

PORT OF STOCKTON OVERHEAD PIPELINE RESTORATION

315 WEST FYFFE STREET
STOCKTON, CA, 95203

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VICINITY MAP
SCALE: N.T.S.



LOCATION MAP
SCALE: N.T.S.

POINTS OF CONTACT:

- OWNER: PORT OF STOCKTON, JASON KATINDOY; 315 WEST FYFFE ST., STOCKTON, CA-95203; TELEPHONE: (209) 946-0246.
- PRIME: HDR, INC., MATTHEW ARCHER, PE; 2379 GATEWAY OAKS, STE. 200, SACRAMENTO, CA 95833; TELEPHONE: (916) 679-8700.
- CIVIL ENGINEER: JMA CIVIL, ARKA GHOSH, PE; 5250 CLAREMONT AVE., STE. 227, STOCKTON, CA 95207; TELEPHONE: (925) 400-4356.
- STRUCTURAL ENGINEER: ARW ENGINEERS, DAVE PIERSON, PE; 1594 W PARK CIRCLE., OGDEN, UT 84404; TELEPHONE: (707) 542-6268
- LAND SURVEYOR: CINQUINI & PASSARINO, JAMES DICKEY, PLS; 1630 N DUTTON AVE., #150, SANTA ROSA, CA-95401; TELEPHONE: (707) 542-6268
- GEOTECHNICAL ENGINEER: KLEINFELDER, INC., NATHAN L. DAHLEN, PE, 2001 ARCH AIRPORT RD., STE #100 STOCKTON, CA-95206; TELEPHONE: (209) 948-1345.
- RAILROAD: CENTRAL CALIFORNIA TRACTION COMPANY (CCTC), JASON NALDER, 2201 WEST WASHINGTON ROAD SUITE #12., STOCKTON, CA-95203; TELEPHONE: (209) 466-6927.

PROJECT DOCUMENTS:

- THE FOLLOWING DOCUMENTS ARE INCLUDED IN THE SCOPE OF THE PROJECT:
 - 100% GEOTECHNICAL REPORT DATED 08/14/2026.
 - 100% STRUCTURAL REPORT DATED 08/31/2026.
 - BASIS OF DESIGN MEMORANDUM DATED 08/31/2026.

CODES AND STANDARDS:

- GOVERNING CODES AND STANDARDS: THE CURRENT VERSIONS OF THE FOLLOWING STANDARDS, GOVERN THE CONSTRUCTION OF THE WORK EXCEPT AS NOTED OTHERWISE.
 - AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING, LATEST EDITION.
 - THE CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) GENERAL ORDERS.
 - FEDERAL RAILROAD ADMINISTRATION (FRA) RAILROAD SAFETY STANDARDS.
 - PORT OF STOCKTON TRACK DESIGN STANDARDS.
 - UPRR - BRIDGE DEMOLITION AND REMOVAL PLAN FOR STRUCTURES OVER RAILROAD

IN THE EVENT OF A CONFLICT BETWEEN THE REFERENCED STANDARDS, FOR RAILROAD WORK: PORT OF STOCKTON STANDARDS SHALL GOVERN. IN ADDITION, CONSTRUCTION MUST ADHERE TO ALL FEDERAL RAILWAY ADMINISTRATION (FRA), STATE AND LOCAL REQUIREMENTS.

FOR UTILITY WORK: THE CITY OF STOCKTON STANDARD DETAILS AND SPECIFICATIONS SHALL GOVERN.

DESCRIPTION OF WORK:

- FINAL ISSUED FOR CONSTRUCTION PLANS: CONSTRUCTION OR PROCUREMENT OF MATERIALS FROM PLANS NOT MARKED "ISSUED FOR CONSTRUCTION" IS AT THE OWNER AND/OR CONTRACTOR'S RISK. ONLY PLANS MARKED "ISSUED FOR CONSTRUCTION" ARE DEEMED COMPLETE AND READY FOR CONSTRUCTION.
- THE FOLLOWING SCOPE OF WORK IS INCLUDED IN THIS CONTRACT:
 - SITE CLEARING AND GRUBBING, DEMOLITION OF PIPE SUPPORT RACK, COLUMNS, AND FOUNDATIONS, DEMOLITION OF ASPHALT PAVEMENT
 - CONSTRUCTION OF NEW PIPE SUPPORT FOUNDATIONS, COLUMNS, AND RACKS, CAP AND ABANDON OVERHEAD PIPES
 - INSTALL BOLLARDS TO PROTECT PIPE COLUMNS
 - COORDINATE WITH CCTC TO SECURE RAILROAD FLAGGING PROTECTION FOR WORK ADJACENT TO ACTIVE TRACKS.
 - COORDINATE WITH OVERHEAD UTILITY USERS TO FACILITATE SHUTOFF PRIOR TO BEGINNING OF WORK.

CONTRACTOR RESPONSIBILITIES:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK PART OF THIS CONTRACT, AS DESCRIBED IN NOTE # 2 ON THIS SHEET. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, INCLUDING STRUCTURAL FRAMES AND COLUMNS, FOR CONSTRUCTION.

RELATED WORK:

THE FOLLOWING WORK PACKAGE IS PART OF THE BID DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SCOPE OF WORK AND SCHEDULE OF THIS WORK WITH ALL OTHER PACKAGES. SEE TABLE 1 OF THE PROJECT MANUAL FOR ALL APPLICABLE SPECIFICATIONS:

- PORT OF STOCKTON RAIL IMPROVEMENTS LONG LEAD DOUBLE TRACK

CAUTION BEFORE EXCAVATION:

- UNDERGROUND UTILITY IDENTIFICATION: SECTION 4216 / 4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIG ALERT IDENTIFICATION NUMBER, CALL UNDERGROUND SERVICE ALERT 1-800-227-2600 (CENTRAL/NORTHERN CA & NEVADA) FOR UNDERGROUND LOCATING AT LEAST TWO (2) WORKING DAYS BEFORE YOU DIG.

SURVEY NOTES:

- SURVEY NOTES: SURVEY DETAILS AND SURVEY CONTROL ARE SHOWN ON SHEET G-100.
- BASE SURVEY: SEE SHEET G-100.
- PROJECT BENCHMARK: SEE SHEET G-100.
- BASIS OF BEARING: BEING NORTH 10°02'25.4" EAST BETWEEN CORS STATION P257 AND P273, BASED ON COORDINATES PROVIDED BY THE CALIFORNIA SPATIAL REFERENCE CENTER. PROJECT IS BASED ON CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3, EPOCH 2017.50.
- VERTICAL DATUM: SEE SHEET G-100.
- HORIZONTAL DATUM: SEE SHEET G-100.
- GRID TO GROUND CONVERSION: ALL COORDINATES SHOWN ON THE DRAWINGS ARE "GRID". THE MEAN COMBINATION FACTOR = 0.9999402009. TO CONVERT FROM GRID TO GROUND, DIVIDE BY THE MEAN COMBINATION FACTOR.

- ELECTRONIC FILE DATA: MICROSTATION CAD FILES OF THE PLAN VIEW DRAWINGS ONLY WILL BE PROVIDED BY THE ENGINEER ALONG WITH ONE SET OF HARD COPY DRAWINGS. CONVERSION OF DRAWINGS TO OTHER FORMATS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL ROAD AND RAIL STAKING SHALL BE BASED ON COORDINATE GEOMETRY TABLES, WHEN PROVIDED, VERSUS FROM CAD FILES. IN THE EVENT OF DISCREPANCY BETWEEN CAD FILES AND HARD COPY DRAWINGS, THE HARD COPY DRAWINGS SHALL GOVERN. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES. BOUNDARY STAKING SHALL BE BASED ON SIGNED AND STAMPED HARD COPY DRAWINGS ONLY.

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SUBCONSULTANT:

SUBCONSULTANT:

PRIME CONSULTANT:

PROFESSIONAL SEAL:

ISSUED FOR BID
NOT FOR CONSTRUCTION
08/31/2026
ISSUE:

REVISIONS:		
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0	04/27/2026	ISSUED FOR BID
MARK	DATE	DESCRIPTION



PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS
315 FYFFE AVENUE STOCKTON, CA 95203

SHEET TITLE:
TITLE SHEET
PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG
SHEET NO. G-001 SHEET 1 OF 22

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LINESTYLES	PROPOSED	EXISTING	HATCH PATTERNS	PROPOSED	EXISTING	SYMBOLS	PROPOSED	EXISTING
TRACK			ASPHALT CONCRETE PAVEMENT			WATER VALVE		
FUTURE TRACK			CONCRETE PAVEMENT			HYDRANT		
COMMUNICATION LINES			LANDSCAPING			WATER METER		
POWER LINE UNDERGROUND			ENGINEERED FILL			WATER MANHOLE		
FUEL GAS PIPING			GRAVEL			FIRE DEPARTMENT CONNECTION		
FIBER OPTIC			AGGREGATE BASE			POST INDICATING VALVE		
FIRE WATER			RIPRAP			WATER BACKFLOW PREVENTER		
INDUSTR. WASTE SANITARY SEWER			SAND			SANITARY SEWER MANHOLE		
NATURAL GAS PIPING			OVER-EXCAVATION			STORM DRAIN MANHOLE		
COMMUNCATION LINE OVERHEAD			LIMITS OF DEMOLITION			STORM DRAIN MANHOLE WITH GRATE		
POWER LINES OVERHEAD			BUILDING OUTLINE			POWER POLE		
TELEPHONE LINE OVERHEAD			WOOD			FUEL VALVE		
STORM DRAIN			BAR GRATING			STORM DRAIN CATCH BASIN 24"x24"		
SANITARY SEWER			LIMIT OF ASPHALT			STORM DRAIN CATCH BASIN 24"x36"		
STEAM						GUY WIRE		
WATER LINE						LUMINAIRE		
CENTER LINE						POLE-MOUNTED LUMINAIRE		
FENCE CHAIN LINK						SERVICE BOX		
FENCE WOVEN WIRE						STORM SEWER CLEANOUT		
STRUCTURAL/TRACK REMOVAL						PIPE FLARED END SECTION		
DRAINAGE FLOW						PIPE CAP		
LIMITS OF CONSTRUCTION								
EASEMENT								
LEASE LIMITS								
PIPE ABANDON IN PLACE								

ABBREVIATIONS											
AB	AGGREGATE BASE; ANCHOR BOLT ABOVE	C-C	CENTER-CENTER	FC	FACE OF CURB	M	METER	PROJ	PROJECT	TCONC	ELEVATION AT TOP OF
ABV	ACRE/ASPHALT CONCRETE	CCTC	CENTRAL CALIFORNIA TRACTION	FDN	FOUNDATION	m2	SQUARE METER	PROP	PROPOSED	TEMP	CONCRETE
AC	ADJUST	CERT	COMPANY	F-F	FACE TO FACE	m3	CUBIC METER	PS	POINT OF SWITCH	TF	TEMPORARY
ADJ	AGGREGATE	CI	CAST IRON	FG	FINISHED GRADE (UNPAVED)	MACH	MACHINE	PSF	POUND PER SQUARE FOOT	TRK	TRACK FEET
AGG	APPROXIMATE	CIP	CAST IRON PIPE	FH	FIRE HYDRANT	MATL	MATERIAL	PSI	POUND PER SQUARE INCH	TP	TOP OF PAVEMENT
AH	AMERICAN RAILWAY	CL	CENTER LINE	FLG	FLANGE	MAX	MAXIMUM	PVC	POLYVINYL CHLORIDE / POINT	TOR	TOP OF RAIL
APPROX	ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION	CLR	CLEARANCE	FR	FRAME	MEP	MECHANICAL, ELECTRICAL, AND PLUMBING	PVD	OF VERTICAL CURVE	TRK	TRACK
AREMA	CONCRETE	CLSM	CONTROLLED LOW STRENGTH MATERIAL	FT	FOOT OR FEET	MIN	MINIMUM	PVMT	PAVED	TYP	TYPICAL
				FTG	FOOTING	MISC	MISCELLANEOUS	PWR	PAVEMENT MARKING		
				fy	YIELD STRENGTH	MIX	MIXTURE		POWER	UD	UNDERDRAIN
						MJ	MECHANICAL JOINT	QTY	QUANTITY	UE	UNDERGROUND ELECTRIC
ASPH	ASPHALT	CONC	CONCRETE	GA	GAUGE	MP	MILE POST			UG	UNDERGROUND
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	CONST	CONSTRUCT	GALV	GALVANIZED	MPH	MILES PER HOUR	R	RADIUS	UPRR	UNION PACIFIC RAILROAD
		CONT	CONTINUOUS	GND	GROUND			RD	ROAD	UT	UNDERGROUND TELEPHONE
		CONT'D	CONTINUED	GPM	GALLONS PER MINUTE	N	NORTH/NORTHING	RDWY	ROADWAY	UTIL	UTILITY
AVE	AVENUE	CORR	CORRUGATED	GRVL	GRAVEL	NAV	NORTH AMERICAN VERTICAL DATUM	REINF	REINFORCED	VALMAP	VALUATION MAPS
		CP	CONTROL POINT / CLEAR					ROW	RIGHT OF WAY	VEH	VEHICLE
B-B	BACK TO BACK			HDPE	HIGH DENSITY POLYETHYLENE	NIC	NOT IN CONTRACT	RR	RAILROAD	VERT	VERTICAL
BC	BACK OF CURB			HORIZ	HORIZONTAL	NB	NORTHBOUND	RT	RIGHT	VIF	VERIFY IN FIELD
BCONC	ELEVATION AT BOTTOM OF CONCRETE	CY	CUBIC YARDS	HP	HIGH POINT/HORSE POWER	NE	NORTHEAST				
				HSS	HOLLOW STRUCTURAL SECTION	NGVD	NATIONAL GEODETIC VERTICAL DATUM	S	SOUTH/SLOPE	W	WEST
BGN	BEGIN	DBL	DOUBLE	ID	INSIDE DIAMETER	NO.	NUMBER	SCH	SCHEDULE	W	WIDTH
BK	BACK	DEPT	DEPARTMENT	IN	INCH	NTS	NOT TO SCALE	SD	STORM DRAIN	W/	WITH
BL	BASE LINE	DIA	DIAMETER	INS	INSULATION	NW	NORTHWEST	SDMH	STORM DRAIN MANHOLE	W/O	WITHOUT
BLDG	BUILDING	DIST	DISTRICT	INS JNT	INSULATED JOINT	O.C.	ON CENTER	SDCB	STORM DRAIN CATCH BASIN	WM	WATER MAIN
		DN	DOWN	INST	INSTALL	OD	OUTSIDE DIAMETER	SF/SQ FT	SQUARE FOOT	WV	WATER VALVE
BM	BENCHMARK	DWG	DRAWING			OFF	OFFSET	SHT	SHEET	WWF	WELDED WIRE FABRIC
BTM/BOT	BOTTOM					OG	ORIGINAL GROUND	SS	SANITARY SEWER		
		E	EAST/EASTING			OH/OVHD	OVERHEAD	SSCO	SANITARY SEWER CLEANOUT	X-ING	CROSSING
BW	BACK OF WALK/BOTTOM OF WALL	EA	EACH	JT	JOINT	OHE	OVERHEAD ELECTRIC	SSMH	SANITARY SEWER MANHOLE		
		EB	EASTBOUND			OHT	OVERHEAD TELEPHONE	SD	STORM DRAIN		
		E-E	EDGE TO EDGE	K SI	1000 POUNDS PER SQUARE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	STA	STATION		
		EG	EXISTING GRADE			OTM	OTHER TRACK MATERIALS	STD	STANDARD		
C&G	CURB & GUTTER	EL/ELEV	ELEVATION					STR	STRUCTURE		
C.I.P.	CAST IN PLACE	EP	EDGE OF PAVEMENT	L	LENGTH			SW	SIDEWALK / SWITCH		
CA	CALIFORNIA	EQ	EQUAL	LBS	POUNDS						
CALC	CALCULATION	EQPT	EQUIPMENT	LOC.	LOCATION(S)			T	TANGENT		
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION	ESMT	EASEMENT	LF	LINEAR FOOT	PC	POINT OF CURVE	TO	TURNOUT		
		EX / (E)	EXISTING	LHTO	LEFT HAND TURNOUT	PCC	PORTLAND CEMENT CONCRETE	T/	TOP OF		
		EXIST	EXISTING	LP	LOW POINT / LIGHT POLE	PE	POLYETHYLENE	T/P	TOP OF PIPE		
CB	CATCH BASIN	E.W.	EACH WAY	LT	LEFT	PP	POWER POLE	TBD	TO BE DETERMINED		

SUBCONSULTANT:		PRIME CONSULTANT:		PROFESSIONAL SEAL:		ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026		REVISIONS:		PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203		SHEET TITLE: LEGEND AND ABBREVIATIONS SHEET	
												PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG	
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EXISTING CONDITIONS NOTES:

1. VERIFICATION OF EXISTING FIELD CONDITIONS: INSPECT THE PROJECT SITE AND BECOME FAMILIAR WITH ALL EXISTING FIELD CONDITIONS, TRAFFIC, ONGOING OPERATIONS, AND OTHER WORK OR CONDITIONS THAT AFFECT THE EXECUTION OF THE WORK.
2. DEVIATIONS FROM EXISTING CONDITIONS: IMMEDIATELY NOTIFY OWNER OF ALL DEVIATIONS BETWEEN EXISTING SITE CONDITIONS DEPICTED IN THE CONTRACT DOCUMENTS AND ACTUAL FIELD CONDITIONS, PRIOR TO STARTING WORK.
3. EXISTING INFORMATION SHOWN ON DRAWINGS: INFORMATION SHOWN ON THE DRAWINGS AND SURVEY CONCERNING FEATURES AND UTILITIES IS NEITHER GUARANTEED NOR ALL-INCLUSIVE. THE LOCATION, MATERIAL, AND DIMENSIONS OF EXISTING FACILITIES AND OBSTRUCTIONS ARE BASED UPON SURVEY OR ABOVEGROUND UTILITY STRUCTURES AND AVAILABLE RECORDS (WHERE AVAILABLE) AND ARE SHOWN ON THE PLANS STRICTLY AS AN AID TO THE CONTRACTOR BUT SHALL NOT BE CONSTRUED AS BEING ACCURATE OR COMPLETE. THE CONTRACTOR SHALL VERIFY THE FEATURES PRIOR TO CONSTRUCTION.
4. PROTECTION OF EXISTING STRUCTURES AND UTILITIES: USE CAUTION WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR EXISTING BRIDGES, ROADWAYS, UTILITIES, ADJACENT BUILDINGS AND ANY FACILITIES NEAR THE CONTRACTOR'S OPERATIONS. PROPERLY SUPPORT AND MAINTAIN ALL STRUCTURES ABOVE OR BELOW GROUND THAT ARE ENCOUNTERED DURING CONSTRUCTION. MAKE ALL ARRANGEMENTS WITH THE OWNER'S REPRESENTATIVE FOR THE PROTECTION, RELOCATION, RECONSTRUCTION OR ADJUSTMENT OF EXISTING STRUCTURES, AS REQUIRED IN THE FIELD. ALL DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. UNDERGROUND UTILITIES: IF EXISTING SUBSURFACE DRAINAGE OR OTHER UTILITY SYSTEMS THAT ARE NOT SHOWN ON THE DRAWINGS ARE ENCOUNTERED, MAINTAIN AND PRESERVE THE UTILITY SYSTEMS.
6. DEMOLITION AND ABANDONMENT: ALL ITEMS PROPOSED FOR ABANDONMENT, RELOCATION OR DEMOLITION SHALL BE MARKED BY THE CONTRACTOR FOR REVIEW BY THE OWNER. NO ITEM SHALL BE ABANDONED, RELOCATED OR DEMOLISHED UNTIL APPROVED BY THE OWNER.
7. REMOVAL AND DISPOSAL: ALL MATERIALS TO BE DEMOLISHED AND REMOVED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED. SUCH MATERIALS SHALL BE HAULED OFF THE SITE AND DISPOSED OF LEGALLY, UNLESS OTHERWISE NOTED.
8. MAINTAINING ACCESS TO ADJACENT FACILITIES: PHASE AND COMPLETE CONSTRUCTION TO MAINTAIN ACCESS, RAIL SERVICE AND FULL FACILITY OPERATIONS TO ALL ADJACENT OWNERS' AND TENANTS' FACILITIES THROUGHOUT CONSTRUCTION.

GENERAL NOTES:

1. COMPLIANCE WITH REGULATIONS: BECOME THOROUGHLY FAMILIAR WITH AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL STATUTES, ORDINANCES AND DIRECTIVES.
2. ALL HORIZONTAL AND VERTICAL DISTANCES ARE IN FEET AND/OR DECIMALS OF FOOT EXCEPT AS NOTED OTHERWISE ON THE PLANS.
3. GEOTECHNICAL INVESTIGATION: THOROUGHLY REVIEW AND COMPLY WITH THE GEOTECHNICAL REPORT REFERENCED ON SHEET G-001 AND GEOTECHNICAL INFORMATION ON THE BASIS OF DESIGN REPORT.
4. SAFETY AND PROTECTION: ALL BARRICADES, WARNING SIGNS, LIGHTS, DEVICES AND OTHER SAFETY FACILITIES FOR THE GUIDANCE AND PROTECTION OF TRAFFIC AND PEDESTRIANS MUST CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL TRAFFIC SIGNS SHALL HAVE REFLECTIVE SURFACE. MAKE DAILY INSPECTIONS OF BARRICADES AND FLASHING LIGHTS TO ENSURE PROPER FUNCTIONING OF WARNING DEVICES.
5. NOISE, AIR AND WATER QUALITY: TAKE ALL MEASURES TO ELIMINATE EXCESSIVE NOISE AND ELIMINATE POLLUTION OF AIR AND WATER RESULTING FROM CONSTRUCTION OPERATIONS AND EQUIPMENT. IMPLEMENT ALL MEASURES NECESSARY TO CONTROL DUST, SMOKE AND FUMES FROM CONSTRUCTION EQUIPMENT AND FROM OPERATIONS ON THE WORK SITE IN COMPLIANCE WITH AIR QUALITY REGULATIONS. KEEP JOB SITE FREE OF DEBRIS AT ALL TIMES. DISCHARGE OF OILY, GREASY OR CHEMICAL WASTES INTO WATERWAYS AND SEWERS SHALL NOT BE PERMITTED.
6. EMERGENCY FIRE ACCESS: MAINTAIN EMERGENCY FIRE ACCESS TO THE SITE AND TO NEIGHBORING PROPERTIES AT ALL TIMES THROUGHOUT CONSTRUCTION.

7. HAUL ROUTES: COORDINATE AND OBTAIN PERMITS AND APPROVALS FOR ALL HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE AGENCIES HAVING JURISDICTION. HAUL ROUTES SHALL BE SELECTED TO MINIMIZE INTERFERENCE WITH OWNER, CITY AND LOCAL COMMERCIAL OPERATIONS. MAINTAINING HAUL ROUTES AND RESTORING THEM TO THE ORIGINAL CONDITION UPON COMPLETION OF WORK SHALL BE SOLELY AT THE CONTRACTOR'S EXPENSE. KEEP EXISTING PAVED AREAS FREE FROM DIRT TRACKED BY HEAVY EQUIPMENT OPERATIONS, SWEEP AND WASH DOWN ALL HAUL ROUTES OVER PUBLIC STREETS AND PAVED FACILITIES TO/FROM THE CONSTRUCTION AREA. A SWEEPER IS REQUIRED AT ALL TIMES THE CONTRACTOR IS WORKING.
8. TRAFFIC CONTROL: PROVIDE TRAFFIC CONTROL CONFORMING TO CALTRANS AND PERMIT AGENCY STANDARDS.
9. SHORING, BRACING AND FALSEWORK: PROVIDE TEMPORARY SHORING, BRACING AND FALSEWORK TO SUPPORT AND PROTECT ALL AREAS AFFECTED BY THE WORK. BEFORE EXCAVATING 5 FEET OR MORE IN DEPTH, SUBMIT A SHORING PLAN WITH THE DETAILS OF THE PROPOSED EXCAVATION. THE SUBMITTAL TO THE OWNER SHALL BE SIGNED AND STAMPED BY A LICENSED ENGINEER IN THE STATE OF CALIFORNIA, WHICH INCLUDES ALL DETAILS, DESIGNS AND PROCEDURES OF SHORING, BRACING AND FALSEWORK TO BE USED. THE MAXIMUM SLOPE INCLINATIONS SHALL COMPLY WITH OSHA.
10. VERIFICATION OF DIMENSIONS: VERIFY ALL FIELD DIMENSIONS AND CLEARANCES PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
11. CONSTRUCTION STAGING AREA: CONTRACTOR'S CONSTRUCTION STAGING AREA WILL BE IDENTIFIED BY THE OWNER PRIOR TO BEGINNING CONSTRUCTION.
12. ON-SITE CONSTRUCTION ACCESS: CONTRACTOR'S ON-SITE CONSTRUCTION ACCESS ROUTES WILL BE IDENTIFIED BY THE OWNER PRIOR TO BEGINNING CONSTRUCTION.
13. PERMITS: THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO START OF WORK.
14. CONTAMINATED SOILS: IN THE EVENT THAT UNEXPECTED REGULATED SUBSTANCES ARE ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, ORDINANCES AND DIRECTIVES WITH RESPECT TO HANDLING AND DISPOSAL OF SUCH SUBSTANCES IN ACCORDANCE WITH PROJECT SAFETY DIRECTIVES. CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY OWNER PRIOR TO PROCEEDING. COSTS FOR HANDLING AND DISPOSAL OF CONTAMINATED MATERIALS SHALL BE NEGOTIATED WITH THE OWNER PRIOR TO THE BEGINNING OF ANY REMEDIATION WORK.
15. MONUMENTS: RESET ANY PROPERTY, LOT OR SECTION CORNER MONUMENTS DISTURBED BY CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO OWNER. RESET MONUMENTS UNDER THE DIRECT SUPERVISION OF A REGISTERED LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
16. BURNING: NO BURNING OR INCINERATION OF RUBBISH IS PERMITTED ON SITE.
17. EROSION CONTROL: INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES NEEDED TO PREVENT EROSION OF SOILS. REFER TO THE EROSION CONTROL NOTES FOR MORE INFORMATION.
18. PRE-CONSTRUCTION MEETING: ARRANGE FOR AND PARTICIPATE IN AN ON-SITE PRE-CONSTRUCTION MEETING WITH OWNER, RAILROAD, AND TENANTS THAT USE THE OVERHEAD UTILITIES, AS APPLICABLE. HOLD MEETING AT LEAST ONE WEEK PRIOR TO START OF WORK.
19. REGULAR CONSTRUCTION MEETINGS: PARTICIPATE IN WEEKLY ON-SITE CONSTRUCTION MEETINGS WITH OWNER, RAILROAD, AND TENANT USERS WORKING ON-SITE ASSURE ADHERENCE TO SCHEDULE AND TO AVOID IMPACTS TO ADJACENT PROPERTY OWNERS.
20. MATERIALS TESTING: CONTRACTOR WILL BE RESPONSIBLE TO BEAR COST FOR AND CONDUCT TESTING. COSTS FOR RE-TESTING OF WORK NOT IN COMPLIANCE WILL BE CHARGED TO CONTRACTOR BY REDUCING PAYMENT TO CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST 48 HOURS IN ADVANCE OF ALL SOIL AND ASPHALT COMPACTION AND TESTING FOR CONCRETE COMPRESSIVE STRENGTH.
21. SPECIAL INSPECTIONS: THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING STRUCTURAL ENGINEER TO CONFIRM THE SCOPE OF WORK THAT REQUIRES INSPECTION. THE CONTRACTOR SHALL NOTIFY THE PERMIT AGENCY AT LEAST 48 HOURS IN ADVANCE OF WORK THAT REQUIRES PERMIT AGENCY INSPECTION.
22. TEMPORARY FACILITIES: ARRANGE FOR AND PAY FOR ALL REQUIRED TEMPORARY FACILITIES AND TEMPORARY UTILITIES. REMOVE ALL TEMPORARY FACILITIES PRIOR TO COMPLETION OF WORK.
23. EXCAVATED SOIL: CONTRACTOR SHALL COORDINATE WITH THE PORT ON DISPOSING EXCAVATED SOIL AT AN APPROVED LOCATION WITHIN PORT PREMISES.

24. RECORD DRAWINGS: WITHIN TWO WEEKS OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER, PROVIDE CLEAN, RED-LINED RECORD DRAWINGS INDICATING ALL CONSTRUCTION CHANGES MADE. PROVIDE THESE DRAWINGS TO THE OWNER FOR USE IN DEVELOPING CONSTRUCTION RECORD DRAWINGS. FOR FOOTINGS, INCLUDE SIZE, LENGTH AND LOCATIONS OF PIERS, SEQUENCE OF PLACEMENT AND FINAL BASE AND TOP ELEVATIONS.
25. COSTS INCIDENTAL TO CONTRACT: ALL ITEMS DEPICTED IN THE CONTRACT DOCUMENTS THAT ARE NOT ITEMIZED SEPARATELY ARE INCIDENTAL TO THE CONTRACT AND SHALL BE INCLUDED AS PART OF THE CONTRACTOR'S SCOPE OF WORK.
26. REMOVAL AND CLEAN-UP: PROVIDE REGULAR SITE CLEARING AND FINAL SITE CLEANING AT COMPLETION OF PROJECT.
27. CONSTRUCTION DEWATERING: GROUNDWATER WAS ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION. THE CONTRACTOR CAN EXPECT TO ENCOUNTER GROUNDWATER AT LEVELS OF APPROXIMATELY 5 FEET TO 7 FEET BELOW EXISTING GROUND SURFACE. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A CONSTRUCTION DEWATERING PLAN IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT RECOMMENDATIONS AND WHICH MEETS LOCAL REGULATORY REQUIREMENTS.
28. ADDITIONAL REQUIREMENTS: SEE STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS AND STRUCTURAL MATERIAL NOTES.

CONSTRUCTION PHASING NOTES:

1. WORKING IN CONCERT WITH THE OWNER, DEVELOP A DETAILED PROPOSED CRITICAL PATH METHOD (CPM) CONSTRUCTION SCHEDULE PRIOR TO STARTING WORK AND SUBMIT TO OWNER FOR REVIEW. SCHEDULE SHALL COMPLY WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, SHALL BE IN MICROSOFT PROJECT FORMAT. OWNER'S COMMENTS ON THE SCHEDULE SHALL BE INCORPORATED INTO A FINAL SCHEDULE. SCHEDULE SHALL BE UPDATED AND RESUBMITTED TO REFLECT ANTICIPATED CHANGES THAT OCCUR DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE THE RAILROAD WITH A PHASING PLAN, INDICATING THE SCHEDULE AND DURATION FOR ANY TRACK OUTAGES. THE MAXIMUM ALLOWABLE CUTOVER WINDOW SHALL BE 4 HOURS AND IS CONTINGENT ON WRITTEN RAILROAD APPROVAL.
3. THE CONSTRUCTION SEQUENCE DESCRIBED BELOW IS INTENDED AS A GENERAL DESCRIPTION OF ACTIVITIES AND TIMEFRAMES. ACTUAL OPERATING CONDITIONS AND PROGRESS OF OTHER CONSTRUCTION CONTRACTS MAY DICTATE ADJUSTMENTS TO THE PLANNED CONSTRUCTION SEQUENCE. ITEMS NOTED IN PARENTHESES ARE ACTIVITIES BY OTHERS THAT MAY AFFECT THE TIMING OF CONSTRUCTION UNDER THIS CONTRACT.

WESTERN OVERHEAD PIPELINE

- a. COORDINATE WITH RAILROAD TO PROCURE FLAGGING PROTECTION SERVICES FOR PERFORMING WORK ADJACENT TO LIVE TRACK.
- b. CONSTRUCT NEW FOUNDATIONS FOR PIPELINE SUPPORT COLUMNS PER PLANS. INSTALL COLUMNS ON THE PIPELINE FOUNDATIONS.
- c. PERFORM ROADWAY REMOVAL WORK ON PORT ROAD 13 AND INSTALL PROTECTION BOLLARDS ALONG PORT RD A.
- d. ASSEMBLE PIPE BRIDGE SUPERSTRUCTURE FRAME OFFLINE AWAY FROM LIVE TRACK AND WELD BAR GRATING AND AND HANDRAILS TO THE BEAM LAYOUT.
- e. COORDINATE WITH MEP CONTRACTOR TO INSTALL AND SECURE NEW PIPING ON THE NEW PIPE FRAME.
- f. INSTALL TRACK PROTECTIVE COVER WITH SUPPORTING FALSEWORK OR SIMILARLY APPROVED PROTECTION MEASURE.
- g. ERECT NEW STRUCTURAL FRAME AND PIPING AND WELD THEM TO THE NEW SUPPORT COLUMNS.
- h. COORDINATE WITH UTILITY USER FOR TIME WINDOWS WHEN SERVICE FOR THE OVERHEAD PIPELINES MAY BE SHUTOFF. PROVIDE AT LEAST 48 HOURS' ADVANCE NOTICE BEFORE COMMENCING WORK.
- i. AFTER UTILITY SERVICE IS SHUTOFF, REMOVE EXISTING SUPPORT FRAME AND PIPES. PROVIDE ADDITIONAL TEMPORARY PIPELINE SUPPORT AS NECESSARY.
- j. REMOVE THE OLD PIPELINE SUPPORT COLUMNS AND FOUNDATIONS, TRACK COVER, AND FLAGGING PROTECTION.

