

**Addendum No. 4**

**West Lumberton Flood Gate at VFW Road & Railroad Underpass  
City of Lumberton, NC  
Addendum Date: March 13, 2025**

Engineer  
McGill Associates, PA  
5 Regional Circle, Suite A,  
Pinehurst, NC 28374 910-295-3159

**BID DUE DATE & TIME: March 20, 2025, 2:00 PM**

1. As a follow-up to some questions asked at the Pre-Bid Meeting, the City of Lumberton has coordinated with NCDOT to better define the expectations for sharing the work site west of I-95 overpass at VFW Road. The following has been stipulated by the city to accommodate NCDOT access during this project:
  - a. While the Flood Gate award date is anticipated in May 2025, the actual start of construction will be in August 2025. This period will be utilized to review submittals and obtain RR approval for the selected contractor.
  - b. Pile load testing will be moved to the north of rail tracks to allow continued NCDOT construction on the south side until January 2026.
  - c. The city is coordinating with the church to provide NCDOT access on the south side of I-95 to the east after January 2026. This will limit the overlap of activities between the two projects.
  - d. A 25' break in the floodwall, in the SW corner will remain at the end of the Flood Gate construction to allow NCDOT access for completion of the overpass. The city anticipates letting a separate contract in 18-24 months to complete the floodwall once NCDOT operations are completed.
  - e. The duration of the Flood Gate project remains one year.

2. **Question:** Can the City provide CAD files for the Flood Gate project for our use in our estimating takeoff and bidding?

**Answer:** Digital files will be provided to the selected contractor after the bid process.

3. **Question:** Sheet C-203 shows the 6" Water through the 16" steel encasement under the railroad. Please confirm this encasement can be installed via open cut trench in lieu of a trenchless method.

**Answer:** The 16" encasement pipe shall be installed using trenchless method. The Contractor will be responsible for obtaining CSX RR approval for means and methods.

4. **Question:** Does the 6" AC pipe shown as "abandoned" on sheet C-203 get seal and cap or fill with flowable fill?

**Answer:** This pipe was abandoned prior to the project and therefore is not included in the scope of work for this project.

5. **Question:** Are there any permits the contractor is required to obtain?

**Answer:** Required construction permits have been obtained and are included in the Bid Documents. While additional permits are not anticipated, it is the Contractor's responsibility to be aware of cases in a which a permit might become necessary. The most likely scenario requiring an additional permit would be the discovery of certain pipe conditions during AC pipe removal. Contractors should be familiar with the requirements for AC pipe removal as well as the conditions that require an asbestos removal permit laid out in technical specification 332660 Water Pipe and Appurtenances.

The contractor is also responsible for obtaining all approvals from CSX Railroad for equipment, personnel and construction methodologies.

6. **Question:** Note 4 on sheet S-536 mentions the pile load test may be working near power lines. Is the power company planning on relocating them?

**Answer:** Contractor will be responsible for coordinating temporary pole relocation with power company if necessary.

7. **Question:** Can the temporary shoring be shifted out slightly to provide more space between the batter prestress concrete pile and tip elevation of the temporary shoring? There are only few inches between the two as currently shown.

**Answer:** The concrete piles in this location must be installed with a driving template. The location of the sheet pile is based on the maximum allowed spacing of the railroad ties set by the CSX railroad. Railroad approval will be required to move the sheet pile from its current position. The Contractor may submit an alternate detail to the CSX railroad for their review and approval.

8. **Question:** How long are the train outage durations and schedule window durations?

**Answer:** See Section 1.6 of technical specification 015300 Railroad Work for available track windows.

9. **Question:** Are the bid quantities based on existing conditions (Post I-95 Construction)?

**Answer:** Yes, when bid quantities required a comparison between existing and proposed conditions (such as with earthwork volumes), these quantities were based on the comparison between proposed conditions and the assumed post I-95 construction conditions as provided by NCDOT.

10. **Question:** If we perform excavation and berm fill before the I-95 Construction is complete, please confirm we will be paid based on the quantities of work we actually complete.

**Answer:** See Item 1 above.

11. **Question:** The specifications mention a lump sum contract price for Earthwork (Section 2.24 C.) which we don't have in the bid items. Excavation & Grading as well as Berm Fill are paid by the CY. Please clarify and address how unclassified excavation and berm fill are measured and paid.

**Answer:** As stated in Section 2.24.C and 2.25.B of technical specification 013000 Measurement and Payment, Berm Fill and Excavation & Grading are to be paid on a lump sum basis for all work. Estimated quantities for all items are provided in Form C-410 to assist contractors in determining their lump sum bid figure. Bid unit prices are only to be used in the event of future change orders and will not be used as a basis of payment.

12. **Question:** Specification 2.24 for Berm Fill is vague. It looks like it might be Select Class II or III. Would you please clarify material requirements for berm fill?

**Answer:** See Division 2 Section 235 and Division 10 Section 1016 of the NCDOT 2024 Standard Specifications for material requirements for berm fill. Also reference Section 10 of the site-specific Geotechnical Report included in the Bid Documents as Appendix 1. The more stringent specification shall apply.

13. **Question:** In the "Attachments to this bid" Article 7.01- it says that the "F. Affidavit of Non-Collusion" document is to be included in the package, but I don't see it anywhere in the specs. Could you please provide that?

**Answer:** Affidavit of Non-Collusion is provided on page 93 of the bid documents package, just after the Affidavit of Compliance with E-Verify.

14. **Question:** Also, in the "Attachments to this bid", it says that I – Affidavit C and J – Affidavit D are to be included, but on those specific pages, it says, "Do not submit with bid". Could you please clarify what exactly we are to include if those specific pages don't pertain to us?

**Answer:** C-410 Article 7 has been corrected to reflect that Affidavits C and D do not need to be submitted with the bid.

15. **Question:** Are we able to use HUB's and MWBE's that are certified via the NCDOT website in addition to only the NC HUB certified subs? The verbiage on multiple documents is confusing and conflicting so I just to confirm either way before we commit to any one sub based on who alone they're certified with.

**Answer:** No, bidders must work with the NC HUB directly.  
<https://www.doa.nc.gov/divisions/historically-underutilized-businesses-hub>

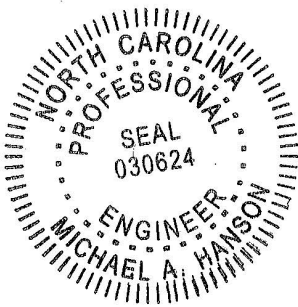
16. The City has received approval of the Flood Gate 100% plans from the Railroad (RR). The following drawings were modified during the coordination with the RR and are attached.

- a. S-101 OVERALL FOUNDATION PLAN VIEW(1 OF 2)
- b. S-107 MONOLITH 5 PLAN VIEW
- c. CS-100 RAILROAD TRS (1 OF 6)

- d. CS-100 RAILROAD TRS (1 OF 6) SECTION
- e. CS-101 RAILROAD TRS (2 OF 6)
- f. CS-102 RAILROAD TRS (3 OF 6)
- g. CS-102A RAILROAD TRS (3 OF 6) SECTION
- h. CS-103 RAILROAD TRS (4 OF 6)
- i. CS-103A RAILROAD TRS (4 OF 6)
- j. CS-103B RAILROAD TRS (4 OF 6) SECTION
- k. CS-103C RAILROAD TRS (4 OF 6) SECTION
- l. CS-103D RAILROAD TRS (4 OF 6)
- m. CS-103E RAILROAD TRS (4 OF 6)
- n. CS-104 RAILROAD TRS (5 OF 6)
- o. CS-104A RAILROAD TRS (5 OF 6) SECTION
- p. CS-105 RAILROAD TRS (6 OF 6)
- q. CS-105A RAILROAD TRS (6 OF 6) SECTION

This Addendum Number FOUR is issued this 13<sup>th</sup> day of March 2025.

**Michael Hanson, PE**



**5400 Trinity Road, Suite 107  
Raleigh, North Carolina 27607  
919.378.9111  
Firm License No.: C-0459**

# BID FORM

## WEST LUMBERTON FLOODGATE AT VFW ROAD AND RAILROAD UNDERPASS

19.03004

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**ARTICLE 1 – BID RECIPIENT**

1.01 This Bid is submitted to:

**City of Lumberton  
500 N Cedar St,  
Lumberton, NC 28358**

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 30 days after the date of the Bid opening, or for such a longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER’S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Project Site and has become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures, including Underground Facilities, at or contiguous to the Site which have been included as a part of the Contract Documents.

E. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies and data

- concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
  - G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
  - H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
  - I. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder or, if no written response was made by Engineer, that Bidder has resolved the issue to its satisfaction prior to the submittal of its Bid.
  - J. The Bidding Documents are sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
  - K. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.
  - L. Bidder has not relied upon any information provided by the Engineer except information which is part of the Bidding Documents and is in writing and in the form of a formal addendum.
  - M. The submission of a Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of the Bid Documents and the Instructions to Bidders, and that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents.

#### **ARTICLE 4 – FURTHER REPRESENTATIONS**

##### **4.01 Bidder further represents that:**

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

**ARTICLE 5 – BASIS OF BID**

Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

**LUMP SUM BASE BID**

The Bidder proposes and agrees if this proposal is accepted to contract, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of Lumberton Floodgate at VFW Road and Railroad Underpass in full and in complete accordance with the plans, specifications, and contract documents, to the full and entire satisfaction of the Owner and AtkinsRealis USA, Inc. with a definite understanding that no money will be allowed for extra work except as set forth in the contract documents, for the sum of:

Lump Sum Base Bid Price: \_\_\_\_\_  
 \_\_\_\_\_ dollars

(words)

(\$ \_\_\_\_\_)

(numbers)

**LUMP SUM BID BREAKDOWN**

Unit prices quoted and accepted shall be used to establish pricing for computation of potential change orders and shall apply throughout the life of the contract. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents. **The Lump Sum Base Bid Price includes the following pay items to be paid as detailed in Sections 012900 PAYMENT PROCEDURES and 013000 MEASUREMENT AND PAYMENT. The bidder is responsible for establishing their own quantities for the Lump Sum Base Bid. These prices are part of, not an addition to, the Lump Sum Bid for the project.**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Price</u>
1	MOBILIZATION	LS	1	\$ _____	\$ _____
2	CLEARING & GRUBBING	LS	1	\$ _____	\$ _____
3	FLOODWALL PILE LOAD TEST				
3A	CONCRETE PILES	EA	2	\$ _____	\$ _____
3B	REACTION PILES	EA	4	\$ _____	\$ _____
3C	300 TON CRANE RENTAL	Week	2	\$ _____	\$ _____
3D	EQUIPMENT RENTAL	Month	1	\$ _____	\$ _____
3E	HAMMER RENTAL	Week	2	\$ _____	\$ _____

3F	LOAD TEST STRUCTURE	LS	1	\$ _____	\$ _____
3G	WAVE ANALYSIS	LS	1	\$ _____	\$ _____
3H	DYNAMIC LOAD TEST	EA	2	\$ _____	\$ _____
3I	PILE REMOVAL	EA	6	\$ _____	\$ _____
4	RAILROAD INSURANCE	LS	1	\$ _____	\$ _____
5	TRACK WORK, CSX	LS	1	\$ _____	\$ _____
6	FALSE WORK FOR CSX GATE	LS	1	\$ _____	\$ _____
7	CAST-IN-PLACE CONCRETE	LS	1	\$ _____	\$ _____
8	PRE-CAST STRUCTURAL CONCRETE	LS	1	\$ _____	\$ _____
9	TEMPORARY CONSTRUCTION FACILITIES	LS	1	\$ _____	\$ _____
10	FLOODGATE	LS	1	\$ _____	\$ _____
11	PRE-STRESSED CONCRETE PILES	LF	7,400	\$ _____	\$ _____
12	SHEET PILING (PZ-22)	SF	15,500	\$ _____	\$ _____
13	EROSION & SEDIMENT CONTROL	LS	1	\$ _____	\$ _____
14	6" DIP	LF	222	\$ _____	\$ _____
15	COMPACT DUCTILE IRON FITTINGS	LBS	378	\$ _____	\$ _____
16	16" STEEL ENCASEMENT PIPE	LF	112	\$ _____	\$ _____
17	12" RCP, CLASS III	LF	34	\$ _____	\$ _____
18	12" HDPE	LF	26	\$ _____	\$ _____
19	15" RCP, CLASS III	LF	36	\$ _____	\$ _____
20	DEMOLITION AND DISPOSAL	LS	1	\$ _____	\$ _____
21	CLASS B RIPRAP	TN	360	\$ _____	\$ _____
22	CLASS 2 RIPRAP	TN	1,800	\$ _____	\$ _____
23	GRAVEL ACCESS ROADS	TN	202	\$ _____	\$ _____
24	GEOTEXTILE FABRIC	SY	2,393	\$ _____	\$ _____
25	BERM FILL	CY	5,200	\$ _____	\$ _____
26	EXCAVATION & GRADING	CY	700	\$ _____	\$ _____
27	SEEDING & MULCHING	LS	1	\$ _____	\$ _____
28	FINE GRADING & SURFACE RESTORATION	LS	1	\$ _____	\$ _____
39	HAULING	CY	560	\$ _____	\$ _____

**ARTICLE 6 – TIME OF COMPLETION**

6.01 In submitting this bid, Bidder agrees that:

- A. The Work will be mobilized no later than **May 4, 2025**.
- B. The Work will be substantially complete within 300 calendar days after the date when the Contract Times commence to run as provided in the Modified General Conditions and will be completed and ready for final payment in accordance with the Modified General Conditions within 365 calendar days after the date when the Contract Times commence to run.

**ARTICLE 7 – ATTACHMENTS TO THIS BID**

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the form of 5% of Bid
- B. List of Proposed Subcontractors
- C. List of Proposed Suppliers
- D. Bidder Qualification and List of Project References
- E. Affidavit of Compliance with E-Verify
- F. Affidavit of Non-Collusion
- G. Identification of HUD Certified/ Minority Business Participation
- H. State of North Carolina Affidavit A – Listing of Good Faith Efforts

**ARTICLE 8 – BID SUBMITTAL**

**This Bid Submitted By:**

If Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
*(Individual's signature)*

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
*(Signature of general partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_  
Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
*(Signature -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_ (CORPORATE SEAL)

Attest \_\_\_\_\_

Date of Authorization to do business in *[State Where Project is Located]* is \_\_\_\_\_

A Joint Venture

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
*(Signature of first joint venture partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
*(Signature of second joint venture partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address \_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

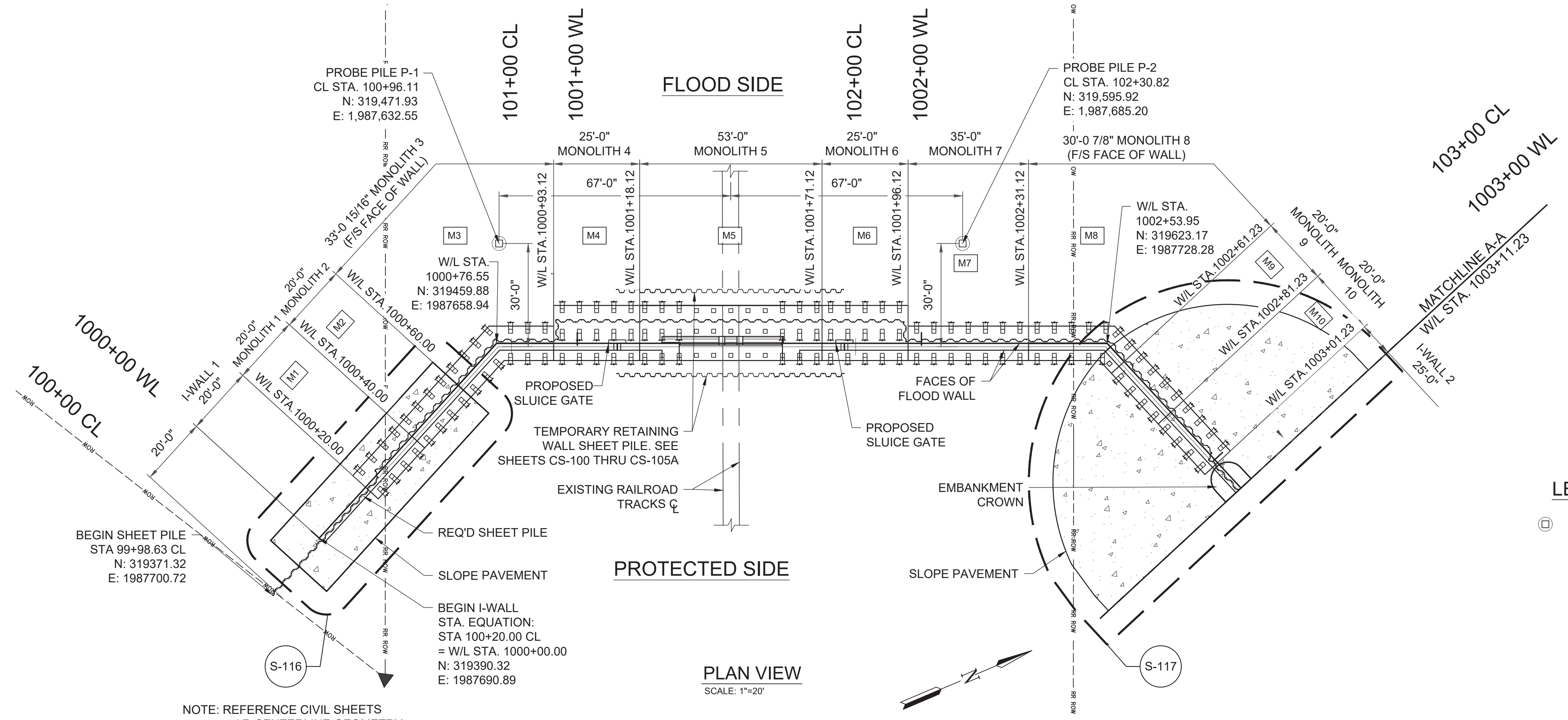
SUBMITTED on \_\_\_\_\_, 20\_\_\_\_.

State Contractor License No. \_\_\_\_\_.

