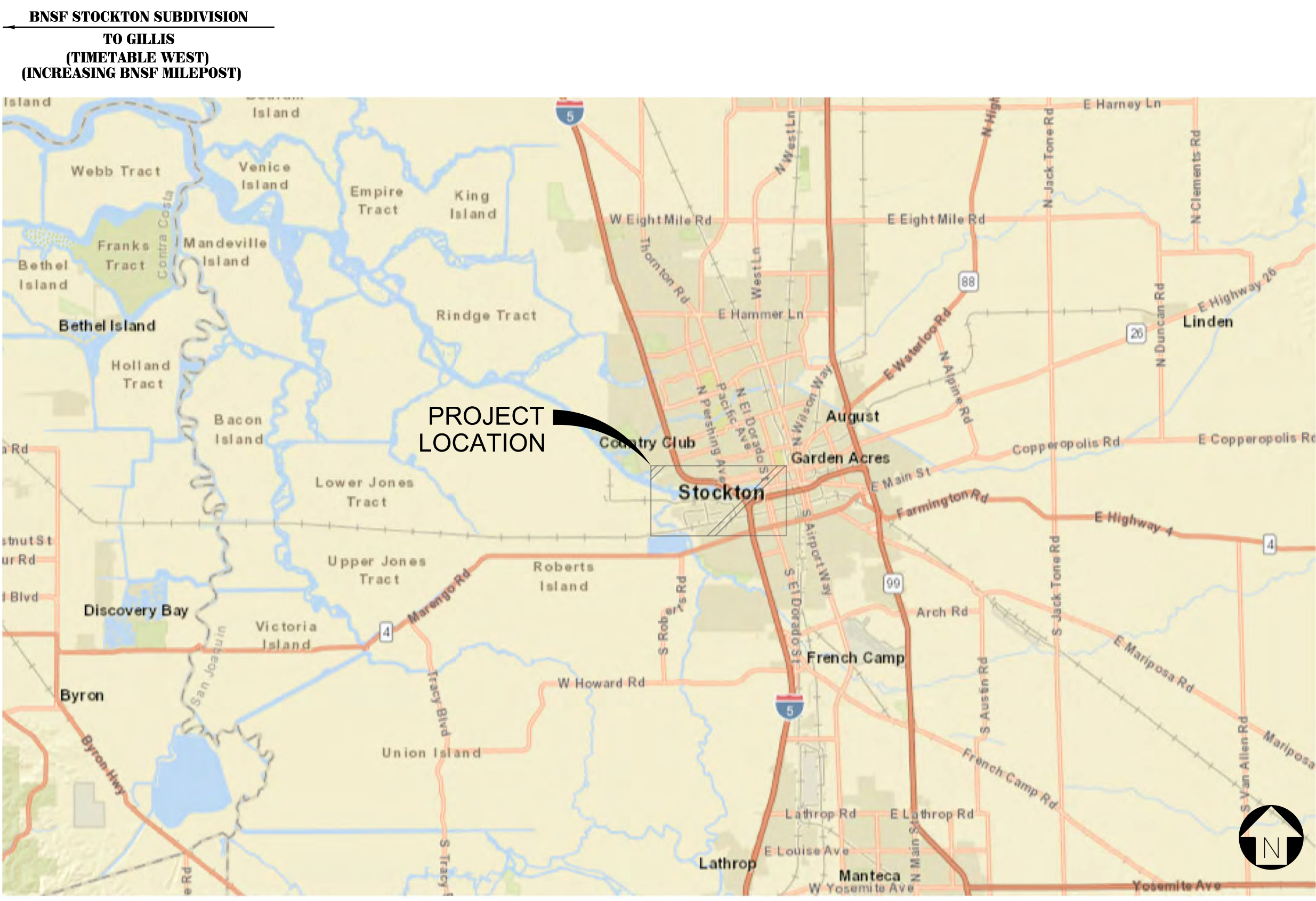


PORT OF STOCKTON
RAIL BRIDGE REPLACEMENT AND
RAIL IMPROVEMENTS PROJECT
BRIDGE 1122.60 STOCKTON SUB
OVER FRESNO AVENUE

2201 WEST WASHINGTON STREET
STOCKTON, CA 95203



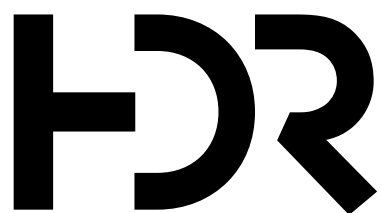
VICINITY MAP
SCALE: N.T.S.



LOCATION MAP
SCALE: N.T.S.

DRAWING SCHEDULE					
SHEET	SHEET NO.	DESCRIPTION	SHEET	SHEET NO.	DESCRIPTION
1	S001	TITLE SHEET	28	S300	P/S CONCRETE BOX BEAM SPAN LAYOUT
2	S002	GENERAL NOTES (SHEET 1 OF 5)	29	S301	P/S CONCRETE BOX BEAM DETAILS (SHEET 1 OF 3)
3	S003	GENERAL NOTES (SHEET 2 OF 5)	30	S302	P/S CONCRETE BOX BEAM DETAILS (SHEET 2 OF 3)
4	S004	GENERAL NOTES (SHEET 3 OF 5)	31	S303	P/S CONCRETE BOX BEAM DETAILS (SHEET 3 OF 3)
5	S005	GENERAL NOTES (SHEET 4 OF 5)	32	S400	TPG SPAN GIRDER FRAMING PLAN AND ELEVATION
6	S006	GENERAL NOTES (SHEET 5 OF 5)	33	S401	TPG SPAN GIRDER DETAILS (SHEET 1 OF 3)
7	S100	GENERAL ARRANGEMENT (SHEET 1 OF 2)	34	S402	TPG SPAN GIRDER DETAILS (SHEET 2 OF 3)
8	S101	GENERAL ARRANGEMENT (SHEET 2 OF 2)	35	S403	TPG SPAN GIRDER DETAILS (SHEET 3 OF 3)
9	S102	TYPICAL SECTION (SHEET 1 OF 2)	36	S404	TPG SPAN BEARING DETAILS
10	S103	TYPICAL SECTION (SHEET 2 OF 2)	37	S405	TPG SPAN DECK PAN PLAN
11	S104	FOUNDATION PLAN	38	S406	TPG SPAN DECK PAN DETAILS
12	S105	CONSTRUCTION PHASING DETAILS	39	S407	SPAN 2 WALKWAY DETAILS
13	S200	CAST-IN-PLACE CONCRETE PILE DETAILS	40	S408	TPG SPAN SACRIFICIAL BEAM DETAILS
14	S201	ABUTMENT PLANS AND ELEVATIONS	41	S500	RESTRAINING ROD AND BEARING PAD LAYOUT DETAILS
15	S202	ABUTMENT REINFORCING DETAILS (SHEET 1 OF 2)	42	S501	HANDRAIL DETAILS
16	S203	ABUTMENT REINFORCING DETAILS (SHEET 2 OF 2)	43	S502	DECK DRAINAGE DETAILS
17	S204	WINGWALL AND APPROACH SLAB DETAILS	44	S503	COVER PLATE AND WATERPROOFING DETAILS
18	S210	PIER 2 FRAMING DETAILS	45	S600	TEMPORARY SHORING PLAN AND DETAILS
19	S211	PIER 2 REINFORCING DETAILS (SHEET 1 OF 4)			
20	S212	PIER 2 REINFORCING DETAILS (SHEET 2 OF 4)			
21	S213	PIER 2 REINFORCING DETAILS (SHEET 3 OF 4)			
22	S214	PIER 2 REINFORCING DETAILS (SHEET 4 OF 4)			
23	S215	PIER 3 FRAMING DETAILS			
24	S216	PIER 3 REINFORCING DETAILS (SHEET 1 OF 4)			
25	S217	PIER 3 REINFORCING DETAILS (SHEET 2 OF 4)			
26	S218	PIER 3 REINFORCING DETAILS (SHEET 3 OF 4)			
27	S219	PIER 3 REINFORCING DETAILS (SHEET 4 OF 4)			

ISSUED FOR BID NOT FOR CONSTRUCTION



	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



SCALE	AS NOTED
DESIGNED BY	CL
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
TITLE SHEET			
PROJECT NO:	SHEET NO: S001	SHEET: 1	OF 45

3. ALL WORK REQUIREMENTS SHOWN ON THESE DRAWINGS AND NOT OTHERWISE DETAILED SHALL BE ACCOMPLISHED AS SPECIFIED IN THE UPRR/BNSF GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS (2016) AND THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING (2023). IN THE EVENT OF CONFLICTS BETWEEN SPECIFICATIONS, THE MORE RESTRICTIVE SHALL APPLY.
2. CONSTRUCTION MEANS AND METHODS SHALL COMPLY WITH ALL APPLICABLE LAWS, PERMITS AND AGREEMENTS.
3. ALL INFORMATION SHOWN ON THESE DRAWINGS REGARDING LOCATION OF THE EXISTING TRACKS, EXISTING STRUCTURES AND EXISTING GROUND ELEVATIONS ARE BASED ON A SITE SURVEY PERFORMED BY CINQUINI & PASSARINO, DATED APRIL 24, 2023 AND ON DRAWINGS OF THE EXISTING STRUCTURES PROVIDED BY THE PORT OF STOCKTON.
4. THE EXISTING STRUCTURES ARE TO REMAIN IN SERVICE DURING CONSTRUCTION OF THE NEW STRUCTURES. ALL TRACK CURFEWS SHALL BE COORDINATED WITH BNSF.
5. STATIONING AND TOP OF RAIL ELEVATIONS ARE BASED ON PORT OF STOCKTON BNSF LEAD IMPROVEMENTS PLAN AND PROFILE DATED 08-31-2026. FOR SURVEY CONTROL, SEE DRAWING NO. G-100 SHEET.
6. GEOTECHNICAL RECOMMENDATIONS FOR USE IN DESIGN WERE PREPARED BY KLEINFELDER IN THE REPORT TITLED "FOUNDATION REPORT - 100% SUBMITTAL, PROPOSED PORT OF STOCKTON RAIL AND RAIL BRIDGE IMPROVEMENTS, FRESNO AVENUE OVERCROSSING, PORT OF STOCKTON, STOCKTON, CALIFORNIA" DATED AUGUST 7, 2026.
7. COORDINATE ALL CONSTRUCTION ACTIVITIES WITH BNSF AND THE PORT OF STOCKTON AS REQUIRED. FOR COORDINATION WITH BNSF, REFER TO THE RAILROAD'S COORDINATION REQUIREMENTS IN THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS, ISSUED 08-01-2023.
8. BEFORE ORDERING ANY MATERIAL, THE CONTRACTOR SHALL MAKE A DETAILED FIELD INSPECTION OF THE SITE VERIFYING ALL PERTINENT DIMENSIONS AND ELEVATIONS. ANY VARIATIONS IN DIMENSIONS OR ELEVATIONS FROM THOSE SHOWN ON THE DRAWINGS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND BNSF PRIOR TO CONSTRUCTION.
9. ANY MODIFICATIONS TO THIS DESIGN SHALL BE APPROVED BY THE ENGINEER AND BNSF PRIOR TO CONSTRUCTION.
10. VERIFY THE LOCATION, RELOCATION, ABANDONMENT, AND/OR TEMPORARY SUPPORT OF ALL UTILITIES AFFECTED BY THE CONSTRUCTION OF THE STRUCTURE AND EMBANKMENT. COORDINATE THESE ACTIVITIES WITH THE APPROPRIATE UTILITY COMPANIES, AGENCIES AND/OR AUTHORITIES.
11. CONTACT THE BNSF "CALL BEFORE YOU DIG" NUMBER AT 1-800-533-2891 90 DAYS (NOT LESS THAN 60 DAYS) PRIOR TO PROPOSED CONSTRUCTION START DATE. PRIOR TO CONSTRUCTION, CONFIRM THAT ALL NECESSARY RELOCATIONS HAVE BEEN COMPLETED.
12. NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY. CONTACT USA NORTH 811 AT 1-800-642-2444.
13. APPLY FOR AND OBTAIN ALL CONSTRUCTION PERMITS NECESSARY TO PERFORM THE WORK.
14. PROVIDE THE ENGINEER WITH A DETAILED CONSTRUCTION PLAN DEFINING THE ACTIVITY, SCHEDULE AND PROCEDURE FOR EACH ASPECT OF THE WORK. CONSTRUCTION SHALL NOT BEGIN UNTIL THE CONSTRUCTION PLAN HAS BEEN APPROVED BY THE ENGINEER AND BNSF.
15. PROVIDE ALL TEMPORARY STRUCTURES (SHORING, BRACING AND/OR FALSEWORK) REQUIRED TO SUPPORT AND PROTECT THE EXISTING EMBANKMENTS AND STRUCTURES AFFECTED BY THE WORK. PROVIDE BNSF AND THE ENGINEER WITH DETAILS, DESIGN AND PROCEDURE FOR ALL TEMPORARY STRUCTURES. ALL TEMPORARY STRUCTURES SHALL BE DESIGNED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA. ALL TEMPORARY STRUCTURES SHALL BE APPROVED BY THE ENGINEER AND BNSF PRIOR TO BEGINNING CONSTRUCTION. TEMPORARY SHORING MUST ADHERE TO THE REQUIREMENTS PRESCRIBED IN THE UPRR/BNSF GUIDELINES FOR TEMPORARY SHORING, DATED 12-07-2021, AND THE RECOMMENDATIONS FROM KLEINFELDER'S REPORT TITLED "FOUNDATION REPORT - 100% SUBMITTAL, PROPOSED PORT OF STOCKTON RAIL AND RAIL BRIDGE IMPROVEMENTS, FRESNO AVENUE OVERCROSSING, PORT OF STOCKTON, STOCKTON, CALIFORNIA" DATED AUGUST 7, 2026.

16. PROVIDE TEMPORARY GUARDRAIL SYSTEM AS REQUIRED BY LAW. GUARDRAILS ON SHORING SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - THE TOP EDGE HEIGHT OF THE TOP RAIL SHALL BE 42" +/- 3" ABOVE THE WALKING/WORKING SURFACE.
 - AT LEAST ONE MIDRAIL SHALL BE PROVIDED, EVENLY SPACED BETWEEN WALKING/WORKING SURFACE AND TOP RAIL.
 - METAL OR TIMBER POSTS OR UPRIGHTS SHALL BE SPACED AT MAXIMUM INTERVALS OF 10'-0".
 - ENTIRE GUARDRAIL SYSTEM, INCLUDING ANCHORAGES, SHALL BE CAPABLE OF WITHSTANDING WITHOUT FAILURE, A FORCE OF 200 LBS. APPLIED IN ANY OUTWARD OR DOWNWARD DIRECTION AT ANY POINT.
 - GUARDRAIL SYSTEM SHALL BE SURFACED TO PREVENT INJURIES FROM PUNCTURES AND LACERATIONS AND PREVENT SNAGGING OF CLOTHING. THE ENDS OF TOP RAILS AND MIDRAILS SHALL NOT EXTEND PAST THE POSTS OR UPRIGHTS.
 - IF CONDITIONS WARRANT, I.E. PEDESTRIAN TRAFFIC/WEATHER, ADDITIONAL PROTECTION SHALL BE PROVIDED SUCH AS SCREENS OR MESH TO PREVENT SLIPPING BETWEEN THE MIDRAIL AND WALKING/WORKING SURFACE.
17. ACCOMPLISH ACTIVITIES WITHIN THE SCHEDULE SPECIFIED IN THE APPROVED CONSTRUCTION PLAN.
18. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE PROPOSED PLAN MUST FOLLOW SPECIFIC CALIFORNIA PROCEDURES AND MUST OBTAIN THE APPROVAL OF THE ENGINEER AND BNSF PRIOR TO THE START OF CONSTRUCTION.
19. TEMPORARY CONSTRUCTION CLEARANCES, INCLUDING FALSEWORK CLEARANCES, SHALL COMPLY WITH THE MINIMUM CONSTRUCTION CLEARANCE ENVELOPE ON SHEET S005.
20. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSEOUT

1. THE PROPOSED SUBSTRUCTURE AND SUPERSTRUCTURE HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2023 AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8: CONCRETE STRUCTURES AND FOUNDATIONS, AND CHAPTER 15, STEEL STRUCTURES, RESPECTIVELY AND THE 2016 UPRR/BNSF GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS.
2. THIS STRUCTURE WAS DESIGNED FOR COOPER E80 LIVE LOAD PLUS IMPACT FOR EQUIPMENT WITHOUT HAMMER BLOW AND ALTERNATE LINE LOAD. DEAD LOAD INCLUDES MAXIMUM 30" TOTAL DEPTH OF BALLAST.
3. THESE DRAWINGS WERE PREPARED USING 13" (MIN.) OF BALLAST UNDER TIMBER TIES.
4. THIS STRUCTURE HAS BEEN DESIGNED FOR SEISMIC LOADING IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 9: SEISMIC DESIGN FOR RAILWAY STRUCTURES.
5. SEISMIC DESIGN PERFORMED IN ACCORDANCE WITH AREMA CHAPTER 9 FOR THREE LEVEL GROUND MOTION AND PERFORMANCE CRITERIA AS DEFINED BY AREMA.
 1. SERVICEABILITY LIMIT STATE
 2. ULTIMATE LIMIT STATE
 3. SURVIVABILITY LIMIT STATE
6. SITE-SPECIFIC SEISMIC RESPONSE SPECTRA PER THE RECOMMENDATIONS FROM KLEINFELDER'S REPORT TITLED "FOUNDATION REPORT - 100% SUBMITTAL, PROPOSED PORT OF STOCKTON RAIL AND RAIL BRIDGE IMPROVEMENTS, FRESNO AVENUE OVERCROSSING, PORT OF STOCKTON, STOCKTON, CALIFORNIA" DATED AUGUST 7, 2026.:

The image contains two logos. On the left is the 811 logo, which features the number '811' in a bold, stylized font with a registered trademark symbol, positioned above a shield-like shape that resembles a shovel head. Below this logo is the text 'Know what's below. Call before you dig.' in a sans-serif font. On the right is the BNSF Railway logo, featuring the letters 'BNSF' in a large, bold, italicized sans-serif font with a registered trademark symbol, followed by a horizontal line and the word 'RAILWAY' in a smaller, bold, italicized sans-serif font. Below this is the text 'BRIDGE ENGINEERING KANSAS CITY, KS' in a bold, sans-serif font.

AS NOTED	
BY	CL
Y	TM
BY	RJB
BY	
08/31/2026	



STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
GENERAL NOTES (SHEET 1 OF 5)			
PROJECT NO:	SHEET NO: S002	SHEET: 2	OF 45

File Loc+ion: p:\p\h\c\as\as\11490_US_Visig_01\Documents\7201034037161_QCQ_BIM62_1MP16.2.6E CONTRACT DOCUMENTS\Structure Sheets\Fresno Ave Bridge_100%1122.65000.dgn

STRUCTURAL STEEL NOTES: (CONT.)

5. STRUCTURAL STEEL SHALL BE OF THE TYPE AND QUALITY AS DESIGNATED ON THE DRAWINGS. WHERE INDICATED BY THE DESIGNATION "F2", MATERIAL SUPPLIED SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH REQUIREMENTS FOR ZONE 2 AS SPECIFIED BY THE CURRENT ASTM A709 SPECIFICATIONS. WHERE INDICATED BY THE DESIGNATION "F2", MATERIAL SUPPLIED SHALL COMPLY WITH THE REQUIREMENTS FOR FRACTURE CRITICAL MEMBERS OF AREMA CHAPTER 15, SECTION 1.14. TESTING SHALL BE PERFORMED FOR A MINIMUM SERVICE TEMPERATURE CORRESPONDING TO ZONE 2 (F2). KILLED FINE GRAIN PRACTICE SHALL BE USED IN THE MANUFACTURE OF STEEL WITH THE "F2" DESIGNATION.
6. ALL SHOP AND FIELD BOLTED CONNECTIONS SHALL USE HIGH STRENGTH BOLTS (INCLUDING NUTS AND WASHERS) CONFORMING TO ASTM F3125 GRADE A325 TYPE 3, EXCEPT AS OTHERWISE NOTED. ALL BOLTS SHALL BE 7/8" DIAMETER UNLESS NOTED OTHERWISE. DIAMETER OF BOLT HOLES SHALL BE 1/16" LARGER THAN NOMINAL BOLT DIAMETER, UNLESS NOTED OTHERWISE. ALL BOLTS SHALL HAVE ONE HARDENED STEEL WASHER CONFORMING TO ASTM F436 PER BOLT UNDER THE ELEMENT TO BE TURNED. NUTS SHALL CONFORM TO ASTM A563 GRADE DH3.
7. HIGH STRENGTH STEEL BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE "TURN OF THE NUT METHOD". THE PROCEDURE FOR INSTALLATION IS AS SPECIFIED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. ALTERNATIVE BOLT INSTALLATION METHODS ARE SUBJECT TO APPROVAL BY BNSF AND THE ENGINEER.
8. ALL FAYING SURFACES FOR BOLTED CONNECTIONS SHALL BE CLASS B AT THE TIME THE BOLTS ARE TENSIONED. FAYING SURFACES SHALL BE BLAST CLEANED TO THE REQUIREMENTS OF SSPC-SP6, COMMERCIAL BLAST CLEANING.
9. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEADS ARE ON THE OUTSIDE (EXPOSED) SURFACE OF THE MEMBER UNLESS SHOWN OTHERWISE ON THE DRAWINGS. THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANE IN ALL CONNECTIONS.
10. WHERE NOT OTHERWISE INDICATED ON THE DRAWINGS, THE DISTANCE FROM THE EDGE OF A PLATE OR MEMBER TO THE CENTERLINE OF A BOLT SHALL NOT BE LESS THAN:
- A. 1.75 TIMES THE BOLT DIAMETER FOR SHEARED EDGES.
B. 1.5 TIMES THE BOLT DIAMETER FOR ROLLED, PLANED, OR THERMALLY CUT EDGES.
C. 1.25 TIMES THE BOLT DIAMETER IN FLANGES OF ROLLED BEAMS OR CHANNELS.
11. ANY MACHINE BOLTS REQUIRED FOR SHIPMENT SHALL BE ASTM A307.
12. ALL WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE, AWS D1.5. WELDING OF FRACTURE CRITICAL MEMBERS SHALL ALSO CONFORM TO THE APPLICABLE PROVISIONS OF AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 15: STEEL STRUCTURES. WELDING TO BE ALLOWED ONLY AS SHOWN ON THE DRAWINGS AND APPROVED SHOP DRAWINGS.
13. WELDED JOINTS ARE TO BE AWS PREQUALIFIED. ALTERNATE JOINT DETAILS ARE SUBJECT TO APPROVAL BY BNSF AND THE ENGINEER. ALL WELDING SHALL BE DONE TO MINIMIZE DISTORTION. THE WELDING SEQUENCE AND PROCEDURES TO BE USED SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER.
14. FULLY AUTOMATIC SUBMERGED ARC WELDING SHALL BE REQUIRED FOR THIS PROJECT. MANUAL SHIELDED ARC WELDING OR SEMI-AUTOMATIC SUBMERGED ARC WELDING MAY BE ALLOWED ONLY IF FULLY AUTOMATIC SUBMERGED ARC WELDING IS NOT PRACTICAL. ALTERNATE WELDING METHODS ARE SUBJECT TO APPROVAL BY THE ENGINEER AND BNSF.
15. ALL FLOORBEAM TO DECK PLATE SHOP WELDING SHALL BE WITH THE SAW PROCESS.
16. WHEN WELDING A709 GRADE 50W STEEL, WELD METAL SHALL BE EQUIVALENT TO A709, GRADE 50W STEEL IN STRENGTH, CORROSION RESISTANCE AND WEATHERED APPEARANCE.
17. THE FABRICATOR SHALL SUBMIT LOCATIONS OF ANY PROPOSED GIRDER WEB OR FLANGE SPLICES TO THE ENGINEER. PROPOSED SPLICE LOCATIONS MUST BE APPROVED BY THE ENGINEER AND BNSF PRIOR TO ORDERING APPLICABLE MATERIALS.
18. GIRDER SHOP SPLICES, IF APPROVED BY THE ENGINEER AND BNSF, SHALL FOLLOW AWS PRE-QUALIFIED CJP WELDS B-U3C-S FOR FLANGES AND B-L2C-S FOR WEBS.

STRUCTURAL STEEL NOTES: (CONT.)

19. PERMISSIBLE GIRDER SHOP SPLICE - STEEL FABRICATOR MAY PROVIDE COMPLETE PENETRATION, SHOP SPLICES WHERE REQUIRED IN ACCORDANCE WITH THE FOLLOWING:
- A. SPLICES SHALL BE LOCATED 6" MIN. CLEAR FROM ALL BOLTED AND/OR WELDED ATTACHMENTS TO THE GIRDERS.
B. TENSION FLANGE SPLICES SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE GIRDER SPAN.
C. ALL SHOP SPLICE WELDS SHALL BE GROUND SMOOTH IN THE DIRECTION OF STRESS.
D. PLATES SHALL BE PROVIDED IN MAXIMUM LENGTHS AS PRACTICAL TO MINIMIZE THE NUMBER OF SPLICES REQUIRED.
E. FINAL LOCATIONS OF SHOP SPLICES IN FLANGES TO BE APPROVED BY THE ENGINEER AND BNSF.
F. ELECTROSLAG AND ELECTROGAS WELDING PROCESS SHALL NOT BE USED.
20. THE FABRICATOR SHALL SUBMIT COPIES OF WELDING PROCEDURE SPECIFICATIONS (WPS), PROCEDURE QUALIFICATION REPORTS (PQR) AND WELDER QUALIFICATIONS TO THE ENGINEER. WELDING SHALL NOT BEGIN WITHOUT APPROVAL BY THE ENGINEER AND BNSF.
21. FLAME CUTTING OF GIRDER WEBS AND FLANGES SHALL BE PERFORMED IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING CHAPTER 15, ARTICLE 3.1.6: THERMAL CUTTING, COPEs, AND ACCESS HOLES. ADDITIONALLY, PREHEATING IS REQUIRED WHEN CUTTING WELD ACCESS HOLES OR COPEs. PREHEATING SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- | THICKNESS | MINIMUM PREHEAT TEMPERATURE |
|---------------|-----------------------------|
| UP TO 1" | 50°F |
| OVER 1" TO 2" | 100°F |
| OVER 2" | 200°F |
- THE PIECES SHALL BE PREHEATED IN SUCH A MANNER THAT IT IS HEATED THROUGH ITS THICKNESS AND THAT BOTH SURFACES ARE ABOVE THE MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING CUT, BUT NOT LESS THAN 3", BOTH Laterally AND IN ADVANCE OF THE CUT. THE FABRICATOR SHALL FURNISH A CALIBRATED ELECTRICAL CONTACT PYROMETER TO VERIFY COMPLIANCE WITH THE PREHEAT REQUIREMENTS DURING FABRICATION.
22. NONDESTRUCTIVE TESTING OF WELDS SHALL BE PERFORMED BY A CERTIFIED WELD INSPECTOR (CWI) IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING CHAPTER 15: STEEL STRUCTURES, SECTION 3.5 AND THE BRIDGE WELDING CODE, AWS D1.5, AND AS FOLLOWS:
- A. 100% RT AND UT INSPECTION OF TRANSVERSE TENSION FULL PENETRATION WELDS IN GIRDER FRACTURE CRITICAL MEMBERS.
B. 100% RT INSPECTION OF TRANSVERSE FULL PENETRATION WELDS IN GIRDER NON-FRACTURE CRITICAL MEMBERS.
C. ALL GIRDER FLANGE TO WEB WELDS SHALL BE TESTED ON BOTH SIDES AS FOLLOWS:
I. 100% UT INSPECTION OF ALL GIRDER BOTTOM FLANGE TO WEB FULL PENETRATION WELDS.
II. 100% UT INSPECTION OF GIRDER TOP FLANGE TO WEB FULL PENETRATION WELDS FOR 10% OF THE LENGTH FOR EACH END AND 10% OF THE REMAINING LENGTH.
III. 100% MP INSPECTION OF ALL GIRDER FLANGE TO WEB FILLET WELDS, WHEN ALLOWED.
D. 100% MP INSPECTION OF FILLET WELDS ON BEARING STIFFENERS.
E. 25% RT OR MP INSPECTION OF ALL OTHER WELDS. IF ANY DEFECTS ARE FOUND, THEN 100% RT OR MP INSPECTION SHALL BE REQUIRED.
- THE QUALIFICATIONS OF THE PERSONNEL CONDUCTING THE TESTS MUST BE SUBMITTED FOR ENGINEER AND BNSF REVIEW AND APPROVAL PRIOR TO PERFORMING THE TESTING. TEST RESULTS SHALL BE FURNISHED TO BNSF AND THE ENGINEER.
23. ALL BEARING AND JACKING STIFFENERS SHALL BE VERTICAL UNDER FINAL DEAD LOADS. ALL INTERMEDIATE STIFFENERS SHALL BE PLACED NORMAL TO THE BOTTOM FLANGE. ALL STIFFENERS AND END PLATES SHALL BE PLACED PERPENDICULAR TO THE WEB WHERE NOT OTHERWISE INDICATED IN THE DRAWINGS.
24. FOR WELDS DESIGNATED TO BE GROUND FLUSH, GRINDING SHALL BE IN THE DIRECTION OF APPLIED STRESS.
25. ALL JOINTS AND EDGE PREPARATION, REMOVAL OF UNACCEPTABLE WELD OR BASE METAL, AND BACKGOUGING SHALL BE COMPLETED BY MACHINING. ROUGH REMOVALS MAY BE COMPLETED BY NON-MECHANICAL MEANS.
26. THE FABRICATOR SHALL SUBMIT DETAILED SHOP DRAWINGS TO THE ENGINEER PRIOR TO BEGINNING FABRICATION. FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS ARE APPROVED BY THE ENGINEER AND BNSF.
27. ALL FABRICATOR QUESTIONS SHALL BE ADDRESSED TO THE ENGINEER AND SUBJECT TO BNSF APPROVAL.
28. PHOTOGRAPHS OF FABRICATOR'S PROGRESS SHALL BE SUBMITTED TO THE ENGINEER.
29. THE FABRICATOR SHALL SHOP ASSEMBLE THE SPANS PRIOR TO SHIPPING. DURING ASSEMBLY AND REAMING ALL BOLTS SHALL BE PLACED IN HOLES AS WORK PROGRESSES TO ASSURE PROPER FIT.

STRUCTURAL STEEL NOTES: (CONT.)

30. SHOP ASSEMBLED SPANS SHALL BE MADE AVAILABLE FOR INSPECTION BY THE ENGINEER AND BNSF AT THE FABRICATOR'S PLANT BEFORE THE STEEL IS DISASSEMBLED AND SHIPPED TO THE ERECTION SITE. STEEL SHALL BE SHIPPED AS UNITS WHERE SHOWN. UNITS AND PIECES SHALL BE MATCH-MARKED AS REQUIRED.
31. REAMING OF HOLES DURING FIELD ERECTION IS NOT ALLOWED, UNLESS APPROVED BY BNSF AND THE ENGINEER.
32. ALL STEEL COMPONENTS SHALL BE INSPECTED BY THE FABRICATOR BEFORE SHIPMENT.
33. ALL MATERIAL CERTIFICATIONS AND QUALITY CONTROL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO SHIPPING.
34. GALVANIZED ELEMENTS, EXCEPT ANCHOR RODS, SHALL BE ISOLATED FROM UNCOATED WEATHERING STEEL WITH SHOP-APPLIED EPOXY PAINT PER ASTM D6386 IN ORDER TO MITIGATE THE POTENTIAL GALVANIC CORROSION BETWEEN THE UNCOATED WEATHERING STEEL AND GALVANIZED ELEMENT.
35. ALL STRUCTURAL STEEL SHALL BE BLAST CLEANED PRIOR TO SHIPMENT AS FOLLOWS, UNLESS NOTED OTHERWISE. ALL ASTM A709 STEEL, OTHER SURFACES VISIBLE FROM SIDES AND ALL FAYING SURFACES REGARDLESS OF LOCATION: MINIMUM SSPC-SP6, COMMERCIAL BLAST CLEANING. ALL REMAINING STEEL SURFACES: SSPC-SP1, SOLVENT CLEANING. ALL STEEL MEMBERS SHALL BE CLEARLY MARKED AFTER BLAST CLEANING HAS BEEN COMPLETED.

PRESTRESSED CONCRETE NOTES:

CONCRETE

1. ALL CONCRETE MATERIAL, PLACEMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN BNSF/UP JOINT SPECIFICATIONS FOR PRECAST/PRESTRESSED CONCRETE PRODUCTS AND CURRENT EDITION OF CHAPTER 8: CONCRETE STRUCTURES AND FOUNDATIONS OF THE AREMA MANUAL FOR RAILWAY ENGINEERING.
2. THE COMPRESSIVE STRENGTH OF THE CONCRETE SHALL EXCEED 7000 PSI AT 28 DAYS AND 5500 PSI AT TRANSFER OF THE PRESTRESSING FORCE.
3. CEMENT SHALL BE TYPE I, TYPE II OR TYPE III PORTLAND CEMENT IN ACCORDANCE WITH ASTM C150 SPECIFICATIONS.
4. AIR ENTRAINING AGENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN ASTM C260. THE TOTAL ENTRAINED AIR CONTENT SHALL BE 6% +/- 1% BY VOLUME OF THE PLASTIC CONCRETE.
5. WATER REDUCING ADMIXTURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN ASTM C494, TYPE A AND SHALL NOT CONTAIN MORE THAN 0.1% CHLORIDE IONS.
6. AGGREGATES SHALL BE GRADED IN ACCORDANCE WITH ASTM C33 SPECIFICATIONS. COARSE AGGREGATE SHALL BE SIZE NO. 67. FINE AGGREGATE SHALL BE NATURAL SAND.
7. CONCRETE SHALL BE PROPORTIONED SUCH THAT THE WATER - CEMENT RATIO (BY WEIGHT) DOES NOT EXCEED 0.40. CONCRETE SHALL CONTAIN A MINIMUM OF 6 1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE. THE SLUMP SHALL NOT EXCEED 3".
8. THE FABRICATOR MAY USE A HIGH RANGE WATER REDUCING AGENT IN ORDER TO OBTAIN A SLUMP GREATER THAN 3" IF NECESSARY.
9. COPIES OF THE MIX DESIGN SHALL BE KEPT ON FILE BY THE FABRICATOR FOR INSPECTION BY THE ENGINEER AND BNSF.
10. CURING SHALL BE ACCOMPLISHED BY WET CURING OR APPLICATION OF AN ASTM C309 TYPE 2 MEMBRANE.

PRESTRESSING STRANDS

1. PRESTRESSING STRAND SHALL BE A 0.6 INCH DIAMETER, SEVEN WIRE, UNCOATED, LOW RELAXATION STRAND WHICH IS IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN ASTM A416. THE STRAND SHALL BE AN ULTIMATE TENSILE STRENGTH OF 270 KSI. THE INITIAL PRESTRESS SHALL BE 43,400 LBS. PER STRAND UNLESS NOTED OTHERWISE.
2. ALL STRANDS ARE STRAIGHT.
3. STRANDS SHALL BE TESTED IN ACCORDANCE WITH PCI RECOMMENDATIONS (MOUSTAFA METHOD) AND CERTIFIED BY THE FABRICATOR AS HAVING ADEQUATE BOND CHARACTERISTICS TO SATISFY THE PREDICTION EQUATIONS FOR TRANSFER AND DEVELOPMENT LENGTH GIVEN IN THE AREMA MANUAL FOR RAILWAY ENGINEERING.
4. AN ALTERNATE STRAND PATTERN WHICH HAS THE SAME ECCENTRICITY AS THE PATTERN SHOWN ON THIS DRAWING AND IS BETTER SUITED TO THE FABRICATOR'S FACILITIES SHALL BE CONSIDERED. FABRICATOR SHALL SUBMIT PLANS AND COMPUTATIONS FOR THE ENGINEER AND BNSF APPROVAL PRIOR TO CASTING.

PRESTRESSED CONCRETE NOTES: (CONT.)

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DEFORMED, NEW BILLET BARS PER ASTM A615 SPECIFICATIONS MEETING GRADE 60 REQUIREMENTS, EXCEPT BARS CROSSING CURB JOINT TO BE PER CURRENT ASTM A1035 SPECIFICATIONS.
2. FABRICATION OF REINFORCING STEEL SHALL BE PER CHAPTER 7 OF THE CRSI MANUAL OF STANDARD PRACTICE. DIMENSIONS OF BENDING DETAILS ARE OUT TO OUT OF BAR.
3. REINFORCING STEEL IS TO BE BLOCKED TO PROPER LOCATION AND SECURELY WIRED AGAINST DISPLACEMENT. TIE WIRES SHALL BE INSTALLED AT EVERY OTHER BAR INTERSECTION SO THAT AT LEAST 50% OF THE INTERSECTIONS ARE TIED. USE PLASTIC PROTECTED REINFORCING SUPPORTS, MEETING CRSI SPECIFICATIONS CHAPTER 3, CLASS 1. TACK WELDING OF REINFORCING IS PROHIBITED. MINIMUM CONCRETE COVER ON REINFORCEMENT SHALL MEET THE PROVISIONS OF THE AREMA MANUAL FOR RAILWAY ENGINEERING.

MANUFACTURE

1. THE PRODUCTION FACILITY MUST BE PRE-CERTIFIED. PRODUCTION PROCEDURES AND DIMENSIONAL TOLERANCES FOR THE MANUFACTURE OF PRECAST, PRESTRESSED MEMBERS SHALL BE IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING AND PRECAST/PRESTRESSED CONCRETE INSTITUTE'S MANUAL MNL 116 FOR QUALITY CONTROL.
2. TOLERANCES FOR LOCATION OF LIFTING DEVICES SHALL BE +/- 1/2".
3. THE ENDS OF THE STRANDS SHALL BE CUT FLUSH WITH END OF THE PRODUCT AND PAINTED WITH AN APPROVED COATING.
4. BONDING AGENT SHALL BE CARLISLE SURE-SEAL 90-8-30A OR APPROVED ALTERNATE. FOLLOW MANUFACTURER'S INSTRUCTIONS.
5. SURFACES SHALL BE FORMED IN A MANNER WHICH SHALL PRODUCE A SMOOTH AND UNIFORM APPEARANCE WITHOUT RUBBING OR PLASTERING. EXPOSED EDGES OF 90° OR LESS ARE TO BE CHAMFERED 3/4" X 3/4". UNFORMED SURFACES SHALL HAVE A SMOOTH FINISH FREE OF ALL FLOAT AND TROWEL MARKS WITH THE EXCEPTION THAT A BROOM FINISH BE USED ON ALL WALKWAY SURFACES.
6. THE FABRICATOR SHALL STENCIL THE FABRICATOR'S NAME, DATE OF FABRICATION, BRIDGE NUMBER, PIECE MARK AND LIFTING WEIGHT AT LOCATION SHOWN ON THE DRAWINGS.
7. THE FABRICATOR SHALL BE RESPONSIBLE FOR LOADING AND PROPERLY SECURING ALL PRECAST CONCRETE MEMBERS FOR SHIPMENT. ALL CONCRETE COMPONENTS SHALL BE MADE AVAILABLE FOR INSPECTION, BY BNSF, AT THE FABRICATOR'S PLANT PRIOR TO SHIPMENT, AT BNSF'S DISCRETION.
8. PROPERLY DESIGNED LIFT ANCHORS ARE ACCEPTABLE IN LIEU OF LIFTING LOOPS.

LIFTING LOOPS

1. THE AREA AROUND LIFTING LOOPS SHALL NOT BE RECESSED. LIFTING LOOPS TO BE REMOVED IN FIELD FLUSH WITH CONCRETE SURFACE.
2. IF LIFTED WITH SLINGS INSTEAD OF LIFTING LOOPS, SLINGS MUST NOT BE PLACED MORE THAN 3'-0" FROM ENDS OF BEAMS.
3. THE FABRICATOR IS RESPONSIBLE FOR DEVELOPING LIFTING LOOP ANCHORAGE DETAIL TO PROVIDE SAFETY FACTOR OF 4 ON WORKING LOAD. DETAIL SHALL BE PROOF-TESTED WITH TEST RESULTS KEPT ON FILE BY THE FABRICATOR AND AVAILABLE FOR INSPECTION BY THE ENGINEER AND BNSF.