EASTERN OVERHEAD PIPELINE

- a. COORDINATE WITH RAILROAD TO PROCURE FLAGGING PROTECTION SERVICES FOR PERFORMING WORK ADJACENT TO LIVE TRACK.
- b. INSTALL TRACK PROTECTIVE COVER WITH SUPPORTING FALSEWORK OR SIMILARLY APPROVED PROTECTION MEASURE.
- c. REMOVE PORTION OF THE OVERHEAD PIPELINE BETWEEN THE ENDS TO BE CAPPED PER PLANS.
- d. CAP PIPE ENDS PER APPROPRIATE MEANS AND METHODS AT THE TWO LOCATIONS SHOWN ON PLANS.
- e. DEMOLISH THE PIPE SUPPORT FRAME AND ALL INTERMEDIATE PIPE SUPPORTS IN BETWEEN THE CAPPED ENDS. PROTECT THE PIPELINE FOUNDATIONS IN PLACE AT THE CAPPED ENDS.

EROSION CONTROL PRE-CONSTRUCTION NOTES:

1. PRE-CONSTRUCTION INSPECTION: CONDUCT A PRE-CONSTRUCTION INSPECTION AND BECOME FAMILIAR WITH EXISTING CONDITIONS.
2. EMERGENCY CONTACT INFORMATION: POST ALL CONTRACTOR'S EMERGENCY CONTACT INFORMATION AT THE CONSTRUCTION SITE AND PROVIDE TO OWNER FOR USE IN CASE OF EMERGENCY
3. ESTABLISHMENT OF WORK AREAS: EQUIPMENT STORAGE SITES, PLANT SITES, HAUL ROADS, WASH-DOWN AREAS AND OTHER SPECIAL WORK AREAS SHALL BE INSTALLED BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES AT THE SITE.
4. ESTABLISHMENT OF EMERGENCY RESOURCES: EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE READILY AVAILABLE AT ALL TIMES DURING THE RAINY SEASONS. STOCKPILE EXTRA MATERIALS AT ACCESSIBLE LOCATIONS ON-SITE TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PREPARE AN EROSION CONTROL PLAN AND SUBMIT TO OWNER FOR APPROVAL PRIOR TO START OF CONSTRUCTION.
2. END OF DAY PROCEDURES: AT THE END OF EACH WORKING DAY WHEN THE TWO (2) DAY RAIN PROBABILITY FORECAST EXCEEDS FIFTY (50) PERCENT, VERIFY THAT ALL REMOVABLE PROTECTIVE DEVICES ARE IN PLACE.
3. CLEARING OF DEBRIS AFTER RAIN: REMOVE ALL SILT AND DEBRIS FROM EROSION CONTROL DEVICES AFTER EACH RAIN EVENT.
4. PUBLIC PROTECTION: TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER COULD CREATE HAZARDOUS CONDITIONS.
5. WEEKLY INSPECTION: INSPECT EROSION CONTROL FACILITIES AT LEAST WEEKLY, AND AFTER EVERY RAINFALL EVENT GREATER THAN 0.5 INCHES.
6. MAINTENANCE OF TEMPORARY EROSION CONTROL FACILITIES: MAINTAIN ALL TEMPORARY EROSION CONTROL FACILITIES TO PREVENT EROSION AND TO CONTROL SILTATION AT ALL TIMES DURING CONSTRUCTION. MAKE REPAIRS WHEN NEEDED AND REMOVE TRAPPED SEDIMENT AT ANY TIME THE FACILITY'S CAPACITY IS REDUCED BY 25%.
7. STORM DRAIN STRUCTURE PROTECTION: PROMPTLY PROTECT ALL EXISTING AND NEW STORM DRAIN STRUCTURES WITH SILT FENCE OR OTHER INLET PROTECTION. DEVICES SHALL BE MAINTAINED UNTIL TRUCKING, EARTHWORK AND PAVING OPERATIONS ARE COMPLETED. PLACE ROCK CHANNEL PROTECTION AT THE ENDS OF ALL STORM DRAIN INLETS UPON COMPLETION OF INSTALLATION.
8. OWNER, ENGINEER AND PERMIT AGENCY MODIFICATIONS: THE OWNER, ENGINEER AND LOCAL AGENCY REPRESENTATIVES RESERVE THE RIGHT TO DIRECT CHANGES OR MODIFICATIONS TO EROSION AND SEDIMENTATION FACILITIES AND PROCEDURES AS DEEMED NECESSARY.
9. MAINTAIN EXISTING DRAINAGE FEATURES: NO OBSTRUCTION OR DISTURBANCE OF NATURAL DRAINAGE COURSES OR EXISTING STORM DRAIN INLETS SHALL OCCUR DURING THE RAINY SEASON, UNLESS ADEQUATE TEMPORARY/ PERMANENT DRAINAGE FACILITIES HAVE BEEN APPROVED AND INSTALLED TO CARRY SURFACE WATER TO THE NEAREST PRACTICAL STREET, STORM DRAIN OR NATURAL WATER COURSE.
10. CONTROL OF RUNOFF: THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER THAT STORM RUNOFF WILL BE CONTAINED WITHIN THE PROJECT OR CHanneled INTO THE STORM DRAIN SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE ALLOWED TO DIVERT TO ANOTHER RUNOFF AREA.
11. THE CONTRACTOR'S VEHICLES LEAVING THE SITE AT ANY TIME SHALL BE HOSED AND WASHED CLEAN OF MUD AND DIRT CLINGING TO WHEELS AND EXTERIOR BODY SURFACE.
12. ALL TRUCKS LEAVING THE SITE SHALL BE LOADED IN A MANNER THAT WILL PREVENT DROPPING OF MATERIALS ON THE STREETS AND, WHEN NECESSARY, SHALL HAVE SUITABLE TARPULINS FASTENED OVER THE LOAD BEFORE ENTERING SURROUNDING PAVED STREETS. TRUCKS BRINGING MATERIAL OVER PAVED STREETS TO THE SITE SHALL BE SIMILARLY LOADED AND COVERED.
13. CONTRACTOR SHALL MAINTAIN ADJACENT STREETS CONTINUOUSLY FREE OF DIRT AND DEBRIS RESULTING FROM THEIR OPERATIONS AND MUST PROVIDE STREET CLEANING AS NECESSARY AS DIRECTED BY THE OWNER.

14. ALL SURPLUS OR REJECTED MATERIAL, REFUSE TOOLS, AND DEBRIS THAT MAY ACCUMULATE ON THE PREMISES DURING THE CONSTRUCTION PERIOD SHALL BE REMOVED FROM TIME TO TIME, AND ON COMPLETION OF WORKS ALL DEBRIS SHALL BE REMOVED AND THE PREMISES THOROUGHLY BROOM-CLEANED.
15. CONFORMANCE WITH THE REQUIREMENTS OF THIS PLAN SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TO THIS SITE AND ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS DEEMED NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.
16. CLEARING AND GRUBBING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS WHICH HAVE BEEN CLEARED AND GRUBBED PRIOR TO GRADING OPERATION, AND WHICH ARE SUBJECT TO RUNOFF DURING THE PERIOD OF THE RAINY SEASON. THESE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, GRADED DITCHES, BRUSH BARRIERS AND SILT FENCES. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND THE LIMITS OF GRADING.
17. THE OWNER APPROVAL OF PLANS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE PERMIT AGENCY FOR APPROVAL.
18. SANDBAGS SHALL NOT BE PLACED AT CONTRACTOR'S ACCESS TO THE SITE. CONTRACTOR'S ACCESS LOCATION TO BE APPROVED BY THE OWNER.

UTILITIES NOTES:

- COMPLY WITH PORT'S DIVISION 1 SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
1. VERIFICATION OF EXISTING UTILITY LINES: UTILITY LINES MAY BE PRESENT, EVEN IF NOT SHOWN ON THE DRAWINGS. THESE COULD INCLUDE FIBER OPTIC, FUEL, GAS OR SIMILAR LINES. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY OWNER PRIOR TO CONSTRUCTION MOBILIZATION. NO WORK IN PROXIMITY TO EXISTING UTILITIES SHALL BE PERFORMED WITHOUT OWNER APPROVAL.
2. PG&E WORK: PG&E WILL RELOCATE ONE DISTRIBUTION POLE AND REALIGN AND RAISE 12 KV POWER LINE ADJACENT TO PROJECT WORK AREA. CONTRACTOR SHALL COORDINATE WITH PG&E TO PERFORM ALL WORK SAFELY.
3. EXCAVATION NEAR ACTIVE UTILITIES: ALL EXCAVATION NEAR EXISTING CABLES OR OTHER NON-ABANDONED EXISTING UTILITY LINES SHALL BE PERFORMED BY HAND. ALL CABLES OR OTHER EXISTING UTILITY LINES THAT ARE DAMAGED SHALL BE REPAIRED IMMEDIATELY, UNDER THE UTILITY OWNER'S DIRECTION AND AT THE CONTRACTOR'S EXPENSE. DURING THE PERIOD OF TIME THAT EXISTING CABLES OR UTILITIES ARE OUT OF SERVICE, DUE TO THE CONTRACTOR'S OPERATIONS, ALL CONTRACT WORK SHALL BE SUSPENDED UNLESS OTHERWISE DIRECTED BY THE OWNER. THE CONTRACTOR SHALL NOT BE ALLOWED TO MAKE CLAIMS FOR EXTRA COSTS OR TIME EXTENSIONS DUE TO SUCH STOPPAGES OF WORK.
4. EXISTING UTILITY POINTS OF CONNECTION AND CROSSINGS: CONTRACTOR SHALL POTHOLE AND SURVEY THE LOCATION OF ALL UTILITY POINTS OF CONNECTION AND CROSSING UTILITIES INCLUDING SIZE, MATERIAL AND INVERT ELEVATIONS, AND PROVIDE TO OWNER PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE UTILITY OWNER PRIOR TO PERFORMING ANY POTHOLE WORK.
5. COORDINATION WITH MEP CONTRACTOR: CONTRACTOR SHALL COORDINATE WITH THE MEP CONTRACTOR AS NEEDED TO FACILITATE REQUIRED ACTIVITY OVERLAP DURING WORK WINDOWS, INCLUDING INSTALLATION OF PIPING ON NEW FRAME, RECONNECTING THE PIPELINES TO EXISTING, AND REMOVAL OF ALL PIPING ON OLD FRAMES. MEP WORK IS NOT PART OF THE SCOPE OF THIS PACKAGE.

SITE CIVIL MATERIAL NOTES:

1. OWNER AND ENGINEER SUBMITTALS: SUBMIT PRODUCT DATA CONCURRENTLY TO OWNER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION FOR ALL MATERIALS SHOWN ON THE PLANS.
2. MATERIAL SPECIFICATIONS: ALL PRODUCT MATERIAL SPECIFICATIONS SHALL MEET THE CBC AND LOCAL JURISDICTION STANDARDS. IN THE CASE OF CONFLICT BETWEEN THE STATE AND THE LOCAL STANDARDS, THE LOCAL STANDARDS SHALL GOVERN.
3. REFER TO STRUCTURAL DRAWINGS FOR DETAILS AND SPECIFICATIONS ON STRUCTURAL MATERIALS INCLUDING STRUCTURAL CONCRETE (FOUNDATIONS), PIPE SUPPORT COLUMNS, PIPE SUPPORT FRAMES, AND WELDING PROCEDURES.

		 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com		ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026	REVISIONS: <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>1</td><td>08/31/2026</td><td>ISSUED FOR BID - REV 01</td></tr><tr><td>0</td><td>04/27/2026</td><td>ISSUED FOR BID</td></tr><tr><td>MARK</td><td>DATE</td><td>DESCRIPTION</td></tr></table>																1	08/31/2026	ISSUED FOR BID - REV 01	0	04/27/2026	ISSUED FOR BID	MARK	DATE	DESCRIPTION	 PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203	SHEET TITLE: GENERAL NOTES <table><tr><td>PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG</td><td>SHEET NO. G-003 SHEET 3 OF 22</td></tr></table>	PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG	SHEET NO. G-003 SHEET 3 OF 22
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WORK OVER RAILROAD NOTES:

1.

CONTRACTOR SHALL DEVELOP A WORK PLAN ASSUMING THAT MINIMAL TRACK WINDOWS WILL BE AVAILABLE.
2.

RAILROAD’S TRACK AND PORT PROPERTY SHALL BE PROTECTED AT ALL TIMES.
3.

ALL REMOVED MATERIALS SHALL BE DISPOSED OF OUTSIDE OWNER RIGHT-OF-WAY AT NO EXPENSE TO OWNER OR RAILROAD.
4.

NO WORK IS ALLOWED WITHIN 50’ OF NEAREST RAIL WHEN TRAINS PASS THE WORK SITE.
5.

STAGED DEMOLITION OF PORTIONS OF STRUCTURE IMMEDIATELY ADJACENT TO OPERATIONAL TRACKS SHALL NOT JEOPARDIZE INTEGRITY OF STRUCTURE OVER SAID TRACKS UNTIL ACTUAL REMOVAL OF PORTION OF THE STRUCTURE OVER THE TRACKS IS BEING DONE.
6.

A FLAGMAN IS REQUIRED WHEN ANY WORK IS PERFORMED WITHIN 25 FEET OF THE NEAREST RAIL.
7.

CONTRACTOR SHALL SUBMIT TO THE OWNER AND RAILROAD A REMOVAL PLAN SET FOR REVIEW AND COMMENT INCLUDING THE FOLLOWING:

A.

PLAN, ELEVATION AMD LOCATION OF OVERHEAD STRUCTURE.

B.

POSITION AND DESIGNATION OF ALL RAILROAD TRACKS UNDERNEATH STRUCTURE.

C.

STRUCTURE REMOVAL SEQUENCE AND PROCEDURE INCLUDING STAGING FOR THE REMOVED COMPONENTS.

D.

TYPE AND NUMBER OF EQUIPMENT REQUIRED AND THEIR LOCATIONS DURING OPERATIONS.

E.

LOCATION AND TYPE OF TEMPORARY SUPPORTS, SHORING OR BRACING REQUIRED. MEMBERS SHALL BE DESIGNED PER UPRR STANDARD DRAWING 106613 "GENERAL SHORING REQUIREMENTS", "GUIDELINES FOR DESIGN AND CONSTRUCTION OF FALSEWORK FOR STRUCTURES OVER UNION PACIFIC RAILROAD", AND "GUIDELINES FOR DESIGN AND CONSTRUCTION OF SHORING ADJACENT TO ACTIVE RAILROAD TRACKS".

F.

PROPOSED VERTICAL AND HORIZONTAL CLEARANCE FROM ALL TRACKS TO TEMPORARY SUPPORTS.

G.

DETAILS, LIMITS, AND LOCATIONS OF PROTECTIVE COVERS OR OTHER MEASURES PROPOSED TO PROTECT THE TRACKS, INCLUDING FROM FALLING DEBRIS DURING REMOVAL OR ERECTION ACTIVITIES.

H.

ALL OVERHEAD UTILITIES IN THE AREA AFFECTED BY REMOVAL OR ERECTION OF THE STRUCTURES SHALL BE LOCATED ON THE DRAWINGS.
8.

COORDINATE THE WORK SCHEDULE WITH THE RAILROAD. ALL WORK WITHIN THE TRACK AREA SHALL BE PERFORMED DURING THE TIME WINDOWS WHEN THE TRAINS ARE NOT PASSING THE WORK SITE.
9.

THE WORK PROGRESS SHALL BE REVIEWED AND LOGGED BY THE CONTRACTOR’S ENGINEER. SHOULD AN UNPLANNED EVENT OCCUR, THE CONTRACTOR SHALL INFORM THE OWNER AND RAILROAD AND SUBMIT PROCEDURE TO CORRECT OR REMEDY THE OCCURENCE.
10.

PRIOR TO PROCEEDING WITH BRIDGE REMOVAL, STRUCTURAL ENGINEER OF THEIR AUTHORIZED REPRESENTATIVE WORKING FOR THE CONTRACTOR SHALL INSPECT THE TEMPORARY SHORING SUPPORT FOR CONFORMITY WITH THE WORKING DRAWINGS.
11.

USE OF EQUIPMENT, INCLUDING CRANES AND CUTTING TORCHES SHALL COMPLY WITH THE REQUIREMENTS OUTLINED IN UPRR AND BNSF "GUIDELINES FOR PREPARATION OF A BRIDGE DEMOLITION AND REMOVAL PLANS FOR STRUCTURES OVER RAILROAD".

RAILROAD OPERATION NOTES:

1.

MAINTAIN RAILROAD OPERATIONS: THE CONTRACTOR’S WORK SHALL NOT INTERRUPT THE OPERATIONS OF THE RAILROAD WITHOUT PRIOR WRITTEN APPROVAL FROM THE RAILROAD REPRESENTATIVE.
2.

RAILROAD SAFETY: COMPLY WITH ALL RAILROAD SAFETY REQUIREMENTS FOR OPERATIONS NEAR LIVE TRACK.
3.

CONTRACTOR SAFETY TRAINING: ALL WORK WITHIN RAILROAD RIGHT-OF-WAY IS SUBJECT TO FEDERAL RAILWAY ADMINISTRATION (FRA) JURISDICTION AND HAS SPECIAL TRAINING AND SAFETY REQUIREMENTS. ALL CONSTRUCTION PERSONNEL ON SITE SHALL HAVE SUCCESSFULLY COMPLETED THE RAILROAD ON-LINE SAFETY COURSE. (WWW.CONTRACTORORIENTATION.COM). ALL PERSONNEL SHALL CARRY PAPER RECORD OF COURSE COMPLETION AT ALL TIMES WHILE ON SITE.
4.

FLAGGING: MAKE ARRANGEMENTS FOR FLAGGING WITH THE RAILROAD. FLAGGING IS REQUIRED WHEN PERSONNEL OR EQUIPMENT ARE WORKING WITHIN 25 FEET OF CENTER OF THE MAIN LINE OR ANY OTHER ACTIVE TRACK OR IF A PIECE OF EQUIPMENT LOCATED GREATER THAN 25 FEET HAS THE POTENTIAL TO FOUL THE TRACKS. ALL FLAGGING COSTS ARE AT THE CONTRACTOR’S EXPENSE.
5.

CLEARANCES: MAINTAIN ALL HORIZONTAL AND VERTICAL CLEARANCES IN ACCORDANCE WITH THE RAILROAD AND CALIFORNIA PUBLIC UTILITIES COMMISSION REQUIREMENTS.
6.

TRAINMAN’S WALKWAYS: MAINTAIN ALL WALKWAYS ADJACENT TO TRACKS IN ACCORDANCE WITH RAILROAD REQUIREMENTS AND CALIFORNIA PUBLIC UTILITIES COMMISSION GENERAL ORDER 118. NO OBSTRUCTIONS ARE PERMITTED IN THE WALKWAY WITHIN 8’-6" OF THE TRACK CENTER LINE.
7.

PROTECT EXISTING TRACKS: ANY EXCAVATION WITHIN 10 FEET FROM THE CENTERLINE OF EXISTING TRACKS SHALL BE PERFORMED IN A WORK WINDOW WHERE NO TRAINS ARE ALLOWED ON THE TRACK.

RAILROAD TRACK PROTECTION NOTES:

1.

THE TRACK PROTECTIVE COVER SHALL BE CONSTRUCTED BEFORE BEGINNING STRUCTURE REMOVAL WORK AND MAY BE SUPPORTED BY FALSEWORK OR MEMBERS OF THE EXISTING STRUCTURE.
2.

TYPE OF PROTECTIVE COVER SHALL BE PER UPRR TRACK SHIELD OR FRAME PROTECTION DETAIL. ACCEPTABLE METHODS FOR PROTECTING THE TRACKS ARE:

A.

DECKING SUPPORTED BY STRUCTURE OR SUSPENDED COVER FROM STRUCTURE ABOVE TRACK CLEARANCE ENVELOPE.

B.

TRACK SHIELD COVER OVER TRACKS PER UPRR REQUIREMENTS.

C.

FRAMED COVER OUTSIDE TRACK CLEARANCE ENVELOPE PER UPRR REQUIREMENTS.
3.

CONSTRUCTION EQUIPMENT SHALL NOT BE PLACED ON THE TRACKS UNLESS TRACKS ARE PROTECTED.

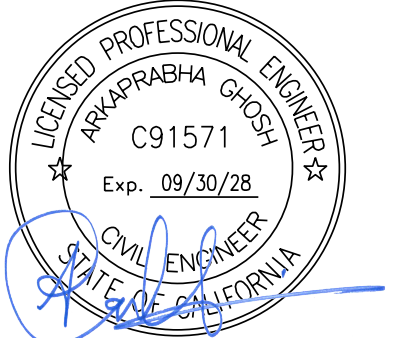
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PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

315 FYFFE AVENUE
STOCKTON, CA 95203

SHEET TITLE:

GENERAL NOTES

PROJ NO: 22340
SCALE: AS NOTED
DATE: 08/31/2026
DESIGNED BY: AG

SHEET NO.

G-004

SHEET

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22

IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING

QUANTITY SUMMARY TABLE

ITEM DESCRIPTION	QUANTITY	UNIT
SITEWORK — SITE PREPARATION AND DEMOLITION		
TRAFFIC CONTROL	1	LS
CLEARING AND GRUBBING	0.5	AC
REMOVE ASPHALT CONCRETE PAVEMENT	472	SF
REMOVE EXISTING STRUCTURAL FRAME & FOOTINGS	2	EA
SITEWORK — STRUCTURAL		
HSS14X0.312 COLUMNS	10	EA
WT 8X20	10	EA
W18X86 COLUMNS	6	EA
REINFORCED CONCRETE FOOTINGS	59	CY
42" HIGH HANDRAIL	286	LF
BAR GRATING	2,145	SQ FT
W10X15 HORIZONTAL BEAM	26	EA
W12X30 HORIZONTAL BEAM	3	EA
W24X84 HORIZONTAL BEAM	2	EA
W24X68 HORIZONTAL BEAM	2	EA
HSS 5X0.25 DIAGONAL BRACING	11	EA
HSS 5X5X1/4 VERTICAL BRACING	9	EA
W8X10 BEAM BRACING	6	EA
SITEWORK — MISCELLANEOUS		
BOLLARDS	5	EA
CAP AND ABANDON PIPELINE	2	EA
PIPELINE FRAME ACCESS LADDERS	4	EA
CLSM (200 PSI MINIMUM)	100	CU. FT.
TRACKWORK		
TRACK SHIELD PROTECTION	1	LS

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MARK	DATE	DESCRIPTION



PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

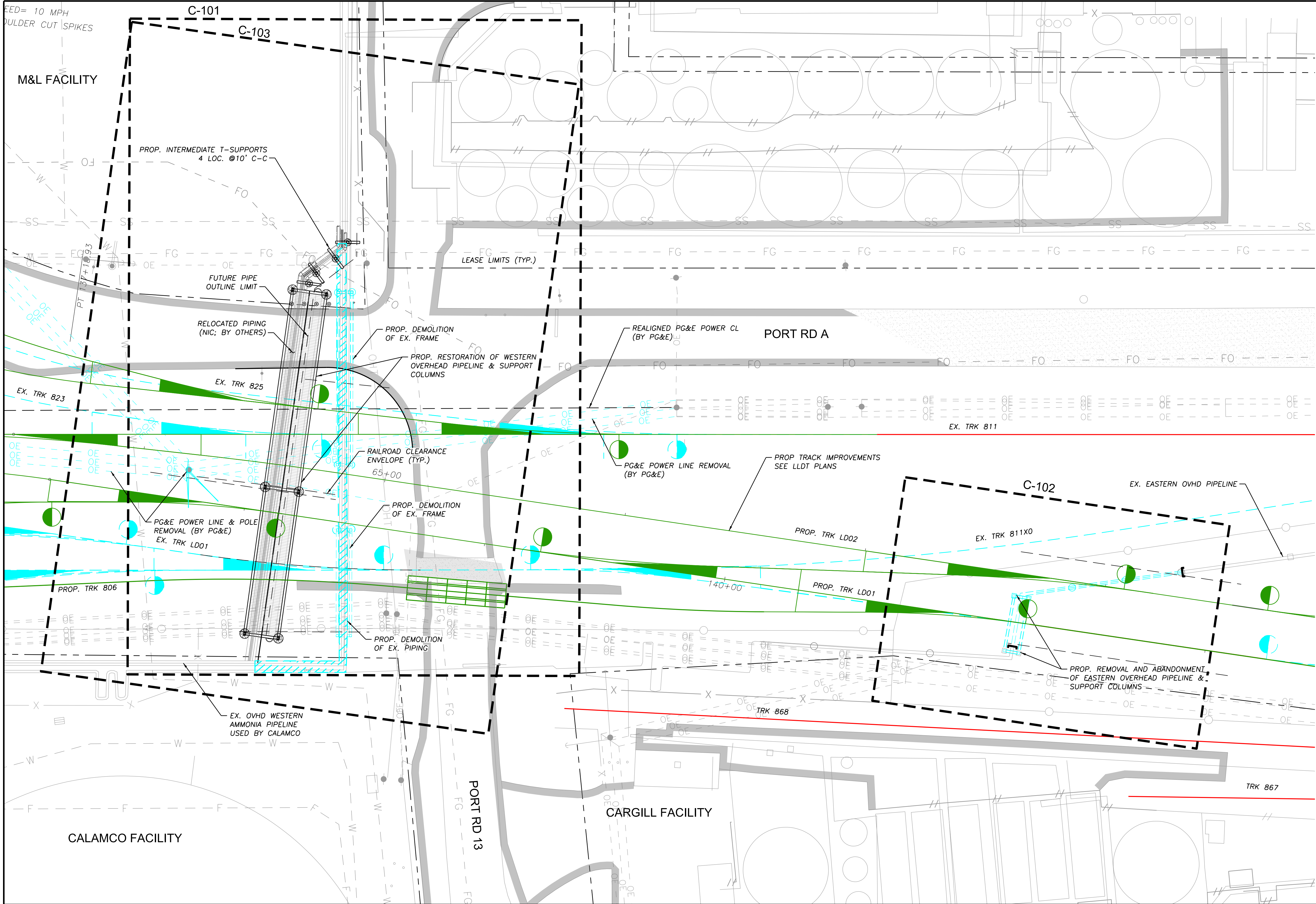
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SHEET TITLE:

QUANTITY SUMMARY TABLE

PROJ NO: 22340
SCALE: AS NOTED
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SHEET NO.
G-005
SHEET 5 OF 22



DESIGN NOTES:

- EXISTING TRACK ALIGNMENTS ARE BASED ON AERIAL SURVEY PERFORMED ON 04/23/2020 AND SUPPLEMENTAL MAPPING OF BNSF MAINLINE PERFORMED ON 03/08/2021. SUPPLEMENTAL GROUND SURVEY FOR TOP OF RAIL ELEVATIONS WAS PERFORMED ON 02/01/2023.
- HORIZONTAL COORDINATES ARE BASED ON CALIFORNIA STATE PLANE COORDINATE SYSTEM ZONE #3, NAVD83.
- VERTICAL DATUM IS BASED ON NGVD88.
- BENCHMARK FOR THE SURVEY IS CITY OF STOCKTON BENCHMARK NO. 305 STAMPED '10S-1' NEAR ENTRANCE TO PORT OF STOCKTON MAIN OFFICES.
- BNSF MILEPOSTS SHOWN ON PLANS ARE BASED ON BNSF VALMAP# 509306- MP 1121.5 STOCKTON SUB.
- SEE RAIL PLANS FOR DETAILS ON THE PROPOSED TRACK IMPROVEMENTS AND AT-GRADE CROSSING IMPROVEMENTS.
- SEE SHEETS C-601 AND C-602 FOR PROPOSED CONSTRUCTION PHASING FOR THE RESTORATION/ABANDONMENT OF THE OVERHEAD PIPELINES.
- UTILITIES SHOWN ON PLANS ARE BASED ON LATEST PORT GIS DATA. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES IN FIELD BEFORE COMMENCING CONSTRUCTION/REMOVAL WORK.
- REFER TO STRUCTURAL SHEETS OF THIS DESIGN PACKAGE FOR DETAILS PERTAINING TO PROPOSED STRUCTURAL MEMBERS AND FOOTINGS.
- THE DESIGN OF MEP COMPONENTS FOR RELOCATION OF THE AMMONIA PIPING TO THE NEW FRAME IS NOT INCLUDED AS PART OF THIS DESIGN PACKAGE AND WILL BE PERFORMED BY OTHERS.

SURVEY CONTROL POINTS:*

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP1	2163871.72	6306494.17	10.34	SET MAG
CP2	2172846.26	6307966.17	17.41	SET MAG
CP3	2174258.49	6308498.06	16.83	SET MAG
CP4	2169920.60	6308558.55	16.69	SET MAG
CP5	2166914.89	6309687.50	7.06	SET MAG
CP6	2175358.51	6310752.16	14.95	SET MAG
CP7	2172814.19	6311484.51	5.56	SET MAG
CP8	2175078.22	6312300.46	17.11	SET MAG
CP9	2171733.39	6312704.15	5.86	SET MAG
CP10	2169663.04	6313119.83	0.57	SET MAG
CP11	2169837.93	6314365.40	1.09	SET MAG
CP12	2166760.65	6314401.10	8.77	SET MAG
CP13	2164934.46	6314241.10	0.40	SET MAG
CP14	2164240.16	6314255.53	1.23	SET MAG
CP15	2173065.70	6315803.73	3.96	SET MAG
CP16	2175280.90	6316483.37	0.75	SET MAG
CP17	2169114.18	6319530.18	6.07	SET MAG
CP18	2171751.25	6321001.17	3.85	SET MAG
CP19	2167016.40	6321855.45	4.47	SET MAG
CP20	2163869.27	6323774.72	4.49	SET MAG
CP21	2163862.67	6327467.24	5.38	SET MAG
CP22	2166005.13	6327677.67	0.56	SET MAG
CP23	2169916.54	6328157.34	12.98	SET MAG
CP24	2171819.77	6328144.62	8.90	SET MAG

