



# CONSTRUCTION PLANS

## 4TH STREET, HOUSTON AVENUE AND LAKESHORE DRIVE

(CSJ 0920-38-263)  
PORT ARTHUR, TEXAS  
AUGUST 2023

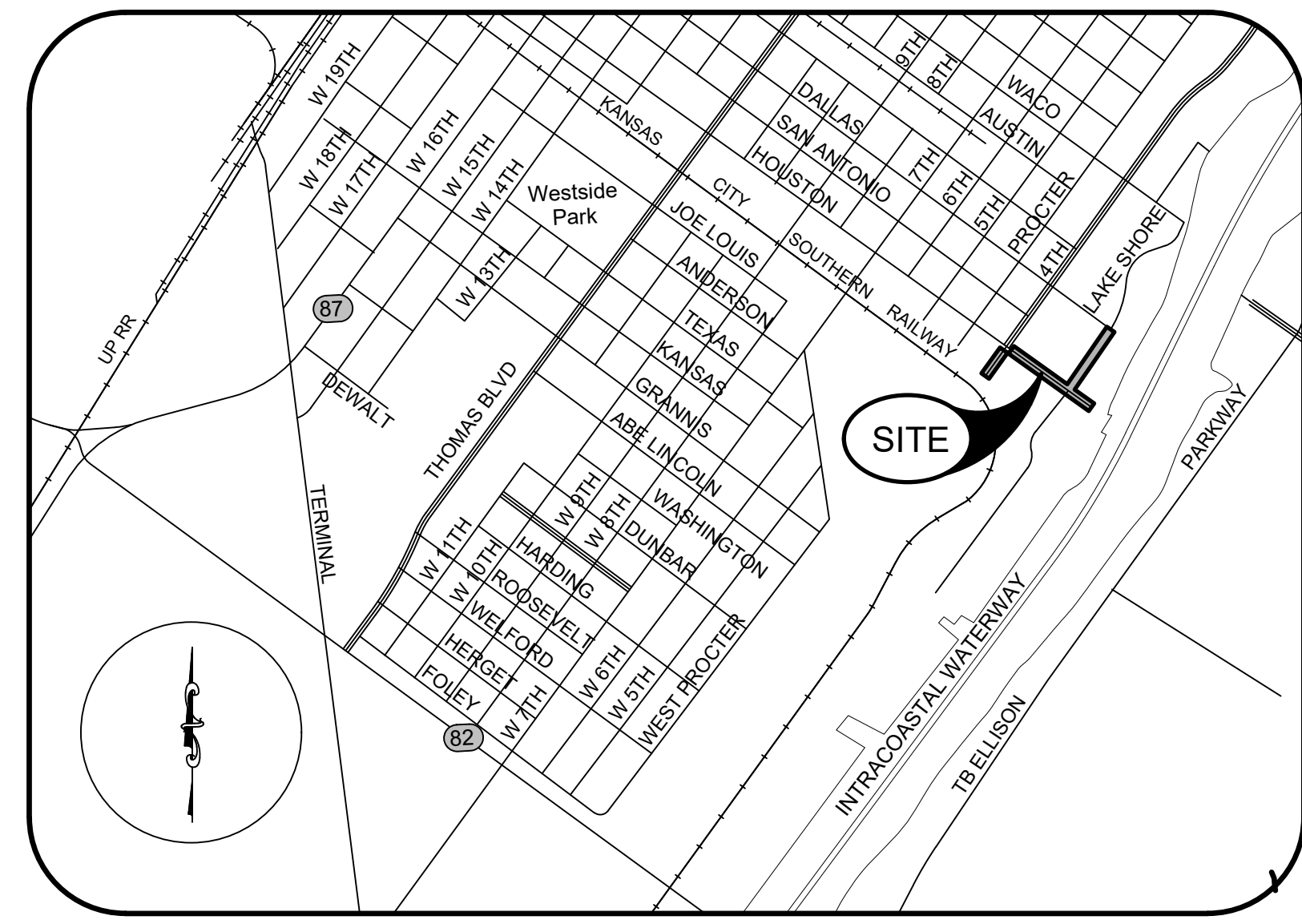
CONTACT LIST

PORT OF PORT ARTHUR DIRECTOR OF ENGINEERING	ED LONG, PE 409-983-2011
PORT OF PORT ARTHUR CONSTRUCTION & MAINTENANCE COORDINATOR	MICHAEL GREEN 409-242-8934
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7	GARRETT BOUDOIN 409-548-3802
TEXAS GAS SERVICE	ART THOMAS 512-571-1941
ENTERGY (BEAUMONT, PORT ARTHUR, MID COUNTY)	ADDIE HOLLYFIELD 409-223-7759
AT&T (PORT ARTHUR, GROVES)	RAY HILLIN 409-291-9757
SPECTRUM	MICHAEL WARD 409-720-5509
TEXAS ONE CALLS FOR UTILITY LOCATES	811

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**PORT COMMISSIONERS**

PRESIDENT:	JOHN COMEAUX
VICE PRESIDENT:	RANDY T. MARTIN
SECRETARY/TREASURER	LINDA TURNER SPEARS
COMMISSIONER:	RAYMOND JOHNSON
COMMISSIONER:	MARY WYCOFF
EXECUTIVE PORT DIRECTOR/CEO	LARRY KELLEY

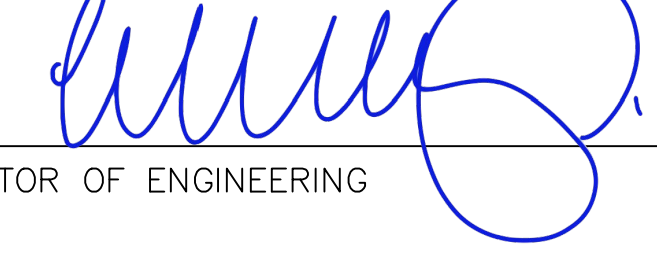



FOR PERMITTING & CONSTRUCTION

JEREMY J. MITCHELL  
116941  
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEREMY J. MITCHELL, P.E. 116941  
8/25/2023 FIRM # 5755

**PORT OF PORT ARTHUR APPROVAL**

BY:   
DIRECTOR OF ENGINEERING



**SOUTEX**  
SURVEYORS & ENGINEERS

T.B.P.E. FIRM #5755 • T.X.L.S. FIRM #101238

3737 Doctors Drive  
Port Arthur, Texas 77642  
Tel. 409.983.2004  
Fax. 409.983.2005  
soutexsurveyors.com

PROJECT NO. 21-0585



**NOTES:**

**Item 110 Excavation**

Do not windrow or stockpile material. Move excess material from the project daily.

**Item 164 Seeding for Erosion Control**

Eliminate seeding in areas of natural growth determined by the Owner to have sufficient cover.

Subsidiary, No separate payment for this item.

**Item 166 Fertilizer**

Fertilize all the seeded or sodded areas of project. There is no separate pay for this item. It is subsidiary to seeding.

**Item 168 Vegetative Watering**

Water all seeded areas of the project. Consider this work to be subsidiary to the various bid items of the contract.

**Item 310 Prime Coat**

Use bituminous material of the type AE-P and grade SS-1 or MS-2. Distribute the bituminous material smoothly and evenly at the rate of 0.2 gallons per square yard.

**Item 340 Dense Graded Hot Mix Asphalt (Small Quantity)**

Provide mixture type D using PG binder 70-22. Provide mix designs. Mix designs must be verified and approved by the Engineer. Use aggregate that meets the SAC requirement of class A.

**Item 351 Flexible Pavement Structure Repair**

Contractor shall repair areas as determined by Owner.

**Item 354 Planing and Texturing Pavement**

Contractor shall retain ownership of planed materials.

**Item 666 ReflectORIZED Pavement Markings**

Reflective Pavement markings, Type II-C-C  
Furnish Type II drop-on glass beads.

Air blowing will not be paid for directly but will be considered subsidiary to Item 666.

**Item 760 Ditch Cleaning and Reshaping**

All roadside ditches along the project shall be graded to provide positive drainage to the inlets. Adjustment of the grades may be allowed when approved by the Engineer.

**Utility Notes**

- Utility locations shown on the plans are for informational purposes only and are not exact. The engineer and the Owner assume no responsibility for variation in location and grades. Contractor shall verify location and elevation of existing utilities prior to construction of proposed facilities. Discrepancies between the two shall be immediately reported to the owner or engineer.
- Contractor will be responsible for contacting all utility companies with existing facilities in the areas of construction 48 hours prior to construction in areas of possible underground utilities which may or not be shown on drawing. Contractor is responsible for making the Texas One Call and following all requirements set forth through that agency. Contractor is responsible for keeping police and fire departments informed of construction activities.
- The Contractor shall be responsible for locating and protecting all utility lines during construction. The Contractor shall be responsible for any damage to existing utilities and shall promptly repair same or make arrangements for such repair with the Owner of the utility involved.
- In all cases the Contractor shall inform and coordinate work with the Owners of the various utilities sufficiently in advance of the contractor's operation to enable such utility Owners, in advance of any work which might damage, interfere with or require adjustments to utilities along or adjacent to the work, to reroute, provide temporary detours, or to make other adjustments to utilities in order that the contractor may proceed with his work with a minimum amount of delay and expense.
- The contractor shall cooperate with all utility owners concerned in effecting any utility adjustments necessary and shall not hold the Owner or Engineer liable for any expenses due to delay or additional work because of conflicts. The Contractor shall allow utility and/or pipeline companies to enter this project to accomplish such work as required for placement or protection of their services and as may be deemed necessary by the Engineer.
- All utility adjustments shall be the responsibility of the Owners of the utilities and if, in the opinion of the Engineer, adjustment is required, the Contractor will be responsible for notifying the respective owner.
- The contractor shall be responsible for confirming the exact location of utility lines and of any others which may exist. It shall be the contractor's responsibility to notify the utility involved in case of conflict or damage and the contractor shall be held responsible for any damage that occurs. Where the contractor encounters abandoned lines that interfere with the construction of this project, such lines shall be removed and disposed of by the contractor. There will be no direct payment for this work and it shall be considered subsidiary to the various bid items in the contract.
- Before excavating near existing utilities, contact the utility companies or the utility coordinating committee for exact locations to prevent damage or interference with present facilities. Notify the utility coordinating committee and the Texas 811 System. The Port of Port Arthur has existing private fiber optic cables within the project area that are not located by the Texas 811 system. Contractor shall contact the Port 5 working days in advance of excavation to allow marking of the fiber optic line(s).
- This action does not relieve the Contractor of the responsibilities under the terms of the contract or the plans and specifications. Damage caused by the Contractor's operations shall be repaired and restored to service in a timely manner at no expense to the City or Port or Port Arthur.
- If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to the Port of Port Arthur.
- If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.
- Contractor shall be responsible for protecting all public utilities in the construction of this project. All manholes, clean-outs, valve boxes, fire hydrants, etc. must be adjusted to proper line and grade by the contractor prior to and after the placing of permanent paving. Utilities must be maintained to proper line and grade during construction of the paving for this development.
- Contractor shall protect all manholes covers, valve covers, vault lids, fire hydrants, power poles, guy wires, and telephone boxes that are to remain in place and undisturbed during construction.

**Work Scheduling**

- Contractor shall provide a written schedule describing the sequencing and routes of work.
- Contractor shall notify Owner no later than 48 hours prior to the commencement of work.
- Unless otherwise shown on the plans or otherwise directed, commence work after sunrise and ensure construction equipment is off the road by sunset.
- Contractor shall schedule work in a manner that will cause minimum interference with traffic and to the general public.
- Ingress and egress to adjacent property shall be maintained by the contractor at all times.
- Existing parking area shall remain open for parking at all times. Contractor shall coordinate its work area with the Port to minimize amount of area used by the contractor.

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**Surveying**

- Contractor shall provide all onsite general construction surveying, layout, and any other surveying requirements necessary for the construction of the project. Owner will provide initial control points.
- Existing monuments or property corners shall not be disturbed. The Contractor will replace and accurately relocate all reference points and construction stakes lost, destroyed, or moved solely at his expense.

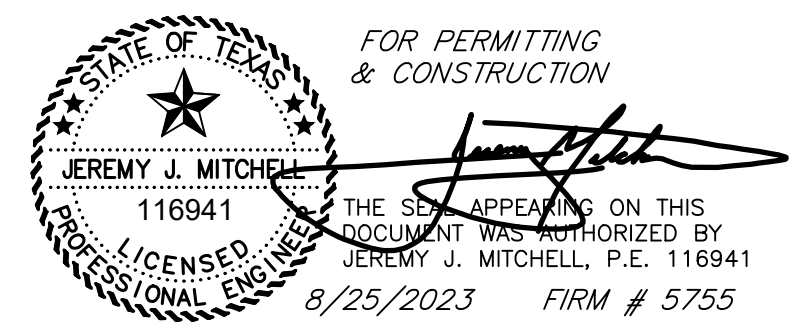
**General Construction Notes**

- Contractor's bid shall include all labor, material and equipment and overhead costs to perform work described in these plans. Any other work necessary for the intended work as described in these plans not specifically detailed in the unit price description of the bid shall be made subsidiary to the bid items provided.
- References to manufacturer's trade name or catalog numbers are for the purpose of identification only. Similar material from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved, except for roadway illumination, electrical, and traffic signal items.
- All materials and construction shall conform to Port of Port Arthur standards, except as noted herein and approved by the engineer.
- Any permits or fees required by the City or any other entity shall be paid for by the Contractor.
- Ingress and egress adjacent to the project shall be maintained by the Contractor at all times. The Contractor will be responsible for keeping mud and debris off existing public streets adjacent to the site.
- Contractor shall keep one complete set of plans and specifications in good condition on the job site at all times.
- Upon completion of all project improvements and inspections, and Owner acceptance of these improvements, the Contractor shall be required to furnish an Affidavit of Warranty to Owner for a one (1) year period on all work.
- All areas disturbed by construction activity shall be restored to an equal or better condition at the expense of the contractor.
- All culverts shall be protected from damage during construction operations. Culverts damaged as a result of contractor's negligence shall be replaced at contractor's expense.
- Contractor shall furnish, erect, and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work site. When used during periods of darkness, such barricades, warning signs and hazard markings shall be suitably illuminated. All traffic control devices and their placement shall be in accordance with the latest Texas Manual on Uniform Traffic Control Devices. No payment will be made for barricades, signs, and traffic handling, but it will be considered subsidiary to the various bid items.
- The Port of Port Arthur shall pay for all required testing, including but not limited to required densities for subgrade, base and asphalt, and associated moisture-density relationships. The engineer will sample all concrete and make and test all beams and cylinders in accordance with the test methods provided for under the appropriate standard specifications for the various items.
- Port of Port Arthur forces will maintain the existing section of streets and its appurtenances not a part of this project except that those sections damaged by the contractor's forces shall be repaired by the contractor at his entire expense.
- The contractor shall maintain adequate drainage throughout the limits of the project during all construction phases.
- The contractor shall allow Port of Port Arthur forces to enter this project to accomplish such work as shown in the plans and as may be deemed necessary by the engineer.
- All drainage structures within the project limits shall be cleaned and unobstructed at the time of acceptance by the Port of Port Arthur.
- All materials, labor and incidentals required for the contractor to provide for traffic across the streets and for temporary ingress and egress to private property shall be furnished by the contractor at no additional cost to the Port of Port Arthur and shall be considered as incidental to the various bid items in this project.
- Any storm water permit and associated fees required for construction of this project shall be at the contractor's expense. Also, any temporary erosion, sediment and water control measures required shall be in accordance with the details show in the plans and all work and materials required shall be paid for under the item "Temporary Erosion, Sedimentation & Environmental Controls".
- Cement stabilized sand for backfill shall be considered subsidiary to any storm sewer, inlets, and junction boxes.
- Erosion control logs shall be installed in accordance with the manufacturer's recommendations, or as directed by the engineer. Logs shall be placed around all storm sewer inlets and pipe openings and shall be maintained as needed.
- All concrete shall be TXDOT Class P 4000 psi @ 28 days strength.
- Seal Joints with BASF MasterSeal SL 1 Elastomeric Polyurethane.



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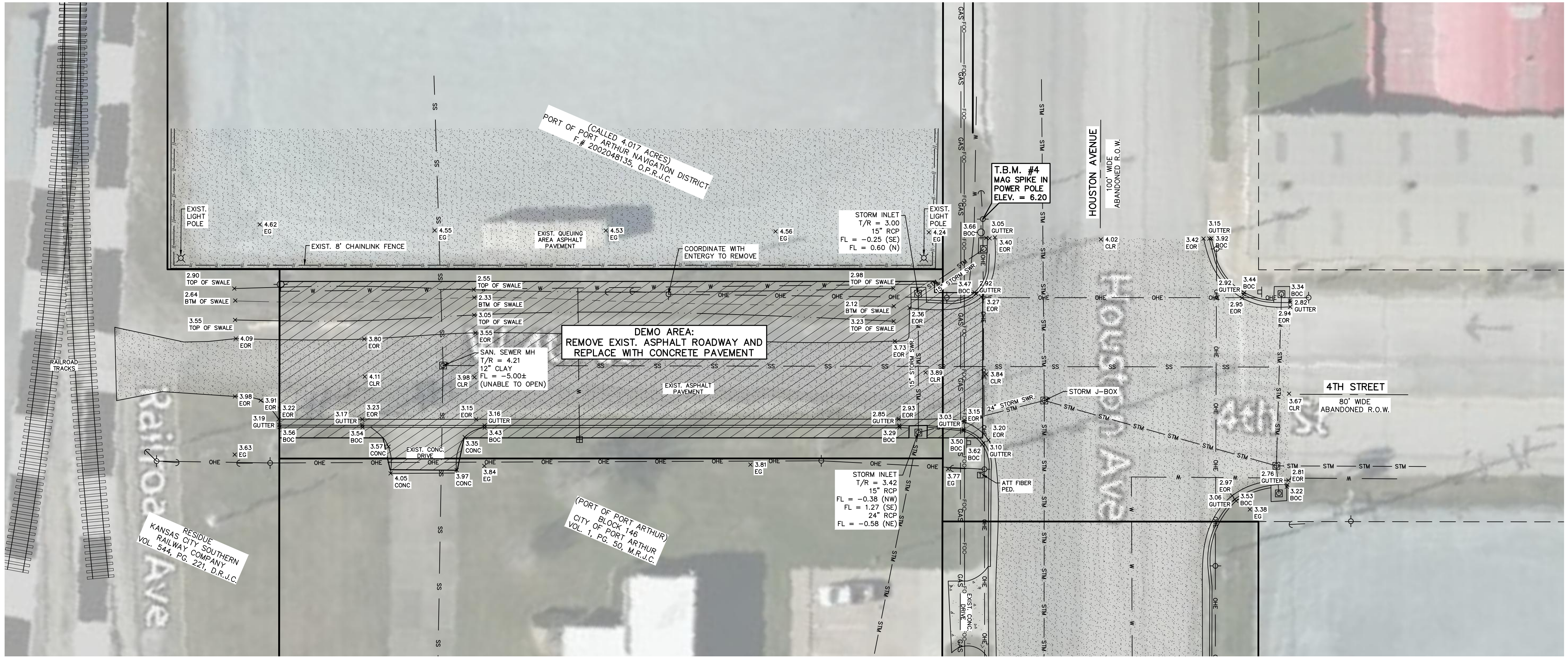
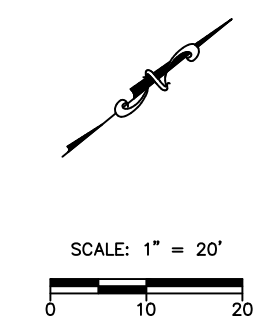
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PORT OF PORT ARTHUR		CHECKED BY: JM
221 HOUSTON AVENUE		APPROVED BY: JM
PORT ARTHUR, TEXAS 77641		



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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEREMY J. MITCHELL, P.E. 116941  
8/25/2023 FIRM # 5755