CAST-IN-PLACE CONCRETE NOTES:

CONCRETE

1. ALL CONCRETE MATERIALS, PLACEMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CHAPTER 8: CONCRETE STRUCTURES AND FOUNDATIONS OF THE AREMA MANUAL FOR RAILWAY ENGINEERING.
2. FORMWORK TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 347 SPECIFICATIONS.
3. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 4000 PSI UNLESS OTHERWISE NOTED.
4. EXPOSED SURFACES SHALL BE FORMED IN A MANNER WHICH SHALL PRODUCE A SMOOTH AND UNIFORM APPEARANCE WITHOUT RUBBING OR PLASTERING. EXPOSED EDGES OF 90° OR LESS ARE TO BE CHAMFERED 3/4" X 3/4". TOP SURFACES TO HAVE A SMOOTH FINISH, FREE OF ALL FLOAT OR TROWEL MARKS.
5. CONCRETE SHALL BE PROPORTIONED SUCH THAT THE WATER - CEMENT RATIO (BY WEIGHT) DOES NOT EXCEED 0.45. CONCRETE SHALL CONTAIN A MINIMUM OF 6 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
6. CEMENT SHALL BE TYPE I, II, OR III PORTLAND CEMENT IN ACCORDANCE WITH ASTM C150 SPECIFICATIONS.



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DATE	08/31/2026



PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
GENERAL NOTES (SHEET 2 OF 5)			
PROJECT NO:	SHEET NO: S003	SHEET: 3	OF 45

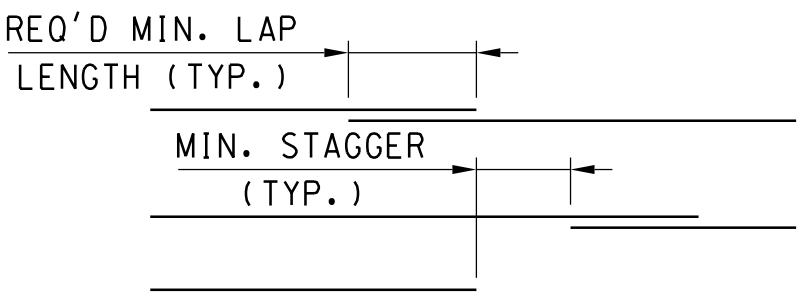
CAST-IN-PLACE CONCRETE NOTES: (CONT.)

CONCRETE (CONT.)

7. FLY ASH, IF USED, SHALL BE LIMITED TO 15% OF CEMENTITIOUS MATERIAL BY WEIGHT.
8. AGGREGATES SHALL BE GRADED IN ACCORDANCE WITH ASTM C33 SPECIFICATIONS. COARSE AGGREGATE SHALL BE SIZE NO. 67. FINE AGGREGATE SHALL BE NATURAL SAND.
9. AIR CONTENT SHALL BE BETWEEN 5% AND 7% (BY VOLUME).
10. ADMIXTURES SHALL NOT BE USED WITHOUT APPROVAL BY BNSF AND THE ENGINEER.
11. CURING SHALL BE ACCOMPLISHED BY WET CURING OR APPLICATION OF AN ASTM C309 TYPE 2 MEMBRANE.
12. APPLY THOROC EPOXY ADHESIVE 24LPL OR APPROVED ALTERNATE BEFORE PLACING NEW CONCRETE AGAINST HARDENED SURFACES.

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DEFORMED, NEW BILLET BARS PER CURRENT ASTM A615 SPECIFICATIONS AND MEET GRADE 60 REQUIREMENTS.
2. FABRICATION OF REINFORCING STEEL SHALL BE PER CHAPTER 7 OF THE CRSI MANUAL OF STANDARD PRACTICE. DIMENSIONS OF BENDING DETAILS ARE OUT TO OUT OF BAR. REBAR HOOKS ARE STANDARD LENGTH PER AREMA CHAPTER 8, SECTION 2.4, UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SHALL BE BLOCKED AND TIED TO PROPER LOCATION AND SECURELY WIRED AGAINST DISPLACEMENT. TIE WIRES SHALL BE INSTALLED AT EVERY OTHER BAR INTERSECTION SO THAT AT LEAST 50% OF THE INTERSECTIONS ARE TIED. TACK WELDING OF REINFORCING IS PROHIBITED. MINIMUM CONCRETE COVER ON REINFORCING NOT OTHERWISE NOTED SHALL MEET THE AREMA MANUAL FOR RAILWAY ENGINEERING REQUIREMENTS.
4. SPLICES OF REINFORCING BARS SHALL CONSIST OF LAP SPLICES, SERVICE SPLICES, OR ULTIMATE BUTT SPLICES.
5. SPLICING OF REINFORCING BARS WILL NOT BE PERMITTED AT A LOCATION DESIGNATED ON THE PLANS AS A "NO SPlice ZONE."
6. AT THE OPTION OF THE CONTRACTOR, REINFORCING BARS MAY BE CONTINUOUS AT LOCATIONS WHERE SPLICES ARE SHOWN ON THE PLANS.
7. THE LOCATION OF SPLICES, EXCEPT WHERE SHOWN ON THE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR USING AVAILABLE COMMERCIAL LENGTHS WHERE PRACTICABLE.
8. UNLESS OTHERWISE SHOWN ON THE PLANS, SPLICES IN ADJACENT REINFORCING BARS AT ANY PARTICULAR SECTION SHALL BE STAGGERED.
- A. THE MINIMUM DISTANCE BETWEEN STAGGERED LAP SPLICES OR MECHANICAL LAP SPLICES SHALL BE THE SAME AS THE LENGTH REQUIRED FOR A LAP SPlice IN THE LARGEST BAR, UNLESS NOTED OTHERWISE.
- B. THE MINIMUM DISTANCE BETWEEN STAGGERED BUTT SPLICES SHALL BE 2 FEET, MEASURED BETWEEN THE MIDPOINTS OF THE SPLICES ALONG A LINE WHICH IS CENTERED BETWEEN THE AXES OF THE ADJACENT BARS.
9. LAP SPLICES SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. SPLICES MADE BY LAPPING SHALL CONSIST OF PLACING REINFORCING BARS IN CONTACT AND WIRING THEM TOGETHER, MAINTAINING THE ALIGNMENT OF THE BARS AND THE MINIMUM CLEARANCES.
- B. SHOULD THE CONTRACTOR ELECT TO USE A BUTT WELDED OR MECHANICAL SPlice AT A LOCATION NOT DESIGNATED ON THE PLANS AS REQUIRING A SERVICE OR ULTIMATE BUTT SPlice, THIS SPlice SHALL CONFORM TO THE TESTING REQUIREMENTS FOR SERVICE SPlice.
- C. REINFORCING BARS SHALL NOT BE SPLICED BY LAPPING AT LOCATIONS WHERE THE CONCRETE SECTION IS NOT SUFFICIENT TO PROVIDE A MINIMUM CLEAR DISTANCE OF 2 INCHES BETWEEN THE SPlice AND THE NEAREST ADJACENT BAR.
- D. THE CLEARANCE TO THE SURFACE OF THE CONCRETE SPECIFIED ON THE DRAWINGS SHALL NOT BE REDUCED.
10. SERVICE SPLICES AND ULTIMATE BUTT SPLICES SHALL BE EITHER BUTT WELDED OR MECHANICAL SPLICES AND SHALL BE USED AT THE LOCATIONS SHOWN ON THE DRAWINGS. MECHANICAL SPLICES SHALL NOT BE USED FOR ANY REINFORCING STEEL IN THE "ULTIMATE SPlice ZONE" AS INDICATED ON THE DRAWINGS.



LAP SPlice DETAILS

CAST-IN-PLACE CONCRETE NOTES: (CONT.)

REINFORCING STEEL (CONT.)

LAP LENGTH DATA TABLE		
BAR SIZE DESIGNATION	BAR DIAMETER (IN)	*REQUIRED MIN. LAP LENGTH (IN)
#3	0.375	15
#4	0.500	24
#5	0.625	35
#6	0.750	47
#7	0.875	61
#8	1.000	75
#9	1.128	85
#10	1.270	96
#11	1.410	106

*UTILIZE UNLESS NOTED OTHERWISE. MINIMUM LAP LENGTH PER AREMA CLASS B SPlice REQUIREMENTS

11. MECHANICAL SPLICES SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. ANY MECHANICAL SPLICES PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO REINFORCING STEEL FABRICATION.
- B. ONLY MECHANICAL SPLICES PREQUALIFIED BY THE TRANSPORTATION LABORATORY OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION SHALL BE ALLOWED. A CURRENT LIST MAY BE FOUND AT: (HTTP://WWW.DOT.CA.GOV/HQ/ESC/APPROVED_PRODUCTS_LIST/PDF/STEEL_REINFORCING_COUPLERS.PDF)
- C. SUBMITTAL OF PROPOSED MECHANICAL SPLICES SHALL INCLUDE:
- I. THE TYPE OR SERIES IDENTIFICATION OF THE SPlice MATERIAL INCLUDING TRACKING INFORMATION FOR TRACEABILITY.
- II. THE BAR GRADE AND SIZE NUMBER TO BE SPLICED.
- III. A COPY OF THE MANUFACTURER'S PRODUCT LITERATURE GIVING COMPLETE DATA ON THE SPlice MATERIAL AND INSTALLATION PROCEDURES.
- IV. A STATEMENT THAT THE SPLICING SYSTEMS AND MATERIALS USED IN CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION PROCEDURES WILL DEVELOP THE REQUIRED TENSILE STRENGTHS, BASED ON THE NOMINAL BAR AREA, AND WILL CONFORM TO THE TOTAL SLIP REQUIREMENTS AND THE OTHER REQUIREMENTS IN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- V. A STATEMENT THAT THE SPlice MATERIAL CONFORMS TO THE TYPE OF MECHANICAL SPlice IN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CURRENT PREQUALIFIED LIST.
12. BUTT WELDED SPLICES SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. EXCEPT FOR RESISTANCE BUTT WELDS, BUTT WELDED SPLICES OF REINFORCING BARS SHALL BE COMPLETE JOINT PENETRATION BUTT WELDS CONFORMING TO THE REQUIREMENTS IN AWS D 1.4, AND THESE SPECIFICATIONS.
- B. WELDERS AND WELDING PROCEDURES SHALL BE QUALIFIED IN CONFORMANCE WITH THE REQUIREMENTS IN AWS D 1.4.
- C. ONLY THE JOINT DETAILS, SIZES AND DIMENSIONS AS SHOWN IN FIGURE 3.2, "DIRECT BUTT JOINTS," OF AWS D 1.4, SHALL BE USED FOR MAKING COMPLETE JOINT PENETRATION BUTT WELDS OF BAR REINFORCEMENT. SPLIT PIPE BACKING SHALL NOT BE USED.
- D. BUTT WELDS SHALL BE MADE WITH MULTIPLE WELD PASSES USING A STRINGER BEAD WITHOUT AN APPRECIABLE WEAVING MOTION. THE MAXIMUM STRINGER BEAD WIDTH SHALL BE 2.5 TIMES THE DIAMETER OF THE ELECTRODE AND SLAGGING SHALL BE PERFORMED BETWEEN EACH WELD PASS. WELD REINFORCEMENT SHALL NOT EXCEED 0.16 INCHES IN CONVEXITY.
- E. ELECTRODES USED FOR WELDING SHALL MEET THE MINIMUM CHARPY V NOTCH IMPACT REQUIREMENT OF 27° J AT -4 DEGREES FAHRENHEIT.
- F. WELDING SHALL BE PROTECTED FROM AIR CURRENTS, DRAFTS, AND PRECIPITATION TO PREVENT LOSS OF HEAT OR LOSS OF ARC SHIELDING. THE METHOD OF PROTECTING THE WELDING AREA FROM LOSS OF HEAT OR LOSS OF ARC SHIELDING SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
- G. REINFORCING BARS SHALL NOT BE DIRECT BUTT SPLICED BY THERMITE WELDING.
- H. PROCEDURES TO BE USED IN MAKING WELDED SPLICES IN REINFORCING BARS, AND WELDERS EMPLOYED TO MAKE SPLICES IN REINFORCING BARS, SHALL BE QUALIFIED BY TESTS PERFORMED BY THE CONTRACTOR ON SAMPLE SPLICES OF THE TYPE TO BE USED, BEFORE MAKING SPLICES TO BE USED IN THE WORK.

CAST-IN-PLACE CONCRETE NOTES: (CONT.)

REINFORCING STEEL (CONT.)

13. RESISTANCE BUTT WELDING OF REINFORCING STEEL BARS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. SHOP PRODUCED RESISTANCE BUTT WELDS SHALL BE PRODUCED BY A FABRICATOR WHO IS APPROVED BY THE TRANSPORTATION LABORATORY OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION.
- B. BEFORE MANUFACTURING HOOPS USING RESISTANCE BUTT WELDING, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE MANUFACTURER'S QUALITY CONTROL (QC) MANUAL FOR THE FABRICATION OF HOOPS. AS A MINIMUM, THE QC MANUAL SHALL INCLUDE THE FOLLOWING:
- I. THE PRE-PRODUCTION PROCEDURES FOR THE QUALIFICATION OF MATERIAL AND EQUIPMENT.
- II. THE METHODS AND FREQUENCIES FOR PERFORMING QC PROCEDURES DURING PRODUCTION.
- III. THE CALIBRATION PROCEDURES AND CALIBRATION FREQUENCY FOR ALL EQUIPMENT.
- IV. THE WELDING PROCEDURE SPECIFICATION (WPS) FOR RESISTANCE WELDING.
- C. IN THE EVENT THAT ANY OF THE SPECIFIED PREHEAT, INTERPASS, AND POST WELD COOLING TEMPERATURES ARE NOT MET, ALL WELD AND HEAT AFFECTED ZONE METAL SHALL BE REMOVED AND THE SPlice REWELDED.

TRACK MONITORING NOTES:

MONITORING PROGRAM

WHERE REQUIRED IN THE PLANS; TRACK, SHORING AND EXISTING STRUCTURES SHALL BE MONITORED FOR SETTLEMENT AND/OR DISPLACEMENT DURING DEWATERING OPERATIONS, ADJACENT EXCAVATION, PILE DRIVING OR OTHER ACTIVITY AS DICTATED BNSF. MONITORING SHALL BE INCIDENTAL TO RELATED ITEMS OF WORK AND WILL NOT BE PAID SEPARATELY. A DETAILED MONITORING PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BY BNSF PRIOR TO THE START OF ANY WORK. THE MONITORING PLAN SHALL COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS, HOWEVER MORE STRINGENT CRITERIA MAY BE REQUIRED BY THE OWNING RAILROAD ON A CASE BY CASE BASIS:

- A. TRACK, SHORING & EXISTING STRUCTURE DEFLECTION/SETTLEMENT LIMITS
- I. THE TOP OF RAIL SHALL NOT PERMANENTLY DEFLECT MORE THAN 1/4" VERTICAL OR HORIZONTAL.
- II. ANY POINT OF THE SHORING SHALL NOT DEFLECT MORE THAN 3/8" FOR SHORING LOCATED AT 18' FROM ϕ OF TRACK OR CLOSER.
- III. ANY POINT OF THE SHORING SHALL NOT DEFLECT MORE THAN 1/2" FOR SHORING LOCATED MORE THAN 18' FROM ϕ OF TRACK, UNLESS THE SHORING IS SUPPORTING A CUT ENTIRELY LOCATED IN ZONE B.
- IV. ANY POINT OF EXISTING SUBSTRUCTURE SUPPORTING RAILROAD TRACK(S) SHALL NOT PERMANENTLY DEFLECT MORE THAN 3/8" VERTICAL OR HORIZONTAL.
- B. TARGETS
- I. EACH TRACK SHALL HAVE MONITORING TARGETS AT EACH RAIL.
- II. TRACK MONITORING SHALL NOT REQUIRE TRACK ACCESS OTHER THAN TO PLACE THE TRACK MONITORING TARGETS.
- III. MONITORING TARGETS SHOULD BE PLACED SUCH THAT MONITORING IS POSSIBLE WHEN A TRAIN IS PRESENT. HOWEVER, MONITORING DURING THE PASSING OF A TRAIN IS NOT REQUIRED AS THE TRAIN WILL TEMPORARILY DEFLECT THE TRACK.
- IV. ADHESIVE BACKED REFLECTIVE TARGETS MAY BE ATTACHED TO THE SIDE OF THE RAILS TEMPORARILY. TARGETS SHOULD BE REMOVED ONCE MONITORING PHASE IS COMPLETE.
- V. EACH SHORING SYSTEM SHALL HAVE MONITORING TARGETS AT THE TOP OF THE SHORING AND, IF A BRACED SYSTEM, AT POINTS OF BRACING.
- VI. MONITOR ANY EXISTING SUBSTRUCTURES SUPPORTING BNSF TRACK(S) WITHIN THE VICINITY OF THE WORK WITH A MINIMUM OF 4 MONITORING TARGETS PER EXISTING SUBSTRUCTURE ELEMENT.
- VII. THE DISTANCE BETWEEN MONITORING POINTS ON RAIL AND SHORING SHALL BE SPACED NO MORE THAN 10 FEET APART, AND RAIL MONITORING POINTS MUST EXTEND AT LEAST 20 FEET BEYOND END OF SHORING SYSTEM(S).
- VIII. A PLAN VIEW SHALL BE DEVELOPED FOR ENGINEER REVIEW SHOWING THE LOCATION OF ALL MONITORING POINTS.

TRACK MONITORING NOTES:(CONT.)

MONITORING PROGRAM (CONT.)

- C. EXECUTION:
- I. IF SHUTDOWN VALUES ARE REACHED, ALL CONSTRUCTION OPERATIONS SHALL STOP UNTIL THE MATTER IS RESOLVED.
- II. PROVIDE AN ESTABLISHED CONTINGENCY PLAN TO THE ENGINEER.
- III. ESTABLISH A BENCH MARK IN THE VICINITY OF THE CONSTRUCTION. ESTABLISH LOCATIONS FOR SHOOTING ELEVATIONS ON THE TARGETS AT EACH AREA OF CONSTRUCTION. SURVEY EQUIPMENT AND CONTROL USED FOR MONITORING SHALL BE ACCURATE TO 0.01'. GPS QUALITY IS NOT ACCEPTABLE.
- IV. MONITORING SURVEY DATA SHALL BE PROCESSED IN TO AN EASY TO INTERPRET DIGITAL FORMAT AND BE SUBMITTED TO THE ENGINEER UPON REQUEST. THE DOCUMENT SHALL BE FORMATTED TO KEEP ALL PRIOR SURVEY RESULTS IN ONE, EASY TO REFERENCE LOCATION.
- V. MONITORING SHALL COMMENCE ONCE ANY CONSTRUCTION ACTIVITY IS WITHIN ZONE A.
- VI. DURING CONSTRUCTION AND USE OF THE SHORING, MONITORING MAY NEED TO BE PERFORMED CONTINUOUSLY. HOWEVER, DURING CONSTRUCTION AND USE OF THE SHORING, MONITORING SHALL NEVER BE PERFORMED LESS THAN THREE TIMES A DAY.
- VII. MONITORING SHALL CONTINUE AFTER FINAL BACKFILL IS COMPLETE, AT A MINIMUM ONCE A DAY FOR 7 DAYS OR AS REQUIRED BY THE ENGINEER AND BNSF.

CONTINGENCY PLANS

- A. THE CONTRACTOR SHALL SUPPLY CONTINGENCY PLAN(S), WHICH ANTICIPATE REACHING THE THRESHOLD AND SHUTDOWN VALUES, FOR ALL CONSTRUCTION ACTIVITIES WHICH MAY RESULT IN HORIZONTAL AND/OR VERTICAL TRACK, SHORING OR EXISTING STRUCTURE DEFLECTION AND/OR SETTLEMENT. CONTINGENCY PLANS SHALL BE SUBMITTED TO THE ENGINEER ALONG WITH MONITORING PLAN.
- I. TRACK MONITORING VALUES:
1. THRESHOLD VALUE = 1/8" PERMANENT VERTICAL OR HORIZONTAL DEFLECTION.
2. SHUTDOWN VALUE = 1/4" PERMANENT VERTICAL OR HORIZONTAL DEFLECTION.
- II. SHORING MONITORING VALUES:
1. SHUTDOWN VALUE = 3/8" PERMANENT HORIZONTAL DEFLECTION FOR SHORING LOCATED AT 18' OR CLOSER TO TRACK ϕ .
2. SHUTDOWN VALUE = 1/2" PERMANENT HORIZONTAL DEFLECTION FOR SHORING LOCATED FURTHER THAN 18' FROM TRACK ϕ , UNLESS THE SHORING IS SUPPORTING A CUT ENTIRELY LOCATED IN ZONE B.
- III. EXISTING STRUCTURE MONITORING VALUES:
1. SHUTDOWN VALUE = 3/8" PERMANENT VERTICAL OR HORIZONTAL DEFLECTION AND/OR SETTLEMENT.
- B. THE CONTINGENCY PLANS SHALL PROVIDE THE CONTRACTOR'S DETAILED MEANS AND METHODS, WITH OPTIONS IF NECESSARY.
- C. THE CONTRACTOR SHALL ANTICIPATE THE NEED TO IMPLEMENT EACH CONTINGENCY PLAN WITH REQUIRED MATERIALS, EQUIPMENT AND PERSONNEL.
- I. ONCE THE THRESHOLD VALUE IS MET, THE CONTRACTOR SHALL DETERMINE THE APPROPRIATE CONTINGENCY PLAN(S) AND IMMEDIATELY DISCUSS THIS PLAN WITH, AND RECEIVE CONFIRMATION FROM THE ENGINEER.
- II. ONCE THE SHUTDOWN VALUE IS EXCEEDED, ALL PROJECT WORK SHALL STOP AND THE CHOSEN CONTINGENCY PLAN SHALL COMMENCE.
1. BNSF MAY CHOOSE TO ALLOW AND/OR REQUIRE THE IMMEDIATE IMPLEMENTATION OF SPECIFIC APPROVED CONTINGENCY PLANS, SUBMITTED BY THE CONTRACTOR, ONCE THE SHUTDOWN VALUE IS EXCEEDED.

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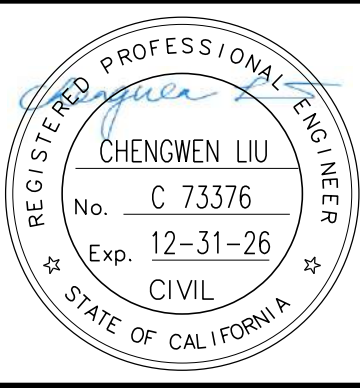


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PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA		LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
T OF STOCKTON AND RAIL IMPROVEMENTS OCKTON SUB OVER FRESNO AVE.		STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
		GENERAL NOTES (SHEET 3 OF 5)			
		PROJECT NO:		SHEET NO: S004	
				SHEET: 4 OF 45	

1. THE JACKING STIFFENERS ARE DESIGNED FOR THE TOTAL DEAD LOAD GIRDER REACTIONS PROVIDED IN THE PLANS.
2. JACKS ARE TO BE CENTERED UNDER JACKING STIFFENER LOCATIONS SHOWN ON THE PLANS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE JACKING TO SIZE AND DESIGN THE REQUIRED JACKING EQUIPMENT AND CRIBBING AND TO ESTABLISH THE PROCEDURE FOR JACKING AND BEARING REPLACEMENT OR REPAIRS.
4. CONSIDERATION SHOULD BE GIVEN TO PROTECTING ABUTMENT WATERPROOFING JOINTS AND CLOSURE PLATES AND OTHER ITEMS THAT MAY BE DAMAGED BY JACKING.

1. MATERIALS, FABRICATION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CHAPTER 15: STEEL STRUCTURES OF THE CURRENT AREMA MANUAL FOR RAILWAY ENGINEERING.
2. MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 OR A992 SPECIFICATIONS UNLESS NOTED OTHERWISE. PIPE USED AS HANDRAIL SHALL CONFORM TO ASTM A53, GR. B SPECIFICATIONS. MISCELLANEOUS STEEL SHALL BE PLAIN UNLESS NOTED OTHERWISE.
3. WHERE GALVANIZING IS INDICATED, MISCELLANEOUS STEEL SHALL BE PICKLED IN ACCORDANCE WITH SSPC-SP8 AND HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 SPECIFICATIONS. COATING WEIGHT SHALL BE 2.3 OZ. PER SQ. FT.
4. BOLTS AND NUTS TO BE ZINC PLATED IN ACCORDANCE WITH ASTM F2329 SPECIFICATIONS UNLESS NOTED OTHERWISE.
5. WELDING SHALL BE PER AWS D1.1 STRUCTURAL WELDING CODE. WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS.

1. ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO C TRACK.
2. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER AND BNSF, DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF SHORING SHALL COMPLY WITH UPRR & BNSF GUIDELINES FOR TEMPORARY SHORING.
3. FOR EXCAVATIONS WHICH ENCROACH INTO ZONE A OR B, SHORING PLANS MUST BE ACCOMPANIED BY A COPY OF THE DESIGN CALCULATIONS. PLANS AND CALCULATIONS MUST BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
4. ALL SHORING WITHIN LIMITS OF ZONE A MUST BE PLACED PRIOR TO THE START OF EXCAVATION.

1. SPRAY-APPLIED ELASTOMER WATERPROOFING MEMBRANE (80 MIL) AND SLOPED INTEGRATED BALLAST PROTECTION MAT (250 MIL) SHALL BE FIELD APPLIED TO THE BRIDGE DECK AND BALLAST CURB SURFACES.
2. SPRAY-APPLIED ELASTOMER WATERPROOFING MEMBRANE AND SLOPED INTEGRATED BALLAST PROTECTION MAT SHALL BE FURNISHED BY BRIDGE PRESERVATION LLC, OR APPROVED EQUAL. PREPARE SURFACES AND APPLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

3. CONTRACTOR TO SUBMIT MATERIAL SPECIFICATIONS, INSTALLATION PROCEDURES, INSTALLER'S CERTIFICATION, INSPECTION AND FIELD TESTING CRITERIA, SHOP DRAWINGS, JOINT DETAILS, AND WATERPROOFING MANUFACTURER DETAILS PER PROJECT SPECIFICATIONS TO BNSF AND THE ENGINEER IN ACCORDANCE WITH THE TABLE OF SUBMITTALS AND REVIEW SUBMITTAL NOTES.

4. WATERPROOFING INSTALLATION SHALL BE OBSERVED AND APPROVED BY A QUALIFIED REPRESENTATIVE OF THE MANUFACTURER, WITH QUALIFICATIONS SUBMITTED TO THE ENGINEER.
5. AFTER INSTALLATION OF WATERPROOFING IS COMPLETE, OBTAIN ACCEPTANCE FROM THE ENGINEER AND IMMEDIATELY COVER THE SURFACE WITH SIX (6) INCHES OF BALLAST OR SUBBALLAST. NO CONSTRUCTION TRAFFIC WILL BE ALLOWED ON THE BRIDGE UNTIL THE COVERING IS IN PLACE.

6. THE WATERPROOFING DETAILS SHOWN IN THESE PLANS SHALL BE CONSIDERED CONCEPTUAL IN NATURE. THE CONTRACTOR SHALL COORDINATE THE DEVELOPMENT OF FINAL WATERPROOFING DETAILS CONCURRENTLY WITH STEEL FABRICATION DETAILS DURING THE RESPECTIVE SHOP DRAWING (STRUCTURAL STEEL AND WATERPROOFING) PROCUREMENT PROCESS AS REQUIRED PRIOR TO SUBMITTAL TO BNSF AND THE ENGINEER.
7. IN-PLACE JOINT LEAK TESTING SHALL BE PERFORMED PRIOR TO PLACEMENT OF BALLAST. THE WATERPROOFING MANUFACTURER SHALL SUBMIT A JOINT LEAK TESTING PROGRAM THAT SHALL ALLOW FOR A MINIMUM OF 3" OF WATER TO BE PLACED OVER THE JOINT AND ALLOWED TO SET FOR A MINIMUM PERIOD OF 30 MINUTES. THE JOINT WILL BE CONSIDERED WATERTIGHT IF THERE ARE NO LEAKS THROUGH THE JOINT AFTER THIS 30-MINUTE PERIOD.

APPROX	APPROXIMATE
B/R	BASE OF RAIL
BOT	BOTTOM
C/C	CENTER TO CENTER
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLR	CLEAR
CONN	CONNECTION
CY	CUBIC YARD
DIA	DIAMETER
EA	EACH
EF	EACH FACE
EGL	ENERGY GRADE LINE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL
ES	EACH SIDE
FF	FAR FACE
FT	FOOT
HORIZ	HORIZONTAL
LBS	POUNDS
LOL	LAY-OUT LINE
MAX	MAXIMUM
MID	MIDDLE
MIN	MINIMUM
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
OPP	OPPOSITE
P/S	PRESTRESSED
REINF	REINFORCEMENT
ROW	RIGHT-OF-WAY
SPA	SPACING
T/	TOP
T/R	TOP OF RAIL
TOT	TOTAL
TPG	THROUGH PLATE GIRDER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VEL	VELOCITY
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
WP	WORKING POINT



IN CURVED TRACK, THE ABOVE MINIMUM HORIZONTAL EXTENT SHALL BE INCREASED EITHER 6 INCHES TOTAL OR 1.5 INCHES PER EVERY DEGREE OF CURVE, WHICHEVER IS GREATER

(NORMAL TO RAILROAD)

HDR

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TABLE OF SUBMITTALS						
SUBMITTAL TYPE	FORMAT	SUBMITTAL TIMING	PRIMARY REVIEWER	PRIMARY REVIEW TIME	SECONDARY REVIEWER	SECONDARY REVIEW TIME
PLANNED SUBMITTAL SCHEDULE	PDF	TWICE MONTHLY (WK 1/3 OR 2/4)	ENGINEER	N/A	BNSF	N/A
SUBMITTAL LOG	PDF	TWICE MONTHLY (WK 1/3 OR 2/4)	ENGINEER	N/A	BNSF	N/A
CONSTRUCTION SCHEDULE (FOR INFORMATION ONLY)	PDF	MONTHLY	ENGINEER	N/A	BNSF	N/A
CONSTRUCTION PLAN - SUBMIT CONSTRUCTION SEQUENCE/PHASING PLAN - INCLUDE WORKING DRAWINGS AS NECESSARY - SPECIFICALLY HIGHLIGHT EQUIPMENT POSITIONING ADJACENT TO ACTIVE TRACKS AND ANY WORK WINDOWS REQUIRED ON ACTIVE TRACKS	PDF	PRIOR TO STARTING CONSTRUCTION AND UPON ANY CHANGE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
TRACK MONITORING PLAN AND CONTINGENCY PLAN	PDF	PRIOR TO BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
TRACK MONITORING RESULTS	PDF	DURING CONSTRUCTION (DAILY)	ENGINEER	N/A	BNSF	N/A
QA/QC PLAN	PDF	PRIOR TO STARTING CONSTRUCTION AND UPON ANY CHANGE	ENGINEER	4 WEEKS	BNSF	4 WEEKS
REQUESTS FOR INFORMATION	PDF	DURING CONSTRUCTION	ENGINEER	7 days	BNSF	4 WEEKS
NON-CONFORMANCE REPORTS	PDF	DURING CONSTRUCTION	ENGINEER	3 days	BNSF	4 WEEKS
TEMPORARY SHORING	PDF	PRIOR TO ORDERING MATERIALS AND BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
TEMPORARY FALSEWORK	PDF	PRIOR TO ORDERING MATERIALS AND BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
DEMOLITION	PDF	PRIOR TO BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
ERECTION	PDF	PRIOR TO BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
EROSION CONTROL	PDF	PRIOR TO BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
MATERIAL CERTIFICATIONS - STRUCTURAL STEEL - REINFORCING STEEL - PRESTRESSING STRAND - MISCELLANEOUS STEEL AND HARDWARE - PRE-FABRICATED ELEMENTS - PRODUCTS (GROUT, EPOXY, COUPLERS, COTINGS, ETC.) - WATERSTOPS - WATERPROOFING MEMBRANE - INTEGRATED BALLAST PROTECTION MAT - DRAINAGE COMPOSITE LAYER	PDF	PRIOR TO ORDERING MATERIALS	ENGINEER	2 WEEKS	BNSF	4 WEEKS
CONCRETE MIX DESIGN - SUBMIT SEPARATE DESIGNS FOR EACH DIFFERENT MIX FROM A GIVEN SUPPLIER FOR A PARTICULAR STRUCTURE AND TYPE OF CONCRETE - INCLUDE MIX DESIGN, SLUMP, WATER-CEMENT RATIO, CEMENT, AGGREGATES, ADMIXTURES AND ADMIXTURE DOSAGES, HISTORICAL STRENGTH RECORDS, TRIAL MIX RESULTS AND ANY OTHER PERTINENT INFORMATION 28 DAY CONCRETE CYLINDER RESULTS	PDF	PRIOR TO ORDERING MATERIALS AND BEGINNING WORK ON SITE	ENGINEER	2 WEEKS	BNSF	4 WEEKS
STRUCTURAL STEEL - SHOP DRAWINGS - FABRICATION CERTIFICATIONS - WELDING PROCEDURES - WELDER QUALIFICATIONS - INSPECTOR QUALIFICATIONS - NDT TEST RESULTS - PROPOSED GIRDER SHOP SPLICE LOCATIONS	PDF PDF PDF PDF PDF PDF PDF	PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO ORDERING MATERIALS	ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER	4 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS	BNSF BNSF BNSF BNSF BNSF BNSF BNSF	4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS
PRESTRESSED PRECAST CONCRETE BOX GIRDER - SHOP DRAWINGS - FABRICATION CERTIFICATIONS - INSPECTOR QUALIFICATIONS	PDF PDF PDF	PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION	ENGINEER ENGINEER ENGINEER	4 WEEKS 2 WEEKS 2 WEEKS	BNSF BNSF BNSF	4 WEEKS 4 WEEKS 4 WEEKS
REINFORCING STEEL - SHOP DRAWINGS - QC MANUAL FOR FABRICATION OF HOOPS - PROPOSED MECHANICAL SPLICES	PDF PDF PDF	PRIOR TO FABRICATION PRIOR TO FABRICATION PRIOR TO FABRICATION	ENGINEER ENGINEER ENGINEER	4 WEEKS 2 WEEKS 2 WEEKS	BNSF BNSF BNSF	4 WEEKS 2 WEEKS 2 WEEKS
CAST-IN-PLACE CONCRETE PILES - DRILLED SHAFT INSTALLATION PLAN - QUALITY CONTROL PROGRAM - CONCRETE MATERIALS AND MIX PROPORTIONS - AWS WELDER CERTIFICATION, IF APPLICABLE - TESTING REPORT - MITIGATION PLANS - MITIGATION REPORT	PDF PDF PDF PDF PDF PDF PDF	PRIOR TO PILE INSTALLATION PRIOR TO PILE INSTALLATION PRIOR TO PILE INSTALLATION PRIOR TO PILE INSTALLATION AFTER TESTING ON A REJECTED PILE FOR EACH REJECTED PILE WITHIN 10 DAYS OF COMPLETION OF PILE REPAIR	ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER ENGINEER	2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS 2 WEEKS	BNSF BNSF BNSF BNSF BNSF BNSF BNSF	4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS 4 WEEKS
WARRANTIES/GUARANTEES - PRE-FABRICATED ELEMENTS - WATERSTOPS - WATERPROOFING MEMBRANE	PDF	AT THE CONCLUSION OF CONSTRUCTION	ENGINEER	N/A	BNSF	N/A
AS-BUILT DRAWINGS - RED-LINED PLAN SHEETS - FINAL AS-BUILT MICROSTATION FILES - STRUCTURAL STEEL SHOP DRAWINGS - COMPLETE RECORD OF REVIEWED SUBMITTALS AND RFIS	PDF PDF PDF PDF	AT THE CONCLUSION OF CONSTRUCTION	ENGINEER	N/A	BNSF	N/A
WATERPROOFING INSTALLATION, INSPECTION AND FIELD TESTING - SHOP DRAWINGS - INSTALLATION PROCEDURES - INSTALLER'S CERTIFICATIONS - INPECTION CRITERIA - FIELD TESTING CRITERIA	PDF PDF PDF PDF PDF	PRIOR TO WATERPROOFING INSTALLATION	ENGINEER	2 WEEKS	BNSF	4 WEEKS
OTHER PROJECT SPECIFIC INFORMATION AS REQUESTED BY BNSF	PDF	AS REQUIRED	ENGINEER	2 WEEKS	BNSF	4 WEEKS

REVIEW SUBMITTAL NOTES:

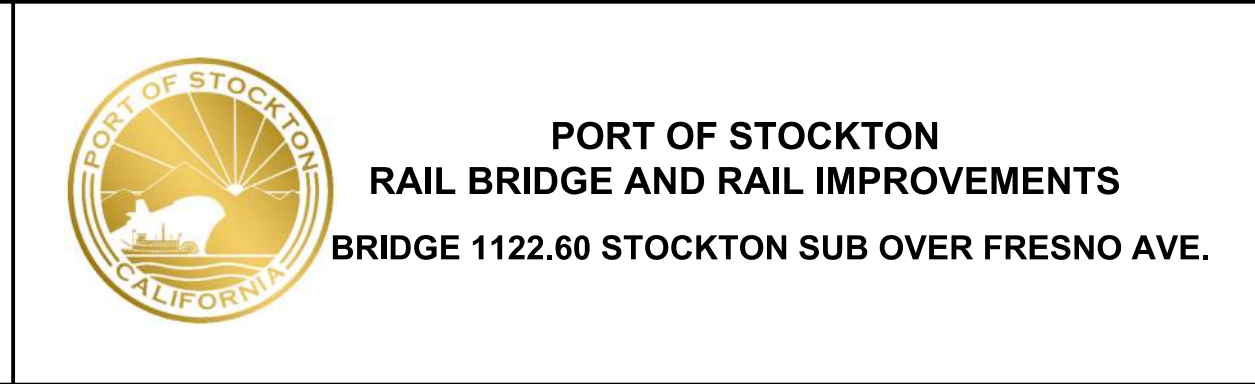
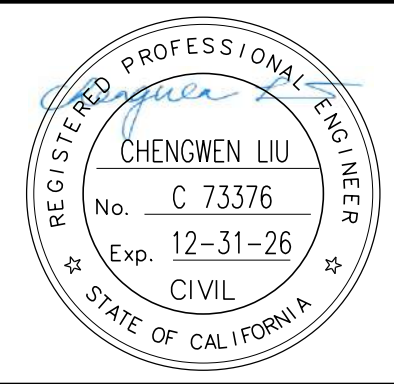
1. STRUCTURAL SUBMITTALS, REQUESTS FOR INFORMATION (RFIS) AND NON-CONFORMANCE REPORTS (NCRS) MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR BEFORE SUBMISSION TO THE ENGINEER. CONTRACTOR'S STAMP AND DISPOSITION SHALL BE CLEARLY MARKED ON A COVER SHEET, OR IN THE CASE OF SHOP DRAWINGS, ON EVERY SHEET SUBMITTED FOR REVIEW.
2. STRUCTURAL SUBMITTALS, RFIS AND NCRS SHALL BE DIRECTED TO THE ENGINEER FOR REVIEW. SUBMITTALS, RFIS AND NCRS REQUIRING BNSF APPROVAL SHALL ONLY BE SUBMITTED TO BNSF AFTER RESOLUTION OF COMMENTS AND ACCEPTANCE BY BOTH THE CONTRACTOR AND THE ENGINEER.
3. THE ENGINEER WILL REVIEW AND PROVIDE A RESPONSE TO THE CONTRACTOR WITH THE ENGINEER'S STAMP AND DISPOSITION CLEARLY MARKED ON A COVER SHEET, OR IN THE CASE OF SHOP DRAWINGS, ON EVERY SHEET SUBMITTED FOR REVIEW.
4. ONLY SUBMITTALS WITH THE ENGINEER'S STAMP INDICATING "FURNISH AS SUBMITTED", "FURNISH AS NOTED" OR "ENGINEER'S REVIEW NOT REQUIRED" CAN BE IMMEDIATELY SUBMITTED TO THE BNSF REPRESENTATIVE.
5. SUBMITTALS WITH THE ENGINEER'S STAMP INDICATING "REVISE AND RESUBMIT" OR "REJECTED" SHALL NOT BE SUBMITTED TO THE BNSF REPRESENTATIVE. THOSE SUBMITTALS MUST BE REVISED AND RE-SUBMITTED TO THE ENGINEER.
6. IF SHOP DRAWINGS ARE MARKED "FURNISH AS NOTED", THE FABRICATOR SHALL SUBMIT A CLEAN SET OF SHOP DRAWINGS WITH NOTES INCORPORATED.
7. REQUIRED SUBMITTAL REVIEWS AND REVIEW TIMEFRAMES ARE LISTED IN THE TABLE OF SUBMITTALS. THESE ARE INTENDED TO BE GENERAL IN NATURE AND DO NOT LIST EACH SPECIFIC SUBMITTAL THAT THE CONTRACTOR WILL NEED TO PROVIDE. REFER TO NOTES AND REFERENCE SPECIFICATIONS AND STANDARDS FOR SPECIFIC SUBMITTAL REQUIREMENTS.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A PLANNED SUBMITTAL SCHEDULE WITH PLANNED SUBMISSION DATES, ANTICIPATED REVIEW TIMES AND REVIEW DUE DATES. THE SCHEDULE MUST SHOW REVIEW BY THE ENGINEER AND REVIEW BY THE BNSF REPRESENTATIVE, WHICH CANNOT BE CONCURRENT FOR THE SAME SUBMITTAL.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SUBMITTAL LOG WITH NUMBER, DESCRIPTION, SUBMISSION DATE, ANTICIPATED REVIEW TIME, RESPONSIBLE REVIEWER, REVIEW DUE DATE, DISPOSITION, DATE RETURNED AND STATUS.
10. THE PLANNED SUBMITTAL SCHEDULE AND SUBMITTAL LOG SHALL BE UPDATED AND SHARED WITH THE ENGINEER AND THE BNSF REPRESENTATIVE TWICE MONTHLY THROUGHOUT THE DURATION OF CONSTRUCTION.
11. REVIEW TIMES SHALL NOT BE SHORTENED WITHOUT PRIOR APPROVAL BY THE ENGINEER AND THE BNSF REPRESENTATIVE. REVIEW TIME BEGINS ON THE DATE OF RECEIPT BY THE RESPONSIBLE REVIEWER.
12. EACH SEPARATE SUBMITTAL IS SUBJECT TO THESE REVIEW TIMES. IF A SUBMITTAL IS REJECTED OR RETURNED FOR REVISIONS, THE RE-SUBMITTAL IS CONSIDERED A NEW AND SEPARATE SUBMITTAL. THESE FULL REVIEW TIMES APPLY TO EACH RE-SUBMITTAL.
13. NCRS MUST INCLUDE BOTH THE ISSUE AND THE CONTRACTOR'S PROPOSED RESOLUTION PRIOR TO SUBMITTAL.
14. IN ALL SUBMITTALS, RFIS AND NCRS, PROVIDE PROPER REFERENCE TO STRUCTURE, SHEET NUMBER, NOTES SECTION AND NOTE NUMBER OR APPLICABLE SPECIFICATION/STANDARD.
15. IF CONTRACTOR SUBMITS MORE THAN 5 SUBMITTALS, RFIS OR NCRS IN ANY GIVEN WEEK, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE PRIORITY OF EACH BASED ON CONSTRUCTION SCHEDULE AND ACTIVITIES AND ALLOW ADDITIONAL TIME FOR REVIEW. SUGGESTED ADDITIONAL REVIEW TIME IS 1 ADDITIONAL WEEK PER 5 SUBMITTALS.
16. ALL CONSTRUCTION SUBMITTALS REQUIRE APPROVAL OF BOTH THE ENGINEER AND BNSF.