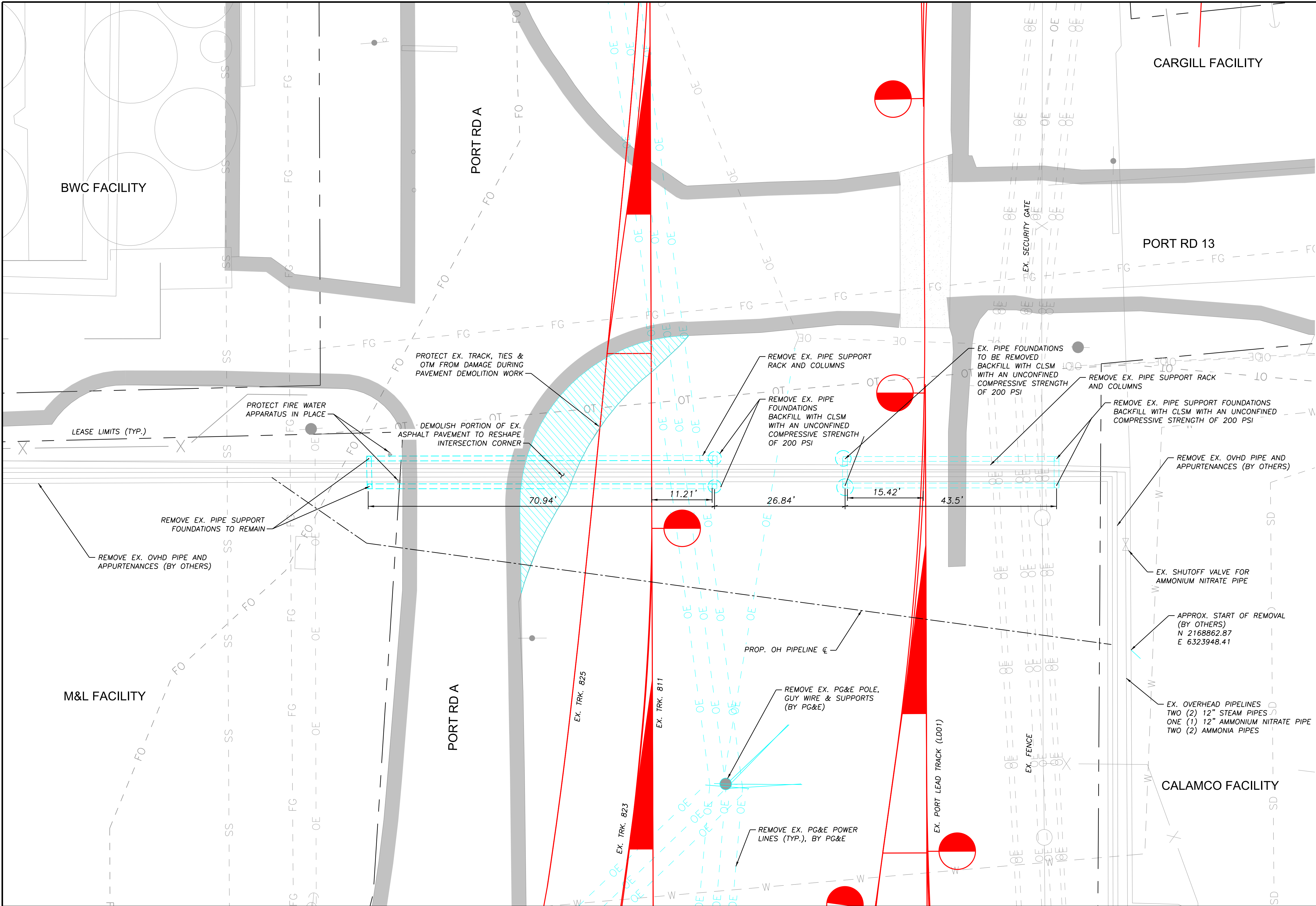
* OUTSIDE SHEET EXTENTS



0 20 40 60
SCALE
1" = 20'
FEET

SUBCONSULTANT:		SUBCONSULTANT:		PRIME CONSULTANT: 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com		PROFESSIONAL SEAL: 		ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026 ISSUE:		REVISIONS: <table><tr><th>MARK</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td>1</td><td>08/31/2026</td><td>ISSUED FOR BID - REV 01</td></tr><tr><td>0</td><td>04/27/2026</td><td>ISSUED FOR BID</td></tr></table>		MARK	DATE	DESCRIPTION	1	08/31/2026	ISSUED FOR BID - REV 01	0	04/27/2026	ISSUED FOR BID	 PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203		SHEET TITLE: OVERALL LAYOUT, CONTROL POINTS AND KEY MAP PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG		SHEET NO. G-100 SHEET 6 OF 22	
MARK	DATE	DESCRIPTION																								
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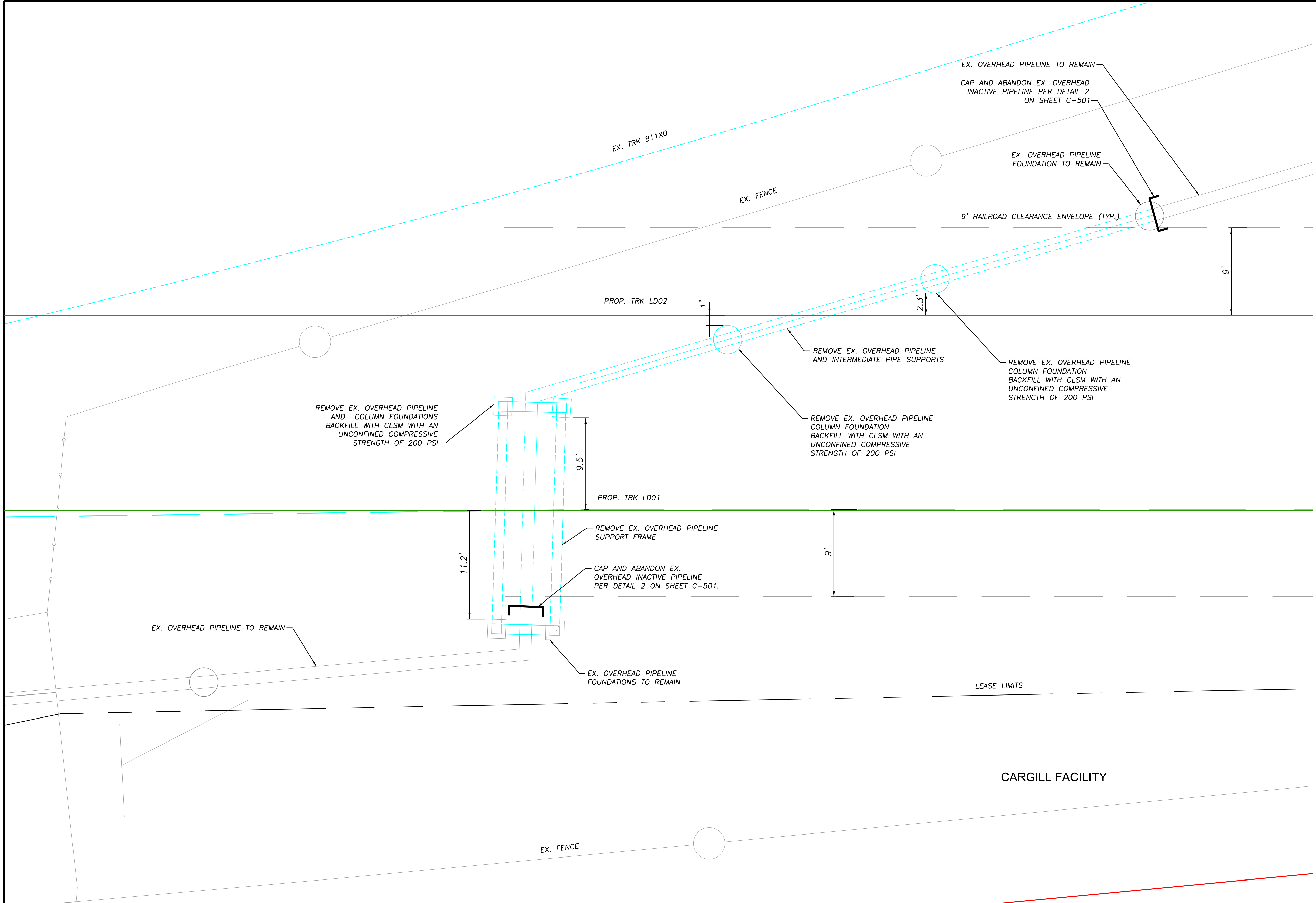
DESIGN NOTES:

1. REFER TO SHEETS G-003 & G-004 FOR PROJECT DESIGN NOTES.
2. CONTRACTOR TO PROTECT ALL OVERHEAD POWER AND COMMUNICATION LINES AND POLES IN THE VICINITY OF THE PROJECT SITE.
3. CONTRACTOR SHALL OBTAIN ABSOLUTE WORK WINDOW FROM CCTC (RAILROAD) BEFORE REMOVING THE EXISTING FOUNDATION ADJACENT TO LIVE TRACK. TRAINS SHALL NOT BE OPERATIONAL WHILE FOUNDATION HOLE IS LEFT OPEN.

SUBCONSULTANT:		PRIME CONSULTANT: 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com		PROFESSIONAL SEAL: 		ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026 ISSUE:		REVISIONS: <table><thead><tr><th>MARK</th><th>DATE</th><th>DESCRIPTION</th></tr></thead><tbody><tr><td>1</td><td>08/31/2026</td><td>ISSUED FOR BID - REV 01</td></tr><tr><td>0</td><td>04/27/2026</td><td>ISSUED FOR BID</td></tr></tbody></table>		MARK	DATE	DESCRIPTION	1	08/31/2026	ISSUED FOR BID - REV 01	0	04/27/2026	ISSUED FOR BID	 PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203		SHEET TITLE: WESTERN PIPELINE DEMOLITION PLAN PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG		SHEET NO. C-101 SHEET 8 OF 22	
MARK	DATE	DESCRIPTION																						
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0	04/27/2026	ISSUED FOR BID																						

DESIGN NOTES:

1. REFER TO SHEETS G-003 AND G-004 FOR PROJECT DESIGN NOTES.
2. CONTRACTOR SHALL OBTAIN ABSOLUTE WORK WINDOW FROM CCTC (RAILROAD) BEFORE RMEOVING THE EXISTING FOUNDATION ADJACENT TO LIVE TRACK. TRAINS SHALL NOT BE OPERATIONAL WHILE FOUNDATION HOLE IS LEFT OPEN.



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SUBCONSULTANT:

SUBCONSULTANT:

JMA
CIVIL

5250 Claremont Ave., Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com

LICENSED PROFESSIONAL ENGINEER
ANURABHA GHOSH
C91571
Exp. 09/30/28
CIVIL ENGINEER
STATE OF CALIFORNIA

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CONSTRUCTION

08/31/2026

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0	04/27/2026	ISSUED FOR BID
MARK	DATE	DESCRIPTION

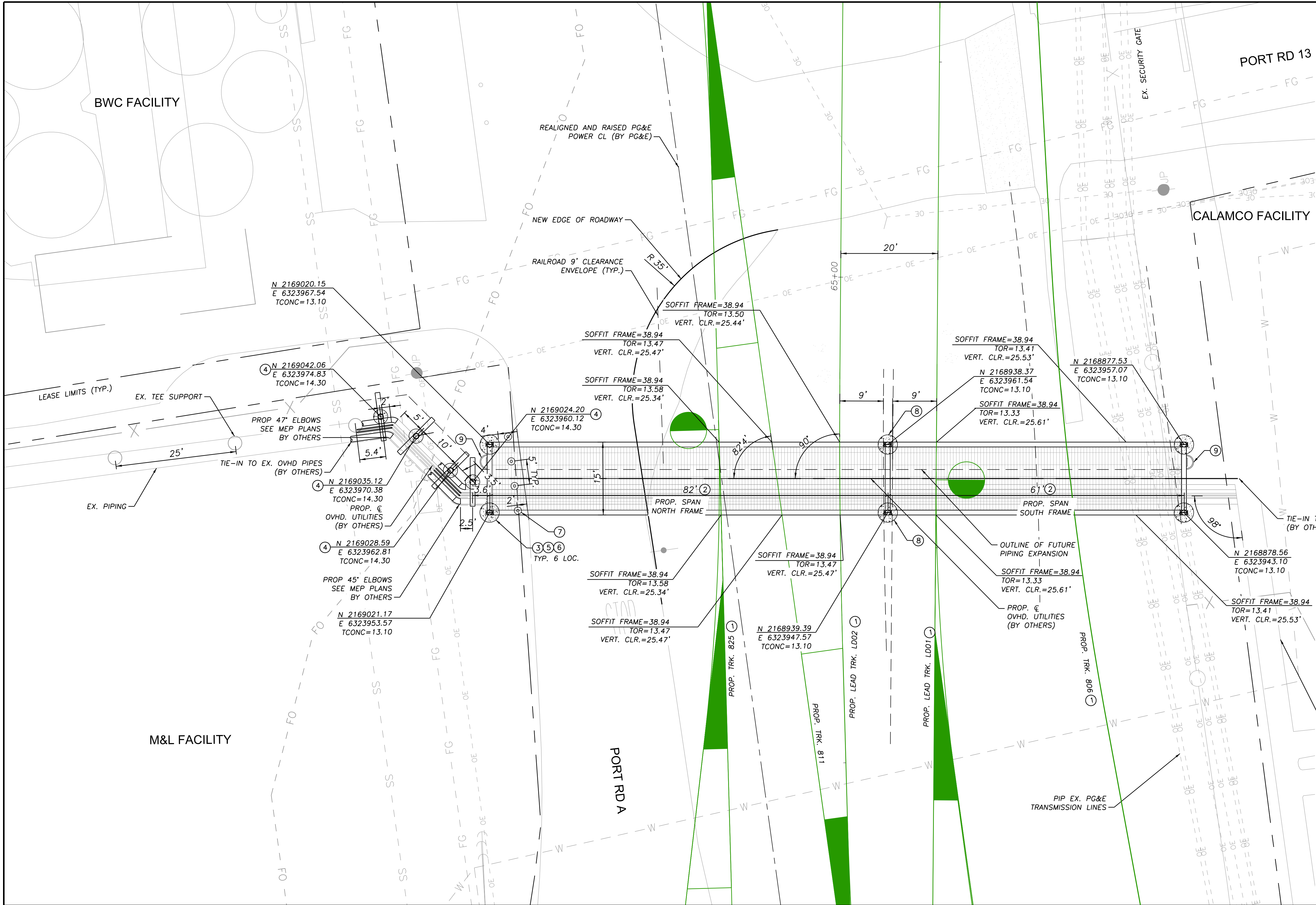


PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

315 FYFFE AVENUE
STOCKTON, CA 95203

SHEET TITLE:		
EASTERN PIPELINE DEMOLITION PLAN		
PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG	SHEET NO. C-102	SHEET 9 OF 22

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DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

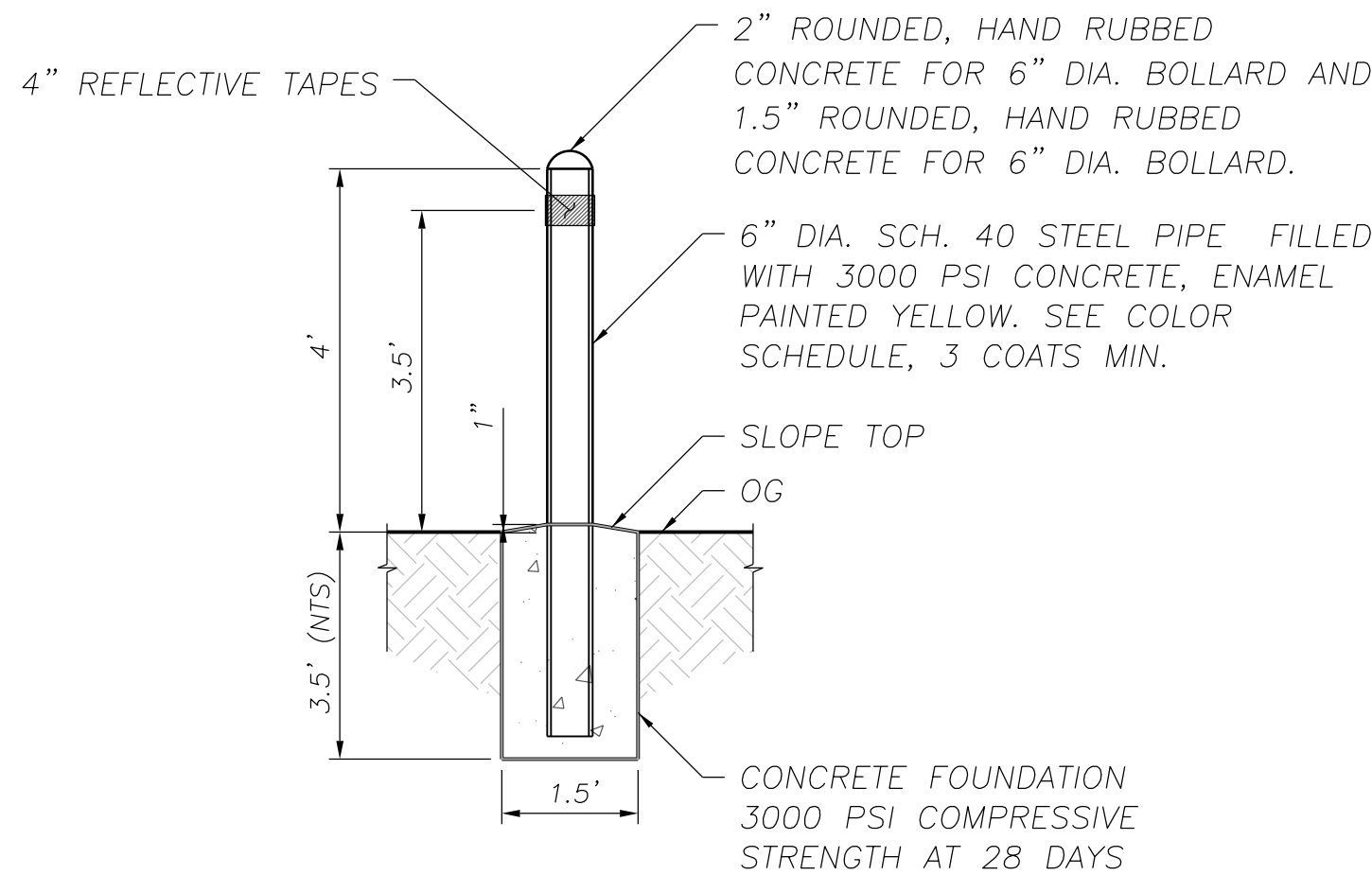
SHEET NOTES:

- ① SEE LONG LEAD DOUBLE TRACK PLANS FOR DETAILS ON PROPOSED TRACK IMPROVEMENTS.
- ② CONSTRUCT NEW OVERHEAD STRUCTURAL PIPE SUPPORT RACK WITH BAR GRATING PER STRUCTURAL DRAWINGS.
- ③ CONSTRUCT W18X86 SUPPORT COLUMNS AND 48" DIA. FOUNDATIONS WITH DIAGONAL BRACINGS PER STRUCTURAL DRAWINGS TO SUPPORT THE OVERHEAD PIPE FRAMES.
- ④ CONSTRUCT HSS14X0.312 INTERMEDIATE SUPPORT COLUMNS ON 36" DIA. FOUNDATIONS PER STRUCTURAL DRAWINGS TO PROVIDE INTERMEDIATE SUPPORTS TO OVERHEAD PIPELINES. SUPPORTS SHALL BE PERPENDICULAR TO PIPING.
- ⑤ THE TOP OF FOOTING ELEVATION SHALL BE SET BELOW THE TOP OF RAIL ELEVATION FOR TRACKS LD01 AND LD02 IN ORDER TO BE CLEAR OF THE RAILROAD CLEARANCE ENVELOPE.
- ⑥ FIELD WELD STRUCTURAL FRAMES TO THE PIPE SUPPORT COLUMNS PER STRUCTURAL DRAWINGS AND SPECIFICATIONS.
- ⑦ PROVIDE PROTECTION BOLLARDS PER DETAIL 1 ON SHEET C-501.
- ⑧ COLUMN PROTECTION BARRIER TO BE EVALUATED AND DETERMINED AS A DEFERRED PACKAGE.
- ⑨ PROVIDE McMASTER CARR WALL-MOUNT LADDER WITH SAFETY CAGE WITH CLIMBING HEIGHT 26'-6" AND FIELD WELD TO PROPOSED OVERHEAD FRAME.



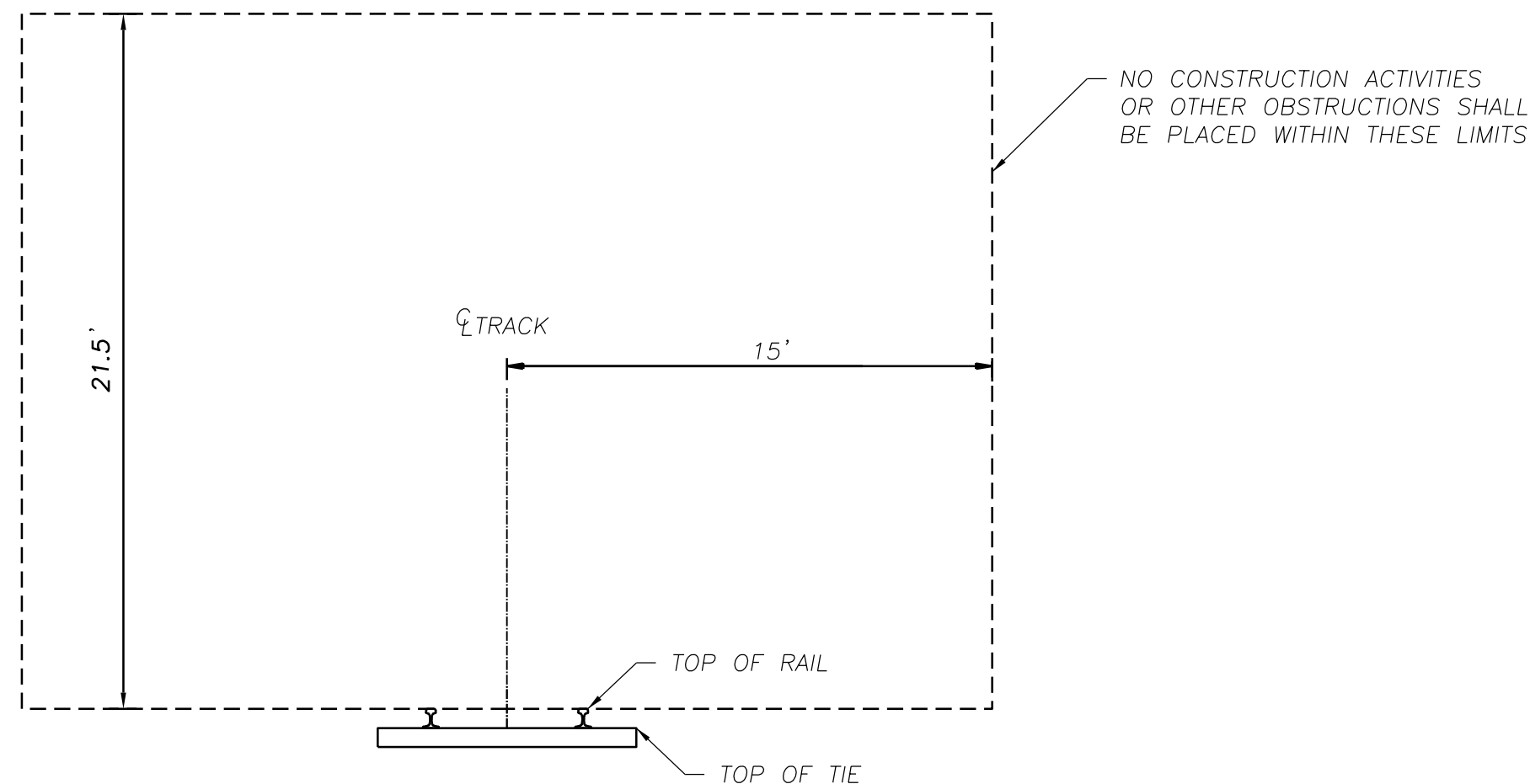
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1
C-501

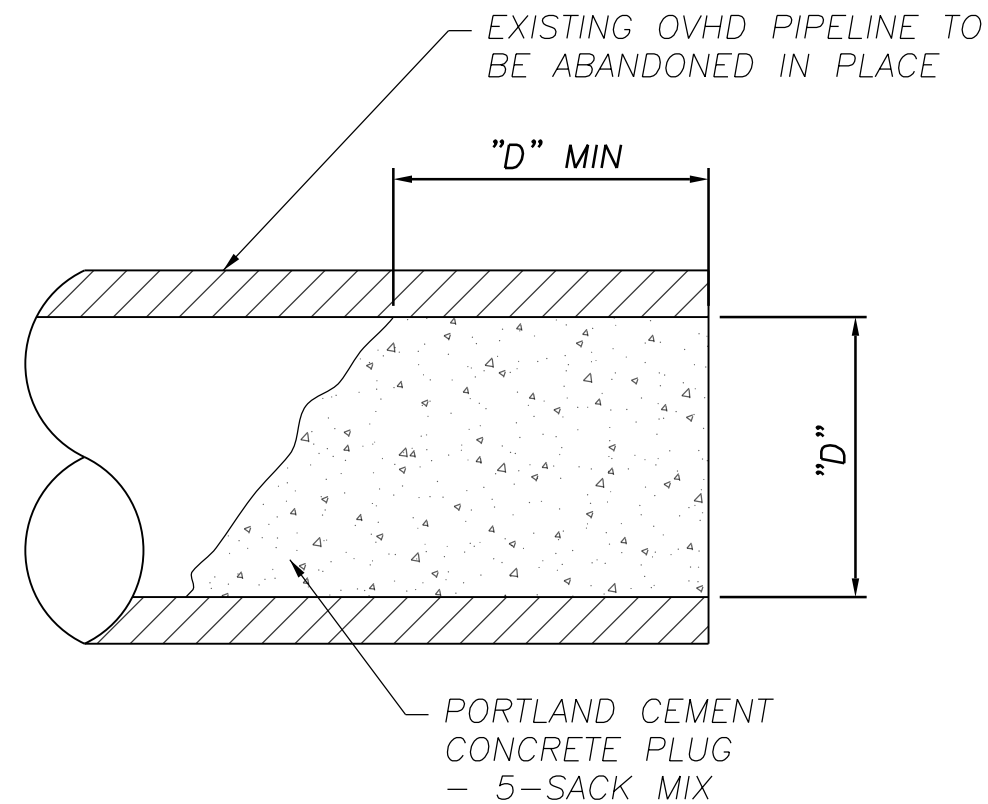
BOLLARD DETAIL
SCALE: 1" = 2'



- NOTES:
- ANY SHORING SYSTEM THAT IMPACTS THE RAILROAD'S OPERATION AND/OR SUPPORTS THE RAILROAD EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER RAILROAD GUIDELINES FOR TEMPORARY SHORING.
 - THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

3
C-501

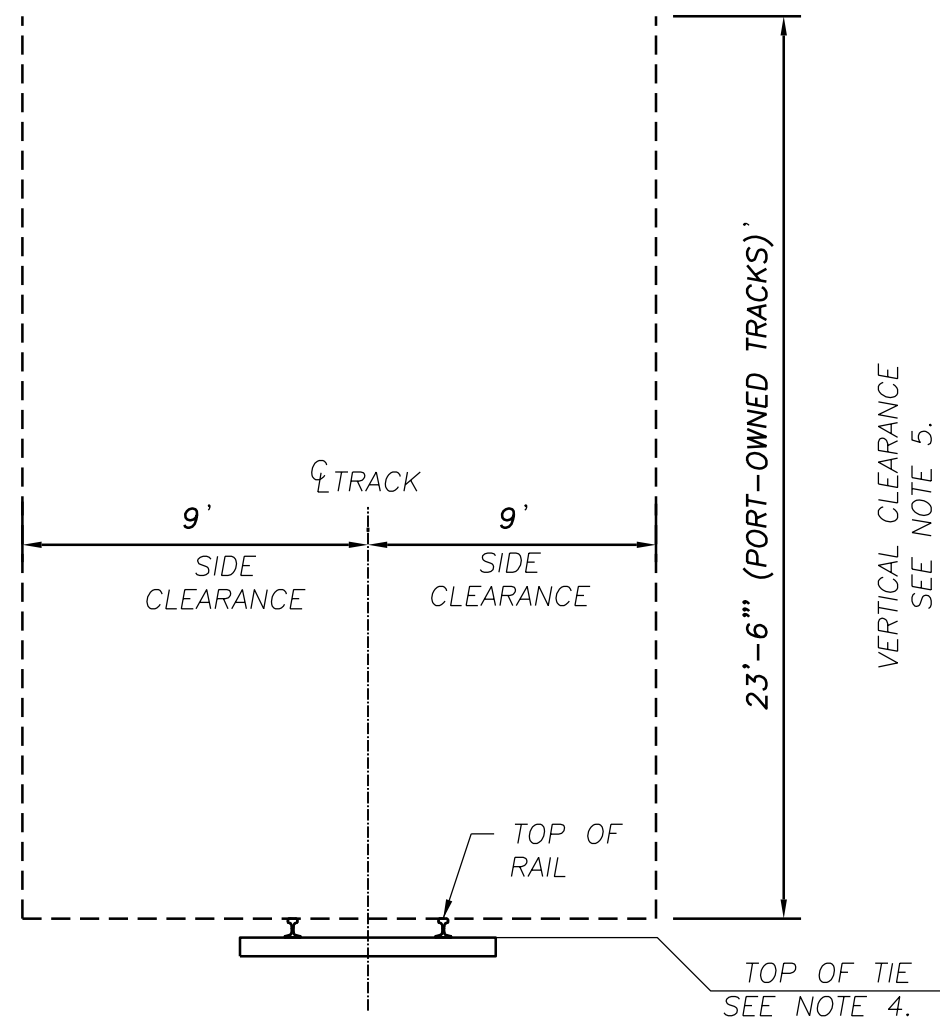
RAILROAD TEMPORARY CLEARANCE
SCALE: 1" = 2'



- NOTES:
- ABANDONED PIPELINE SHALL BE PLUGGED AT BOTH ENDS

2
C-501

EXISTING CULVERT ABANDONMENT
SCALE: NTS

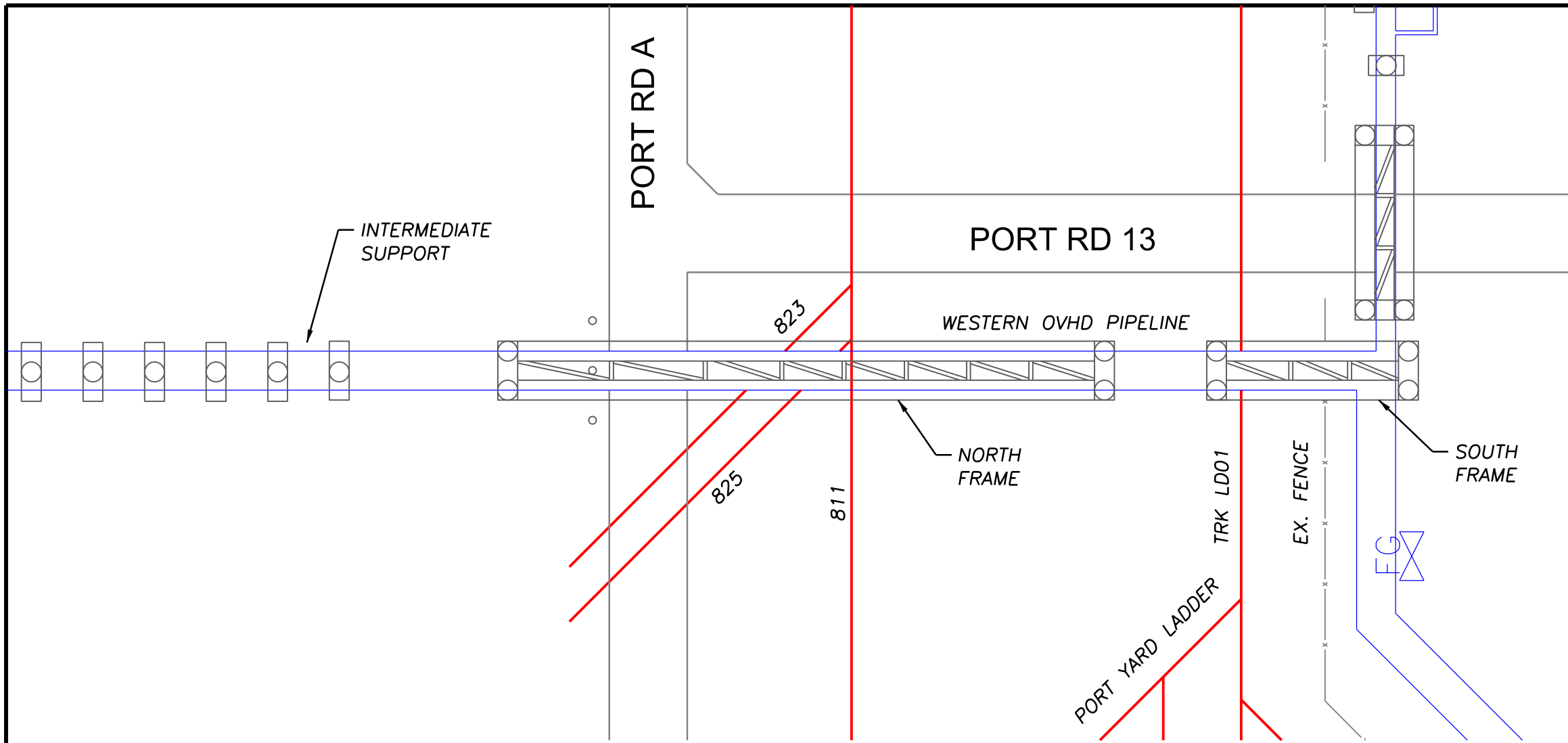


- NOTES:
- ANY FACILITIES FALLING WITHIN THESE DIMENSIONS AND LOCATED ON TANGENT TRACK WILL BE CONSIDERED IMPAIRED CLEARANCE, SUBJECT TO AGREEMENT, AND MUST BE APPROVED PRIOR TO CONSTRUCTION BY THE SERVING RAILROAD.
 - HORIZONTAL CLEARANCES ARE TO BE INCREASED 1 1/2" PER DEGREE OF CURVE WHERE THE FACILITY IS LOCATED ADJACENT TO OR WITHIN 80' OF TURNOUT OR CURVE LIMITS.
 - WHERE PRACTICAL, ALL POSTS, SIGNS, AND OTHER SMALL OBSTRUCTIONS SHALL BE GIVEN A SIDE CLEARANCE OF 10'.
 - NO OBSTRUCTIONS SHALL EXTEND ABOVE THE TOP OF TIE WITHIN 9' FROM THE CENTER LINE OF RAIL.
 - THE PERMANENT VERTICAL CLEARANCE MUST NOT BE VIOLATED DUE TO DEFLECTION OF THE SUPER STRUCTURE.
 - ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSEOUT.

