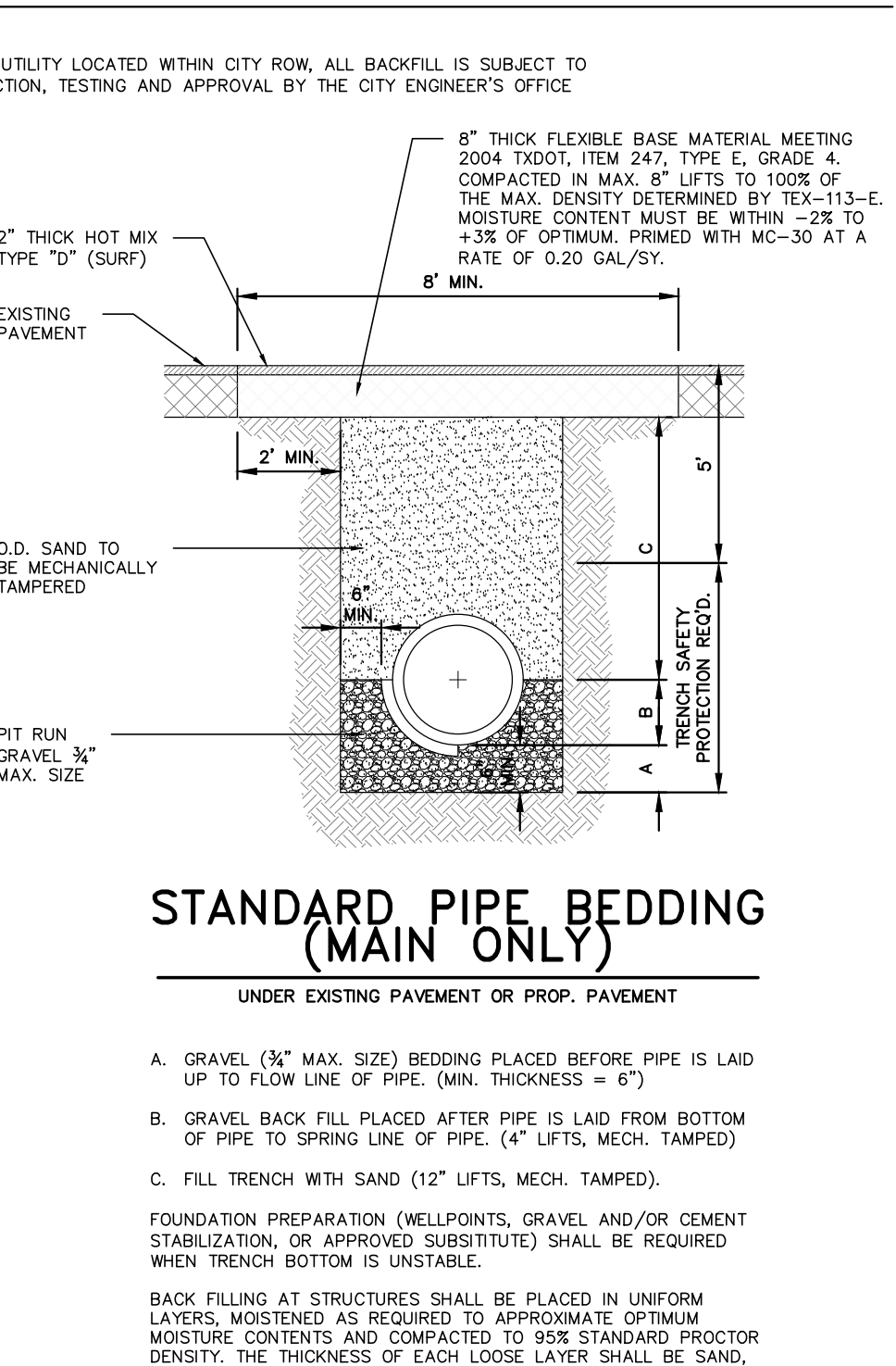
D-7 DITCH CROSS SECTION



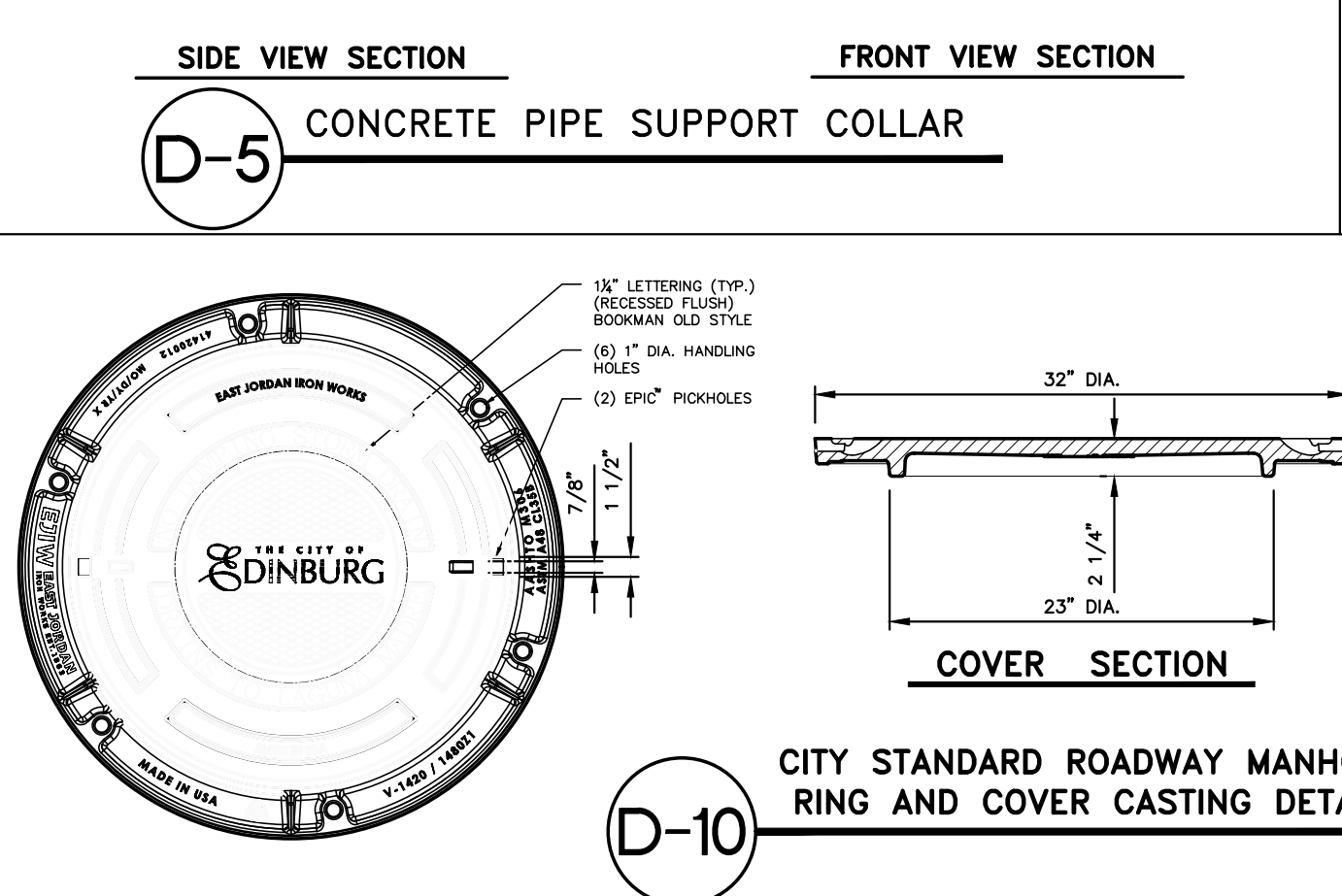
D-11 STORM WATER RUNOFF



D-5 CONCRETE PIPE SUPPORT COLLAR



D-9 UTILITY CROSSING AT EXIST./ ACTIVE STREET DETAIL (STORM SEWER)



D-10 CITY STANDARD ROADWAY MANHOLE RING AND COVER CASTING DETAIL

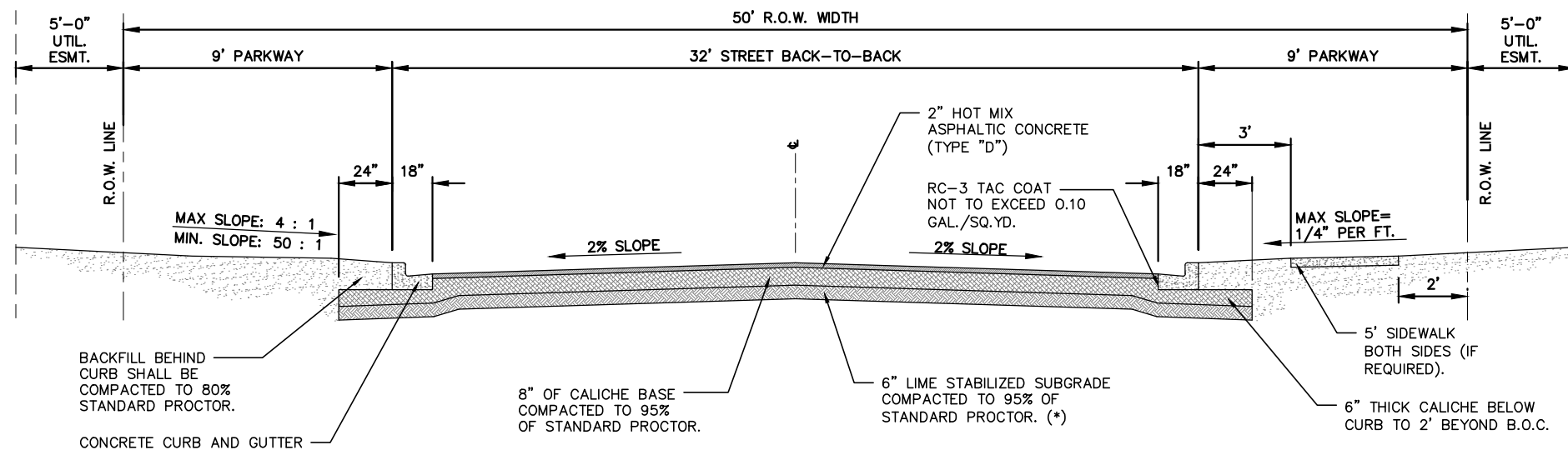
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DATE: MAY 2014
SURVEYED BY:
DESIGNED BY: I.P.
DRAWN BY: R.M.M.
REVISED BY: I.P.
CHECKED BY: I.P.

TITLE: DRAINAGE SYSTEM STANDARD DETAILS

THE CITY OF Edinburg
NSIPRI

HOR: 1" = N.T.S.
VERT: 1" = N.T.S.

DATE: _____
SHEET NO.: 1 OF 1

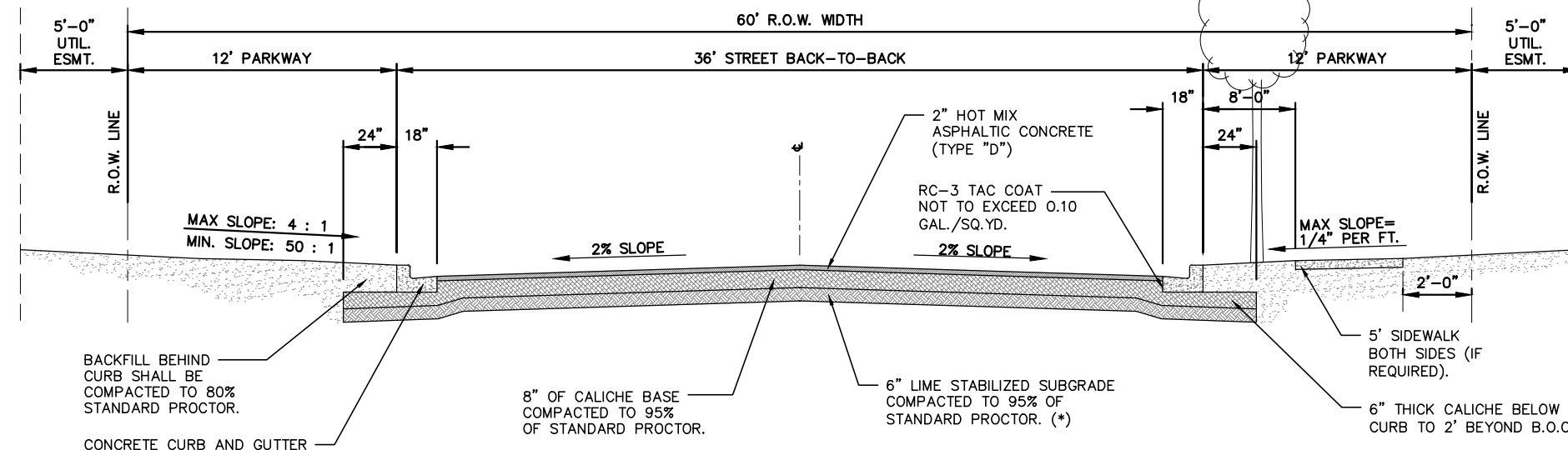


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTES:
 1. IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.
 2. FOR STREETS SERVING A SUBDIVISION WITH NO STREET TREES (LESS THAN 16 LOTS).

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-1 MINOR RESIDENTIAL STREET SECTION (32' BB - 50' R.O.W.) - DETAIL

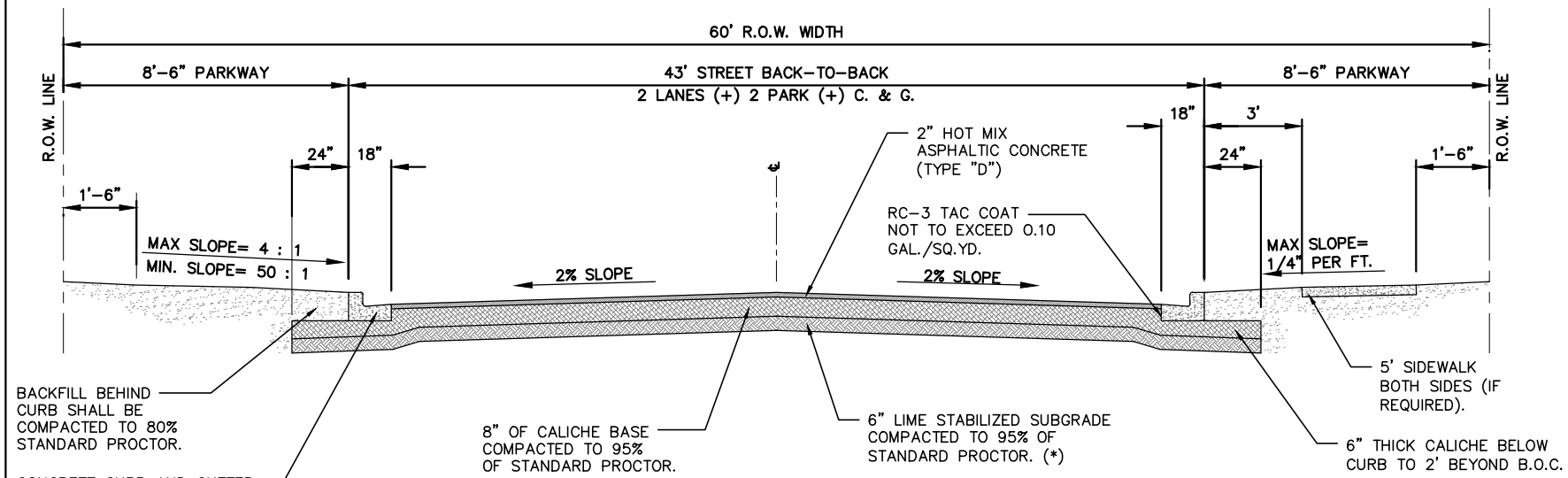


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTES:
 1. IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.
 2. FOR STREETS SERVING A SUBDIVISION WITH STREET TREES (16 OR MORE LOTS).

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-2 MINOR RESIDENTIAL STREET SECTION (32' BB - 60' R.O.W.) - DETAIL

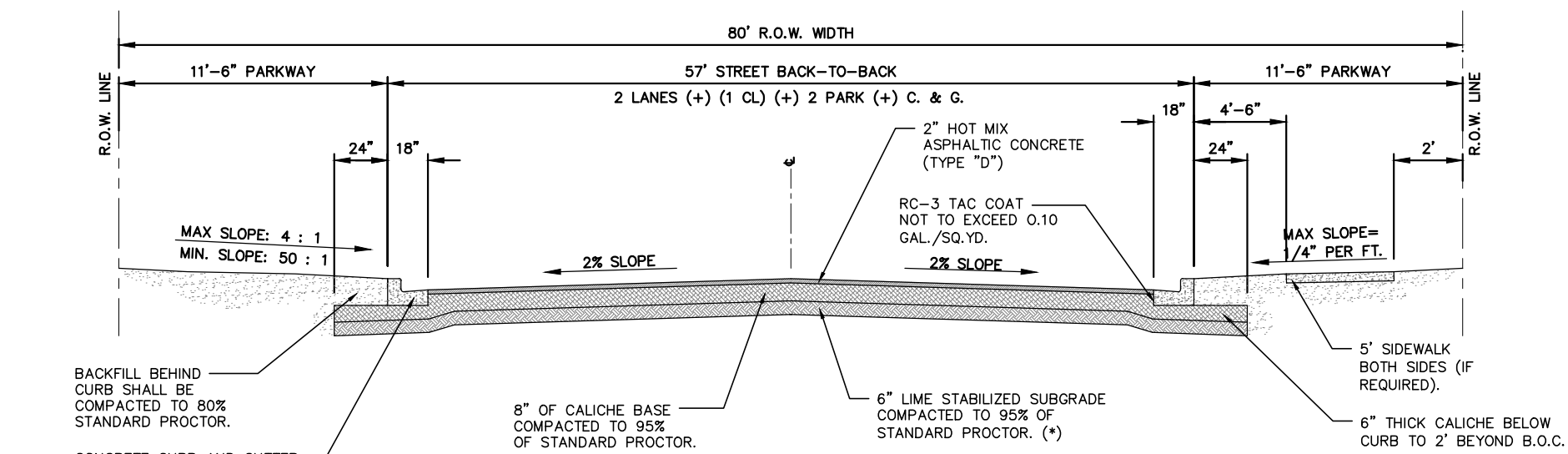


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTE:
 IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-3 RESIDENTIAL COLLECTOR AND MULTI-FAMILY STREET SECTION DETAIL

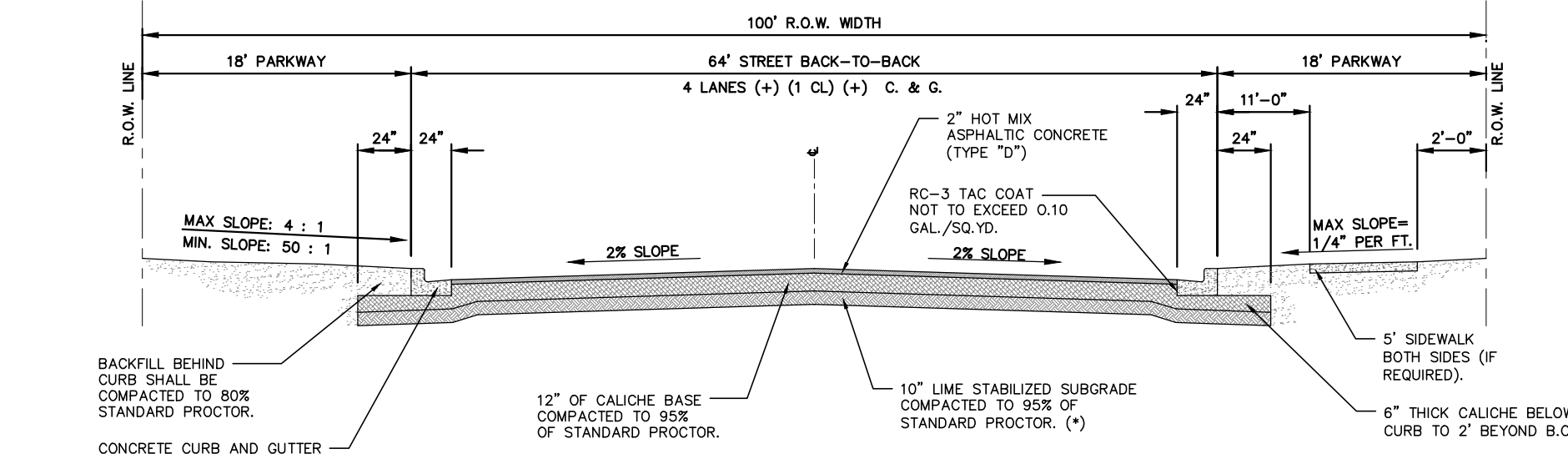


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTE:
 IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-4 MINOR AND MAJOR THOROUGHFARES COLLECTOR STREET SECTIONS DETAIL