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Inches

DO NOT SCALE

Drawing Legend

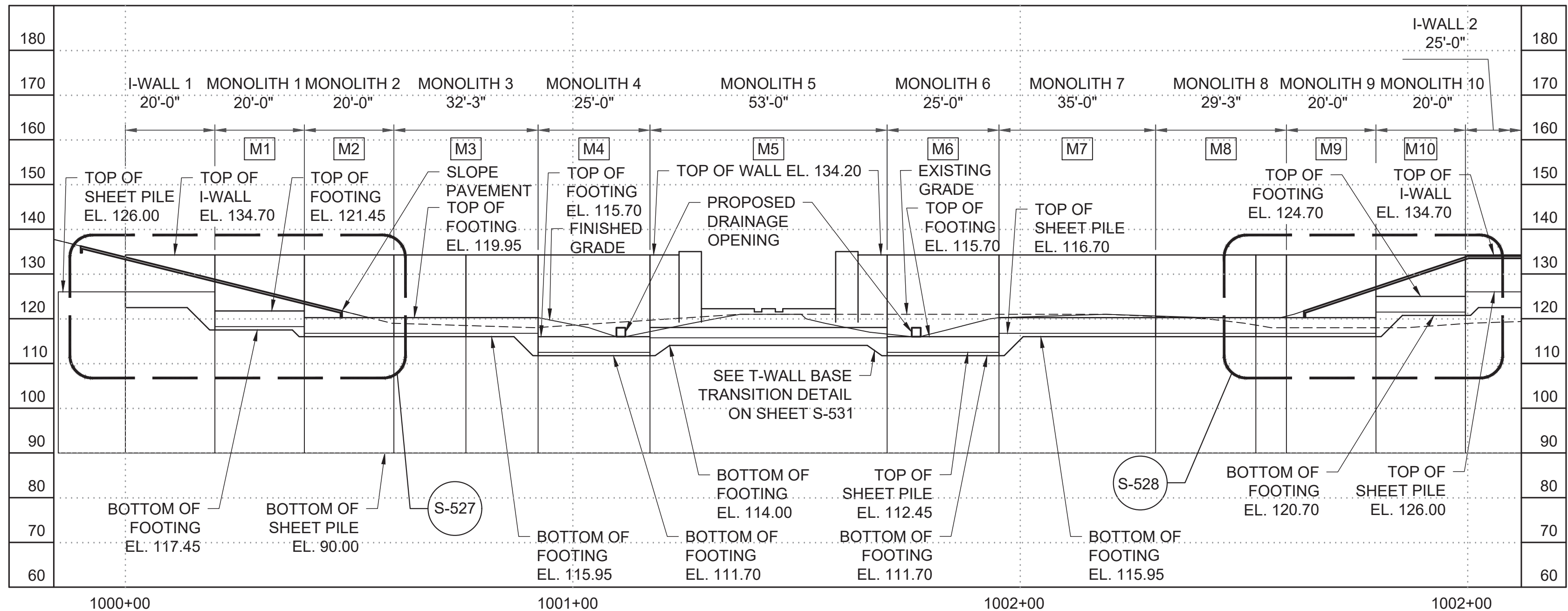


LEGEND

○ PROBE PILE

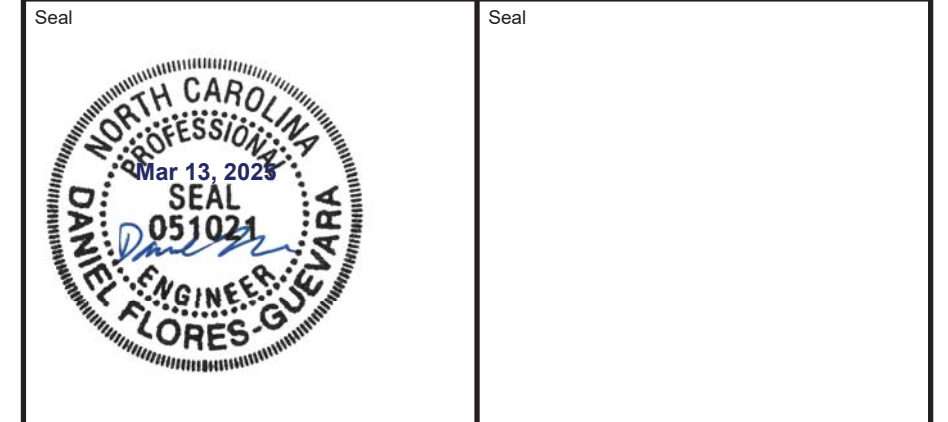
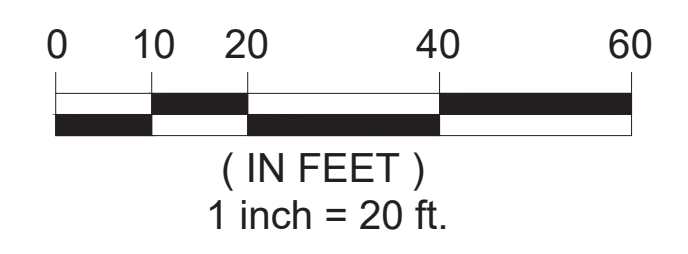
NOTE: REFERENCE CIVIL SHEETS FOR CENTERLINE GEOMETRY

PLAN VIEW  
SCALE: 1"=20'



NOTE: CONCRETE PILES NOT SHOWN FOR CLARITY

PROFILE VIEW  
SCALE: 1"=20'



Rev.	Date	Description	By	Chk'd	App'd	Suitability

FOR INFORMATION **S0**

**AtkinsRéalis** 1616 East Millbrook Road  
Suite 160  
Raleigh, NC 27519  
Tel: +1 (919) 876-6888  
Fax: +1 (919) 876-6848  
www.atkinsglobal.com

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**LINFIELD, HUNTER & JUNIUS, INC.** 13608 18th Street  
Suite 200  
Metairie, LA 70002  
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Fax: +1 (504) 833-5350  
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**mcgill** 5400 Trinity Road  
Suite 107  
Raleigh, NC 27607  
Tel: +1 (919) 378-9111  
NC Firm License # C-0459  
mcgillassociates.com



Project Title: **WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title: **OVERALL FOUNDATION PLAN VIEW (1 OF 2)**

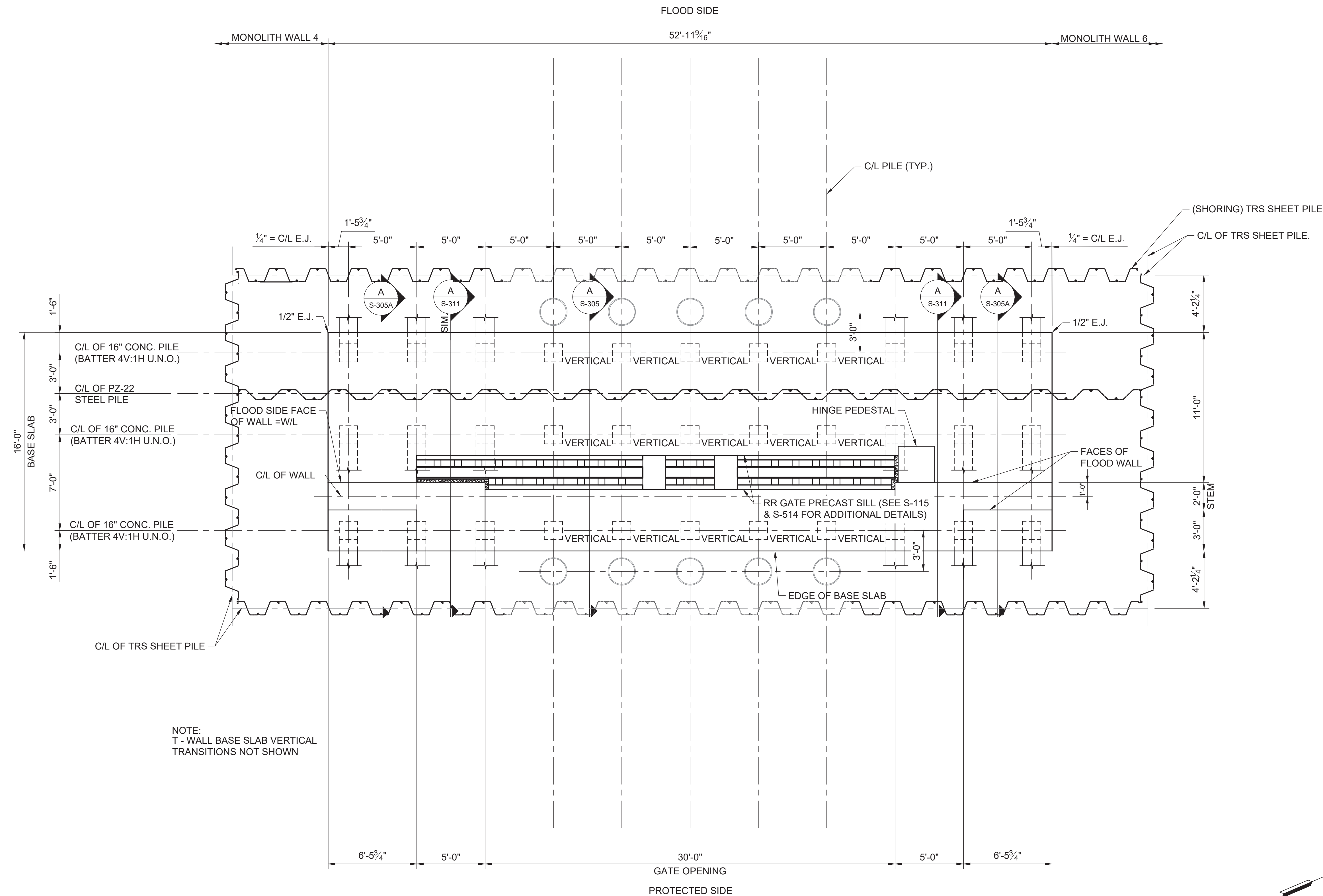
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SEE DWG.	---	---	---	---
Original Size	Date	Date	Date	Date
22x34	---/---/---	---/---/---	---/---/---	---/---/---
Drawing Number	Revision			
100068207-S-101				000

**811** Know what's below. Call before you dig.  
Dial 811.  
North Carolina 811, Inc.

DO NOT SCALE

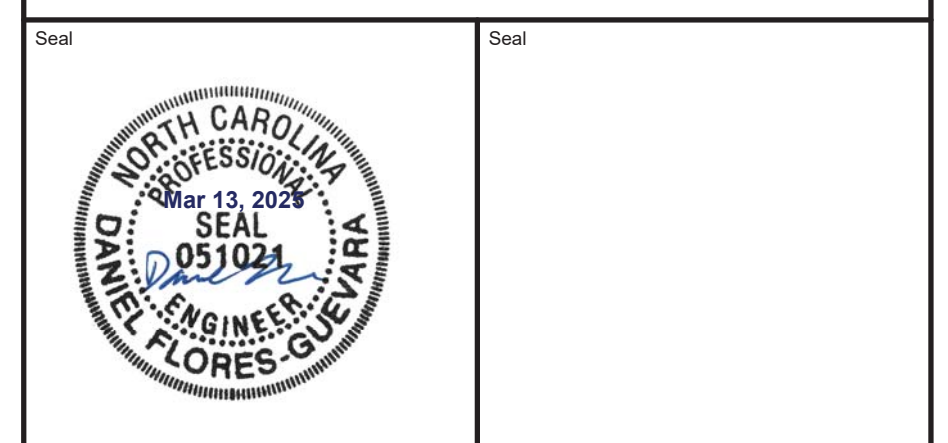
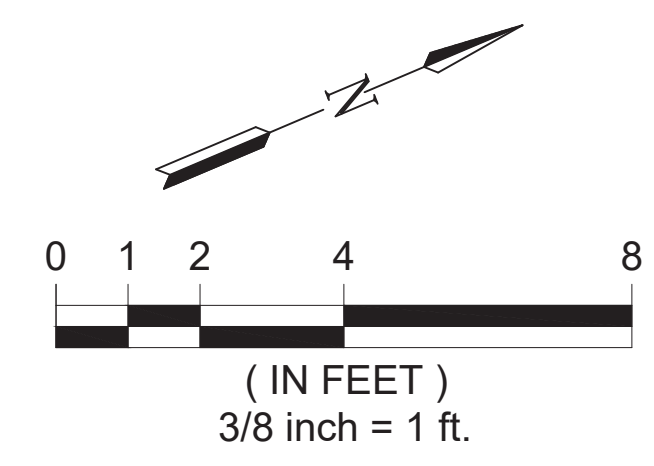
Drawing Legend

4  
1  
1/2  
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NOTE:  
T - WALL BASE SLAB VERTICAL  
TRANSITIONS NOT SHOWN

MONOLITH 5 (GATE) PLAN VIEW  
SCALE: 1/4"=1'



Rev.	Date	Description	By	Chk'd	App'd	Suitability
<b>FOR INFORMATION</b>						<b>S0</b>

**AtkinsRéalis** 1616 East Millbrook Road  
Suite 160  
Raleigh, NC 27519  
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Fax: +1 (919) 876-6848  
www.atkinsglobal.com

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Suite 107  
Raleigh, NC 27607  
Tel: +1 (919) 378-9111  
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mcgillassociates.com

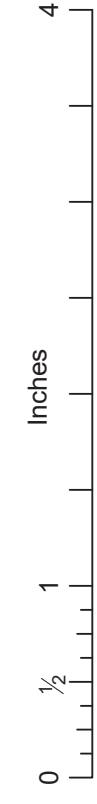


Project Title  
**WEST LUMBERTON FLOOD GATE  
AT VFW ROAD AND RAILROAD UNDERPASS  
PHASE II**

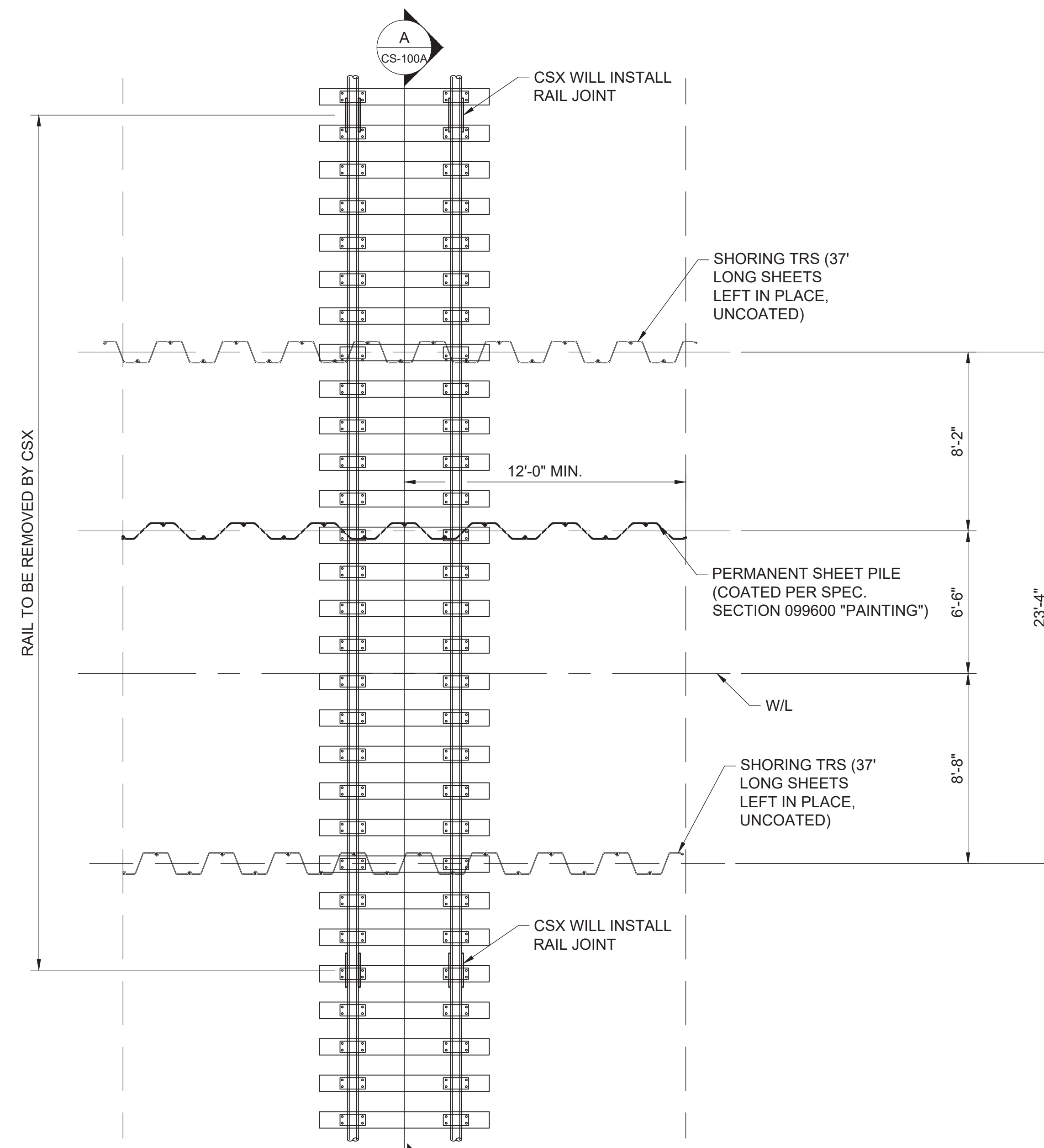
Drawing Title  
**MONOLITH 5  
PLAN VIEW**

Scale	Designed	Drawn	Checked	Authorized
SEE DWG.	--	--	--	--
Original Size	Date	Date	Date	Date
22x34	--/--	--/--	--/--	--/--
Drawing Number	Revision			
100068207-S-107				000

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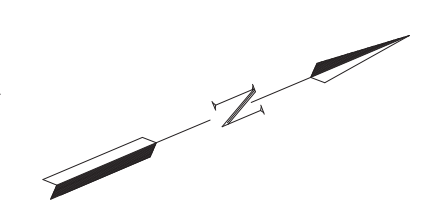
FLOOD SIDE



WORK OUTSIDE OF RAILWAY SHUTDOWN (PHASE 2, SEE SHEET CS-101) ±24'-0" WORK OUTSIDE OF RAILWAY SHUTDOWN (PHASE 2, SEE SHEET CS-101)

PROTECTED SIDE

1 PHASE 1 PLAN VIEW  
TYP. TYP. SCALE: 1/4" = 1'-0"

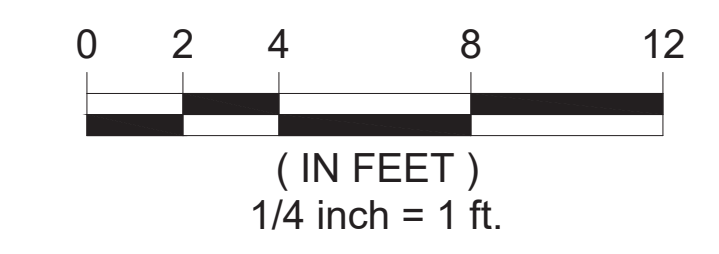



TRACK WINDOWS WILL BE REQUIRED FOR ALL PHASES OF WORK WHERE TRACK(S) WILL BE BLOCKED OR OUT OF SERVICE, TRACK WINDOWS TO BE COORDINATED WITH CSX.

- FIRST RAILROAD OUTAGE (PHASE I) CONSTRUCTION SEQUENCING:
1. CONTRACTOR COORDINATES FINAL CONSTRUCTION SEQUENCE WITH CSX AND EXECUTES A TEMPORARY CONSTRUCTION CROSSING AGREEMENT WITH CSX RAILROAD.
  2. THE CONTRACTOR SHALL COORDINATE WITH CSX TO SCHEDULE FIRST TRACK OUTAGE WINDOW TO INSTALL TWO APPROXIMATELY 24-FT LONG SECTIONS OF SHEET PILING. CSX WILL REMOVE A SECTION OF RAIL AT A TIME FROM EACH TRACK ON EITHER SIDE OF EXCAVATION. CONTRACTOR TO INSTALL SECTIONS OF SHORING (TRS) SHEET PILING. FINAL ELEVATION OF SHORING SHEET PILING SHALL BE AS SHOWN IN THE PLANS. SHORING SHEET PILING SHALL REMAIN IN-PLACE AT THE COMPLETION OF THE PROJECT AND WILL BE CUT-OFF A MINIMUM OF 3-FT BELOW GRADE.
- STEP 1. CSX TO INSTALL RAIL ANCHORS, CUT JOINTS AND PLATE. STEP ONE IS DONE DURING TRAFFIC.
- STEP 2. INSTALL SHEETING TO ±12-FT EITHER SIDE OF TRACK CENTERLINE DURING OUTAGE. CUT OFF SHEETING BELOW RAIL.
- STEP 3. ADJUST TIE LOCATIONS AT SHEETING AND REINSTATE TRACK PANEL.

NOTE 1:  
ALL T.R.S. MEMBERS SHOWN ARE MINIMUM REQUIRED SIZES. CONTRACTOR SHALL PROVIDE A TRS DESIGN FOR SWING GATE FOUNDATION. THE DESIGN OF THE COFFERDAM SHALL BE DONE BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA WITH A MINIMUM OF 10 YEARS OF EXPERIENCE IN TRS DESIGN AND SHALL PROVIDE EVIDENCE OF 5 OTHER SUCCESSFUL TRS PROJECTS.

NOTE 2:  
SEE CSX STANDARD DETAIL SHEETS FOR RAIL TIE CONNECTION DETAILS.