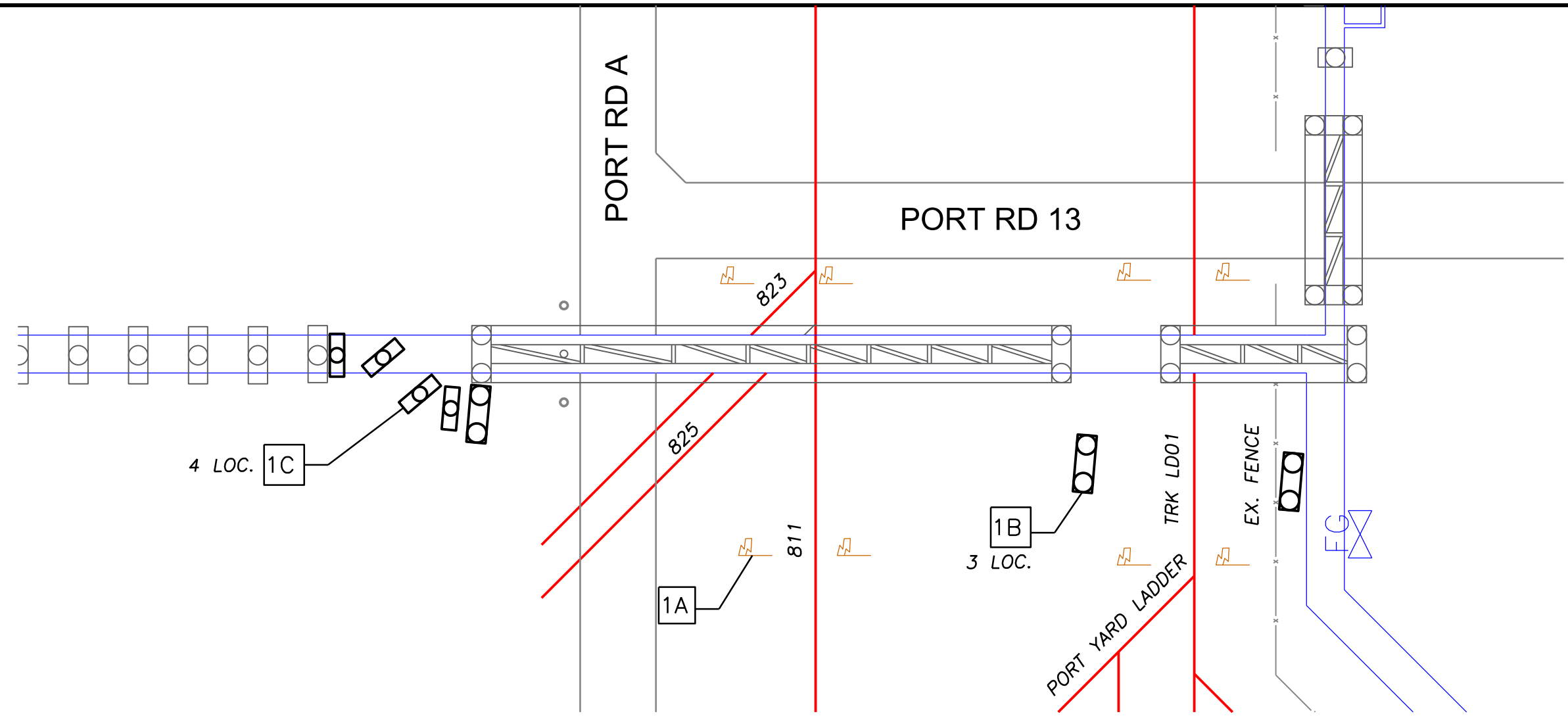
4
C-501

RAILROAD PERMANENT CLEARANCE
SCALE: 1" = 2'

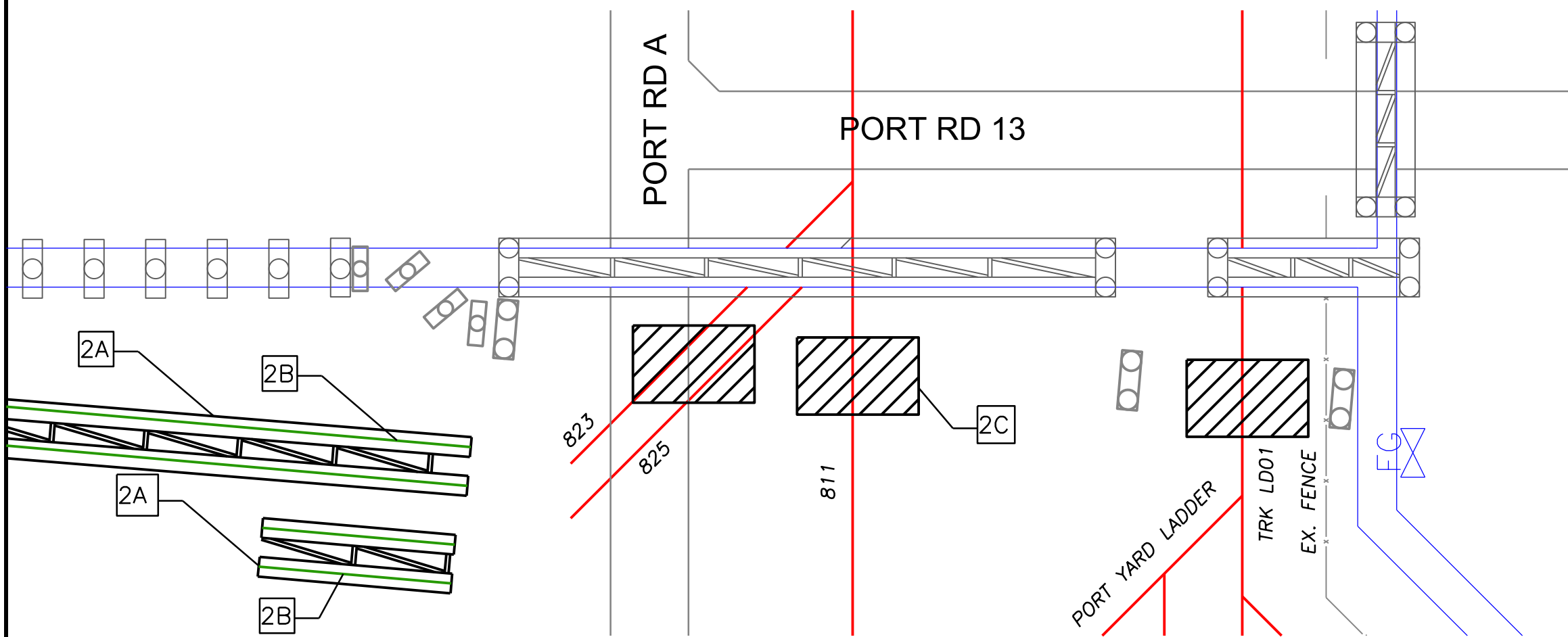
		 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com	 PROFESSIONAL SEAL:	ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026 ISSUE:	REVISIONS: <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>1</td><td>08/31/2026</td><td>ISSUED FOR BID - REV 01</td></tr><tr><td>0</td><td>04/27/2026</td><td>ISSUED FOR BID</td></tr><tr><td>MARK</td><td>DATE</td><td>DESCRIPTION</td></tr></table>																			1	08/31/2026	ISSUED FOR BID - REV 01	0	04/27/2026	ISSUED FOR BID	MARK	DATE	DESCRIPTION	 PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203	SHEET TITLE: CIVIL DETAILS PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG SHEET NO. C-501 SHEET 11 OF 22
1	08/31/2026	ISSUED FOR BID - REV 01																																
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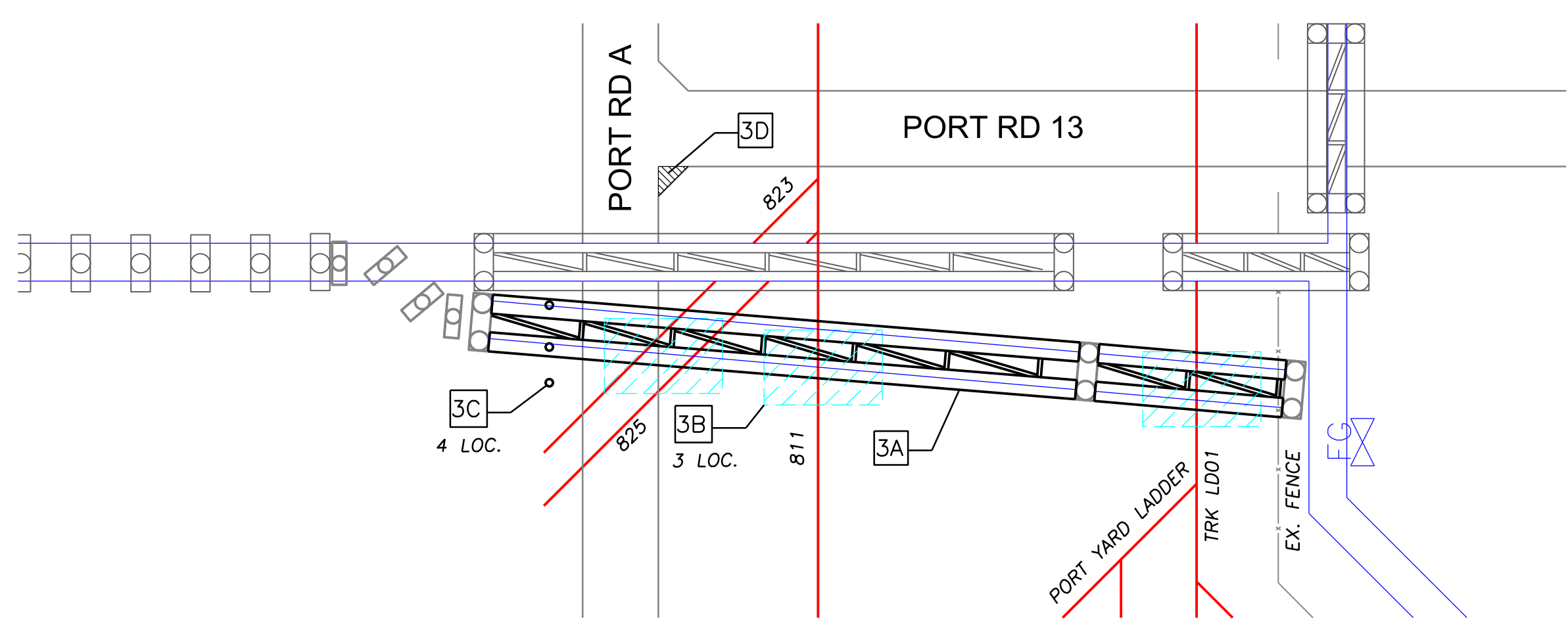
EXISTING CONDITION



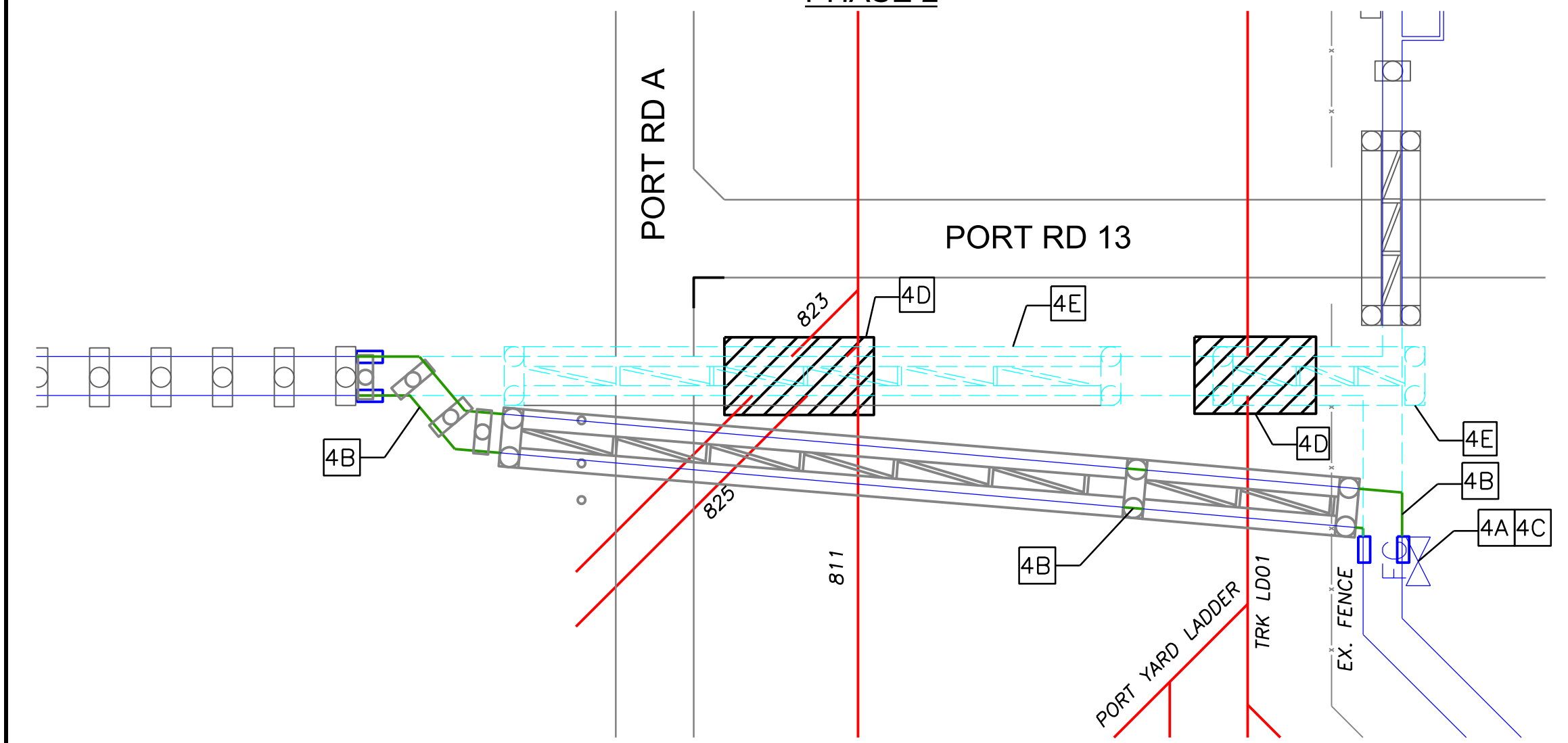
PHASE 1



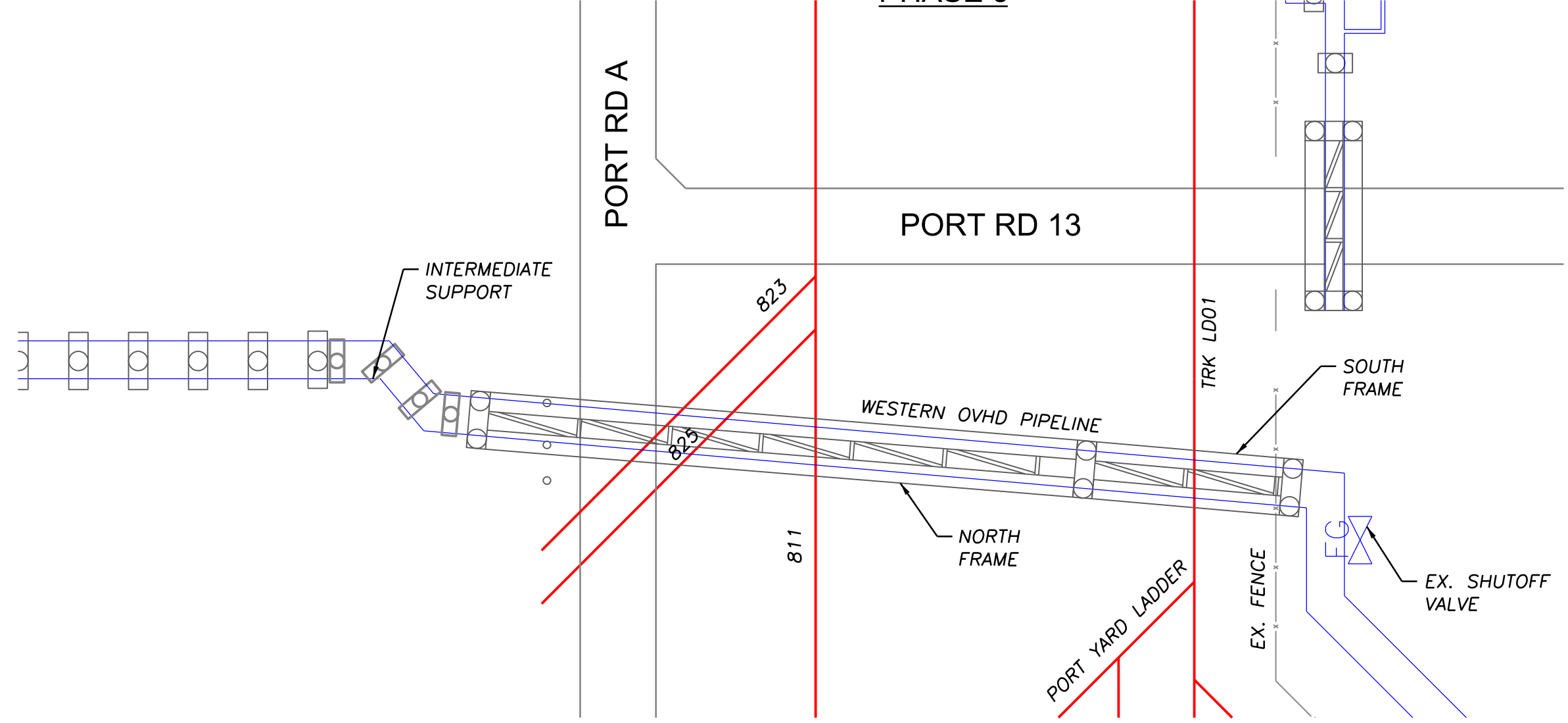
PHASE 2



PHASE 3



PHASE 4



FINAL CONDITION

DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.
2. CONTRACTOR SHALL COORDINATE WITH RAILROAD, CCTC TO PERFORM WORK THAT POTENTIALLY IMPACTS RAILROAD OPERATIONS WITHIN THE ALLOWED SHUTDOWN WINDOW NOT TO EXCEED 3 DAYS' PERIOD.
3. CONTRACTOR SHALL COORDINATE WITH PIPELINE USER CALAMCO AND THEIR CONTRACTOR TO PERFORM ANY WORK THAT REQUIRES SHUTDOWN OF THE AMMONIA PIPES TO BE PERFORMED OUTSIDE THE PEAK WINDOWS OF MARCH-JUNE. CONTRACTOR'S WORK REQUIRING PIPE SHUTOFF SHALL NOT EXCEED MAXIMUM 2 DAYS' PERIOD.

PHASING NOTES:

PHASE 1: CONSTRUCT FOOTINGS AND COLUMNS

- 1A COORDINATE WITH CCTC AND OBTAIN RAILROAD FLAGGING PROTECTION.
- 1B CONSTRUCT PIPE COLUMN FOUNDATIONS AND ERECT SUPPORT COLUMNS FOR THE PIPE FRAME BRIDGE STAYING CLEAR OF THE TRACKS.
- 1C CONSTRUCT PIPE COLUMN FOUNDATIONS AND ERECT SUPPORT COLUMNS FOR INTERMEDIATE SUPPORTS NORTH OF PORT RD A.

PHASE 2: FABRICATE AND STAGE OVERHEAD FRAME

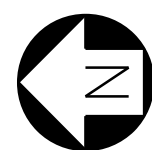
- 2A FABRICATE AND WELD ALL HORIZONTAL MEMBERS AND ASSEMBLE THE NORTH AND SOUTH FRAMES NORTH OF PORT RD A.
- 2B COORDINATE WITH MEP CONTRACTOR AND ENABLE THEM TO INSTALL AND SECURE NEW PIPING ON THE NEW PIPE FRAMES (NIC).
- 2C COORDINATE WITH CCTC TO SECURE FLAGGING PROTECTION AND PROVIDE TRACK SHIELD OR SIMILAR PROTECTION PRIOR TO COMMENCING OVERHEAD CONSTRUCTION.

PHASE 3: INSTALL FRAMES AND COLUMNS

- 3A ERECT OVERHEAD FRAMES ON COLUMNS AND CONNECT PER STRUCTURAL DRAWINGS. INSTALL BAR GRATING AND HANDRAILS ON THE FRAME PER PLANS.
- 3B COORDINATE WITH CCTC AND REMOVE TRACK SHIELD OR SIMILAR PROTECTION USED.
- 3C INSTALL BOLLARD NORTH OF PORT RD A.
- 3D IMPLEMENT TRAFFIC CONTROL AND REMOVE PORTION OF PORT RD 13.

PHASE 4: UTILITY CUTOVER AND OLD FRAME REMOVAL

- 4A COORDINATE WITH UTILITY OWNER TO SHUTOFF UTILITY SERVICE WITH MINIMUM 48 HOURS ADVANCE NOTICE.
- 4B REESTABLISH NEW UTILITY CONVEYANCE NETWORK ON NEW PIPELINE FRAME (NIC, BY OTHERS).
- 4C COORDINATE WITH UTILITY OWNER TO REACTIVATE UTILITY SERVICE AND VERIFY ADEQUACY OF NEW UTILITY CONNECTIONS (NIC, BY OTHERS).
- 4D COORDINATE WITH CCTC TO SECURE FLAGGING PROTECTION AND PROVIDE TRACK SHIELD OR SIMILAR PROTECTION PRIOR TO COMMENCING OVERHEAD REMOVAL.
- 4E REMOVE OLD PIPELINE FRAME AND COORDINATE WITH CCTC TO REMOVE TRACK SHIELD OR SIMILAR PROTECTION USED.



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												WESTERN PIPELINE PHASING PLAN	
												PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG	
												SHEET NO. C-601	
												SHEET 12 OF 22	

IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING

DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

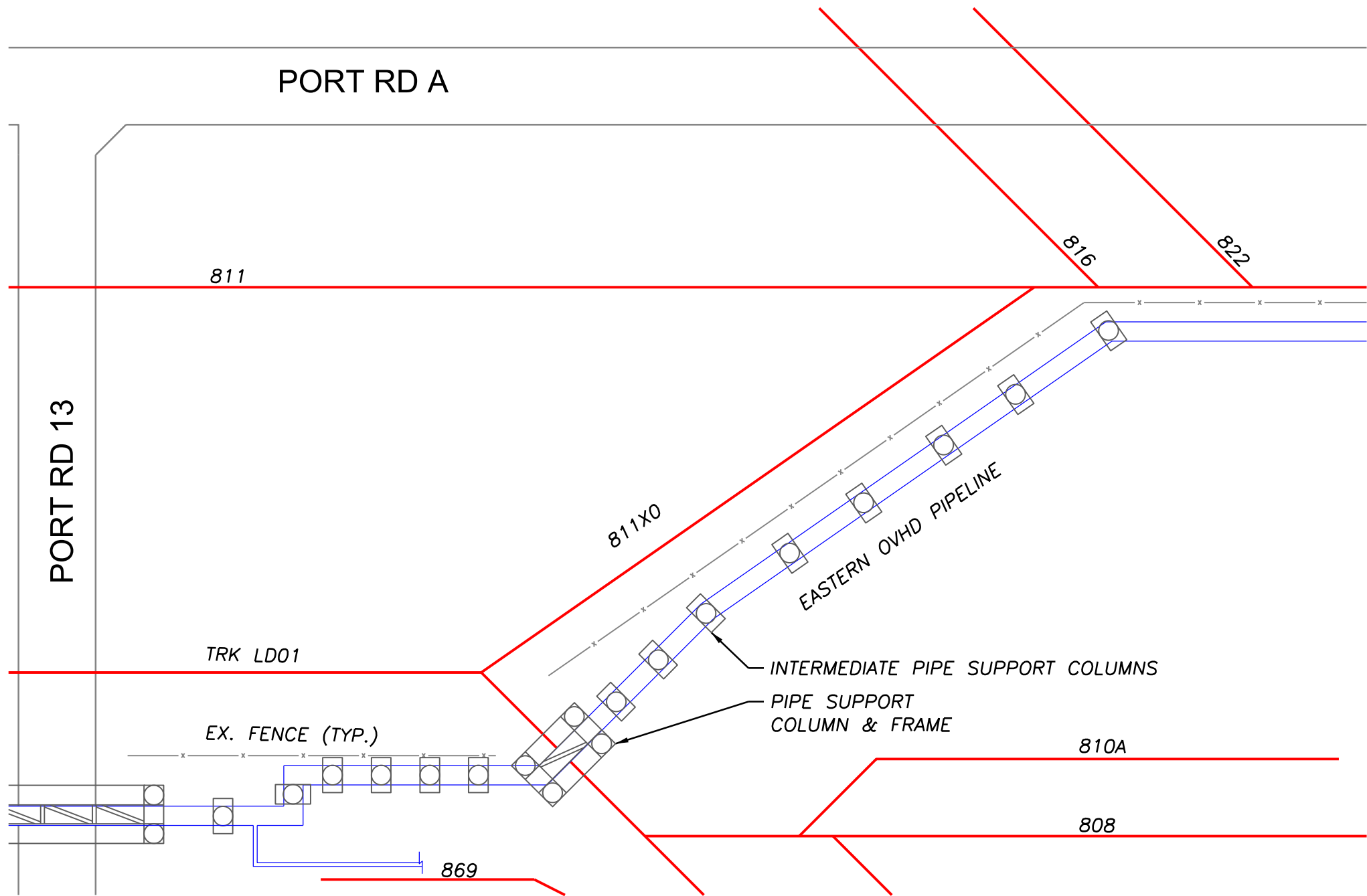
PHASING NOTES:

PHASE 1

- 1A COORDINATE WITH RAILROAD TO SECURE FLAGGING PROTECTION.
- 1B PROTECT RAILROAD TRACK THROUGH TRACK SHIELD OR OTHER APPROVED METHOD.
- 1C REMOVE PORTION OF EXISTING OVERHEAD PIPELINE.
- 1D CAP AND ABANDON EXISTING OVERHEAD PIPELINE PER APPROPRIATE MEANS AND METHOD.

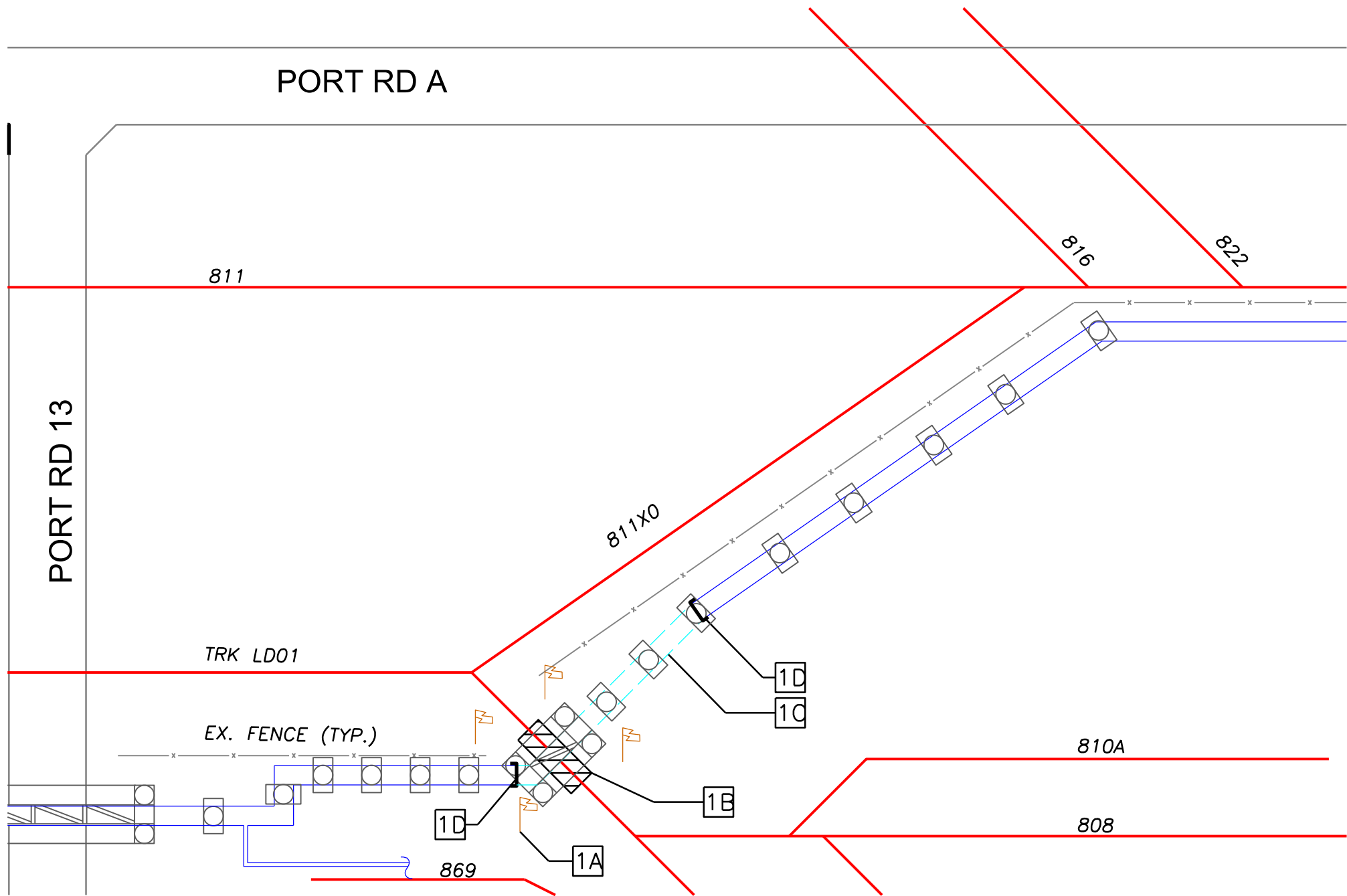
PHASE 2

- 2A DEMOLISH EXISTING PIPELINE SUPPORT FRAME. PROTECT EXISTING PIPELINE SUPPORT FOUNDATION IN PLACE.
- 2B DEMOLISH INTERMEDIATE COLUMNS AND SUPPORTS BETWEEN CAPPED ENDS OF OVERHEAD PIPELINE.
- 2C COORDINATE WITH RAILROAD TO REMOVE FLAGGING PROTECTION AND TRACK PROTECTION.

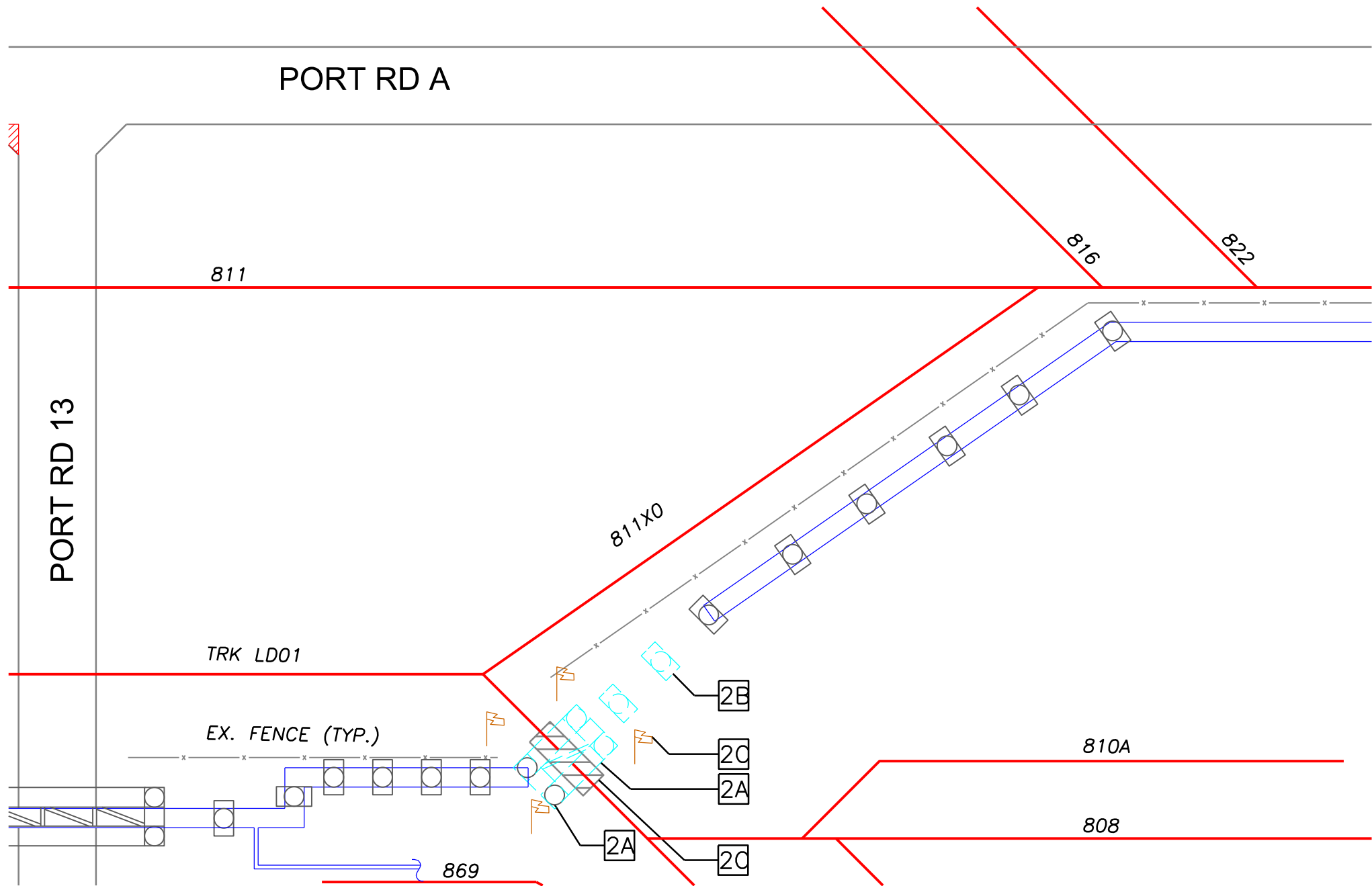


EXISTING CONDITION

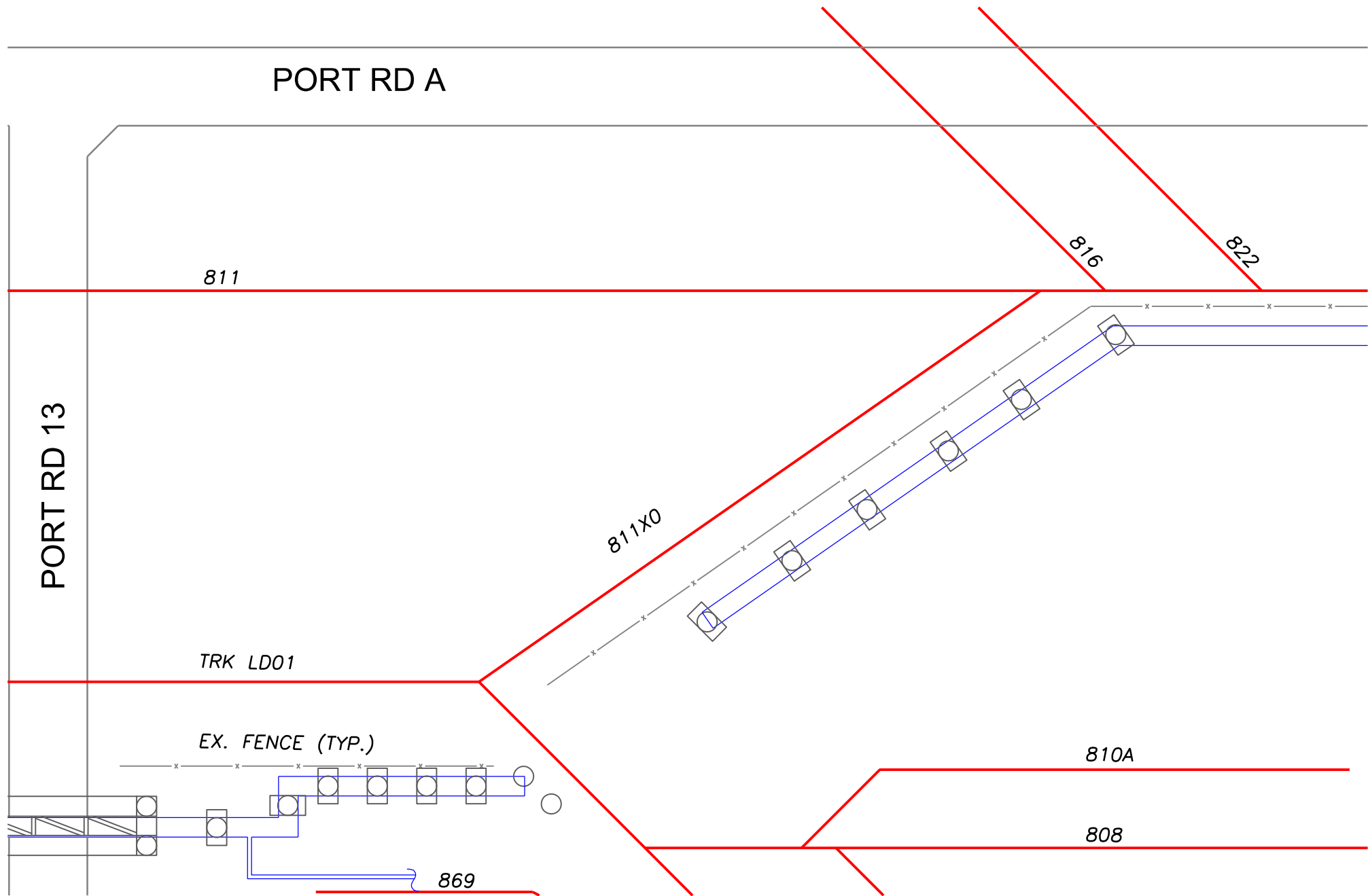
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PHASE 1