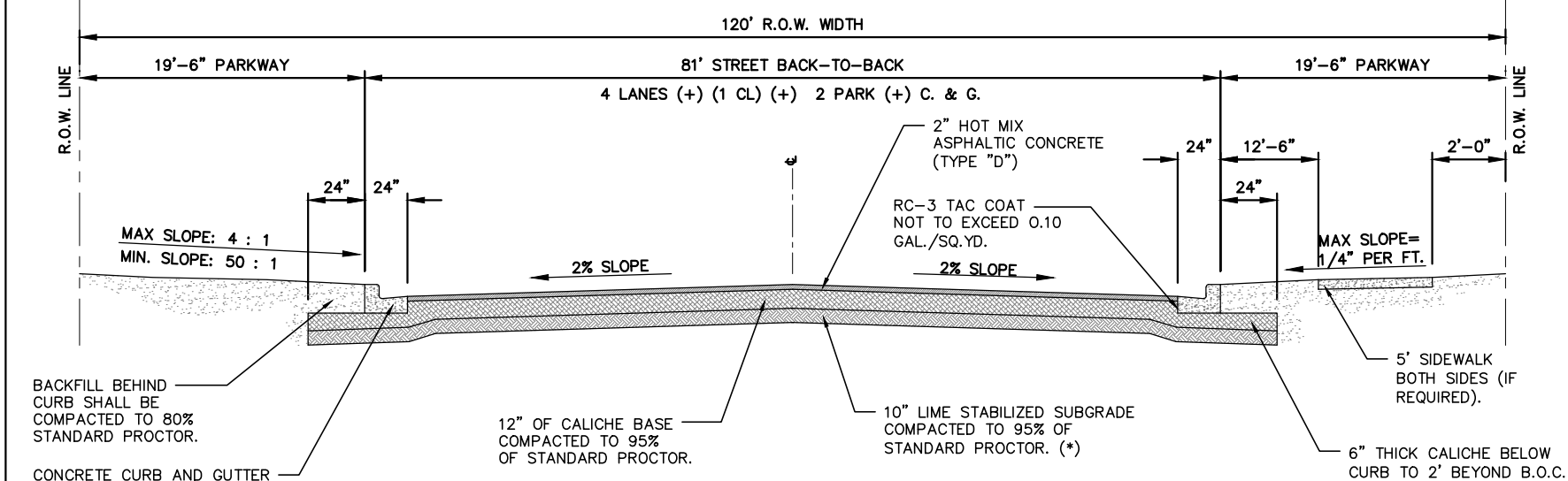


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTE:
 IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-5 MINOR ARTERIAL COLLECTOR STREET SECTION DETAIL

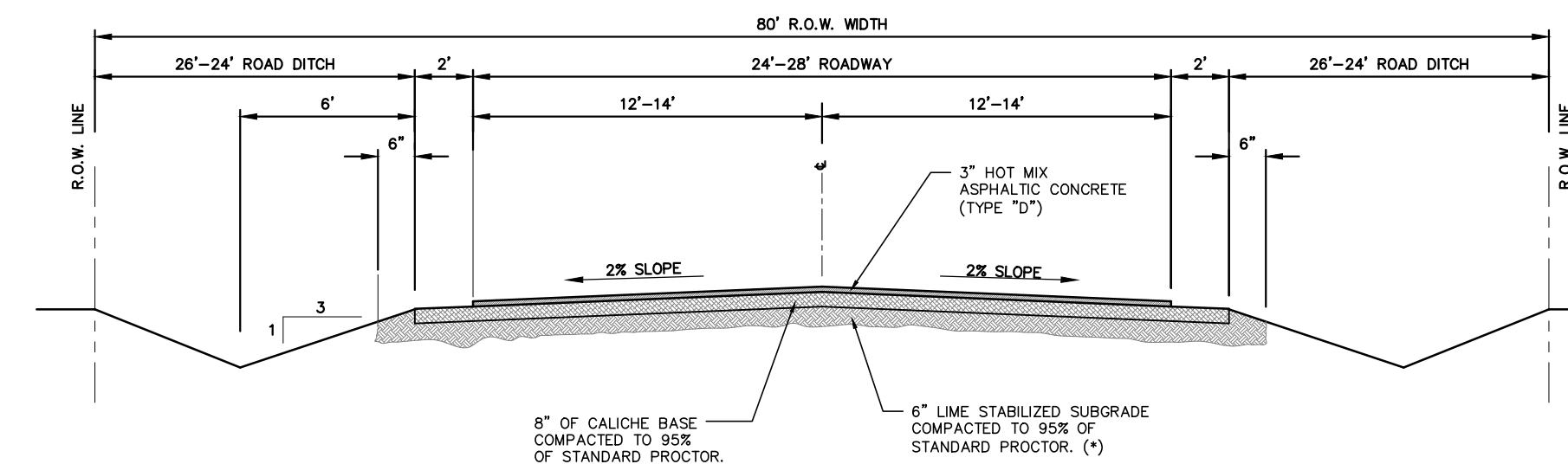


(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTE:
 IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

FLEXIBLE BASE (TYPE E GRADE 4) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, PRIOR TO THE ADDITION OF LIME:

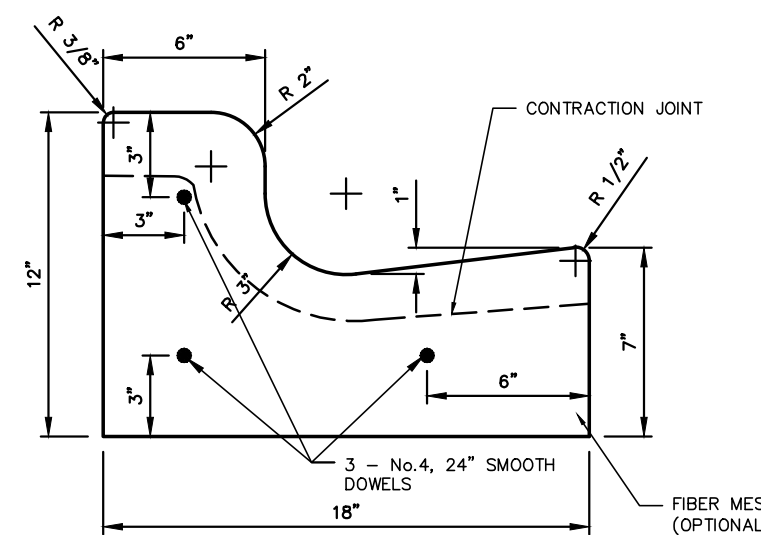
Retained on Sq. Sieve	Percent Required
No. 2	0
No. 4	20 - 60
No. 10	40 - 75
No. 40	70 - 90
Max. PI	15
Max. Wet Ball PI	15
Wet Ball Mill Max Amount	50

P-6 PRINCIPAL ARTERIAL COLLECTOR STREET SECTION DETAIL



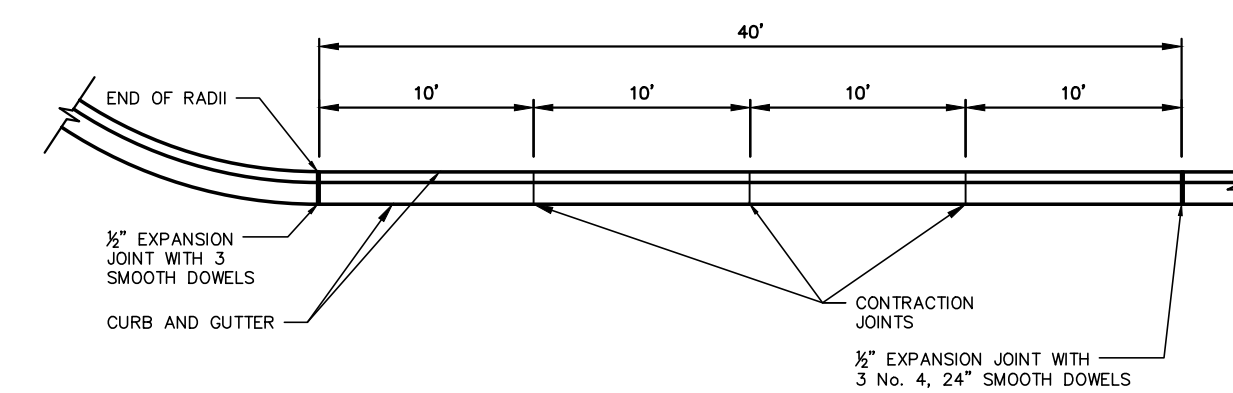
(*) TO BE DETERMINED BY GEO-TECHNICAL REPORT.
 NOTE:
 IF AN ALTERNATIVE PAVEMENT SECTION IS REQUESTED, A PAVEMENT DESIGN ANALYSIS WILL BE REQUIRED FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

P-7 RURAL PAVING STREET SECTION DETAIL

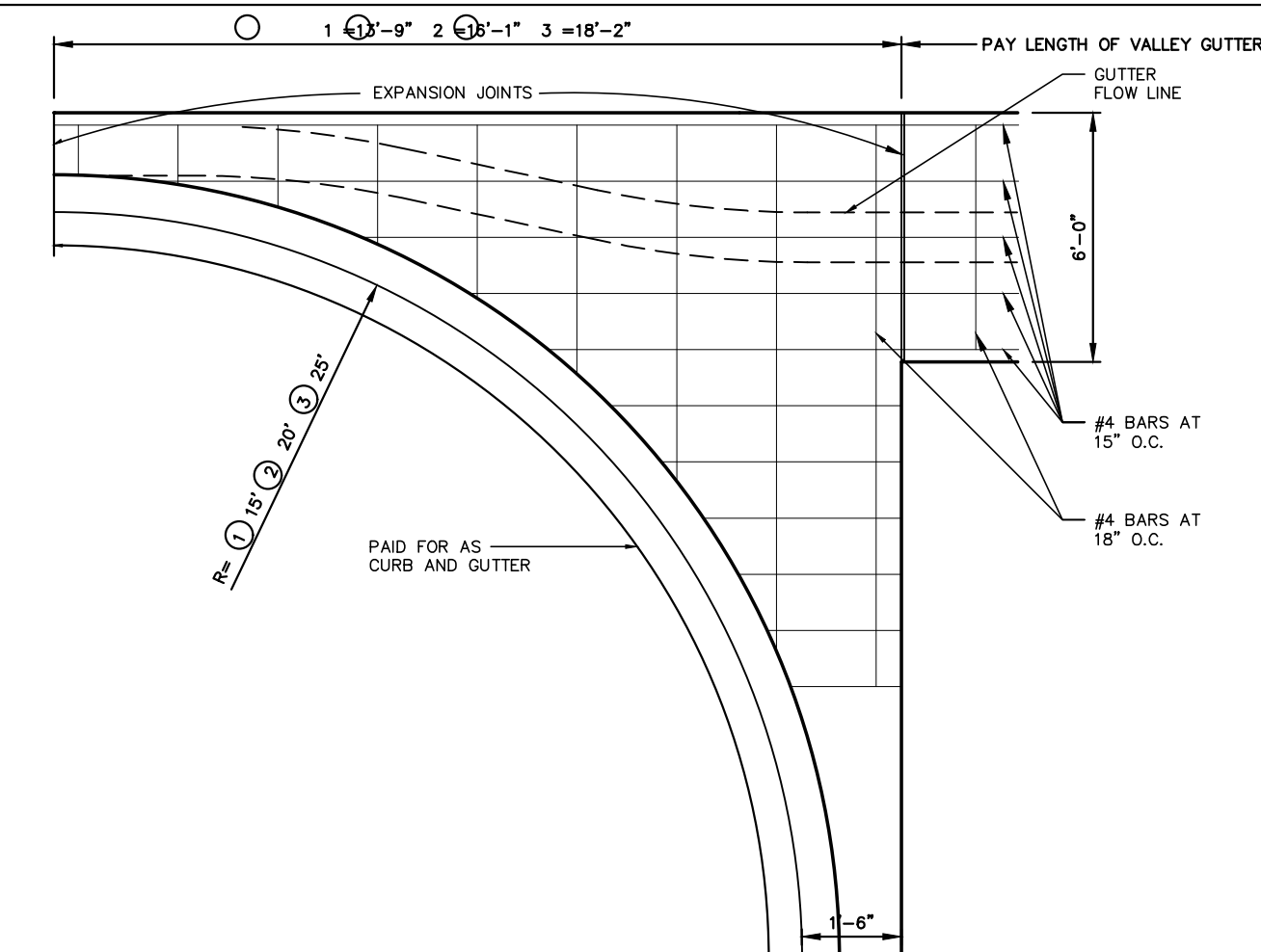


GENERAL NOTES:
 1. CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAY
 2. ALL CONCRETE WORK SHALL BE TREATED WITH MEMBRANE CURING COMPOUND TYPE 2 WHITE PIGMENTED ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION DEPARTMENTAL MATERIALS SPECIFICATIONS ITEM 4650. CONSIDERED INCIDENTAL TO CONCRETE WORK.
 3. EXPANSION JOINTS REQUIRED AT 40' C.C. AND AT THE BEGINNING AND END OF ALL RADII. CONTRACTION JOINTS SHALL NOT EXCEED 10' C.C.
 4. EXPANSION JOINTS SHALL HAVE 3" EXPANSION JOINT MATERIAL AND 3 No. 4 24" SMOOTH DOWEL BARS COATED TO PREVENT BOND.

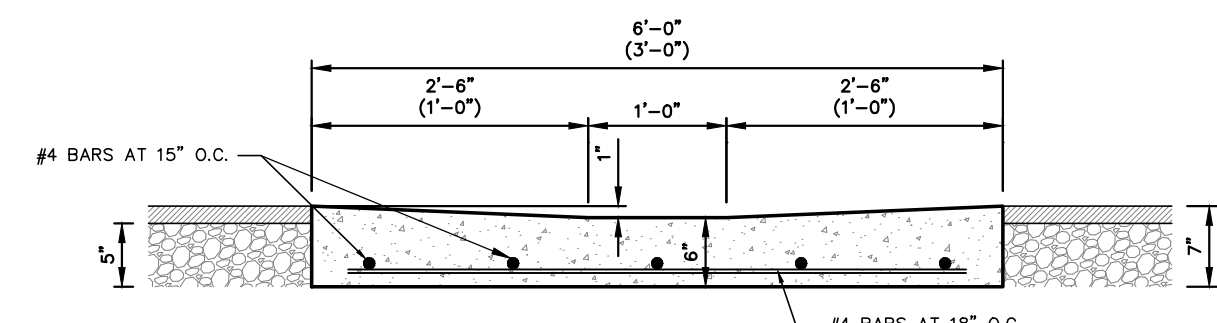
CURB AND GUTTER DETAIL
 NOT TO SCALE



P-8 TYPICAL JOINTS
 NOT TO SCALE



VALLEY GUTTER DETAIL



P-9 TYPICAL VALLEY GUTTER SECTION

FILE NAME:
 DATE: MAY, 2014
 SURVEYED BY:
 DESIGNED BY: IP/JAG
 DRAWN BY: RMM
 REVISED BY: IP/JAG
 CHECKED BY: IP/JAG

TITLE:
 PAVING SYSTEM
 STANDARD DETAILS

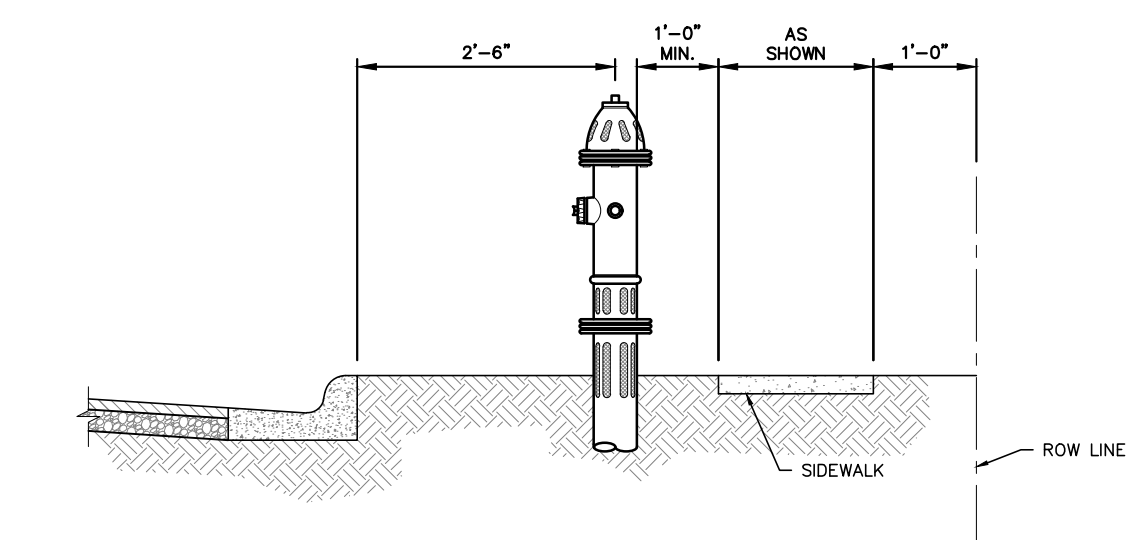
EDINBURG
 All-America City
 1968
 2000

THE CITY OF
Edinburg
 Engineering

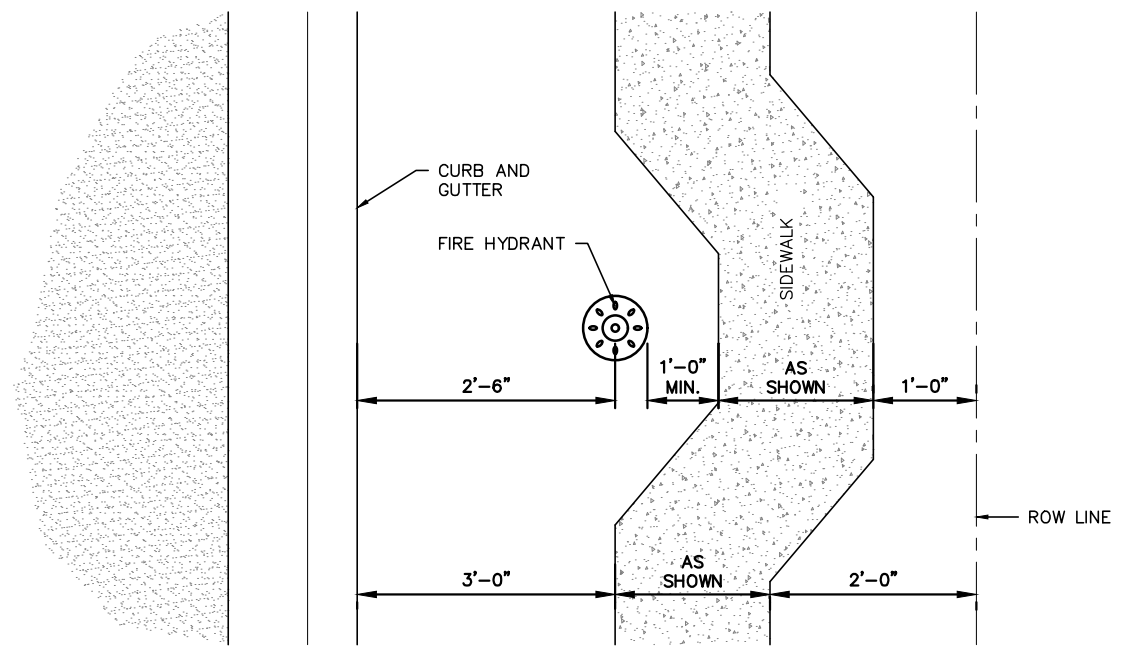
HOR: 1" = NTS
 SCALE: VERT: 1" = NTS

DATE:
 SHEET NO.: 1 OF 3

N:\City Standards Manual\Construction\SECTION 2 - STREETS\POLICY\CAD Details\A_sfr.dtl - 24x36.dwg - Sep 06, 2018 - 9:34AM