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Client: **CITY OF LUMBERTON**  
North Carolina

Project Title: WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II

Drawing Title: RAILROAD TRS (1 OF 6)

Scale	Designed	Drawn	Checked	Authorized
SEE DWG.	--	--	--	--
Original Size	Date	Date	Date	Date
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Drawing Number	Revision			
100068207-CS-100				000

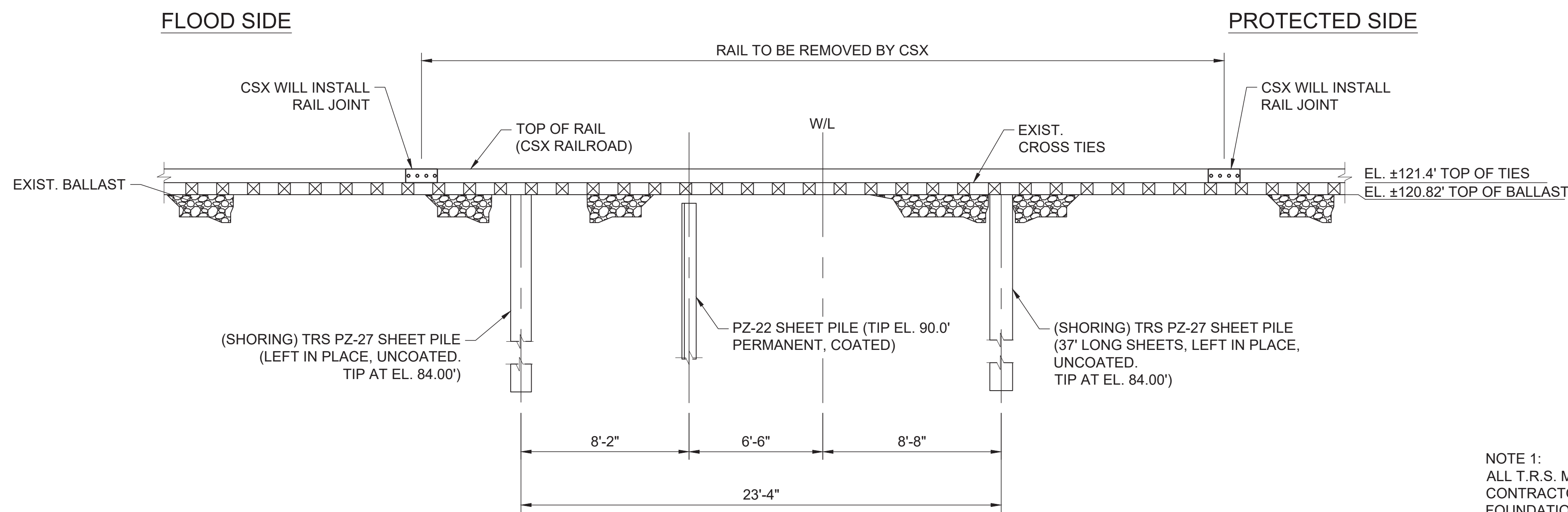
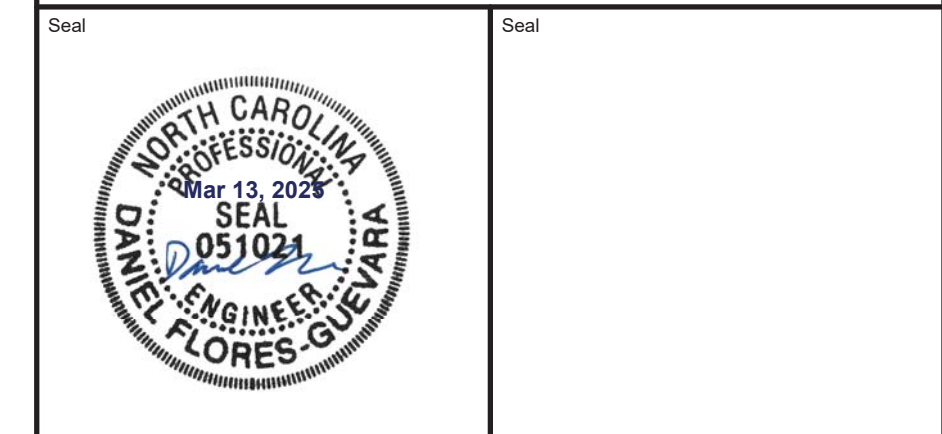
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DO NOT SCALE

Drawing Legend

NOTES:

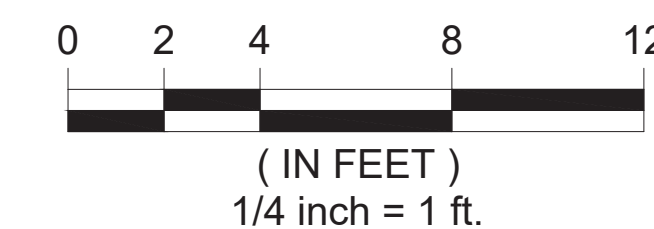
1. EXISTING RAIL AND TIE ELEVATIONS SHOWN ARE APPROXIMATE
2. EXACT ELEVATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR
3. ELEVATIONS OF PILING AND STRUCTURAL STEEL SHALL REMAIN PROPORTIONAL TO TIES AS SHOWN IF EXISTING TRACK ELEVATIONS DIFFER.
4. CONTRACTOR SHALL PROVIDE SHIMS AS REQUIRED TO MEET REQUIRED DIMENSIONS
5. CONTRACTOR SHALL USE A DRIVING TEMPLATE TO INSTALL SHEET PILING AND STEEL PIPE PILES
6. CUT OFF PILES SQUARE AT ELEVATIONS REQUIRED ALLOWING FOR THICKNESS OF CAP PLATES



**A PHASE 1 SECTION**  
CS-100 | CS-100A SCALE: 1/4" = 1'-0"

NOTE 1:  
ALL T.R.S. MEMBERS SHOWN ARE MINIMUM REQUIRED SIZES. CONTRACTOR SHALL PROVIDE A TRS DESIGN FOR SWING GATE FOUNDATION. THE DESIGN OF THE COFFERDAM SHALL BE DONE BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA WITH A MINIMUM OF 10 YEARS OF EXPERIENCE IN TRS DESIGN AND SHALL PROVIDE EVIDENCE OF 5 OTHER SUCCESSFUL TRS PROJECTS.

NOTE 2:  
CONTRACTOR SHALL INSTALL PIEZOMETERS OUTSIDE THE EXCAVATION TO MONITOR GROUNDWATER LEVELS. DEWATERING EFFORTS SHOULD BE PERFORMED TO MAINTAIN GROUNDWATER BELOW EL. 117.5' IF NECESSARY.



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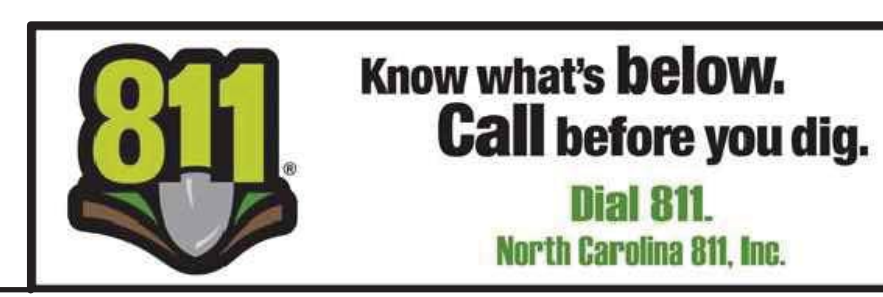
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Project Title: **WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title: **RAILROAD TRS (1 OF 6) SECTION**

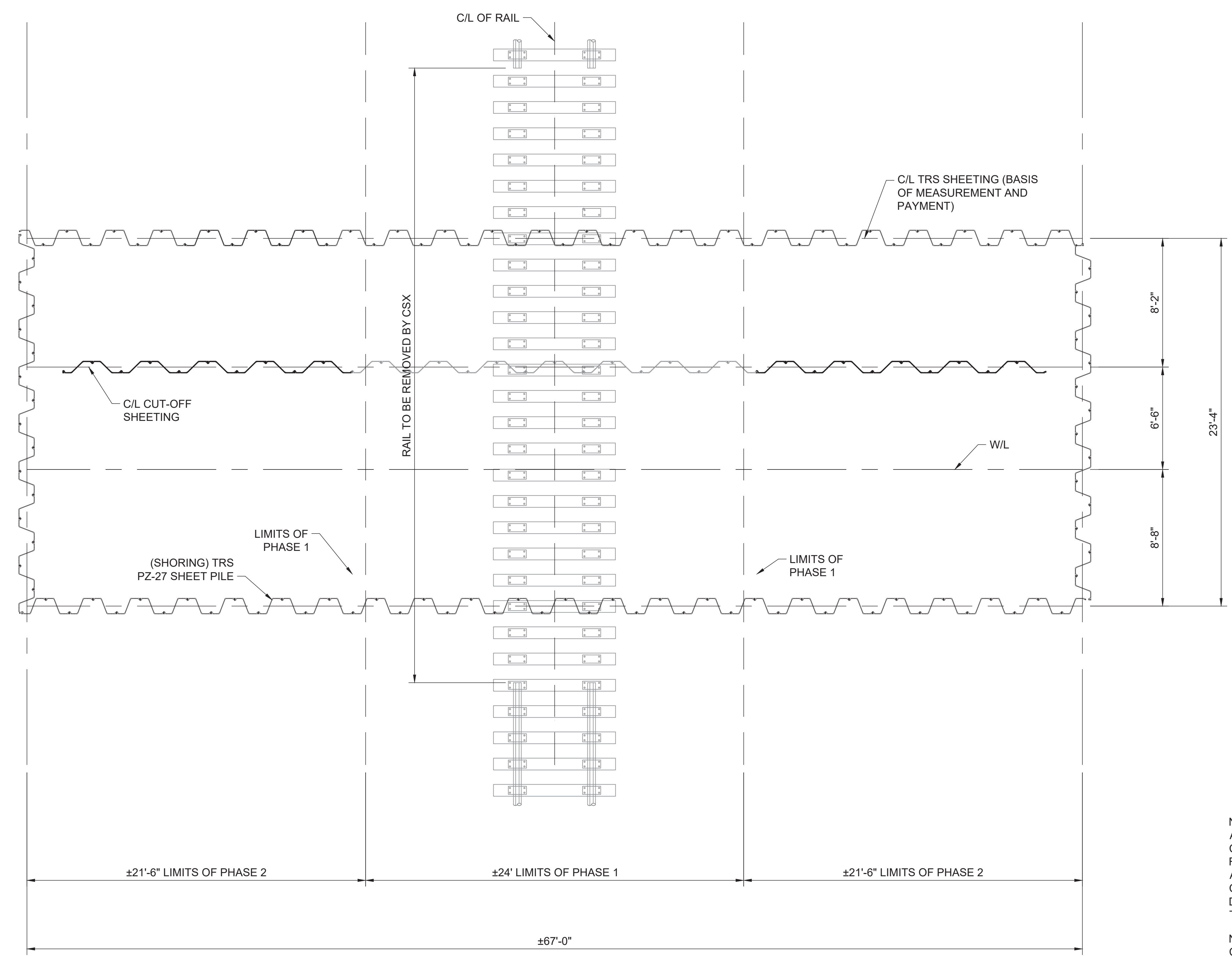
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Original Size	Date	Date	Date	Date
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Drawing Number	Revision			
100068207-CS-100A				000



Inches  
0  
1/2  
1  
4

DO NOT SCALE

Drawing Legend



PHASE 2 CONSTRUCTION SEQUENCING  
(NO OUTAGE REQUIRED):

STEP 4. a. CONTRACTOR AND CSX WILL COORDINATE AND SCHEDULE STOPPAGE OF TRAIN OPERATIONS (TRACK WINDOW) ON ALL TRACKS TO INSTALL PERMANENT CUT OFF SHEET PILING.

b. CONTRACTOR TO INSTALL PERMANENT CUT-OFF SHEET PILING NO CLOSER THAN ±12-FT FROM CENTER OF TRACK ON BOTH SIDES OF TRACK. CUT-OFF SHEET PILING SHALL BE "CHASED DOWN" BELOW THE ELEVATION OF THE BOTTOM CHORD OF THE PROPOSED JUMP SPAN BRIDGE.



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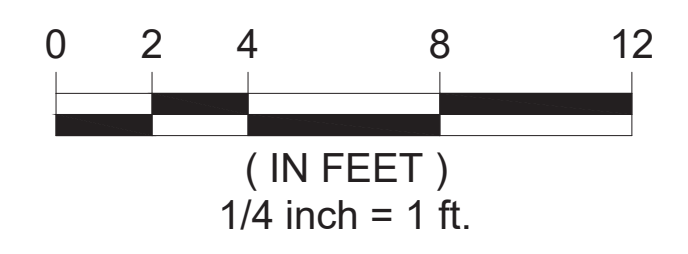
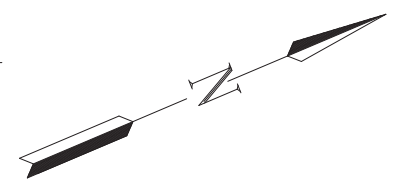
Project Title: WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II

Drawing Title: RAILROAD TRS (2 OF 6)

NOTE 1:  
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NOTE 2:  
CONTRACTOR SHALL INSTALL PIEZOMETERS OUTSIDE THE EXCAVATION TO MONITOR GROUNDWATER LEVELS. DEWATERING EFFORTS SHOULD BE PERFORMED TO MAINTAIN GROUNDWATER BELOW EL. 117.5' IF NECESSARY.

1 PHASE 2 PLAN VIEW  
TYP. TYP. SCALE: 1/4" = 1'-0"



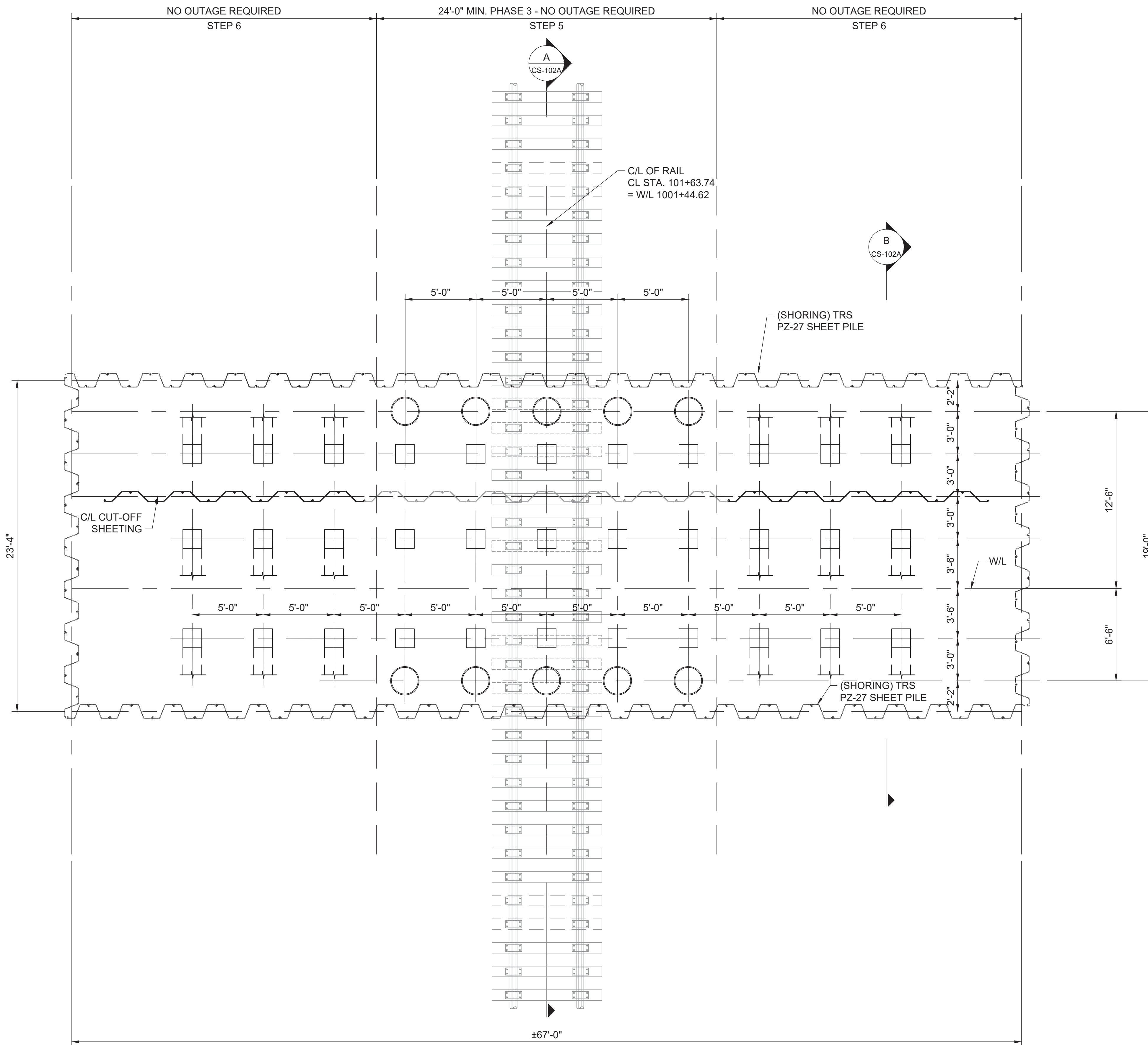
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Scale	Designed	Drawn	Checked	Authorized
SEE DWG.	--	--	--	--
Original Size	Date	Date	Date	Date
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Drawing Number	Revision			
100068207-CS-101	000			

DO NOT SCALE

Drawing Legend

4  
1  
1/2  
0  
Inches

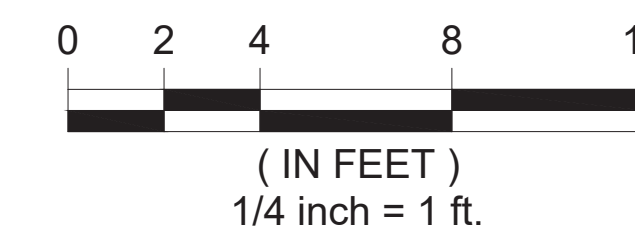


PHASE 3 CONSTRUCTION SEQUENCING: (NO OUTAGE REQUIRED)

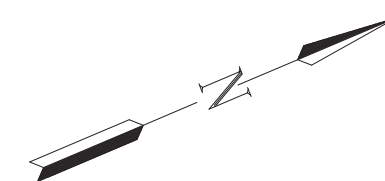
- STEP 5. a. CONTRACTOR AND CSX WILL COORDINATE AND SCHEDULE TRACK WINDOWS FOR PILING INSTALLATION (24" DIA. STEEL PIPE, AND PRECAST CONCRETE PILES). CSX WILL ADJUST TIMBER CROSS TIES AT EACH PILE INSTALLATION LOCATION AS SHOWN IN THE PLANS. PIPE PILES AND CONCRETE PILES SHALL BE "CHASED-DOWN" (DRIVEN WITH FOLLOWERS) TWELVE INCHES BELOW TOP-OF-TIE (TOP OF RAILROAD TIMBER CROSSTIE). CONCRETE PILES SHALL BE DRIVEN TO THE FINAL TIP ELEVATION.
- b. DRIVE STEEL PIPE PILE AND CONCRETE PILES BETWEEN TRAIN TRAFFIC MOVEMENT (SEE S-107 FOR CONCRETE PILE LAYOUT).
- STEP 6. DRIVE PILES OUTSIDE OF 24-FT WIDE OUTAGE ZONE WITH FOLLOWER.

NOTE 1:  
ALL T.R.S. MEMBERS SHOWN ARE MINIMUM REQUIRED SIZES. CONTRACTOR SHALL PROVIDE A TRS DESIGN FOR SWING GATE FOUNDATION. THE DESIGN OF THE COFFERDAM SHALL BE DONE BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA WITH A MINIMUM OF 10 YEARS OF EXPERIENCE IN TRS DESIGN AND SHALL PROVIDE EVIDENCE OF 5 OTHER SUCCESSFUL TRS PROJECTS.

NOTE 2:  
CONTRACTOR SHALL INSTALL PIEZOMETERS OUTSIDE THE EXCAVATION TO MONITOR GROUNDWATER LEVELS. DEWATERING EFFORTS SHOULD BE PERFORMED TO MAINTAIN GROUNDWATER BELOW EL. 117.5' IF NECESSARY.



1 PHASE 3 PLAN VIEW  
TYP. TYP. SCALE: 1/4" = 1'-0"



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Client

Project Title  
**WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title  
**RAILROAD TRS (3 OF 6)**

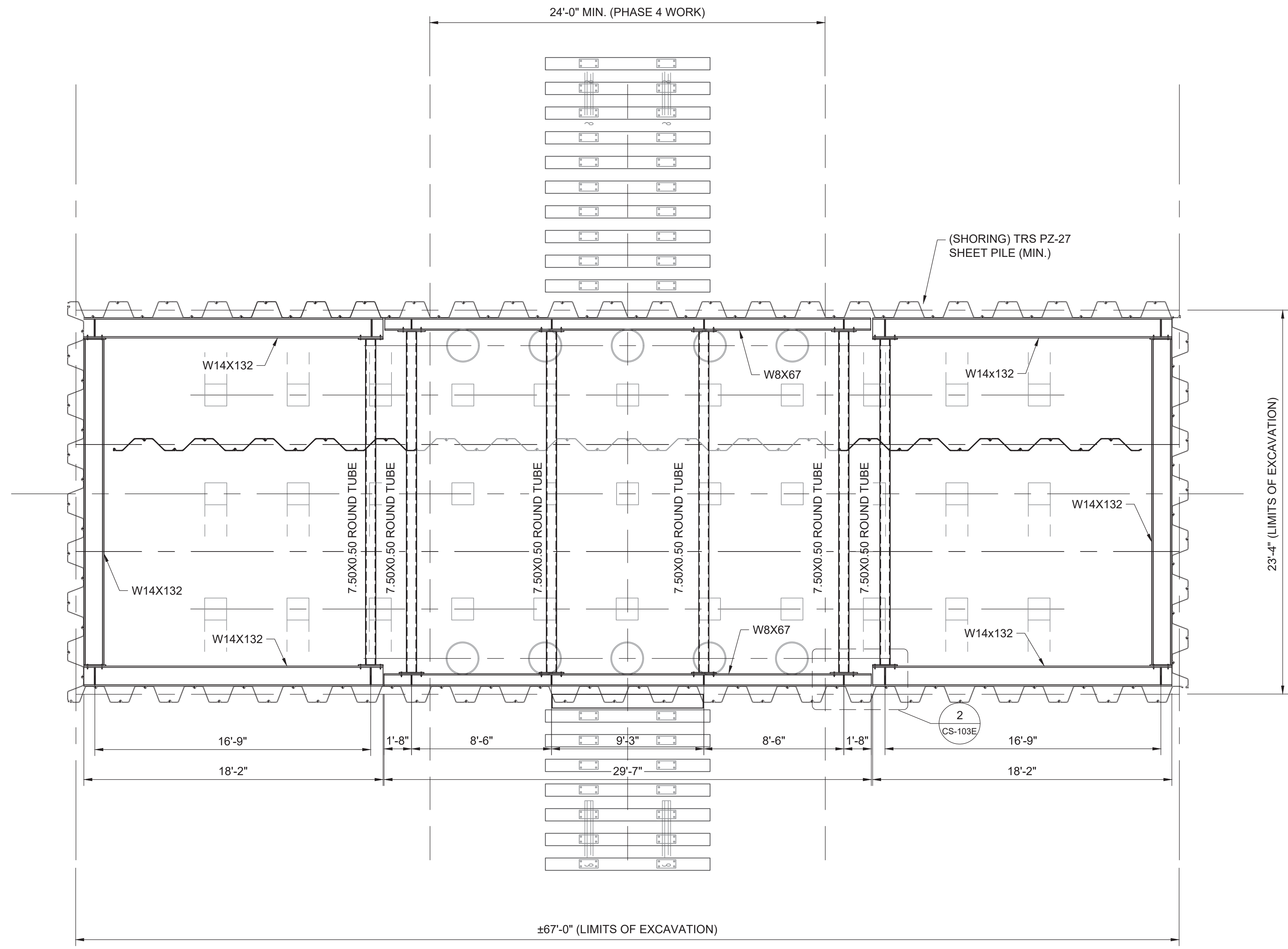
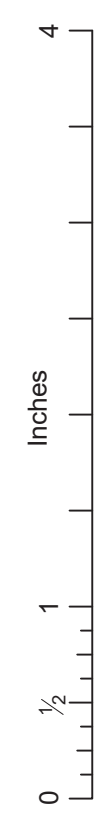
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Drawing Number	Revision			
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Drawing Legend



PHASE 4 CONSTRUCTION SEQUENCING  
(SECOND SCHEDULED OUTAGE):

- STEP 7. a. CONTRACTOR AND CSX WILL COORDINATE AND SCHEDULE ONE 12 TO 24-HR TRACK WINDOW TO INSTALL THE JUMP SPAN BRIDGE.
- b. CSX WILL REMOVE A SECTION OF RAIL
- STEP 8. a. CONTRACTOR TO EXCAVATE MATERIAL, CUT-OFF PILES, AND INSTALL WALES, STRUTS, AND HANDRAILS.
- b. EXCAVATE TO EL. 113.67.