PHASE 2



FINAL CONDITION



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SUBCONSULTANT:

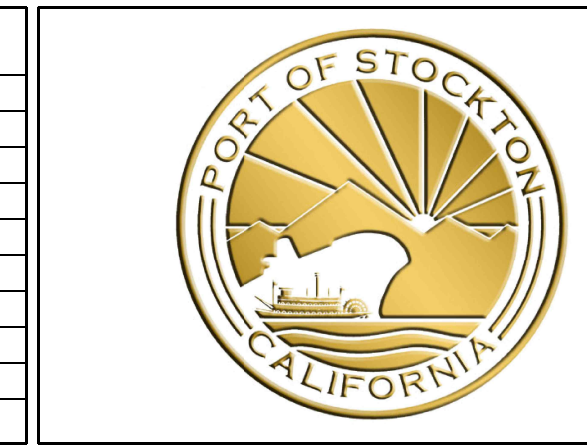
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PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS
315 FYFFE AVENUE
STOCKTON, CA 95203

SHEET TITLE:		
EASTERN PIPELINE PHASING PLAN		
PROJ NO: 22340 SCALE: AS NOTED DATE: 08/31/2026 DESIGNED BY: AG	SHEET NO. C-602	SHEET 13 OF 22

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STRUCTURAL NOTES :

A. GENERAL

- THE STRUCTURAL NOTES ARE INTENDED TO COMPLEMENT THE PROJECT SPECIFICATIONS WHICH ARE PART OF THE CONSTRUCTION DOCUMENTS. SPECIFIC NOTES AND DETAILS ON THE DRAWINGS SHALL GOVERN OVER THE STRUCTURAL NOTES AND TYPICAL DETAILS.
- THESE DRAWINGS (AND, WHERE APPLICABLE, ACCOMPANYING WRITTEN SPECIFICATIONS) ARE THE ONLY CONTRACT DOCUMENTS PROVIDED BY ARW ENGINEERS FOR THE PROJECT REPRESENTED HEREIN. NOTHING IN ANY DIGITAL MODEL OR DIGITAL FILE RELATED TO THIS PROJECT SHALL BE TAKEN TO SUPERSEDE ANY INFORMATION SHOWN IN THESE DRAWINGS (INCLUDING, BUT NOT LIMITED TO, DIMENSIONS, SIZES, ETC.).
- THE CIVIL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. THE STRUCTURAL DRAWINGS ARE SUPPLEMENTARY TO AND MUST BE USED IN CONJUNCTION WITH THE CIVIL DRAWINGS AND OTHER CONSULTANTS DRAWINGS. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER AND STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE OF CONFLICT, FOLLOW THE MOST STRINGENT REQUIREMENT AS DIRECTED BY THE CIVIL ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- SEE SPECIFICATIONS FOR REQUIRED SUBMITTALS. SUBMITTALS SHALL BE MADE IN A TIMELY MANNER AS INDICATED IN SPECIFICATIONS. REVIEW OF SUBMITTALS BY ARW ENGINEERS IS FOR GENERAL COMPLIANCE ONLY AND IS NOT INTENDED AS APPROVAL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SIZES, DIMENSIONS, AND ELEVATIONS ON SUBMITTALS AS RELATED TO DESIGN DOCUMENTS. PREPARATION OF SHOP DRAWINGS FOR STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION (I.E. DIMENSIONS, ETC.) FOUND IN THE CIVIL, STRUCTURAL, AND OTHER CONSULTANTS DRAWINGS.
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE. IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN ON DOCUMENTS, CONTRACTOR SHALL NOTIFY CIVIL ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION OF ANY AFFECTED ELEMENTS.
- THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL LOCATIONS AND SIZES OF MECHANICAL EQUIPMENT OR OTHER EQUIPMENT BEFORE FABRICATING AND ERECTING STRUCTURAL ELEMENTS. SIZES AND LOCATIONS THAT DIFFER FROM THOSE SHOWN ON THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CIVIL ENGINEER.
- THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE CIVIL ENGINEER FOR ENGINEER APPROVAL BEFORE PROCEEDING WITH ANY CHANGES, MODIFICATIONS, OR SUBSTITUTIONS.
- OBSERVATION VISITS TO THE SITE BY ARW ENGINEERS AND REPRESENTATIVES SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
- DURING AND AFTER CONSTRUCTION, BUILDER AND/OR OWNER SHALL KEEP LOADS ON STRUCTURE WITHIN THE LIMITS OF DESIGN LOADS AS NOTED IN THESE DOCUMENTS.
- TYPICAL OR SIMILAR DETAILS AND SECTIONS SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT SHOWN. TYPICAL OR SIMILAR DETAILS REFER TO THE CONDITION ADDRESSED AND ARE NOT NECESSARILY DETAILS LABELED "TYPICAL" OR "SIMILAR" IN THE PLANS AND DOCUMENTS.
- DRAWINGS AND DETAILS HAVE BEEN PREPARED WITH THE INTENT TO VISUALLY REPRESENT INFORMATION PROVIDED IN SCALED FORM; HOWEVER CONTRACTOR/SUPPLIERS SHOULD NOT SCALE PLANS OR DETAILS FOR DIMENSIONAL INFORMATION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND INSTALL ADEQUATE TEMPORARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS UNTIL THE ENTIRE STRUCTURAL SYSTEM IS COMPLETED.
- ENGINEER SHALL NOT BE RESPONSIBLE FOR ACTIVITIES UNDER CONTROL OF THE CONTRACTOR SUCH AS CONSTRUCTION SAFETY, MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION. ENGINEER SHALL NOT BE RESPONSIBLE FOR FABRICATION, ERECTION, AND CONSTRUCTION REQUIREMENTS AS PRESCRIBED BY OSHA OR OTHER REGULATORY AGENCIES REGARDLESS OF INDICATIONS IN THESE DOCUMENTS.
- NOTICE OF COPYRIGHT: THESE STRUCTURAL DRAWINGS ARE HEREBY COPYRIGHTED BY ARW ENGINEERS. ALL RIGHTS RESERVED. THESE DOCUMENTS DEFINE A STRUCTURE AND ARE INSTRUMENTS OF SERVICE, FOR ONE USE ONLY. REPRODUCTION AND DISTRIBUTION OF THESE DRAWINGS IS ONLY ALLOWED AS REQUIRED FOR REGULATORY AGENCIES AND FOR CONVEYANCE OF INFORMATION TO PARTIES INVOLVED IN THE CONSTRUCTION OF THIS PROJECT. THESE DOCUMENTS SHALL NOT BE REPRODUCED OR COPIED, IN PART OR WHOLE BY ANY PARTY FOR USE IN PREPARATION OF SHOP DRAWINGS OR OTHER SUBMITTALS.
- WHERE THE WORD "SHALL" OCCURS IN THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS, IT IS CONSIDERED A MANDATORY OBLIGATION AND SYNONYMOUS WITH THE PHRASE "HAS DUTY TO".

B. STATEMENT OF SPECIAL INSPECTIONS AND SPECIAL INSPECTIONS

- THE DESIGNATED SEISMIC/WIND SYSTEMS AND SEISMIC/WIND-FORCE-RESISTING SYSTEMS THAT ARE SUBJECT TO SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC SECTION 1705.12 AND 1705.13 ARE IDENTIFIED ON THESE DOCUMENTS WITH A CIRCLE "L". ALL OTHER ITEMS REQUIRING SPECIAL INSPECTION ARE IDENTIFIED IN THE SPECIAL INSPECTION SCHEDULE ON SHEETS S010 AND S011.
- SPECIAL INSPECTIONS AND TESTING ARE TO BE PROVIDED AS REQUIRED BY IBC SECTIONS 1704 THROUGH 1705 AND OTHER APPLICABLE SECTIONS OF THE IBC. THE TYPE AND FREQUENCY OF TESTING AND SPECIAL INSPECTIONS SHALL BE AS NOTED IN THE SPECIAL INSPECTION SCHEDULE, JOB SPECIFICATIONS, AND ACCORDANCE WITH IBC SECTION 110 AND CHAPTER 17. CONTRACTOR SHALL COORDINATE AND COOPERATE WITH REQUIRED INSPECTIONS.
- ALL TESTING AND SPECIAL INSPECTION SHALL BE PROVIDED BY A QUALIFIED INDEPENDENT SPECIAL INSPECTION AGENCY IN ACCORDANCE WITH IBC 1704 AND AS OUTLINED IN THE JOB SPECIFICATIONS. REPORTS OF FINDINGS OR DISCREPANCIES SHALL BE NOTED AND FORWARDED TO THE CONTRACTOR, ARCHITECT, ENGINEERS, AND BUILDING OFFICIAL IN A TIMELY MANNER.
- STRUCTURAL OBSERVATION VISITS SHALL BE PERFORMED BY A REPRESENTATIVE FROM ARW ENGINEERS IN ACCORDANCE WITH THE CONTRACT AS NEEDED TO OBSERVE THE CONSTRUCTION OF CRITICAL BUILDING ELEMENTS (I.E. FOOTINGS, BRACED FRAMES, MOMENT FRAMES, DRAG STRUTS AND THEIR CONNECTIONS, COLLECTORS, AND ROOF AND FLOOR DIAPHRAGMS). STRUCTURAL OBSERVATION REPORTS FOR EACH VISIT SHALL BE SENT DIRECTLY TO THE ARCHITECT FOR DISTRIBUTION TO THE CONTRACTOR AND BUILDING OFFICIAL. STRUCTURAL OBSERVATION VISITS SHALL NEITHER BE CONSTRUED AS SPECIAL INSPECTION NOR APPROVAL OF COMPLETED CONSTRUCTION.
- IN ACCORDANCE WITH IBC 1704.4, THE CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER. THE STATEMENT SHALL BE SUBMITTED PRIOR TO THE CONSTRUCTION OF ANY SEISMIC/WIND-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC/WIND SYSTEM, OR COMPONENT IDENTIFIED IN THESE DOCUMENTS WITH A CIRCLE "L".

C. BASIS OF DESIGN

- GOVERNING BUILDING CODE : CALIFORNIA BUILDING CODE (CBC) 2022
- RISK CATEGORY : III
- LOADS
 - LIVE LOAD = 20 PSF
 - DEAD LOAD = 8 PSF + 440 PLF (PROVIDED BY CLIENT AS TOTAL PIPE WT)
- WIND DESIGN
 - BASIC WIND SPEED (3 SECOND GUST) : 100 MPH
 - ALLOWABLE STRESS DESIGN WIND SPEED, V_{ASD} : 77 MPH
 - WIND EXPOSURE : C
- SEISMIC DESIGN :
 - SEISMIC IMPORTANCE FACTOR, I_e : 1.25
 - SITE CLASS : D
 - MAPPED SPECTRAL RESPONSE ACCELERATIONS : $S_0 = 0.766$, $S_1 = 0.294$
 - SPECTRAL RESPONSE COEFFICIENTS : $S_{0s} = 0.609$, $S_{01} = 0.392$
 - SEISMIC DESIGN CATEGORY : D
 - BASIC SEISMIC-FORCE-RESISTING SYSTEM : STEEL ORDINARY MOMENT FRAMES, STEEL ORDINARY CONCENTRICALLY BRACED FRAME.
 - SEISMIC RESPONSE COEFFICIENT, C_s : 0.22, 0.51
 - RESPONSE MODIFICATION FACTOR, R : 3.5, 1.5
 - ANALYSIS PROCEDURE : EQUIVALENT LATERAL FORCE (CHAPTER 15)
- STORY DRIFT AND LATERAL DISPLACEMENT :
 - SEISMIC INELASTIC IN-PLANE OF PIPES : 1.5"
 - SEISMIC INELASTIC OUT-OF-PLANE OF PIPES : 0.5"

D. FOUNDATION

- GENERAL
 - DESIGN SOIL PRESSURE : 1500 PSF
 - SOILS REPORT BY : KLEINFELDER
- REPORT # : 20232210.001A
- DATED : DECEMBER 20, 2024
- TOP OF FINISH ELEVATIONS SHOWN ON THE FOOTING AND FOUNDATION PLAN ARE BASED ON PRELIMINARY GRADING INFORMATION AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION. STEPS WHERE SHOWN ARE AT APPROXIMATE LOCATIONS. ACTUAL STEP LOCATIONS SHALL BE AT THE CONTRACTOR'S DISCRETION BASED UPON FIELD CONDITIONS.
- ALL WALLS (EXCEPT CANTILEVERED RETAINING WALLS) SHALL BE ADEQUATELY BRACED AGAINST LATERAL MOVEMENT PRIOR TO BACKFILLING. DESIGN AND ERECTION OF BRACING/SHORING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. BRACING SHALL REMAIN IN PLACE UNTIL SUPPORTING STRUCTURAL ELEMENTS ARE IN PLACE AND HAVE ATTAINED FULL STRENGTH.
- UNLESS NOTED OTHERWISE, ALL FOOTINGS AT COLUMNS SHALL BE CENTERED BELOW COLUMNS.
- UNLESS NOTED AND DETAILED OTHERWISE, NO PIPES, DUCTS, CONDUITS, NON-STRUCTURAL ITEMS, ETC. SHALL BE BURIED BELOW OR EMBEDDED IN FOOTINGS / FOUNDATION WALLS. SEE TYPICAL DETAIL FOR CONDITIONS WHERE THESE ITEMS CROSS OR RUN PARALLEL TO FOOTINGS / FOUNDATION WALLS.

E. CONCRETE

- ALL CONCRETE MIX DESIGNS SHALL COMPLY WITH **THE PROJECT SPECIFICATIONS AND THE** REQUIREMENTS LISTED BELOW :
 - $F_c' = 4000$ PSI
 - MAX w/c RATIO = 0.50
 - MAX AGGREGATE SIZE = 1-1/2"
- WATER USED IN MIXING CONCRETE SHALL CONFORM TO ASTM C1602.
- NO CONDUIT, PIPES, DUCTS, SLEEVES, ETC. SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO ALUMINUM PRODUCTS SHALL BE EMBEDDED IN CONCRETE. PENETRATIONS THRU STRUCTURAL CONCRETE ELEMENTS MUST BE APPROVED BY THE ENGINEER AND SHALL BE BUILT INTO THE ELEMENT PRIOR TO CONCRETE PLACEMENT.

F. ANCHOR BOLTS/EMBEDDED BOLTS

- ALL ANCHOR BOLTS SHALL HAVE ASTM A-563 HEAVY HEX NUT AND ASTM F-436 WASHERS AT STANDARD OR OVERSIZED HOLES PER AISI SPECIFICATION TABLE J3.3. WHERE HOLE SIZES DO NOT COMPLY WITH THE LIMITATIONS FOR OVERSIZED HOLES THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO DETERMINE STEEL PLATE WASHER REQUIREMENTS. ANCHOR BOLTS SHALL COMPLY WITH THE FOLLOWING :
 - AT BRACED FRAMES & MOMENT RESISTING FRAMES - ASTM F1554 GRADE 105 HEADED BOLTS (ASTM F1554 THREADED ROD OF SAME GRADE MAY BE USED WITH DOUBLE NUT AND WASHER.)
- SEE TYPICAL ANCHOR BOLT DETAIL FOR DEFINITIONS OF EMBEDMENT LENGTH, ETC.
- FURNISH TEMPLATES AND OTHER DEVICES AS NECESSARY FOR PRESETTING ALL BOLTS PRIOR TO PLACING CONCRETE AND/OR GROUT.
- IF THREADED RODS ARE USED AS PERMITTED ABOVE, THEY SHALL BE CLEAR OF SOIL AND DIRT.
- WHERE REQUIRED FOR ERECTION, HOLES LARGER THAN OVERSIZED MAY BE PERMITTED WITH THE USE OF STEEL PLATE WASHERS AT THE DISCRETION OF THE STRUCTURAL ENGINEER.
- ALL ANCHOR BOLTS / ANCHOR RODS SHALL BE GALVANIZED.

G. ADHESIVE/MECHANICAL ANCHORS

- WITHOUT WRITTEN APPROVAL OF THE ENGINEER, CONTRACTOR SHALL NOT SUBSTITUTE POST-INSTALLED ANCHORS WHERE CAST-IN-PLACE ANCHORS ARE SPECIFIED IN THE DRAWINGS.
- WHERE STRUCTURAL DETAILS SPECIFY SPECIFIC BRANDS AND/OR TYPES OF ADHESIVES OR ANCHORS, SUBSTITUTIONS OF OTHER BRANDS AND/OR TYPES IS NOT ALLOWED, WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
- SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTION REQUESTS SHALL INCLUDE AN ICC ESR OR IAPMO REPORT AND SUPPORTING CALCULATIONS INDICATING COMPLIANCE WITH DESIGN INTENT.
- ALL ADHESIVE/MECHANICAL ANCHORS SHALL BE INSTALLED, INCLUDING HOLE DRILLING AND PREPARATION, IN ACCORDANCE WITH AN APPROVED INDEPENDENT EVALUATION REPORT (ICC-ES, IAPMO, OR APPROVED EQUAL), AS INDICATED BELOW, AND IN ACCORDANCE WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI).
- INSTALLERS SHALL BE, AT A MINIMUM, TRAINED FOR THE SPECIFIC APPLICATION INSTALLATION TECHNIQUE FOR THE SPECIFIC PRODUCT BY THE PRODUCT MANUFACTURERS FIELD EMPLOYEE OR SHALL POSSESS A TRAINING CARD OBTAINED BY THE MANUFACTURERS ONLINE TRAINING PROGRAM.
- ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION. ADHESIVE ANCHORS SHALL NOT BE FULLY LOADED UNTIL CONCRETE HAS REACHED DESIGN STRENGTH.
- ADHESIVE ANCHORS SHALL CONSIST OF REINFORCING BAR OR THREADED RODS AS INDICATED IN THESE DOCUMENTS.
- UNLESS APPROVED BY THE ENGINEER OF RECORD, CONCRETE AND DRILLED ANCHOR HOLES SHALL BE DRY AND FREE OF WATER FOR 14 DAYS PRIOR TO ADHESIVE INSTALLATION. CONTACT THE ENGINEER OF RECORD FOR GUIDANCE IF THE CONTRACTOR CHOOSES TO INSTALL IN DAMP, WATER-SATURATED, OR WATER-FILLED HOLES.
- CONCRETE TEMPERATURE AT THE TIME OF INSTALLATION SHALL BE MONITORED BY THE CONTRACTOR. CONTRACTOR SHALL COMPLY WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) RELATIVE TO SUBSTRATE TEMPERATURE.
- INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CESRI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT IN ACCORDANCE WITH ACI 318-19 26.7.2 (e) PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. CONTINUOUS SPECIAL INSPECTION SHALL BE PROVIDED FOR THESE ANCHORS.
- UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO CONCRETE SHALL BE:
 - HILTI HIT-RE 500V3 (ESR-3814), OR HILTI HIT-HY 200-V3 (ESR-4868).
 - SIMPSON SET-3G (ESR-4067), OR AT-XP (ER-263).
- UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO CONCRETE SHALL BE:
 - HILTI HIT-RE 500V3 (ESR-3814), OR HILTI HIT-HY 200-V3 (ESR-4868).
 - SIMPSON SET-3G (ESR-4067), OR AT-XP (ER-263).
- THE TESTING LABORATORY WILL PERFORM VISUAL INSPECTION OF ANCHORS AND DOWELS AS SPECIFIED IN THE SPECIAL INSPECTION SCHEDULE AND THE APPROVED INDEPENDENT EVALUATION REPORT. TENSION TESTING CAN BE REQUIRED AT THE DIRECTION OF THE STRUCTURAL ENGINEER OF RECORD OR THE SPECIAL INSPECTOR.
- IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON THAT HOLE AND SHIFT THE ANCHOR LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM SPACE OF (2) ANCHOR HOLE DIAMETERS OR 2 INCHES, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT OR AN APPROVED ANCHORING ADHESIVE. AT CONTRACTORS OPTION, LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING/COHING. IF THE ANCHOR OR DOWEL CANNOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

H. REINFORCING STEEL

- REINFORCING BAR STRENGTH REQUIREMENTS:
 - ALL REINFORCING BARS EXCEPT AS INDICATED IN NOTE b, SHALL CONFORM TO ASTM STANDARD A-615 GRADE 60 AND ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM STANDARD A-1064 AND SHALL BE SUPPLIED IN FLAT SHEETS. ADEQUATELY TIE AND SUPPORT ALL REINFORCING STEEL AS SPECIFIED BY ACI 117. TO MAINTAIN EXACT REQUIRED POSITION.
- ALL REINFORCING STEEL SHALL BE TIED IN PLACE AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET STABBING OF ANY REINFORCING STEEL IS NOT PERMITTED, UNLESS SPECIFICALLY DETAILED OTHERWISE OR APPROVED BY THE ENGINEER.
- ALL FIELD BENT DOWELS SHALL BE GRADE 40 WITH SPACING INDICATED REDUCED BY 1/3.
- UNLESS NOTED OTHERWISE, REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVERAGE :
 - CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - EXPOSED TO EARTH OR WEATHER :
 - #6 & LARGER 2"
 - #5 & SMALLER 1-1/2"
 - NOT EXPOSED TO WEATHER OR EARTH :
 - SLABS, WALLS, JOISTS, #11 & SMALLER 3/4"
 - BEAMS, COLUMNS: MAIN REINFORCING OR TIES 1-1/2"
 - SLAB ON GRADE :
 - PLACE REINFORCING AT CENTER OF SLAB UNLESS INDICATED OTHERWISE.
- EXCEPT WHERE NOTED ON PLANS OR DETAILS CONTINUOUS REINFORCEMENT SHALL BE SPLICED AT POINTS OF MINIMUM STRESS BY LAPPING PER THE REBAR LAP SCHEDULE.
- REINFORCING STEEL MAY BE SPLICED WITH MECHANICAL COUPLERS THAT HAVE A TENSION CAPACITY OF AT LEAST 125% OF THE STRENGTH OF THE BAR. MECHANICAL COUPLERS SHALL BE A POSITIVE CONNECTING TYPE COUPLER, AND SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED ICC RESEARCH REPORT. WHERE THESE ARE USED, SPLICES ON ADJACENT BARS SHALL BE STAGGERED AT LEAST 24 INCHES ALONG THE LENGTH OF THE BARS.
- DO NOT WELD REINFORCING EXCEPT AS NOTED ON PLANS, WHERE REINFORCING IS WELDED, USE ASTM A-706 REINFORCING.
- REINFORCING BARS, TIES, AND TENDONS SHALL BE SUPPORTED BY NYLON CONES, PLASTIC-COATED TIE-WIRES, OR PLASTIC-COATED CHAIRS. REINFORCING IN FOOTINGS IS PERMITTED TO BE SUPPORTED ON CONCRETE DOBIES.
- UNLESS NOTED OTHERWISE, HOOKS, STIRRUPS, TIES, AND OTHER BENDS IN REINFORCING STEEL SHALL MEET THE STANDARDS SET FORTH IN ACI 318/318R-19. UNLESS OTHERWISE PERMITTED BY THE ENGINEER, ALL REINFORCEMENT SHALL BE BENT COLD. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN ON THESE DRAWINGS OR OTHERWISE PERMITTED BY THE ENGINEER.
- UNLESS SPECIFICALLY NOTED AND/OR DETAILED IN THE STRUCTURAL DRAWINGS CONDUIT SHALL NOT BE IN CONTACT WITH REINFORCING STEEL.

STRUCTURAL NOTES CONTINUED ON SHEET S002

LEGEND OF SYMBOLS AND ABBREVIATIONS

AB	=	ANCHOR BOLT		FOOTING MARK
ABV	=	ABOVE		TOP OF FOOTING ELEVATION
ARCH	=	ARCHITECT		SECTION MARK
BLW	=	BELOW		SHEET NUMBER
BN	=	BOUNDARY NAILING		TOP OF FOUNDATION WALL OR COLUMN PIER ELEVATION
BS	=	BOUNDARY SCREW		SHEAR WALL - SEE SCHEDULE
BRB	=	BUCKLING RESTRAINED BRACE		COLUMN
BRBF	=	BUCKLING RESTRAINED BRACE FRAME		MIN. LENGTH OF SHEAR WALL
CJP	=	COMPLETE JOINT PENETRATION		FOOTING STEP
CL	=	CENTERLINE		MASONRY WALL
CMU	=	CONCRETE MASONRY UNIT		CONCRETE WALL
COL	=	COLUMN		DEPRESS FDN./WALL AND POUR FLOOR SLAB OVER AT MASONRY FOUNDATION WALL
CONC	=	CONCRETE		DEPRESS FDN./WALL AND POUR FLOOR SLAB OVER AT CONCRETE FOUNDATION WALL
CP	=	CONCRETE PIER		MASONRY BEAM
DC	=	DEMAND CRITICAL		CONCRETE BEAM
DIA / Ø	=	DIAMETER		HD - SIMPSON HOLDDOWN SIZE POST - SIZE OF END POST CONNECTED TO HOLDDOWN "A" - PLAN CONFIGURATION AT HOLDOWN AT FOUNDATION
DEA	=	DEFORMED BAR ANCHOR		ELEVATION
DBE	=	DECK BEARING ELEVATION		FRAMING ANGLE SEE TYPICAL DETAIL
ELEV	=	ELEVATION		FRAMING CHANNEL SEE TYPICAL DETAIL
EN	=	EDGE NAILING		ITEMS, DETAILS, & SYSTEMS WHICH ARE PART OF THE LATERAL FORCE RESISTING SYSTEM.
EOD	=	EDGE OF DECK		BRACED FRAME
FDN	=	FOUNDATION		MOMENT RESISTING CONNECTIONS - SEE DETAIL
FTG	=	FOOTING		MOMENT RESISTING CANTILEVER CONNECTIONS - SEE DETAIL
FFE	=	FINISHED FLOOR ELEVATION		KICKER BRACE
GB	=	CONCRETE GRADE BEAM		COLUMN SIZE
HSA	=	HEADED STUD ANCHOR		PIER MARK (PIER ELEV.)
JBE	=	JOIST BEARING ELEVATION		
KB	=	KICKER BRACE		
MAX	=	MAXIMUM		
MB	=	MASONRY BEAM		
MC	=	MASONRY COLUMN		
MECH	=	MECHANICAL		
MEZZ	=	MEZZANINE		
MIN	=	MINIMUM		
MJ	=	MASONRY JAMB		
MW	=	MASONRY WALL		
NS, FS	=	NEAR SIDE, FAR SIDE		
OAE	=	OR APPROVED EQUAL		
OPP	=	OPPOSITE		
PAF	=	POWDER ACTUATED FASTENER		
PL	=	PLATE		
REINF	=	REINFORCING		
REQ'D	=	REQUIRED		
SIM	=	SIMILAR		
SSH	=	STEEL STUD HEADER		
SSJ	=	STEEL STUD JAMB		
SSS	=	STEEL STUD SILL		
TSW	=	STEEL STUD WALL		
TOB	=	TOP OF BEAM ELEVATION		
TOC	=	TOP OF CONCRETE SLAB		
TOF	=	TOP OF FOOTING		
TOG	=	TOP OF GIRDER ELEVATION		
TOM	=	TOP OF MASONRY		
TOS	=	TOP OF STEEL ELEVATION		
TYP	=	TYPICAL		
UNO	=	UNLESS NOTED OTHERWISE		

Structural Sheet Index

SHEET NUMBER	SHEET NAME
S001	STRUCTURAL NOTES
S002	STRUCTURAL NOTES
S010	SCHEDULES
S011	SCHEDULES
S101	FOOTING & FOUNDATION AND FRAMING PLANS
S201	DETAILS
S202	DETAILS
S301	ELEVATIONS
S401	SCHEMATIC REFERENCE

SHEET TITLE:

STRUCTURAL NOTES

PROJ NO: 25181
SCALE: AS NOTED
DATE: 04/27/2026
DESIGNED BY: DLP

SHEET NO.
S001
SHEET 14 OF 22

ISSUED FOR BID

NOT FOR CONSTRUCTION

08/31/2026

ISSUE:

REVISIONS:

MARK	DATE	DESCRIPTION
C	08/31/2026	ISSUED FOR BID - REV 01
B	04/27/26	ISSUED FOR BID



PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

315 FYFFE AVENUE
STOCKTON, CA 95203

X:\DRAWINGS 2025\25181 - Port of Stockton Pipe Supports\S - 25181 - Port of Stockton Pipe Supports - 2025.rvt

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STRUCTURAL NOTES CONTINUED FROM SHEET S001 :