NO.	REVISION NOTES	DATE





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SHEET TITLE  
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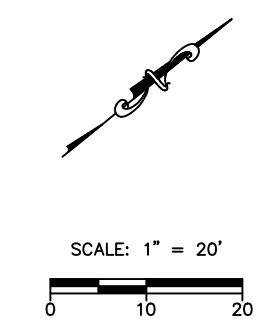
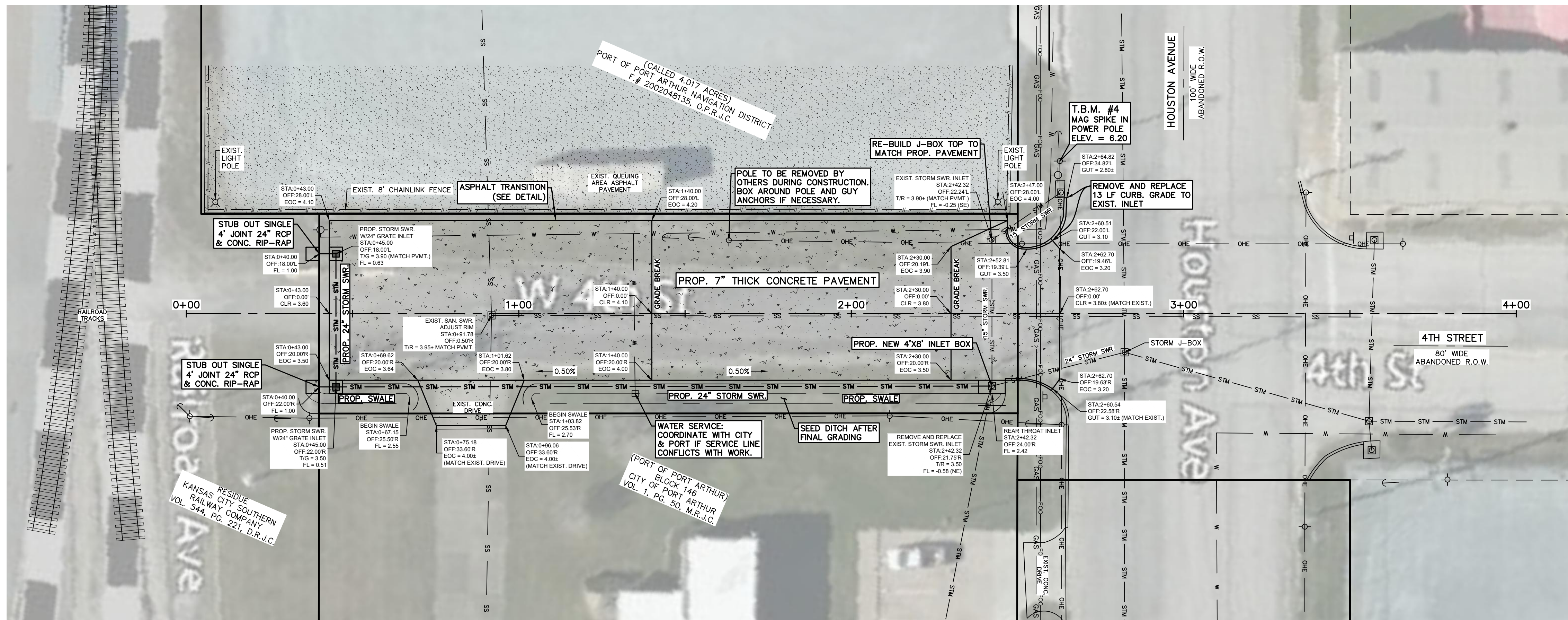
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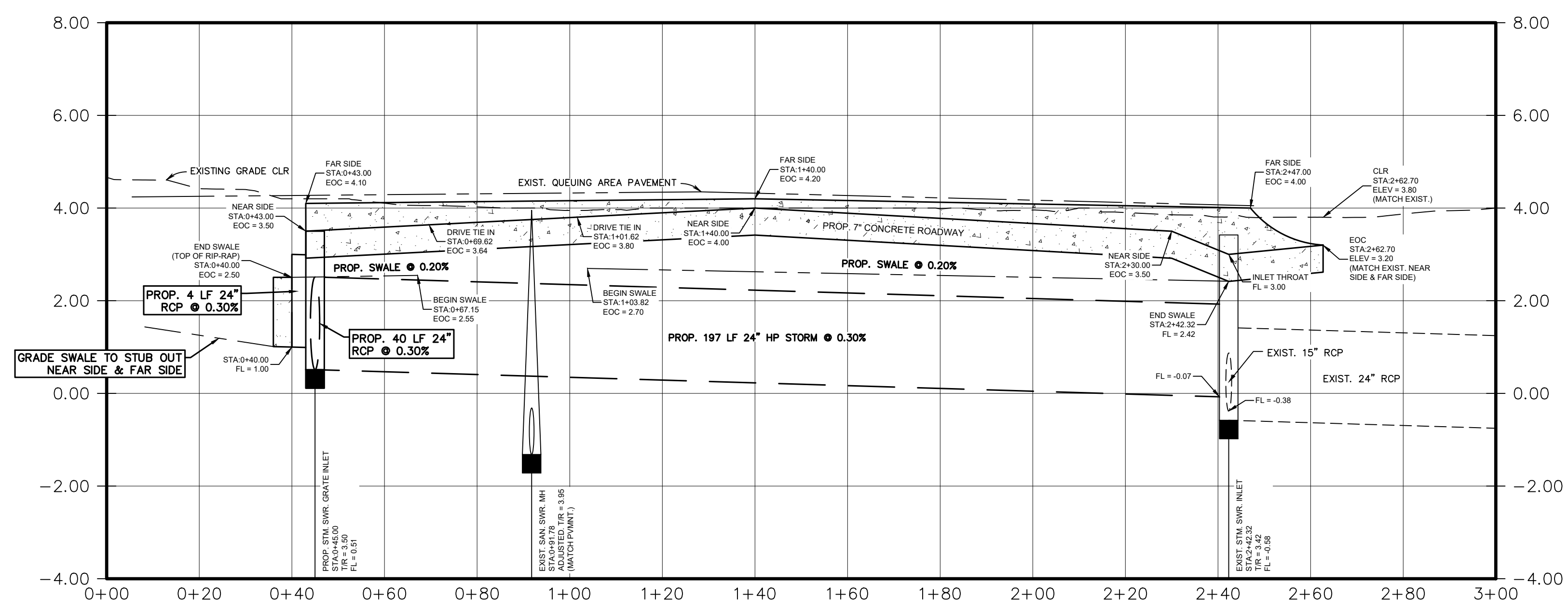
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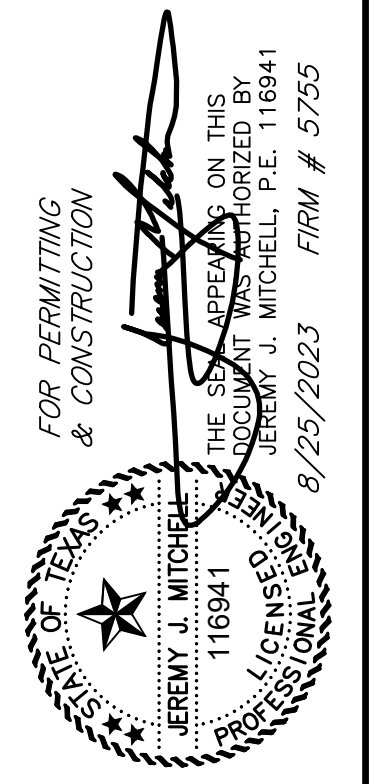
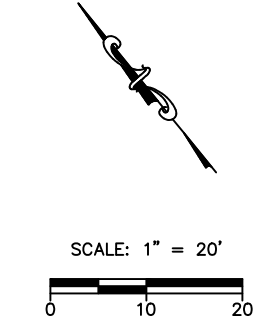


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STATION: 0+00 — 3+00  
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SCALE: HOZ. 1" = 20'  
VERT. 1" = 2'  
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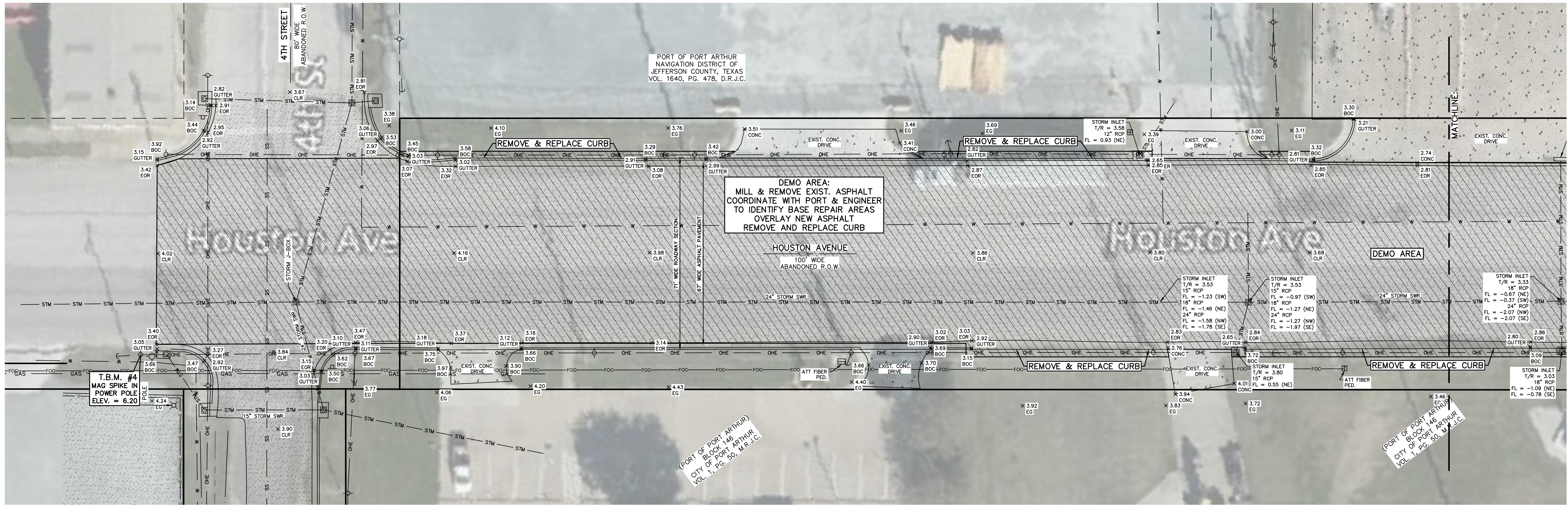






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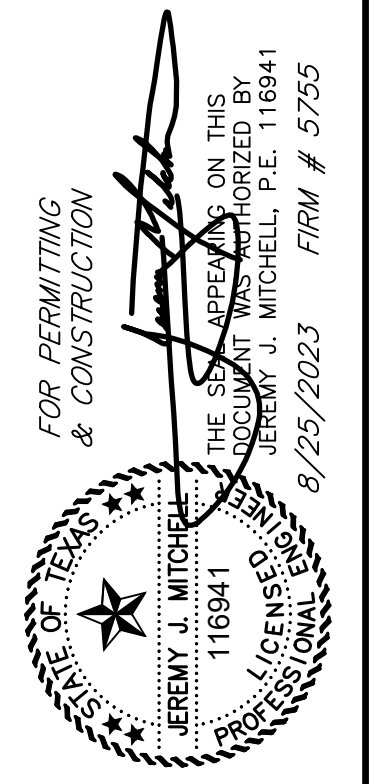
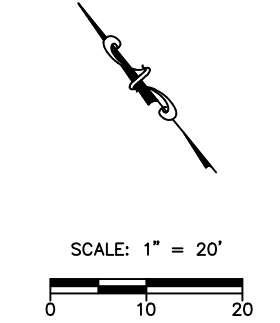
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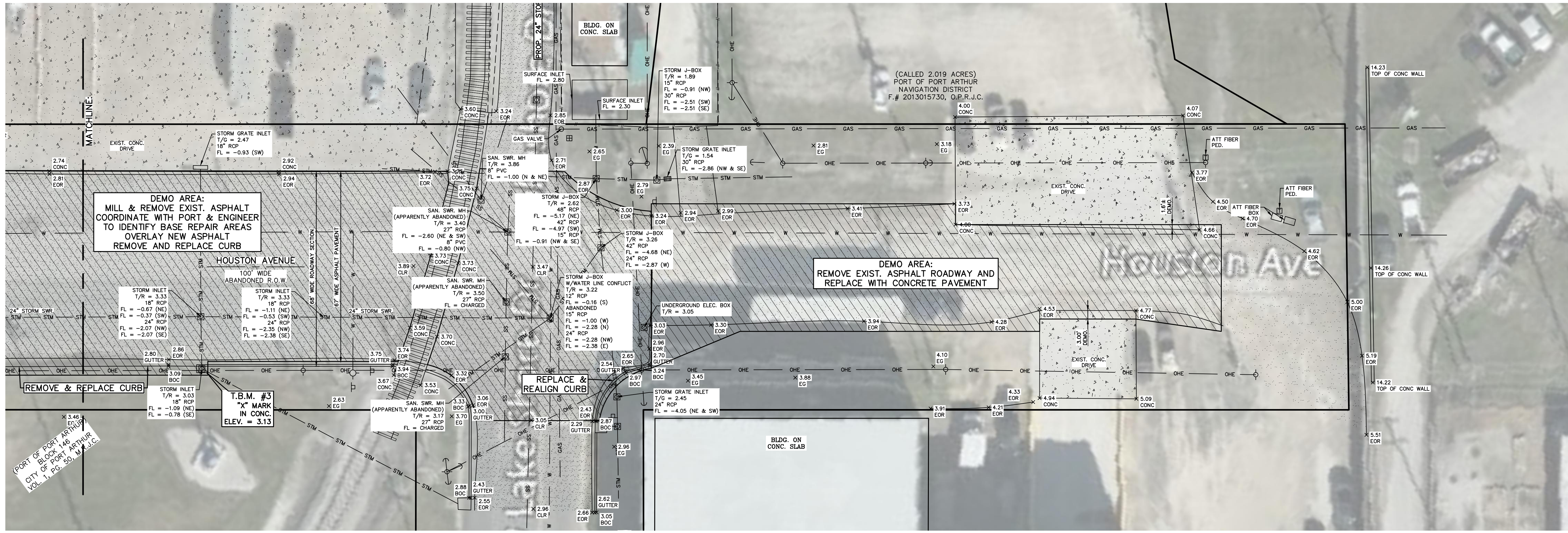
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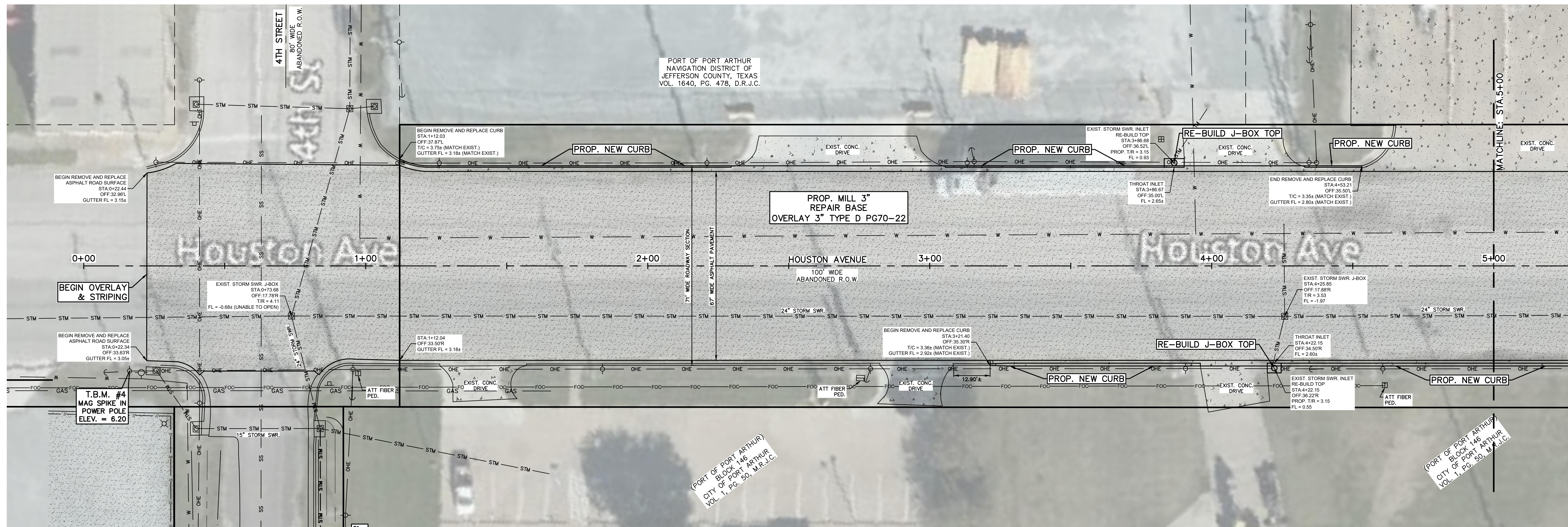
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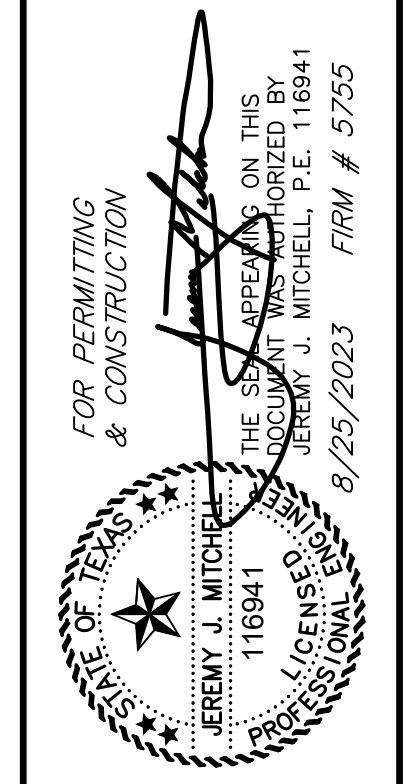
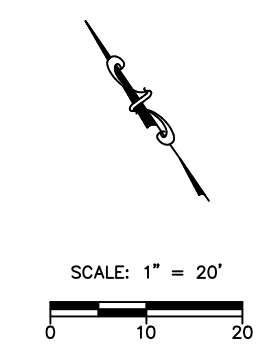
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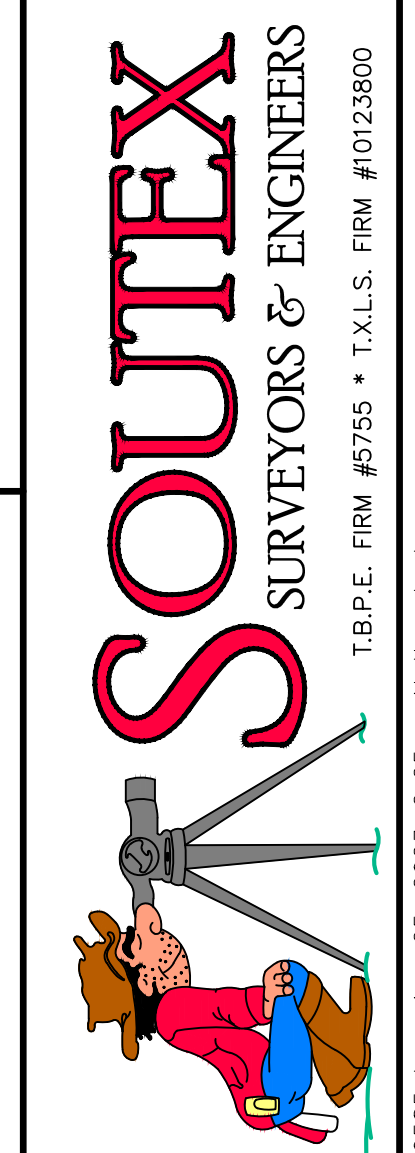