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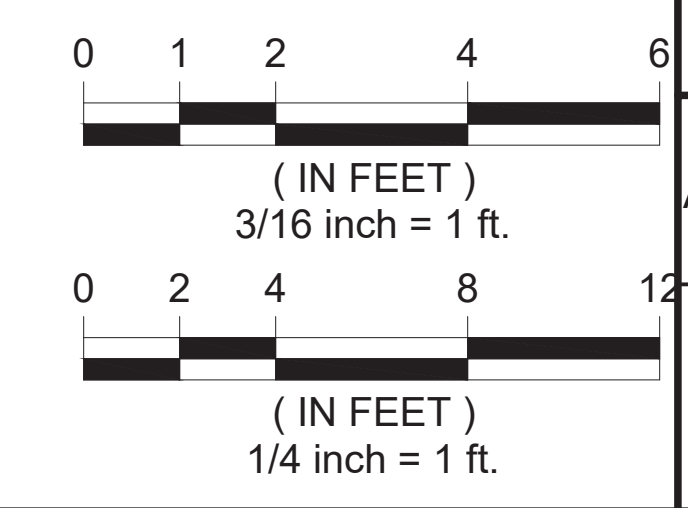
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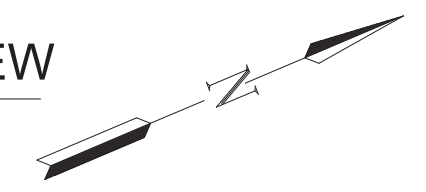
Client  
**City of LUMBERTON**  
North Carolina

Project Title  
WEST LUMBERTON FLOOD GATE  
AT VFW ROAD AND RAILROAD UNDERPASS  
PHASE II

Drawing Title  
RAILROAD TRS (4 OF 6)



1 STEP 7A, 7B, 8 PLAN VIEW  
TYP. TYP. SCALE: 1/4" = 1'-0"



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Original Size	Date	Date	Date	Date
22X34	--/--	--/--	--/--	--/--
Drawing Number	Revision			Revision
100068207-CS-103				000

Inches  
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1/2  
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4

DO NOT SCALE

Drawing Legend

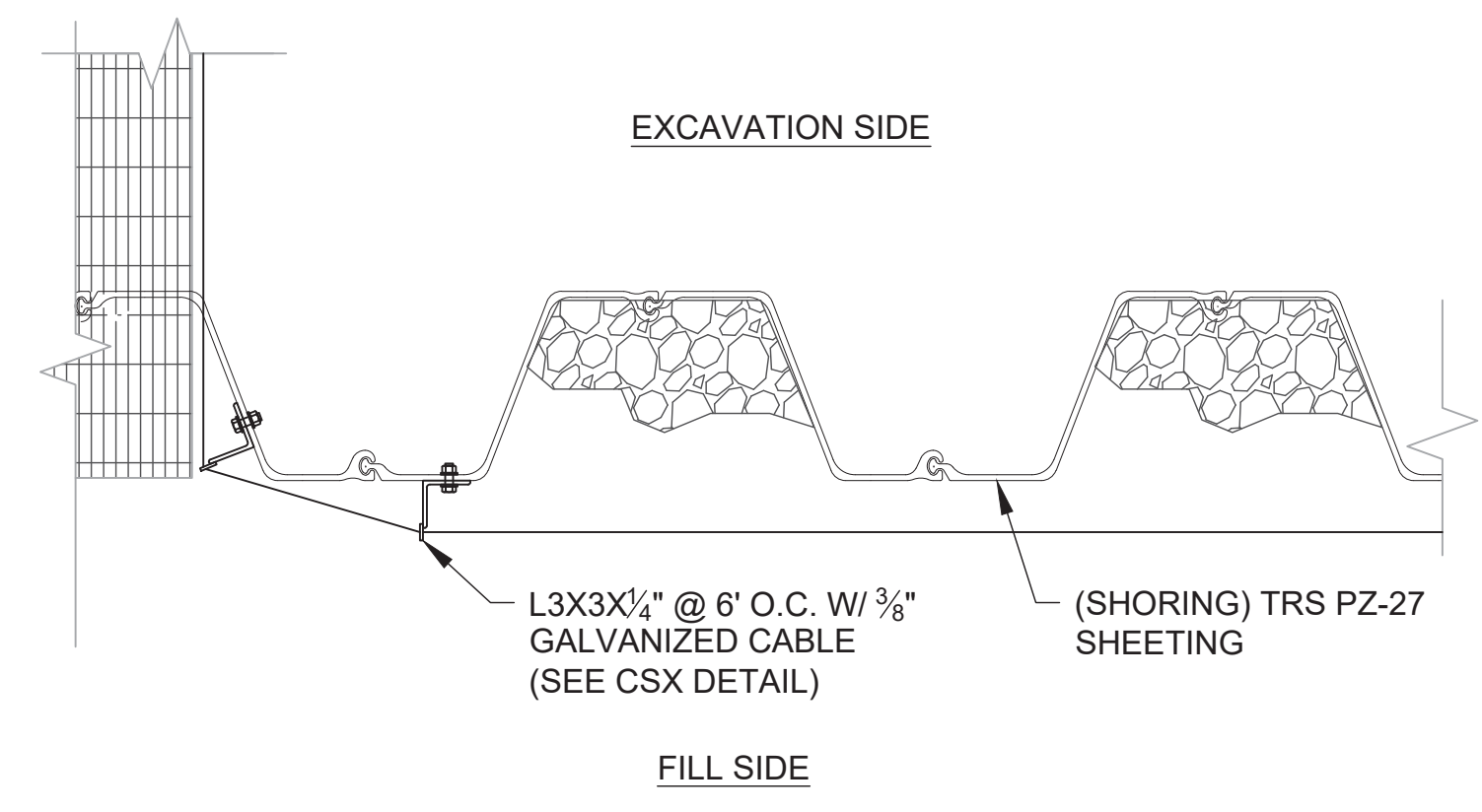
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↔ GRATING SPAN DIRECTION

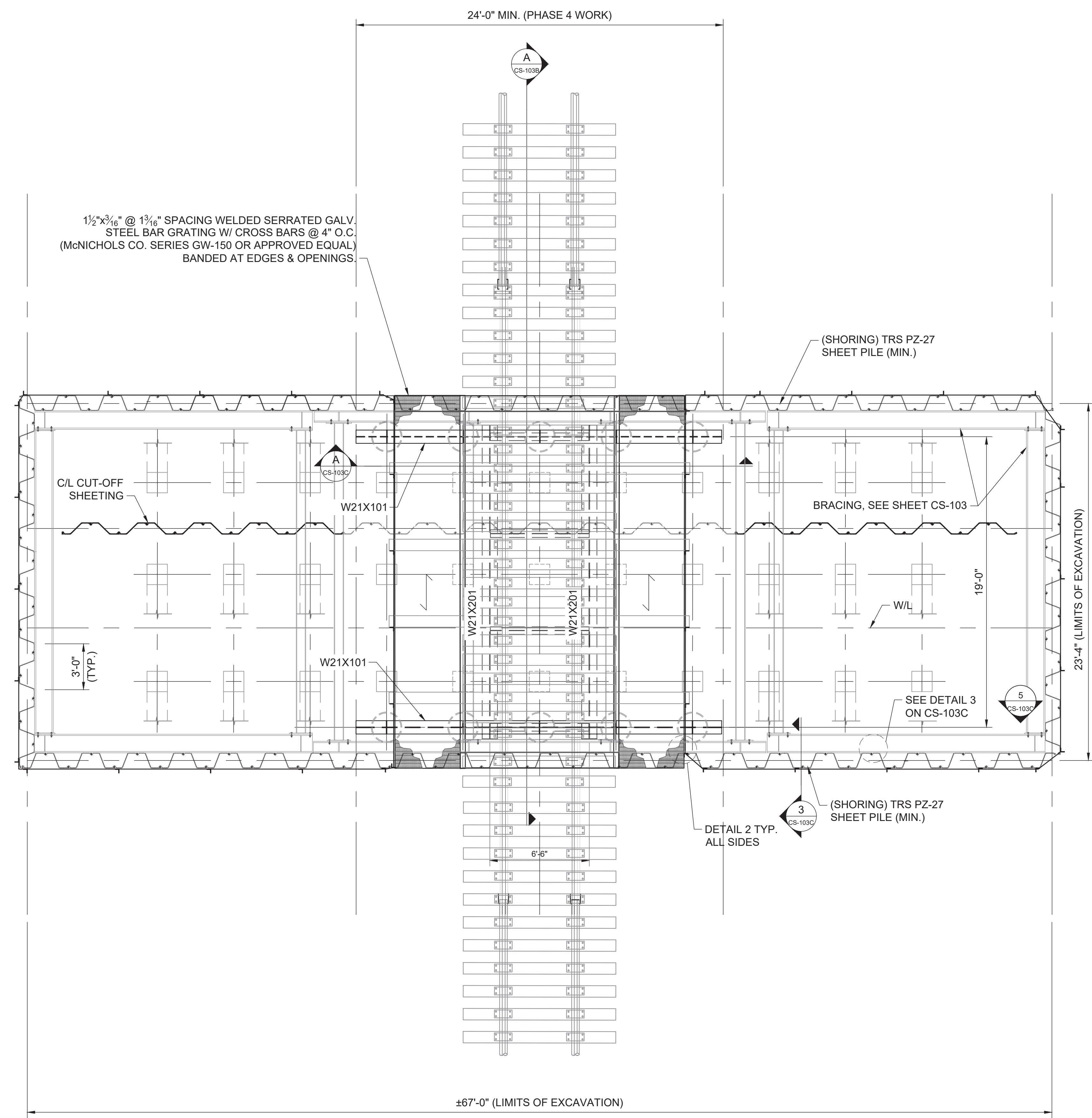
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PHASE 4 CONSTRUCTION SEQUENCING  
(SECOND SCHEDULED OUTAGE):

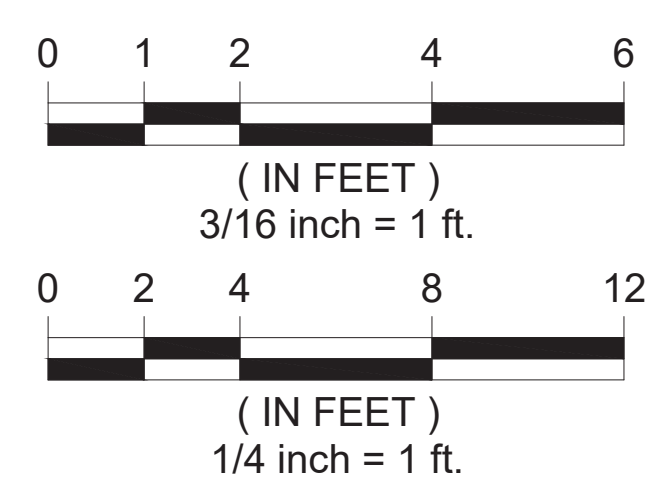
STEP 9. CSX WILL INSTALL PRE-ASSEMBLED TRACK PANEL WITH BRIDGE.



**2** DETAIL  
TYP. TYP. SCALE: 1" = 1'-0"



**1** STEP 9 PLAN VIEW  
TYP. TYP. SCALE: 1/4" = 1'-0"



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Project Title  
**WEST LUMBERTON FLOOD GATE  
AT VFW ROAD AND RAILROAD UNDERPASS  
PHASE II**

Drawing Title  
**RAILROAD TRS (4 OF 6)**

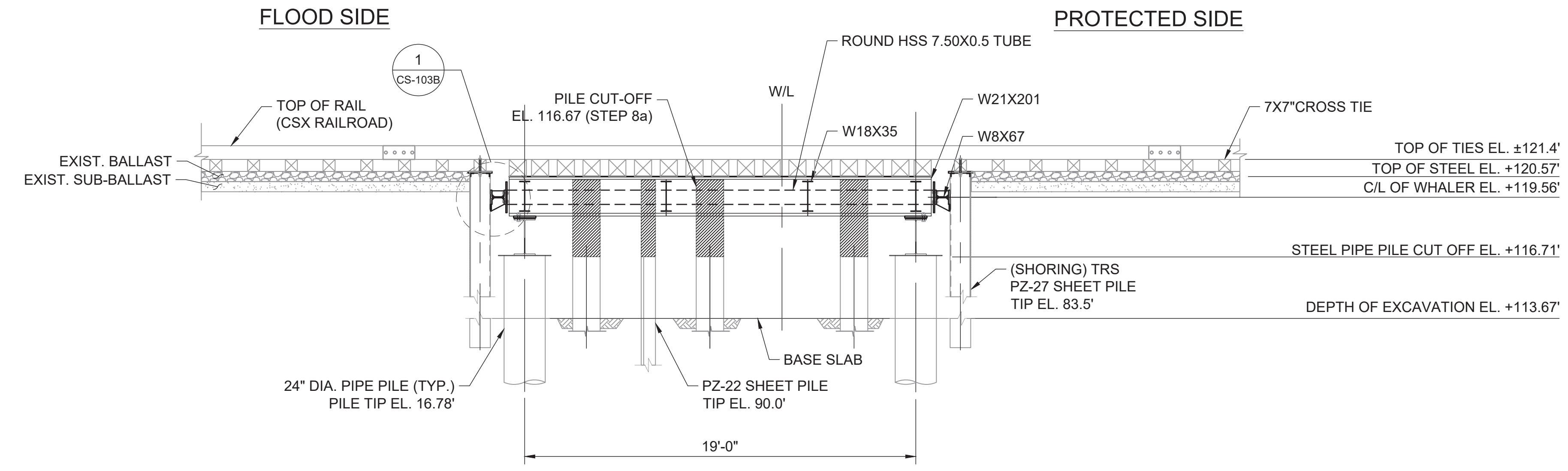
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Drawing Number	Revision			Revision
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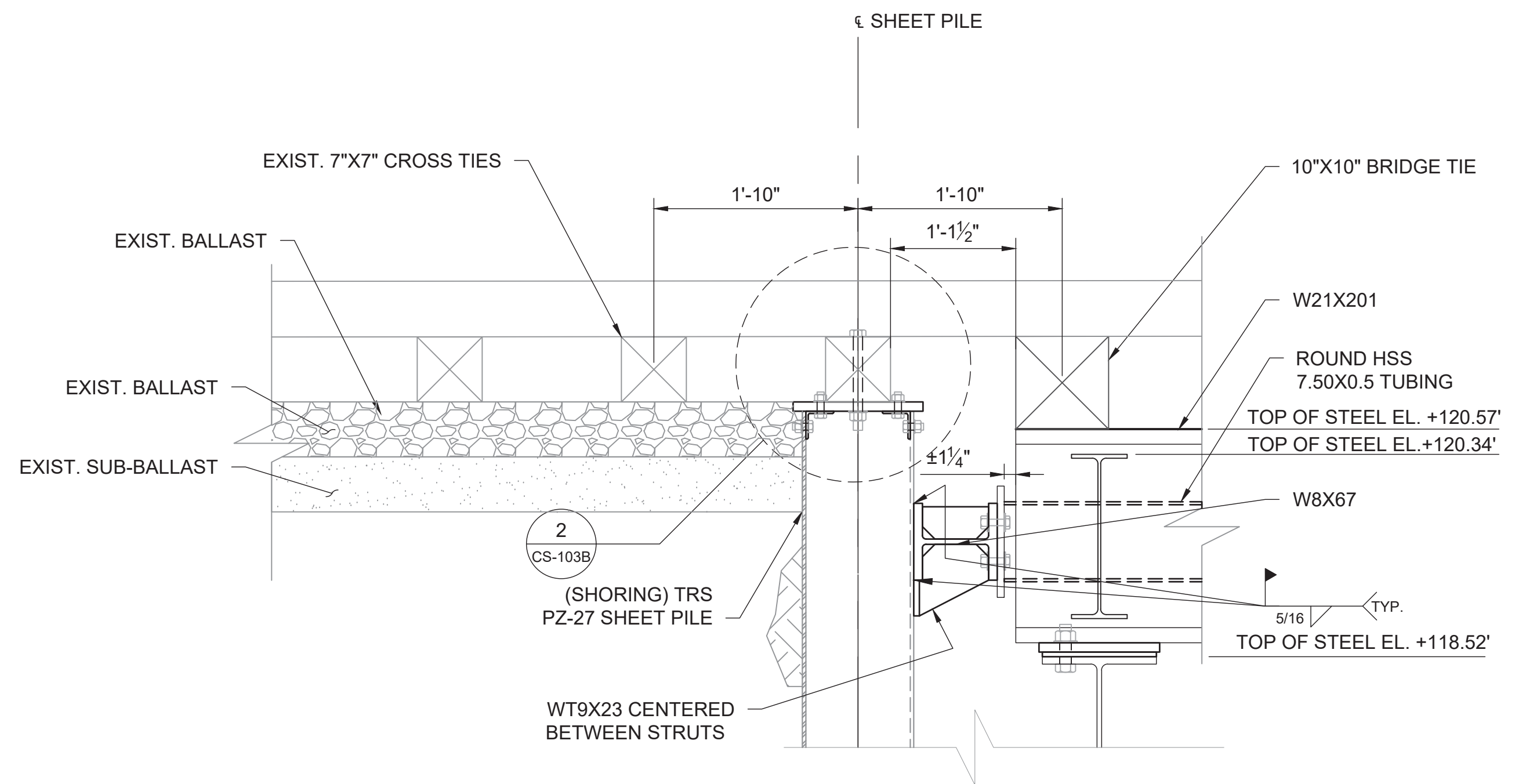
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DO NOT SCALE

