

MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION



FACILITIES ENGINEERING, ADA & SUSTAINABILITY DIVISION

PURPLE LINE LIGHT RAIL TRANSIT SYSTEM

PRELIMINARY ENGINEERING VOLUME 6 - STRUCTURES

CONTRACT NO. T-1042-0220

ADA DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).

DATE _____ DESIGNER'S SIGNATURE _____
MD. REGISTRATION NO. _____
P.E. R.L.S. OR R.L.A. (CIRCLE) PRINTED NAME _____

DESIGN CERTIFICATION

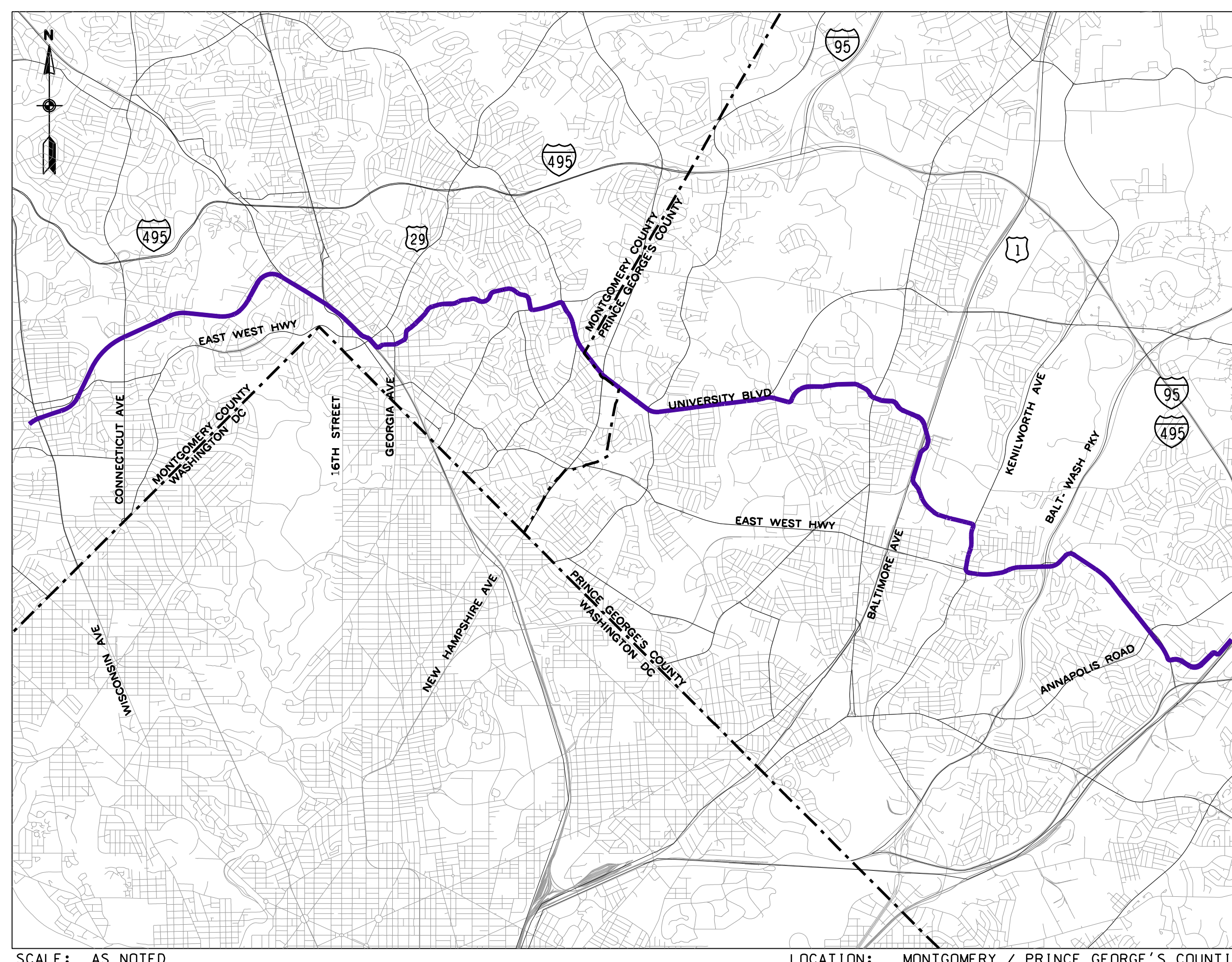
"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY"

DATE _____ DESIGNER'S SIGNATURE _____
MD. REGISTRATION NO. _____
P.E. R.L.S. OR R.L.A. (CIRCLE) PRINTED NAME _____

OWNERS / DEVELOPER CERTIFICATION

"I/WE HEREBY CERTIFY THAT ALL CLEARING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE INSPECTORS."

DATE _____
43667
CERT. NO. _____
ROBERT L. BURRIS, ASSISTANT MANAGER,
Facilities Engineering, ADA & Sustainability
OWNER/DEVELOPER SIGNATURES
PRINTED NAME AND TITLE _____



VICINITY MAP



DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

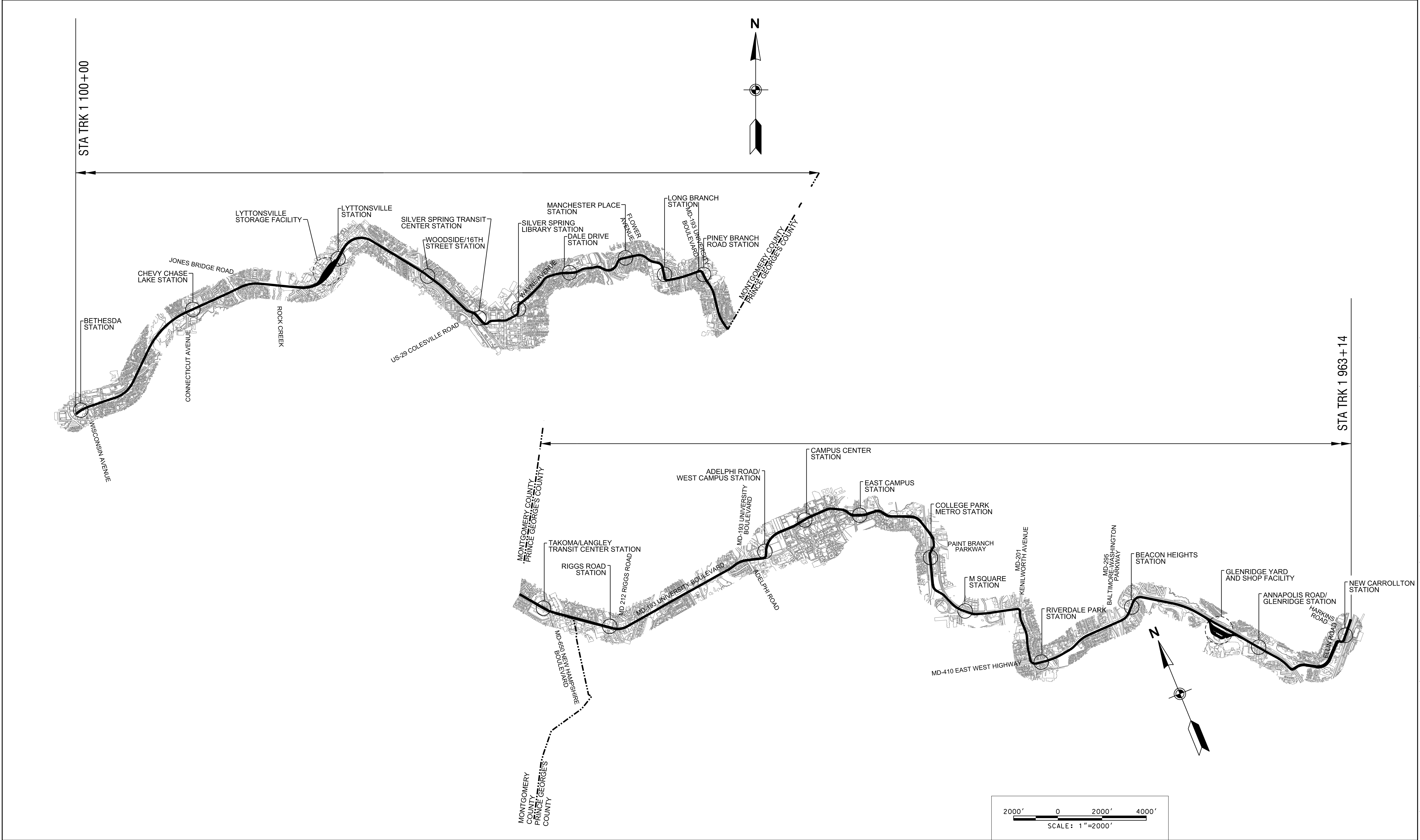
PRELIMINARY ENGINEERING SUBMISSION DECEMBER 2013

MARYLAND TRANSIT ADMINISTRATION

DATE: _____ APPROVED: _____

Purple Line
General Engineering Consultant Team
100 North Charles Street, 8th Floor ■ Baltimore, MD 21202
P: 410-244-6046

CONTRACT NO.
T-1042-0220
DRAWING NO.
TI-6001
SHEET NO.
1 OF 828



GENERAL NOTES

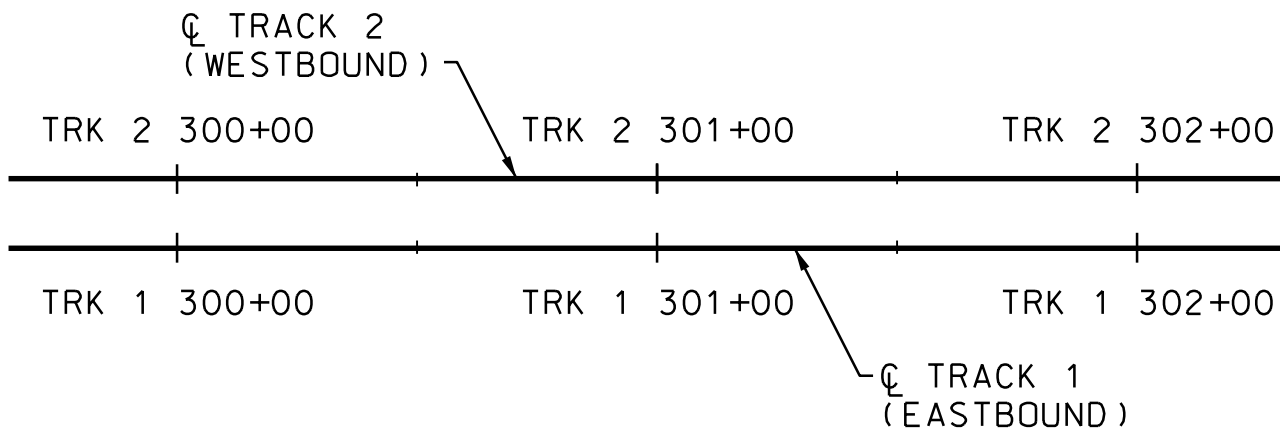
1. HORIZONTAL CONTROL: THIS PROJECT IS ORIENTATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD 83/91.
2. VERTICAL CONTROL: THE LOCATION AND ELEVATION OF BENCH MARKS ARE SHOWN ON THE PLANS. ALL ELEVATIONS ARE IN FEET AND ARE BASED ON NAVD 1988 DATUM.
3. BASE TOPOGRAPHIC SURVEY INFORMATION FOR THIS CONTRACT WAS ESTABLISHED FROM AERIAL PHOTOGRAMMETRIC MAPPING IN MARCH OF 2007. SUPPLEMENTAL FIELD SURVEYS WERE PERFORMED AND PLOTTED BY PINNACLE MAPPING TECHNOLOGIES IN MARCH OF 2007.
4. ALL INVERT ELEVATIONS ARE APPROXIMATE. INVERT ELEVATIONS OF DRAINAGE INLETS AND PIPES MAY BE MODIFIED AS DIRECTED BY THE ENGINEER TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES.
5. ALL DRAINAGE PIPES AND DITCHES SHALL BE CONSTRUCTED ON A UNIFORM GRADE BETWEEN INVERT ELEVATIONS NOTED ON THE PLANS. UNLESS INDICATED OTHERWISE ON THE PLANS OR DETAILS.
6. THE LOCATION AND LENGTH OF DRAINAGE PIPE SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING.
7. TYPE AND INVERT OF DITCHES ARE NOTED ON THE PLANS. DITCHES WILL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO GRADE FOR POSITIVE DRAINAGE WITHIN THE PARKING LOT, AT ALL ENTRANCES, AND ALONG ALL CURB LINES IN ACCORDANCE WITH THE PROPOSED DRAINAGE PATTERNS AS SHOWN ON THE PLANS, AND THOSE EXISTING WHERE APPLICABLE. IN NO CASE SHALL THIS REQUIREMENT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO CONSTRUCT ALL FACILITIES WITHIN ADA REGULATIONS.
9. ALL EXISTING STORM DRAIN STRUCTURES, SEWER MANHOLES, UTILITY MANHOLES, INLETS, VALVE BOXES, VAULTS, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET THE FINISHED GRADE ELEVATION AS NOTED ON THE PLANS, UNLESS THESE APPURTENANCES ARE ABANDONED UNDER THIS CONTRACT.
- 10.THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ON THESE PLANS ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ALL CONCERNED UTILITY OWNERS PRIOR TO GRADING OPERATIONS.
- 11.REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF CONTRACTOR’S NEGLIGENCE OR METHOD OF OPERATION SHALL BE MADE AT THE CONTRACTOR’S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- 12.ANY DISTURBED AREAS NOT PAVED OR LANDSCAPED SHALL RECEIVE 4” TOPSOIL, SEEDING AND MULCH, UNLESS OTHERWISE NOTED ON THE PLANS.
- 13.THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAGING CONSTRUCTION SUCH THAT A SOIL STOCKPILE SUITABLE FOR FILL MATERIAL AND TOPSOIL CAN BE MAINTAINED ON-SITE.
- 14.MATERIAL REMOVED DURING CONSTRUCTION INCLUDING ASPHALT, SIGNS, LIGHT POLES, ETC. SHALL BECOME THE CONTRACTOR’S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
- 15.THE CONTRACTOR SHALL BE RESPONSIBLE TO RESET ANY SIGN POST OR OTHER APPURTENANCES REMOVED DURING THE CONSTRUCTION TO FACILITATE HIS WORK, EXCEPT WHERE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 16.THE CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT WILL INSURE THE SAFETY OF THE GENERAL PUBLIC, COMMUTERS, AND EMPLOYEES OF THE CONTRACTOR, MTA, ETC.
- 17.ANY DAMAGE TO EXISTING CURBING ADJACENT TO NEW PAVING SHALL BE REPAIRED OR REPLACED IN KIND AT THE CONTRACTOR’S EXPENSE.
- 18.UNLESS OTHERWISE NOTED, ALL SAW CUTTING SHALL BE FULL DEPTH.
- 19.PRIOR TO PERFORMING EXCAVATION OR GRADING AT ANY LOCATION, CONTACT “MISS UTILITY”, 1-800-257-7777 AT LEAST 48 HOURS IN ADVANCE OF THE PROPOSED WORK.
- 20.THE CONTRACTOR SHALL NOTE THE HISTORIC NATURE OF THE SURROUNDING COMMUNITY. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE NOISE FROM CONSTRUCTION ACTIVITY ON-SITE.
- 21.A COPY OF THE CONTRACTOR’S SITE SPECIFIC PROJECT SAFETY PLAN SHOULD BE SUBMITTED TO THE OFFICE OF SAFETY & RISK MANAGEMENT (OSRM) FOR REVIEW AND COMMENT. A COPY SHOULD BE FORWARDED TO DENNIS RAFFERTY/DAVID AUCHU IN THE OFFICE OF SAFETY & RISK MANAGEMENT. THE CONTRACTOR SHALL NOT BEGIN ANY WORK ACTIVITIES ON SITE UNTIL THE PROJECT SAFETY PLAN HAS BEEN REVIEWED AND FOUND TO BE ACCEPTABLE BY REPRESENTATIVES FROM THE OSRM.

22. OCS SUPPORT LOCATIONS ARE PRESENTED ON THE CIVIL PLANS FOR GRAPHICAL REPRESENTATION ONLY. AS-DESIGNED SUPPORT LAYOUTS AND CONFIGURATIONS TO BE DEVELOPED IN THE NEXT PHASE OF DESIGN.
23. SEE VOLUME 1 FOR ADDITIONAL LRT AND CCT INFORMATION.

ADA SUMMARY

REFER TO ADA GENERAL NOTES SHEET

STATIONING KEY



LEGEND - EXISTING

- EXISTING BUILDING
- EXISTING SIDEWALK
- EXISTING RIGHT OF WAY
- EXISTING WETLAND BOUNDARY
- EXISTING TRAFFIC SIGNAL TO REMAIN
- EXISTING TRAFFIC SIGNAL TO BE REMOVED
- EXISTING ACTIVE RECOVERY WELL IN LOWER ZONE
- EXISTING ACTIVE RECOVERY WELL IN UPPER ZONE
- EXISTING LEFT TURN ELIMINATED WITH PROPOSED IMPROVEMENTS
- EXISTING TRAFFIC PATTERN

LEGEND - PROPOSED

- PROPOSED BUILDING DISPLACEMENT
- BY-OTHERS PROPOSED IMPROVEMENTS BY OTHERS
- PROPOSED CONCRETE
- PAVEMENT REMOVAL
- PERMEABLE PAVEMENT
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- PROPOSED WEDGE/LEVEL OR MILL AND OVERLAY
- PROPOSED CATENARY POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC PATTERN
- PROPOSED BUMPING POST



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN	PRELIMINARY ENGINEERING		CONTRACT NO.
				PURPLE LINE LIGHT RAIL		T-1042-0220
				GENERAL NOTES AND LEGEND		DRAWING NO.
				DATE: DECEMBER 2013		GN-6002
				SCALE: NONE		SHEET NO.
						<u>3</u> OF <u>828</u>

ABBREVIATIONS				SYMBOLS																																																																																																																																																																												
<div><div><div>△</div><div>△c</div><div>AASHTO</div><div>AC</div><div>ABAN</div><div>ABUT</div><div>ADAAG</div><div>AGIP</div><div>AGG</div><div>AH,AHD</div><div>AISC</div><div>APPROX</div><div>ASPH</div><div>ASTM</div><div>@</div><div>BIT</div><div>BCCMP</div><div> </div><div>BK</div><div>BLDG</div><div>℄</div><div>BLVD</div><div>BM</div><div>BOT</div><div>BRG</div><div>BSMT</div><div>CB</div><div>CCT</div><div>C/C</div><div>CD</div><div>CEM</div><div>CG</div><div>C&G</div><div>CGSP</div><div>CIP</div><div>℄</div><div>CL</div><div>CMP</div><div>CLR</div><div>CO</div><div>COL</div><div>COMB</div><div>CONC</div><div>CONN</div><div>CONST</div><div>CRB</div><div>CSXT</div><div>C/T</div><div>CTB</div><div>Dc</div><div>DEFL</div><div>DEG. °</div><div>D/I</div><div>DIA</div><div>DIP</div><div>DN</div><div>DRWY</div><div>DWG</div><div>DWLG</div><div>E</div><div>EA</div><div>EB</div><div>EL</div><div>ELCP</div><div>ELEC</div><div>EM</div><div>EMB</div><div>E/P</div><div>EQ</div><div>EQL</div><div>EON</div><div>E/R</div><div>E/S</div><div>ESMT</div><div>EXIST</div><div>EXP</div><div>EXT</div><div>FC</div></div><div>TOTAL CENTRAL ANGLE OF SPIRAL AND CIRCULAR CURVES CENTRAL ANGLE OF CIRCULAR CURVE AMERICAN SOCIETY OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS ASPHALT CONCRETE ABANDONED ABUTMENT ADA ACCESSIBILITY GUIDELINES AT GRADE INLET PROTECTION AGGREGATE AHEAD AMERICAN INSTITUTE OF STEEL CONSTRUCTION APPROXIMATE ASPHALT AMERICAN SOCIETY FOR TESTING AND MATERIALS AT BITUMINOUS BITUMINOUS COATED CORRUGATED METAL PIPE BACK BUILDING BASELINE BOULEVARD BENCHMARK BOTTOM BEARING BASEMENT CATCH BASIN CAPITAL CRESCENT TRAIL CENTER TO CENTER STONE CHECK DAM CEMENT CONCRETE GUTTER CURB AND GUTTER CORR. GALVANIZED STEEL PIPE CAST IRON PIPE CENTERLINE CLASS CORRUGATED METAL PIPE CLEAR CLEAN OUT COLUMN COMBINED SEWER CONCRETE CONNECTION CONSTRUCTION CURB LINE CSX TRANSPORTATION INCORPORATED CROSSOVER TRACK CEMENT TREATED BASE DEGREE OF CIRCULAR CURVE DEFLECTION DEGREES DROP INLET DIAMETER DUCTILE IRON PIPE DOWNSPOUT DRIVEWAY DRAWING DWELLING EAST EACH EASTBOUND ELEVATION ELLIPTICAL CONCRETE PIPE ELECTRIC ELECTRIC METER EMBANKMENT EDGE OF PAVEMENT EQUAL EQUILATERAL EQUATION EDGE OF ROAD EDGE OF STREAM EASEMENT EXISTING EXPANSION EXTERIOR FIELD CONNECTION</div></div> <div><div>FF</div><div>FG</div><div>FH</div><div>FL</div><div>FR</div><div>FT. '</div><div>F/T</div><div>FUT</div><div>GALV</div><div>GM</div><div>GND</div><div>GR</div><div>GV</div><div>GW</div><div>H</div><div>HBX</div><div>HDOPE</div><div>HMA</div><div>HORIZ</div><div>HP</div><div>H/W</div><div>I</div><div>ID</div><div>IN. "</div><div>INT</div><div>INV</div><div>JB</div><div>LB</div><div>Lc</div><div>LF</div><div>LOD</div><div>LP</div><div>LPLG</div><div>LR</div><div>LRT</div><div>LRV</div><div>LT</div><div>MARC</div><div>MAX</div><div>MH</div><div>MIN</div><div>MIN. '</div><div>MISC</div><div>MON</div><div>MPH</div><div>MSL</div><div>MTA</div><div>N</div><div>N/A</div><div>NB</div><div>N/E</div><div>NF</div><div>N/F</div><div>NIC</div><div>NO. #</div><div>NTS</div><div>N/W</div><div>OD</div><div>OPP</div><div>PAVT</div><div>PC</div><div> </div><div>PCC</div><div>PED</div><div>PERF</div><div>PERM</div><div>PGE</div><div>PGL</div><div>PI</div><div> </div><div>PK</div><div>PKG</div><div>℄</div><div>PLAT</div><div>POB</div><div>POC</div><div>POE</div><div>POL</div><div>POT</div><div>PRC</div></div> <div>FAR FACE FINISH GRADE FIRE HYDRANT FLOOR, FLOWLINE FRAME FOOT, FEET FUTURE TRACK FUTURE GALVANIZED GAS METER GROUND GRADE GAS VALVE GUY WIRE HEIGHT HAND BOX HIGH DENSITY POLYETHYLENE HOT MIX ASPHALT HORIZONTAL HIGH POINT HEAD WALL INLET INSIDE DIAMETER INCH INTERIOR INVERT JUNCTION BOX POUND TOTAL LENGTH OF CIRCULAR CURVE, IN FEET LINEAR FEET LIMIT OF DISTURBANCE LOW POINT LEAD PLUG (SURVEY MONUMENT) LONG RADIUS LIGHT RAIL TRANSIT LIGHT RAIL VEHICLE LEFT MARYLAND RAIL COMMUTER MAXIMUM MANHOLE MINIMUM MINUTE MISCELLANEOUS MONUMENT MILES PER HOUR MEAN SEA LEVEL MARYLAND TRANSIT ADMINISTRATION NORTH NOT APPLICABLE NORTHBOUND NORTH LINE - EAST TRACK NEAR FACE NOW OR FORMERLY NOT IN CONTRACT NUMBER NOT TO SCALE NORTH LINE-WEST TRACK OUTSIDE DIAMETER OPPOSITE PAVEMENT POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE POINT OF COMPOUND CIRCULAR CURVES PEDESTRIAN PERFORATED PERMANENT PROFILE GRADE ELEVATION PROFILE GRADE LINE POINT OF INTERSECTION OF TWO TANGENTS PARKER-KALON NAIL (SURVEY MARKER) PARKING PROPERTY LINE PLATFORM POINT OF BEGINNING POINT ON CURVE POINT OF ENDING POINT ON LINE POINT ON TANGENT POINT OF REVERSE CURVES</div> <div><div>PROP</div><div>PST</div><div>PT</div><div> </div><div>PV</div><div>PVC</div><div>R</div><div>RCEP</div><div>RCP</div><div>REF</div><div>REINF</div><div>REOD</div><div>RET</div><div>RP</div><div>RR</div><div>RT</div><div>R/W</div><div>S</div><div>SAN</div><div>SB</div><div>SCE</div><div> </div><div>SCH</div><div>SD</div><div>S/E</div><div>SEC. "</div><div>SECT</div><div>SF</div><div>S.F.</div><div>SG</div><div>SHA</div><div>SHLD</div><div>SHT</div><div>SIG</div><div>SLP</div><div>SP</div><div>STA</div><div>STD</div><div>STL</div><div>STR</div><div>SURF</div><div>SW</div><div>S/W</div><div>SWM</div><div>TB</div><div>Tc</div><div> </div><div>T/C</div><div>TEL</div><div>TEMP</div><div>T/G</div><div>T.G.</div><div>TOPO</div><div>TP</div><div>T/P</div><div>T/R</div><div>TRK</div><div>TR SIG</div><div>T.S.</div><div>TYP</div><div>UD</div><div>UNO</div><div>V</div><div>VAR</div><div>VCP</div><div>VERT</div><div>W</div><div>W/</div><div>W/O</div><div>WAT</div><div>WB</div><div>WHSE</div><div>WM</div><div>WMATA</div><div> </div><div>WP</div><div>WS</div><div>WV</div><div>X-ING</div><div>X-OVER</div></div> <div>PROPOSED PORTABLE SEDIMENT TANK POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT PETROLEUM VALVE POLYVINYL CHLORIDE RADIUS REINFORCED CONCRETE ELLIPTICAL PIPE REINFORCED CONCRETE PIPE REFERENCE REINFORCED REQUIRED RETAINING RAMP RAILROAD RIGHT RIGHT OF WAY SOUTH SANITARY SOUTHBOUND STABILIZED CONSTRUCTION ENTRANCE SCHEDULE STORM DRAIN SOUTH LINE - EAST TRACK SECOND SECTION SILT FENCE SQUARE FOOT SUBGRADE STATE HIGHWAY ADMINISTRATION SHOULDER SHEET SIGNAL SLOPE SPACING STATION STANDARD STEEL STRUCTURE SURFACE SIDE WALK SOUTH LINE - WEST TRACK STORMWATER MANAGEMENT TEST BORING TANGENT LENGTH OF CIRCULAR CURVE TOP OF CURB TELEPHONE TEMPORARY TOP OF GROUND TOP OF GRATE TOPOGRAPHY TEST PIT TOP OF PAVEMENT TOP OF RAIL TRACK TRAFFIC SIGNAL TOP OF STRUCTURE TYPICAL UNDERDRAIN UNLESS NOTED OTHERWISE VELOCITY VARIES VITRIFIED CLAY PIPE VERTICAL WEST WITH WITHOUT WATER WESTBOUND WAREHOUSE WATER METER WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY WORK POINT WATER SURFACE WATER VALVE CROSSING CROSSOVER</div>	<table><tr><th>EXISTING</th><th></th><th>PROPOSED</th></tr><tr><td></td><td>RIGHT-OF-WAY</td><td></td></tr><tr><td></td><td>PROPERTY LINE</td><td></td></tr><tr><td></td><td>PARCEL NUMBER</td><td>#500</td></tr><tr><td></td><td>MATCHLINE AND SECTION LINE</td><td></td></tr><tr><td></td><td>TRACK CENTER LINE</td><td></td></tr><tr><td></td><td>CENTER LINE</td><td></td></tr><tr><td></td><td>BASE LINE</td><td></td></tr><tr><td></td><td>POINT OF INTERSECTION OF TANGENTS</td><td></td></tr><tr><td></td><td>STATION EQUATION</td><td>STA AH = STA BK </td></tr><tr><td></td><td>PRIMARY HORIZONTAL CONTROL - 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<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div><div><div><div></div><div>MARYLAND TRANSIT ADMINISTRATION</div></div><div><div>MTA</div><div>Maryland</div></div></div></div>	<div><div><div><div></div><div>Gannett Fleming</div></div><div><div>WR&A</div></div></div></div>		PROFESSIONAL CERTIFICATION	<div><div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div></div>	DESIGN	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
			CHECK		DRAWING		DRAWING NO. GN-6003
			APPROVE				SHEET NO. 4 OF 828
CIVIL ABBREVIATIONS AND SYMBOLS		DATE: DECEMBER 2013	SCALE: NONE				

INDEX OF DRAWINGS - VOLUME 6

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
<u>GENERAL</u>			<u>ZONE 1 Z - RETAINING WALLS BETHESDA - EAST WEST HIGHWAY (CONTD.)</u>			<u>ZONE 1 H - CCC RETAINING WALL</u>		
1	TI-6001	TITLE SHEET	54	ST1Z006	RETAINING WALL - 1Z0 TYPICAL SECTION	110	ST1H01	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 1
2	GN-6001	KEY MAP	55	ST1Z101	RETAINING WALL - 1Z1 GENERAL PLAN & ELEVATION - 1	111	ST1H02	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 2
3	GN-6002	GENERAL NOTES AND LEGEND	56	ST1Z104	RETAINING WALL - 1Z1 GENERAL PLAN & ELEVATION - 2	112	ST1H03	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 3
4	GN-6003	CIVIL ABBREVIATIONS AND SYMBOLS	57	ST1Z102	RETAINING WALL - 1Z1 TYPICAL SECTION	113	ST1H04	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 4
5	GI-6101	INDEX OF SHEETS - VOLUME 6 SHEET 1	58	ST1Z103	RETAINING WALL - 1Z1 END CONNECTION TO EX. WALL DETAIL	114	ST1H05	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 5
6	GI-6102	INDEX OF SHEETS - VOLUME 6 SHEET 2	<u>ZONE T F - CCT RETAINING WALLS BETHESDA - EAST WEST HIGHWAY</u>			115	ST1H06	RETAINING WALL 1H GENERAL PLAN & ELEVATION - 6
7	GI-6103	INDEX OF SHEETS - VOLUME 6 SHEET 3	59	STTF001	RETAINING WALL - TFO GENERAL PLAN & ELEVATION - 1	116	ST1H07	RETAINING WALL 1H TYPICAL SECTION
8	GI-6104	INDEX OF SHEETS - VOLUME 6 SHEET 4	60	STTF002	RETAINING WALL - TFO GENERAL PLAN & ELEVATION - 2	<u>ZONE T J - CCT RETAINING WALLS AT CCC</u>		
9	GI-6105	INDEX OF SHEETS - VOLUME 6 SHEET 5	61	STTF004	RETAINING WALL - TFO GENERAL PLAN & ELEVATION - 3	117	STTJ001	RETAINING WALL - TJ0 GENERAL PLAN & ELEVATION - 1
10	GI-6106	INDEX OF SHEETS - VOLUME 6 SHEET 6	62	STTF005	RETAINING WALL - TFO GENERAL PLAN & ELEVATION - 4	118	STTJ002	RETAINING WALL - TJ0 GENERAL PLAN & ELEVATION - 2
<u>ZONE 1 N - BETHESDA STATION</u>			63	STTF003	RETAINING WALL - TFO TYPICAL SECTION	119	STTJ003	RETAINING WALL - TJ0 TYPICAL SECTION
11	ST1N11	BETHESDA STATION PLATFORM LEVEL FRAMING PLAN (1 OF 3)	64	STTF101	RETAINING WALL - TF1 GENERAL PLAN & ELEVATION - 1	120	STTJ101	RETAINING WALL - TJ1 GENERAL PLAN & ELEVATION
12	ST1N12	BETHESDA STATION PLATFORM LEVEL FRAMING PLAN (2 OF 3)	65	STTF102	RETAINING WALL - TF1 GENERAL PLAN & ELEVATION - 2	121	STTJ102	RETAINING WALL - TJ1 TYPICAL SECTION
13	ST1N13	BETHESDA STATION PLATFORM LEVEL FRAMING PLAN (3 OF 3)	66	STTF103	RETAINING WALL - TF1 TYPICAL SECTION	122	STTJ201	RETAINING WALL - TJ2 GENERAL PLAN & ELEVATION - 1
14	ST1N14	BETHESDA STATION PLENUM LEVEL FRAMING PLAN (1 OF 3)	67	STTF301	RETAINING WALL - TF3 GENERAL PLAN & ELEVATION - 1	123	STTJ202	RETAINING WALL - TJ2 GENERAL PLAN & ELEVATION - 2
15	ST1N15	BETHESDA STATION PLENUM LEVEL FRAMING PLAN (2 OF 3)	68	STTF303	RETAINING WALL - TF3 GENERAL PLAN & ELEVATION - 2	124	STTJ203	RETAINING WALL - TJ2 TYPICAL SECTION
16	ST1N16	BETHESDA STATION PLENUM LEVEL FRAMING PLAN (3 OF 3)	69	STTF302	RETAINING WALL - TF3 TYPICAL SECTION	<u>ZONE 1 F - RETAINING WALL CCC - CONNECTICUT AVENUE</u>		
17	ST1N31	BETHESDA STATION APEX SECTIONS	70	STTF401	RETAINING WALLS TF4 GENERAL PLAN & ELEVATION	125	ST1F01	RETAINING WALL 1FO GENERAL PLAN AND ELEVATION - 1
18	ST1N32	BETHESDA STATION AIR RIGHTS SECTION - 1	71	STTF501	RETAINING WALLS TF5 GENERAL PLAN & ELEVATION	126	ST1F02	RETAINING WALL 1FO GENERAL PLAN AND ELEVATION - 2
19	ST1N33	BETHESDA STATION AIR RIGHTS SECTION - 2	72	STTF502	RETAINING WALLS TF4 & TF5 TYPICAL SECTION	127	ST1F03	RETAINING WALL 1FO GENERAL PLAN AND ELEVATION - 3
20	ST1N34	BETHESDA STATION EAST FAN HOUSE SECTION	<u>ZONE 1 C - RETAINING WALLS EAST WEST HIGHWAY - CCC</u>			128	ST1F04	RETAINING WALL 1FO GENERAL PLAN AND ELEVATION - 4
21	ST1N41	BETHESDA STATION EAST FAN HOUSE ENLARGED PLANS - 1	73	ST1C001	RETAINING WALL - 1C0 GENERAL PLAN & ELEVATION - 1	129	ST1F05	RETAINING WALL 1FO GENERAL PLAN AND ELEVATION - 5
22	ST1N42	BETHESDA STATION EAST FAN HOUSE ENLARGED PLANS - 2	74	ST1C002	RETAINING WALL - 1C0 GENERAL PLAN & ELEVATION - 2	130	ST1F06	RETAINING WALL 1FO TYPICAL SECTIONS
23	ST1N43	BETHESDA STATION WEST FAN HOUSE ENLARGED PLANS	75	ST1C003	RETAINING WALL - 1C0 TYPICAL SECTION	<u>ZONE 1 E - CONNECTICUT AVENUE LRT BRIDGE</u>		
24	ST1N21	RETAINING WALL - 1N1 GENERAL PLAN & ELEVATION	76	ST1C101	RETAINING WALL - 1C1 GENERAL PLAN & ELEVATION - 1	131	ST1E01	CONNECTICUT AVENUE LRT BRIDGE GENERAL PLAN AND ELEVATION
25	ST1N22	RETAINING WALL - 1N2 GENERAL PLAN & ELEVATION	77	ST1C102	RETAINING WALL - 1C1 GENERAL PLAN & ELEVATION - 2	132	ST1E02	CONNECTICUT AVENUE LRT BRIDGE ABUTMENT A PLAN, ELEVATION AND SECTION
26	ST1N23	RETAINING WALLS UNDER WISCONSIN AVENUE TYPICAL SECTIONS	78	ST1C103	RETAINING WALL - 1C1 TYPICAL SECTION	133	ST1E03	CONNECTICUT AVENUE LRT BRIDGE ABUTMENT B PLAN AND ELEVATION
<u>ZONE T A - BETHESDA CCT BRIDGE</u>			79	ST1C201	RETAINING WALL - 1C2 GENERAL PLAN & ELEVATION	134	ST1E04	CONNECTICUT AVENUE LRT BRIDGE ABUTMENT B SECTIONS
27	STTA01	RETAININING WALLS AROUND AIR RIGHTS BLDG STRUCTURE LOCATION MAP	80	ST1C202	RETAINING WALL - 1C2 TYPICAL SECTION	135	ST1E05	CONNECTICUT AVENUE LRT BRIDGE TYPICAL SECTION
28	STTA001	CCT PEDESTRIAN BRIDGE AT BETHESDA STATION GENERAL PLAN & ELEVATION	<u>ZONE T G - CCT RETAINING WALLS EAST WEST HIGHWAY - CCC</u>			136	ST1E06	CONNECTICUT AVENUE LRT BRIDGE FRAMING PLAN
29	STTA002	CCT PEDESTRIAN BRIDGE AT BETHESDA STATION TYPICAL SECTION	81	STTG001	RETAINING WALL - TGO GENERAL PLAN & ELEVATION	<u>ZONE T B - CONNECTICUT AVENUE CCT BRIDGE</u>		
30	STTA003	CCT PEDESTRIAN BRIDGE AT BETHESDA STATION ABUTMENTS PLAN & ELEVATION	82	STTG002	RETAINING WALL - TGO TYPICAL SECTION	137	STTB01	CONNECTICUT AVENUE CCT BRIDGE GENERAL PLAN AND ELEVATION
<u>ZONE T E - CCT RETAINING WALLS NEAR BETHESDA</u>			83	STTG101	RETAINING WALL - TG1 GENERAL PLAN & ELEVATION	138	STTB02	CONNECTICUT AVENUE CCT BRIDGE ABUTMENT A PLAN AND ELEVATION
31	STTE001	RETAINING WALL TE0 GENERAL PLAN & ELEVATION	84	STTG102	RETAINING WALL - TG1 TYPICAL SECTION	139	STTB03	CONNECTICUT AVENUE CCT BRIDGE TYPICAL SECTION
32	STTE101	RETAINING WALL TE1 GENERAL PLAN & ELEVATION	85	STTG201	RETAINING WALL - TG2 GENERAL PLAN & ELEVATION	140	STTB04	CONNECTICUT AVENUE CCT BRIDGE FRAMING PLAN
33	STTE201	RETAINING WALL TE2 GENERAL PLAN & ELEVATION - 1	86	STTG202	RETAINING WALL - TG2 TYPICAL SECTION	<u>ZONE 1 R - CHEVY CHASE LAKE STATION</u>		
34	STTE202	RETAINING WALL TE2 GENERAL PLAN & ELEVATION - 2	87	STTG301	RETAINING WALL - TG3 GENERAL PLAN & ELEVATION	141	ST1R03	CHEVY CHASE LAKE STATION PLATFORM SUPPORTS
35	STTE203	RETAINING WALL TE2 GENERAL PLAN & ELEVATION - 3	88	STTG302	RETAINING WALL - TG3 TYPICAL SECTION	142	ST1R04	CHEVY CHASE LAKE STATION PLATFORM PLAN SHEET 1 OF 2
36	STTE301	RETAINING WALL TE3 GENERAL PLAN & ELEVATION	89	STTG401	RETAINING WALL - TG4 GENERAL PLAN & ELEVATION - 1	143	ST1R05	CHEVY CHASE LAKE STATION PLATFORM PLAN SHEET 2 OF 2
37	STTE401	RETAINING WALL TE4 GENERAL PLAN & ELEVATION - 1	90	STTG402	RETAINING WALL - TG4 GENERAL PLAN & ELEVATION - 2	144	ST1R01	CHEVY CHASE LAKE STATION SOUTH RET. WALL PLAN & ELEV. SHT. 1 OF 2
38	STTE402	RETAINING WALL TE4 GENERAL PLAN & ELEVATION - 2	91	STTG403	RETAINING WALL - TG4 TYPICAL SECTION	145	ST1R02	CHEVY CHASE LAKE STATION SOUTH RET. WALL PLAN & ELEV. SHT. 2 OF 2
39	STTE403	RETAINING WALL TE4 GENERAL PLAN & ELEVATION - 3	<u>ZONE 1 J - CCC UNDERPASSES AND SEGMENTAL RETAINING WALLS</u>			146	ST1R06	CHEVY CHASE LAKE STATION SECTION AT STA. 174+00
40	STTE01	TYPICAL SECTION STA. CCT 10+00	92	ST1J01	COLUMBIA COUNTRY CLUB STRUCTURE LOCATION MAP - 1	147	ST1R07	CHEVY CHASE LAKE STATION SECTION AT STA. 174+50
41	STTE02	TYPICAL SECTION STA. CCT 10+60	93	ST1J02	COLUMBIA COUNTRY CLUB STRUCTURE LOCATION MAP - 2	<u>ZONE T H - CCT RETAINING WALL AT CHEVY CHASE LAKE STATION</u>		
42	STTE03	TYPICAL SECTION STA. CCT 13+50	94	ST1J03	COLUMBIA COUNTRY CLUB STRUCTURE LOCATION MAP - 3	148	STTH50	CHEVY CHASE LAKES CCT RETAINING WALL-TH1 GENERAL PLAN AND ELEVATION - 1
43	STTE04	TYPICAL SECTION STA. CCT 14+50	95	ST1J04	COLUMBIA COUNTRY CLUB STRUCTURE LOCATION MAP - 4	149	STTH51	CHEVY CHASE LAKES CCT RETAINING WALL-TH1 GENERAL PLAN AND ELEVATION - 2
44	STTE05	TYPICAL SECTION STA. CCT 16+00	96	ST1J001	WEST GOLF CART UNDERPASS GENERAL PLAN & PROFILE	150	STTH52	CHEVY CHASE LAKES CCT RETAINING WALL-TH1 TYPICAL SECTION
<u>ZONE 1 A - BETHESDA WALLS LOCATION MAP</u>			97	ST1J002	WEST GOLF CART UNDERPASS TYPICAL SECTION	<u>ZONE 1 B - CHEVY CHASE LAKE LRT BRIDGE</u>		
45	ST1A01	BETHESDA WALLS STRUCTURE LOCATION MAP - 1	98	ST1J101	EAST GOLF CART UNDERPASS GENERAL PLAN & PROFILE	151	ST1B01	CHEVY CHASE LAKE LRT BRIDGE - 1B GENERAL PLAN AND ELEVATION
46	ST1A02	BETHESDA WALLS STRUCTURE LOCATION MAP - 2	99	ST1J102	EAST GOLF CART UNDERPASS TYPICAL SECTION	152	ST1B02	CHEVY CHASE LAKE LRT BRIDGE - 1B PROPOSED TYPICAL SECTION
47	ST1A03	BETHESDA WALLS STRUCTURE LOCATION MAP - 3	100	ST1J201	RETAINING WALL 1J2 GENERAL PLAN & ELEVATION	<u>ZONE T M - CHEVY CHASE LAKE CCT BRIDGE</u>		
48	ST1A04	BETHESDA WALLS STRUCTURE LOCATION MAP - 4	101	ST1J202	SEGMENTAL RETAINING WALL TYPICAL SECTION	153	ST12M01	CHEVY CHASE LAKE CCT BRIDGE - 12M GENERAL PLAN AND ELEVATION
<u>ZONE 1 D - SLEAFORD ROAD UNDERPASS</u>			102	ST1J301	RETAINING WALL 1J3 GENERAL PLAN & ELEVATION	154	ST12M02	CHEVY CHASE LAKE CCT BRIDGE - 12M PROPOSED TYPICAL SECTION
49	ST1D002	SLEAFORD ROAD UNDERPASS TYPICAL SECTION	103	ST1J401	RETAINING WALL 1J4 GENERAL PLAN & ELEVATION			
50	ST1D001	SLEAFORD ROAD UNDERPASS GENERAL PLAN & PROFILE	104	ST1J501	RETAINING WALL 1J5 GENERAL PLAN & ELEVATION - 1			
<u>ZONE 1 Z - RETAINING WALLS BETHESDA - EAST WEST HIGHWAY</u>			105	ST1J502	RETAINING WALL 1J5 GENERAL PLAN & ELEVATION - 2			
51	ST1Z001	RETAINING WALL - 1Z0 GENERAL PLAN & ELEVATION - 1	106	ST1J601	RETAINING WALL 1J6 GENERAL PLAN & ELEVATION - 1			
52	ST1Z002	RETAINING WALL - 1Z0 GENERAL PLAN & ELEVATION - 2	107	ST1J602	RETAINING WALL 1J6 GENERAL PLAN & ELEVATION - 2			
53	ST1Z003	RETAINING WALL - 1Z0 GENERAL PLAN & ELEVATION - 3	108	ST1J701	RETAINING WALL 1J7 GENERAL PLAN & ELEVATION - 1			
			109	ST1J702	RETAINING WALL 1J7 GENERAL PLAN & ELEVATION - 2			

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INDEX OF DRAWINGS - VOLUME 6

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
ZONE 1 K - COQUELIN RUN CULVERT AND WALL LOCATION MAP			ZONE T K - CCT RETAINING WALLS COQUELIN RUN - JONES MILL ROAD			ZONE NW1 E - NOISE WALL ALONG LRT WEST OF ROCK CREEK		
155	ST1K01	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 1	213	STTK001	RETAINING WALL - TK0 GENERAL PLAN & ELEVATION - 1	272	NW1E01	NOISE WALL NW1E GENERAL PLAN & ELEVATION - 1
156	ST1K02	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 2	214	STTK002	RETAINING WALL - TK0 GENERAL PLAN & ELEVATION - 2	273	NW1E02	NOISE WALL NW1E GENERAL PLAN & ELEVATION - 2
157	ST1K03	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 3	215	STTK003	RETAINING WALL - TK0 TYPICAL SECTION	ZONE NWT A - NOISE WALL ALONG CCT EAST OF BETHESDA		
158	ST1K04	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 4	216	STTK101	RETAINING WALL - TK1 GENERAL PLAN & ELEVATION - 1	274	NWTA01	NOISE WALL NWTA GENERAL PLAN & ELEVATION
159	ST1K05	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 5	217	STTK102	RETAINING WALL - TK1 GENERAL PLAN & ELEVATION - 2	ZONE NWT B - NOISE WALL ALONG CCT BETHESDA - EAST WEST HIGHWAY		
160	ST1K06	CONNECTICUT AVE TO ROCK CREEK PARK STRUCTURE LOCATION MAP - 6	218	STTK103	RETAINING WALL - TK1 TYPICAL SECTION	275	NWTB01	NOISE WALL NWTB GENERAL PLAN & ELEVATION - 1
161	ST1K101	COQUELIN RUN WATERWAY CULVERT GENERAL PLAN & PROFILE	219	STTK201	RETAINING WALL - TK2 GENERAL PLAN & ELEVATION - 1	276	NWTB02	NOISE WALL NWTB GENERAL PLAN & ELEVATION - 2
162	ST1K102	COQUELIN RUN TRAIL UNDERPASS GENERAL PLAN & PROFILE	220	STTK202	RETAINING WALL - TK2 GENERAL PLAN & ELEVATION - 2	ZONE NWT D - NOISE WALL ALONG CCT EAST OF EAST WEST HIGHWAY		
163	ST1K103	COQUELIN RUN CULVERT TYPICAL SECTION	221	STTK203	RETAINING WALL - TK2 GENERAL PLAN & ELEVATION - 3	277	NWTD01	NOISE WALL NWTD GENERAL PLAN & ELEVATION - 1
ZONE 1 L - JONES MILL ROAD BRIDGE			222	STTK204	RETAINING WALL - TK2 GENERAL PLAN & ELEVATION - 4	278	NWTD02	NOISE WALL NWTD GENERAL PLAN & ELEVATION - 2
164	ST1L01	JONES MILL ROAD BRIDGE GENERAL PLAN & ELEVATION	223	STTK205	RETAINING WALL - TK2 GENERAL PLAN & ELEVATION - 5	279	NWTD03	NOISE WALL NWTD GENERAL PLAN & ELEVATION - 3
165	ST1L02	JONES MILL ROAD BRIDGE TYPICAL SECTION	224	STTK206	RETAINING WALL - TK2 TYPICAL SECTION	ZONE NWT E - NOISE WALL ALONG CCT AT SLEAFORD ROAD		
166	ST1L03	JONES MILL ROAD BRIDGE FRAMING PLAN	ZONE T L - CCT RETAINING WALLS JONES MILL ROAD - ROCK CREEK			280	NWTE01	NOISE WALL NWTE GENERAL PLAN & ELEVATION
167	ST1L04	JONES MILL ROAD BRIDGE ABUTMENT A - PLAN & ELEVATION	225	STTL001	RETAINING WALL - TL0 GENERAL PLAN & ELEVATION - 1	ZONE NWT F- NOISE WALL ALONG CCT WEST OF CCC		
168	ST1L05	JONES MILL ROAD BRIDGE ABUTMENT B - PLAN & ELEVATION	226	STTL002	RETAINING WALL - TL0 GENERAL PLAN & ELEVATION - 2	281	NWTF01	NOISE WALL NWTF GENERAL PLAN & ELEVATION
169	ST1L06	JONES MILL ROAD BRIDGE SEQUENCE OF CONSTRUCTION	227	STTL003	RETAINING WALL - TL0 TYPICAL SECTION	ZONE NWT G - NOISE WALL ALONG CCT WEST OF CCC		
ZONE 1 F - RETAINING WALLS CHEVY CHASE LAKE - COQUELIN RUN			228	STTL101	RETAINING WALL - TL1 GENERAL PLAN & ELEVATION	282	NWTG01	NOISE WALL NWTG GENERAL PLAN & ELEVATION
170	ST1F101	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 1	229	STTL102	RETAINING WALL - TL1 TYPICAL SECTION	ZONE NWT H - NOISE WALL ALONG CCT AT CCC		
171	ST1F102	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 2	230	STTL201	RETAINING WALL - TL2 GENERAL PLAN & ELEVATION	283	NWTH01	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 1
172	ST1F103	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 3	231	STTL202	RETAINING WALL - TL2 TYPICAL SECTION	284	NWTH02	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 2
173	ST1F104	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 4	232	STTL301	RETAINING WALL - TL3 GENERAL PLAN & ELEVATION - 1	285	NWTH03	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 3
174	ST1F105	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 5	233	STTL302	RETAINING WALL - TL3 GENERAL PLAN & ELEVATION - 2	286	NWTH04	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 4
175	ST1F106	RETAINING WALL - 1F1 GENERAL PLAN & ELEVATION - 6	234	STTL303	RETAINING WALL - TL3 GENERAL PLAN & ELEVATION - 3	287	NWTH05	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 5
176	ST1F107	RETAINING WALL - 1F1 TYPICAL SECTION	235	STTL304	RETAINING WALL - TL3 TYPICAL SECTION	288	NWTH06	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 6
177	ST1F201	RETAINING WALL - 1F2 GENERAL PLAN & ELEVATION - 1	236	STTL401	RETAINING WALL - TL4 GENERAL PLAN & ELEVATION - 1	289	NWTH07	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 7
178	ST1F202	RETAINING WALL - 1F2 GENERAL PLAN & ELEVATION - 2	237	STTL402	RETAINING WALL - TL4 GENERAL PLAN & ELEVATION - 2	290	NWTH08	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 8
179	ST1F203	RETAINING WALL - 1F2 TYPICAL SECTION	238	STTL403	RETAINING WALL - TL4 TYPICAL SECTION	291	NWTH09	NOISE WALL NWTH GENERAL PLAN & ELEVATION - 9
180	ST1F301	RETAINING WALL - 1F3 GENERAL PLAN & ELEVATION - 1	ZONE NW1 A - NOISE WALL ALONG LRT EAST OF BETHESDA			ZONE NWT J - NOISE WALL ALONG CCT EAST OF CHEVY CHASE LAKE		
181	ST1F302	RETAINING WALL - 1F3 GENERAL PLAN & ELEVATION - 2	239	NW1A01	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 1	292	NWTJ01	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 1
182	ST1F303	RETAINING WALL - 1F3 GENERAL PLAN & ELEVATION - 3	240	NW1A02	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 2	293	NWTJ02	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 2
183	ST1F304	RETAINING WALL - 1F3 TYPICAL SECTION	241	NW1A03	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 3	294	NWTJ03	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 3
ZONE 1 G - RETAINING WALLS COQUELIN RUN - JONES MILL ROAD			242	NW1A04	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 4	295	NWTJ04	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 4
184	ST1G001	RETAINING WALL - 1G0 GENERAL PLAN & ELEVATION - 1	243	NW1A05	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 5	296	NWTJ05	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 5
185	ST1G002	RETAINING WALL - 1G0 GENERAL PLAN & ELEVATION - 2	244	NW1A06	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 6	297	NWTJ06	NOISE WALL NWTJ GENERAL PLAN & ELEVATION - 6
186	ST1G003	RETAINING WALL - 1G0 TYPICAL SECTION	245	NW1A07	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 7	ZONE NWT K - NOISE WALL ALONG CCT AT COQUELIN RUN		
187	ST1G101	RETAINING WALL - 1G1 GENERAL PLAN & ELEVATION - 1	246	NW1A08	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 8	298	NWTK01	NOISE WALL NWTK GENERAL PLAN & ELEVATION - 1
188	ST1G102	RETAINING WALL - 1G1 GENERAL PLAN & ELEVATION - 2	247	NW1A09	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 9	299	NWTK02	NOISE WALL NWTK GENERAL PLAN & ELEVATION - 2
189	ST1G103	RETAINING WALL - 1G1 TYPICAL SECTION	248	NW1A10	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 10	ZONE NWT L - NOISE WALL ALONG CCT EAST OF COQUELIN RUN		
190	ST1G201	RETAINING WALL - 1G2 GENERAL PLAN & ELEVATION	249	NW1A11	NOISE WALL NW1A GENERAL PLAN & ELEVATION - 11	300	NWTL01	NOISE WALL NWTL GENERAL PLAN & ELEVATION
191	ST1G202	RETAINING WALL - 1G2 TYPICAL SECTION	ZONE NW1 B - NOISE WALL ALONG LRT WEST OF CCC			ZONE NWT N - NOISE WALL BETWEEN LRT AND CCT EAST OF JONES MILL ROAD		
ZONE 1 Q - RETAINING WALLS JOINES MILL ROAD - ROCK CREEK			250	NW1B01	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 1	301	NWTN01	NOISE WALL - NWTN GENERAL PLAN & ELEVATION - 1
192	ST1Q001	RETAINING WALL - 1Q0 GENERAL PLAN & ELEVATION	251	NW1B02	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 2	302	NWTN02	NOISE WALL - NWTN GENERAL PLAN & ELEVATION - 2
193	ST1Q002	RETAINING WALL - 1Q0 TYPICAL SECTION	252	NW1B03	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 3	303	NWTN03	NOISE WALL - NWTN GENERAL PLAN & ELEVATION - 3
194	ST1Q101	RETAINING WALL - 1Q1 GENERAL PLAN & ELEVATION - 1	253	NW1B04	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 4			
195	ST1Q102	RETAINING WALL - 1Q1 GENERAL PLAN & ELEVATION - 2	254	NW1B05	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 5			
196	ST1Q103	RETAINING WALL - 1Q1 GENERAL PLAN & ELEVATION - 3	255	NW1B06	NOISE WALL NW1B GENERAL PLAN & ELEVATION - 6			
197	ST1Q104	RETAINING WALL - 1Q1 TYPICAL SECTION	ZONE NW1 C - NOISE WALL ALONG LRT EAST OF CCC					
ZONE T H - CCT RETAINING WALLS CHEVY CHASE LAKE - COQUELIN RUN			256	NW1C01	NOISE WALL NW1C GENERAL PLAN & ELEVATION - 1			
198	STTH201	RETAINING WALL - TH2 GENERAL PLAN & ELEVATION - 1	257	NW1C02	NOISE WALL NW1C GENERAL PLAN & ELEVATION - 2			
199	STTH202	RETAINING WALL - TH2 GENERAL PLAN & ELEVATION - 2	258	NW1C03	NOISE WALL NW1C GENERAL PLAN & ELEVATION - 3			
200	STTH203	RETAINING WALL - TH2 GENERAL PLAN & ELEVATION - 3	259	NW1C04	NOISE WALL NW1C GENERAL PLAN & ELEVATION - 4			
201	STTH204	RETAINING WALL - TH2 GENERAL PLAN & ELEVATION - 4	ZONE NW1 D - NOISE WALL ALONG LRT EAST OF CONNECTICUT AVENUE					
202	STTH205	RETAINING WALL - TH2 TYPICAL SECTION	260	NW1D01	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 1			
203	STTH301	RETAINING WALL - TH3 GENERAL PLAN & ELEVATION - 1	261	NW1D02	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 2			
204	STTH302	RETAINING WALL - TH3 GENERAL PLAN & ELEVATION - 2	262	NW1D03	NOISE WALL NW1D GENERAL PLAN & ELEVATION - 3			
205	STTH303	RETAINING WALL - TH3 TYPICAL SECTION	263	NW1D04	NOISE WALL NW1D GENERAL PLAN & ELEVATION - 4			
206	STTH401	RETAINING WALL - TH4 GENERAL PLAN & ELEVATION - 1	264	NW1D05	NOISE WALL NW1D GENERAL PLAN & ELEVATION - 5			
207	STTH402	RETAINING WALL - TH4 GENERAL PLAN & ELEVATION - 2	265	NW1D06	NOISE WALL NW1D GENERAL PLAN & ELEVATION - 6			
208	STTH403	RETAINING WALL - TH4 GENERAL PLAN & ELEVATION - 3	266	NW1D07	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 7			
209	STTH404	RETAINING WALL - TH4 TYPICAL SECTION	267	NW1D08	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 8			
210	STTH501	RETAINING WALL - TH5 GENERAL PLAN & ELEVATION - 1	268	NW1D09	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 9			
211	STTH502	RETAINING WALL - TH5 GENERAL PLAN & ELEVATION - 2	269	NW1D10	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 10			
212	STTH503	RETAINING WALL - TH5 TYPICAL SECTION	270	NW1D11	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 11			
			271	NW1D12	NOISE WALL NW1D GENERAL PLAN & EVEVATION - 12			

MARYLAND DEPARTMENT OF TRANSPORTATION

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PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN

CHECK

DRAWN

APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

INDEX OF SHEETS – VOLUME 6
SHEET 2

DATE: DECEMBER 2013 SCALE: NONE

CONTRACT NO.
T-1042-0220

DRAWING NO.
GI-6102

SHEET NO.
6 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\131 CEC Master CADD Files\Submittals\002 - Preliminary Engineering\Volume 06\1042p6102.dgn 12/4/2013

INDEX OF DRAWINGS - VOLUME 6

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
ZONE 1 P - ROCK CREEK LRT BRIDGE			ZONE 1 V - RETAINING WALL GRUBB ROAD - LYTTONSVILLE YARD			ZONE 2 K - RETAINING WALL ON NORTH SIDE OF TALBOT AVENUE		
304	ST1P01	ROCK CREEK LRT BRIDGE GENERAL PLAN & ELEVATION	357	ST1V01	RETAINING WALL - 1V GENERAL PLAN & ELEVATION - 1	407	ST2K01	RETAINING WALL 2K GENERAL PLAN AND ELEVATION - 1
305	ST1P04	ROCK CREEK LRT BRIDGE ABUTMENT A - PLAN & ELEVATION	358	ST1V02	RETAINING WALL - 1V GENERAL PLAN & ELEVATION - 2	408	ST2K02	RETAINING WALL 2K GENERAL PLAN AND ELEVATION - 2
306	ST1P05	ROCK CREEK LRT BRIDGE ABUTMENT A - WING PLAN	359	ST1V03	RETAINING WALL - 1V GENERAL PLAN & ELEVATION - 3	409	ST2K03	RETAINING WALL 2K GENERAL PLAN AND ELEVATION - 3
307	ST1P06	ROCK CREEK LRT BRIDGE ABUTMENT A - WING A ELEVATION	360	ST1V04	RETAINING WALL - 1V GENERAL PLAN & ELEVATION - 4	410	ST2K04	RETAINING WALL 2K TYPICAL SECTION - 1
308	ST1P07	ROCK CREEK LRT BRIDGE ABUTMENT A - WING B ELEVATION	361	ST1V05	RETAINING WALL - 1V TYPICAL SECTION	411	ST2K05	RETAINING WALL 2K TYPICAL SECTION - 2
309	ST1P09	ROCK CREEK LRT BRIDGE ABUTMENT B - PLAN & ELEVATION	ZONE 1 T - LYTTONSVILLE PLACE BRIDGE			ZONE 2 R - RETAINING WALL ON SOUTH SIDE OF TALBOT AVENUE		
310	ST1P10	ROCK CREEK LRT BRIDGE ABUTMENT B - WING PLAN	362	ST1T01	LYTTONSVILLE PLACE BRIDGE GENERAL PLAN AND ELEVATION	412	ST2R01	RETAINING WALL 2R GENERAL PLAN AND ELEVATION - I
311	ST1P11	ROCK CREEK LRT BRIDGE ABUTMENT B - WING C ELEVATION	363	ST1T02	LYTTONSVILLE PLACE BRIDGE ABUTMENT A - PLAN AND ELEVATION	413	ST2R02	RETAINING WALL 2R GENERAL PLAN AND ELEVATION - II
312	ST1P12	ROCK CREEK LRT BRIDGE ABUTMENT B - WING D ELEVATION	364	ST1T05	LYTTONSVILLE PLACE BRIDGE PIER 1 - PLAN AND ELEVATION	414	ST2R03	RETAINING WALL 2R TYPICAL SECTION
313	ST1P13	ROCK CREEK LRT BRIDGE FRAMING PLAN	365	ST1T07	LYTTONSVILLE PLACE BRIDGE PIER 2 - PLAN AND ELEVATION	ZONE 2 G - TALBOT AVENUE BRIDGE		
314	ST1P14	ROCK CREEK LRT BRIDGE ERECTION PLAN	366	ST1T09	LYTTONSVILLE PLACE BRIDGE ABUTMENT B - PLAN AND ELEVATION	415	ST2G01	TALBOT AVENUE BRIDGE GENERAL PLAN AND ELEVATION
ZONE T C - ROCK CREEK CCT BRIDGE			367	ST1T10	LYTTONSVILLE PLACE BRIDGE TYPICAL SECTIONS	416	ST2G02	TALBOT AVENUE BRIDGE ABUTMENT A - PLAN AND ELEVATION
315	STTC01	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE GENERAL PLAN	368	ST1T11	LYTTONSVILLE PLACE BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 1	417	ST2G03	TALBOT AVENUE BRIDGE PIER - PLAN AND ELEVATION
316	STTC02	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE CONSTRUCTION PLAN - 1	369	ST1T12	LYTTONSVILLE PLACE BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 2	418	ST2G05	TALBOT AVENUE BRIDGE SUPERSTRUCTURE TYPICAL SECTION
317	STTC03	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE CONSTRUCTION PLAN - 2	370	ST1T13	LYTTONSVILLE PLACE BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 3	419	ST2G04	TALBOT AVENUE BRIDGE ABUTMENT B - PLAN AND ELEVATION
318	STTC04	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE ABUTMENT A - PLAN & ELEVATION	371	ST1T14	LYTTONSVILLE PLACE BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 4	ZONE 2 L - RETAINING WALL TALBOT AVENUE - 16TH STREET		
319	STTC05	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE ABUTMENT B - PLAN & ELEVATION	ZONE 1 Y - LYTTONSVILLE STATION			420	ST2L01	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 1
320	STTC06	CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE FRAMING PLAN	372	ST1Y11	LYTTONSVILLE STATION PLATFORM PLAN	421	ST2L02	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 2
ZONE 1 U - RETAINING WALLS CCT UNDERPASS - GRUBB ROAD			ZONE T R - LYTTONSVILLE PLACE CONNECTION RAMP			422	ST2L03	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 3
321	ST1U01	ROCK CREEK CONNECTION STRUCTURE LOCATION MAP	373	STTR101	LYTTONSVILLE PLACE CONNECTION RAMP GENERAL PLAN SHEET 1 OF 2	423	ST2L04	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 4
322	ST1U001	RETAINING WALL - 1U0 GENERAL PLAN & ELEVATION - 1	374	STTR102	LYTTONSVILLE PLACE CONNECTION RAMP GENERAL PLAN SHEET 2 OF 2	424	ST2L05	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 5
323	ST1U002	RETAINING WALL - 1U0 GENERAL PLAN & ELEVATION - 2	375	STTR103	LYTTONSVILLE PLACE CONNECTION RAMP STAIRS AND CANOPY PLANS	425	ST2L06	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 6
324	ST1U101	RETAINING WALL - 1U0 TYPICAL SECTION	376	STTR104	LYTTONSVILLE PLACE CONNECTION RAMP RET. WALL B ELEVATION SHEET 1 OF 3	426	ST2L07	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 7
325	ST1U003	RETAINING WALL - 1U1 GENERAL PLAN & ELEVATION	377	STTR105	LYTTONSVILLE PLACE CONNECTION RAMP RET. WALL B ELEVATION SHEET 2 OF 3	427	ST2L08	RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 8
326	ST1U102	RETAINING WALL - 1U1 TYPICAL SECTION	378	STTR106	LYTTONSVILLE PLACE CONNECTION RAMP RET. WALL B ELEVATION SHEET 3 OF 3	428	ST2L09	RETAINING WALL 2L TYPICAL SECTION - 1
ZONE T N - CCT RETAINING WALLS ROCK CREEK TRAIL CONNECTION			379	STTR107	LYTTONSVILLE PLACE CONNECTION RAMP LONGITUDINAL SECTION SHEET 1 OF 3	429	ST2L10	RETAINING WALL 2L TYPICAL SECTION - 2
327	STTN001	RETAINING WALL - TNO GENERAL PLAN & ELEVATION - 1	380	STTR108	LYTTONSVILLE PLACE CONNECTION RAMP LONGITUDINAL SECTION SHEET 2 OF 3	430	ST2L11	RETAINING WALL 2L TYPICAL SECTION - 3
328	STTN002	RETAINING WALL - TNO GENERAL PLAN & ELEVATION - 2	381	STTR109	LYTTONSVILLE PLACE CONNECTION RAMP LONGITUDINAL SECTION SHEET 3 OF 3	431	ST2L12	RETAINING WALL 2L TYPICAL SECTION - 4
329	STTN003	RETAINING WALL - TNO TYPICAL SECTION	ZONE 2 H - RETAINING WALL EAST OF LYTTONSVILLE PLACE			ZONE 2E - 16TH STREET BRIDGE		
330	STTN101	RETAINING WALL - TN1 GENERAL PLAN & ELEVATION	382	ST2H01	RETAINING WALL - 2HO GENERAL PLAN & ELEVATION	432	ST2E01	BRIDGE NO. 15089 ON MD390 PROTECTIVE BARRIER
331	STTN102	RETAINING WALL - TN1 TYPICAL SECTION	383	ST2H02	RETAINING WALL - 2HO TYPICAL SECTIONS - 1	ZONE T T - CCT RETAINING WALL EAST OF TALBOT AVENUE		
332	STTN201	RETAINING WALL - TN2 GENERAL PLAN & ELEVATION -1	384	ST2H03	RETAINING WALL - 2HO TYPICAL SECTIONS - 2	433	STTT01	RETAINING WALL - TT GENERAL PLAN AND ELEVATION - I
333	STTN202	RETAINING WALL - TN2 GENERAL PLAN & ELEVATION -2	ZONE 2 J - RETAINING WALLS STEWART AVENUE - TALBOT AVENUE			434	STTT02	RETAINING WALL - TT GENERAL PLAN AND ELEVATION - II
334	STTN203	RETAINING WALL - TN2 TYPICAL SECTION	385	ST2J01	RETAINING WALL - 2JO GENERAL PLAN & ELEVATION - 1	435	STTT03	RETAINING WALL - TT TYPICAL SECTIONS
ZONE 1 S - CCT UNDERPASS EAST OF ROCK CREEK			386	ST2J02	RETAINING WALL - 2JO GENERAL PLAN & ELEVATION - 2	ZONE T U - CCT RETAINING WALLS TALBOT AVENUE - 16TH STREET		
335	ST1S01	CCT UNDERPASS WEST OF LYTONSVILLE PLAN AND LONGITUDINAL SECTION	387	ST2J03	RETAINING WALL - 2JO GENERAL PLAN & ELEVATION - 3	436	STTU01	RETAINING WALL - TU0 GENERAL PLAN AND ELEVATION
336	ST1S02	CCT UNDERPASS WEST OF LYTONSVILLE SECTIONS	388	ST2J04	RETAINING WALL - 2JO GENERAL PLAN & ELEVATION - 4	437	STTU02	RETAINING WALL - TU0 TYPICAL SECTION
ZONE 1 U - RETAINING WALLS CCT UNDERPASS - GRUBB ROAD			389	ST2J05	RETAINING WALL - 2JO TYPICAL SECTION	438	STTU11	RETAINING WALL - TU1 GENERAL PLAN AND ELEVATION
337	ST1U21	RETAINING WALL - 1U2 GENERAL PLAN & ELEVATION - 1	390	ST2J11	RETAINING WALL - 2J1 GENERAL PLAN & ELEVATION	439	STTU12	RETAINING WALL - TU1 TYPICAL SECTION
338	ST1U22	RETAINING WALL - 1U2 GENERAL PLAN & ELEVATION - 2	391	ST2J12	RETAINING WALL - 2J1 TYPICAL SECTION	440	STTU21	RETAINING WALL - TU2 GENERAL PLAN AND ELEVATION - 1
339	ST1U23	RETAINING WALL - 1U2 GENERAL PLAN & ELEVATION - 3	ZONE 2 U - CSX CORRIDOR CRASH WALLS			441	STTU22	RETAINING WALL - TU2 GENERAL PLAN AND ELEVATION - 2
340	ST1U24	RETAINING WALL - 1U2 GENERAL PLAN & ELEVATION - 4	392	ST2U01	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 1	442	STTU23	RETAINING WALL - TU2 TYPICAL SECTION
341	ST1U25	RETAINING WALL - 1U2 TYPICAL SECTIONS	393	ST2U02	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 2	ZONE T V - CCT RETAINING WALL AT 16TH STREET		
342	ST1U31	RETAINING WALL - 1U3 GENERAL PLAN & ELEVATION - 1	394	ST2U03	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 3	443	STTV11	RETAINING WALL - TV GENERAL PLAN AND ELEVATION - 1
343	ST1U32	RETAINING WALL - 1U3 GENERAL PLAN & ELEVATION - 2	395	ST2U04	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 4	444	STTV12	RETAINING WALL - TV GENERAL PLAN AND ELEVATION - 2
344	ST1U33	RETAINING WALL - 1U3 GENERAL PLAN & ELEVATION - 3	396	ST2U05	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 5	445	STTV13	RETAINING WALL - TV GENERAL PLAN AND ELEVATION - 3
345	ST1U34	RETAINING WALL - 1U3 GENERAL PLAN & ELEVATION - 4	397	ST2U06	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 6	446	STTV14	RETAINING WALL - TV TYPICAL SECTIONS
346	ST1U35	RETAINING WALL - 1U3 GENERAL PLAN & ELEVATION - 5	398	ST2U07	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 7			
347	ST1U36	RETAINING WALL - 1U3 TYPICAL SECTIONS	399	ST2U08	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 8			
ZONE T P - CCT RETAINING WALL CCT UNDERPASS - GRUBB ROAD			400	ST2U09	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 9			
348	STTP01	RETAINING WALL - TP GENERAL PLAN & ELEVATION - 1	401	ST2U10	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 10			
349	STTP02	RETAINING WALL - TP GENERAL PLAN & ELEVATION - 2	402	ST2U11	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 11			
350	STTP03	RETAINING WALL - TP GENERAL PLAN & ELEVATION - 3	403	ST2U12	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 12			
ZONE T Q - CCT RETAINING WALLS GRUBB ROAD - LYTTONSVILLE YARD			404	ST2U13	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 13			
351	STTQ01	RETAINING WALL - TQ0 GENERAL PLAN & ELEVATION	405	ST2U14	CSX CORRIDOR CRASH WALL - 2U GENERAL PLAN & ELEVATION - 14			
352	STTQ11	RETAINING WALL - TQ1 GENERAL PLAN & ELEVATION - 1	406	ST2U15	CSX CORRIDOR CRASH WALL - 2U TYPICAL SECTION			
353	STTQ12	RETAINING WALL - TQ1 GENERAL PLAN & ELEVATION - 2						
354	STTQ13	RETAINING WALL - TQ1 GENERAL PLAN & ELEVATION - 3						
355	STTQ14	CCT RETAINING WALLS NEAR LYTTONSVILLE TYPICAL SECTIONS - 1						
356	STTQ15	CCT RETAINING WALLS NEAR LYTTONSVILLE TYPICAL SECTIONS - 2						

MARYLAND DEPARTMENT OF TRANSPORTATION

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Gannett Fleming

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PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

INDEX OF DRAWINGS - VOLUME 6

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
ZONE T W - CCT RETAINING WALLS EAST OF 16TH STREET			ZONE 2 A - SILVER SPRING TRANSIT CENTER LRT BRIDGE			ZONE 3 B - SILVER SPRING LIBRARY STATION		
447	STTW01	RETAINING WALL - TWO GENERAL PLAN AND ELEVATION	496	ST2A01	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 1	559	ST3B01	SILVER SPRING LIBRARY STATION STRUCTURAL PLATFORM PLAN - 1
448	STTW02	RETAINING WALL - TWO TYPICAL SECTION	497	ST2A02	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 2	560	ST3B02	SILVER SPRING LIBRARY STATION STRUCTURAL PLATFORM PLAN - 2
449	STTW11	RETAINING WALL - TW1 GENERAL PLAN AND ELEVATION	498	ST2A03	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 3	561	ST3B03	SILVER SPRING LIBRARY STATION THIRD FLOOR PLAN
450	STTW21	RETAINING WALL - TW2 GENERAL PLAN AND ELEVATION	499	ST2A04	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 4	562	ST3B31	SILVER SPRING LIBRARY STATION STRUCTURAL SECTIONS - 1
451	STTW22	RETAINING WALL - TW2 TYPICAL SECTIONS	500	ST2A05	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 5	563	ST3B32	SILVER SPRING LIBRARY STATION STRUCTURAL SECTIONS - 2
452	STTW301	RETAINING WALL TW3 GENERAL PLAN AND ELEVATION	501	ST2A06	SILVER SPRING TRANSIT CENTER AERIAL GENERAL PLAN & ELEVATION - 6	564	ST3B33	SILVER SPRING LIBRARY STATION STRUCTURAL SECTIONS - 3
453	STTW302	RETAINING WALL TW3 GENERAL PLAN, ELEVATION AND SECTION	502	ST2A07	SILVER SPRING TRANSIT CENTER AERIAL CURVE DATA	565	ST3B34	SILVER SPRING LIBRARY STATION STRUCTURAL SECTIONS - 4
454	STTW41	RETAINING WALL TW4 PLAN AND ELEVATION	503	ST2A08	SILVER SPRING TRANSIT CENTER AERIAL GENERAL NOTES	566	ST3B36	SILVER SPRING LIBRARY STATION STRUCTURAL SECTIONS - 5
455	STTW42	RETAINING WALL TW4 TYPICAL SECTION	504	ST2A09	SILVER SPRING TRANSIT CENTER AERIAL ABUTMENT A PLAN & ELEVATION	ZONE 3 E - RETAINING WALL ALONG WAYNE AVE WEST OF CEDAR ST		
ZONE 2 S - RETAINING WALLS ALONG 16TH STREET			505	ST2A10	SILVER SPRING TRANSIT CENTER AERIAL ABUTMENT B PLAN & ELEVATION	567	ST3E01	WAYNE AVENUE RETAINING WALL E STA TRK 1 361+31.75 TO 362+02.75
456	ST2S01	RETAINING WALL - 2S0 GENERAL PLAN & ELEVATION - 1	506	ST2A11	SILVER SPRING TRANSIT CENTER AERIAL SOUTHWEST MSE WALL PLAN & ELEVATION - 1	ZONE 3 D - DALE DRIVE STATION		
457	ST2S02	RETAINING WALL - 2S0 GENERAL PLAN & ELEVATION - 2	507	ST2A12	SILVER SPRING TRANSIT CENTER AERIAL SOUTHWEST MSE WALL PLAN & ELEVATION - 2	568	ST3D11	DALE DRIVE STATION PLATFORM PLAN
458	ST2S03	RETAINING WALL - 2S0 TYPICAL SECTION	508	ST2A13	SILVER SPRING TRANSIT CENTER AERIAL SOUTHWEST MSE WALL PLAN & ELEVATION - 3	ZONE 3 F - RETAINING WALLS AT SILVER SPRING INTERNATIONAL MIDDLE SCHOOL		
459	ST2S11	RETAINING WALL - 2S1 GENERAL PLAN & ELEVATION - 1	509	ST2A14	SILVER SPRING TRANSIT CENTER AERIAL NORTHWEST MSE WALL PLAN & ELEVATION - 1	569	ST3F01	SILVER SPRING INTERNATIONAL MIDDLE SCHOOL RETAINING WALL F1
460	ST2S12	RETAINING WALL - 2S1 GENERAL PLAN & ELEVATION - 2	510	ST2A15	SILVER SPRING TRANSIT CENTER AERIAL NORTHWEST MSE WALL PLAN & ELEVATION - 2	570	ST3F02	SILVER SPRING INTERNATIONAL MIDDLE SCHOOL RETAINING WALL F2-1
461	ST2S13	RETAINING WALL - 2S1 TYPICAL SECTIONS	511	ST2A16	SILVER SPRING TRANSIT CENTER AERIAL NORTHWEST MSE WALL PLAN & ELEVATION - 3	571	ST3F03	SILVER SPRING INTERNATIONAL MIDDLE SCHOOL RETAINING WALL F2-2
ZONE 2 F - WOODSIDE / 16TH STREET STATION			512	ST2A17	SILVER SPRING TRANSIT CENTER AERIAL SOUTHEAST MSE WALL PLAN & ELEVATION - 1	572	ST3F04	SILVER SPRING INTERNATIONAL MIDDLE SCHOOL RETAINING WALL F3
462	ST2F03	WOODSIDE/16TH STREET STATION PLATFORM PLAN - 1	513	ST2A18	SILVER SPRING TRANSIT CENTER AERIAL SOUTHEAST MSE WALL PLAN & ELEVATION - 2	ZONE 3 G - RETAINING WALL ALONG WAYNE AVE WEST OF DARTMOUTH AVE		
463	ST2F04	WOODSIDE/16TH STREET STATION PLATFORM PLAN - 2	514	ST2A19	SILVER SPRING TRANSIT CENTER AERIAL NORTHEAST MSE WALL PLAN & ELEVATION - 1	573	ST3G01	WAYNE AVENUE RETAINING WALL G STA TRK 1 371+92.22 TO 373+73.21
464	ST2F05	WOODSIDE/16th ST STATION & CSX CRASH WALL SECTION AT STA. 302+00	515	ST2A20	SILVER SPRING TRANSIT CENTER AERIAL NORTHEAST MSE WALL PLAN & ELEVATION - 2	ZONE 3 H - RETAINING WALL ALONG WAYNE AVE WEST OF SLIGO CREEK		
465	ST2F06	WOODSIDE/16th ST STATION & CSX CRASH WALL SECTION AT STATION CANOPY	516	ST2A21	SILVER SPRING TRANSIT CENTER AERIAL MSE RETAINING WALL TYPICAL SECTION	574	ST3H01	WAYNE AVENUE RETAINING WALL H STA TRK 1 389+56.19 TO 391+63.01
ZONE 2 M - RETAINING WALLS 16TH STREET - SPRING STREET			517	ST2A22	SILVER SPRING TRANSIT CENTER AERIAL PIER 1 PLAN & ELEVATIONS	ZONE 3 A - WAYNE AVENUE BRIDGE		
466	ST2M01	STAIR PLAN - 2MO GENERAL PLAN AND ELEVATION	518	ST2A23	SILVER SPRING TRANSIT CENTER AERIAL PIER 2 PLAN & ELEVATIONS	575	ST3A01	WAYNE AVENUE BRIDGE OVER SLIGO CREEK GENERAL PLAN AND ELEVATION
467	ST2M11	RETAINING WALL - 2M1 GENERAL PLAN AND ELEVATION	519	ST2A24	SILVER SPRING TRANSIT CENTER AERIAL PIER 3 PLAN & ELEVATIONS	576	ST3A02	WAYNE AVENUE BRIDGE OVER SLIGO CREEK ABUTMENT A - PLAN AND ELEVATION
468	ST2M12	RETAINING WALL - 2M1 TYPICAL SECTION	520	ST2A25	SILVER SPRING TRANSIT CENTER AERIAL PIER 4 PLAN & ELEVATIONS	577	ST3A04	WAYNE AVENUE BRIDGE OVER SLIGO CREEK ABUTMENT B - PLAN AND ELEVATION
469	ST2M31	RETAINING WALL - 2M3 GENERAL PLAN AND ELEVATION - 1	521	ST2A26	SILVER SPRING TRANSIT CENTER AERIAL PIER 5 PLAN & ELEVATIONS	578	ST3A06	WAYNE AVENUE BRIDGE OVER SLIGO CREEK SUPERSTRUCTURE TYPICAL SECTION
470	ST2M32	RETAINING WALL - 2M3 GENERAL PLAN AND ELEVATION - 2	522	ST2A27	SILVER SPRING TRANSIT CENTER AERIAL PIER 6 PLAN & ELEVATIONS	579	ST3A07	WAYNE AVENUE BRIDGE OVER SLIGO CREEK SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 1
471	ST2M33	RETAINING WALL - 2M3 TYPICAL SECTION	523	ST2A28	SILVER SPRING TRANSIT CENTER AERIAL PIER 7 PLAN & ELEVATIONS	580	ST3A08	WAYNE AVENUE BRIDGE OVER SLIGO CREEK SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 2
ZONE 2 D - SPRING STREET BRIDGE			524	ST2A29	SILVER SPRING TRANSIT CENTER AERIAL TYPICAL SECTION - 1	ZONE 3 J - RETAINING WALL ALONG WAYNE AVE EAST OF SLIGO CREEK		
472	ST2D01	SPRING STREET BRIDGE GENERAL PLAN AND ELEVATION	525	ST2A30	SILVER SPRING TRANSIT CENTER AERIAL TYPICAL SECTION - 2	581	ST3J01	WAYNE AVENUE RETAINING WALL J STA TRK 1 398+93.94 TO 400+64.06
473	ST2D02	SPRING STREET BRIDGE ABUTMENT A - PLAN AND ELEVATION	526	ST2A31	SILVER SPRING TRANSIT CENTER AERIAL TYPICAL SECTION - 3	ZONE 4 E - RETAINING WALLS PLYMOUTH TUNNEL WEST PORTAL		
474	ST2D05	SPRING STREET BRIDGE PIER - PLAN AND ELEVATION	527	ST2A36	SILVER SPRING TRANSIT CENTER AERIAL SEQUENCE OF CONSTRUCTION - 1	582	ST4E11	MANCHESTER PLACE STATION WEST PORTAL RETAINING WALLS - PLAN
475	ST2D12	SPRING STREET BRIDGE ABUTMENT B - PLAN AND ELEVATION	528	ST2A37	SILVER SPRING TRANSIT CENTER AERIAL SEQUENCE OF CONSTRUCTION - 2	583	ST4E21	MANCHESTER PLACE STATION WEST PORTAL WALLS - ELEVATIONS & SECTIONS
476	ST2D17	SPRING STREET BRIDGE SUPERSTRUCTURE TYPICAL SECTIONS	ZONE 2 C - SILVER SPRING TRANSIT CENTER STATION			ZONE 4 K - RETAINING WALL MANCHESTER PLACE STATION PARKING LOT		
477	ST2D18	SPRING STREET BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 1	529	ST2C01	SILVER SPRING TRANSIT CENTER STATION TRANSIT LEVEL 01 PLAN (1 OF 2)	584	ST4K01	MANCHESTER PLACE STATION PARKING LOT RETAINING WALL 4K
478	ST2D19	SPRING STREET BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 2	530	ST2C02	SILVER SPRING TRANSIT CENTER STATION TRANSIT LEVEL 01 PLAN (2 OF 2)	ZONE 4 C - MANCHESTER PLACE STATION		
479	ST2D20	SPRING STREET BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 3	531	ST2C03	SILVER SPRING TRANSIT CENTER STATION TRANSIT LEVEL 02 FRAMING PLAN (1 OF 2)	585	ST4C11	MANCHESTER PLACE STATION STRUCTURAL PLANS - SHEET 1 OF 2
480	ST2D21	SPRING STREET BRIDGE SUPERSTRUCTURE - SEQ. OF CONSTRUCTION - 4	532	ST2C04	SILVER SPRING TRANSIT CENTER STATION TRANSIT LEVEL 02 FRAMING PLAN (2 OF 2)	586	ST4C12	MANCHESTER PLACE STATION STRUCTURAL PLANS - SHEET 2 OF 2
ZONE 2 N - RETAINING WALL EAST OF SPRING STREET			533	ST2C05	SILVER SPRING TRANSIT CENTER STATION MEZZANINE LEVEL FRAMING PLAN (1 OF 2)	587	ST4C21	MANCHESTER PLACE STATION STRUCTURAL ELEVATIONS - SHEET 1 OF 2
481	ST2N01	RETAINING WALL - 2N GENERAL PLAN AND ELEVATION	534	ST2C06	SILVER SPRING TRANSIT CENTER STATION MEZZANINE LEVEL FRAMING PLAN (2 OF 2)	588	ST4C22	MANCHESTER PLACE STATION STRUCTURAL ELEVATIONS - SHEET 2 OF 2
482	ST2N02	RETAINING WALL - 2N TYPICAL SECTION	535	ST2C07	SILVER SPRING TRANSIT CENTER STATION PLATFORM LEVEL FRAMING PLAN (1 OF 2)	589	ST4C31	MANCHESTER PLACE STATION STRUCTURAL SECTIONS - SHEET 1 OF 3
ZONE T Y - CCT RETAINING WALL SPRING STREET RAMP CONNECTION			536	ST2C08	SILVER SPRING TRANSIT CENTER STATION PLATFORM LEVEL FRAMING PLAN (2 OF 2)	590	ST4C32	MANCHESTER PLACE STATION STRUCTURAL SECTIONS - SHEET 2 OF 3
483	STTY01	RETAINING WALL TY1 PLAN & ELEVATION	537	ST2C09	SILVER SPRING TRANSIT CENTER STATION CANOPY LEVEL FRAMING PLAN	591	ST4C33	MANCHESTER PLACE STATION STRUCTURAL SECTIONS-SHEET 3 OF 3
484	STTY02	RETAINING WALL TY1 TYPICAL SECTION	538	ST2C20	SILVER SPRING TRANSIT CENTER STATION FULL STATION SECTIONS - 1	592	ST4C41	MANCHESTER PLACE STATION SUPPORT OF EXCAVATION PLAN
ZONE T Z - CCT RETAINING WALLS SPRING STREET - SSTC CCT BRIDGE			539	ST2C21	SILVER SPRING TRANSIT CENTER STATION FULL STATION SECTIONS - 2	593	ST4C42	MANCHESTER PLACE STATION SUPPORT OF EXCAVATION ELEVATION (NORTH)
485	STTZ01	RETAINING WALL TZ1 PLAN AND ELEVATION - SHEET 1 OF 2	540	ST2C22	SILVER SPRING TRANSIT CENTER STATION FULL STATION SECTIONS - 3	594	ST4C43	MANCHESTER PLACE STATION SUPPORT OF EXCAVATION ELEVATION (SOUTH)
486	STTZ02	RETAINING WALL TZ1 PLAN AND ELEVATION - SHEET 2 OF 2	541	ST2C23	SILVER SPRING TRANSIT CENTER STATION FULL STATION SECTIONS - 4	595	ST4C44	MANCHESTER PLACE STATION SUPPORT OF EXCAVATION ELEVATION (EAST)
487	STTZ03	RETAINING WALL TZ1 TYPICAL SECTIONS	542	ST2C24	SILVER SPRING TRANSIT CENTER STATION FULL STATION SECTIONS - 5			
488	STTZ04	RETAINING WALL TZ2 PLAN & ELEVATION - SHEET 1 OF 3	543	ST2C30	SILVER SPRING TRANSIT CENTER STATION CCT TRUSS BRIDGE ELEVATION			
489	STTZ05	RETAINING WALL TZ2 PLAN AND ELEVATION - SHEET 2 OF 3	ZONE 2 B - SILVER SPRING TRANSIT CENTER CCT BRIDGE					
490	STTZ06	RETAINING WALL TZ2 PLAN AND ELEVATION - SHEET 3 OF 3	544	ST2B01	CCT BRIDGE AT SSTC GENERAL PLAN AND ELEVATION - 1			
491	STTZ07	RETAINING WALL TZ2 TYPICAL SECTIONS	545	ST2B02	CCT BRIDGE AT SSTC GENERAL PLAN AND ELEVATION - 2			
492	STTZ08	RETAINING WALL TZ3 PLAN AND ELEVATION	546	ST2B03	CCT BRIDGE AT SSTC ABUTMENT A - PLAN & ELEVATION			
493	STTZ09	RETAINING WALL TZ3 TYPICAL SECTION	547	ST2B04	CCT BRIDGE AT SSTC PIER 1 - PLAN & ELEVATION			
494	STTZ10	RETAINING WALL TZ4 PLAN AND ELEVATION	548	ST2B05	CCT BRIDGE AT SSTC PIER 3 - PLAN & ELEVATION			
495	STTZ11	RETAINING WALL TZ4 TYPICAL SECTION	549	ST2B06	CCT BRIDGE AT SSTC PIER 5 - PLAN & ELEVATION			
			550	ST2B07	CCT BRIDGE AT SSTC TYPICAL SECTION			
			551	ST2B08	CCT BRIDGE AT SSTC FRAMING PLAN - 1			
			552	ST2B09	CCT BRIDGE AT SSTC FRAMING PLAN - 2			
			ZONE 2 T - BONIFANT STREET PARKING GARAGE MODIFICATIONS					
			553	ST-2T01	BONIFANT PARKING GARAGE GRADE LEVEL PLAN / SITE PLAN			
			554	ST-2T01	BONIFANT PARKING GARAGE EXISTING FDN PLAN & NEW BRIDGE SUPPORTS			
			555	ST2T01	BONIFANT PARKING GARAGE 2ND LEVEL EXIST. & NEW BRIDGE PLANS			
			556	ST2T02	BONIFANT PARKING GARAGE 3RD LEVEL EXISTING FRAMING PLAN			
			557	ST2T03	BONIFANT PARKING GARAGE 3RD LEVEL DEMOLITION AND NEW WORK PLANS			
			558	ST2T04	BONIFANT PARKING GARAGE SECTIONS			