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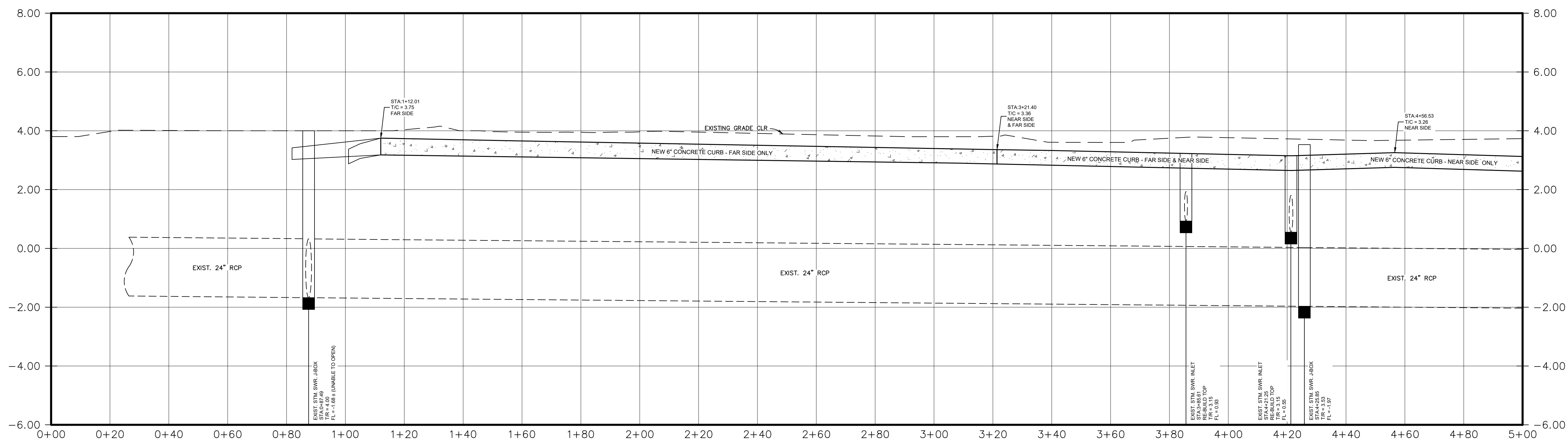


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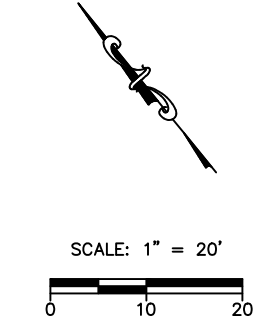
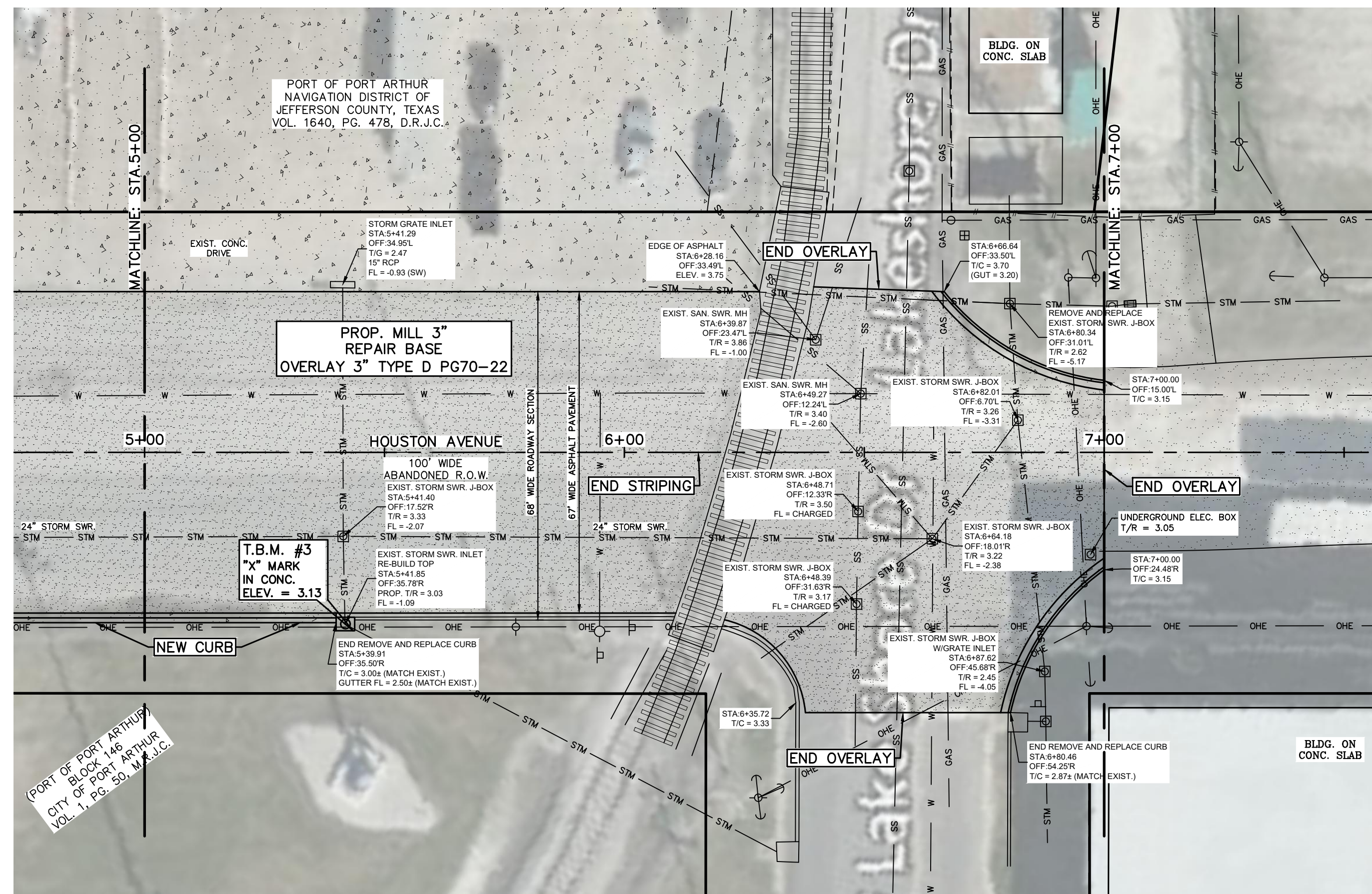
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 HOUSTON AVENUE  
 STATION: 0+00 - 5+00  
**PROJECT**  
 RIDER 45 - 4TH STREET, HOUSTON AVENUE, &  
 LAKESHORE DRIVE  
 PORT OF PORT ARTHUR  
 221 HOUSTON AVENUE  
 PORT ARTHUR, TEXAS 77640

PROJ. NO: 21-0585  
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 VERT. 1" = 2'  
 PRINT DATE: 8/25/2023  
 DRAWN BY: NJ  
 APPROVED BY: JM

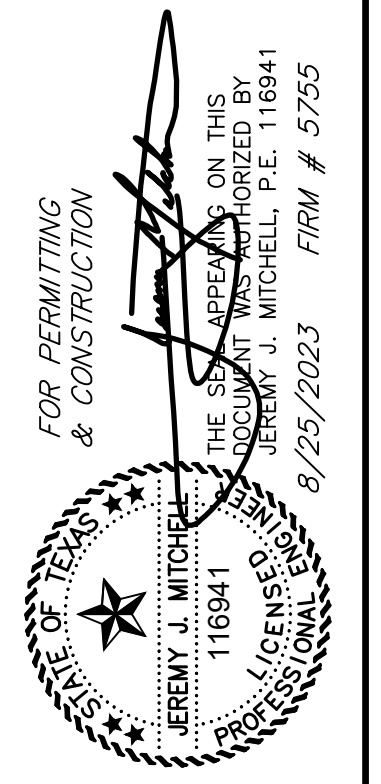


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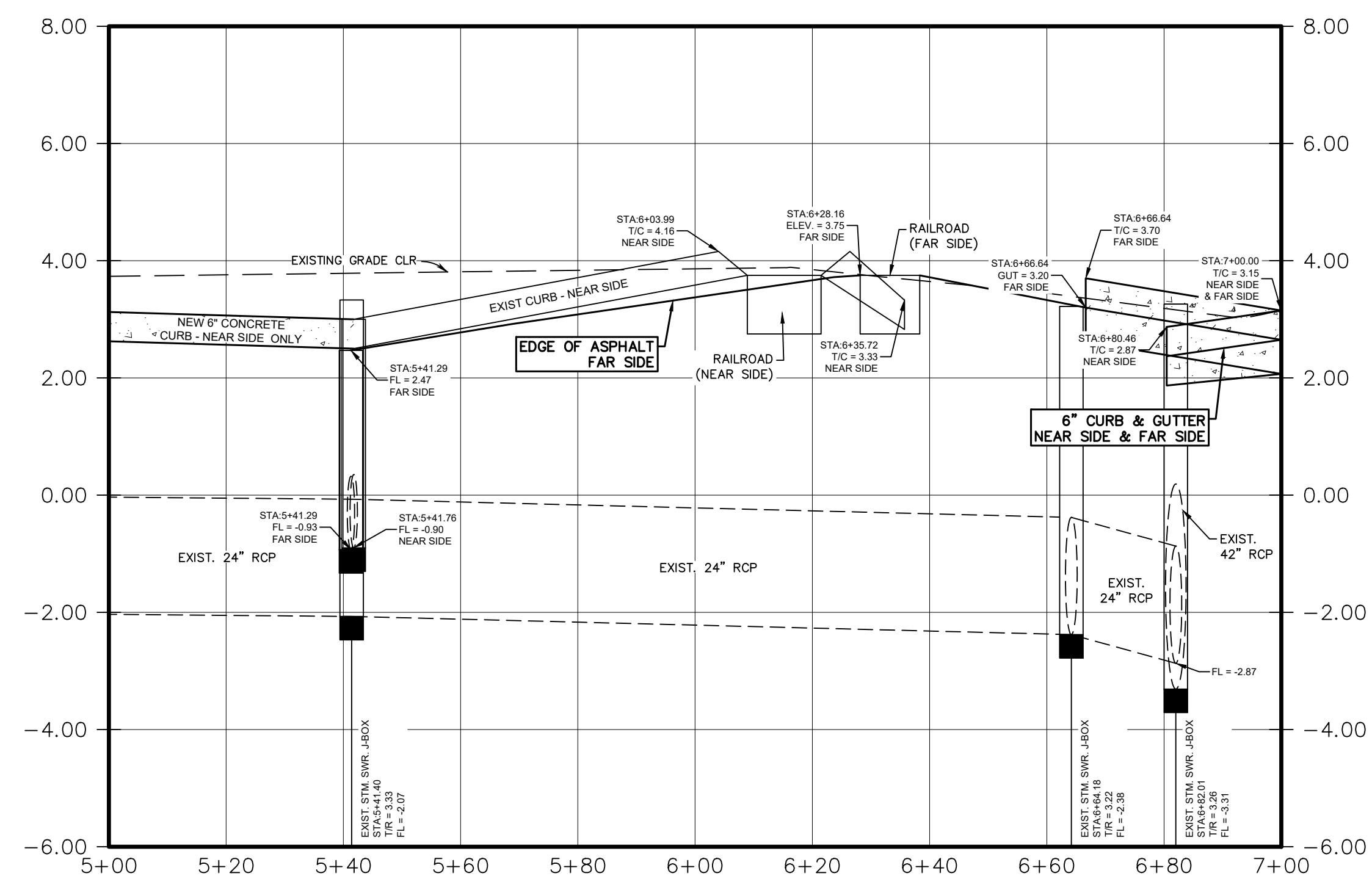


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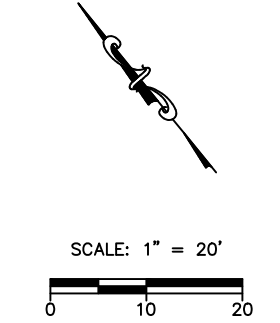
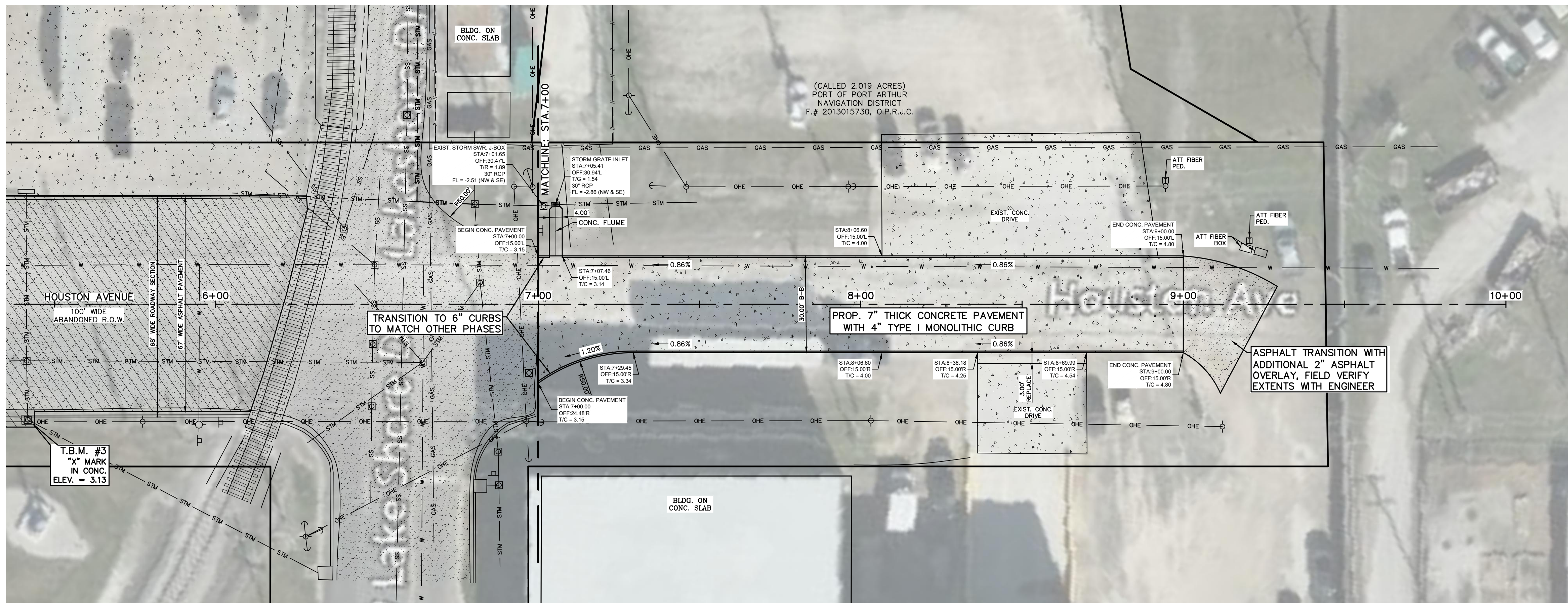
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 STATION: 5+00 — 7+00  
**PROJECT**  
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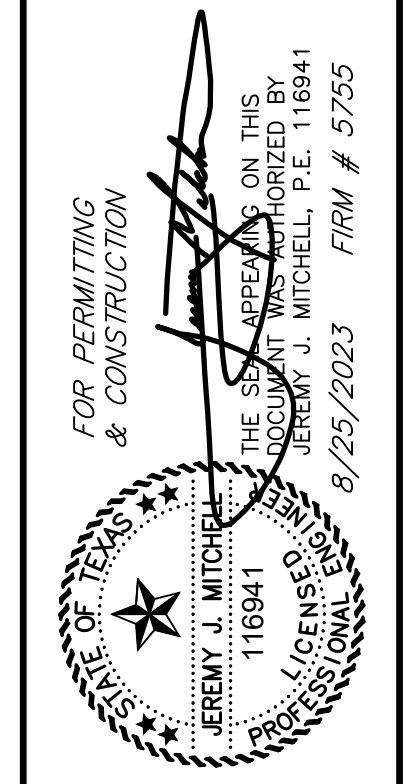


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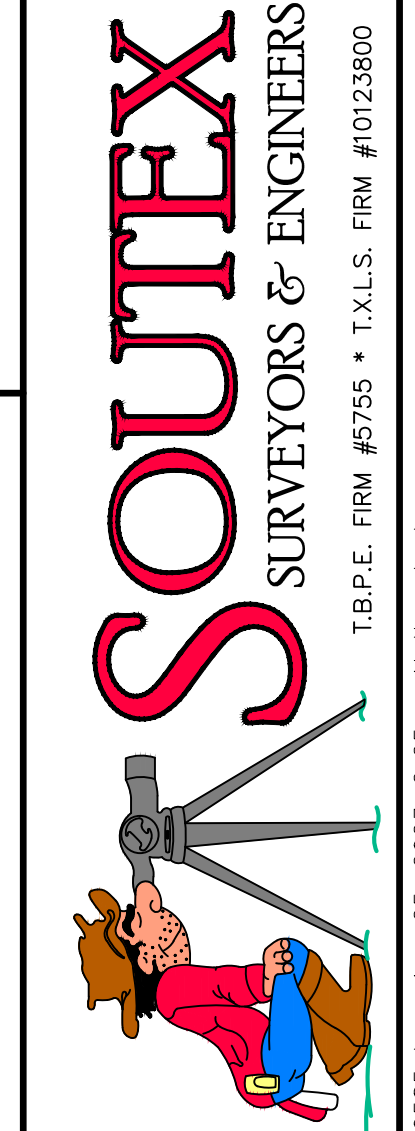




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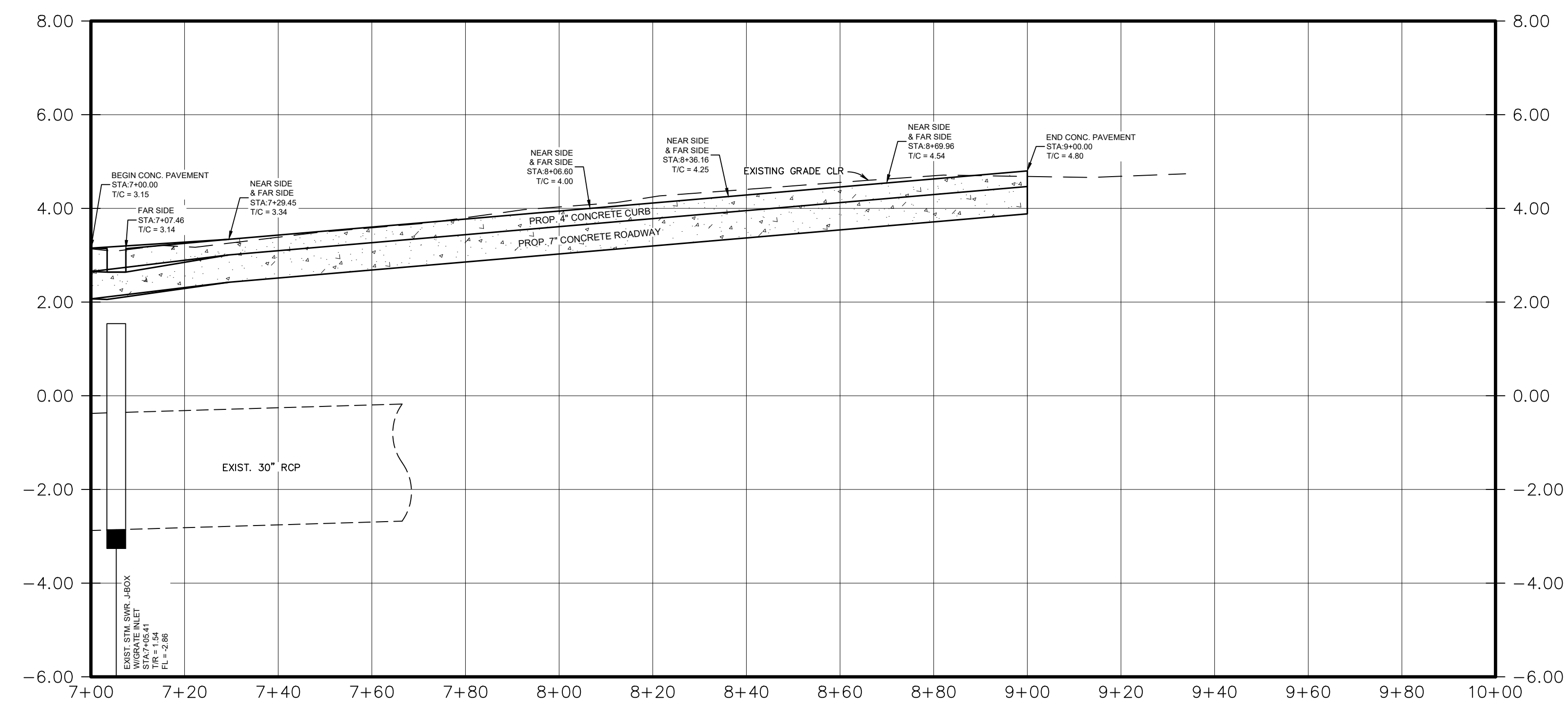