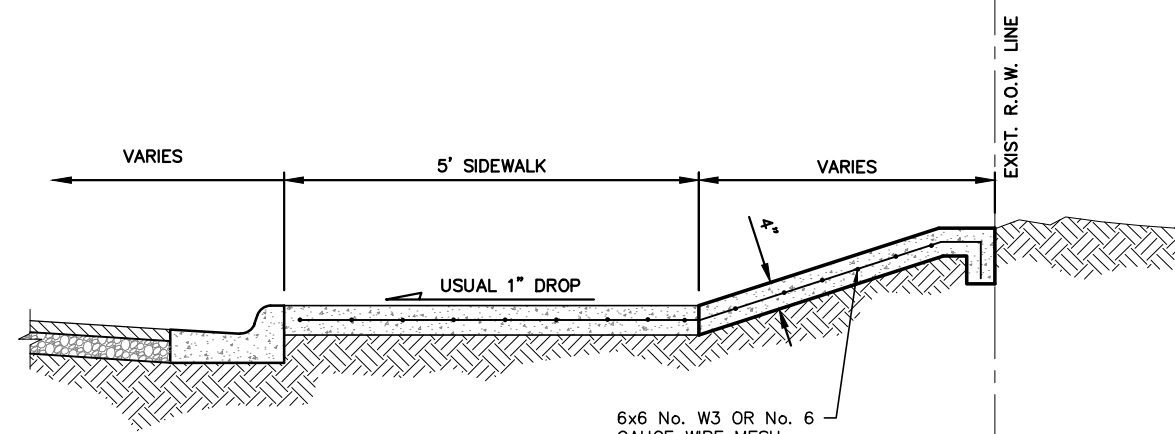


FIRE HYDRANT LOCATION - PROFILE



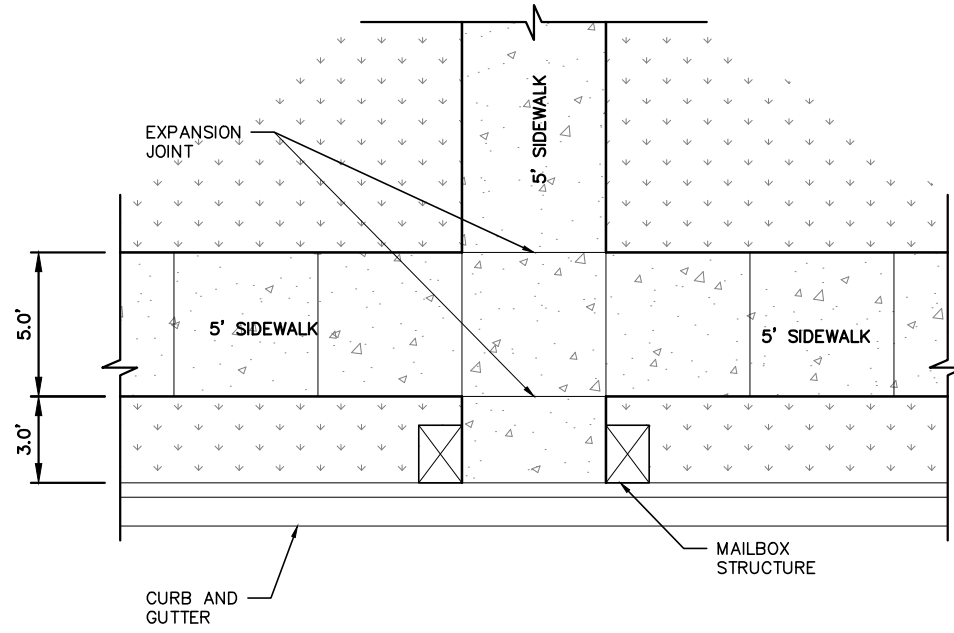
FIRE HYDRANT LOCATION - PLAN

P-19 SIDEWALK DEVIATION AT
FIRE HYDRANT



SIDEWALK RIP-RAP

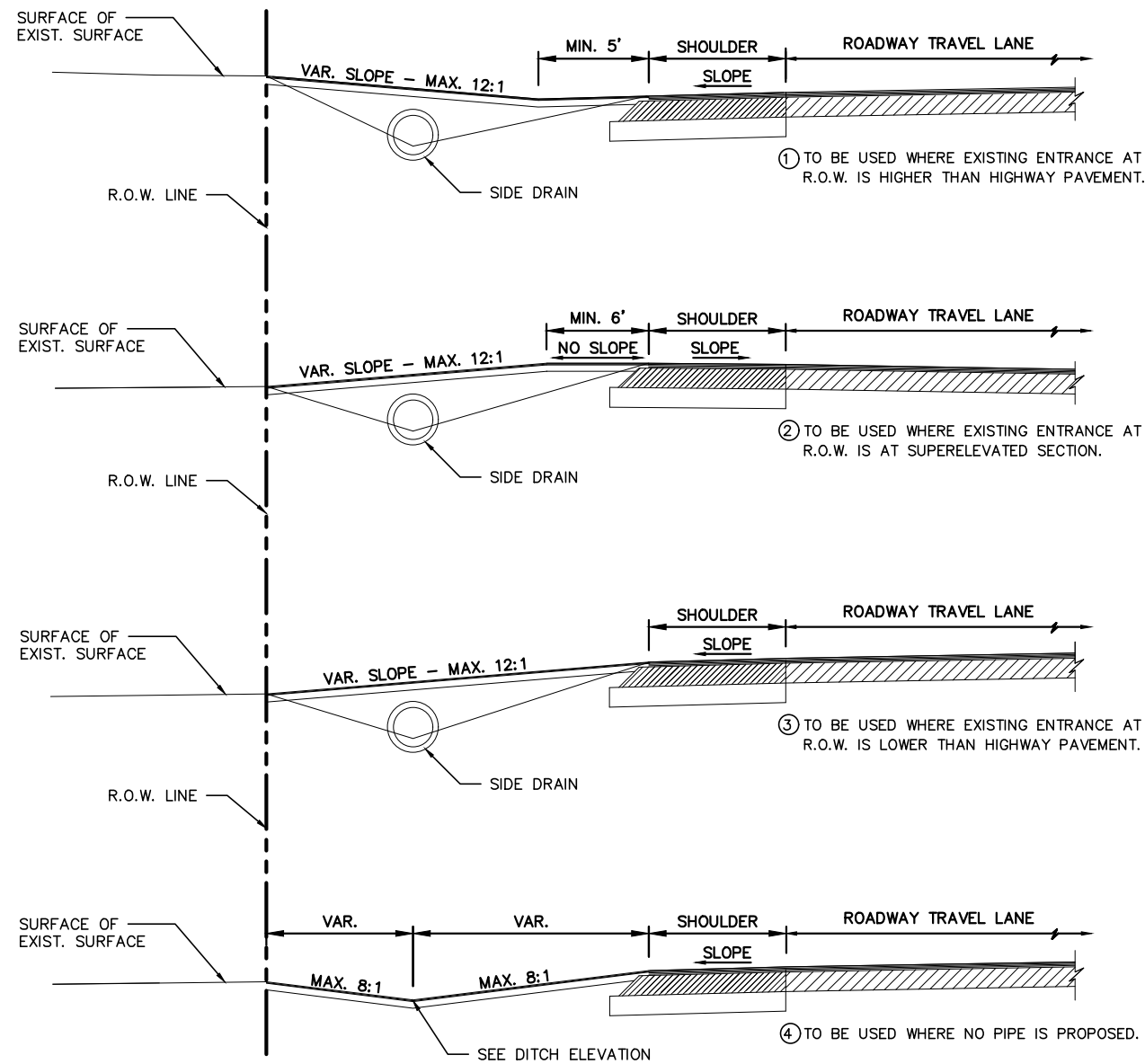
P-20 SIDEWALK RIP RAP



SIDEWALK PLAN

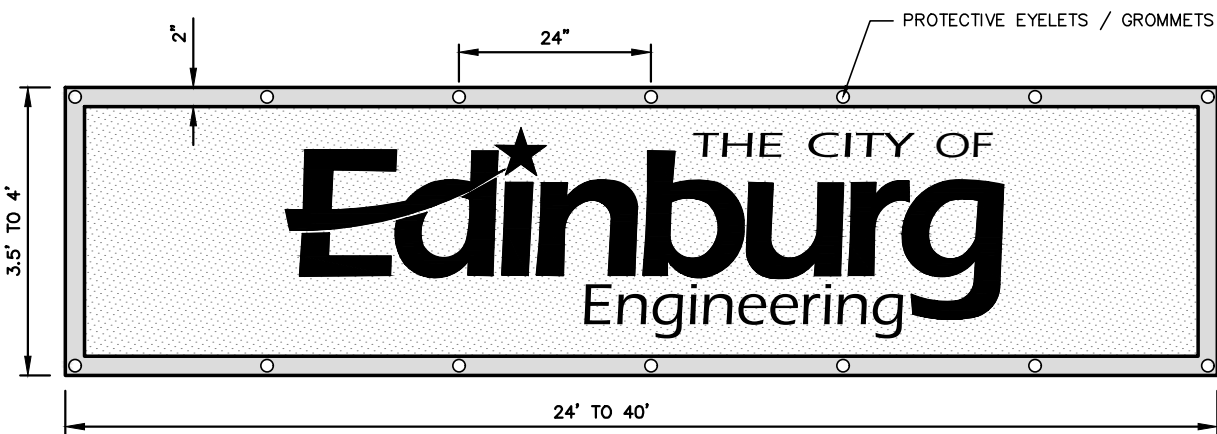
NOTE:
1. ANY CHANGE TO SIDEWALK PLAN SHOULD BE APPROVED
BY THE DIRECTOR OF PUBLIC WORKS.