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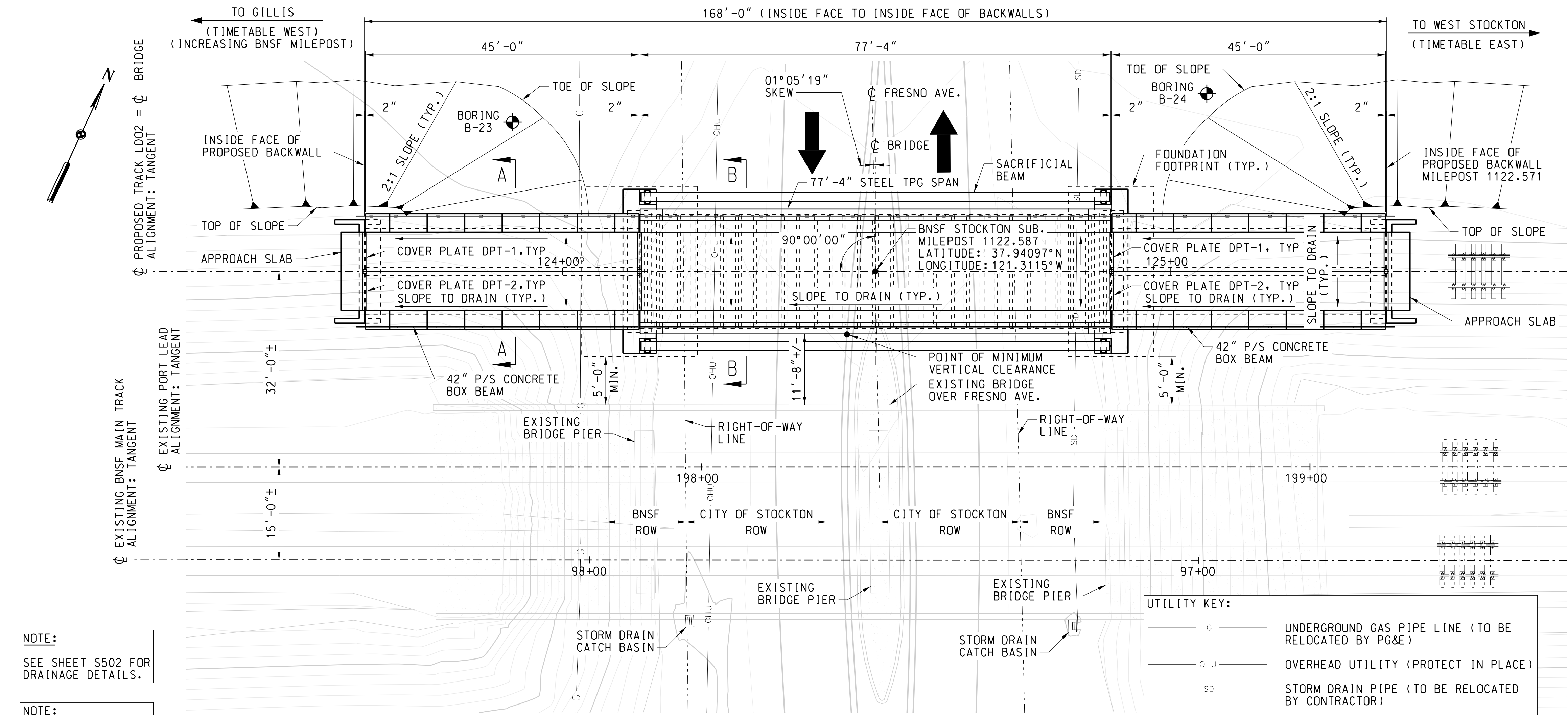
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DATE	08/31/2026



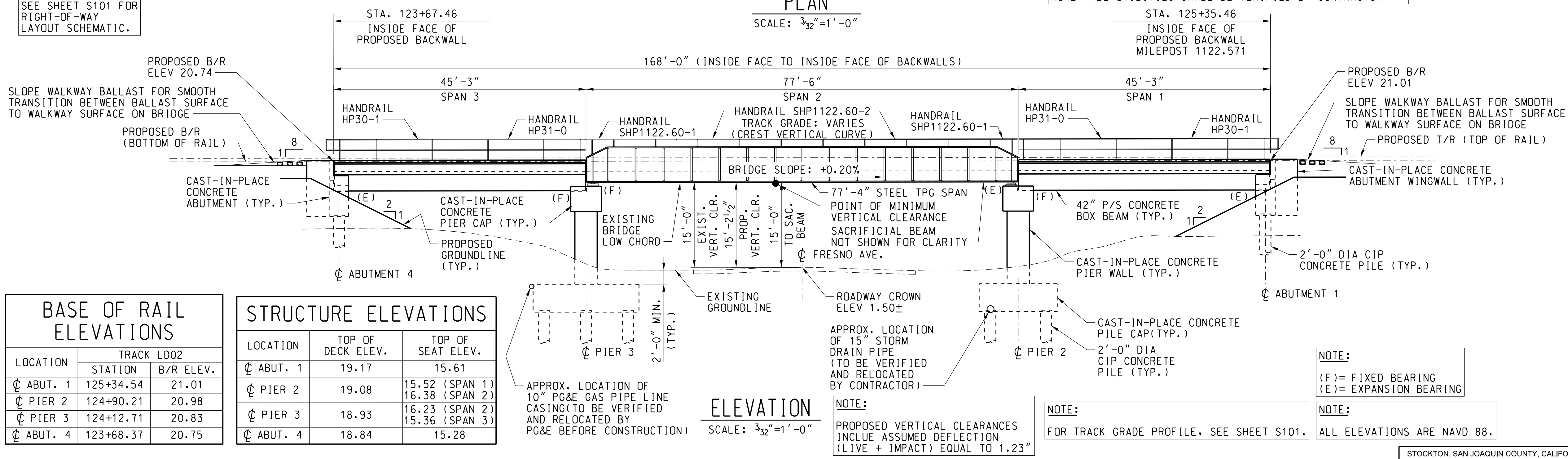
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STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
GENERAL NOTES (SHEET 5 OF 5)		
PROJECT NO:	SHEET NO: S006	SHEET: 6 OF 45

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PLAN
SCALE: 3/32"=1'-0"



ISSUE	DATE	DESCRIPTION
08/31/26	ISSUED FOR BID	

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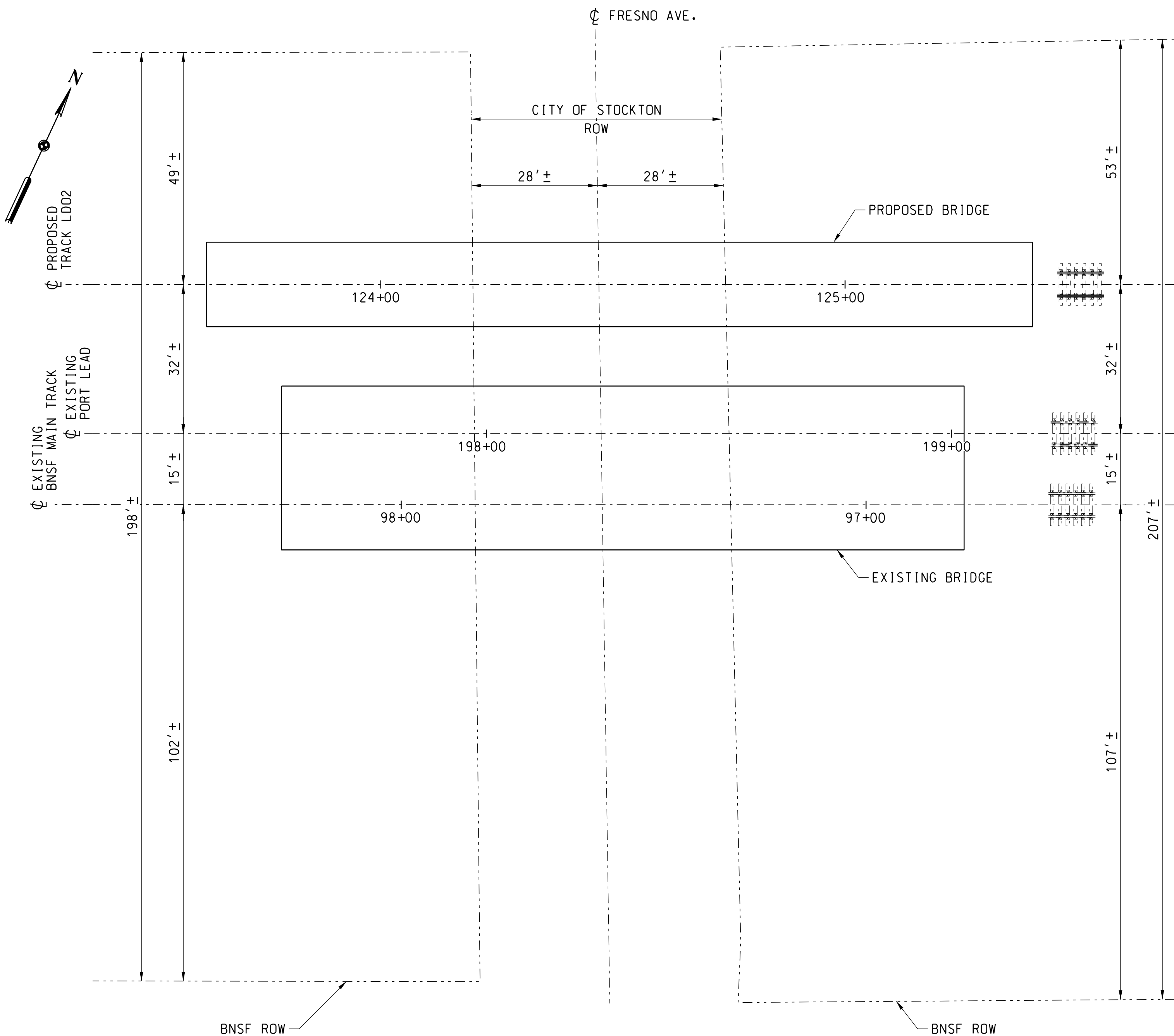
BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
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CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

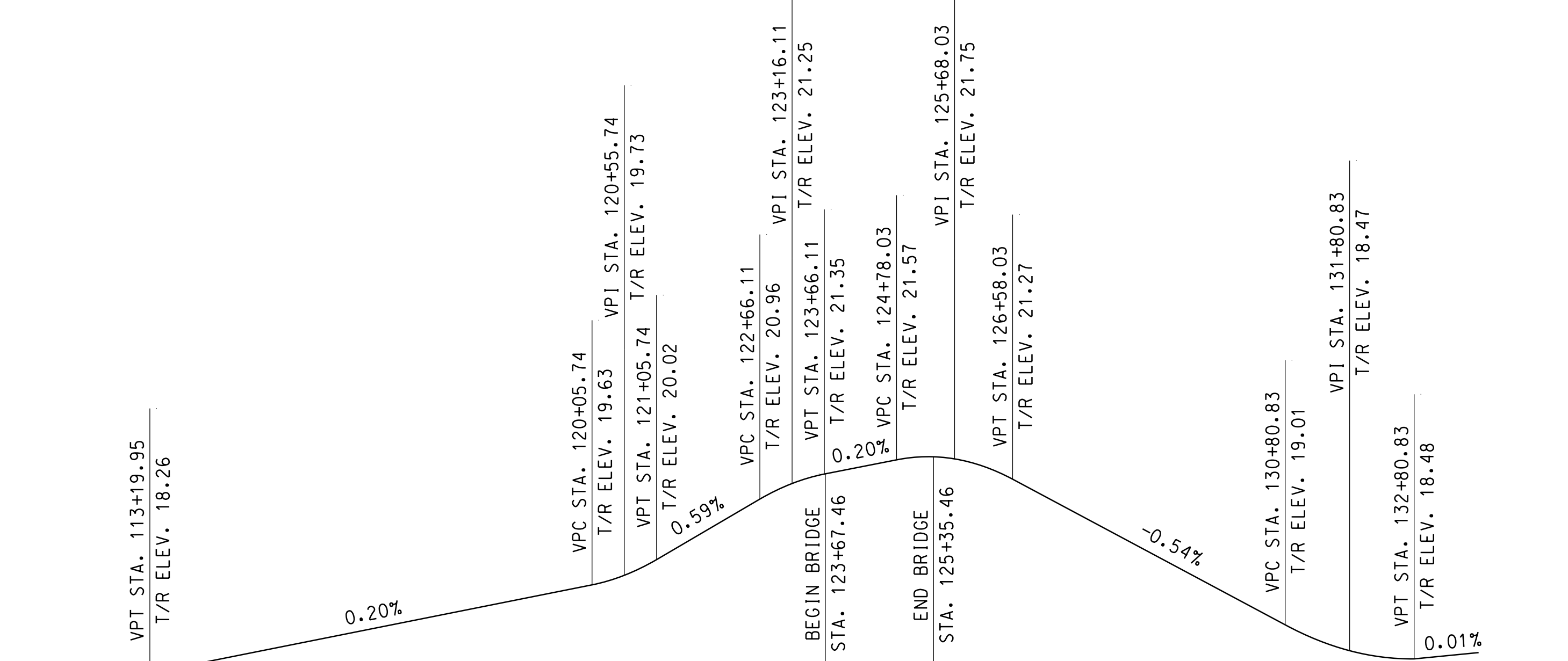
STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA		LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
GENERAL ARRANGEMENT (SHEET 1 OF 2)			
PROJECT NO:	SHEET NO: S100	SHEET: 7	OF 45

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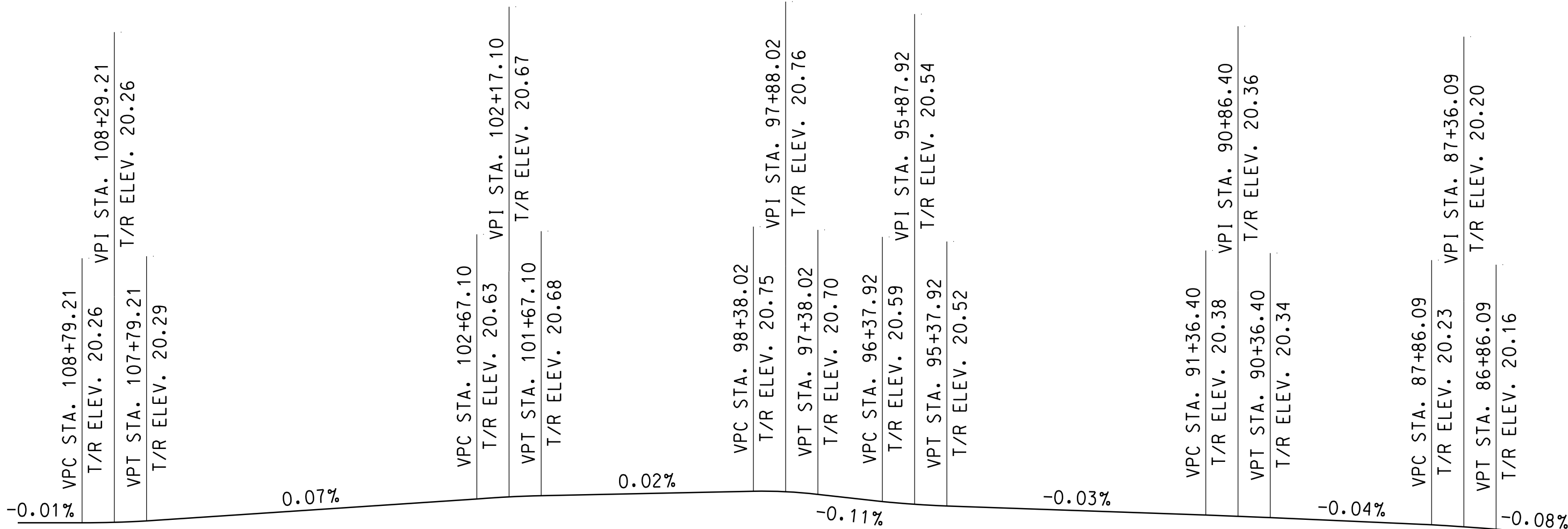
BNSF RIGHT-OF-WAY SCHEMATIC

SCALE: NONE



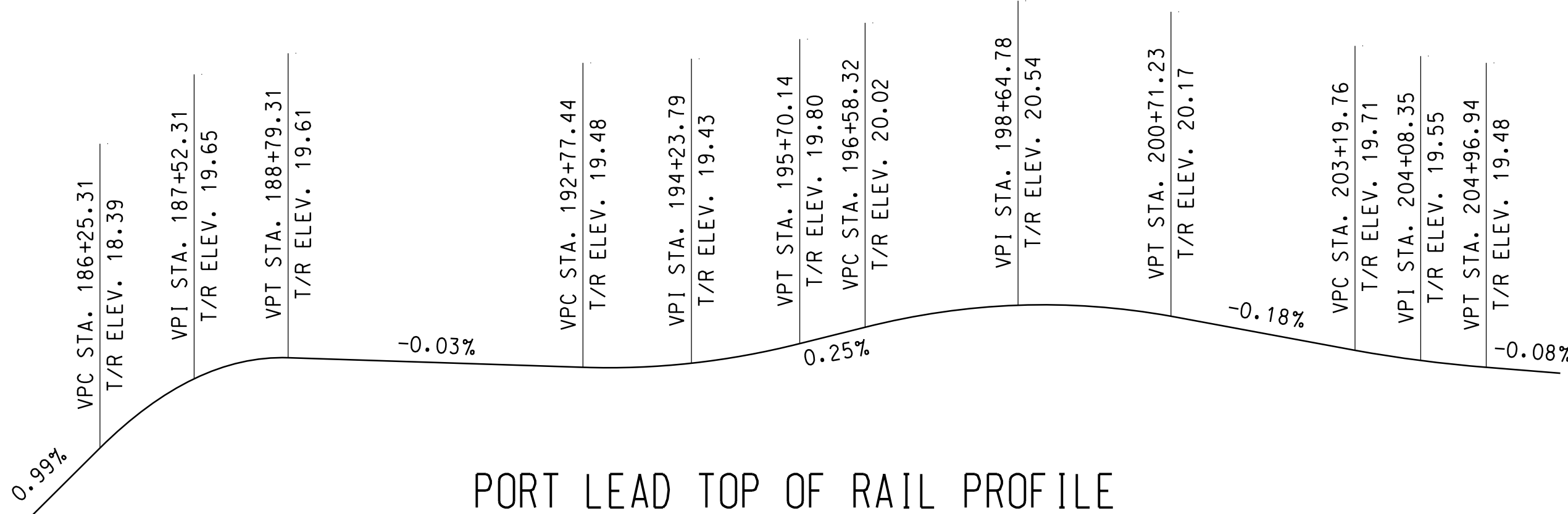
TRACK LD02 TOP OF RAIL PROFILE

SCALE: NONE



BNSF MAIN TRACK TOP OF RAIL PROFILE

SCALE: NONE



PORT LEAD TOP OF RAIL PROFILE

SCALE: NONE



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ISSUE	DATE	DESCRIPTION



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BRIDGE ENGINEERING KANSAS CITY, KS

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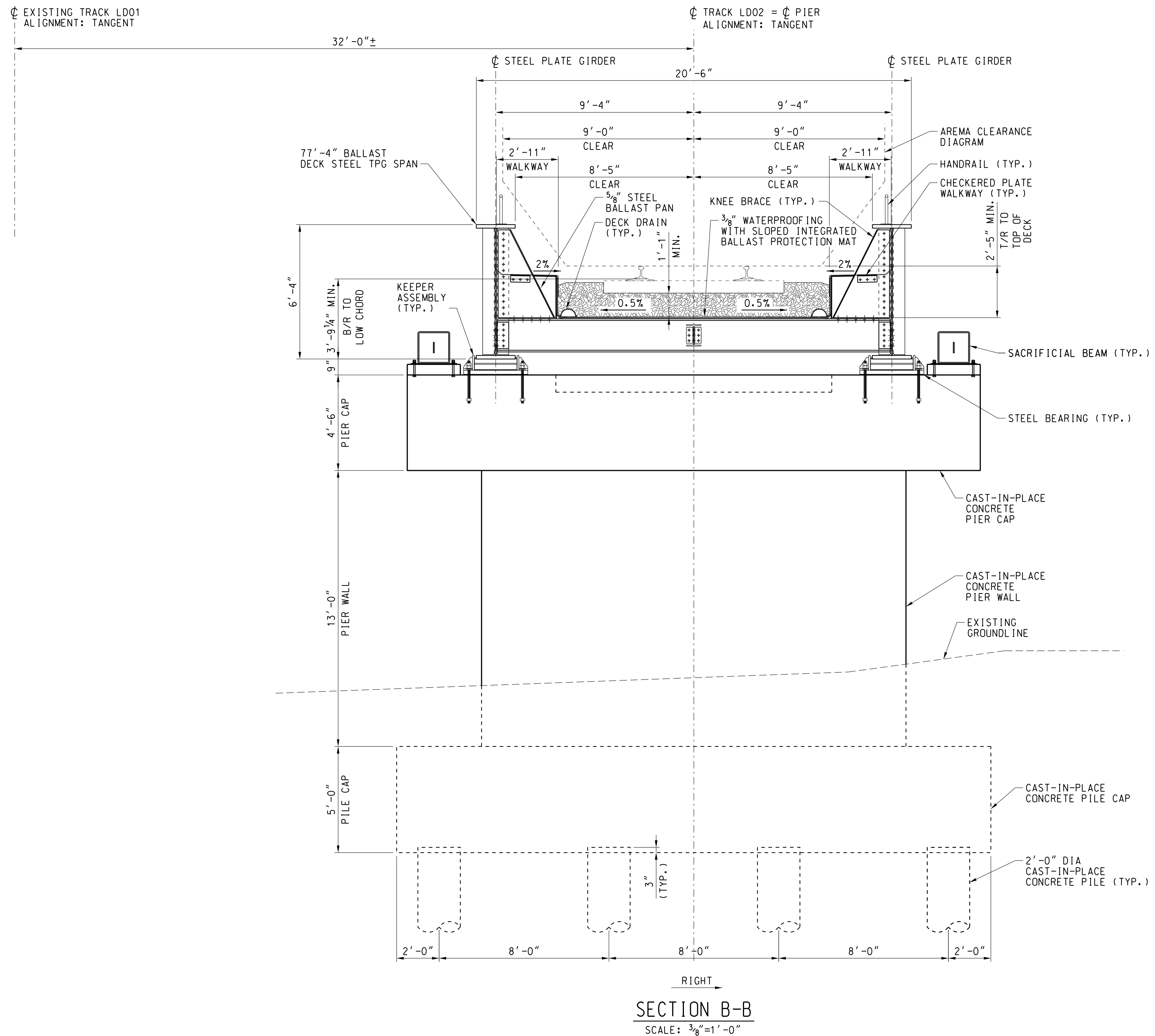
PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

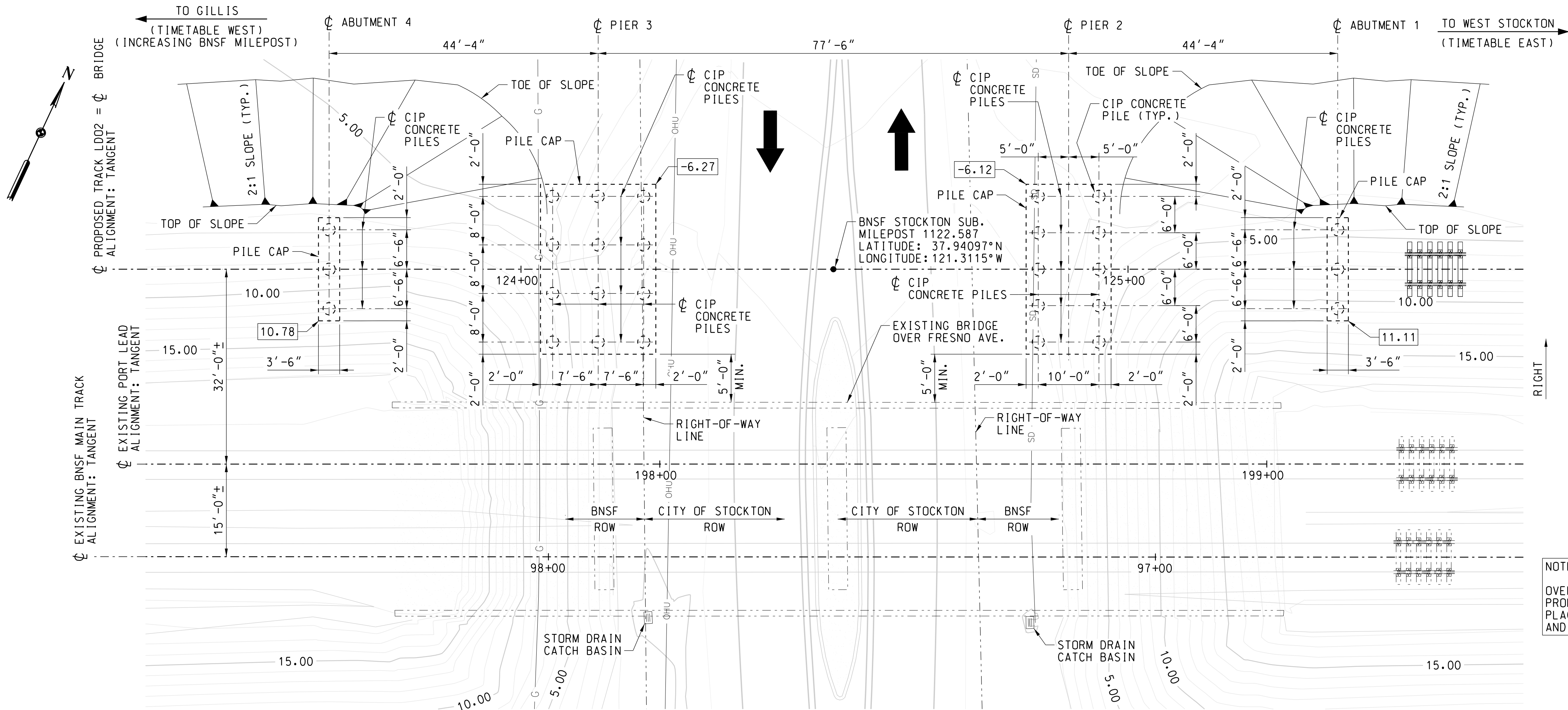
GENERAL ARRANGEMENT
(SHEET 2 OF 2)

PROJECT NO:	SHEET NO: S101	SHEET: 8 OF 45
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STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
PART OF STOCKTON E AND RAIL IMPROVEMENTS STOCKTON SUB OVER FRESNO AVE.	STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
	TYPICAL SECTIONS (SHEET 2 OF 2)			
	PROJECT NO:	SHEET NO:	SHEET:	OF
	S103	10	45	

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FOUNDATION PLAN
SCALE: $\frac{3}{32}''=1'-0''$

NOTES:
OVERHEAD GUY WIRE (OHG), GUY ANCHOR, GUY POLE NORTH OF THE PROPOSED BRIDGE NOT SHOWN. CONTRACTOR TO VERIFY AND PROTECT IN PLACE DURING CONSTRUCTION, OR RELOCATE TO CLEAR CONSTRUCTION AND RESTORE TO ORIGINAL STATE AFTER CONSTRUCTION.

UTILITY KEY:

— G —	UNDERGROUND GAS PIPE LINE (TO BE RELOCATED BY PG&E)
— OHU —	OVERHEAD UTILITY (PROTECT IN PLACE)
— SD —	STORM DRAIN PIPE (TO BE RELOCATED BY CONTRACTOR)

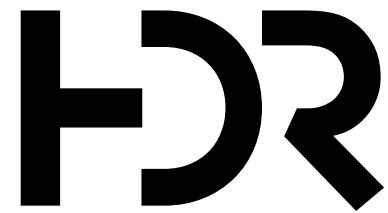
NOTE: ALL UTILITIES SHALL BE VERIFIED BY CONTRACTOR.

- NOTES:
- THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
 - LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL AFFECTED UTILITIES PRIOR TO PERFORMING ANY WORK.
 - SEE SHEET S105 FOR PROPOSED CONSTRUCTION PHASING DETAILS.

- NOTE:
- ☐ INDICATES BOTTOM OF PILE CAP ELEVATION.

PILE DATA TABLE						
LOCATION	PILE TYPE	REQ'D ULTIMATE CAPACITY (KIPS) (NOTE A)		PILE TOP ELEVATION (FT)	PILE TIP ELEVATION (FT)	PILE LENGTH (FT)
		COMPRESSION	TENSION			
ABUTMENT 1	2'-0" DIA. CIP CONCRETE	450	-	11.36	-67.0	78.36
PIER 2	2'-0" DIA. CIP CONCRETE	450	150	-5.87	-75.0	69.13
PIER 3	2'-0" DIA. CIP CONCRETE	500	300	-6.02	-79.0	72.98
ABUTMENT 4	2'-0" DIA. CIP CONCRETE	450	-	11.03	-65.0	76.03

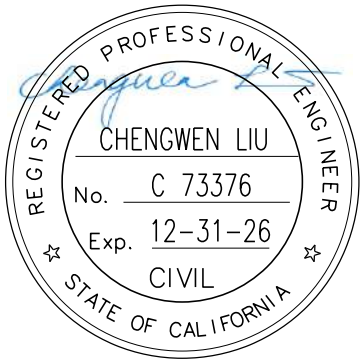
- NOTE:
- A. REQUIRED ULTIMATE CAPACITY IS BASED ON THE MAXIMUM VALUE OF THE FOLLOWING:
- DESIGN SERVICE LOAD MULTIPLIED BY A FACTOR OF SAFETY OF 2.0.
 - DESIGN EARTHQUAKE LOAD COMBINATION WITH LEVEL 1 GROUND MOTION MULTIPLIED BY A FACTOR OF SAFETY OF 2.0.
 - DESIGN EARTHQUAKE LOAD COMBINATION WITH LEVEL 2 GROUND MOTION MULTIPLIED BY A FACTOR OF SAFETY OF 1.6.
 - DESIGN EARTHQUAKE LOAD COMBINATION WITH LEVEL 3 GROUND MOTION MULTIPLIED BY A FACTOR OF SAFETY OF 1.0.



	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



SCALE	AS NOTED
DESIGNED BY	CL
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

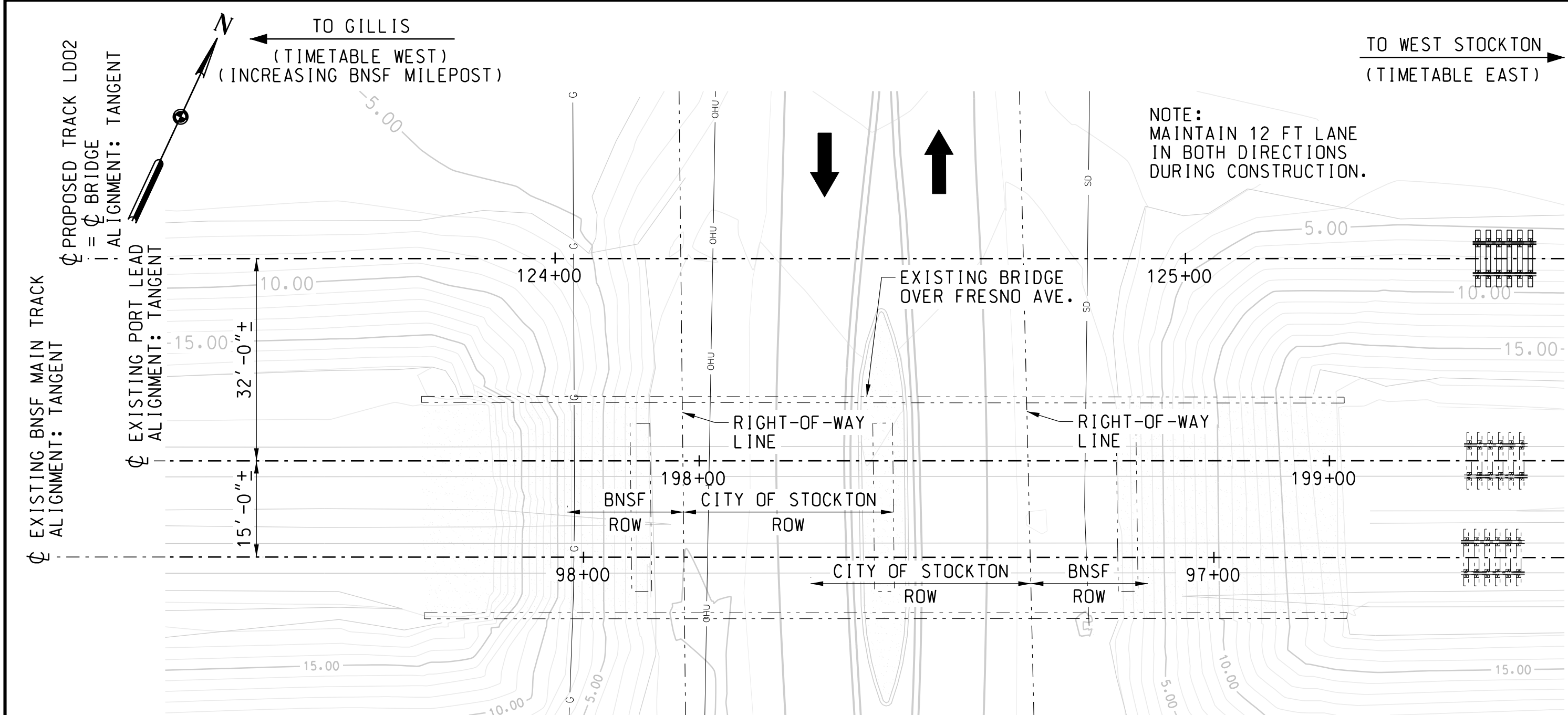
STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

LATITUDE: 37.94097° N LONGITUDE: 121.3115° W

STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

FOUNDATION PLAN

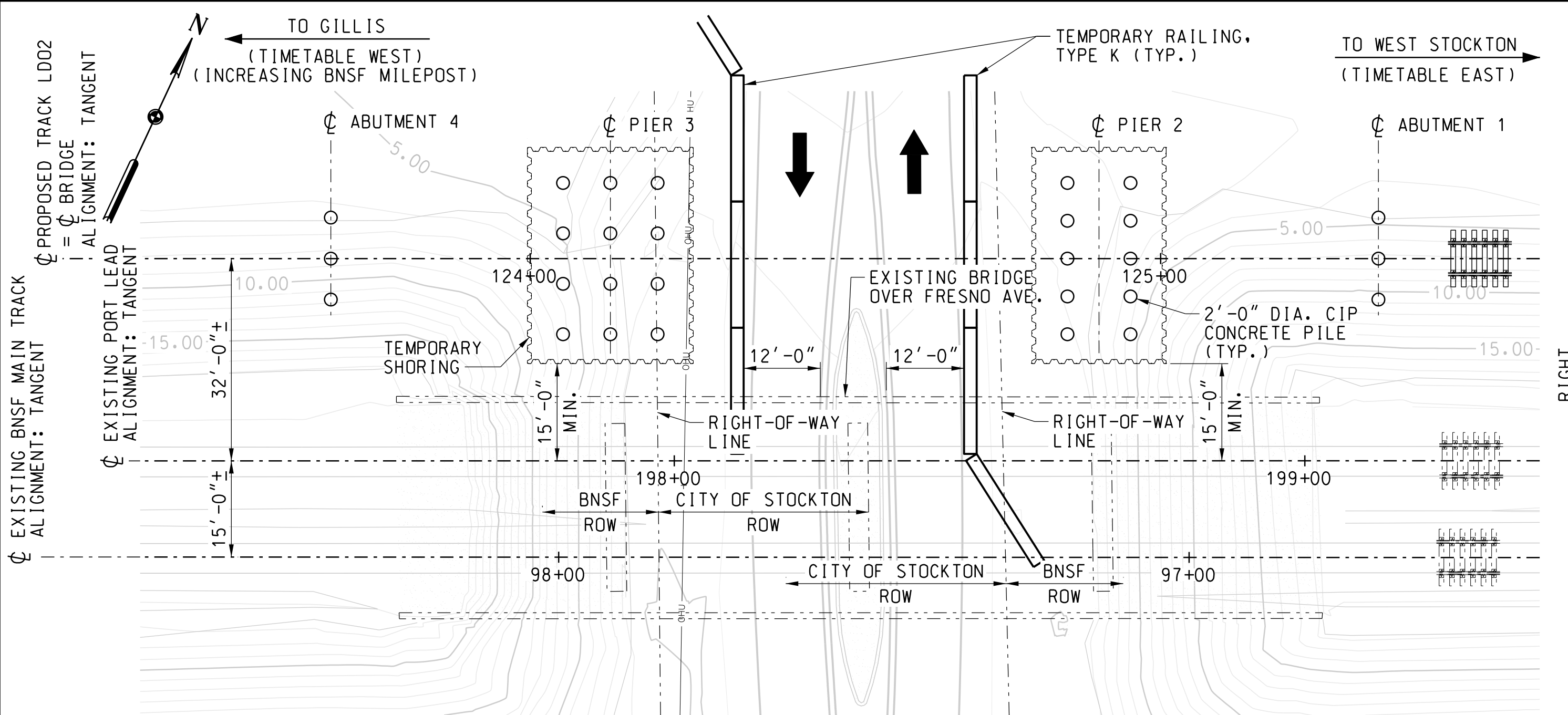
PROJECT NO:	SHEET NO: S104	SHEET: 11	OF 45
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EXISTING
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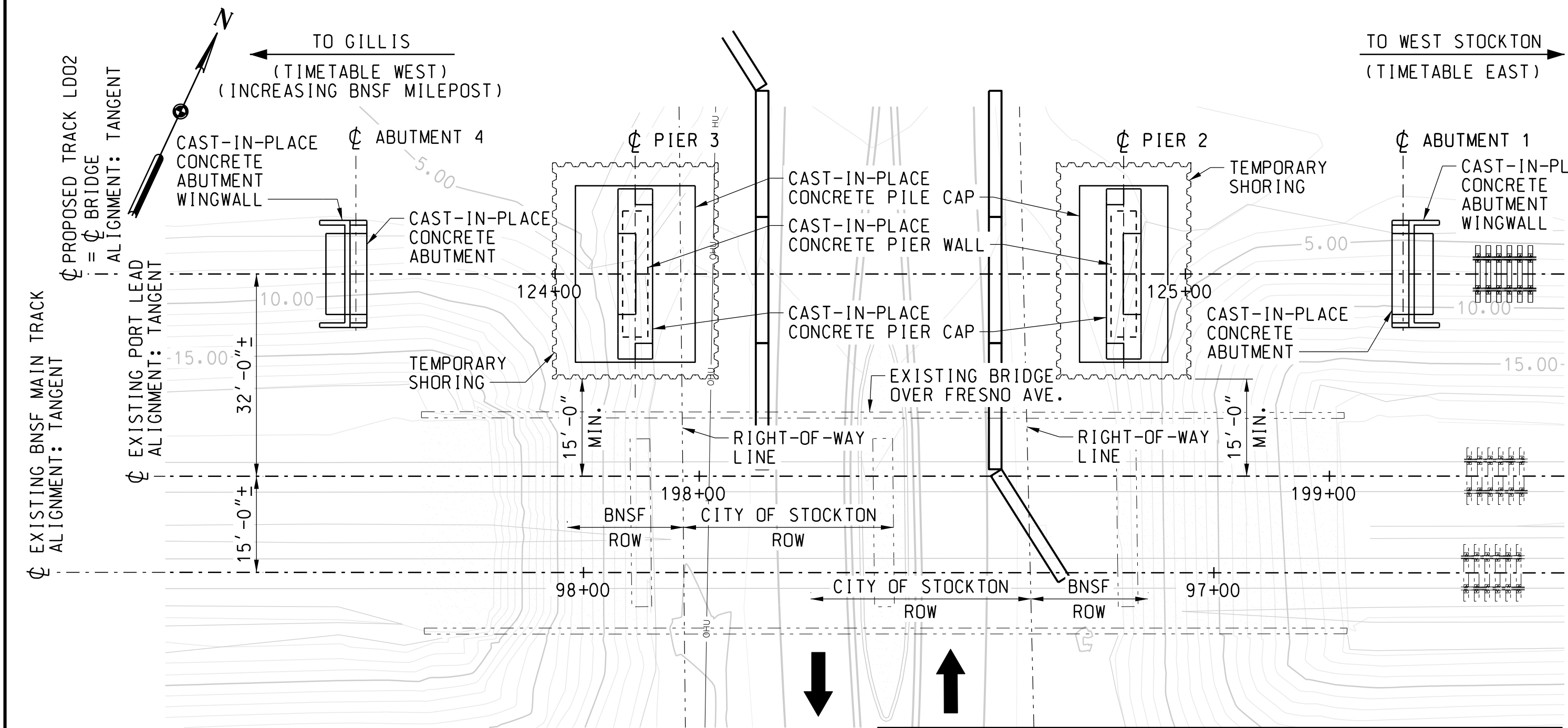
- UTILITY KEY:
- G UNDERGROUND GAS PIPE LINE (TO BE RELOCATED BY PG&E)
 - OHU OVERHEAD UTILITY (PROTECT IN PLACE)
 - SD STORM DRAIN PIPE (TO BE RELOCATED BY CONTRACTOR)
- NOTE: ALL UTILITIES SHALL BE VERIFIED BY CONTRACTOR.