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN
DRAWN
CHECK
APPROVED

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

INDEX OF SHEETS - VOLUME 6
SHEET 4

DATE: DECEMBER 2013

SCALE: NONE

CONTRACT NO.
T-1042-0220

DRAWING NO.
GI-6104

SHEET NO.
8 OF 828

INDEX OF DRAWINGS - VOLUME 6

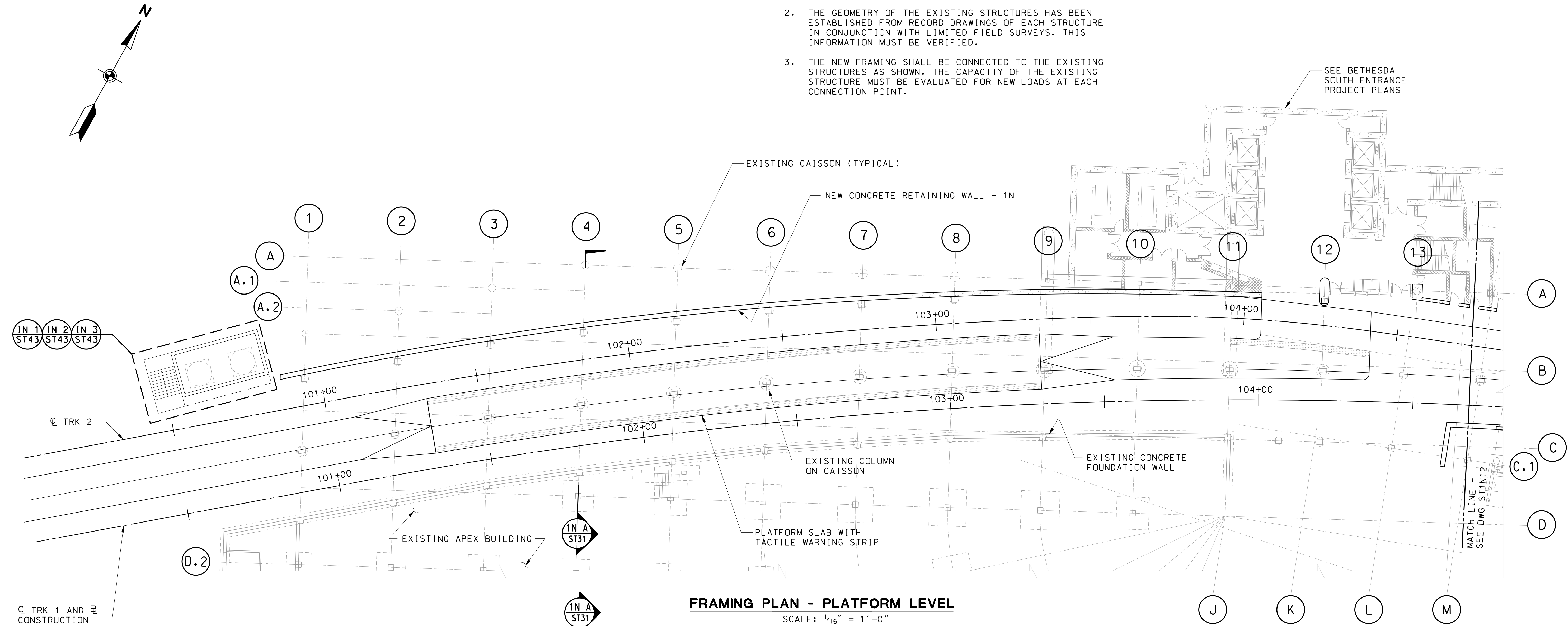
SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
ZONE 4 A - PLYMOUTH TUNNEL			ZONE 6 B - RIGGS ROAD STATION			ZONE 8 M - RETAINING WALL AT COLLEGE PARK METRO		
596	ST4A01	PLYMOUTH TUNNEL SEM TUNNEL PLAN	636	ST6B11	RIGGS ROAD STATION PLATFORM PLAN	680	ST8M01	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 1
597	ST4A02	PLYMOUTH TUNNEL SEM TUNNEL PROFILE				681	ST8M02	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 2
598	ST4A03	PLYMOUTH TUNNEL SEM TUNNEL SPACE PROOFING				682	ST8M03	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 3
599	ST4A04	PLYMOUTH TUNNEL SEM TUNNEL CONCRETE LINING				683	ST8M04	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 4
600	ST4A06	PLYMOUTH TUNNEL SEM TUNNEL WATERPROOFING DETAILS				684	ST8M05	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 5
601	ST4A07	PLYMOUTH TUNNEL SEM TUNNEL GROUND SUPPORT GEOMETRY				685	ST8M06	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 6
602	ST4A08	PLYMOUTH TUNNEL SEM TUNNEL EXCAVATION SEQUENCE				686	ST8M07	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 7
603	ST4A09	PLYMOUTH TUNNEL SEM TUNNEL EAST PORTAL EXCAVATION				687	ST8M08	COLLEGE PARK METRO RETAINING WALL - 8M GENERAL PLAN AND ELEVATION - 8
604	ST4A10	PLYMOUTH TUNNEL SEM TUNNEL WEST PORTAL EXCAVATION						
ZONE 4 B - PLYMOUTH TUNNEL EAST CUT AND COVER			ZONE 6 C - UNIVERSITY BOULEVARD BRIDGE			ZONE 8 U - RETAINING WALL AT COLLEGE PARK METRO		
605	ST4B01	PLYMOUTH TUNNEL EAST CUT & COVER TUNNEL PLAN	637	ST6C01	UNIVERSITY BLVD. OVER NORTHWEST BRANCH GENERAL PLAN	688	ST8U01	COLLEGE PARK METRO RETAINING WALL - 8U GENERAL PLAN AND ELEVATION - 1
606	ST4B02	PLYMOUTH TUNNEL EAST CUT & COVER TUNNEL PROFILE	638	ST6C02	UNIVERSITY BLVD. OVER NORTHWEST BRANCH ELEVATION AND GENERAL NOTES	689	ST8U02	COLLEGE PARK METRO RETAINING WALL - 8U GENERAL PLAN AND ELEVATION - 2
607	ST4B03	PLYMOUTH TUNNEL EAST CUT & COVER TUNNEL SPACE PROOFING	639	ST6C03	UNIVERSITY BLVD. OVER NORTHWEST BRANCH EXISTING AND PROPOSED TYPICAL SECTIONS	690	ST8U03	COLLEGE PARK METRO RETAINING WALL - 8U GENERAL PLAN AND ELEVATION - 3
608	ST4B04	PLYMOUTH TUNNEL EAST C&C PERMANENT CONCRETE LINING	640	ST6C04	UNIVERSITY BLVD. OVER NORTHWEST BRANCH SEQUENCE OF CONSTRUCTION - STAGE 1	691	ST8U04	COLLEGE PARK METRO RETAINING WALL - 8U GENERAL PLAN AND ELEVATION - 4
609	ST4B09	PLYMOUTH TUNNEL EAST C&C HEADWALL DETAILS	641	ST6C05	UNIVERSITY BLVD. OVER NORTHWEST BRANCH SEQUENCE OF CONSTRUCTION - STAGE 2	692	ST8U05	COLLEGE PARK METRO RETAINING WALL - 8U GENERAL PLAN AND ELEVATION - 5
610	ST4B05	PLYMOUTH TUNNEL EAST C&C SUPPORT OF EXCAVATION PLAN	642	ST6C06	UNIVERSITY BLVD. OVER NORTHWEST BRANCH SEQUENCE OF CONSTRUCTION - STAGE 3A	693	ST8U06	COLLEGE PARK METRO RETAINING WALLS TYPICAL SECTIONS - 1
611	ST4B06	PLYMOUTH TUNNEL EAST C&C EXCAVATION ELEVATION (NORTH)	643	ST6C07	UNIVERSITY BLVD. OVER NORTHWEST BRANCH SEQUENCE OF CONSTRUCTION - STAGE 3B	694	ST8U07	COLLEGE PARK METRO RETAINING WALLS TYPICAL SECTIONS - 2
612	ST4B07	PLYMOUTH TUNNEL EAST C&C EXCAVATION ELEVATION (SOUTH)	644	ST6C08	UNIVERSITY BLVD. OVER NORTHWEST BRANCH SEQUENCE OF CONSTRUCTION - STAGE 4			
ZONE 4 G - RETAINING WALLS PLYMOUTH TUNNEL EAST PORTAL			645	ST6C09	UNIVERSITY BLVD. OVER NORTHWEST BRANCH ABUTMENT A - PLAN			
613	ST4G01	PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL PLAN	646	ST6C10	UNIVERSITY BLVD. OVER NORTHWEST BRANCH ABUTMENT A - ELEVATION			
614	ST4G02	PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL PROFILE (NORTH)	647	ST6C11	UNIVERSITY BLVD. OVER NORTHWEST BRANCH ABUTMENT B - PLAN			
615	ST4G03	PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL PROFILE (SOUTH)	648	ST6C12	UNIVERSITY BLVD. OVER NORTHWEST BRANCH ABUTMENT B - ELEVATION			
616	ST4G04	PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL SPACE PROOFING	649	ST6C13	UNIVERSITY BLVD. OVER NORTHWEST BRANCH PIER 1 - PLAN AND ELEVATION			
617	ST4G07	PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL SECTION	650	ST6C14	UNIVERSITY BLVD. OVER NORTHWEST BRANCH PIER 2 - PLAN AND ELEVATION			
618	ST4G08	PLYMOUTH TUNNEL EAST PORTAL SUPPORT OF EXCAVATION PLAN	651	ST6C15	UNIVERSITY BLVD. OVER NORTHWEST BRANCH NW APPROACH WALL - PLAN AND ELEVATION - 1			
619	ST4G09	PLYMOUTH TUNNEL EAST PORTAL EXCAVATION ELEVATION (NORTH)	652	ST6C16	UNIVERSITY BLVD. OVER NORTHWEST BRANCH NW APPROACH WALL - PLAN AND ELEVATION - 2			
620	ST4G10	PLYMOUTH TUNNEL EAST PORTAL EXCAVATION ELEVATION (SOUTH)	653	ST6C17	UNIVERSITY BLVD. OVER NORTHWEST BRANCH NW RETAINING WALL - TYPICAL SECTION			
621	ST4G11	PLYMOUTH TUNNEL EAST PORTAL EXCAVATION SECTIONS						
ZONE 5 A - LONG BRANCH STATION			ZONE 6 N - RETAINING WALL IN MEDIAN OF UNIVERSITY BOULEVARD			ZONE 8 N - RETAINING WALL AT COLLEGE PARK METRO PHYSICS ELLIPSE		
622	ST5A11	LONG BRANCH STATION PLATFORM PLAN	654	ST6N01	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 1	695	ST8N01	RIVER ROAD RETAINING WALL - 8N GENERAL PLAN AND ELEVATION - 1
ZONE 5 D - RETAINING WALLS ALONG ARLISS ST NORTH OF PINEY BRANCH RD			655	ST6N02	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 2	696	ST8N02	RIVER ROAD RETAINING WALL - 8N GENERAL PLAN AND ELEVATION - 2
623	ST5D01	ARLISS STREET RETAINING WALL D1 STA TRK 1 427+34.89 TO 427+89.75	656	ST6N03	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 3			
624	ST5D02	ARLISS STREET RETAINING WALL D2 STA TRK 1 429+43.50 TO 430+48.50	657	ST6N04	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 4			
ZONE 5 E - RETAINING WALLS ALONG ARLISS ST NORTH OF PINEY BRANCH RD			658	ST6N05	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 5			
625	ST5E01	ARLISS STREET RETAINING WALL E1 STA TRK 1 423+479.98 TO 427+00	659	ST6N06	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 6			
626	ST5E02	ARLISS STREET RETAINING WALL E1 STA TRK 1 427+00 TO 429+81.92	660	ST6N07	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 7			
627	ST5E03	ARLISS STREET RETAINING WALL E2 STA TRK 1 430+29.26 TO 432+89.26	661	ST6N08	UNIVERSITY BLVD RETAINING WALL - 6N GENERAL PLAN AND ELEVATION - 8			
ZONE 5 C - LONG BRANCH CULVERT			ZONE 6 P - RETAINING WALL IN MEDIAN OF UNIVERSITY BOULEVARD			ZONE 8 X - RETAINING WALL ON WEST SIDE OF ANACOSTIA RIVER BRIDGE		
628	ST5C01	PINEY BRANCH ROAD OVER LONG BRANCH CULVERT PLAN AND SECTIONS	662	ST6P01	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 1	703	ST8X01	RIVER ROAD RETAINING WALL - 8X GENERAL PLAN AND ELEVATION - 1
629	ST5C02	PINEY BRANCH ROAD OVER LONG BRANCH CULVERT DETAILS	663	ST6P02	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 2	704	ST8X02	RIVER ROAD RETAINING WALL - 8X GENERAL PLAN AND ELEVATION - 2
ZONE 5 F - RETAINING WALLS ALONG PINEY BRANCH RD WEST OF UNIVERSITY BLVD			664	ST6P03	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 3	705	ST8X03	RIVER ROAD RETAINING WALL - 8N TYPICAL SECTION - 1
630	ST5F01	PINEY BRANCH ROAD RETAINING WALL F1 STA TRK 1 445+88.81 TO 447+65.27	665	ST6P04	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 4	706	ST8X04	RIVER ROAD RETAINING WALL - 8X TYPICAL SECTION - 2
631	ST5F02	PINEY BRANCH ROAD RETAINING WALL F2 STA TRK 1 448+74.58 TO 449+65.13	666	ST6P05	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 5			
ZONE 5 B - PINEY BRANCH ROAD STATION			667	ST6P06	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 6			
632	ST5B11	PINEY BRANCH ROAD STATION PLATFORM PLAN	668	ST6P07	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 7			
ZONE 6 A - TAKOMA / LANGLEY TRANSIT CENTER STATION			669	ST6P08	UNIVERSITY BLVD RETAINING WALL - 6P GENERAL PLAN AND ELEVATION - 8			
633	ST6A11	TAKOMA / LANGLEY TRANSIT CENTER STATION PLATFORM PLAN	670	ST6P09	UNIVERSITY BLVD RETAINING WALLS - 6P TYPICAL SECTION			
ZONE 6 D - RETAINING WALL ALONG UNIVERSITY BOULEVARD AT MD 650			ZONE 7 A - ADELPHI ROAD / WEST CAMPUS STATION			ZONE 8 B - ANACOSTIA RIVER LRT BRIDGE		
634	ST6D01	UNIVERSITY BLVD. RETAINING WALL - 6D GENERAL PLAN AND ELEVATION	671	ST7A11	ADELPHI ROAD / WEST CAMPUS PLATFORM PLAN	707	ST8B01	ANACOSTIA LRT BRIDGE GENERAL PLAN & ELEVATION
635	ST6D02	UNIVERSITY BLVD. RETAINING WALL - 6D TYPICAL SECTION				708	ST8B02	ANACOSTIA LRT BRIDGE TYPICAL SECTION
			ZONE 7 B - CAMPUS CENTER STATION			709	ST8B03	ANACOSTIA LRT BRIDGE CONSTRUCTION PLAN
			672	ST7B11	CAMPUS CENTER STATION PLATFORM PLAN	710	ST8B04	ANACOSTIA LRT BRIDGE ABUTMENT A - PLAN & ELEVATION
			673	ST7B12	CAMPUS CENTER STATION ROOF PLAN	711	ST8B05	ANACOSTIA LRT BRIDGE ABUTMENT B - PLAN & ELEVATION
			674	ST7B41	CAMPUS CENTER STATION PLATFORM SECTION BEYOND CANOPY	712	ST8B06	ANACOSTIA LRT BRIDGE PIER - ELEVATION
			ZONE 7 C - EAST CAMPUS STATION			ZONE 8 C - KENILWORTH AVENUE LRT BRIDGE		
			675	ST7C11	EAST CAMPUS STATION PLATFORM PLAN	713	ST8C01	KENILWORTH AVENUE AERIAL KEY PLAN
			676	ST7C12	UMD EAST CAMPUS STATION ROOF PLAN	714	ST8C02	KENILWORTH AVENUE AERIAL GENERAL PLAN AND ELEVATION - 1
			677	ST7C41	EAST CAMPUS STATION CANOPY FRAMING SECTION	715	ST8C03	KENILWORTH AVENUE AERIAL GENERAL PLAN AND ELEVATION - 2
			678	ST7C42	EAST CAMPUS STATION PLATFORM SECTION BEYOND CANOPY	716	ST8C04	KENILWORTH AVENUE AERIAL ABUTMENT A PLAN AND ELEVATION
			ZONE 7 D - COLLEGE PARK METRO STATION			717	ST8C05	KENILWORTH AVENUE AERIAL RETAINING WALL SECTIONS AND DETAILS
			679	ST7D11	COLLEGE PARK METRO STATION PLATFORM PLAN	718	ST8C06	KENILWORTH AVENUE AERIAL PIER 1 AND 2 PLAN AND ELEVATIONS
						719	ST8C07	KENILWORTH AVENUE AERIAL PIER 3 PLAN AND ELEVATION
						720	ST8C08	KENILWORTH AVENUE AERIAL TYPICAL SECTION
						721	ST8C09	KENILWORTH AVENUE AERIAL FRAMING PLAN
						722	ST8C10	KENILWORTH AVENUE AERIAL CONSTRUCTION SEQUENCE
						ZONE 8 F - RIVERDALE PARK STATION LRT BRIDGE		
						723	ST8F01	RIVERDALE PARK STATION AERIAL GENERAL PLAN AND ELEVATION
						724	ST8F02	RIVERDALE PARK STATION AERIAL PIER 4 AND 5 PLAN AND ELEVATION
						725	ST8F03	RIVERDALE PARK STATION AERIAL PIER 6 PLAN AND ELEVATION
						726	ST8F04	RIVERDALE PARK STATION AERIAL TYPICAL SECTION
						727	ST8F05	RIVERDALE PARK STATION AERIAL FRAMING PLAN
						728	ST8F06	RIVERDALE PARK STATION AERIAL VERTICAL CIRCULATION DETAILS
						729	ST8F07	RIVERDALE PARK STATION AERIAL VERTICAL CIRCULATION PLATFORM DETAILS

INDEX OF DRAWINGS - VOLUME 6

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
ZONE 8 D - RIVERDALE ROAD LRT BRIDGE			ZONE 9 F - RETAINING WALL ALONG VETERANS PKWY WEST SIDE OF GLENRIDGE YARD			ZONE 9 C - NEW CARROLLTON STATION AND RETAINING WALLS		
730	ST8D01	RIVERDALE ROAD AERIAL GENERAL PLAN AND ELEVATION - 1	777	ST9F01	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 1	822	ST9C01	NEW CARROLLTON STATION KEY PLAN
731	ST8D02	RIVERDALE ROAD AERIAL GENERAL PLAN AND ELEVATION - 2	778	ST9F02	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 2	823	ST9C02	NEW CARROLLTON STATION RETAINING WALL WALL 9C1 PLAN AND ELEVATION
732	ST8D03	RIVERDALE ROAD AERIAL ABUTMENT B PLAN AND ELEVATION	779	ST9F03	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 3	824	ST9C03	NEW CARROLLTON STATION RETAINING WALL WALL 9C2 PLAN AND ELEV. - SHEET 1 OF 2
733	ST8D04	RIVERDALE ROAD AERIAL RETAINING WALL SECTIONS AND DETAILS	780	ST9F04	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 4	825	ST9C04	NEW CARROLLTON STATION RETAINING WALL WALL 9C2 PLAN AND ELEV. - SHEET 2 OF 2
734	ST8D05	RIVERDALE ROAD AERIAL TYPICAL SECTION	781	ST9F05	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 5	826	ST9C05	NEW CARROLLTON STATION RETAINING WALL WALL 9C3 PLAN AND ELEV. - SHEET 1 OF 2
735	ST8D06	RIVERDALE ROAD AERIAL FRAMING PLAN	782	ST9F06	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 6	827	ST9C06	NEW CARROLLTON STATION RETAINING WALL WALL 9C3 PLAN AND ELEV. - SHEET 2 OF 2
ZONE 8 V - RETAINING WALL ALONG RIVERDALE RD WEST OF MUSTANG DRIVE			783	ST9F07	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 7	828	ST9C07	NEW CARROLLTON STATION RETAINING WALL WALL 9C TYPICAL SECTION
737	ST8V12	RETAINING WALL 8V GENERAL PLAN AND ELEVATION - 2	784	ST9F08	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 8			
738	ST8V13	RETAINING WALL 8V GENERAL PLAN AND ELEVATION - 3	785	ST9F09	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 9			
739	ST8V14	RETAINING WALL - 8V TYPICAL SECTION	786	ST9F10	VETERANS PKWY RETAINING WALL - 9F GENERAL PLAN AND ELEVATION - 10			
ZONE 8 J - BALTIMORE WASHINGTON PARKWAY NORTHBOUND BRIDGE			ZONE 9 W - RETAINING WALL ALONG VETERANS PKWY AT GLENRIDGE YARD					
740	ST8J01	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL NOTES & ABBREVIATIONS - SBR	787	ST9W01	VETERANS AT GLENRIDGE RETAINING WALL - 9W GENERAL PLAN AND ELEVATION - 1			
741	ST8J02	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL PLAN - SBR	788	ST9W02	VETERANS AT GLENRIDGE RETAINING WALL - 9W GENERAL PLAN AND ELEVATION - 2			
742	ST8J03	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL ELEVATION - SBR	789	ST9W03	VETERANS AT GLENRIDGE RETAINING WALL - 9W GENERAL PLAN AND ELEVATION - 3			
743	ST8J04	BW PARKWAY OVER MD 410 AND LIGHT RAIL ABUTMENT A PLAN AND ELEVATION - SBR	790	ST9W04	VETERANS AT GLENRIDGE RETAINING WALL - 9W GENERAL PLAN AND ELEVATION - 4			
744	ST8J05	BW PARKWAY OVER MD 410 AND LIGHT RAIL ABUTMENT B PLAN AND ELEVATION - SBR	ZONE 9 G - RETAINING WALL ALONG VETERANS PKWY AT GLENRIDGE YARD					
745	ST8J08	BW PARKWAY OVER MD 410 AND LIGHT RAIL PIER PLAN, ELEVATION & VIEW - SBR	791	ST9G01	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 1			
746	ST8J09	BW PARKWAY OVER MD 410 AND LIGHT RAIL EXISTING TYPICAL SECTION - SBR	792	ST9G02	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 2			
747	ST8J10	BW PARKWAY OVER MD 410 AND LIGHT RAIL PROPOSED TYPICAL SECTION - SBR	793	ST9G03	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 3			
748	ST8J11	BW PARKWAY OVER MD 410 AND LIGHT RAIL PLAN & ELEV. TEMPORARY BRIDGE - SBR	794	ST9G04	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 4			
749	ST8J12	BW PARKWAY OVER MD 410 AND LIGHT RAIL TYPICAL SECTION TEMPORARY BRIDGE - SBR	795	ST9G05	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 5			
ZONE 8 K - BALTIMORE WASHINGTON PARKWAY SOUTHBOUND BRIDGE			796	ST9G06	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 6			
750	ST8K01	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL NOTES & ABBREVIATIONS - NBR	797	ST9G07	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 7			
751	ST8K02	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL PLAN - NBR	798	ST9G08	VETERANS PKWY RETAINING WALL - 9G GENERAL PLAN AND ELEVATION - 8			
752	ST8K03	BW PARKWAY OVER MD 410 AND LIGHT RAIL GENERAL ELEVATION - NBR	ZONE 9 X - RETAINING WALL ALONG VETERANS PKWY AT GLENRIDGE YARD					
753	ST8K04	BW PARKWAY OVER MD 410 AND LIGHT RAIL ABUTMENT A PLAN AND ELEVATION - NBR	799	ST9X01	VETERANS AT GLENRIDGE RETAINING WALL - 9X GENERAL PLAN AND ELEVATION - 1			
754	ST8K05	BW PARKWAY OVER MD 410 AND LIGHT RAIL ABUTMENT B PLAN AND ELEVATION - NBR	800	ST9X02	VETERANS AT GLENRIDGE RETAINING WALL - 9X GENERAL PLAN AND ELEVATION - 2			
755	ST8K08	BW PARKWAY OVER MD 410 AND LIGHT RAIL PIER PLAN, ELEVATION & VIEW - NBR	ZONE 9 H - RETAINING WALL ALONG VETERANS PKWY WEST OF ANNAPOLIS RD					
756	ST8K09	BW PARKWAY OVER MD 410 AND LIGHT RAIL EXISTING TYPICAL SECTION - NBR	801	ST9H01	VETERANS PKWY RETAINING WALL - 9H GENERAL PLAN AND ELEVATION - 1			
757	ST8K10	BW PARKWAY OVER MD 410 AND LIGHT RAIL PROPOSED TYPICAL SECTION - NBR	802	ST9H02	VETERANS PKWY RETAINING WALL - 9H GENERAL PLAN AND ELEVATION - 2			
758	ST8K11	BW PARKWAY OVER MD 410 AND LIGHT RAIL PLAN & ELEV. - TEMPORARY BRIDGE NBR	803	ST9H03	VETERANS PKWY RETAINING WALL - 9H GENERAL PLAN AND ELEVATION - 3			
759	ST8K12	BW PARKWAY OVER MD 410 AND LIGHT RAIL TYPICAL SECTION - TEMPORARY BRIDGE NBR	804	ST9H04	VETERANS PKWY RETAINING WALL - 9H GENERAL PLAN AND ELEVATION - 4			
ZONE 8 H - BEACON HEIGHTS STATION			ZONE 9 B - ANNAPOLIS ROAD / GLENRIDGE STATION					
760	ST8H01	BEACON HEIGHTS STATION PLATFORM PLAN - 1	805	ST9B11	ANNAPOLIS ROAD / GLENRIDGE STATION PLATFORM PLAN			
761	ST8H02	BEACON HEIGHTS STATION PLATFORM PLAN - 2	ZONE 9 K - RETAINING WALL ALONG VETERANS PKWY EAST OF ANNAPOLIS RD					
ZONE 8 W - RETAINING WALL AT BEACON HEIGHTS STATION			806	ST9K01	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 1			
762	ST8W01	BEACON HEIGHTS STATION SOUTH WALL - 8W PLAN AND ELEVATION - SHEET 1 OF 2	807	ST9K02	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 2			
763	ST8W02	BEACON HEIGHTS STATION SOUTH WALL - 8W PLAN AND ELEVATION - SHEET 2 OF 2	808	ST9K03	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 3			
764	ST8W03	BEACON HEIGHTS STATION SOUTH WALL - 8W TYPICAL SECTIONS	809	ST9K04	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 4			
ZONE 9 D - RETAINING WALL ALONG VETERANS PKWY EAST OF RIVERDALE RD			810	ST9K05	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 5			
765	ST9D01	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 1	811	ST9K06	VETERANS PKWY RETAINING WALL - 9K GENERAL PLAN AND ELEVATION - 6			
766	ST9D02	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 2	ZONE 9 L - RETAINING WALL ALONG VETERANS PKWY EAST OF ANNAPOLIS RD					
767	ST9D03	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 3	812	ST9L01	VETERANS PKWY RETAINING WALL - 9L GENERAL PLAN AND ELEVATION - 1			
768	ST9D04	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 4	813	ST9L02	VETERANS PKWY RETAINING WALL - 9L GENERAL PLAN AND ELEVATION - 2			
769	ST9D05	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 5	814	ST9L03	VETERANS PKWY RETAINING WALL - 9L GENERAL PLAN AND ELEVATION - 3			
770	ST9D06	VETERANS PKWY RETAINING WALL - 9D GENERAL PLAN AND ELEVATION - 6	815	ST9L04	VETERANS PKWY RETAINING WALLS TYPICAL SECTIONS - 1			
ZONE 9 E - RETAINING WALL ALONG VETERANS PKWY EAST OF RIVERDALE RD			816	ST9L05	VETERANS PKWY RETAINING WALLS TYPICAL SECTIONS - 2			
771	ST9E01	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 1	817	ST9L06	VETERANS PKWY RETAINING WALLS TYPICAL SECTIONS - 3			
772	ST9E02	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 2	ZONE 9 P - RETAINING WALL ALONG ELLIN ROAD AT EMERSON PLACE					
773	ST9E03	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 3	818	ST9P01	ELLIN ROAD RETAINING WALL 9P GENERAL PLAN AND ELEVATION - 1			
774	ST9E04	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 4	819	ST9P02	ELLIN ROAD RETAINING WALL - 9P GENERAL PLAN AND ELEVATION - 2			
775	ST9E05	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 5	820	ST9P03	ELLIN ROAD RETAINING WALL - 9P GENERAL PLAN AND ELEVATION - 3			
776	ST9E06	VETERANS PKWY RETAINING WALL - 9E GENERAL PLAN AND ELEVATION - 6	821	ST9P04	ELLIN ROAD RETAINING WALL - 9P TYPICAL SECTION			

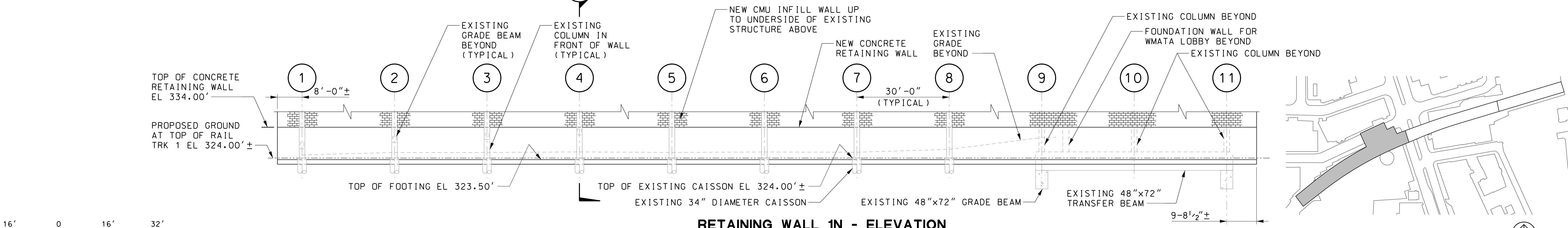
GENERAL SHEET NOTES:

- 1. SEE THE AR1N SERIES AND CVI1N SERIES DRAWINGS FOR STATION AND TRACK GEOMETRY.
- 2. THE GEOMETRY OF THE EXISTING STRUCTURES HAS BEEN ESTABLISHED FROM RECORD DRAWINGS OF EACH STRUCTURE IN CONJUNCTION WITH LIMITED FIELD SURVEYS. THIS INFORMATION MUST BE VERIFIED.
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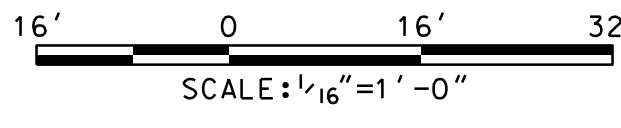
FRAMING PLAN - PLATFORM LEVEL



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



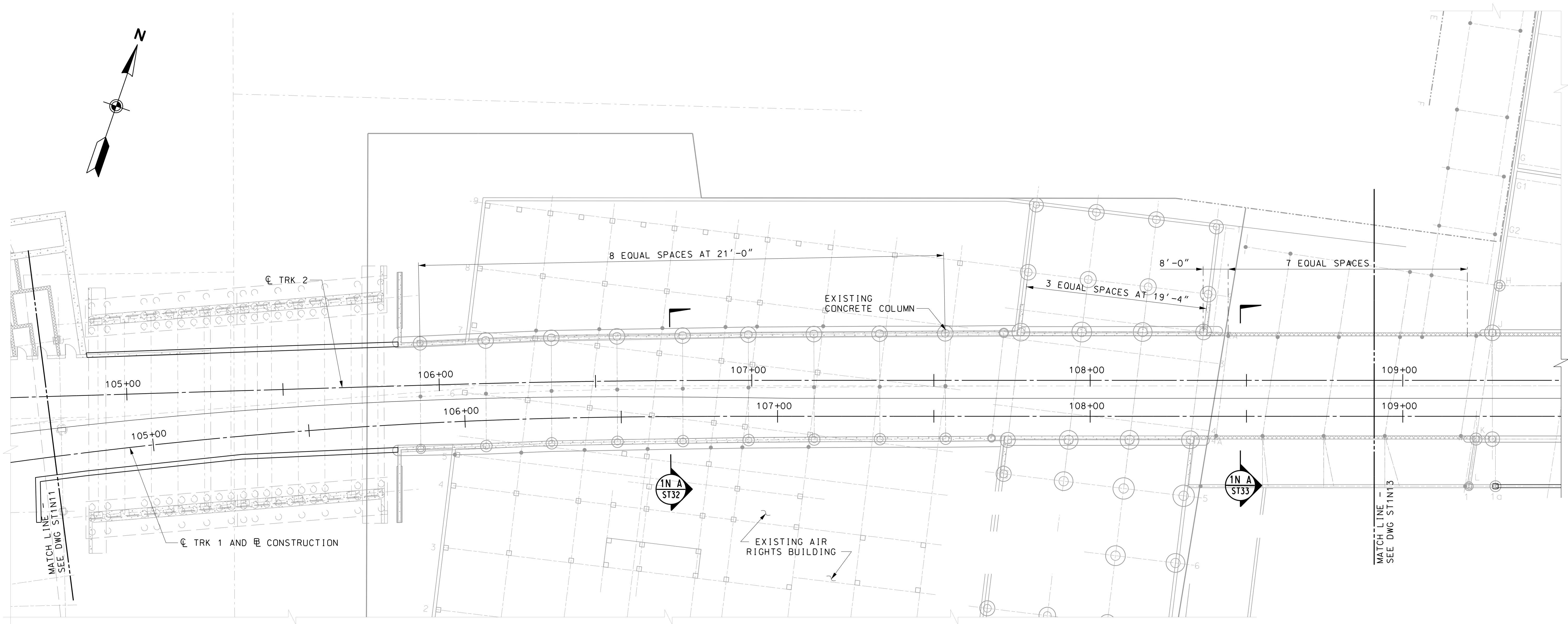
RETAINING WALL 1N - ELEVATION

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



MARYLAND DEPARTMENT OF TRANSPORTATION  MTA Maryland	 WR&A	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESIGN PSO	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				CHECK DRAWN SLJ		DRAWING NO. ST1N11
				RBG	BETHESDA STATION PLATFORM LEVEL FRAMING PLAN (1 OF 3)	SHEET NO. 11 OF 828
				APPR	DATE: DECEMBER 2013	SCALE: AS SHOWN

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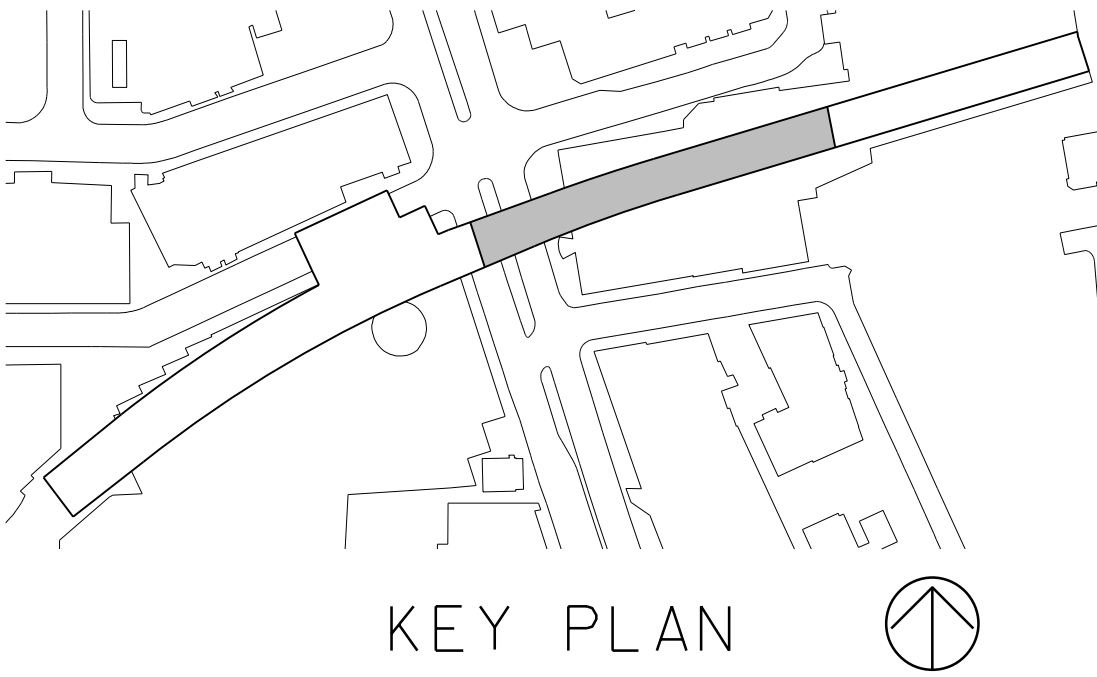


GENERAL SHEET NOTES:

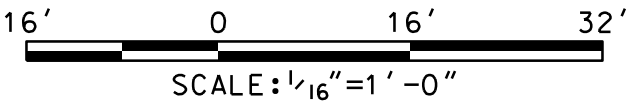
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FRAMING PLAN - PLATFORM LEVEL

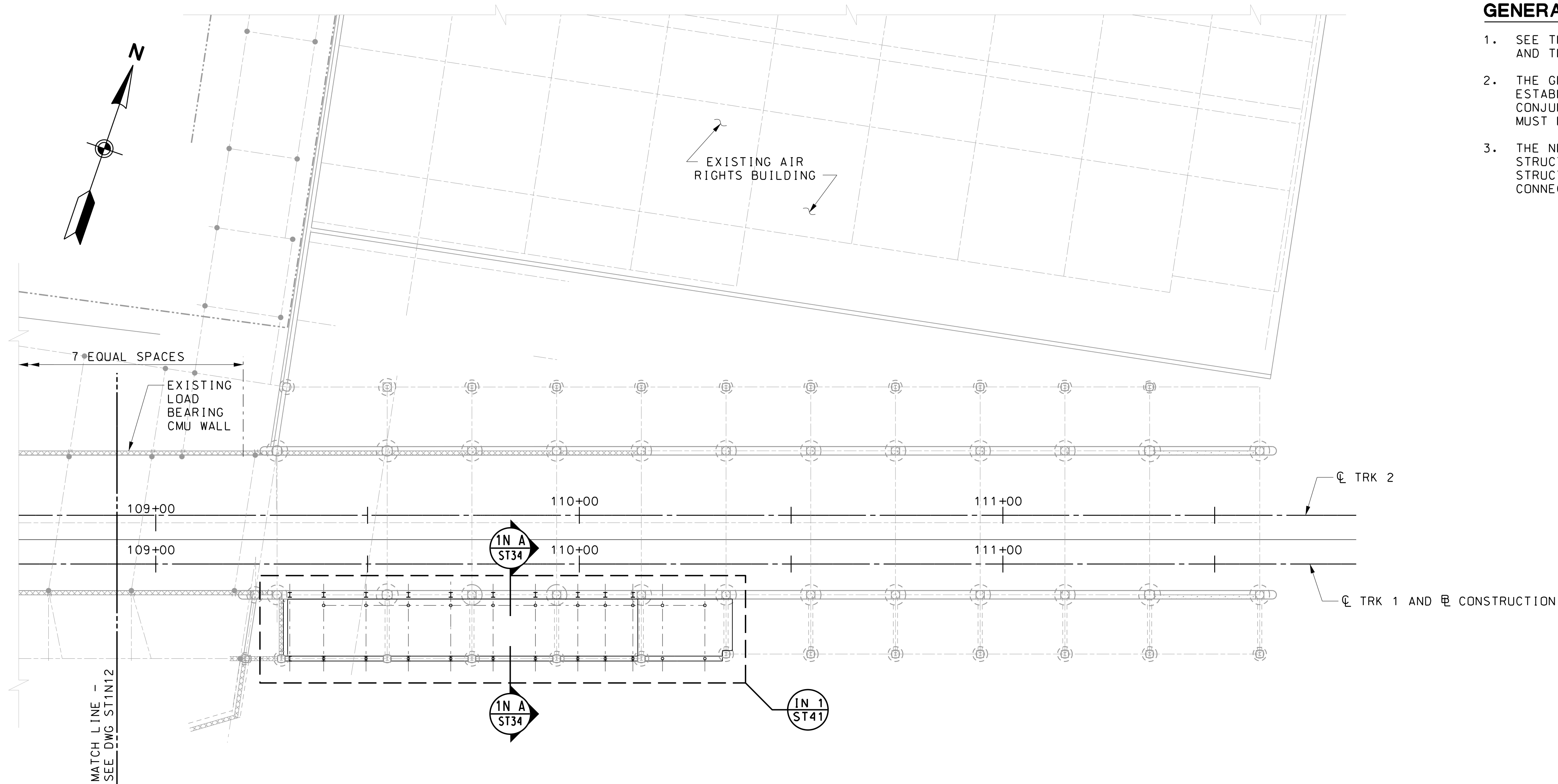
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KEY PLAN

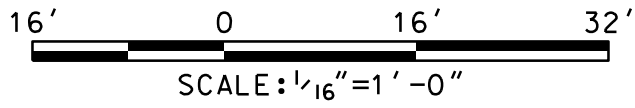
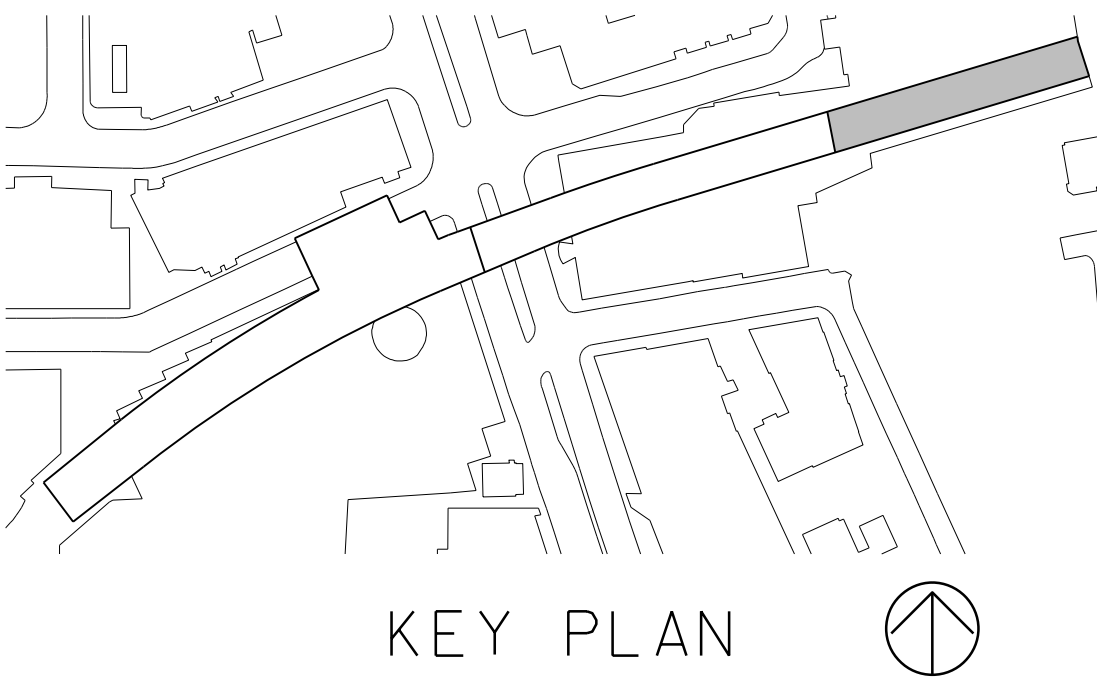


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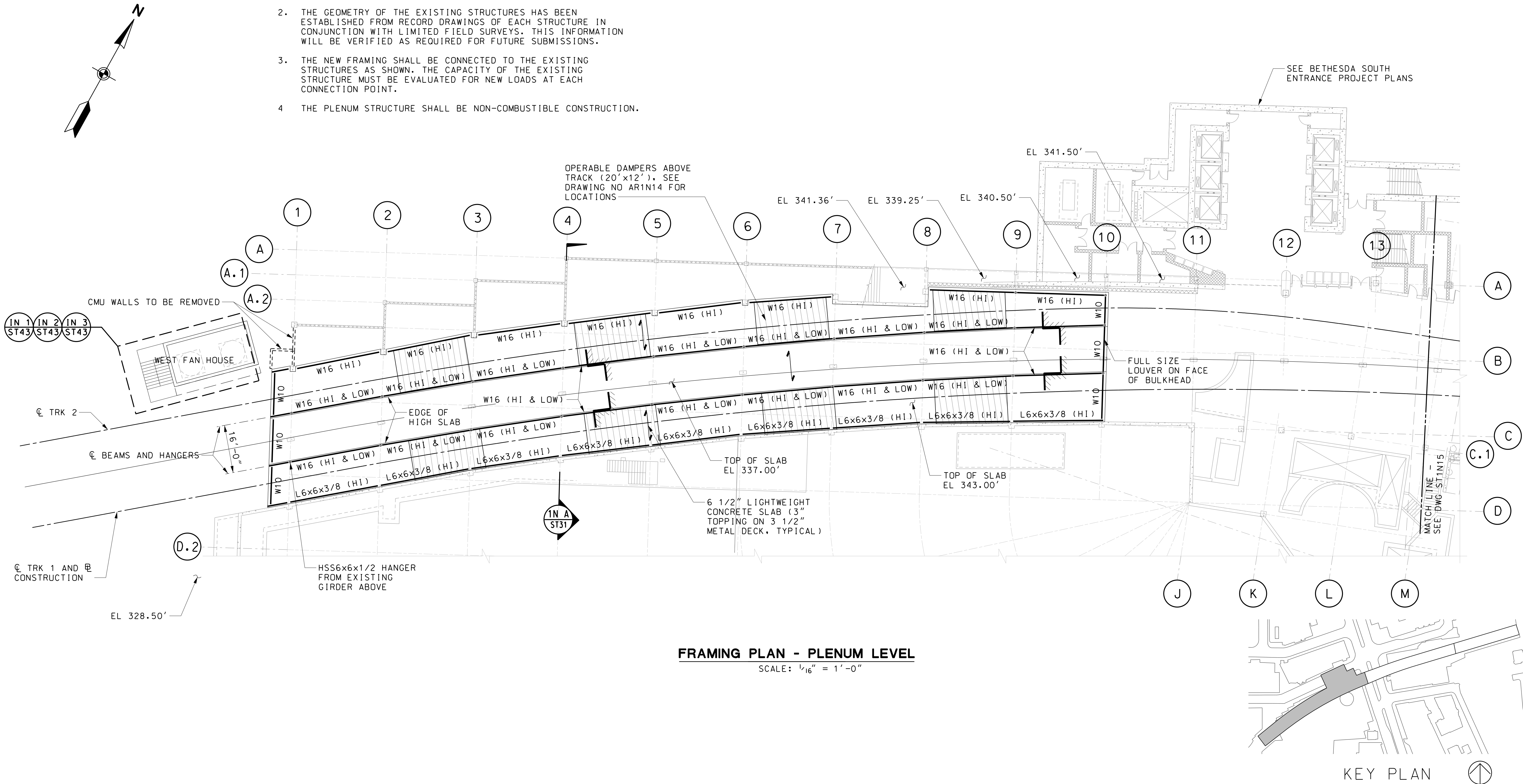
FRAMING PLAN - PLATFORM LEVEL
SCALE: 1/16" = 1'-0"

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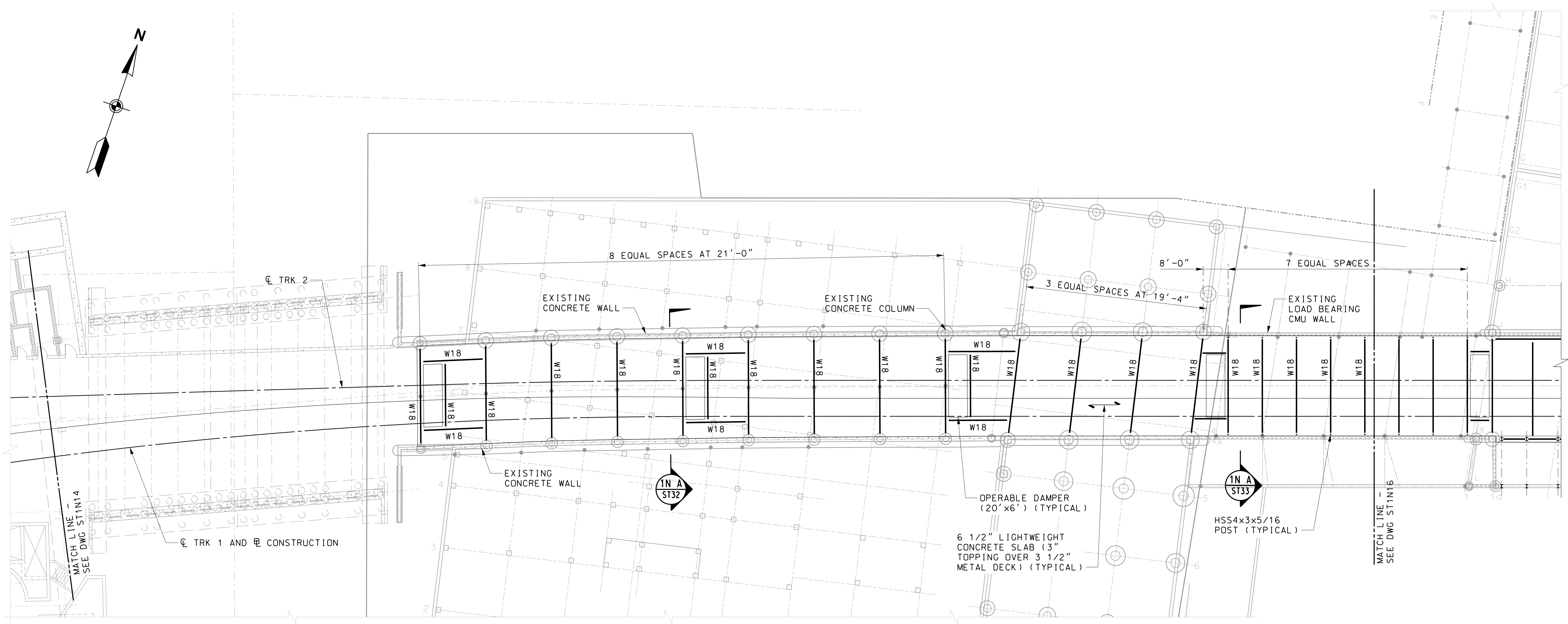


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4. THE PLENUM STRUCTURE SHALL BE NON-COMBUSTIBLE CONSTRUCTION.



FRAMING PLAN - PLENUM LEVEL
SCALE: 1/16" = 1'-0"

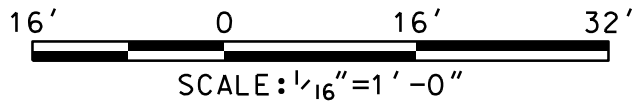
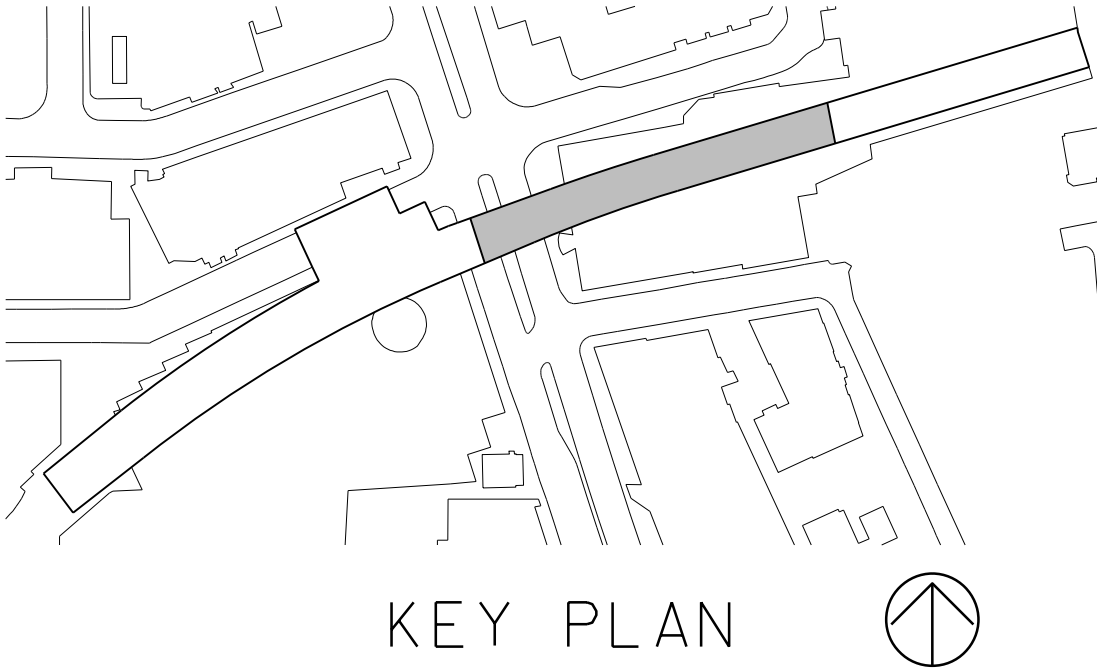


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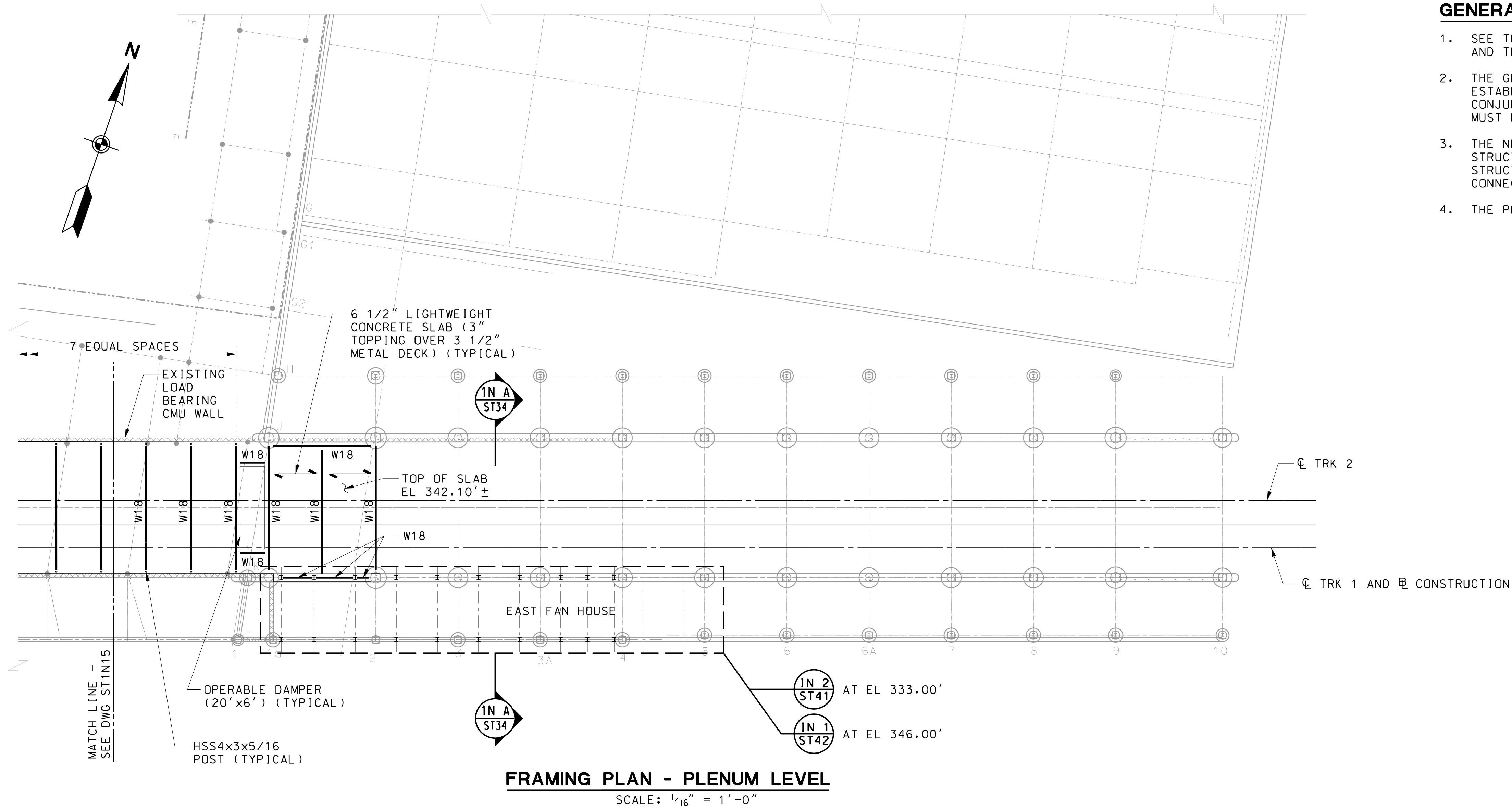
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FRAMING PLAN - PLENUM LEVEL

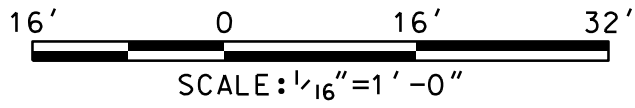
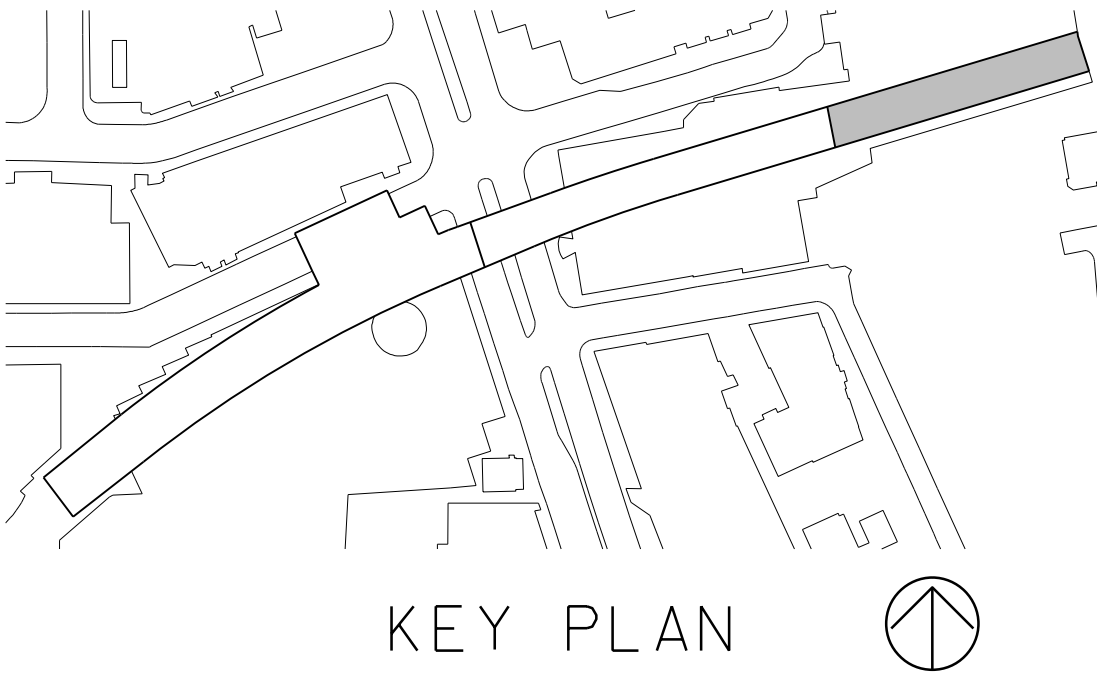
SCALE: 1/16" = 1'-0"



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

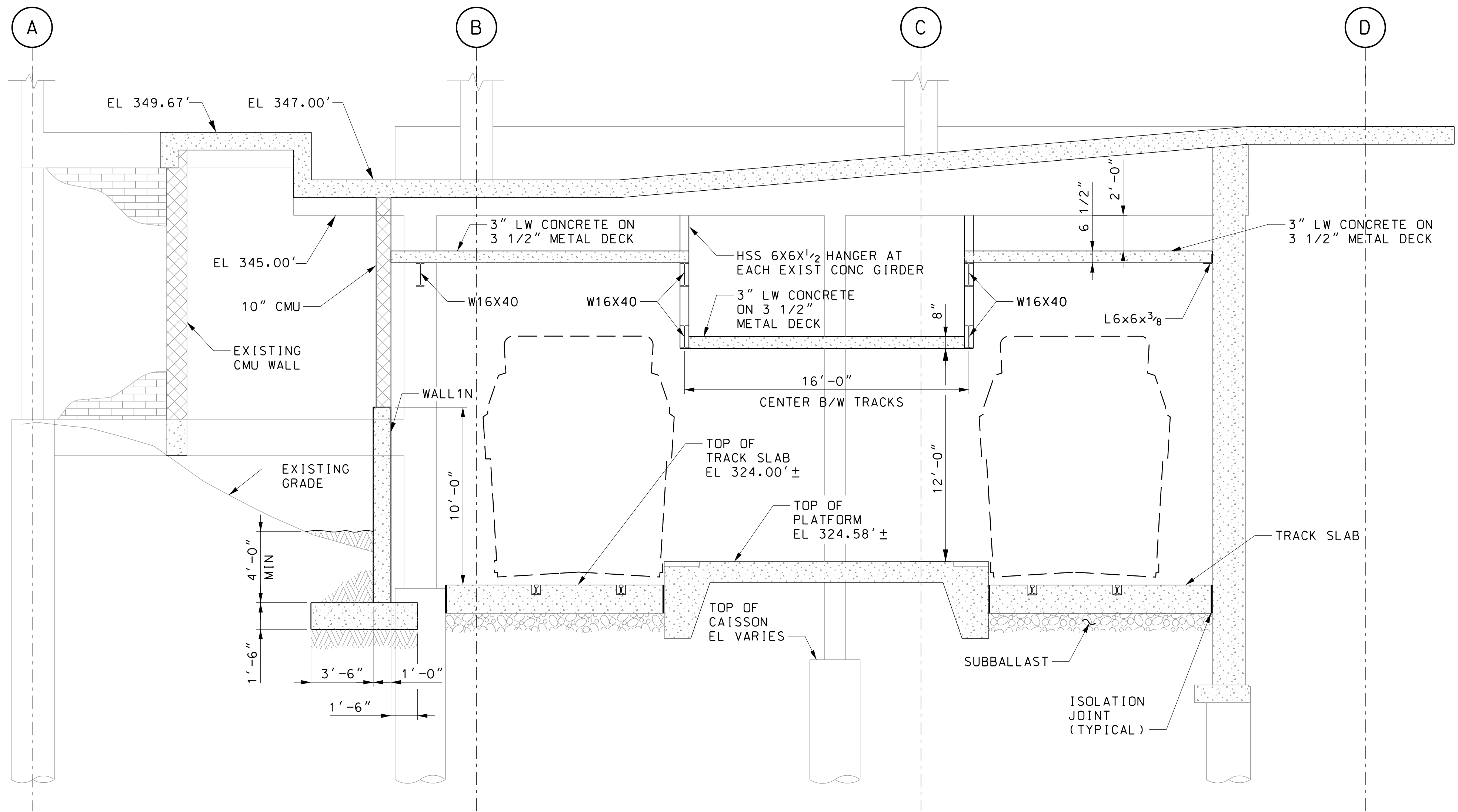


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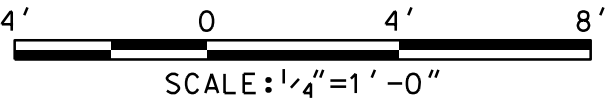


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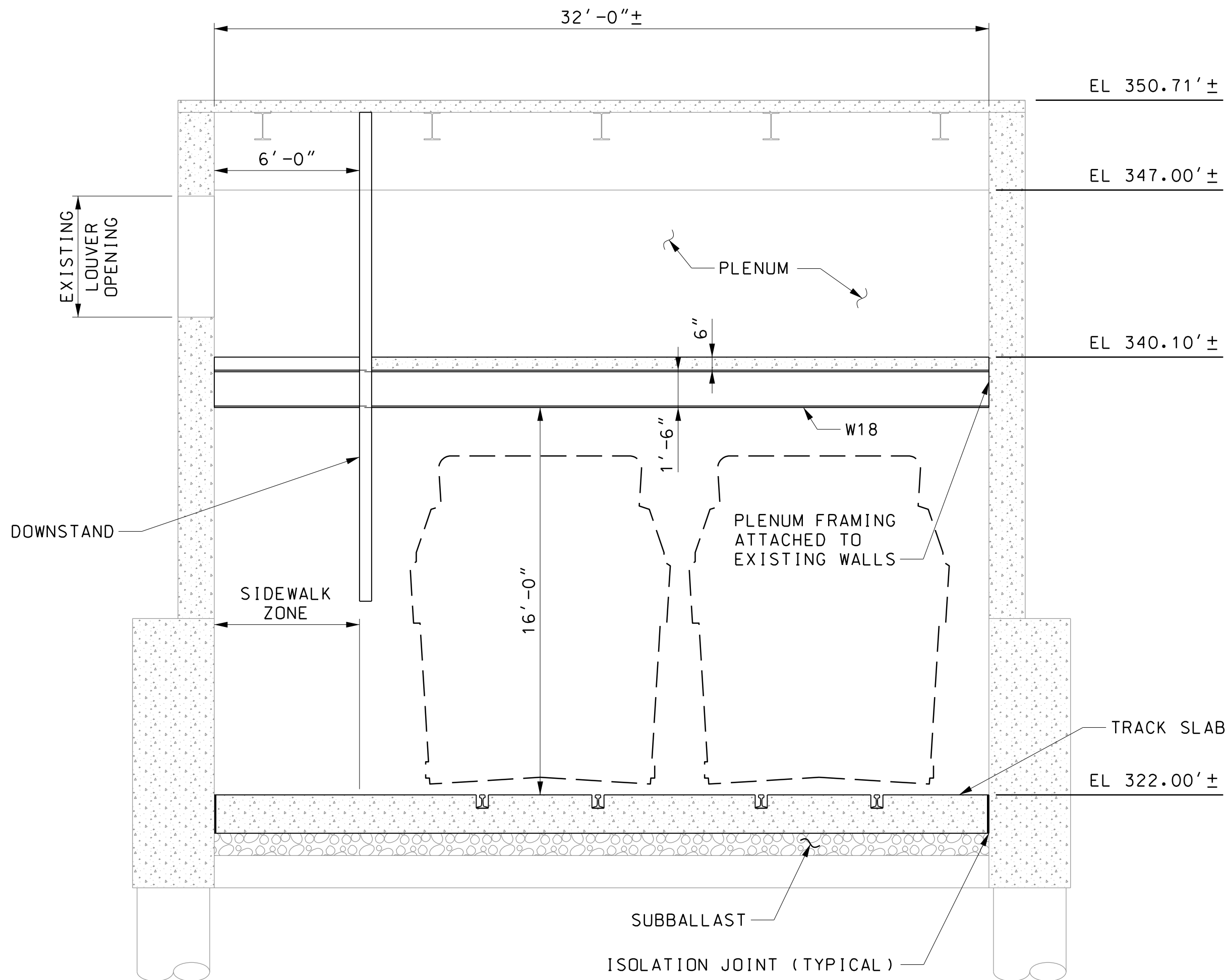


SECTION
SCALE: 1/4" = 1'-0"
REF: ST1N11

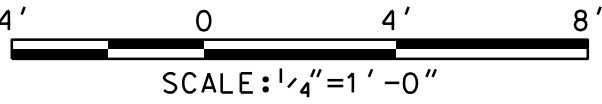


GENERAL SHEET NOTES:

1. SEE AR1N AND CV11N SERIES DRAWINGS FOR STATION AND TRACK GEOMETRY.
2. THE GEOMETRY OF EXISTING STRUCTURES HAS BEEN ESTABLISHED FROM THE RECORD DRAWINGS OF EACH STRUCTURE IN CONJUNCTION WITH LIMITED FIELD SURVEYS. THIS INFORMATION WILL BE VERIFIED AS REQUIRED FOR FUTURE SUBMISSIONS.
3. THE NEW FRAMING SHALL BE CONNECTED TO THE EXISTING STRUCTURES AS SHOWN. THE CAPACITY OF THE EXISTING STRUCTURE MUST BE EVALUATED FOR NEW LOADS AT EACH CONNECTION POINT.
4. THE PLENUM STRUCTURE SHALL BE NON-COMBUSTIBLE CONSTRUCTION.

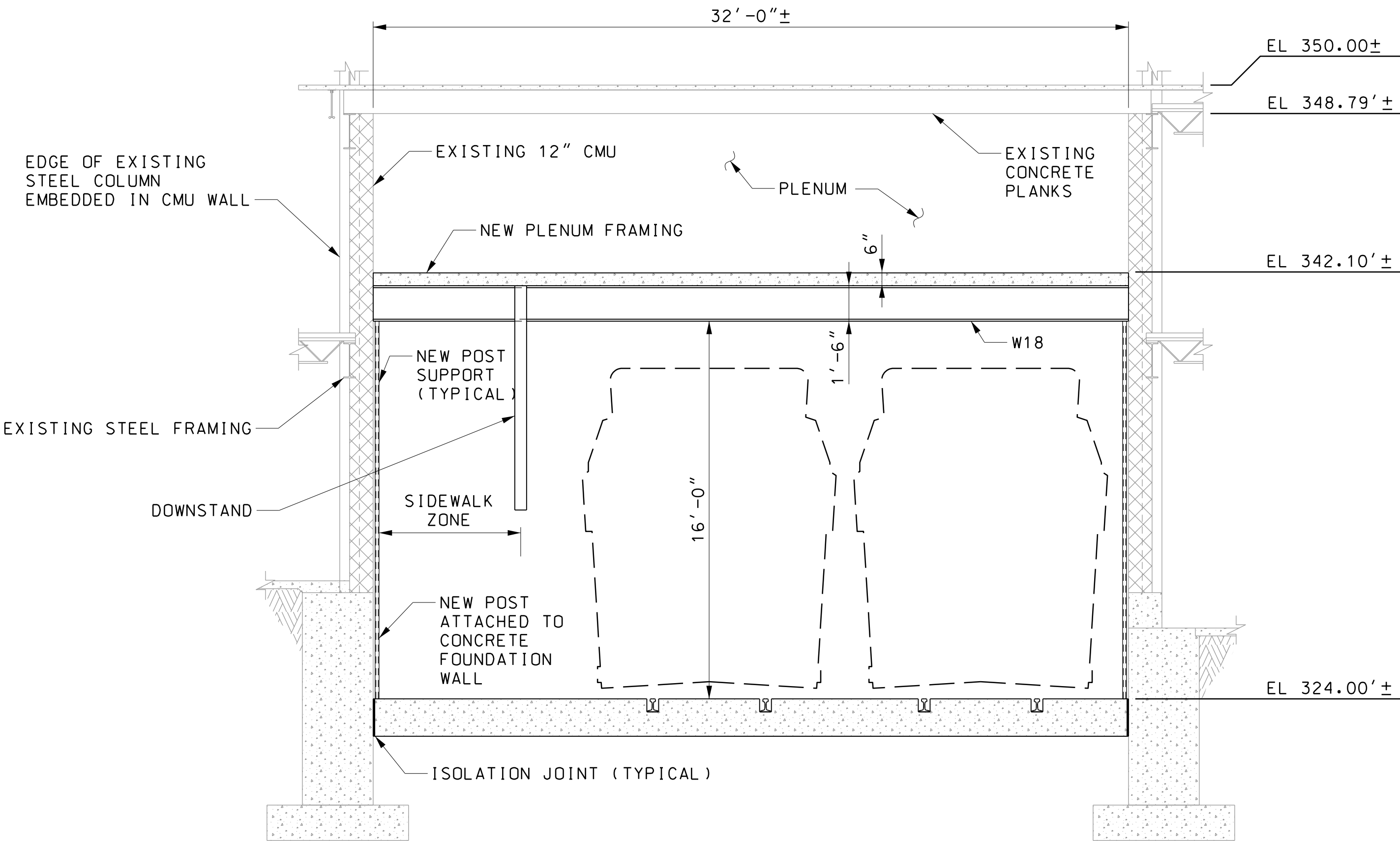


1N A SECTION
ST32 SCALE: 1/4" = 1'-0"
REF: ST1N12

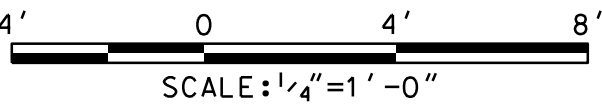


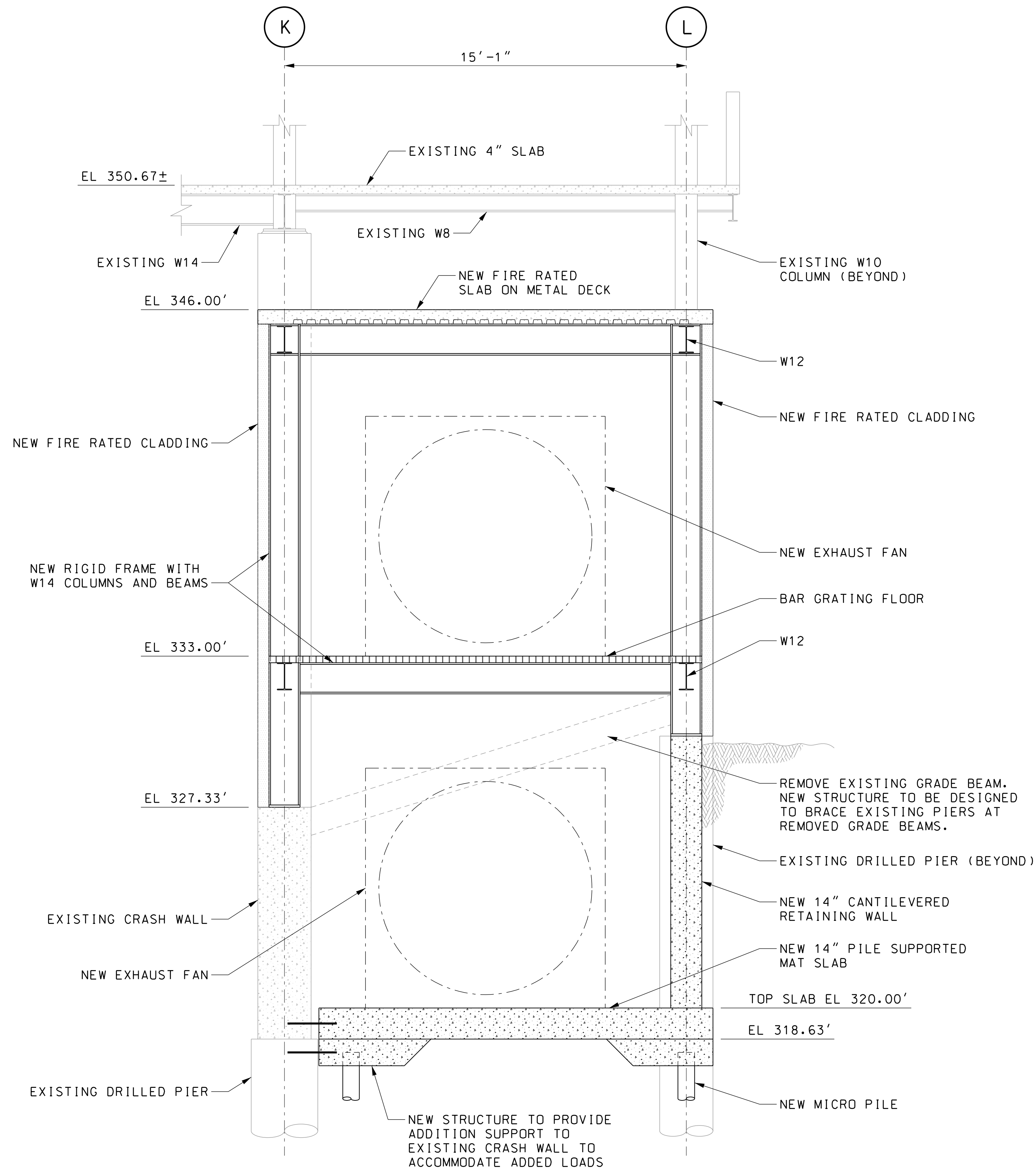
GENERAL SHEET NOTES:

1. SEE THE AR1N SERIES CV11N SERIES DRAWINGS FOR STATION AND TRACK GEOMETRY.
2. THE GEOMETRY OF THE EXISTING STRUCTURES HAS BEEN ESTABLISHED FORM RECORD DRAWINGS OF EACH STRUCTURE IN CONJUNCTION WITH LIMITED FIELD SURVEYS. THIS INFORMATION WILL BE VERIFIED AS REQUIRED FOR FUTURE SUBMISSIONS.
3. THE NEW FRAMING SHALL BE CONNECTED TO THE EXISTING STRUCTURES AS SHOWN. THE CAPACITY OF THE EXISTING STRUCTURE MUST BE EVALUATED FOR NEW LOADS AT EACH CONNECTION POINT.
4. THE PLENUM STRUCTURE SHALL BE NON-COMBUSTIBLE CONSTRUCTION.