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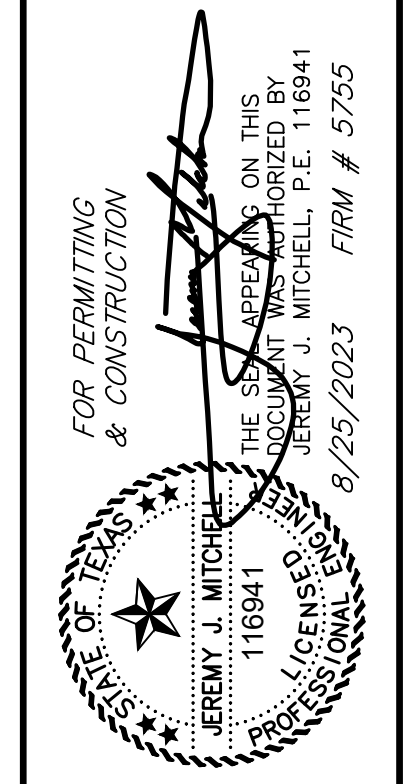
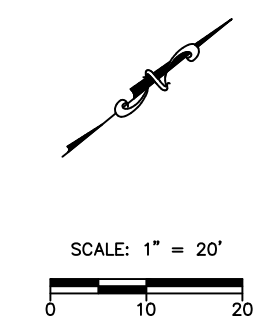


**SHEET TITLE**  
 HOUSTON AVENUE  
 STATION: 5+00 — 7+00  
**PROJECT**  
 RIDER 45 — 4TH STREET, HOUSTON AVENUE, &  
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 PORT OF PORT ARTHUR  
 221 HOUSTON AVENUE  
 PORT ARTHUR, TEXAS 77640

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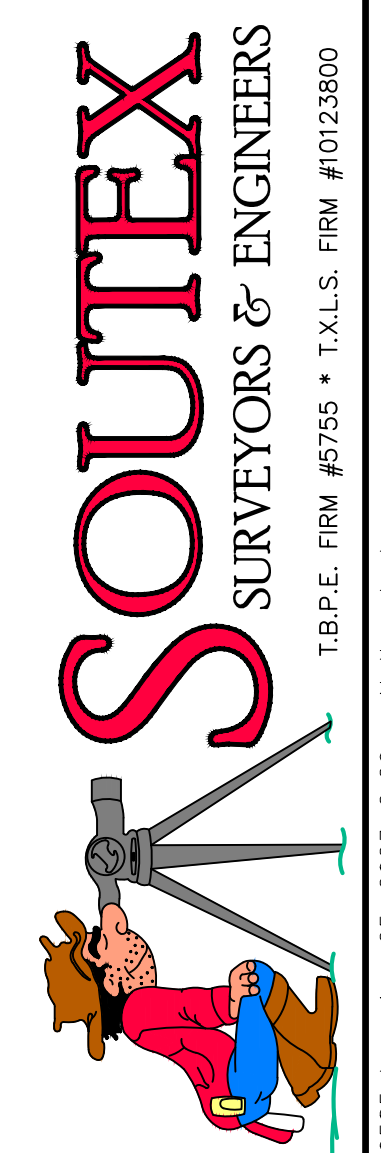






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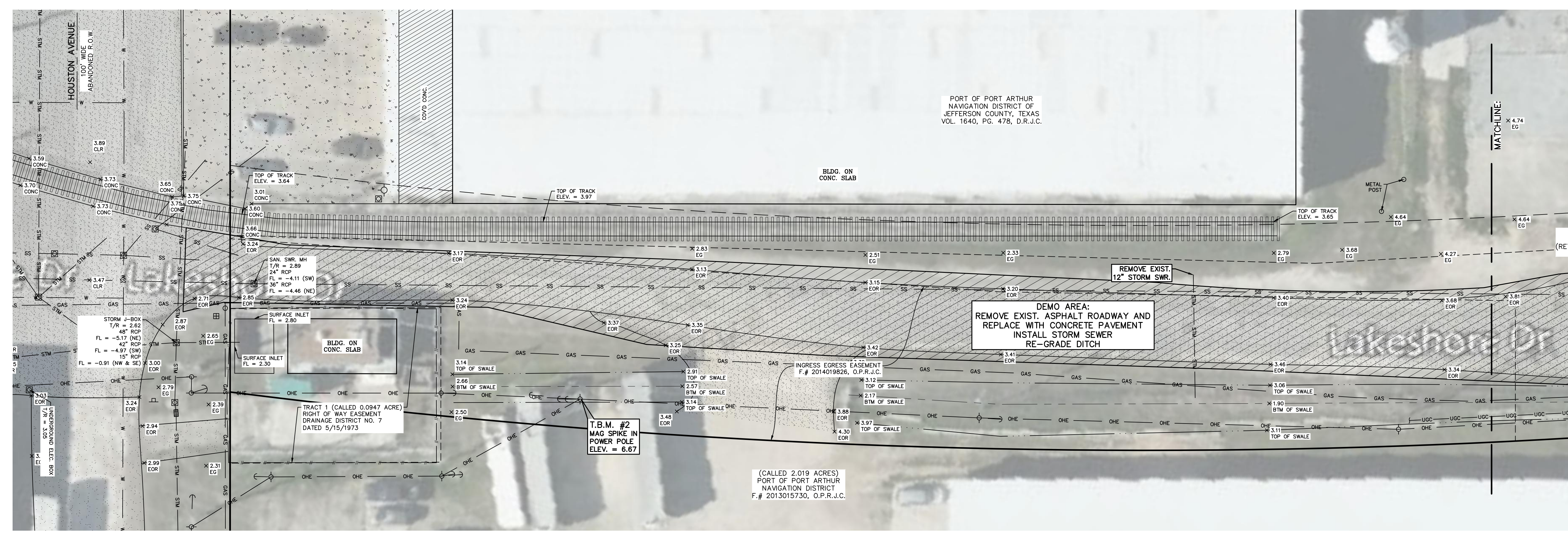
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SHEET TITLE  
LAKESHORE DRIVE  
TOPOGRAPHIC SURVEY/DEMO PLAN

PROJECT  
RIDER 45 - 4TH STREET, HOUSTON AVENUE, &  
LAKESHORE DRIVE  
PORT OF PORT ARTHUR  
221 HOUSTON AVENUE  
PORT ARTHUR, TEXAS 77640

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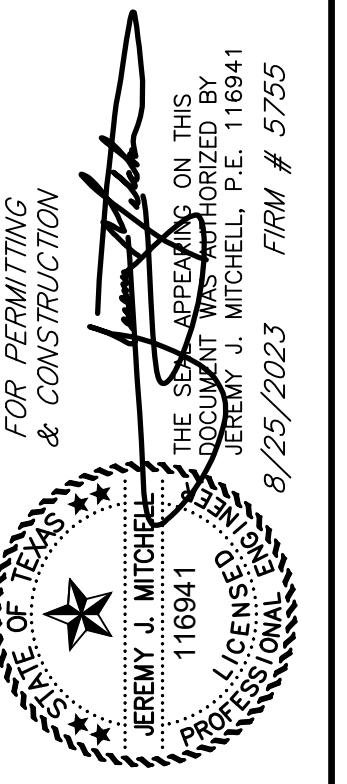
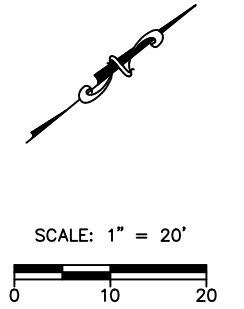


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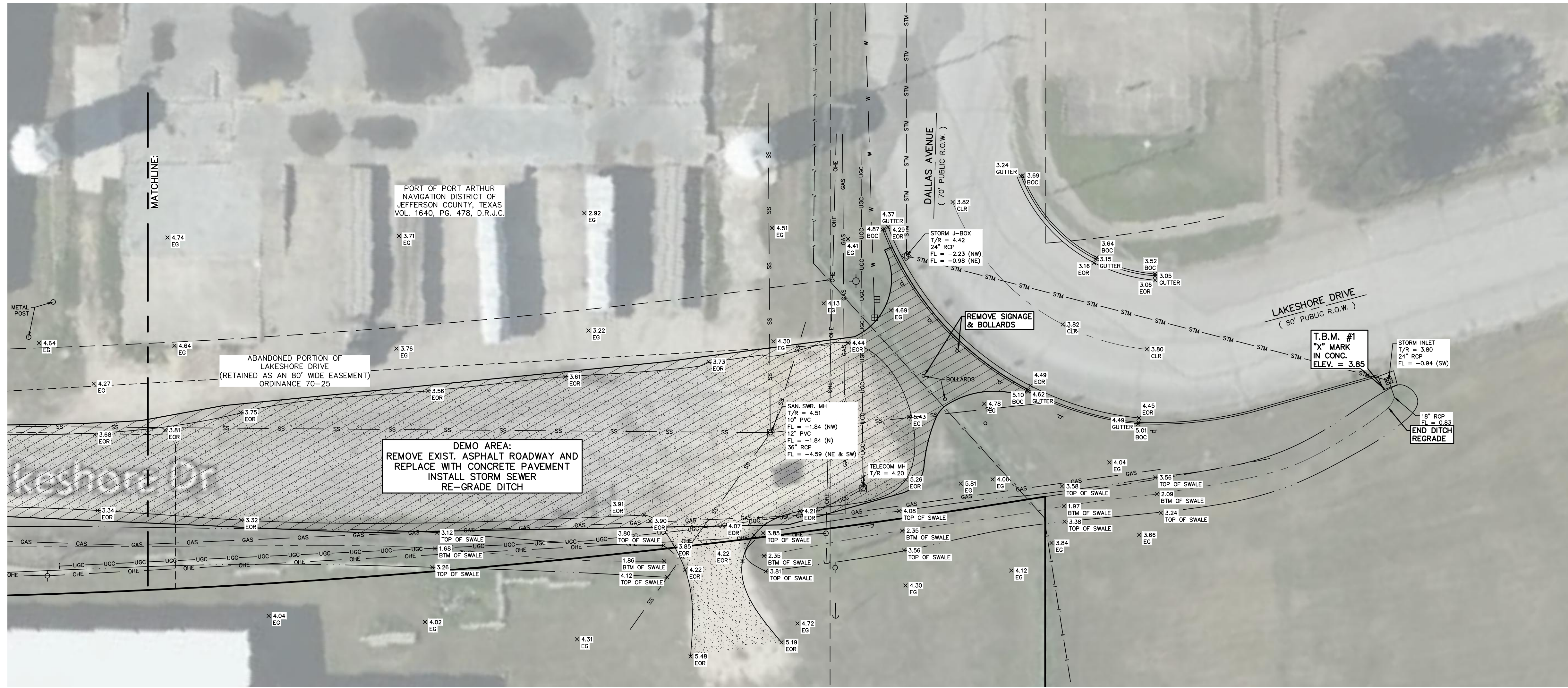
THE SEAL APPEARING ON THIS  
DOCUMENT WAS AUTHORIZED BY  
JEREMY J. MITCHELL, P.E. 116941  
PROFESSIONAL ENGINEER  
LICENSED IN THE STATE OF TEXAS  
8/25/2023 FIRM # 5755



SHEET TITLE:  
LAKESHORE DRIVE  
TOPOGRAPHIC SURVEY/DEMO PLAN

PROJECT:  
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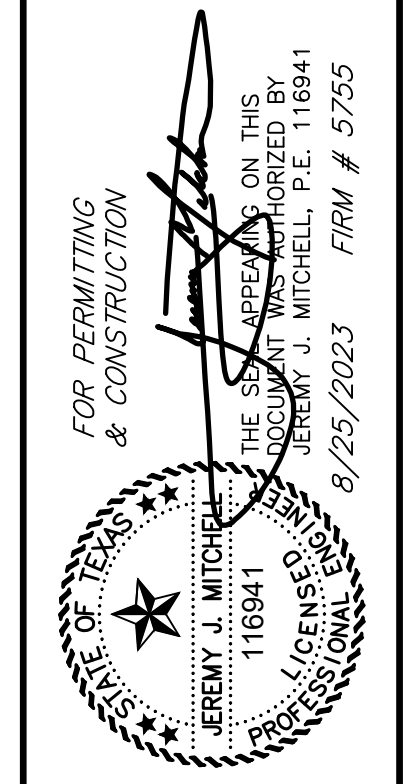
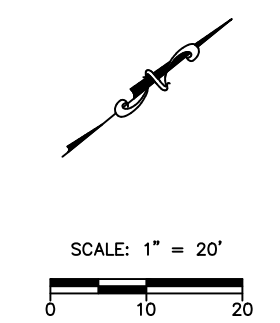
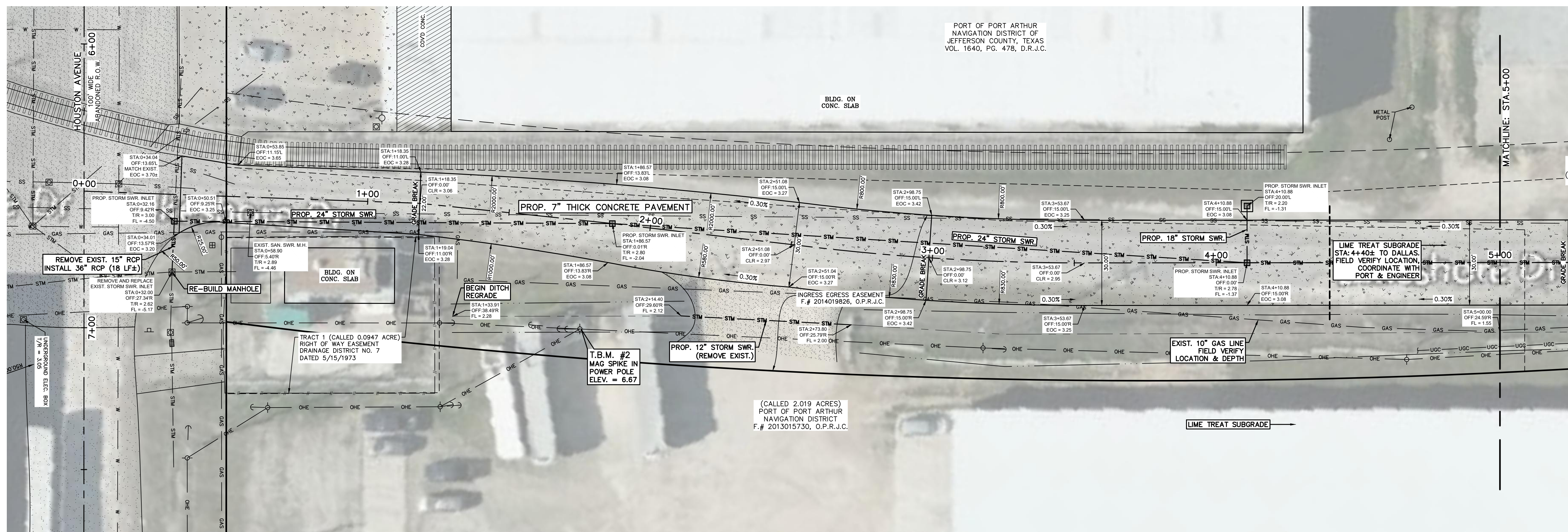


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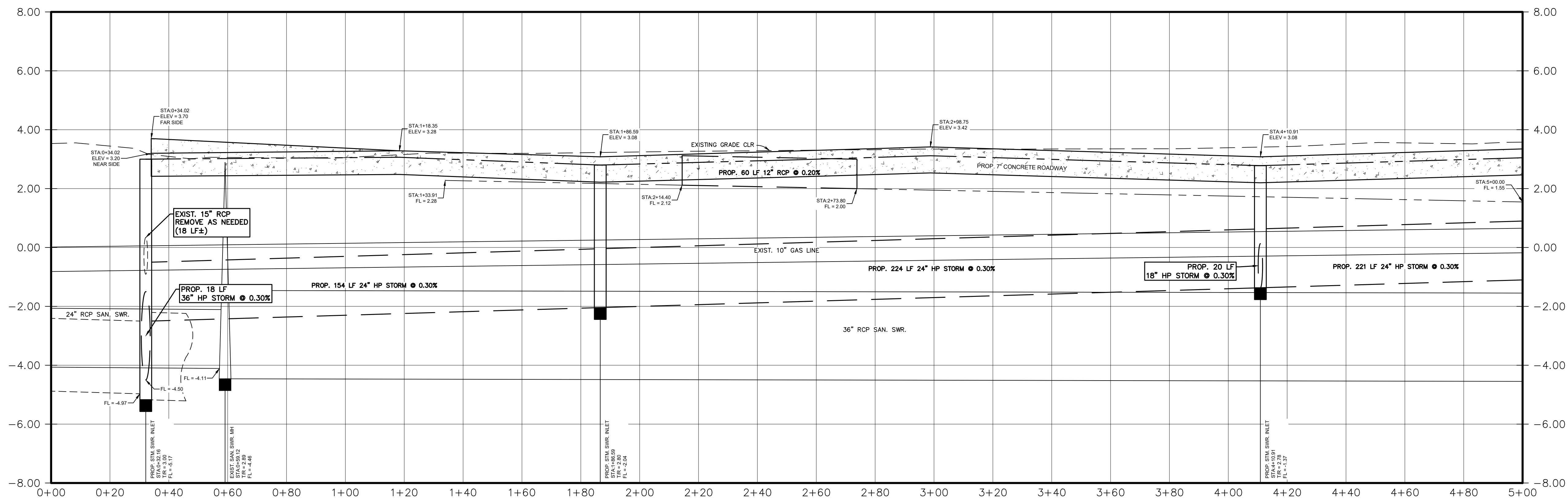
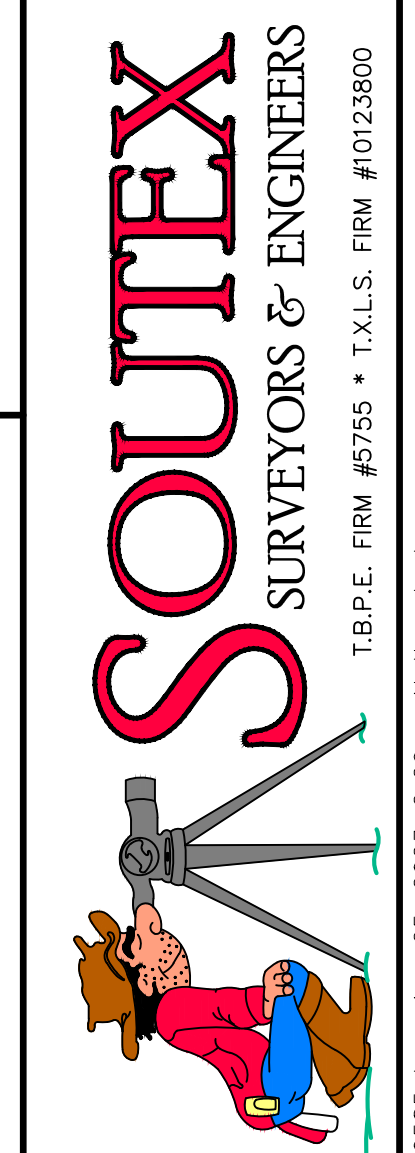


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SHEET TITLE  
LAKESHORE DRIVE  
STATION: 0+00 - 5+00