NOTES:
OVERHEAD GUY WIRE (OHG), GUY ANCHOR, GUY POLE NORTH OF THE PROPOSED BRIDGE NOT SHOWN. CONTRACTOR TO VERIFY AND PROTECT IN PLACE DURING CONSTRUCTION, OR RELOCATE TO CLEAR CONSTRUCTION AND RESTORE TO ORIGINAL STATE AFTER CONSTRUCTION.



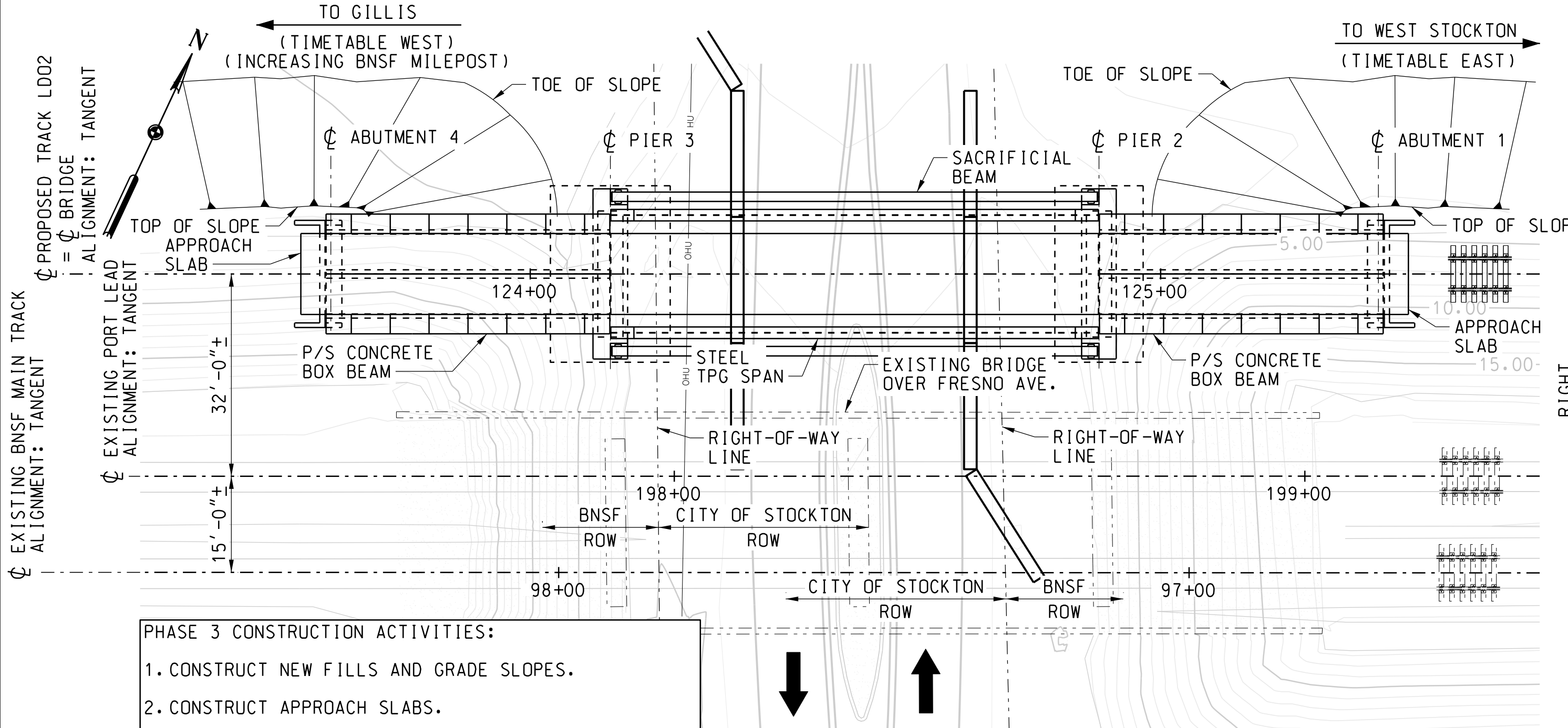
PHASE 1
SCALE: 1/16"=1'-0"

- PHASE 1 CONSTRUCTION ACTIVITIES:
1. VERIFY ABANDONMENT, PROTECTION, OR RELOCATION OF UTILITIES.
 2. CLEAR AND PREPARE SITE FOR CONSTRUCTION. INSTALL TEMPORARY RAILING, TYPE K
 3. INSTALL TEMPORARY SHORING.
 4. EXCAVATE AS NEEDED AND INSTALL CAST-IN-PLACE CONCRETE PILES.



PHASE 2
SCALE: 1/16"=1'-0"

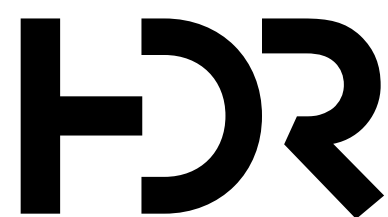
- PHASE 2 CONSTRUCTION ACTIVITIES:
1. CONSTRUCT CAST-IN-PLACE CONCRETE PILE CAPS.
 2. CONSTRUCT CAST-IN-PLACE CONCRETE PIER WALLS AND ABUTMENTS.
 3. CONSTRUCT CAST-IN-PLACE CONCRETE PIER CAPS.
 4. CONSTRUCT CAST-IN-PLACE CONCRETE ABUTMENT WINGWALLS.
 5. REMOVE TEMPORARY SHORING.



PHASE 3
SCALE: 1/16"=1'-0"

- PHASE 3 CONSTRUCTION ACTIVITIES:
1. CONSTRUCT NEW FILLS AND GRADE SLOPES.
 2. CONSTRUCT APPROACH SLABS.
 3. INSTALL BEARINGS AT ABUTMENTS AND PIERS.
 4. INSTALL BRIDGE GIRDERS.
 5. INSTALL WATERPROOFING, BALLAST, TIES AND TRACKS.
 6. BACKFILL AND FINISH GRADING AS REQUIRED.
 7. INSTALL SACRIFICIAL BEAM AND OTHER MATERIALS.
 8. REMOVE TEMPORARY RAILING, TYPE K AND STRIP.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA LATITUDE: 37.94097° N LONGITUDE: 121.3115° W



08/31/26	ISSUED FOR BID	
ISSUE	DATE	DESCRIPTION



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BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	CL
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

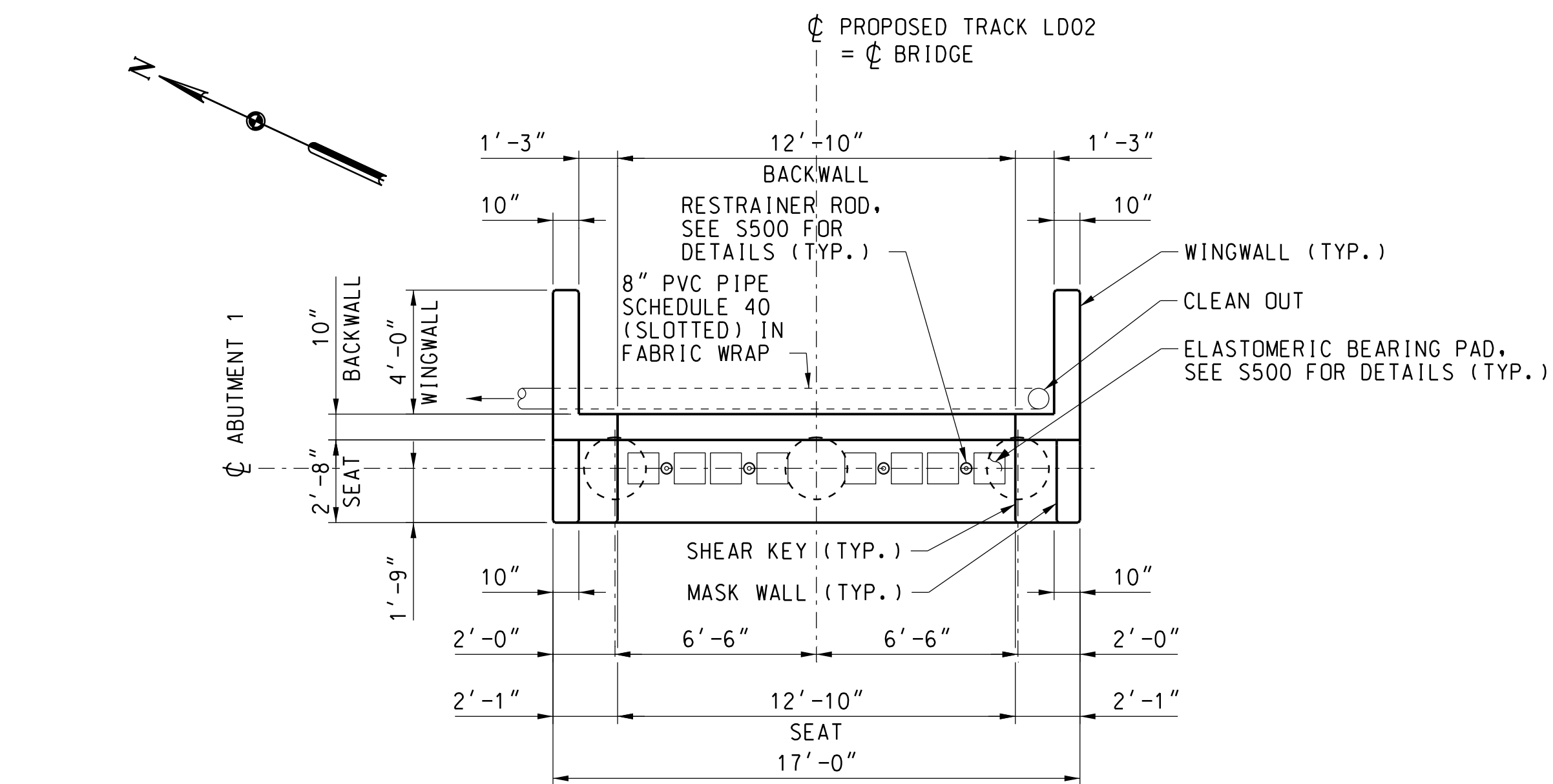


PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

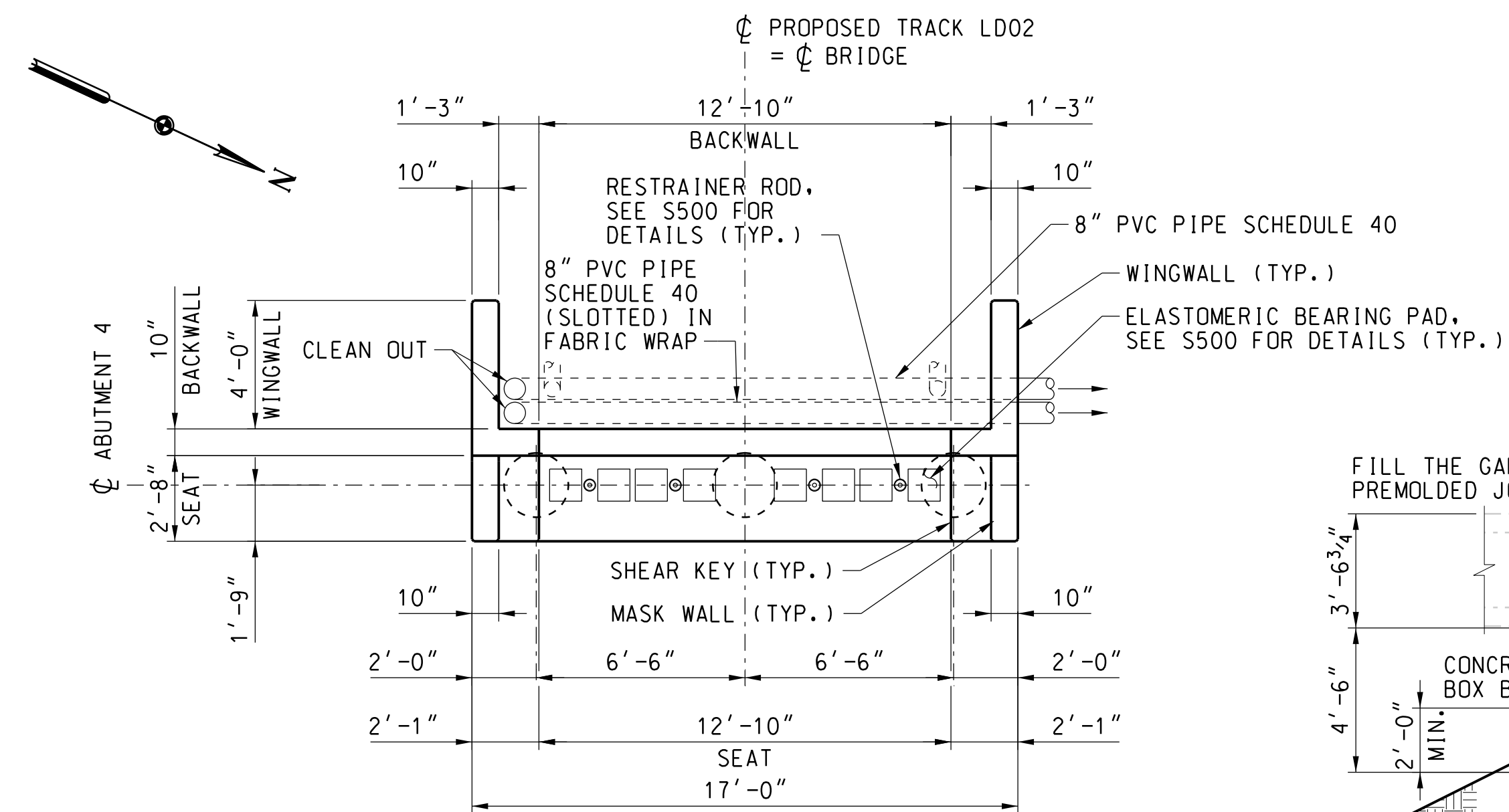
STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

CONSTRUCTION PHASING DETAILS

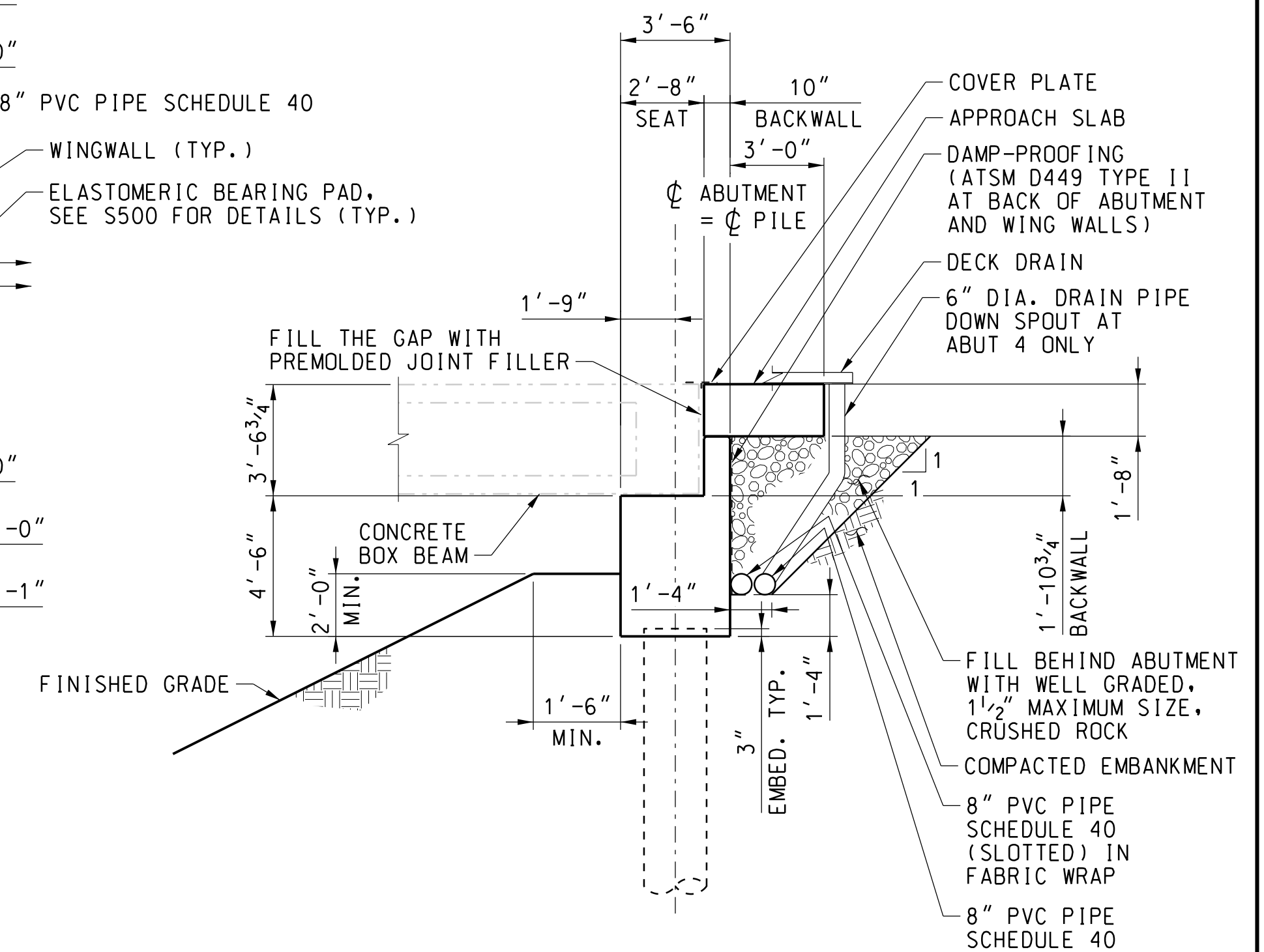
PROJECT NO:	SHEET NO: S105	SHEET: 12	OF 45
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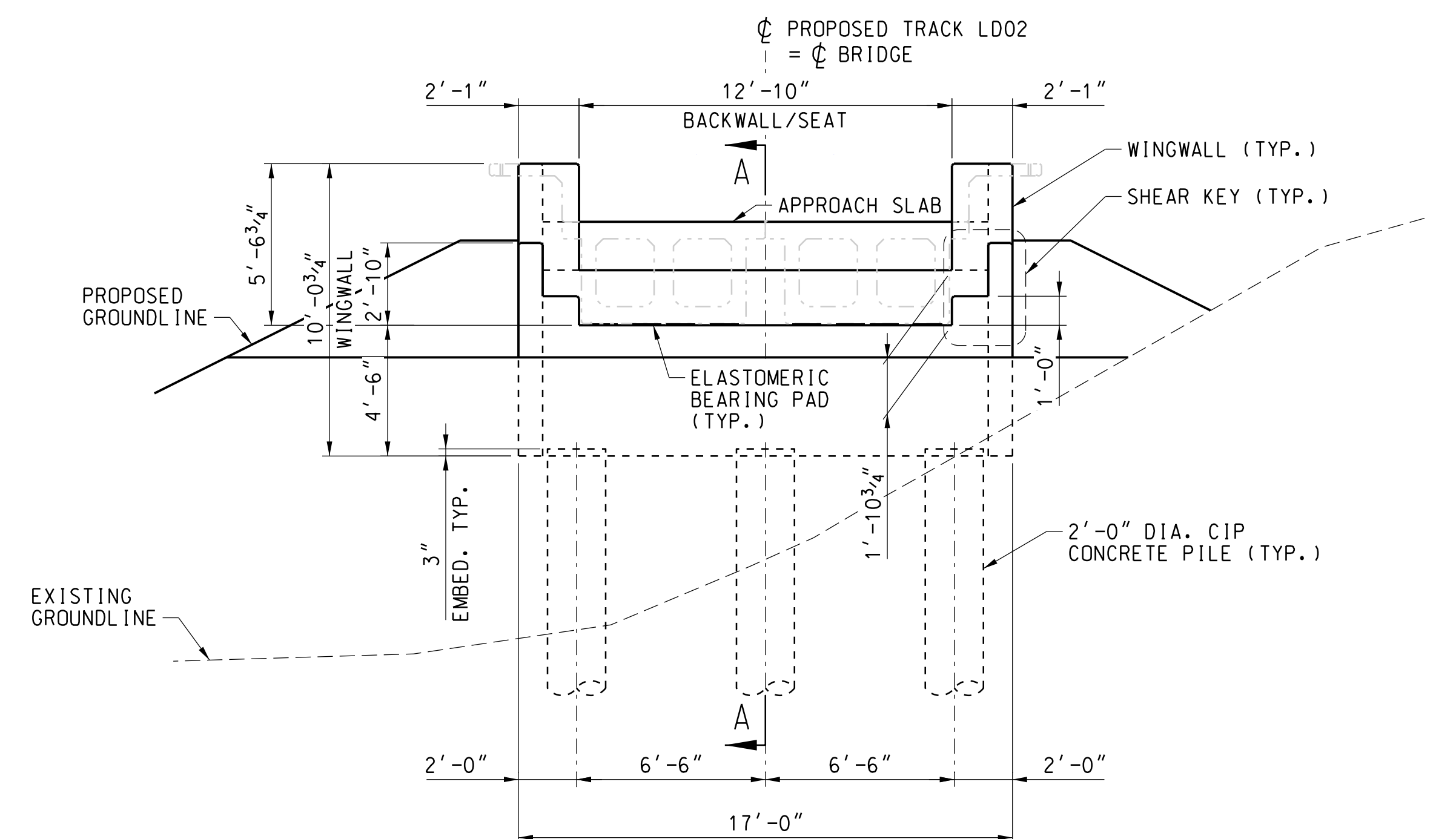
ABUTMENT 1 PLAN
SCALE: 1/4"=1'-0"



ABUTMENT 4 PLAN
SCALE: 1/4"=1'-0"

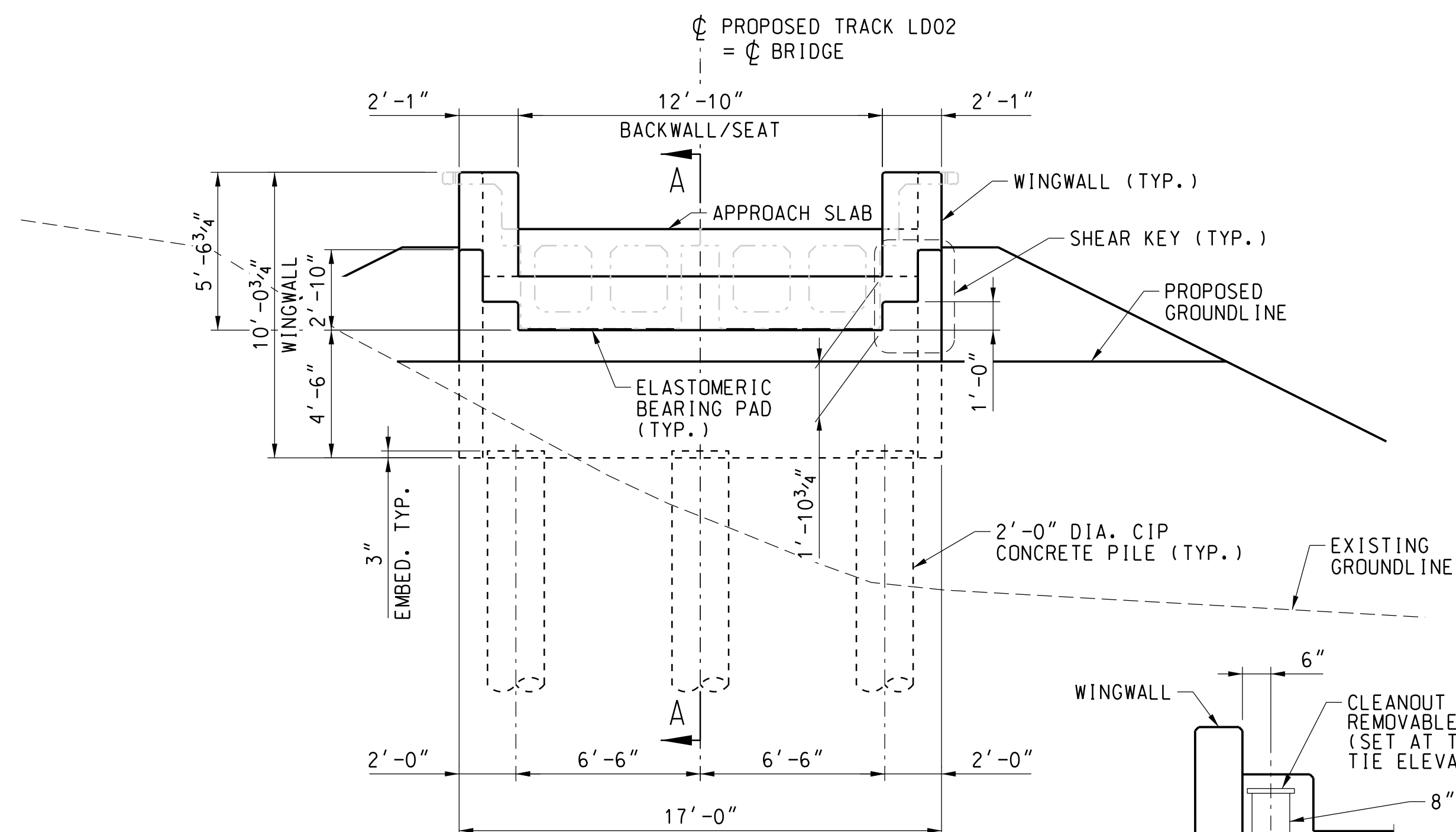


SECTION A-A
SCALE: 1/4"=1'-0"

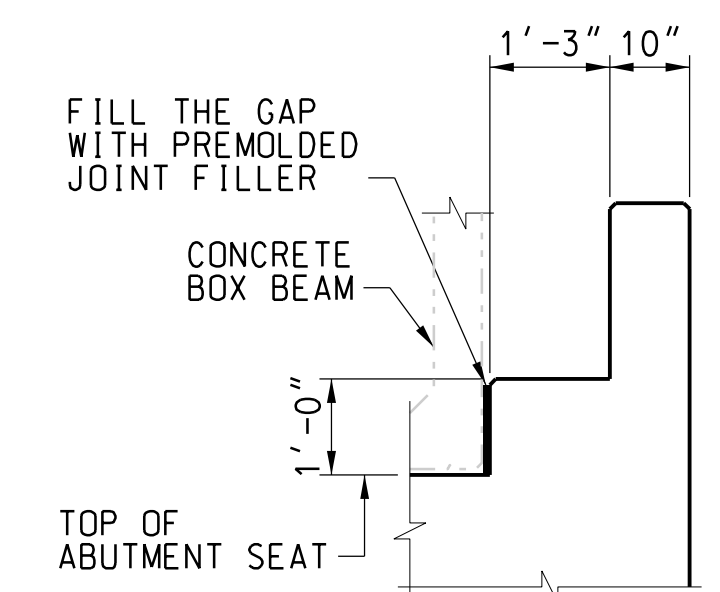


ABUTMENT 1 ELEVATION

SCALE: 1/4"=1'-0"

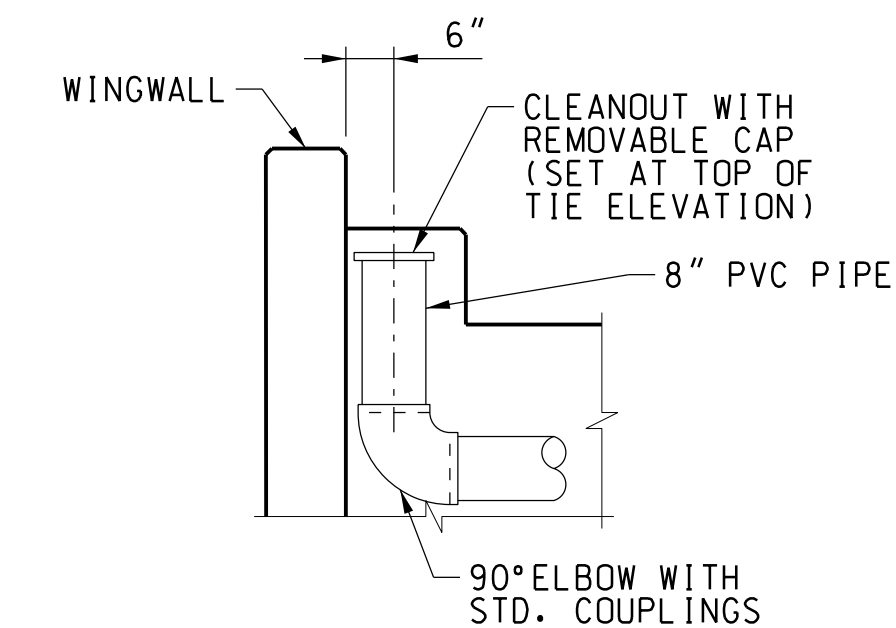


ABUTMENT 4 ELEVATION
SCALE: 1/4"=1'-0"



SHEAR KEY DETAIL

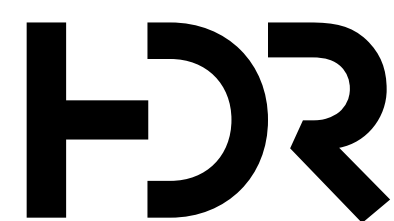
SCALE: 1/2"=1'-0"



CLEANOUT DETAIL

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

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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ISSUE	DATE	DESCRIPTION

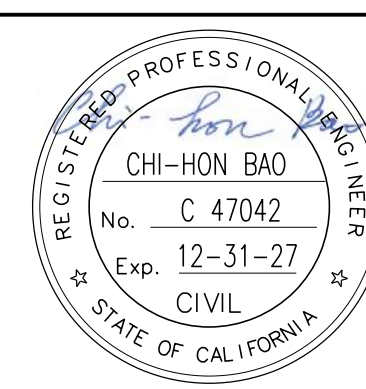


Know what's **below**.
Call before you dig.



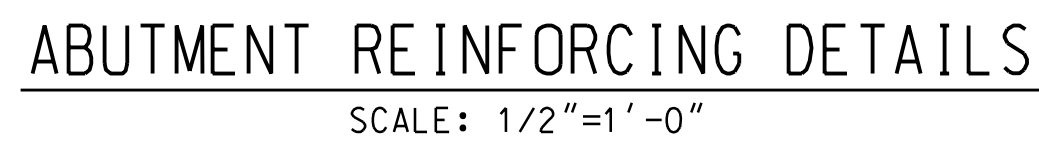
BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
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APPROVED BY	
DATE	08/31/2026



**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
ABUTMENT PLANS AND ELEVATIONS		
PROJECT NO:	SHEET NO: S201	SHEET: 14 OF 45



Technical drawings of five types of reinforcement bars (BAR B, BAR C, BAR E, BAR G, BAR J) showing their profiles and dimensions. Each drawing includes dimensions A and B.

- BAR B:** A standard rectangular bar with width A and height B.
- BAR C:** A bar with a central longitudinal slot, width A, and height B.
- BAR E:** A U-shaped bar with width A and height B.
- BAR G:** A bar with a 135° standard hook, width A, and height B.
- BAR J:** A bar with a 90° standard hook, width A, and height B.