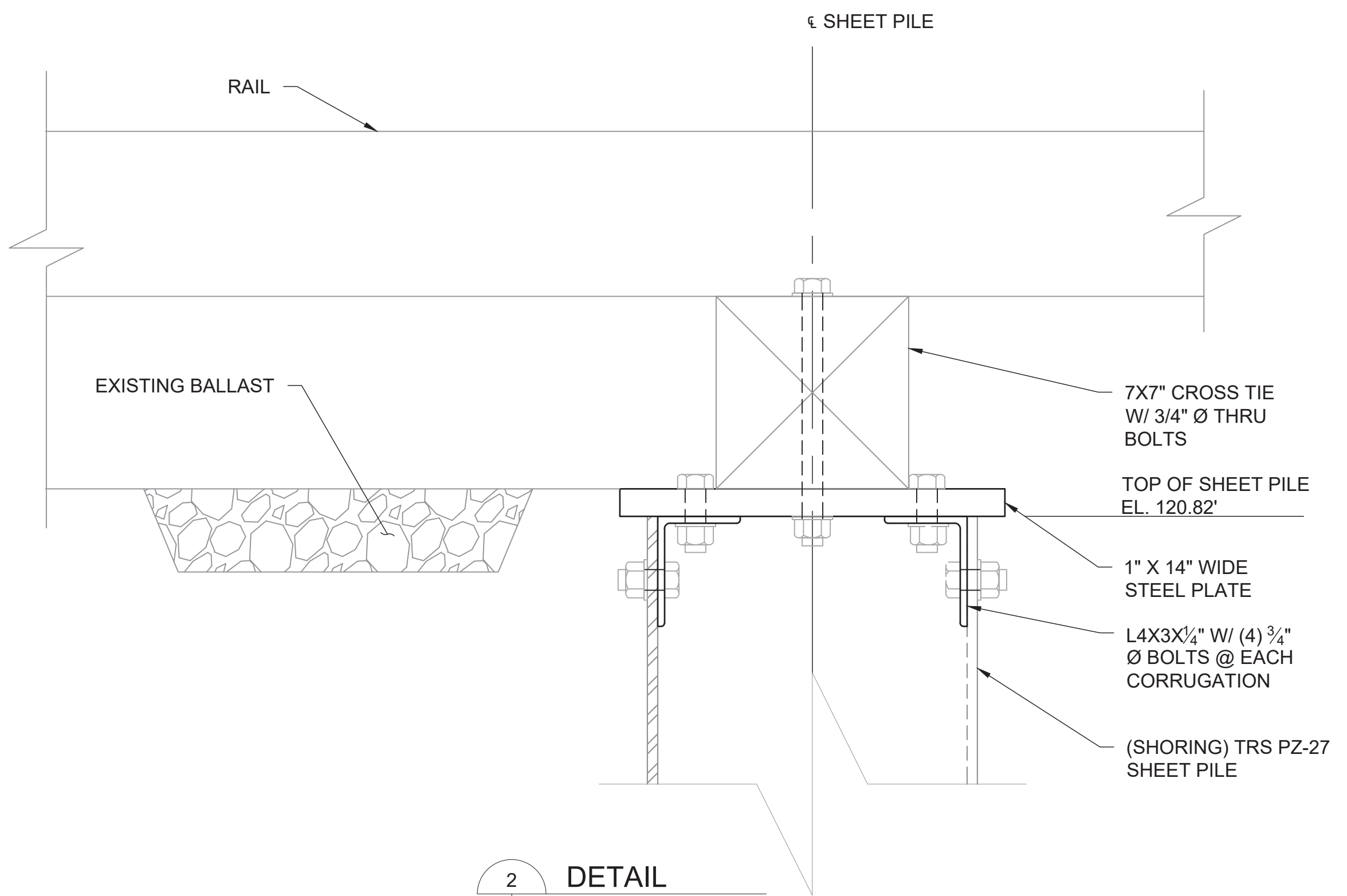
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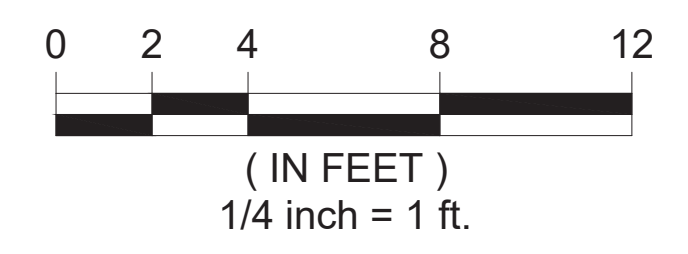
**STEP 8a, 8b, 9**  
CS-103A | CS-103B SCALE: 1/4" = 1'-0"



**1 DETAIL**  
CS-103B | CS-103B SCALE: 1" = 1'-0"



**2 DETAIL**  
CS-103A | CS-103B SCALE: 3" = 1'-0"



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Project Title  
**WEST LUMBERTON FLOOD GATE  
AT VFW ROAD AND RAILROAD UNDERPASS  
PHASE II**

Drawing Title  
**RAILROAD TRS (4 OF 6)  
SECTION**

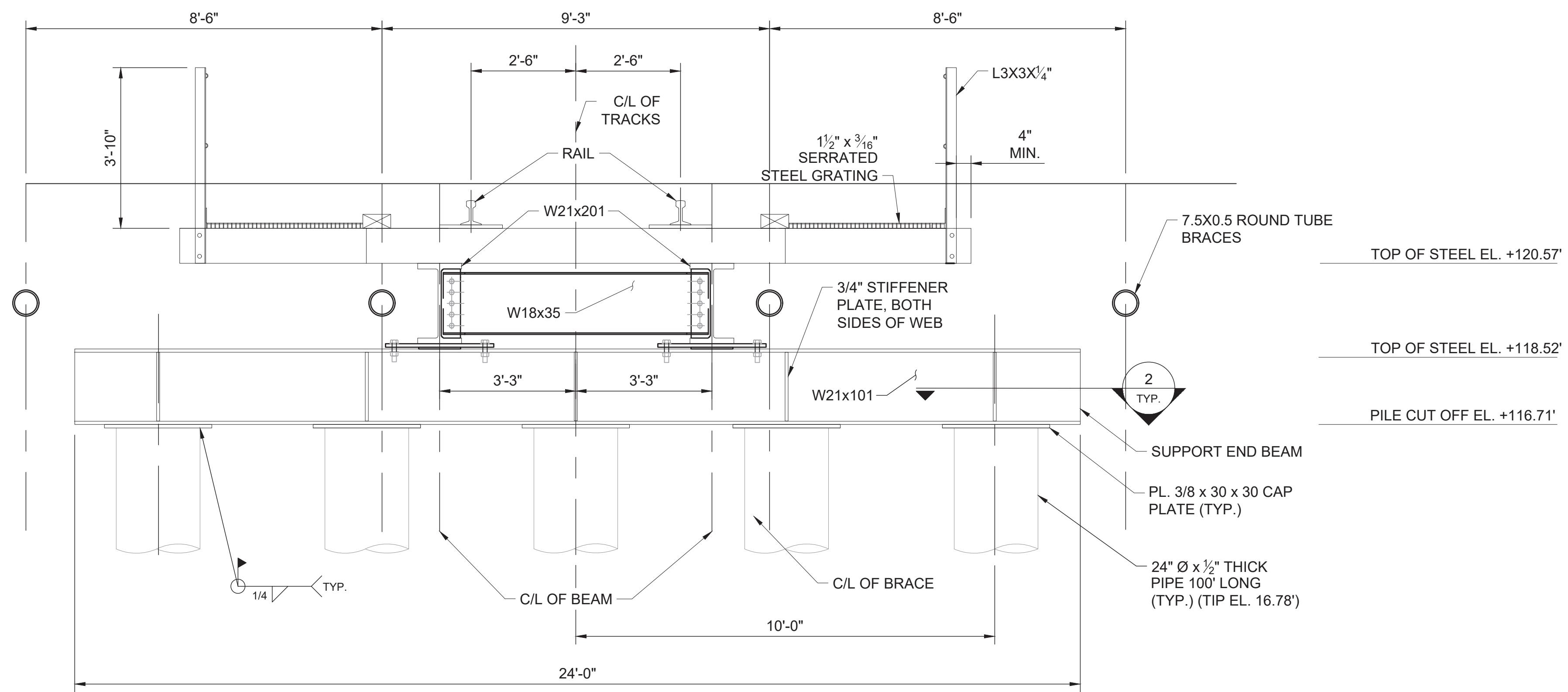
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100068207-CS-103B				000

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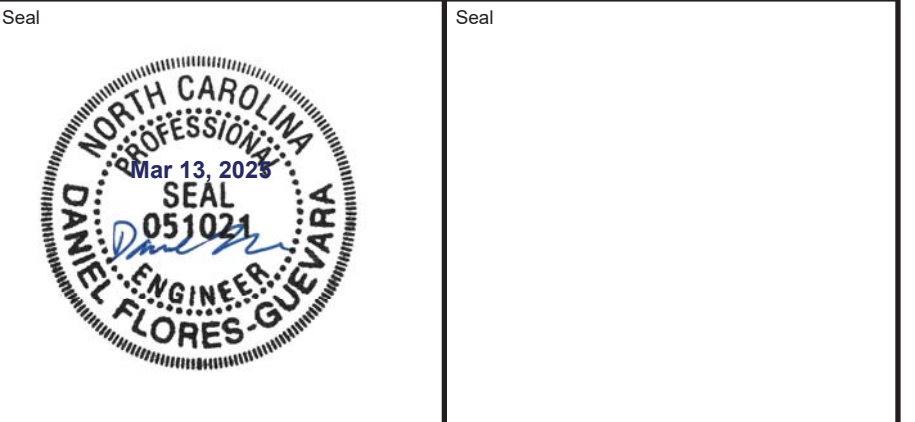
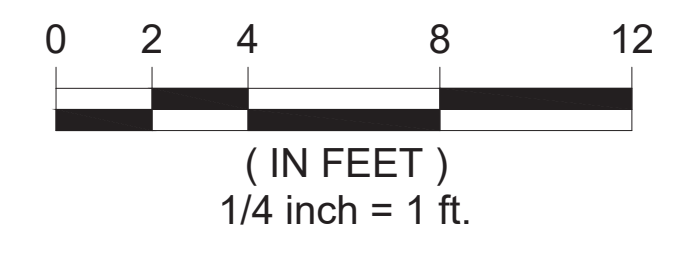
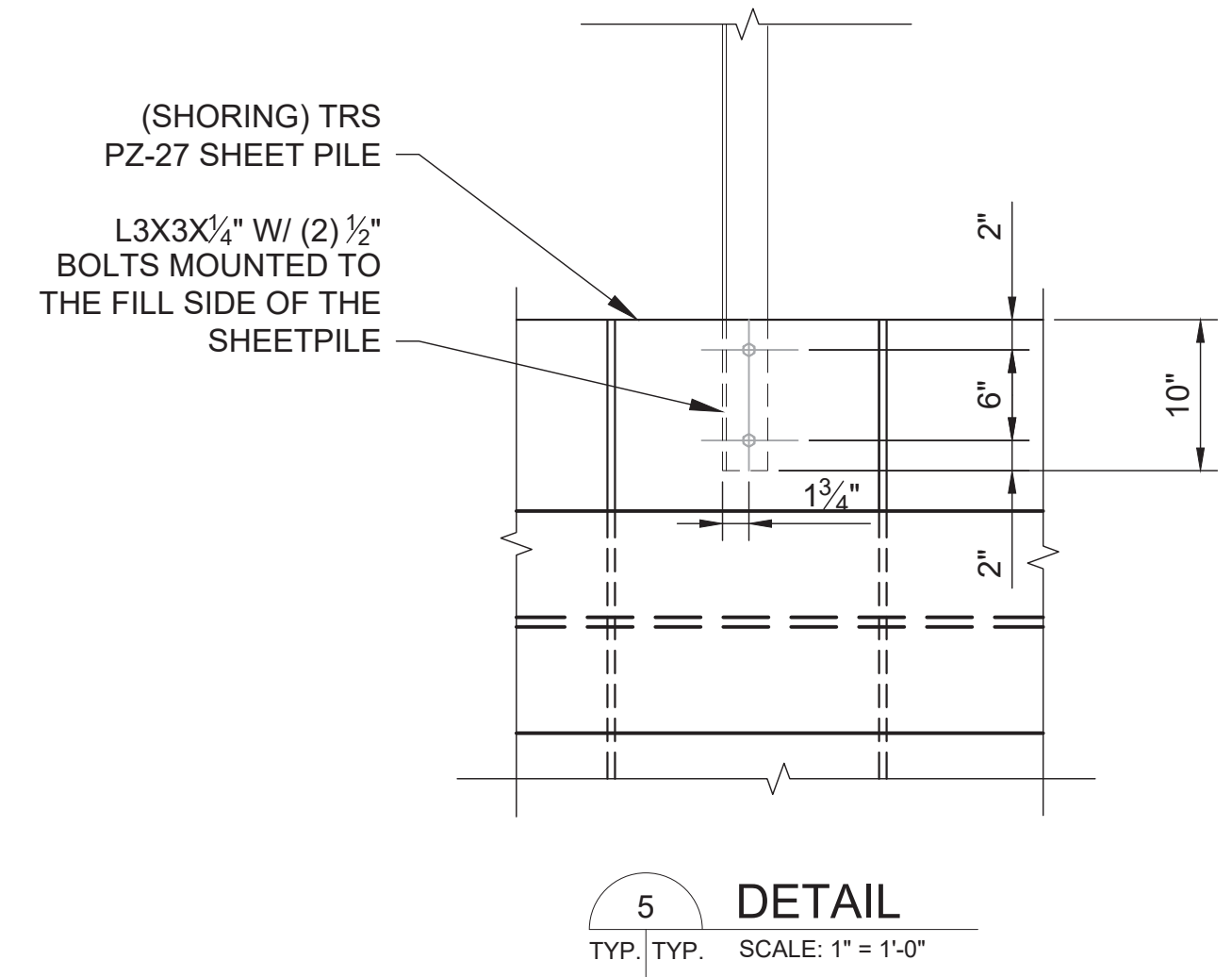
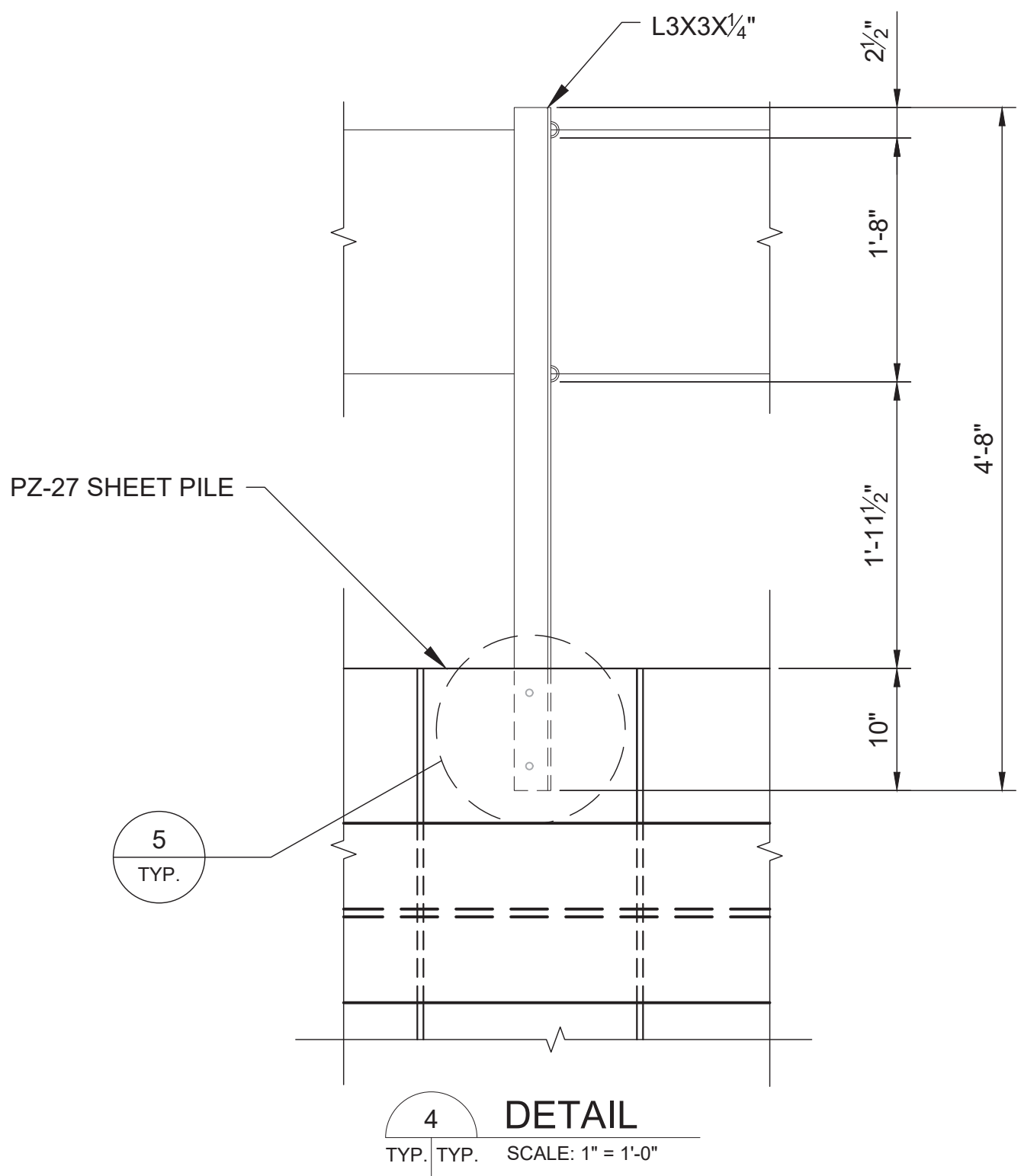
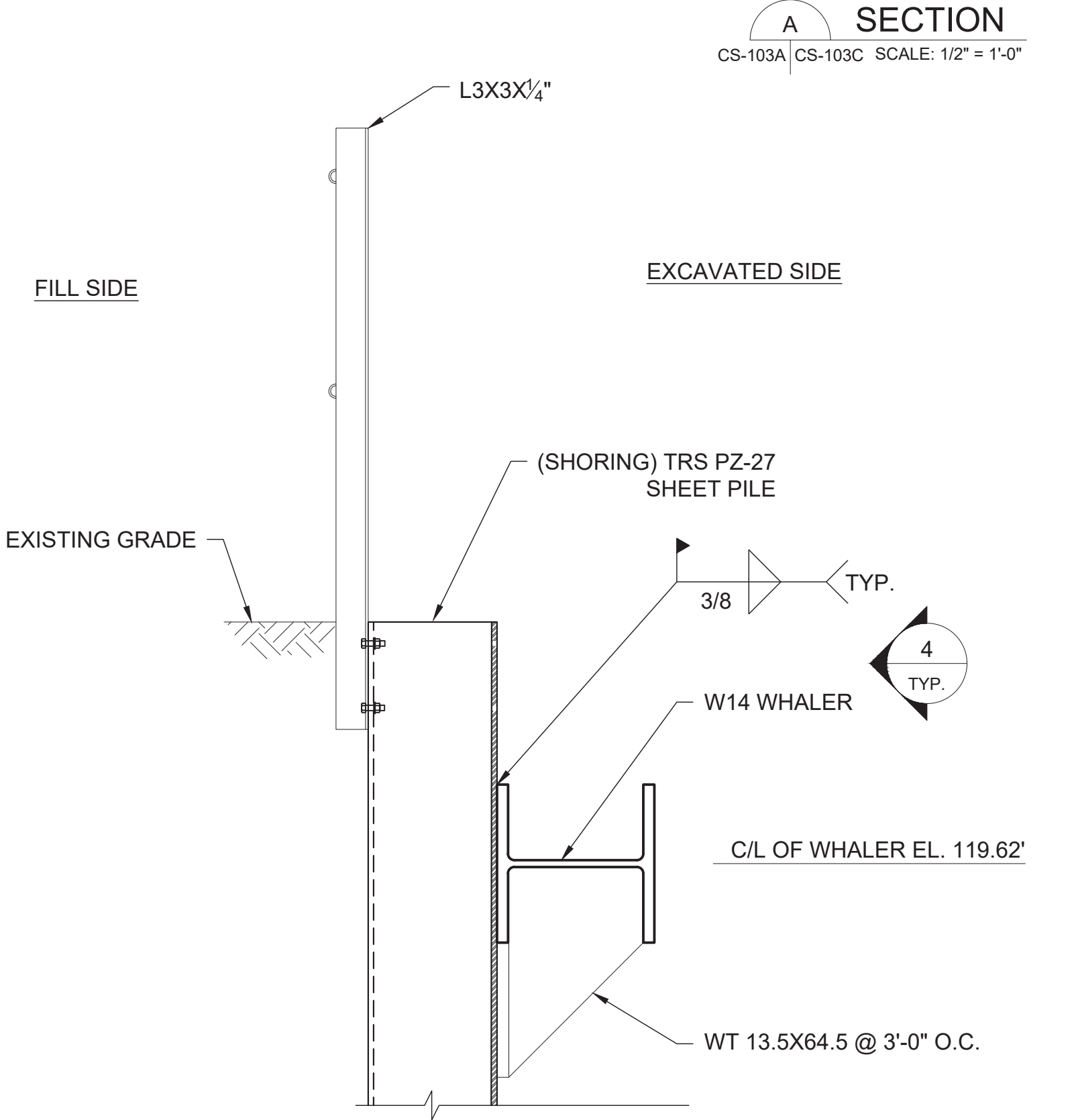
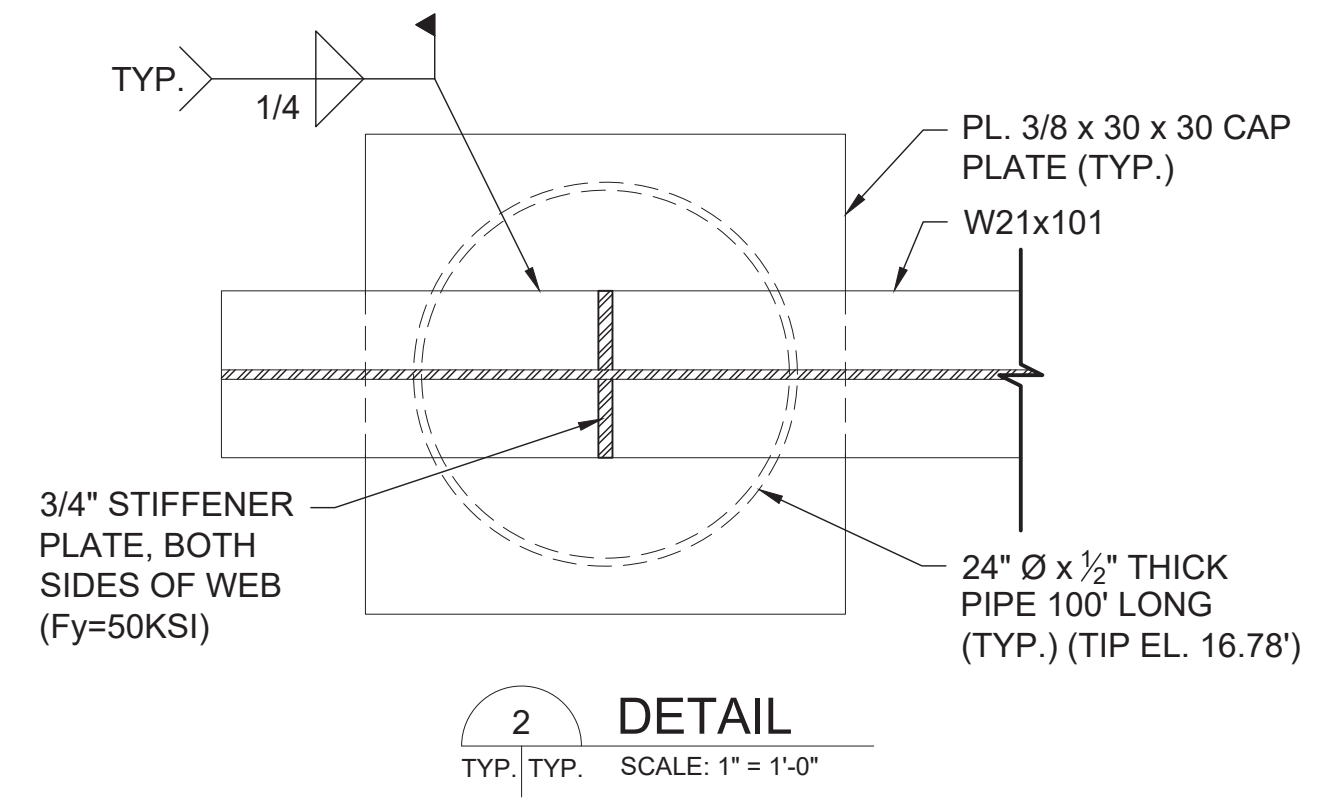
Inches  
0  
1/2  
1  
4