PROJECT  
RIDER 45 - 4TH STREET, HOUSTON AVENUE, & LAKESHORE DRIVE  
PORT OF PORT ARTHUR  
221 HOUSTON AVENUE  
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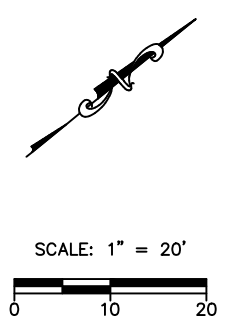
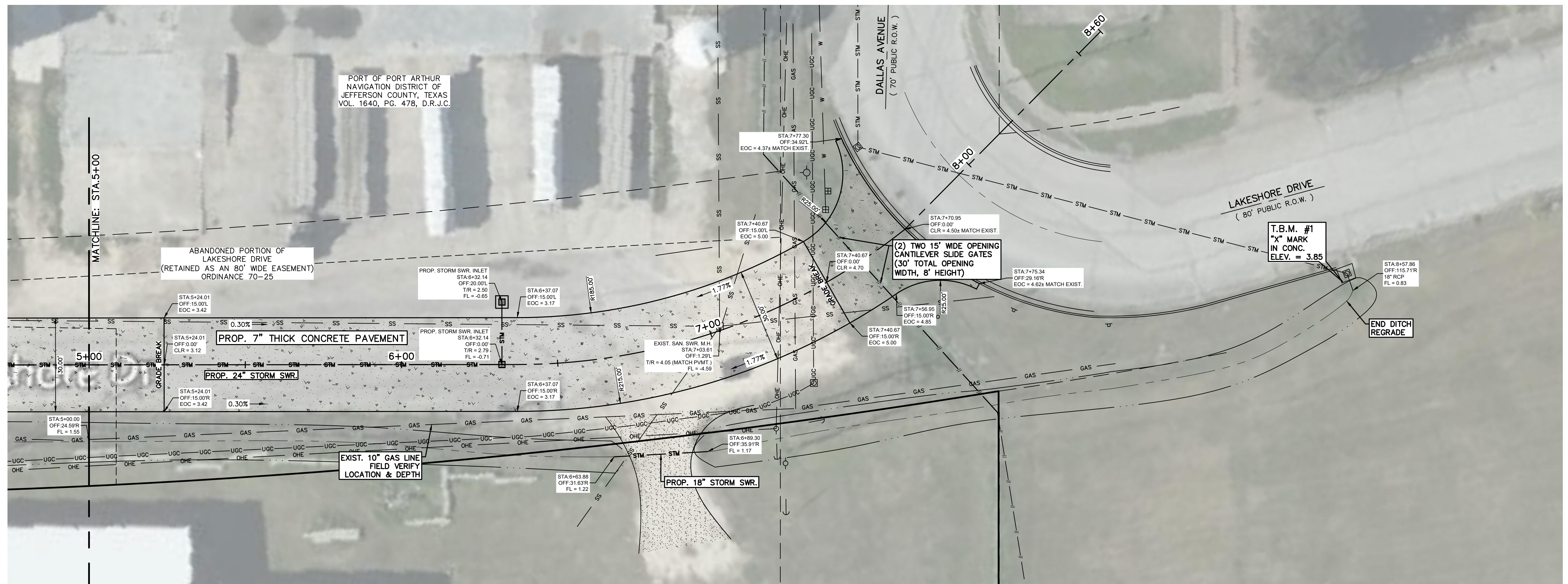
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SHEET 12 OF 19

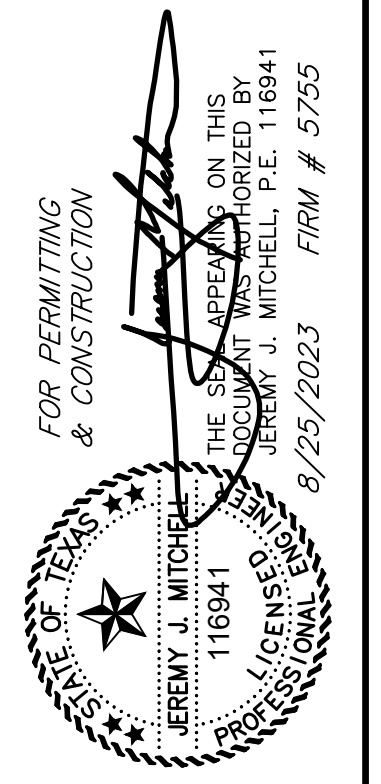


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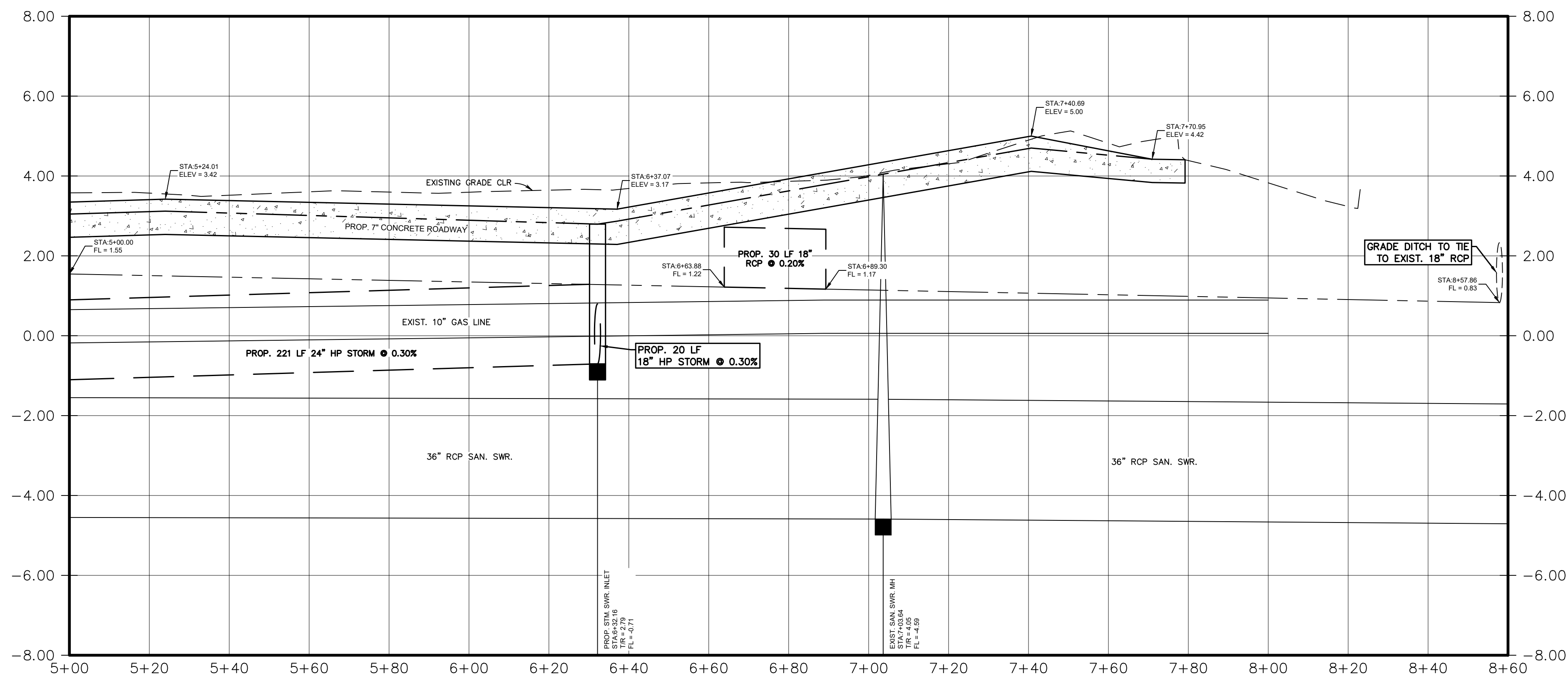
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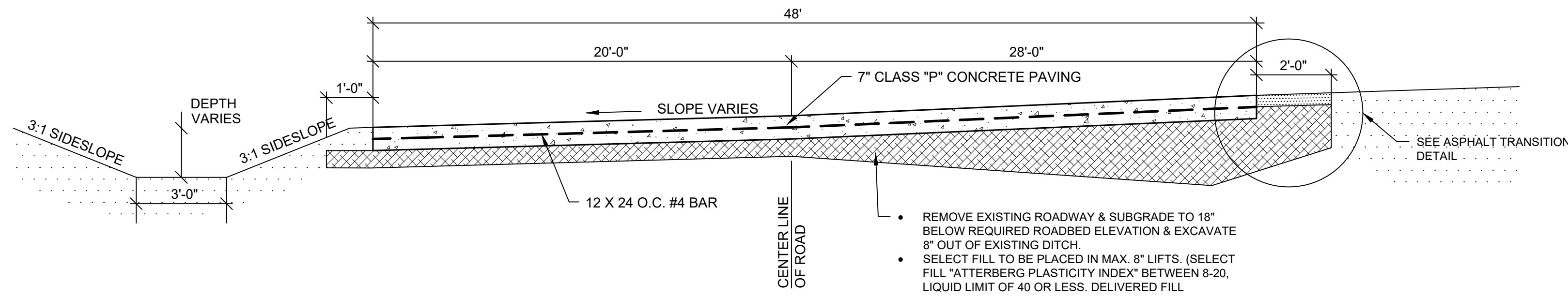
**SHEET TITLE**  
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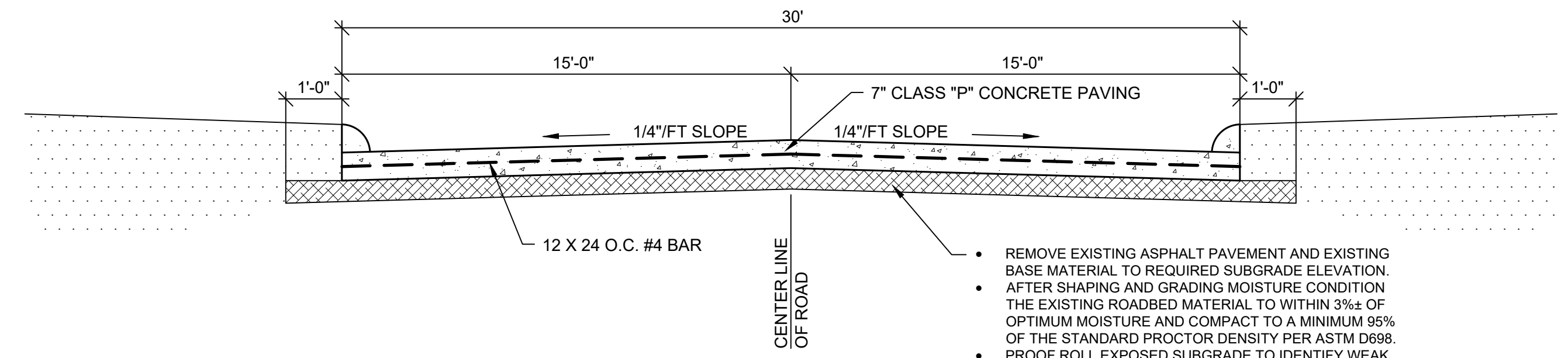






**REINFORCED CONCRETE RIBBON**  
**4TH STREET**  
 (HOUSTON TO RR TRACKS)

- REMOVE EXISTING ROADWAY & SUBGRADE TO 18" BELOW REQUIRED ROADBED ELEVATION & EXCAVATE 8" OUT OF EXISTING DITCH.
- SELECT FILL TO BE PLACED IN MAX. 8" LIFTS. (SELECT FILL "ATTERBERG PLASTICITY INDEX" BETWEEN 8-20, LIQUID LIMIT OF 40 OR LESS. DELIVERED FILL MATERIALS SHALL HAVE MOISTURE CONTENT NO GRATER THAN 6% ABOVE OPTIMUM.

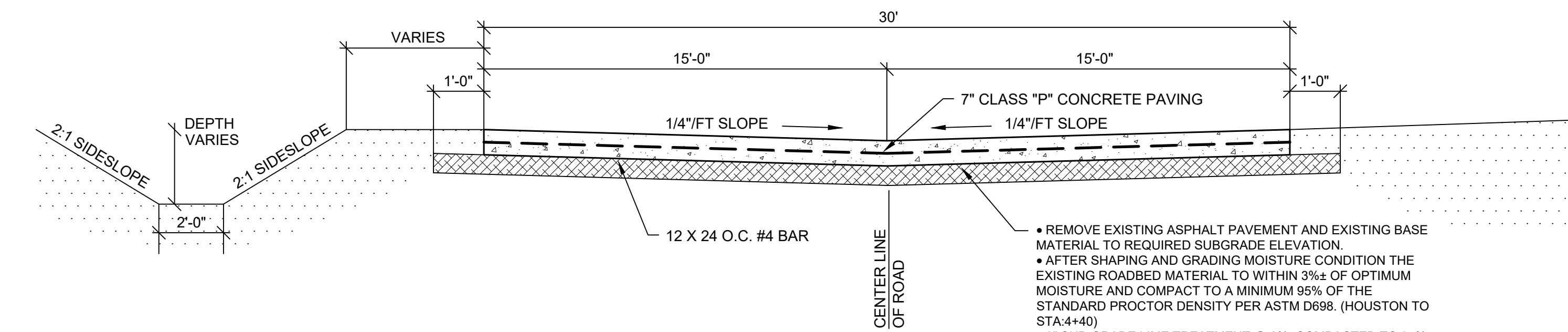


**REINFORCED CONCRETE CURB AND GUTTER**  
**HOUSTON AVENUE**  
 (LAKESHORE TO SEAWALL)

- REMOVE EXISTING ASPHALT PAVEMENT AND EXISTING BASE MATERIAL TO REQUIRED SUBGRADE ELEVATION.
- AFTER SHAPING AND GRADING MOISTURE CONDITION THE EXISTING ROADBED MATERIAL TO WITHIN 3%± OF OPTIMUM MOISTURE AND COMPACT TO A MINIMUM 95% OF THE STANDARD PROCTOR DENSITY PER ASTM D698.
- PROOF ROLL EXPOSED SUBGRADE TO IDENTIFY WEAK AREAS. REMOVE AND REPLACE WEAK SUBGRADE WITH CRUSHED AGGREGATE FILL (LIMESTONE BASE).

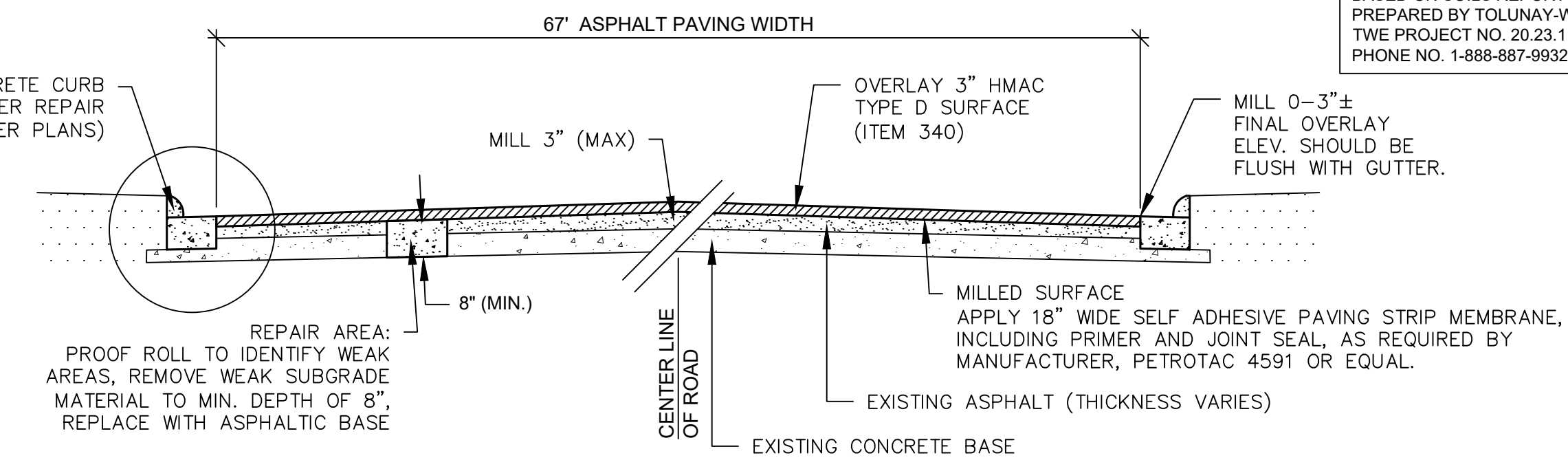
- CONCRETE PAVING GENERAL NOTES:**
1. ALL CONCRETE TO BE 4000 PSI @ 28 DAY STRENGTH.
  2. MAKE 3 TEST CYLINDERS EVERY 50 CY. BREAK AT 7 DAY, 14 DAY, AND 28 DAY PLUS SPARE. CONTRACTOR SHALL COORDINATE SCHEDULING WITH PORT'S TESTING LABORATORY.
  3. CURING COMPOUND TO BE USED AND FOLLOW MANUFACTURES DIRECTIONS.
  4. BROOM FINISH FOR NON SLIP SURFACE.
  5. REINFORCING BAR TO BE 60,000 PSI OR APPROVED EQUAL.
  6. USED TREATED WOOD FOR EXPANSION JOINTS OR REDWOOD
  7. SEAL JOINTS WITH BASF CONCRETE JOINT SEALER

BASED ON SOILS REPORT DATED JANUARY 28, 2021  
 PREPARED BY TOLLUNAYWONG ENGINEERS, INC.  
 TWE PROJECT NO. 20.23.110/REPORT NO. 118119  
 PHONE NO. 1-888-887-9932



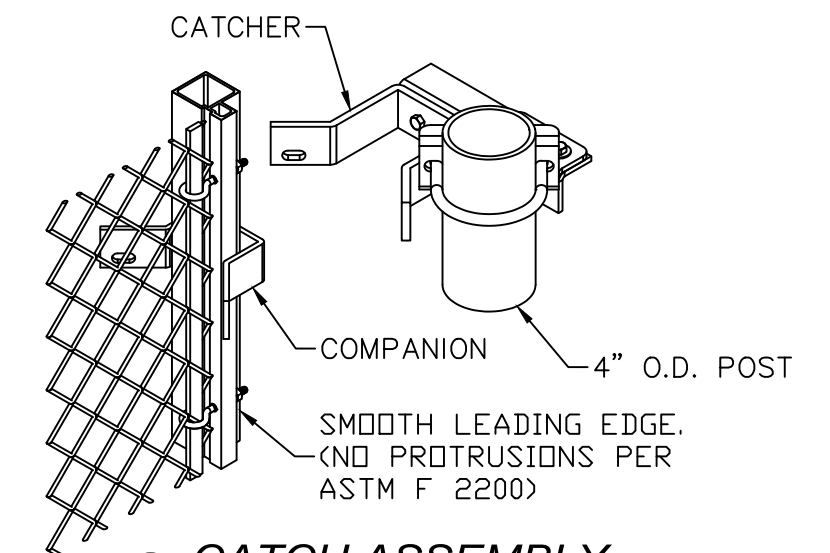
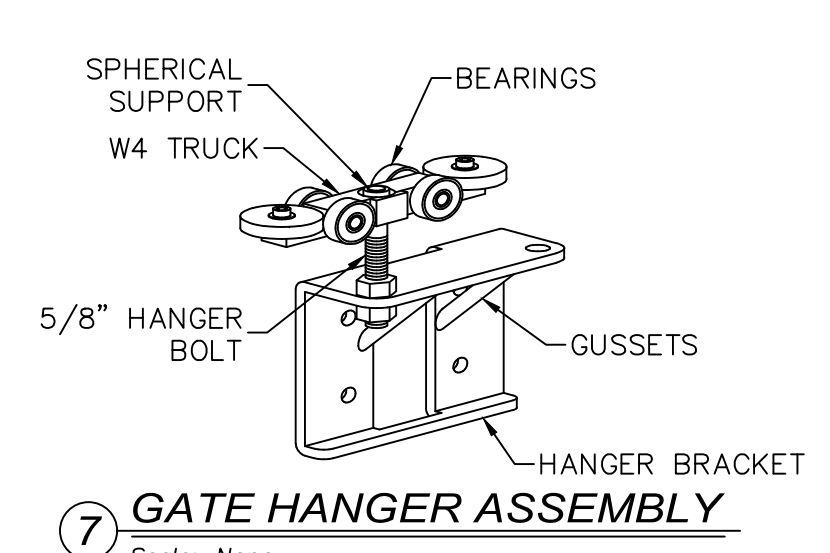
**REINFORCED CONCRETE INVERTED CROWN**  
**LAKESHORE DRIVE**  
 (HOUSTON TO DALLAS)

- REMOVE EXISTING ASPHALT PAVEMENT AND EXISTING BASE MATERIAL TO REQUIRED SUBGRADE ELEVATION.
- AFTER SHAPING AND GRADING MOISTURE CONDITION THE EXISTING ROADBED MATERIAL TO WITHIN 3%± OF OPTIMUM MOISTURE AND COMPACT TO A MINIMUM 95% OF THE STANDARD PROCTOR DENSITY PER ASTM D698. (HOUSTON TO STA.4+40)
- 8" SUB-GRADE LIME TREATMENT @ 8%, COMPACTED TO 95% STD PROCTOR (ASTM D698), (STA.4+40 TO DALLAS)
- PROOF ROLL EXPOSED SUBGRADE TO IDENTIFY WEAK AREAS. REMOVE AND REPLACE WEAK SUBGRADE WITH CRUSHED AGGREGATE FILL (LIMESTONE BASE).