1N A SECTION
SCALE: 1/4" = 1'-0"
REF: ST1N12



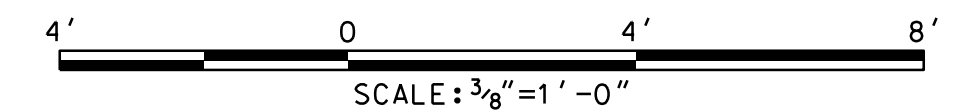


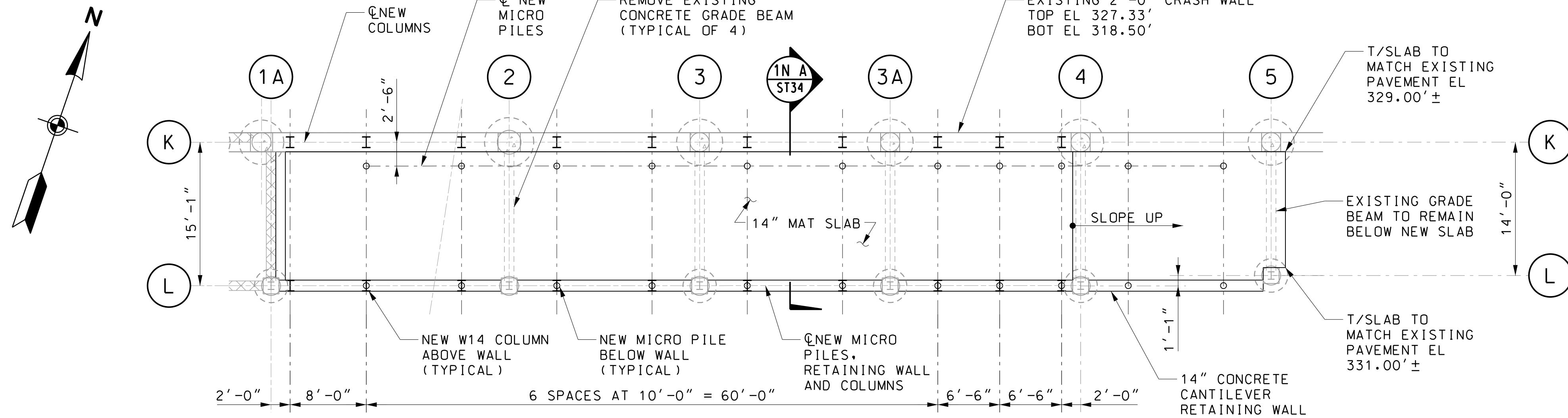
IN A
ST34

SECTION A

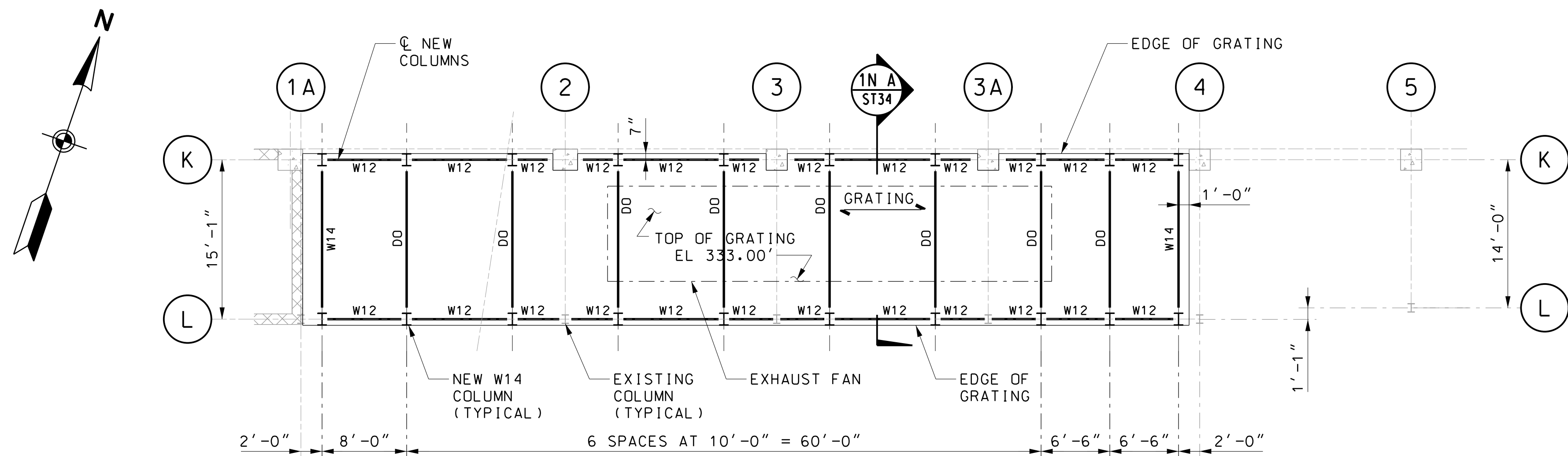
SCALE: $\frac{3}{8}" = 1'-0"$

REF: ST1N13, ST1N16, ST1N41, ST1N42

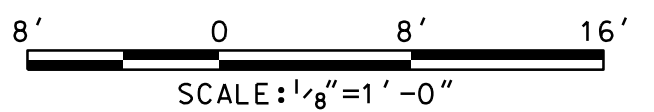


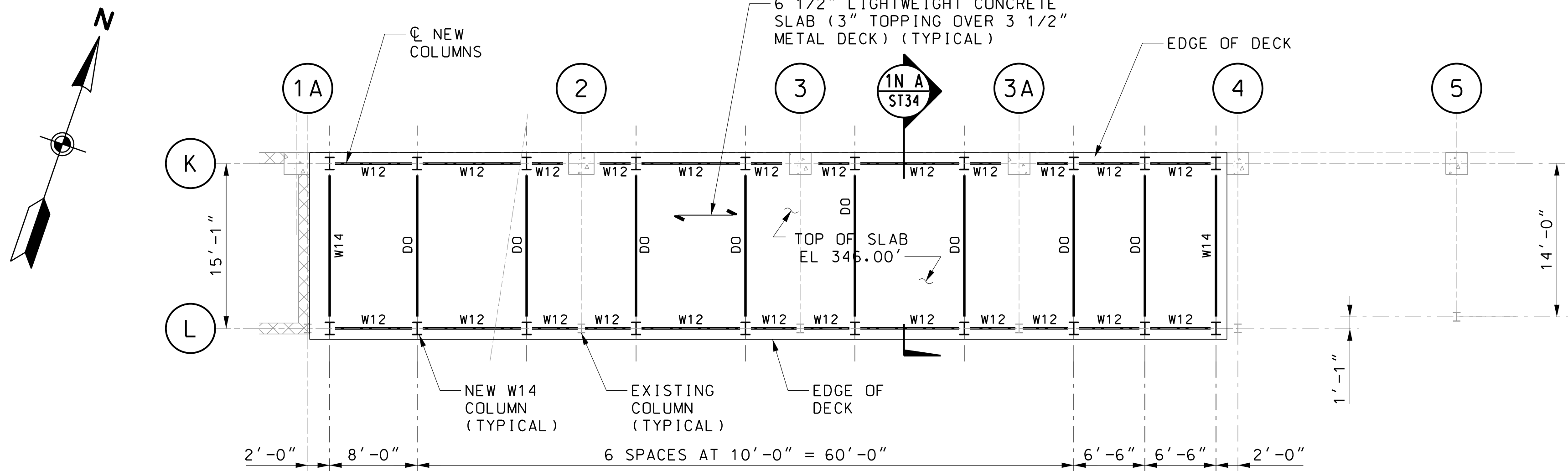


1N 1
ST41
FRAMING PLAN - PLATFORM LEVEL
SCALE: 1/8" = 1'-0"
REF: ST1N13

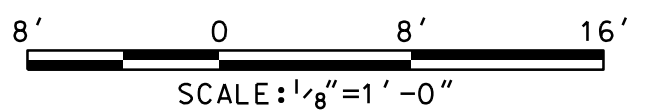


1N 2
ST41
FRAMING PLAN AT ELEVATION 333.00'
SCALE: 1/8" = 1'-0"
REF: ST1N16





FRAMING PLAN AT ELEVATION 346.00'
 SCALE: 1/8" = 1'-0"
 REF: ST1N16



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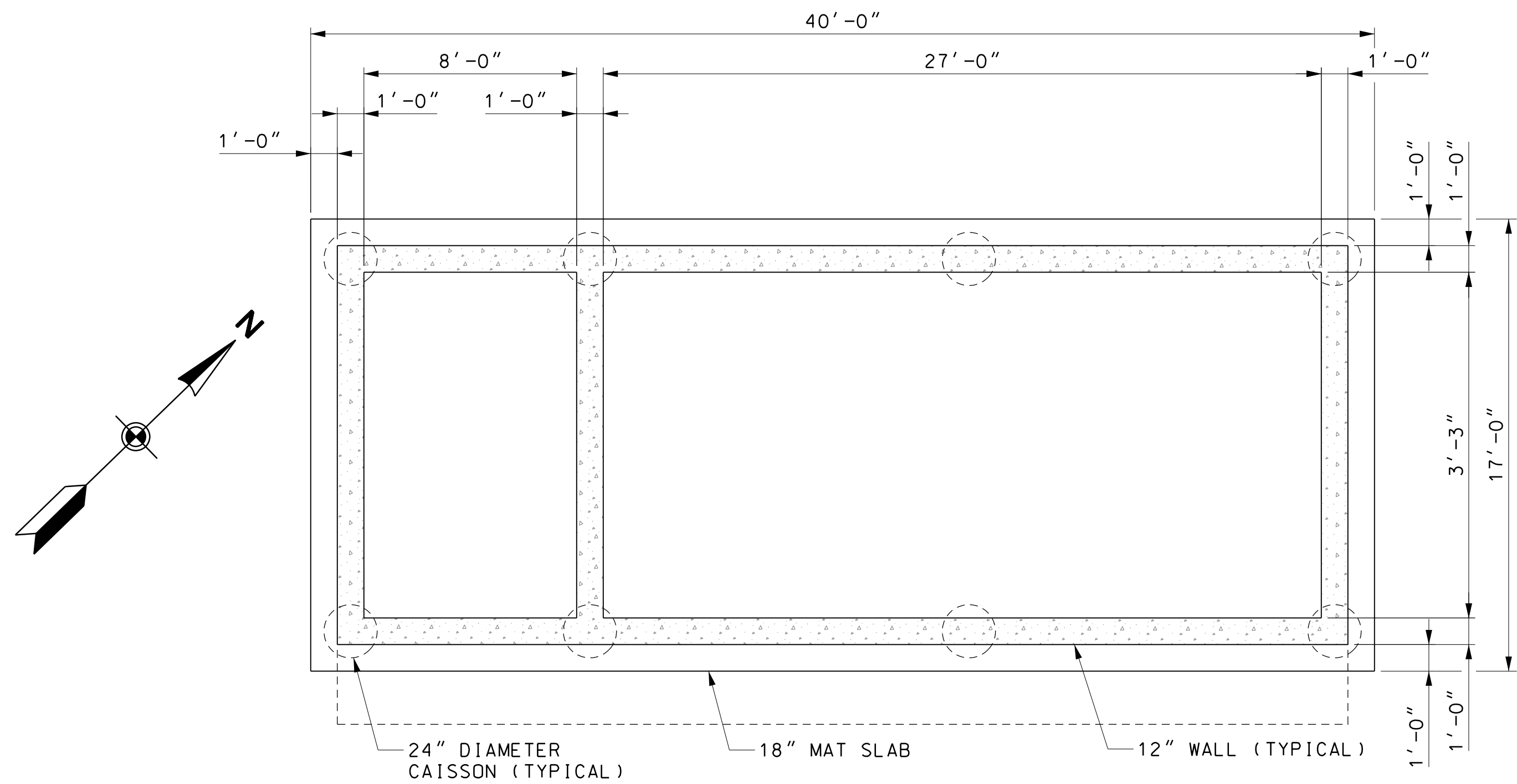
DESIGN	PSO
DRAWN	SLJ
CHECK	RBG
APPR	

PRELIMINARY ENGINEERING
 PURPLE LINE LIGHT RAIL

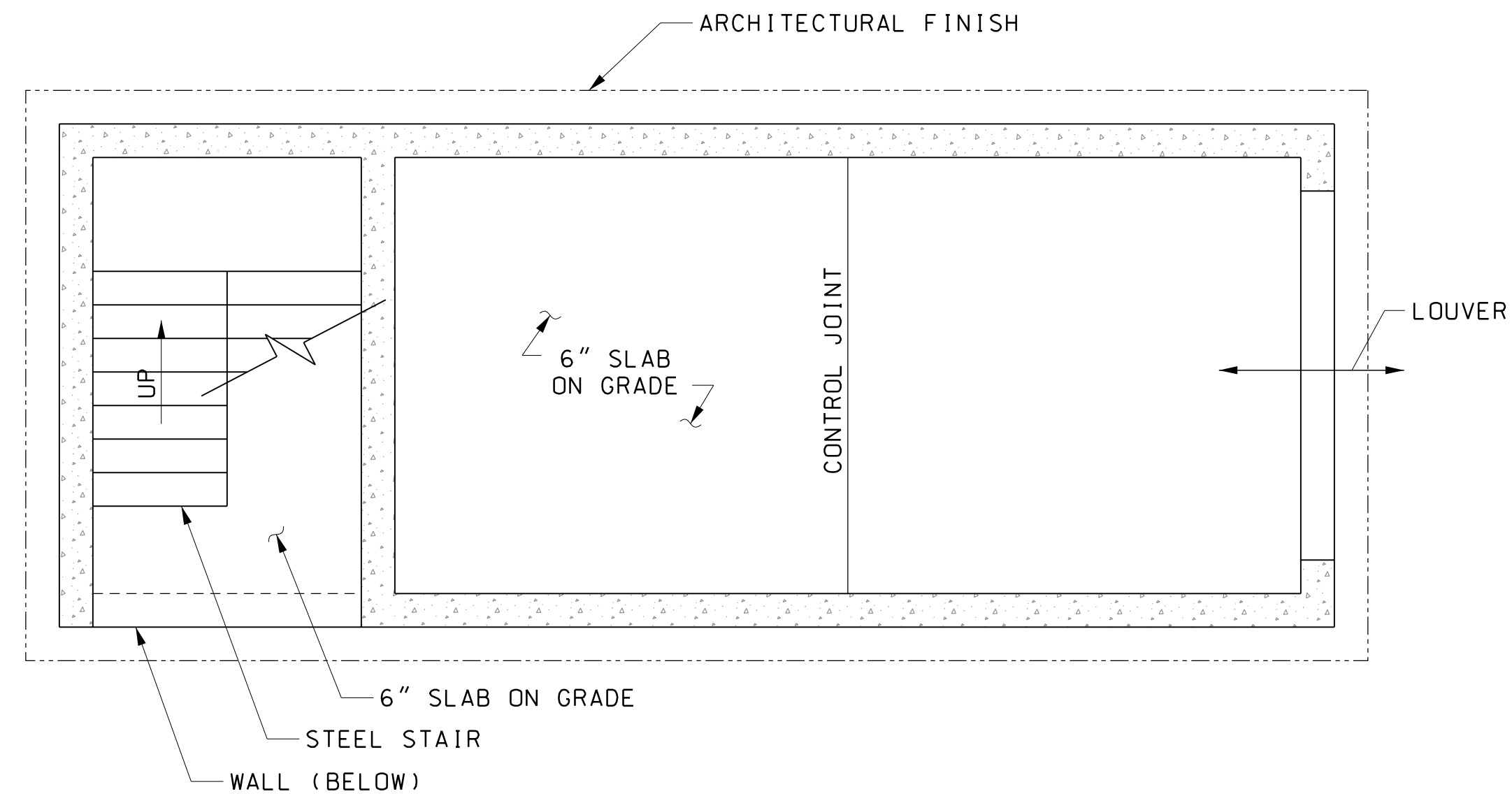
BETHESDA STATION
 EAST FAN HOUSE ENLARGED PLANS – 2
 DATE: DECEMBER 2013 SCALE: AS SHOWN

CONTRACT NO. T-1042-0220
DRAWING NO. ST1N42
SHEET NO. 22 OF 828

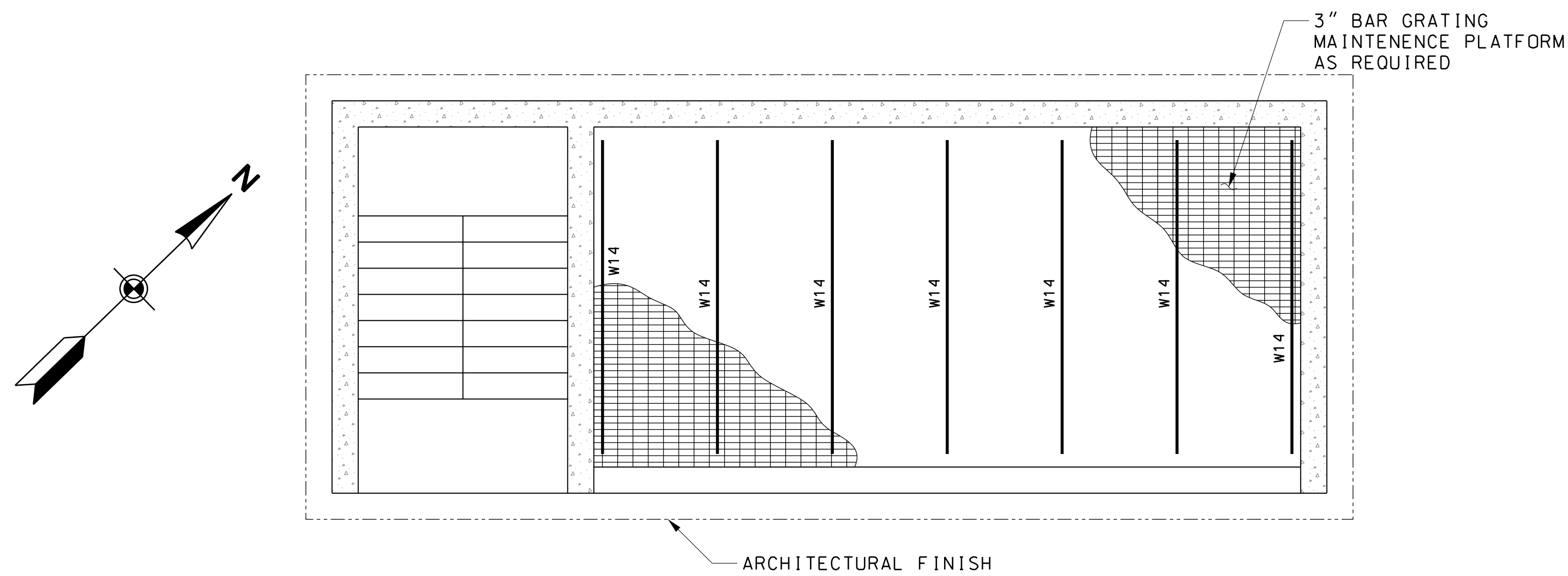
c:\pwworking\mtpdw\wra-stacy_jackman\dms90831\1042BST1n42.dgn
 12/10/2013



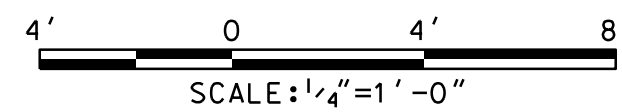
1N 1 FOUNDATION PLAN
 ST43 SCALE: 1/4" = 1'-0"
 REF: ST1N11

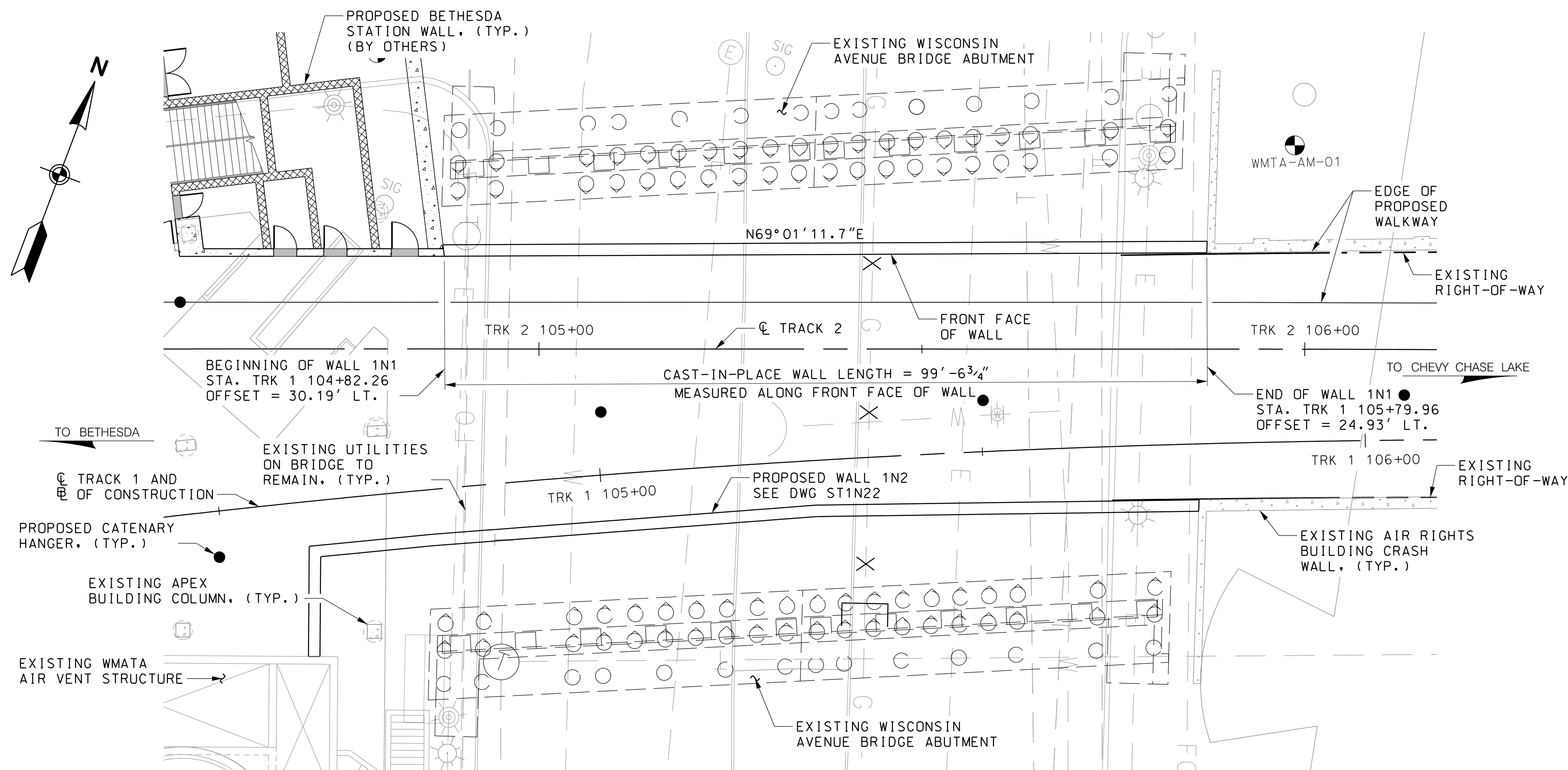


1N 2 PLATFORM LEVEL PLAN
 ST43 SCALE: 1/4" = 1'-0"
 REF: ST1N11



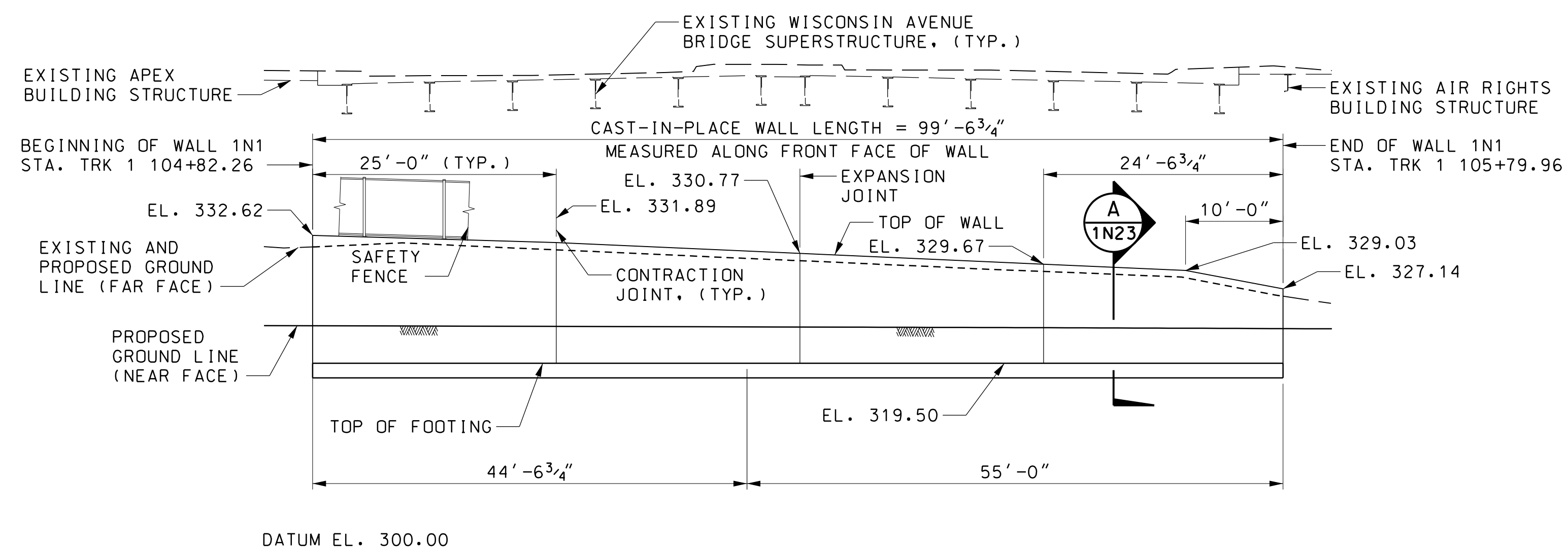
1N 3 FAN SUPPORT LEVEL PLAN
 ST43 SCALE: 1/4" = 1'-0"
 REF: ST1N11





PLAN

SCALE: 1" = 10'-0"



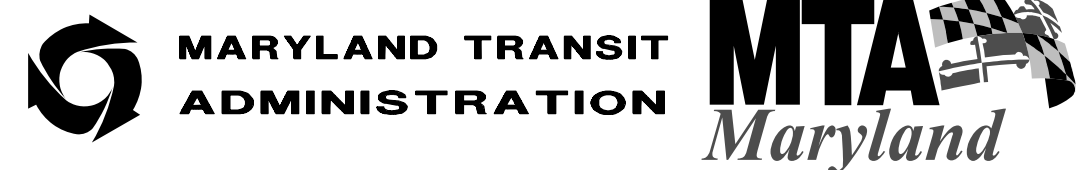
ELEVATION

SCALE: 1" = 10'-0"

NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

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DESIGN AFM
DRAWN AFM
CHECK AR
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

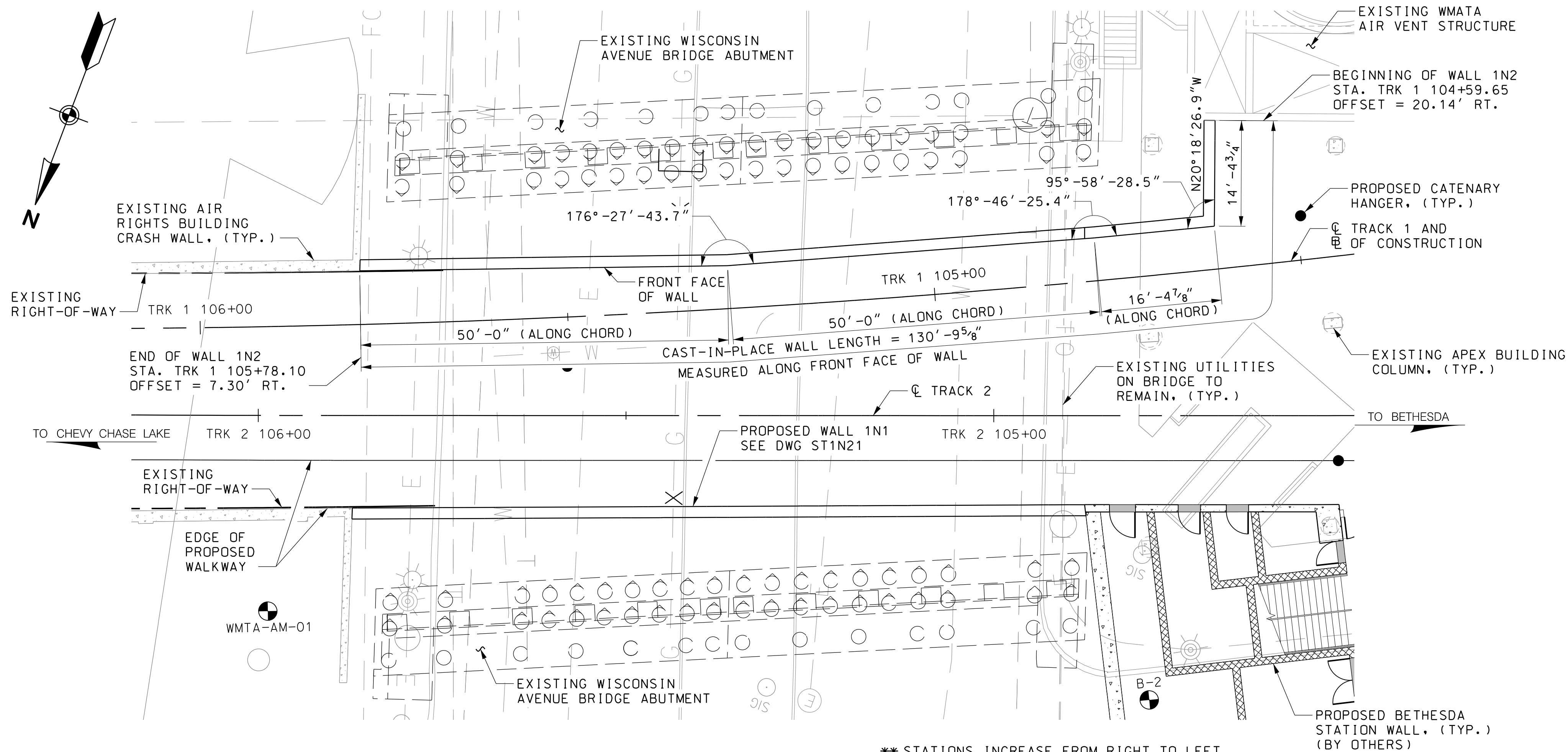
RETAINING WALL - 1N1
GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST1N21
SHEET NO.
24 OF 828

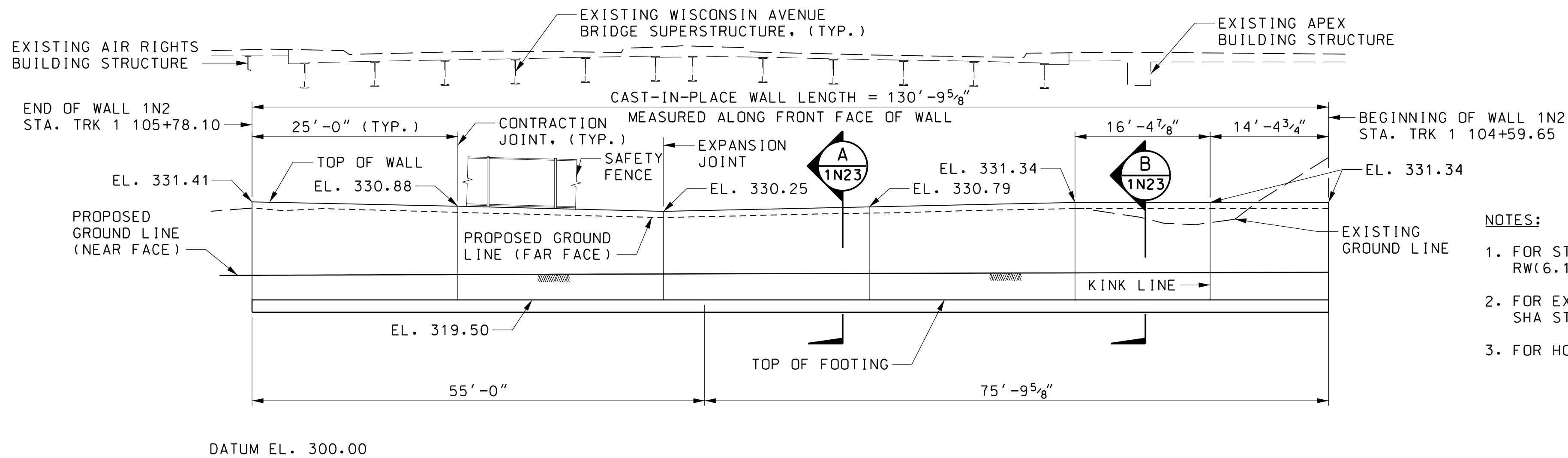
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 01-West\Structures\N-Bethesda Station and Tunnel\Structural\STV\Sheet Files\1042pST1N21.dgn 12/9/2013



PLAN

SCALE: 1" = 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION



ELEVATION

SCALE: 1" = 10'-0"

NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

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APPR CHECK DESIGN
AFM
AFM
AR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 1N2
GENERAL PLAN & ELEVATION

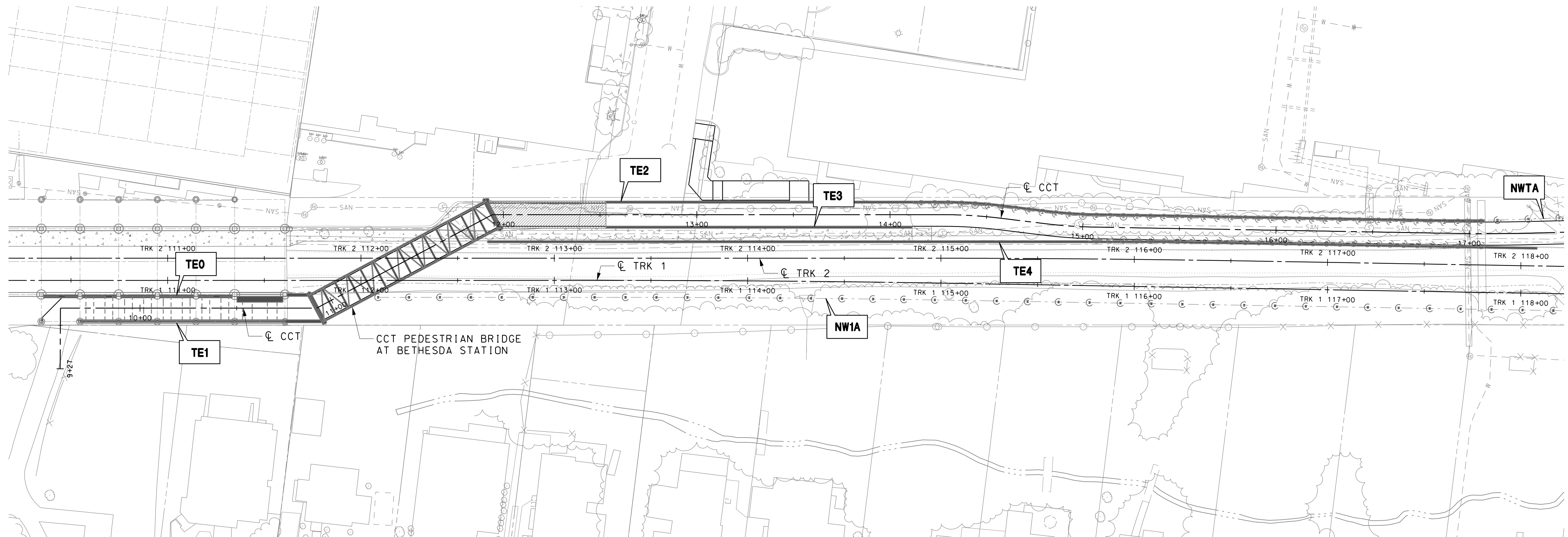
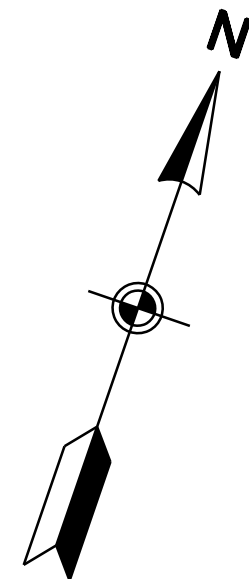
DATE: DECEMBER 2013

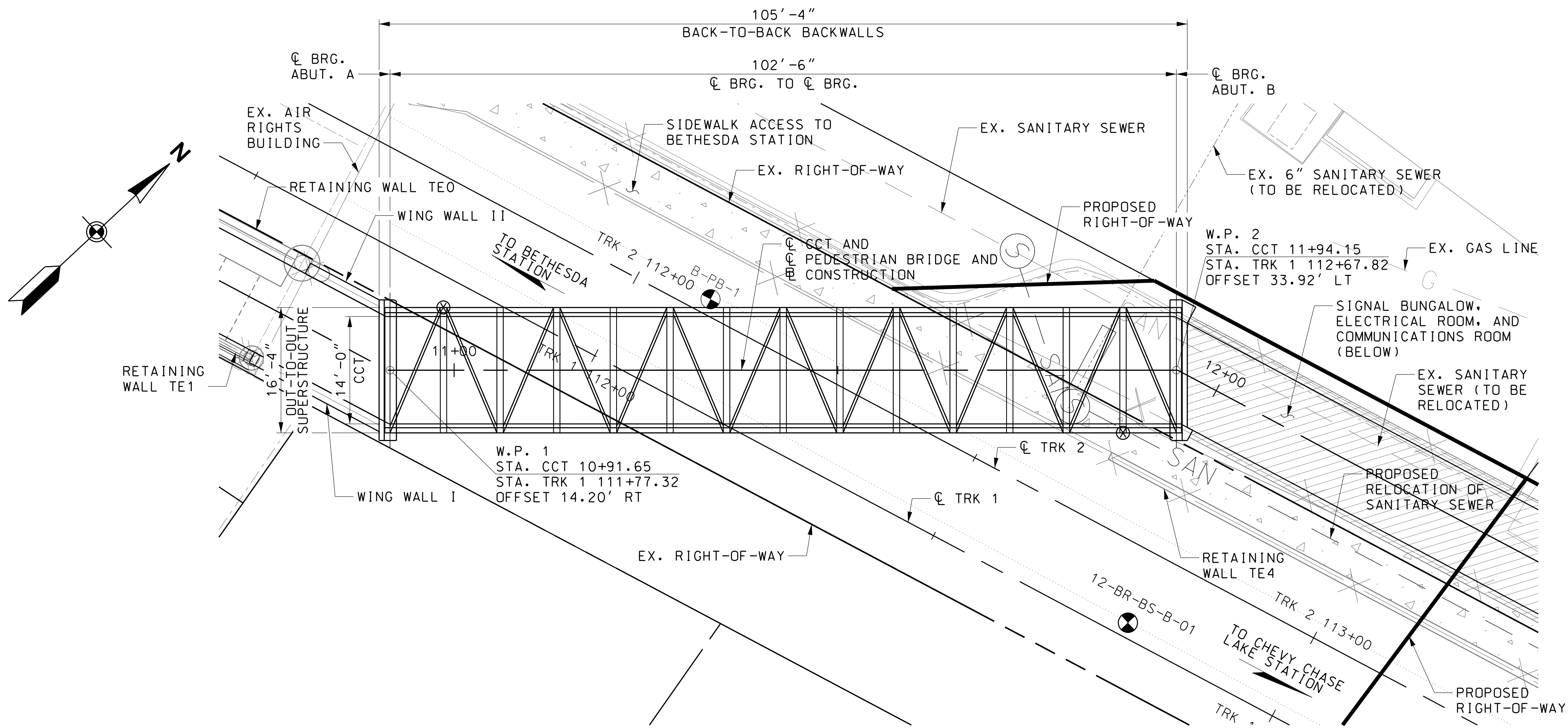
SCALE: 1" = 10'-0"

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST1N22
SHEET NO.
25 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 01-West\Structures\N-Bethesda Station and Tunnel\Structural\STV\Sheet Files\1042pST1N22.dgn 12/9/2013

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12/9/2013

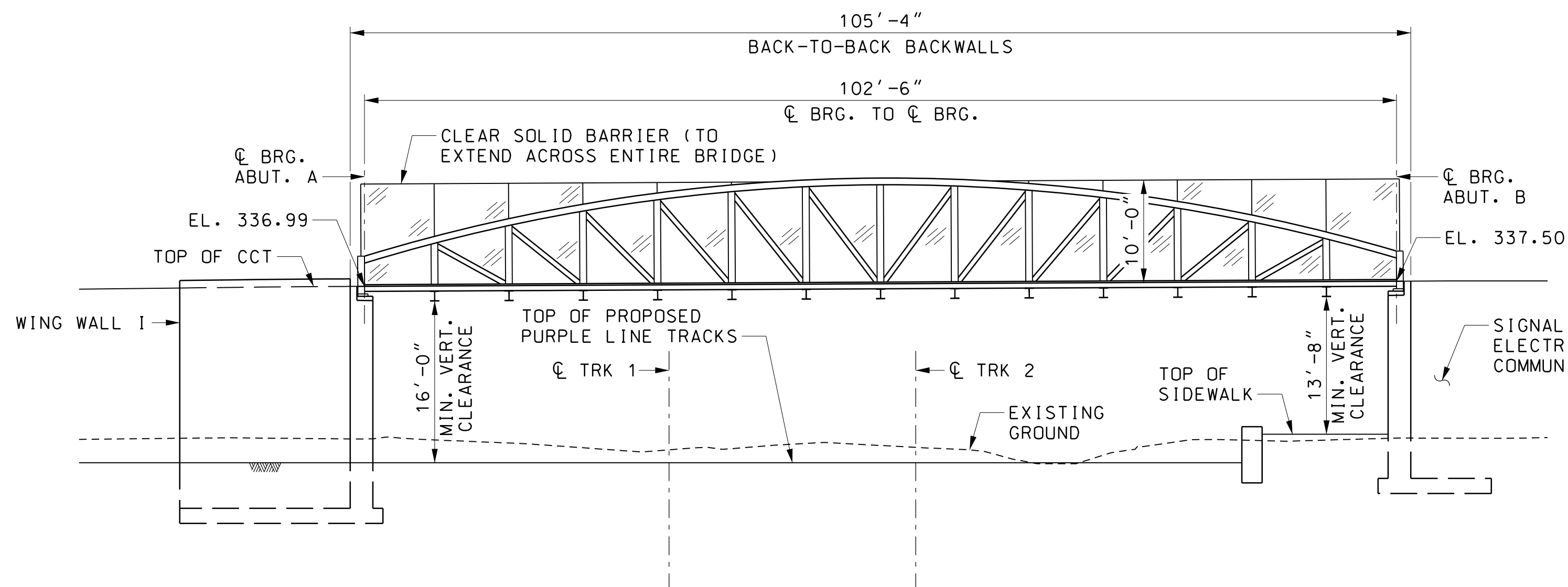




⊗ POINT OF MINIMUM VERTICAL CLEARANCE

PLAN

SCALE: 1" = 10'-0"



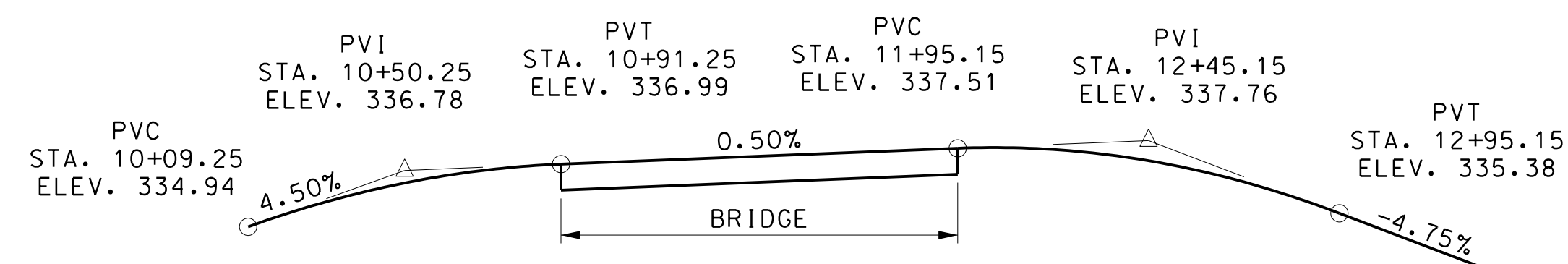
DATUM EL. 300.00

ELEVATION

SCALE: 1" = 10'-0"

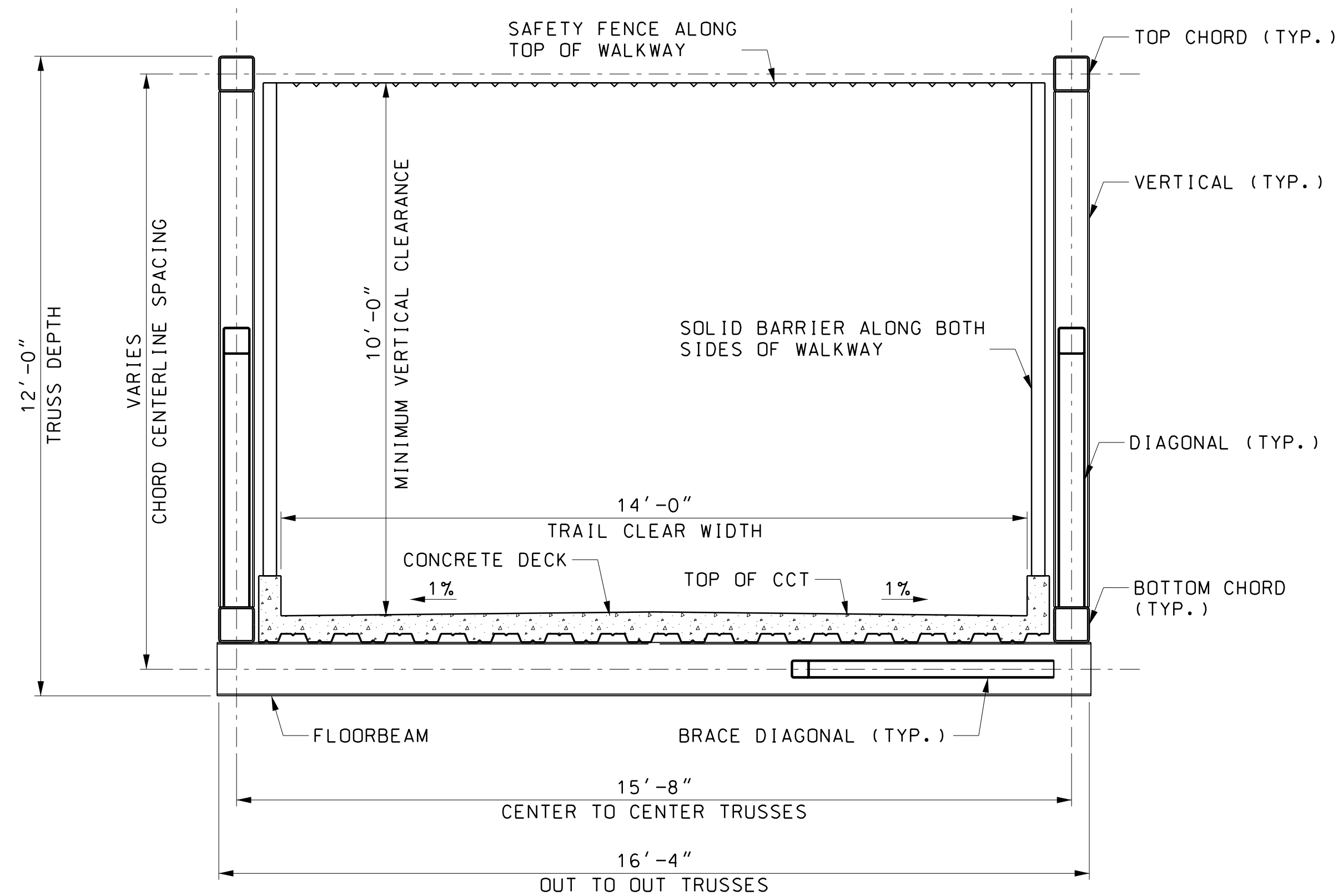
GENERAL NOTES

- SPECIFICATIONS:** ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012
- AASHTO LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, 2009
- MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.
- STRUCTURAL STEEL DESIGN:** ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A 709 GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS.
- FINISHED PAINT COLOR:** THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.
- LOADING:** H-10 OR 150 PSF PEDESTRIAN LOAD
- CONCRETE:** ALL CONCRETE FOR BRIDGE DECK SLAB AND ABUTMENT BACKWALLS SHALL BE MIX NO. 6 (4,500 PSI). CONCRETE FOR FOOTINGS AND SUBSTRUCTURE UNITS SHALL BE MIX NO. 3 (3,500 PSI)
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 CAN BE USED ON THIS PROJECT
- REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
- ENTIRE SUPERSTRUCTURE
 - ABUTMENT BACKWALLS
 - ALL BEARING SEAT PADS
 - ABUTMENT BRIDGE SEAT AREAS
- KEYS:** ALL KEYS ARE NOMINAL SIZE.



VERTICAL CURVE CCT

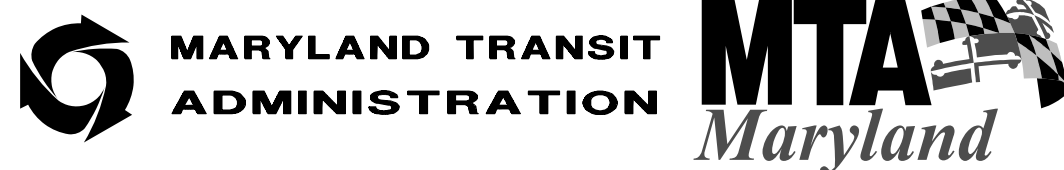
SCALE: NOT TO SCALE



TYPICAL SECTION

SCALE: $\frac{1}{2}$ " = 1'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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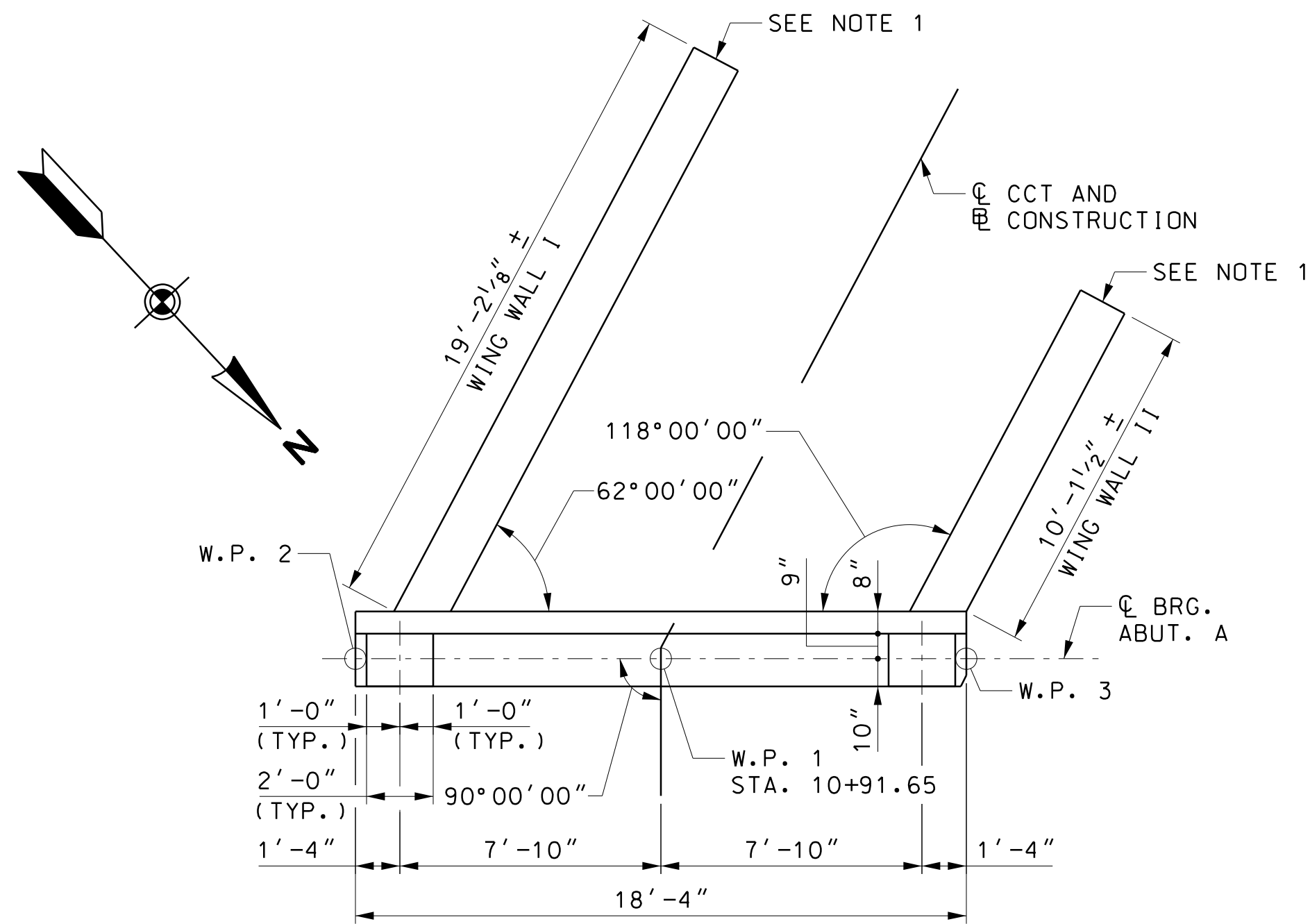
License No. Expiration Date

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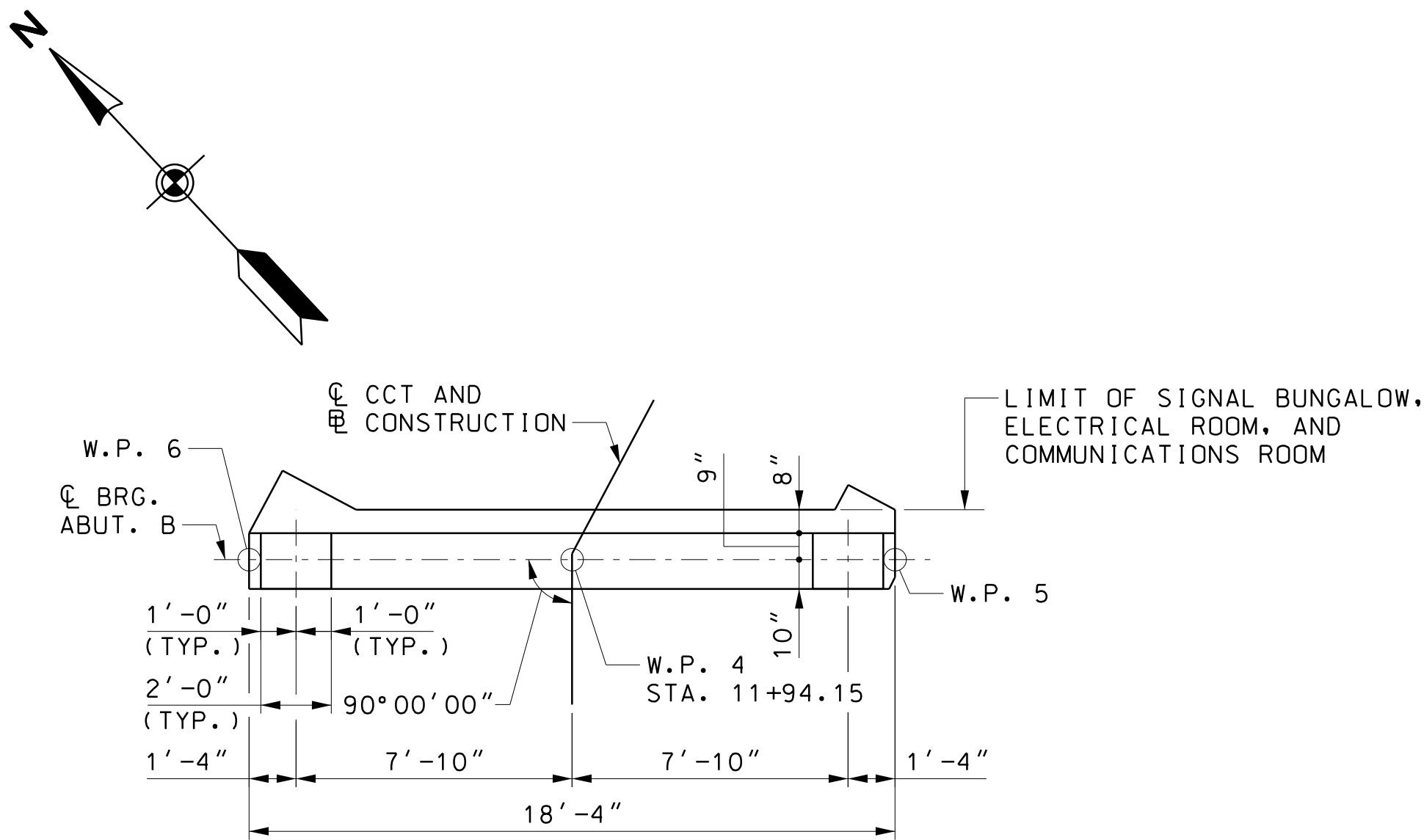
DESIGN	MWM	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CCT PEDESTRIAN BRIDGE AT BETHESDA STATION TYPICAL SECTION
DRAWN	BCB		
CHECK	CRA		
APPR			
		DATE: DECEMBER 2013	SCALE: 12" = 1'-0"

CONTRACT NO.	T-1042-0220
DRAWING NO.	STTA002
SHEET NO.	29 OF 828

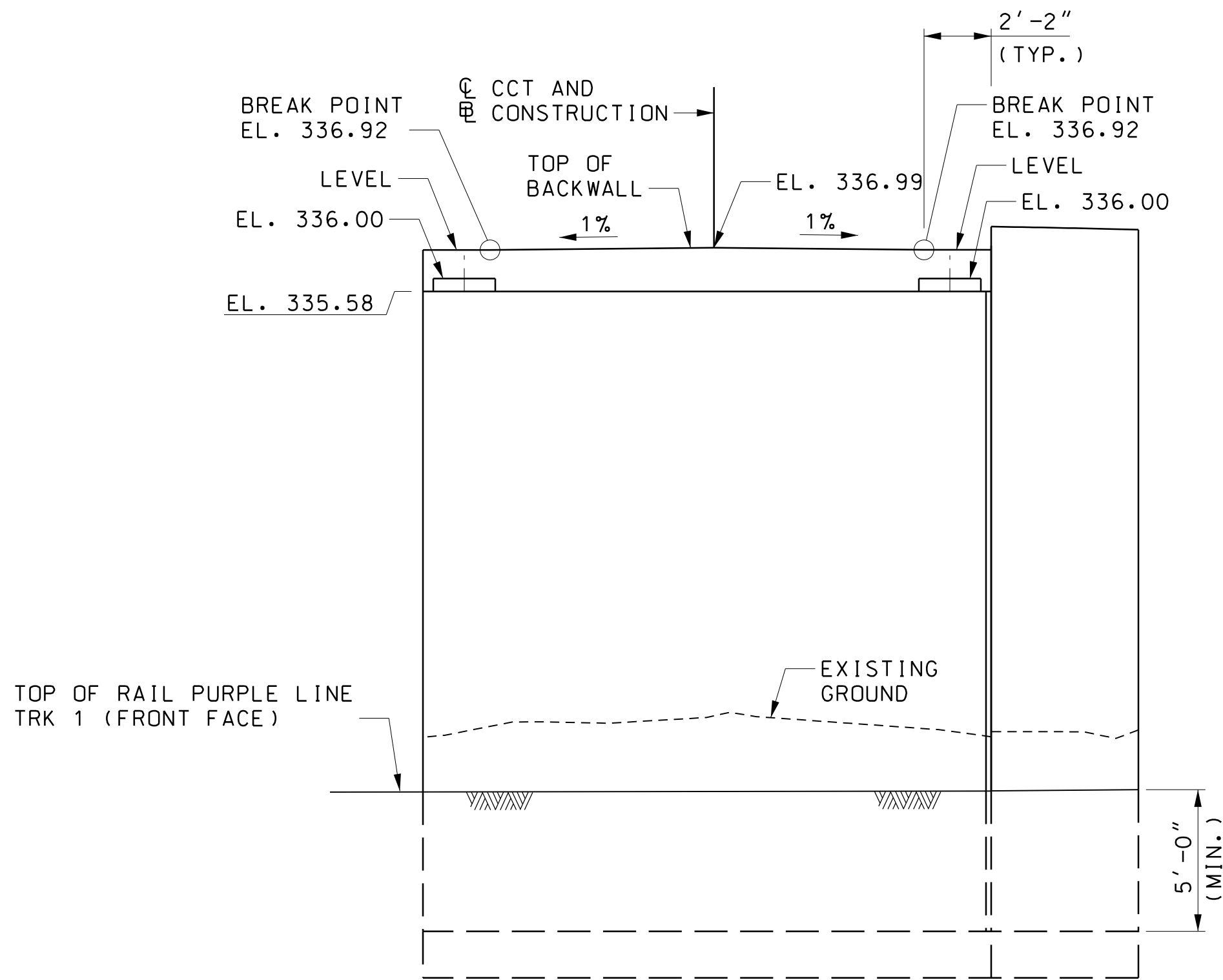
c:\pwworking\mtopw\mci-brian_burns\dms93916\1042pStta02.dgn 12/5/2013



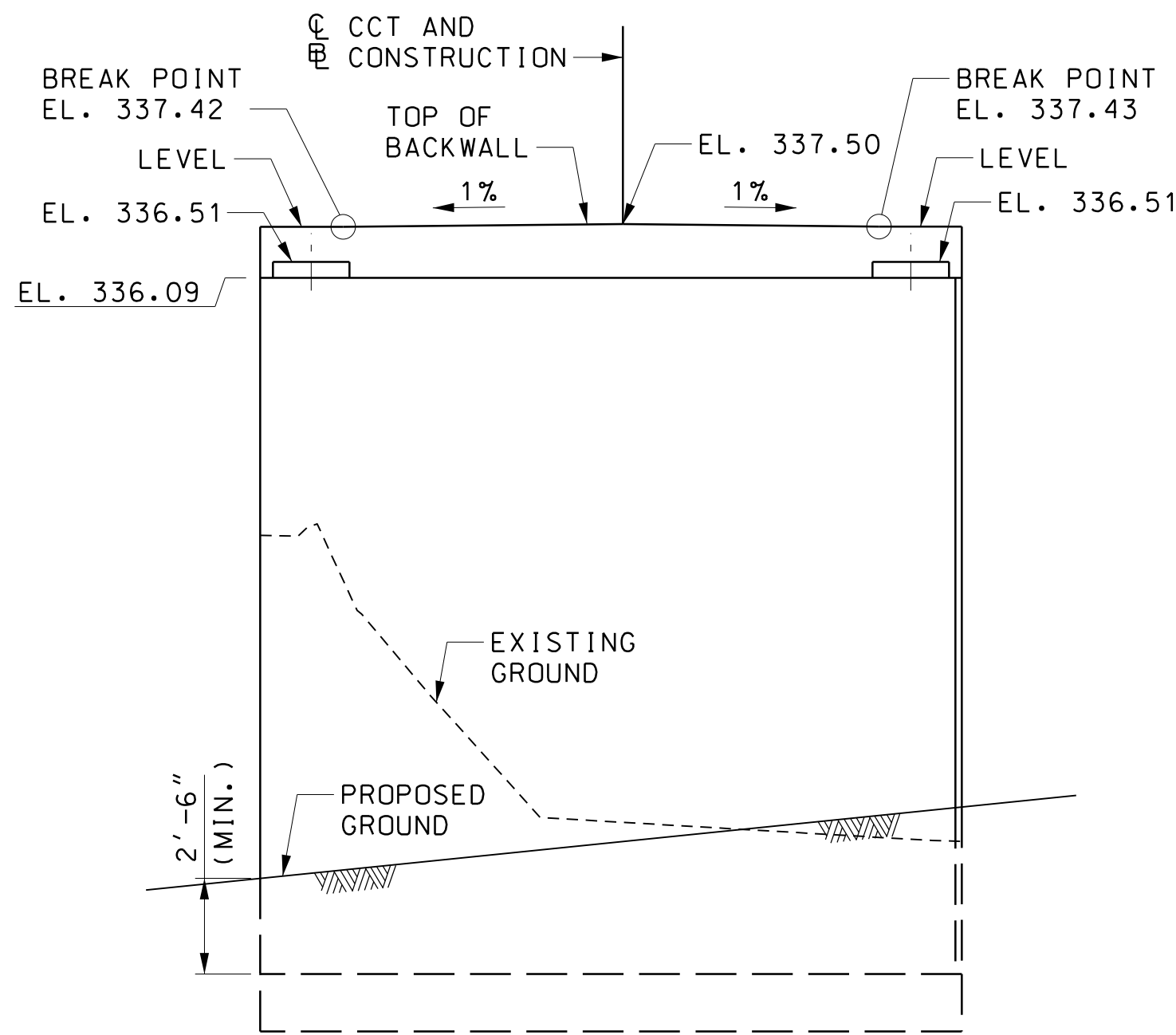
ABUTMENT A PLAN
SCALE: 1/4"=1'-0"



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

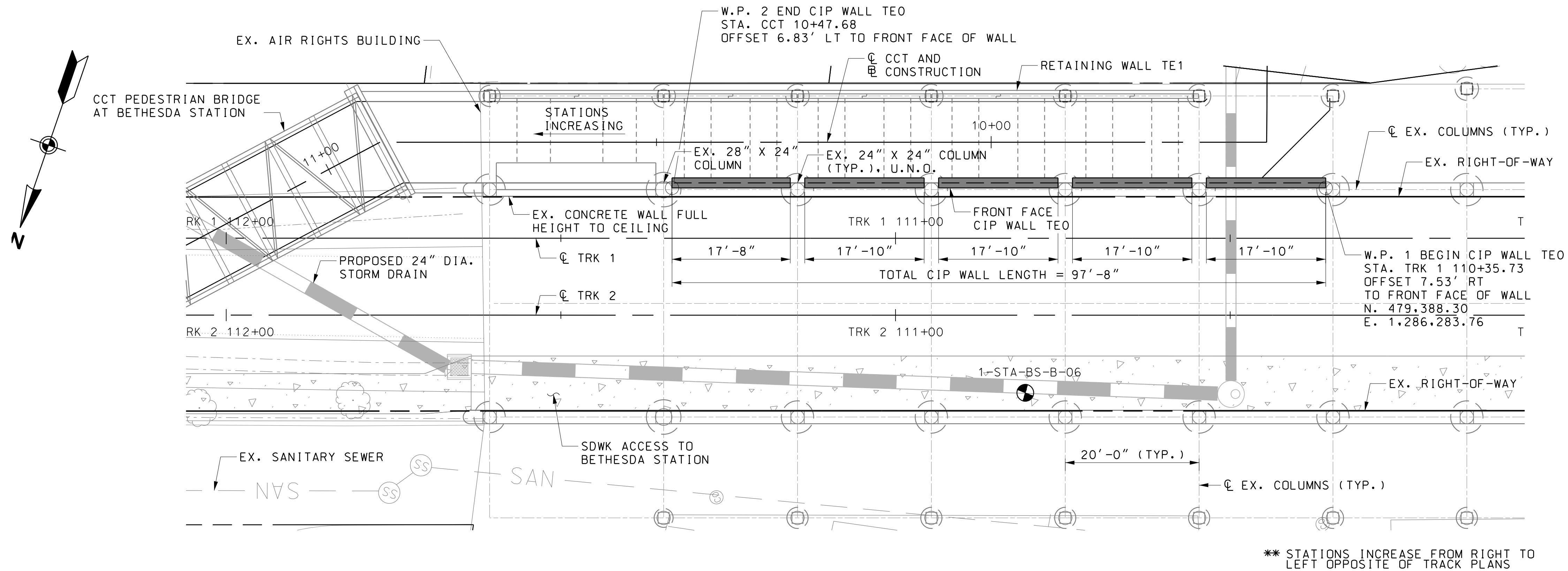


ABUTMENT A ELEVATION
SCALE: 1/4"=1'-0"



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

- NOTES:**
- END OF WING WALLS SHALL ABUT EXISTING AIR RIGHTS BUILDING. CONTRACTOR SHALL VERIFY WALL LENGTH IN FIELD BEFORE ORDERING ANY MATERIALS OR CONSTRUCTING WING WALLS.



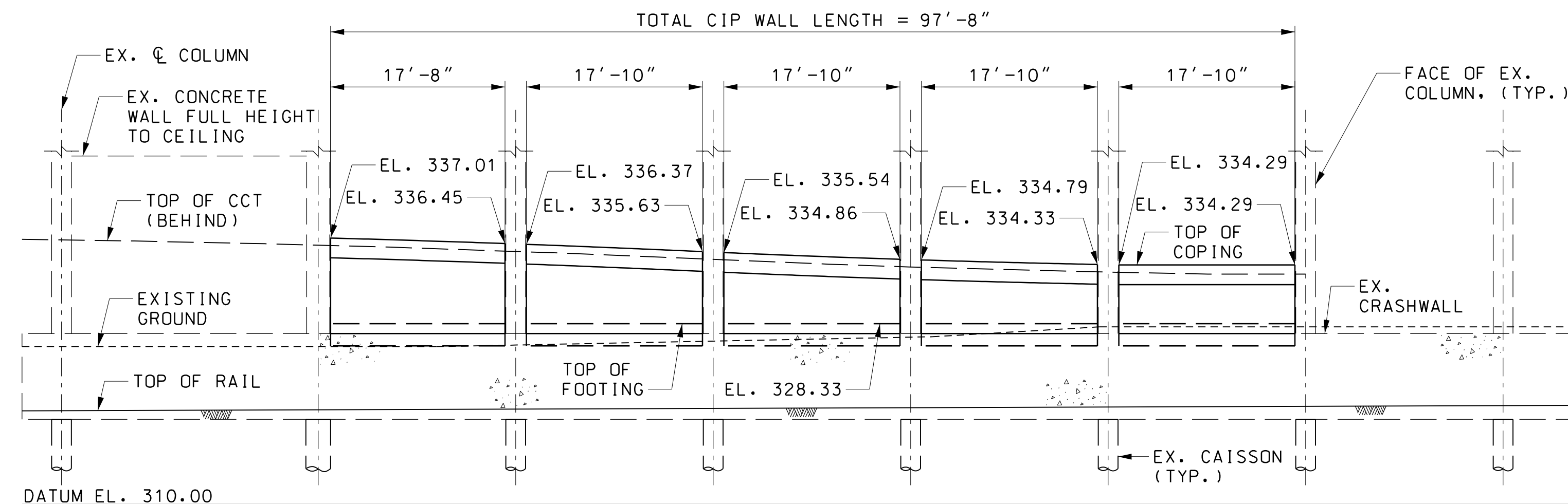
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTE01.

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

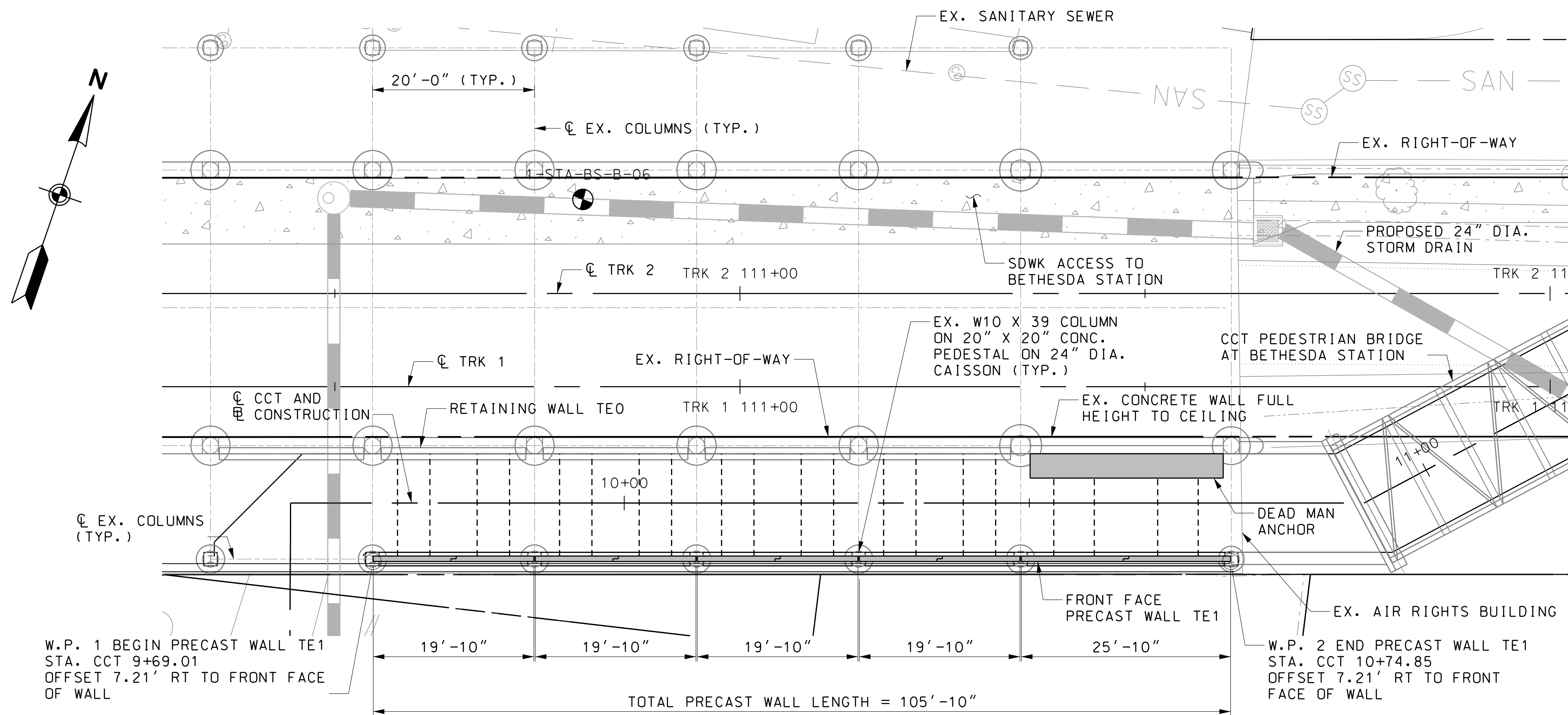
PLAN

SCALE: 1"=10'-0"



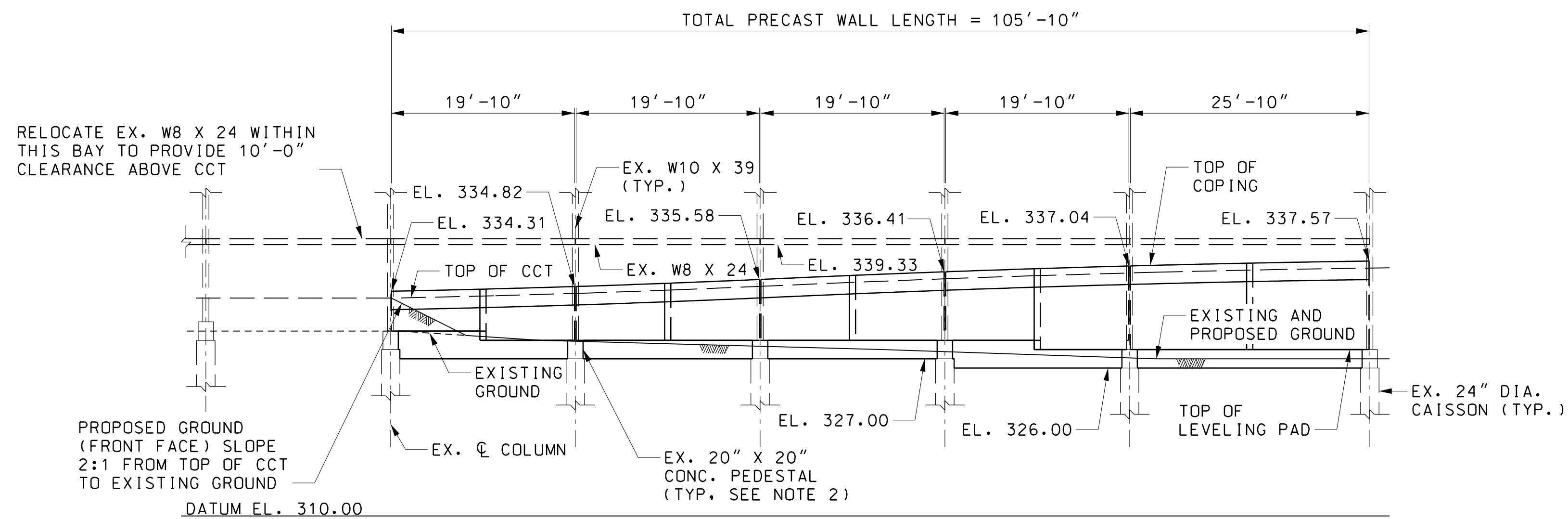
ELEVATION

SCALE: 1"=10'-0"



PLAN

SCALE: 1"=10'-0"

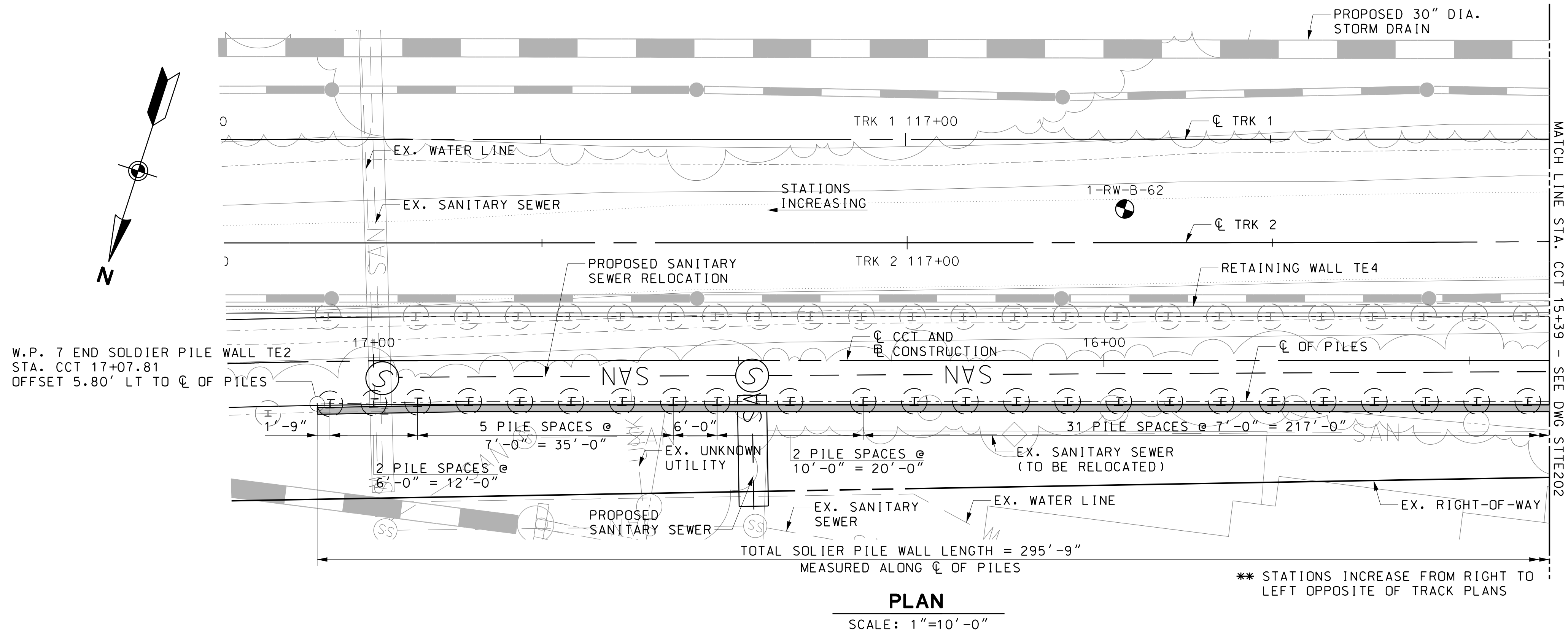


ELEVATION

SCALE: 1"=10'-0"

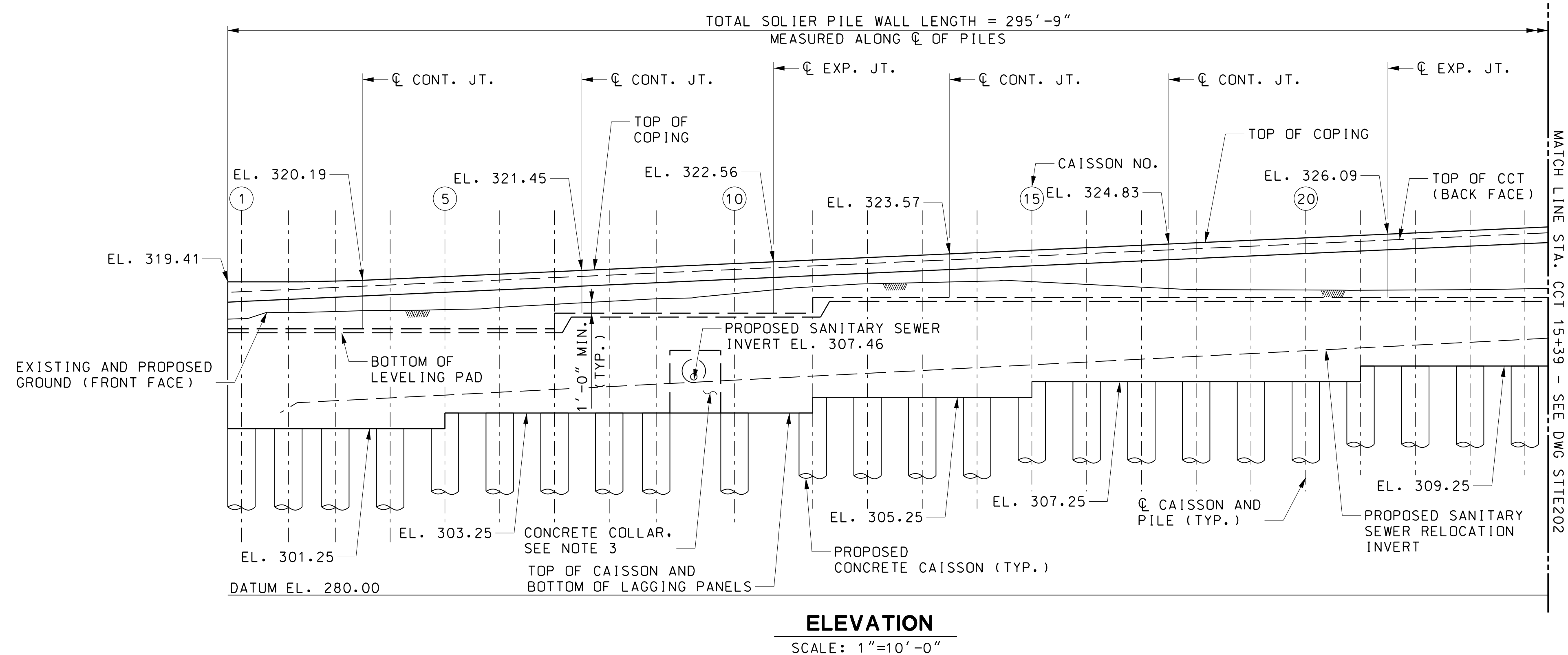
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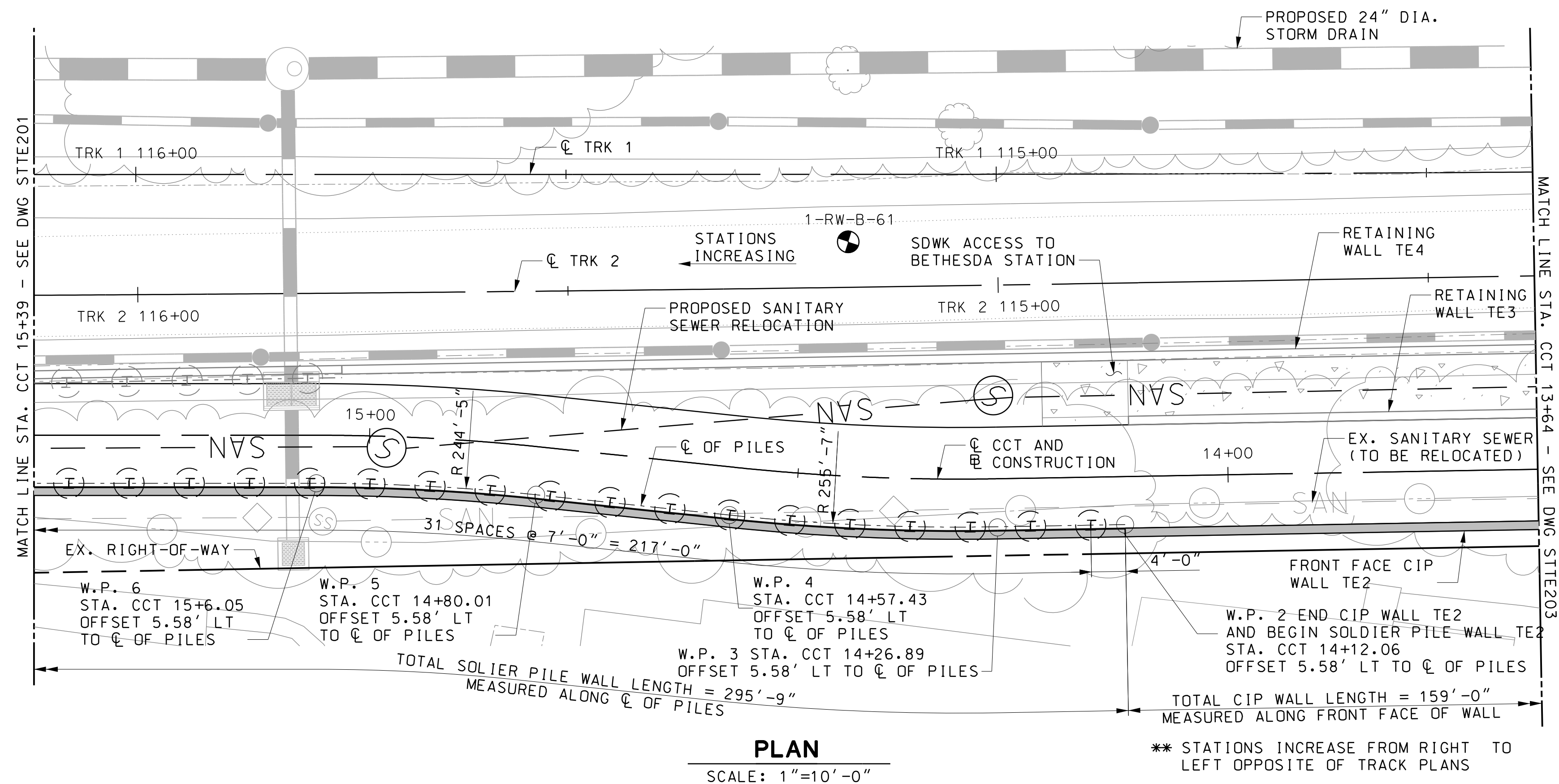
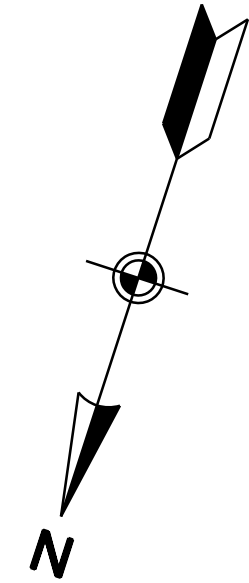
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE01 AND STTE02.
2. FINAL GRADING IN FRONT OF WALL MUST LEAVE TOP OF EX. CONC. PEDESTALS EXPOSED.