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
12	5C1	#5	C	4"	3'-6"	7'-4"
6	5C2	#5	C	4"	7'-0"	14'-4"
6	516-8	#5	STR.	-	-	16'-8"

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
8	5E2	#5	E	4' - 0"	10"	5' - 8"
6	516-8	#5	STR.	-	-	16' - 8"
4	616-8	#6	STR.	-	-	16' - 8"
18	5B1	#5	B	3' 2"	4' - 0"	15' - 3"
4	916-8	#9	STR.	-	-	16' - 8"
48	5C1	#5	G	3' - 2"	-	4' - 2"

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
2	4B1	#4	B	3'-1"	1'-8"	10'-3"
6	5C3	#5	C	6"	4'-8"	9'-10"
8	5J1	#5	J	1'-9"	10"	2'-7"
4	5P1	#5	P	3'-4"	2'-10"	7'-0"
6	5P2	#5	P	1'-8"	2'-10"	5'-4"
8	504-6	#5	STR	-	-	4'-6"

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
10	4E1	#4	E	6"	8"	1'-10"
8	5J2	#5	J	4'-6"	1'-9"	6'-3"
14	5J3	#5	J	7'-2"	10"	8'-0"
20	509-8	#5	STR	-	-	9'-8"
2	8J1	#8	J	4'-6"	1'-9"	6'-3"
10	8J2	#8	J	4'-5"	1'-4"	5'-9"
12	807-2	#8	STR	-	-	7'-2"

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
14	5E3	#5	E	1' - 4"	10"	3' - 0"
14	603	#6	STR	-	-	3' - 0"
14	603-6	#6	STR	-	-	3' - 6"
10	612-6	#6	STR	-	-	12' - 6"
18	6E4	#6	E	3' - 6"	1' - 2"	5' - 10"

1. DIMENSIONS OF BENDING DETAILS ARE OUT TO OUT OF BAR.
2. QUANTITIES SHOWN ARE FOR ONE ABUTMENT.

STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

PROJECT NO:	SHEET NO: S202	SHEET: 15 OF 45
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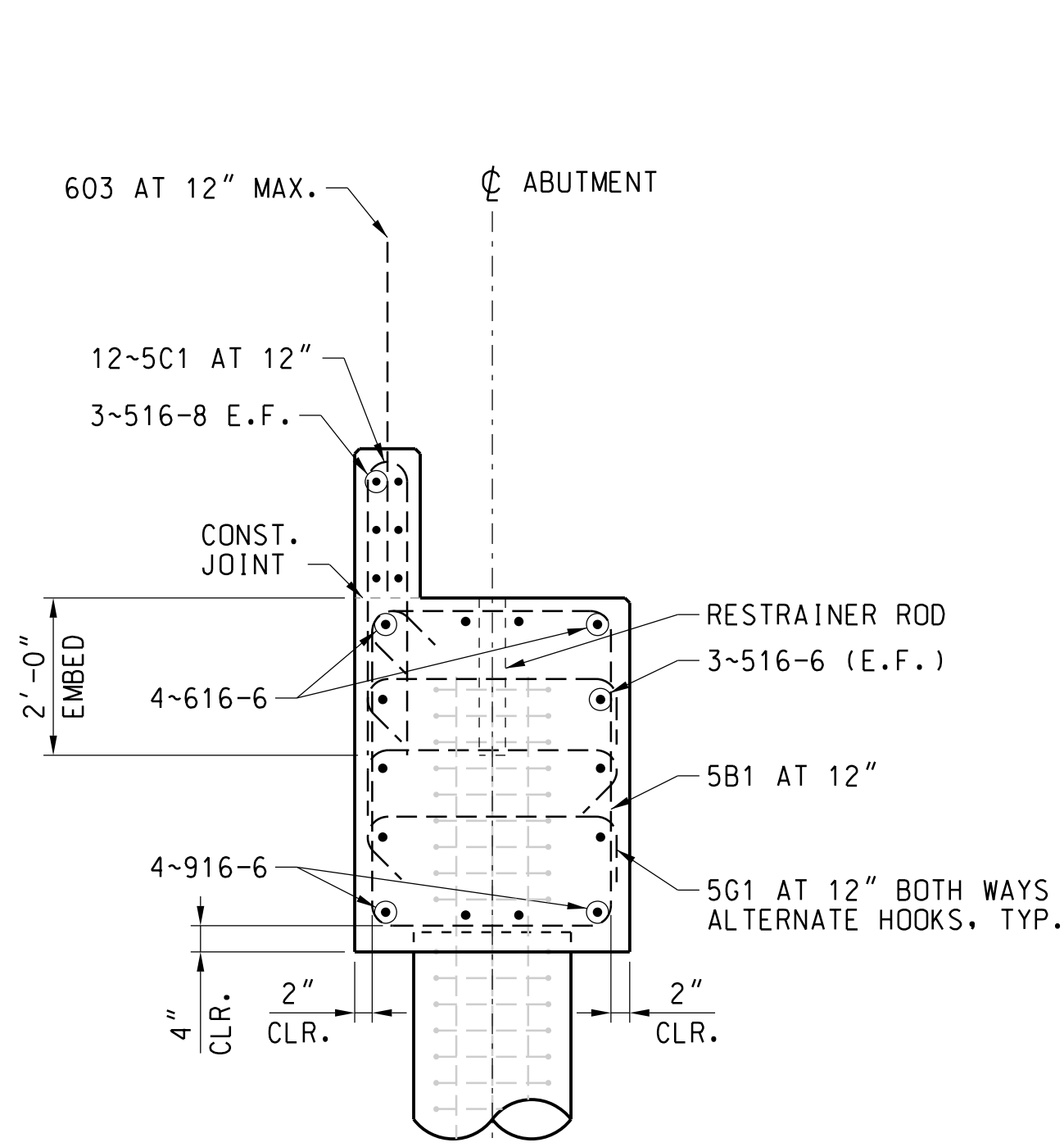


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No. C 47042
Exp. 12-31-27
CIVIL
STATE OF CALIFORNIA

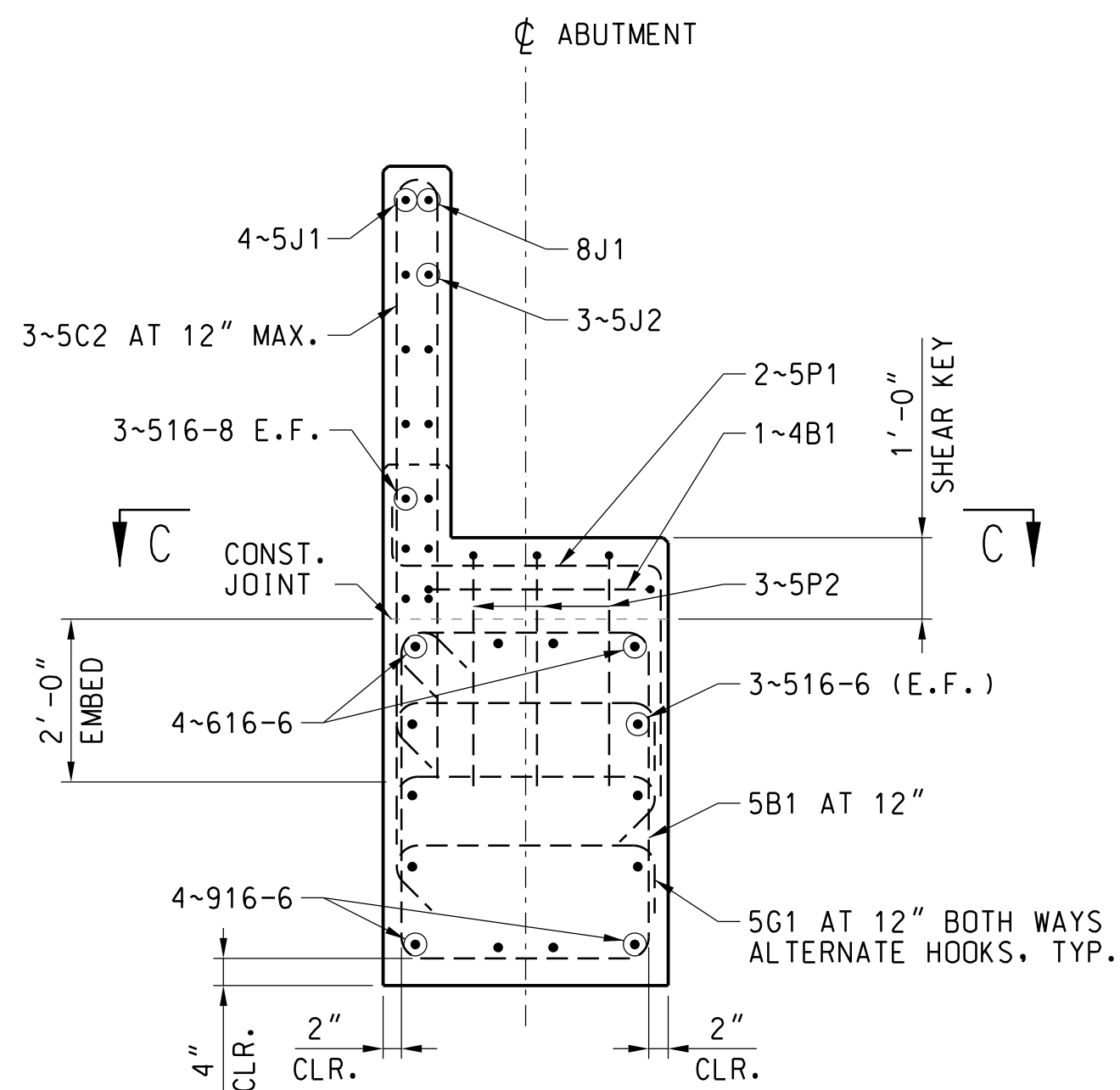


**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

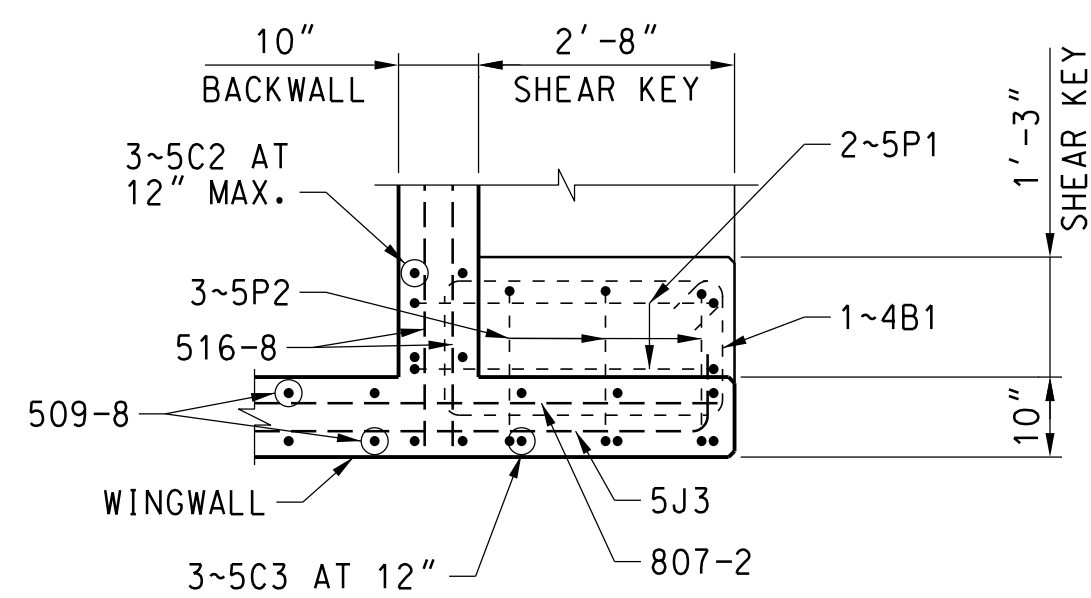
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SECTION A-A
SCALE: 1/2"=1'-0"

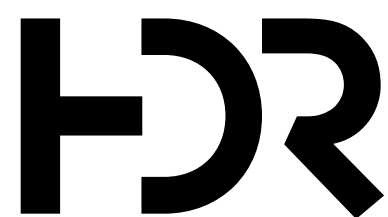


SECTION B-B
SCALE: 1/2"=1'-0"



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

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA LATITUDE: 37.94097° N LONGITUDE: 121.3115° W



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ISSUE	DATE	DESCRIPTION



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SCALE	AS NOTED
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DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

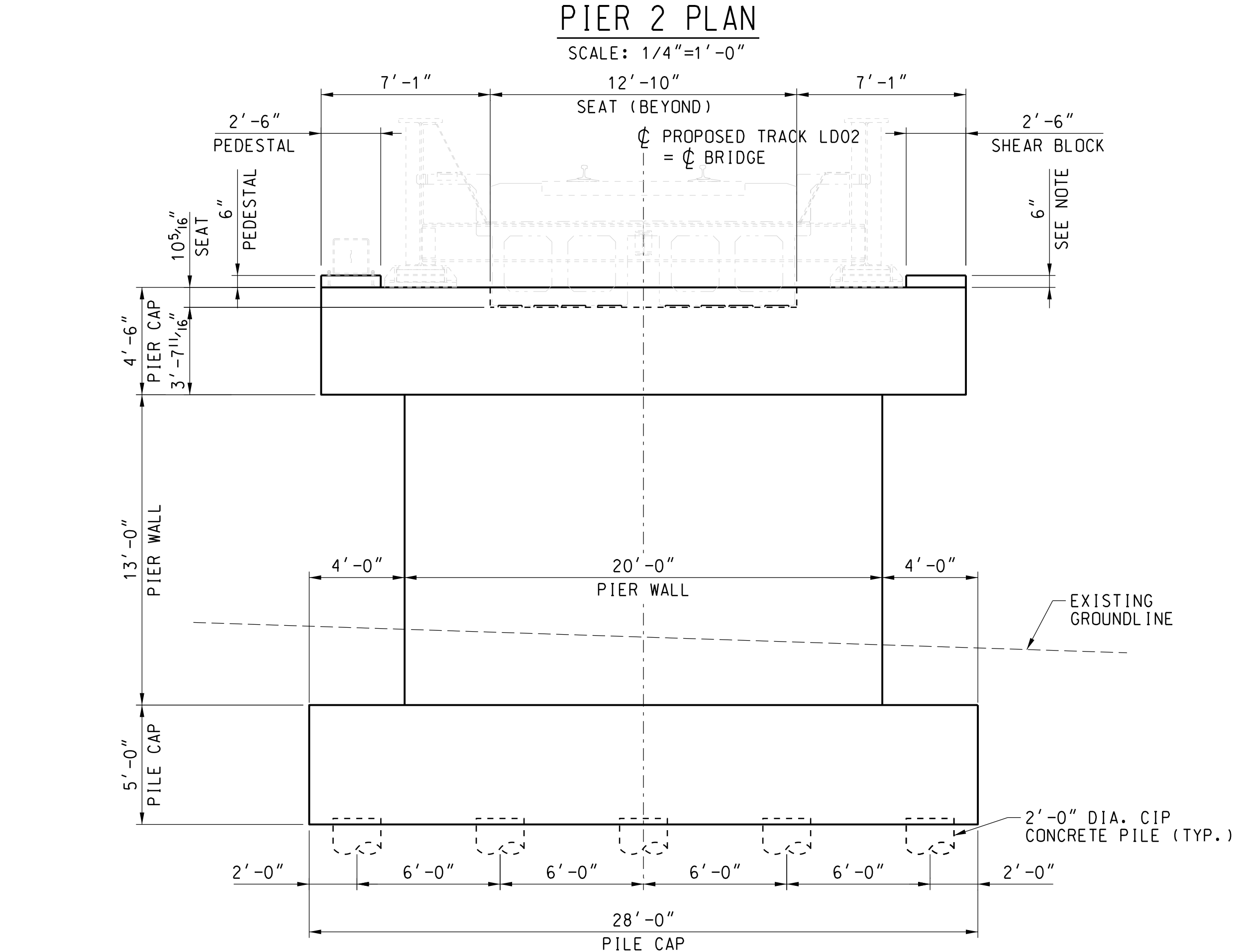


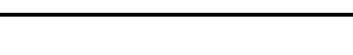
PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

ABUTMENT REINFORCING DETAILS
(SHEET 2 OF 2)

PROJECT NO:	SHEET NO: S203	SHEET: 16	OF 45
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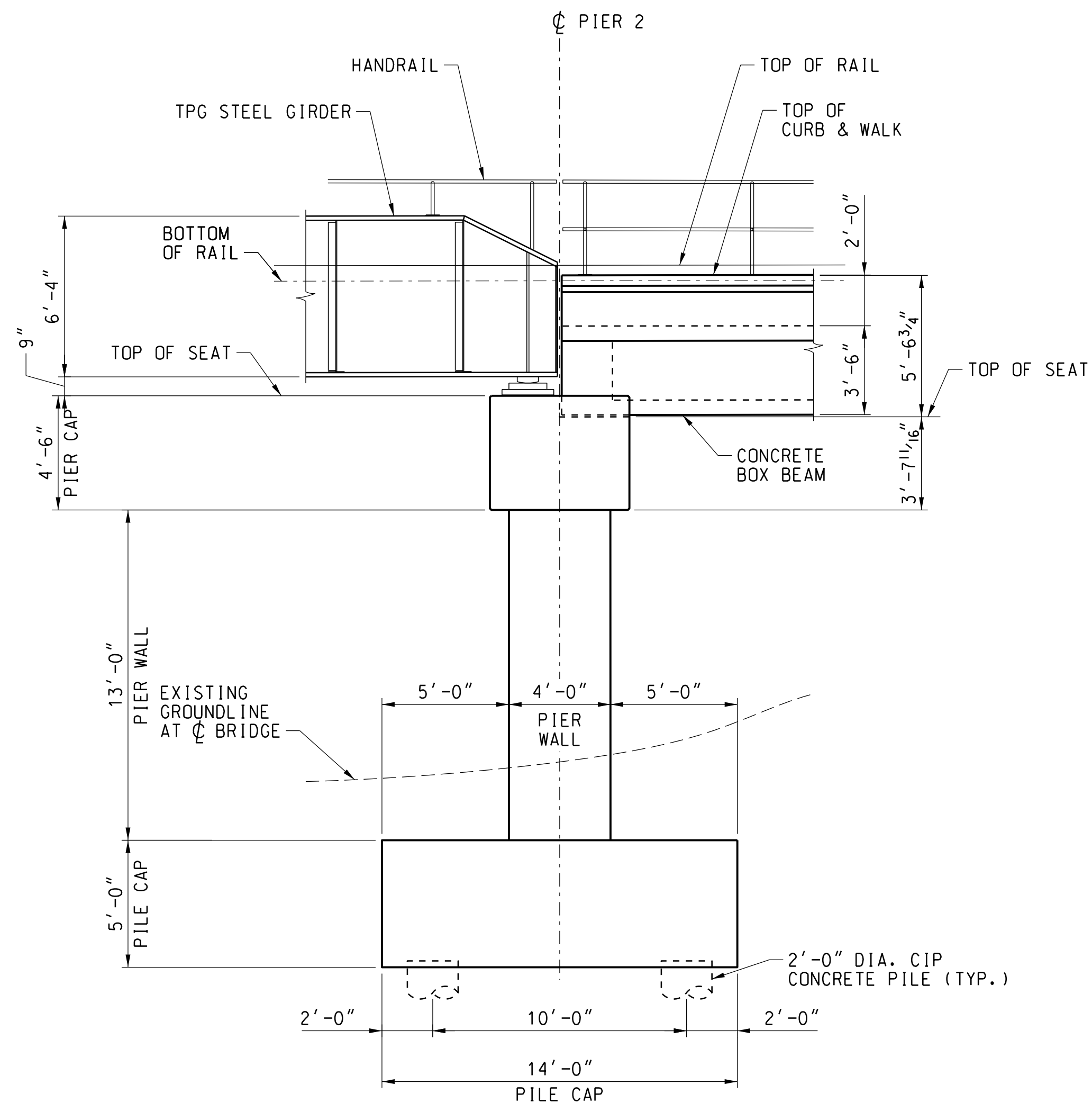
			
		08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION	

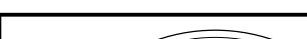


**Know what's below.
Call before you dig.**



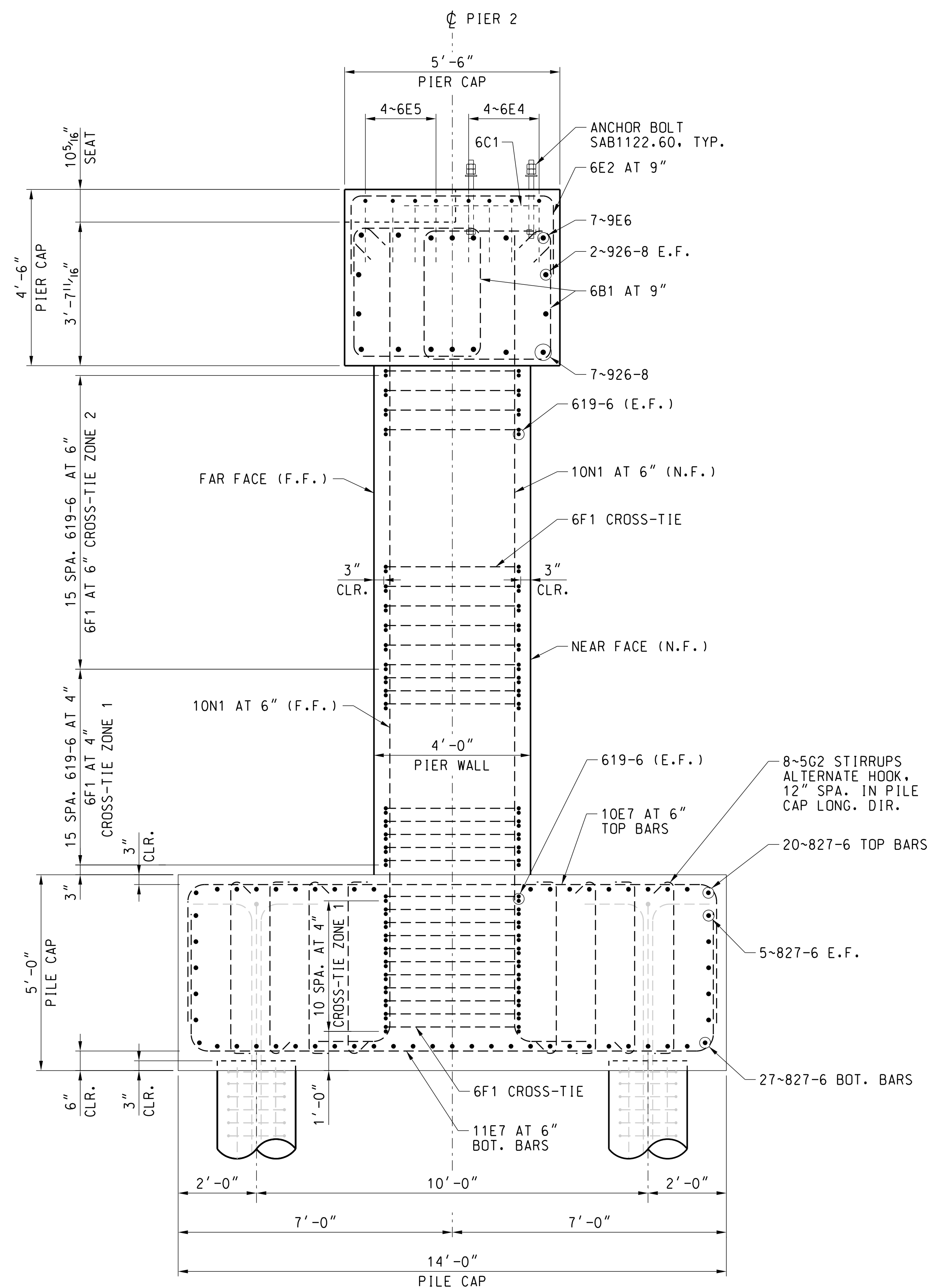
BRIDGE ENGINEERING



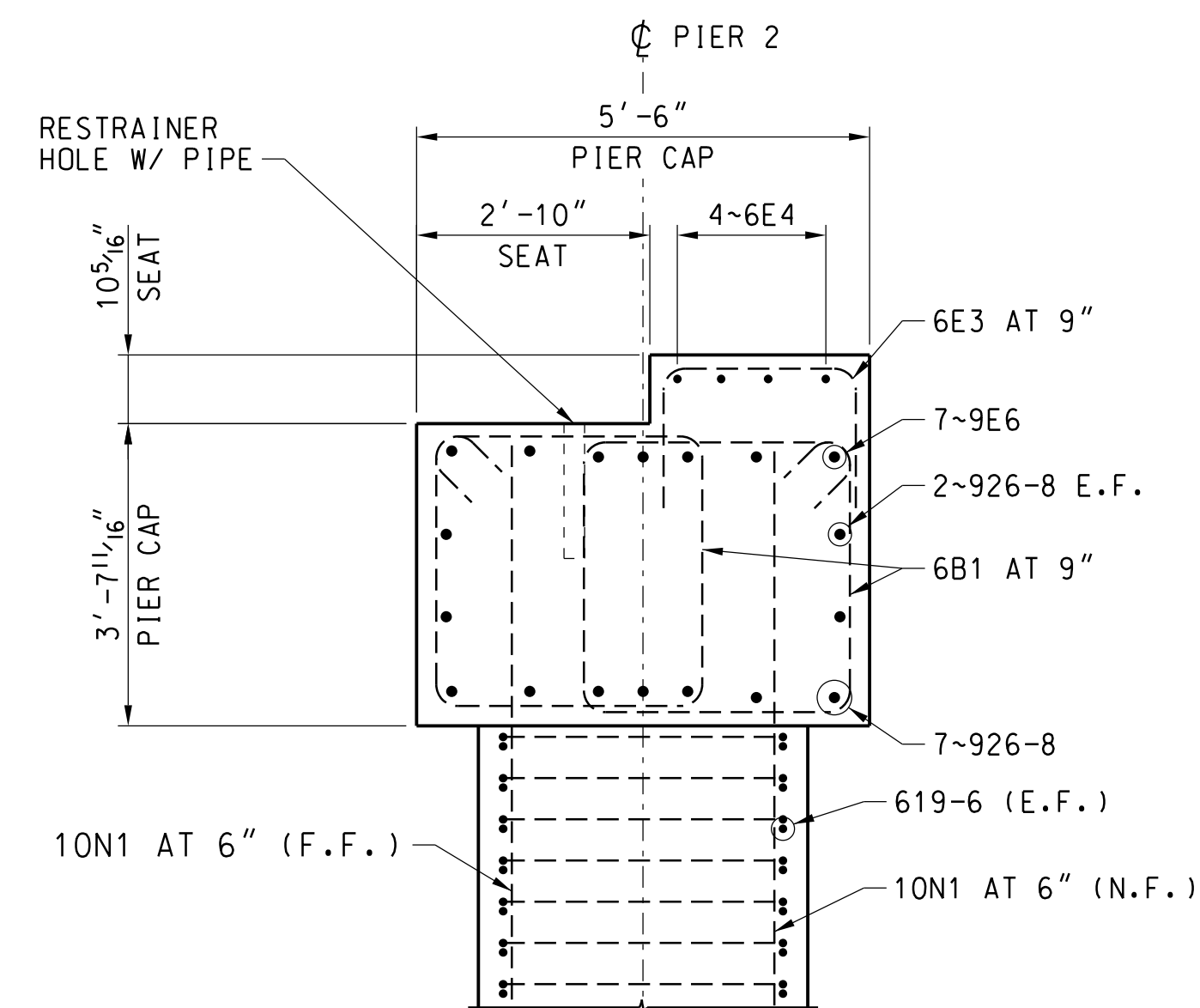
	SCALE	AS NOTED			PORT OF STOCKTON RAIL BRIDGE AND RAIL BRIDGE 1122.60 STOCKTON S
	DESIGNED BY	CL			
	DRAWN BY	TM			
	CHECKED BY	RJB			
	APPROVED BY				
DATE	08/31/2026				

NOTE:
SACRIFICIAL BEAM AND CONC. PEDESTAL
NOT SHOWN ON SIDE ELEVATION VIEW.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA		LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
PART OF STOCKTON AND RAIL IMPROVEMENTS STOCKTON SUB OVER FRESNO AVE.		STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
		PIER 2 FRAMING DETAILS			
		PROJECT NO:	SHEET NO: S210	SHEET: 18	OF 45

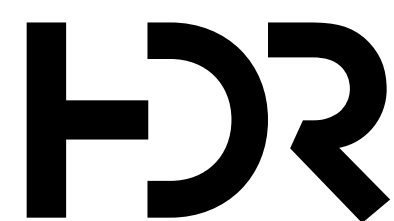


SECTION A-A
SCALE: 1/2"=1'-0"



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

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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0	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

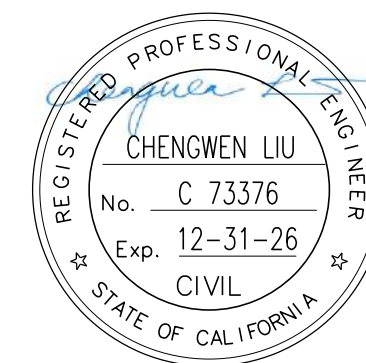


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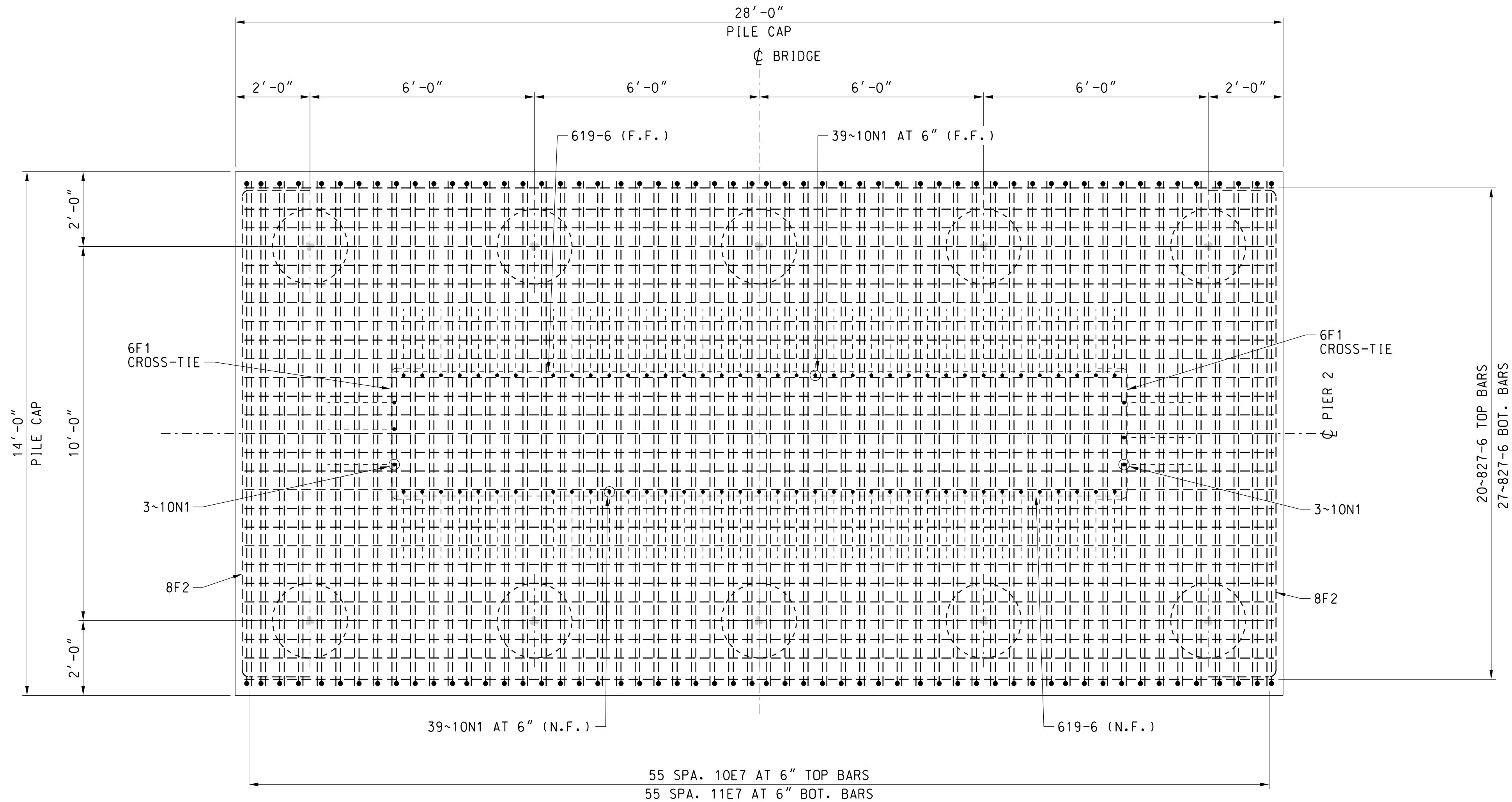
SCALE	AS NOTED
DESIGNED BY	CL
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
PIER 2 REINFORCING DETAILS (SHEET 2 OF 4)			
PROJECT NO:	SHEET NO: S212	SHEET: 20	OF 45

File Location: p:\projects\hdp_us\veg_01\Documents\72010407160_CAD_BIM\2_MP\6.26_CONTRACT DOCUMENTS\Structural Sheets\Fresno Ave Bridge_100%112.6524.dgn

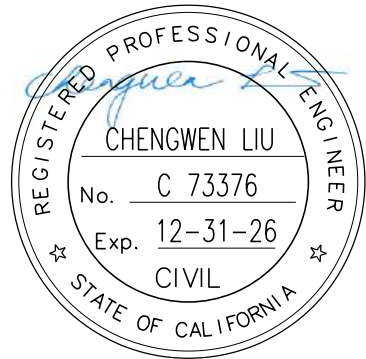


SECTION F-F
SCALE: 1/2"=1'-0"

		08/31/26	ISSUED FOR BID
	ISSUE	DATE	DESCRIPTION



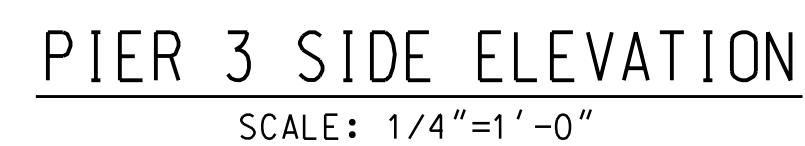
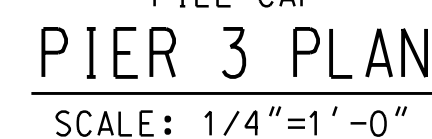
SCALE	AS NOTED
DESIGNED BY	CL
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



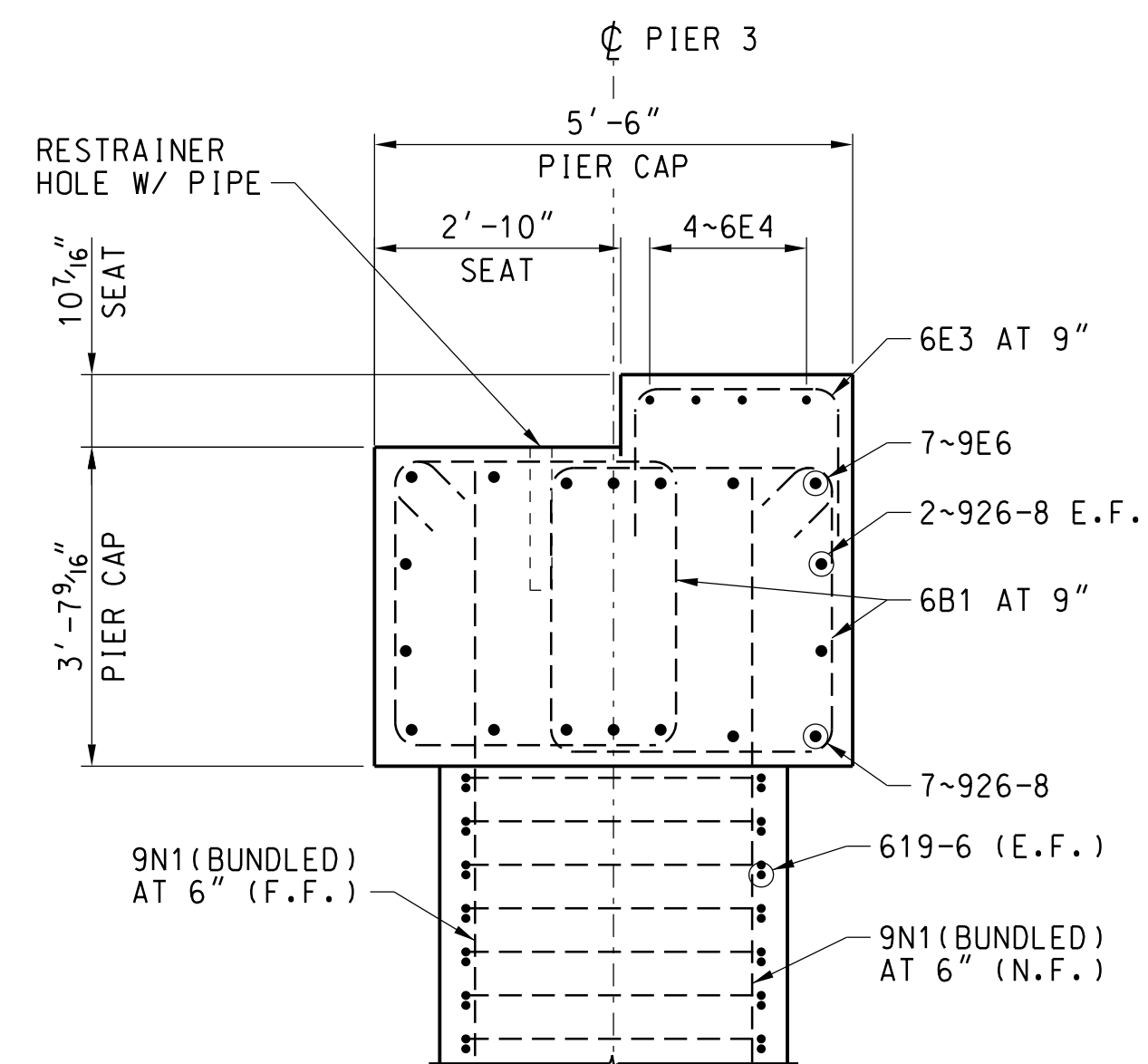
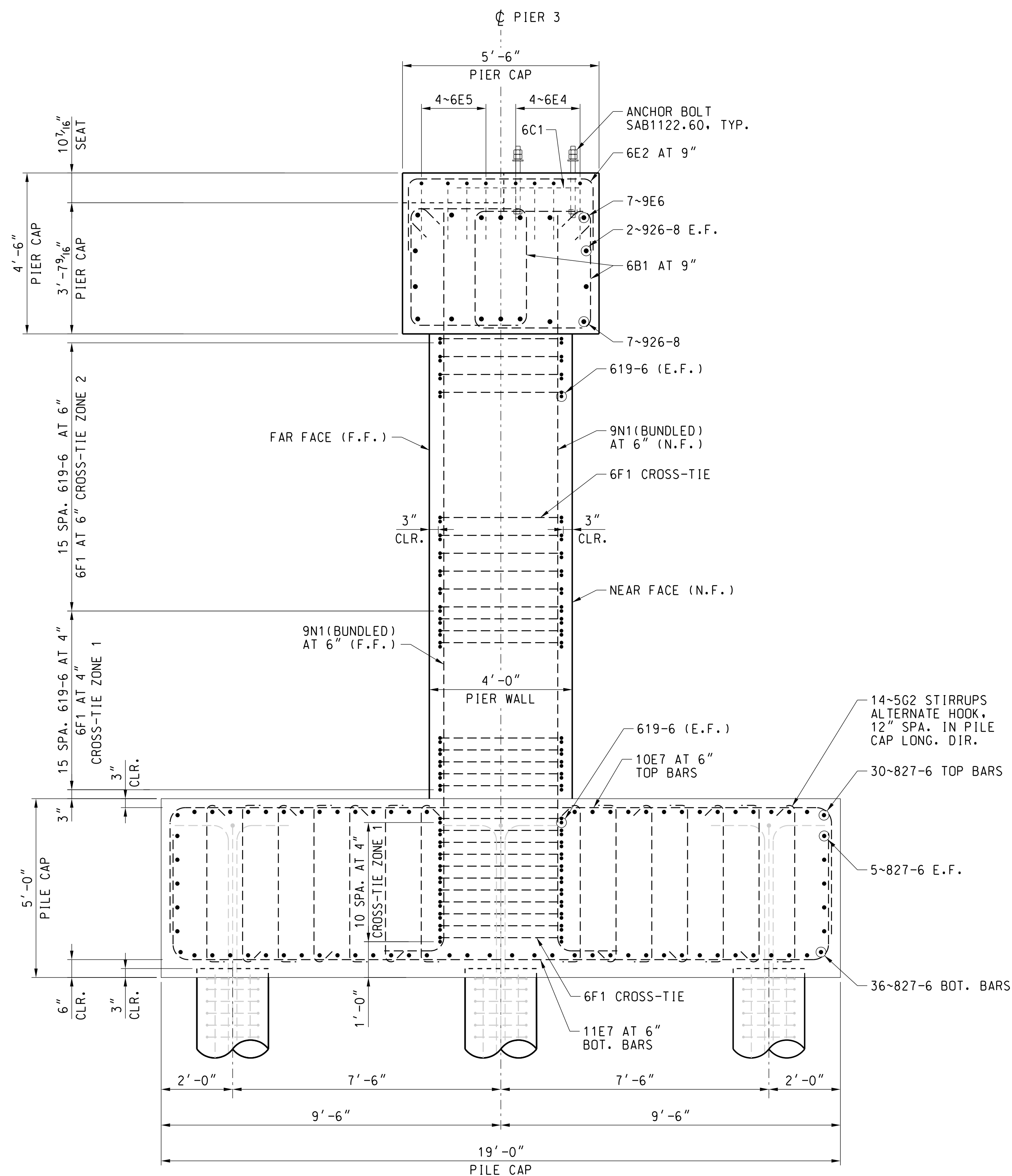
PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
PIER 2 REINFORCING DETAILS (SHEET 4 OF 4)		
PROJECT NO:	SHEET NO: S214	SHEET: 22 OF 45

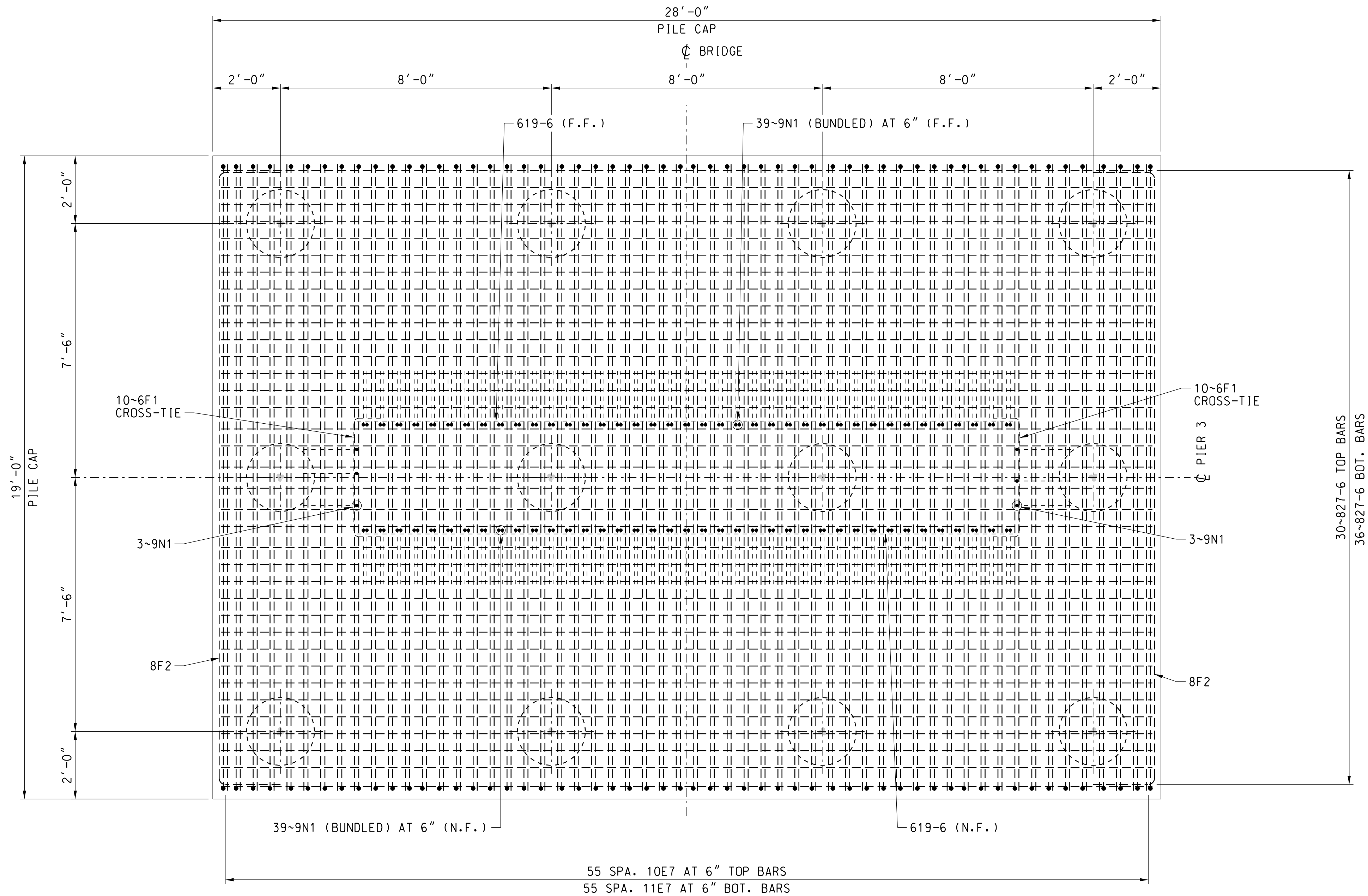


NOTE:
SACRIFICIAL BEAM AND CONC. PEDESTAL
NOT SHOWN ON SIDE ELEVATION VIEW.



STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
PORT OF STOCKTON SEAPORT AND RAIL IMPROVEMENTS STOCKTON SUB OVER FRESNO AVE.	STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
	PIER 3 REINFORCING DETAILS (SHEET 2 OF 4)			
	PROJECT NO: S217	SHEET NO: S217	SHEET: 25	OF 45

File Loc: I:\on: p:\projects\811\811-05_01\Documents\72010407160_CAD_BIM\2_1\MP6.2\6 CONTRACT DOCUMENTS\Status Sheets\Fresno Ave Bridge_100%1122.6S276.dgn

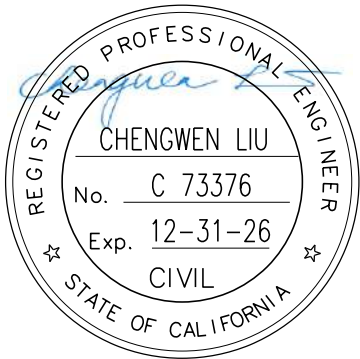


SECTION F-F
SCALE: 1/2"=1'-0"

	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



SCALE	AS NOTED
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DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

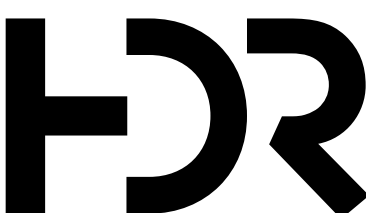


PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
PIER 3 REINFORCING DETAILS (SHEET 4 OF 4)		
PROJECT NO:	SHEET NO: S219	SHEET: 27 OF 45

File Loc: C:\Users\paul\Documents\72010407160_CAD_BIM\2_MP\2.26_CONTRACT DOCUMENTS\Structures\Sheet\Frame Ave Bridge_100%1122.65300.dgn



08/31/26	ISSUED FOR BID	
ISSUE	DATE	DESCRIPTION

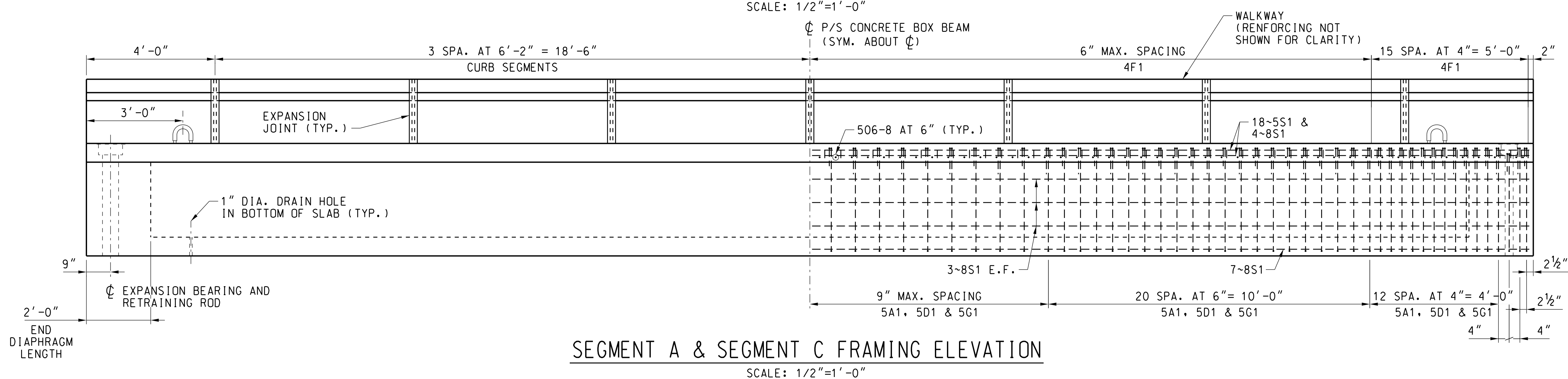
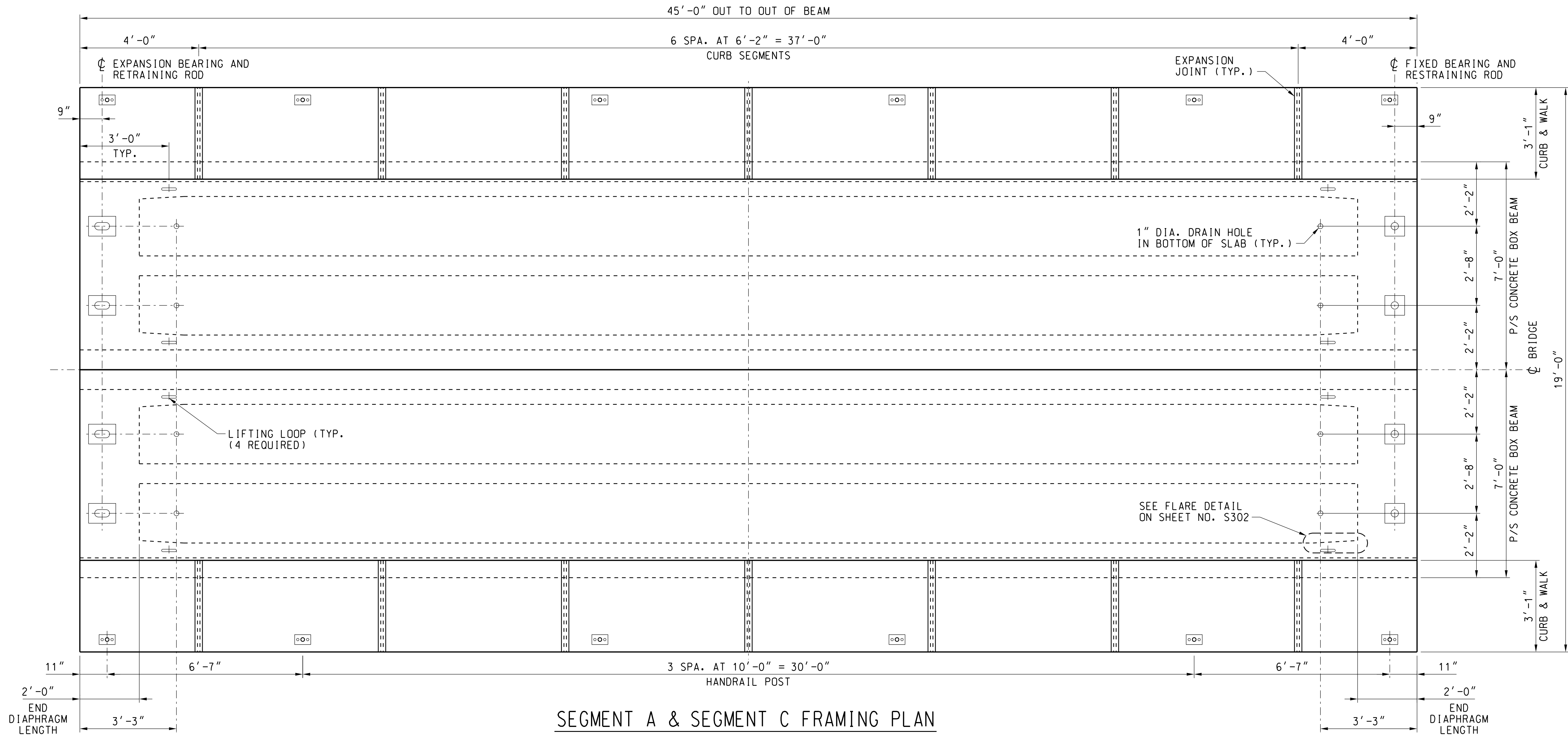


SCALE	AS NOTED
DESIGNED BY	AJ
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



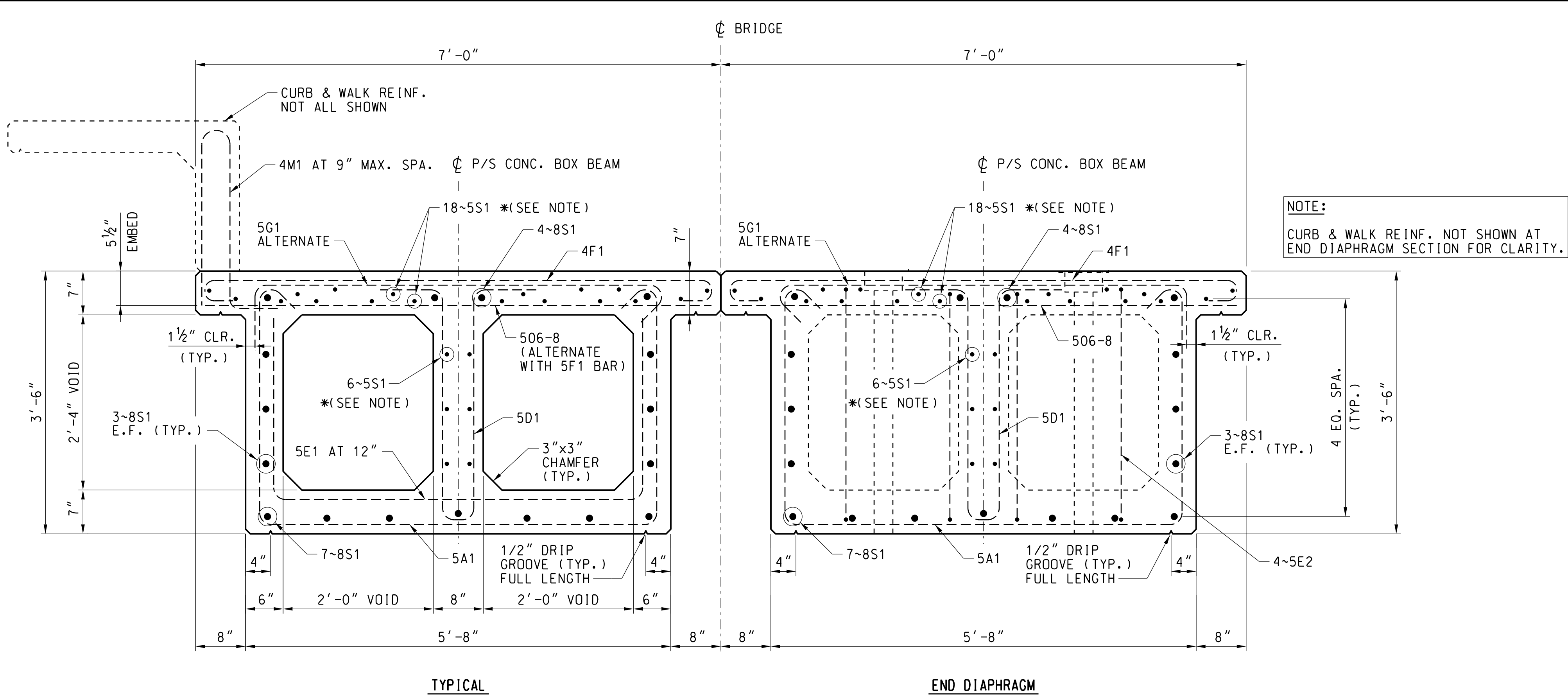
PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
P/S CONCRETE BOX BEAM SPAN LAYOUT			
PROJECT NO:	SHEET NO: S300	SHEET: 28	OF 45



EST. LIFTING WEIGHT	
BEAM TYPE	WEIGHT/(LBS)
42" DOUBLE CELL (NO CURB)	86,200
DESIGN DEAD LOADS	
BEAM TYPE	42" LOADS/(LBS./FT. OF TRACK)
TRACK, FASTENERS, ETC.	200
BALLAST	4,065
CURB, WALK & HANDRAIL	765
BEAMS	3,460
1. FOR LIVE LOAD AND IMPACT SEE GENERAL NOTES ON S002.	

F:\1 Locat\on: p:\p\ch\as\es\1450_US_Veg_01\Documents\5720\040716\0_CAD_BIM\2_01P\62_06 CONTRACT DOCUMENTS\Structural Sheets\Fresno Ave Bridge_100\1122.6S301.dgn



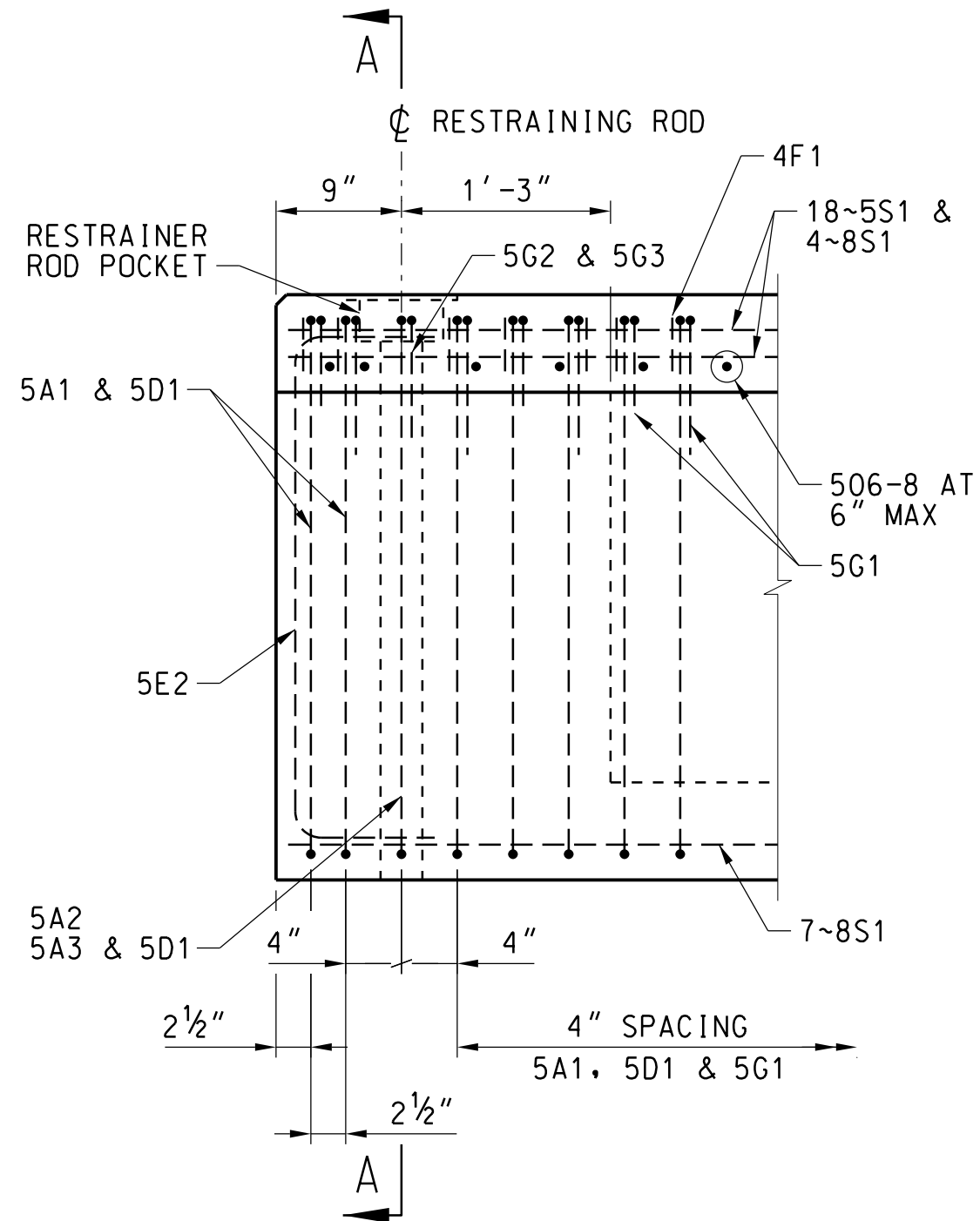
TYPICAL REINFORCING SECTION

SCALE: 1"=1'-0"
(STRANDS SHOWN FOR CLARITY)

END DIAPHRAGM

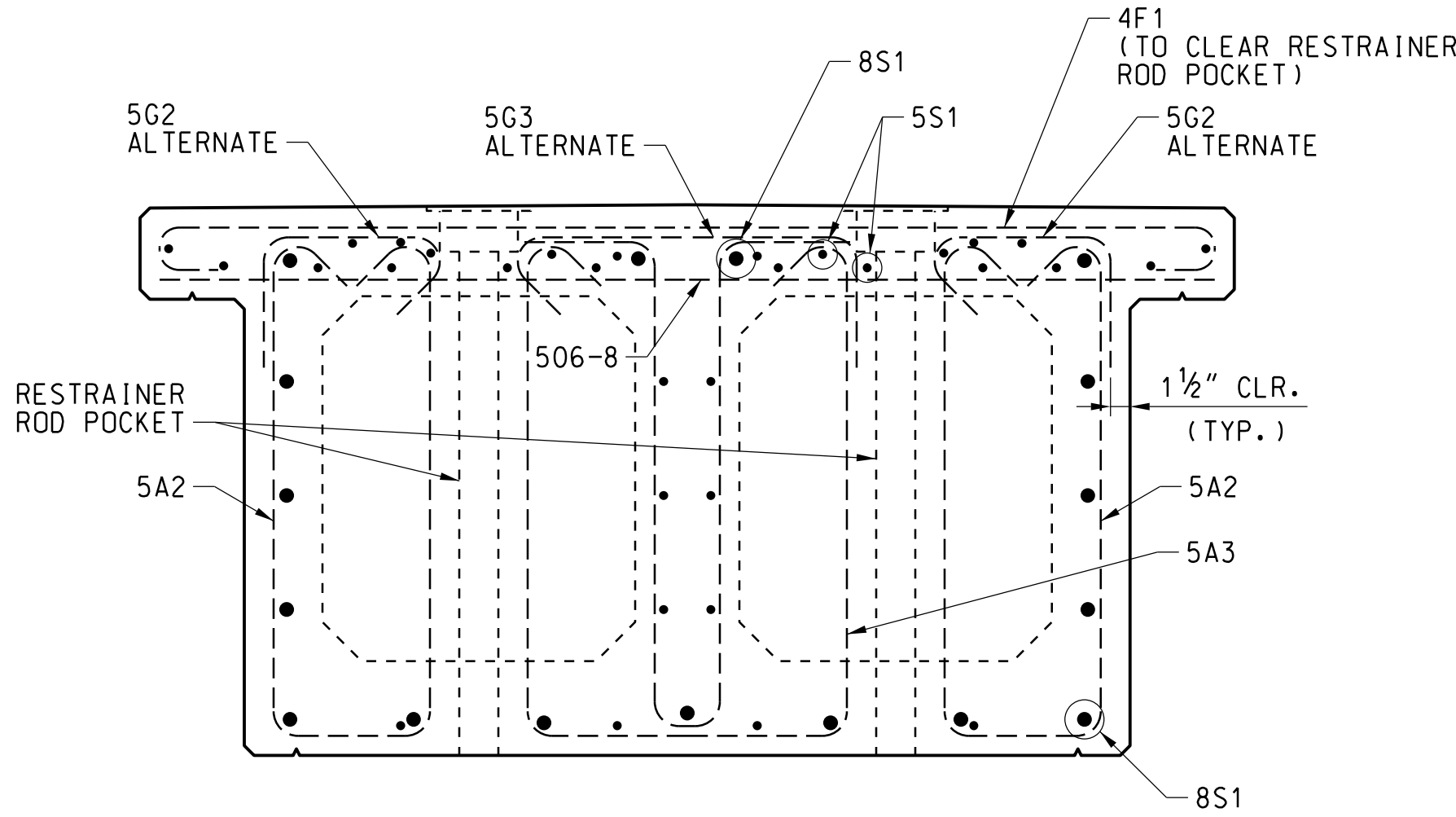
NOTE:

* ADJUST #5 BAR LOCATIONS TO CLEAR STRANDS AND RESTRAINER ROD POCKET.



END DIAPHRAGM REINFORCING ELEVATION

SCALE: 1"=1'-0"



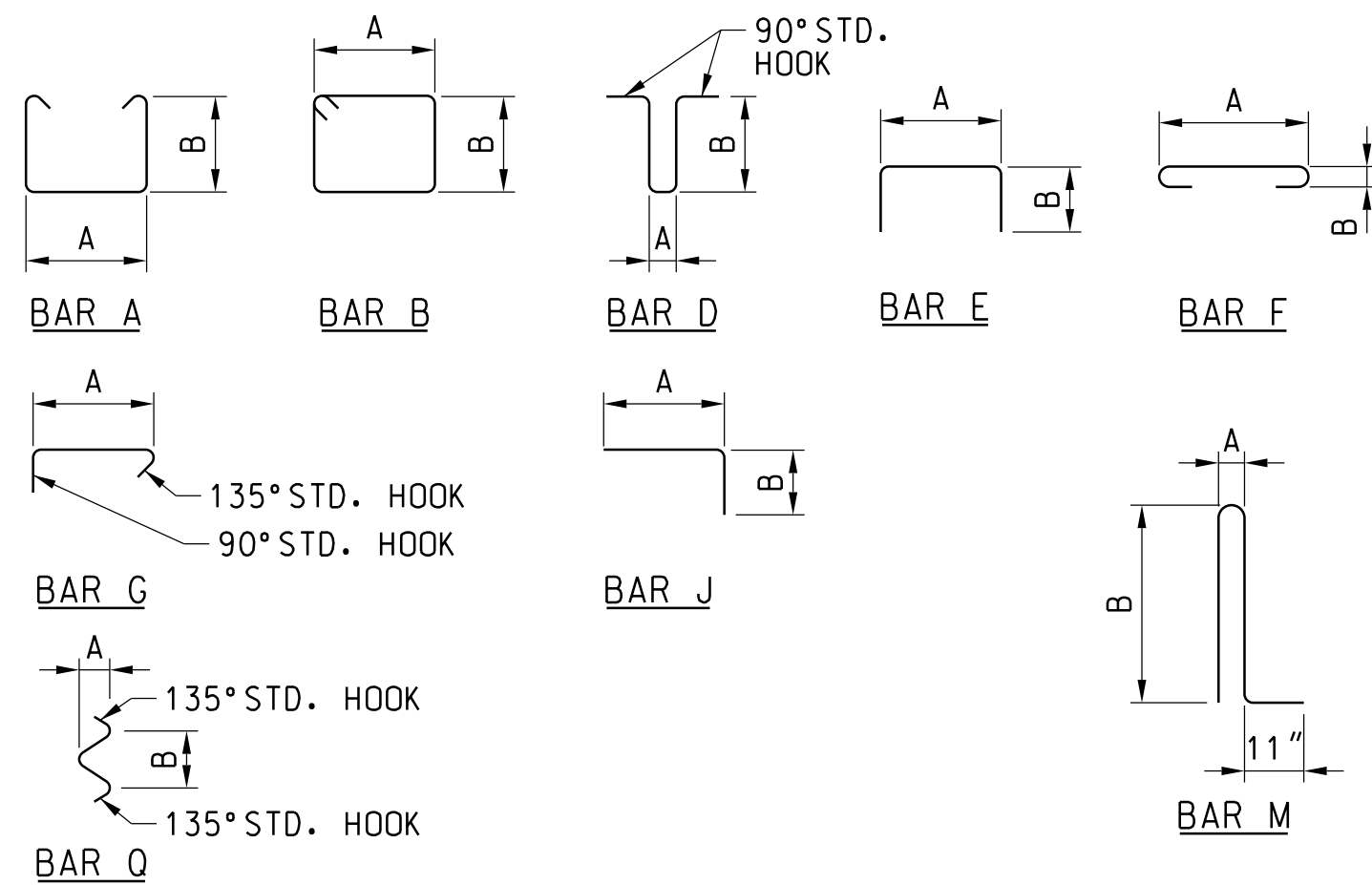
SECTION A-A

SCALE: 1"=1'-0"

NOTE:

FOR REINFORCING NOT SHOWN
SEE "END DIAPHRAGM REINFORCING SECTION".

REBAR BENDING DIAGRAM



42" DOUBLE CELL BOX BEAM REINFORCING BARS (EACH BEAM)

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
101	4F1	#4	F	6'-8"	4 1/2"	7'-10"
61	4M1	#4	M	4"	2'-4"	5'-8"
28	4Q1	#4	Q	8"	1'-3"	2'-9"
91	5A1	#5	A	5'-4"	3'-2"	12'-7"
4	5A2	#5	A	1'-0"	3'-2"	8'-3"
2	5A3	#5	A	2'-0"	3'-2"	9'-3"
91	5D1	#5	D	4 3/4"	3'-2"	8'-5"
41	5E1	#5	E	5'-0"	2'-1"	9'-2"
8	5E2	#5	E	3'-0"	9"	4'-6"
91	5G1	#5	G	5'-4"	-	6'-4"
4	5G2	#5	G	1'-0"	-	2'-0"
2	5G3	#5	G	2'-0"	-	3'-0"
24	5S1	#5	STR.	-	-	44'-7"
8	5O2-6	#5	STR.	-	-	2'-6"
50	5O6-8	#5	STR.	-	-	6'-8"
41	5F1	#5	F	6'-8"	4 1/2"	7'-10"
17	8S1	#8	STR.	-	-	44'-7"

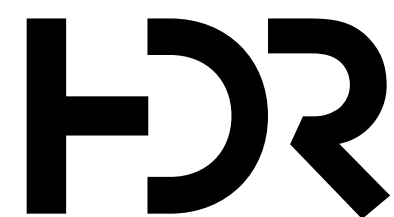
24" CONCRETE CURB REINFORCING BARS (EACH BEAM)

QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
8	5S1	#5	STR.	-	-	(1)
61	5J1	#5	J	2'-9"	1'-3"	4'-0"

(1) LENGTH OF BAR EQUAL TO LENGTH OF CURB SEGMENT MINUS 4".

NOTES:

1. DIMENSIONS OF BENDING DETAILS ARE OUT TO OUT OF BAR.



ISSUE	DATE	DESCRIPTION
	08/31/26	ISSUED FOR BID

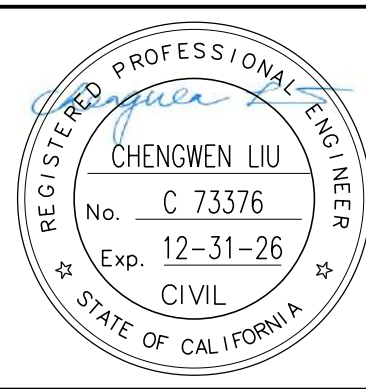


Know what's below.
Call before you dig.



BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	AJ
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

P/S CONCRETE BOX BEAM DETAILS
(SHEET 1 OF 3)

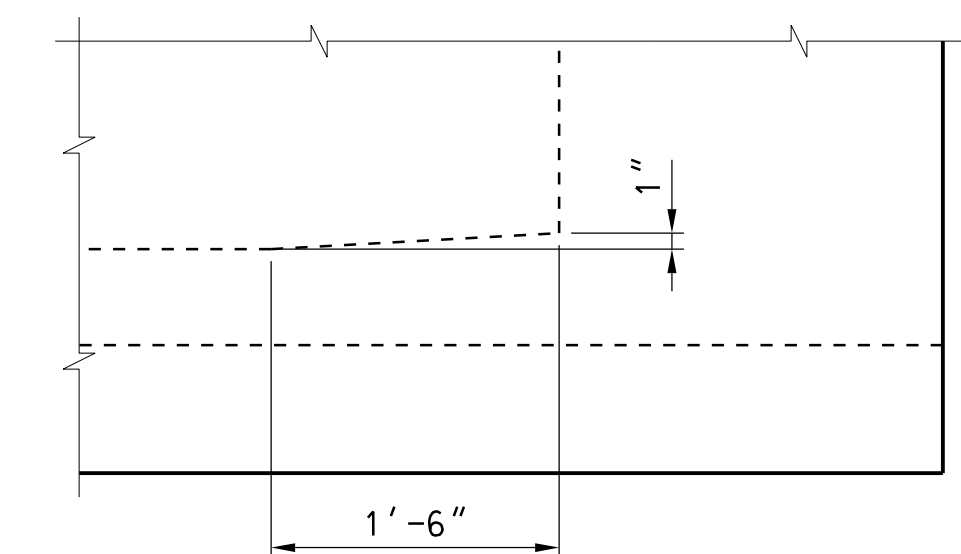
PROJECT NO:	SHEET NO: S301	SHEET: 29 OF 45
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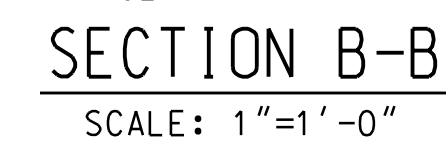
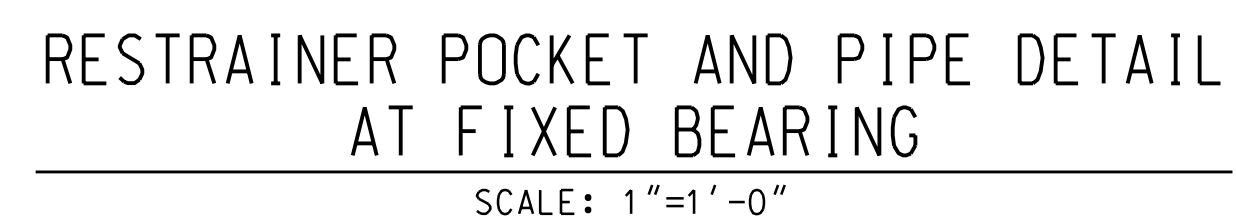
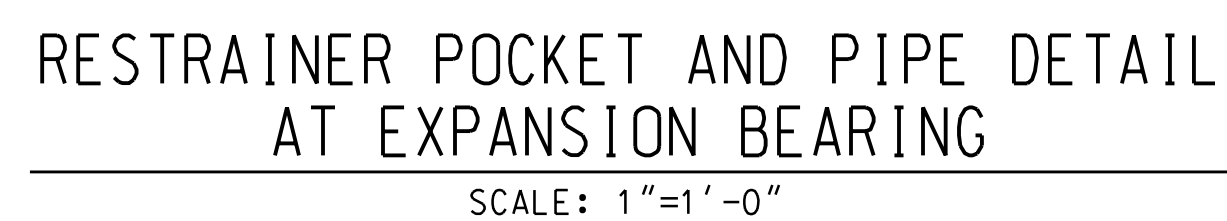
SCALE: 1"=1'-0"
(NOT ALL REINF. SHOWN FOR CLARITY)

NOTE:

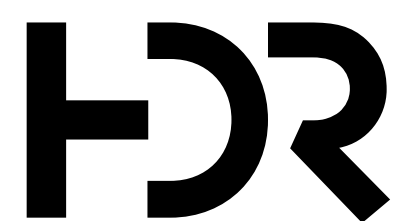
MINIMUM CLEAR DISTANCE BETWEEN PRESTRESSING STRANDS AND LONGITUDINAL CONVENTIONAL REINFORCEMENT IS 1 INCH.



SCALE: NTS



STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
PART OF STOCKTON WATER AND RAIL IMPROVEMENTS STOCKTON SUB OVER FRESNO AVE.	STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
	P/S CONCRETE BOX BEAM DETAILS (SHEET 2 OF 3)			
	PROJECT NO:	SHEET NO: S302	SHEET:	OF
		30	45	

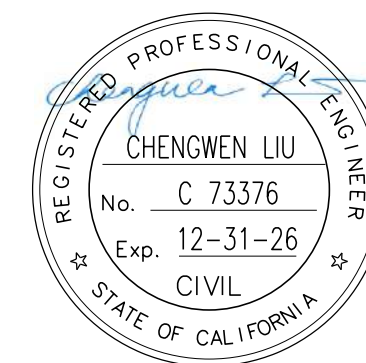


Know what's below.
Call before you dig.

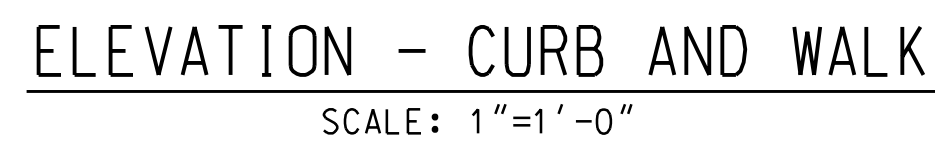


BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	AJ
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**



NOTE:

DO NOT RUN WALK REINFORCEMENT THROUGH JOINT.

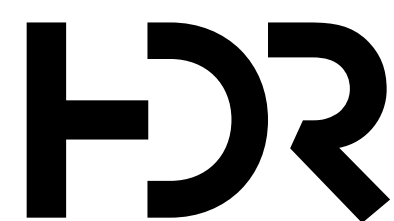


FABRICATOR IS RESPONSIBLE FOR DEVELOPING LIFTING LOOP ANCHORAGE DETAIL TO PROVIDE SAFETY FACTOR OF 4 ON WORKING LOAD. DETAIL SHALL BE PROOF TESTED WITH TEST RESULTS KEPT ON FILE BY FABRICATOR AND AVAILABLE FOR INSPECTION BY THE RAILROAD.

LIFTING NOTES:

1. PIN OR HOOK FOR ENGAGING LOOPS SHALL HAVE A MINIMUM DIAMETER OF 1".
2. BEAMS SHALL BE SUPPORTED BY BLOCKING WITHIN 1'-6" OF ENDS DURING STORAGE AND TRANSPORT.
3. STORE AND TRANSPORT BEAMS IN LEVEL POSITION.
4. CONTRACTOR IS RESPONSIBLE FOR THE FINAL DESIGN OF LIFTING LOOPS.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
PART OF STOCKTON AND RAIL IMPROVEMENTS STOCKTON SUB OVER FRESNO AVE.	STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
	P/S CONCRETE BOX BEAM DETAILS (SHEET 3 OF 3)			
	PROJECT NO:	SHEET NO: S303	SHEET:	OF 31 45



①	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

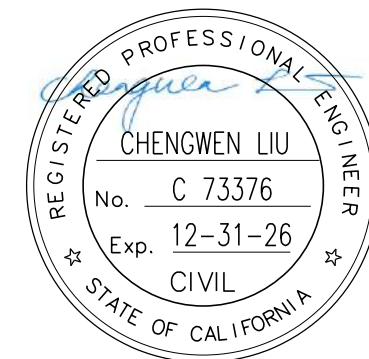


Know what's **below**.
Call before you dig.

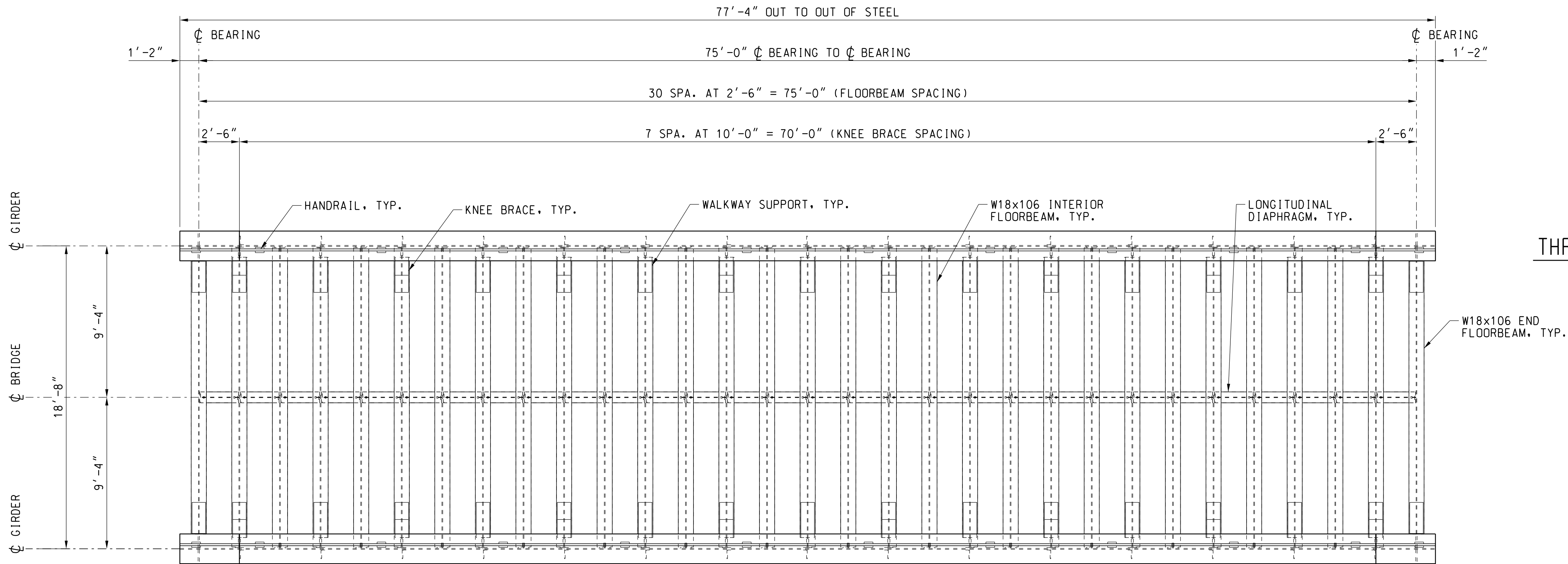


BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	AJ
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

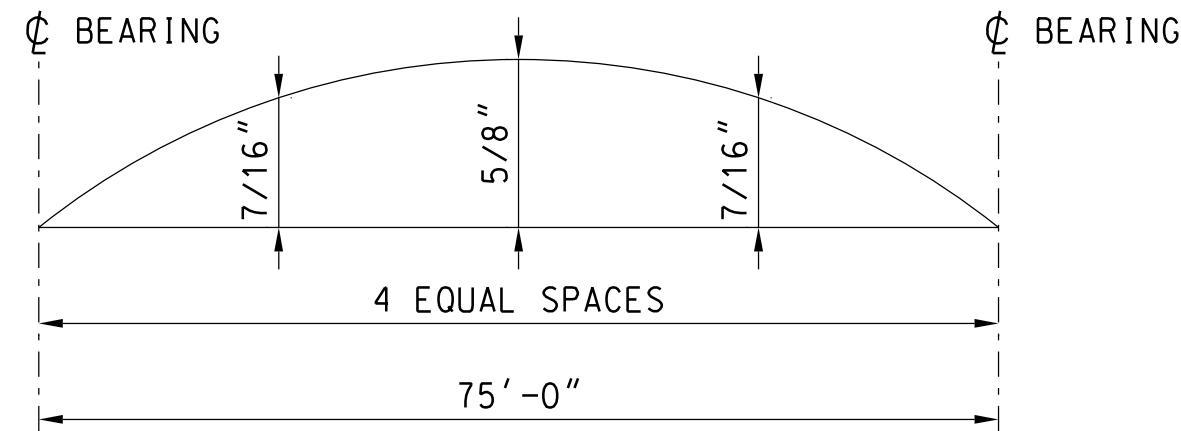


**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

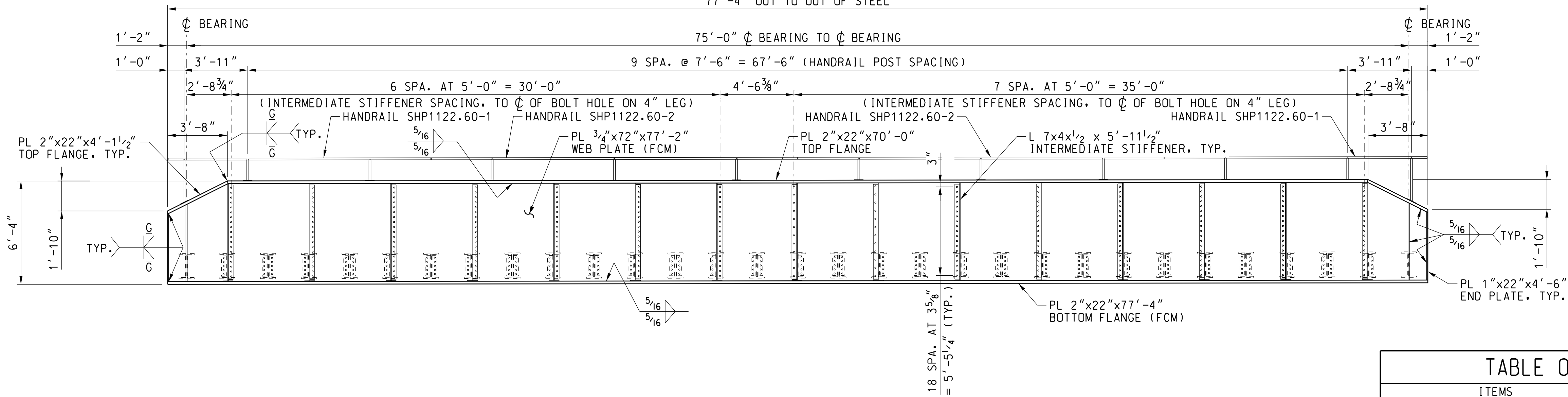


SPAN 2 STEEL FRAMING PLAN

SCALE: 1/4"=1'-0"
BALLAST PAN NOT SHOWN FOR CLARITY
77'-4" OUT TO OUT OF STEEL



THROUGH PLATE GIRDER CAMBER DIAGRAM



THROUGH PLATE GIRDER ELEVATION

SCALE: 1/4"=1'-0"

TABLE OF ESTIMATED STEEL WEIGHT			
ITEMS	QUANTITY	WEIGHT (EA.)(LBS)	WEIGHT (TOTAL)(LBS)
GIRDER (W/STIFFENERS)	2	44280	88560
FLOORBEAM (W/KNEE BRACE, ETC.)	1	76620	76620
DECK PAN AND CURB	1	35960	35960
MISCELLANEOUS STEEL	1	23620	23620
TOTAL WEIGHT/ALL STRUCTURAL STEEL* 224800 LBS			

* - TOTAL DOES NOT INCLUDE BEARINGS
ESTIMATED TOTAL STEEL WEIGHT INCLUDES 5% FOR NUTS, BOLTS, ETC.