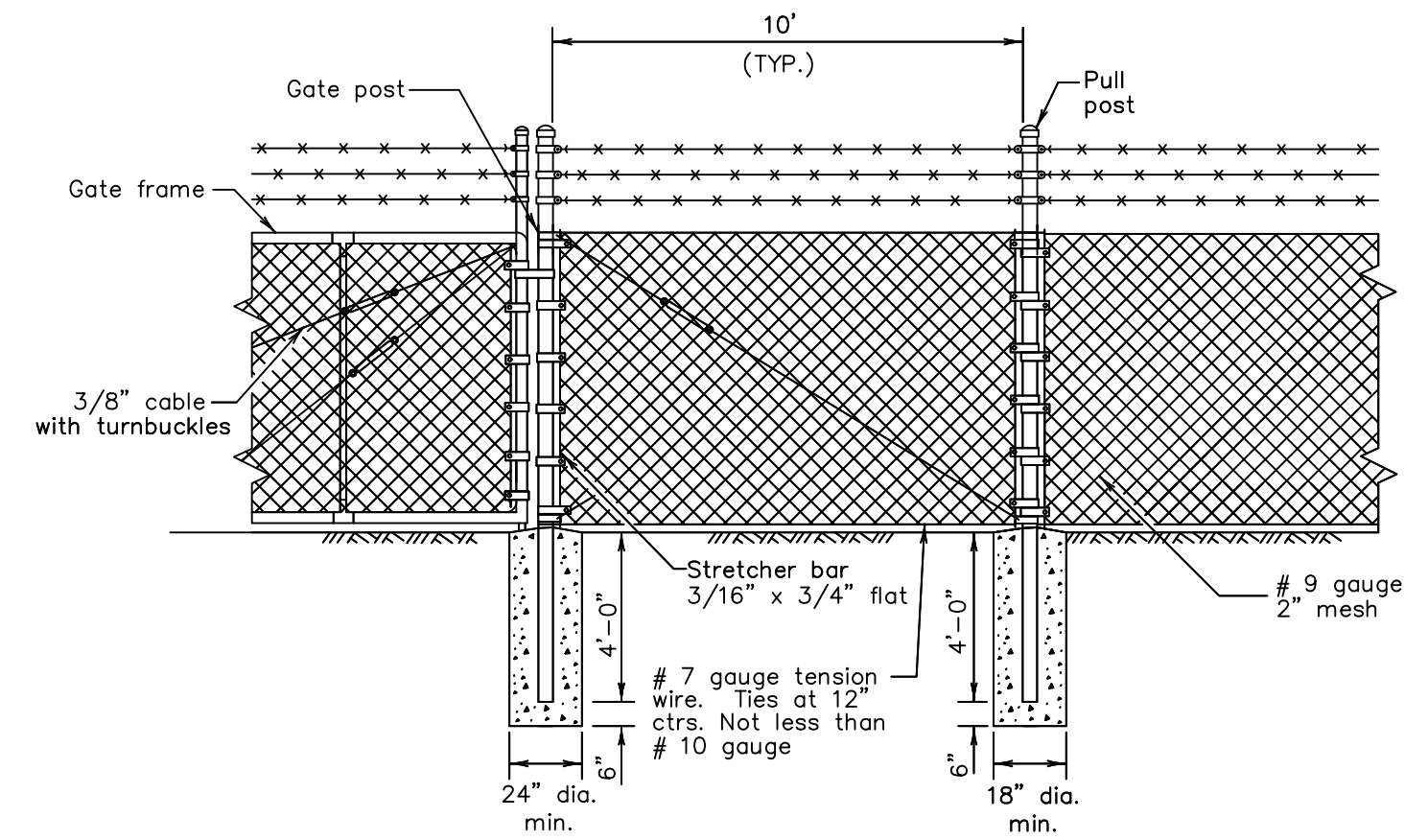
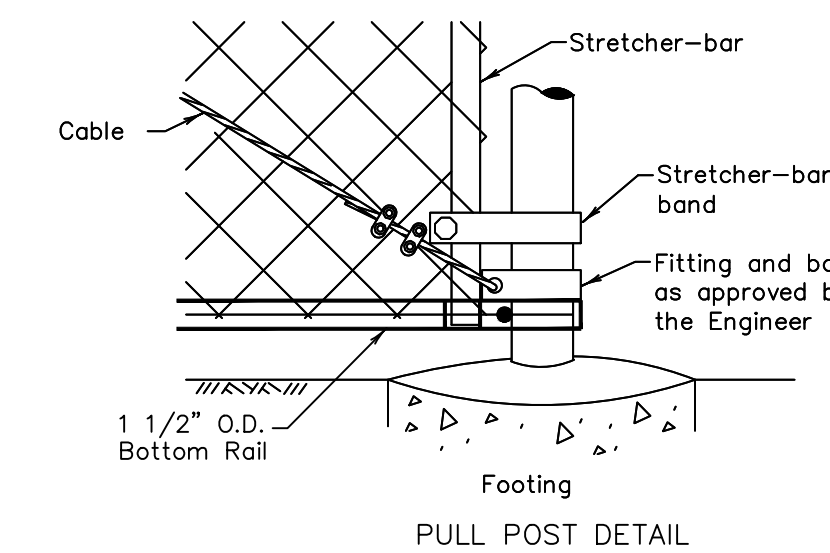
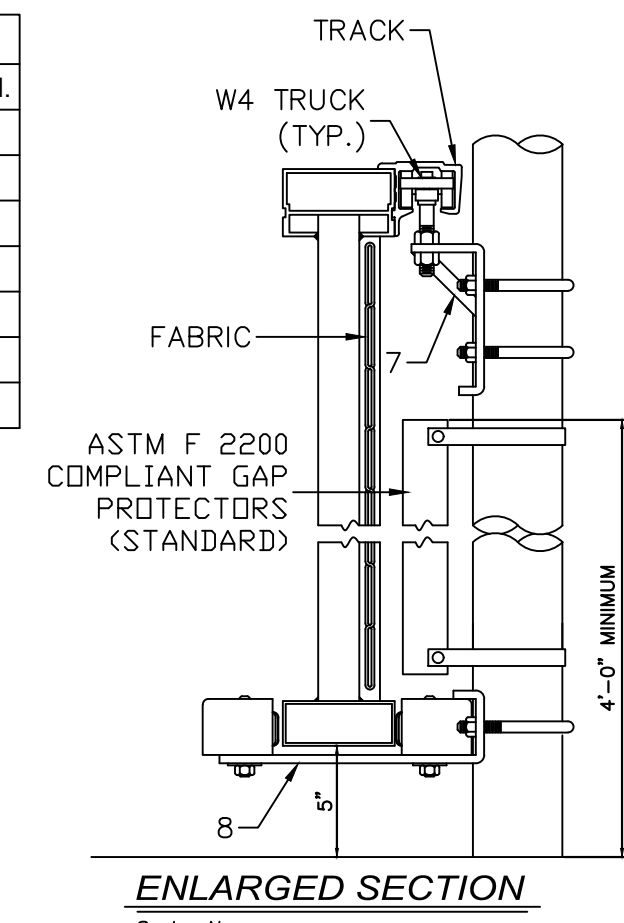
**ASPHALT PAVEMENT MILL AND OVERLAY**  
**HOUSTON AVENUE**  
 (4TH TO LAKESHORE)

- CONCRETE CURB AND GUTTER REPAIR (LOCATIONS PER PLANS)
- MILL 3" (MAX)
- OVERLAY 3" HMAc TYPE D SURFACE (ITEM 340)
- MILL 0-3"± FINAL OVERLAY ELEV. SHOULD BE FLUSH WITH GUTTER.
- REPAIR AREA: PROOF ROLL TO IDENTIFY WEAK AREAS. REMOVE WEAK SUBGRADE MATERIAL TO MIN. DEPTH OF 8", REPLACE WITH ASPHALTIC BASE
- MILLED SURFACE APPLY 18" WIDE SELF ADHESIVE PAVING STRIP MEMBRANE, INCLUDING PRIMER AND JOINT SEAL, AS REQUIRED BY MANUFACTURER, PETROTAC 4591 OR EQUAL.
- EXISTING ASPHALT (THICKNESS VARIES)
- EXISTING CONCRETE BASE



MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	-
B	COUNTERBALANCE POST SPACING C/C	(A/2)-11"	-
C	OVERALL GATE LENGTH	A x 1.5	-
D	COUNTERBALANCE LENGTH	A x 0.5	-
E	NOMINAL GATE HEIGHT	E	-
F	POST HEIGHT (W BARB ARMS)	E + 1'-6"	-
G	FABRIC HEIGHT	E - 1'-0"	-

- NOTES:
1. ALL FITTINGS STANDARD PROVIDED FOR 4" O.D. POSTS. OTHER SIZES AVAILABLE UPON REQUEST.
  2. BARB ARMS (FOR BARBED WIRE) OPTIONAL.

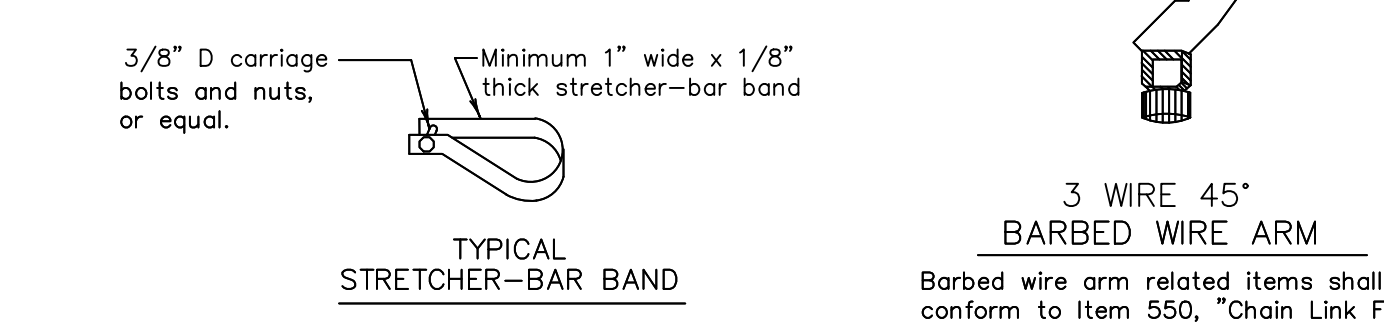
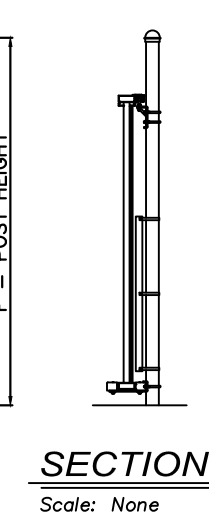
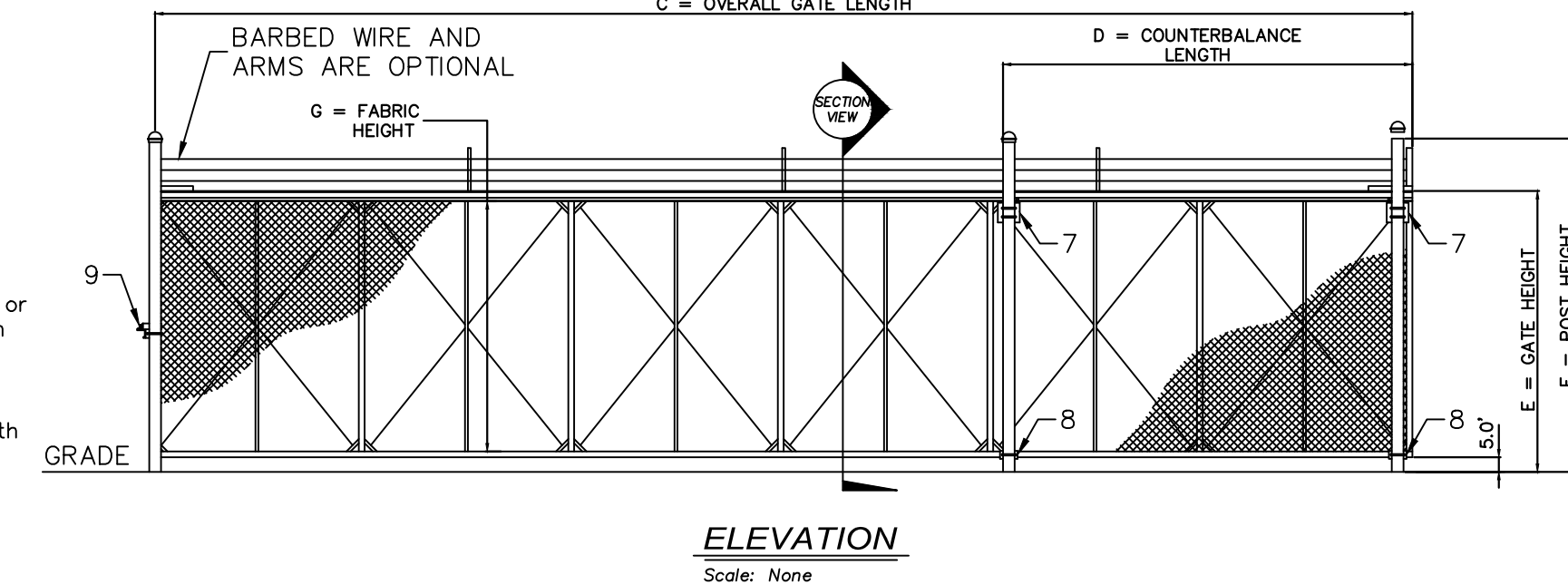


Note: All concrete footings shall be crowned a minimum 1" above the existing ground.

**CHAIN LINK FENCE DETAILS**  
 TxDOT CLF-10 (MODIFIED)

- GENERAL FENCING NOTES**
1. Items hereon shall conform to Item 550, "Chain Link Fence."
  2. Typical installation plan may vary as shown elsewhere on the plans or as directed by the Engineer. Location of gates shown elsewhere on plans.
  3. Gate-frame members shall be welded at frame corners.
  4. All cable connections are to be made with two 3/8" cable clamps.
  5. One end of each turnbuckle may be attached directly to fittings with a clevis.
  6. Concrete footings are to be crowned at the top to shed water.
  7. Steel chain link fabric: 1 in. mesh, 9 gauge, top selvage twist, bottom selvage knuckle, class 1 zinc coating (1.2 oz/sf) per ASTM A392.
  8. Round steel pipe and rail-hot dipped galvanized per ASTM F1083
    - A. End, Corner, Pull Post: 2.875" min. O.D., Sch 40
    - B. Line Post: 2.375" min. O.D., Sch 40
    - C. Gate Post: 8" Sch 40
    - D. Top, Brace, Bottom and Intermediate Rail: 1.660" min O.D., Sch 40
  9. Metallic Coated Steel Tension Wire: 7 gauge, type II zinc-coated, class 4 - 1.2 oz/sf
  10. Metallic Coated Steel Barbed Wire: double 12.5 gauge twisted strand wire, 4 point 12.5 gauge round barbs spaced 5 inches on center, class III zinc coated (domestic)
  11. Tension and brace bands, terminal post caps, truss rods, tension bars, barbed wire arms, tie wire and hog rings shall have a minimum zinc coating of 1.2 oz/sf.
  12. Concrete for footing shall have a 28 day compressive strength of 3,000 PSI.
  13. For cantilever gates see Heavy Duty Cantilever Slide Gate detail.

**HEAVY DUTY CANTILEVER SLIDE GATE**



3 WIRE 45" BARBED WIRE ARM  
 Barbed wire arm related items shall conform to Item 550, "Chain Link Fence."

NO.	REVISION NOTES	DATE

T.B.P.E. FIRM #5755 • T.X.L.S. FIRM #10123800

3737 Doctors Drive  
 Port Arthur, Texas 77642  
 Tel. 409.985.2004  
 Fax. 409.985.2005  
 soutexsurveyors.com

SHEET TITLE	PROJECT
DETAILS	RIDER 45 - 4TH STREET, HOUSTON AVENUE, & LAKESHORE DRIVE PORT OF PORT ARTHUR
	221 HOUSTON AVENUE PORT ARTHUR, TEXAS 77641

PROJ. NO: 21-0585
SCALE:
PRINT DATE: 8/25/2023
DRAWN BY: NJ
CHECKED BY: JM
APPROVED BY: JM
SHEET 14 of 19

FOR PERMITTING & CONSTRUCTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEREMY J. MITCHELL, P.E. 116941 8/25/2023 FIRM # 5755

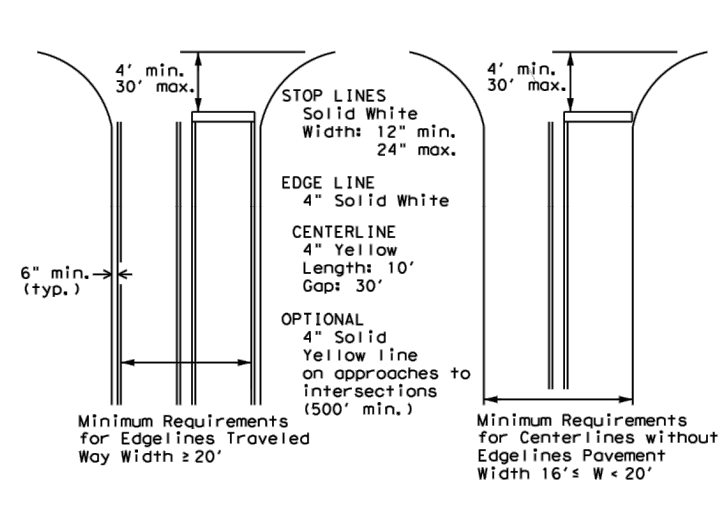
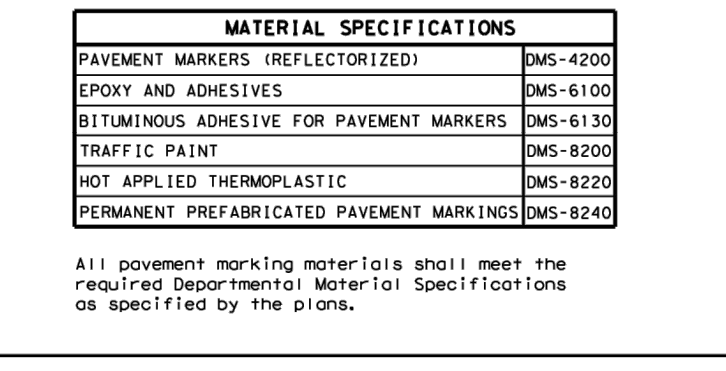
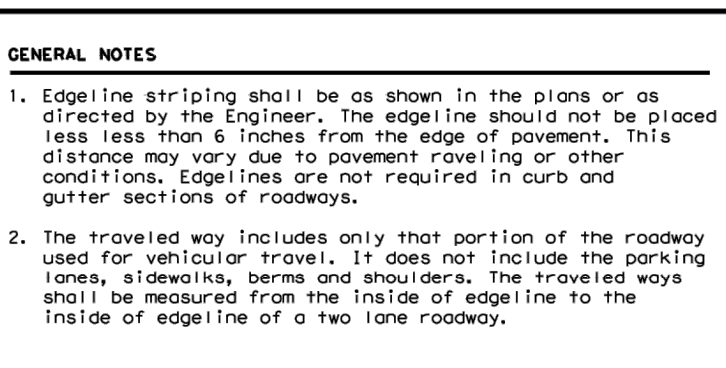
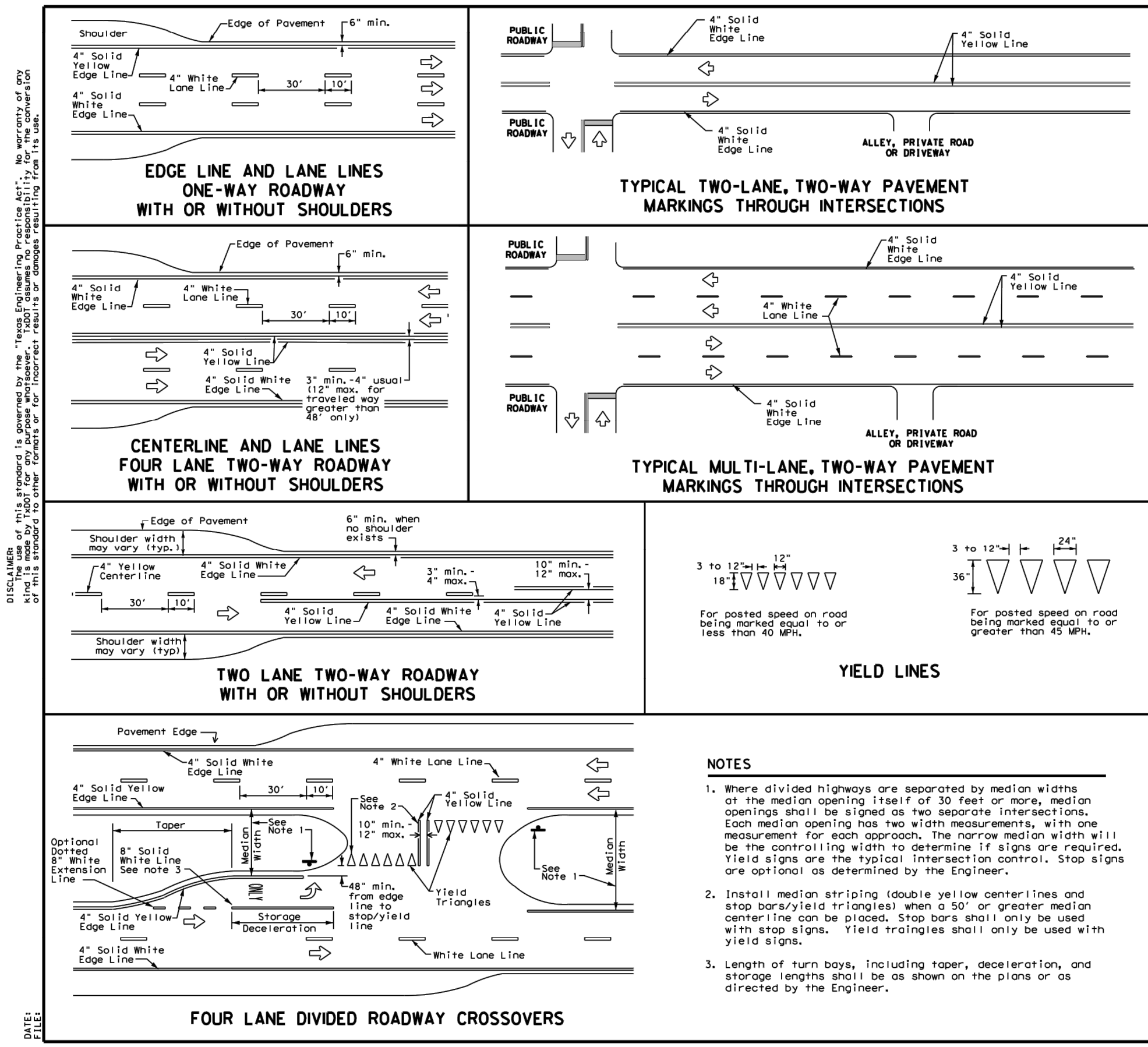