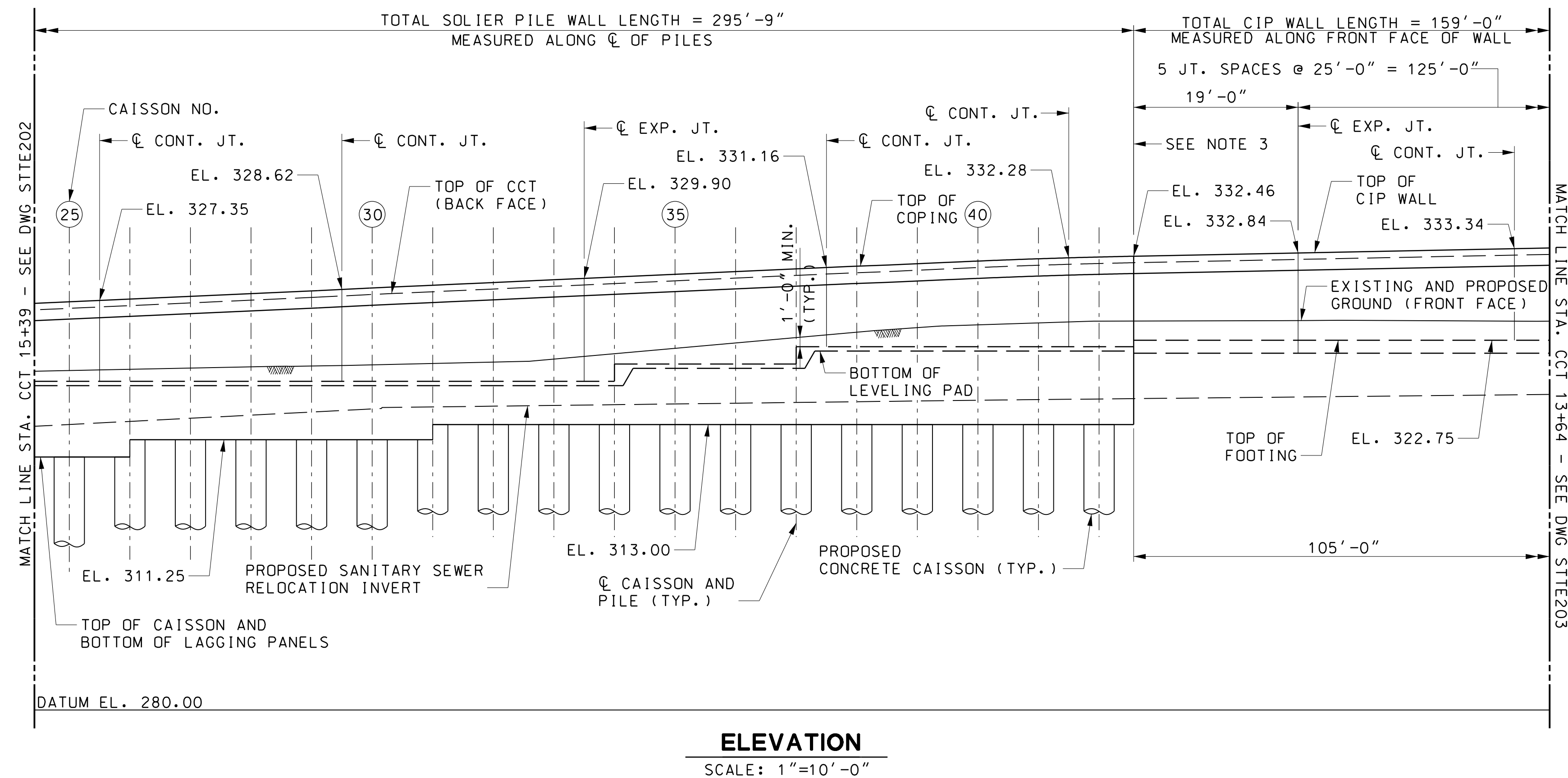
NOTES:

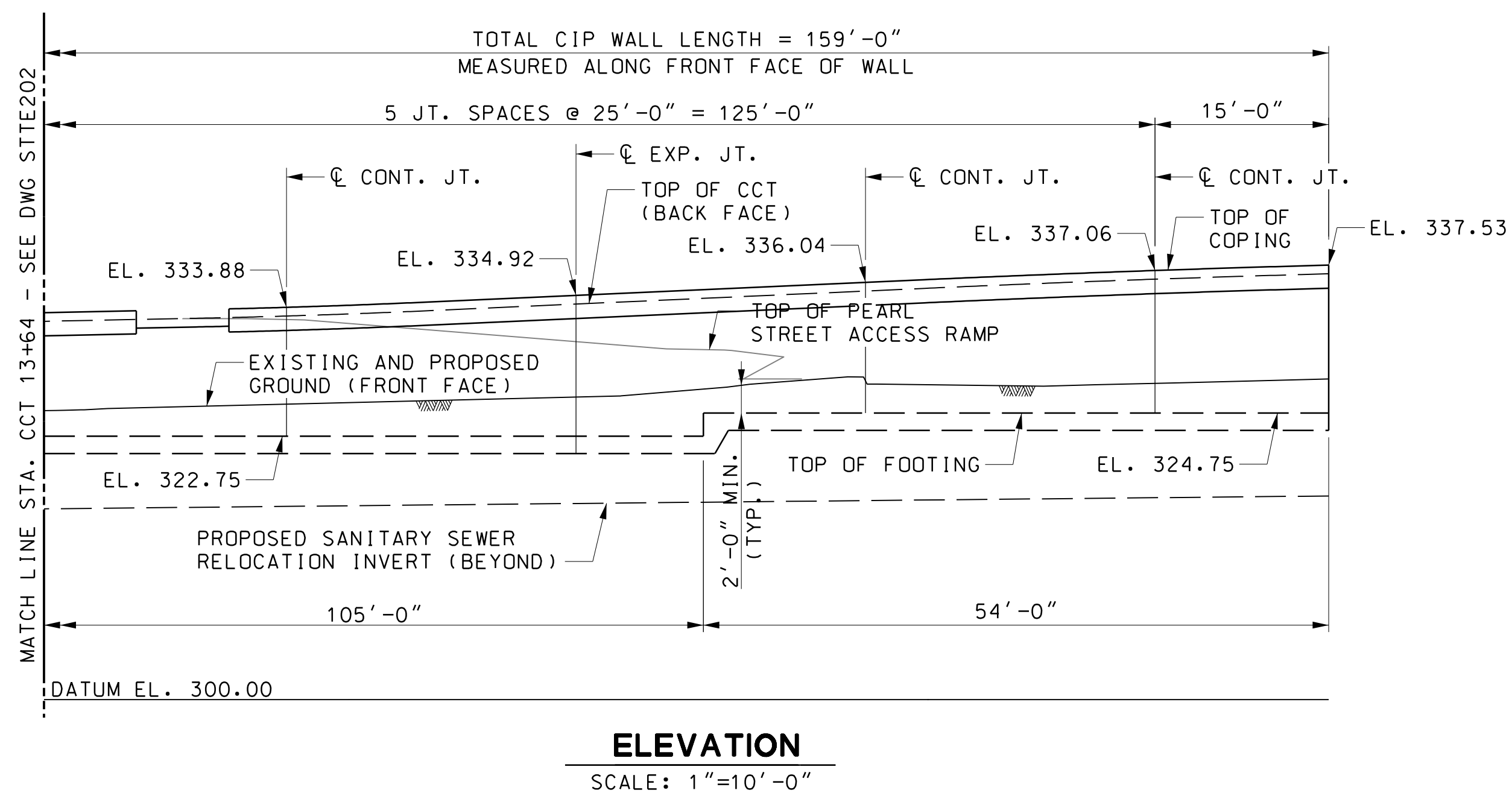
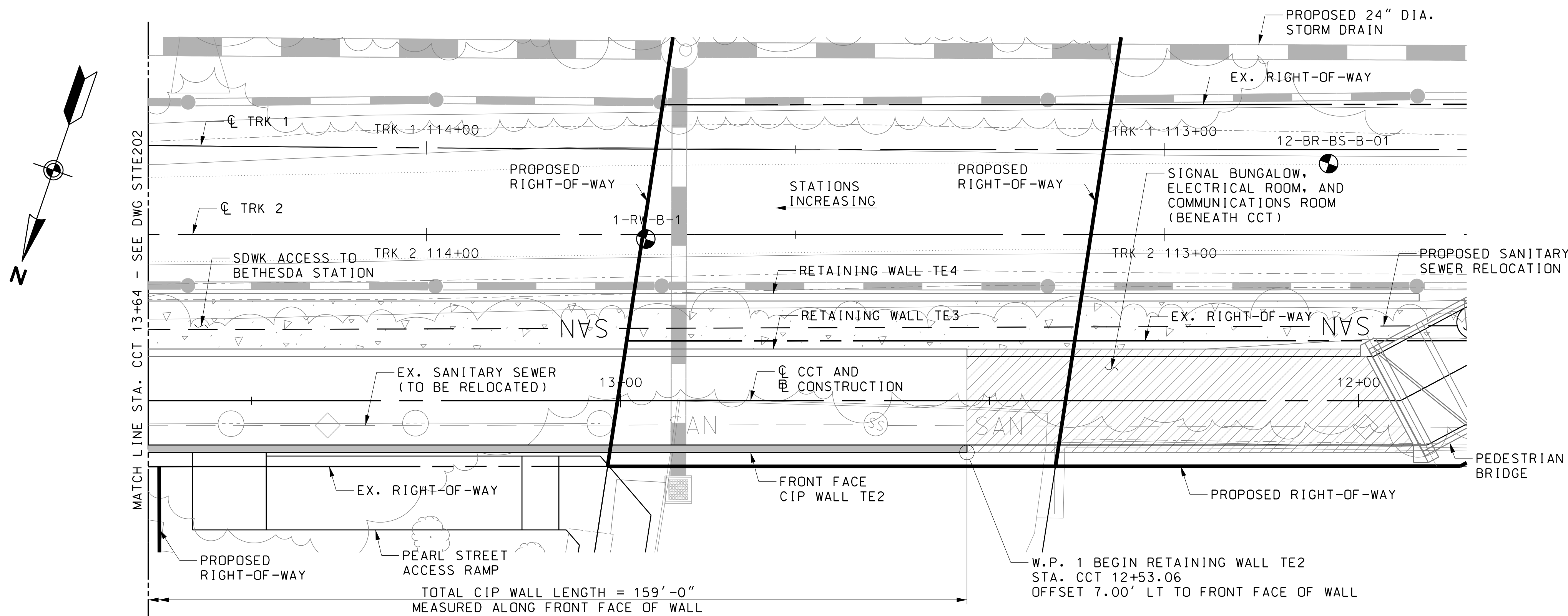
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE03 TO STTE05.
2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.
3. CONCRETE COLLAR TO BE CAST AROUND PROPOSED SANITARY SEWER CASING. COLLAR MUST PROVIDE A 1'-0" MINIMUM COVER AROUND THE ENTIRE CASING.
4. THE CONTRACTOR SHALL LOCATE THE LIMITS OF THE PROPOSED SANITARY SEWER AND CASING BY TEST PIT PRIOR TO AUGERING CAISSON NOS. 9 AND 10. CAISSON NOS. 9 AND 10 SHALL BE CASED AND THE CASING SHALL BE LEFT IN PLACE. THE TEST PIT AND CASING LEFT IN PLACE WILL NOT BE MEASURED BUT THE COST SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR THE PERTINENT DRILLED SHAFT ITEM SPECIFIED IN THE CONTRACT DOCUMENTS.

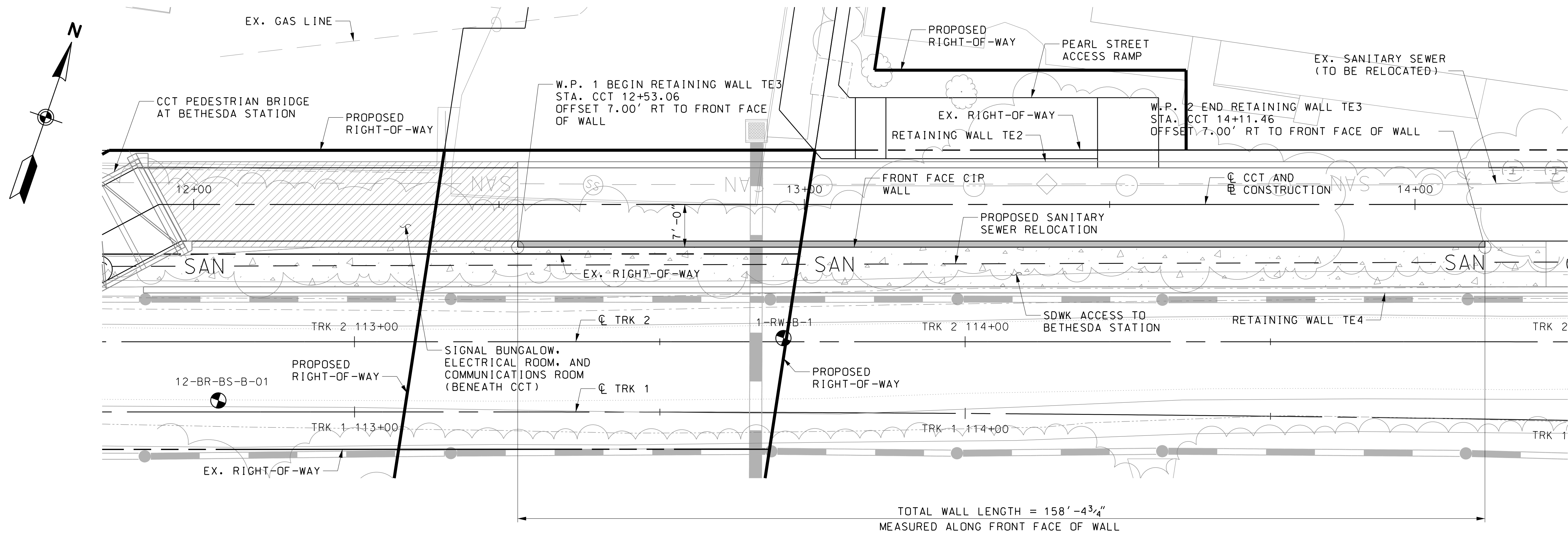




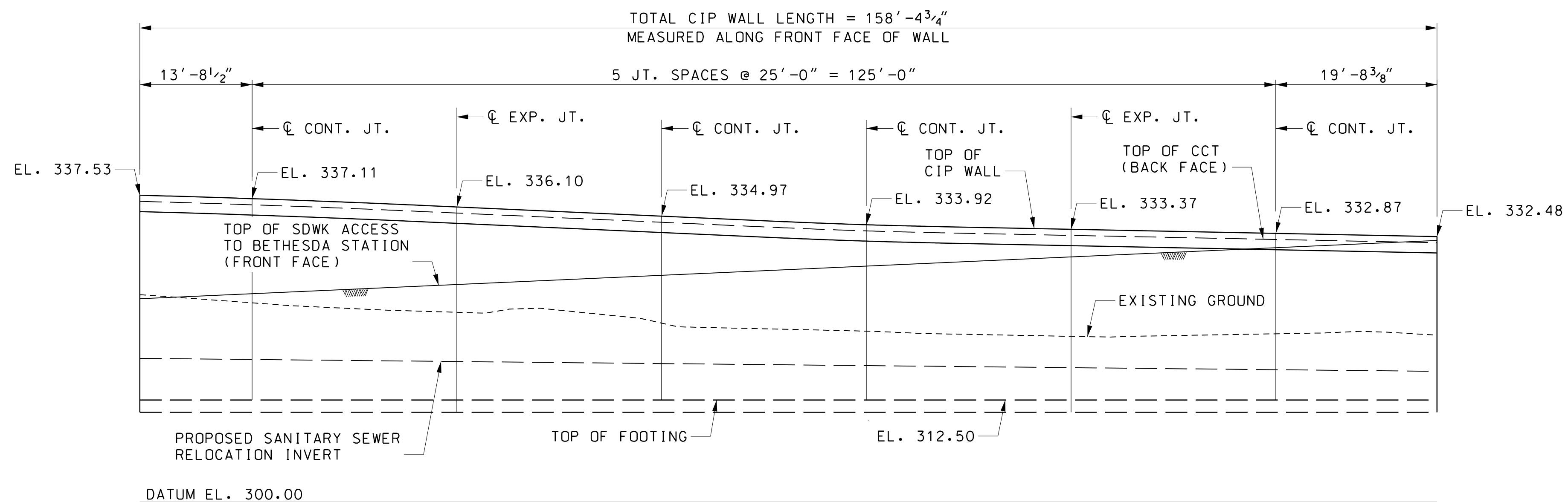
- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE03 TO STTE05.
 2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.
 3. PLACE EXPANSION JOINT MATERIAL AT INTERFACE BETWEEN CIP WALL AND SOLDIER PILE WALL. MATCH FRONT FACE OF WALL AT INTERFACE AND USE SAME ARCHITECTURAL FINISH (FORMLINER) FOR BOTH WALL TYPES.







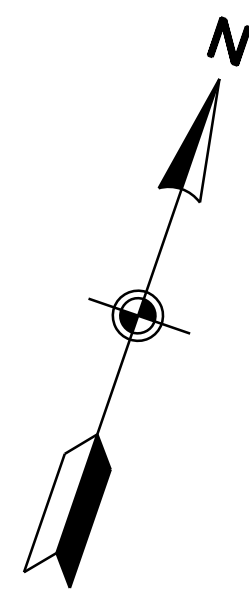
PLAN
SCALE: 1"=10'-0"



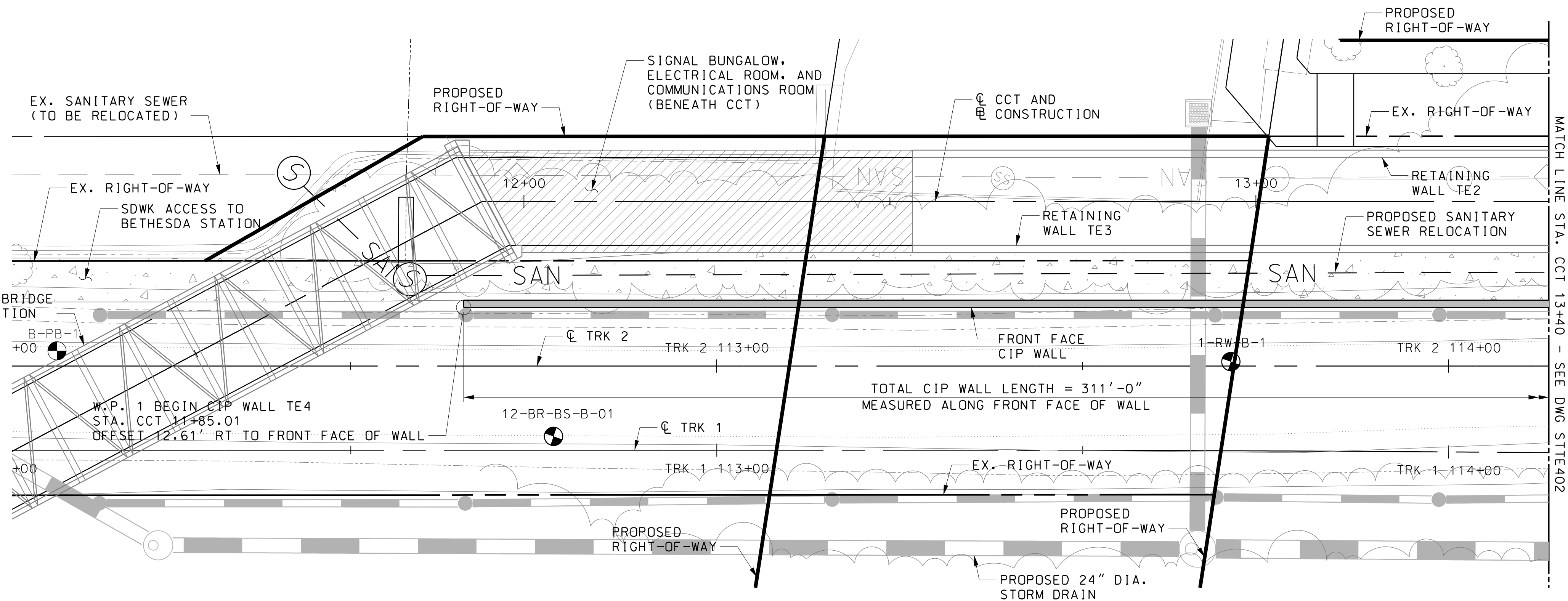
ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTE03.
2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.

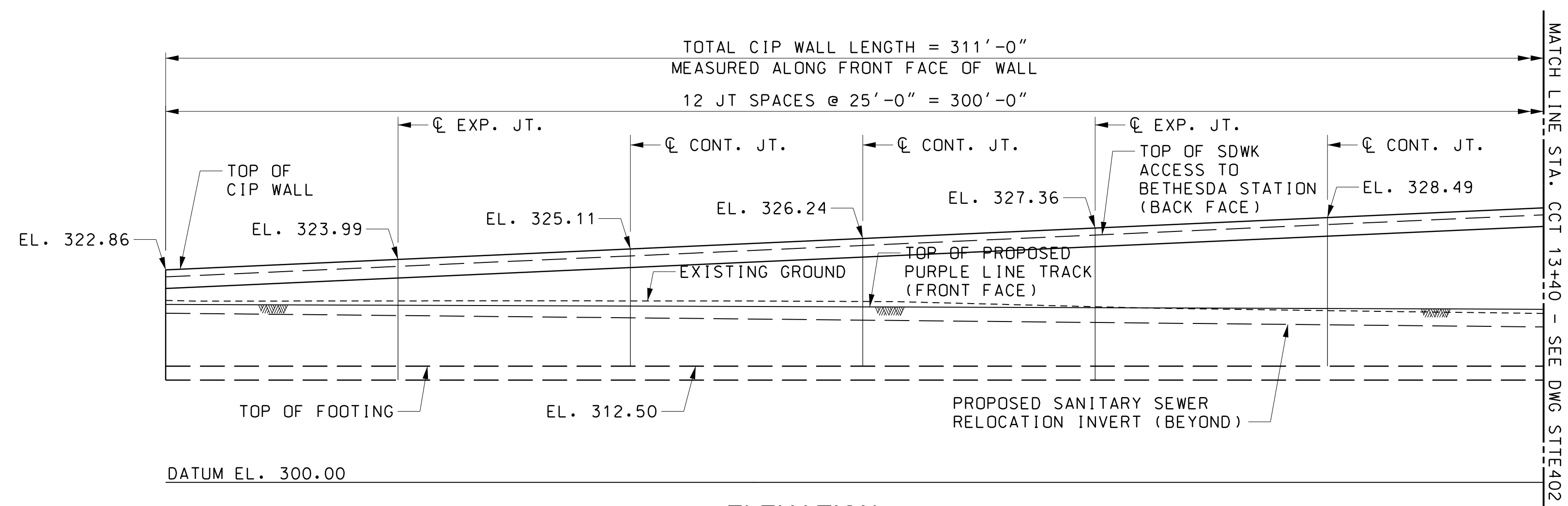


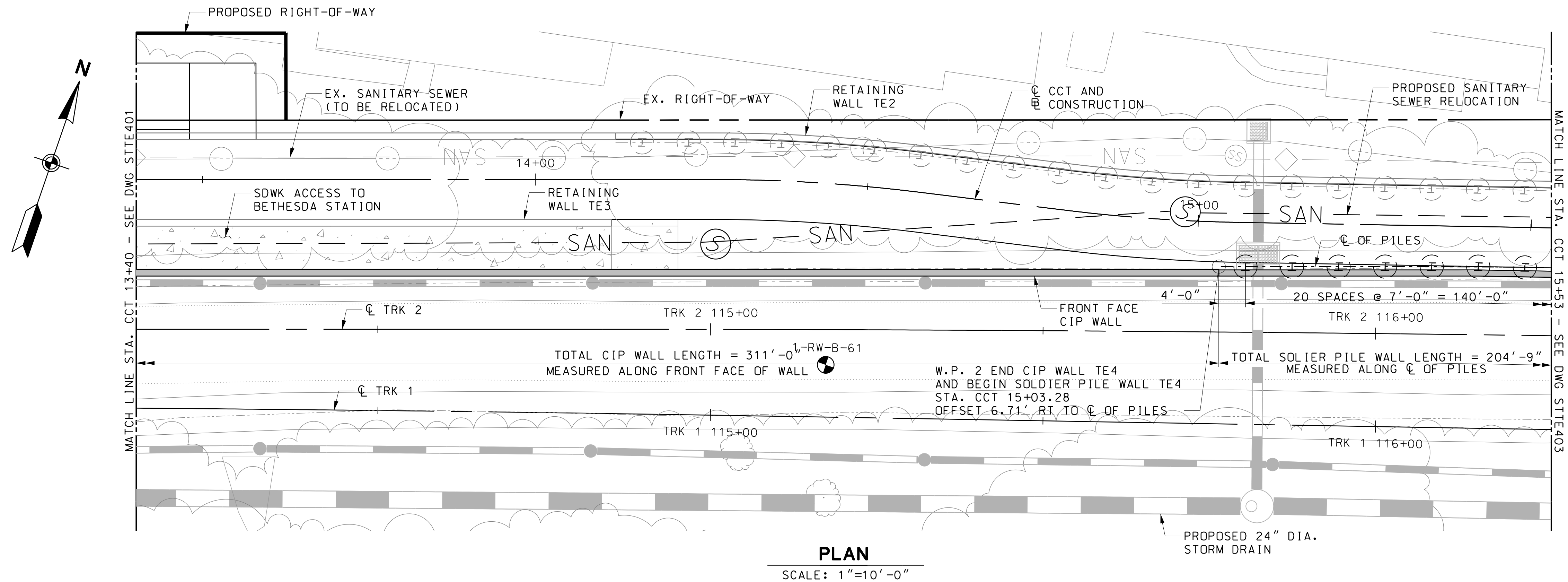
CCT PEDESTRIAN BRIDGE
AT BETHESDA STATION



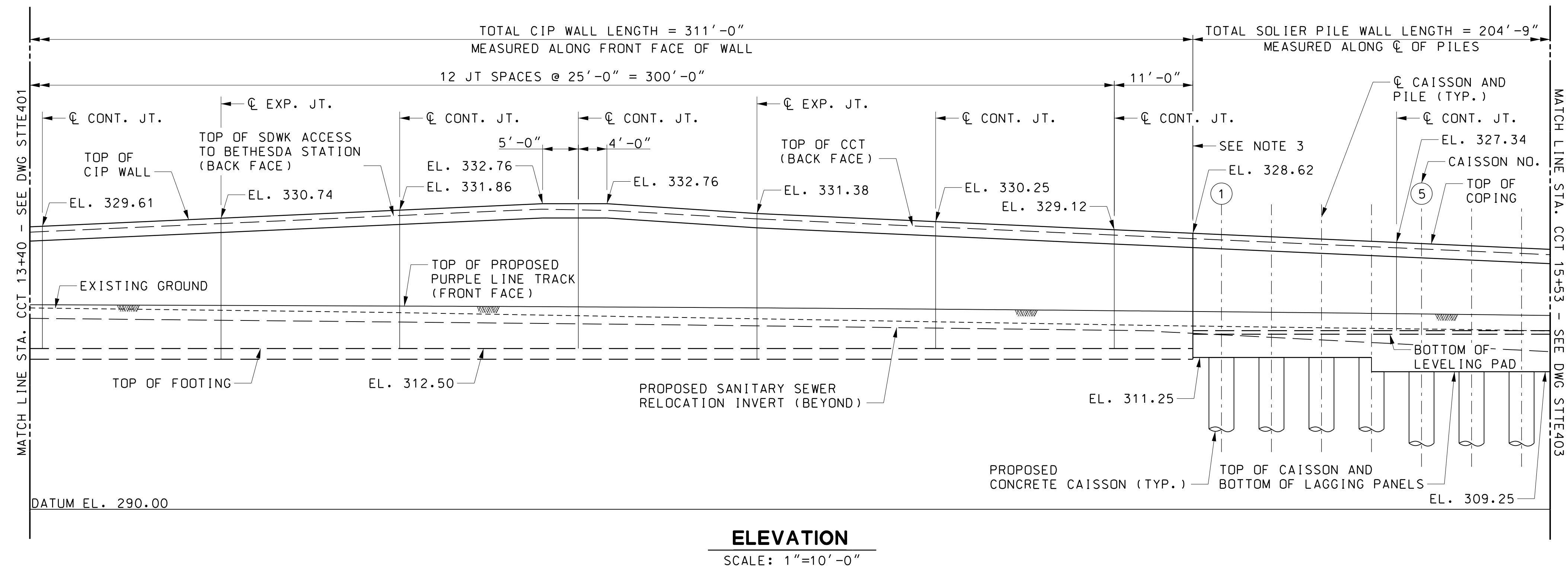
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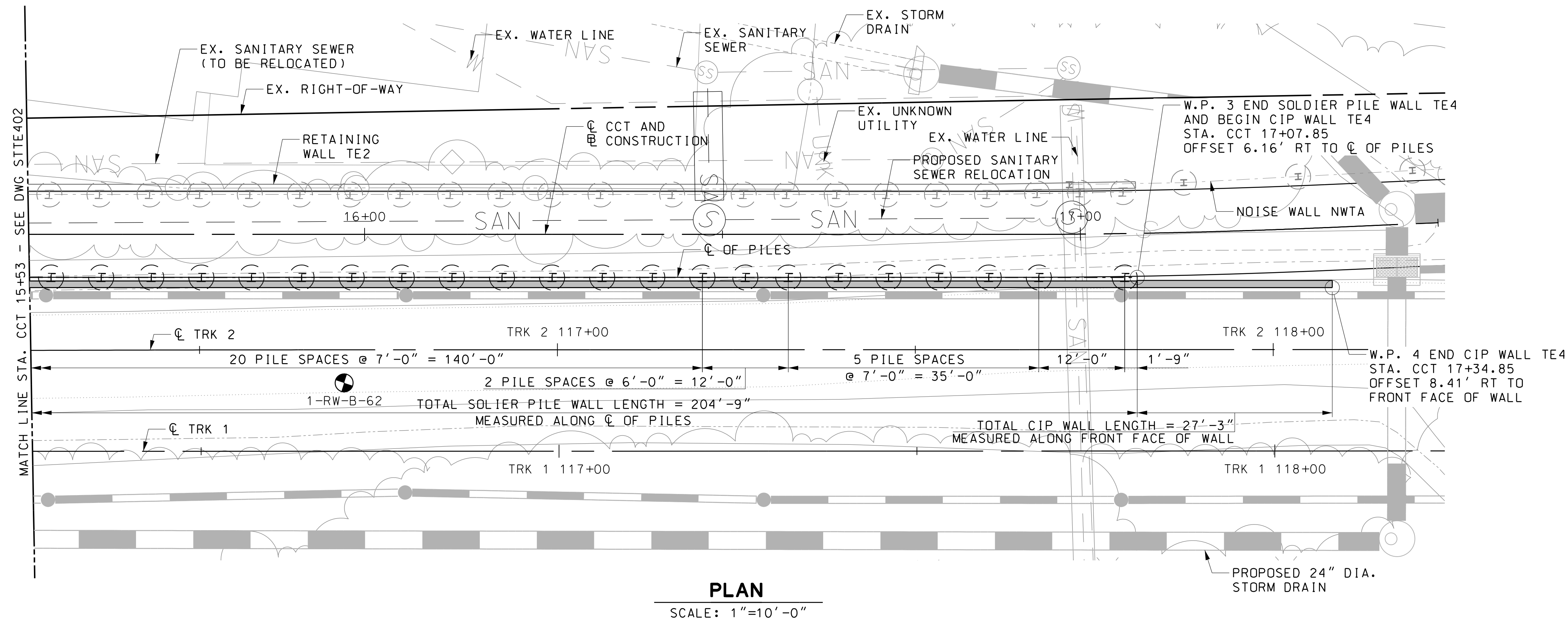
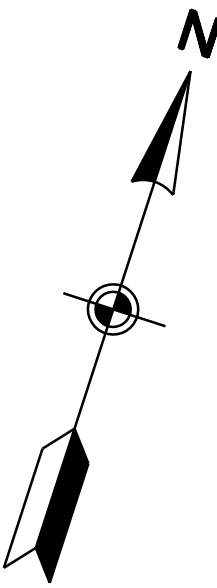
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE03 TO STTE05.
2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.





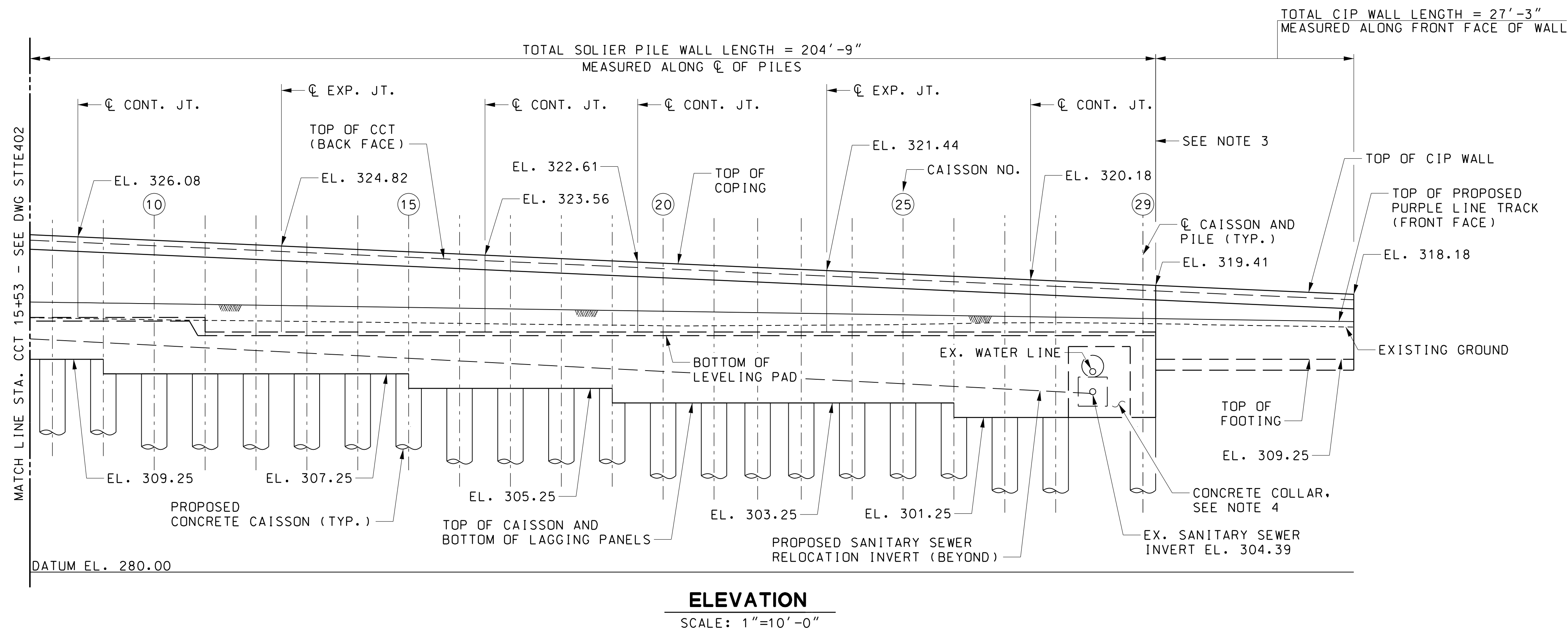
- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE03 TO STTE05.
 2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.
 3. PLACE EXPANSION JOINT MATERIAL AT INTERFACE BETWEEN CIP WALL AND SOLDIER PILE WALL. MATCH FRONT FACE OF WALL AT INTERFACE AND USE SAME ARCHITECTURAL FINISH (FORMLINER) FOR BOTH WALL TYPES.

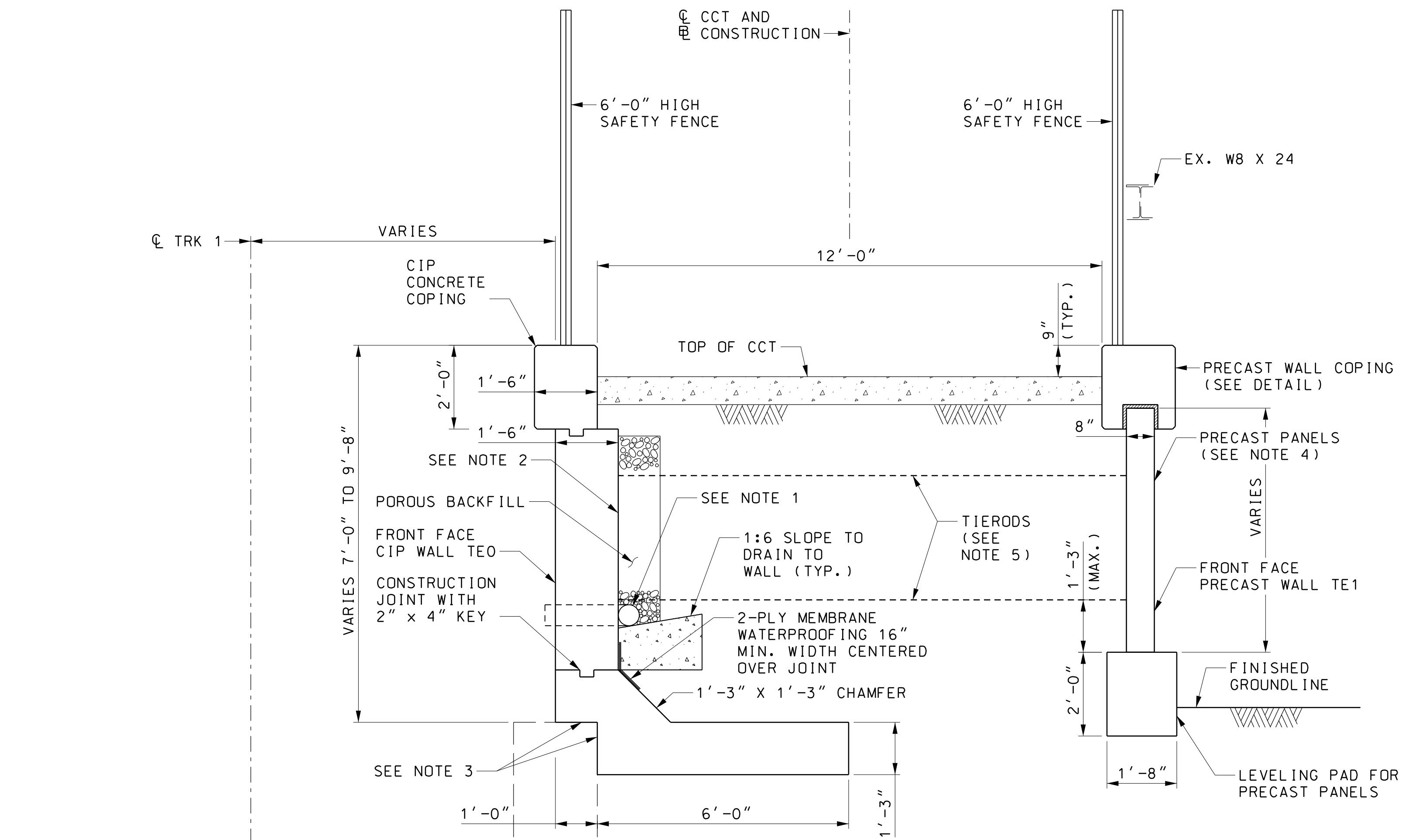




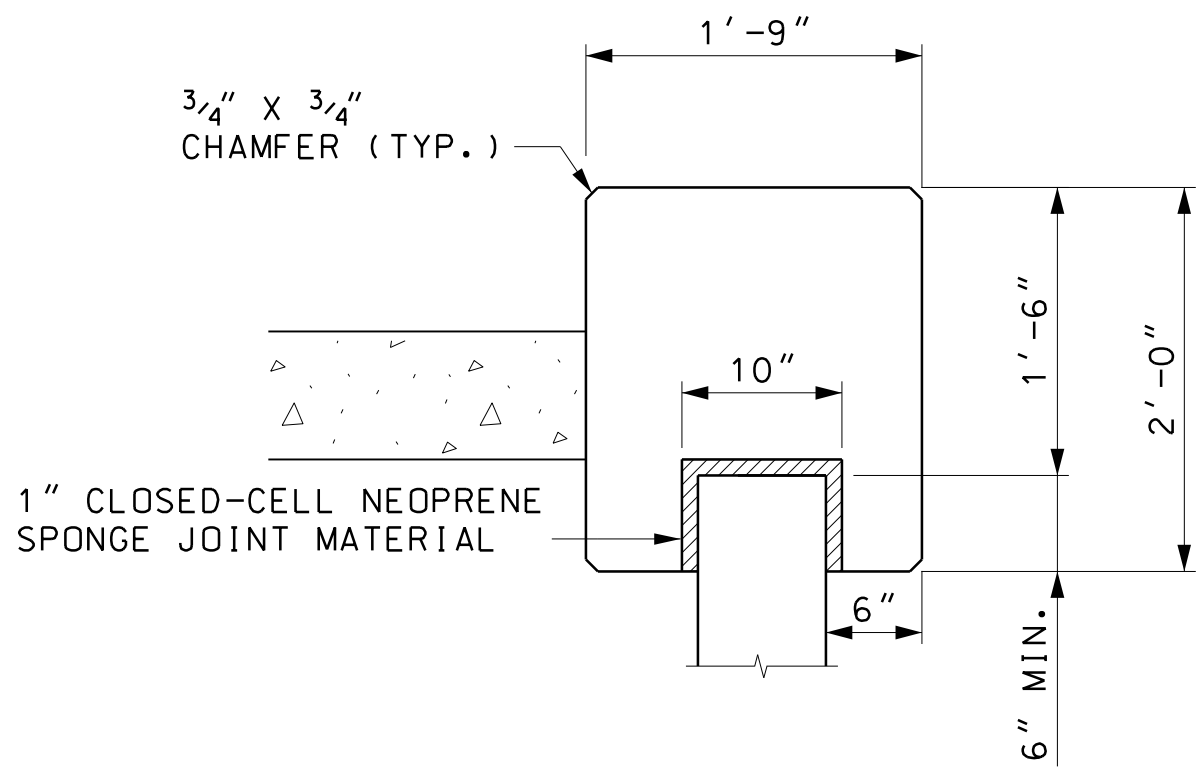
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NOS. STTE03 TO STTE05.
2. FOR PROPOSED SANITARY SEWER RELOCATION DETAILS, SEE VOLUME 5.
3. PLACE EXPANSION JOINT MATERIAL AT INTERFACE BETWEEN CIP WALL AND SOLDIER PILE WALL. MATCH FRONT FACE OF WALL AT INTERFACE AND USE SAME ARCHITECTURAL FINISH (FORMLINER) FOR BOTH WALL TYPES.
4. THE CONTRACTOR SHALL LOCATE THE LIMITS OF THE EXISTING SANITARY SEWER ENCASED IN CONCRETE BY TEST PIT PRIOR TO AUGERING CAISSON NOS. 28 AND 29. CAISSON NOS. 28 AND 29 SHALL BE CASED AND THE CASING SHALL BE LEFT IN PLACE. THE TEST PIT AND CASING LEFT IN PLACE WILL NOT BE MEASURED BUT THE COST SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR THE PERTINENT DRILLED SHAFT ITEM SPECIFIED IN THE CONTRACT DOCUMENTS.



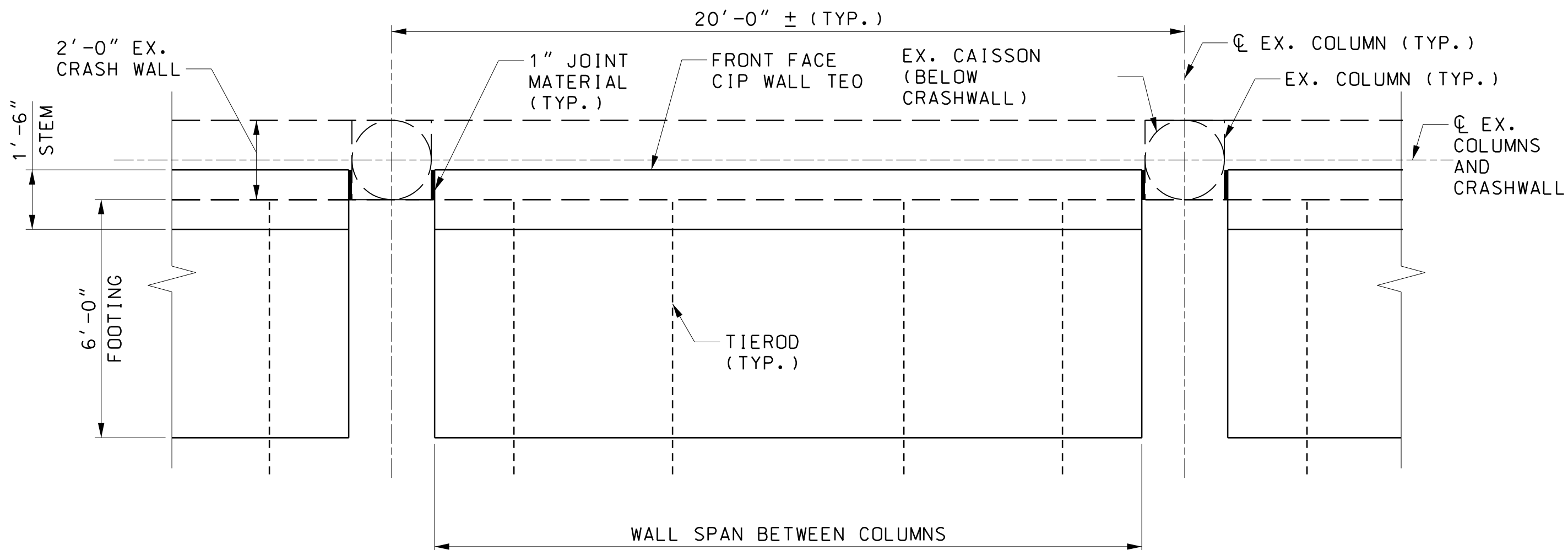


TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"

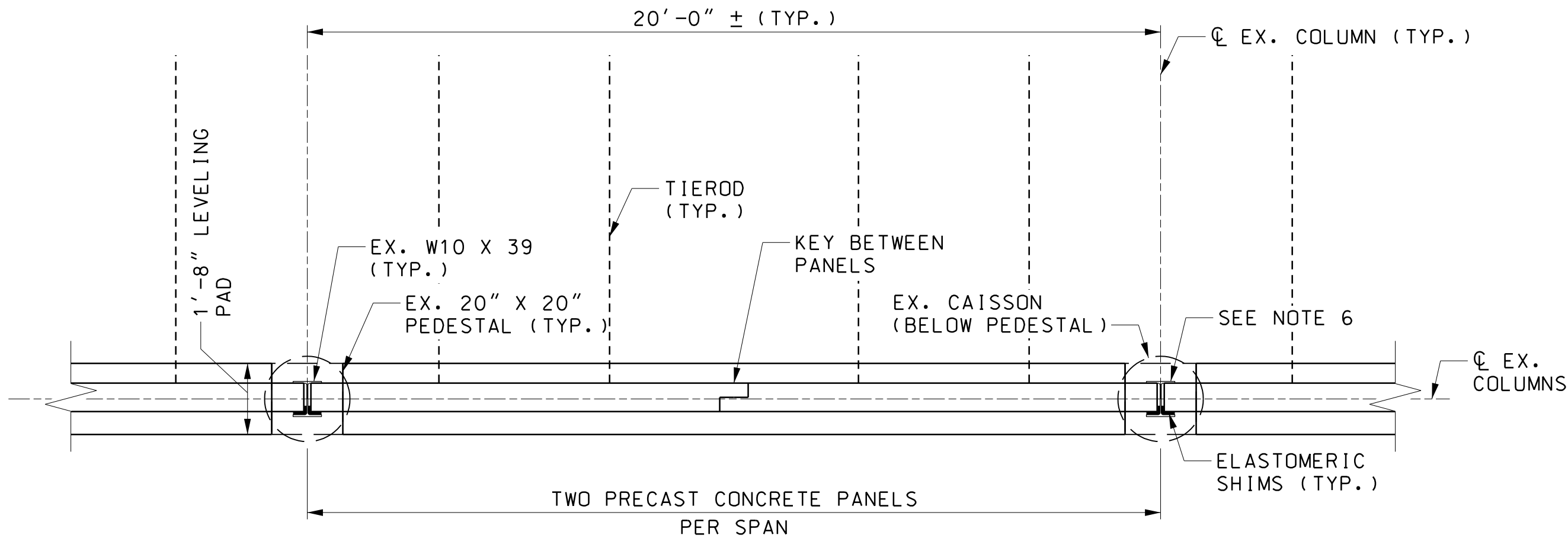


PRECAST CONCRETE COPING DETAIL
SCALE: 1" = 1'-0"

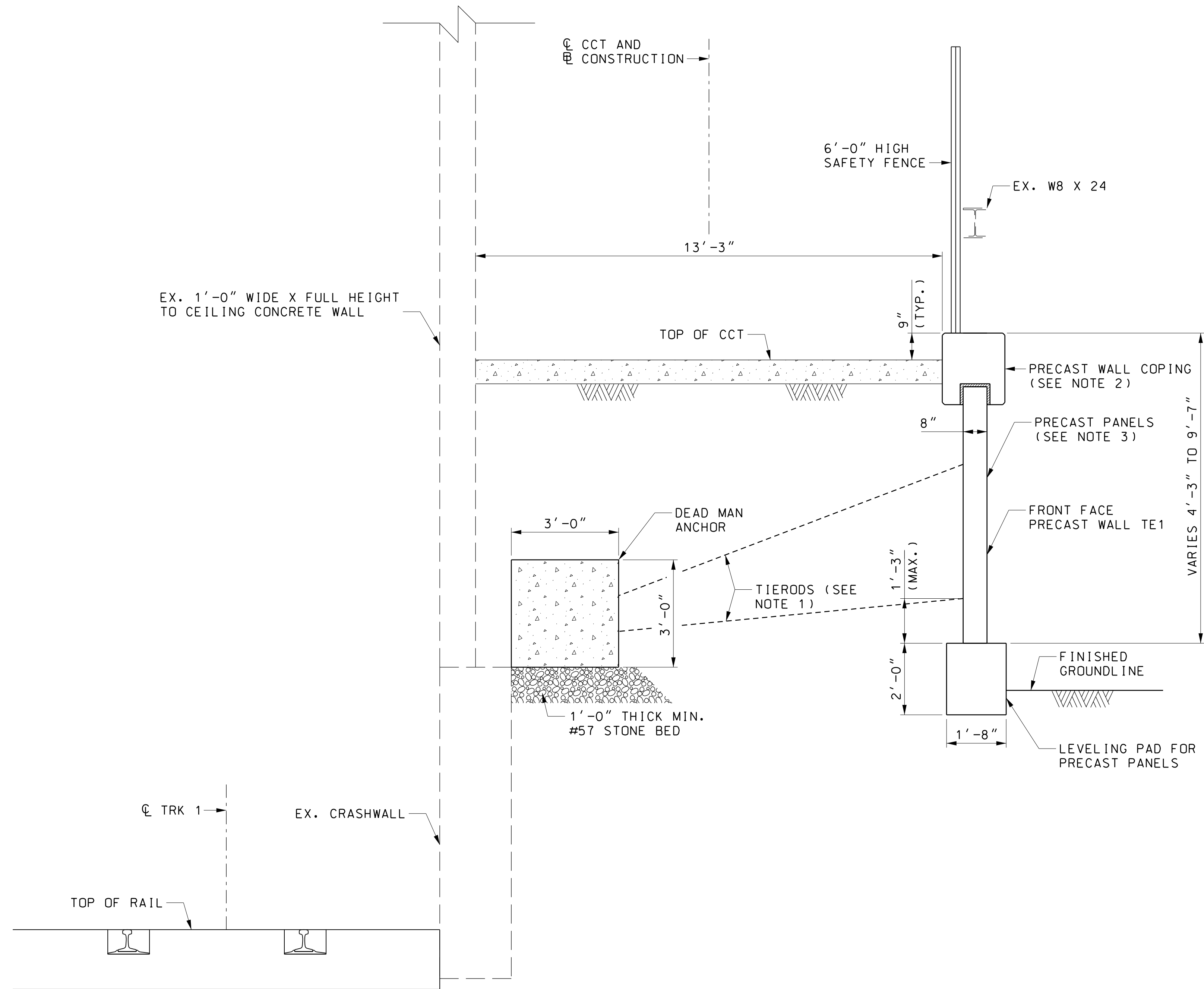
- NOTES:**
1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
 2. REAR FACE PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUNDLINE.
 3. PLACE 2 PLY ROOFING PAPER BOND BREAKER BETWEEN NEW CONCRETE AND EXISTING CRASHWALL CONCRETE.
 4. TWO PRECAST PANELS TO SPAN BETWEEN EXISTING COLUMNS. SEE WALL TE1 PLAN DETAIL BELOW.
 5. PRECAST PANELS TO BE TIED TO WALL TE0 BY STEEL TIERRODS.
 6. PLACE PRECAST CONCRETE PANELS FLUSH AGAINST INSIDE OF FLANGE ON THE TRAIL SIDE OF EXISTING COLUMN. USE ELASTOMERIC SHIMS ON FRONT FACE OF PRECAST CONCRETE PANELS. ELASTOMERIC SHIM THICKNESS TO BE DETERMINED IN THE FIELD (3/16" MIN.)



WALL TE0 PLAN DETAIL
SCALE: 3/8" = 1'-0"

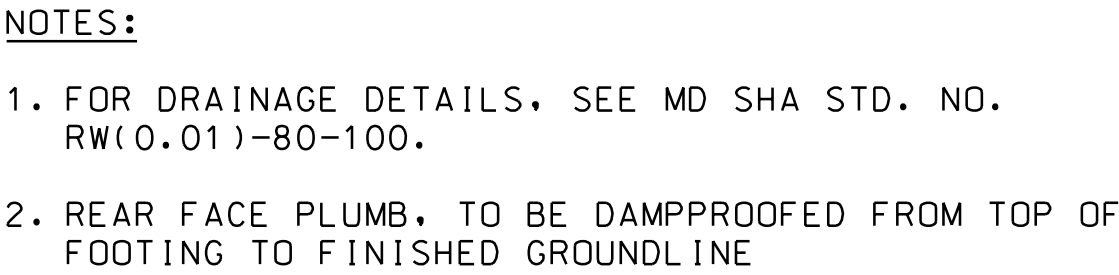


WALL TE1 PLAN DETAIL
SCALE: 3/8" = 1'-0"

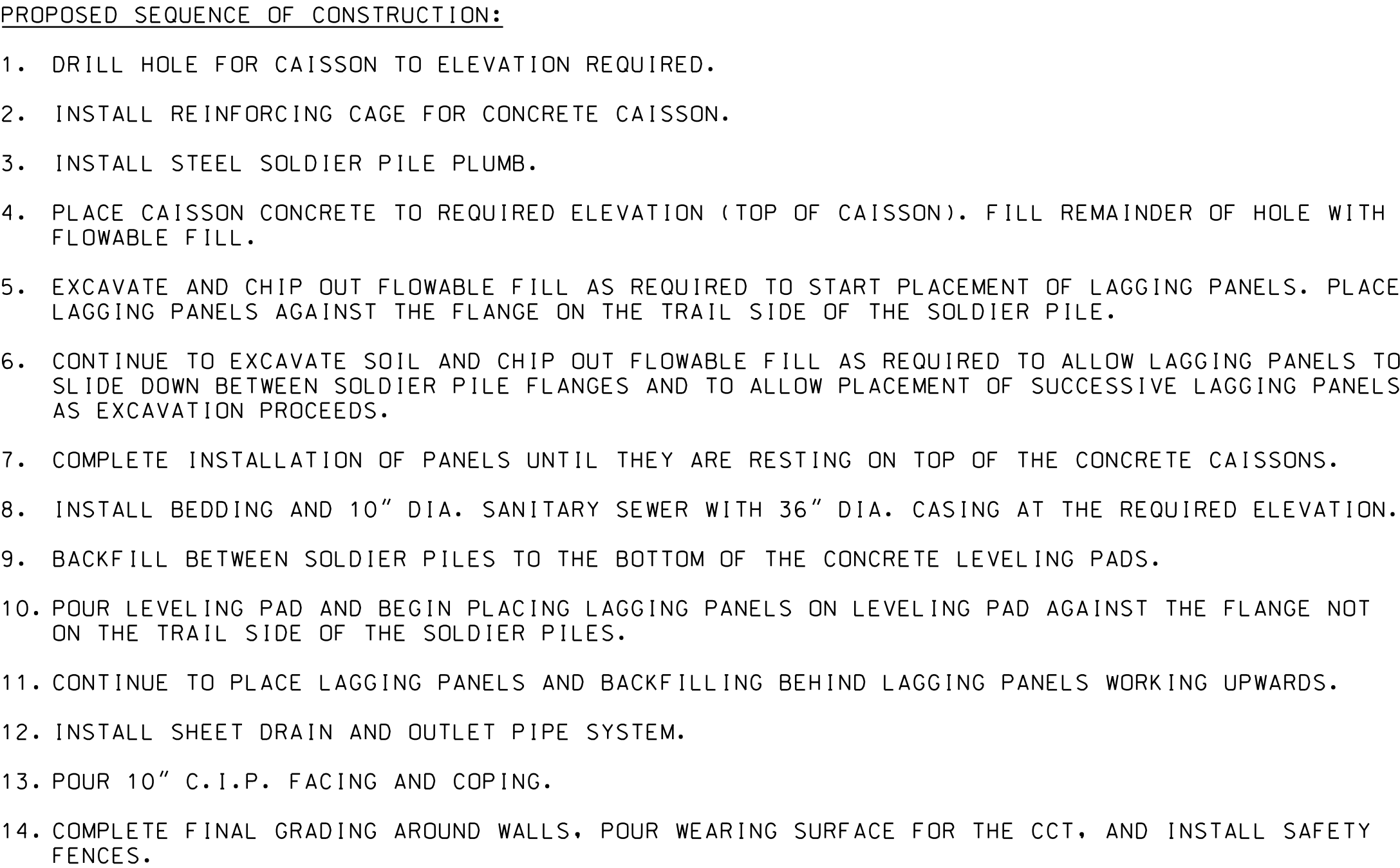


TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"

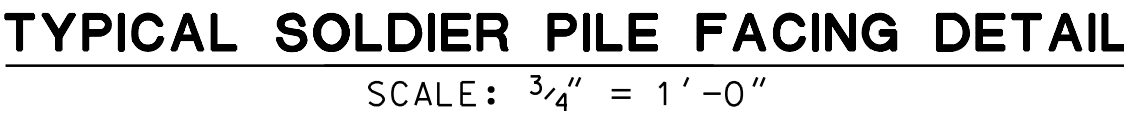
- NOTES:**
1. WALL TE1 PRECAST PANELS TO BE TIED TO DEAD MAN ANCHOR BY TIERRODS.
 2. SEE DWG. NO. STTE01 FOR COPING DETAIL.
 3. PRECAST PANELS TO SPAN BETWEEN EXISTING COLUMNS. SEE DWG. NO. STTE01 FOR DETAILS.



TYPICAL SECTION STA. CCT 13+50
SCALE: $\frac{3}{8}" = 1' - 0"$

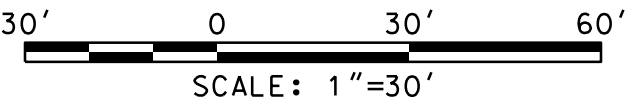
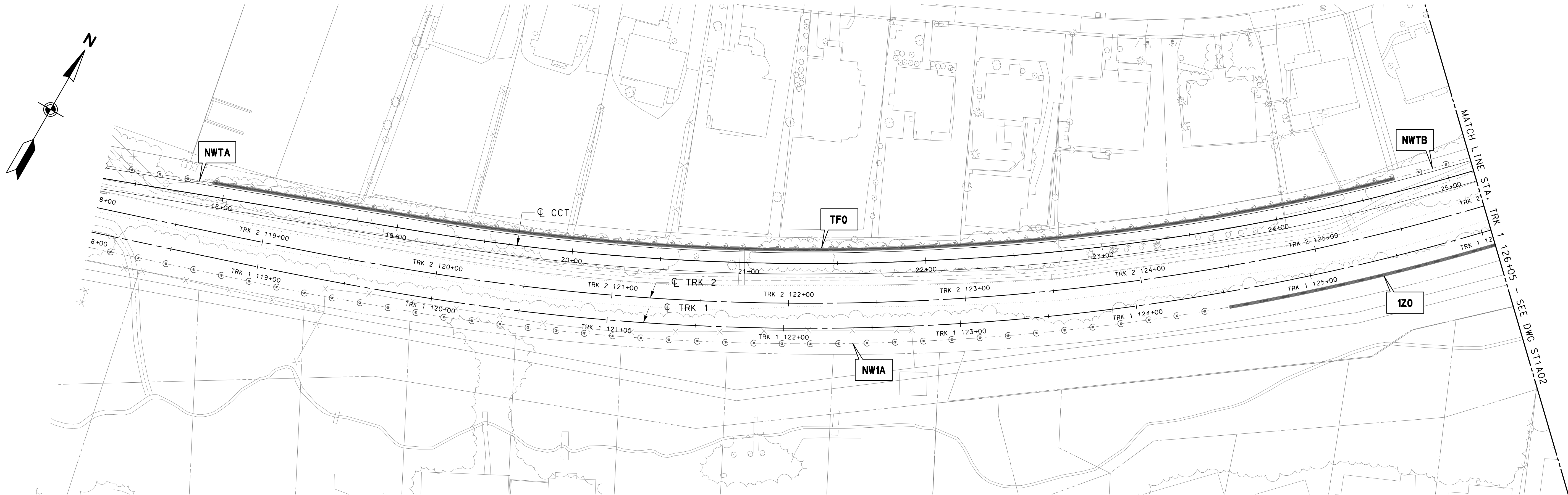


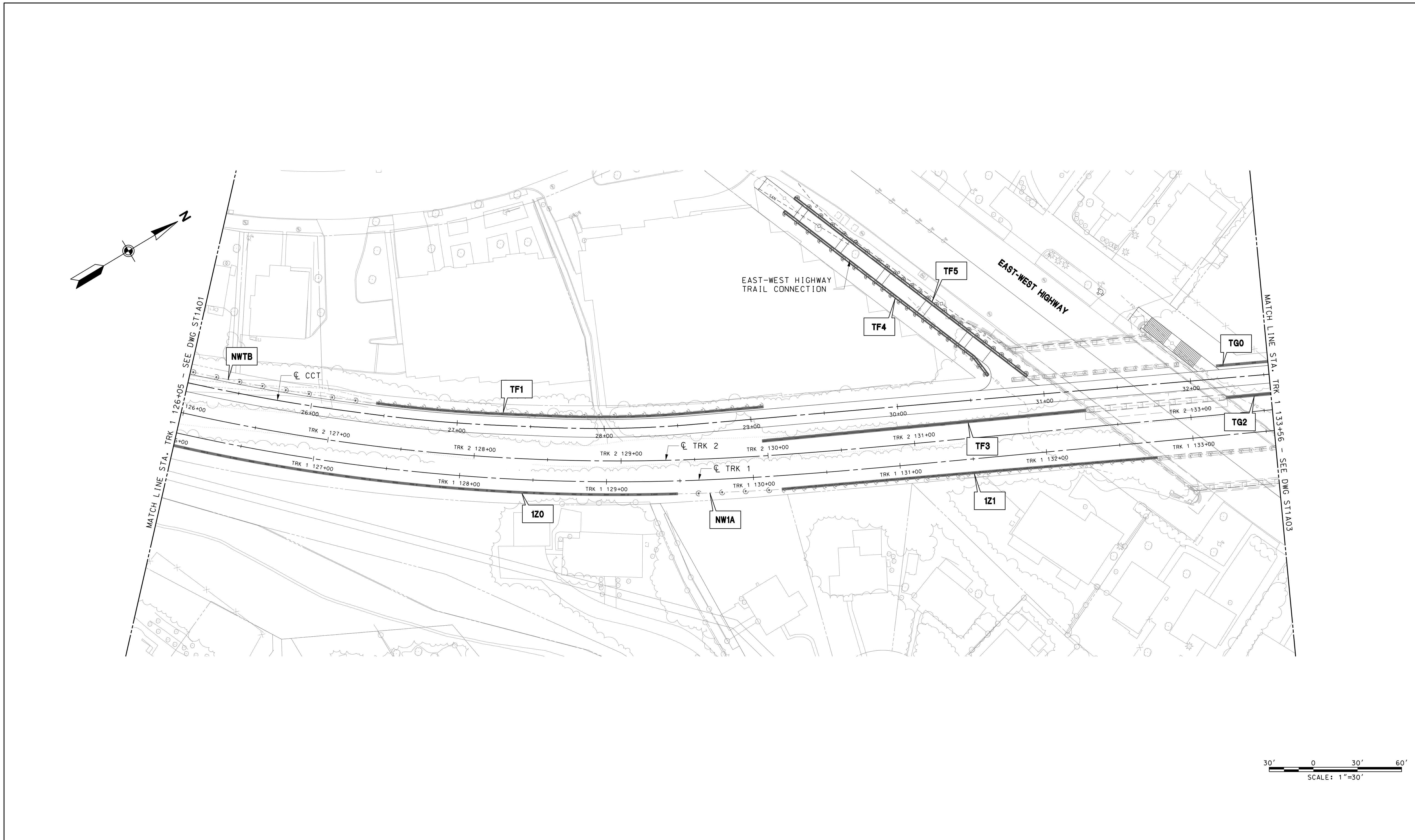
1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. PLACE THE CONCRETE LAGGING AGAINST THE FLANGE ON THE TRAIL SIDE OF THE SOLDIER PILE WALL WHEN BELOW THE CONCRETE LEVELING PAD.
3. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



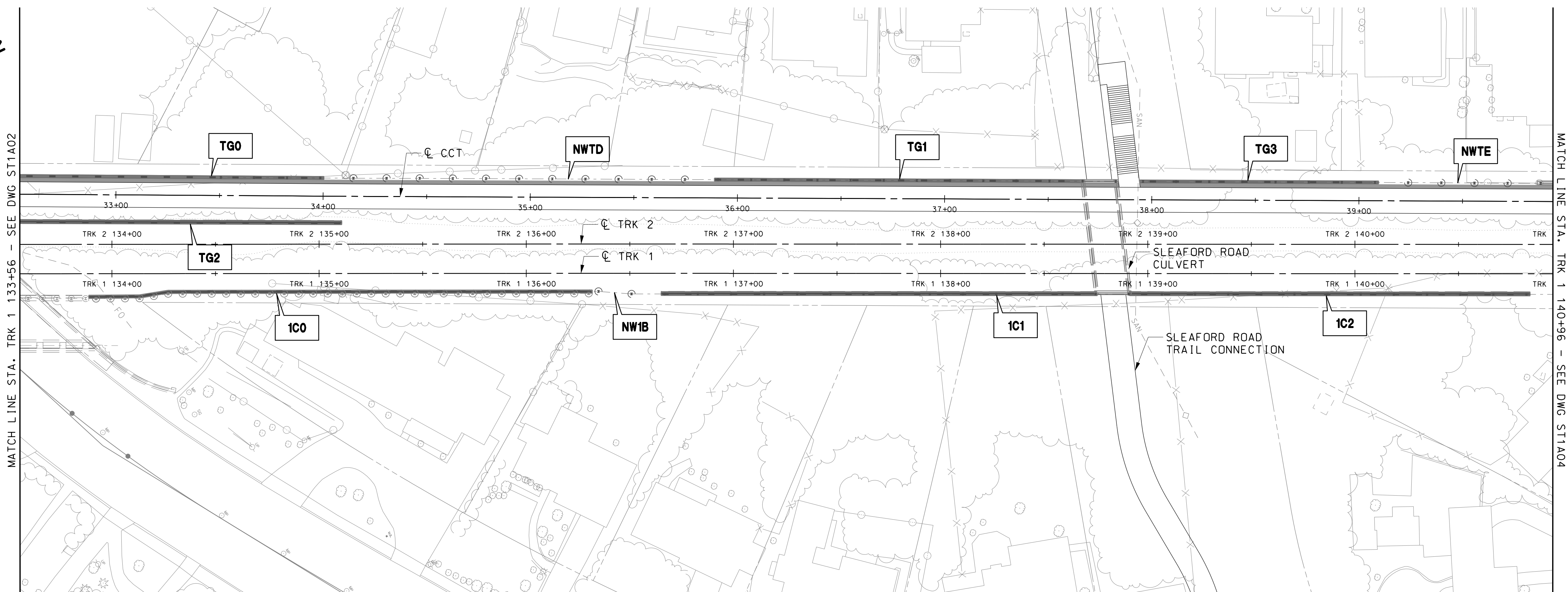
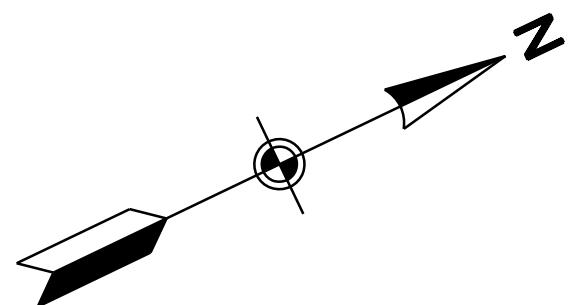
TYPICAL WALL SECTION

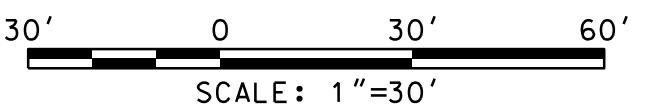
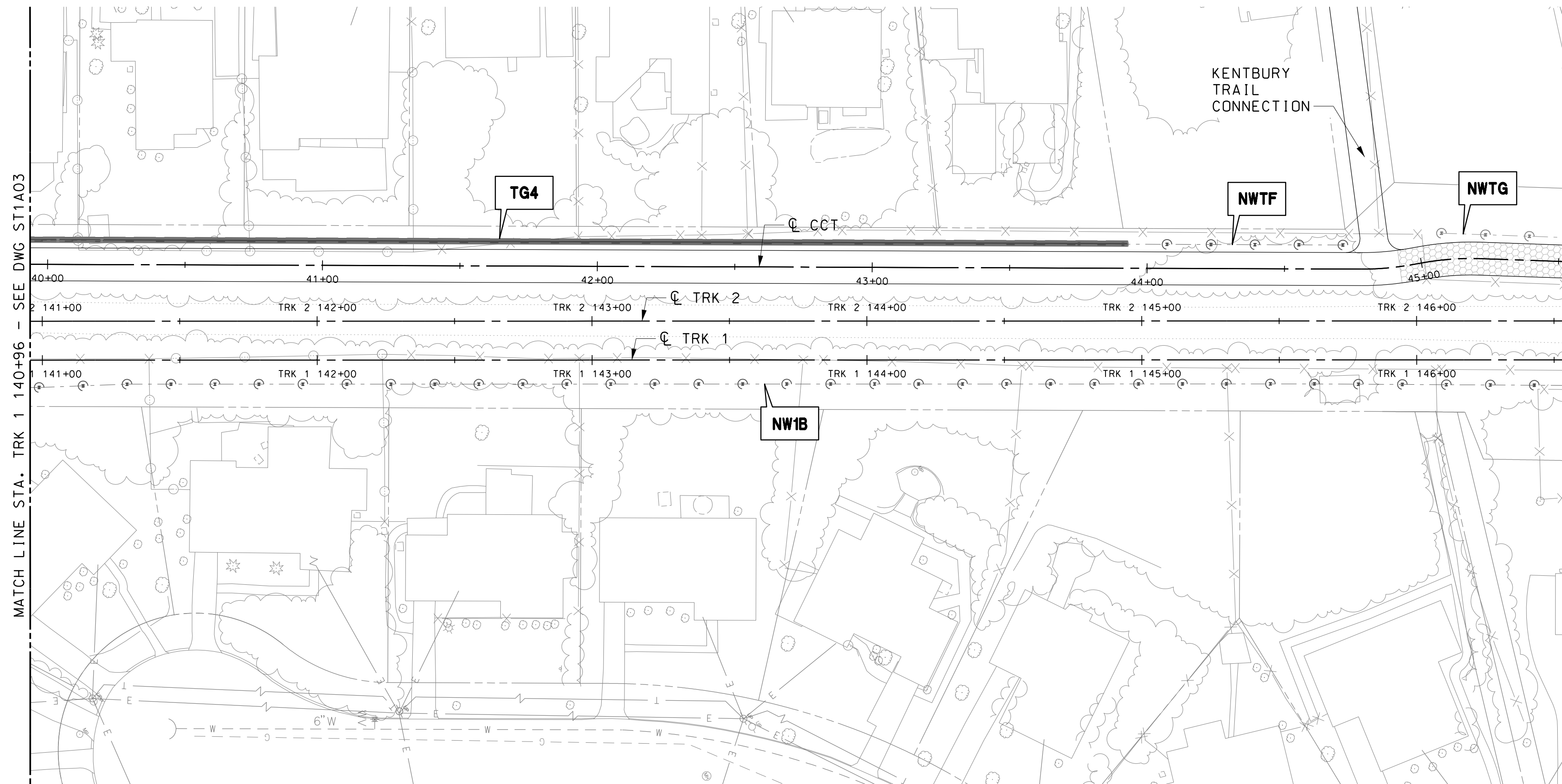
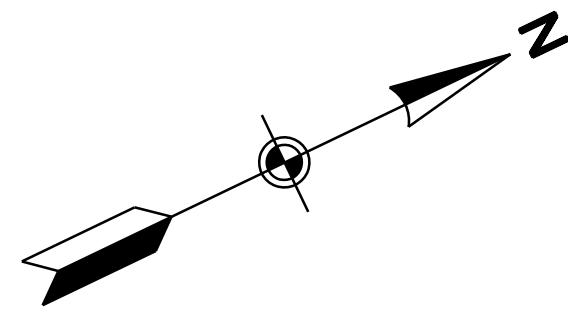
SCALE: $\frac{1}{2}" = 1' - 0"$

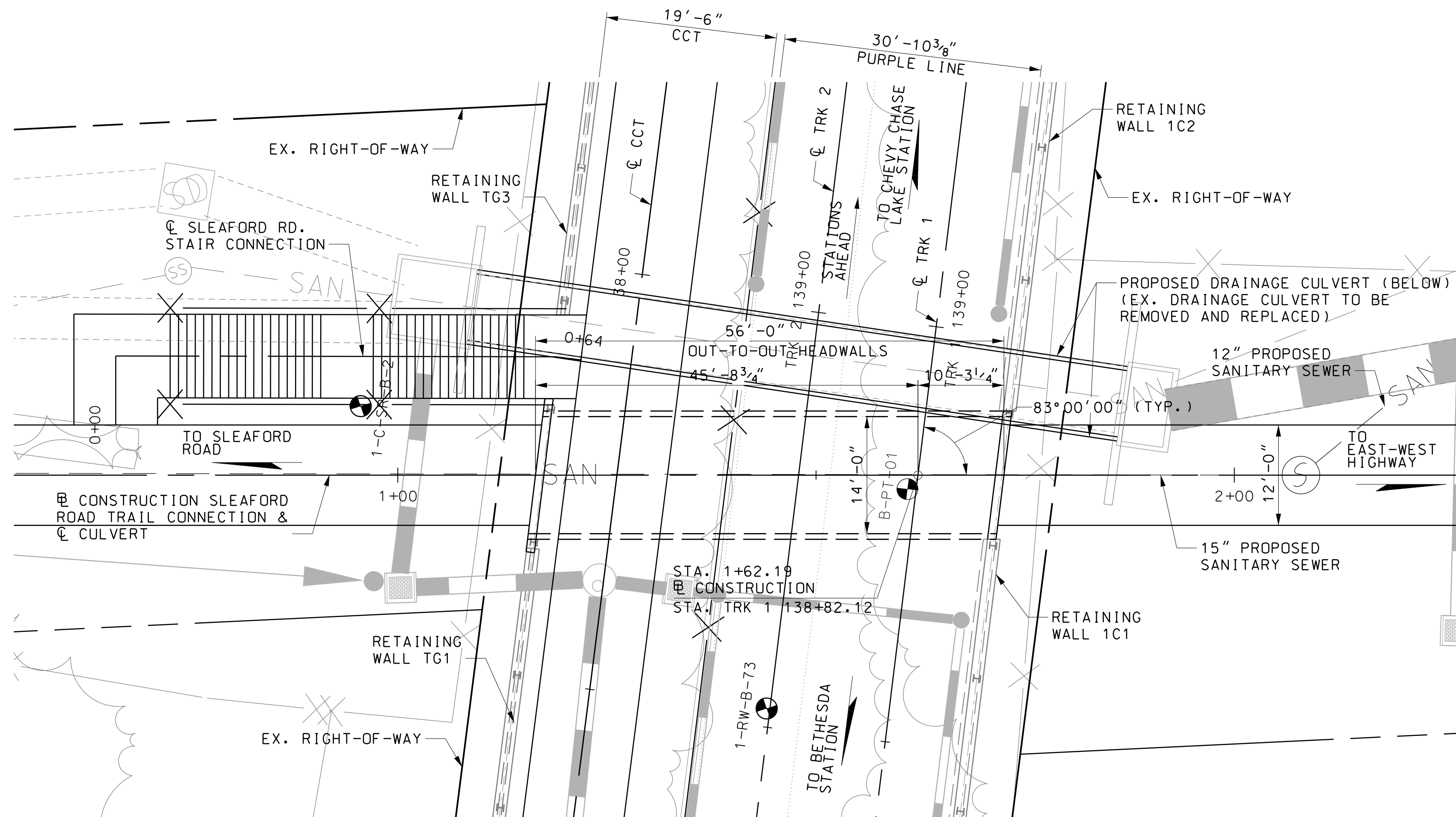
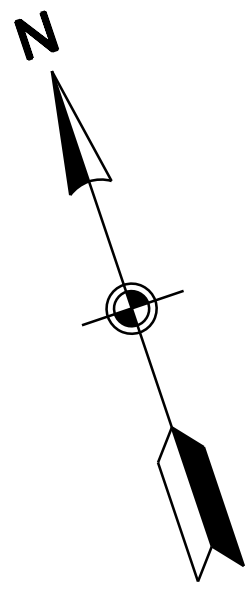




<div><div>MARYLAND DEPARTMENT OF TRANSPORTATION</div><div><div></div><div>MARYLAND TRANSIT ADMINISTRATION</div></div><div><div>MTA</div><div>Maryland</div></div></div>	<div><div></div><div>WR&A</div></div>	<div><div></div><div>MERCADO CONSULTANTS, INC.</div></div>	PROFESSIONAL CERTIFICATION	<div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	<div>APPR</div> <div>CHECK</div> <div>DRAWN</div> <div>DESIGN</div>	<div>MWM</div> <div>BCB</div> <div>CRA</div>	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div>	<div>CONTRACT NO.</div> <div>T-1042-0220</div>
			<div>DATE: DECEMBER 2013</div>			<div>SCALE: 1"=30'-0"</div>	<div>STRUCTURE LOCATION MAP - 2</div>	<div>DRAWING NO.</div> <div>ST1A02</div>	
								<div>SHEET NO.</div> <div>46 OF 828</div>	<div>c:\pwworking\mtapw\mci-brian_burns\dms88545\1042p\ST1A02.dgn</div> <div>12/5/2013</div>

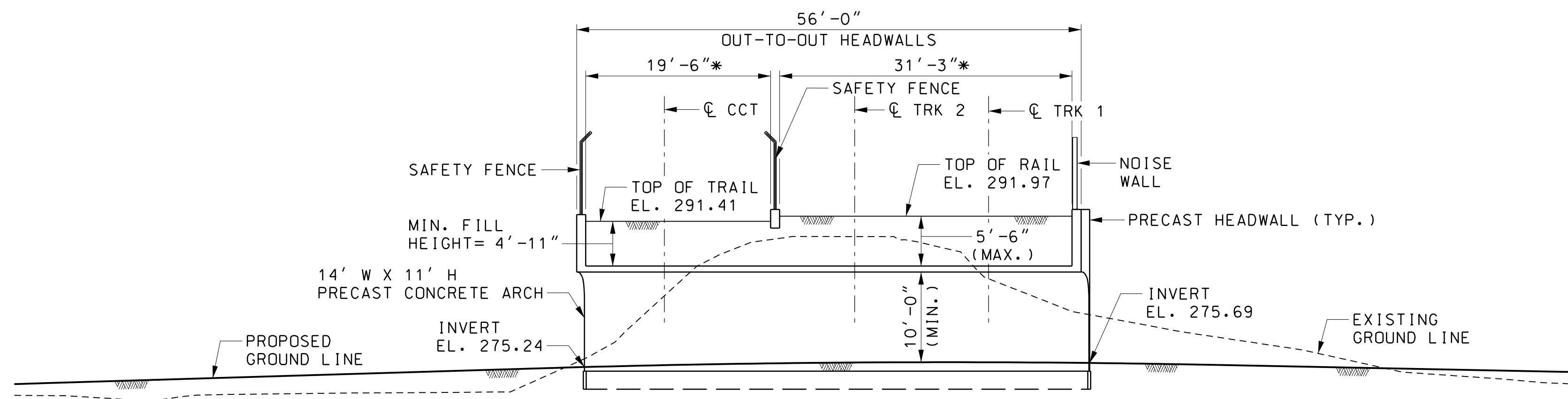






PLAN

SCALE: 1"=10'-0"



LONGITUDINAL SECTION

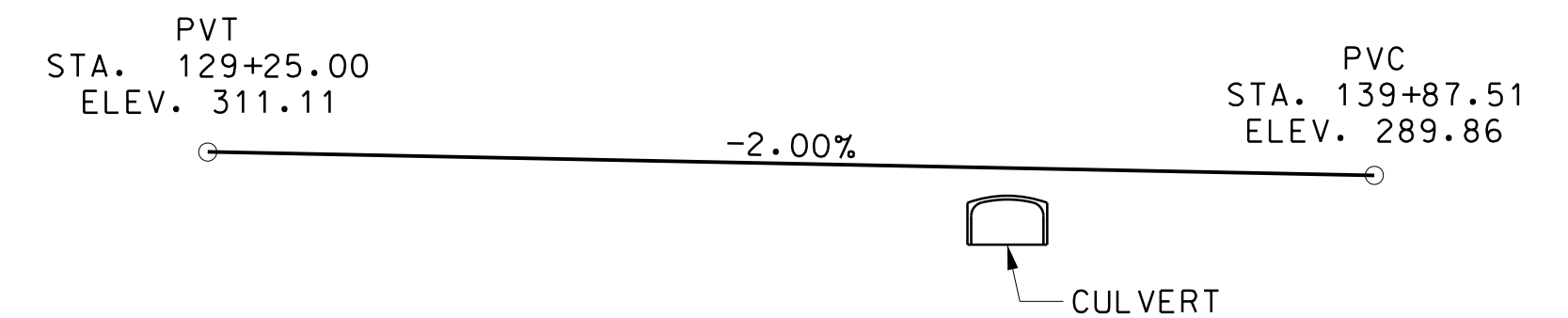
SCALE: 1"=10'-0"

NOTES:

1. LONGITUDINAL SECTION SHOWN ALONG CENTERLINE OF CULVERT.
2. DIMENSIONS SHOWN WITH * ARE MEASURED PERPENDICULAR TO \mathcal{Q} PURPLE LINE.