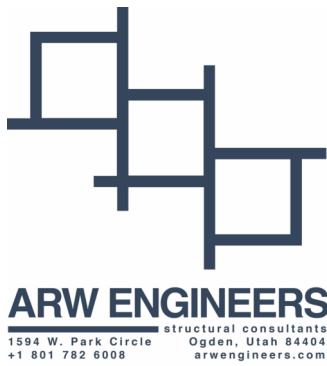
I. STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING:
- a. ANS/AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", WITH "COMMENTARY" AND "SUPPLEMENTS" AS REQUIRED BY BUILDING CODE.
 - b. AISC 303-16 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" EXCLUDING THE FOLLOWING SECTIONS: 4.4, 4.4.1, AND 4.4.2.
 - c. AISI "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
 - d. AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS".
 - e. AWS D1.1 AND 1.3, "STRUCTURAL WELDING CODE" (EXCEPT SPECIFIC ITEMS DO NOT APPLY IF THEY CONFLICT WITH AISC).
 - f. ANS/AISC 341-16 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS".
 - g. AWS D1.8, "STRUCTURAL WELDING CODE - SEISMIC".
2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING:
- a. WIDE FLANGE SHAPES, CHANNELS, AND WT SHAPES - ASTM A992 (Fy = 50 ksi)
 - b. OTHER SHAPES, PLATES, ANGLES, AND BARS - **ASTM A572 (Fy = 50 ksi)** (UNO)
 - c. HOLLOW STRUCTURAL SECTIONS (HSS) - ASTM A500, GRADE C, (Fy = 50 ksi)
 - d. DEFORMED BAR ANCHORS (DBA) - ASTM A-496, WELDED IN ACCORDANCE WITH AWS D1.1
 - e. HEADED STUD ANCHORS (HSA) - ASTM A-108, GRADE 1015 STEEL AND WELDED IN ACCORDANCE WITH AWS D1.1 FOR TYPE "B". USE 3/4" DIAMETER STUDS, UNLESS NOTED OTHERWISE.
 - f. THREADED ROD - ASTM A-449.
 - g. NON-SHRINK GROUT - ASTM C1107. NON-SHRINK GROUT SHALL BE PRE-PACKAGED, NON-METALLIC, WITH A 28-DAY COMPRESSIVE STRENGTH OF 6,000 PSI.
3. CONNECTIONS SHALL COMPLY WITH THE STRUCTURAL DRAWINGS UNLESS WRITTEN APPROVAL TO CHANGE IS GIVEN BY THE STRUCTURAL ENGINEER.
4. ALL SHOP FABRICATIONS SHALL BE PERFORMED BY AN APPROVED FABRICATOR IN ACCORDANCE WITH SECTIONS 1702 AND 1704 OF THE IBC OR WITH SHOP INSPECTION BY AN INDEPENDENT AGENCY IN ACCORDANCE WITH SECTION 1704.2.5 OF THE IBC.
5. WELDING
- a. ALL WELDING AND CUTTING SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN ACCORDANCE WITH ANSI/AWS D1.1 (LATEST EDITION).
 - b. USE E-70XX ELECTRODES UNLESS NOTED OTHERWISE. E-60XX MAY BE USED FOR WELDING STEEL DECKS.
 - c. ALL INTERSECTING STEEL SHAPES WHICH ARE NOT CONNECTED WITH BOLTS SHALL BE WELDED TOGETHER WITH A FILLET WELD ALL AROUND UNLESS NOTED OTHERWISE. WHERE WELD SIZES ARE NOT SHOWN, USE THE FOLLOWING:
 - 1. WHERE THE THICKNESS OF THE CONNECTED PARTS IS EQUAL TO OR THICKER THAN 1/4", WELD SIZE SHALL BE 1/16" LESS THAN THE THICKNESS OF THE THINNEST PART.
 - 2. WHERE ANY OF THE CONNECTED PARTS IS LESS THAN 1/4" THICK, WELD SIZE SHALL BE THE SAME AS THE THICKNESS OF THE THINNEST PART.
 - d. WELDING OF HSA'S (HEADED STUD ANCHORS) AND DBA'S (DEFORMED BAR ANCHORS) SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS AND AWS D1.1 REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR HSA'S OR DBA'S.
 - e. WHEREVER POSSIBLE, WELDS SHALL BE SHOP WELDS. SPECIAL CONSIDERATIONS, SUCH AS ITEMS WHICH MAY NEED ADJUSTMENT AT THE SITE, REQUIRE THAT SOME WELDS BE FIELD WELDS. WHERE QUESTIONS OR DISCREPANCIES OCCUR THE CONTRACTOR SHALL COORDINATE THE WORK BETWEEN THE SHOP FABRICATOR AND THE STEEL ERECTOR.
 - f. SPECIAL PROVISIONS FOR SFRS (SEISMIC FORCE RESISTING SYSTEM):
 - 1. ALL WELDS DESIGNATED AS DEMAND CRITICAL WELDS SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS SPECIFIED IN CLAUSES 6.1, 6.2, AND 6.3 OF AWS D1.8.
 - 2. ALL OTHER WELDS THAT ARE PART OF THE SFRS SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS SPECIFIED IN CLAUSE 6.1 OF AWS D1.8.
 - 3. BUTT WELDS IN MEMBERS WITH DIFFERENT THICKNESSES, SUCH AS COLUMN SPLICES, SHALL BE TAPERED AND MADE IN SUCH A MANNER THAT THE TRANSITION DOES NOT EXCEED 1 IN 2-1/2 INCHES. THE TRANSITION SHALL BE ACCOMPLISHED BY CHAMFERING THE THICKER PART, TAPERING THE WIDER PART, SLOPING THE WELD METAL OR BY A COMBINATION OF THESE
6. BOLTING
- a. UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL TO STEEL CONNECTIONS SHALL USE HIGH STRENGTH BOLTS CONFORMING TO ASTM F3125 GR. A325.
 - b. UNLESS NOTED OTHERWISE, ALL BOLTING IS CLASSIFIED AS NON-SLIP CRITICAL BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANE. TIGHTEN BOLTS TO A SNUG TIGHT CONDITION, WITH ALL PLIES OF THE JOINT IN FIRM CONTACT.
 - c. WHERE OVERSIZED OR SLOTTED HOLES OCCUR IN THE OUTER PLY, AN ASTM F436 WASHER OR 5/16" THICK COMMON PLATE WASHER SHALL BE USED AS REQUIRED TO COMPLETELY COVER THE HOLE.
 - d. BOLTS SHALL BE CENTERED IN SLOTTED HOLES, UNLESS NOTED OTHERWISE.
 - e. WHERE A STEEL BEAM TO BEAM CONNECTION IS NOT SHOWN, PROVIDE AN AISC STANDARD FRAMED CONNECTION SIZED FOR 1/2 OF THE TOTAL LOAD CAPACITY OF THE BEAM FOR THE SPAN AND STEEL SPECIFIED.
7. PROVIDE FULL DEPTH WEB STIFFENER PLATES AT EACH SIDE OF STEEL BEAMS AT ALL BEARING (EXCEPT SECONDARY FRAMING) POINTS. STIFFENER PLATES SHALL BE THICKNESS SHOWN UNLESS NOTED OTHERWISE AND SHALL BE WELDED BOTH SIDES WITH FILLET WELDS ALL AROUND.
- | FLANGE WIDTH | STIFFENER THICKNESS | WELD THICKNESS |
|-----------------------|---------------------|----------------|
| < 8 1/4" | 1/4" | 3/16" |
| 8 1/4" < BF < 12 1/2" | 3/8" | 1/4" |
| 12 1/2" < BF < 18" | 1/2" | 5/16" |
8. ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED.
9. WHEN DETERMINING THE FIRE RESISTANCE OF ASSEMBLIES, USE THE FOLLOWING: STEEL ROOF MEMBERS ARE CONSIDERED UN-RESTRAINED AND STEEL FLOOR FRAMING MEMBERS ARE CONSIDERED RESTRAINED.
10. UNLESS NOTED OTHERWISE, ALL HORIZONTAL FRAMING MEMBERS SHALL BE ERECTED WITH THE NATURAL CROWN UP.
11. UNLESS OTHERWISE SHOWN OR DETAILED IN THE PLANS, ALL STEEL COLUMNS, BEAMS, BRACES, STRUTS, ETC., SHALL BE CONTINUOUS BETWEEN CONNECTIONS OR SUPPORTS. SPLICES IN MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL BY THE ENGINEER OF RECORD.

MOMENT FRAMES NOTES:

1. STRUCTURAL STEEL IN MOMENT FRAMES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATIONS NOTED IN THE STRUCTURAL STEEL NOTES ABOVE IN ADDITION TO THE FOLLOWING :
- a. AISC 341 - SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS.
2. STRUCTURAL STEEL IN MOMENT FRAMES SHALL COMPLY WITH THE REQUIREMENTS NOTED IN THE STRUCTURAL STEEL NOTES ABOVE TO INCLUDE THE FOLLOWING:
- a. ALL SHAPES OF GROUP 3 (WITH FLANGES THICKER THAN 1-1/2"), GROUP 4 AND GROUP 5, AS WELL AS ALL PLATES 2" AND THICKER, THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM SHALL HAVE CHAMFY-V-NOTCH ABSORBED ENERGY OF AT LEAST 20 FT-LBS. AT 70 DEGREES F.
3. BOLTED CONNECTIONS IN MOMENT FRAMES SHALL CONFORM TO AISC 368 FASTENER AND TIGHTENING REQUIREMENTS. ALL BOLTS IN MOMENT FRAMES SHALL BE INSPECTED AND TESTED.
4. BRACE BOTTOM FLANGES OF MOMENT FRAME BEAMS AS DETAILED.
5. WELDED CONNECTIONS BETWEEN THE PRIMARY MEMBERS OF MOMENT FRAMES SHALL BE TESTED FOR COMPLIANCE ACCORDING TO IBC 1705.2.1, AISC 360, AISC 341, AWS D1.1, AWS D1.8, AND THE CONTRACT SPECIFICATIONS AND PLANS. INSPECTION SHALL BE DONE BY A QUALIFIED TESTING INSPECTOR IN ACCORDANCE WITH AWS D1.8, CHAPTER 7. AS A MINIMUM, THE TESTING SHALL INCLUDE THE FOLLOWING:
- a. ALL COMPLETE-JOINT-PENETRATION GROOVE WELDS CONTAINED IN JOINTS AND SPLICES SHALL BE TESTED 100% EITHER BY ULTRASONIC TESTING OR BY RADIOGRAPHY.
 - b. PARTIAL PENETRATION GROOVE WELDS WHEN USED IN COLUMN SPLICES SHALL BE TESTED EITHER BY ULTRASONIC TESTING OR BY RADIOGRAPHY. A MINIMUM OF 50% OF THESE WELDS SHALL BE TESTED.
 - c. BASE METAL THICKER THAN 1-1/2" WHEN SUBJECTED TO THROUGH THICKNESS WELD SHRINKAGE STRAINS SHALL BE ULTRASONICALLY INSPECTED FOR DISCONTINUITIES DIRECTLY BEHIND SUCH WELDS AND THREE INCHES ABOVE AND BELOW THE WELD AFTER JOINT ASSEMBLY COMPLETION.
 - d. ANY MATERIAL DISCONTINUITIES SHALL BE ACCEPTED OR REJECTED IN ACCORDANCE WITH THE REQUIREMENTS OF AWS D1.8, CHAPTER 7. ALL DEFICIENT WELDS SHALL BE CORRECTED AND TESTED AT NO ADDITIONAL COST TO THE OWNER.
 - e. ELECTRODES SHALL BE PROVIDED IN PACKAGING THAT LIMITS THE ABILITY OF THE ELECTRODE TO ABSORB MOISTURE. ELECTRODES USED FOR DEMAND CRITICAL WELDS SHALL COME FROM PACKAGING THAT HAS NOT BEEN PUNCTURED OR TORN PRIOR TO USE.
6. ALL COMPLETE-JOINT-PENETRATION WELDS USED IN MOMENT FRAMES ARE CONSIDERED DEMAND CRITICAL AND THE FOLLOWING SPECIAL PROVISIONS APPLY: WELDING METHODS, PROCEDURES AND QUALITY CONTROL SHALL COMPLY WITH AWS D1.1 AND THE FOLLOWING:
- a. TACK WELD QUALITY SHALL COMPLY WITH CLAUSE 6.12 OF AWS D1.8.
 - b. ARC STRIKES, GOUGES AND OTHER IMPERFECTIONS WITHIN THE PROTECTED ZONE, SHALL BE REPAIRED OR REMOVED IN ACCORDANCE WITH AWS D1.8, CLAUSE 6.18.
 - c. PREHEAT AND INTER-PASS REQUIREMENTS SHALL COMPLY WITH AWS D1.8, CLAUSES 6.7 AND 6.8.
 - d. USE WELD TABS AT BEAM FLANGE CONNECTION; AFTER WELDING, REMOVE THE WELD TABS AND FINISH TO A SMOOTH CONTOUR PER AWS D1.8 CLAUSE 6.16.
 - e. BACKER BARS SHALL BE REMOVED FROM BEAM BOTTOM FLANGE CONNECTIONS TO COLUMNS. REMOVAL OF BACKING AND WELD ROOT TREATMENT SHALL COMPLY WITH AWS D1.8, CLAUSE 6.13.
 - f. BACKER BARS NEED NOT BE REMOVED FROM THE BEAM TOP FLANGE CONNECTIONS TO COLUMNS PROVIDED THAT THE BACKER BARS ARE WELDED TO THE COLUMN FLANGE WITH A CONTINUOUS FILLET WELD FOR THE ENTIRE LENGTH OF THE BACKER BAR.
 - g. UNREPAIRED CRACKS, GOUGES, AND NOTCHES WILL NOT BE PERMITTED IN THE PROTECTED ZONE.
 - h. FILLER METAL MECHANICAL PROPERTIES SHALL MEET THE REQUIREMENTS SPECIFIED IN AWS D1.8 CLAUSES 6.1, 6.2, AND 6.3.
7. ALL NON-DEMAND CRITICAL WELDS USED IN MOMENT FRAMES SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS SPECIFIED IN AWS D1.8, CLAUSE 6.1.
8. PROVIDE CONTINUITY PLATES BETWEEN COLUMN FLANGES AT THE TOP AND BOTTOM OF EACH MOMENT FRAME BEAM FLANGE AS SHOWN IN THE MOMENT FRAME DETAILS

SUBCONSULTANT:



SUBCONSULTANT:



PRIME CONSULTANT:



8-21-26

PROFESSIONAL SEAL:

ISSUED FOR BID

NOT FOR
CONSTRUCTION

08/31/2026

ISSUE:

REVISIONS:

C	08/31/2026	ISSUED FOR BID - REV 01
B	04/27/26	ISSUED FOR BID
MARK	DATE	DESCRIPTION



PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

315 FYFFE AVENUE
STOCKTON, CA 95203

SHEET TITLE:

STRUCTURAL NOTES

PROJ NO: 25181
SCALE: AS NOTED
DATE: 04/27/2026
DESIGNED BY: DLP

SHEET NO.

S002

SHEET 15 OF 22

IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING

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SPECIAL INSPECTION SCHEDULE 1,2				
ESTABLISHED PER 2021 CBC SECTION 110 AND CHAPTER 17				
ITEM	CONTINUOUS ³	PERIODIC ³	REFERENCE	COMMENTS
CONCRETE CONSTRUCTION (CBC 1705.3)				
REINFORCING STEEL PLACEMENT		●	SEE CBC TABLE 1705.3 - REF. NOTE C1	C1. SPECIAL INSPECTION IS NOT REQUIRED FOR CONC. ISOLATED SPREAD FOOTINGS, CONTINUOUS FOOTINGS, NON-STRUCTURAL SLABS, FOUNDATION WALLS, PATIOS, DRIVEWAYS, AND SIDEWALKS PROVIDED THE REQUIREMENTS OF CBC 1705.3 ARE MET.
WELDING OF REINFORCING STEEL	●	●	REFERENCE NOTE C2	C2. PERIODIC SPECIAL INSPECTION IS ALLOWED FOR VERIFICATION OF THE WELDABILITY OF REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS, AND SHEAR REINFORCEMENT. PERIODIC SPECIAL INSPECTION IS ALLOWED FOR WELDING OF OTHER ASTM A 706 REINFORCING STEEL NOT INCLUDED IN THE CONTINUOUS SPECIAL INSPECTION REQUIREMENTS NOTED ABOVE.
ANCHORS CAST IN CONCRETE	●			C3. PERFORM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST.
VERIFYING REQUIRED DESIGN MIX		●		C4. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.
CONCRETE PLACEMENT / SAMPLING	●		REFERENCE NOTE C3	C5. EPOXY AND EXPANSION ANCHORS INTO MASONRY OR CONCRETE MAY BE USED ONLY WHEN APPROVED BY ARCHITECT AND/OR ENGINEER USING AN APPROVED PRODUCT WITH CURRENT PUBLISHED ICC RESEARCH REPORT NUMBERS. COORDINATE CONTINUOUS/PERIODIC SPECIAL INSPECTION REQUIREMENTS WITH ICC REPORT AND ACI 318: 17.8.2.4.
CURING TEMPERATURE / TECHNIQUES		●		C6. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F.
CONCRETE AND SHOTCRETE PLACEMENT / APPLICATION TECHNIQUES	●			C7. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5.
PRESTRESSED CONCRETE				C8. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR FORMWORK SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.
APPLICATION OF PRESTRESSING FORCES	●			
GROUTING BONDED TENDONS	●			
ERECTION OF PRECAST MEMBERS		●		
PRECAST CONCRETE DIAPHRAGM CONNECTIONS			REFERENCE NOTE C6 AND C7	
INSTALLATION OF THE EMBEDDED PARTS	●			
CONTINUITY OF REINFORCEMENT ACROSS JOINTS	●			
CONNECTION COMPLETION IN THE FIELD				
VERIFICATION OF IN-SITU STRENGTH		●	REFERENCE NOTE C4	
POST-INSTALLED ANCHOR PLACEMENT	●	●	REFERENCE NOTE C5	
FORMWORK		●	REFERENCE NOTE C8	
SOILS (CBC 1705.6)				
VERIFY ADEQUATE MATERIALS BELOW FOOTINGS		●	REFERENCE NOTE F1	F1. SPECIAL INSPECTION OF SOILS SHALL REFERENCE THE APPROVED GEOTECHNICAL REPORT TO DETERMINE COMPLIANCE.
EXCAVATIONS EXTEND TO PROPER DEPTH AND REACH PROPER MATERIAL		●	REFERENCE NOTE F2	F2. WHERE GEOTECHNICAL REPORT IS NOT PROVIDED SPECIAL INSPECTIONS ARE REQUIRED TO VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMPACTED FILL IS NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557.
CLASSIFY & TEST CONTROLLED FILL MATERIALS		●	REFERENCE NOTE F2	F3. CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING FILL PLACEMENT. VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
FILL MATERIAL AND PLACEMENT	●		REFERENCE NOTE F3	
PROPERLY PREPARED SITE AND SUB-GRADE PRIOR TO FILL		●	REFERENCE NOTE F1	
PIER FOUNDATIONS (CBC 1705.8)				
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PIER	●		REFERENCE NOTE PF1 AND PF2	PF1. FOR STEEL ELEMENTS, PERFORM ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH THE STRUCTURAL STEEL INSPECTION SCHEDULE ALSO INCLUDED IN THESE DRAWINGS.
VERIFY PLACEMENT LOCATIONS, AND PLUMBNESS, CONFIRM PIER DIAMETERS, LENGTHS, EMBEDMENT INTO BED ROCK AND ADEQUATE END-BEARING CAPACITY.	●			PF2. FOR CONCRETE ELEMENTS AND CONCRETE FILLED ELEMENTS, PERFORM TESTS AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.
GENERAL SPECIAL INSPECTION NOTES :				
1. THE ITEMS MARKED WITH A "●" IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH CBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR, AND BUILDING OFFICIAL. ANY ITEMS WHICH FAIL TO COMPLY WITH THE APPROVED CONSTRUCTION DOCUMENTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL, ARCHITECT, AND ENGINEER PRIOR TO COMPLETION OF THAT PHASE OF WORK. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.				
2. ANY CONSTRUCTION OR MATERIAL THAT HAS FAILED INSPECTION SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT.				
3. CONTINUOUS SPECIAL INSPECTION MEANS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. PERIODIC SPECIAL INSPECTION MEANS THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK. (CBC SECTION 202)				

BEAM CONNECTION SCHEDULE						
BEAM DEPTH	SHEAR PLATE INFORMATION			BOLTS W/ STANDARD WASHERS OVER SLOTS		WELD 'A'
	PL. DIMENSIONS W/ SHORT-SLOTTED HOLES	Lev	Leh	No.	SIZE	
W8, W10	PL. 1/4" x REQ'D	1 1/2"	2"	2	3/4" Ø	3/16"
W24	PL. 3/8" x REQ'D	1 1/2"	2"	6	7/8" Ø	1/4"

DRILLED PIER SCHEDULE					
MARK	DIAMETER	DEPTH	VERTICAL REINFORCING	HORIZONTAL REINFORCING	COMMENTS
DP-36	36"	8'-0"	(12) #7 EVENLY SPACED	#4 HOOPS @ 18"o.c. TYP. W/ SPA. = 6"o.c. TOP 4'-0"	
DP-48	48"	18'-0"	(12) #8 EVENLY SPACED	#4 HOOPS @ 18"o.c. TYP. W/ SPA. = 6"o.c. TOP 4'-0"	

NOTES:

1. SHAFTS MAY REQUIRE DEWATERING IF GROUNDWATER IS ENCOUNTERED.

2. PIER DIAMETERS CAN BE INCREASED BASED ON EQUIPMENT AVAILABILITY - MAX SPACING OF VERTICAL #7 OR #8 BARS = 12"o.c.

	 ARW ENGINEERS 1350 W. MAIN CIRCLE # 801 762 6050 Oroville, Utah 84054 arw@arwusa.com	 JMA CIVIL 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com	 9-21-26	ISSUED FOR BID																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
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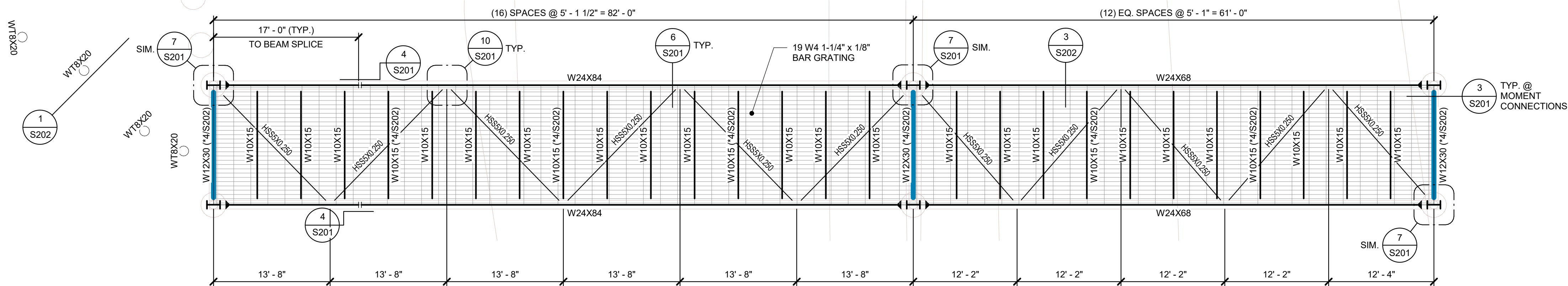
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STRUCTURAL STEEL SPECIAL INSPECTION SCHEDULE																																																
ESTABLISHED PER 2021 CBC SECTION 1705.2.1																																																
INSPECTION TASKS PRIOR TO WELDING (TABLE N5.4-1)		FABRICATOR QUALITY CONTROL		SPECIAL INSPECTOR QUALITY ASSURANCE		NOTES	INSPECTION TASKS PRIOR TO BOLTING (TABLE N5.6-1)		CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	NOTES																																			
		CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC																																											
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS		●			●	1. PERIODIC - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. 2. CONTINUOUS - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER. 3. QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. 4. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION (AHJ), APPLICABLE BUILDING CODE (ABC), PURCHASER, OWNER, OR ENGINEER OF RECORD (EOR). NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGENCY OR FIRM RESPONSIBLE FOR QUALITY ASSURANCE, EXCEPT AS PERMITTED IN ACCORDANCE WITH SECTION N6. 5. QC AND QA INSPECTORS SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 360-16 CHAPTER N4. 6. NONDESTRUCTIVE TESTING PERSONNEL SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 360-16 CHAPTER N4.3. 7. NONDESTRUCTIVE TESTING OF WELDED JOINTS SHALL COMPLY WITH AISC 360-16 CHAPTER N5.5a AND b. 8. OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN-PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. FOR STRUCTURAL STEEL, ALL PROVISIONS OF AWS D1.1 / D1.1M STRUCTURAL WELDING CODE - STEEL FOR STATICALLY LOADED STRUCTURES SHALL APPLY. 9. THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE TESTED BY QA USING MT OR PT, WHEN THE FLANGE THICKNESS EXCEEDS 2 IN. (50mm) FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 IN. (50mm) FOR BUILT-UP SHAPES. ANY CRACK SHALL BE DEEMED UNACCEPTABLE REGARDLESS OF SIZE OR LOCATION. 10. WHEN REQUIRED BY APPENDIX 3, TABLE A-3.1, WELDED JOINTS REQUIRING WELD SOUNDNESS TO BE ESTABLISHED BY RADIOGRAPHICS OR ULTRASONIC INSPECTION SHALL BE TESTED BY QA AS PRESCRIBED. REDUCTION IN THE RATE OF UT IS PROHIBITED. 11. REDUCTION OF RATE OF ULTRASONIC TESTING - THE RATE OF UT IS ONLY PERMITTED TO BE REDUCED IF APPROVED BY THE EOR AND THE AHJ PER AISC 360-16 CHAPTER N5.5e. 12. FOR STRUCTURES IN RISK CATEGORY II, WHERE THE INITIAL RATE FOR UT IS 10%, THE NDT RATE FOR AN INDIVIDUAL WELDER OR WELDING OPERATOR SHALL BE INCREASED TO 100% SHOULD THE REJECT RATE, THE NUMBER OF WELDS CONTAINING UNACCEPTABLE DEFECTS DIVIDED BY THE NUMBER OF WELDS COMPLETED, EXCEEDS 5% OF THE WELDS TESTED FOR THE WELDER OR WELDING OPERATOR. A SAMPLING OF AT LEAST 20 COMPLETED WELDS FOR A JOB SHALL BE MADE PRIOR TO IMPLEMENTING SUCH AN INCREASE. WHEN THE REJECT RATE FOR THE WELDER OR WELDING OPERATOR, AFTER A SAMPLING OF AT LEAST 40 COMPLETED WELDS, HAS FALLEN TO 5% OR LESS, THE RATE OF UT SHALL BE RETURNED TO 10%. FOR EVALUATING THE REJECT RATE OF CONTINUOUS WELDS OVER 3 FT (1M) IN LENGTH WHERE THE EFFECTIVE THROAT IS 1 IN. (25mm) OR LESS, EACH 12 IN. (300mm) INCREMENT OR FRACTION THEREOF SHALL BE CONSIDERED AS ONE WELD. FOR EVALUATING THE REJECT RATE ON CONTINUOUS WELDS OVER 3 FT (1M) IN LENGTH WHERE THE EFFECTIVE THROAT IS GREATER THAN 1 IN. (25mm), EACH 6 IN. (150mm) OF LENGTH OR FRACTION THEREOF SHALL BE CONSIDERED ON WELD. 13. ALL NDT PERFORMED SHALL BE DOCUMENTED. FOR SHOP FABRICATION, THE NDT REPORT SHALL IDENTIFY THE TESTED WELD BY PIECE MARK AND LOCATION IN THE PIECE. FOR FIELD WORK, THE NDT REPORT SHALL IDENTIFY THE TESTED WELD BY LOCATION IN THE STRUCTURE, PIECE MARK, AND LOCATION IN THE PIECE. WHEN A WELD IS REJECTED ON THE BASIS OF NDT, THE NDT RECORD SHALL INDICATE THE LOCATION OF THE DEFECT AND THE BASIS OF REJECTION. 14. DEMAND CRITICAL WELDS SHALL MEET THE PROVISION FOUND IN AISC 341-16 AND WELDING METHODS, PROCEDURES AND QUALITY CONTROL SHALL COMPLY WITH AWS D1.1 AND THE FOLLOWING: a. ARC STRIKES, GOUGES AND OTHER IMPERFECTIONS WITHIN OR ADJACENT TO THE JOINT, SHALL BE REPAIRED OR REMOVED. b. PREHEAT AND INTER-PASS REQUIREMENTS AS OUTLINED IN SECTION 3.5. c. UNREPAIRED CRACKS, GOUGES, AND NOTCHES WILL NOT BE PERMITTED IN THE JOINT AREA. d. USE ELECTRODES WITH CHARPY V-NOTCH ABSORBED ENERGY EQUAL TO OR GREATER THAN 20 FT-LBS AT 20 DEGREES FAHRENHEIT UNDER AWS A5 CLASSIFICATION TEST METHODS, AND 40 FT-LBS AT 70 DEGREES FAHRENHEIT USING TEST PROCEDURES PRESCRIBED IN APPENDIX X OF AISC 358. ACCEPTABLE ELECTRODES INCLUDE E70TG-K2, E71 T-1.	MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS			●	●	1. PERIODIC - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. 2. CONTINUOUS - PERFORM THESE TASKS FOR EACH BOLTED CONNECTION. 3. QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. 4. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION (AHJ), APPLICABLE BUILDING CODE (ABC), PURCHASER, OWNER, OR ENGINEER OF RECORD (EOR). NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGENCY OR FIRM RESPONSIBLE FOR QUALITY ASSURANCE, EXCEPT AS PERMITTED IN ACCORDANCE WITH SECTION N7. 5. FOR SNUG-TIGHT JOINTS, PRE-INSTALLATION VERIFICATION TESTING AS SPECIFIED IN TABLE N5.6-1 AND MONITORING OF THE INSTALLATION PROCEDURES AS SPECIFIED IN TABLE N5.6-2 ARE NOT APPLICABLE. THE QCI AND QAI NEED NOT BE PRESENT DURING THE INSTALLATION OF FASTENERS IN SNUG-TIGHT JOINTS. FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLER IS USING THE TURN-OFF-NUT METHOD WITH MATCHMARKING TECHNIQUES, THE DIRECT-TENSION-INDICATOR METHOD, OR THE TWIST-OFF-TYPE TENSION CONTROL BOLT METHOD, MONITORING OF BOLT PRETENSIONING PROCEDURES SHALL BE AS SPECIFIED IN TABLE N5.6-2. THE QCI AND QAI NEED NOT BE PRESENT DURING THE INSTALLATION OF FASTENERS WHEN THESE METHODS ARE USED BY THE INSTALLER. 7. FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLER IS USING THE CALIBRATED WRENCH METHOD OR THE TURN-OF-NUT METHOD WITHOUT MATCHMARKING, MONITORING OF BOLT PRETENSIONING PROCEDURES SHALL BE AS SPECIFIED IN TABLE N5.6-2. THE QCI AND QAI SHALL BE ENGAGED IN THEIR ASSIGNED INSPECTION DUTIES DURING INSTALLATION OF FASTENERS WHEN THESE METHODS ARE USED BY THE INSTALLER. OBSERVATION OF BOLTING OPERATIONS SHALL BE THE PRIMARY METHOD USED TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP INCORPORATED IN CONSTRUCTION ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND THE PROVISIONS OF THE RCSC SPECIFICATION. 8.																																				
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE		●			●		FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS			●			●																																			
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE		●			●		PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)			●			●																																			
MATERIAL IDENTIFICATION (TYPE / GRADE)			●		●		PROPER BOLTING PROCEDURES SELECTED FOR JOINT DETAIL			●			●																																			
WELDER IDENTIFICATION SYSTEM ¹			●		●		CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS			●			●																																			
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)							PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		●				●																																			
* JOINT PREPARATION			PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS				●		●																																							
* DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)			INSPECTION TASKS DURING BOLTING (TABLE N5.6-2)		CONTINUOUS		PERIODIC	CONTINUOUS	PERIODIC																																							
* CLEANLINESS (CONDITION OF STEEL SURFACES)			FASTENER ASSEMBLIES, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED				●		●																																							
* TACKING (TACK WELD QUALITY AND LOCATION)							JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION			●			●																																			
* BACKING TYPE AND FIT (IF APPLICABLE)							FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING			●			●																																			
FIT-UP OF CJP GROOVE WELDS OFHSS T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)		●					FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES			●		●																																				
* JOINT PREPARATIONS			INSPECTION TASKS AFTER BOLTING (TABLE N5.6-3)		CONTINUOUS		PERIODIC	CONTINUOUS	PERIODIC																																							
* DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)			DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS				●		●																																							
* CLEANLINESS (CONDITION OF STEEL SURFACES)																																																
* TACKING (TACK WELD QUALITY AND LOCATION)																																																
CONFIGURATION AND FINISH OF ACCESS HOLES																																																
FIT-UP OF FILLET WELDS																																																
* DIMENSIONS (ALIGNMENT, GAPS AT ROOT)			●		●																																											
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CHECK WELDING EQUIPMENT			●																																													
¹ THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.																																																
INSPECTION TASKS DURING WELDING (TABLE N5.4-2)		CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	GENERAL STEEL SPECIAL INSPECTION NOTES : 1. QUALITY ASSURANCE (QA) INSPECTION OF FABRICATED ITEMS SHALL BE MADE AT THE FABRICATOR'S PLANT. THE QUALITY ASSURANCE INSPECTOR (QAI) SHALL SCHEDULE THIS WORK TO MINIMIZE INTERRUPTION TO THE WORK OF THE FABRICATOR. 2. QA INSPECTION OF THE ERECTED STEEL SYSTEM SHALL BE MADE AT THE PROJECT SITE. THE QAI SHALL SCHEDULE THIS WORK TO MINIMIZE INTERRUPTION TO THE WORK OF THE ERECTOR. 3. WHERE A TASK IS NOTED TO BE PERFORMED BY BOTH QC AND QA, IT IS PERMITTED TO COORDINATE THE INSPECTION FUNCTION BETWEEN THE QCI AND QAI SO THAT THE INSPECTION FUNCTIONS ARE PERFORMED BY ONLY ONE PARTY. WHERE QA RELIES UPON INSPECTION FUNCTIONS PERFORMED BY QC, THE APPROVAL OF THE ENGINEER OF RECORD AND THE AUTHORITY HAVING JURISDICTION IS REQUIRED. 4. THE FABRICATOR'S QCI SHALL INSPECT THE FABRICATED STEEL TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE SHOP DRAWINGS, SUCH AS PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION. THE ERECTOR'S QCI SHALL INSPECT THE ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE ERECTION DRAWINGS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION. 5. THE QAI SHALL BE ON THE PREMISES FOR INSPECTION DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. AS A MINIMUM, THE DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE, SHALL BE VERIFIED PRIOR TO PLACEMENT OF THE CONCRETE. 6. THE QAI SHALL INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME, AS APPROPRIATE, TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION. 7. QUALITY ASSURANCE (QA) INSPECTIONS, EXCEPT NONDESTRUCTIVE TESTING (NDT), MAY BE WAIVED WHEN THE WORK IS PERFORMED IN A FABRICATING SHOP OR BY AN ERECTOR APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ) TO PERFORM THE WORK WITHOUT QA. NDT OF WELDS COMPLETED IN AN APPROVED FABRICATOR'S SHOP MAY BE PERFORMED BY THAT FABRICATOR WHEN APPROVED BY THE AHJ. WHEN THE FABRICATOR PERFORMS THE NDT, THE QA AGENCY SHALL REVIEW THE FABRICATOR'S NDT REPORTS. 8. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AHJ STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE FABRICATOR ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. AT COMPLETION OF ERECTION, THE APPROVED ERECTOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AHJ STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE ERECTOR ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. 9. IDENTIFICATION AND REJECTION OF MATERIAL OR WORKMANSHIP THAT IS NOT IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS, SHALL BE PERMITTED AT ANY TIME DURING THE PROGRESS OF THE WORK. HOWEVER, THIS PROVISION SHALL NOT RELIEVE THE OWNER OR THE INSPECTOR OF THE OBLIGATION FOR TIMELY, IN-SEQUENCE INSPECTIONS. NONCONFORMING MATERIAL AND WORKMANSHIP SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE FABRICATOR OR ERECTOR, AS APPLICABLE. 10. NONCONFORMING MATERIAL OR WORKMANSHIP SHALL BE BROUGHT INTO CONFORMANCE, OR MADE SUITABLE FOR ITS INTENDED PURPOSE AS DETERMINED BY THE ENGINEER OF RECORD. 11. CONCURRENT WITH THE SUBMITTAL OF SUCH REPORTS TO THE AHJ, EOR OR OWNER, THE QA AGENCY SHALL SUBMIT TO THE FABRICATOR AND ERECTOR: (1) NONCONFORMANCE REPORTS (2) REPORTS OF REPAIR, REPLACEMENT OR ACCEPTANCE OF NONCONFORMING ITEMS.																																										
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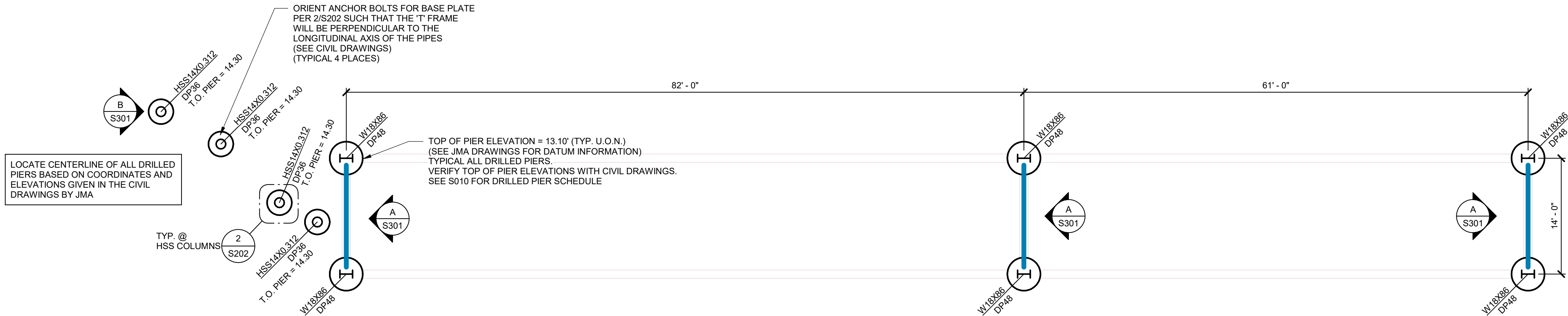