F:\16 Locat1 on: p:\p\chinas\811-HDR_US_Veg_01\Documents\72010407160_CAD_BIM\2_MP162.06_CONTRACT DOCUMENTS\Structural Sheets\Fresno Ave Bridge_100%1122.6S400.dgn

	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

Know what's below.
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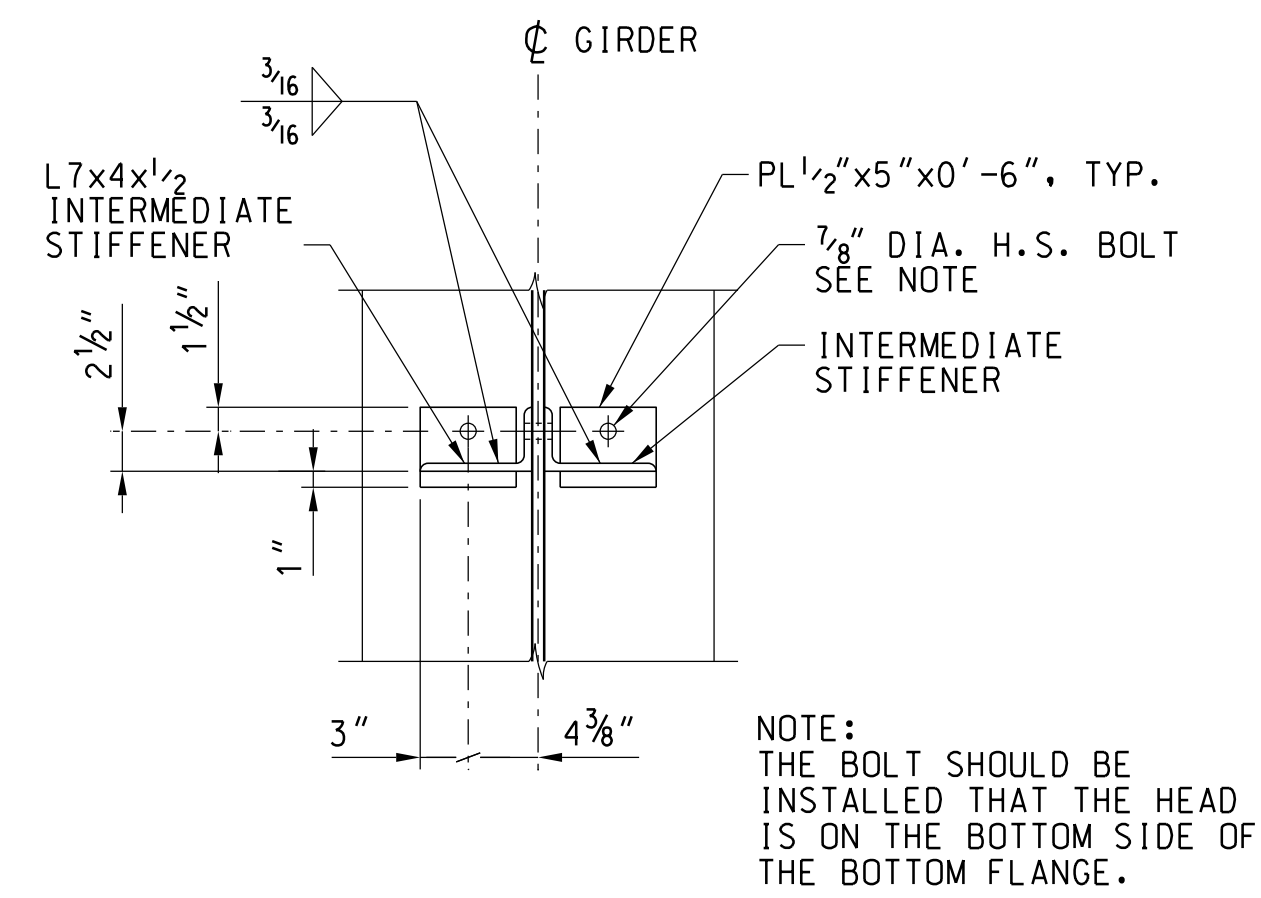
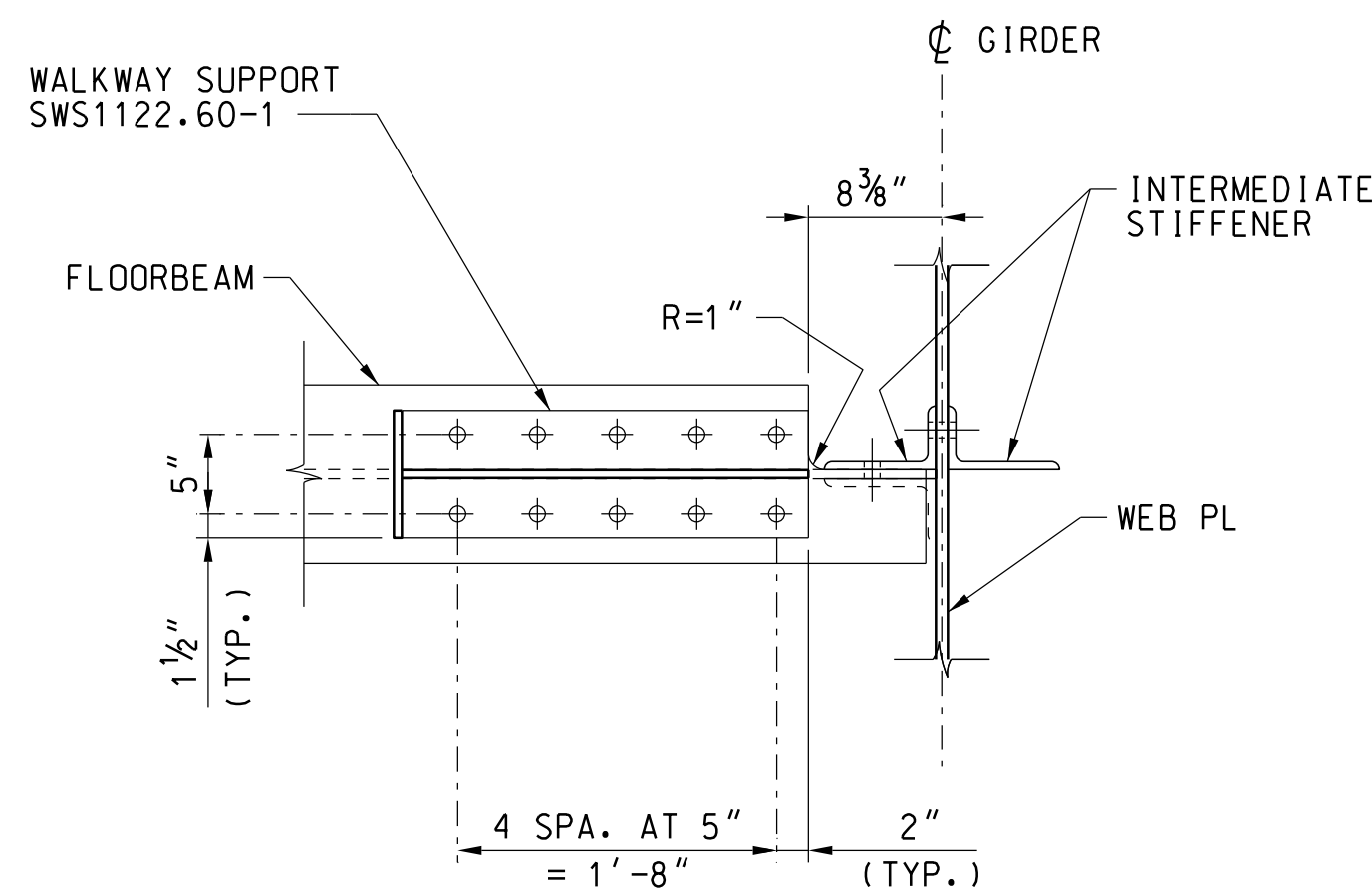
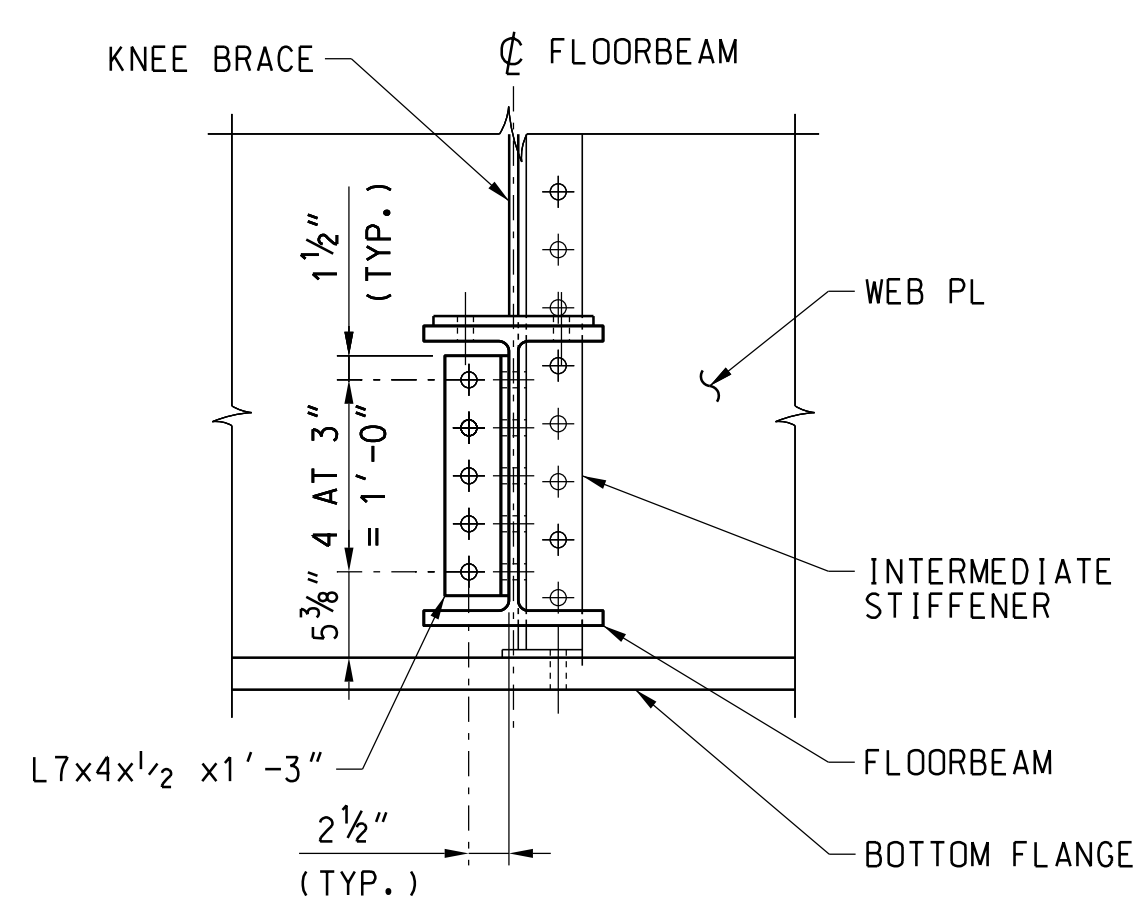
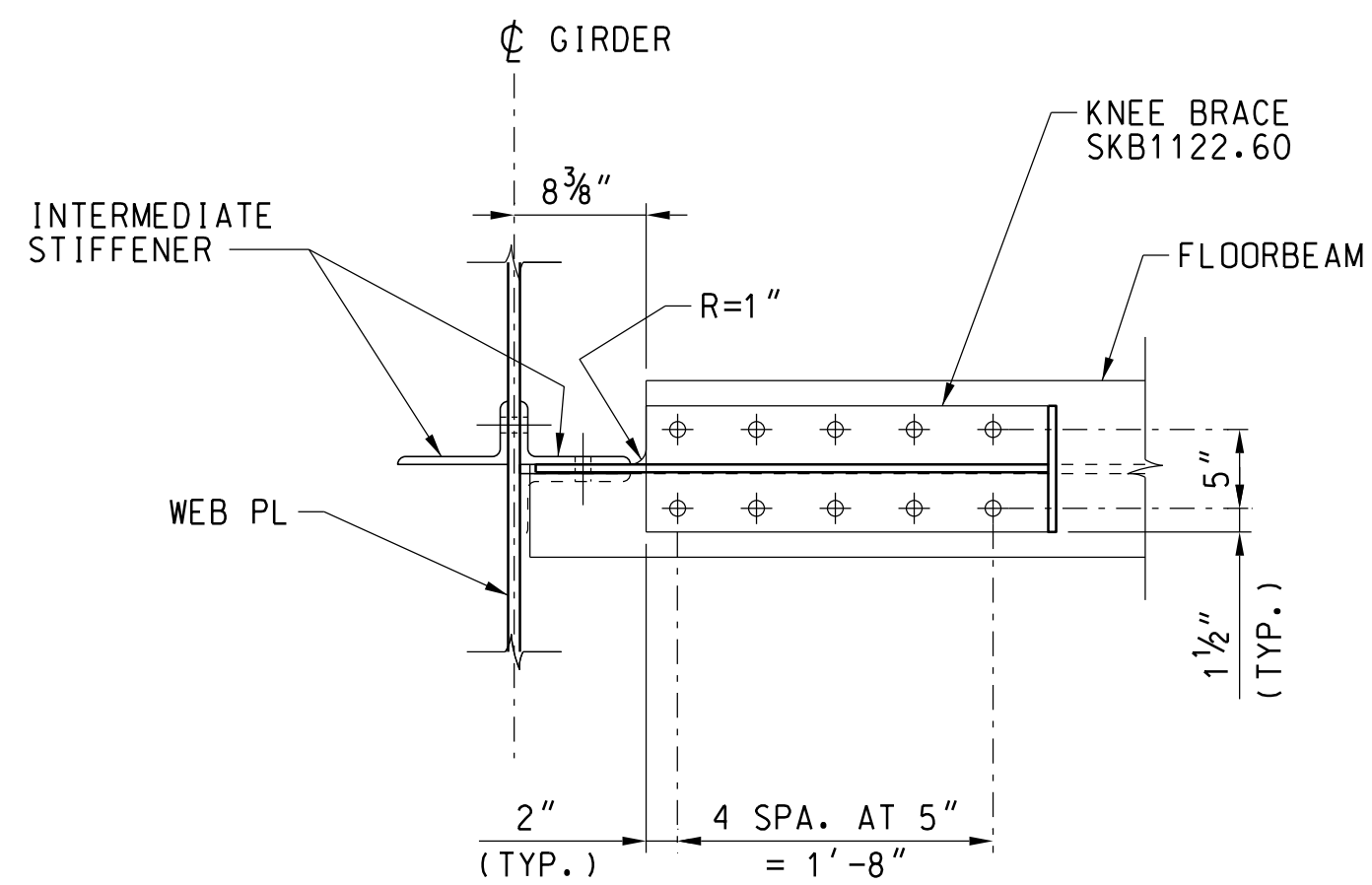
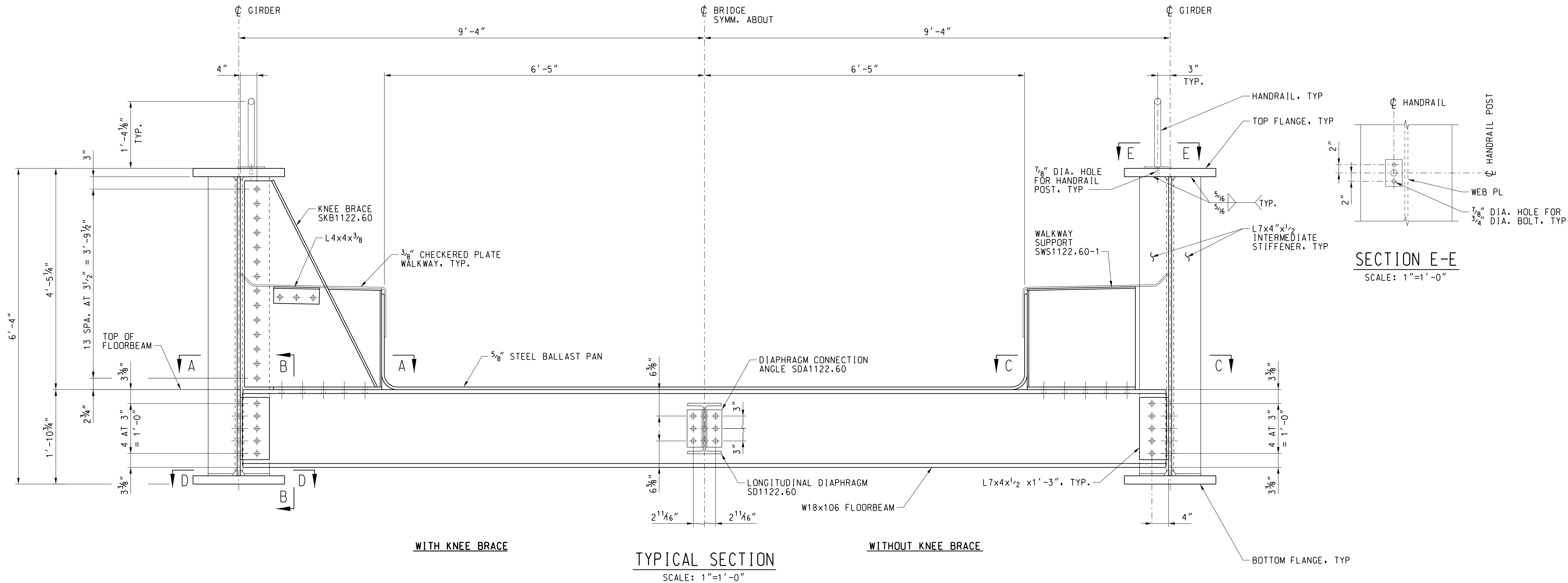
BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA		LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57			
TPG SPAN GIRDER FRAMING PLAN AND ELEVATION			
PROJECT NO:	SHEET NO: S400	SHEET: 32	OF 45

F:\proj\hds\hds\114501_US_Veg_01\Documents\72010407160_CAD_BIM\2_MP162.06_CONTRACT DOCUMENTS\Structural Sheets\Fresno Ave Bridge_100%112.65501.dgn



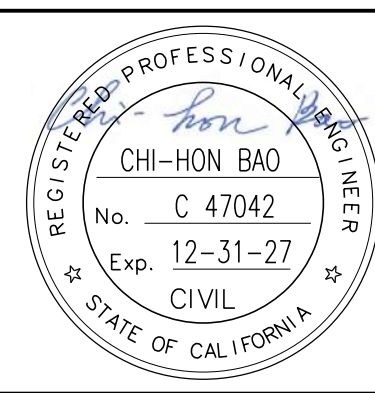
NOTE:
THE BOLT SHOULD BE
INSTALLED THAT THE HEAD
IS ON THE BOTTOM SIDE OF
THE BOTTOM FLANGE.



ISSUE	DATE	DESCRIPTION



SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

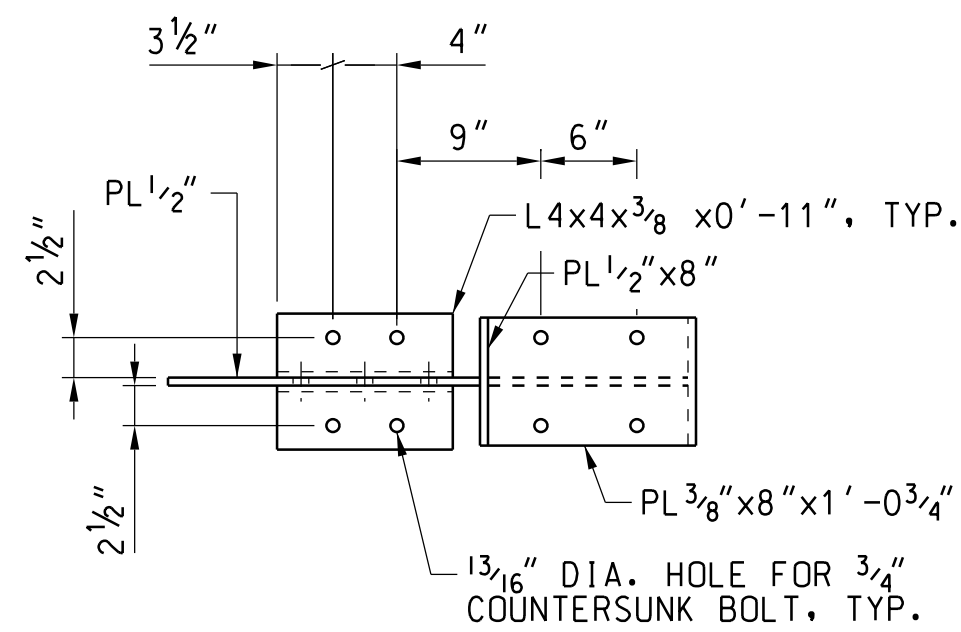


PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

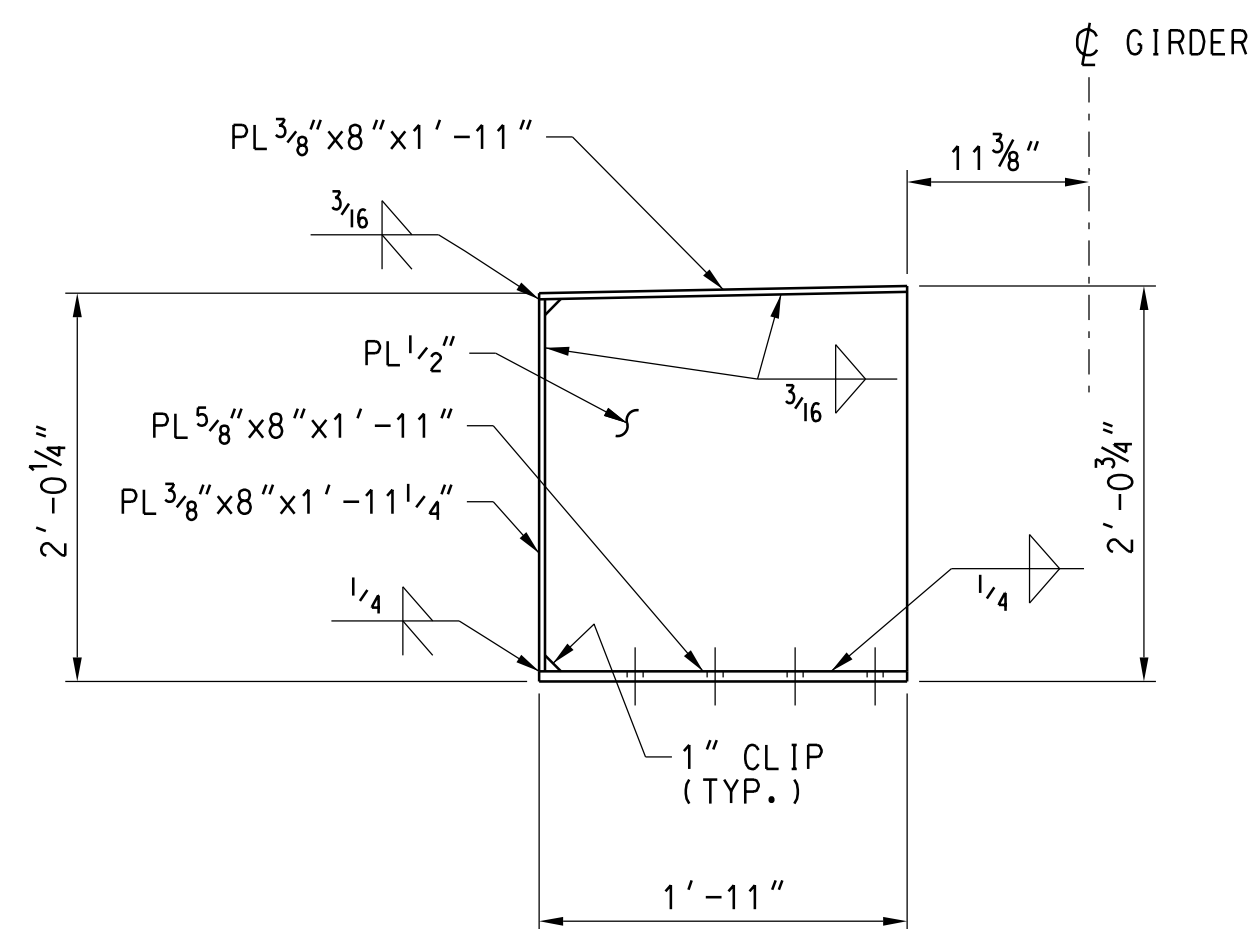
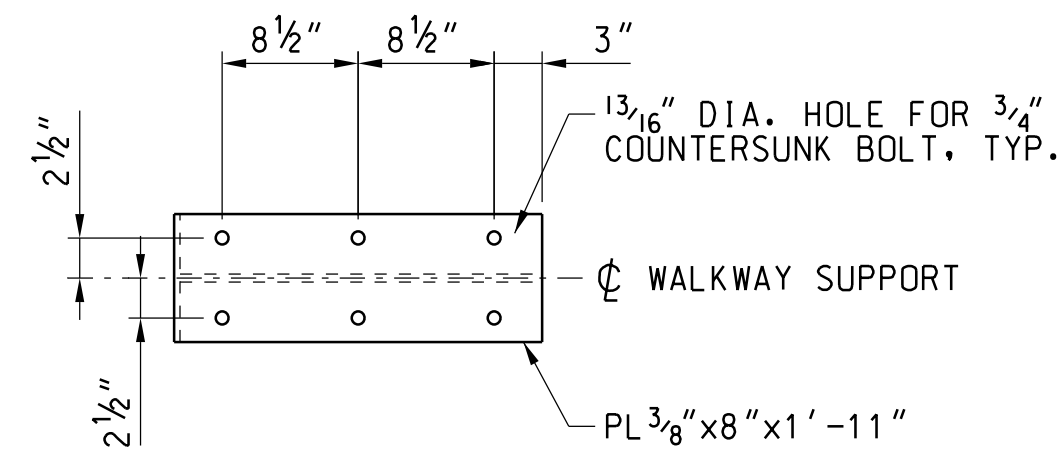
LATITUDE: 37.94097° N LONGITUDE: 121.3115° W

STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
TPG SPAN GIRDER DETAILS (SHEET 1 OF 3)		
PROJECT NO:	SHEET NO: S401	SHEET: 33 OF 45



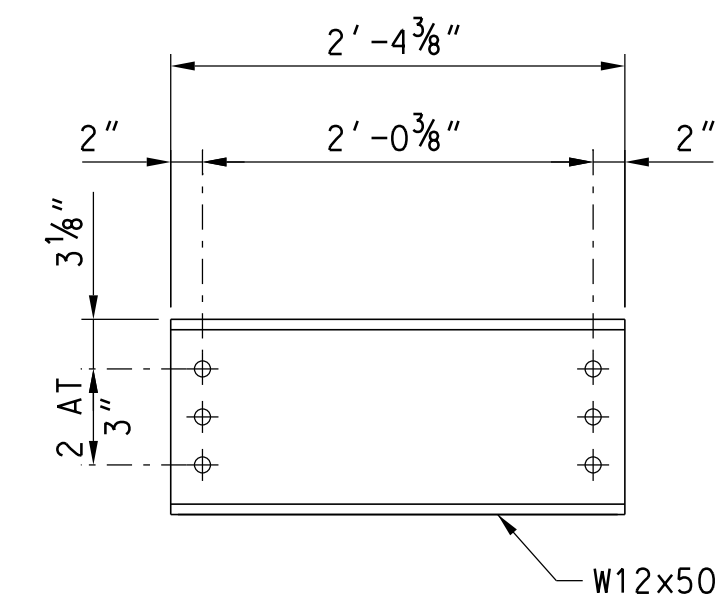
SECTION A-A
SCALE: 1"=1'-0"

ESTIMATE WEIGHT = 248 LBS

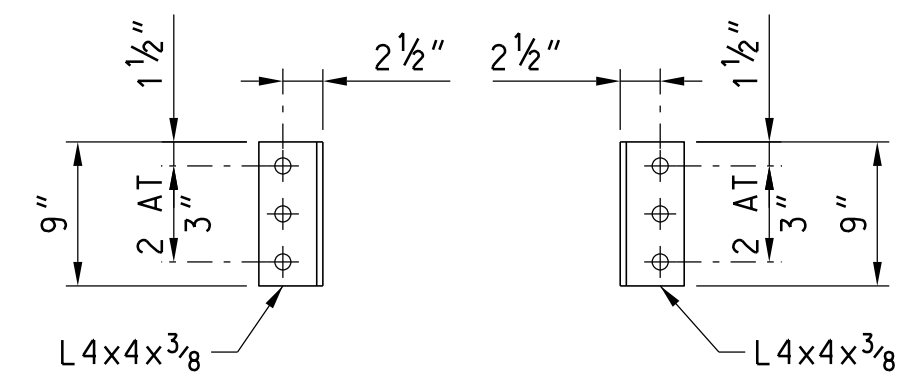


ESTIMATE WEIGHT = 131 LBS

ESTIMATE WEIGHT = 115 LBS



ESTIMATE WEIGHT = 118 LBS



ESTIMATE WEIGHT = 7.4 LBS

	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



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BRIDGE ENGINEERING KANSAS CITY, KS

SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



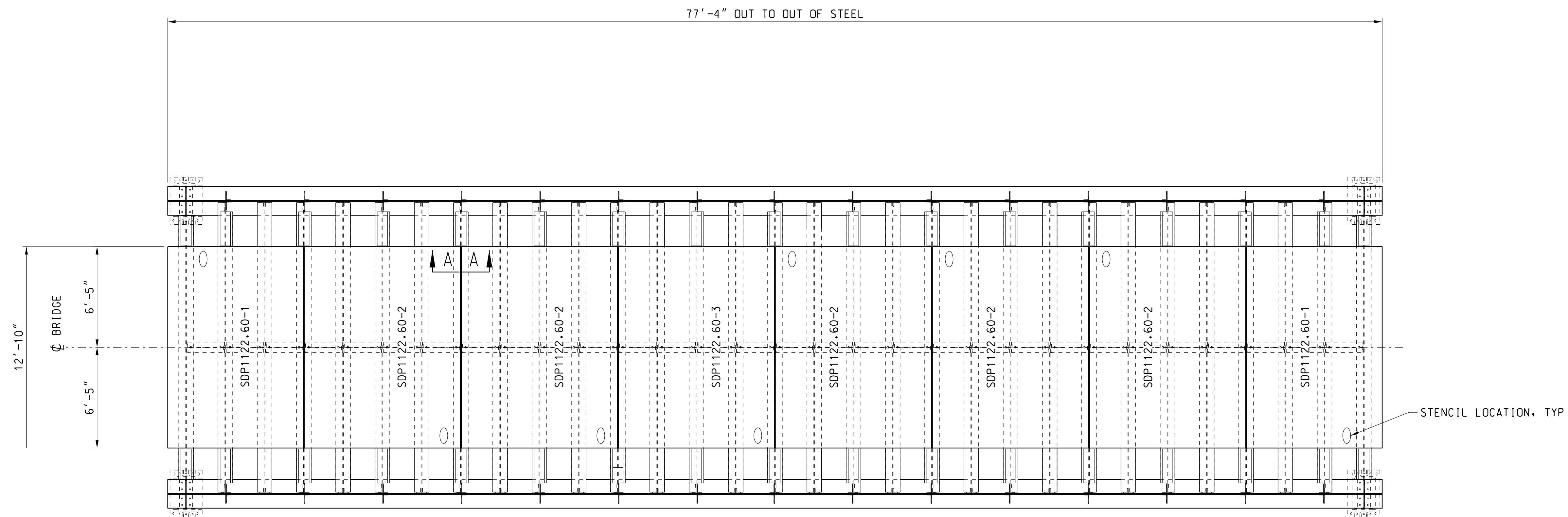
**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

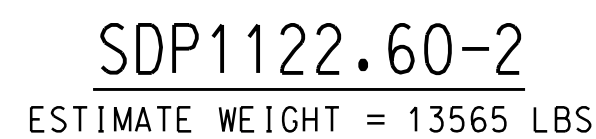
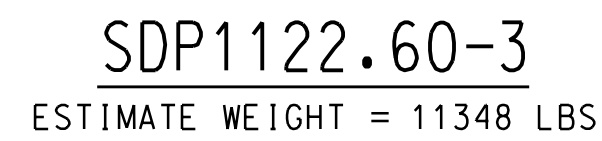
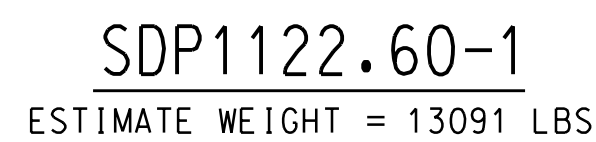
STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
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STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

TPG SPAN GIRDER DETAILS
(SHEET 3 OF 3)

PROJECT NO:	SHEET NO: S403	SHEET: 35 OF 45
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SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026



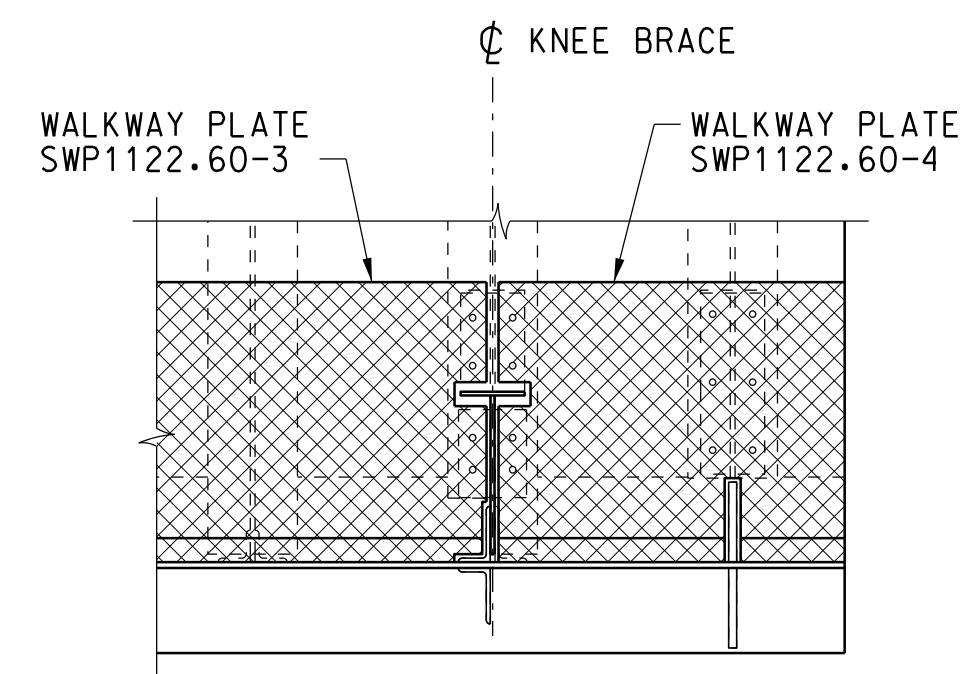
**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA	LATITUDE: 37.94097° N	LONGITUDE: 121.3115° W
--	-----------------------	------------------------

STOCKTON SUBDIVISION
MP 1122.24 TO MP 1125.57

TPG SPAN DECK PAN DETAILS

PROJECT NO:	SHEET NO: S406	SHEET: 38 OF 45
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3/8" CHECKERED PL

13/16" DIA. HOLE FOR 3/4" COUNTERSUNK BOLT, TYP.

2"

8 1/2"

8 1/2"

1'-2"

11 1/2"

5"

4"

3"

9"

1'-7 1/2"

4"

11 1/2"

2"

CUT TO FIT AT KNEE BRACE

2"

6"

9"

3"

1'-7 1/2"

2"

11 1/2"

4"

10"

10"

2'-11"

11"

CUT TO FIT AT INTERMEDIATE STIFFENER LOCATION, TYP.

3'-7 1/4"

A

3/8" CHECKERED PL

13/16" DIA. HOLE FOR 3/4" COUNTERSUNK BOLT, TYP.

2 1/4"

2"

2'-11"

10"

10"

11"

2"

1'-7 1/2"

4"

11 1/2"

3"

9"

6"

2"

CUT TO FIT AT KNEE BRACE

2"

6"

9"

3"

1'-7 1/2"

2"

11 1/2"

4"

10"

10"

2'-11"

11"

CUT TO FIT AT INTERMEDIATE STIFFENER LOCATION, TYP.

4'-11"

A

3/8" CHECKERED PL

13/16" DIA. HOLE FOR 3/4" COUNTERSUNK BOLT, TYP.

2 1/4"

2"

2'-11"

10"

10"

11"

2"

1'-7 1/2"

4"

11 1/2"

3"

9"

6"

2"

CUT TO FIT AT KNEE BRACE

2"

6"

9"

3"

1'-7 1/2"

2"

11 1/2"

4"

10"

10"

2'-11"

11"

CUT TO FIT AT INTERMEDIATE STIFFENER LOCATION, TYP.

4'-11"

A

3/8" CHECKERED PL

13/16" DIA. HOLE FOR 3/4" COUNTERSUNK BOLT, TYP.