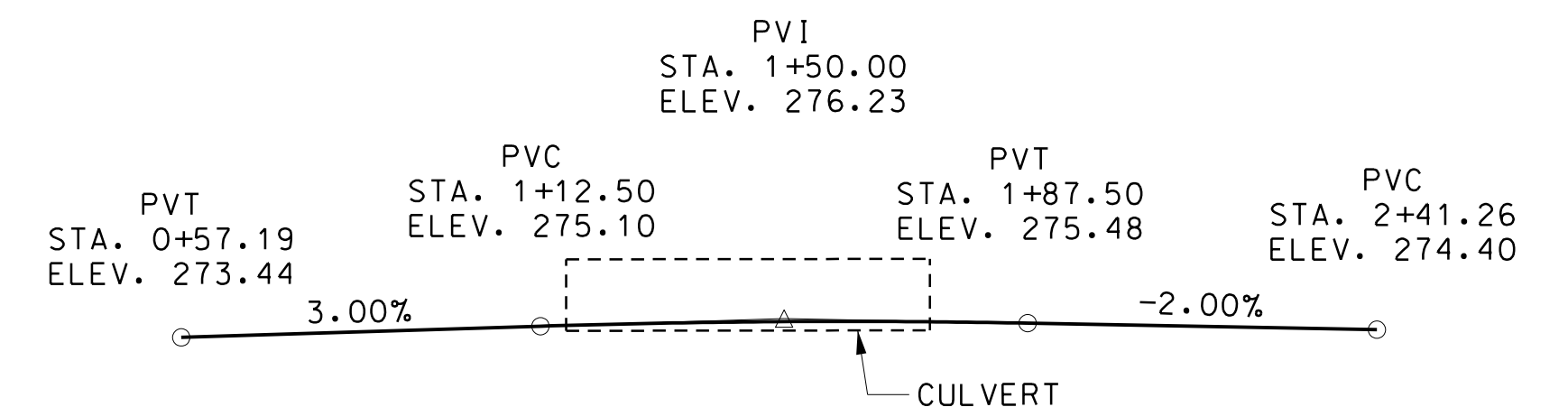
GENERAL NOTES

- SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012.
- MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.
- LOADING: AW4 LRT VEHICLE. DESIGN IS BASED ON AN ASSUMED MAXIMUM FILL HEIGHT OF 5.5 FT.
- CONCRETE: ALL CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). ALL PRECAST CONCRETE SHALL BE $f'_c = 5000$ PSI.
- REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60.
- ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 CAN BE USED ON THIS PROJECT.
- KEYS: ALL KEYS ARE NOMINAL SIZE.



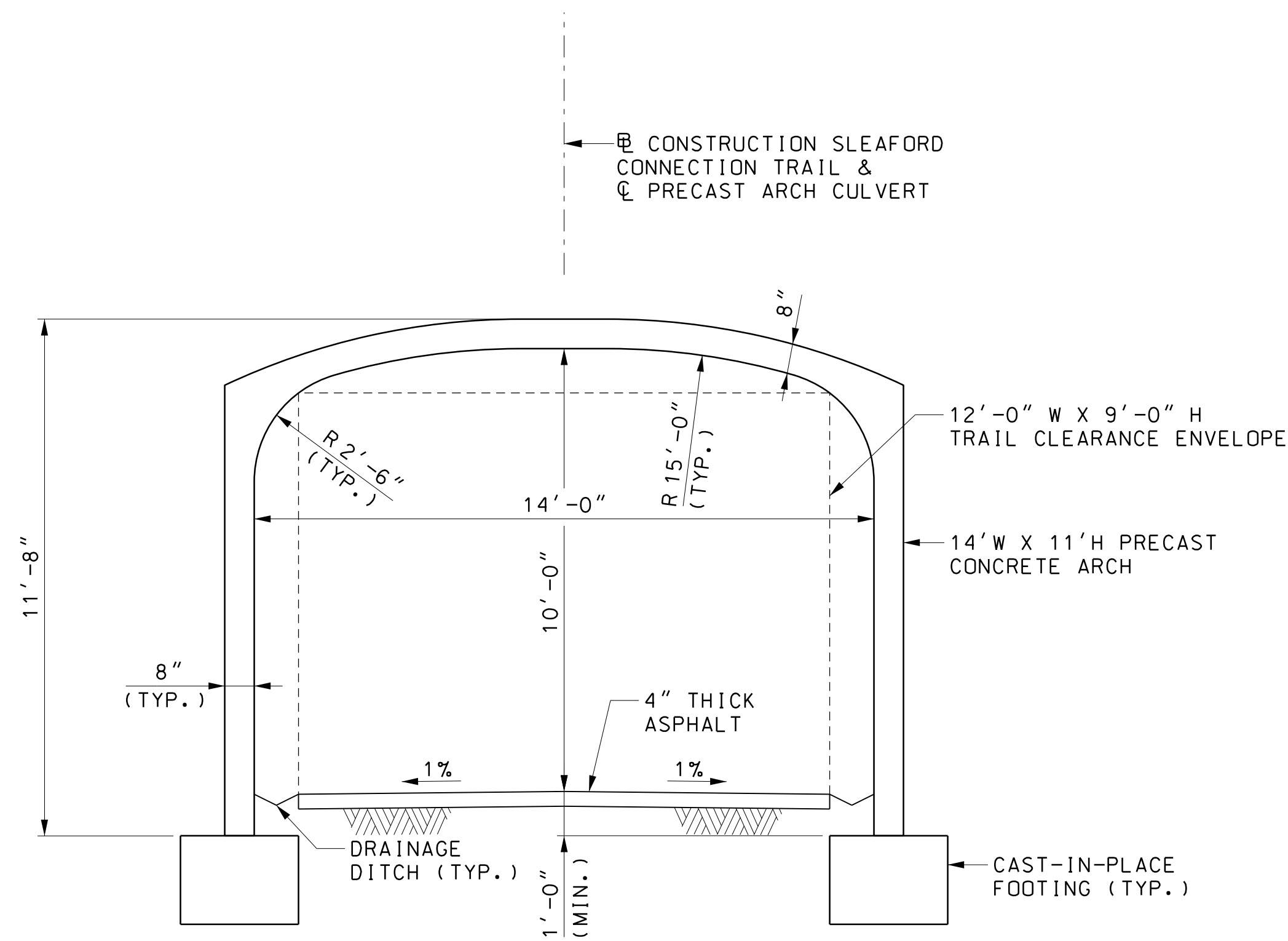
VERTICAL PROFILE - PURPLE LINE

SCALE: NOT TO SCALE



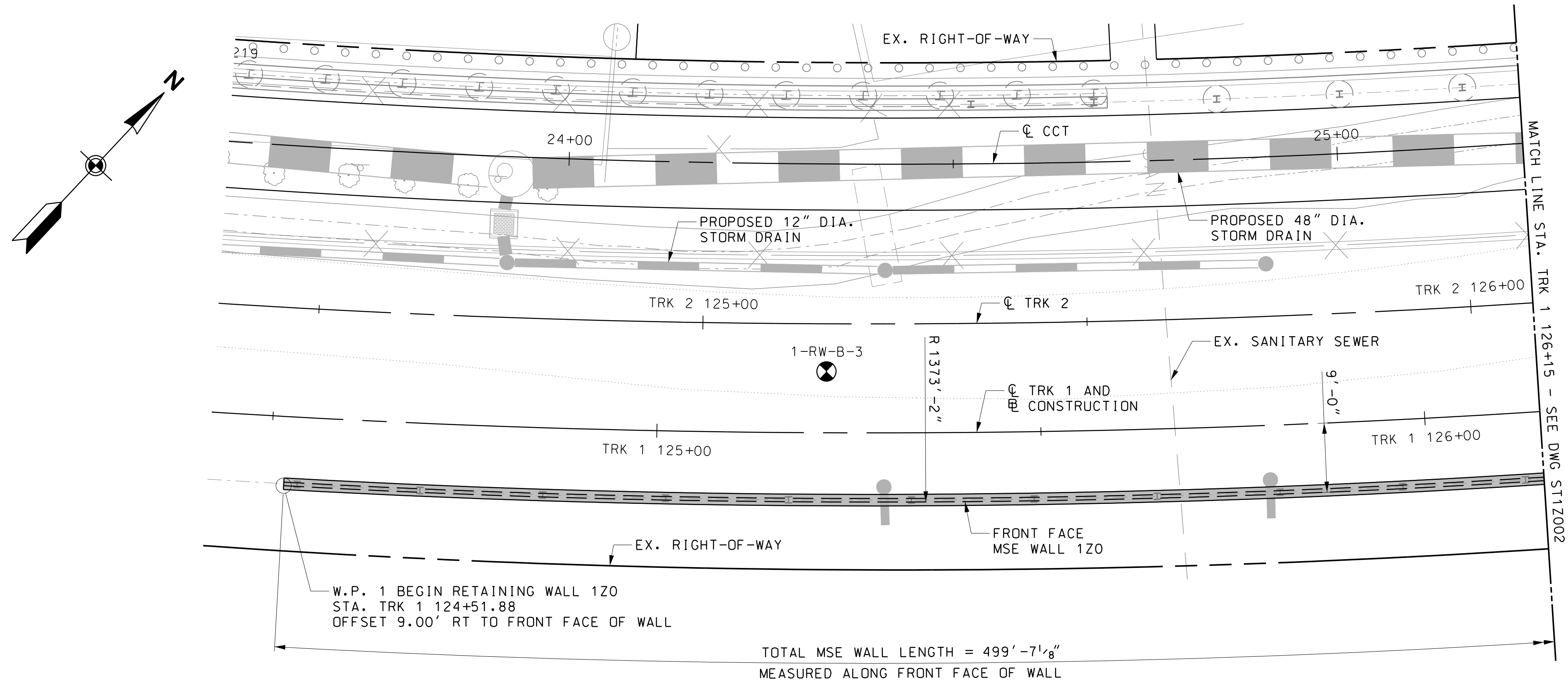
VERTICAL PROFILE - SLEAFORD ROAD TRAIL CONNECTION

SCALE: NOT TO SCALE



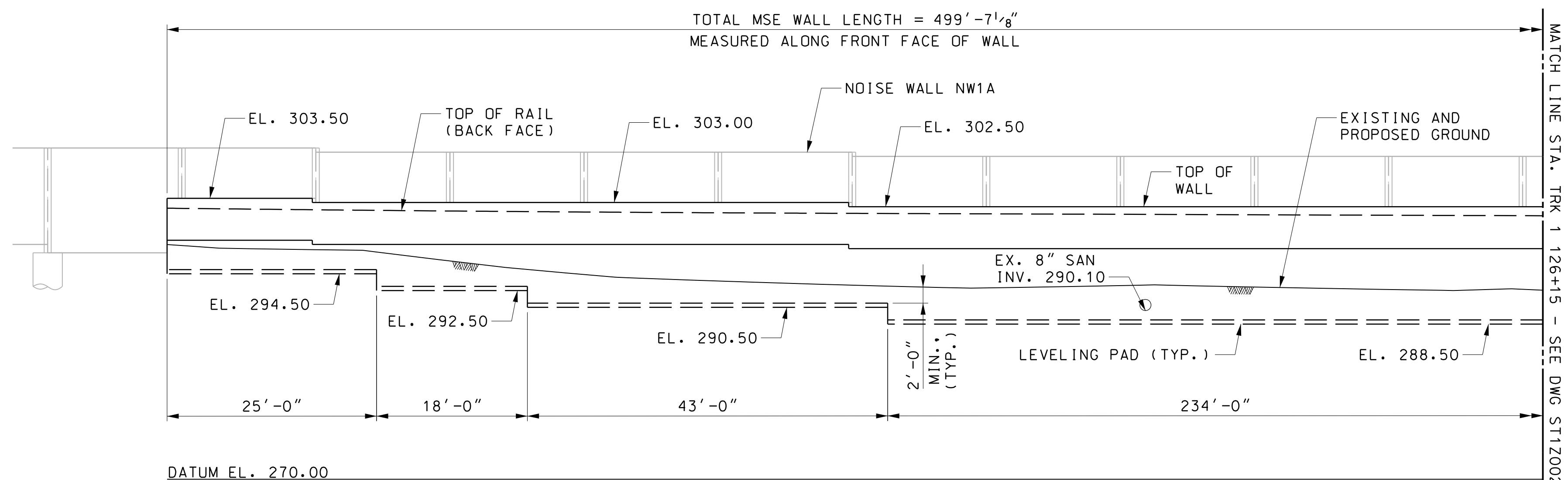
TYPICAL CULVERT SECTION

SCALE: $\frac{3}{8}$ " = 1'-0"



PLAN

SCALE: 1"=10'-0"

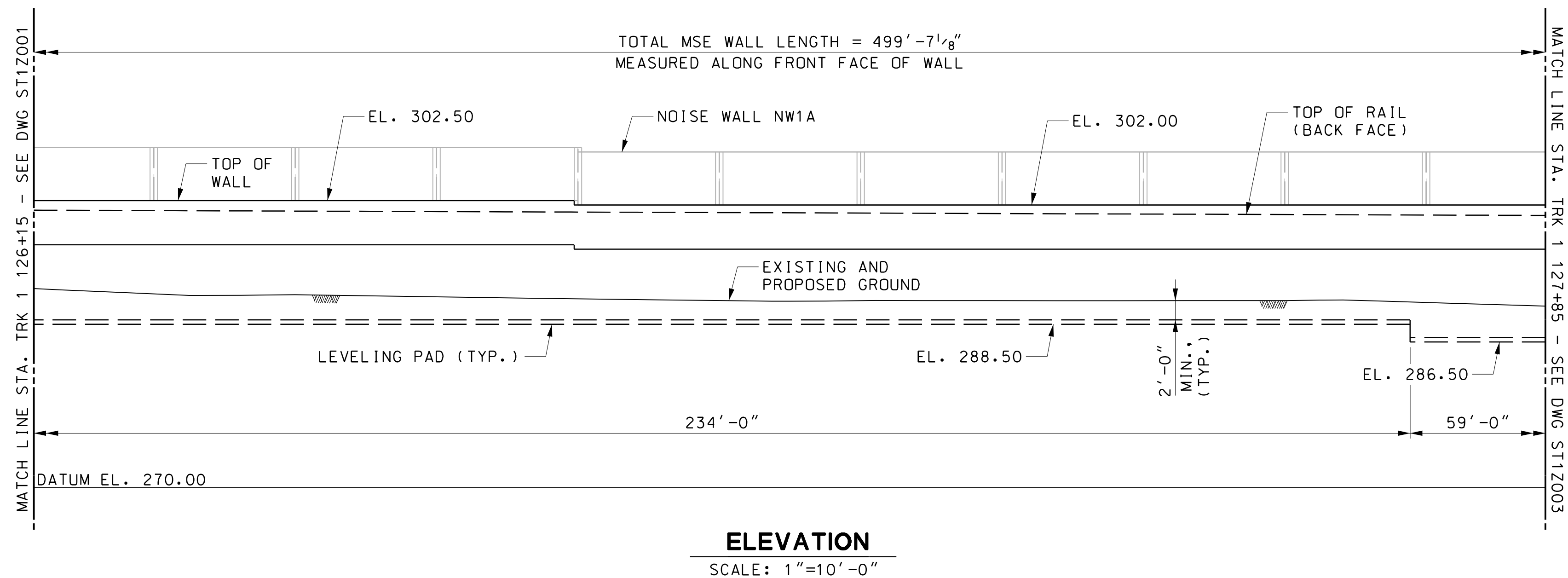
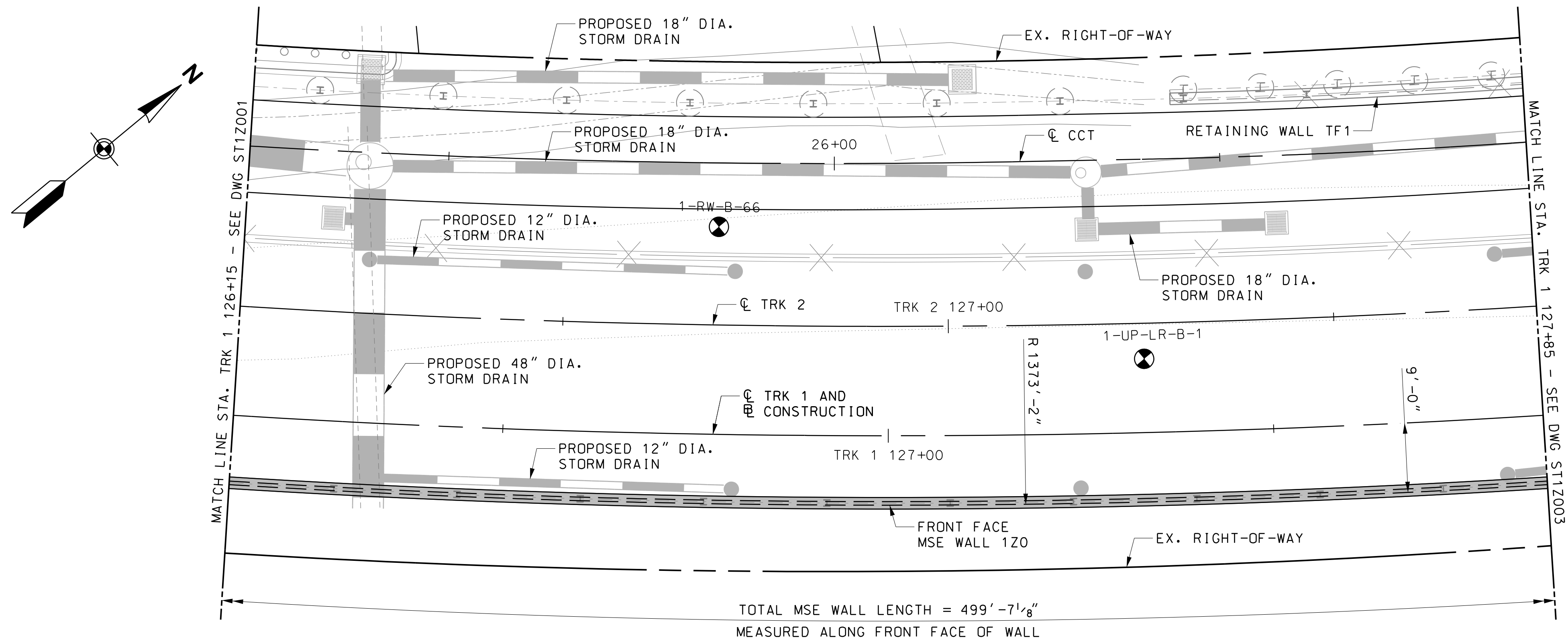


ELEVATION

SCALE: 1"=10'-0"

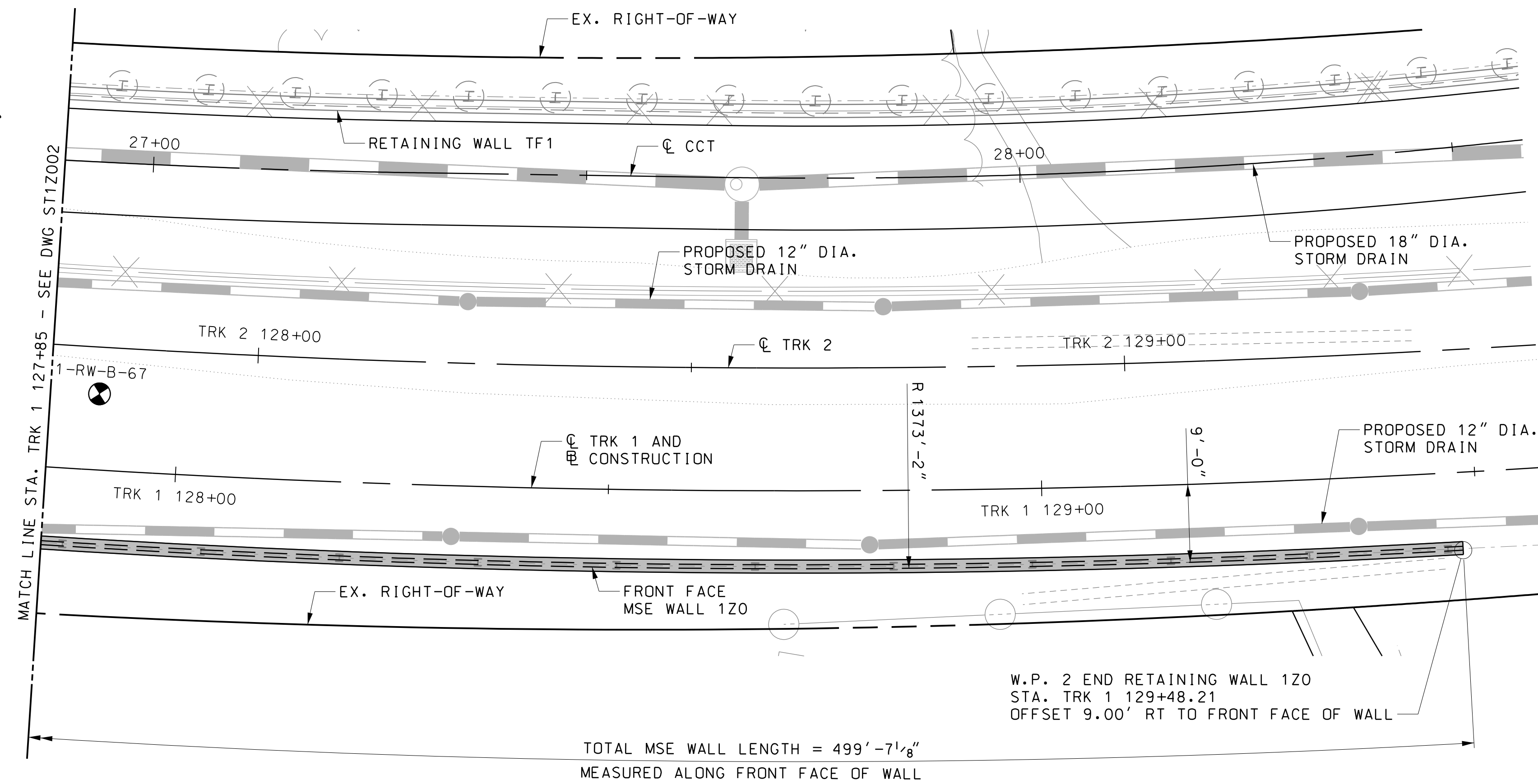
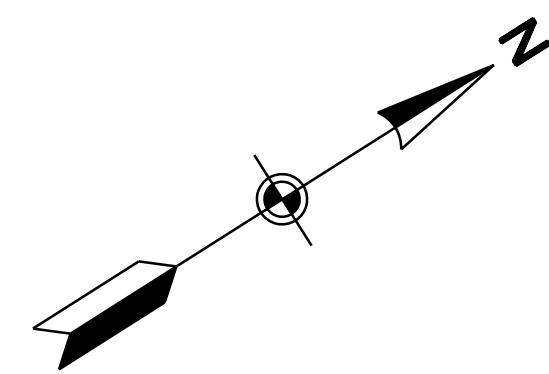
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Z006.
2. FOR NOISE WALL NW1A GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1A01 TO NW1A11.
3. ARCHITECTURAL FINISH NOT SHOWN.



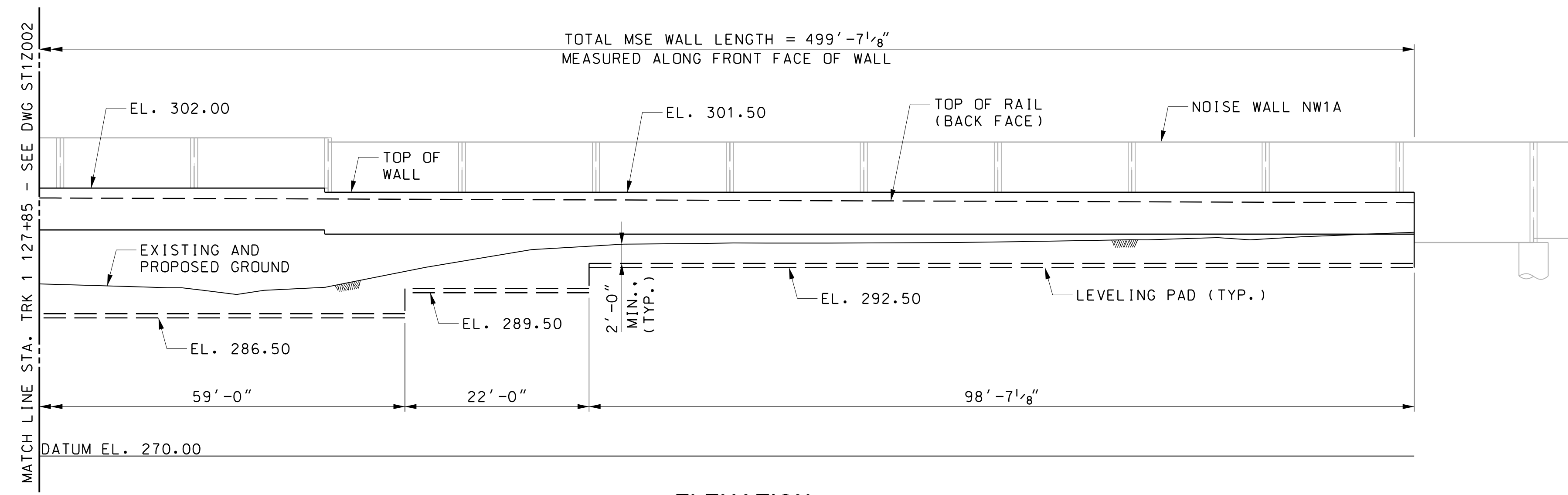
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Z006.
2. FOR NOISE WALL NW1A GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1A01 TO NW1A11.
3. ARCHITECTURAL FINISH NOT SHOWN.



PLAN

SCALE: 1"=10'-0"

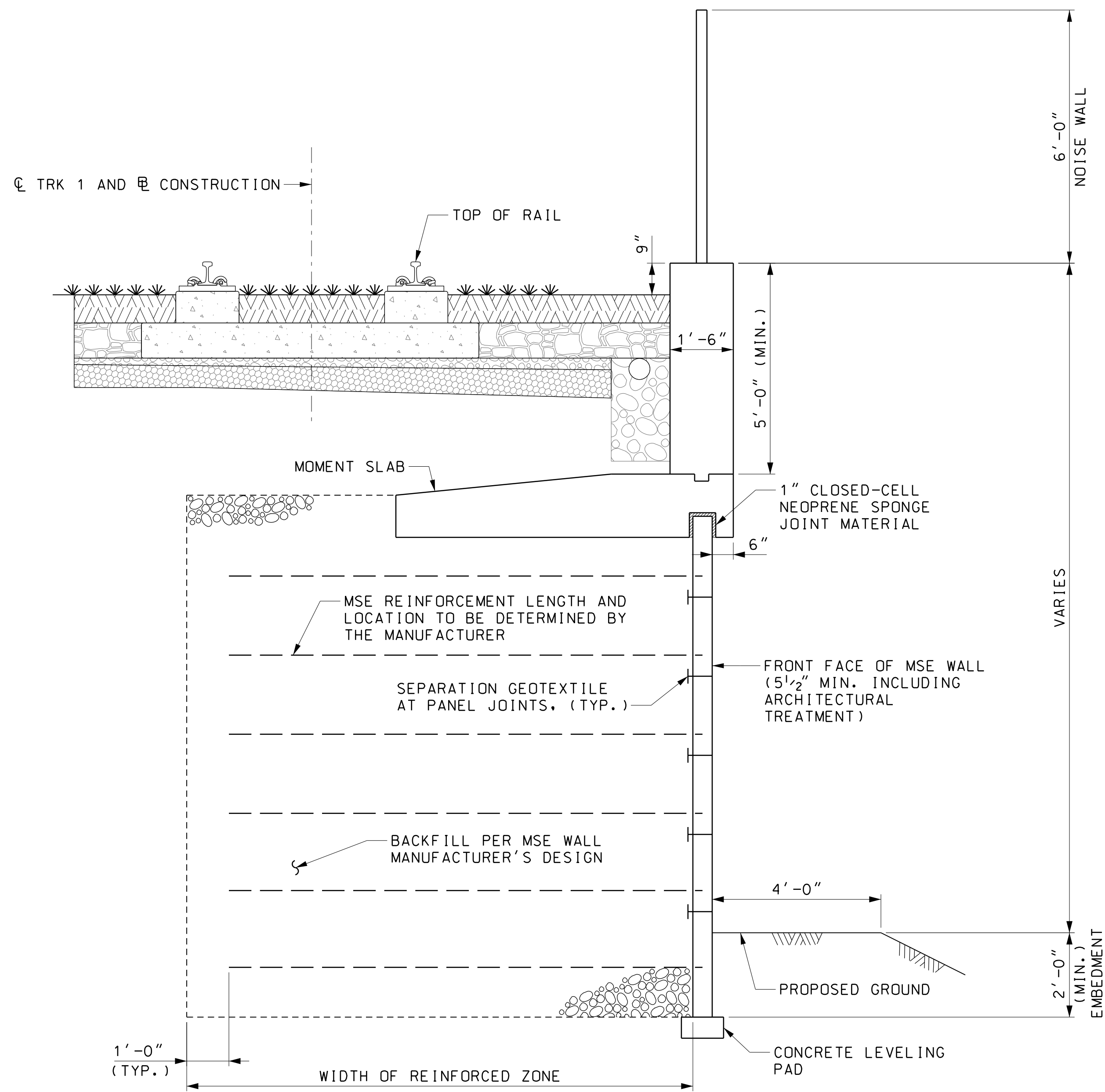


ELEVATION

SCALE: 1"=10'-0"

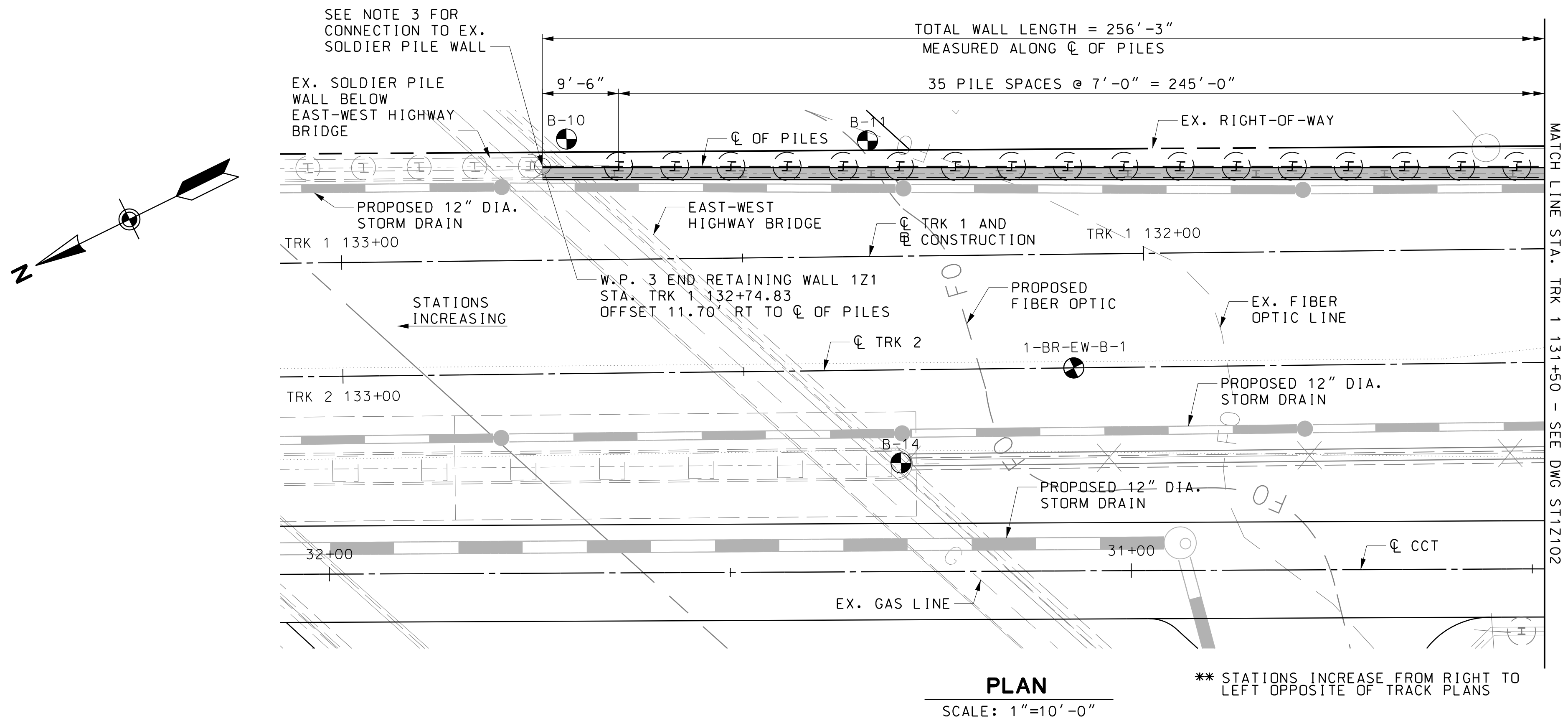
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Z006.
2. FOR NOISE WALL NW1A GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1A01 TO NW1A11.
3. ARCHITECTURAL FINISH NOT SHOWN.



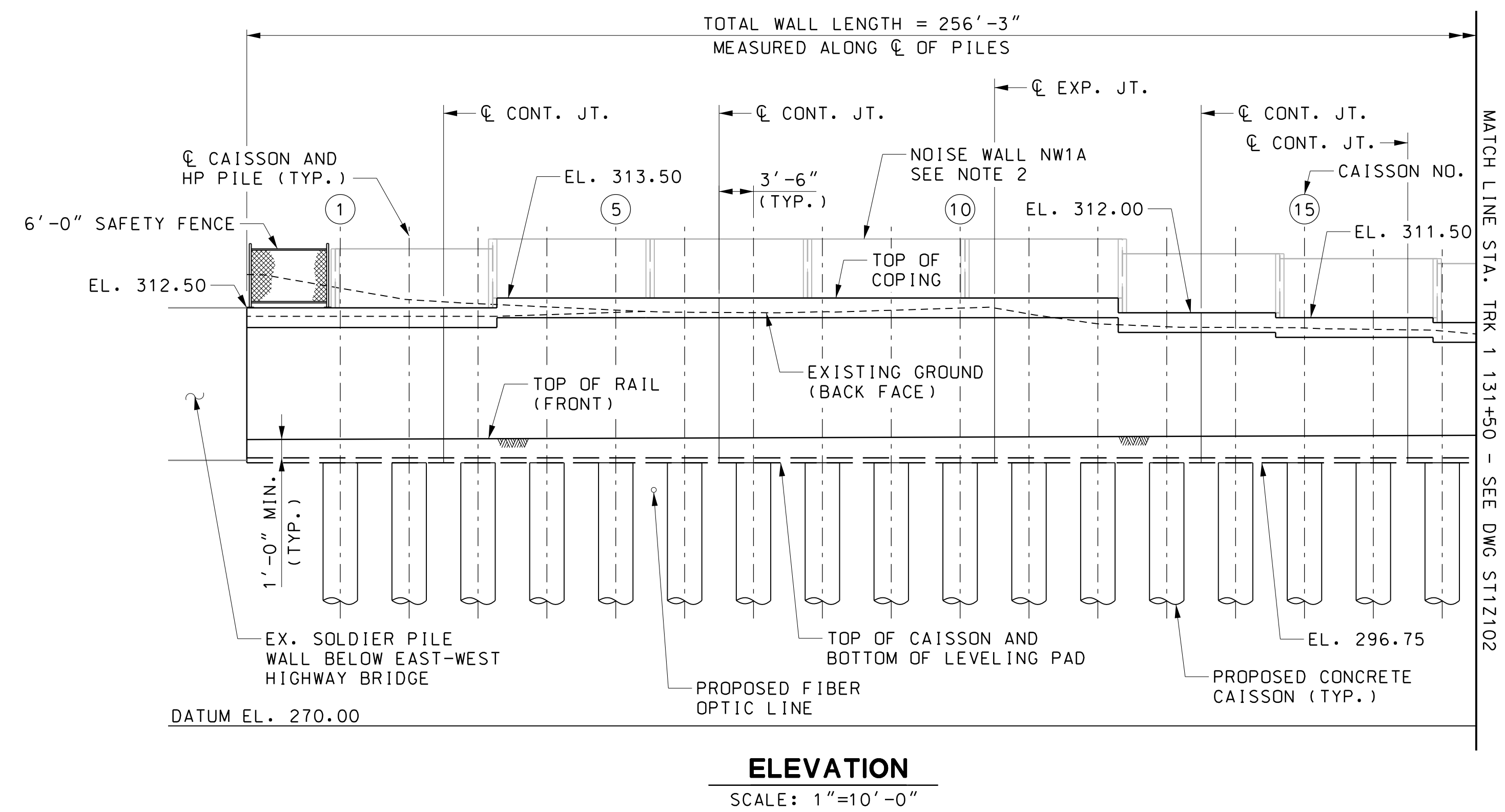
TYPICAL SECTION
SCALE: 1/2" = 1'-0"

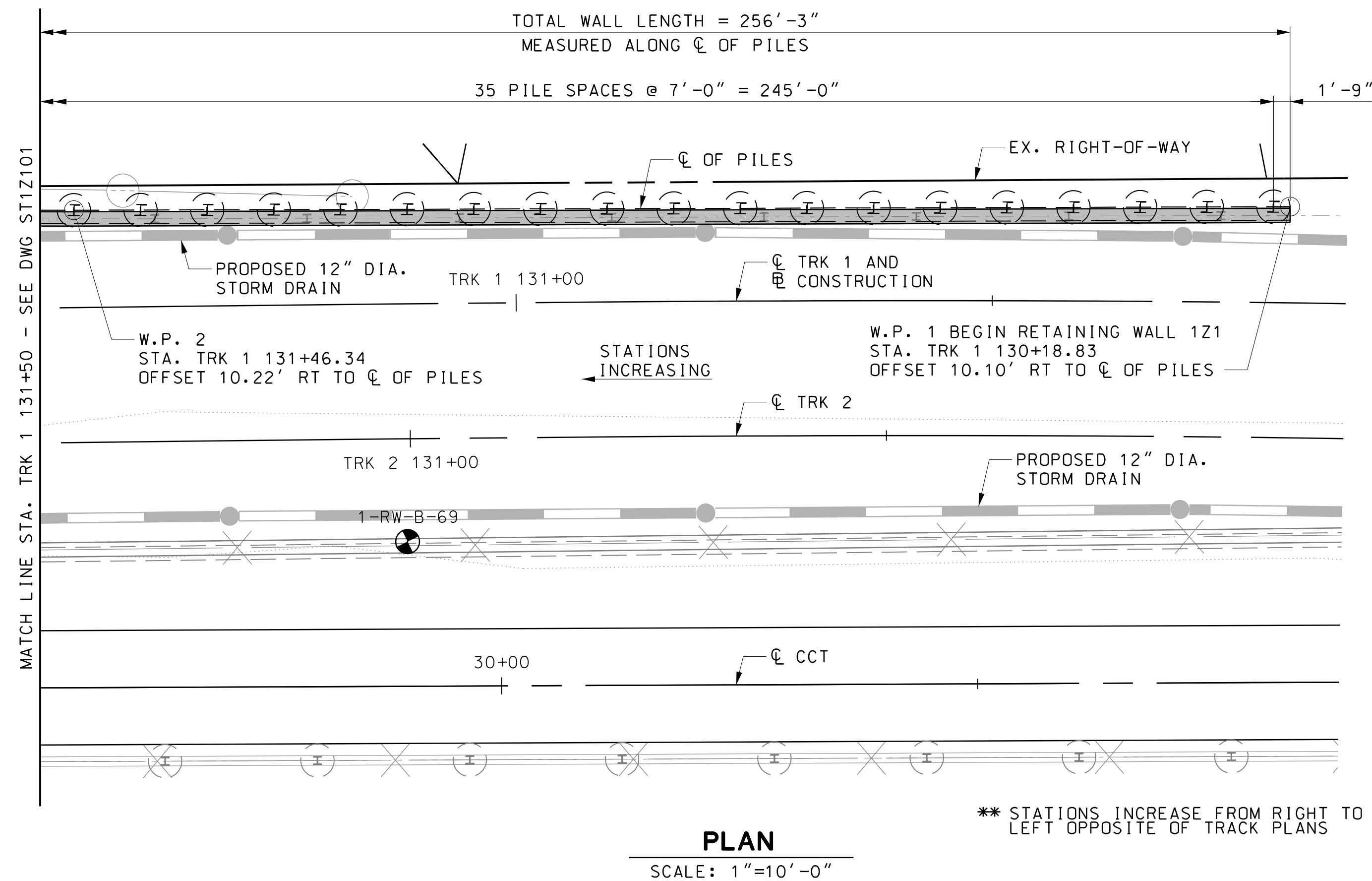
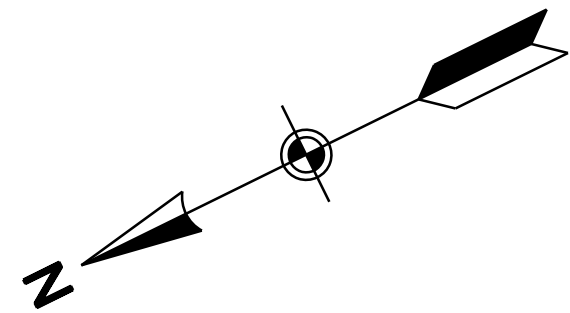
- NOTES:**
- 1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
 - 2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
 - 3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



NOTES:

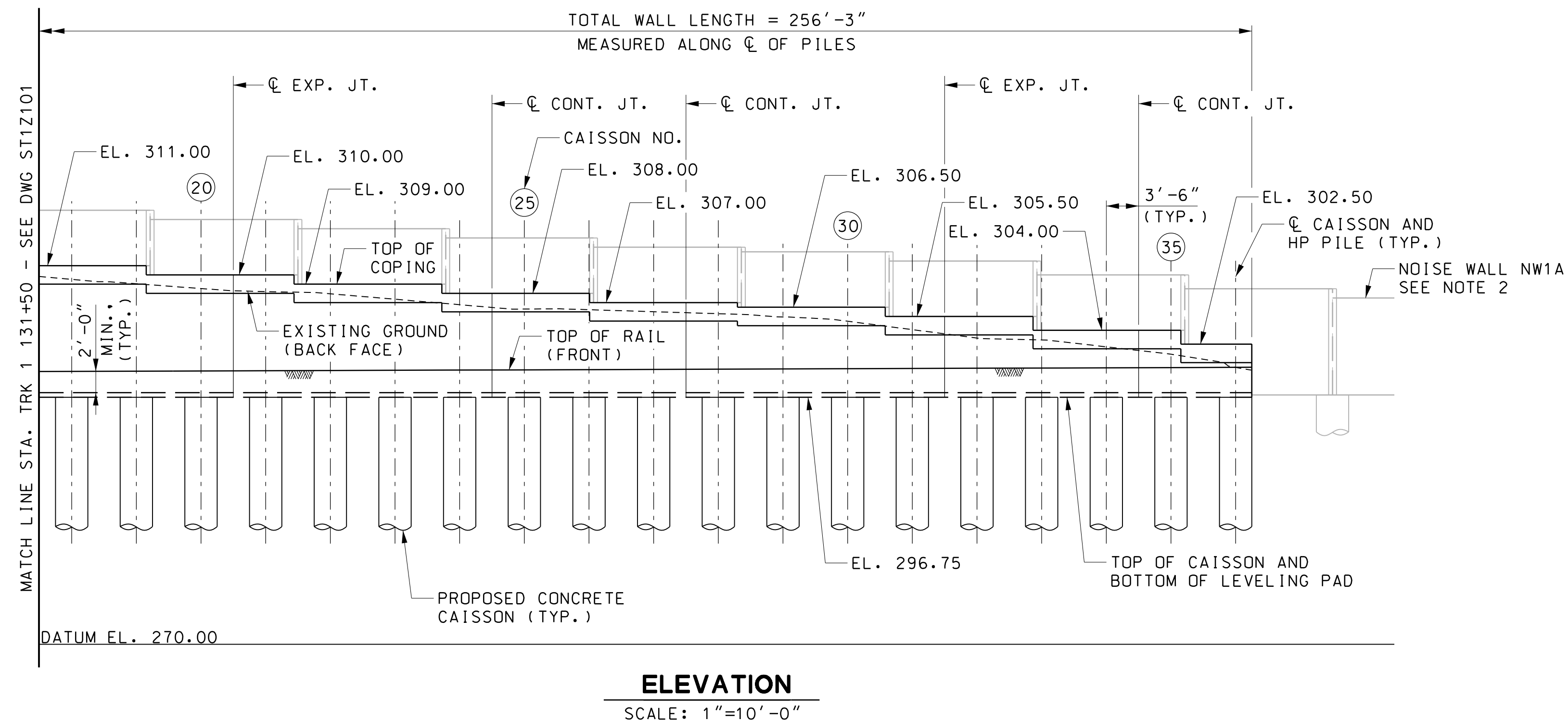
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Z102.
2. FOR NOISE WALL GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1A01 TO NW1A11.
3. FOR CONNECTION DETAIL TO EXISTING SOLDIER PILE WALL BELOW EAST-WEST HIGHWAY, SEE DWG ST1Z103.

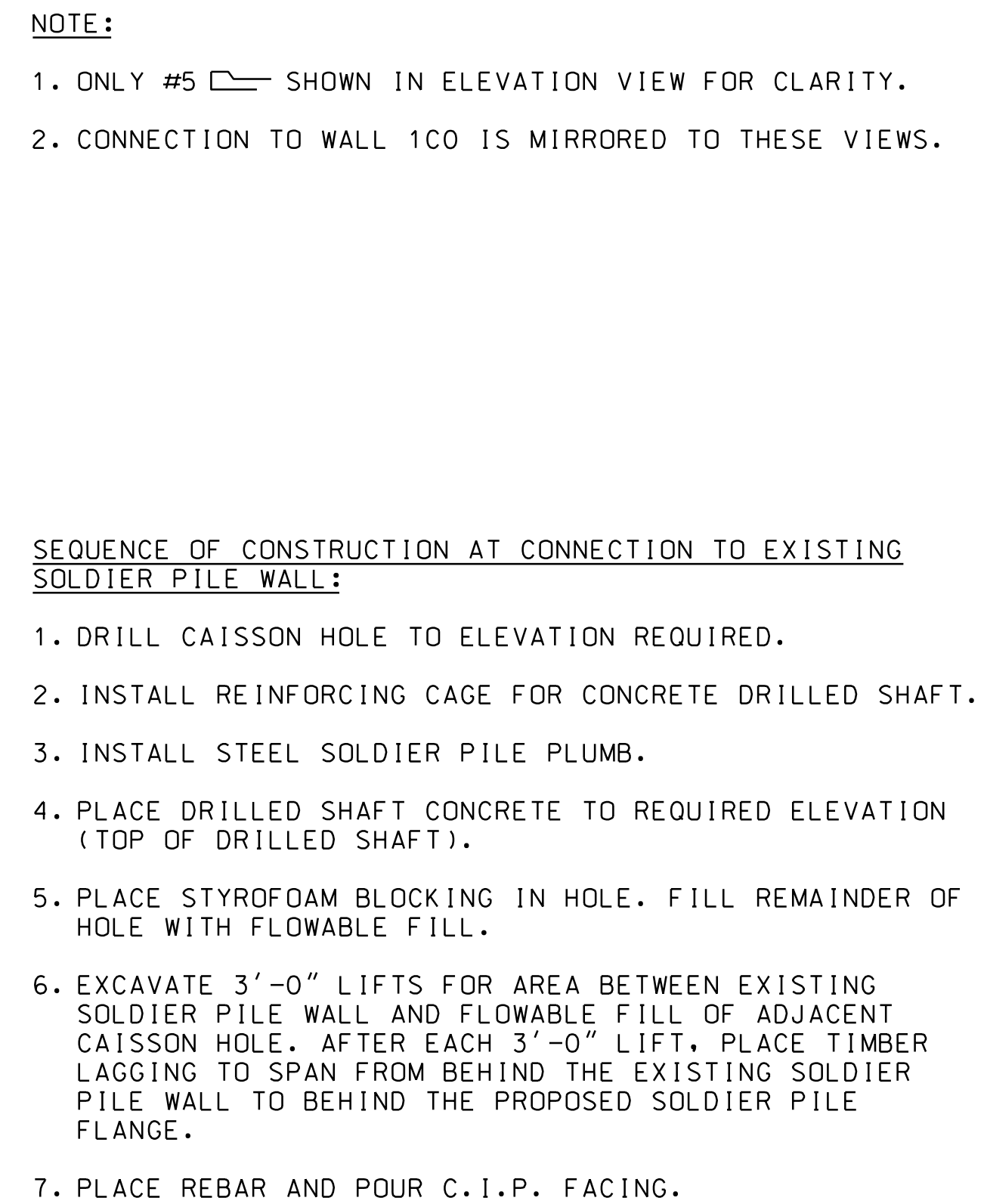


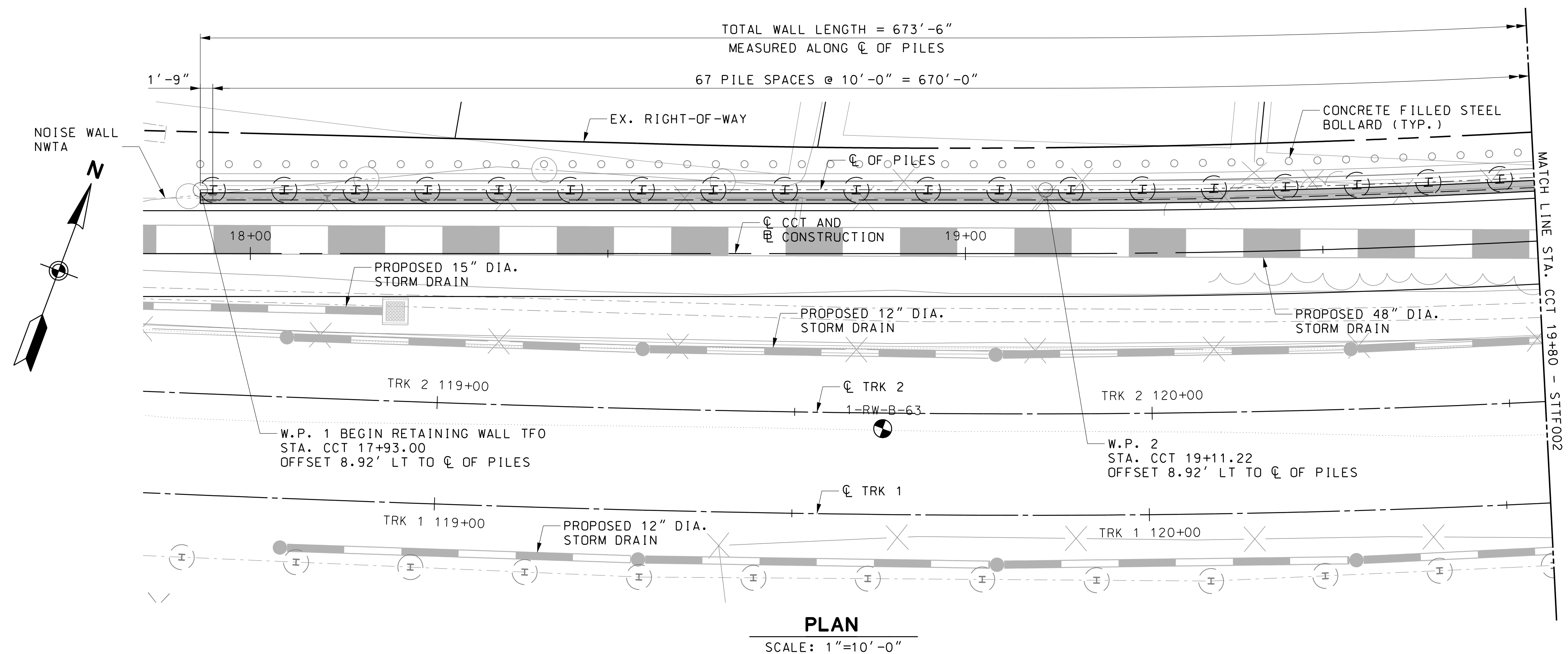


NOTES:

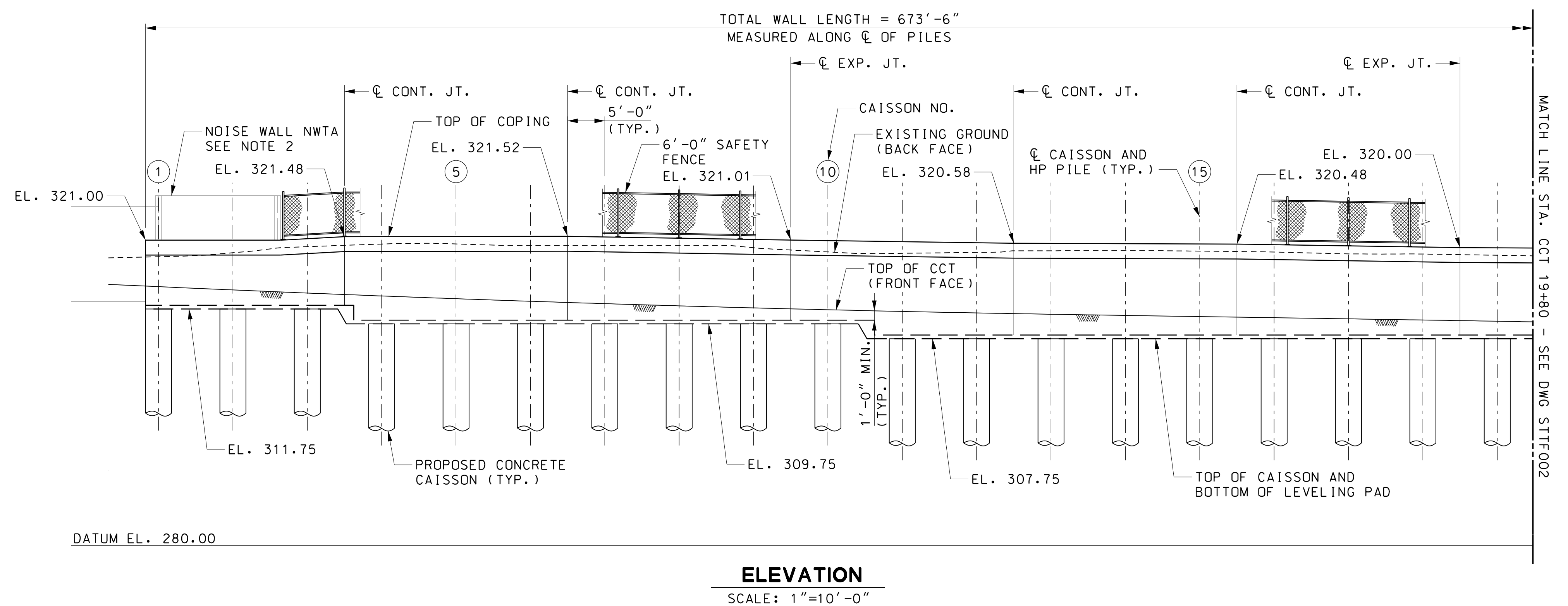
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Z102.
2. FOR NOISE WALL GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1A01 TO NW1A11.
3. FOR CONNECTION DETAIL TO EXISTING SOLDIER PILE WALL BELOW EAST-WEST HIGHWAY, SEE DWG ST1Z103.

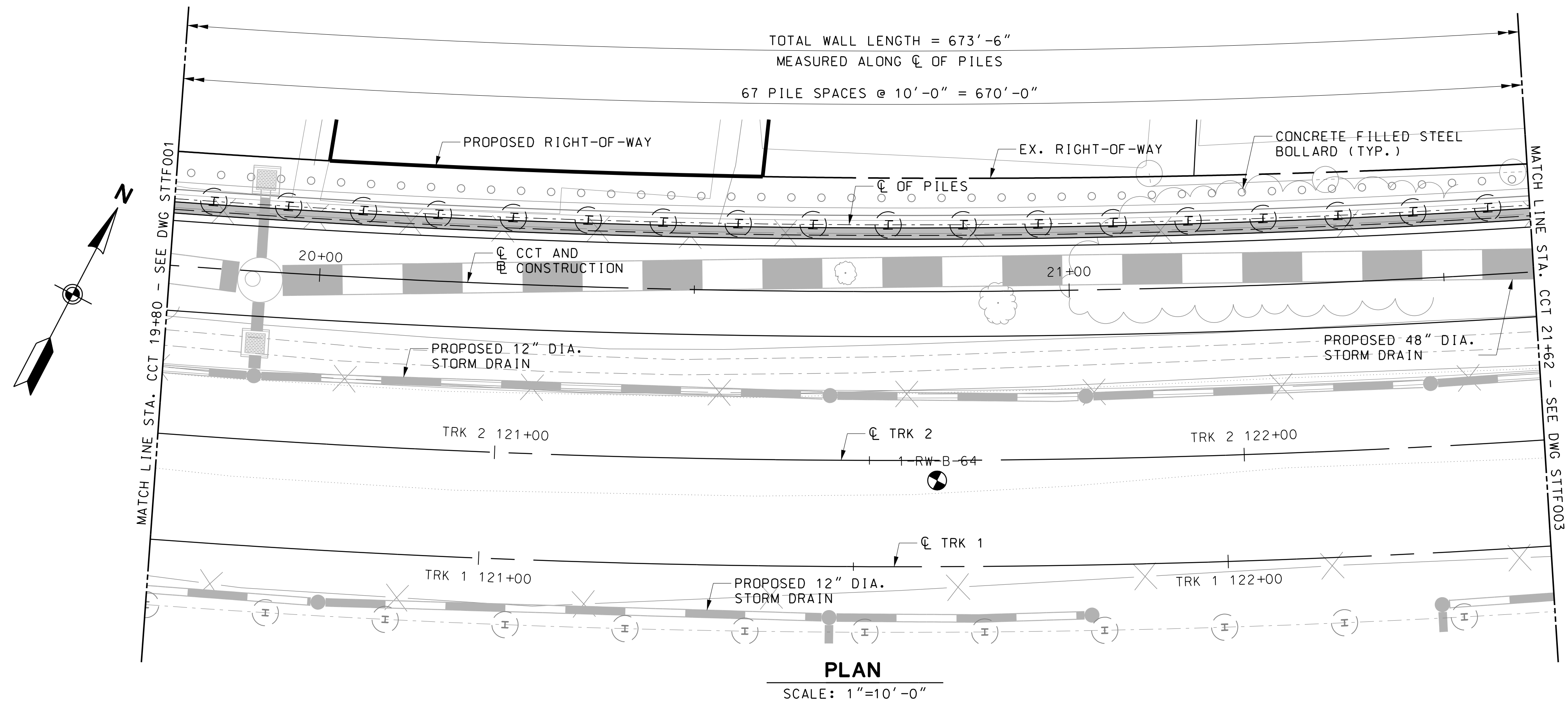






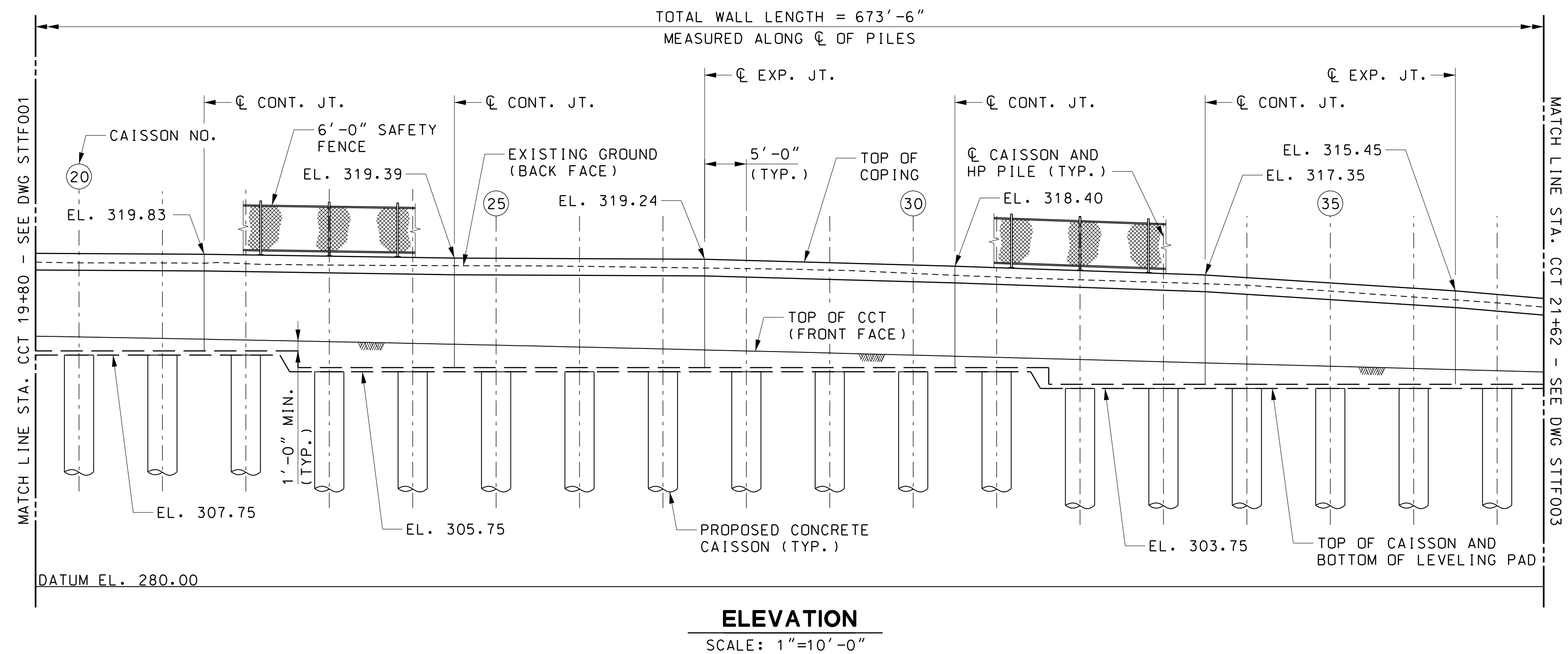
- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTF003.
 2. FOR NOISE WALL NWT A GENERAL PLAN AND ELEVATION, SEE DWG. NO. NWT A01.

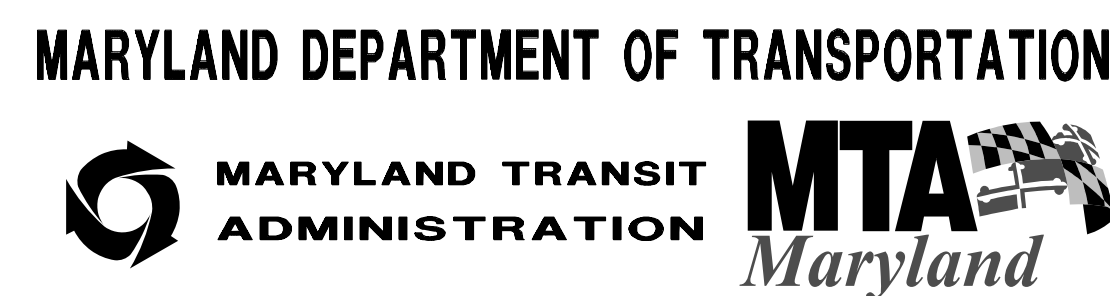




NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTF003.

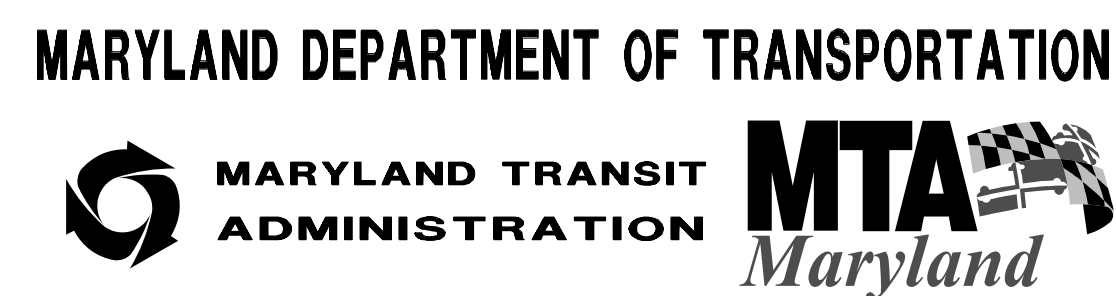
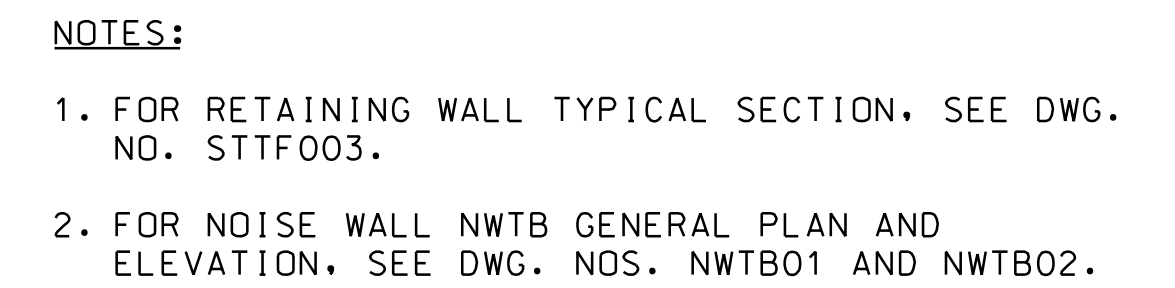




DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN	MWM	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
DRAWN	BCB		DRAWING NO. STTF003
CHECK	CRA	RETAINING WALL – TF0 GENERAL PLAN & ELEVATION – 3	SHEET NO. 61 OF 828
APPR			DATE: DECEMBER 2013 SCALE: 1" = 10'-0"

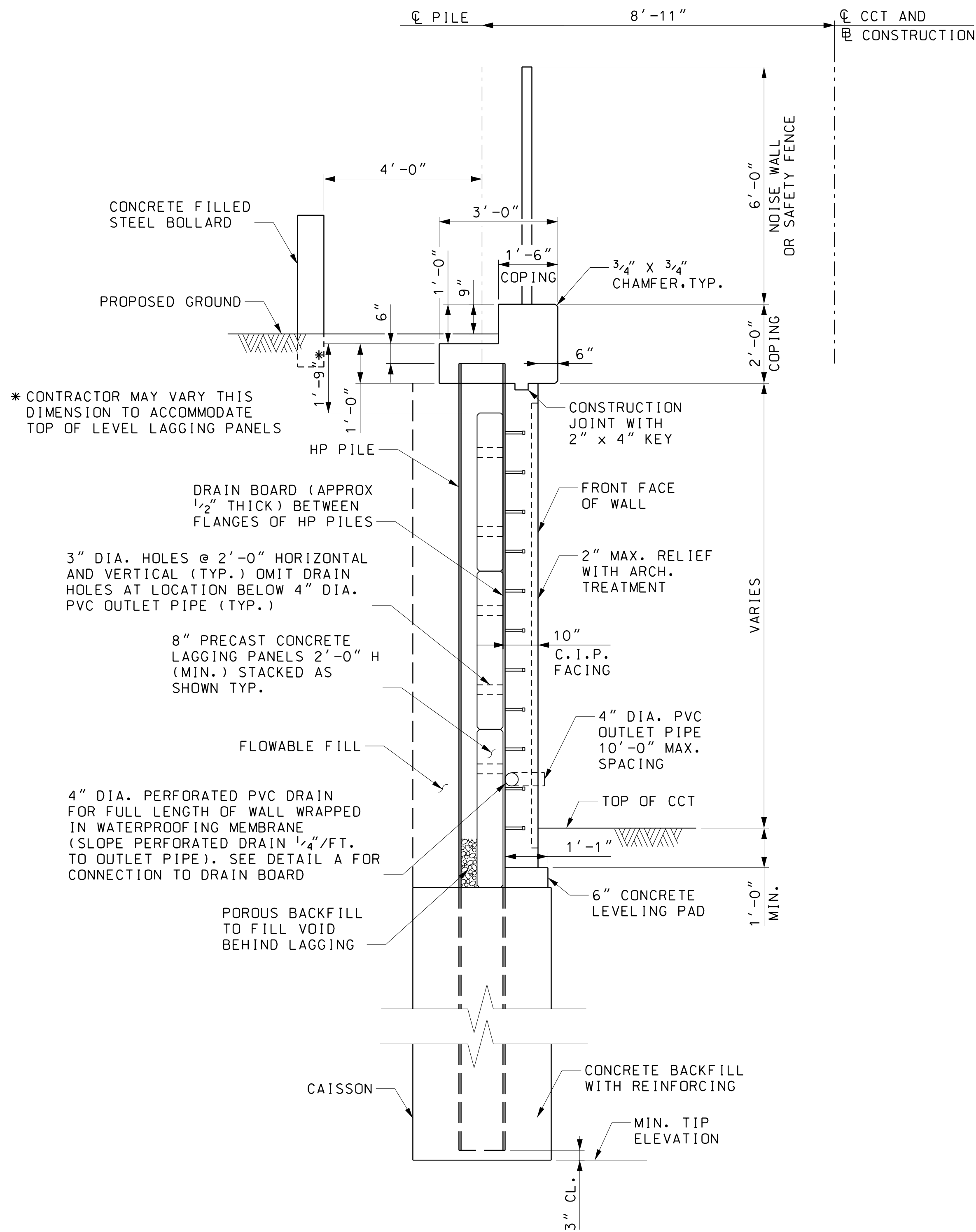
c:\pwworking\mtapw\mci-brian burns\dms94084\1042pSTte92.dgn
12/10/2013



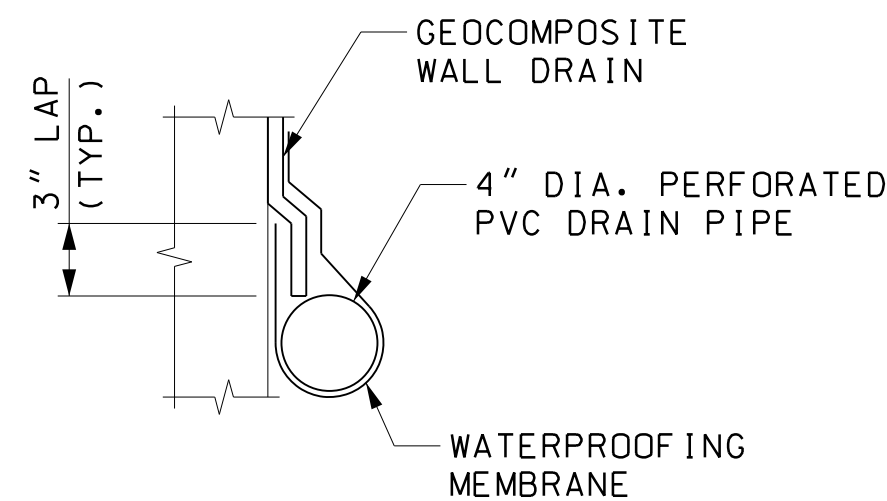
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	CRA	RETAINING WALL – TF0 GENERAL PLAN & ELEVATION – 4 DATE: DECEMBER 2013	SCALE: 1" = 10'–0" 62 OF 828	CONTRACT NO. T-1042-0220 DRAWING NO. STTF004 SHEET NO.
	DRAWN	BCB			
	DESGN	MWM			

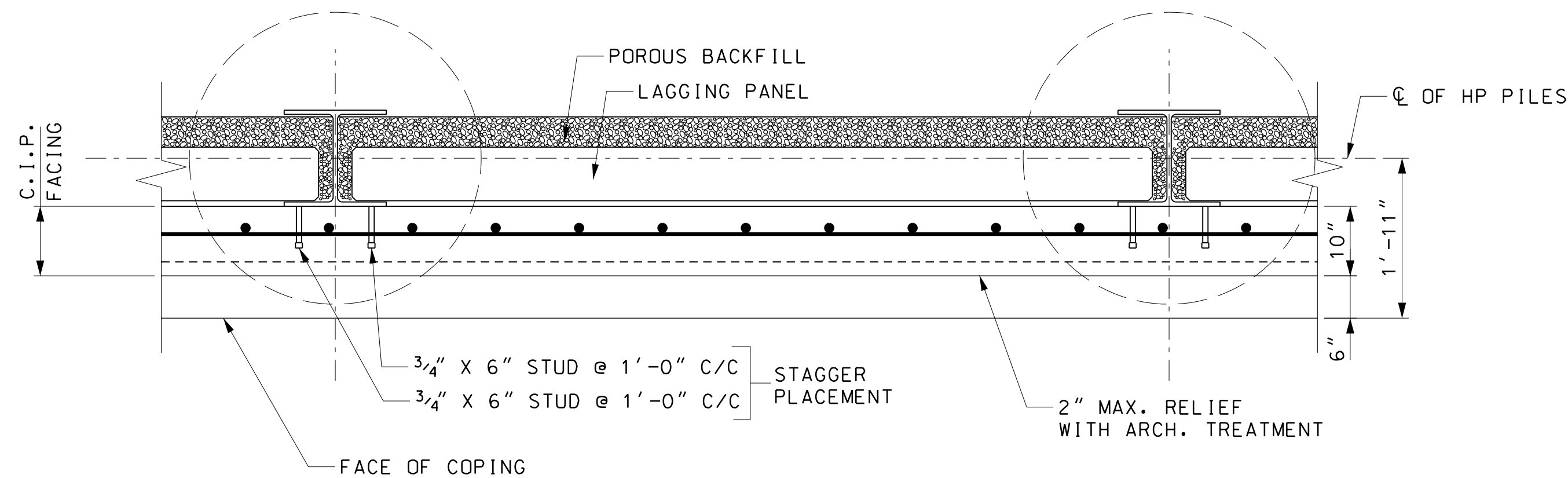
c:\pwworking\mtapw\mci-brion burns\dms94084\1042pStte92.dgn
12/10/2013



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



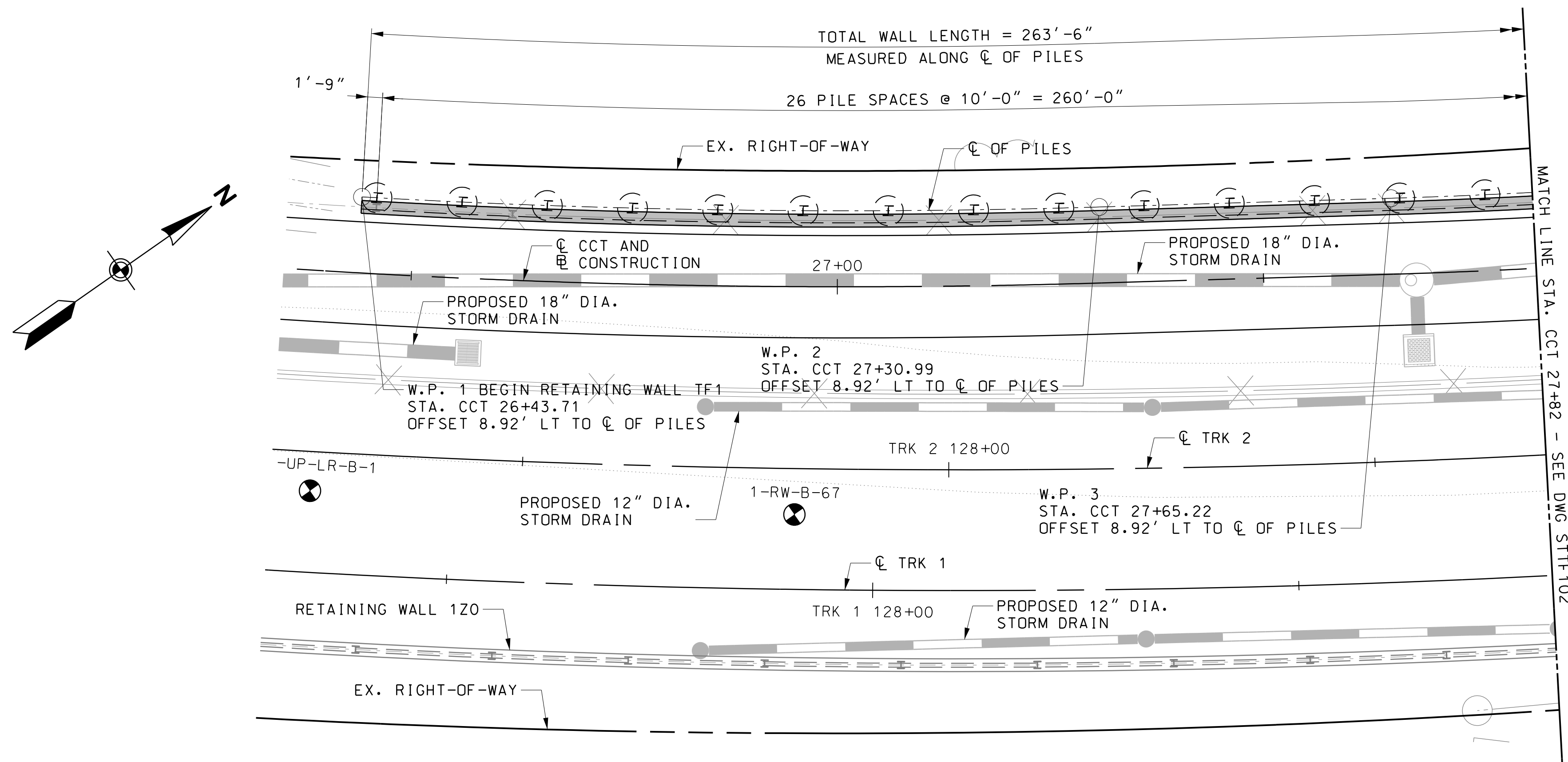
DETAIL A
SCALE: 1 1/2" = 1'-0"



TYPICAL FACING DETAIL
SCALE: 3/4" = 1'-0"

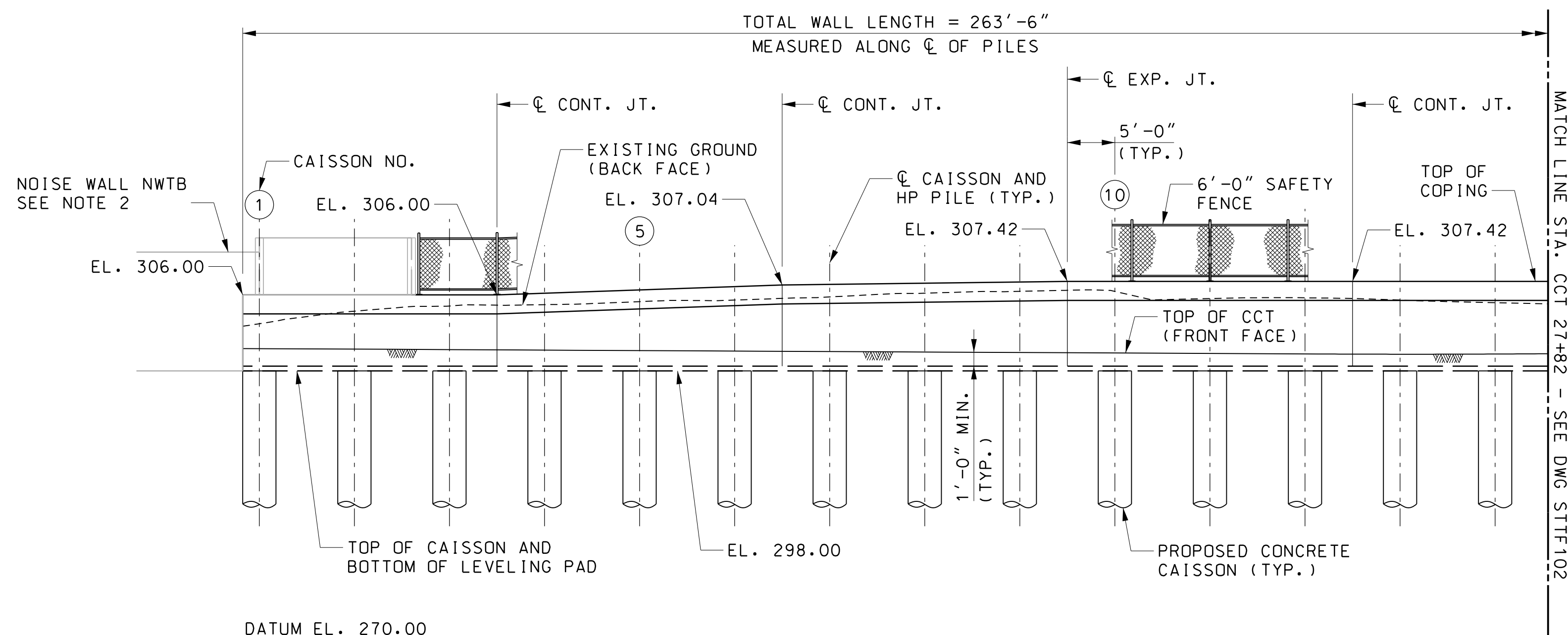
PROPOSED SEQUENCE OF CONSTRUCTION:

1. DRILL HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON). FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE CONCRETE CAISSON.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.