P-21 ADA SIDEWALK AT
MAILBOX - DETAIL



TYPICAL ENTRANCE PROFILE FOR DRIVEWAYS W/OUT C&G

P-22 ENTRANCE PROFILE FOR
DRIVEWAYS WITHOUT C&G



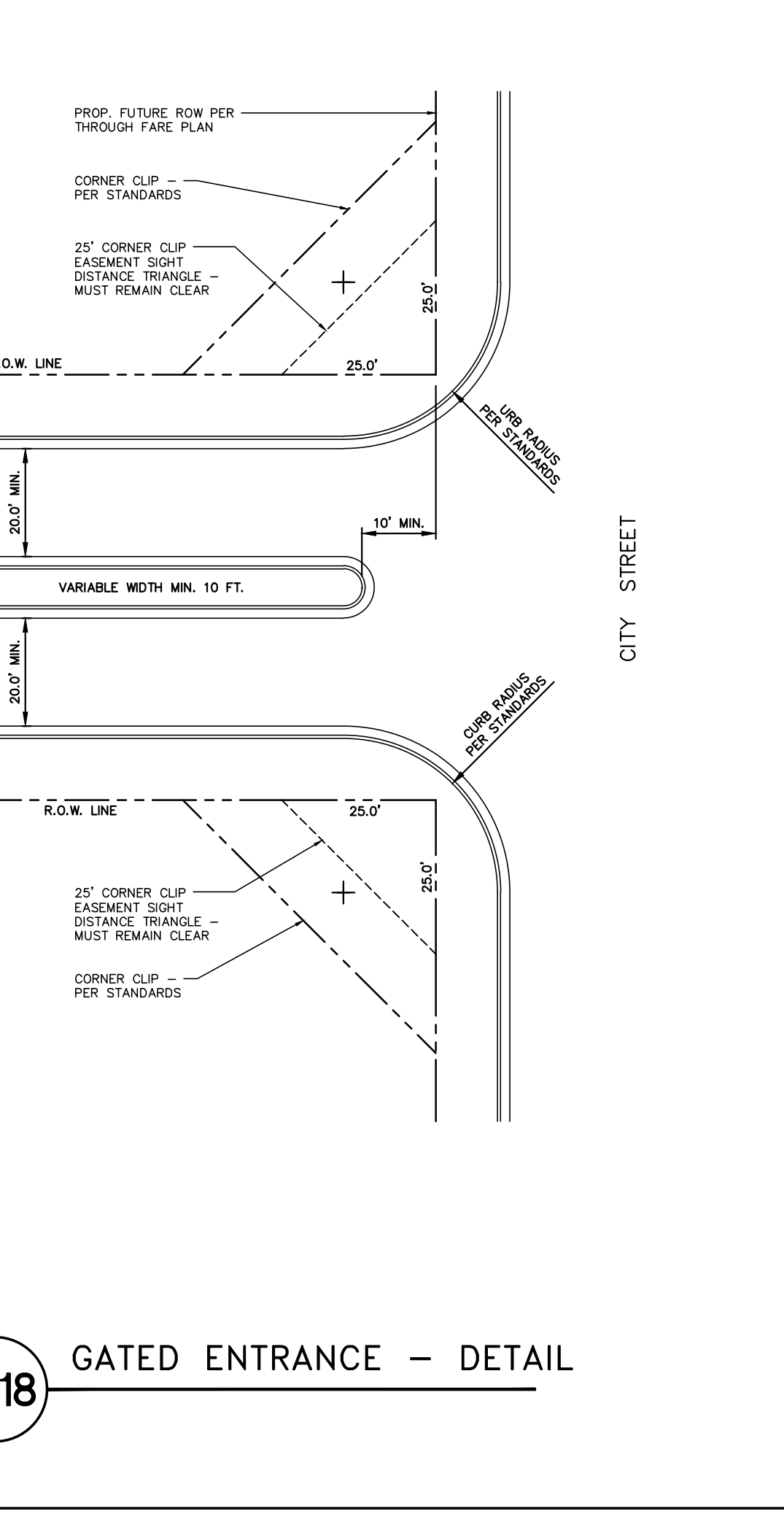
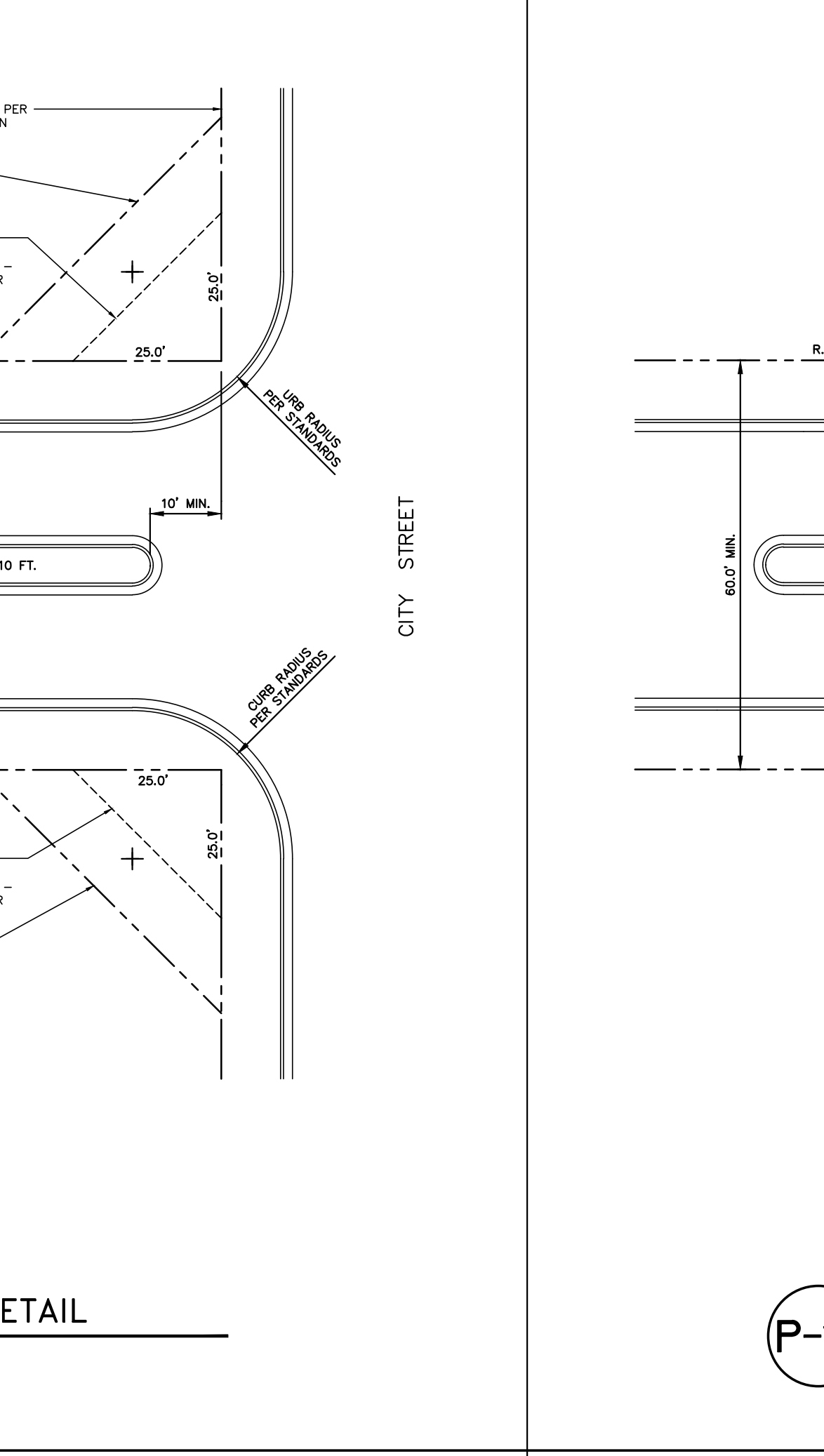
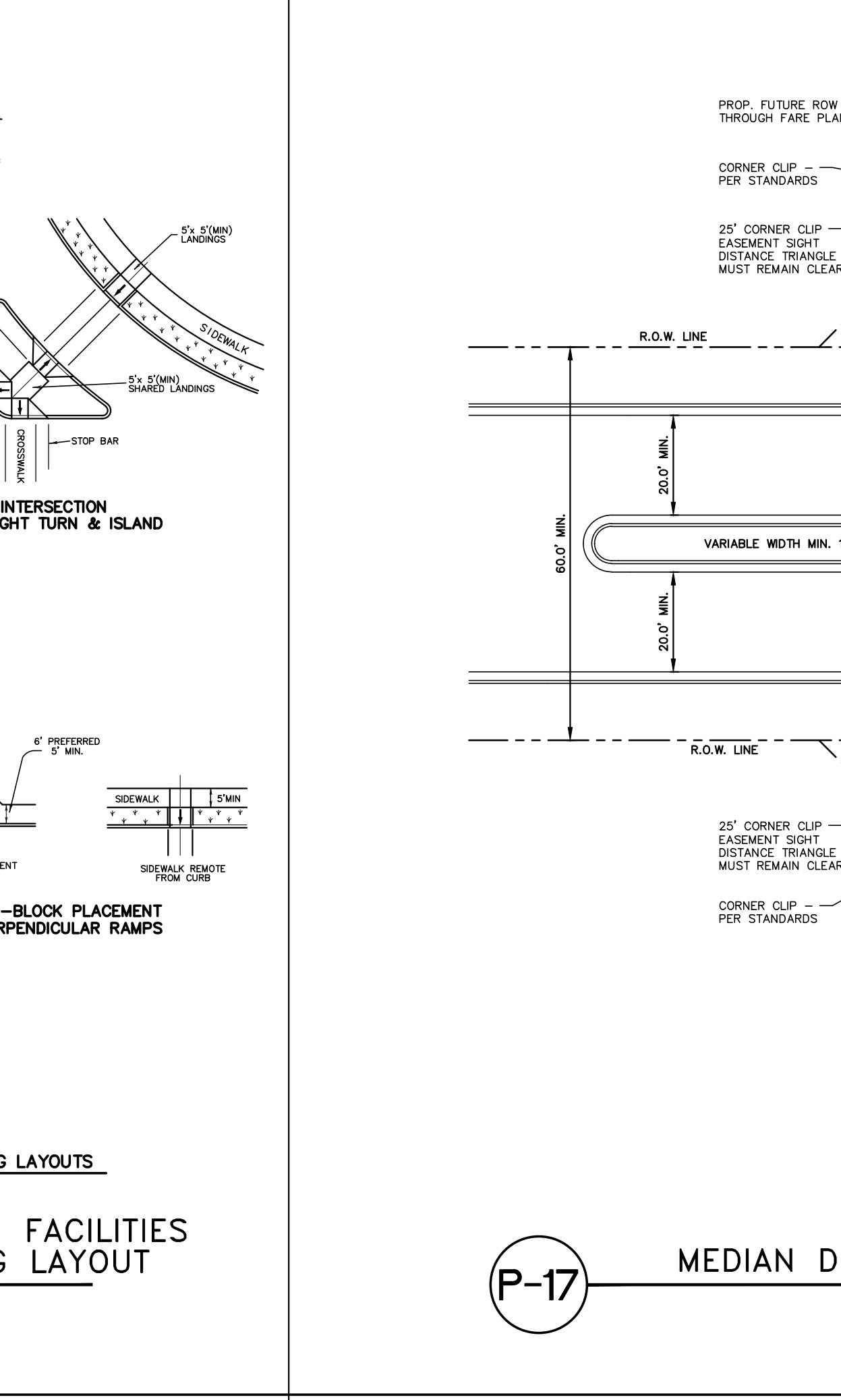
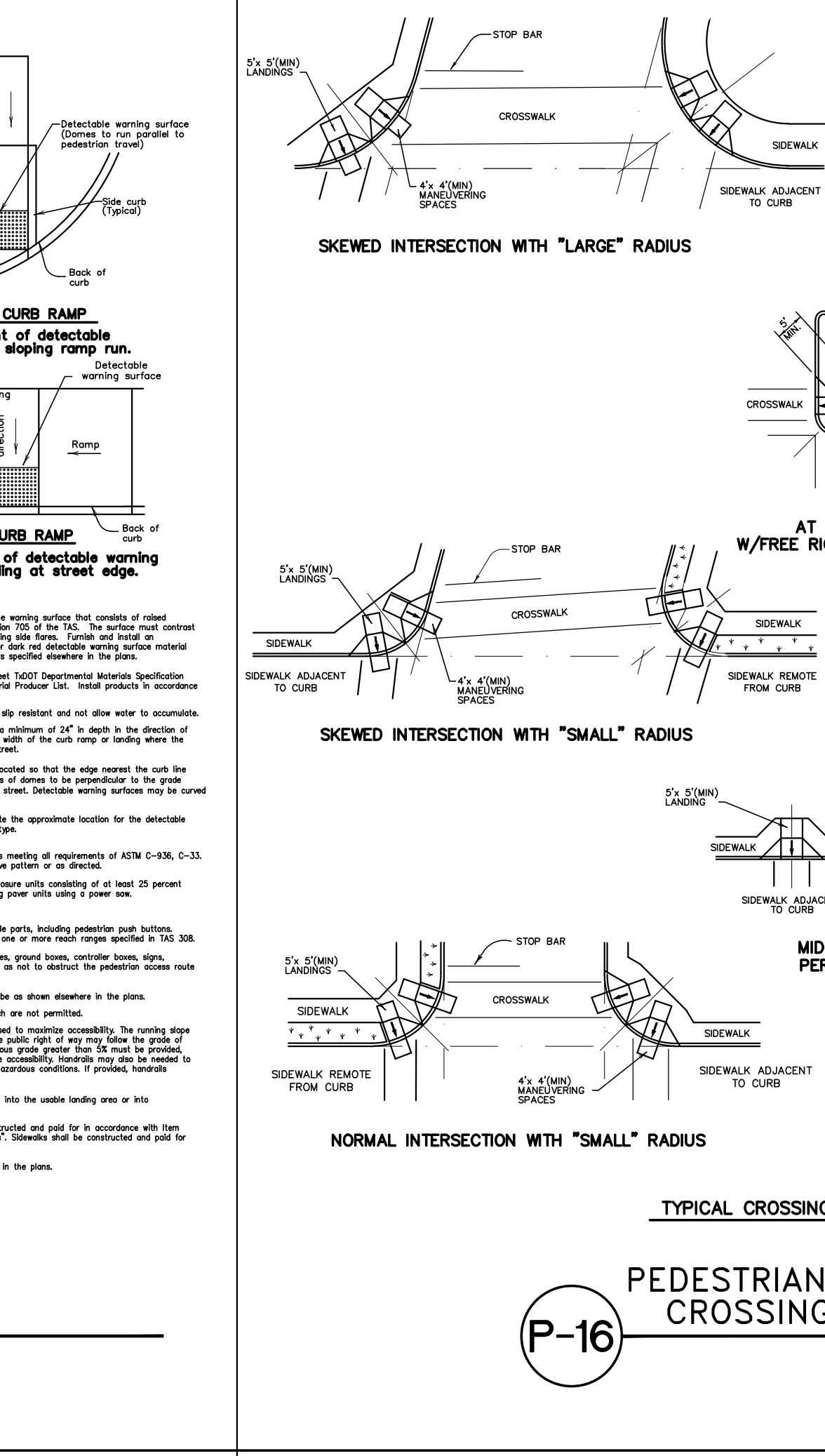
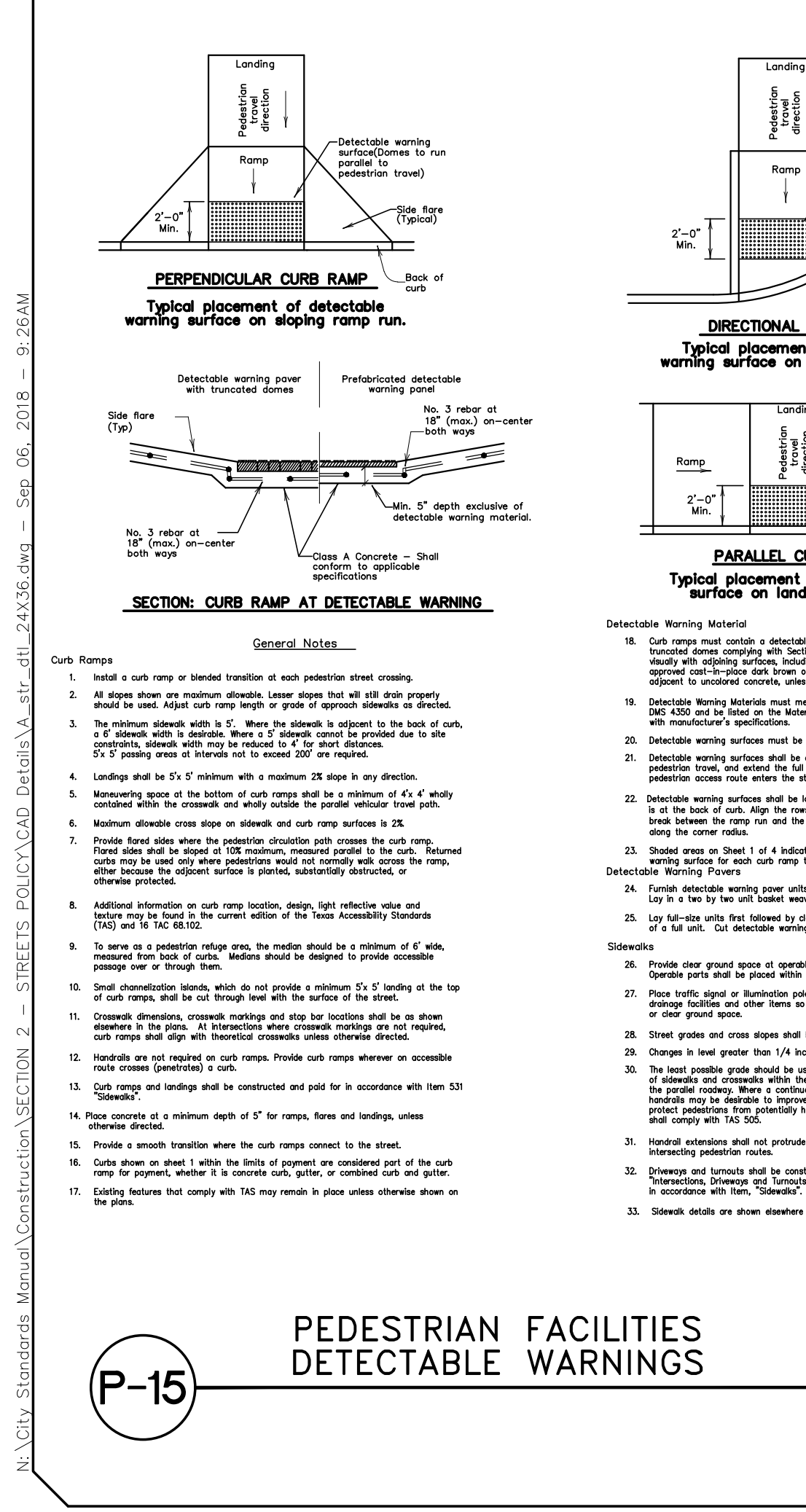
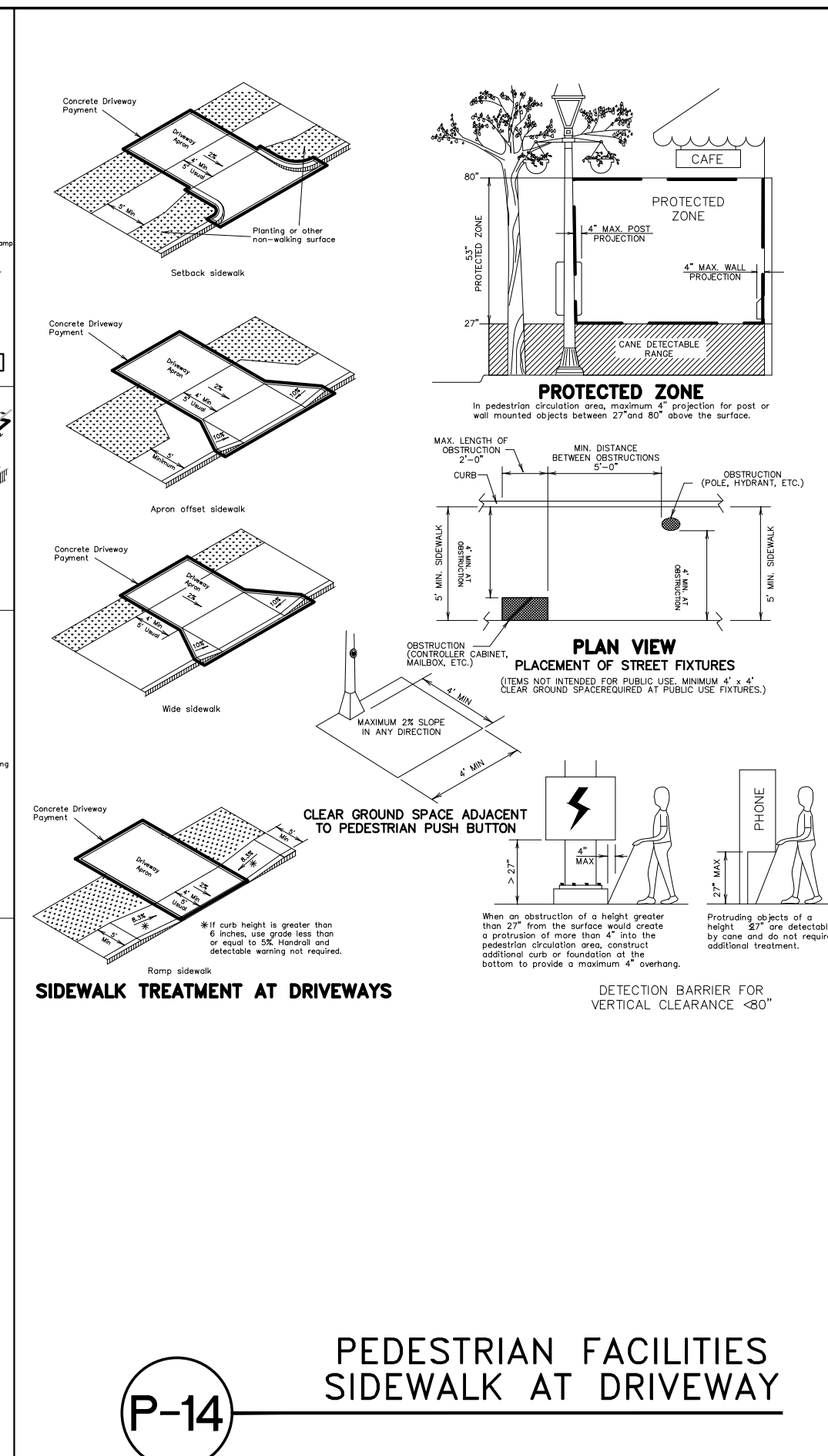
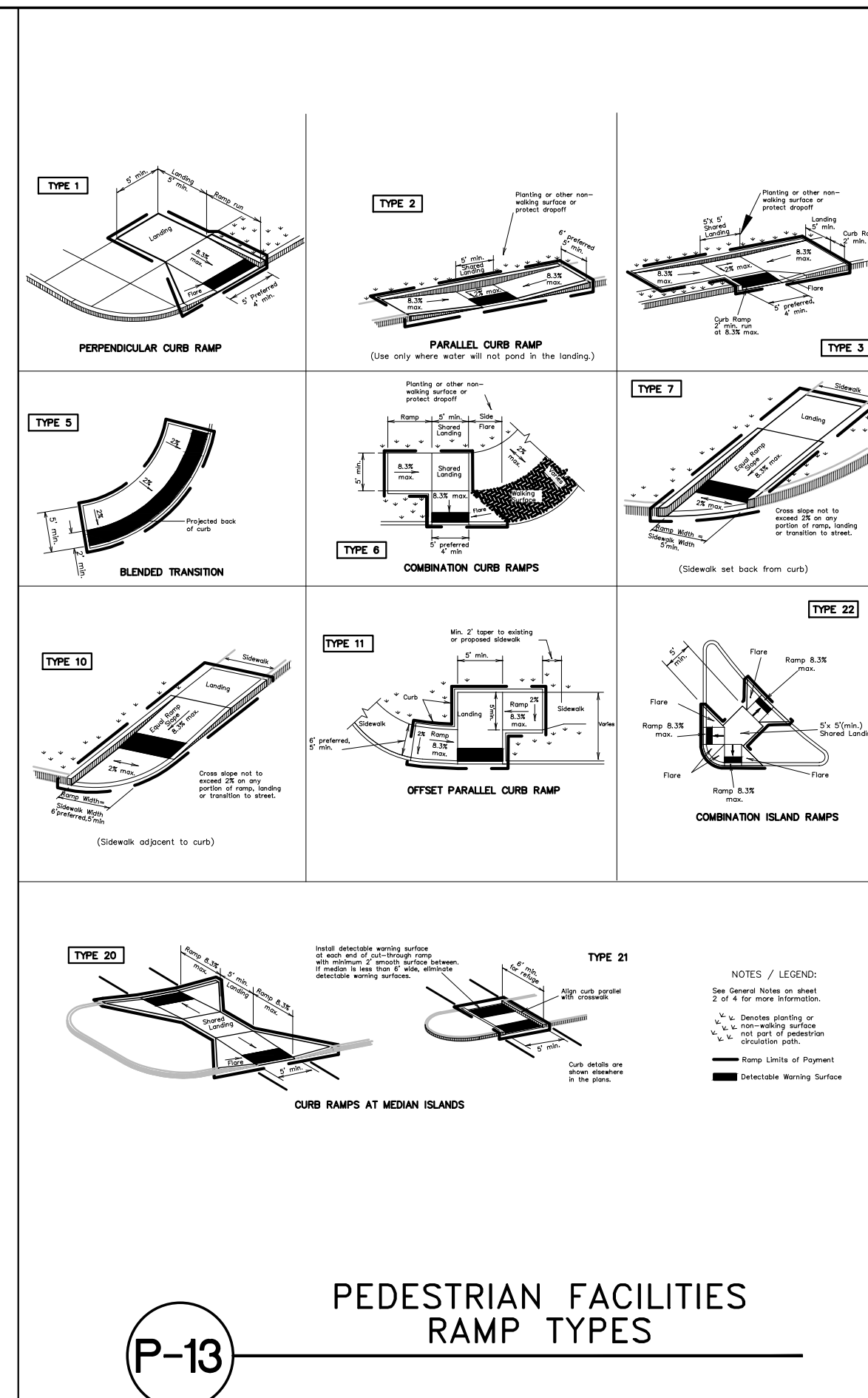
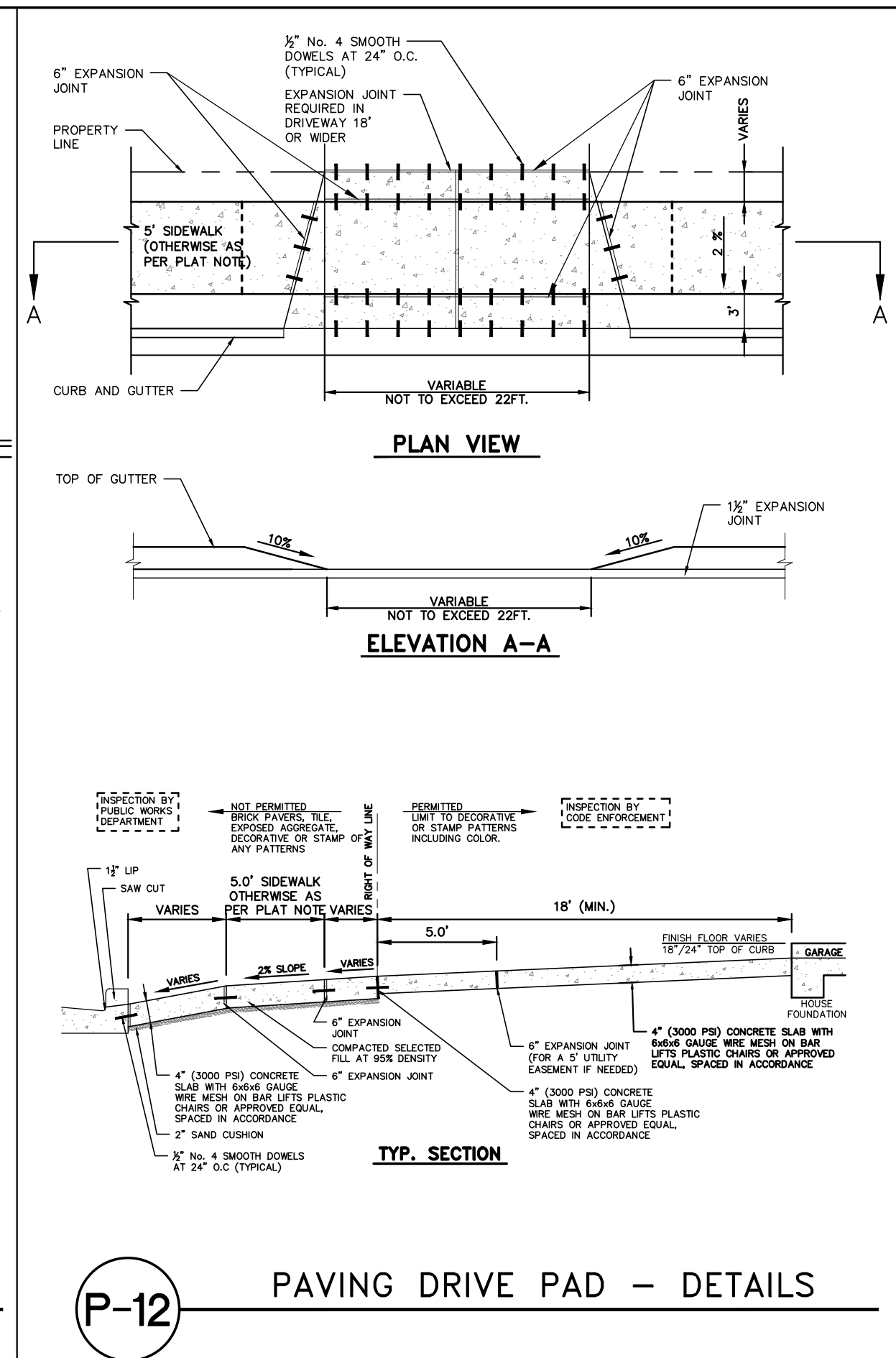
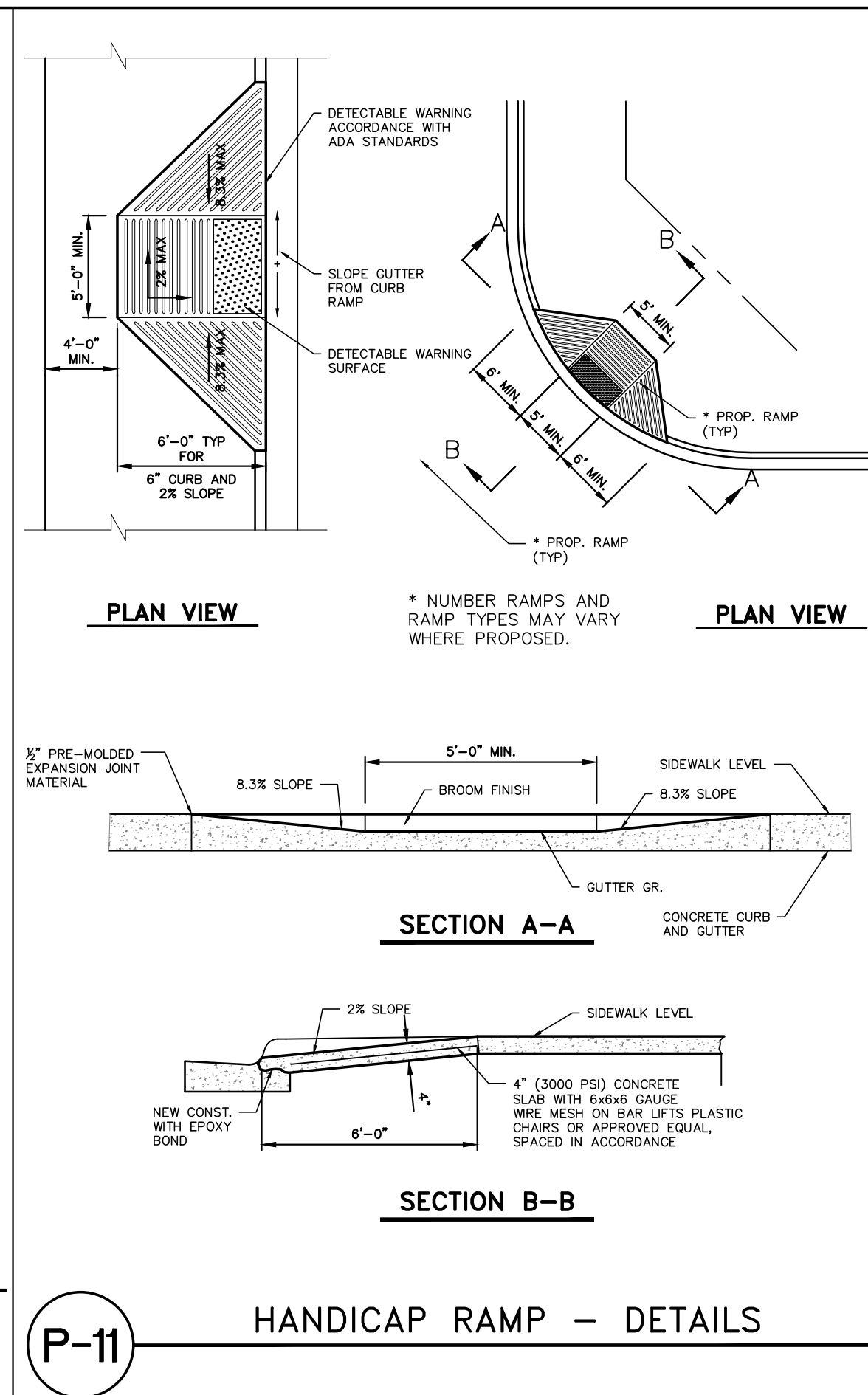
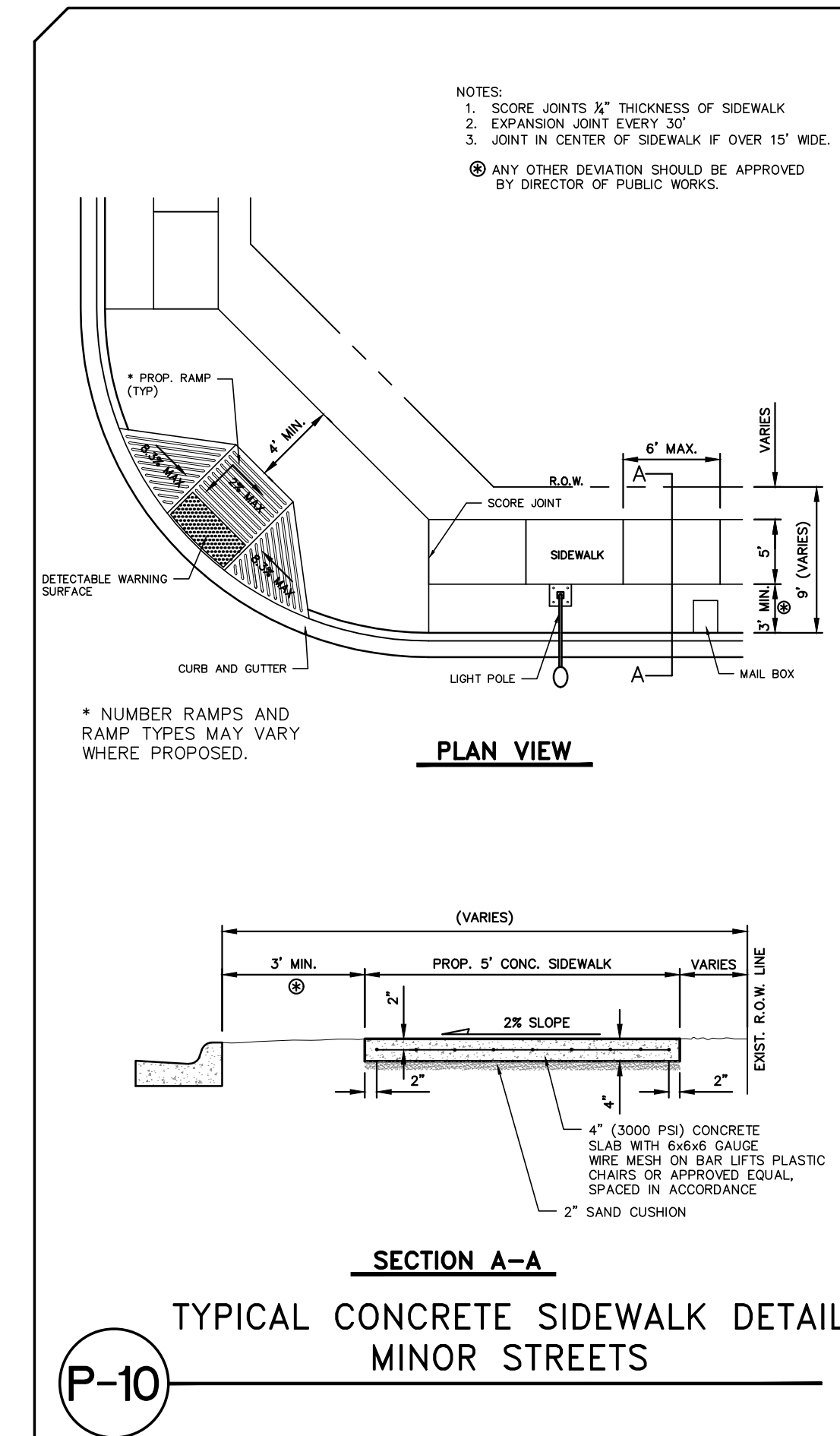
TYPICAL BANNER