DO NOT SCALE

Drawing Legend



SEE CSX STD. SHEET 2801 FOR ADDITIONAL INFORMATION



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Project Title  
**WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title  
**RAILROAD TRS (4 OF 6) SECTION**

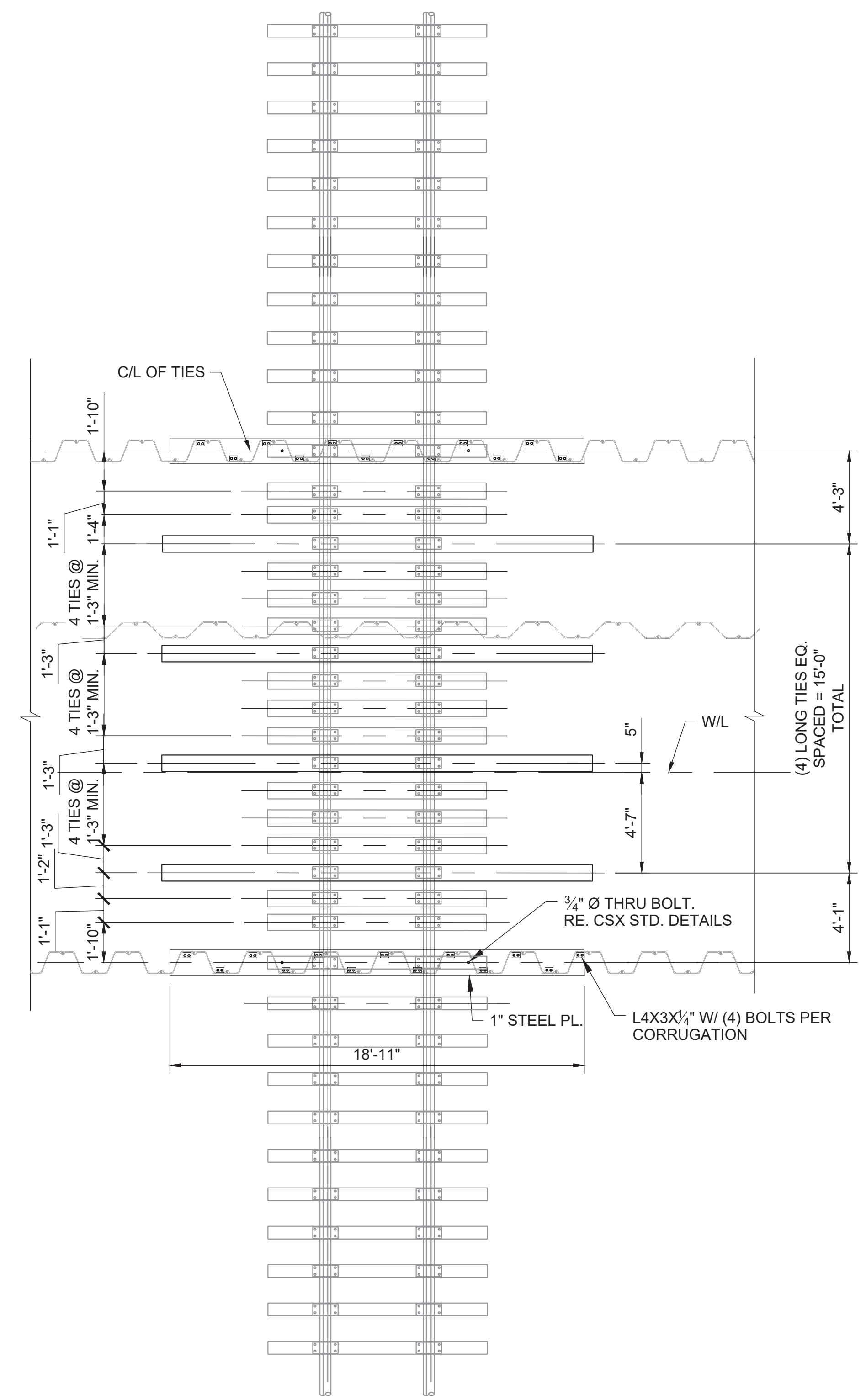
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Drawing Number	Revision			Revision
100068207-CS-103C				000

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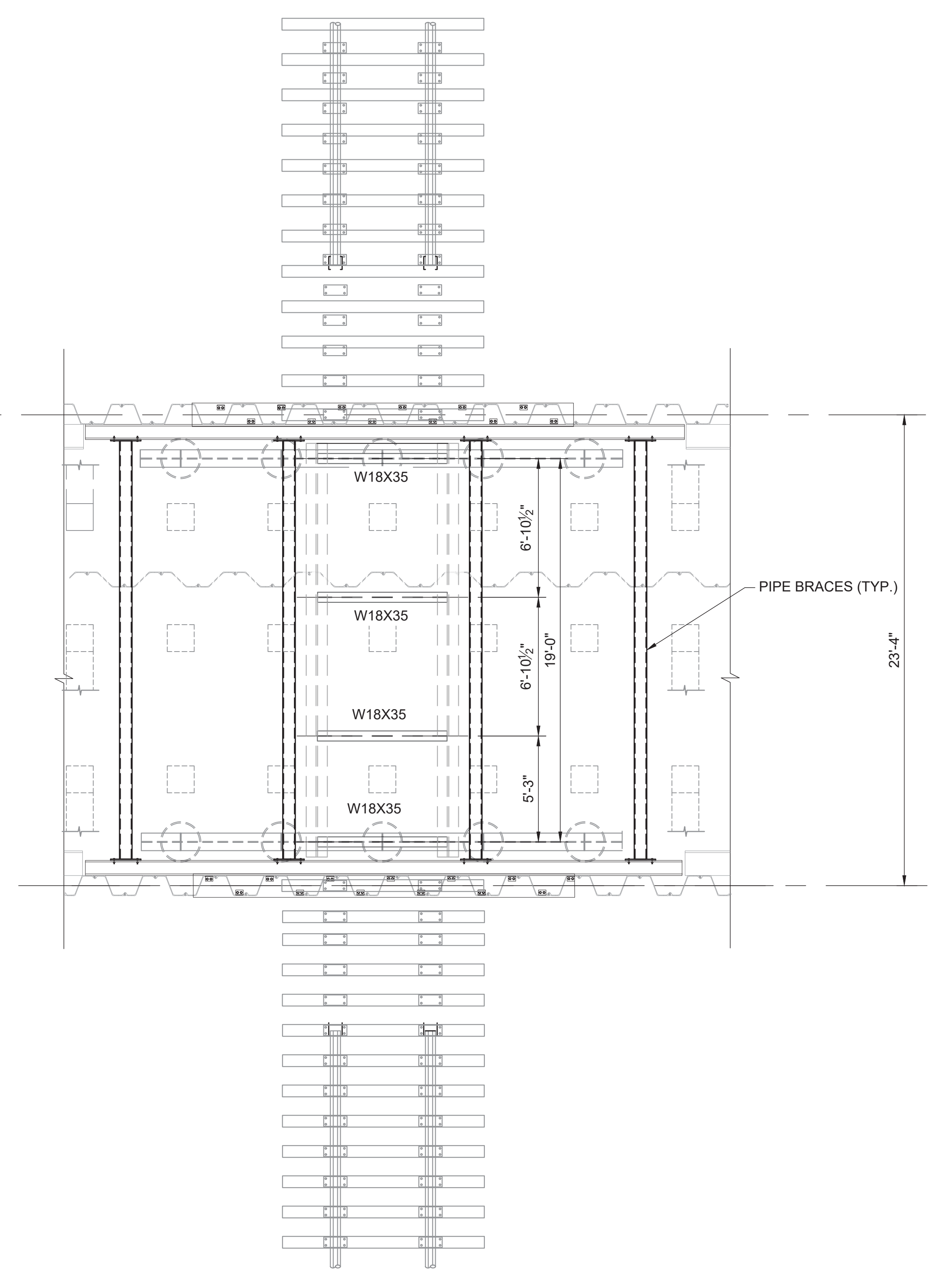
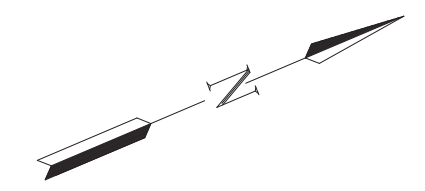
4  
1  
0 1/2  
Inches

DO NOT SCALE

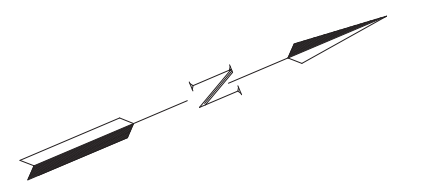
Drawing Legend



1 RAILROAD TIE PLAN (STEP 9)  
TYP. TYP. SCALE: 1/4" = 1'-0"



2 DIAPHRAM PLAN (STEP 9)  
TYP. TYP. SCALE: 1/4" = 1'-0"



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Seal  
  
 Seal

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Client  
  
 City of  
**LUMBERTON**  
 North Carolina

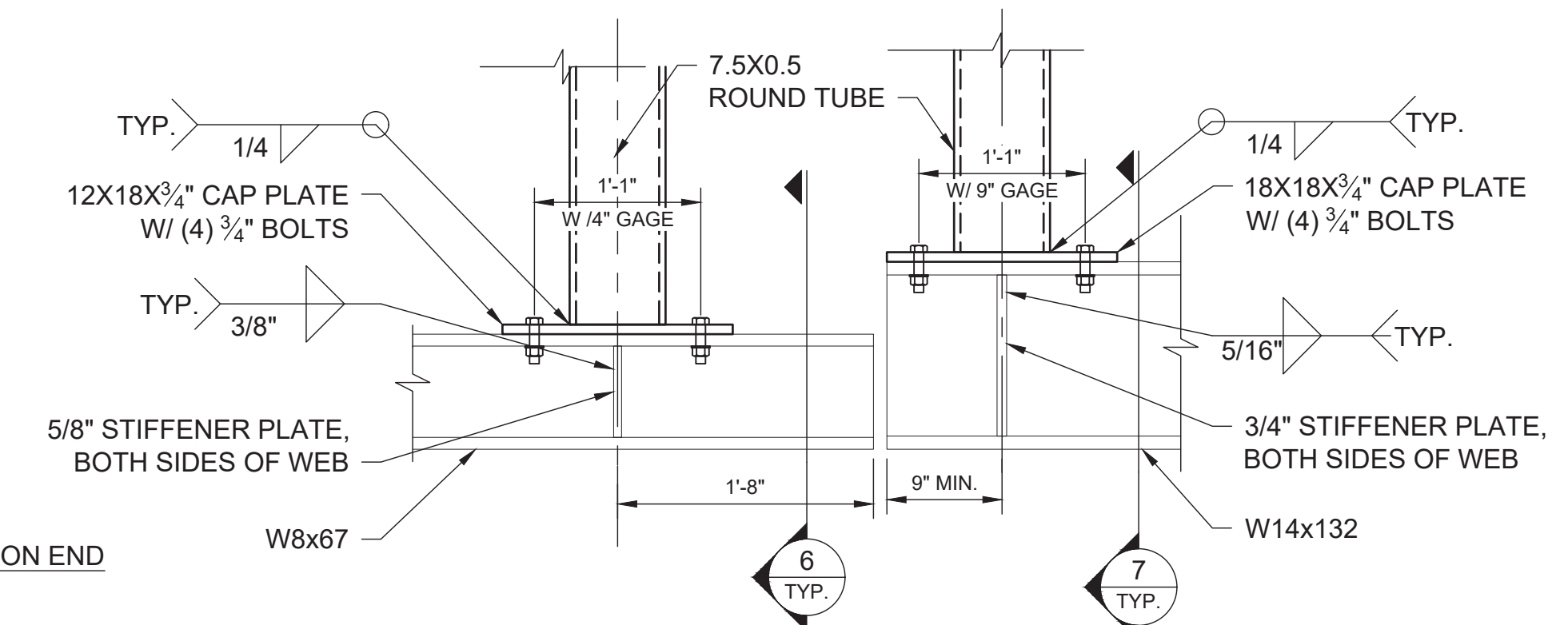
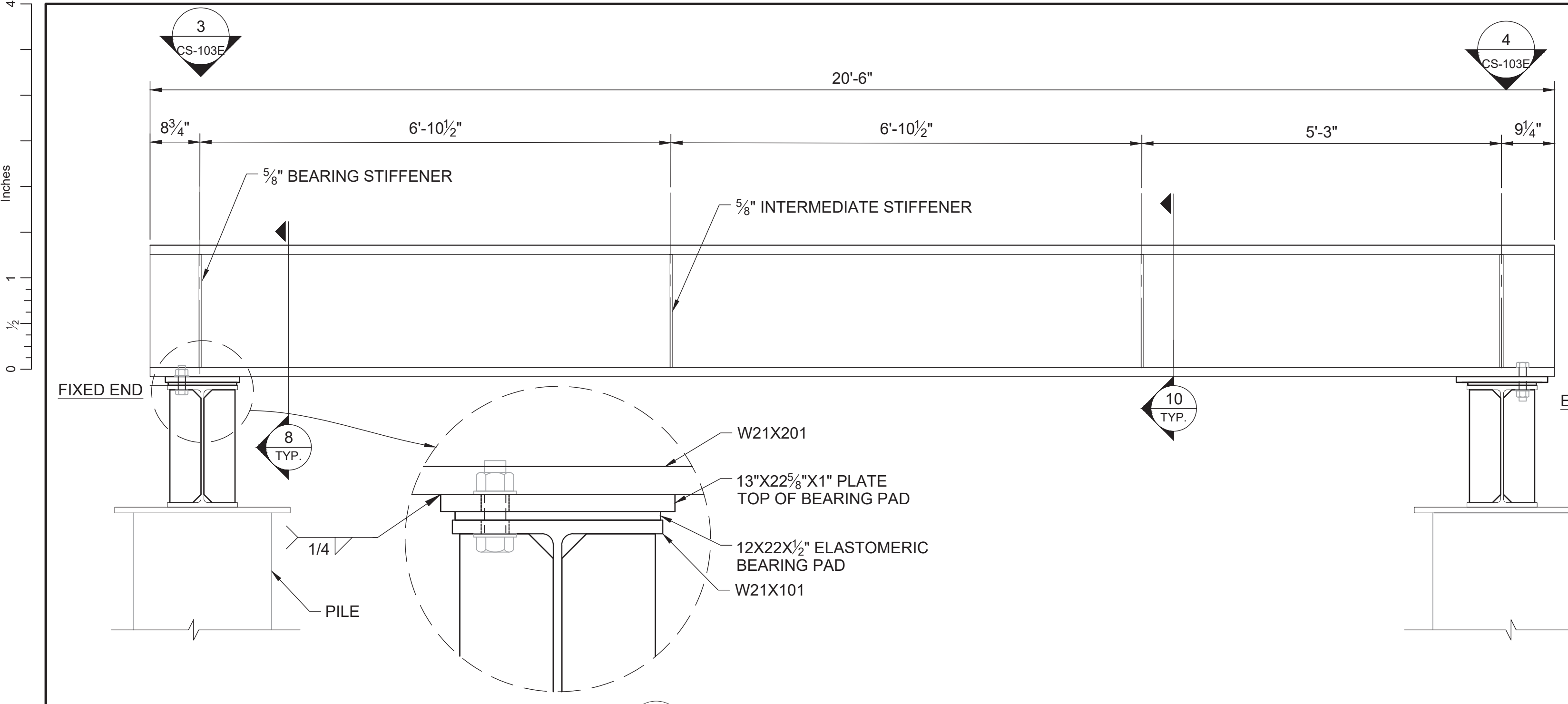
Project Title  
**WEST LUMBERTON FLOOD GATE  
 AT VFW ROAD AND RAILROAD UNDERPASS  
 PHASE II**

Drawing Title  
**RAILROAD TRS (4 OF 6)**

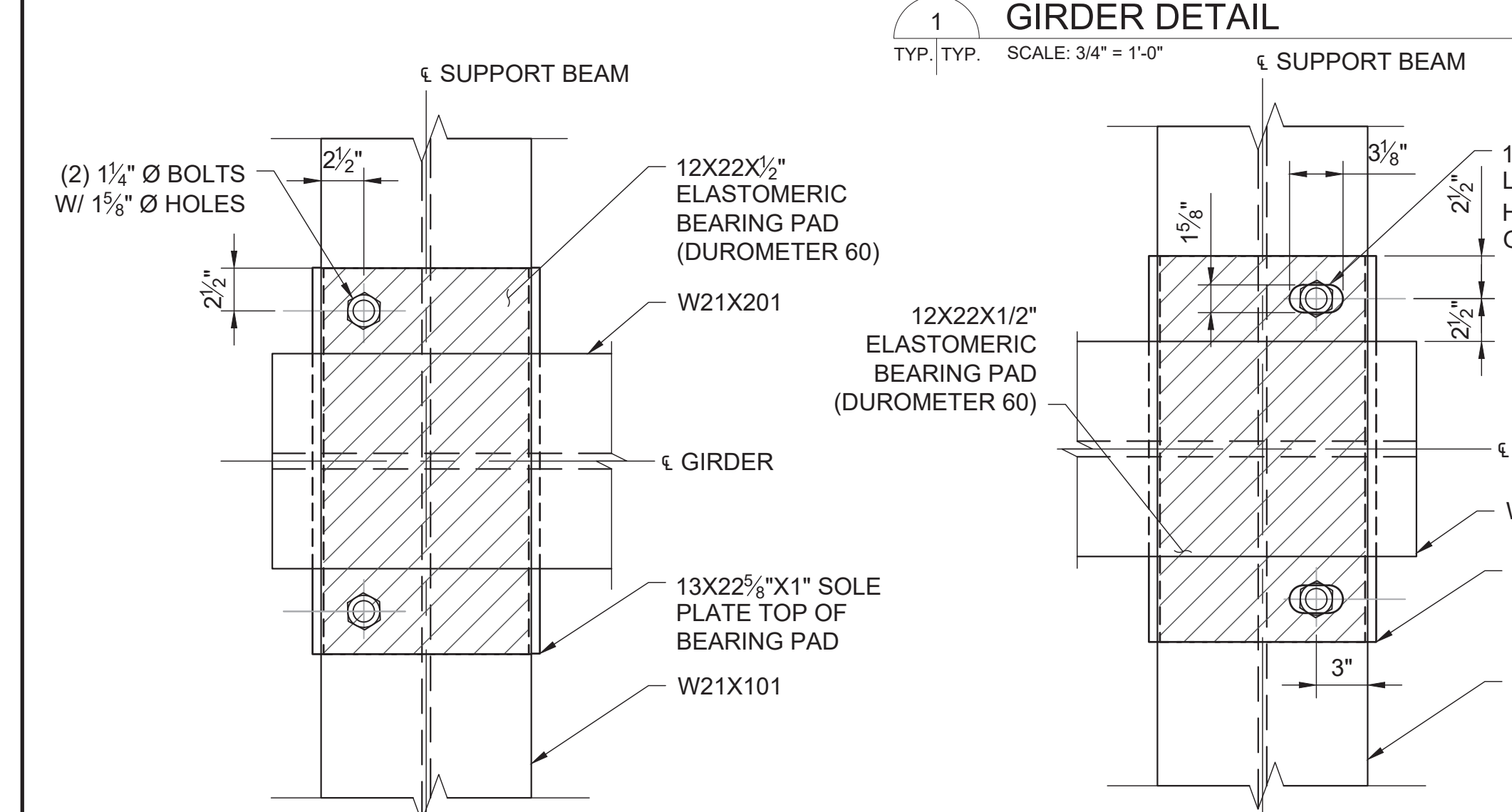
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Drawing Number	Revision			
100068207-CS-103D				000