FRAMING PLAN

SCALE : 1/8" = 1'-0"

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S101

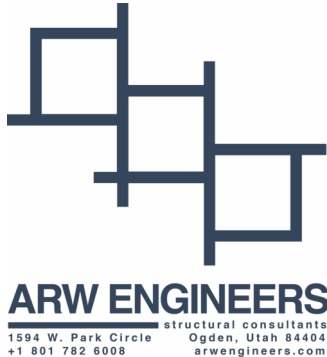


FOUNDATION PLAN

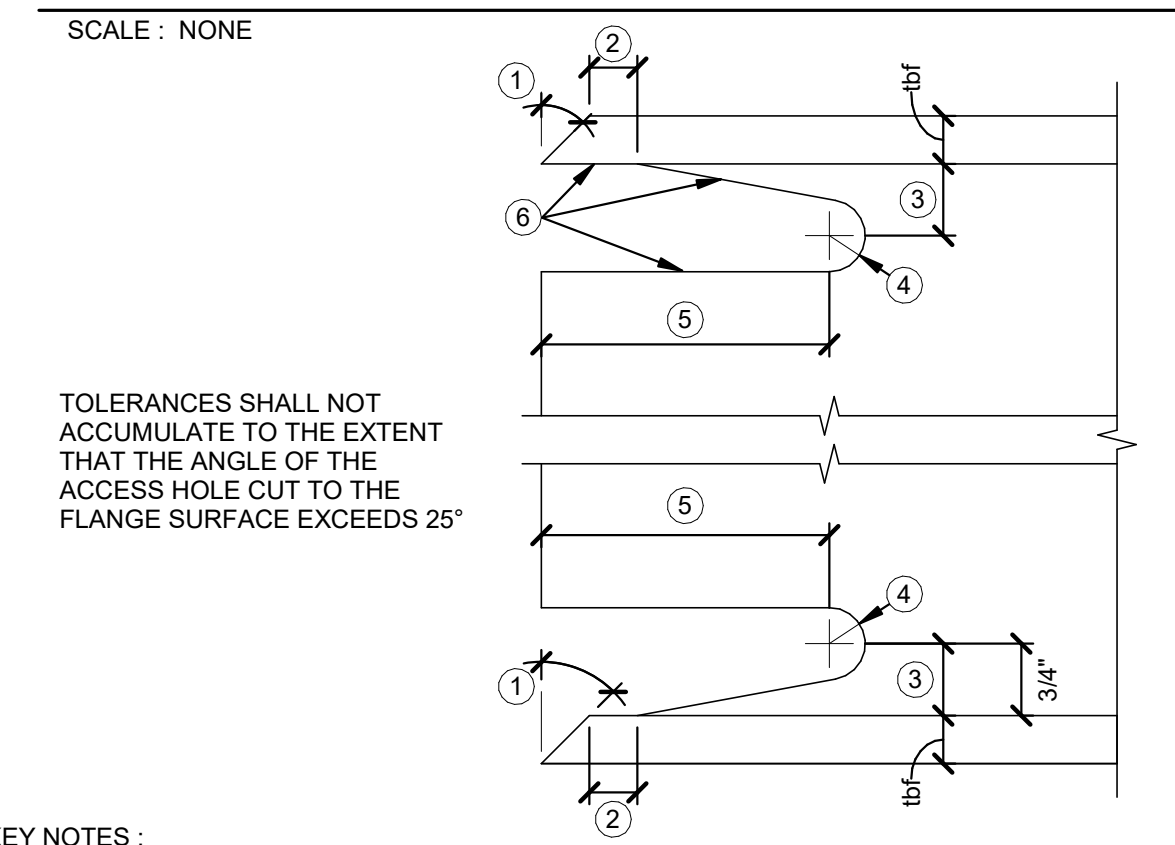
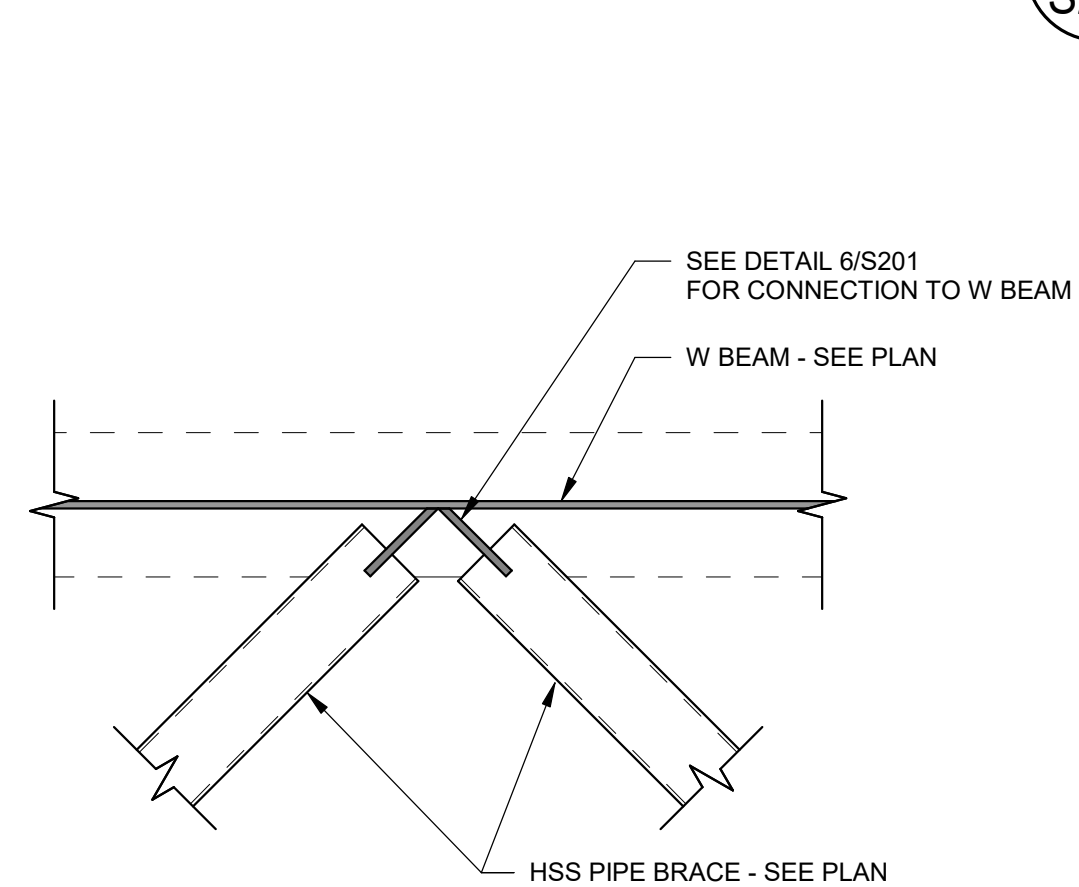
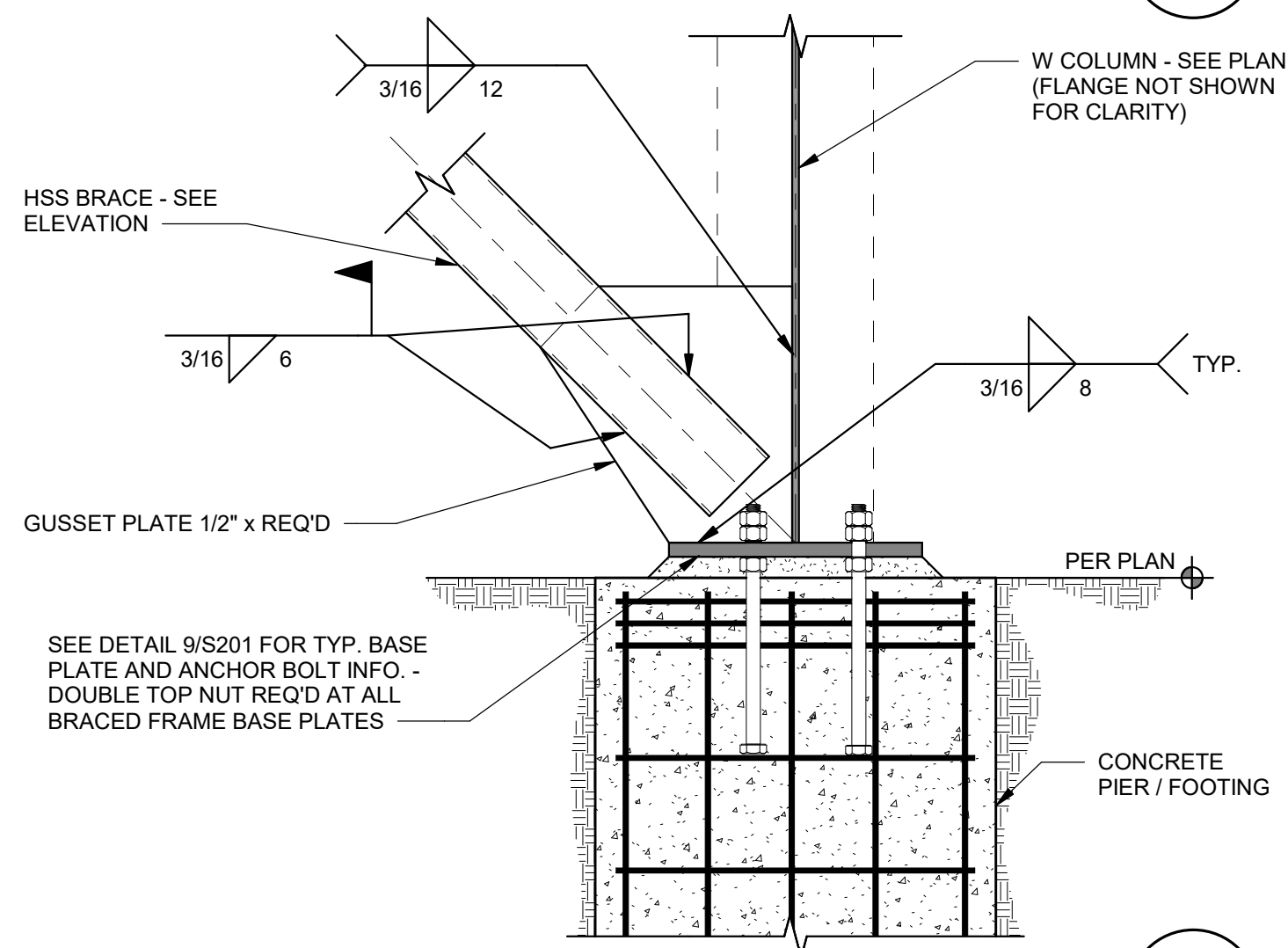
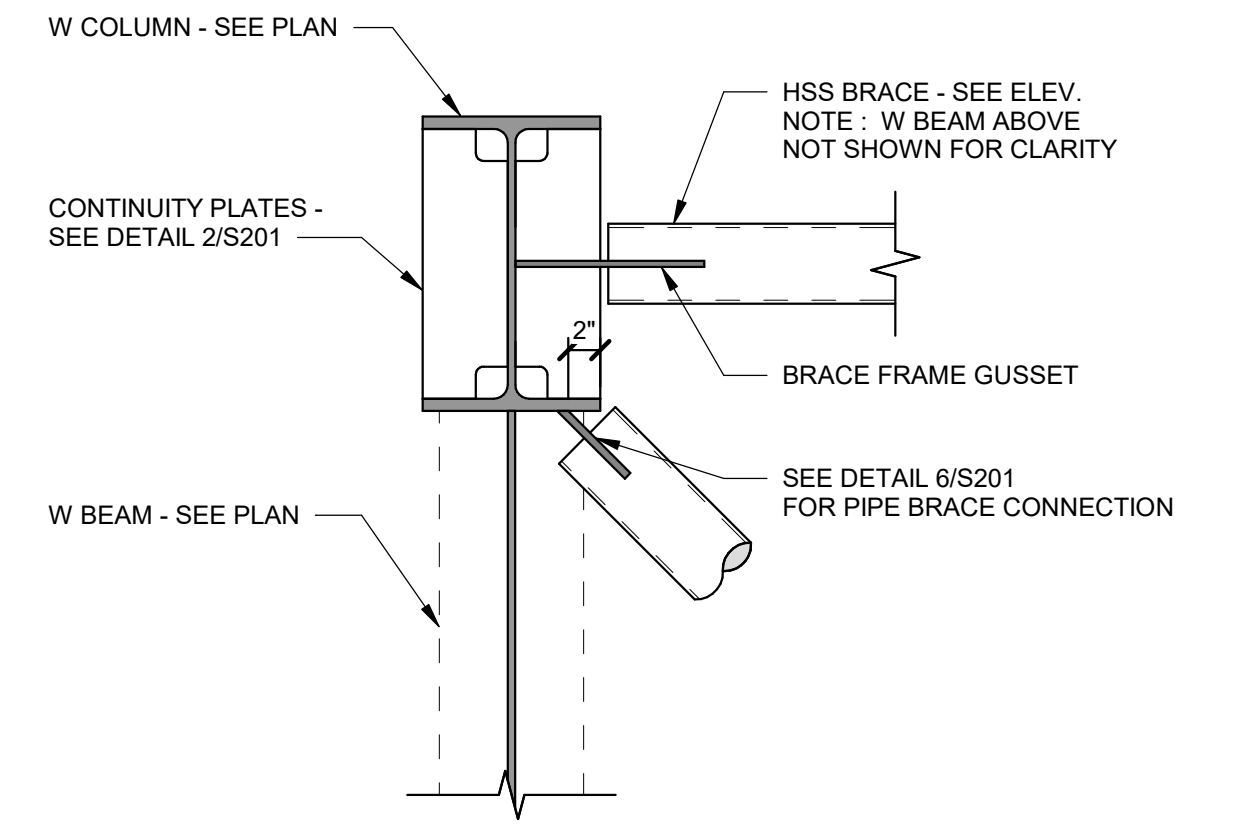
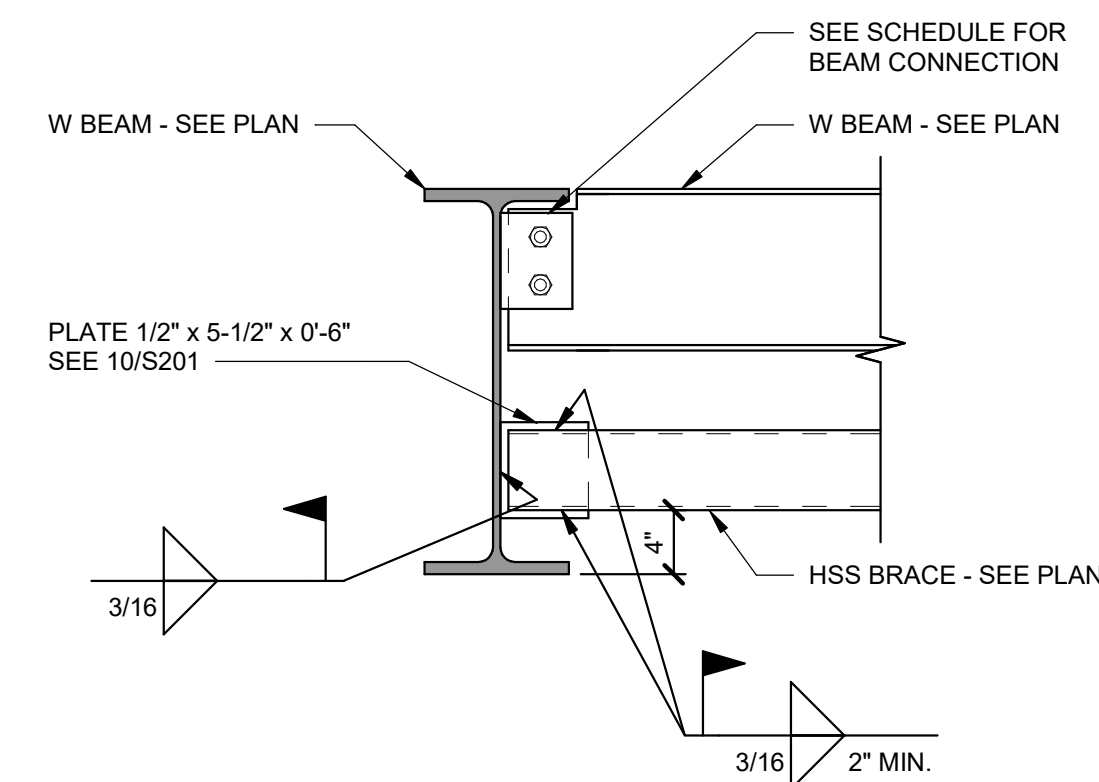
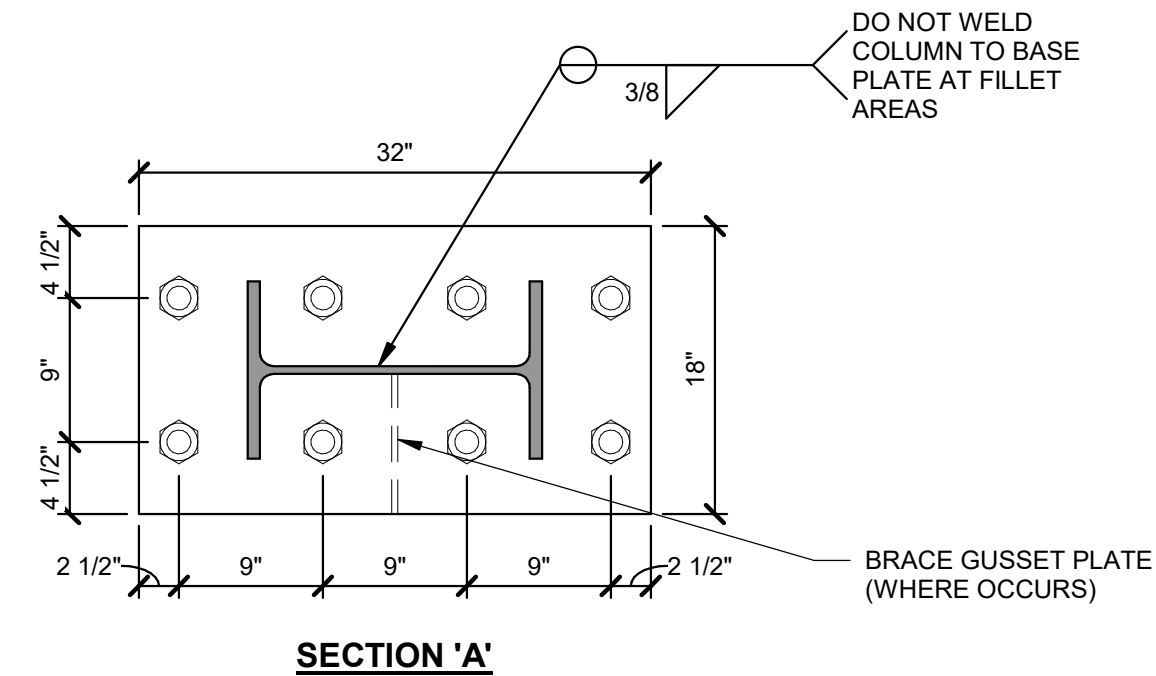
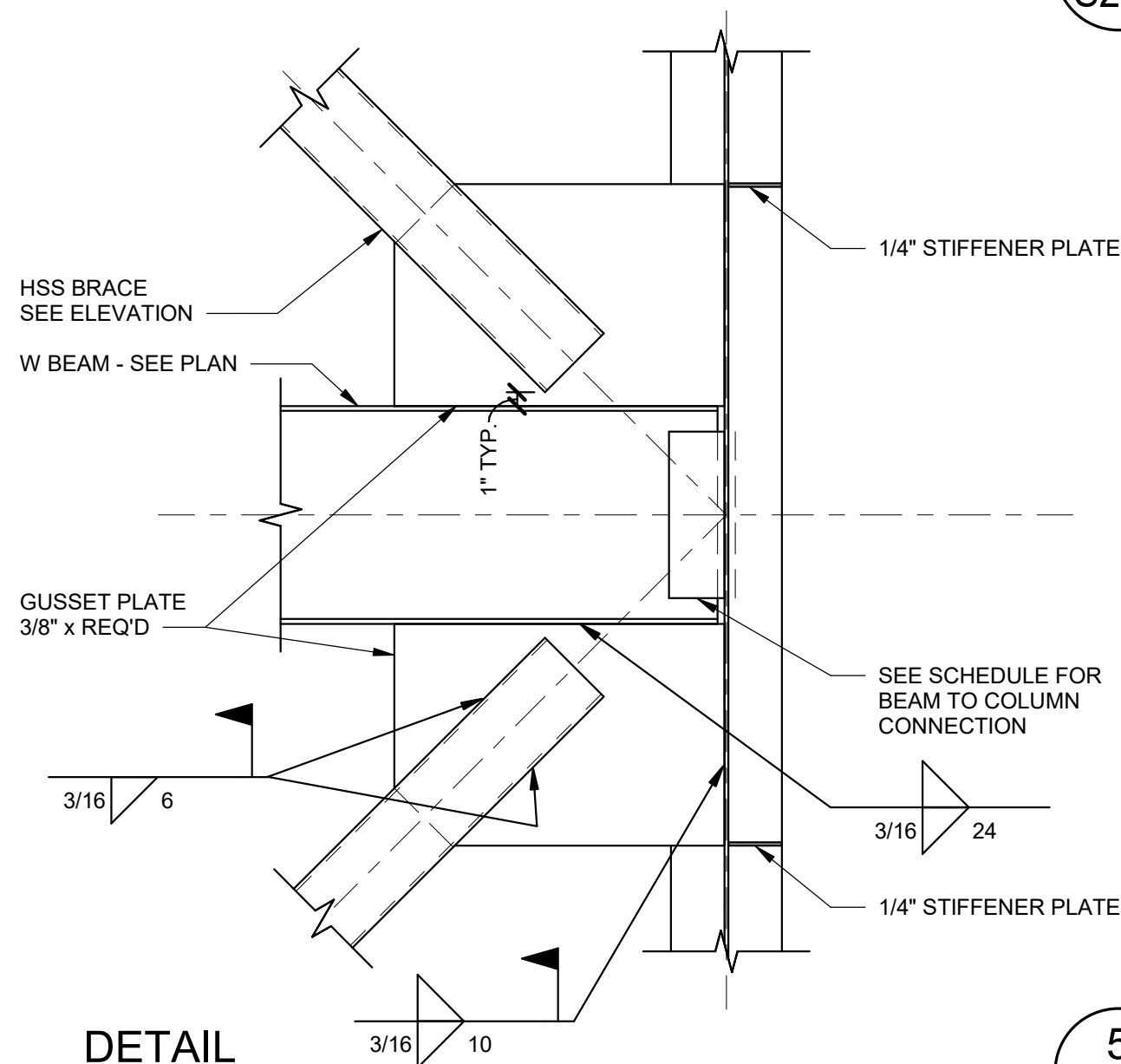
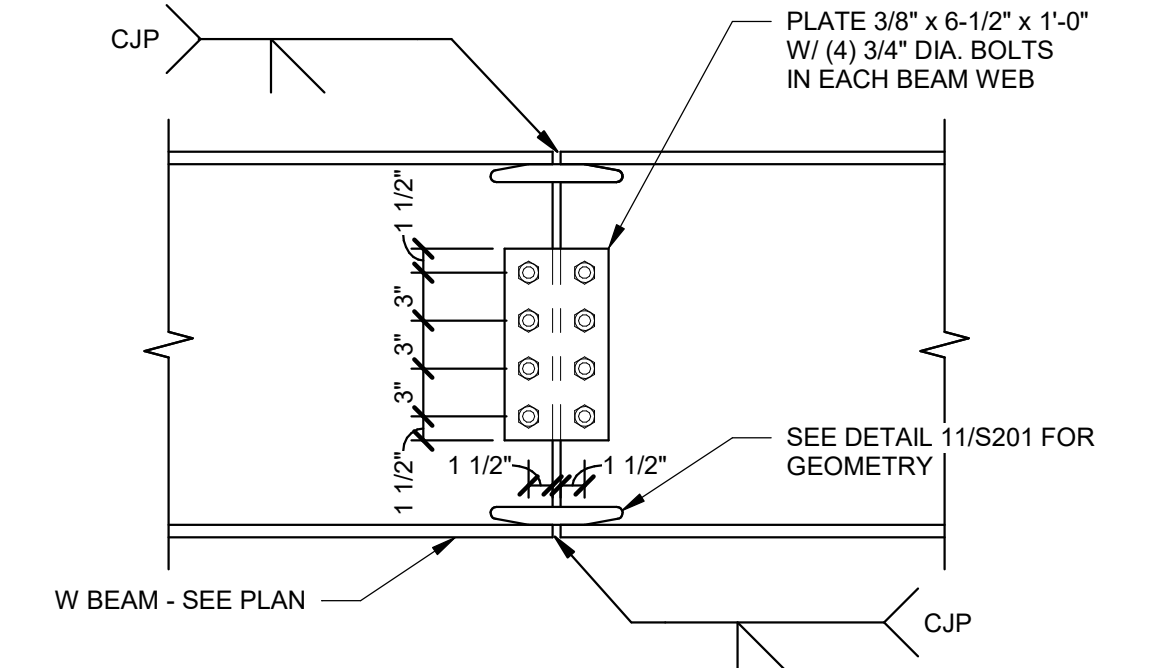
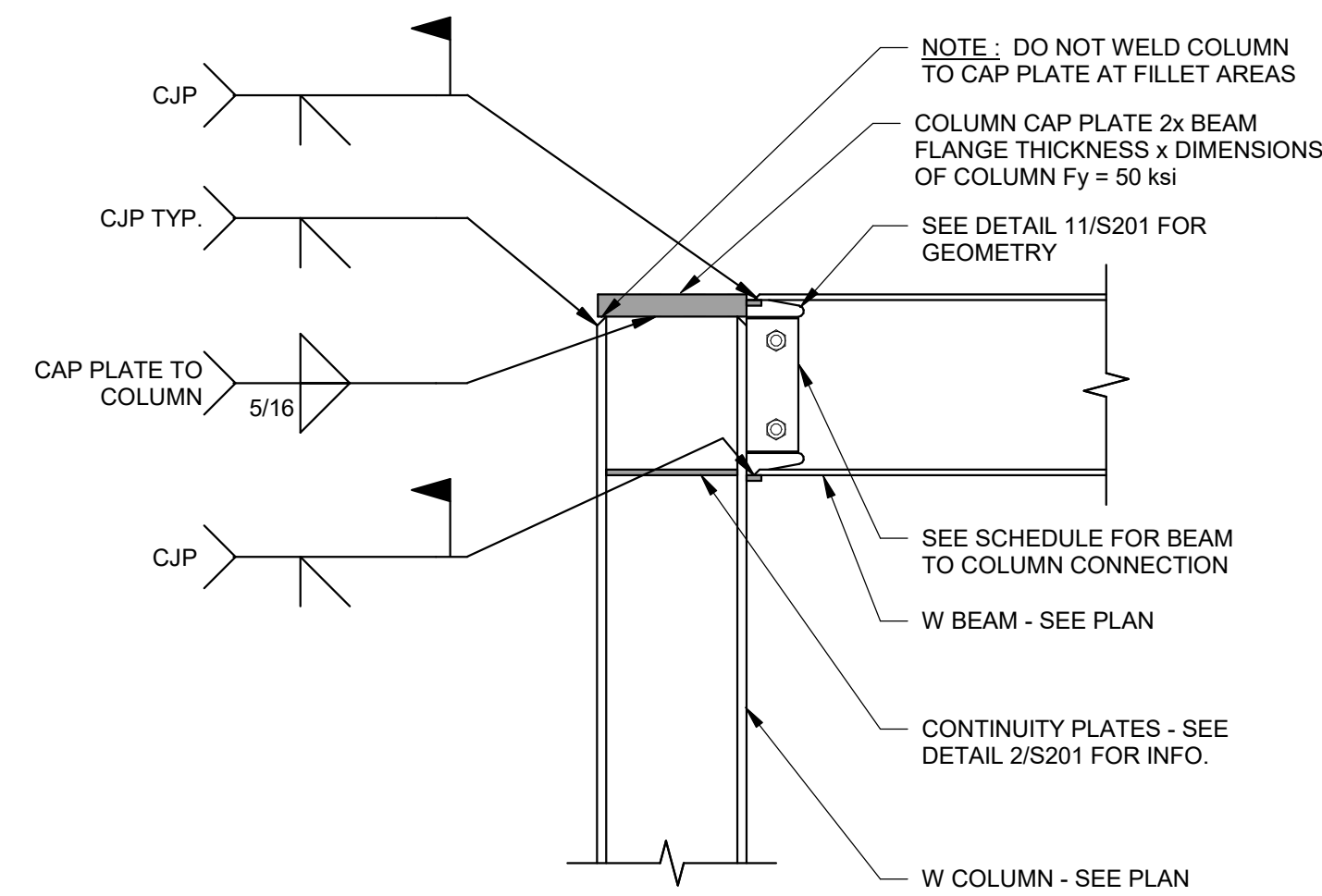
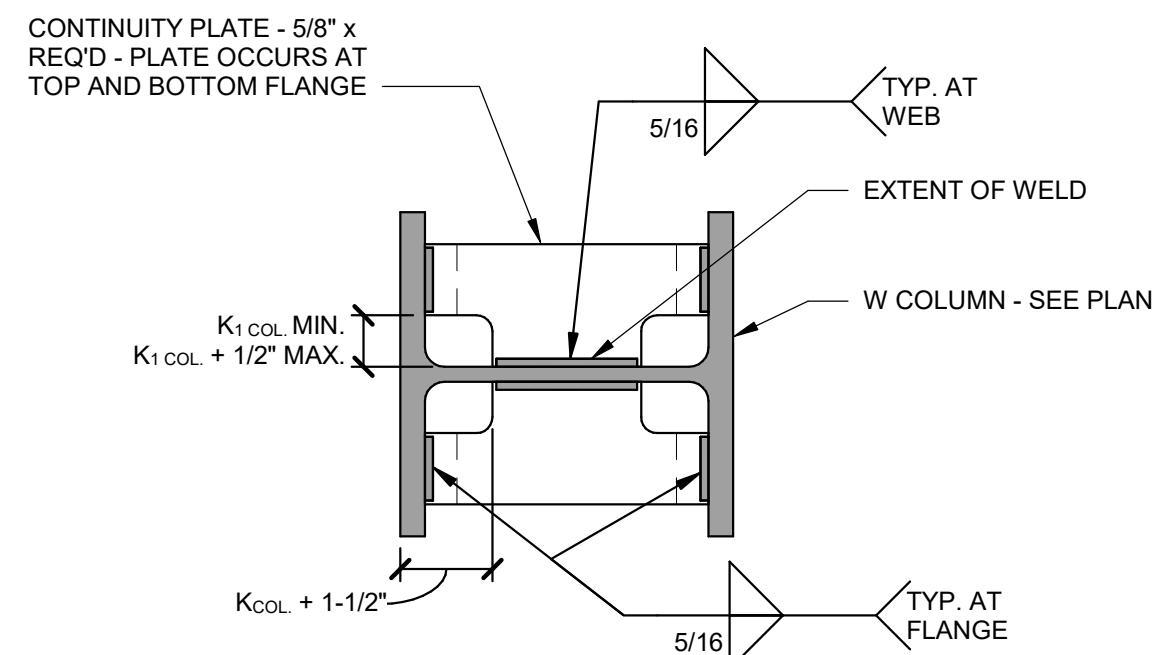
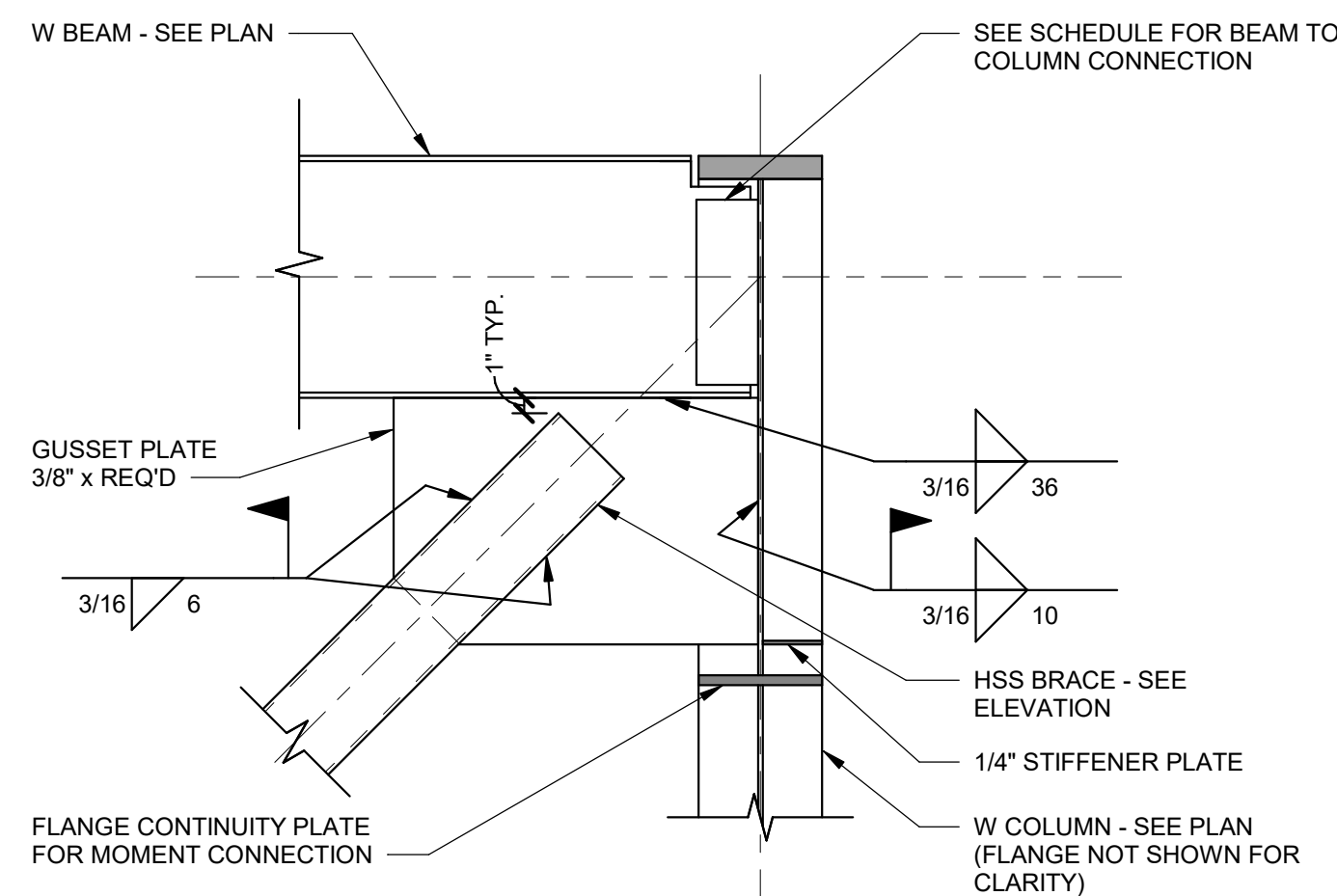
SCALE : 1/8" = 1'-0"