- NOTES:
1. MESH MATERIAL (MESH MATERIAL WILL GUARANTEE LONGER LIFE OF THE BANNER DUE TO LESS WIND RESISTANCE AND IS REQUIRED) IS TO BE OF A TYPE THAT WILL WITHSTAND NORMAL WEATHER (WIND AND RAIN) CONDITIONS (NO EXCEPTIONS).
 2. BANNER (TOP, BOTTOM AND BOTH SIDES) IS TO HAVE A FINISHED HEM TO PREVENT WIND TEARS.
 3. A HAMMED EDGE APPROXIMATELY TWO (2) INCHES WIDE IS REQUIRED AT THE TOP, BOTTOM AND BOTH SIDES OF BANNER WITH METAL EYELETS INSTALLED ON DOUBLED MATERIAL FOR THE PURPOSE OF ATTACHING THE BANNER TO THE EXISTING GUIDE WIRES.
 4. GROMMETS (PROTECTIVE EYELETS) MUST BE PLACED ALONG THE TOP EDGES OF THE BANNER AND ONE AT EACH BOTTOM END. GROMMETS LOCATED AT THE BOTTOM ENDS WILL HAVE HEAVIER REINFORCING OR OTHER PRE-APPROVED METHOD (I.E. D RINGS WITH REINFORCED NYLON STRAPS). THE MINIMUM GROMMET SIZE SHALL BE 1/2-INCH (INSIDE MEASUREMENT), AND THE GROMMETS SHALL BE PLACED EVERY TWENTY FOUR (24) INCHES.

P-23 TYPICAL BANNER
DETAIL

FILE NAME:	
DATE: MAY, 2014	
SURVEYED BY:	
DESIGNED BY: IP/JAG	
DRAWN BY: RMM	
REVISED BY: IP/JAG	
CHECKED BY: IP/JAG	
TITLE:	
PAVING SYSTEM	
STANDARD DETAILS	
EDINBURG All-America City 1968 1969 2000	
THE CITY OF Edinburg Engineering	
SCALE:	HOR: 1" = NTS VERT: 1" = NTS
DATE:	
SHEET NO.: 3 OF 3	

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FILE NAME: _____

DATE: MAY, 2014

SURVEYED BY: _____

DESIGNED BY: IP/JAG

DRAWN BY: RMM

REVISED BY: IP/JAG

CHECKED BY: IP/JAG

TITLE: PAVING SYSTEM

STANDARD DETAILS

EDINBURG
All-America City
1968

THE CITY OF
Edinburg
Engineering

HOR: 1" = NTS

VERT: 1" = NTS

DATE: _____

SHEET NO.: 2 OF 3

ADDENDUM #6

Architect: R.O.F.A Architects

Project Name: Hidalgo County Precinct No. 4 New Justice Center

Project Number: 20.1.26

Date: 5/28/2021



Note: The work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time.

I. Specifications:

- A. Specification 265100 – The following are acceptable manufacturers: Lithonia
- B. Specification 265600 – The following are acceptable manufacturers: Lithonia
- C. Specification 260926 – The following are acceptable manufacturers: nLight and Douglas Lighting Controls.
- D. Specification 283100 – The following are acceptable manufacturers: NAPCO Security.
- E. Specification 263213 – The following are acceptable manufacturers: Caterpillar, Generac and Kohler.

II. General:

- A. Contractor questions with responses.

Question No. 1: ES1.1 is missing the keynotes, locations of pole, transformer, meter, disconnect, future generator/generator pad.?

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 2: Missing ES1.2 (on ES1.1 it has a note to refer you to ES1.2, but there isn't an ES1.2)?

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 3: I do not see the location of panels inside building (assuming they are in B102 – the MDF room), but aren't visible?

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-EP03

Question No. 4: Can you please confirm that the AV depicted on the Electrical plans is not included in the scope of work for this project? I saw that the electrical plans depicted a couple projectors/screens but there is no other information regarding AV in the plans or specs.

RESPONSE: The electrical plan only include the conduit and power requirements for the AV systems. AV system by other.

Question No. 10: We're quoting the HVAC materials on this project, but can't seem to find a Mechanical Specification. After downloading the "Division 15 Mechanical" Spec for the Builders Exchange, we came to find it is a Plumbing and Sprinkler Spec. Can you please email the Mechanical Specs for this project?

Answer: RESPONSE: Please refer to final sealed specifications dated 12-10-21.

Question No. 17: Sheet ES1.1 depicts several keynotes however, no legend is included to describe what each note number is referring to. Please advise.

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 18: Sheet ES1.2 is missing. Please advise.

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 47: Also, I don't find electrical to the gate operators on the electrical drawings or conduit to the telephone entry systems (two of them).

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 48: Sheet ES1.1 detail bubbled in references 1-ES1.2 but I don't find sheet ES1.2..please clarify (maybe this shows power to the operators?)

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

Question No. 49: Sheet AS1.2 mentions telephone entry system as specified (one at each sliding gate) but I can't find a telephone entry system specified and I don't see conduit to the units or from the units to the gate operators. I would recommend an internet based telephone entry system or cellular based but not analog line they are becoming outdated. See link below for a telephone entry system we prefer. Please advise.

Answer: RESPONSE: Please refer to addendum signed seal plans sheet-ES01

III. Mechanical:

- A. Sheet MC01 – added General note and revised flow diagram and sequence, refer to attached.

IV. Electrical:

- A. Sheet ES01 – Added keyed notes, refer to attachment.
- B. Sheet ER01 – Clarification on keyed note#1, fuses for 1000Amp disconnect shall be 1000Amps not 900Amps.
- C. Sheet ER01 – Revise keyed note#6 to PROVIDE 3-RUNS EACH 4#400KCMIL, 4"C.
- D. Sheet ER01 – Revise keyed note#17 to PROVIDE 3-RUNS EACH 4#400KCMIL, 1#2/0G, 4"C.
- E. Sheet EPS01 – Panel schedule MDP circuit 59,61,63 wiring shall be 4#10, 1#10G, 3/4"C.
- F. Sheet EPS01 – Panel schedule EDP circuit 11,13,15 breaker shall be 200Amp 3-pole with wiring requirements of 4#3/0, 1#6G, 2"C.
- G. Sheet EPS01 – Panel schedule EDP circuit 37,39,41 wiring shall be 4#10, 1#10G, 3/4"C.

V. Plumbing: N/A

VI. Fire Protection:

NOTE: ALL HVAC CONTROLS SHALL BE PART OF ALTERNATE #2. IF ACCEPTED, UNIT MANUFACTURERS' THERMOSTATS SHALL BE REMOVED FROM THE SCOPE & BE REPLACED W/ THERMOSTATS/TEMP SENSORS BY CONTROLS CONTRACTOR.

ROOFTOP UNIT SINGLE ZONE VAV DXRTU FLOW DIAGRAM (TYPICAL OF ALL RTU'S, APPROX 5 NEW, 25 EXISTING)

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

OCCUPIED MODE: THE UNIT SHALL MAINTAIN
A 74°F (ADJ.) COOLING SETPOINT
A 70°F (ADJ.) HEATING SETPOINT.

UNOCCUPIED MODE (NIGHT SETBACK): THE UNIT SHALL MAINTAIN
A 85°F (ADJ.) COOLING SETPOINT
A 55°F (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

ZONE SETPOINT ADJUST:
THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

ZONE OPTIMAL START:
THE UNIT SHALL USE AN OPTIMAL START ALGORITHM FOR MORNING START-UP. THIS ALGORITHM SHALL MINIMIZE THE UNOCCUPIED WARM-UP OR COOL-DOWN PERIOD WHILE STILL ACHIEVING COMFORT CONDITIONS BY THE START OF SCHEDULED OCCUPIED PERIOD.

ZONE UNOCCUPIED OVERRIDE:
A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO AN OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME. AT THE EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THERE IS A CALL FOR COOLING, HEATING, OR DEHUMIDIFICATION, UNLESS SHUT DOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE MINIMUM RUN TIME (ADJUSTABLE).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN FAILURE: COMMAND ON, BUT THE STATUS IS OFF.
SUPPLY FAN IN HAND: COMMAND OFF, BUT THE STATUS IS ON.
SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

COOLING STAGES:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE COOLING TO MAINTAIN ITS COOLING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE COOLING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS GREATER THAN 80°F (ADJ.), AND THE ECONOMIZER (IF PRESENT) IS DISABLED OR FULLY OPEN, AND THE ZONE TEMPERATURE IS ABOVE COOLING SETPOINT, AND THE SUPPLY FAN STATUS IS ON, AND THE HEATING IS NOT ACTIVE.

ECONOMIZER:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE ECONOMIZER DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 7°F LESS THAN THE ZONE COOLING SETPOINT. THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM ADJUSTABLE POSITION OF 20% (ADJ.) OPEN WHENEVER OCCUPIED.

THE ECONOMIZER SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 60°F (ADJ.), AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE, AND THE SUPPLY FAN STATUS IS ON.

THE ECONOMIZER SHALL CLOSE WHENEVER:
MIXED AIR TEMPERATURE DROPS FROM 45°F TO 40°F (ADJ.), OR ON LOSS OF SUPPLY FAN STATUS, OR THE FREEZE STAT (IF PRESENT) IS ON.

THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. IF OPTIMAL START UP IS AVAILABLE, THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

MINIMUM OUTSIDE AIR VENTILATION - CARBON DIOXIDE (CO2) CONTROL:
WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL MEASURE THE RETURN AIR CO2 LEVELS AND MODULATE THE OUTSIDE AIR DAMPERS OPEN ON RISING CO2 CONCENTRATIONS, OVERRIDING NORMAL DAMPER OPERATION TO MAINTAIN A CO2 SETPOINT OF 350 PPM (ADJ.).

DEHUMIDIFICATION:
THE CONTROLLER SHALL MEASURE THE RETURN AIR HUMIDITY AND OVERRIDE THE COOLING SEQUENCE TO MAINTAIN RETURN AIR HUMIDITY AT OR BELOW 55% RH (ADJ.). DEHUMIDIFICATION SHALL BE ENABLED WHENEVER THE SUPPLY FAN STATUS IS ON.

RETURN AIR CARBON DIOXIDE (CO2) CONCENTRATION MONITORING:
THE CONTROLLER SHALL MEASURE THE RETURN AIR CO2 LEVELS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR CARBON DIOXIDE CONCENTRATION: IF THE RETURN AIR CO2 CONCENTRATION IS GREATER THAN 1000PPM (ADJ.) WHEN IN THE OCCUPIED MODE.

RETURN AIR HUMIDITY:
THE CONTROLLER SHALL MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER CONTROL (IF PRESENT) OR HUMIDITY CONTROL (IF PRESENT).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% (ADJ.).
LOW RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS LESS THAN 35% (ADJ.).

RETURN AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE RETURN AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL (IF PRESENT).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 80°F (ADJ.).
LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

SUPPLY AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.).
LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

OA-T
LOCATED IN THE SHADE ON THE NORTH SIDE OF THE BUILDING

ECON STATS **ECON-C**

OA

RA-SD
By Others

RETURN AIR TEMP
RA-T

RA

SA ELEC HEAT
STAGE 1,2 COMMAND
SA ELEC HEAT
STAGE 1,2 STATUS

ELEC
HEAT

DISCHARGE AIR TEMP
DA-T

DA

THERMOSTAT
ZN-T
ZN-H
ZONE TEMPERATURE
ZONE HUMIDITY

GENERAL CONTROLS NOTE:

- ALL LIGHTING CONTROLS TO BE TIED INTO AND CONTROLLED BY HVAC CONTROLLER. HVAC CONTROLS SHALL BE ABLE TO VIEW AND CONTROL ALL POINTS DURING STARTUP. HVAC CONTROLS TECHS SHALL COORDINATE WITH LIGHTING CONTROLS TECHS.

EXHAUST FANS

FAN COMMAND
FAN RUN STATUS

EXHAUST FAN CONTROLS:

- EXHAUST FAN OPERATION SHALL BE DICTATED BY THE BAS SYSTEM UNDER A TIME OF DAY SCHEDULE UNLESS INTERLOCKED WITH AN AIR HANDLER SYSTEM IN WHICH CASE THE AIR HANDLER OPERATION SHALL DICTATE OPERATION. THE FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, AFTER THE DAMPER STATUS HAS PROVEN (IF APPLICABLE), UNLESS SHUTDOWN ON SAFETIES. THE BAS SHALL MONITOR THE FAN STATUS.
- ANY EXHAUST FAN CURRENTLY ON SWITCHES TO REMAIN, BUT NO TO BE DISABLED OUTSIDE OF OCCUPIED SCHEDULE.

CONDENSER FAN STATUS
CONDENSER COMPRESSOR STATUS

DUCTLESS MINISPLIT (MDF, IDF)

R/A **DX** **S/A** **THERMOSTAT**

FAN COIL STATUS

SPACE TEMP **SPACE TEMP(Y)**

SEQUENCE OF OPERATIONS: COMPUTER ROOM MONITORING

- SPACE TEMPERATURE MONITORING: THE BAS CONTROLLER SHALL MONITOR THE COMPUTER ROOM SPACE TEMPERATURE AND GENERATE ALARM IF THE SPACE TEMPERATURE GOES OUT $\pm 2^\circ\text{F}$ FROM NORMAL OPERATING SET POINT INITIALLY AT 72° F (ADJ.) VIA BMS SYSTEM.

NOTE:

NEW UNITS SHALL BE INTEGRATED VIA BACNET COMMUNICATION INTERFACE CARD, COORDINATE WITH SUCCESSFUL RTU MANUFACTURER. EXISTING UNITS SHALL BE PROVIDED WITH FULL DDC CONTROL OF UNIT WITH POINTS AS PER FLOW DIAGRAM WITH THE ADDITION OF ALL MOTOR STATUS POINTS (COMPRESSOR, CONDENSING FAN, SUPPLY AIR FAN).

TRINITY

MEP ENGINEERING
3533 Moreland Dr. Ste A | Weslaco, Tx 78596
p: 956.973.0500 | f: 956.351-5750
www.trinitymep.com | Copyright 2020
Texas Registered Engineering Firm - F10362
Project number: 20.1.26

HIDALGO COUNTY PRECINCT No. 4 NEW JUSTICE CENTER

HIDALGO COUNTY, TEXAS

Enter address here

PROJECT NO: Project Number
DATE: 5/28/2021 10:33:00 AM
STARTING DATE:
CK B'Checker DWN B'Author

MECHANICAL CONTROLS

MC01

A	
B	
C	
D	
E	
F	
G	
H	
I	
K	
L	
M	

- [illegible]

- 1 SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL "LCP1". REFER TO RISER AND SPECIFICATION FOR ADDITIONAL INFORMATION.
- 2 PROVIDE 2-4" CONDUITS FOR COMMUNICATION FOR FUTURE BUILDING.
- 3 PROVIDE 2-4" CONDUITS ABOVE CEILING AND STUB DOWN AT RISER ROOM C124.
- 4 PROVIDE CONCRETE PEDESTAL FOR FLAG LIGHTING. REFER TO LIGHTING SCHEDULE.
- 5 PROPOSE NEW GENERATOR LOCATION. FIELD COORDINATE EXACT LOCATION.
- 6 NEW POWER COMPANY POWER POLE WITH RISER DIP POLE.
- 7 CONTRACTOR TO PROVIDE AND INSTALL 1(1/4") PVC CONDUIT FROM PROPOSED NEW UTILITY COMPANY POWER POLE WITH RISER DIP POLE TO NEW PAD MOUNT TRANSFORMER. ALL UNDERGROUND WORK SHALL BE ACCORDING TO POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS WITH THE POWER COMPANY BEFORE ANY ROUGH-IN. COORDINATE LOCATION, COST, AND INSTALLATION WITH POWER COMPANY PRIOR TO BID.
- 8 MONUMENT SIGN LIGHTING. FIELD COORDINATE EXACT LOCATION.
- 9 PROVIDE J-BOX FOR GATE KEYPAD ENTRY.
- 10 PROVIDE J-BOX FOR GATE MOTOR CIRCUIT. COORDINATE WITH GATE SUPPLIER EXACT ELECTRICAL REQUIREMENTS PRIOR TO ANY ROUGH-INS.
- 11 PROVIDE 2" CONDUIT FOR GATE COMMUNICATION CONTROLS.
- 12 EXISTING POWER POLE TO REMAIN.
- 13 NEW SERVICE ELECTRICAL DISCONNECT. REFER TO ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- 14 NEW 120/208V, 3-PHASE, 4W, ELECTRICAL SERVICE METER.
- 15 EXISTING UTILITY POWER POLES TO BE REMOVED AND PROVIDE NEW AT A NEW LOCATION AS SHOWN. INCLUDE ALL COST ASSOCIATED WITH ALL POWER UTILITY COMPANY WORK.
- 16 STUB UP ALONG EXTERIOR WALL PAINT EXPOSED CONDUIT TO MATCH EXISTING EXTERIOR FINISH COLOR.
- 17 RUN IN AND ABOVE CEILING TO HEALTH DEPARTMENT IT ROOM.
- 18 PROVIDE 2-4" CONDUITS WITH PULLSTRING FOR COMMUNICATION COORDINATE ALL ROUTING WITH EXISTING AND NEW UTILITIES PRIOR TO COMMENCING ANY WORK.
- 19 APPROXIMATE LOCATION OF IT ROOM. FIELD VERIFY EXACT LOCATION OF ROOM PRIOR TO ANY WORK.
- 20 REMOVE POWER POLES AND POWER LINE. COORDINATE ALL UTILITY WITH CIVIL ENGINEER PRIOR TO ANY WORK.
- 21 STUB-UP CONDUIT IN RISER ROOM AT AN ACCESSIBLE LOCATION. FIELD COORDINATE EXACT LOCATION.
- 22 NEW POWER COMPANY PAD MOUNTED TRANSFORMER. PROVIDE CONCRETE PAD PER POWER COMPANY STANDARDS. COORDINATE COST AND INSTALLATION WITH POWER COMPANY PRIOR TO BID DATE. COORDINATE EXACT LOCATION WITH POWER COMPANY PRIOR TO ANY ROUGH-IN.
- 23 PROVIDE IN-GRADE PULLBOX FOR COMMUNICATION. REFER TO DETAIL.
- 24 CONTRACTOR TO PROVIDE AND INSTALL PVC CONDUIT FROM NEW UTILITY TRANSFORMER TO NEW ELECTRICAL METER AND MAIN SWITCH DISCONNECT PER POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS PRIOR TO ANY ROUGH-IN. REFER TO ELECTRICAL RISER DIAGRAM.
- 25 CONTRACTOR TO PROVIDE AND INSTALL 2(4") PVC CONDUIT FOR COMMUNICATION SERVICE EQUIPPED WITH PULLSTRING, AND TURNED UP AND CAPPED AT BOTH ENDS. DEPTH OF CONDUIT SHALL BE A MINIMUM OF 36". VERIFY ALL REQUIREMENTS WITH LOCAL UTILITIES BEFORE ROUGH-IN. ROUTE TO NEAREST COMMUNICATION SERVICE LINE OR AS DIRECTED BY LOCAL COMMUNICATION COMPANY. PROVIDE TRENCHING AND BACKFILL, AS REQUIRED. COORDINATE EXACT LOCATION AND COST WITH COMMUNICATION COMPANY PRIOR TO BID.