2"

2'-11"

10"

10"

11"

2"

1'-7 1/2"

4"

11 1/2"

3"

9"

6"

2"

CUT TO FIT AT KNEE BRACE

2"

6"

9"

3"

1'-7 1/2"

2"

11 1/2"

4"

10"

10"

2'-11"

11"

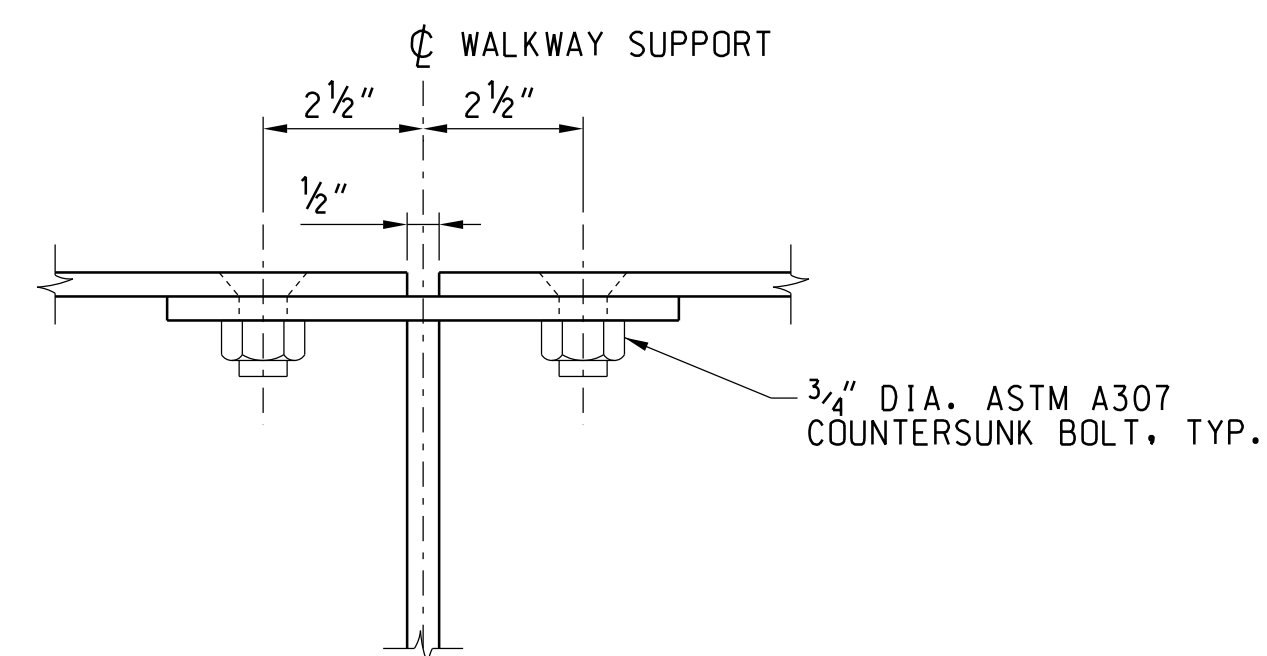
CUT TO FIT AT END STIFFENER LOCATION, TYP.

3'-7 1/4"

A

WALKWAY PLATE SWP1122.60-4

ESTIMATE WEIGHT = 164 LBS



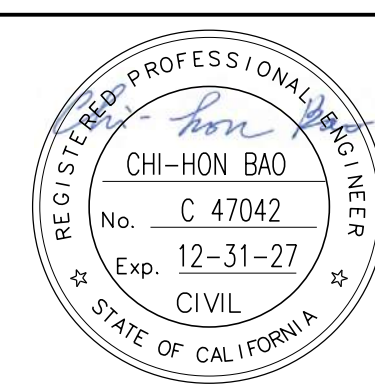
SECTION C-C
SCALE: 1 1/2" = 1' - 0"

HDR

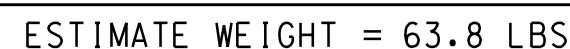
①	08/31/26	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

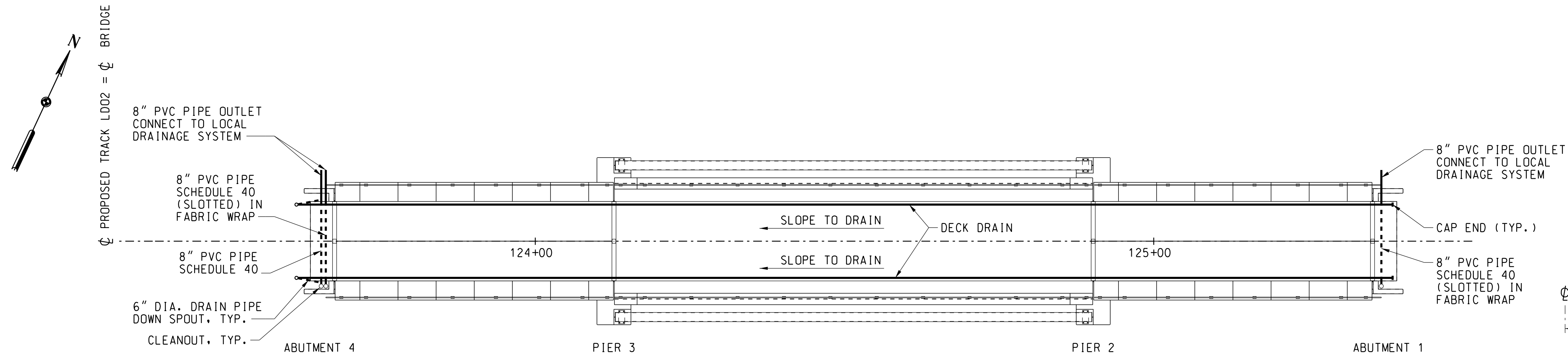


**PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.**

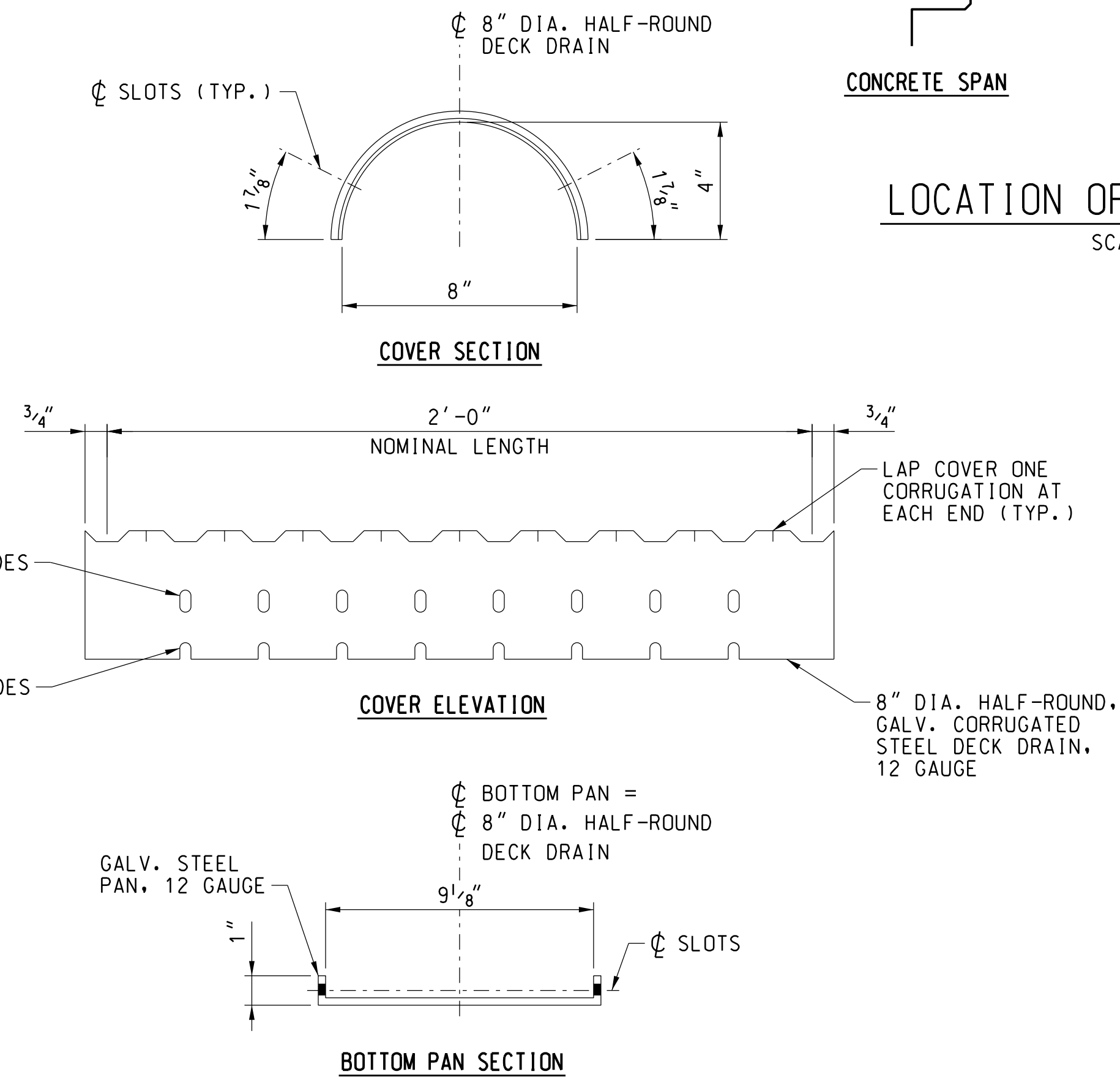
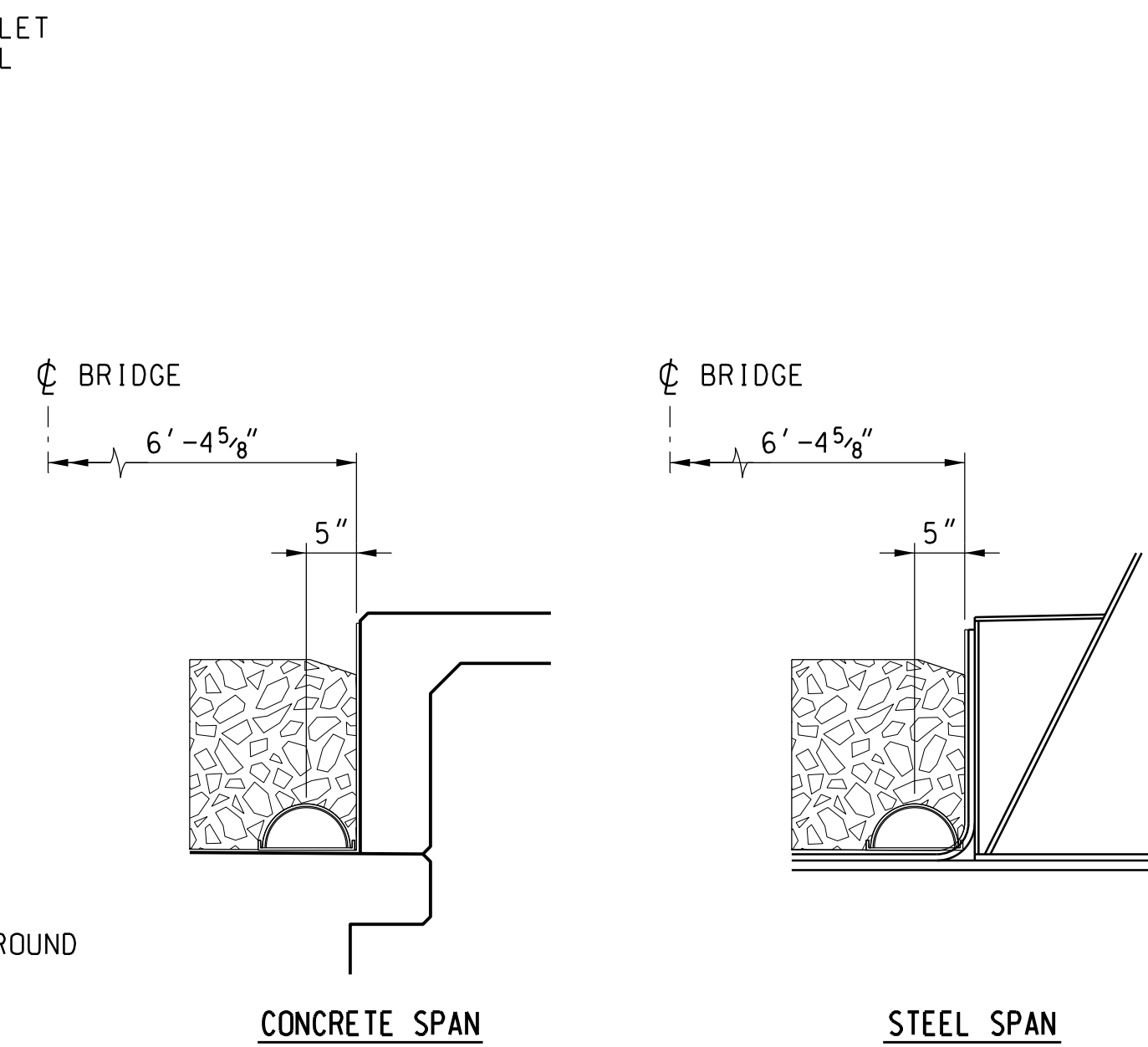
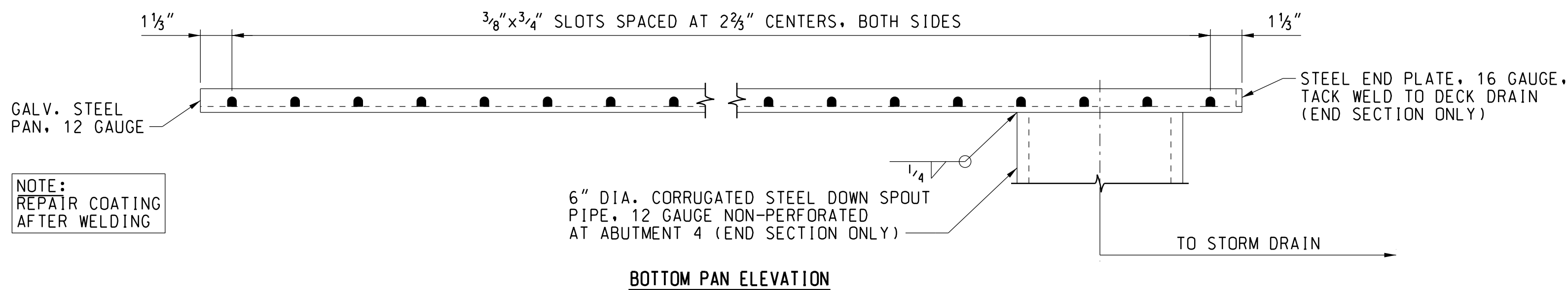
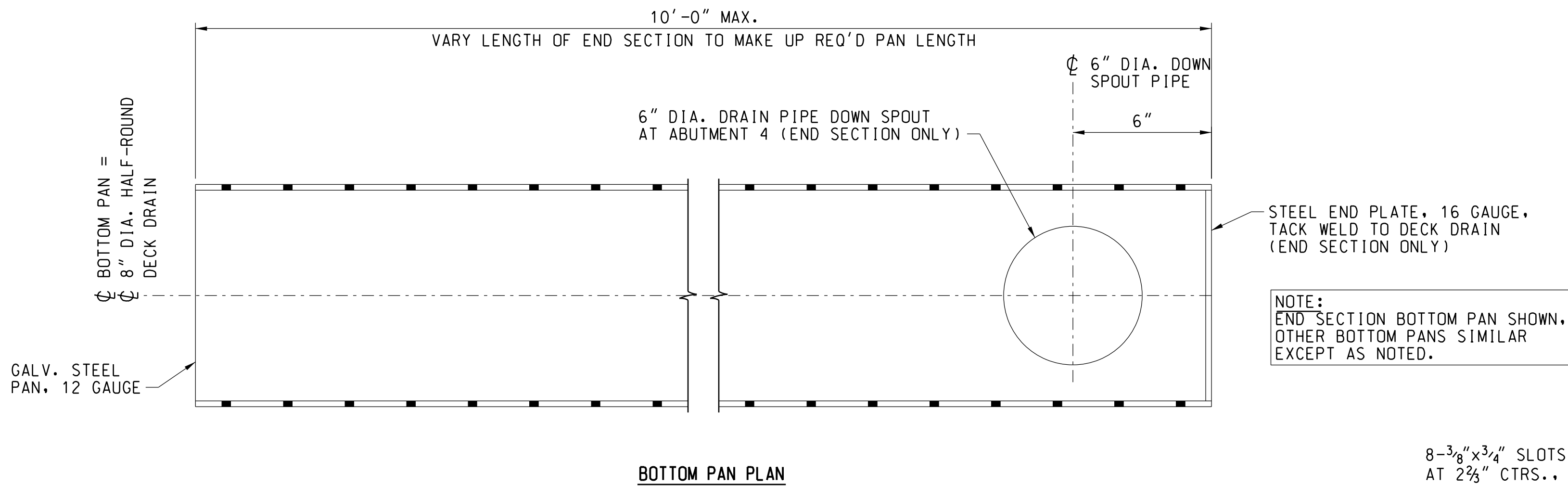


V=3/8" DIA. DRILLED VENT HOLE 1" FROM JOINT.

File Loc: I:\proj\hds\hds\1401\US_Veg_01\Documents\ST2010407160_CAD_BIM\2_MP16206_CONTRACT DOCUMENTS\Structures\Sheet\Fresno Ave Bridge_100%1122.65502.dgn



DRAINAGE PLAN
SCALE: $\frac{3}{32}"=1'-0"$



	08/31/26	ISSUED FOR BID	
ISSUE	DATE	DESCRIPTION	



SCALE	AS NOTED
DESIGNED BY	CHB
DRAWN BY	TM
CHECKED BY	RJB
APPROVED BY	
DATE	08/31/2026

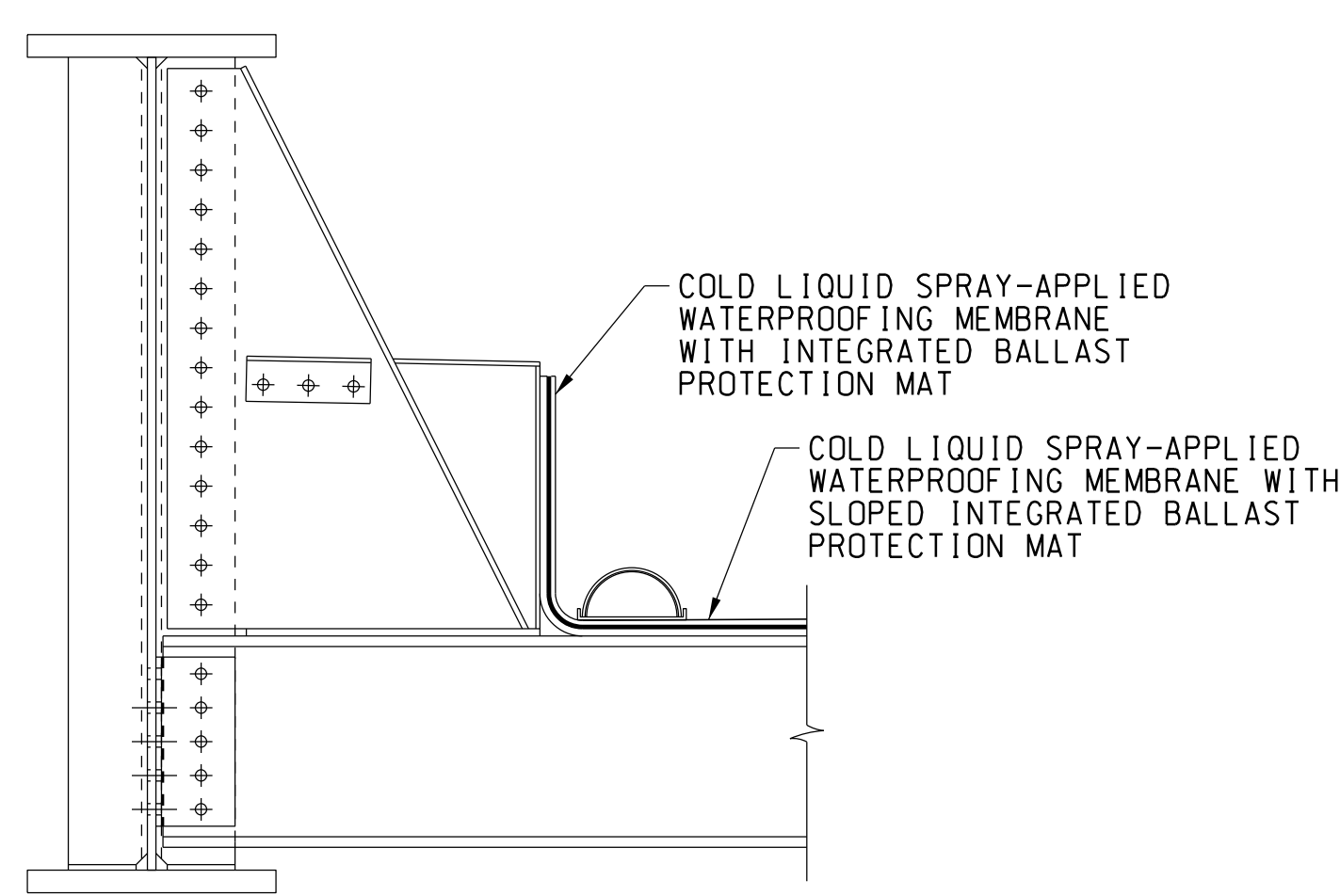


PORT OF STOCKTON
RAIL BRIDGE AND RAIL IMPROVEMENTS
BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.

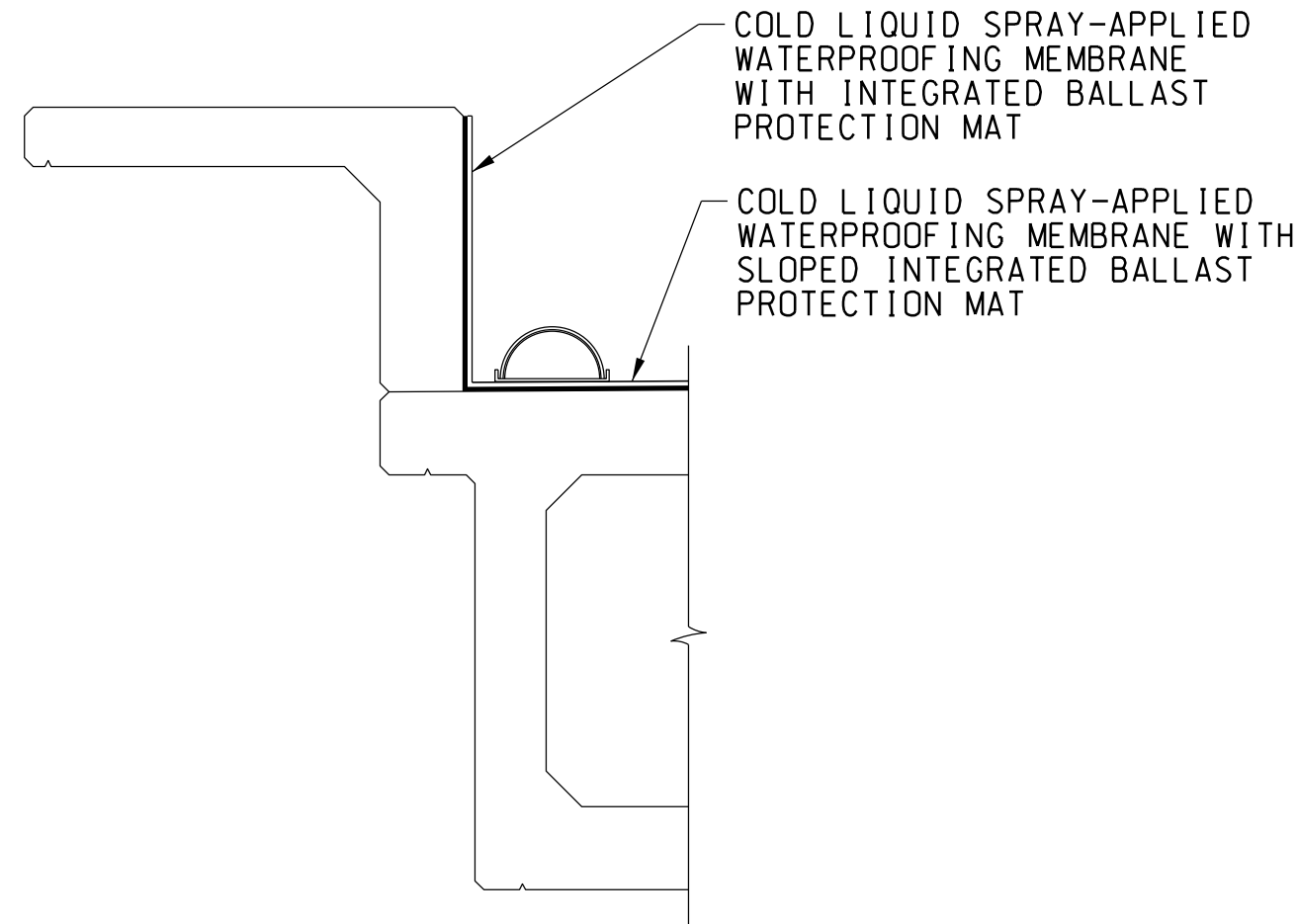
STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

LATITUDE: 37.94097° N LONGITUDE: 121.3115° W

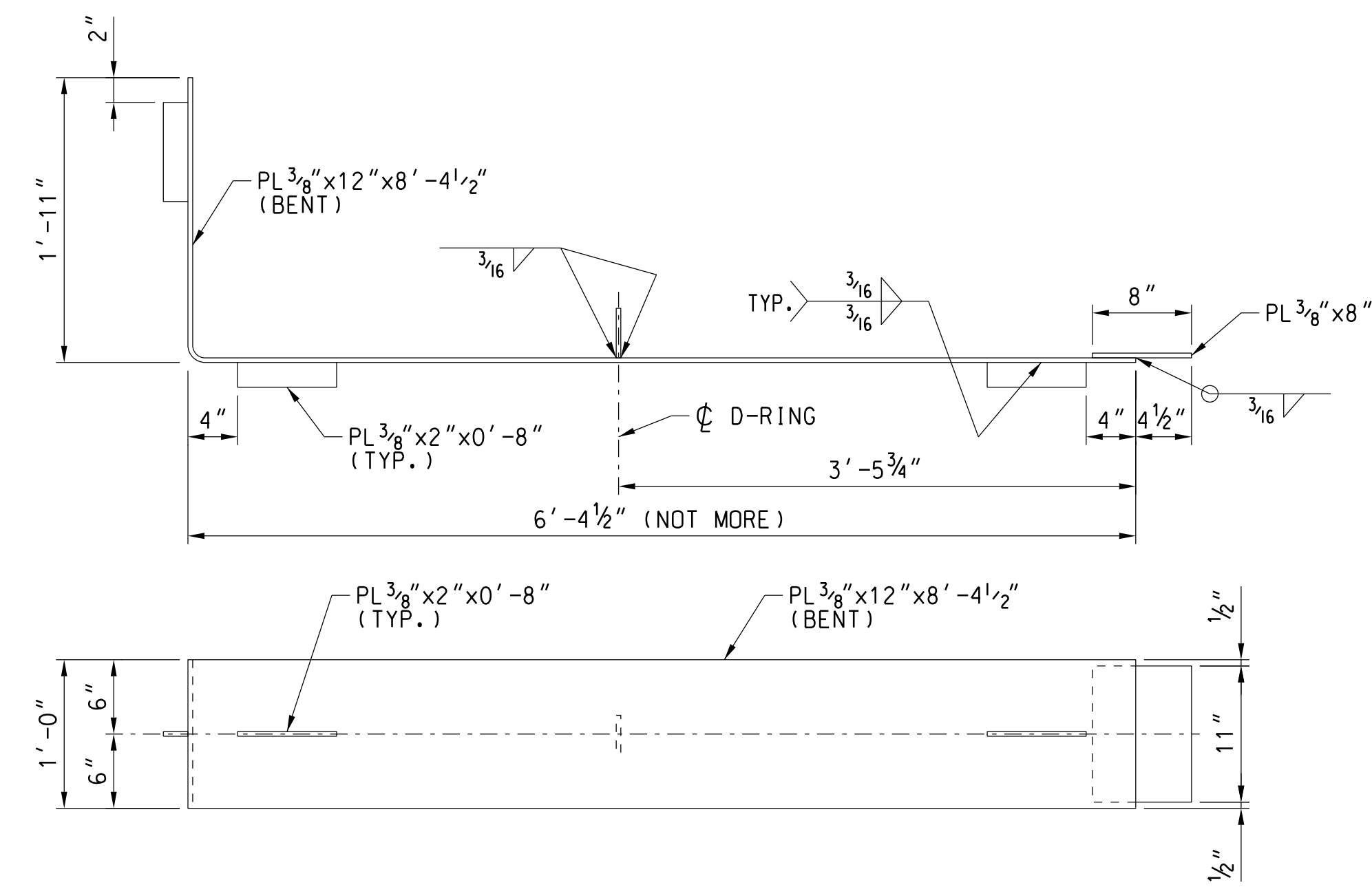
STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57		
DECK DRAINAGE DETAILS		
PROJECT NO:	SHEET NO: S502	SHEET: 43 OF 45



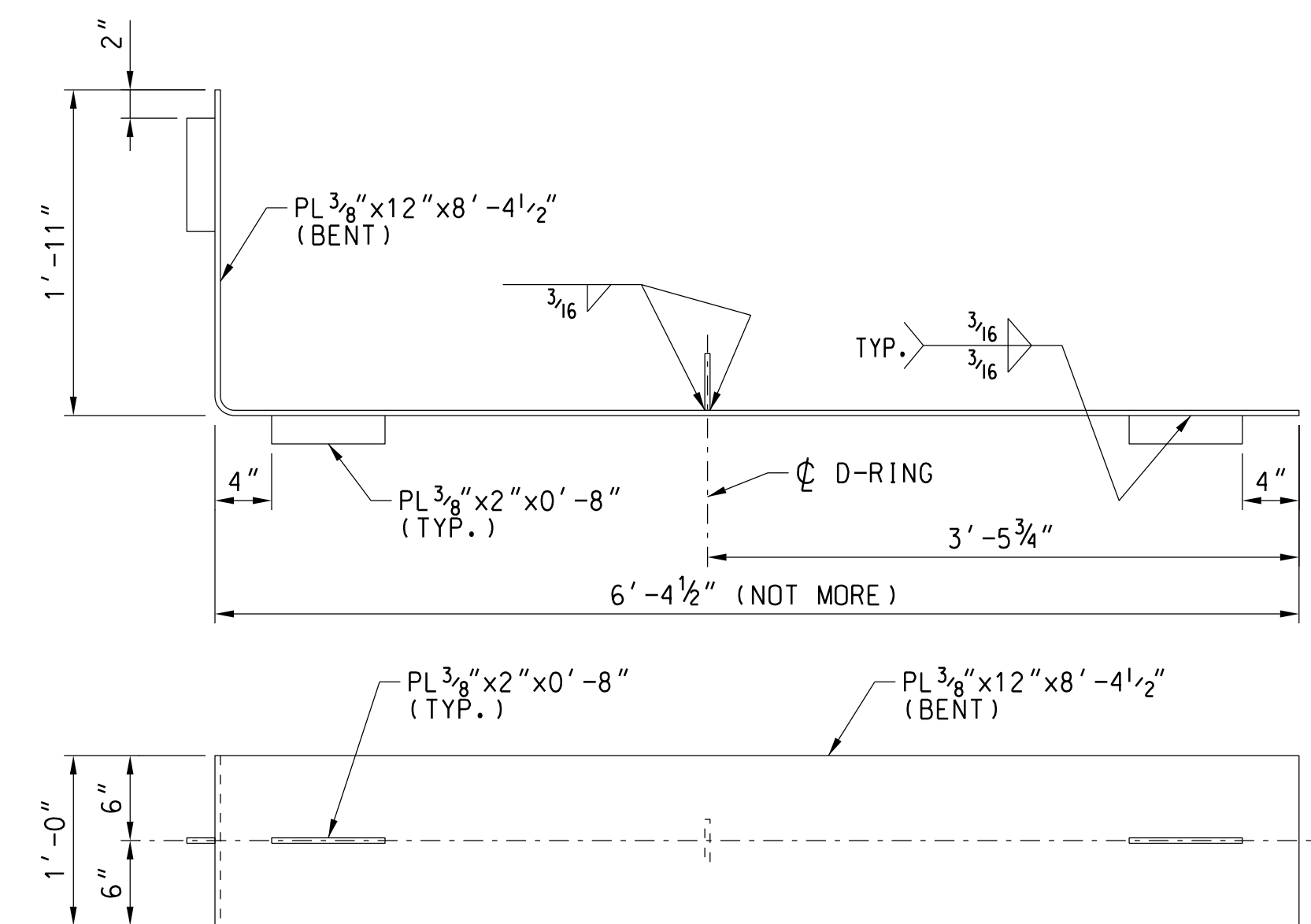
WATERPROOFING DETAIL FOR TPG SPAN



WATERPROOFING DETAIL FOR CONCRETE SPAN

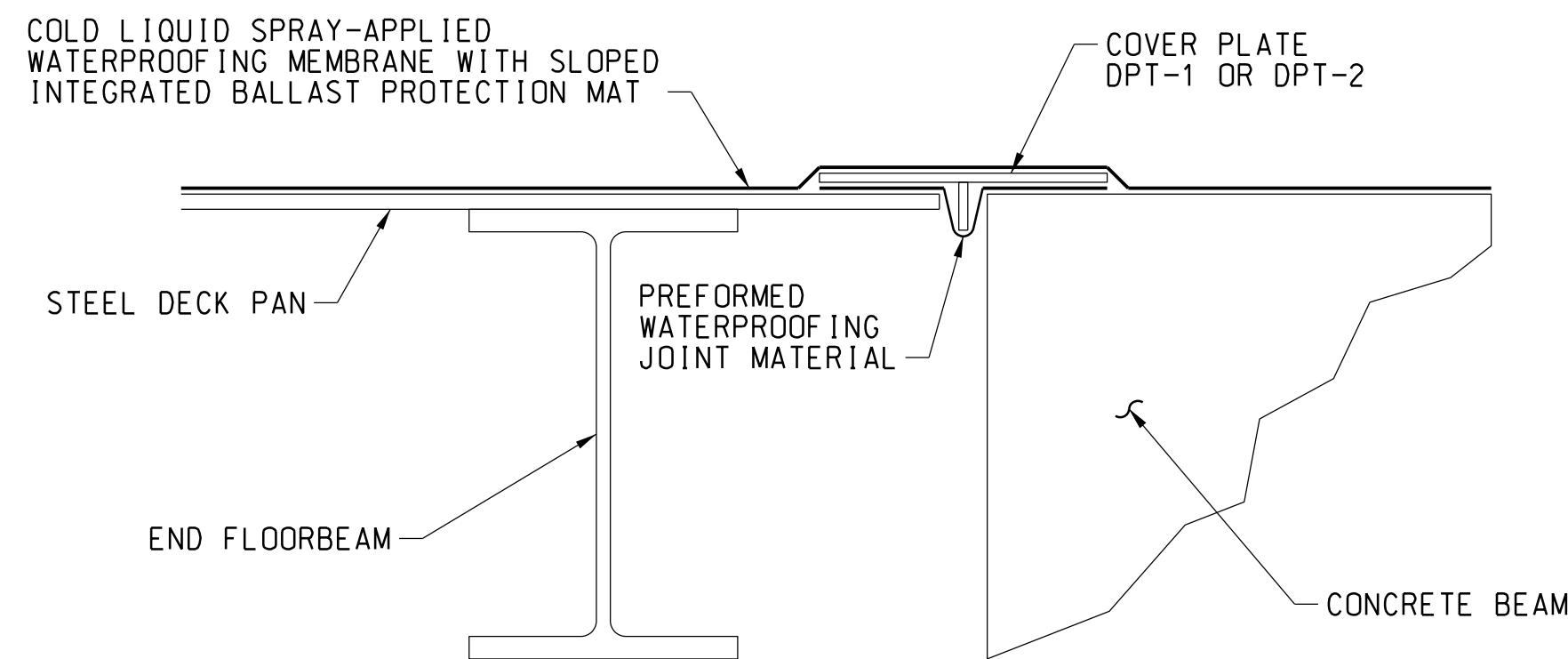


COVER PLATE DPT-1
GALVANIZE AFTER FABRICATION
ESTIMATE WEIGHT = 145 LBS

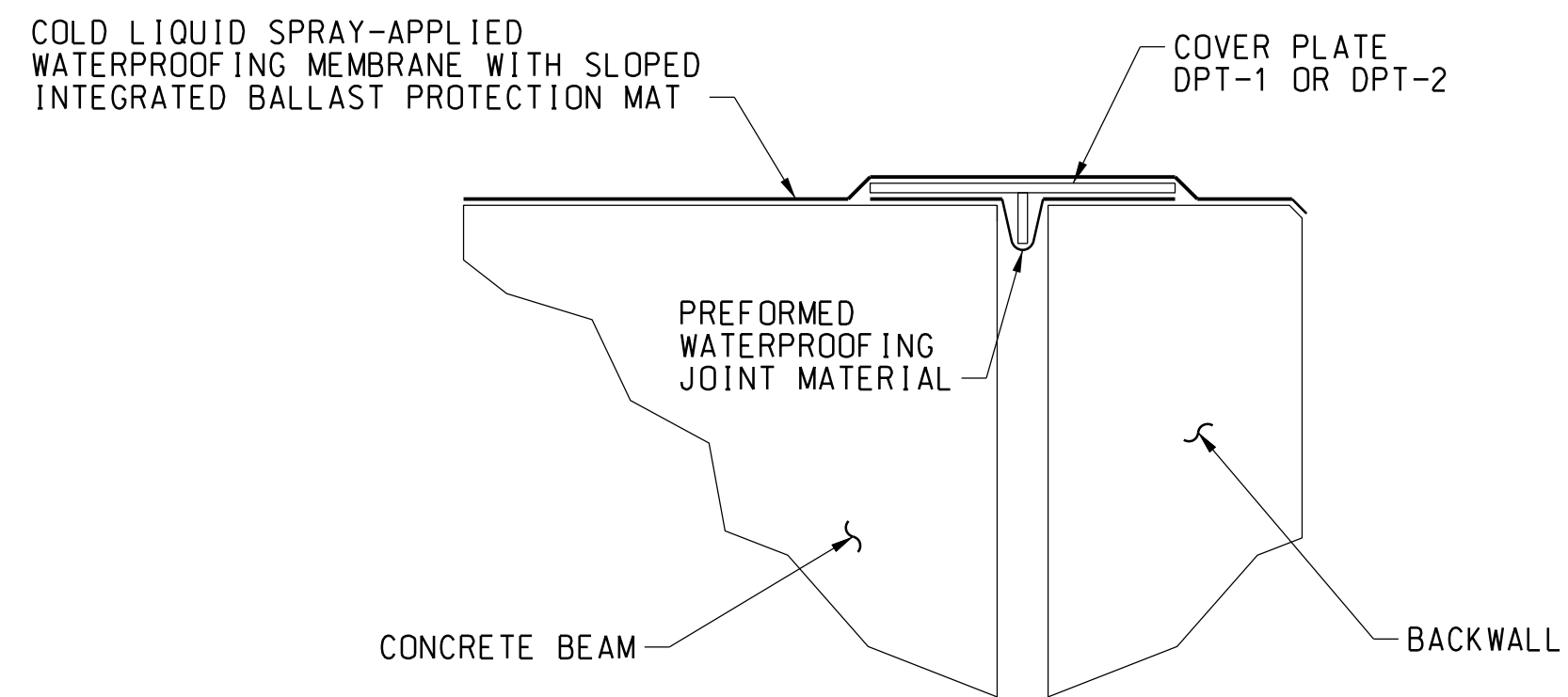


COVER PLATE DPT-2
GALVANIZE AFTER FABRICATION
ESTIMATE WEIGHT = 135 LBS

NOTE:
D-Ring or other equivalent lifting devices shall be designed by the manufacturer with minimum capacity of 1000 lbs.



WATERPROOFING DETAIL AT PIER JOINT



WATERPROOFING DETAIL AT ABUT JOINT

F:\1 Locat\on: p:\ch\chase\1450_US_Veg\0\Documents\72010407160_CAD_BIM\2_MP\2.26_CONTRACT DOCUMENTS\Structures Sheets\Fresno Ave Bridge_100%1122.65500.dgn

				 Know what's below. Call before you dig.	 BRIDGE ENGINEERING KANSAS CITY, KS	SCALE	AS NOTED		 PORT OF STOCKTON RAIL BRIDGE AND RAIL IMPROVEMENTS BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVE.	STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA		LATITUDE: 37.94097° N		LONGITUDE: 121.3115° W	
						STOCKTON SUBDIVISION MP 1122.24 TO MP 1125.57									
						COVER PLATE AND WATERPROOFING DETAILS									
	ISSUE	DATE	DESCRIPTION			PROJECT NO:	SHEET NO: S503			SHEET: 44	OF 45				