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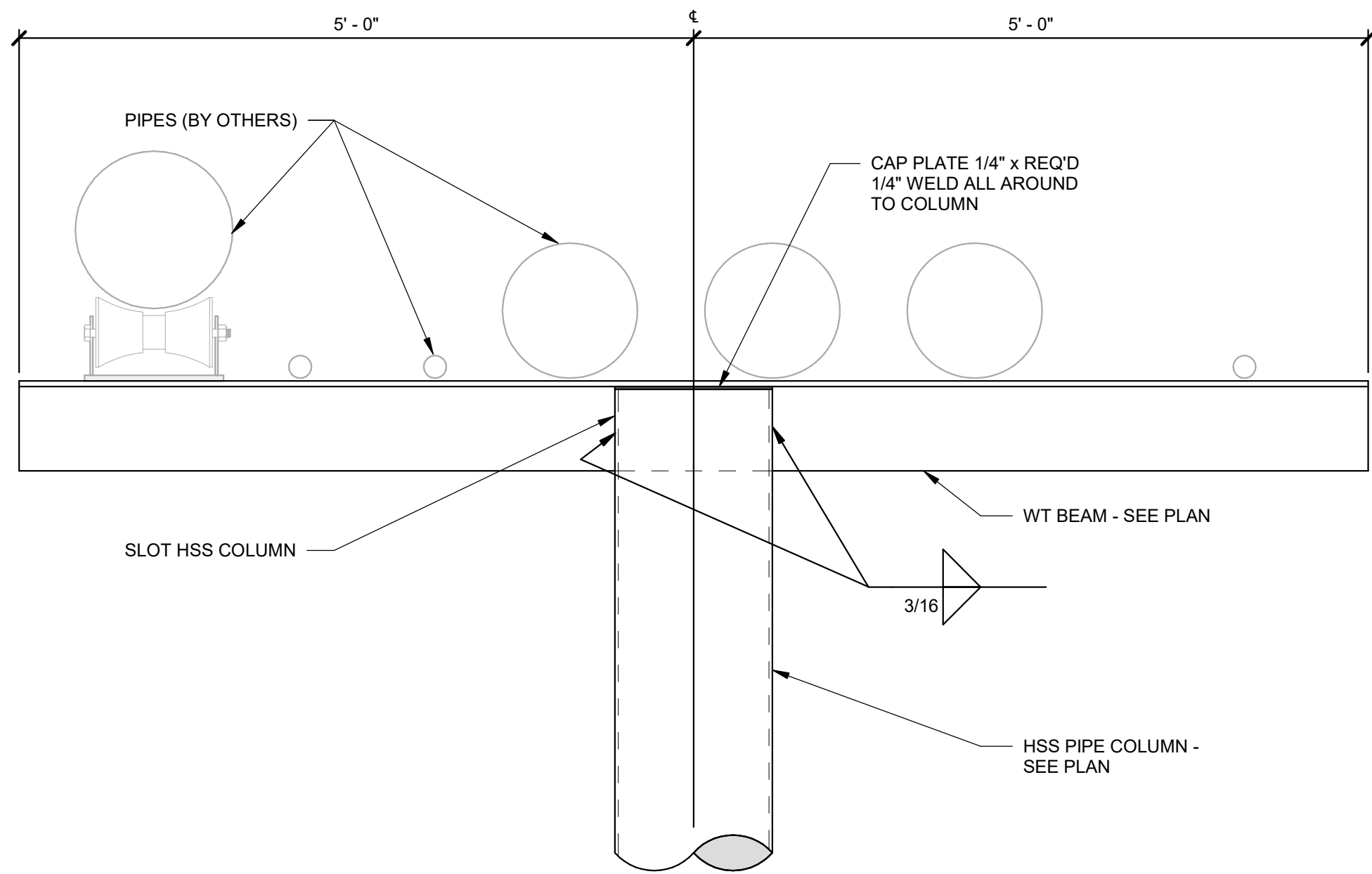
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IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING



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8/21/2026 3:05:13 PM

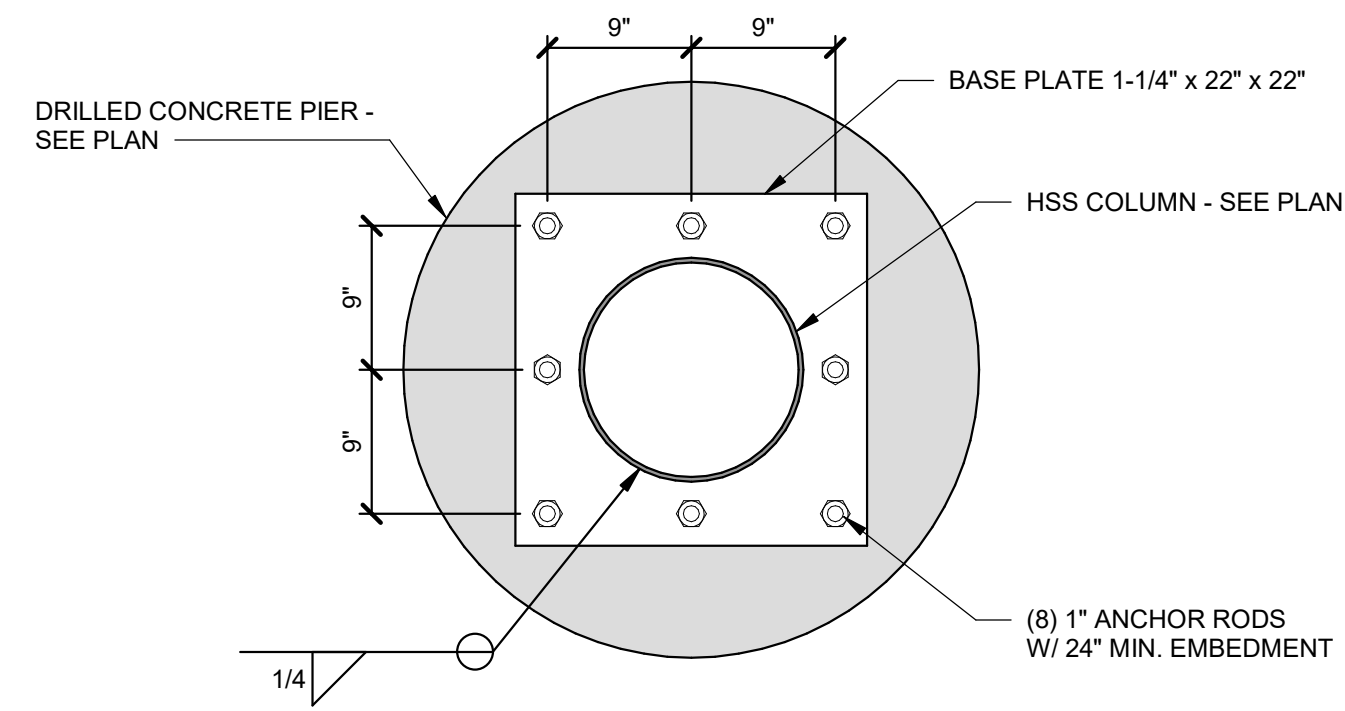


DETAIL

SCALE : NONE

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S202

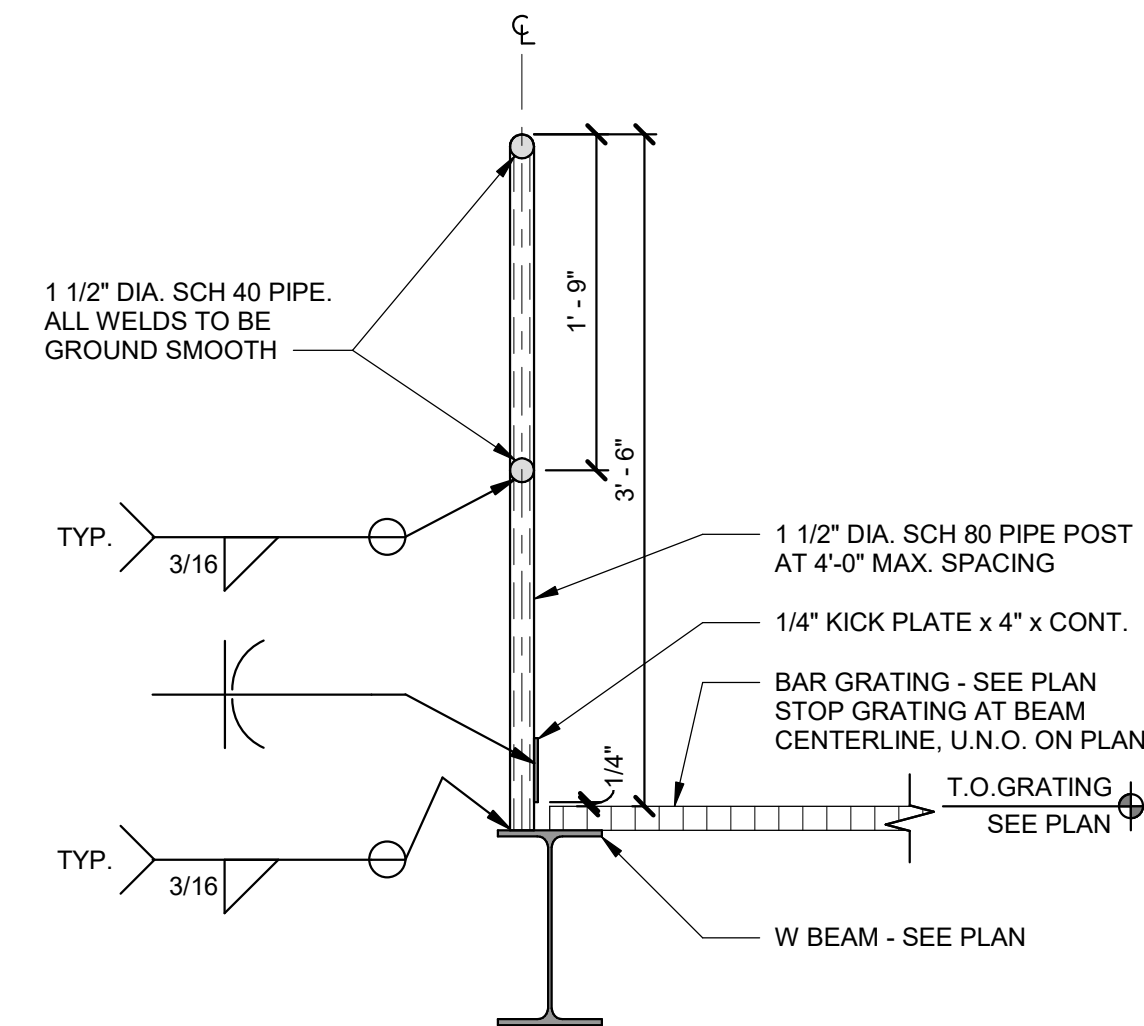


DETAIL

SCALE : NONE

2

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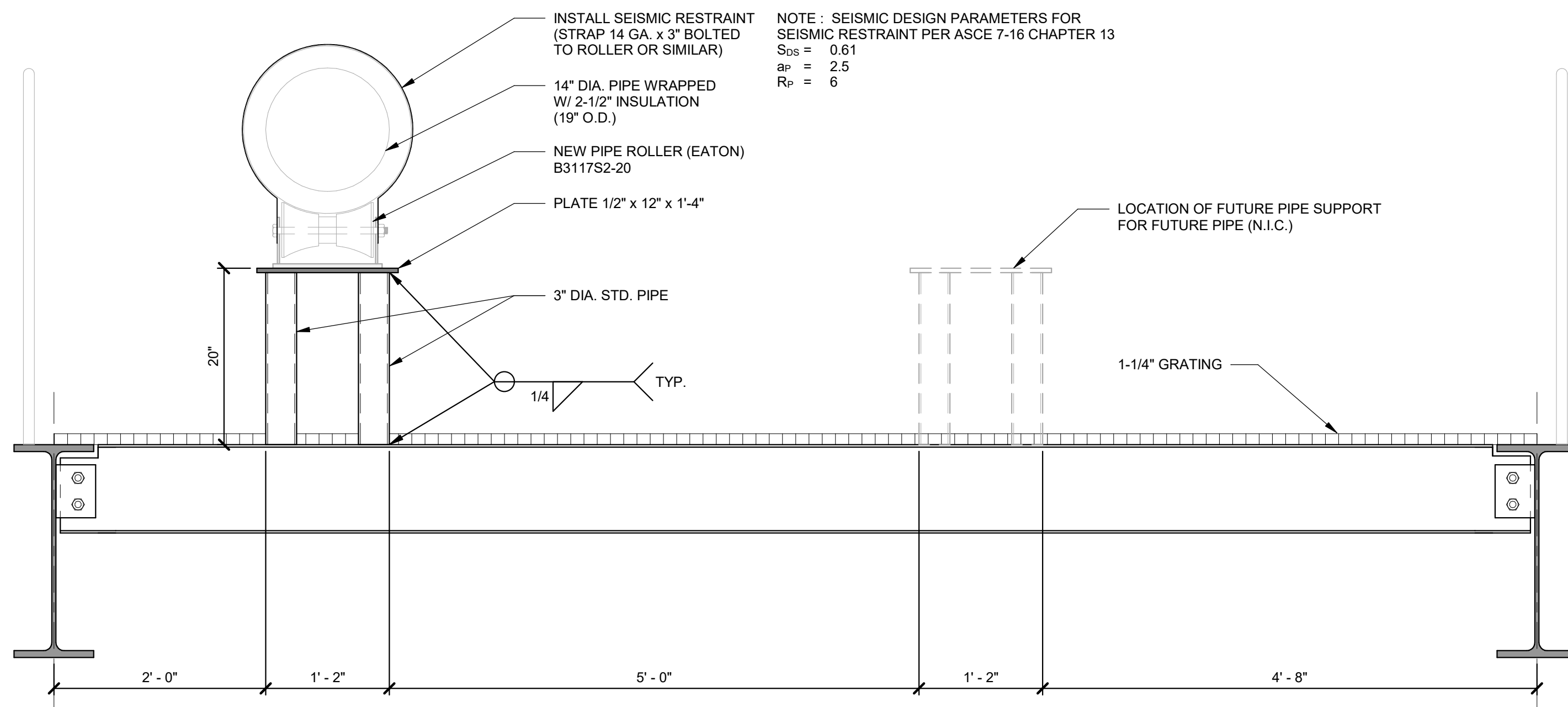


TYP. GUARDRAIL DETAIL

SCALE : NONE

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S202



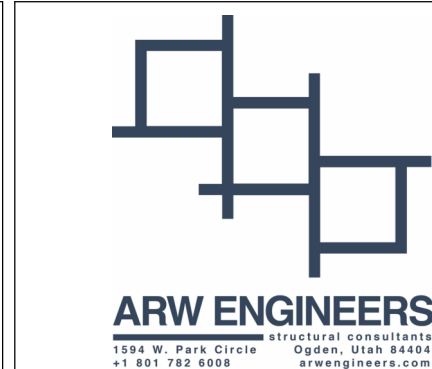
DETAIL

SCALE : NONE

4

S202

SUBCONSULTANT:



SUBCONSULTANT:



PRIME CONSULTANT:



PROFESSIONAL SEAL:

ISSUED FOR BID
NOT FOR
CONSTRUCTION

08/31/2026

ISSUE:

REVISIONS:

MARK	DATE	DESCRIPTION
C	08/31/2026	ISSUED FOR BID - REV 01
B	04/27/26	ISSUED FOR BID



PORT OF STOCKTON
RAIL AND BRIDGE IMPROVEMENTS

315 FYFFE AVENUE
STOCKTON, CA 95203

SHEET TITLE:

DETAILS

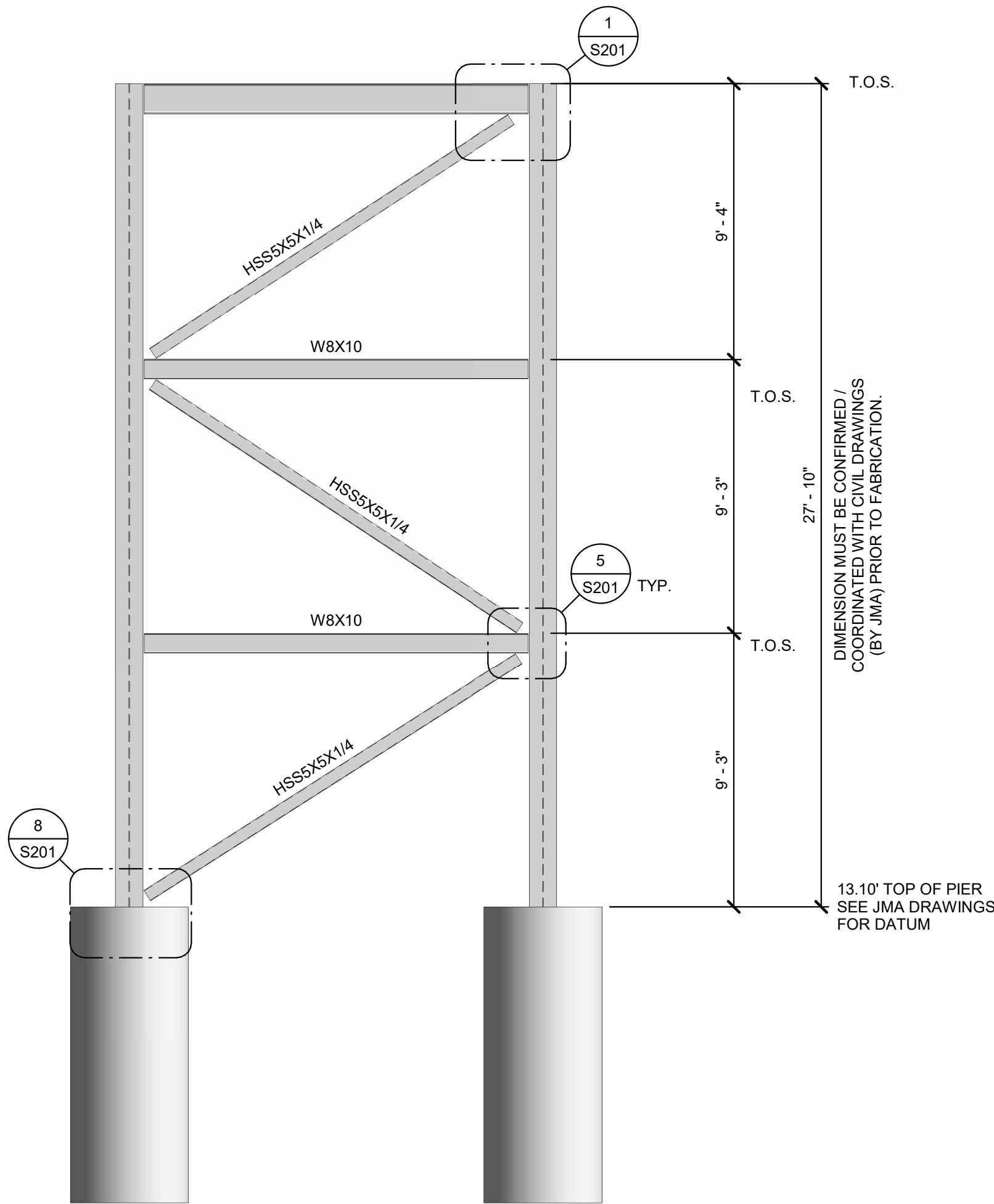
PROJ NO: 25181
SCALE: AS NOTED
DATE: 04/27/2026
DESIGNED BY: DLP

SHEET NO.
S202
SHEET 20 OF 22

IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING

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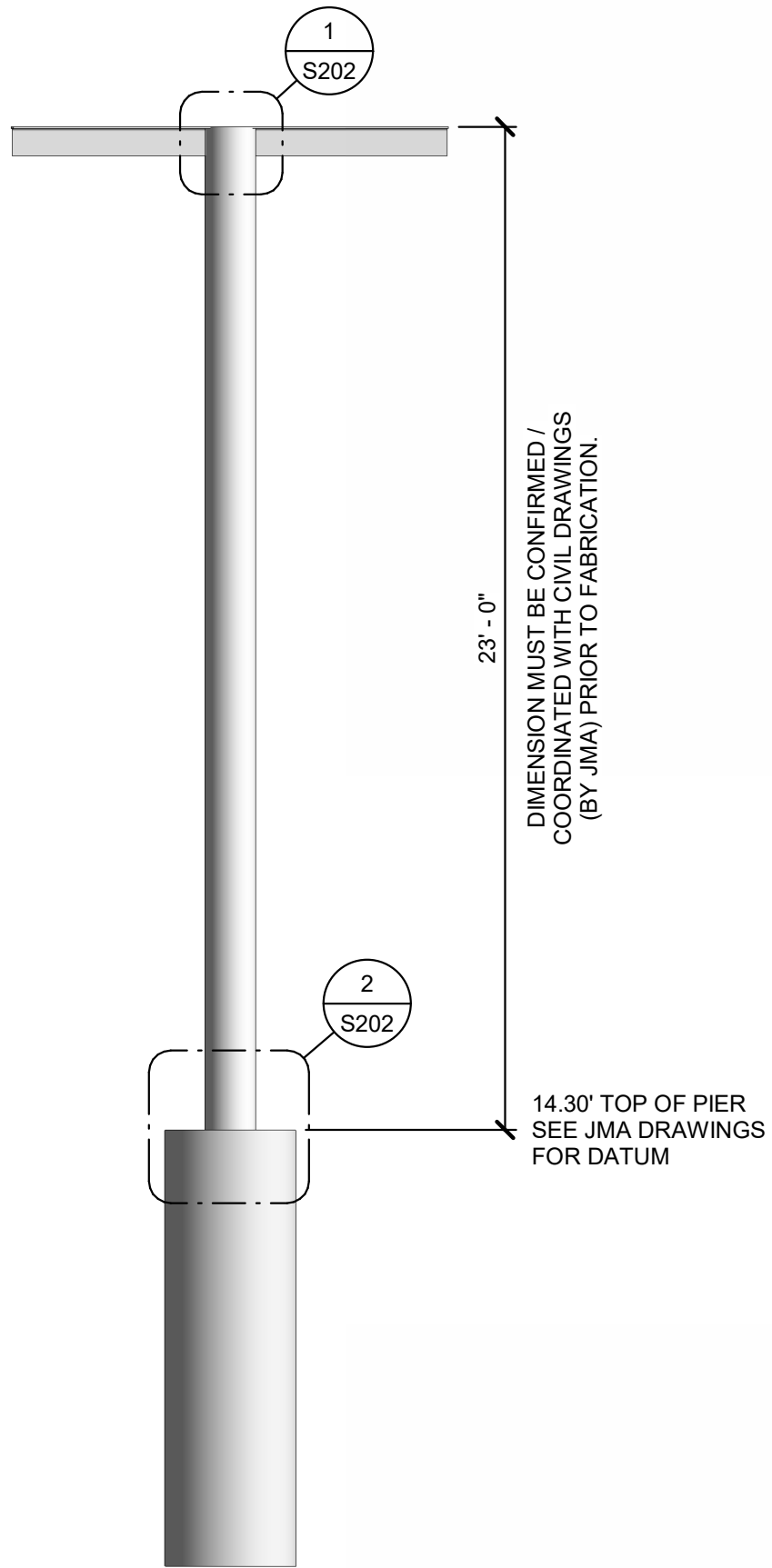
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ELEVATION

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

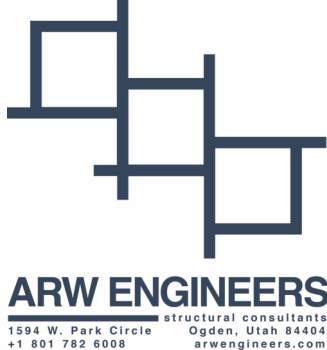
A
S301



ELEVATION

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

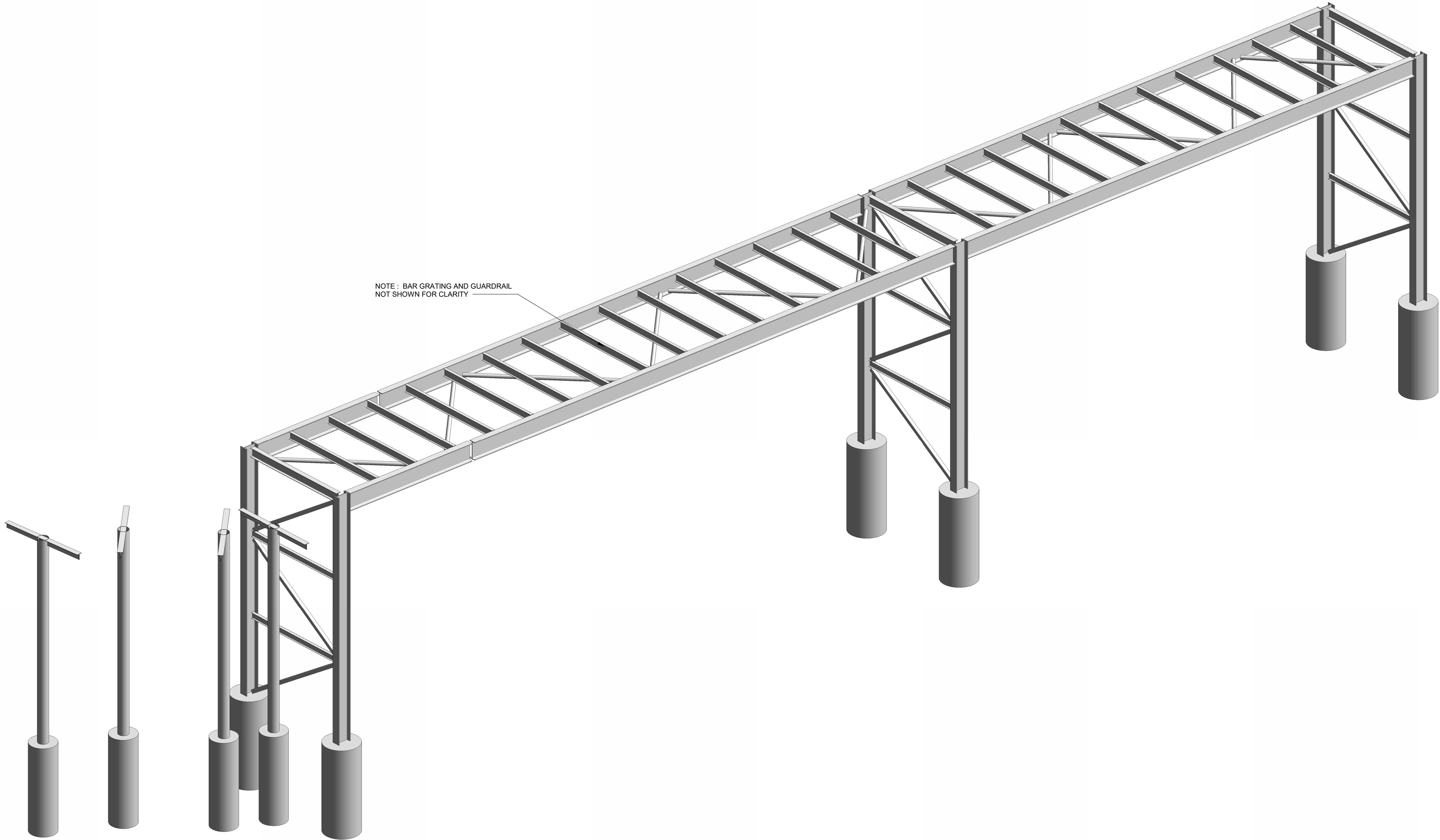
B
S301

 SUBCONSULTANT:		 5250 Claremont Ave., Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com PRIME CONSULTANT:		 PROFESSIONAL SEAL:		ISSUED FOR BID NOT FOR CONSTRUCTION 08/31/2026 ISSUE:		<table><tr><th colspan="3">REVISIONS:</th></tr><tr><th>MARK</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td>C</td><td>08/31/2026</td><td>ISSUED FOR BID - REV 01</td></tr><tr><td>B</td><td>04/27/26</td><td>ISSUED FOR BID</td></tr></table>		REVISIONS:			MARK	DATE	DESCRIPTION	C	08/31/2026	ISSUED FOR BID - REV 01	B	04/27/26	ISSUED FOR BID	 PORT OF STOCKTON RAIL AND BRIDGE IMPROVEMENTS 315 FYFFE AVENUE STOCKTON, CA 95203		<table><tr><td colspan="2">SHEET TITLE:</td></tr><tr><td colspan="2">ELEVATIONS</td></tr><tr><td>PROJ NO: 25181 SCALE: AS NOTED DATE: 04/27/2026 DESIGNED BY: DLP</td><td>SHEET NO. S301 SHEET 21 OF 22</td></tr></table>		SHEET TITLE:		ELEVATIONS		PROJ NO: 25181 SCALE: AS NOTED DATE: 04/27/2026 DESIGNED BY: DLP	SHEET NO. S301 SHEET 21 OF 22
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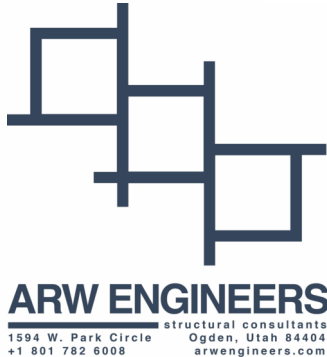
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