DO NOT SCALE

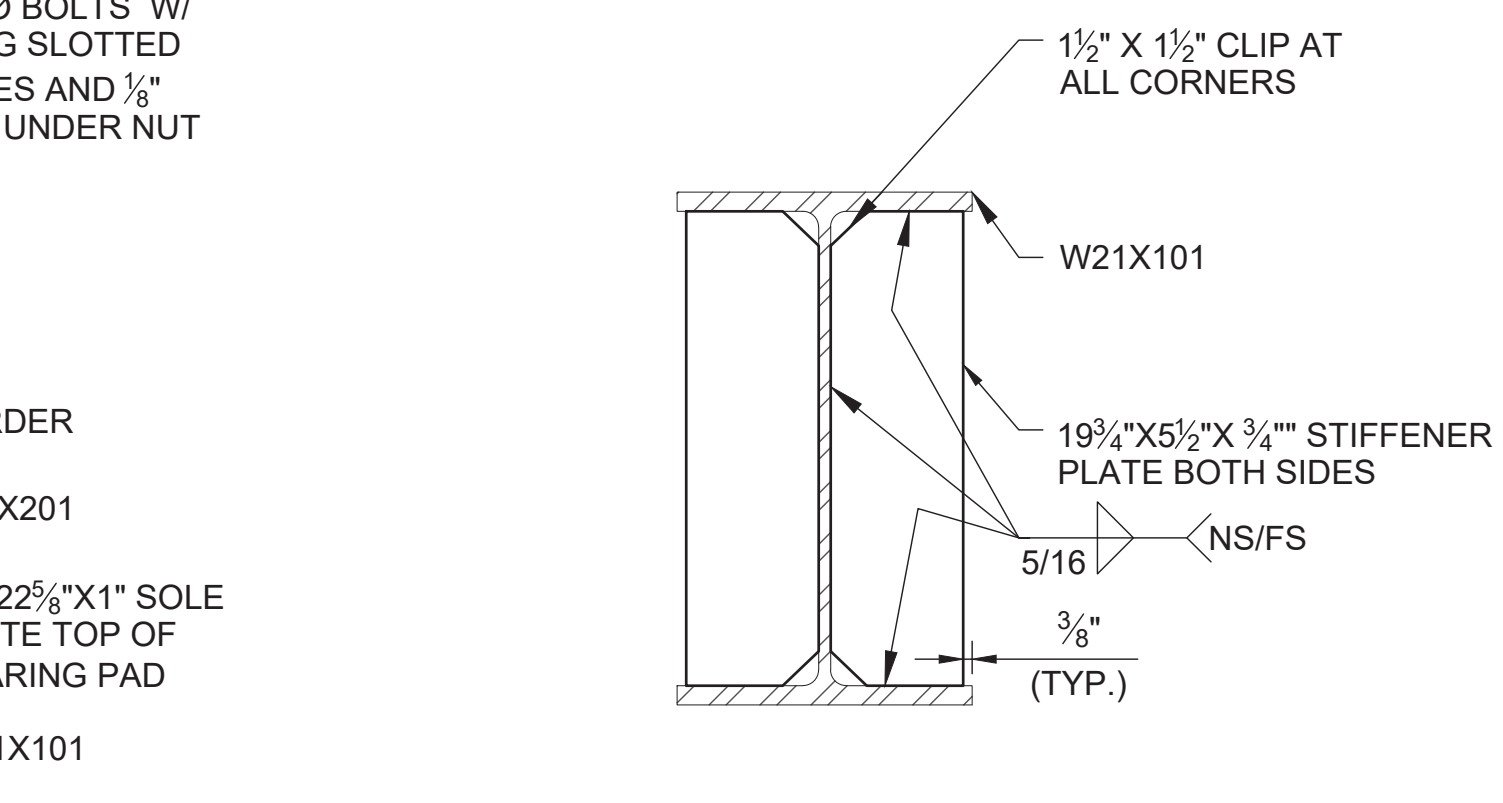
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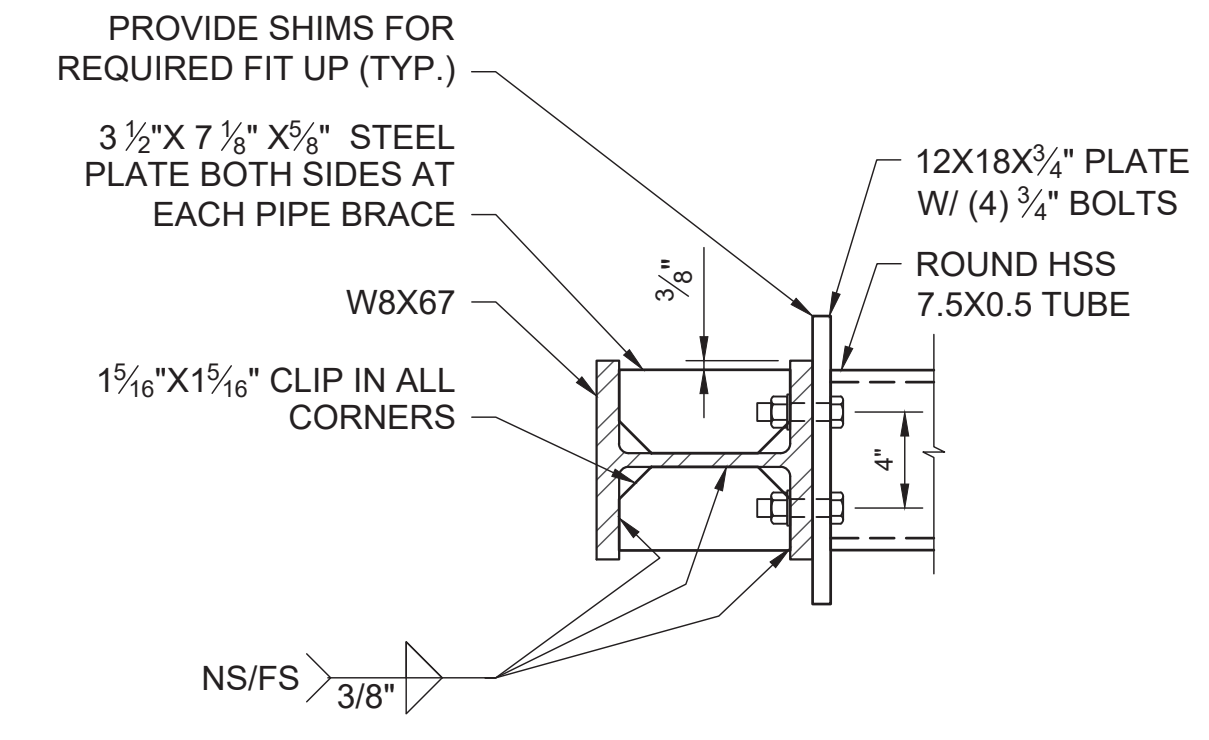
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1 GIRDER DETAIL  
TYP. TYP. SCALE: 3/4" = 1'-0"



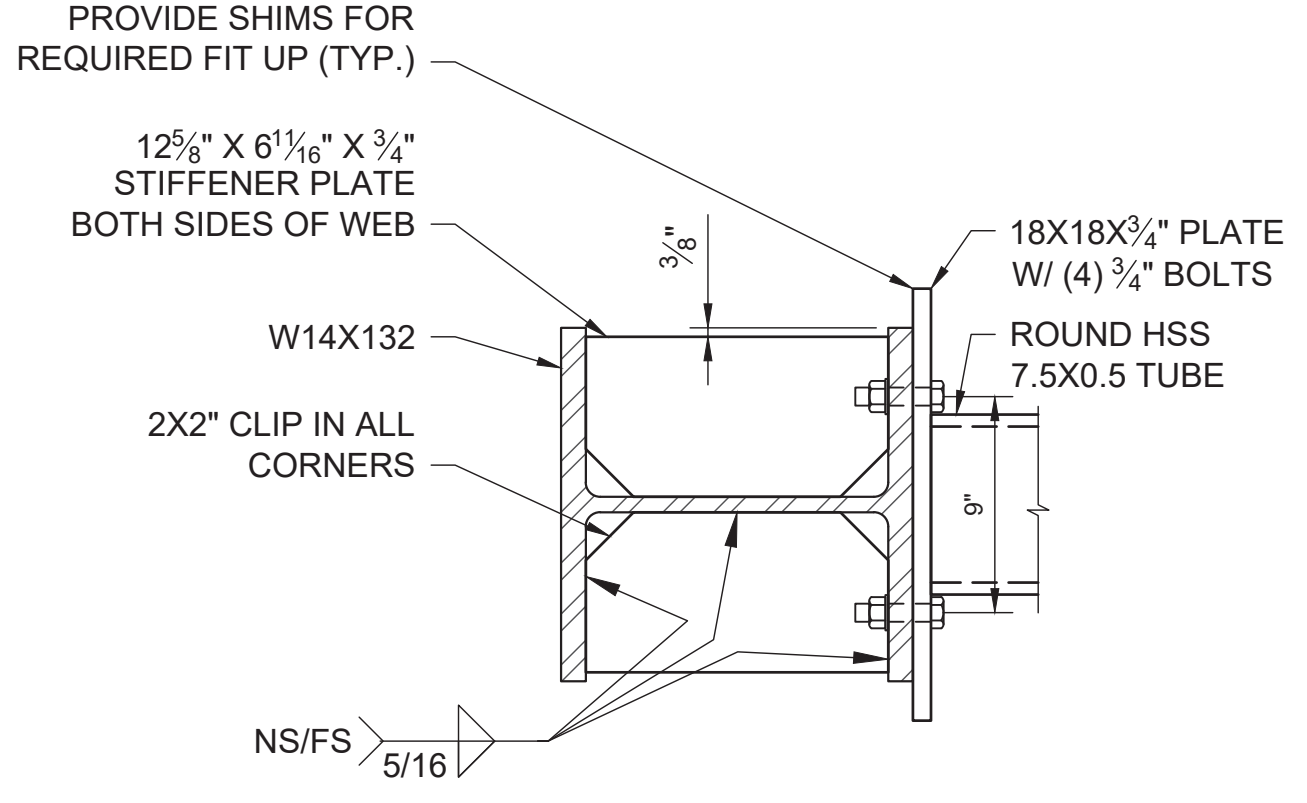
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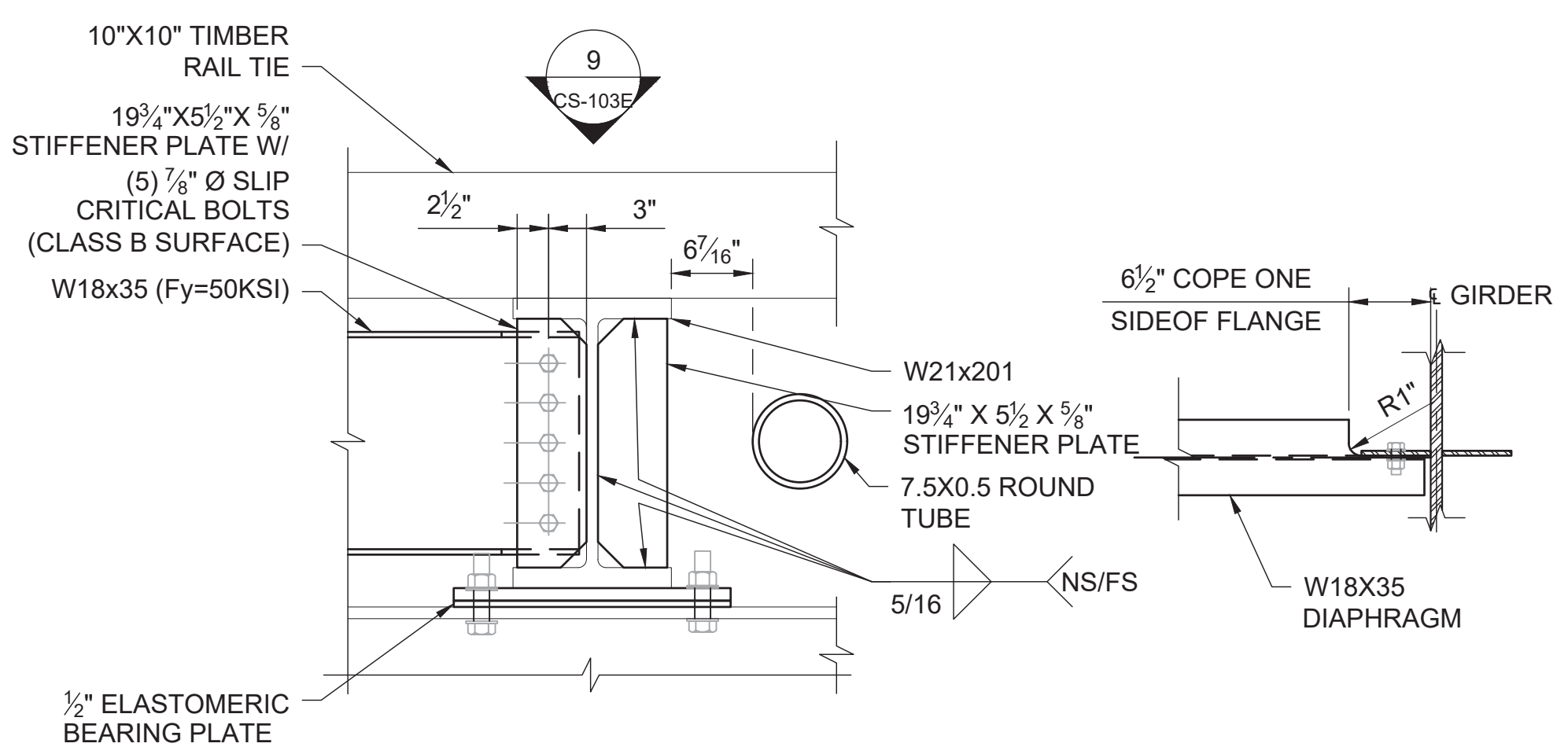
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3 BEARING PAD DETAIL(FIXED END)  
TYP. TYP. SCALE: 1-1/2" = 1'-0"

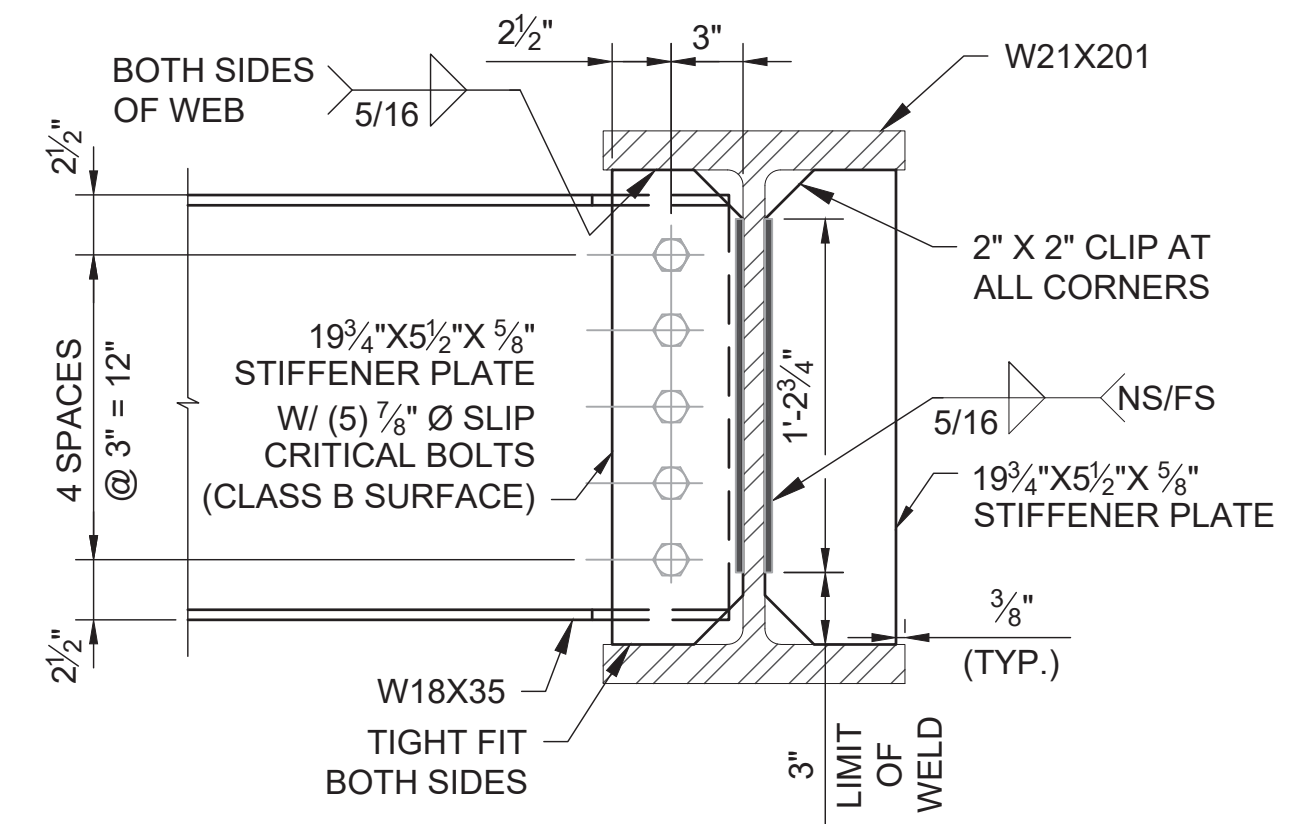
4 BEARING PAD DETAIL(EXPANSION END)  
TYP. TYP. SCALE: 1-1/2" = 1'-0"



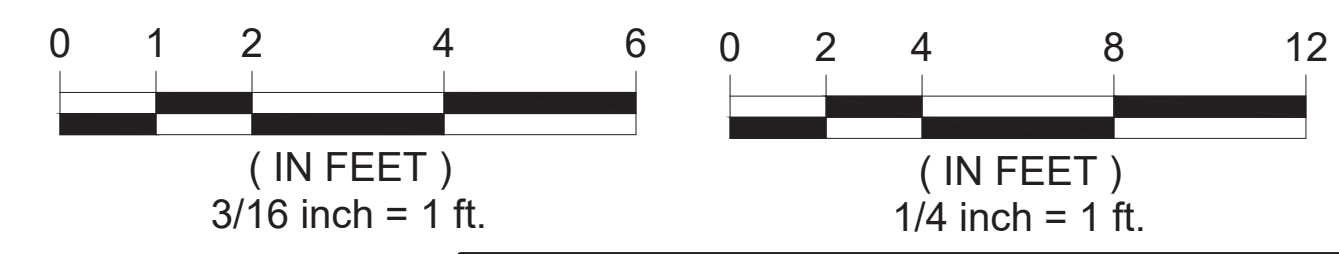
7 WALER DETAIL  
TYP. TYP. SCALE: 1-1/2" = 1'-0"



8 GIRDER SECTION  
TYP. TYP. SCALE: 1" = 1'-0"



10 INTERMEDIATE STIFFENER SECTION  
TYP. TYP. SCALE: 1-1/2" = 1'-0"



Rev.	Date	Description	By	Chk'd	App'd	Suitability
						SO

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Project Title: WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II

Drawing Title: RAILROAD TRS (4 OF 6)