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**GEOTECHNICAL INVESTIGATION
FOR THE
HIDALGO COUNTY PCT 4 JUSTICE CENTER
HIDALGO COUNTY, TEXAS**

**Prepared For:
HIDALGO COUNTY PCT 4**

**Prepared By:
L&G Consulting Engineers, Inc.
(L&G Engineering Laboratory – A Division of L&G)
Mercedes, Texas 78570
[Texas Registered Engineering Firm F-4105]**

**L&G Project No. G20010
July 25, 2020**



**David A. Saenz, P.E., C.F.M.
Project Manager / Project Engineer**

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INTRODUCTION

L&G Consulting Engineers, Inc. (L&G Engineering Laboratory – A Division of L&G (L&G)) was contracted by **Hidalgo County Pct 4 (HC Pct 4)** to perform a subsurface geotechnical investigation for the proposed Hidalgo County Justice Center. This report addresses foundation recommendations, parameters for slab foundation design criteria based on the Post Tension Institute (3rd Edition) and Wire Reinforcement Institute specifications, as well as recommendations for maximum allowable bearing capacity of shallow foundations. Also included in this report are pavement recommendations, boring logs, and several figures addressing the potential vertical rise and existing geology of the proposed construction site.

GENERAL PROJECT OVERVIEW

Project Description

L&G is pleased to submit this document presenting our findings as the result of a subsurface geotechnical exploration performed at the request of **HC Pct 4**. The project site is located within Edinburg, Texas, approximately 0.25 mile north of Freddy Gonzalez Dr. and I-69C NB Frontage Road. It is our understanding that the project involves the construction of a single story building, with concrete walkways (sidewalk) and flexible pavement parking areas. A preliminary general site plan sheet/project layout for the proposed facility was provided by the Client and is included in Appendix C. No grading plans or structural loads for the building/structures were provided; thus all foundation and site improvement recommendations as provided in this report are based on the geotechnical properties of the soils and generalized assumptions as noted.

Scope and Limitations of Investigation

This report has been prepared in general accordance with accepted geotechnical engineering practices for the subject project site and the anticipated construction. No specific warranty program or other special standards, except acceptable industry standards for the general South Texas area, were followed during the course of this investigation and analysis. This geotechnical report is intended for use by **HC Pct 4**, and any direct representatives or affiliates. This geotechnical report may not contain sufficient information for purposes of other parties, or other uses in determining construction means and methods.

The strata, shown on the boring logs (included in Appendix B), represent the subsurface conditions at the boring locations at the time of our investigation. These strata designate approximate boundaries between subsurface materials; however, their actual transition may be gradual or may occur at varying depths. Variations may occur due to unexpected deposits of soft clays, silts or other undesirable soil material not detected through our investigation. It should be noted that the exploratory borings were performed within the limits of the proposed project as approved and agreed upon by all previously noted parties prior to the commencement of our field operations.

The benchmarks of this geotechnical study are to:

1. explore the general existing subsurface conditions at the site
2. evaluate the relevant engineering properties of the subsurface materials
3. provide the potential vertical rise and recommendations to minimize shrink/swell
4. provide the maximum allowable bearing capacity of in-situ soils for shallow foundations
5. provide design parameters for several foundation design methods including WRI and PTI
6. provide recommendations for pavement thicknesses and materials
7. provide recommendations for foundation construction

The scope of this geotechnical engineering study does not include an environmental assessment of the air, soil, rock or water conditions on or adjacent to the site. No environmental opinions are presented in this report. If environmental clearances are needed prior to construction, please contact our offices for assistance in this matter.

EXISTING SURFACE AND SUB-SURFACE CONDITIONS

Site Location / Description

The project site is located within Edinburg, Texas, approximately 0.25 mile north of Freddy Gonzalez Dr. and I-69C NB Frontage Road. The boring locations were drilled as close as possible to the locations specified by the Client as shown on figures in Appendix A. No surveyor was contracted to determine the exact coordinates for the borings, as this was not a part of the scope of work for the project; however, field handheld GPS coordinates were retrieved and are noted on the boring logs in Appendix B. Elevations were approximated from Google Earth. The property had minimal vegetation at the time of drilling (cleared minimal grasses and dirt).

Geology

The Geologic Atlas of Texas, McAllen-Brownsville Sheet, dated 1976, indicates that the subject site is located within the *Lissie Formation Undivided* (Q1) section of the Quaternary epoch (Pleistocene or Pliocene period). The description of the materials is as follows:

Lissie Formation Undivided – “Clay, silt, sand, gravel, and caliche; gray to brown to pale yellow; gravel mainly siliceous, locally cemented by and interbedded with sandy caliche; caliche massive to modular; surface characterized by many undrained circular to irregular depressions, by relict clay dunes, and by stabilized northwest-trending longitudinal dunes”.

Soil Survey Description

According to the Soil Survey of Hidalgo County, Texas, published by the United States Department of Agriculture, the proposed site is located within the Hidalgo-Urban Land Complex, 0 to 1 percent slopes (Soil Map Unit #31).

Hidalgo-Urban Land Complex, 0 to 1% Slopes (Soil Map Unit #31) – These soils are deep, nearly level soils on convex uplands. This unit is well drained with a moderate available water capacity (about 7.8 inches) and moderate permeability. It is non-saline to slightly saline (about 0.0 to 4.0 mmhos/cm) with no frequency of flooding or ponding.

Rainfall

The mean annual precipitation for this area of Hidalgo County is approximately 20-27 inches, as reported by the U.S. Department of Agriculture Soil Conservation Service. Our geotechnical investigation, performed in July 2020 was conducted during a non-drought condition (None, as noted by the National Weather Service and U.S. Drought Monitor). The National Oceanic and Atmospheric Administration (NOAA) reports for the subject date indicated that no significant rainfall observations (at least one inch) occurred prior to or during our exploration that could have had significant effects on any groundwater levels or moisture content of surface soils.

SITE INVESTIGATION

Soil Borings and Laboratory Tests

Subsurface conditions at the site were evaluated through two (2) structural borings (designated as B-#) and seven (7) pavement borings (designated as P-#) drilled to a depth of twenty (20) feet and eight (8) feet below natural ground elevation respectively at the locations shown on figures in Appendix A. The soil borings were drilled and sampled in general accordance with American Society of Testing Materials Procedures (ASTM) D1452 and D1586 using a truck mounted drilling rig (Simco 2800 HS (HT)) and solid stem augers.

As part of the sampling procedures, split barrel (spoon) and Standard Penetration Tests (SPT) were performed and recorded. Standard Penetration Test results are noted on the boring logs as blows per foot or twelve (12) inch increment. The sampler was advanced through three (3) consecutive six inch increments; however, the first six inch increment is considered the seating drive, which eliminates the effect of cuttings or disturbances on the test result. The sum of the blows for the last two six (6) inch increments is considered the “standard penetration resistance value” or “field N-value”. Where hard or very dense materials were encountered, the SPT was terminated and noted on the boring log when one of the following situations occurred:

- 1. a total of 50 blows were applied on one six inch increment*
- 2. a total of 100 blows were applied during the test*
- 3. no advancement of the sampler was observed during the application of ten (10) consecutive blows from the hammer*

Representative portions of the split barrel samples were identified, packaged, sealed in containers to reduce moisture loss, and transported to our laboratory for subsequent testing. In the laboratory, each sample was evaluated and visually classified by a member of our geotechnical engineering staff. The properties of each stratum were evaluated by a series of laboratory index tests. A summary of the laboratory data and their corresponding depths are presented on the boring logs. Samples will be retained in our laboratory for 30 days after submittal of this report. Other arrangements may be provided at the request of the Client to hold the samples through the construction process.

Subsurface Stratigraphy

Based on the results of the field and laboratory sample analyses, the subsurface stratigraphy at the project location contains primarily lean clays and clayey sands in varying configurations. It should be noted, the Soil Strata and Description provided, are typical summarized representation of the site stratigraphy. The lines designating the interfaces between strata on the boring logs represent approximate boundaries. Transitions between strata may be gradual and may occur at varying depths.

Water Strikes

During the drilling operations, water strikes were encountered at both structural boring locations at approximately 17.25 and 17.5 feet below top of natural ground at the boring locations (not encountered at the pavement boring locations). It should be noted that fluctuations in groundwater levels are influenced by variations in rainfall and surface water run-off from season to season. The construction process itself may also cause variations in the groundwater level. If the water level is critical to the construction process, **L&G** recommends that the Contractor check the subsurface water conditions immediately prior to construction excavation through the installation of piezometer wells.

GEOTECHNICAL BORING ANALYSIS

Moisture Content

The moisture content of a soil is defined as the ratio of the weight of the water in the sample to the dry weight of the soil sample. The moisture contents for the samples obtained as part of our geotechnical exploration were performed in compliance with ASTM procedure D2216 (and Tex-103-E). A comprehensive list of all moisture contents by corresponding depth can be found on the boring logs.

Plasticity Index

The Plasticity Index (PI) is defined as the difference between the liquid limit and the plastic limit of a soil. These limits are commonly referred to as the Atterberg limits, which describe the consistency of soils with respect to their varying moisture contents. The plasticity indices for the samples obtained as part of our geotechnical exploration were performed in compliance with ASTM procedure D4318 (and Tex-104-E thru Tex-106-E). A comprehensive list of all plasticity indices by corresponding depth can be found on the boring logs.

Particle Size Analysis (Determination of Fines Content)

The standard grain size analysis is used to determine the relative proportions of different grain sizes as they are distributed along a range of different sized sieves. The minus 200 sieve analysis is used commonly as a tool for soil classification and identification using the Unified Soils Classification System. Results for this test are reported as a percentage of soil passing the No. 200 sieve, which has openings 0.075mm wide. The particle size analyses for the samples obtained as part of our geotechnical exploration were performed in compliance with ASTM procedure D1140 (and Tex-111-E). A comprehensive list of all fines contents by corresponding depth can be found on the boring logs.

Sulfate Content of Soil (Pavement)

In pavement foundations (subgrades), high concentrations of sulfates in soils may cause problems in terms of high levels of swelling and heaving when lime/cement stabilization is introduced. The reaction is highly chemical based on the combination of Calcium (provided by the addition of lime or cement), Aluminum (a basic chemical unit of clay), Water (utilized for compaction and stabilization reaction) and Sulfates. When soils containing significant amounts of sulfates are combined with typical roadway construction compaction methods (compacting with lime and/or cement and water), the result is the formation of ettringite, a high swelling mineral that is known to cause substantial heaving.

Noting that TxDOT has identified Hidalgo County as an area with high potential of sulfate rich soils, Sulfate testing was performed in accordance with TxDOT Tex-145-E at selected boring locations within a typical depth range of 0 to 5 feet (general depth of subgrade). The general site specific results are presented in Table 1.

Boring	*Sample Depth (ft.)	Water-Soluble Sulfate Level (Parts Per Million)
P-01	2.5	160
P-02	0.5	< 100
P-03	2.5	2,600
P-04	0.5	120
P-05	0.5	< 100
P-06	2.5	2,900
P-07	0.5	2,900

Table 1 – Summary of Sulfate Contents
**all depths are referenced from existing natural ground*

Lime Series Testing (% Lime vs. Soil pH) (Pavement)

Lime stabilization of subgrade soils requires testing to ensure appropriate and adequate lime is added to soil to induce the required stabilization results. The Lime Series Test was utilized to determine these limits in compliance with TxDOT procedure Tex-128-E (Determining Soil pH) and Tex-121-E Part III (Soil-Lime Testing ~ Part III – Determining Stabilization Ability of Lime by Soil pH). The basic test involves taking a sample of soil and measuring initial pH followed by the addition of various incremental percentages of lime (2%, 4%, 6%, etc.) and re-testing pH to establish a relationship. The basic criteria states that the lowest percentage of lime that produces a pH of 12.4 is the minimum lime percentage required to stabilize the soil. At this level cation exchange will occur resulting in modification of the soil particle structure to achieve improved workability and decrease swell and plasticity. The results are as follows in tabular form (see Table 2):

Lime Series (pH Method)					
Location	Raw pH	2% Lime pH	4% Lime pH	6% Lime pH	8% Lime pH
P-01	9.29	11.89	12.08	12.19	12.20
P-03	8.53	11.88	12.01	12.06	12.10
P-06	8.86	11.60	11.99	12.16	12.21

Table 2 – Summary of Lime Series Testing

FOUNDATION RECOMMENDATIONS

Proposed Project Foundation System Information

The proposed facilities, as previously noted, will be constructed throughout the project site. At the time this report was written, the Client had specified general slab on grade construction with potential shallow square footings at column/high load locations and perimeter grade beams was to be the primary foundation system (if possible) for shallow foundations on-site. No specific construction techniques were provided to **L&G** at the time this report was written. It should be noted, the selection of an appropriate type of foundation design is based on several factors including, but not limited to, soil conditions, site drainage, economics, climate, vegetation, city/government codes, and the level of risk acceptable to the owner/developer.

The most commonly constructed and typically most cost effective foundation system built in the South Texas Area is the Slab on Grade system (including a steel reinforced concrete slab). The Slab on Grade foundation is intended to be supported in the shallow surface soils through the use of a monolithic slab; however, these foundations can be complemented through the use of exterior and interior stiffened grade beams and/or shallow footings to support concentrated perimeter or wall loads and column loads respectively. For these systems, the compatibility between foundation rigidity and the type of superstructure to be built on the foundation must be considered in order to avoid damage to the superstructure and architectural components.

The foundation system selected for construction must be designed with sufficient bearing capacity to resist the imposed loadings without experiencing failure of the underlying soils. The foundation system must also resist soil movements, or volume change, from expansion and contraction of soils due to changes in moisture content. The following sections will provide allowable bearing capacities, potential vertical rise (including earthwork recommendations to minimize shrink and swell), and Slab on Grade design parameters (Welded Reinforcement Institute – WRI, Post-Tensioning Institute – PTI). It should be noted that the recommendations provided are based on geotechnical properties of the project soils and assumptions of construction of this type since no structural loadings were provided. If structural loadings exceed capacities as provided in this report, **L&G** should be advised of the loadings to re-analyze and provide alternate recommendations, if needed.

It is important to stress the fact that maintenance of Slab on Grade foundations will help to reduce the potential for structural damage in the present and for the life of the structure. Maintenance can include, but is not limited to procedures such as:

1. Ensure positive drainage around the perimeter of the foundation through site grading
2. Incorporate paving or sidewalks adjacent to foundations for moisture protection
3. Do not plant vegetation closer to the foundation than its mature height
4. Extend canopies or roof drains away from foundation to prevent ponding near foundation
5. Avoid excess wetting or drying of soils around foundations

Bearing Capacity of Soils (Shallow Foundations)

The bearing capacity of the existing natural ground is defined as the ability of a foundation to safely support the imposed loadings (surcharge), without experiencing any form of shear failure. The ultimate bearing capacity is a measure of the soil's maximum resistance immediately prior to a bearing capacity failure. The ultimate bearing capacity was estimated using the methods and equations, as recommended by the USACE in Manual EM 1110-1-1905 titled "Bearing Capacity of Soils"

$$q_u = c N_c \zeta_c + \frac{1}{2} B \gamma_h N_\gamma \zeta_\gamma + \sigma N_q \zeta_q$$

where:

- q_u = ultimate bearing capacity
- c = soil cohesion
- B = effective width of foundation
- γ_h = effective unit weight of soil within failure zone
- σ = effective soil surcharge pressure at depth
- N_c, N_γ, N_q = Bearing capacity factors
- $\zeta_c, \zeta_\gamma, \zeta_q$ = dimensionless correction factors for cohesion, soil unit weight, and surcharge

N_c , N_γ , and N_q are the dimensionless bearing capacity factors developed by Meyerhof, Hansen, and Vesic for general shear failure listed in Table 4-4 of EM 1110-1-1905. Cohesion values for cohesive soils and angle of friction values for granular soils were estimated using a correlation with the Standard Penetration Tests performed in the field. All correlations used were in accordance with the applicable USACE manuals. Where cohesive material was prevalent, the angle of friction value was conservatively assumed to equal zero.

The factor of safety used in our analysis was equal to 3.0, as recommended by Chapter 1 of EM 1110-1-1905. The absolute minimum factor of safety, as recommended by Chapter 1 of EM 1110-1-1905 for this construction is 2.0. The maximum allowable bearing capacity was calculated by dividing the ultimate bearing capacity by the factor of safety. All recommendations reflect the maximum allowable bearing capacity in pounds per square foot.

Bearing Capacity of Soils (Foundation Pads, Slabs on Grade, Shallow Footings)

The maximum allowable bearing capacity for this project overall is **1,100 pounds per square foot**. This value was calculated using square foundation geometry and a factor of safety equal to 3 ($FOS = 3$).

Potential Vertical Rise (Slab on Grade)

The soils at this site consisted primarily of low to moderate plasticity clays, which have a low to medium potential for exhibiting appreciable differential movements or swell/shrink capabilities with moisture changes. The Potential Vertical Rise (PVR) calculations for the general soil

profile were performed using the Texas Department of Transportation's (TxDOT) TEX 124-E method. Based on review of the soil log, water table observation, geometric configuration of the area, and typical climatic conditions of the area, zone of influence was estimated.

The calculated **PVR** value for the existing soil profile, based on the strata found at each boring location and the existing conditions, ranged from approximately **1.2 to 1.4 inches**. This value represents total vertical in-situ movements and does not consider differential swell between any two points on the ground; nor does it take into account movements caused by uncontrolled water sources such as poor drainage, migration of subsurface water from off-site locations, and utility line leaks. Typically, **PVR** values of around **1.0 inch** are considered acceptable for most at grade or shallow foundation designs. Based on the results of the PVR calculations, the project site soil conditions with the introduction of the proposed elements will not require any major earthwork to meet the typical PVR requirement. We recommend adherence to the recommendations as presented in the 'Earthwork Recommendations (Preparation of Foundation Pads)' section of this report.

Post-Tensioning Institute (PTI) Slab Design Parameters

The recommendations for foundation design criteria in this section have been calculated using the method described by the Post-Tensioning Institute manual, "Design of Post-Tensioned Slabs-on-Ground" Third Edition; also known as the PTI method. This method gives soil parameters for ribbed or uniform thickness (monolithic) foundations that can be used in the design of post-tensioned or traditionally reinforced foundations. The PTI method does not allow for the development of design parameters for collapsing soils or other highly unusual conditions. It must be emphasized that the determination of these parameters is based upon normal climate-moisture variance from season to season in the local area and are invalid when influenced to any significant degree by other conditions, including but not limited to those mentioned in the previous sections.