**GENERAL NOTES**

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less than 6 inches from the edge of pavement. This distance may vary due to pavement leveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the parking lanes, sidewalks, berms and shoulders. The traveled way shall be measured from the inside of edgeline to the inside of edgeline of a two lane roadway.

**MATERIAL SPECIFICATIONS**

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

**TYPICAL STANDARD PAVEMENT MARKINGS**

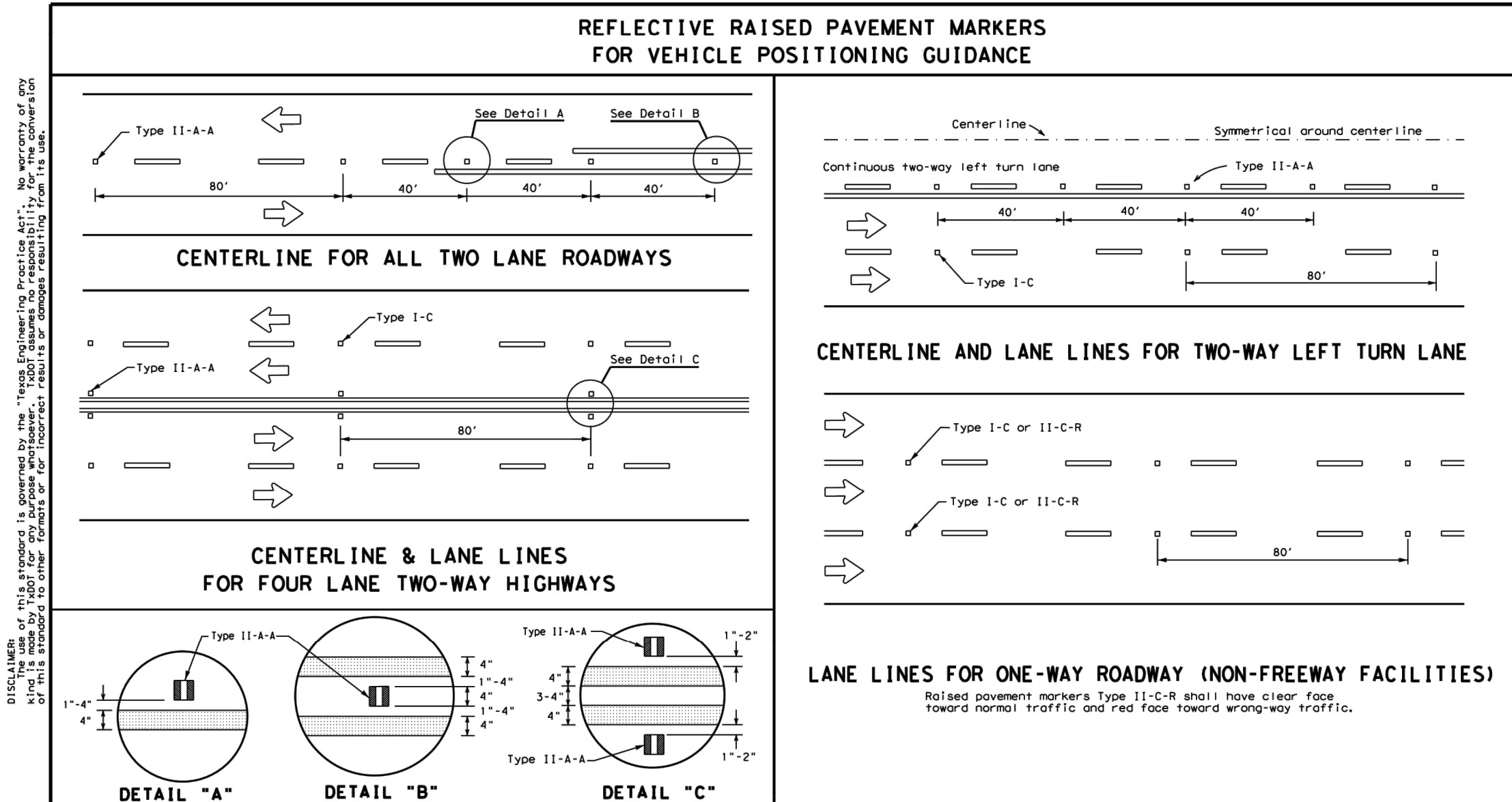
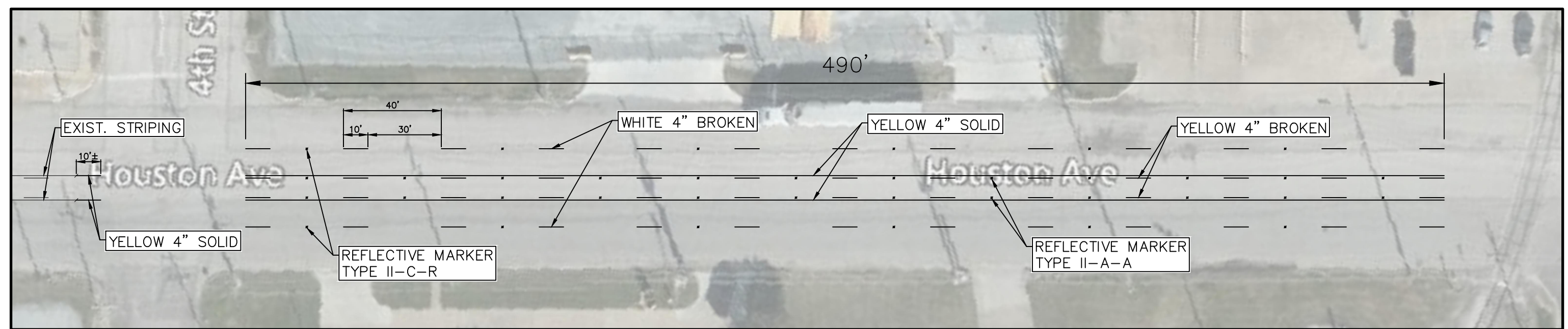
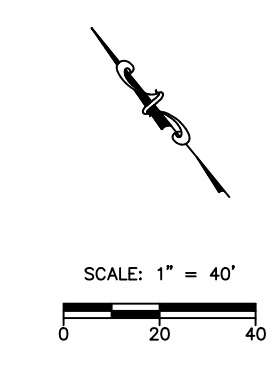
PM(1)-20

DATE	DATE	DATE	DATE	DATE	DATE
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
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11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018

**STRIPING PLAN**

ITEM	DESCRIPTION	UNIT	QUANTITY
1	WHITE 4" BROKEN	LF	260
2	YELLOW 4" BROKEN	LF	260
3	YELLOW 4" SOLID	LF	1000
4	MARKER TY II-A-A	EA	24
5	MARKER TY II-C-R	EA	12

\*ALL STRIPING TO BE TYPE I PAVEMENT MARKINGS (HOT APPLIED THERMOPLASTIC)



**MATERIAL SPECIFICATIONS**

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

**RAISED PAVEMENT MARKERS**

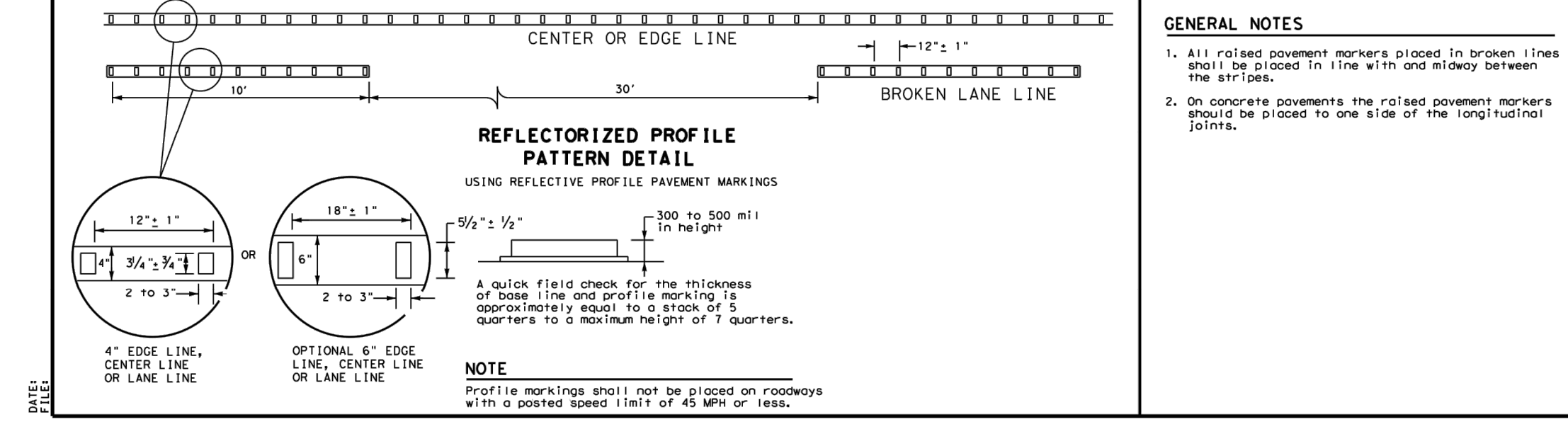
TYPE I (Top View)

TYPE II (Top View)

**SECTION A**

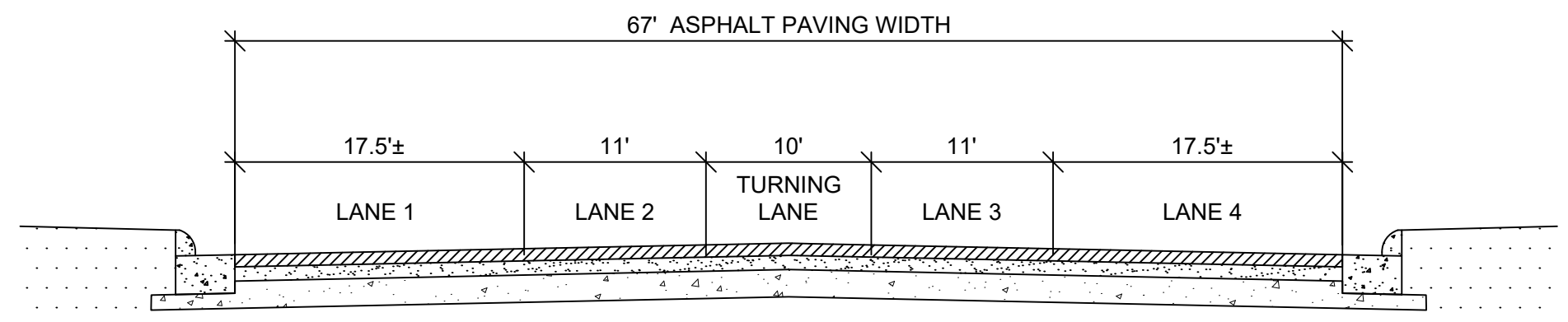
350 max. 250 min. Adhesive

Roadway Surface



**POSITION GUIDANCE USING RAISED MARKERS RELECTORIZED PROFILE MARKINGS PM(2)-20**

DATE	DATE	DATE	DATE	DATE	DATE
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
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11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018
11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018	11/01/2018



**HOUSTON AVENUE**  
ASPHALT SURFACE LANE STRIPING PLAN  
(MATCH EXISTING)

FOR PERMITTING & CONSTRUCTION

JEREMY J. MITCHELL  
116941  
LICENSED PROFESSIONAL ENGINEER  
8/25/2023 FIRM # 5755

NO.	REVISION NOTES	DATE



3737 Doctors Drive  
Port Arthur, Texas 77642  
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soutexsurveyors.com

**SHEET TITLE**

DETAILS  
PROJECT

RIDER 45 - 4TH STREET, HOUSTON AVENUE, & LAKESHORE DRIVE  
PORT OF PORT ARTHUR  
221 HOUSTON AVENUE  
PORT ARTHUR, TEXAS 77641

PROJ. NO: 21-0585  
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CHECKED BY: JM  
APPROVED BY: JM

**SHEET 17 OF 19**





**EPIC: Environmental Permits Issues and Commitments**

**Executive Order 13112 for Invasive Species:**

- The project will conform with Executive Order 13112 on Invasive Species. Seed with TxDOT approved seeding specifications that, to the extent practicable, is in compliance with EO 13112 and would be done where possible. Abutting grasses within the right-of-way are expected to re-establish throughout the project length. Soil disturbance would be minimized to ensure that invasive species would not establish within the right-of-way.

**Executive Order 13186 for Protection of Migratory Birds:**

- The project will conform with Executive Order 13186 for Protection of Migratory Birds. The intent of EO 13186 is to support the conservation of habitats, restore and enhance habitats, prevent /abate the pollution or detrimental alteration of migratory bird habitats as practical, and other associated items as published in associated Memorandums of Understanding (by applicable federal agencies).

**Executive Memorandum on Beneficial Landscaping:**

- The project will conform to the Executive Memorandum on Beneficial Landscaping. Seeding and re-vegetation of disturbed areas will be accomplished according to TxDOT Standards and Specifications. Regionally native, habitat appropriate species should be utilized and water efficient practices such as mulching and erosion control should be implemented.

**Bald and Golden Eagle Protection Act**

- Bald eagles are known to occur in Jefferson County. If eagle nests are observed near the project area, contact the Project inspector immediately.
- The bald eagle (*Haliaeetus leucocephalus*) is protected by the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). The MBTA and the Eagle Act protect bald eagles from a variety of harmful actions and impacts. The U.S. Fish and Wildlife Service (Service) developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provision of the Eagle Act may apply to their activities. A variety of human activities can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed, or raise young. The Guidelines are intended to help people minimize such impacts to bald eagles, particularly where they may constitute "disturbance," which is prohibited by the Eagle Act.
- The National Bald Eagle Management Guidelines can be found in their entirety at <http://www.fws.gov/midwest/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf>

The following Best Management Practice (BMPs) must be implemented:

**Water Quality BMPs**

- Once construction is complete in an area, the disturbed areas shall immediately be permanently seeded. Once disturbed areas have been revegetated, remove silt fence and accumulated sediment to reduce wildlife barriers and hazards.

- Rubbish found near waterways and ponds should be removed and disposed of properly to minimize the risk of pollution. Rubbish does not include brush piles or snags.

**Bird BMPs**

- Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season;
- Avoiding the removal of unoccupied, inactive nests, as practicable;
- Preventing the establishment of active nests during the nesting season of Port facilities and structures proposed for replacement or repair;
- Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.

**Species of Concern:**

- Bald Eagle
- Golden Eagle
- West Indian Manatee
- Eastern Black Rail
- Piping Plover
- Red Know
- Whooping Crane
- Green Sea Turtle
- Hawksbill Sea Turtle
- Kemp's Ridley Sea Turtle
- Leatherback Sea Turtle
- Loggerhead Sea Turtle
- Monarch Butterfly

**If any listed species of concern are observed, work will cease in the area, no species or habitat will be disturbed, and the Project Engineer/Inspector will be notified immediately.**



NO.	REVISION NOTES	DATE

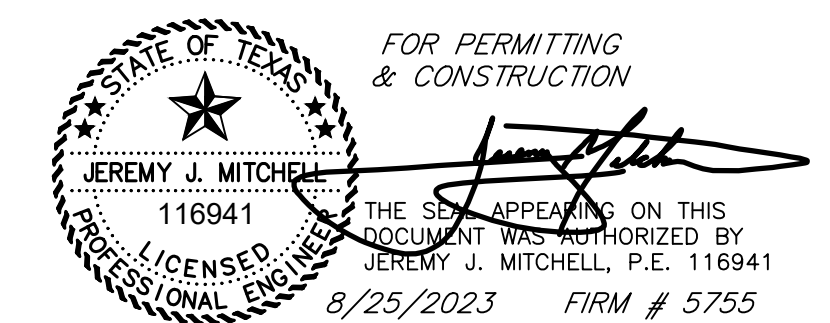
**SOUTEX**  
SURVEYORS & ENGINEERS

T.B.P.E. FIRM #5755 • T.X.L.S. FIRM #10123800

3737 Doctors Drive  
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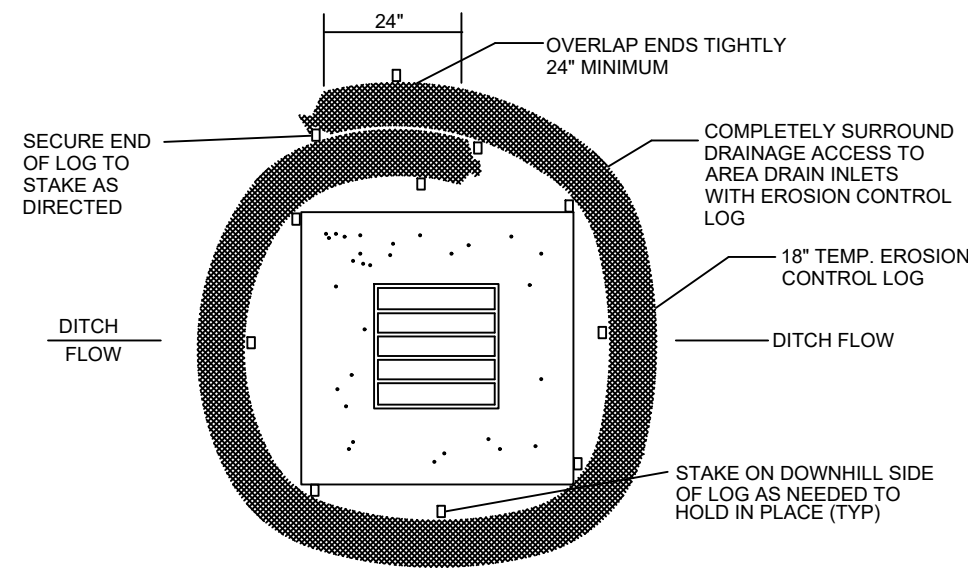
SHEET TITLE
DETAILS – EPIC NOTES
PROJECT
RIDER 45 – 4TH STREET, HOUSTON AVENUE, & LAKESHORE DRIVE PORT OF PORT ARTHUR 221 HOUSTON AVENUE PORT ARTHUR, TEXAS 77641