PLAN

SCALE: 1"=10'-0"

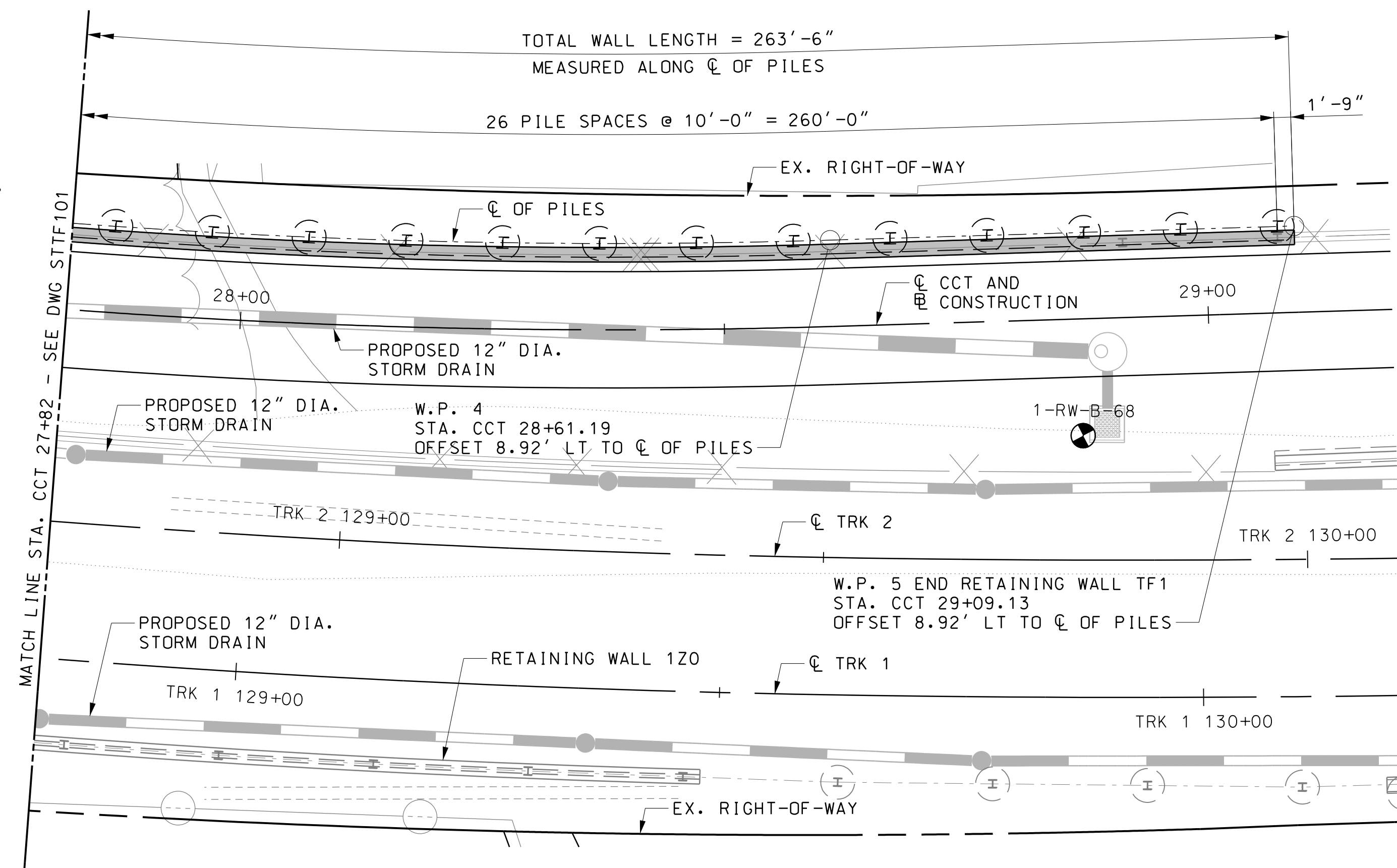
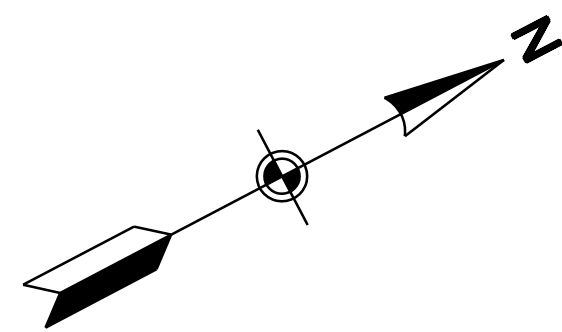


ELEVATION

SCALE: 1"=10'-0"

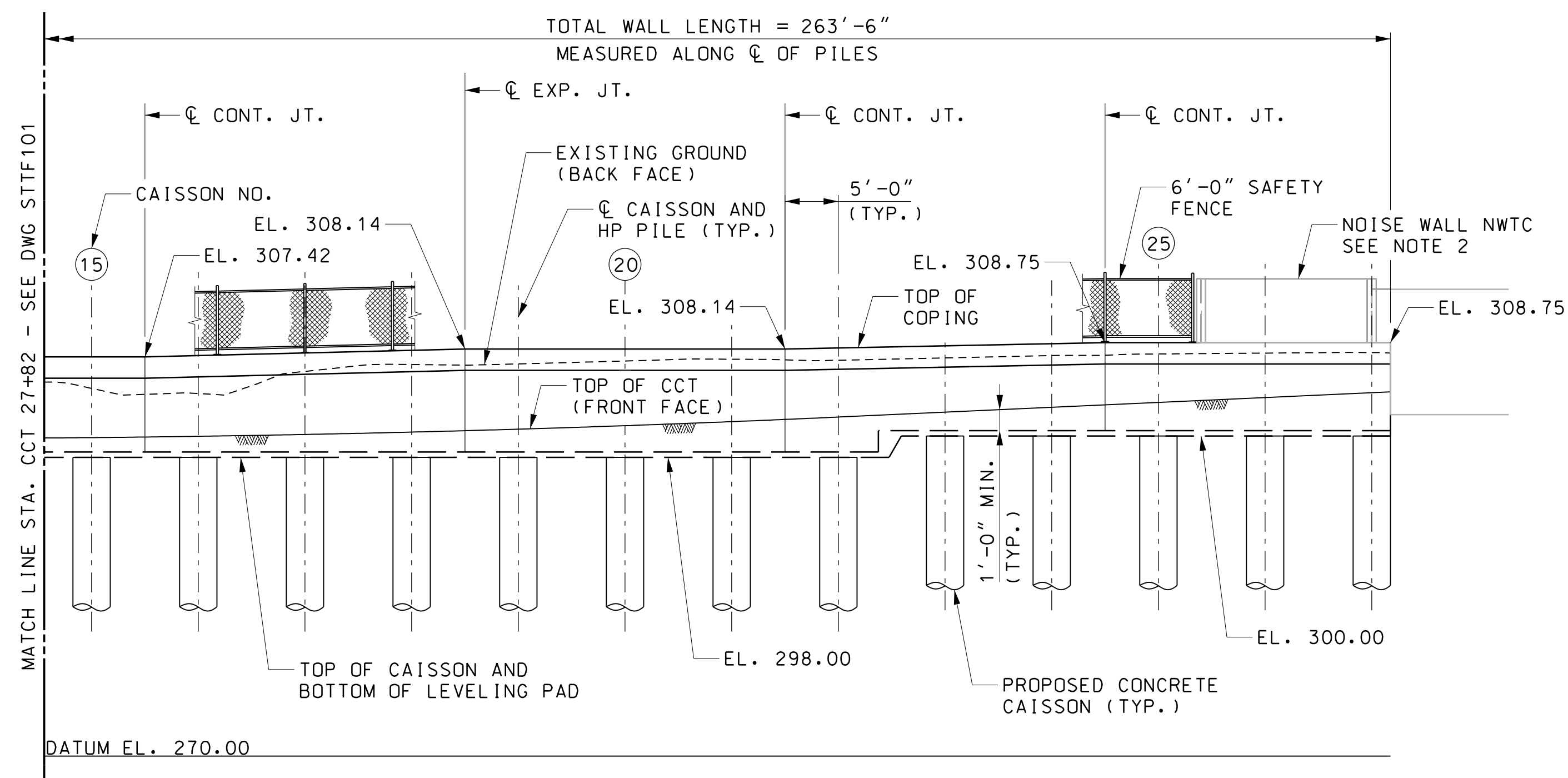
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE STTF103.
2. FOR NOISE WALL NWTB GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTB01 AND NWTB02.



PLAN

SCALE: 1"=10'-0"

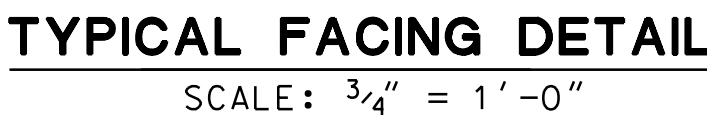
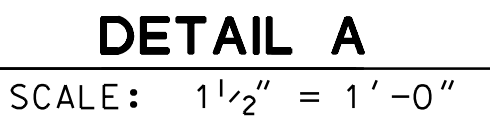


ELEVATION

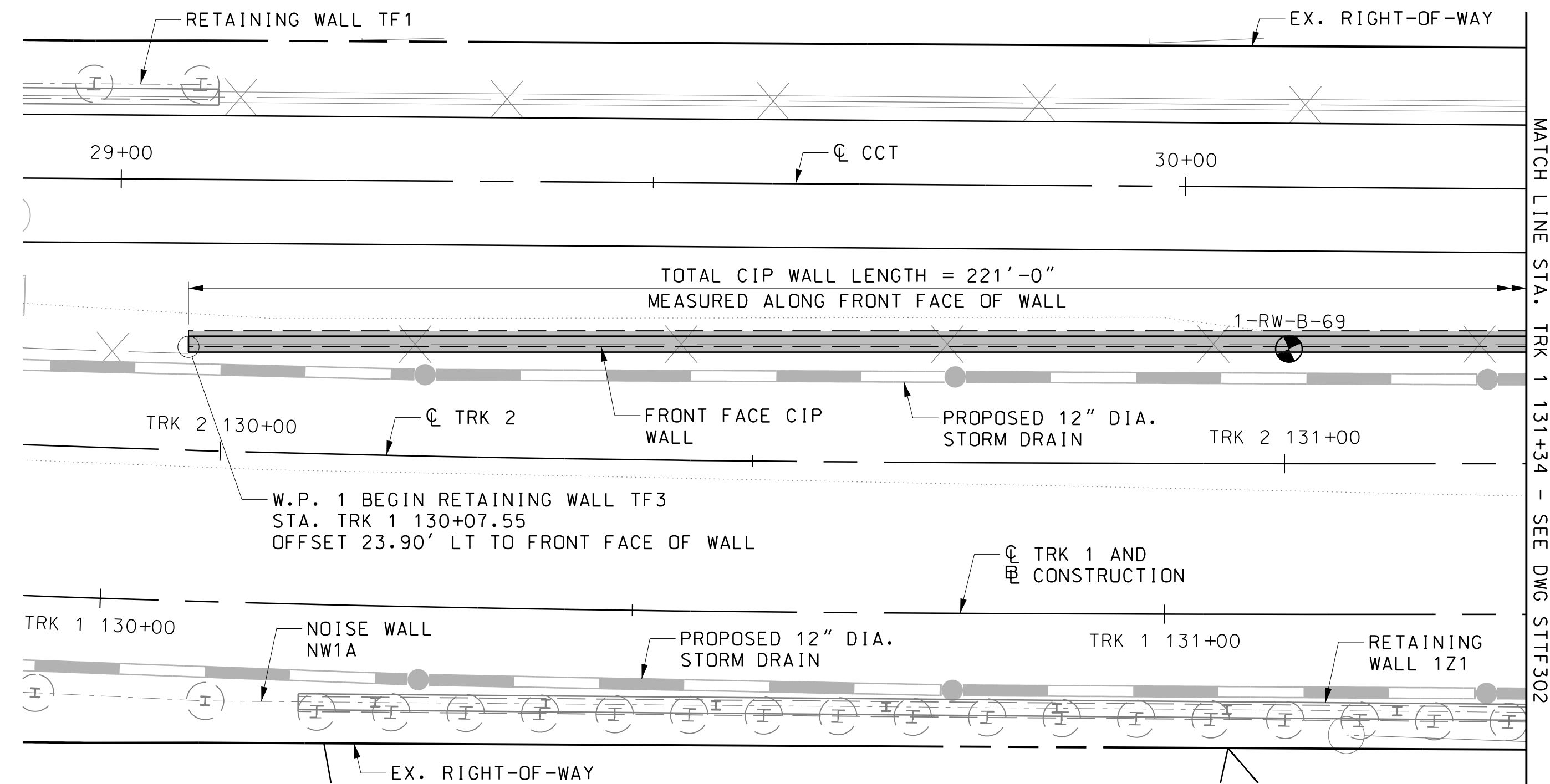
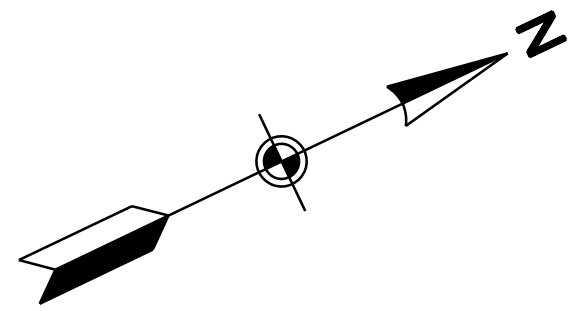
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE STTF103.
2. FOR NOISE WALL NWTC GENERAL PLAN AND ELEVATION, SEE DWG. NO. NWTC01.

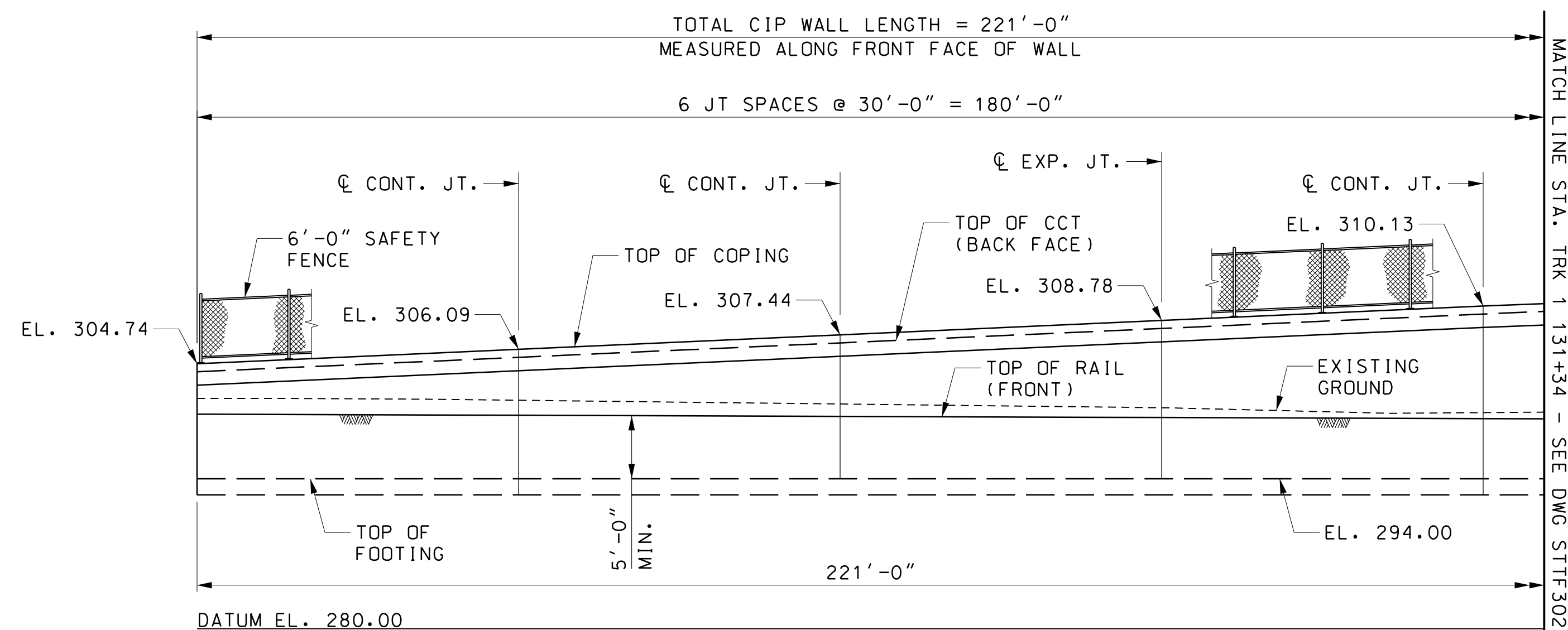


1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON).
FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT
OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED
TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES
AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION
PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE
CONCRETE CAISSON.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.



PLAN

SCALE: 1"=10'-0"

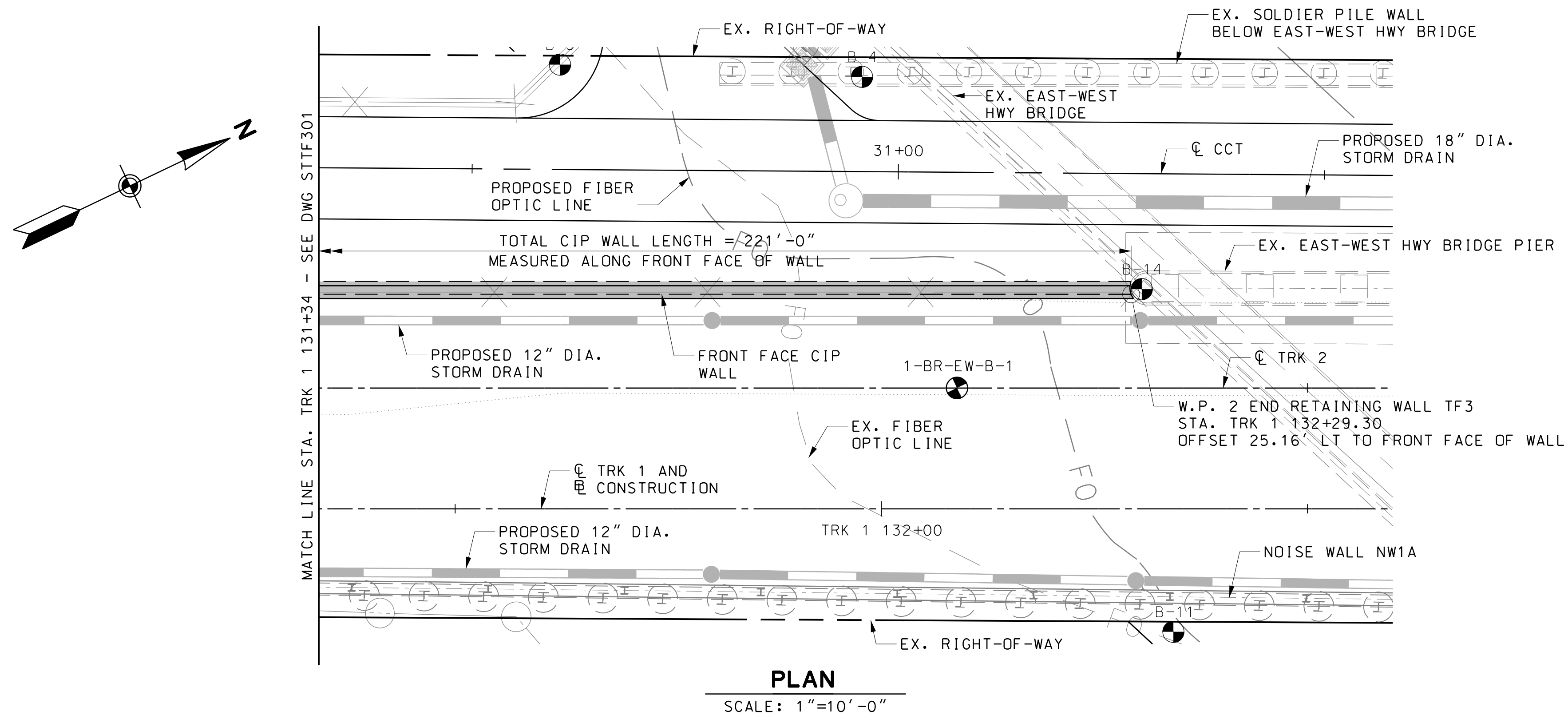


ELEVATION

SCALE: 1"=10'-0"

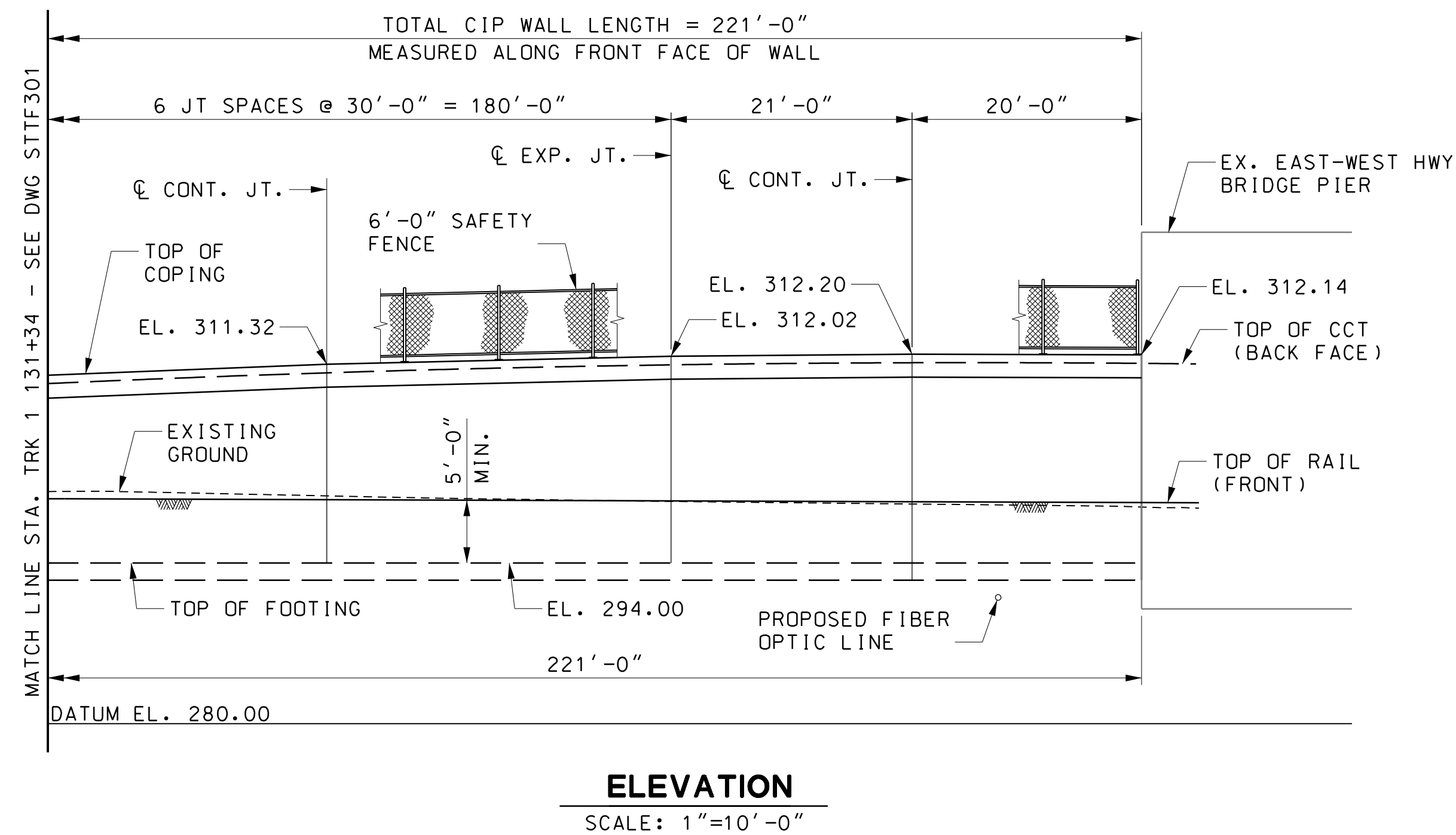
NOTES:

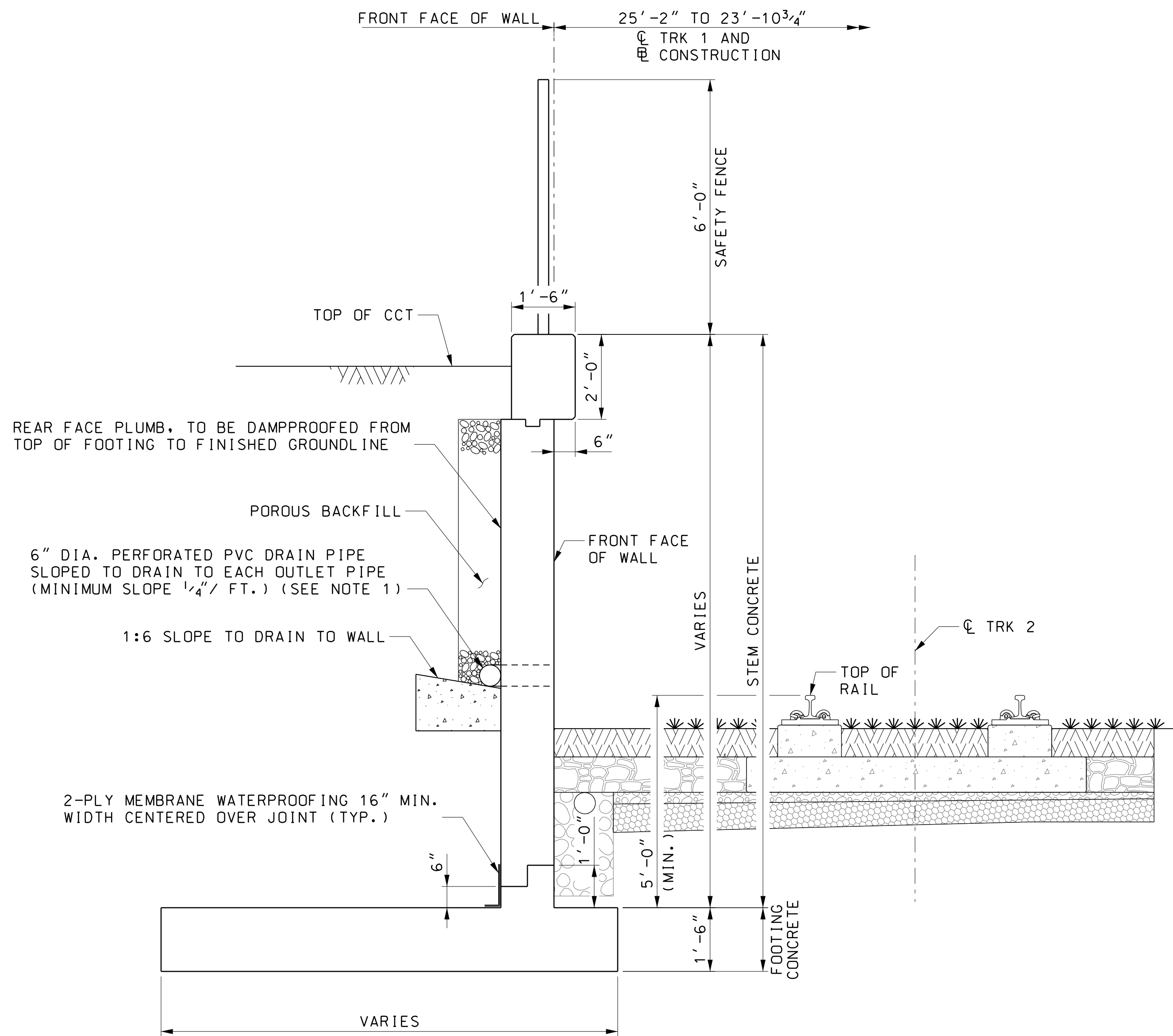
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTF302.



NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTF302.



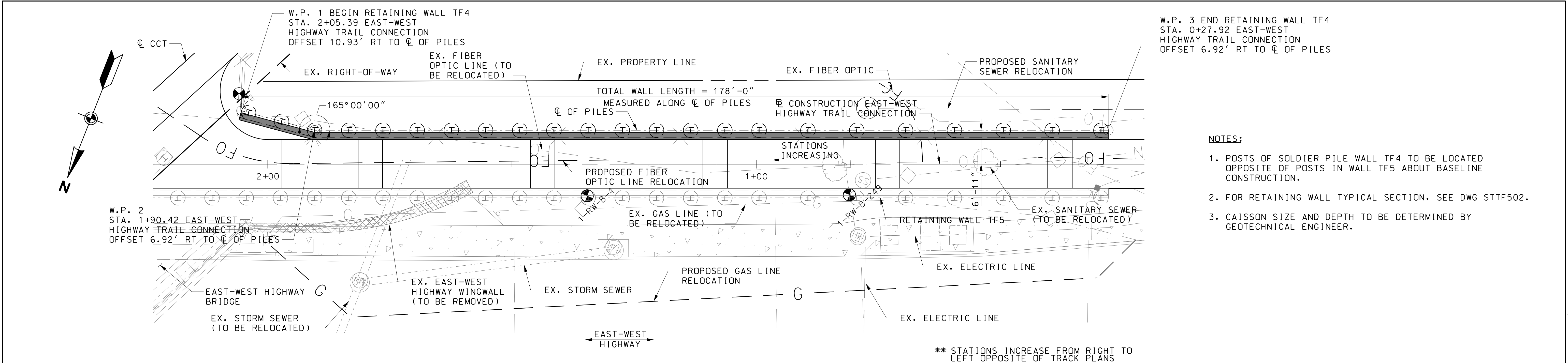


TYPICAL SECTION

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

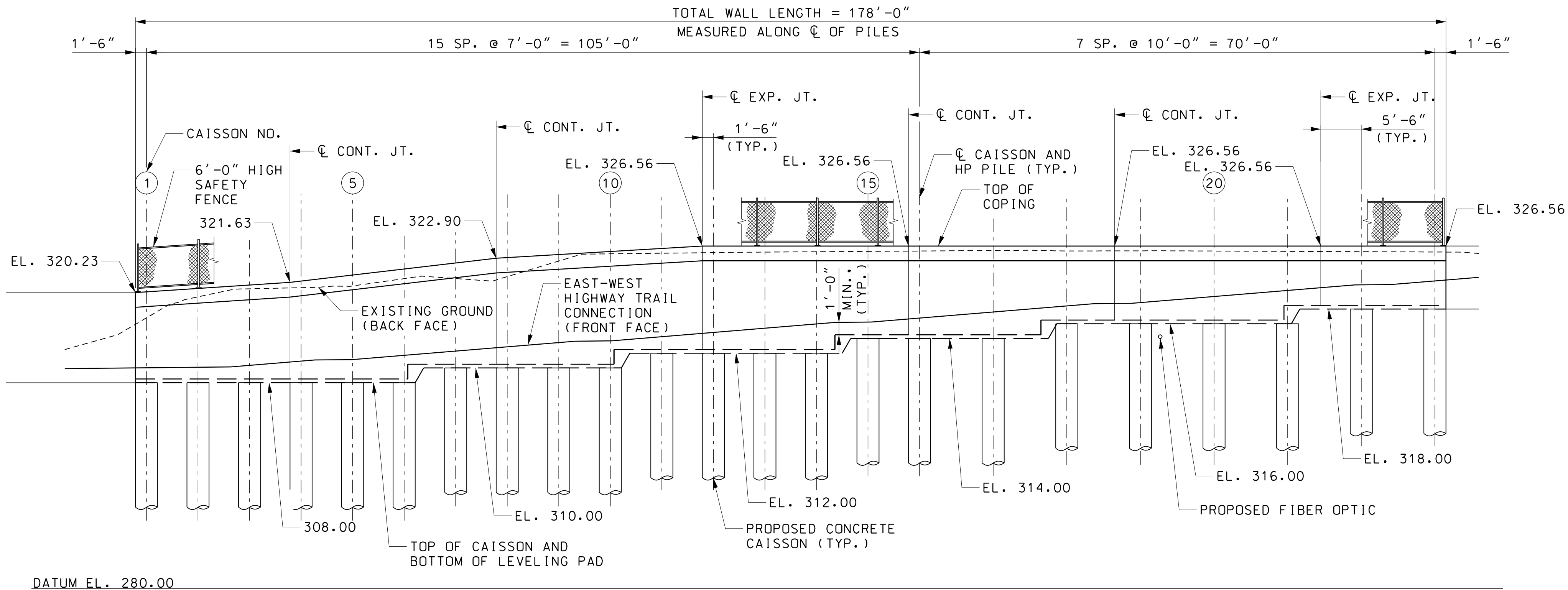
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.

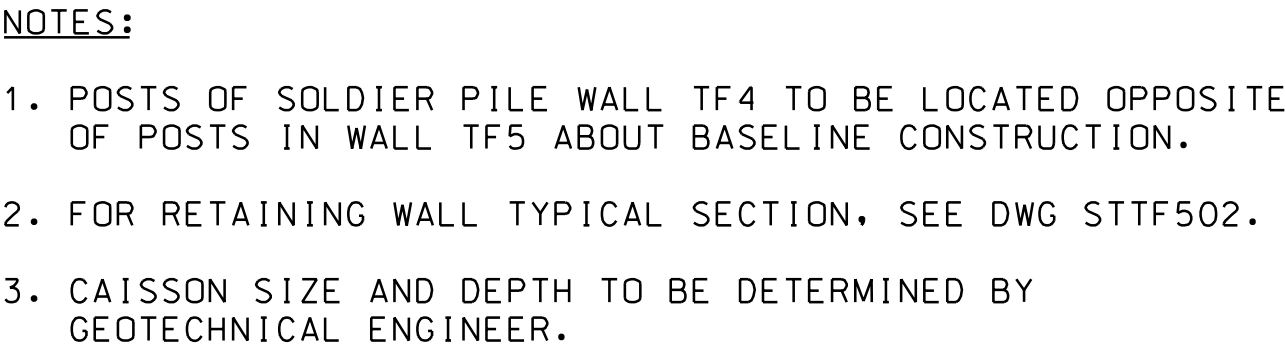


- NOTES:
1. POSTS OF SOLDIER PILE WALL TF4 TO BE LOCATED OPPOSITE OF POSTS IN WALL TF5 ABOUT BASELINE CONSTRUCTION.
 2. FOR RETAINING WALL TYPICAL SECTION, SEE DWG STTF502.
 3. CAISSON SIZE AND DEPTH TO BE DETERMINED BY GEOTECHNICAL ENGINEER.

PLAN
SCALE: 1" = 10'-0"



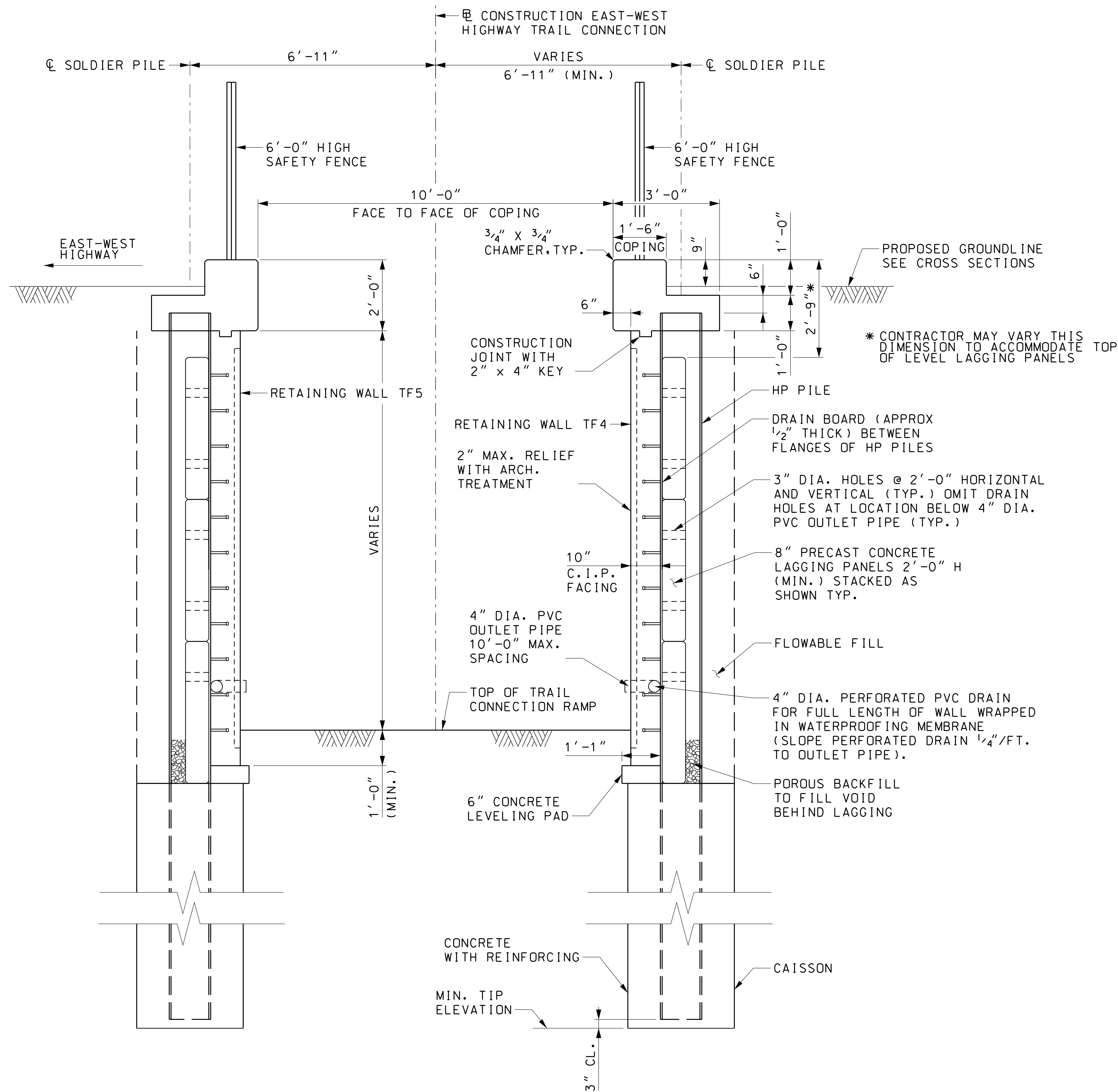
ELEVATION
SCALE: 1" = 10'-0"



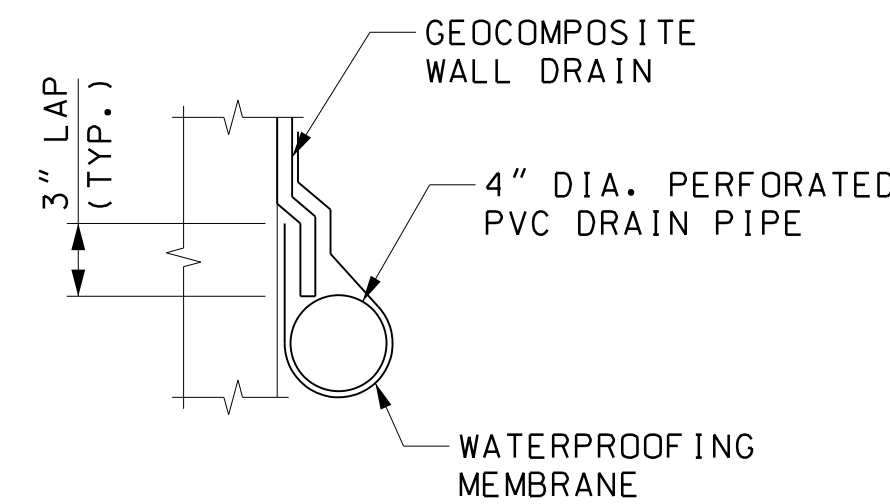
SCALE: 1" = 10'-0"



SCALE: $1'' = 10' - 0''$



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



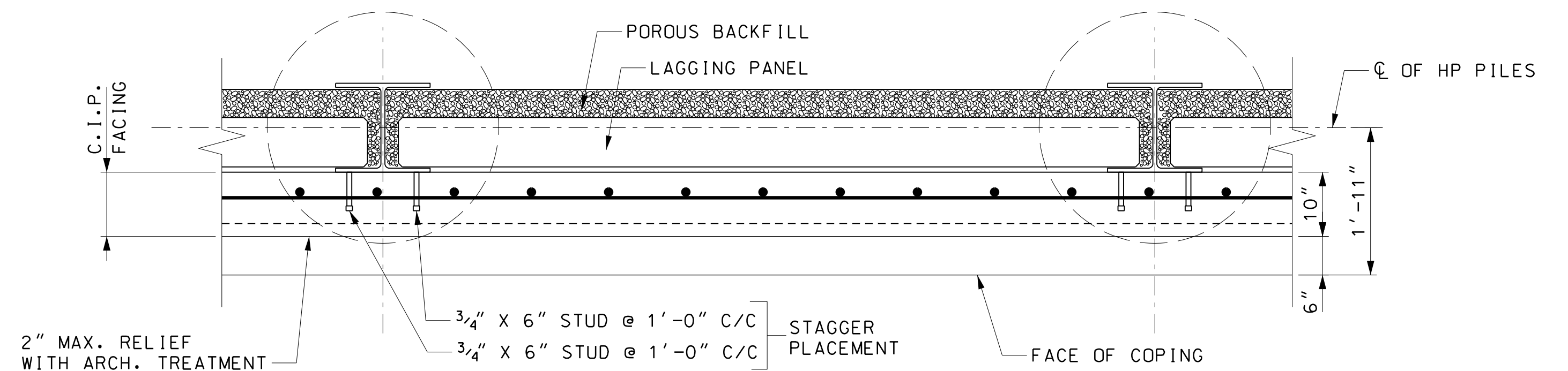
DETAIL A
SCALE: 1 1/2" = 1'-0"

PROPOSED SEQUENCE OF CONSTRUCTION:

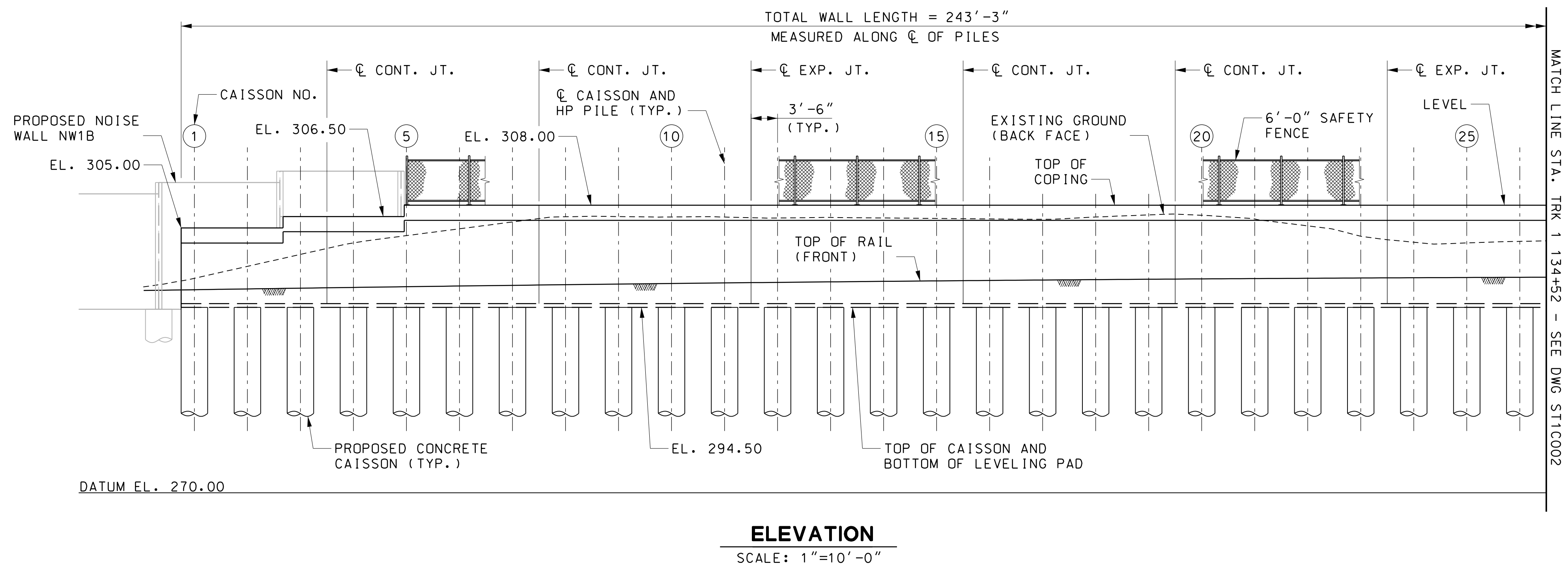
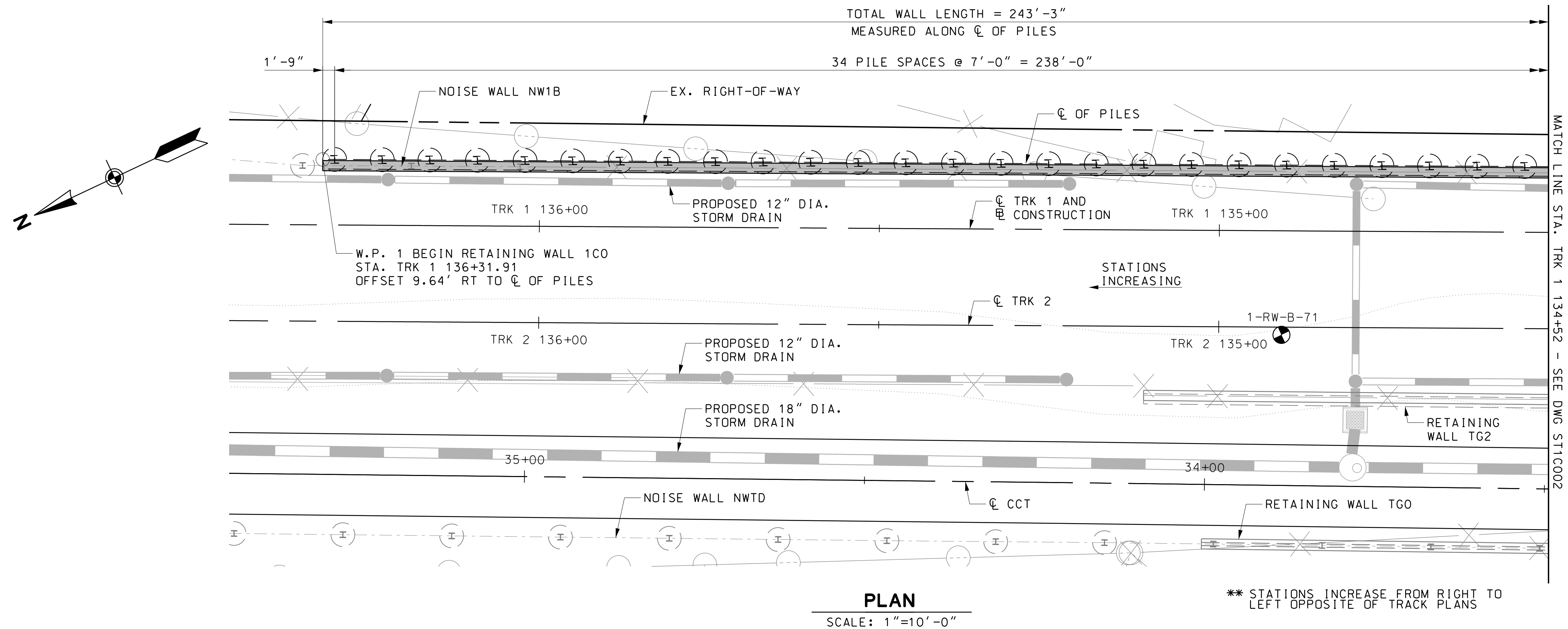
1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE DRILLED SHAFT CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON). FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWNS BETWEEN SOLDIER PILE FLANGES AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE CONCRETE CAISSONS.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.

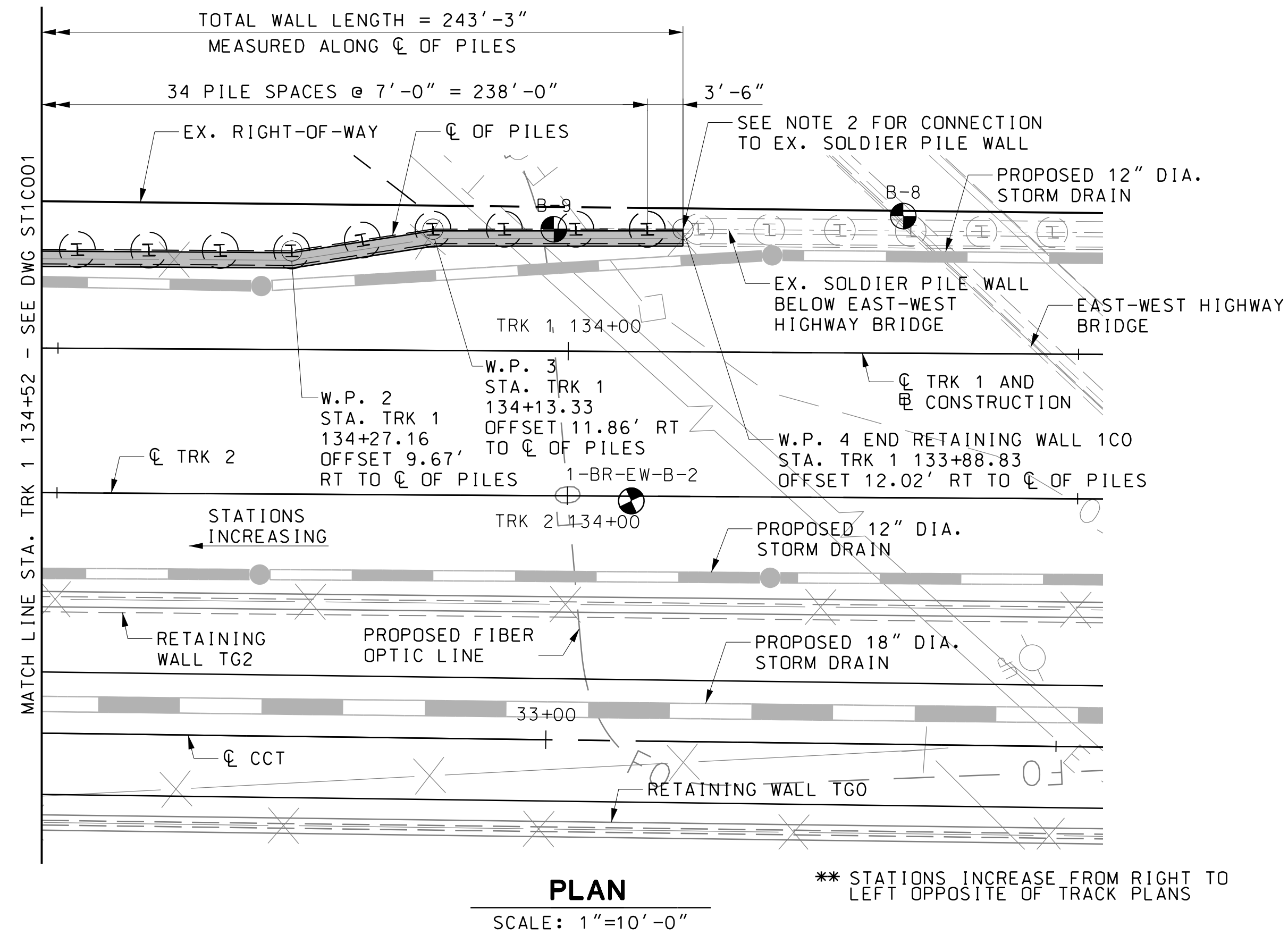
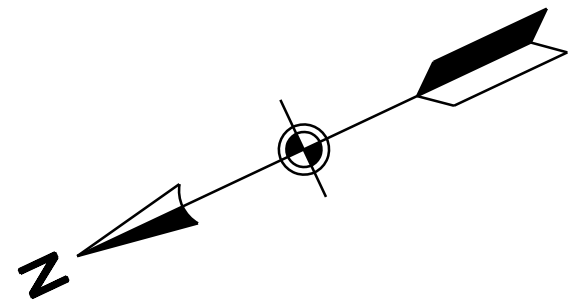
NOTES:

1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. ALL DIMENSIONS SHOWN ON TYPICAL SECTION ARE TYPICAL FOR BOTH SOLDIER PILE WALLS.
3. TYPICAL SECTION IS APPLICABLE TO WALLS TF4 AND TF5.



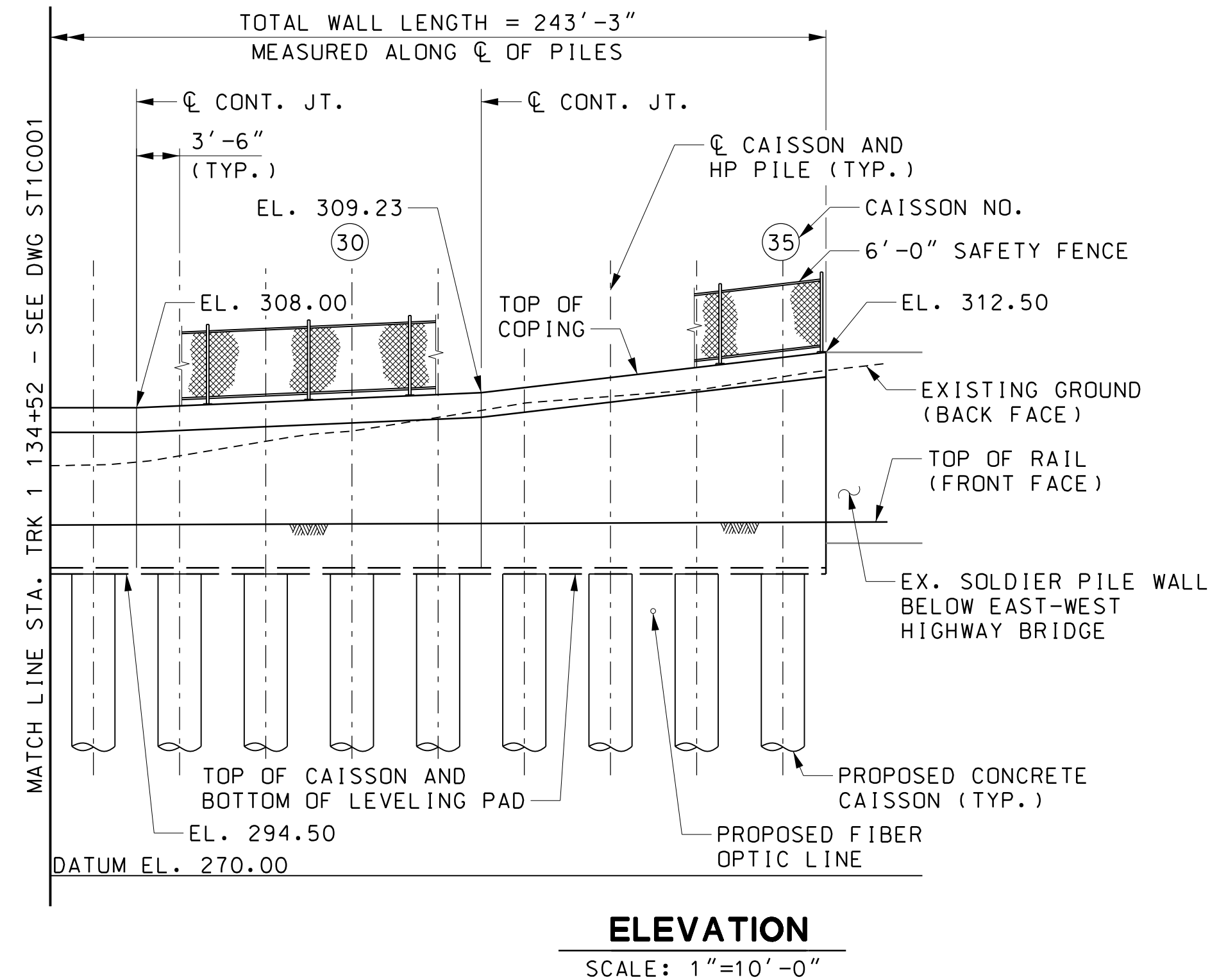
TYPICAL FACING DETAIL
SCALE: 3/4" = 1'-0"

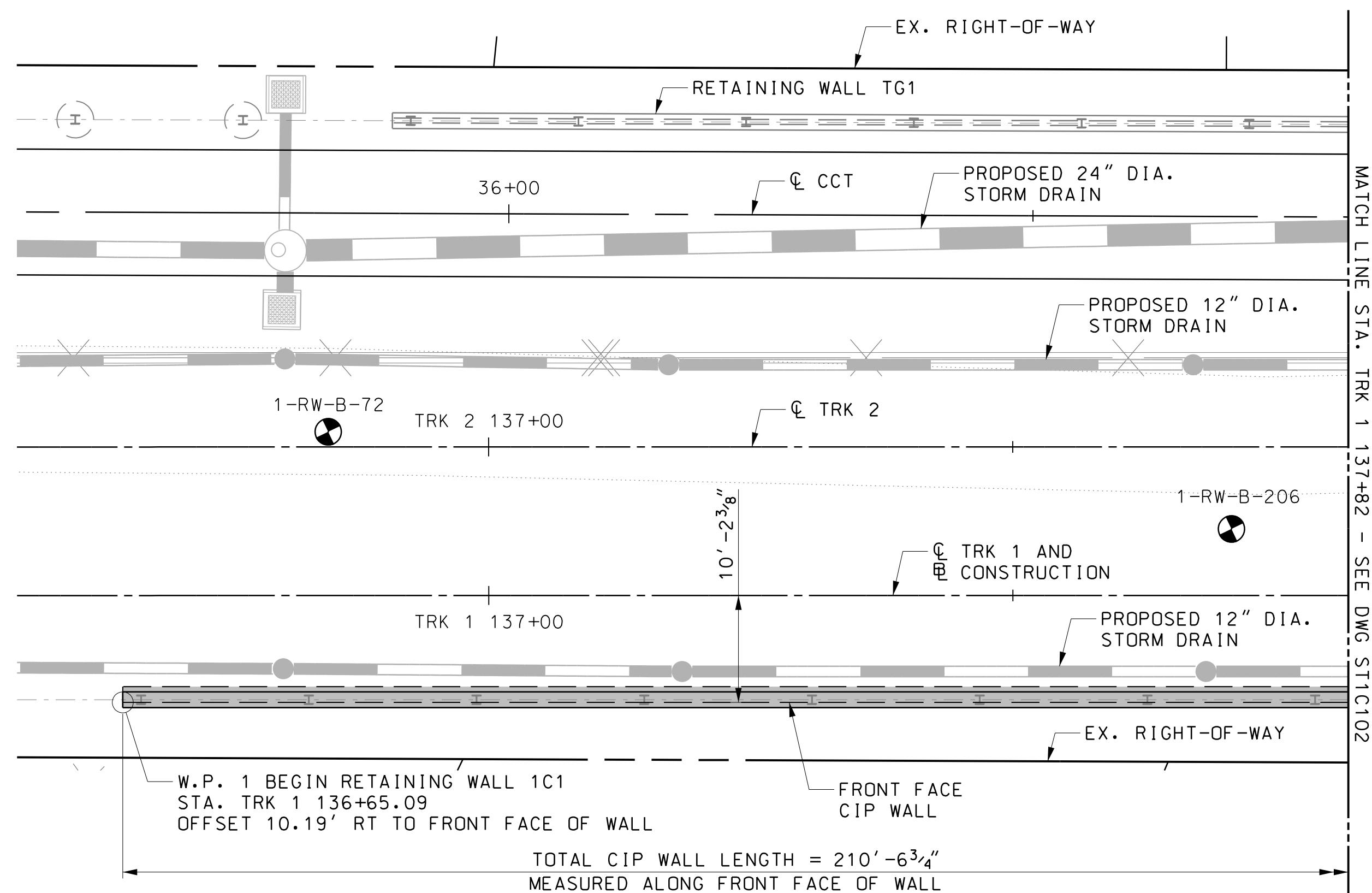
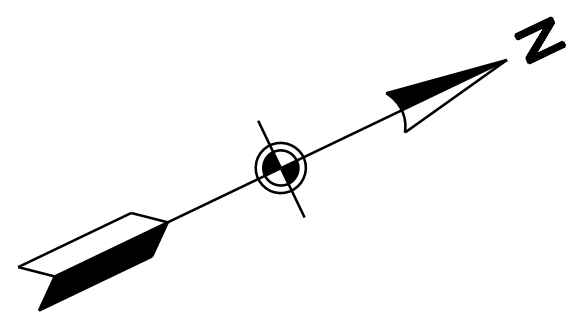




NOTES:

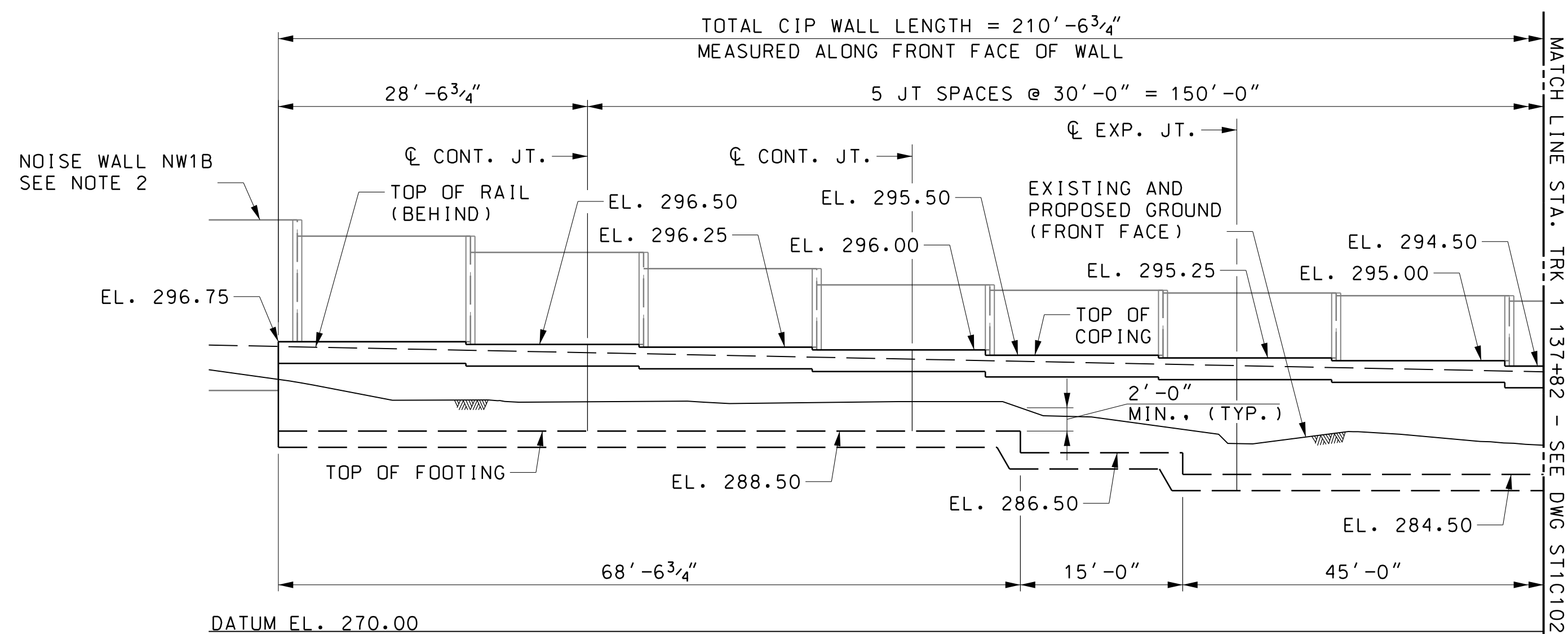
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1C003.
2. FOR CONNECTION DETAIL TO EXISTING SOLDIER PILE WALL BELOW EAST-WEST HIGHWAY, SEE DWG ST1Z104.





PLAN

SCALE: 1"=10'-0"

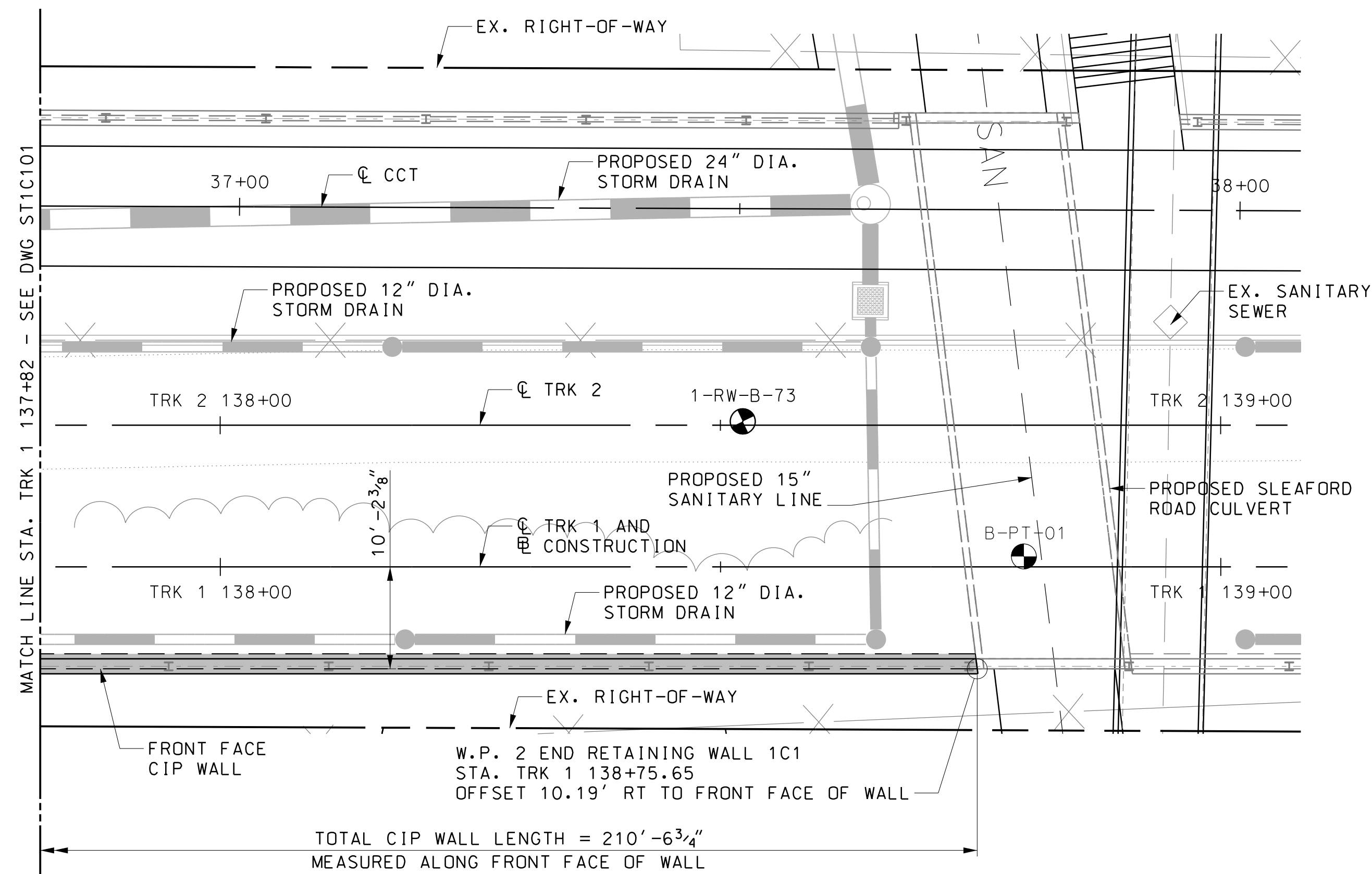
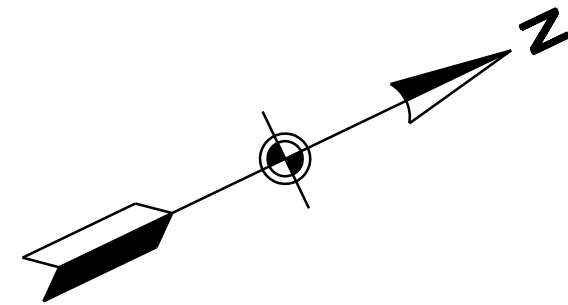


ELEVATION

SCALE: 1"=10'-0"

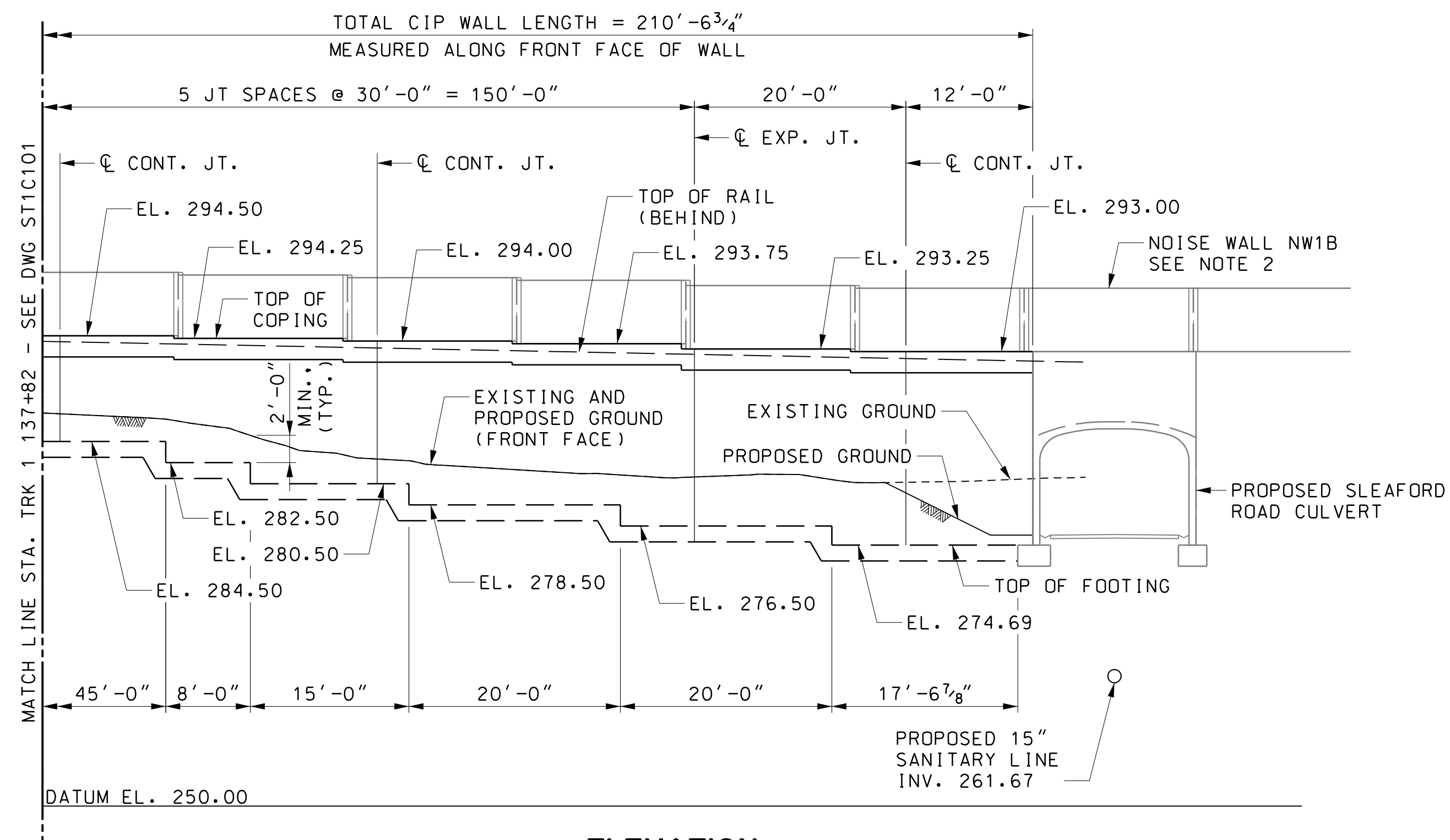
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1C103.
2. FOR NOISE WALL NW1B GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1B01 TO NW1B06.



PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1C103.
2. FOR NOISE WALL NW1B GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1B01 TO NW1B06.