The edge moisture variation distances (e_m) for the center and edge lift conditions were derived based on a Thornthwaite index of -32 for the project site. The Thornthwaite index is based on the average rainfall over a significant period of time (e.g. 20 or 30 years) in excess or deficit of the average evapotranspiration rates of the area. Other parameters and influencing variables were derived using information collected from the laboratory tests performed on the recovered soil samples as stated in the PTI guidelines for geotechnical exploration and laboratory testing schedule. Table 3 lists the PTI design parameters for a slab-on-grade foundation supported in the shallow surface soils.

Equilibrium Soil Suction (pF)	Center Lift Conditions		Edge Lift Conditions	
	Center Moisture Variation Distance e_m (ft)	Est. Differential Movement y_m (in)	Edge Moisture Variation Distance e_m (ft)	Est. Differential Movement y_m (in)
4.04	9.00	0.17	4.60	0.65

Table 3 - Recommended PTI Slab Design Parameters

Wire Reinforcement Institute (WRI) Slab Design Parameters

The Wire Reinforcement Institute (WRI) method is an empirically derived foundation design method that was developed by observing slab performance over time and creating and modifying equations to give results which approximate foundation designs that exhibit the best results. While the WRI method deals only with foundations reinforced with reinforcing bars or welded wire reinforcement, the procedure has been developed to be independent of the type of reinforcement used.

The climatic rating reflects the stability of the moisture content which may be expected in the soil due to the climatic conditions which may vary from year to year. The effective design Plasticity Index was obtained by weighting the test values in each boring as described in the WRI procedures. The slope correction factor is based on the average slope of the tract of land. Since the slope is relatively small (as shown on Figure 4 in [Appendix A](#)) the adjustment factor was negligible. [Table 4](#) lists these WRI design parameters for a slab-on-grade foundation supported in the shallow surface soils.

Effective PI	Climatic Rating	Slope Coefficient	Soil Support Index, C
25	15	1	0.89

Table 4 - Recommended WRI Slab Design Parameters

Earthwork Recommendations (Preparation of the Foundation Pads)

L&G recommends the following earthwork recommendations within the foundation footprint areas:

- Clear and grub all vegetation, organic topsoil, and other miscellaneous debris up to a minimum of 5 feet beyond all proposed foundation pad areas.
- The exposed subgrade below the excavation to minimum depth of 12 inches shall be scarified, moisture conditioned and re-compacted to a minimum 95% of the maximum dry density, as determined by ASTM D-698 at a moisture content ranging from 0 to +3 percent of the optimum moisture content.
- The foundation shall be brought to grade (excavated area should then be filled) with ‘Structural Fill’ that meets the requirements of the “General Construction Considerations – Select Fill and Structural Fill Recommendations” section of this report.

PAVEMENT RECOMMENDATIONS

Background Information

The pavement recommendations contained in this report were limited to the data recovered from the field and laboratory testing performed for the borings. No traffic loading data was presented for the future proposed parking lot and drives.

Our recommendations are based on design procedures found in the Army Corps of Engineers Manuals EM 1110-3-131 (Flexible Pavement Design), EM 110-3-132 (Rigid Pavement Design), and our experience with similar soils and site conditions. The traffic composition used in our

analysis was grouped under ‘Category I’, which is comprised of traffic essentially free of trucks (not more than 1% two-axle trucks). The road type selected was ‘Class D’, with a flat slope and low volume (under 1,000 average daily vehicles).

Subgrade Analysis

The existing subgrade index properties (plasticity index and grain size) were used to correlate the Modulus of Soil Reaction (k) and the California Bearing Ratio (CBR) values of the subgrade. These values were then applied to the corresponding design procedures, according to the applicable Army Corps of Engineers manuals to determine the recommended minimum pavement thickness for flexible pavement designs. A subgrade k value of **200 pci** and a CBR value of **10** were utilized in the pavement designs.

Pavement Section Recommendations

After completing the pavement designs and analyzing several options for construction, **L&G** has provided the following recommendations within Tables 5 and 6 for pavement thickness:

Materials	Flexible Pavement Design Recommendation
Asphalt Pavement (ACP)	2.0 in.
Flexible Base Material (Crushed Limestone or Treated Caliche)	6.0 in.
Moisture Conditioned Compacted Subgrade	8.0 in.

Table 5 – Flexible Pavement Recommendation (Parking Lot)

Materials	Rigid Pavement Design Recommendation	
	Light Duty	Heavy Duty
Reinforced Concrete Pavement (RCP)	5.0 in.	6.0 in.
Moisture Conditioned Compacted Subgrade	8.0 in.	8.0 in.

Table 6 – Rigid Pavement Recommendation (Turnouts, Driveways, etc.)

Pavement Material Specification Recommendations

Asphaltic Concrete Pavement (ACP)

The asphalt concrete pavement (ACP) surface shall meet the requirements of the current TxDOT 2014 Specification Item 340 for Type D Hot Mix Asphaltic Concrete. The grade of the asphalt cement should contain a minimum PG 64-22 asphalt binder. It is recommended that the testing required by this specification be performed during production and placement by a representative of **L&G**.

Reinforced Concrete Pavement (RCP)

The concrete used for pavement shall meet the requirements of TxDOT Specifications Item 360 (Concrete Pavement) and Item 421 Hydraulic Cement Class P concrete, designed with a minimum average flexural strength of 570 psi or a minimum average compressive strength of 4,000 psi at 28 days (or as otherwise noted in the pertinent item). The hydraulic cement concrete properties shall be in accordance with the specification items previously outlined for the given class of concrete (temperature, slump, air content, etc.) The reinforcement shall consist of Grade 60 steel or better rebar distributions with a recommended minimum of 0.1% longitudinal and transverse steel in the cross-sectional area. This is equivalent to a reinforcing scheme of #3 rebar at 18 inch center to center spacing in both the transverse and longitudinal directions for a 6 inch slab. It is recommended that transverse and longitudinal contraction joints be spaced at a maximum 15 feet, saw cut to a depth of two (2) inches. We further recommend that all joints be sealed. It is very important the reinforcing steel is positioned correctly and properly supported with adequate materials to maintain the integrity of the reinforcement during the paving process.

Flexible Base Material (Crushed Limestone)

The crushed limestone material shall meet the requirements of TxDOT 2014 Specification Item 247 Type A, Grade 1 as noted in the “General Construction Considerations – Select Fill & Structural Fill Recommendations” section of this report.

Flexible Base Material (Caliche)

The caliche base material shall meet the requirements of TxDOT 2014 Specification Item 247 Type E, Grade 4 as approved by the engineer. Caliche base shall conform to the gradation and properties requirements noted in the “General Construction Considerations – Select Fill & Structural Fill Recommendations” section of this report before lime or admixtures are added. Treated caliche base material shall meet all the previous requirements and contain a minimum of two (2) percent lime or Portland Cement by weight. Lime and cement treatments shall be in compliance with all applicable sections of TxDOT Item 260 and 275 specifications.

Moisture Conditioned Compacted Subgrade

The existing subgrade layer beneath the subbase (caliche/limestone) shall be compacted and moisture conditioned to a minimum 95 percent of the maximum dry density (ASTM D698 or Tex-114-E) at moisture contents ranging from plus 1 (+1) to plus three (+3) percentage points of the optimum moisture content. **L&G** recommends compacted subgrade be treated through incorporation of a minimum three (3) percent lime by weight. Lime treatment shall be in compliance with all applicable sections of TxDOT Item 260 specifications.

GENERAL CONSTRUCTION CONSIDERATIONS

Site Grading Recommendations

Site grading plans can result in changes in almost all aspects of foundation recommendations. We have prepared the foundation recommendations based on the existing ground surface and the stratigraphic conditions encountered at the time of our study. We recommend gradual slopes away from foundations at structure locations to assist with site drainage, ponding, and any

potential shrink/swell issues. Based on the upper site soils, erosion and slope sloughing, causing for periodic maintenance are limitations when utilizing 2:1 slopes or steeper. We recommend the use of 3:1 slopes (or flatter) for general site grading.

Site Drainage Recommendations

Drainage is one of the most important aspects to be addressed to ensure the successful performance of any foundation. Positive surface drainage should be implemented prior to, during and maintained after construction to prevent water ponding at or adjacent to the proposed facilities. We advise that construction drainage programs be implemented to assist with standing waters from precipitation, general surface runoff or other moisture intrusion. It is recommended that the site design include site drainage features to channel runoff away from the proposed site location and most importantly away from all shallow foundations.

Site Preparation Recommendations

The proposed site areas and all areas used to support foundation construction should be cleared and grubbed of all vegetation, organic topsoil and other miscellaneous debris up to a minimum of five (5) feet beyond the proposed site perimeters. This shall include the removal of all trees, brush, roots, weeds, or other organic debris that will interfere with construction. After clearing, the contractor should follow the earthwork procedures outlined in the 'Foundation Recommendations' section of this report. Any soft and/or compressible soft spots noted during compaction activities shall be over-excavated and replaced with Select Fill. All placements of Select Fill and Structural Fill shall be in accordance with the "General Construction Considerations – Select Fill & Structural Fill Recommendations" section of this report. Any excavation/backfill activities should be observed by L&G representatives to document subgrade preparation.

Select Fill & Structural Fill Recommendations

Materials used for **Select Fill** (General Site Grading) shall meet the following requirements:

1. Soils classified according to the Unified Soils Classification System as SM, SC, GM, GC, CL, ML and combinations of these soils. These soils shall be free of organic material, topsoil, debris, or other deleterious material that cannot be properly compacted. In addition to the USCS classification, select materials shall have a **liquid limit of less than 40 and a plasticity index between 8 and 20**.
2. Soils classified as CH, MH, OH, OL and PT, under the USCS are not considered suitable for use as select fill materials at this site.
3. **L&G** recommends additional quality control of all 'General Site Fill' materials as they are placed and compacted to ensure that they meet the requirements specified.

Select Fill shall be placed in lifts not to exceed 8 inches loose (6 inches compacted) and compacted to a minimum 95 percent of the maximum dry density as determined in accordance with ASTM D698. The water content of the fill shall be maintained within the range of optimum moisture to three (3) percentage points above the optimum moisture content until the fill is permanently covered. The fill should be properly compacted in accordance with these recommendations and tested for compaction as specified.

Materials used for **Structural Fill** shall meet the following requirements:

1. Soils classified as Base Material meeting the requirements of TxDOT 2014 Specification Item 247 Type E, Grade 4 - Caliche (see [Table 7](#) for specifications and requirements) or Item 247 Type A, Grade 1 - Limestone (see [Table 8](#) for specifications and requirements).
2. **L&G** recommends additional quality control of all Structural Fill materials as they are placed and compacted to ensure that they meet the requirements specified.

Structural Fill shall be compacted to a minimum 98 percent of the maximum dry density as determined by the ASTM D698 at moisture contents ranging between minus two (-2) and plus two (+2) percentage points of the optimum moisture content. Structural Fill shall be placed in loose lifts not to exceed 8 inches (6 inches compacted). The fill should be properly compacted in accordance with these recommendations and tested for compaction as specified.

Retained on Square Sieve	Percent Retained
2"	0
1 1/2"	20-60
No. 4	40-75
No. 40	70-90
Plasticity Index, max	15
Wet Ball PI, max	15
Wet Ball Mill, % max	50

Table 7 – Structural Fill - Type E Grade 4 Specifications

Retained on Square Sieve	Percent Retained
2-1/2"	0
1-3/4"	0-10
7/8"	10-35
3/8"	30-65
No. 4	45-75
No. 40	65-90
Liquid Limit, % max	40
Plasticity Index, % max	10
Wet Ball Mill, % max	40

Table 8 – Structural Fill - Type A Grade 1 Specifications

Excavation, Sloping, Benching and Utility Considerations

If trenches are to extend to or below a depth of five (5) ft, the contractor or persons doing the trenching should adhere to the current Occupational Health and Safety Administration (OSHA) guidelines on trench excavation safety and protection measures or other applicable industry standards. The collection of specific geotechnical data and development of a plan for trench safety, sloping, benching or various types of temporary shoring, is beyond the scope of this study. Utilities that protrude through the slab-on-grade should be designed with some degree of flexibility or with sleeves. Such features will help reduce the risk of damage to utility facilities from soil movements related to shrinkage and expansion.

Miscellaneous Pavement Recommendations

Adequate perimeter drainage is essential for long-term performance of any pavement structure. Infiltration of surface water from unpaved areas surrounding the pavement should be minimized. Base materials under curb and gutters should be compacted to the same requirements as other areas. It is recommended that these curb and gutters be extended through the base and a minimum of three (3) inches into the subgrade. This will reduce the potential of intrusion of moisture from adjacent areas. An adequate seal should be provided at all base-asphalt interfaces.

A maintenance plan is recommended for the long-term performance of paved areas. Asphaltic pavements have a tendency to strip and become oxidized with exposure to the elements. Thus cracks may become present in the pavement. It is recommended that a maintenance schedule of biannual crack sealing, fog seals and overlays every five to ten years be used over the life of the pavement.

REFERENCES

1. Jacobs, Jerry L., 1981, "Soil Survey of Hidalgo County, Texas", Washington, D.C.
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3. TxDOT, 2014, "Standard Specification for the Construction of Highways, Streets, and Bridges", Austin, TX.
4. TxDOT, 2005-Current, "100-E, Soils & Aggregates Test Procedures", Austin, TX.
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6. TxDOT, 2000, 2006, 2012, 2018 "Geotechnical Manual", Austin, TX.
7. TxDOT, 2019, "Pavement Design Manual", Austin, TX.
8. TxDOT Construction Division, 2005, "Guidelines for Treatment of Sulfate-Rich Soils and Bases in Pavement Structures", Austin, TX.
9. TxDOT Pharr District, 2014, "TxDOT Pharr District Master General Notes" (Updated 3-20-2019), Pharr, TX
10. United States Army Corps of Engineers, "Bearing Capacity of Soils", EM 1110-1-1905
11. United Facilities Criteria (UFC), "Soils & Geology Procedures for Foundation Design of Building and Other Structures", UFC 3-220-03FA, (January 2004).
12. United States Army Corps of Engineers, "Flexible Pavements for Roads, Streets, Walks and Open Storage Areas", EM 1110-3-131
13. Post-Tensioning Institute, 2004, "Design of Post-Tensioned Slabs on Ground", Phoenix, AZ.
14. Wire Reinforcement Institute, 1981, "Design of Slab-on-Ground Foundations", Hartford, CT.

APPENDIX A – FIGURES

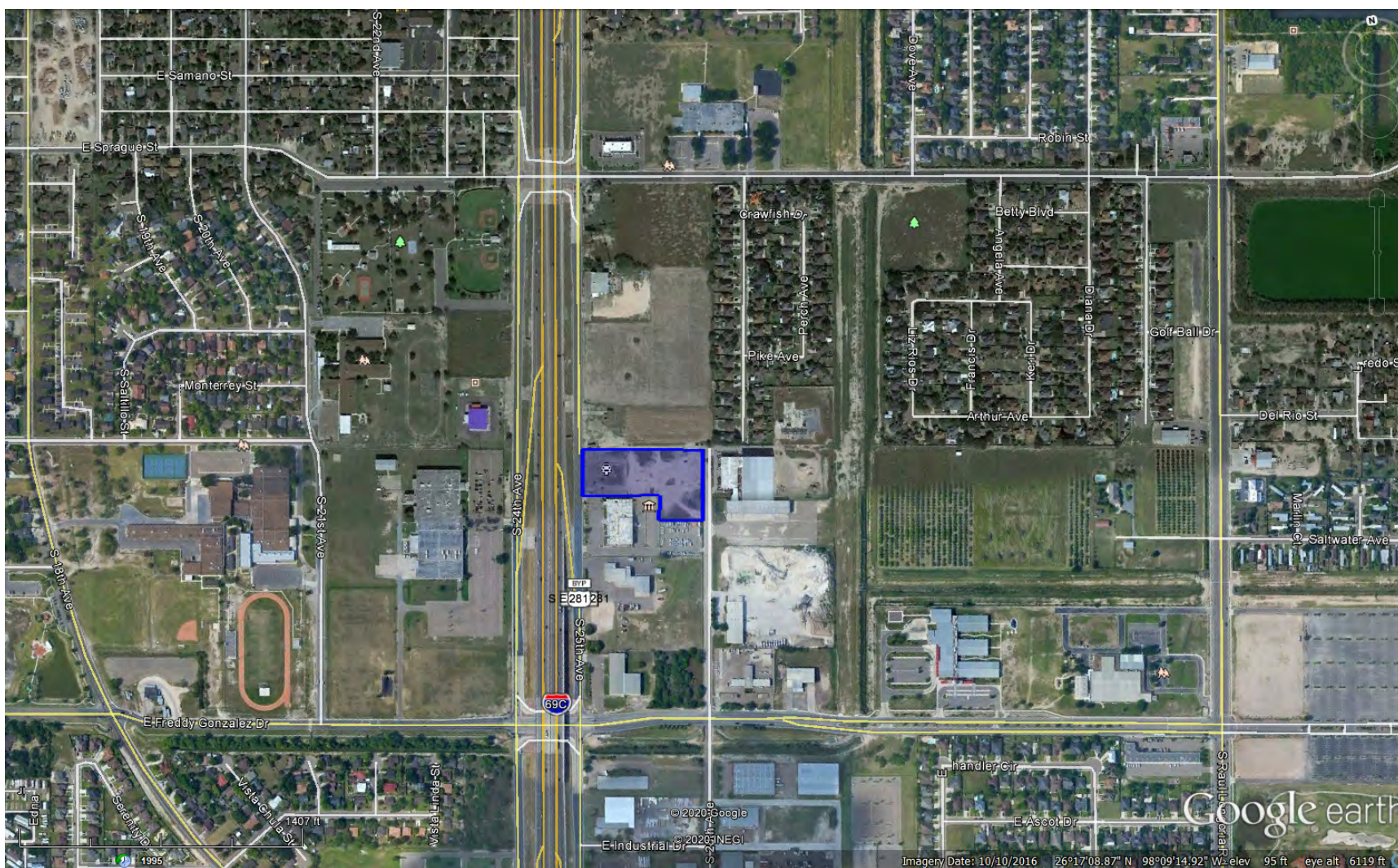


Figure 1 – General Project Location Map (Google Earth Imagery)



Figure 2 – Boring Location Map (Google Earth Imagery)

APPENDIX B – BORING LOGS



L&G Engineering Laboratory

Construction Material Testing
Geotechnical Engineering

L&G Engineering Laboratory
2100 W. Expressway 83
Mercedes TX 78570
Telephone: 956-565-0760

KEY TO SYMBOLS

CLIENT Hidalgo Co. Pct. 4

PROJECT NAME Hidalgo County Justice Center

PROJECT NUMBER GL20010

PROJECT LOCATION Hidalgo County

LITHOLOGIC SYMBOLS (Unified Soil Classification System)



CH: USCS High Plasticity Clay



CL: USCS Low Plasticity Clay



SC: USCS Clayey Sand

SAMPLER SYMBOLS



Standard Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
PI - PLASTIC INDEX (%)
W - MOISTURE CONTENT (%)
DD - DRY DENSITY (PCF)
NP - NON PLASTIC
-200 - PERCENT PASSING NO. 200 SIEVE
PP - POCKET PENETROMETER (TSF)

TV - TORVANE
PID - PHOTOIONIZATION DETECTOR
UC - UNCONFINED COMPRESSION
ppm - PARTS PER MILLION
▽ Water Level at Time
Drilling, or as Shown
▼ Water Level at End of
Drilling, or as Shown
▽ Water Level After 24
Hours, or as Shown

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** 17.50 ft / Elev 77.50 ft
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'16.25"N, 98° 8'53.37"W (Approx. Elev.) **AFTER DRILLING** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		(CL) Sandy Lean Clay, Brown to Tan, Med. Stiff to Stiff, Dry to Moist										
			SPT 1		2-5-5 (10)			8	23	13	10	
			SPT 2		4-4-4 (8)			17				50
5			SPT 3		2-3-4 (7)			19	44	18	26	
			SPT 4		4-6-9 (15)			16				65
			SPT 5		4-6-7 (13)			17	44	17	27	
10												
		(CL) Lean Clay w/ Sand, Tan, Stiff, Moist	SPT 6		5-7-7 (14)			18				80
15												
		(CL) Sandy Lean Clay, Tan, Stiff, Moist	SPT 7		3-5-7 (12)			19	42	15	27	66
20												
Bottom of borehole at 20.0 feet.												

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CLIENT Hidalgo Co. Pct. 4

PROJECT NAME Hidalgo County Justice Center

PROJECT NUMBER GL20010

PROJECT LOCATION Hidalgo County

DATE STARTED 6/30/20

COMPLETED 6/30/20

GROUND ELEVATION 95 ft

HOLE SIZE 4 inches

DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division)

GROUND WATER LEVELS:

DRILLING METHOD Solid Stem Auger

▽ **AT TIME OF DRILLING** 17.25 ft / Elev 77.75 ft

LOGGED BY J. Sinclair

CHECKED BY D. Saenz, P.E.

AT END OF DRILLING ---

NOTES GPS 26°17'15.59"N, 98° 8'51.93"W (Approx. Elev.)

AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0												
		(CL) Sandy Lean Clay, Grayish Brown to Tan, Soft to Med. Stiff, Dry to Moist	SPT 1		2-2-3 (5)			9				51
			SPT 2		2-1-2 (3)		20	38	16	22		
5		(CL) Lean Clay w/ Sand, Tan, Med. Stiff to Stiff, Moist	SPT 3		2-2-4 (6)		21				77	
			SPT 4		2-2-3 (5)		20	43	15	28		
			SPT 5		3-5-6 (11)		19				77	
10												
		(CH) Fat Clay, Tan Stiff to Very Stiff, Moist	SPT 6		5-7-8 (15)		20	59	20	39		
15												
			SPT 7		5-8-10 (18)		21	56	19	37	87	
20												
Bottom of borehole at 20.0 feet.												

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'15.15"N, 98° 8'53.14"W (Approx. Elev.) **AFTER DRILLING** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0												
		(CL) Sandy Lean Clay, Grayish Brown to Tan, Med. Stiff, Dry	SPT 1		3-3-4 (7)			20				59
			SPT 2		2-2-3 (5)			20	45	14	31	
5		(SC) Clayey Sand, Tan, Loose to Med. Dense, Dry to Moist	SPT 3		2-4-5 (9)			25				48
			SPT 4		5-6-7 (13)			19	33	12	21	
Bottom of borehole at 8.0 feet.												

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CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'14.85"N, 98° 8'51.02"W (Approx. Elev.) **AFTER DRILLING** ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0												
		(CL) Sandy Lean Clay, Tan, Stiff to Soft, Dry	SPT 1		2-4-5 (9)			16	34	15	19	
			SPT 2		1-1-3 (4)			19				62
5		(SC) Clayey Sand, Brown to Tan, Loose to Med. Dense, Dry	SPT 3		2-2-4 (6)			19	56	16	40	
			SPT 4		3-5-6 (11)			18				49

Bottom of borehole at 8.0 feet.

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'15.87"N, 98° 8'50.83"W (Approx. Elev.) **AFTER DRILLING** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		(CL) Sandy Lean Clay, Tan, Stiff to Soft, Dry to Moist										
			SPT 1		4-5-5 (10)			14				50
			SPT 2		2-2-2 (4)			18	38	15	23	
5			SPT 3		1-2-3 (5)			15				68
			SPT 4		2-3-5 (8)			23	43	15	28	
Bottom of borehole at 8.0 feet.												

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'16.60"N, 98° 8'52.25"W (Approx. Elev.) **AFTER DRILLING** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		(CL) Sandy Lean Clay, Brown to Tan, Med. Stiff to Stiff, Dry										
			SPT 1		2-2-3 (5)			17	30	15	15	
			SPT 2		2-2-3 (5)			20				61
5			SPT 3		2-4-5 (9)			19	42	17	25	
			SPT 4		3-5-8 (13)			18				67
Bottom of borehole at 8.0 feet.												

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'15.68"N, 98° 8'48.27"W (Approx. Elev.) **AFTER DRILLING** ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0												
		(CL) Sandy Lean Clay, Brown, Med. Stiff, Dry	SPT 1		3-3-3 (6)			15	36	18	18	
			SPT 2		1-2-4 (6)			19				68
5		(CL) Lean Clay w/ Sand, Brown, Med. Stiff to Stiff, Dry to Moist	SPT 3		3-4-4 (8)			18	40	16	24	
			SPT 4		3-5-6 (11)			22				77

Bottom of borehole at 8.0 feet.

**L&G Engineering Laboratory**Construction Material Testing
Geotechnical EngineeringL&G Engineering Laboratory
2100 W. Expressway 83
Mercedes TX 78570
Telephone: 956-565-0760**BORING NUMBER P-06**

PAGE 1 OF 1

CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'14.68"N, 98° 8'49.29"W (Approx. Elev.) **AFTER DRILLING** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		(CL) Sandy Lean Clay, Brown to Tan, Soft to Stiff, Dry to Moist										
			SPT 1		2-2-2 (4)			12				56
			SPT 2		1-2-1 (3)			25	40	18	22	
5			SPT 3		1-3-3 (6)			22	41	16	25	70
			SPT 4		3-4-6 (10)			18				
Bottom of borehole at 8.0 feet.												

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 7/16/20 15:52 - L:\GINT\PROJECTS\HIDALGO CO. PCT. 4 - HID CO JUSTICE CENTER.GPJ

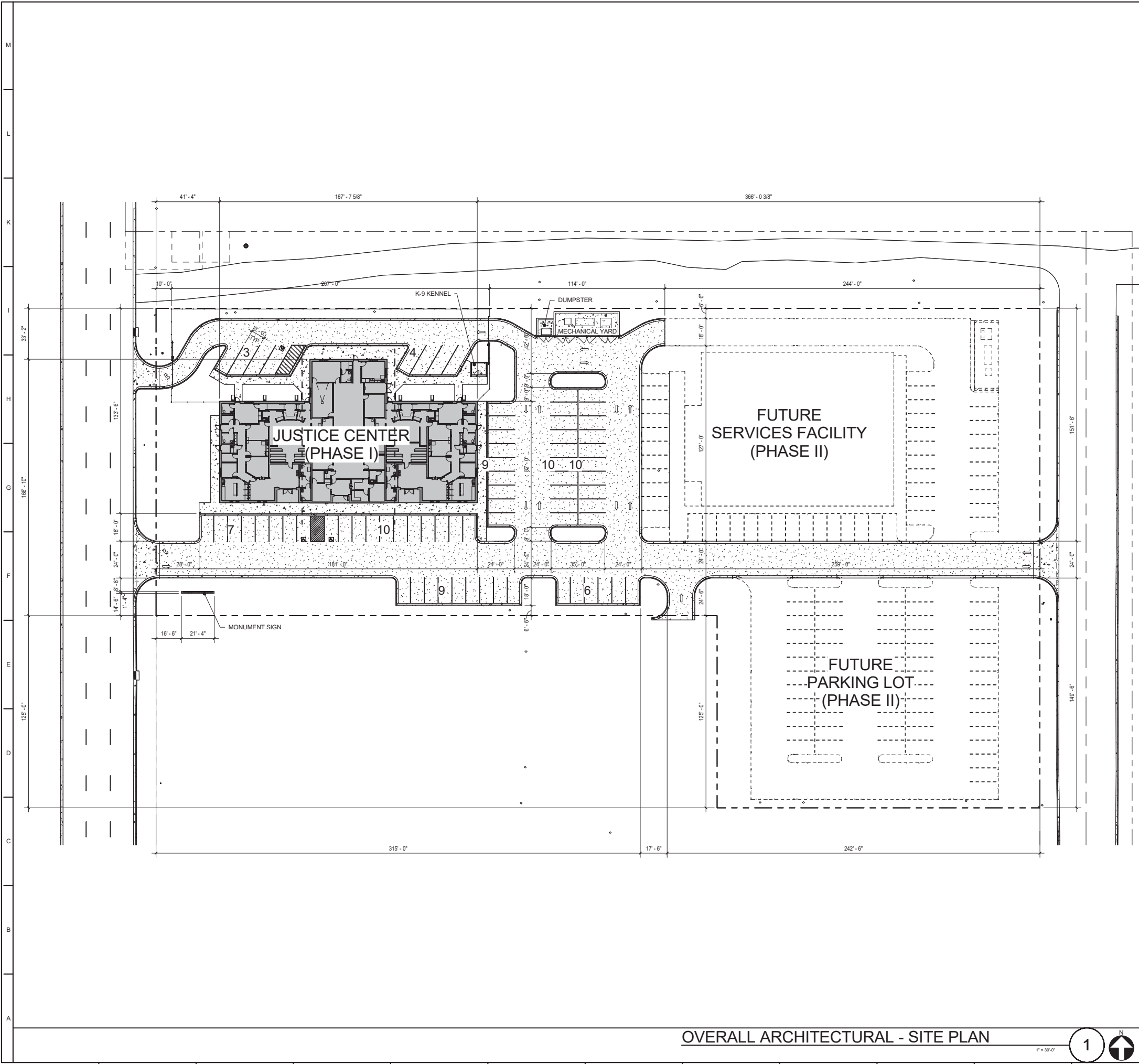
CLIENT Hidalgo Co. Pct. 4 **PROJECT NAME** Hidalgo County Justice Center
PROJECT NUMBER GL20010 **PROJECT LOCATION** Hidalgo County
DATE STARTED 6/30/20 **COMPLETED** 6/30/20 **GROUND ELEVATION** 95 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR L&G Consulting Engineers, Inc (Lab Division) **GROUND WATER LEVELS:**
DRILLING METHOD Solid Stem Auger **AT TIME OF DRILLING** ---
LOGGED BY J. Sinclair **CHECKED BY** D. Saenz, P.E. **AT END OF DRILLING** ---
NOTES GPS 26°17'13.43"N, 98° 8'48.69"W (Approx. Elev.) **AFTER DRILLING** ---

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 7/16/20 15:52 - L:\GINT\PROJECTS\HIDALGO CO. PCT. 4 - HID CO JUSTICE CENTER.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		(CL) Sandy Lean Clay, Brown to Tan, Very Soft to Stiff, Dry to Moist										
			SPT 1		2-1-1 (2)			21	42	16	26	
			SPT 2		1-1-1 (2)			21				66
5			SPT 3		2-3-5 (8)			22	40	16	24	
			SPT 4		3-5-6 (11)			18				70

Bottom of borehole at 8.0 feet.

APPENDIX C – PLANS & SPECS (PROVIDED BY CLIENT)



OVERALL ARCHITECTURAL - SITE PLAN



ARTICLE 9 PARKING, LOADING, ACCESS, AND LIGHTING

DIVISION 9.200 PARKING AND LOADING CALCULATIONS

SEC. 9.201 PARKING AND LOADING REQUIREMENTS TABLE

A. MINIMUM OFF-STREET PARKING AND LOADING REQUIREMENTS. THE MINIMUM OFF-STREET PARKING AND LOADING REQUIREMENTS FOR THE USES SET OUT IN THIS CODE ARE SET OUT IN TABLE 9.201, **MINIMUM PARKING AND LOADING REQUIREMENTS**, BELOW.

TABLE 9.201
MINIMUM PARKING AND LOADING REQUIREMENTS

LAND USE	PARKING	LOADING
COMMERCIAL USES		
OFFICES - GENERAL	3 SPACES / 1,000 SF. 1 SPACE / 33,000 SF.	

SEC. 9.302 ACCESSIBLE PARKING CALCULATIONS:

A. NUMBER OF ACCESSIBLE PARKING SPACES.

1. IN GENERAL, THE NUMBER OF ACCESSIBLE SPACES SHALL BE IN ACCORDANCE WITH TABLE 9.302A, **REQUIRED NUMBER OF OFF-STREET ACCESSIBLE PARKING SPACES**.

TABLE 9.302A
REQUIRED NUMBER OF OFF-STREET ACCESSIBLE PARKING SPACES

NUMBER OF PARKING SPACES PROVIDED	NUMBER OF ACCESSIBLE SPACES REQUIRED
51-75	3

PARKING CALCULATIONS:

12,442 S.F. TOTAL **JUSTICE CENTER** FLOOR AREA - 3 SPACES / 1,000 SF. = 38 PARKING SPACES

LOADING CALCULATIONS:

12,442 S.F. TOTAL **BUILDINGS** FLOOR AREA - 1 SPACE / 33,000 SF. = 0 LOADING SPACES

TOTAL PARKING REQUIRED:

TOTAL REQUIRED = 38 PARKING SPACES

TOTAL PARKING PROVIDED:

TOTAL PROVIDED = 68 PARKING SPACES
TOTAL ACCESSIBLE PROVIDED = 3 ACCESSIBLE PARKING SPACES

71 TOTAL COMBINED PARKING SPACES PROVIDED

June 4, 2021

RE: ADDENDUM NO. 7
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 7**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 7** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 7** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III

June 4, 2021

ADDENDUM NO. 7

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

Below are the responses to all inquiries made on or before Monday May 24, 2021 @ 5:00PM that were inadvertently not answered via Addendum #6

Additionally, the budget for this project is \$2,865,57, that was estimated in 2020.

I acknowledge receipt of ADDENDUM NO. 7 dated, June 4, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

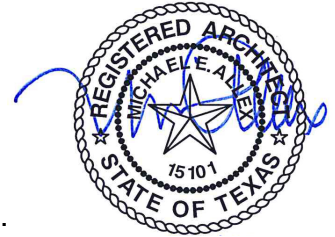
Company Name: _____

Date: _____

Attachments: **None**

ADDENDUM NO. 7 : HIDALGO COUNTY, TEXAS PRECINCT No.4
NEW JUSTICE CENTER
EDINBURG, TX

ISSUED: June 4, 2021



ARCHITECT: Rike–Ogden–Figueroa–Alex Architects, Inc.
1007 Walnut Ave.
McAllen, Texas 78501

6/4/2021

Total Pages Including Cover – (1) 8 1/2" X 11" sheets

NOTICE:

- A. *The following changes, omissions or alterations to the specifications and drawings shall be made and insofar as specifications and drawings are inconsistent with the following, this addendum shall govern.*
- B. *Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.*
- C. *It's imperative that this addendum be inserted INTO set of specifications.*

ITEM NO. 1 : STRUCTURAL ENGINEERING CLARIFICATION

In Addenda #6, Item No. 20, Architect inadvertently noted clarification attachments from The Structural Engineer. There are no Structural Items.

ITEM NO. 2 : BIDDER REQUESTED ROOF SUBSTITUTION

Versico Evaloy KEE 80 mil White PVC single ply roofing system IS NOT an approved substitution for the specified adhered multi-ply hybrid system.

ITEM NO. 3 : CARPET

Carpet shall be EF Contract, Style- Line Accent, Color- Pipe/LNA53, 12x48 plank .

END OF ADDENDUM No. 7

June 9, 2021

RE: ADDENDUM NO. 8
For RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT. 4”

Dear Respondents:

Attached you will find **ADDENDUM NO. 8**, in connection with Hidalgo County’s Request for Competitive Sealed Proposal for **“Construction of New Justice Center – PCT. 4”**.

If you do not receive all items listed in **ADDENDUM NO. 8** please notify us immediately via email at jaime.cortez@co.hidalgo.tx.us, or by phone at (956) 318-2626, ext. 4882.

A submission response to this Request for Competitive Sealed Proposal may be **deemed incomplete** without the acknowledgement of this **ADDENDUM NO. 8** signed and returned as part of your submission.

Thank you for your prompt attention to this matter.



Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent
P.P. JD Cortez
Contract Specialist III



2802 S. Bus. Hwy 281
Edinburg, Texas 78539
Phone: (956) 318-2626
Fax: (956) 318-2629
www.co.hidalgo.tx.us/purchasing

June 9, 2021

ADDENDUM NO. 8

RFCSP NO. 2021-229-05-05-JDC
“Construction of New Justice Center – PCT.4”

PLEASE NOTE THE FOLLOWING CHANGES:

1. Replace Proposal Form – Exhibit B-1 with **Proposal Form – Exhibit B-1 rev.1** (attached).
 - a. To include designated line items for pricing of Alternative #1 and Alternative #2.
2. Change of Bid Opening Date and Time to Friday, June 11, 2021 at 3:00PM

Topic: Bid Opening - Construction of New Justice Center - PCT 4
Time: June 11, 2021, 03:00 PM Central Time (US and Canada)

Join Zoom Meeting Link: <https://hidalgocounty.zoom.us/j/89960235028>

Meeting ID: 899 6023 5028

One tap mobile
+13462487799, 89960235028# US (Houston)
+16699006833, 89960235028# US (San Jose)

I acknowledge receipt of ADDENDUM NO. 8 dated, June 9, 2021, for the Request for Competitive Sealed Proposal for the Construction of New Justice Center – PCT. 4.

BY: _____

Signature

Print Name: _____

Company Name: _____

Date: _____

Attachment: Proposal Form – Exhibit B-1 rev.1

SECTION 00 41 00
PROPOSAL FORM – EXHIBIT B-1 rev.1

THE PROJECT AND THE PARTIES:

1.01 TO:

- A. Owner
Hidalgo County Precinct 4
1051 N Doolittle Rd,
Edinburg, TX 78542

1.02 FOR:

- A. Project: Hidalgo County Precinct No. 4 New Justice Center
B. Architect Project Number: 2018.19

1.03 DATE: _____ (PROPOSER TO ENTER DATE)

1.04 SUBMITTED BY: (PROPOSER TO ENTER NAME AND ADDRESS)

- A. Proposer's Full Name

1. Address

2. City, State, Zip

1.05 OFFER

- A. Having examined the Place of The Work and all matters referred to in the Invitation to Submit Proposals and the Proposal Package prepared by ROFA and Hidalgo County for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of _____

_____ Dollars
(\$ _____), in lawful money of the United States of America.

In the event Option Alternative #1 (Drawing A7.1) is selected for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of _____

_____ Dollars
(\$ _____), in lawful money of the United States of America.

- B. In the event that Alternative #2 (Drawing MC01) is selected as an OPTIONAL ADD-ON for the above mentioned project, we, the undersigned, hereby offer to perform the Work for Alternative #2 at a cost of _____

_____ Dollars
(\$ _____), in lawful money of the United States of America.

- C. We have included the required performance assurance bonds in the Proposal Amount as required in the Invitation to Submit Proposals.

1. The cost of the required performance assurance bonds is _____
Dollars (\$ _____), in lawful money of the United States of America.

- E. All Cash and Contingency Allowances described in Section 01 21 00 - Allowances are included in the Proposal Sum.

1.06 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for ninety days from the proposal closing date.
- B. If this proposal is accepted by Owner within the time period stated above, we will:
 - 1. Execute the Agreement within seven days of receipt of Notice of Award.
 - 2. Furnish the required bonds within seven days of receipt of Notice of Award.
 - 3. Commence work within seven days after written Notice to Proceed of this proposal.
- C. If this proposal is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this proposal and the proposal upon which a Contract is signed.
- D. In the event our proposal is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Invitation to Submit Proposals; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

1.07 CONTRACT TIME

- A. If this Proposal is accepted, we will:
 - 1. Complete the Work associated with Specifications and drawings associated with New Justice Center 365 calendar days, or shorter, upon receiving Notice to Proceed. Notice to Proceed is expected to be issued in *TBD* to start work on *TBD* 2021.
 - 2. Liability - Owner and Contractor recognize that time is of the essence in this Agreement and that Owner will suffer financial loss if the Work is not completed within the time specified in Section 1.07 above, plus any extension thereof allowed in accordance with Article 8 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring such proof, Owner and Contractor agree that as liquidated damages for delay (but not as penalty) Contractor shall pay Owner Five Hundred 00/100 Dollars (\$500.00) for each day that expires after the time specified in Paragraph 3.1 for Substantial Completion until the work is substantially complete
 - 3. In the event the Contractor fails to achieve Final Completion of the Work within thirty (30) days of Substantial Completion or as mutually agreed upon, or as such date may be extended or shortened by approved Change Order, the Owner shall be entitled to liquidated damages in the amount of \$500.00 per day that passes until the work is finally completed.
 - 4. Back Charges: Hidalgo County has the right under contract to back charge amounts that are spent to complete a portion of the work not completed by the contractor based on schedule and repairs of damage caused by work associated with the construction that requires quick response due to Hidalgo County operations and contractor has failed to respond. This will be deducted from contractor's contract amount and written as a change order to the contract.
 - 5. Rain/Off Days: Rain Days must be submitted within 3 days of event or with each pay application (weekly report) failure to provide notification with proper proof within the time period will not be accepted. Any additional days after rain days that the contractor fails to work will be charged as work days unless authorized in writing by both the contractor and Owner, refer to Section 1.07 Contract Time, Paragraph B.

1.08 ADDENDA

- A. The following Addenda have been received. The modifications to the Proposal Package noted below have been considered and all costs are included in the Proposal Sum.
1. Addendum # 1 Dated April 20, 2021
 2. Addendum # 2 Dated April 27, 2021
 3. Addendum # 3 Dated May 6, 2021
 4. Addendum # 4 Dated May 17, 2021
 5. Addendum # 5 Dated May 27, 2021
 6. Addendum # 6 Dated June 1, 2021
 7. Addendum # 7 Dated June 4, 2021
 8. Addendum # 8 Dated June 9, 2021

1.09 PROPOSAL FORM SUPPLEMENTS

- A. We agree to submit the following Supplements to Proposal Forms within 48 hours after submission of this proposal for additional proposal information:
1. Contract Forms and Agreements, Exhibit "E" - Proposed Subcontractors Form: Include the names of all Subcontractors and the portions of the Work they will perform.

1.10 PROPOSAL FORM SIGNATURE(S)

The Corporate Seal of

(Proposal - print the full name of your firm)

was hereunto affixed in the presence of:

(Authorized signing officer, Title)

(Seal)

(Authorized signing officer, Title)

1.11 IF THE PROPOSAL IS A JOINT VENTURE OR PARTNERSHIP, ADD ADDITIONAL FORMS OF EXECUTION FOR EACH MEMBER OF THE JOINT VENTURE IN THE APPROPRIATE FORM OR FORMS AS ABOVE.

END OF SECTION