PROJ. NO: 21-0585
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SHEET 18 of 19



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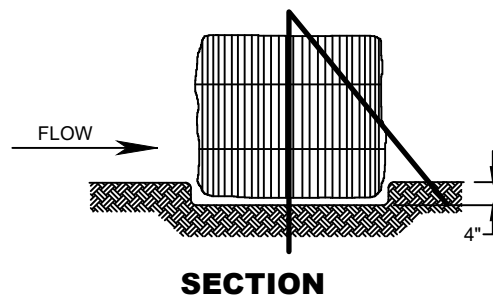




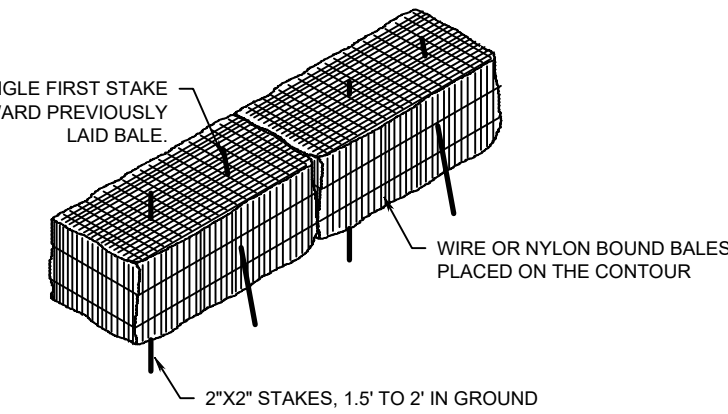
**LOGS PLACED AT AREA DRAIN INLETS  
N.T.S.**  
**TEMPORARY EROSION CONTROL LOGS**

**EROSION CONTROL LOG NOTES**

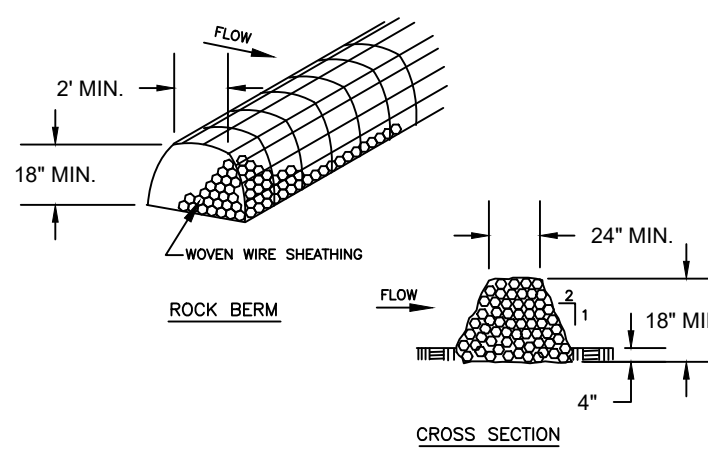
- LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED. MAXIMUM LENGTH OF LOGS SHALL BE 60' FOR 18" DIAMETER OR 30' FOR 12" DIAMETER LOGS.
- UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
- STUFF LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE DENSITY THAT WILL HOLD SHAPE WITHOUT EXCESSIVE DEFORMATION.
- STAKES SHALL BE 2" X 2" WOOD OR #3 REBAR, 4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG, OR AS DIRECTED.
- DO NOT PLACE STAKES THROUGH CONTAINMENT MESH.



**SECTION**



**TEMPORARY HAY BALE BARRIER**

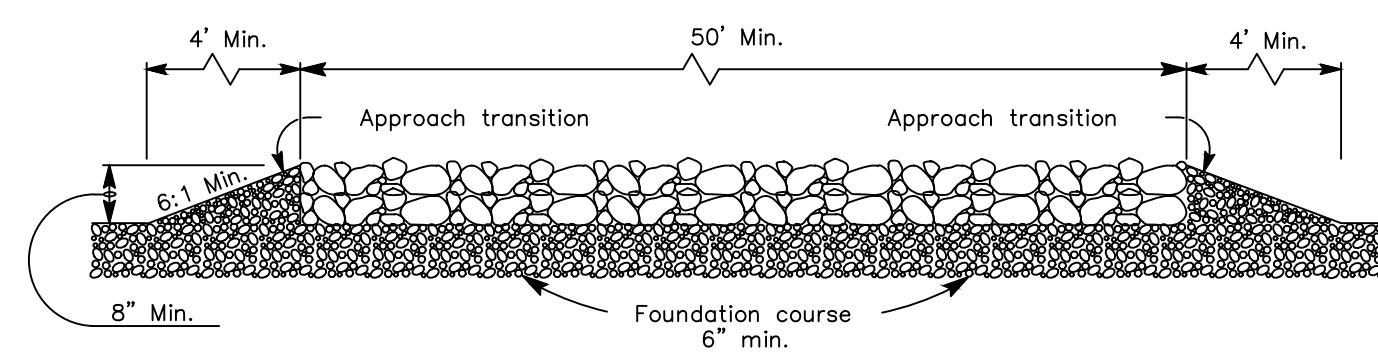


**ROCK BERM  
N.T.S.**

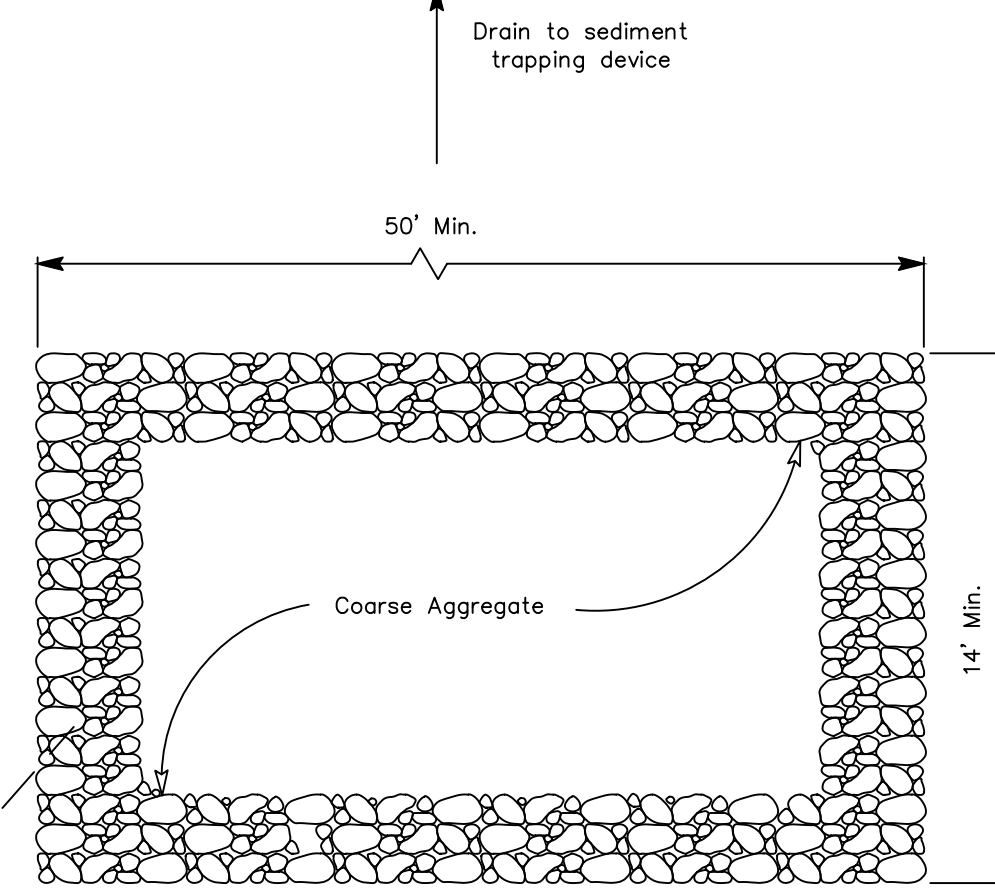
INSTALL AS NECESSARY TO PREVENT WASH OUT OF SILT FENCE.

**NOTES:**

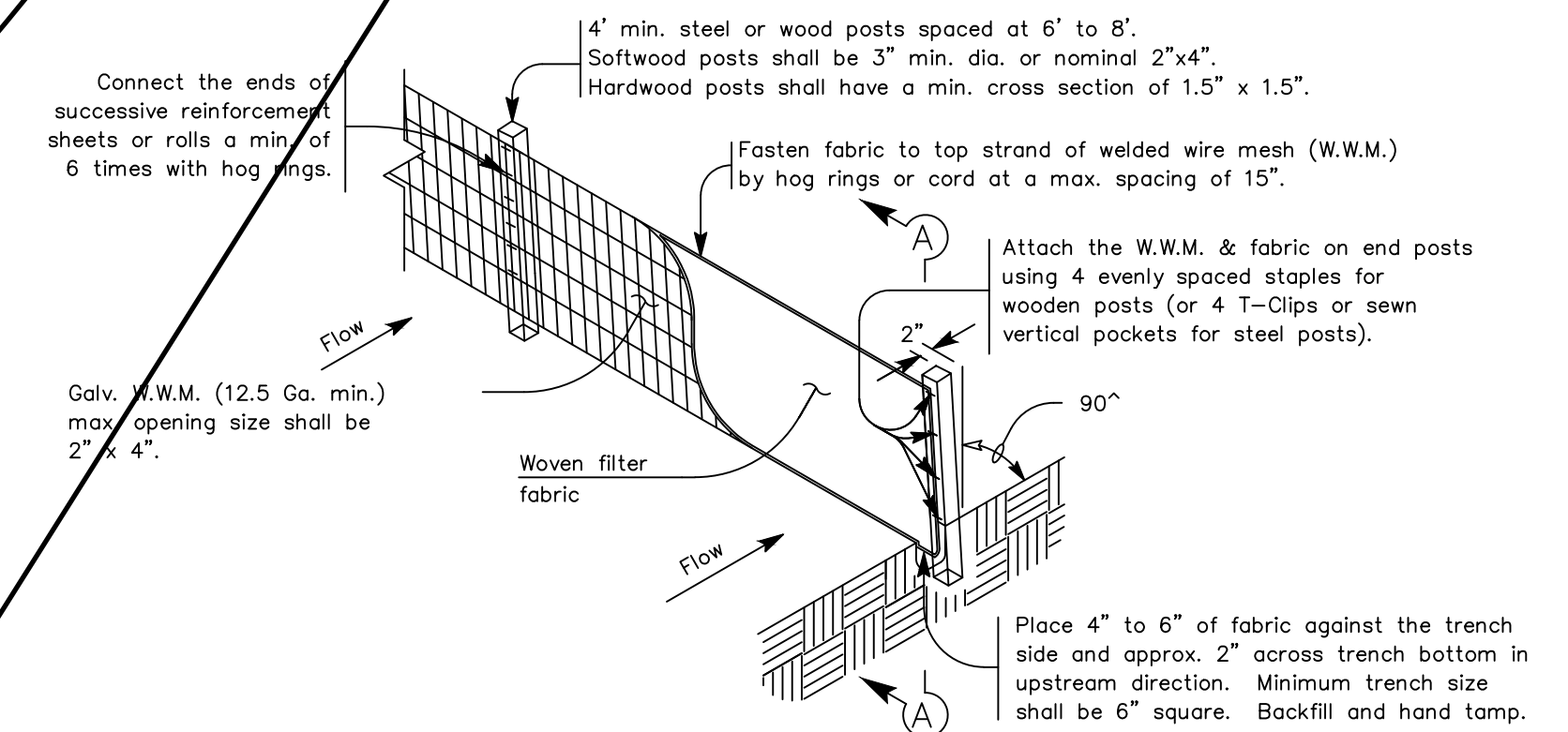
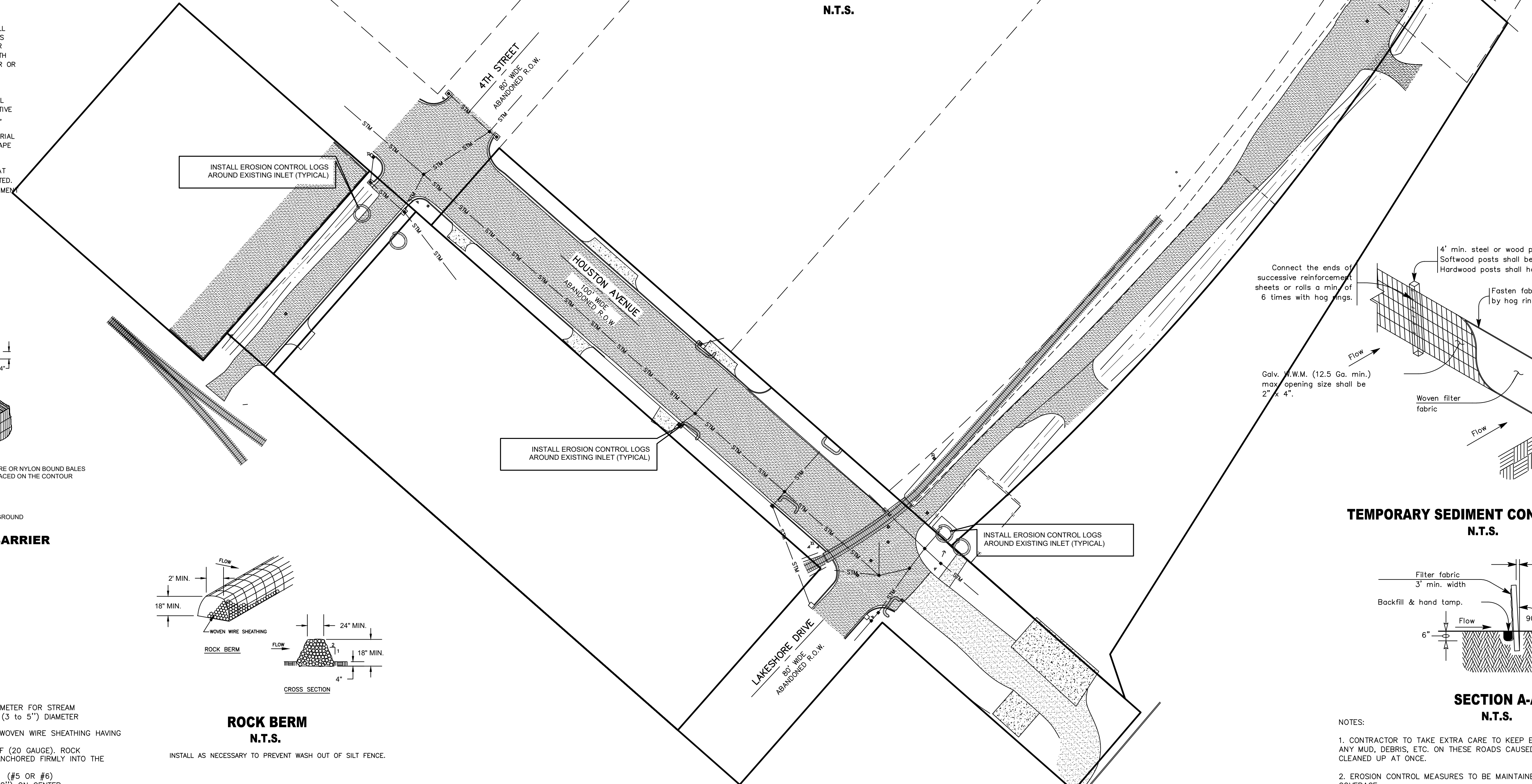
- USE ONLY OPEN GRADED ROCK (4 TO 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK (3 TO 5") DIAMETER FOR OTHER CONDITIONS.
  - THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM (1") OPENING AND MINIMUM WIRE DIAMETER OF (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF (6") WITH T-POSTS OR WITH (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF (48") ON CENTER.
  - THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
  - WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
  - DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES (6").
  - WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
- CONCRETE WASHOUT AREA
- MINIMUM AREA IS 10' x 10' WITH 2" DEPTH.
  - PIT TO BE LINED WITH 10 MIL PLASTIC SHEETING.
  - PROVIDE A SIGN NOTING THE CONCRETE WASHOUT AREA.
  - THE WASHOUT AREA TO BE CLEANED OUT WHEN 75% OF THE CAPACITY IS REACHED.
  - WHEN AREA IS NO LONGER NEEDED THE MATERIAL IS TO BE REMOVED AND HAULED TO A CONCRETE CRUSHING FACILITY OR PERMITTED LANDFILL.



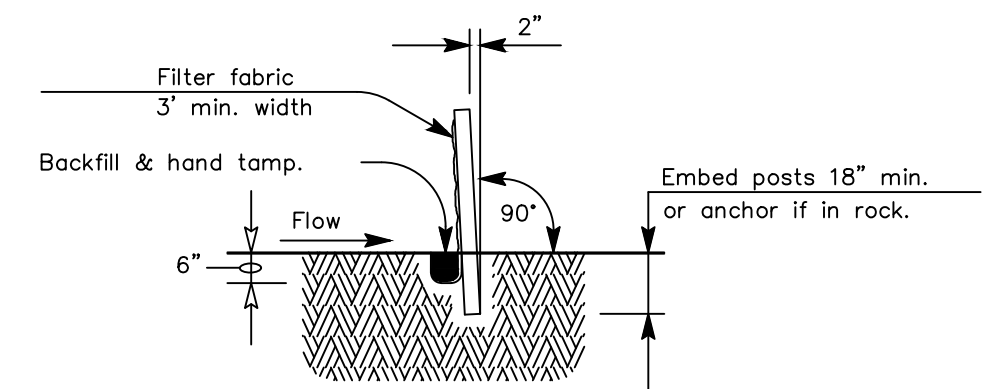
**PROFILE  
CONSTRUCTION EXIT (TYPE 1)  
N.T.S.**



**PLAN  
N.T.S.**



**TEMPORARY SEDIMENT CONTROL FENCE  
N.T.S.**



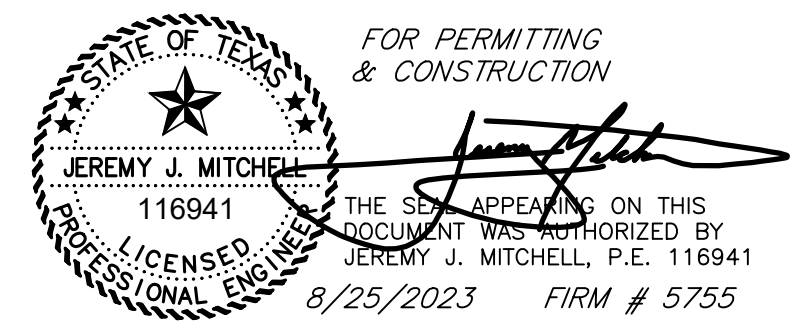
**SECTION A-A  
N.T.S.**

**NOTES:**

- CONTRACTOR TO TAKE EXTRA CARE TO KEEP EAST LUCAS CLEAN AND FREE OF DEBRIS. ANY MUD, DEBRIS, ETC. ON THESE ROADS CAUSED BY THIS CONSTRUCTION IS TO BE CLEANED UP AT ONCE.
- EROSION CONTROL MEASURES TO BE MAINTAINED UNTIL VEGETATION ESTABLISHED @ 75% COVERAGE.

**NOTES:**

- CONTRACTOR TO TAKE EXTRA CARE TO KEEP STREETS CLEAN AND FREE OF DEBRIS. ANY MUD, DEBRIS, ETC. ON THESE ROADS CAUSED BY THIS CONSTRUCTION IS TO BE CLEANED UP AT ONCE.
- EROSION CONTROL MEASURES TO BE MAINTAINED UNTIL VEGETATION ESTABLISHED @ 75% COVERAGE.



NO.	REVISION NOTES	DATE



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SHEET TITLE	
EROSION CONTROL PLAN	
PROJECT	
RIDER 45 - 4TH STREET, HOUSTON AVENUE, & LAKESHORE DRIVE	
PORT OF PORT ARTHUR	
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SHEET 19 of 19