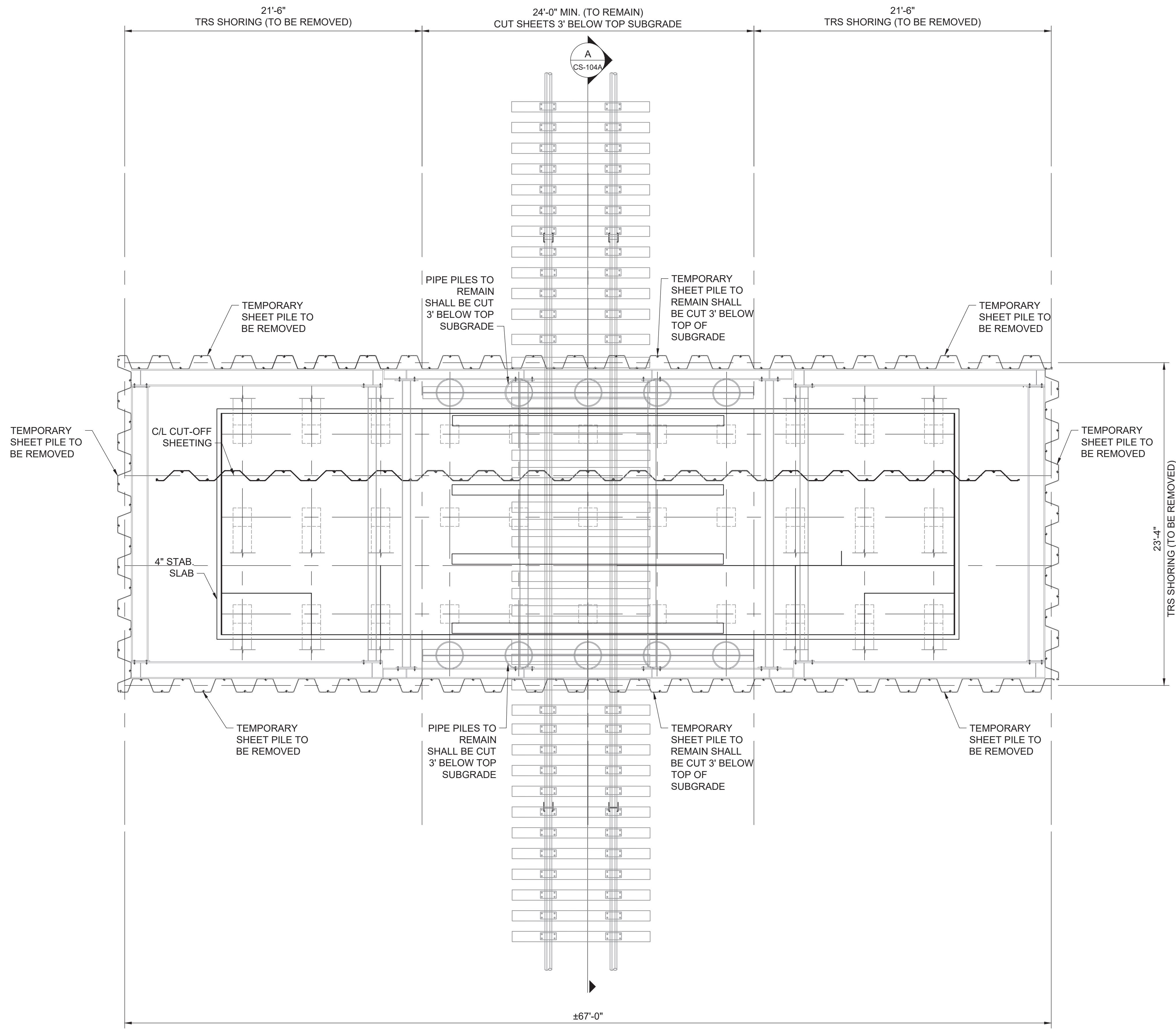
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SEE DWG.	--	--	--	--
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Drawing Number	100068207-CS-103E			Revision
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Inches  
0  
1/2  
1  
4

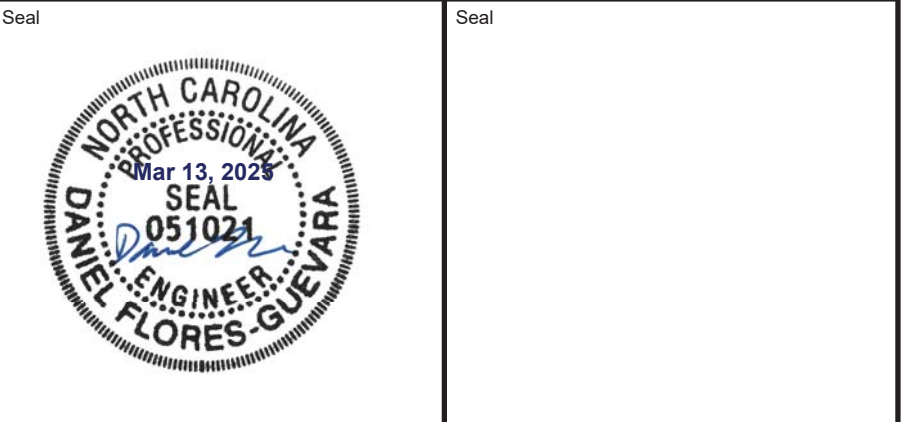
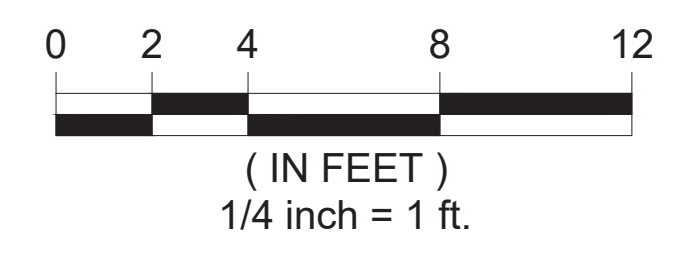
DO NOT SCALE

Drawing Legend



PHASE 5 CONSTRUCTION SEQUENCING: (NO OUTAGE REQUIRED)  
 STEP 10. CONTRACTOR WORKS UNDER THE JUMP SPAN BRIDGE TO EXCAVATE, CUT OFF PERMANENT SHEETING AND PILES. INSTALL REINFORCED CONCRETE BASE SLAB, WALL STEM, AND PILASTERS.

1 PHASE 5 PLAN VIEW  
 TYP. TYP. SCALE: 1/4" = 1'-0"



Rev.	Date	Description	By	Chk'd	App'd

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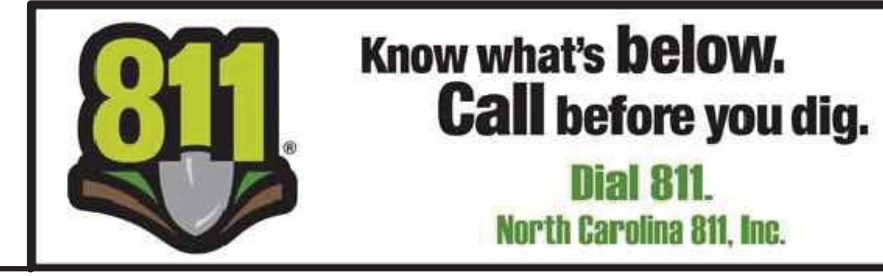
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Project Title  
**WEST LUMBERTON FLOOD GATE  
 AT VFW ROAD AND RAILROAD UNDERPASS  
 PHASE II**

Drawing Title  
**RAILROAD TRS (5 OF 6)**

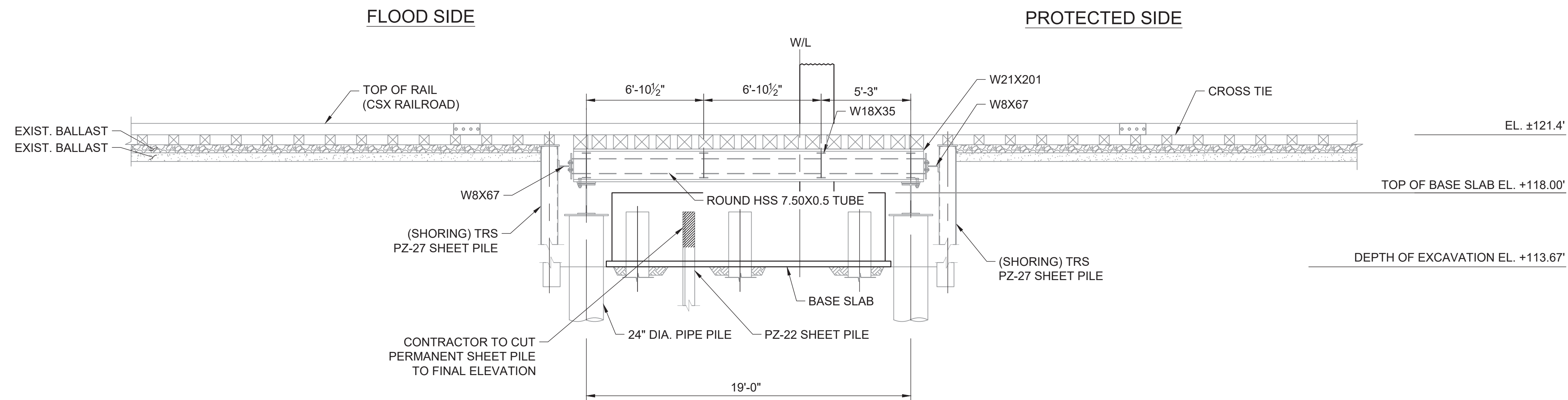
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Drawing Number	Revision			
100068207-CS-104	000			000



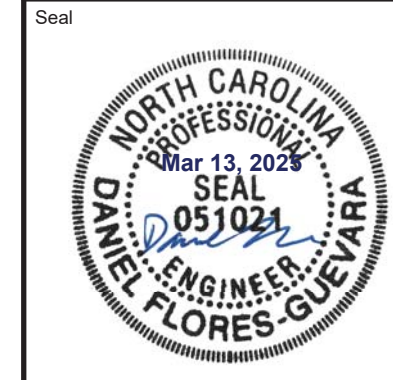
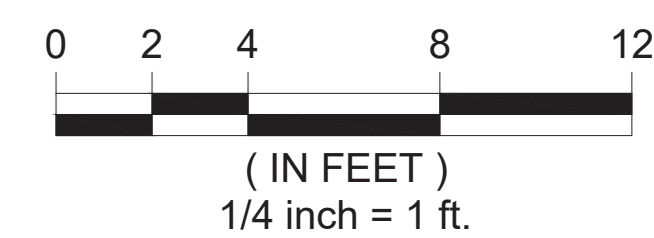
Inches  
0 1/2 1 4

DO NOT SCALE

Drawing Legend



**A SECTION**  
CS-104 | CS-104A SCALE: 1/4" = 1'-0"



Rev.	Date	Description	By	Chk'd	App'd	Suitability

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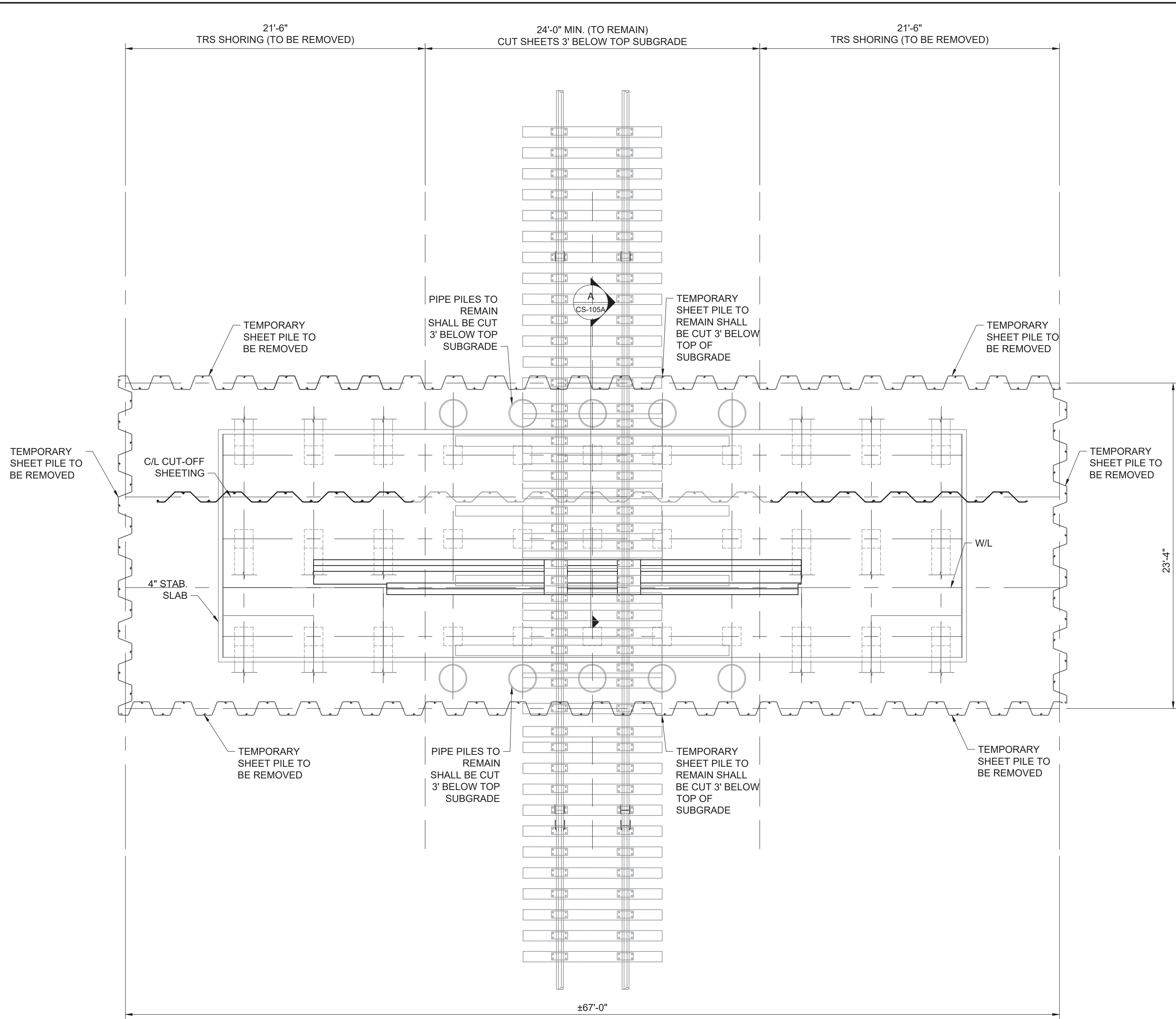
Project Title: **WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title: **RAILROAD TRS (5 OF 6) SECTION**

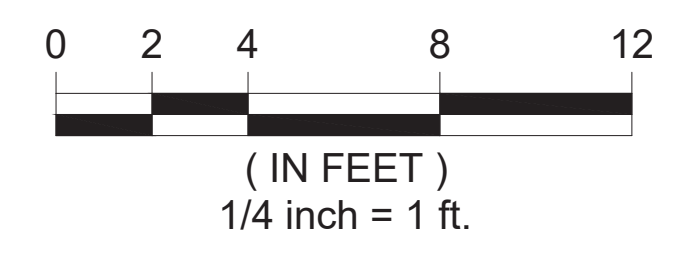
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SEE DWG.	--	--	--	--
Original Size	Date	Date	Date	Date
22x34	--/--	--/--	--/--	--/--
Drawing Number	Revision			
100068207-CS-104A				000

Inches  
0  
1/2  
1  
4



**1 PHASE 6 PLAN VIEW**  
TYP. TYP. SCALE: 1/4" = 1'-0"



**DO NOT SCALE**

- PHASE 6 CONSTRUCTION SEQUENCING (3RD SCHEDULED OUTAGE):**
- STEP 11.
    - a. CONTRACTOR AND CSX WILL COORDINATE AND SCHEDULE TRACK WINDOWS TO REMOVE JUMP SPAN BRIDGE.
    - b. CSX WILL CUT RAILS ON SECTIONS OF TRACK OVER JUMP SPAN BRIDGE.
    - c. CONTRACTOR REMOVES JUMP SPAN BRIDGE, INCLUDING THE CUT TRACK SECTIONS, CUT OFF SHORING AND JUMP SPAN BRIDGE PILES.
    - d. CONTRACTOR CUTS OFF SHORING AND PIPE PILES THAT ARE SHOWN TO REMAIN, 3 FEET BELOW GRADE. TEMPORARY TRS SHORING IS REMOVED
  - STEP 12.
    - a. CONTRACTOR INSTALLS PRECAST SILL, PLACE BACKFILL, AND COMPACT SUB-BALLAST
  - STEP 13.
    - a. CSX WILL PLACE APPROXIMATELY TWELVE INCHES OF BALLAST ROCK, INSTALL PRE-FABRICATED TRACK PANELS ON ALL TRACKS, AND SURFACE THE TRACKS.
    - b. CSX WILL SCHEDULE TRACK WINDOWS TO WELD JOINTS ON TRACK PANELS.

- PHASE 7 CONSTRUCTION SEQUENCING:**
- STEP 14. THE CONTRACTOR AND CSX TO SCHEDULE TRACK WINDOWS TO PLACE STEEL SWING GATE DURING PLACEMENT OF THE GATE. THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 15'-0" FROM THE CENTERLINE OF TRACKS.

Drawing Legend

Seal	Seal

Rev.	Date	Description	By	Chk'd	App'd	Suitability
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Project Title  
**WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title  
**RAILROAD TRS (6 OF 6)**

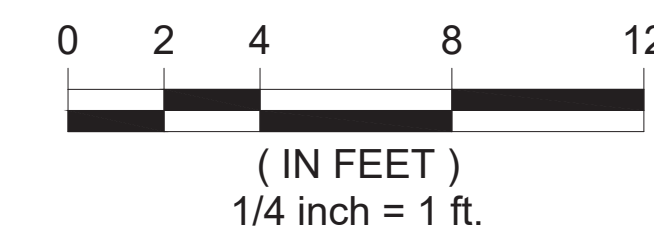
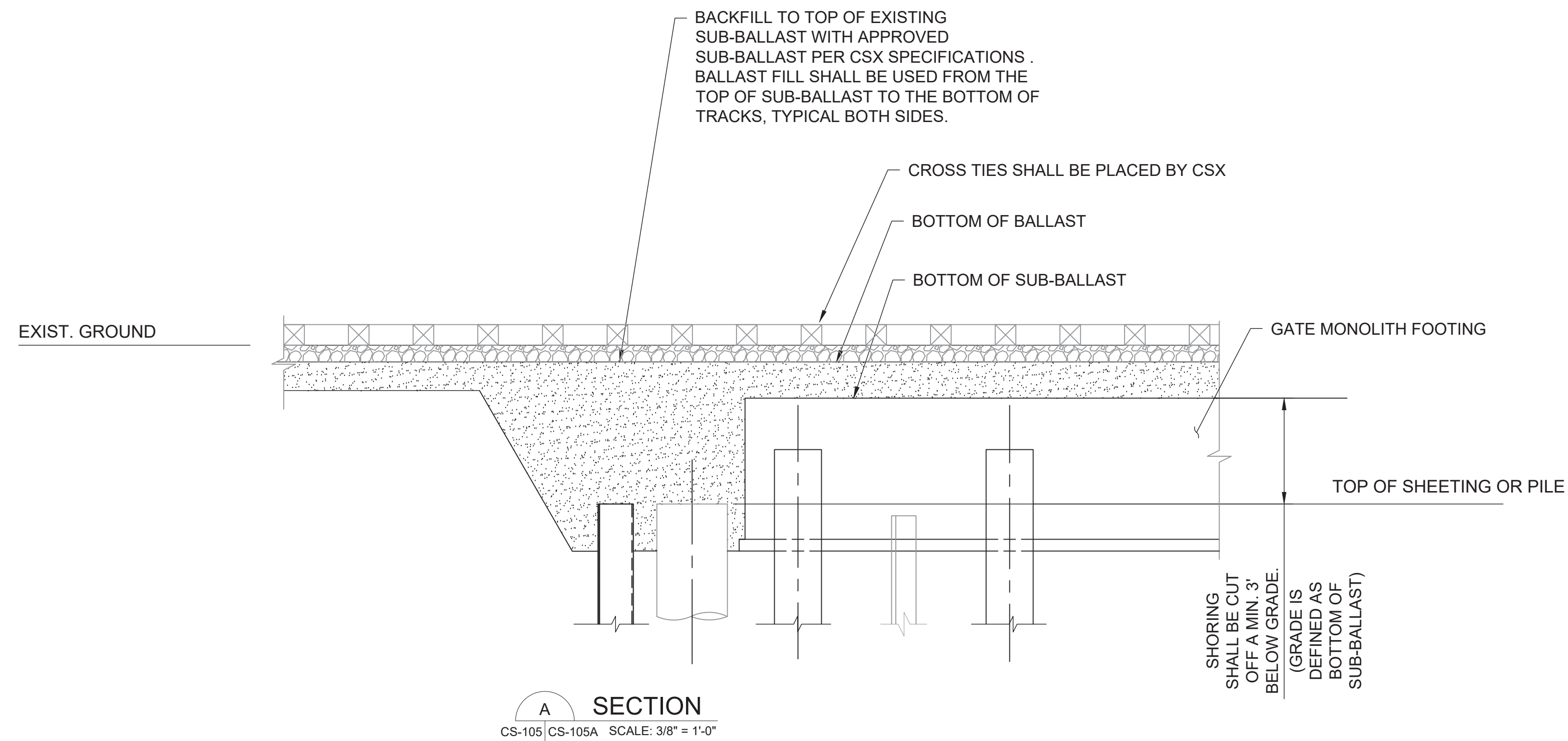
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100068207-CS-105				000

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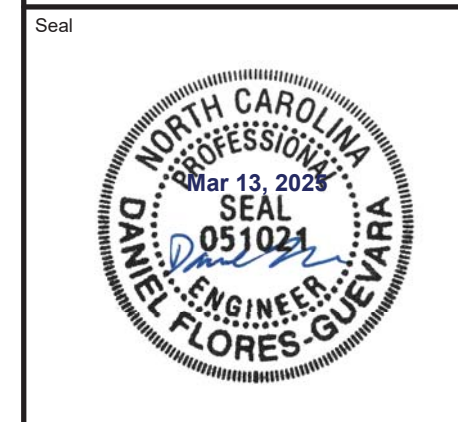
Inches  
0 1/2 1 4

DO NOT SCALE

Drawing Legend



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Rev.	Date	Description	By	Chk'd	App'd	Suitability

Drawing Status: **FOR INFORMATION** Suitability: **S0**

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Client: **WEST LUMBERTON FLOOD GATE AT VFW ROAD AND RAILROAD UNDERPASS PHASE II**

Drawing Title: **RAILROAD TRS (6 OF 6) SECTION**

Scale	Designed	Drawn	Checked	Authorized
SEE DWG.	--	--	--	--
Original Size	Date	Date	Date	Date
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Drawing Number	Revision			
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