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 1C1
GENERAL PLAN & ELEVATION - 2

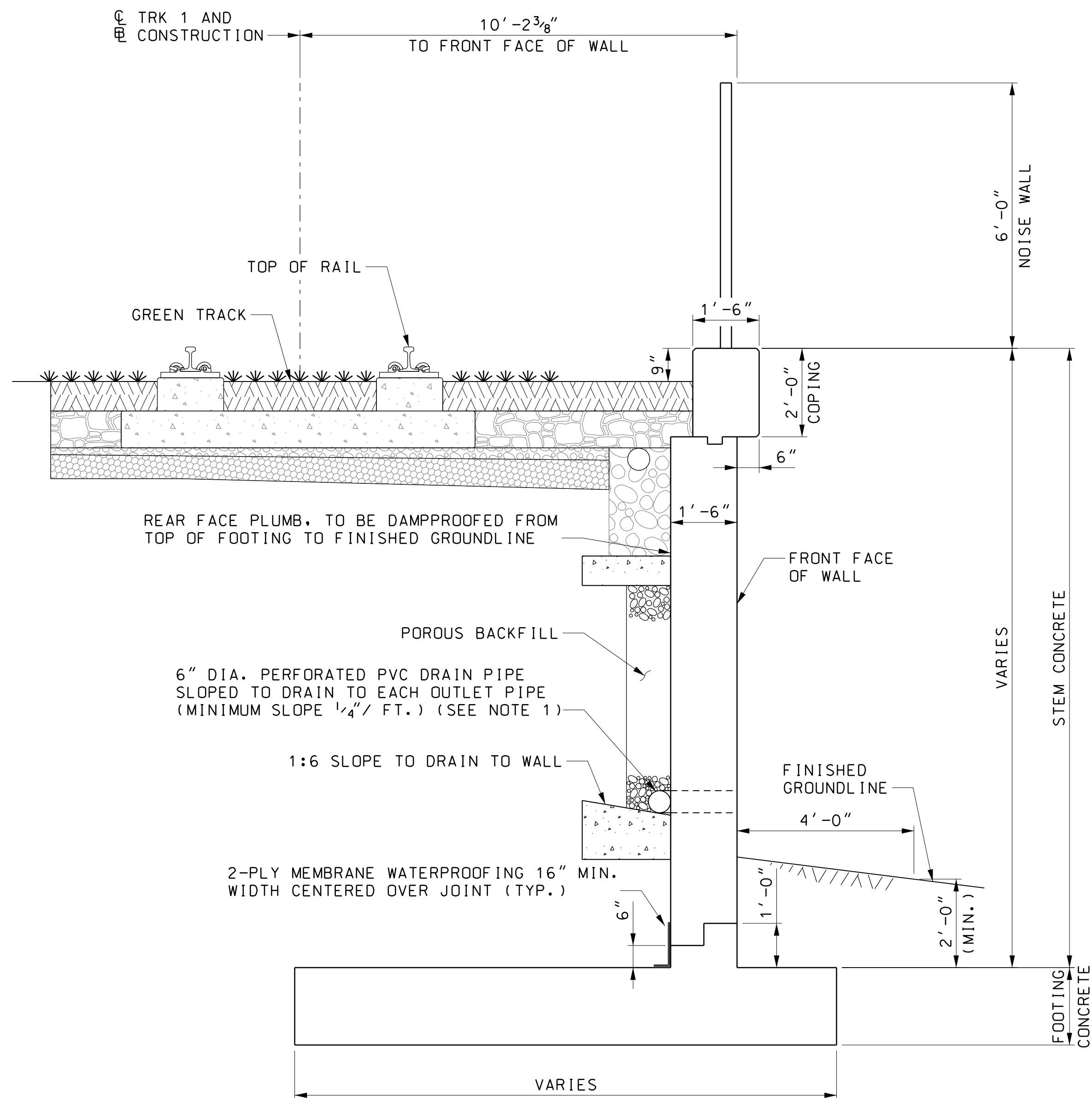
DATE: DECEMBER 2013

SCALE: 1"=10'-0"

CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1C102

SHEET NO.
77 OF 828

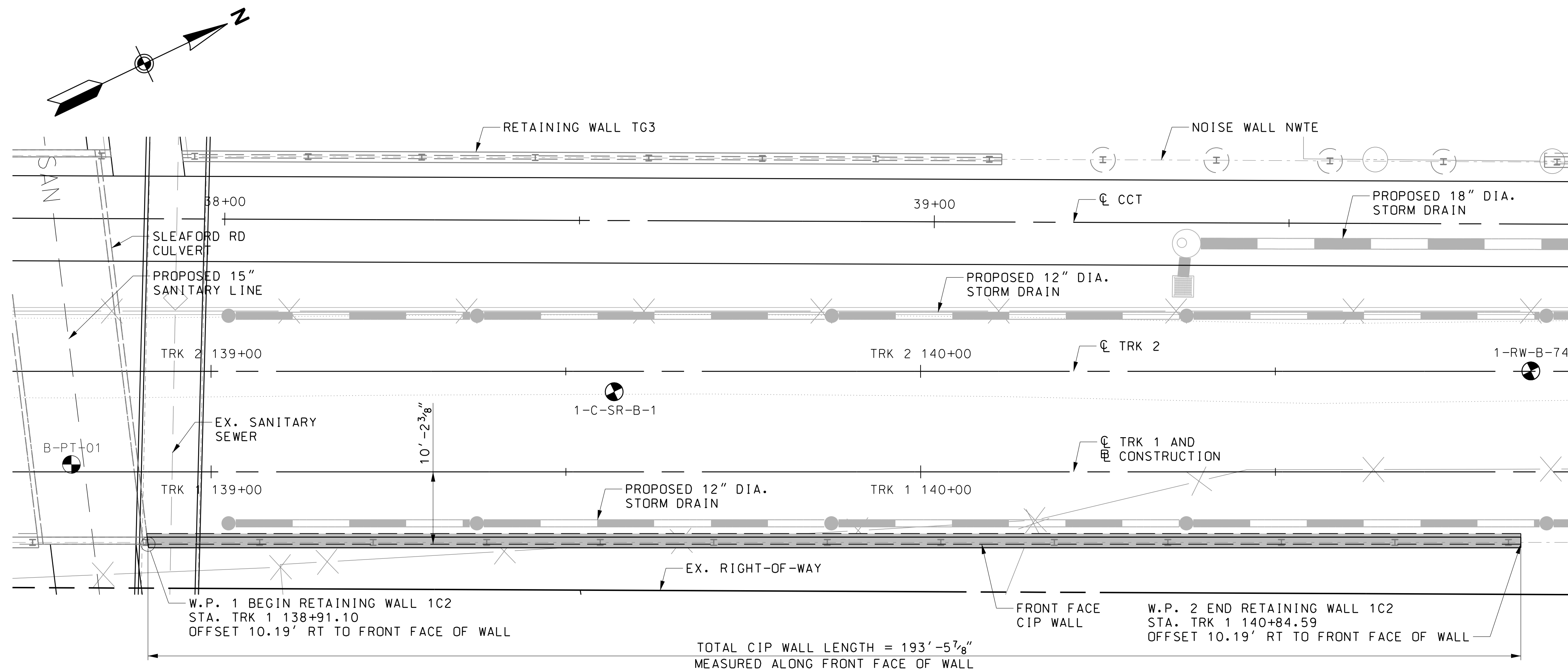


TYPICAL SECTION

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

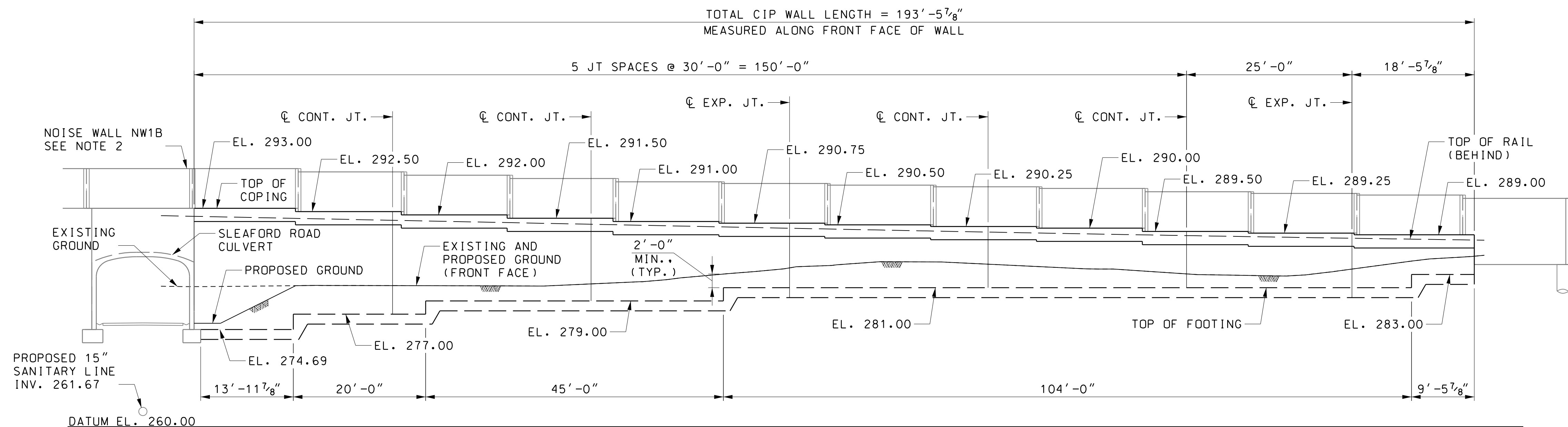
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.

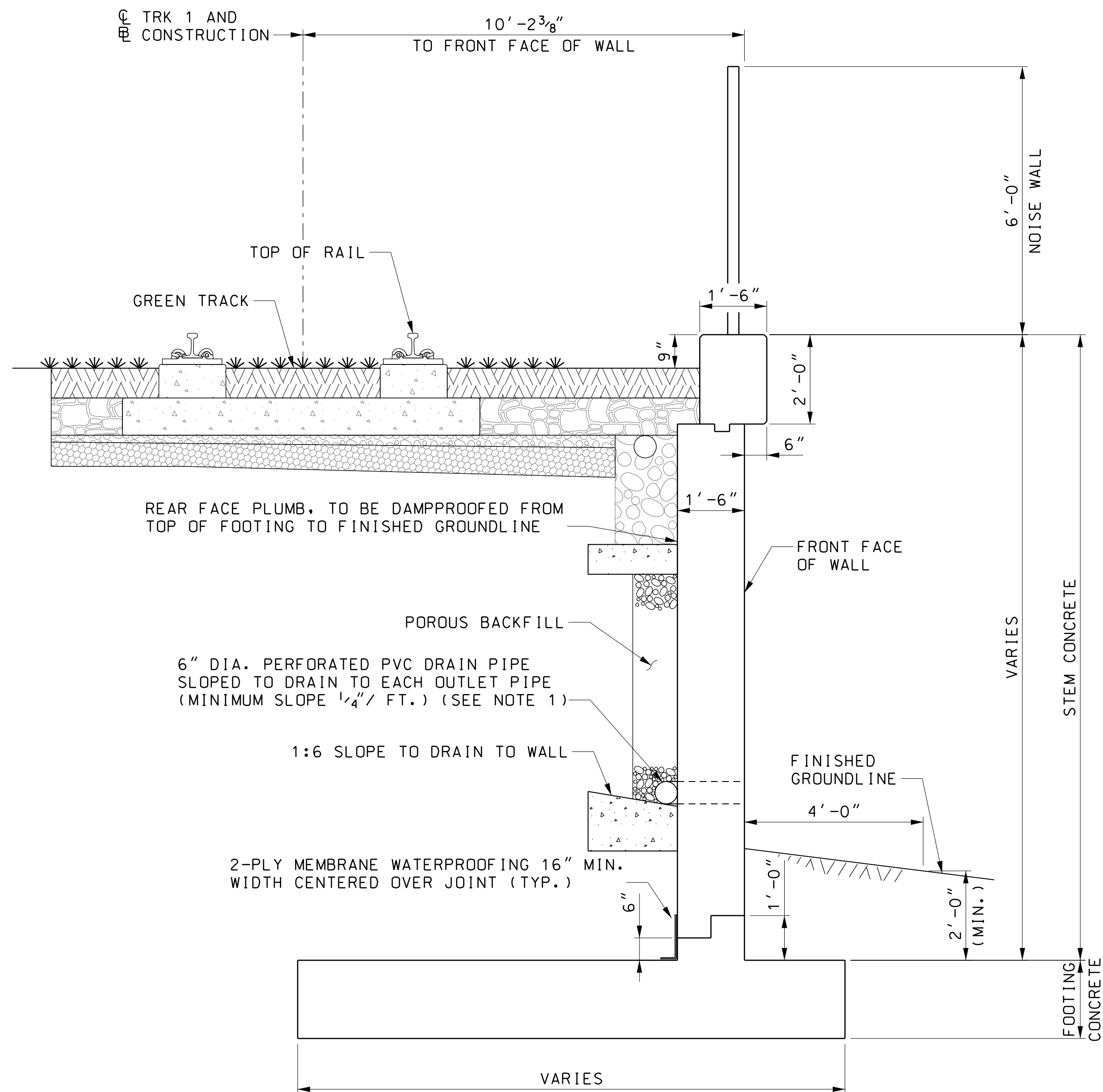


- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1C202.
 2. FOR NOISE WALL NW1B GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1B01 TO NW1B06.

PLAN
SCALE: 1"=10'-0"



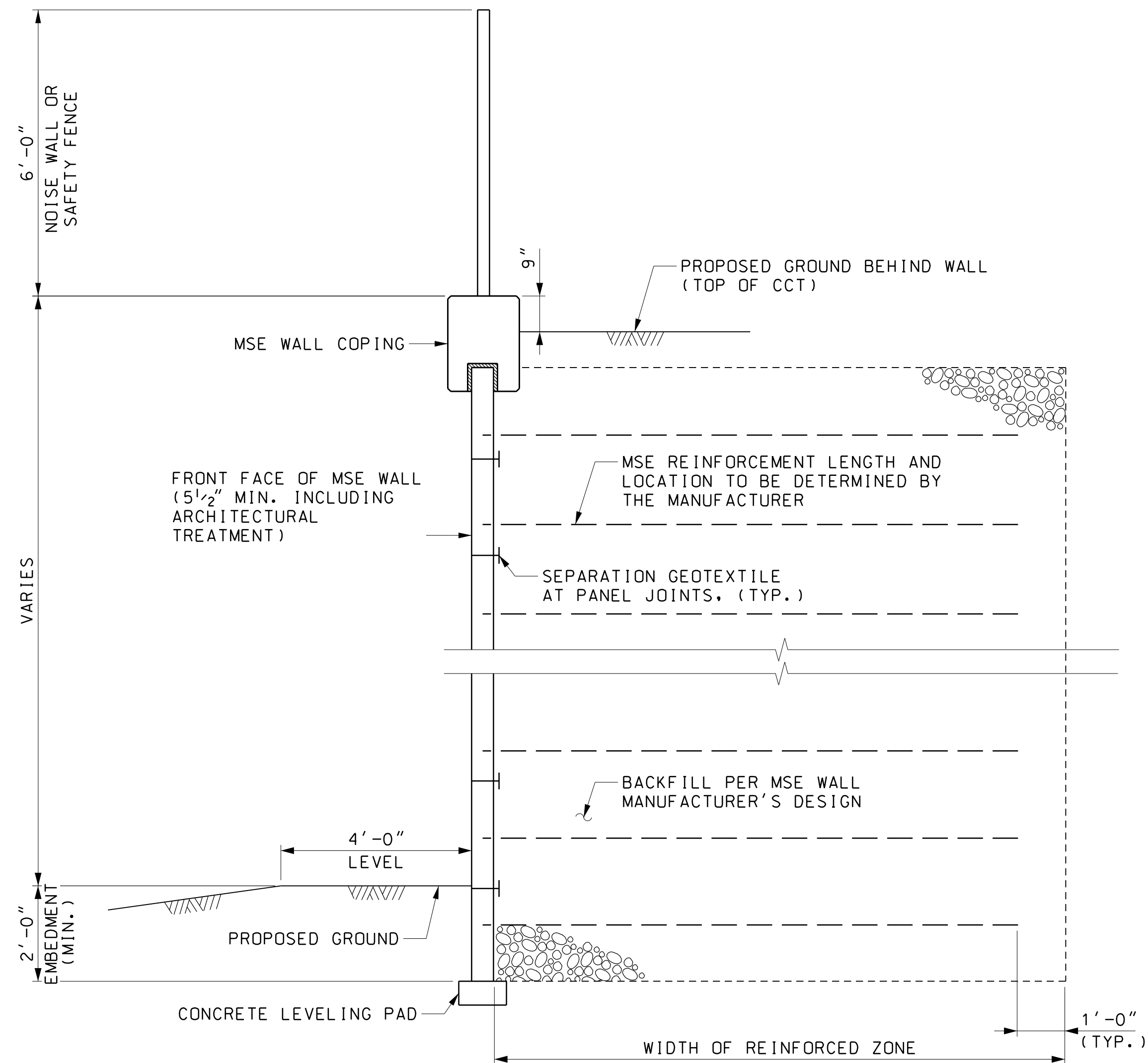
ELEVATION
SCALE: 1"=10'-0"



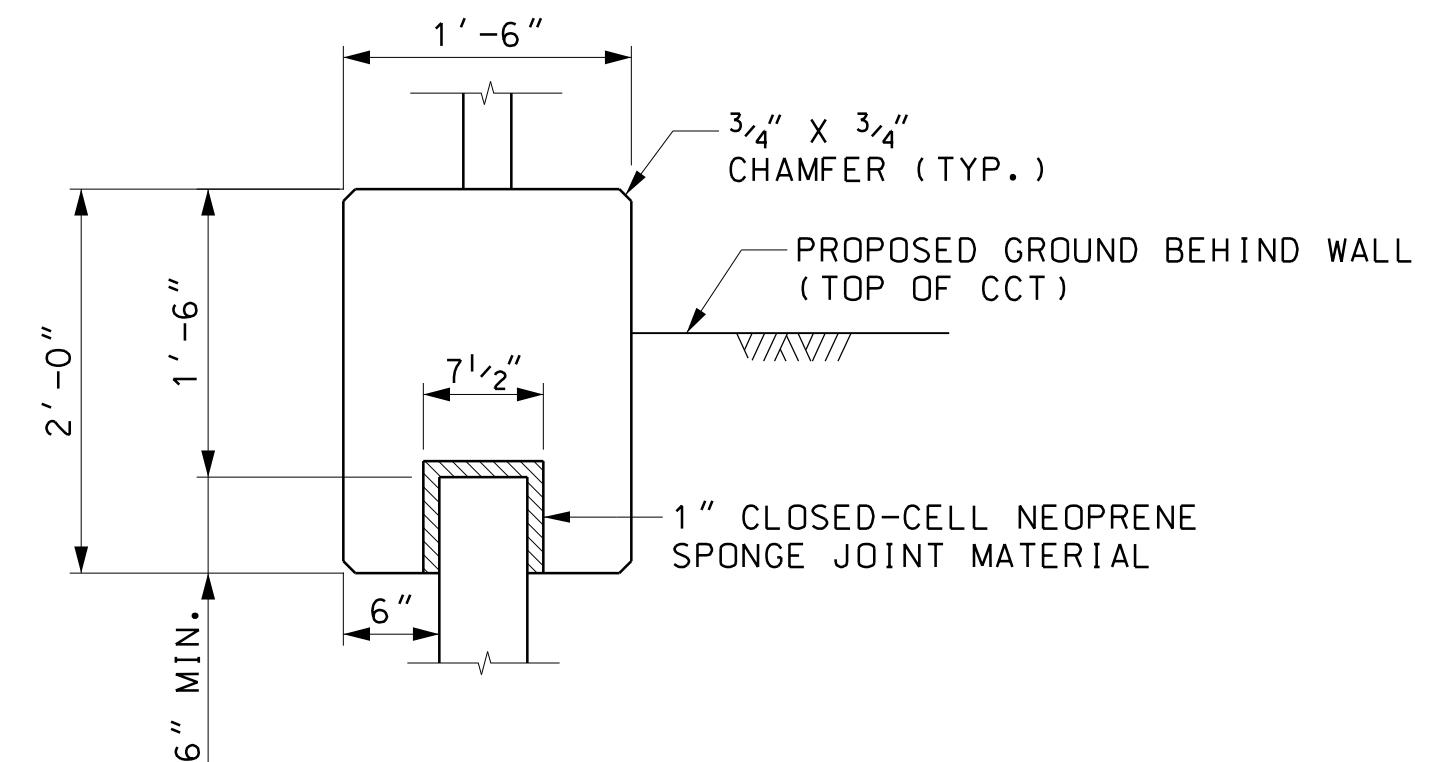
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.

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



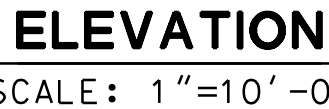
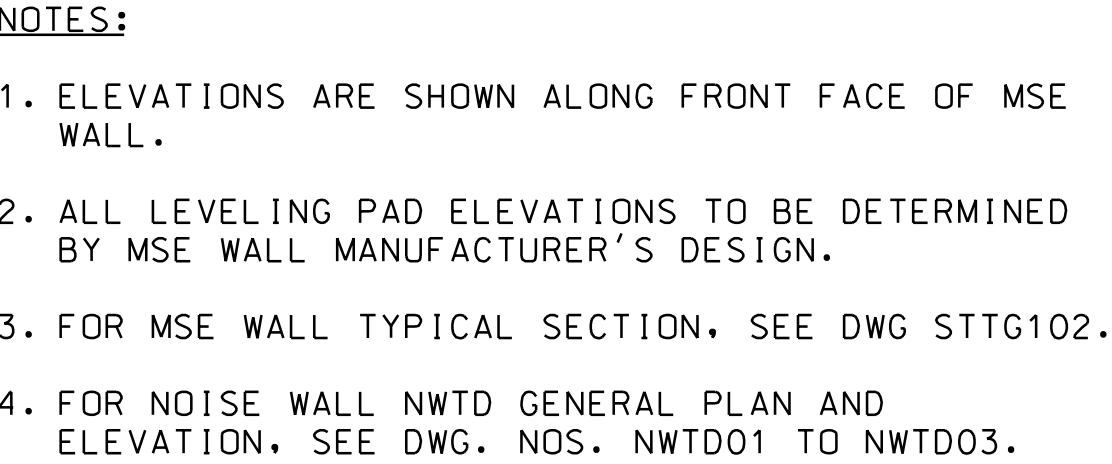
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"

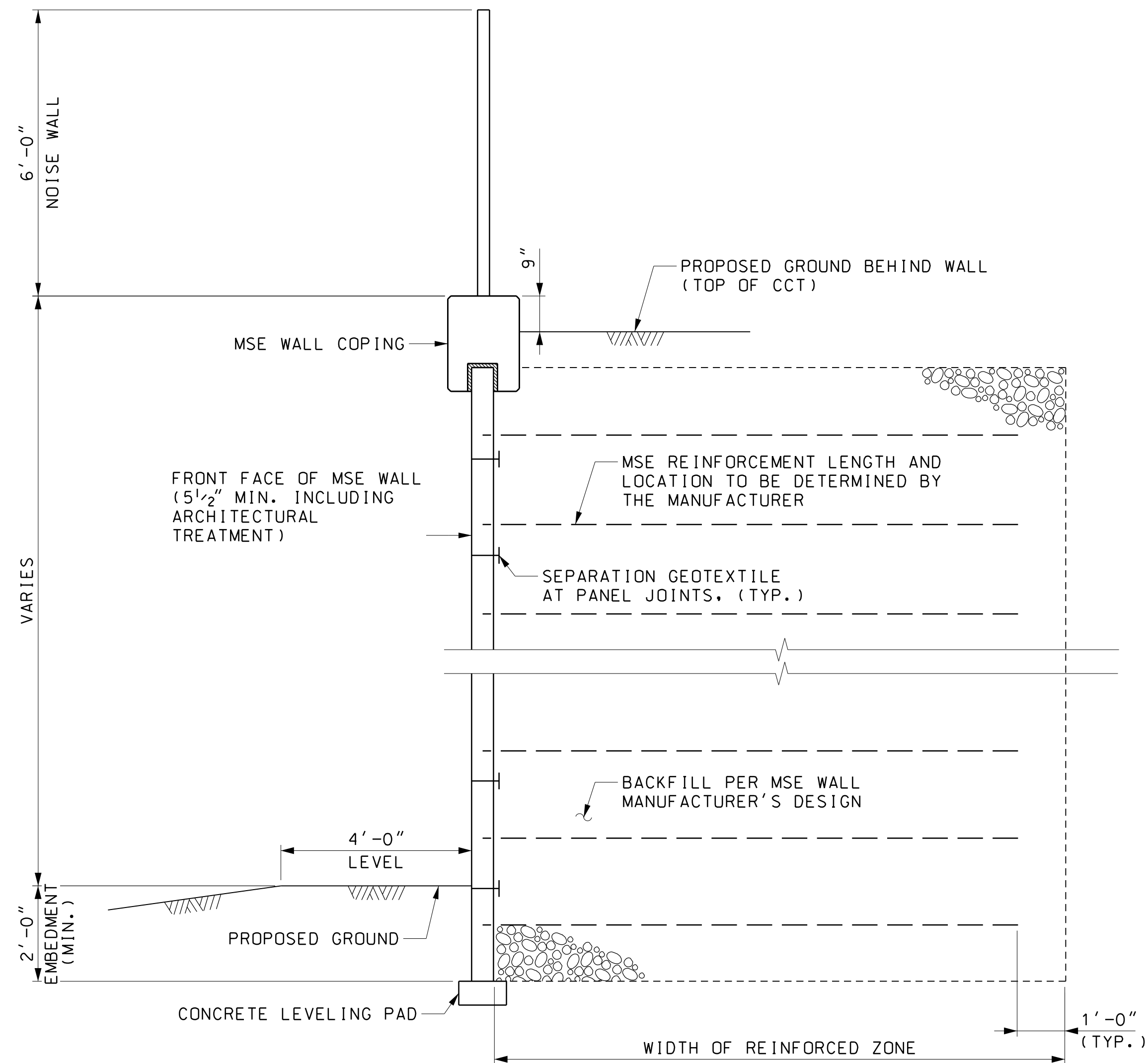


CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

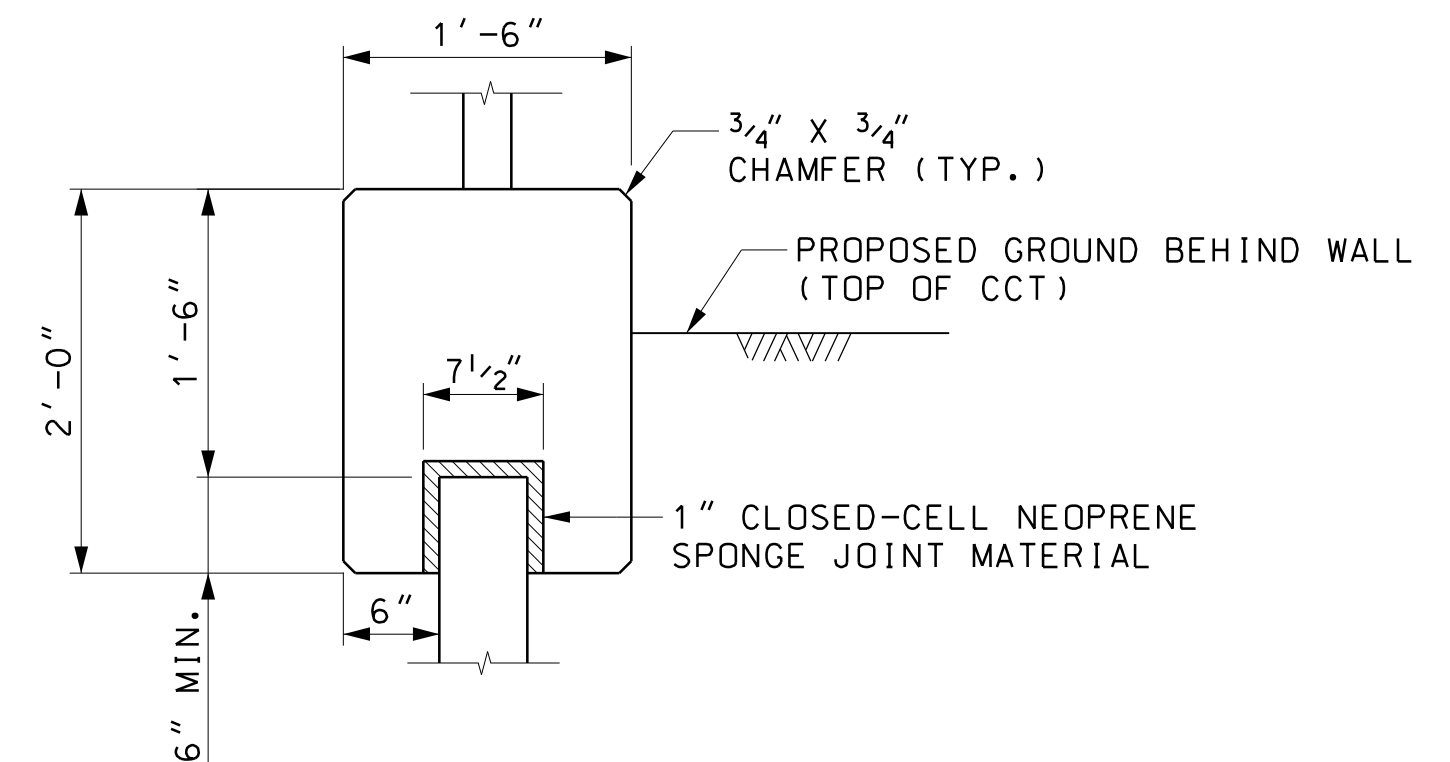
NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.





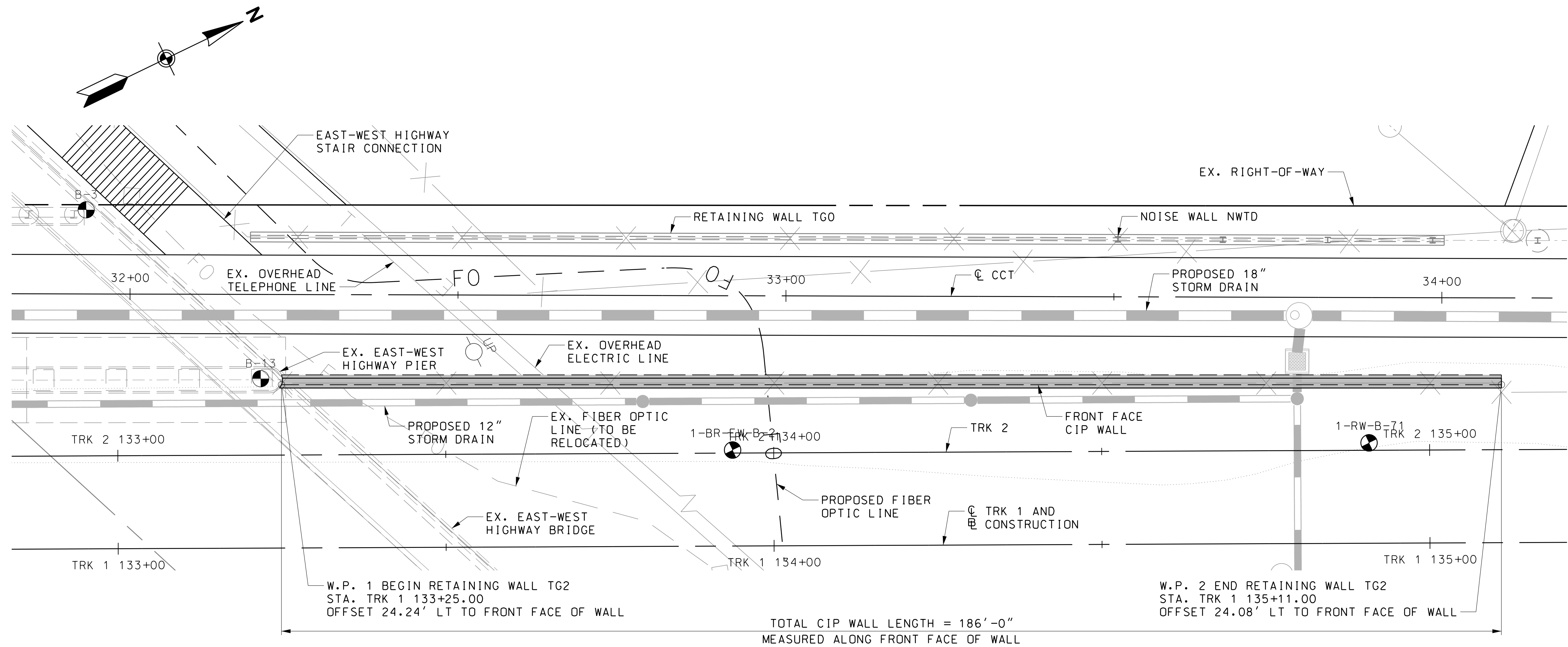
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

NOTES:

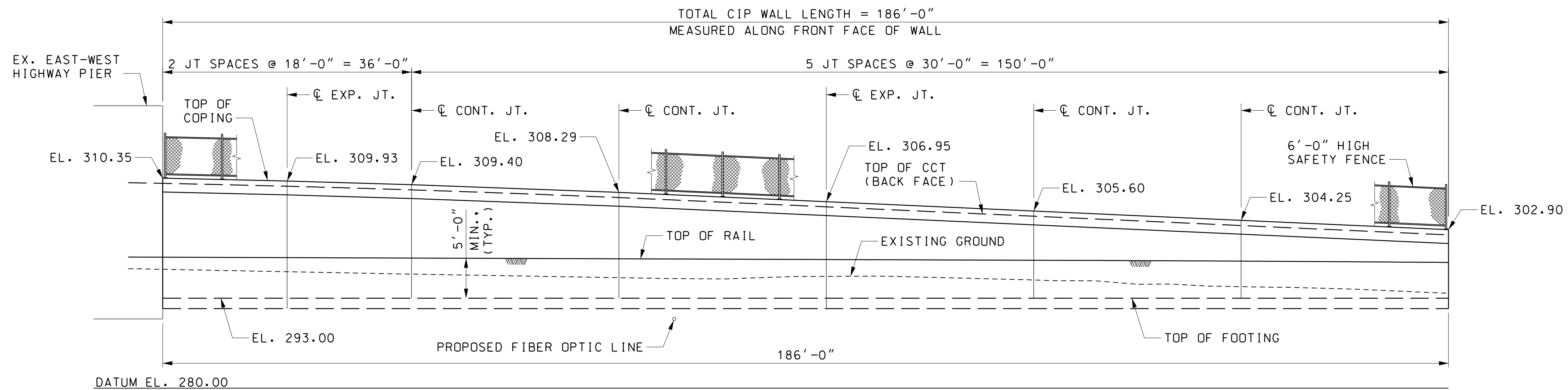
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2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTG202.

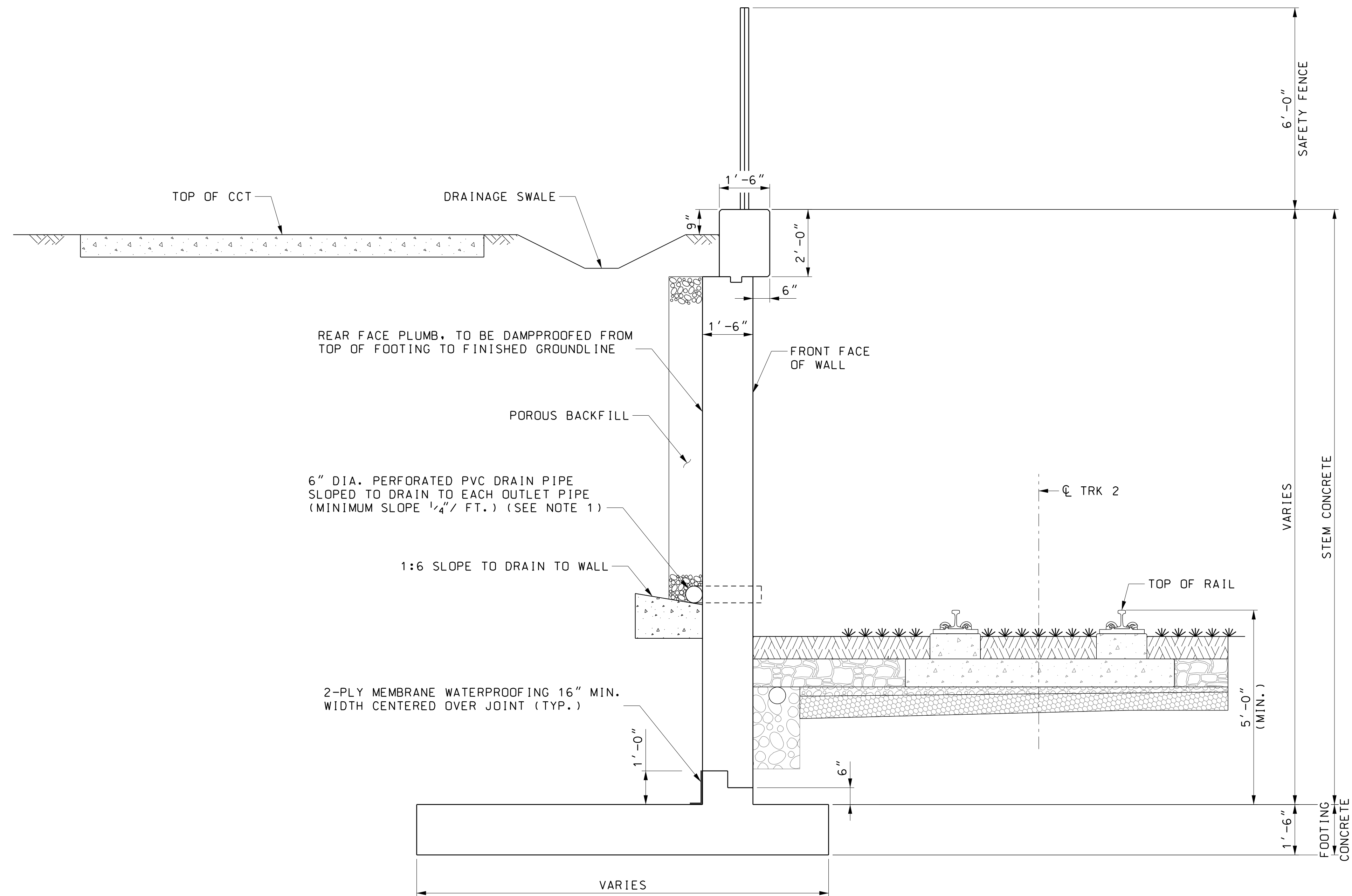
PLAN

SCALE: 1"=10'-0"



ELEVATION

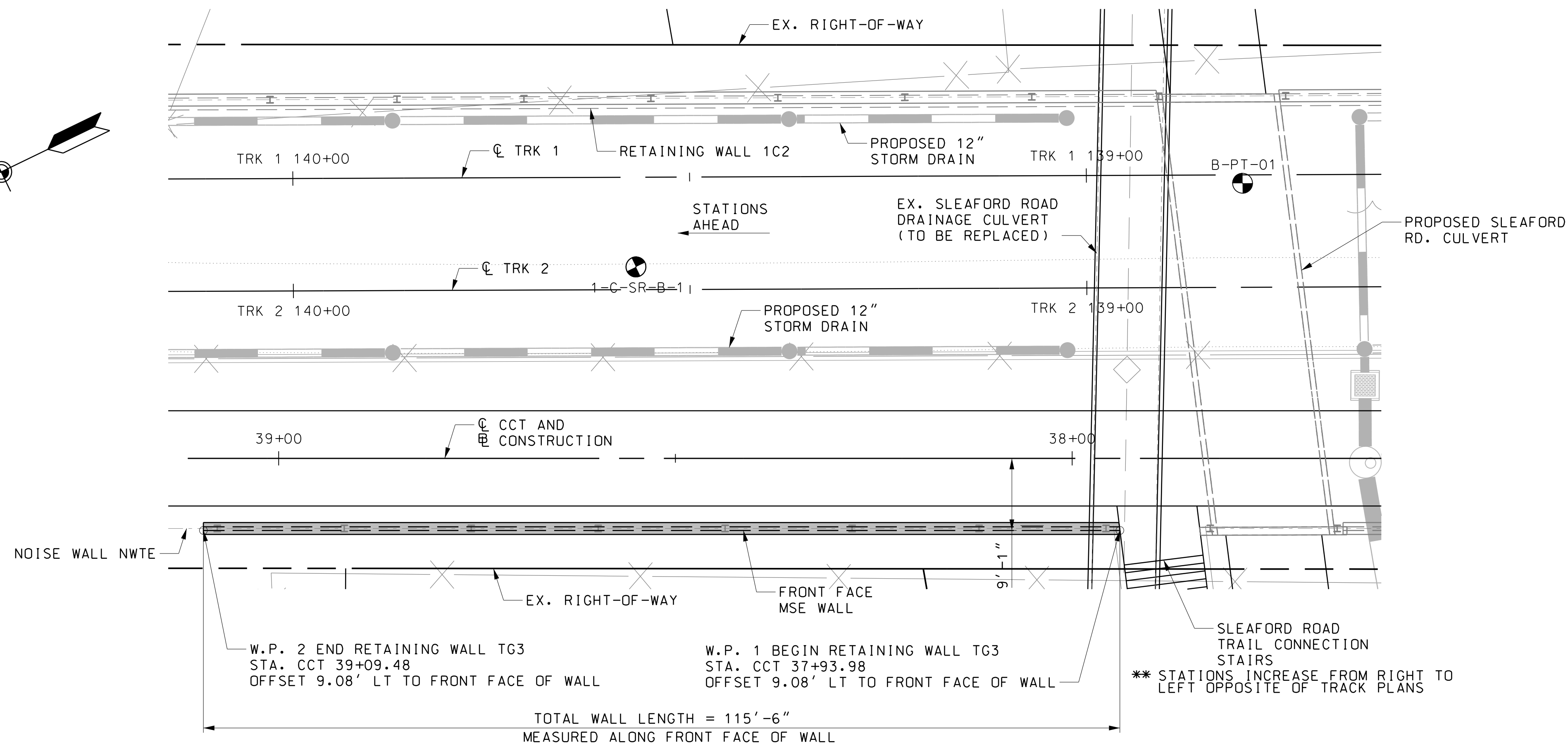
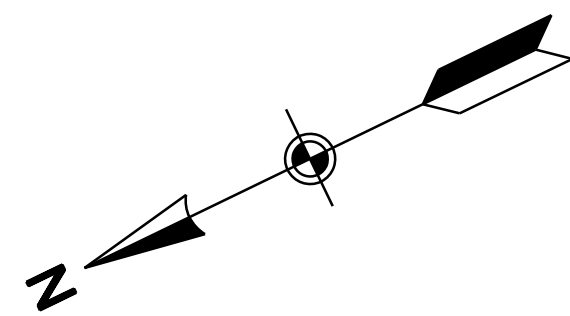
SCALE: 1"=10'-0"



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

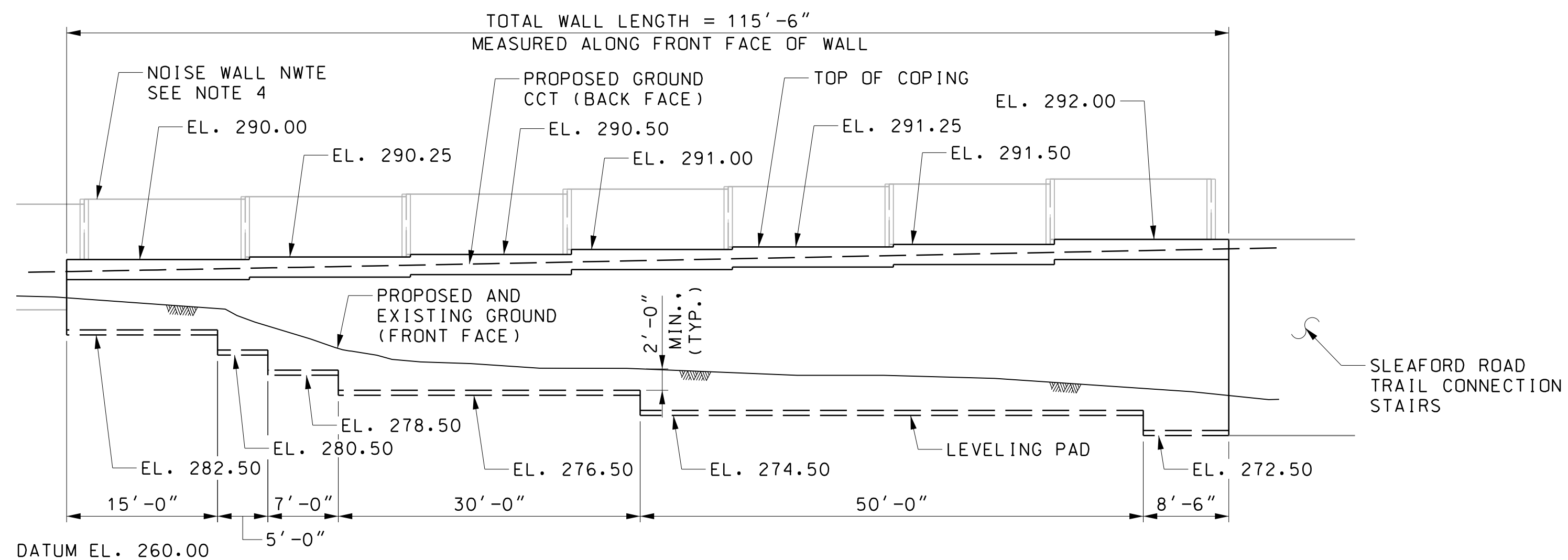
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
2. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURER'S DESIGN.
3. FOR MSE WALL TYPICAL SECTION, SEE DWG STTG302.
4. FOR NOISE WALL NWTE GENERAL PLAN AND ELEVATION, SEE DWG. NO. NWTE01.

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

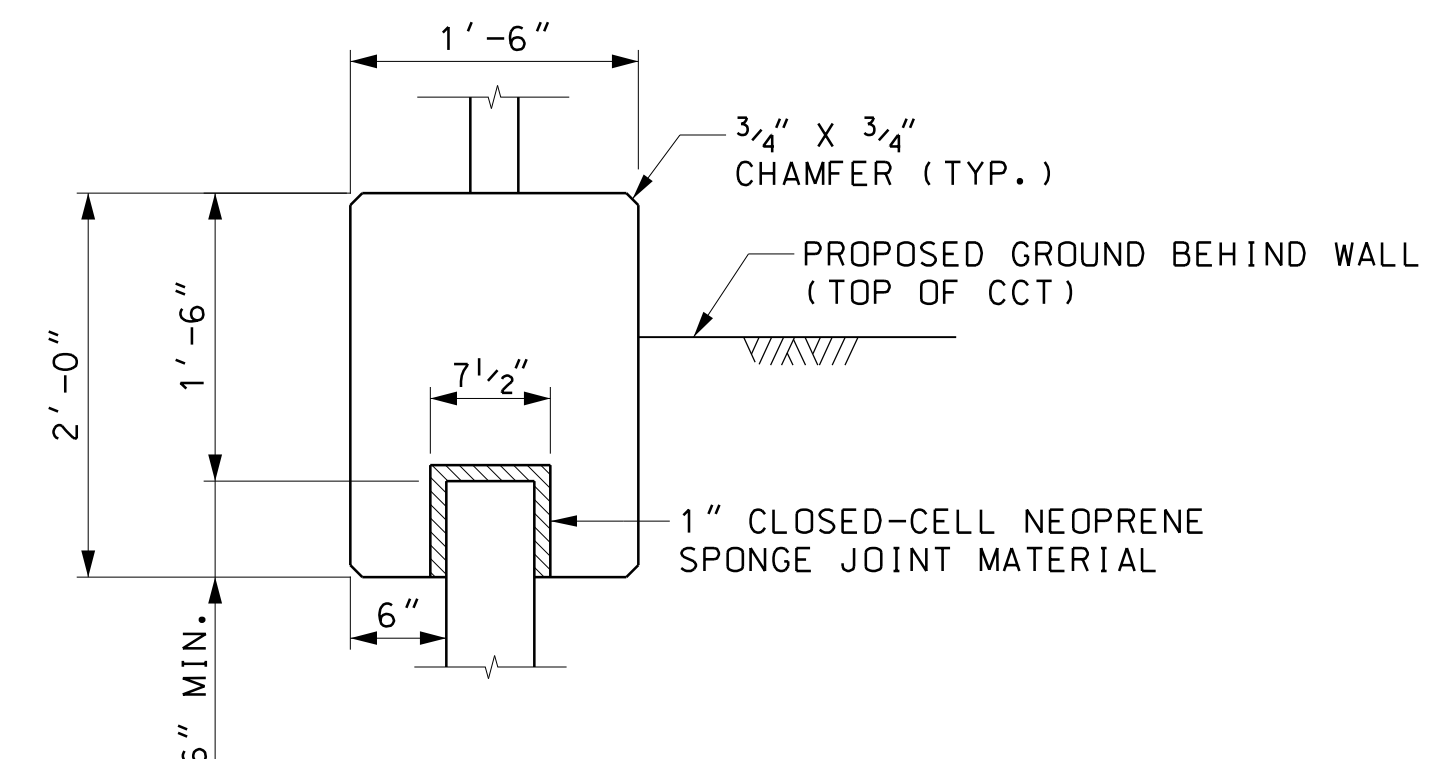
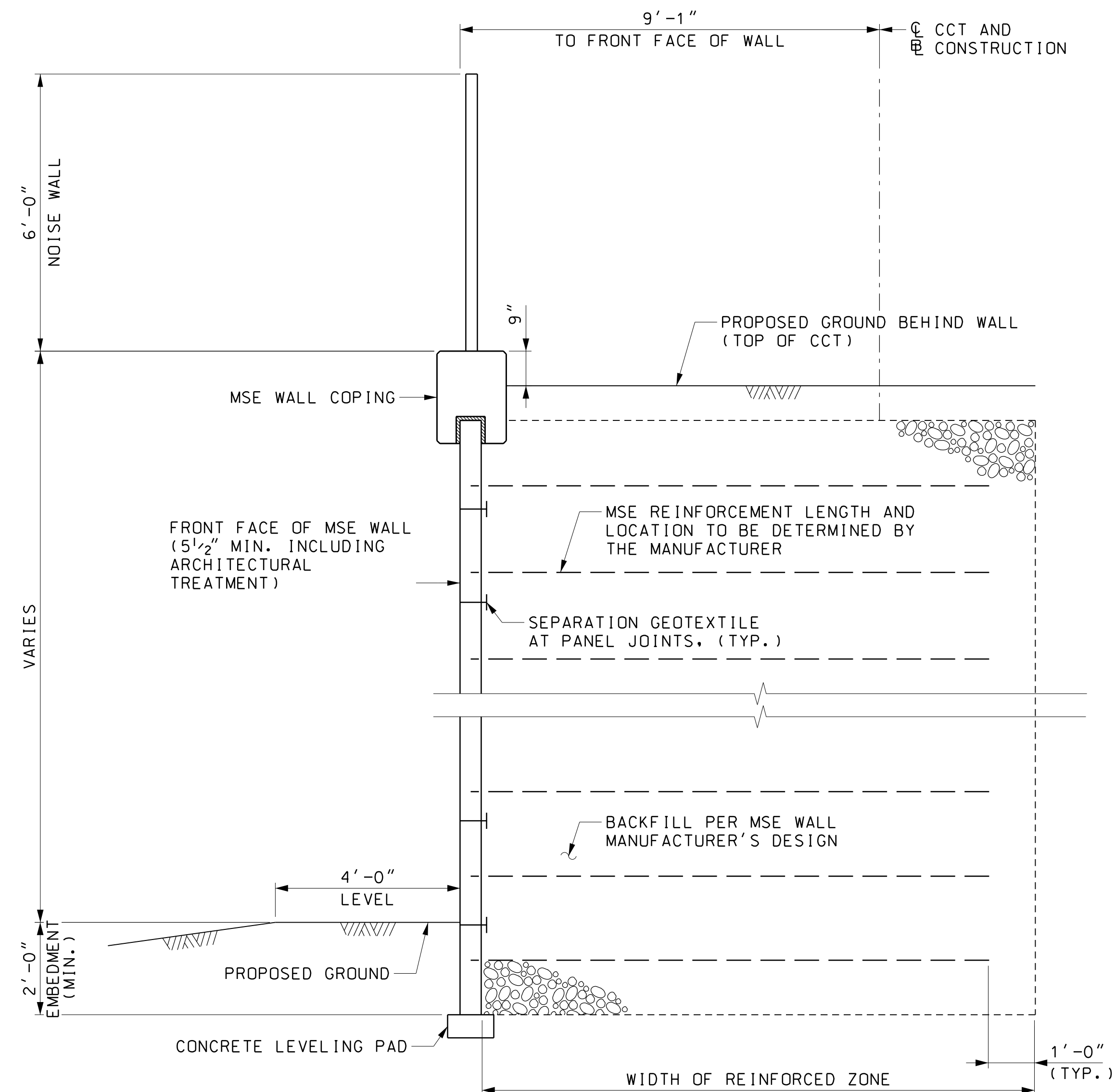
RETAINING WALL - TG3
GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

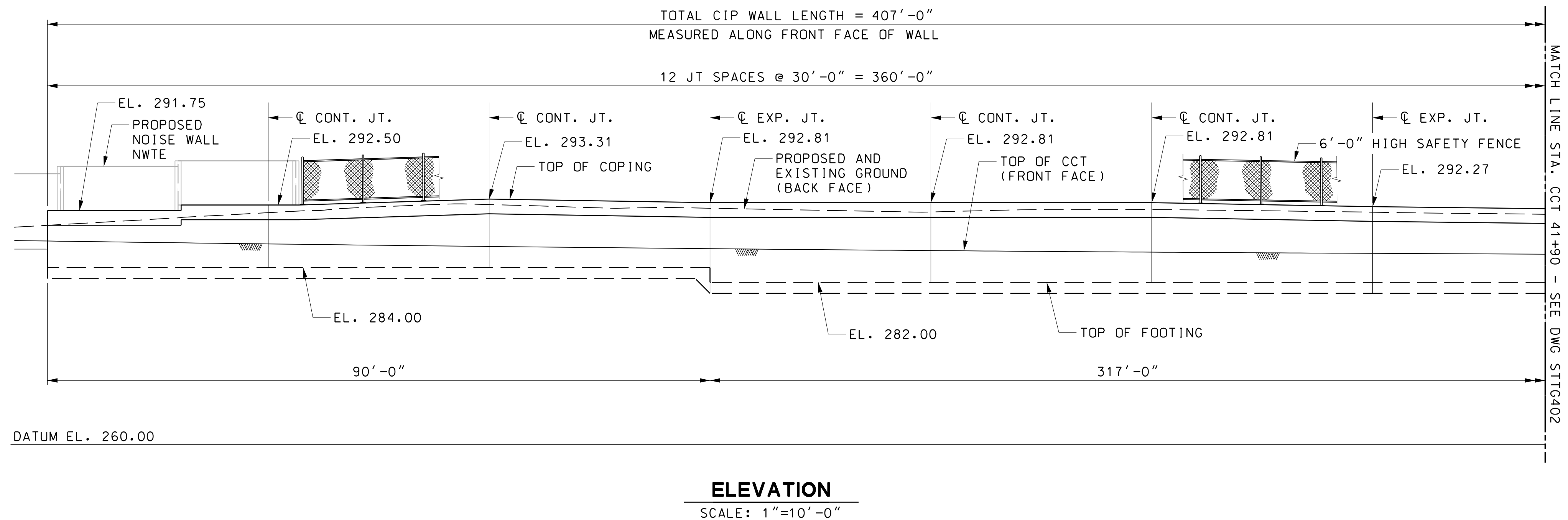
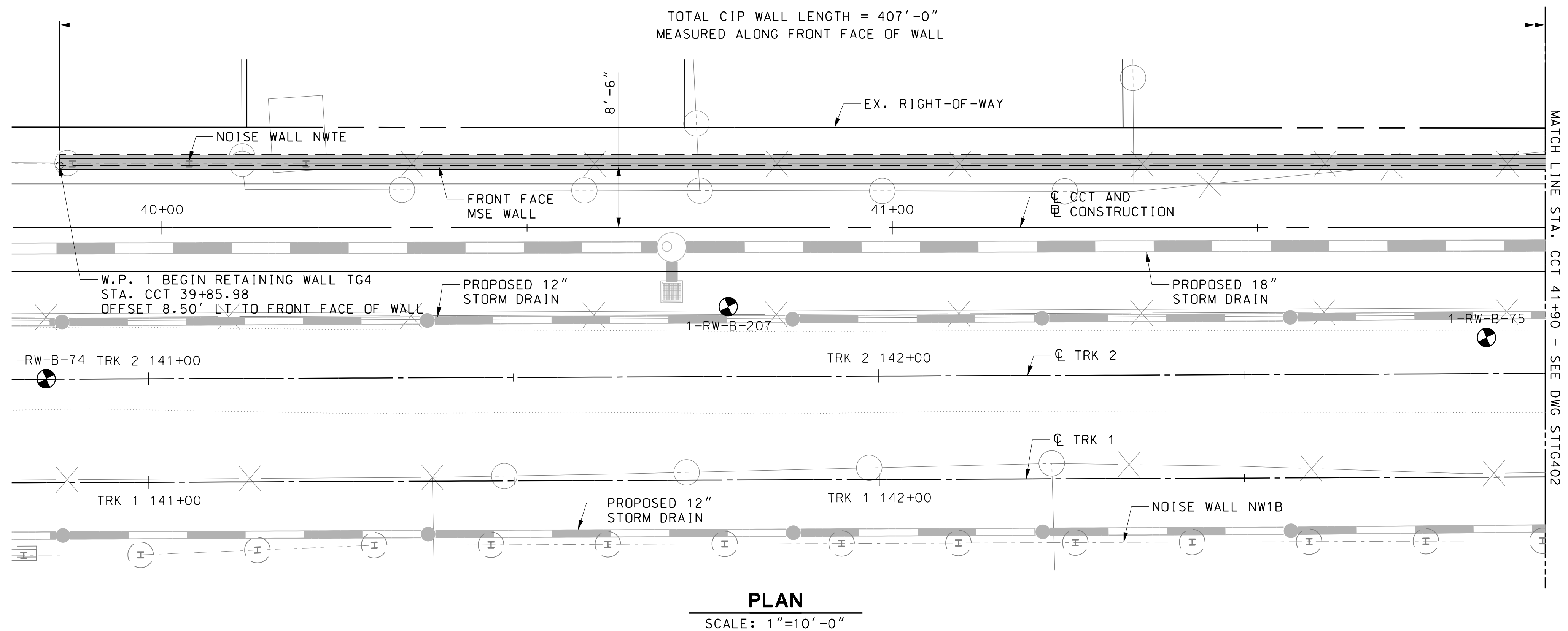
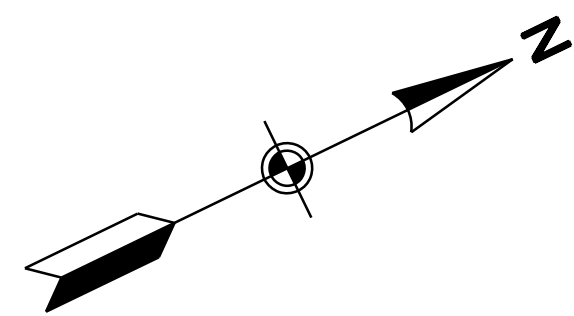
CONTRACT NO. T-1042-0220
DRAWING NO. STTG301
SHEET NO. 87 OF 828

c:\pwworking\mtopw\mci-brian_burns\00125265\1042pSTtg31.dgn
12/5/2013



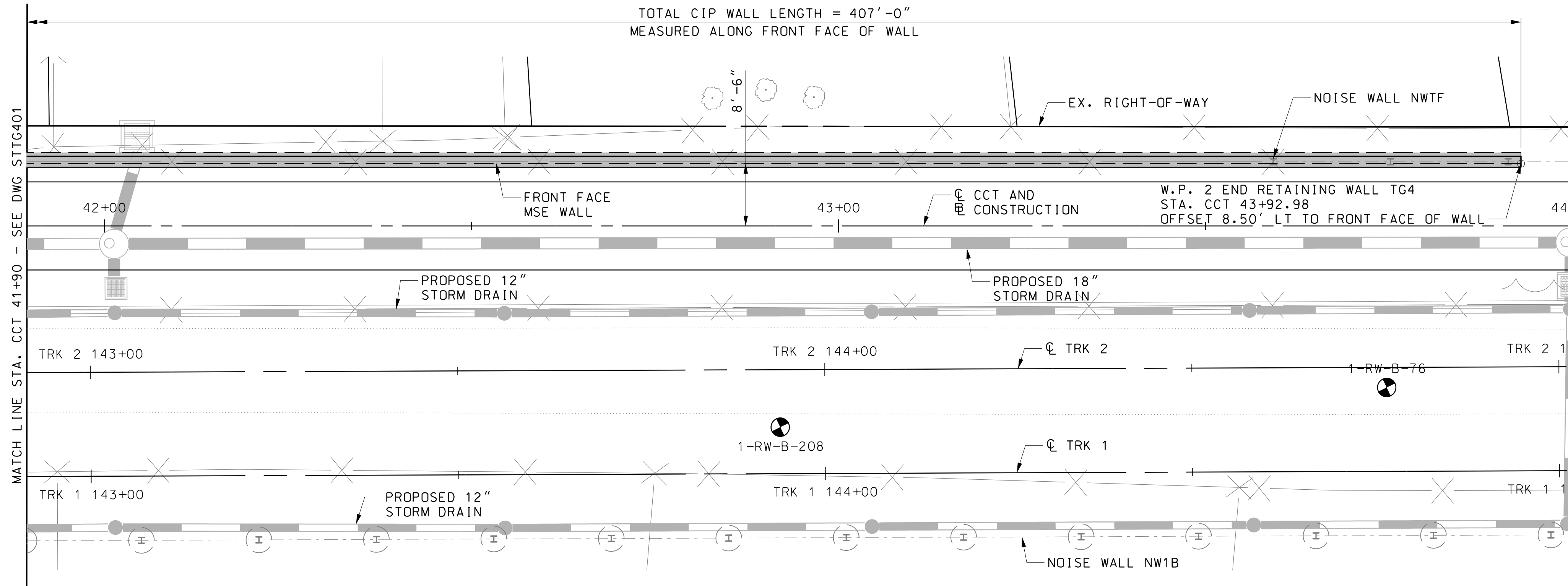
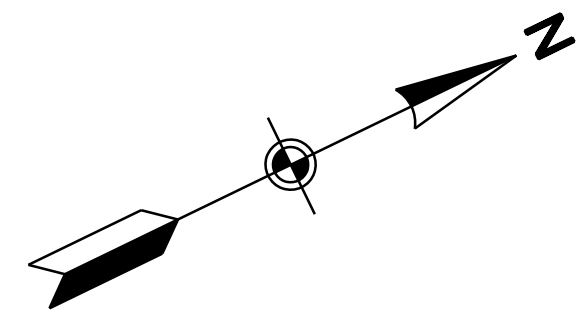
- NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



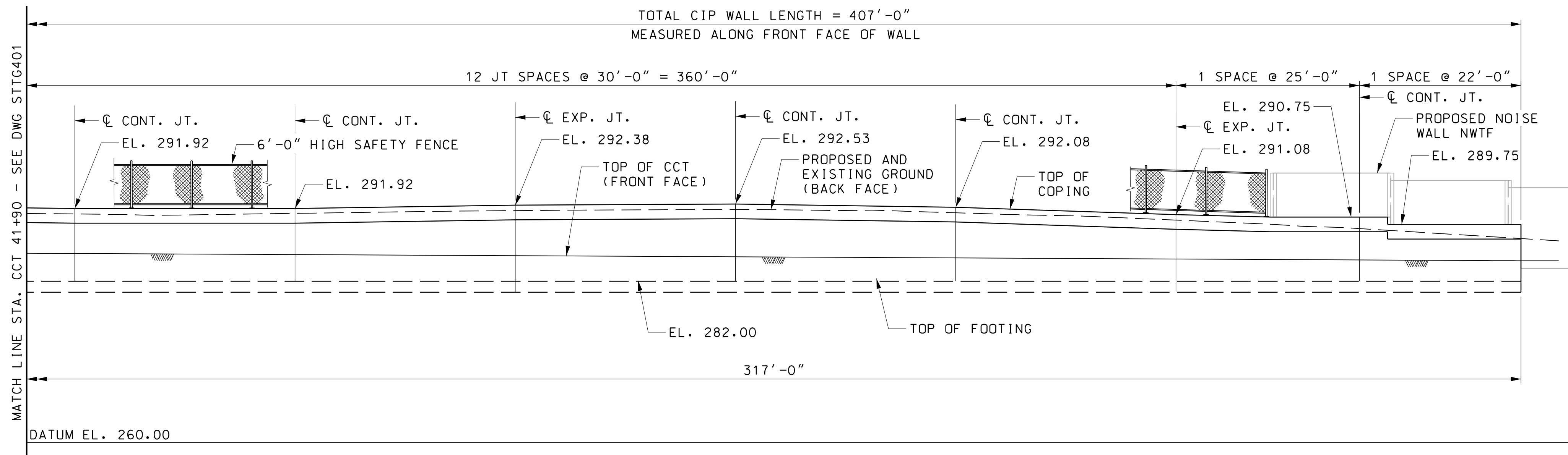
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTG403.
2. FOR NOISE WALL NWTE GENERAL PLAN AND ELEVATIONS, SEE DWG. NO. NWTE01.



PLAN

SCALE: 1"=10'-0"

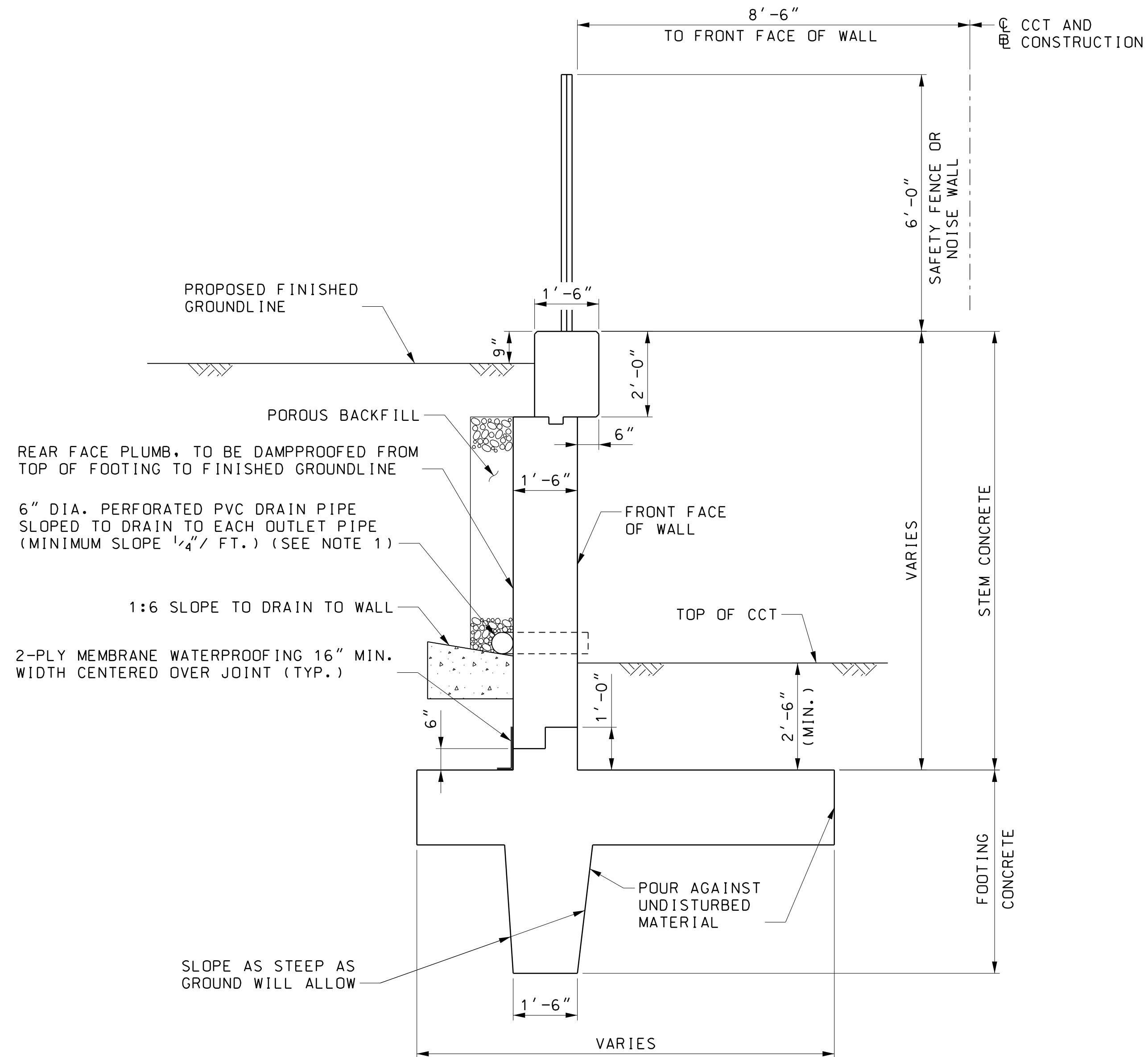


ELEVATION

SCALE: 1"=10'-0"

NOTES:

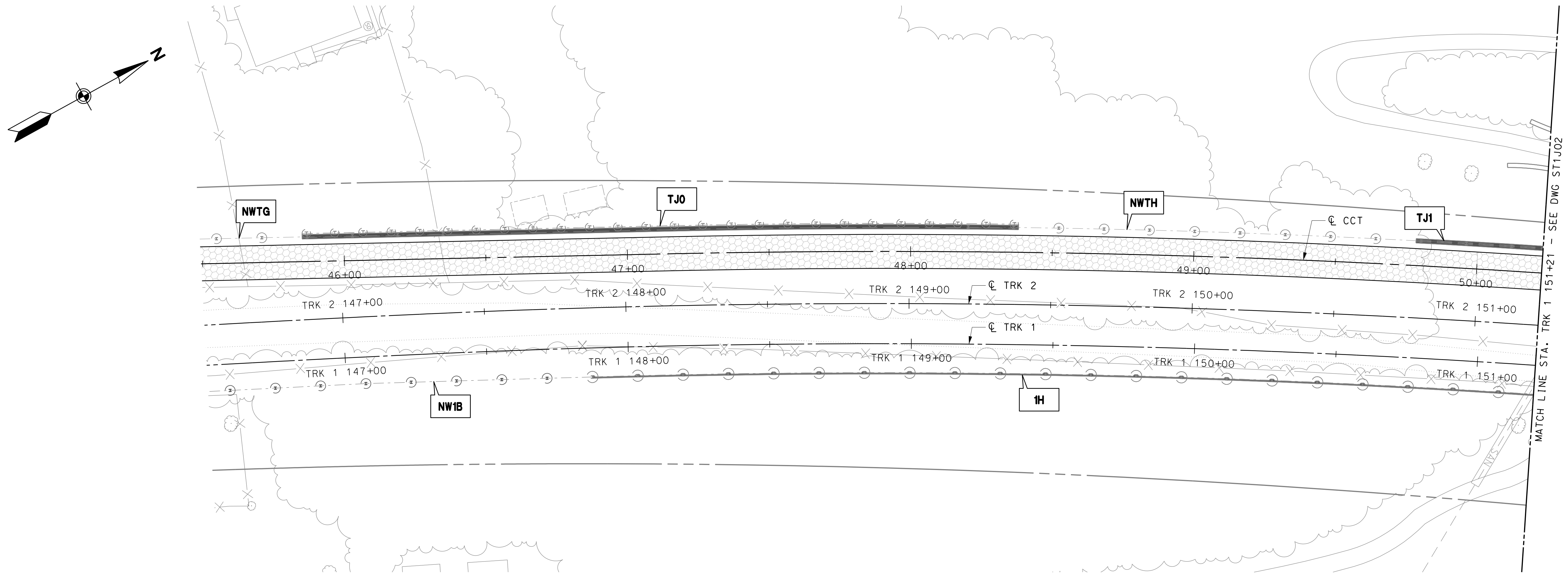
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTG403.
2. FOR NOISE WALL NWTF GENERAL PLAN AND ELEVATIONS, SEE DWG. NO. NWTF01.



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

NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



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APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

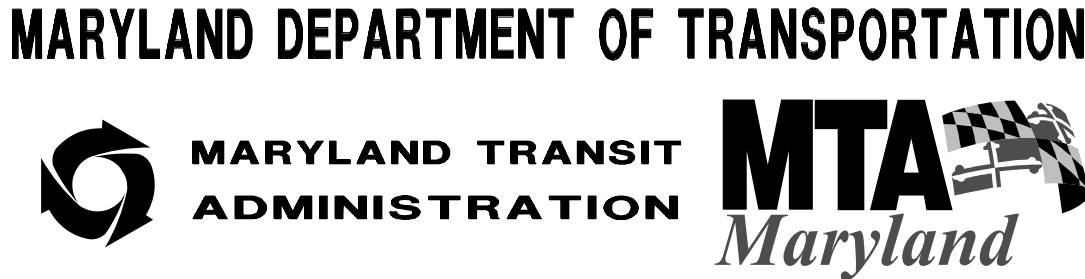
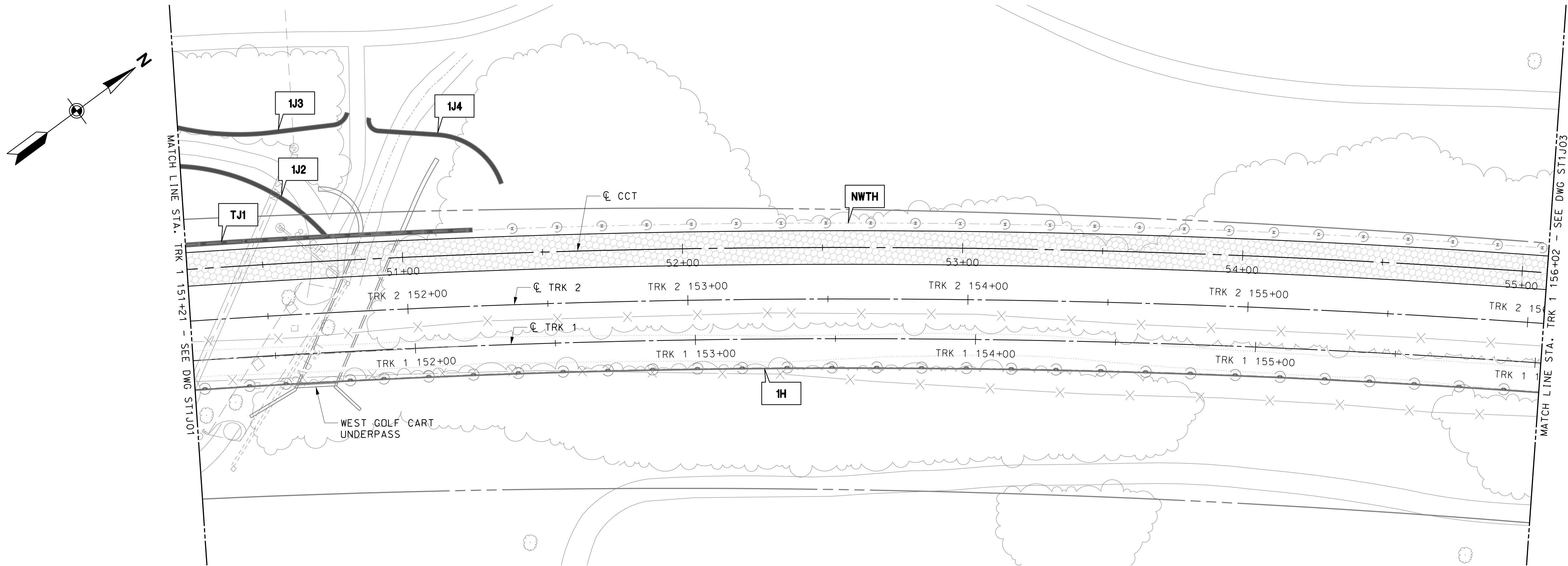
COLUMBIA COUNTRY CLUB
STRUCTURE LOCATION MAP – 1

DATE: DECEMBER 2013 SCALE: 1" = 20'-0"

CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1J01

SHEET NO.
92 OF 828



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APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

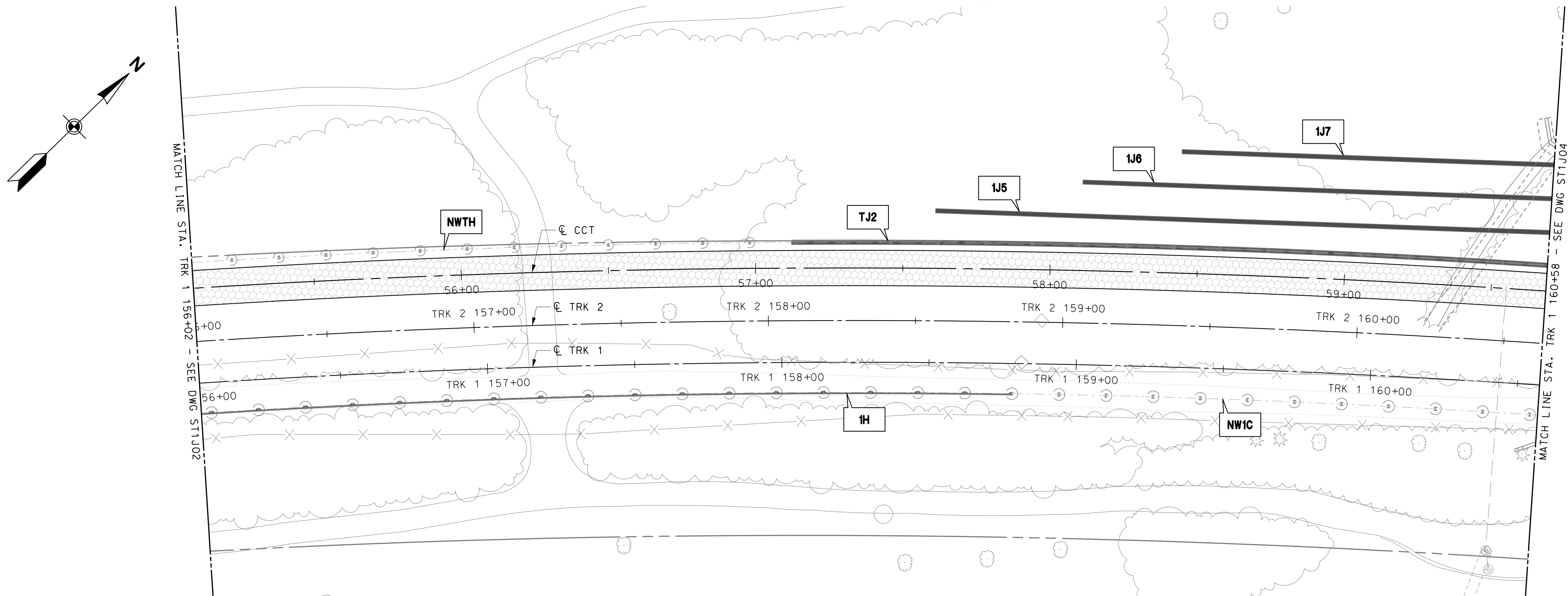
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

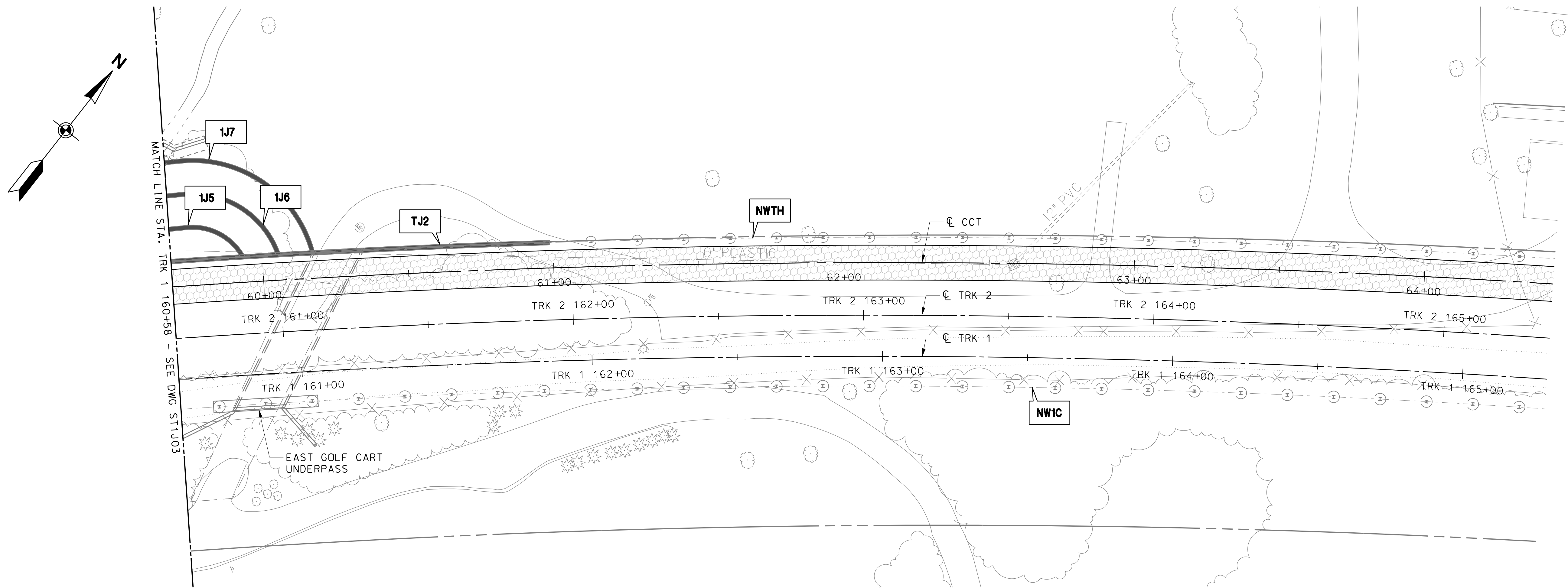
COLUMBIA COUNTRY CLUB
STRUCTURE LOCATION MAP - 2

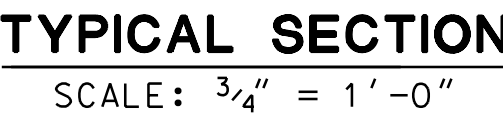
DATE: DECEMBER 2013 SCALE: 1" = 20'-0"

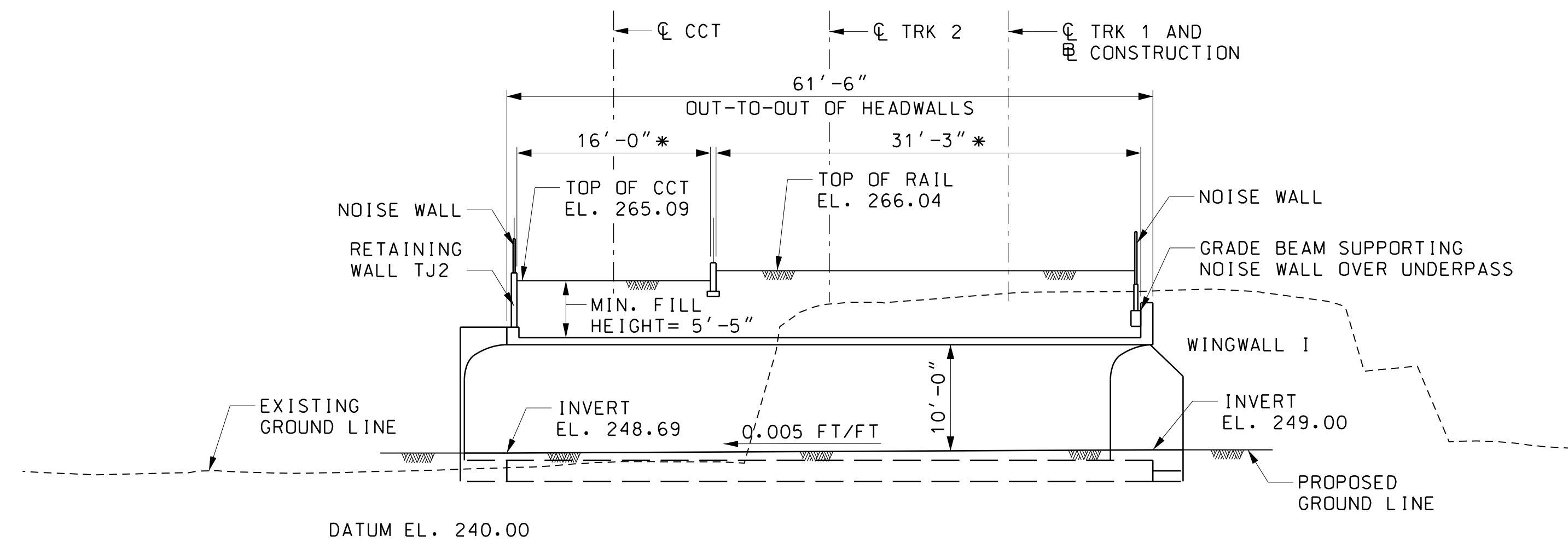
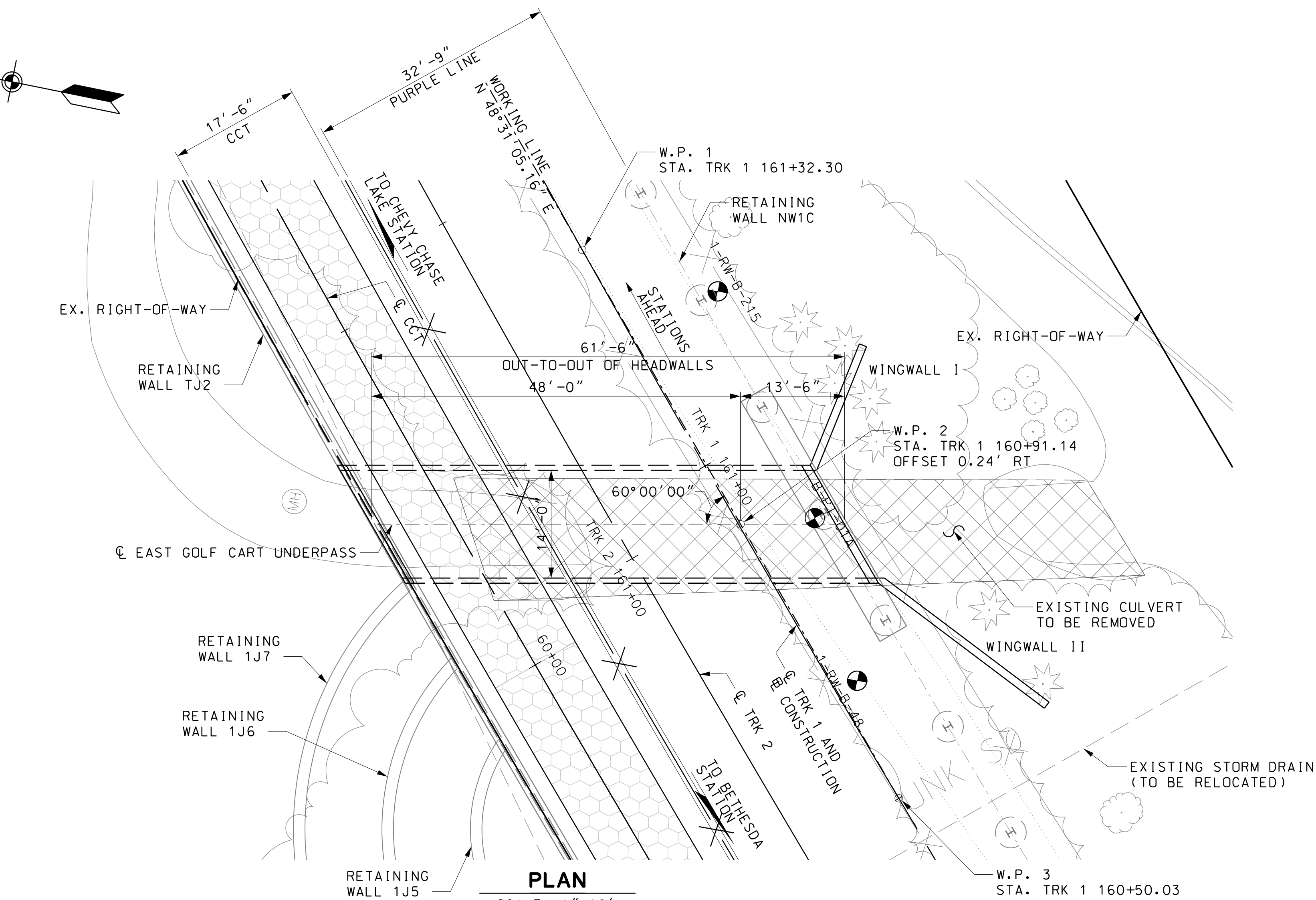
CONTRACT NO. T-1042-0220
DRAWING NO. ST1J02
SHEET NO. 93 OF 828

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12/5/2013









GENERAL NOTES

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012.

MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

LOADING: AW4 LRT VEHICLE. DESIGN IS BASED ON AN ASSUMED MAXIMUM FILL HEIGHT OF 6.4 FT.

CONCRETE: ALL CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). ALL PRECAST CONCRETE SHALL HAVE $f'_c = 5000$ PSI.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60.

ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

EXISTING STRUCTURE: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS.

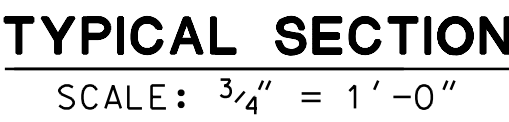
EXISTING STRUCTURE SHOWN HATCHED, TO BE REMOVED.

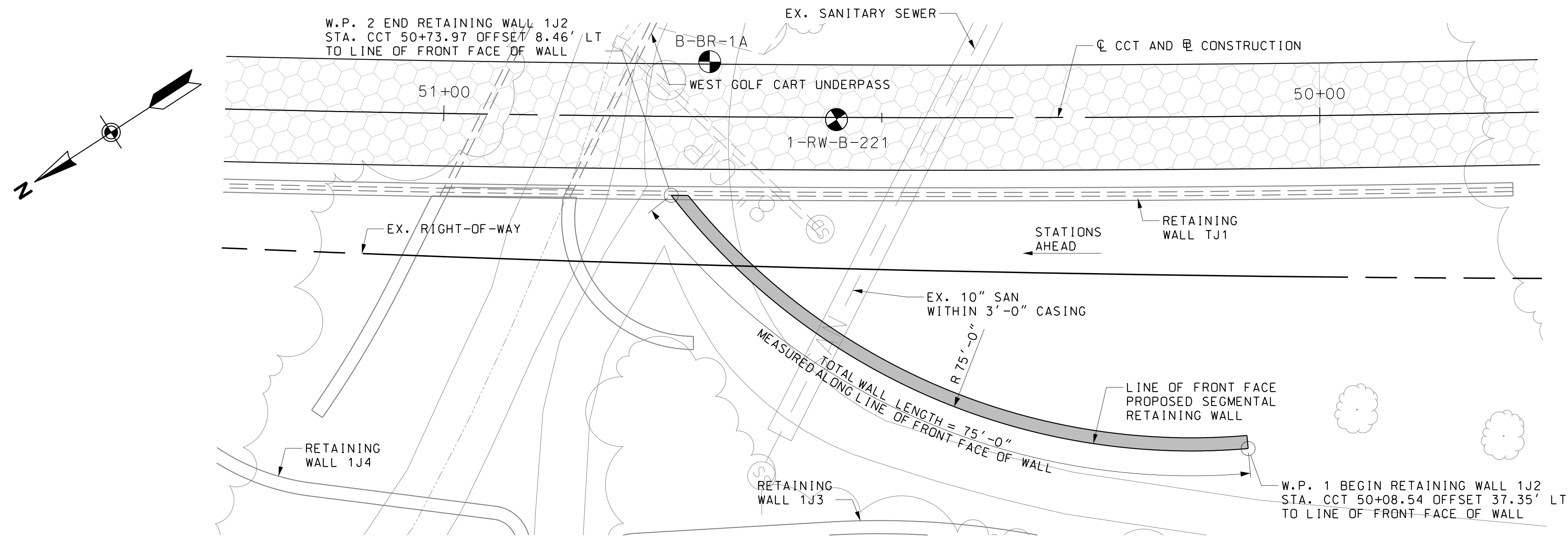
KEYS: ALL KEYS ARE NOMINAL SIZE.

GEOTECHNICAL DESIGN PARAMETERS: PRIOR TO CONSTRUCTING UNDERPASS, GEOTECH ENGINEER TO VERIFY IN FIELD FOUNDATION CAPACITY. UNDERCUTTING OF SOILS MAY BE REQUIRED TO MEET FOUNDATION CAPACITY.

NOTES:

1. LONGITUDINAL ELEVATION SHOWN ALONG CENTERLINE OF GOLF CART UNDERPASS.
2. DIMENSIONS SHOWN WITH * ARE PERPENDICULAR TO THE BASELINE OF CONSTRUCTION.



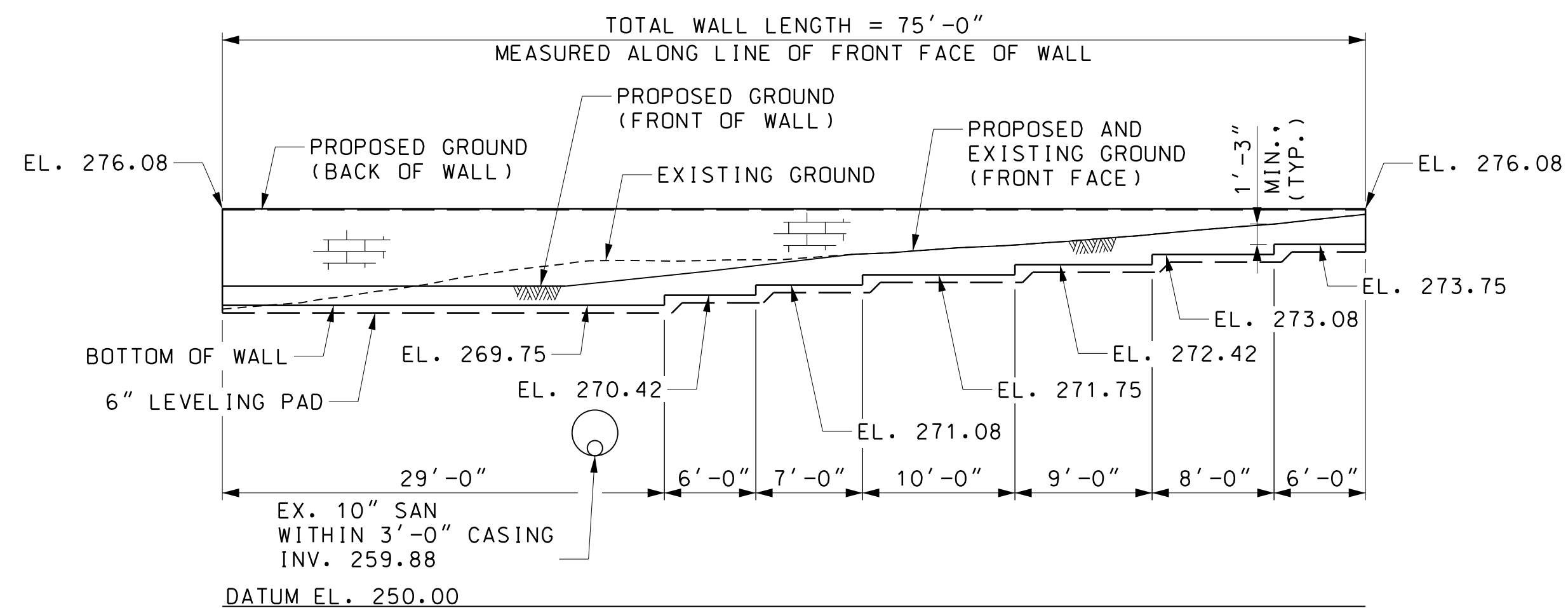


PLAN

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

NOTES:

1. ELEVATIONS ARE SHOWN ALONG LINE OF FRONT FACE OF SEGMENTAL RETAINING WALL.
2. BOTTOM OF WALL ELEVATIONS MAY BE MODIFIED PER SEGMENTAL RETAINING WALL MANUFACTURER'S DESIGN.
3. FOR TYPICAL SECTION SEE DWG. ST1J202.



ELEVATION

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

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN	MWM
DRAWN	BCB
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL 1J2
GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013

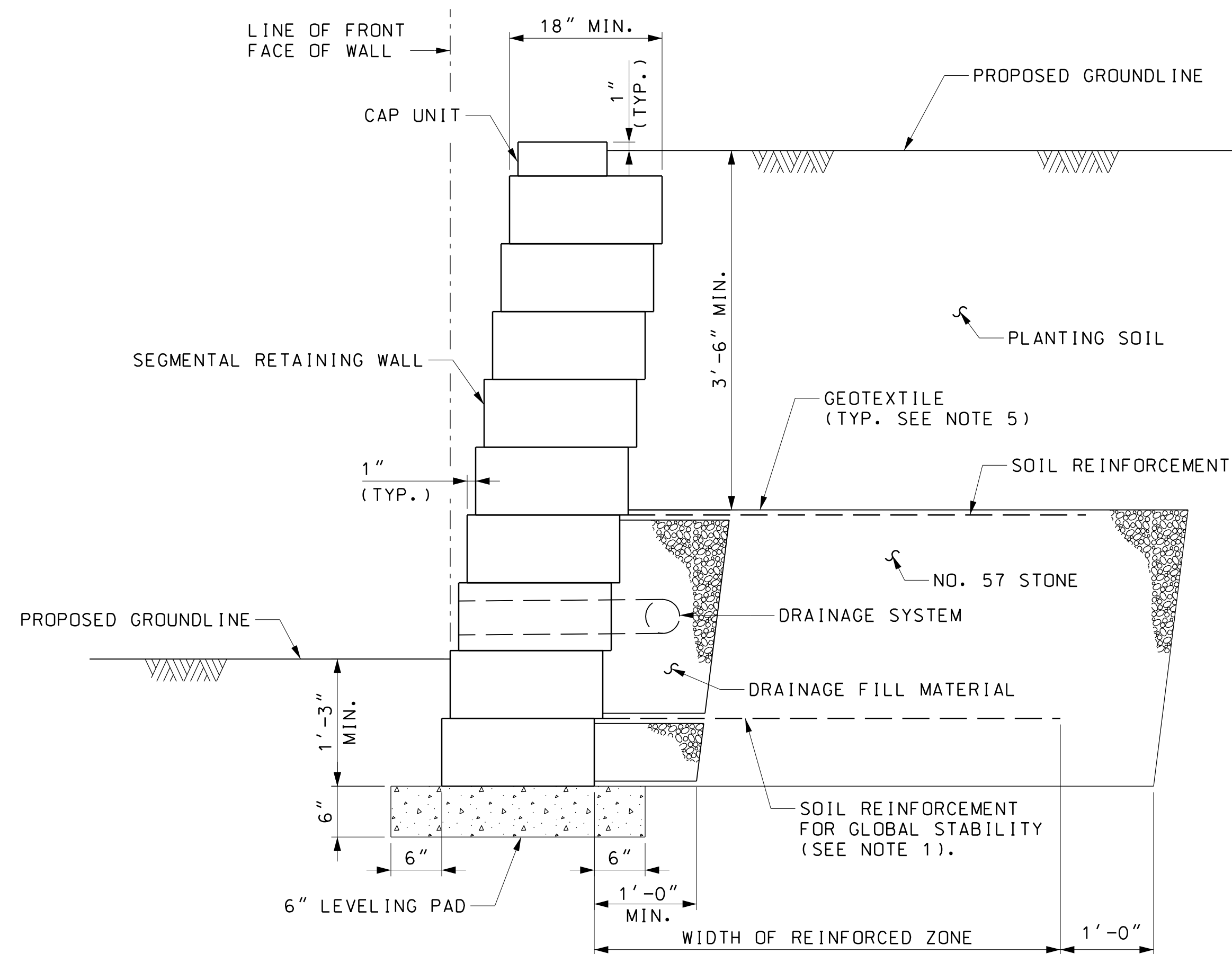
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CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1J201

SHEET NO.
100 OF 828

c:\pwworking\mtpow\mci-brian_burns\dms8862\1042pST1J21.dgn 12/5/2013

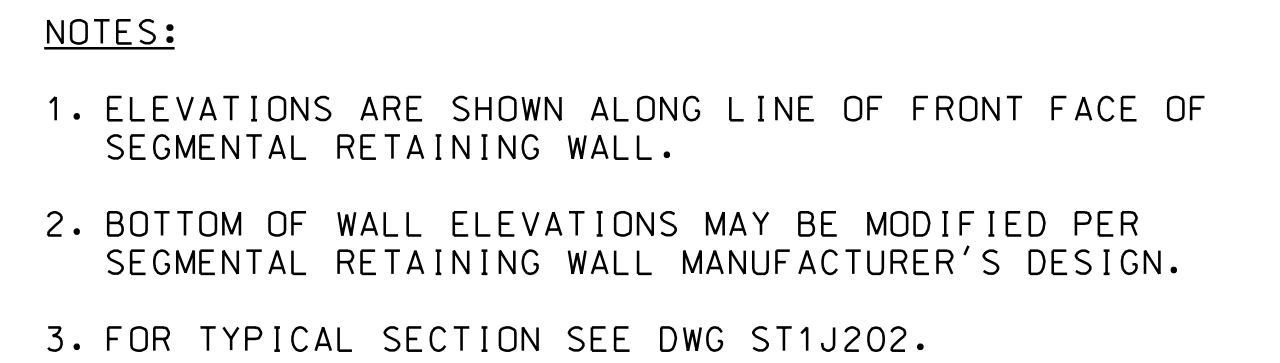


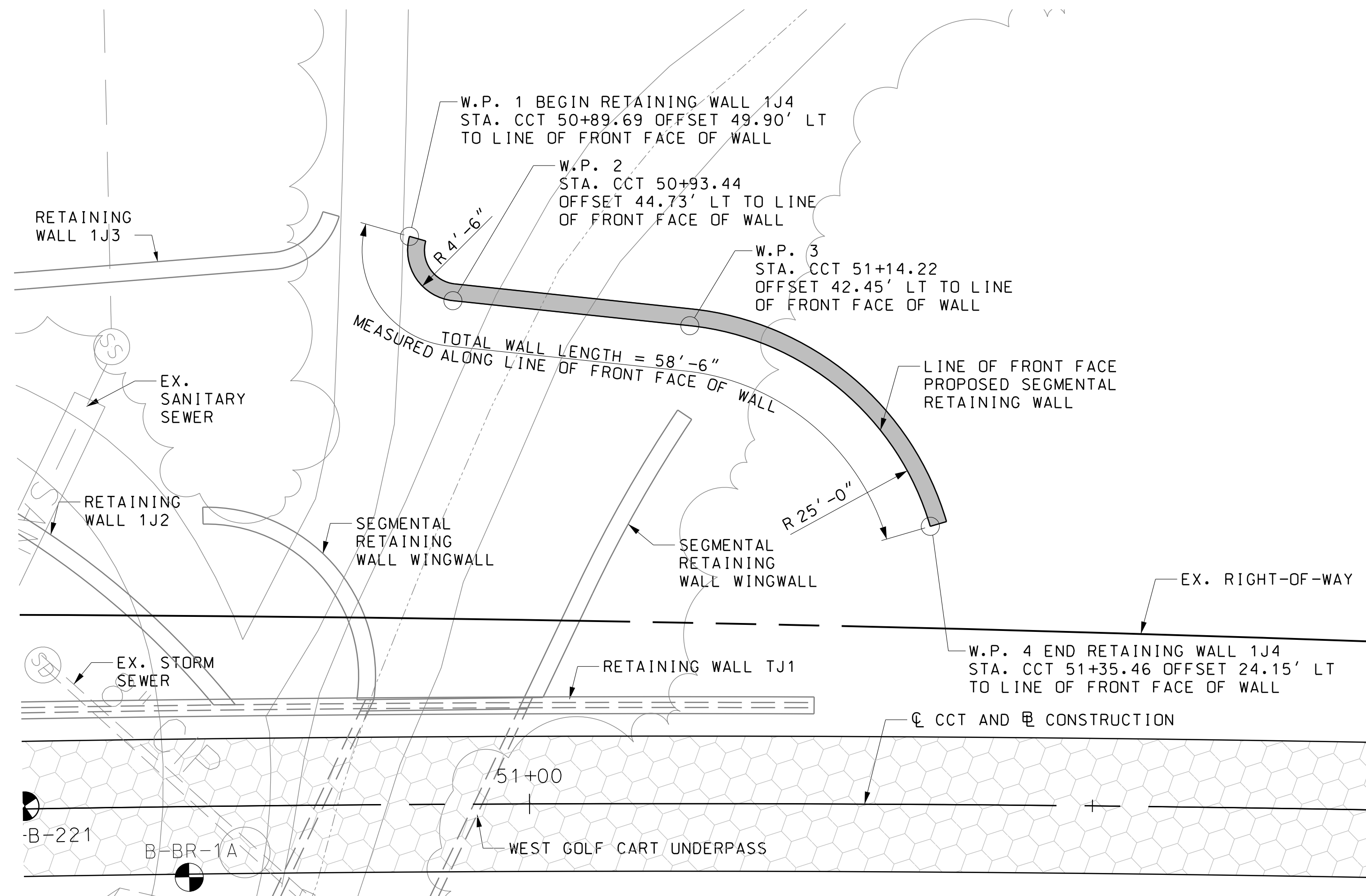
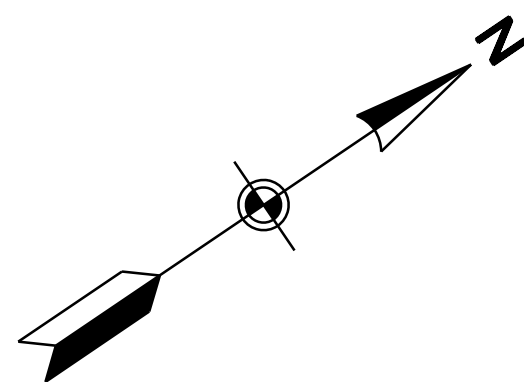
SEGMENTAL RETAINING WALL TYPICAL SECTION

SCALE: 1"=1'-0"

NOTES:

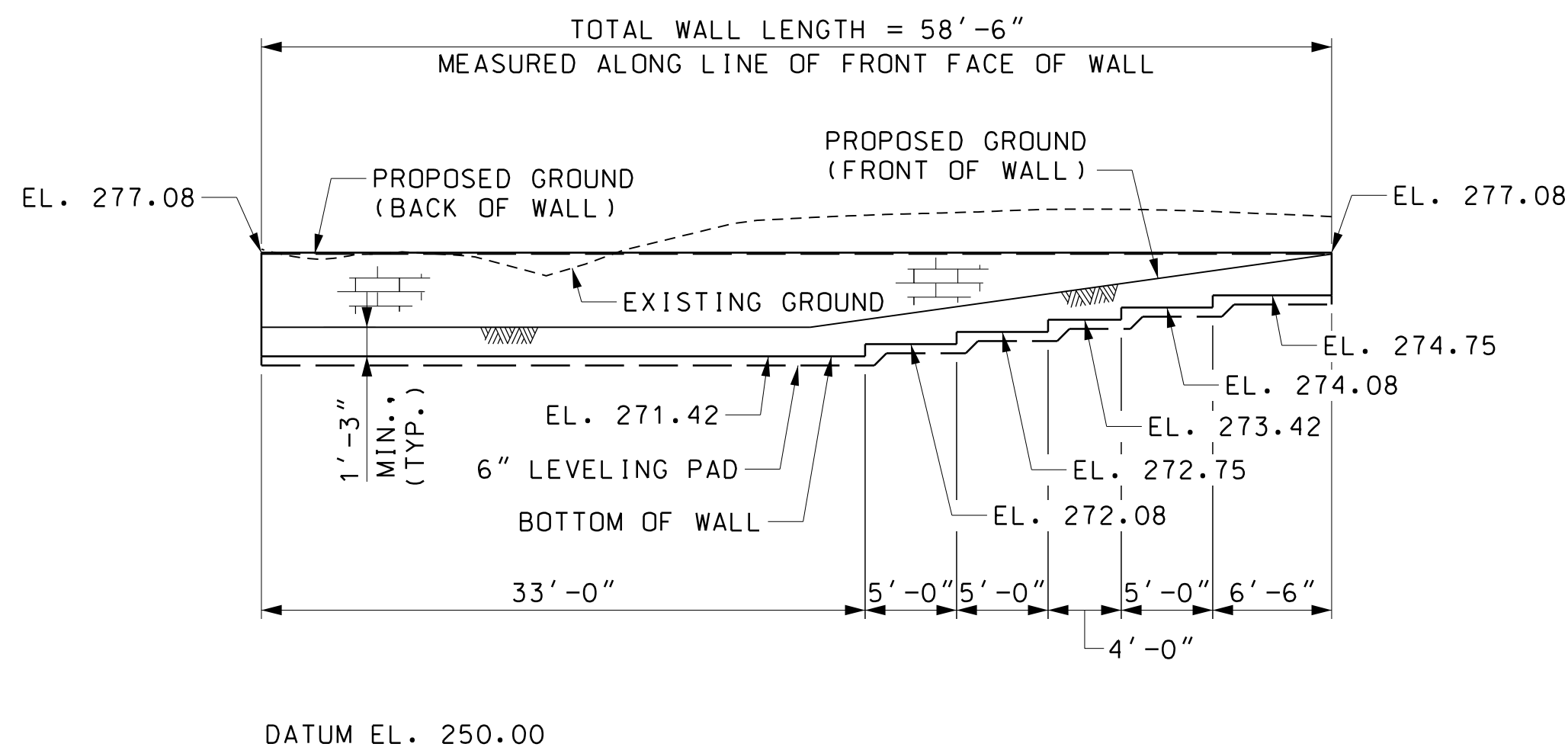
1. LENGTH OF THE SOIL REINFORCEMENT BETWEEN THE FIRST AND SECOND BLOCK LAYERS IS TO BE ADEQUATE TO ENSURE GLOBAL STABILITY OF THE WALL SYSTEM.
2. SEGMENTAL RETAINING WALL SHALL BE CONSTRUCTED WITH 8" HIGH X 18" MINIMUM DEPTH BLOCKS OFFSET BY 1" AT EACH LEVEL, OR APPROVED EQUAL.
3. PLANTING SOIL SHALL BE PLACED OVER THE NO. 57 STONE AT A MINIMUM DEPTH OF 3'-6".
4. LEVELING PAD MAY BE UNREINFORCED CONCRETE OR NO. 57 STONE.
5. GEOTEXTILE ONLY TO BE APPLIED ON TOP OF THE TOP LAYER OF SOIL REINFORCEMENT AND NEED NOT WRAP AROUND THE ENTIRE AREA OF NO. 57 STONE.





PLAN

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

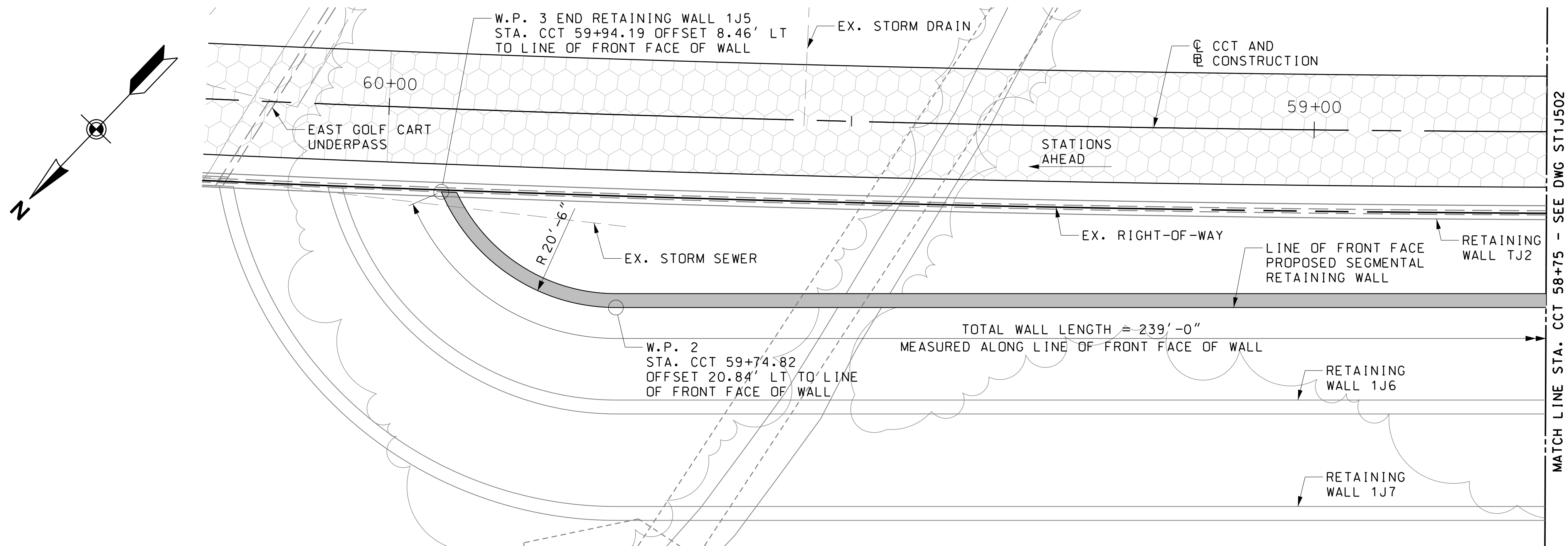


ELEVATION

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

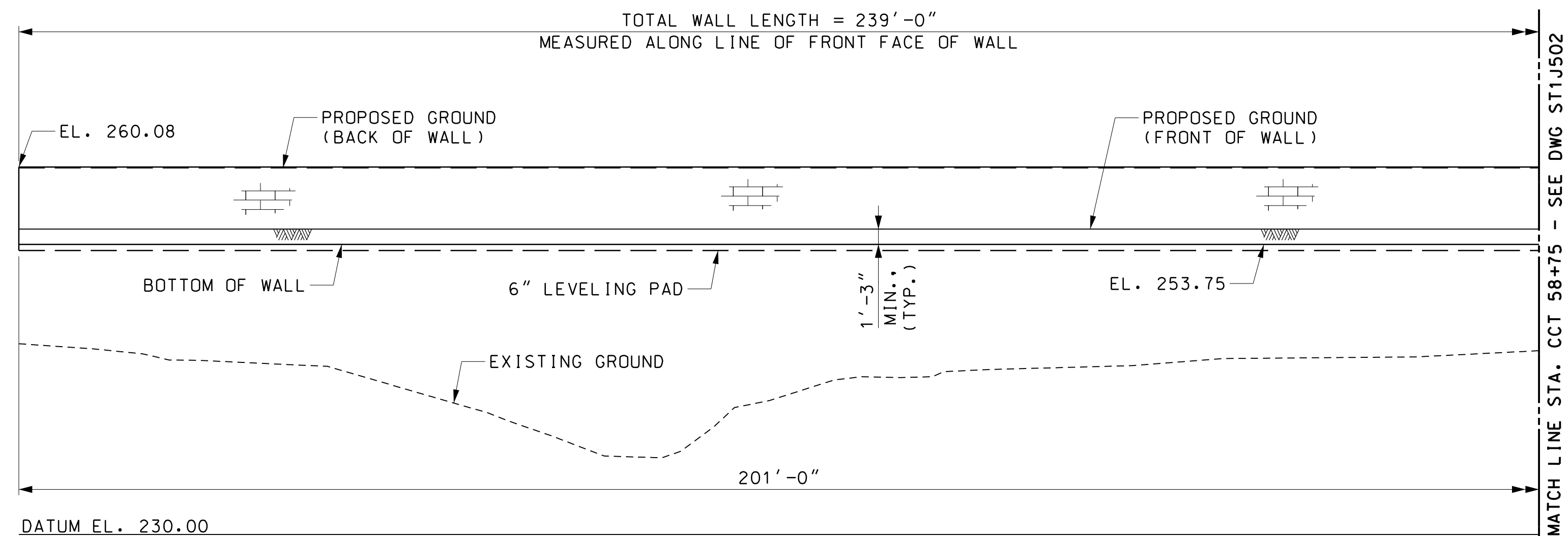
NOTES:

1. ELEVATIONS ARE SHOWN ALONG LINE OF FRONT FACE OF SEGMENTAL RETAINING WALL.
2. BOTTOM OF WALL ELEVATIONS MAY BE MODIFIED PER SEGMENTAL RETAINING WALL MANUFACTURER'S DESIGN.
3. FOR TYPICAL SECTION SEE DWG. ST1J202.



PLAN

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

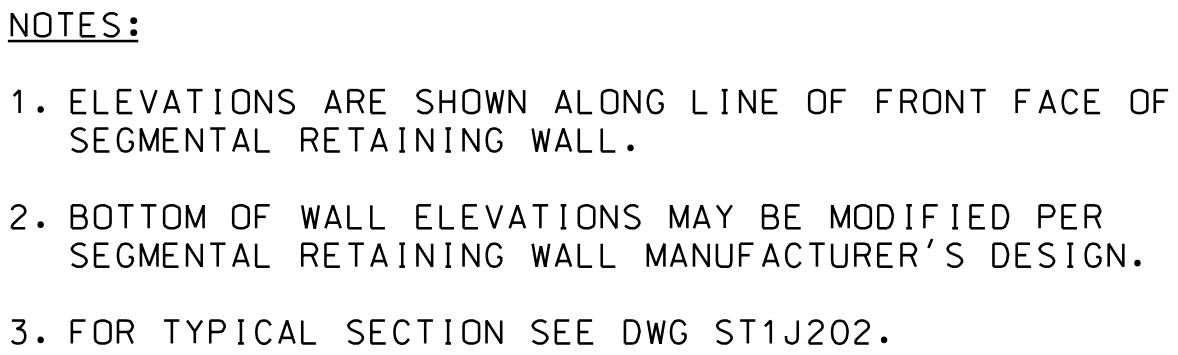
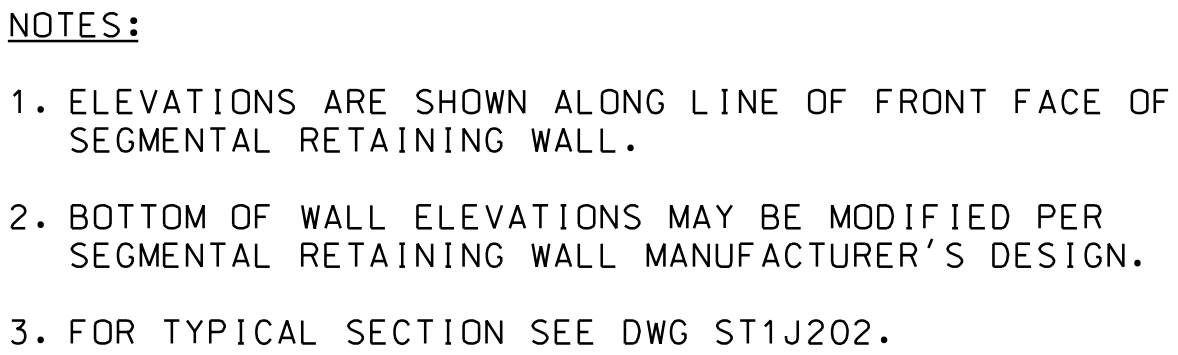


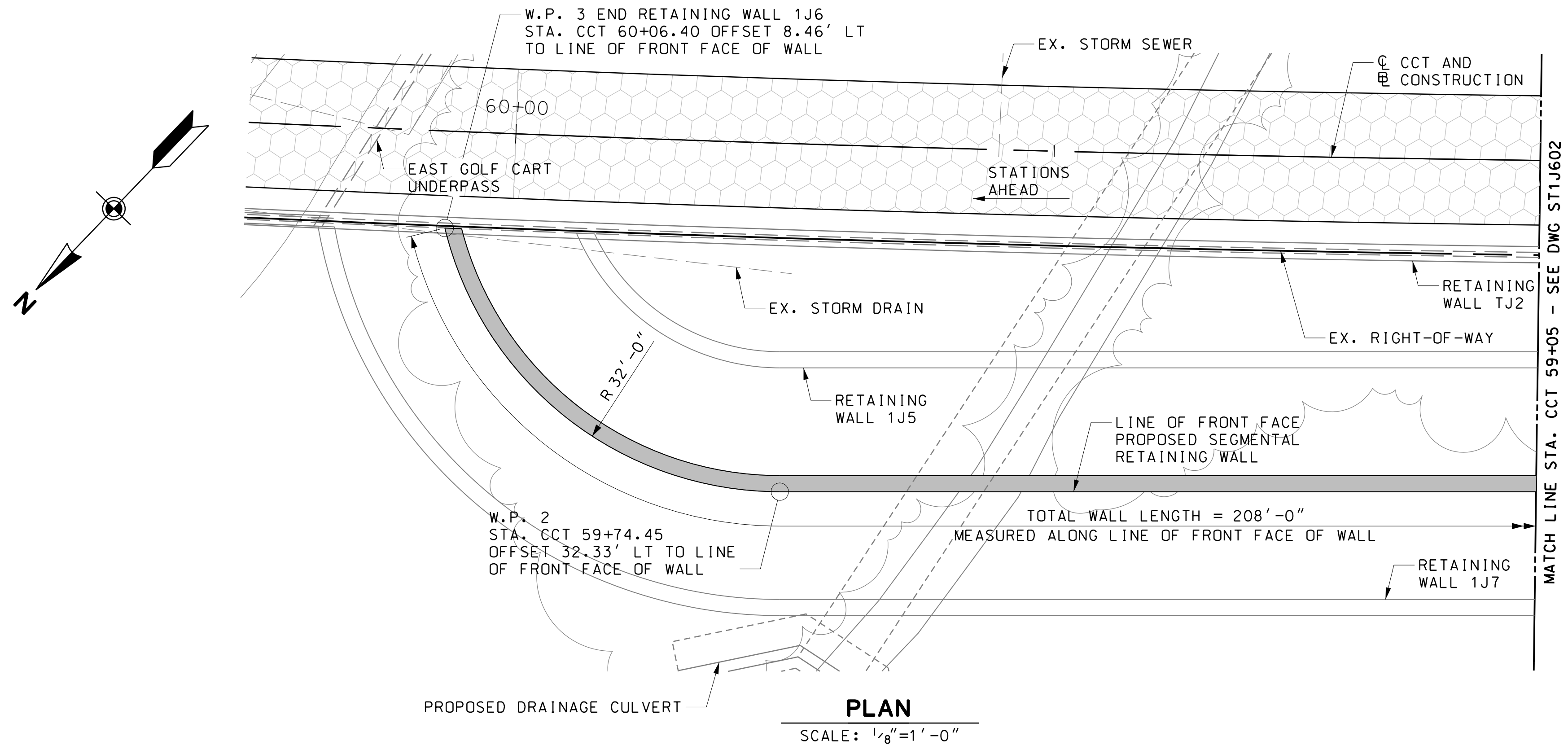
ELEVATION

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

NOTES:

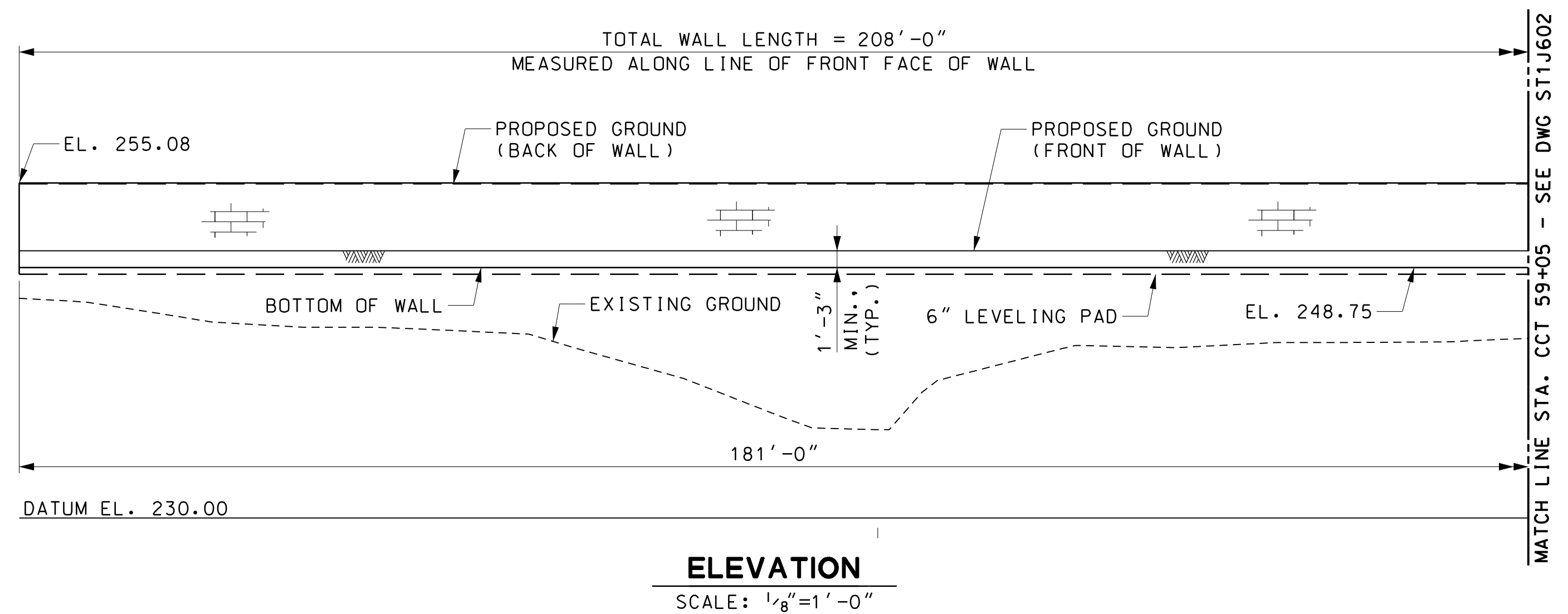
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2. BOTTOM OF WALL ELEVATIONS MAY BE MODIFIED PER SEGMENTAL RETAINING WALL MANUFACTURER'S DESIGN.
3. FOR TYPICAL SECTION SEE DWG ST1J202.

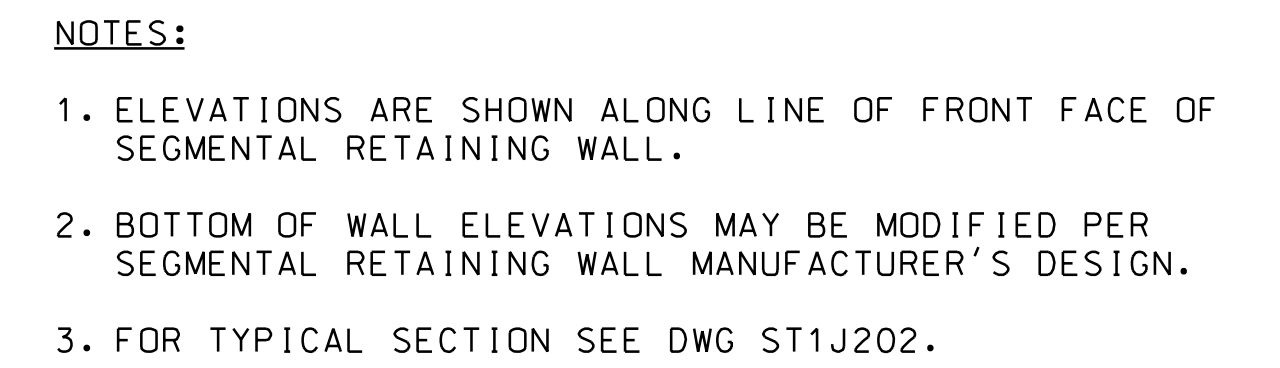


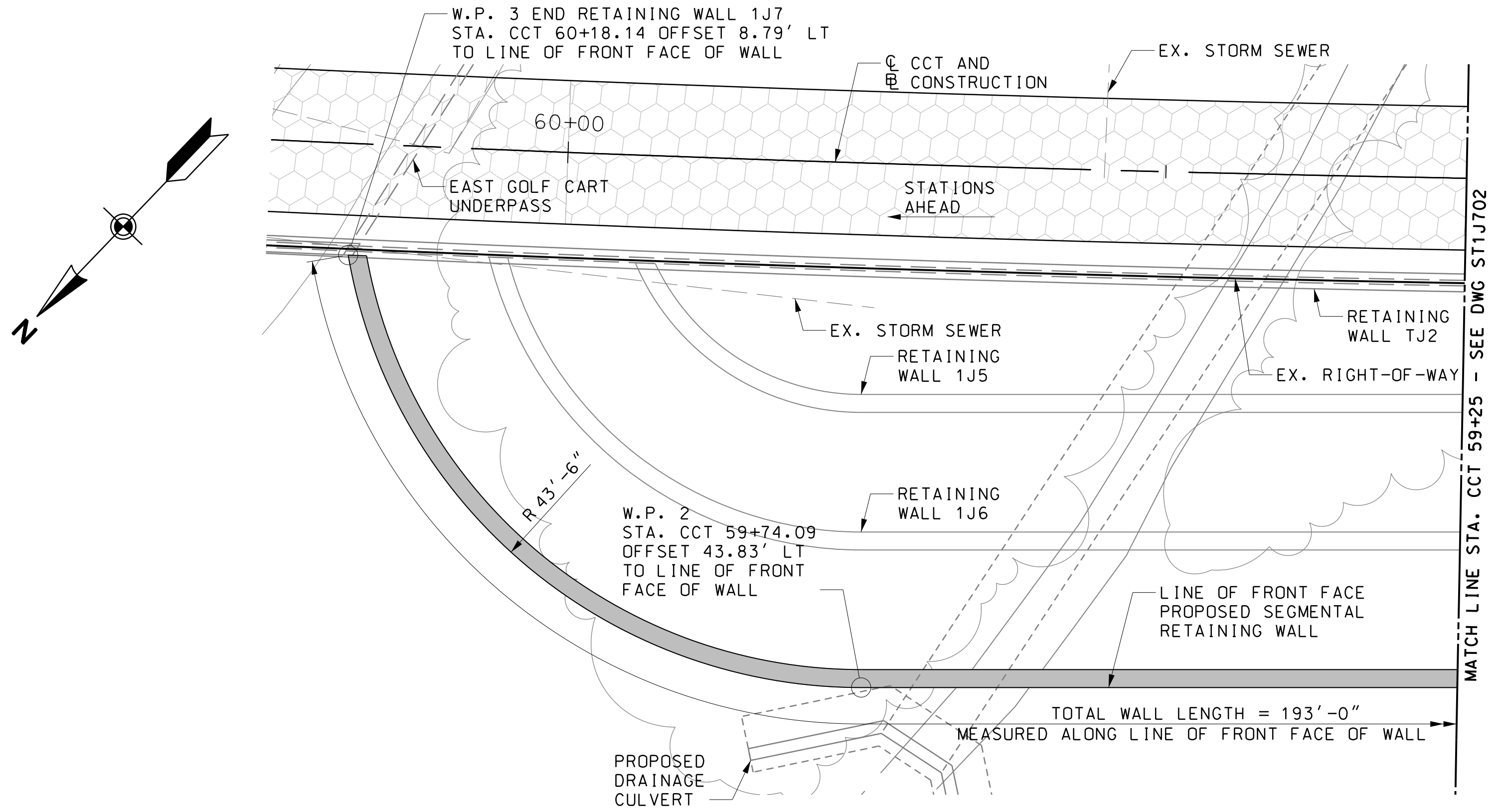


NOTES:

1. ELEVATIONS ARE SHOWN ALONG LINE OF FRONT FACE OF SEGMENTAL RETAINING WALL.
2. BOTTOM OF WALL ELEVATIONS MAY BE MODIFIED PER SEGMENTAL RETAINING WALL MANUFACTURER'S DESIGN.
3. FOR TYPICAL SECTION SEE DWG ST1J202.

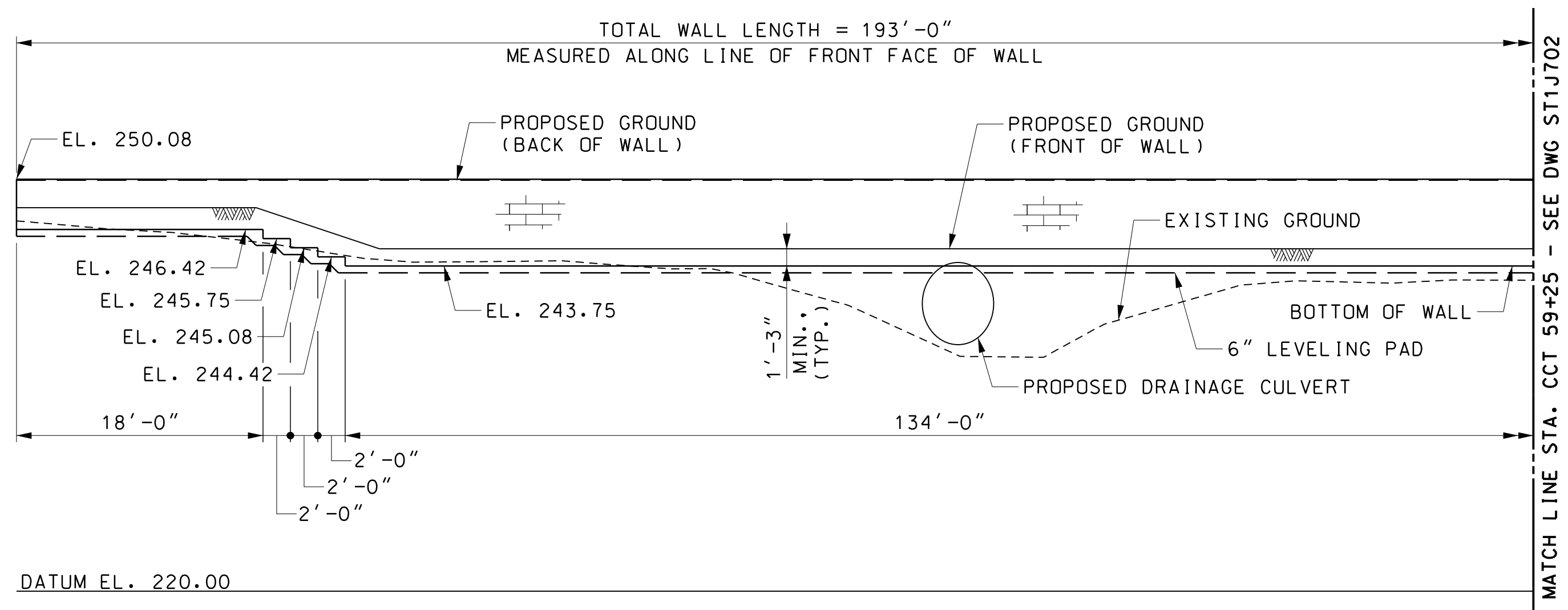


[illegible]



PLAN

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

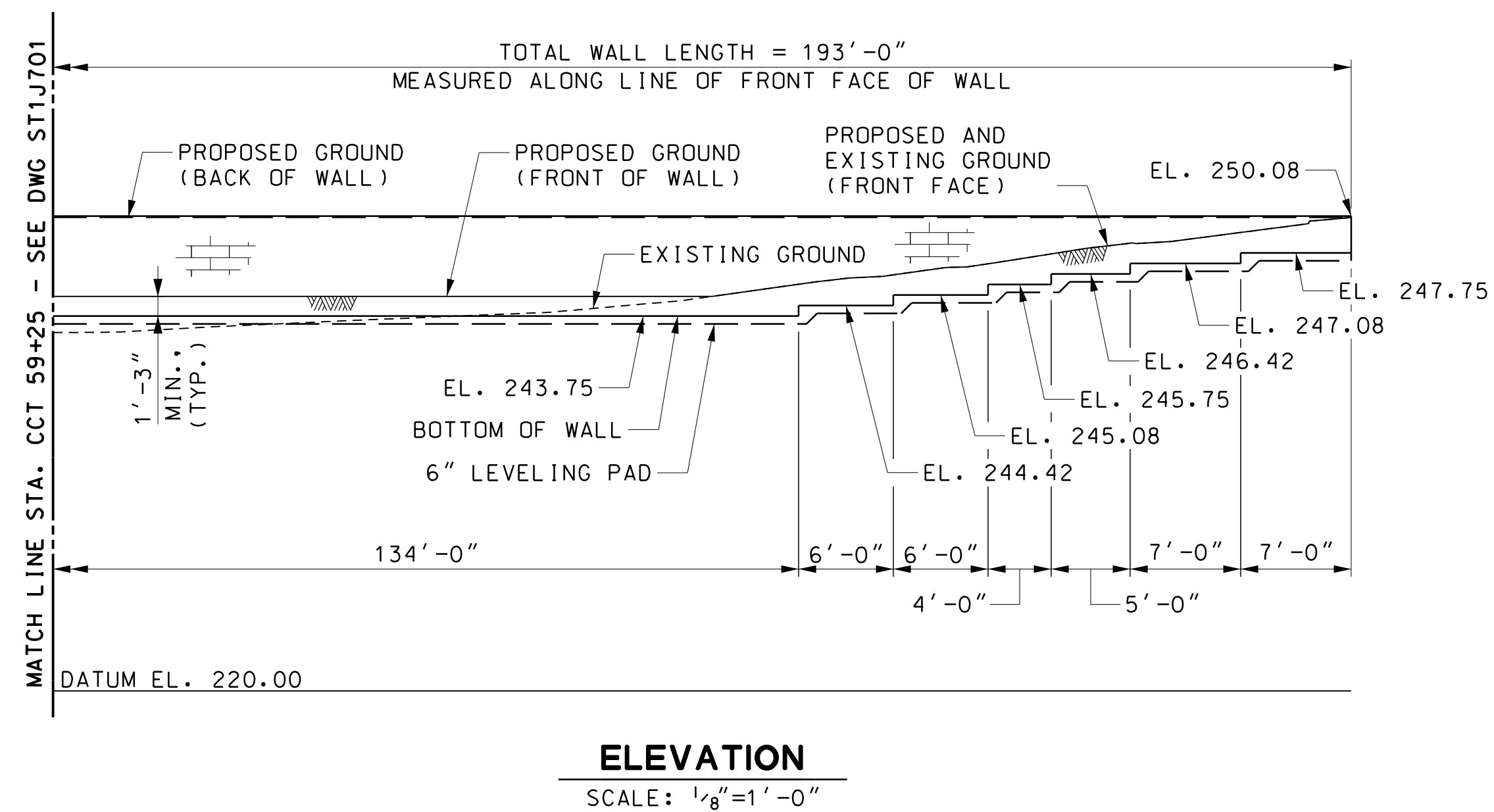
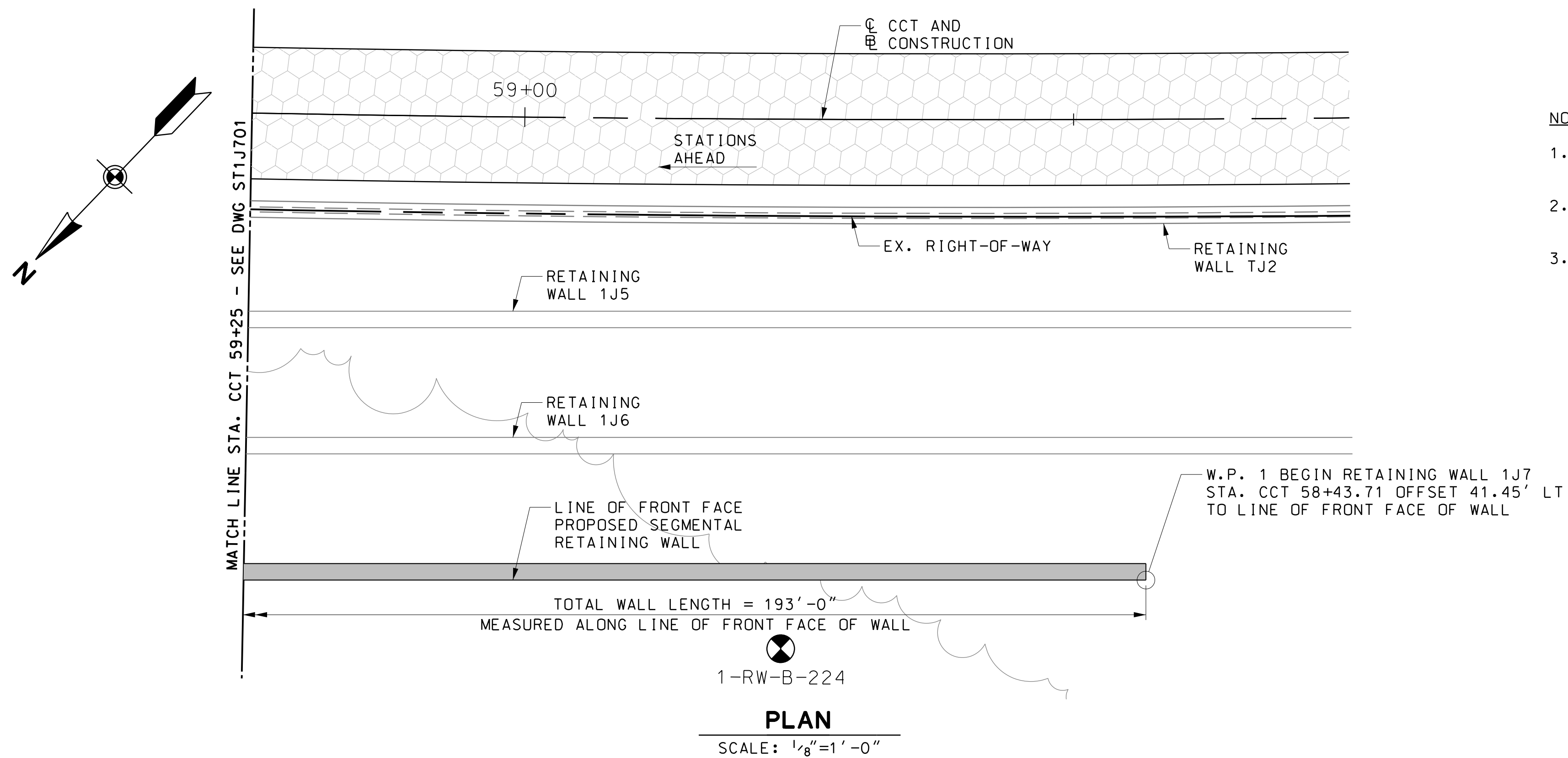


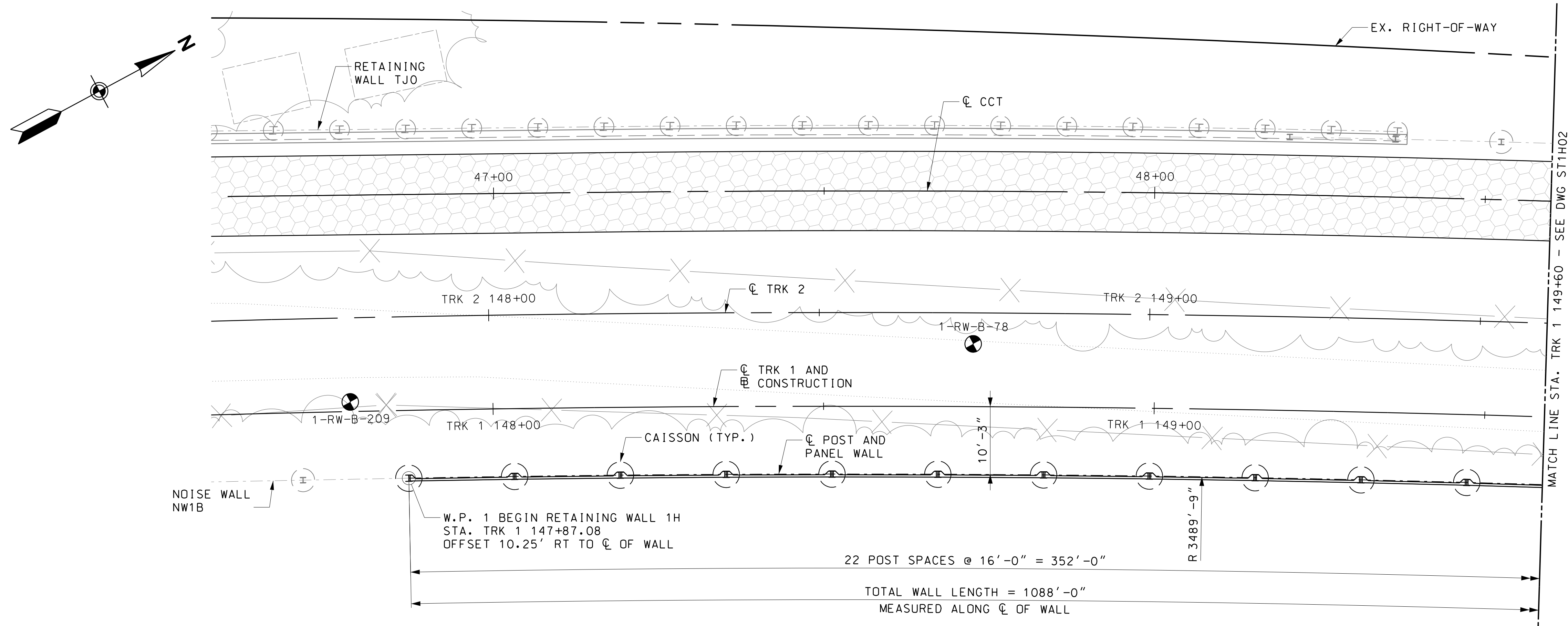
ELEVATION

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

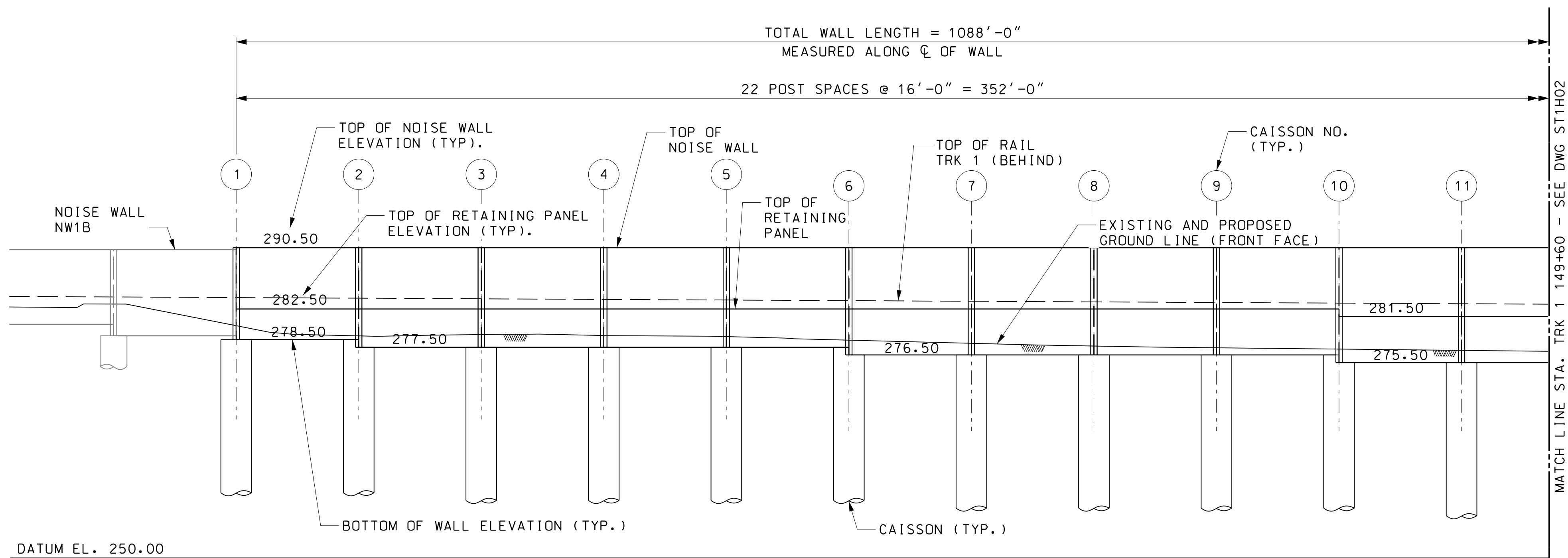
NOTES:

1. ELEVATIONS ARE SHOWN ALONG LINE OF FRONT FACE OF SEGMENTAL RETAINING WALL.
2. BOTTOM OF WALL ELEVATIONS MAY BE MODIFIED PER SEGMENTAL RETAINING WALL MANUFACTURER'S DESIGN.
3. FOR TYPICAL SECTION SEE DWG ST1J202.





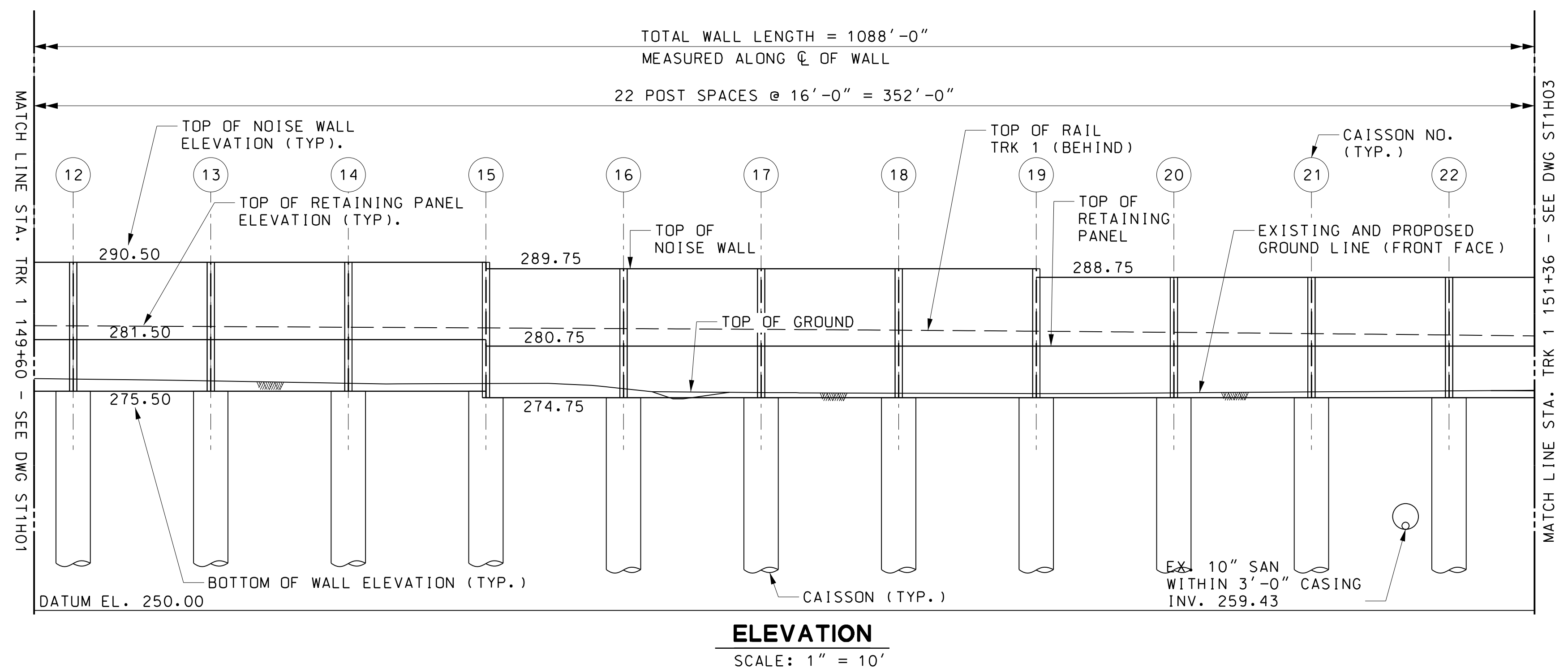
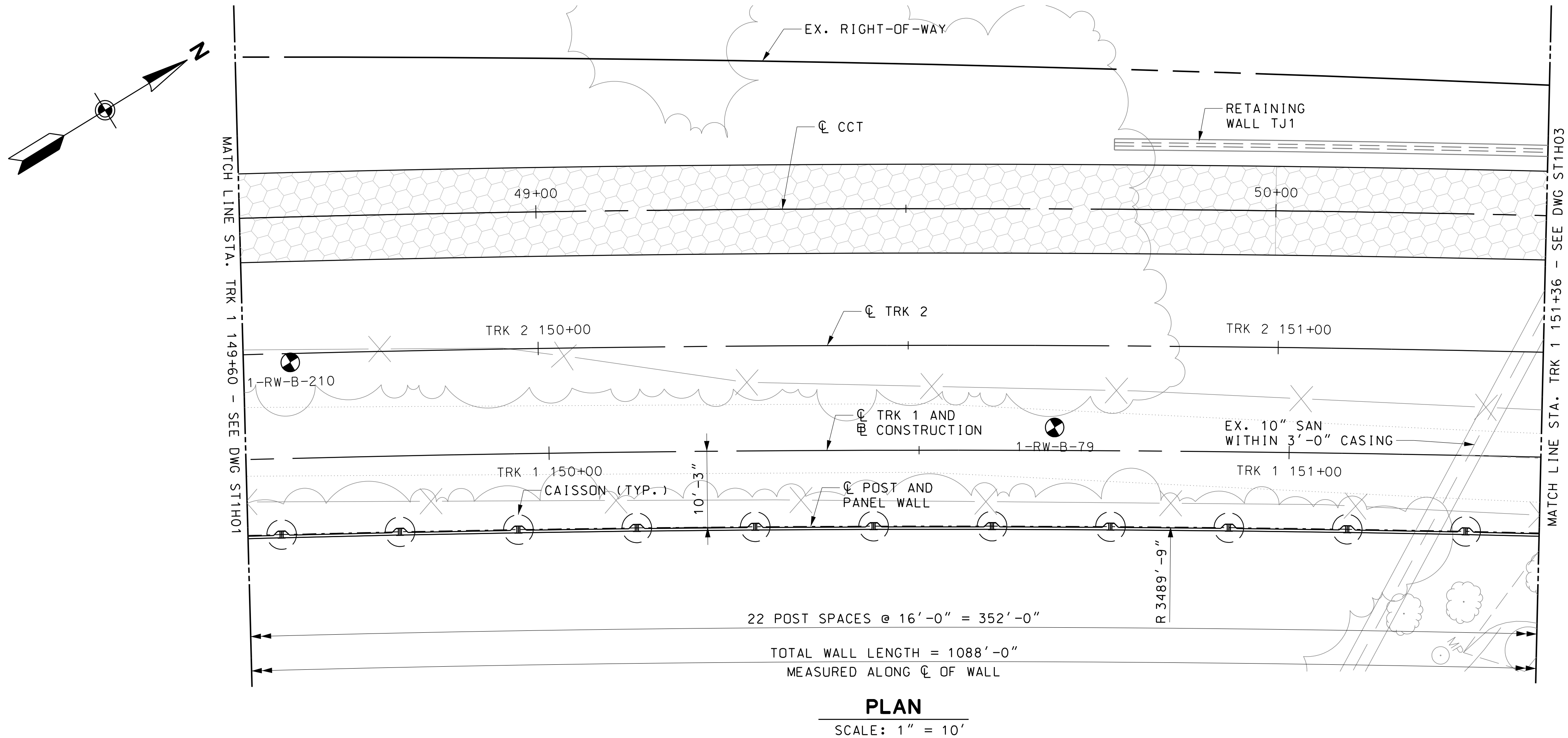
PLAN
SCALE: 1" = 10'

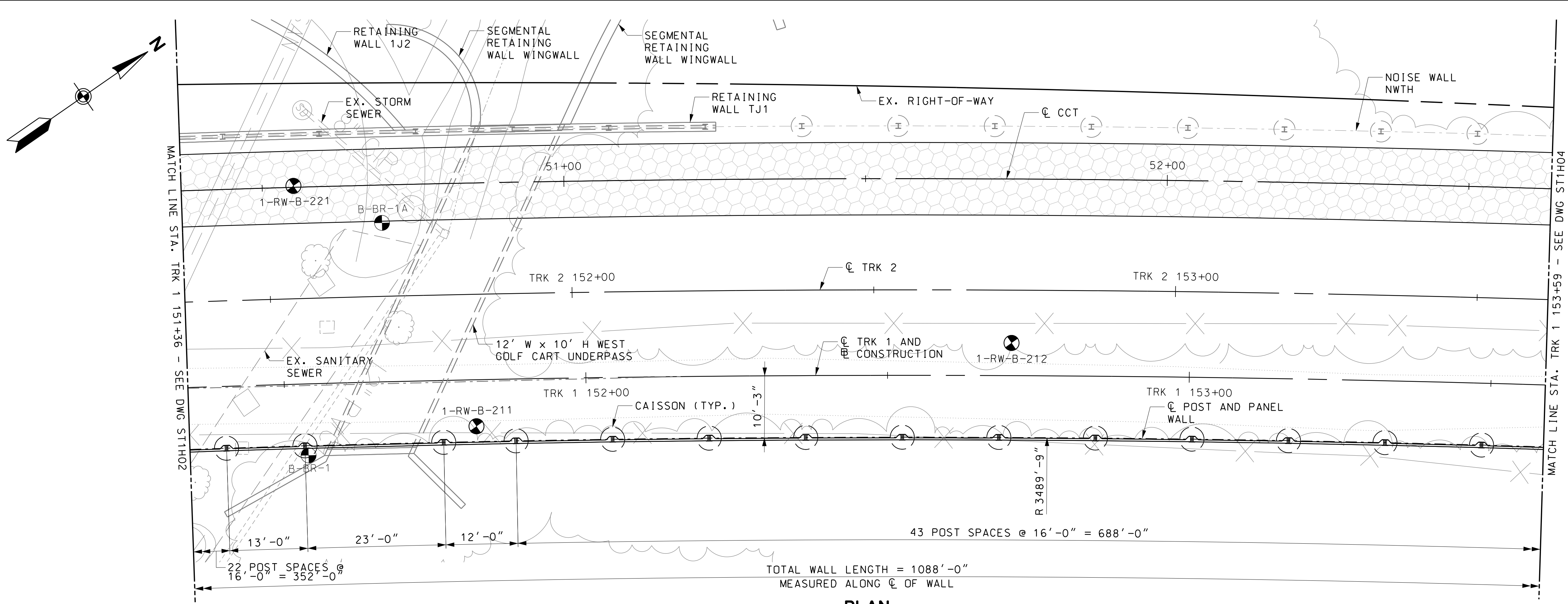


ELEVATION
SCALE: 1" = 10'

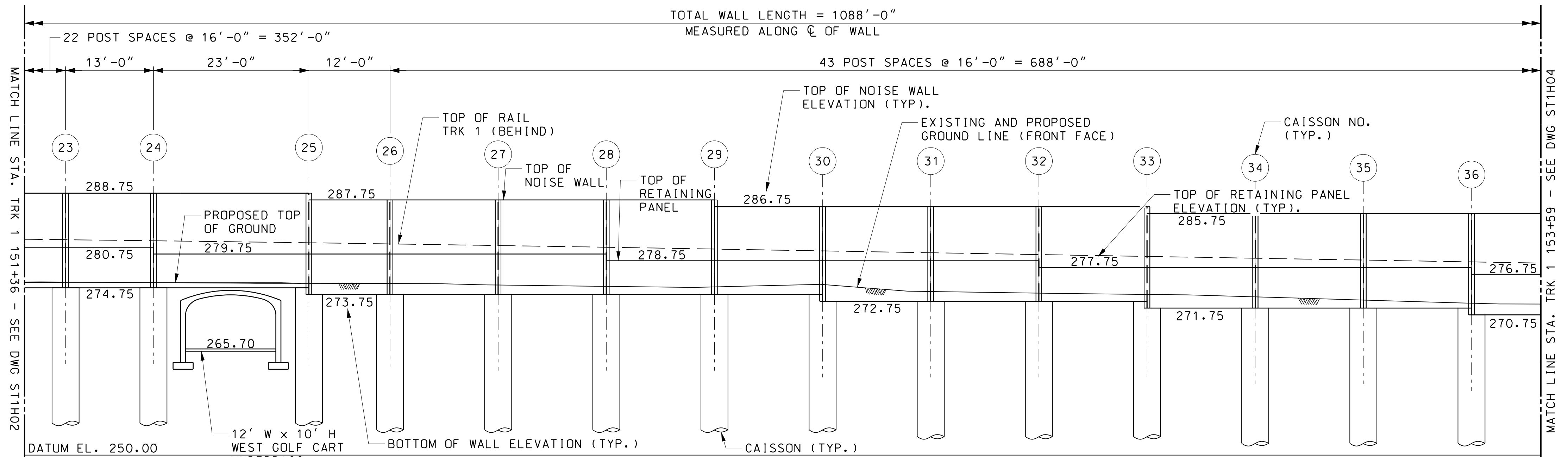
NOTES:

1. ALL CAISSON DEPTHS TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
2. FOR TYPICAL SECTION, SEE DWG ST1H07.
3. RETAINING WALLS ON CURVED HORIZONTAL ALIGNMENT MAY BE CONSTRUCTED ON CHORDS PROVIDED THE ANGLE OF DEFLECTION BETWEEN SEGMENTS DOES NOT EXCEED 5 DEGREES.

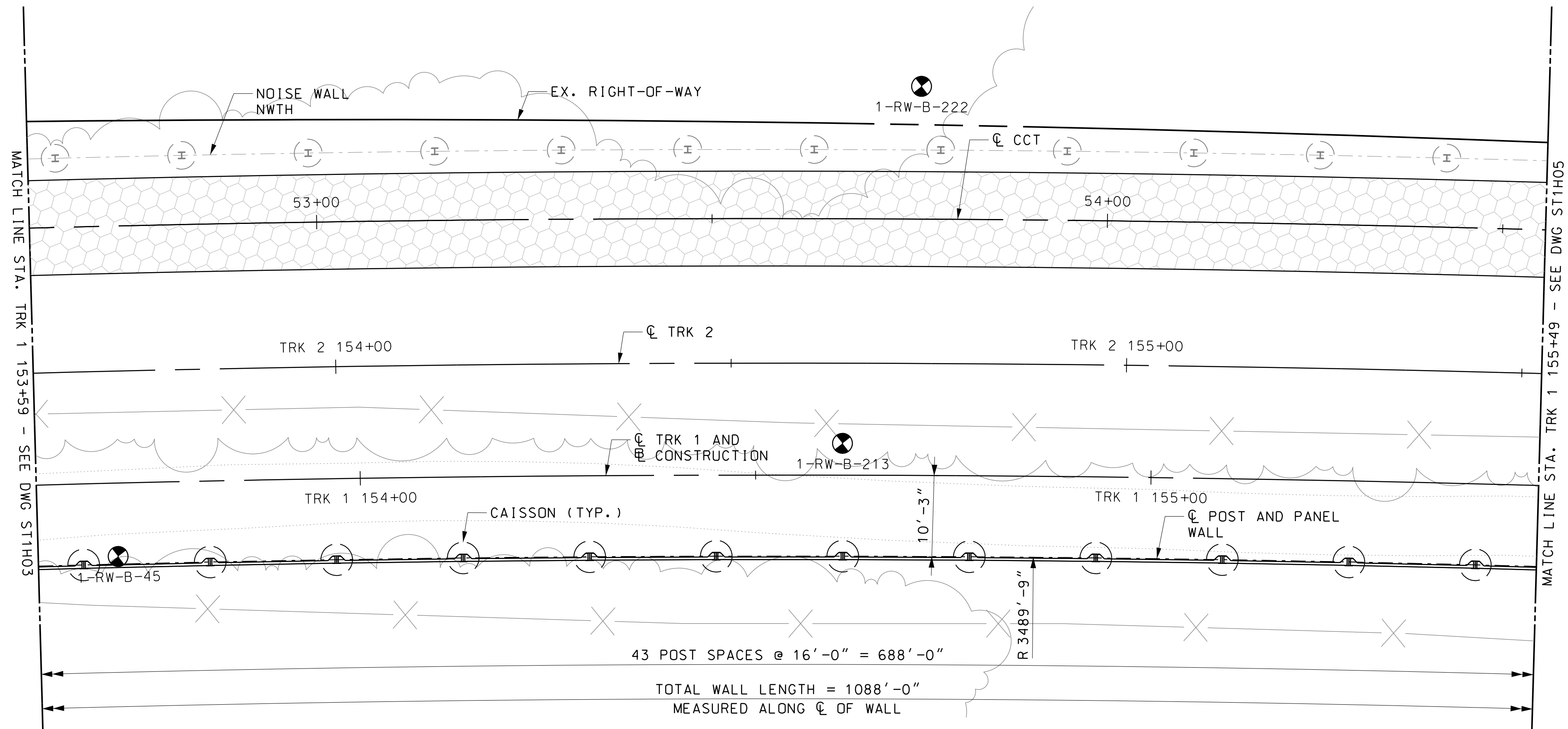
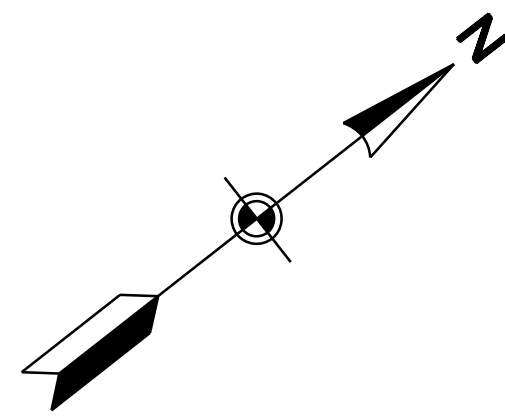




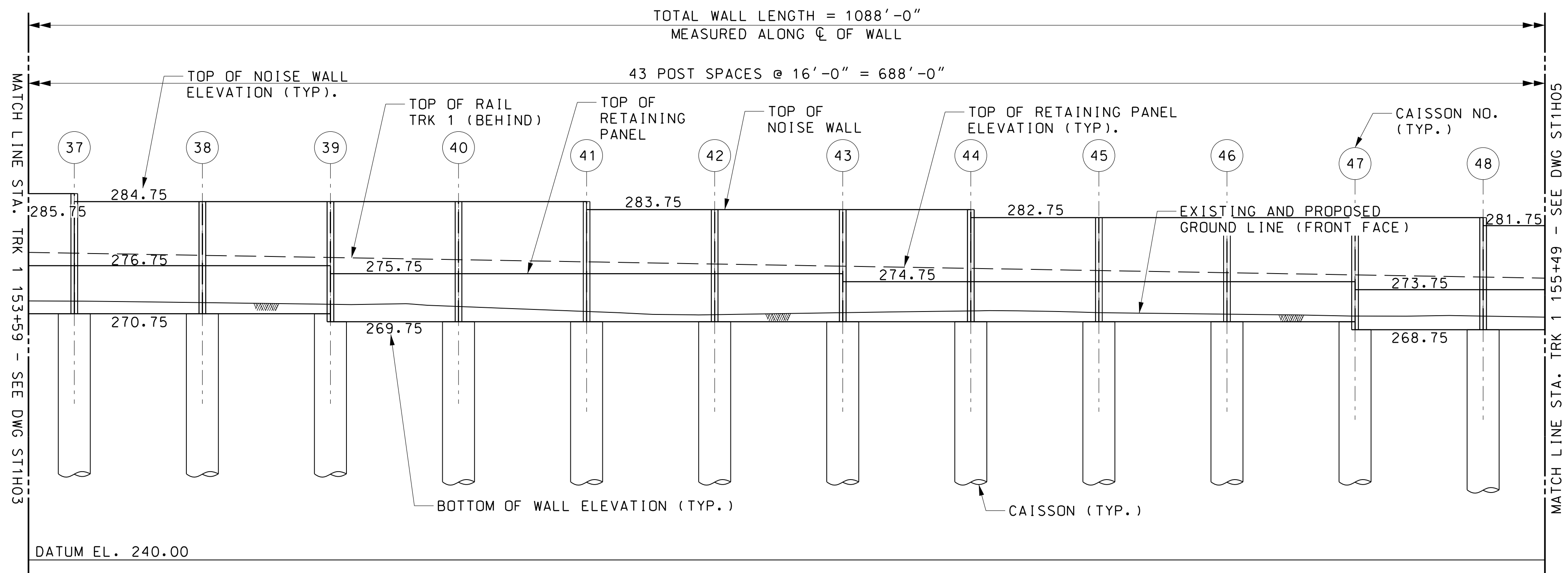
PLAN
SCALE: 1" = 10'



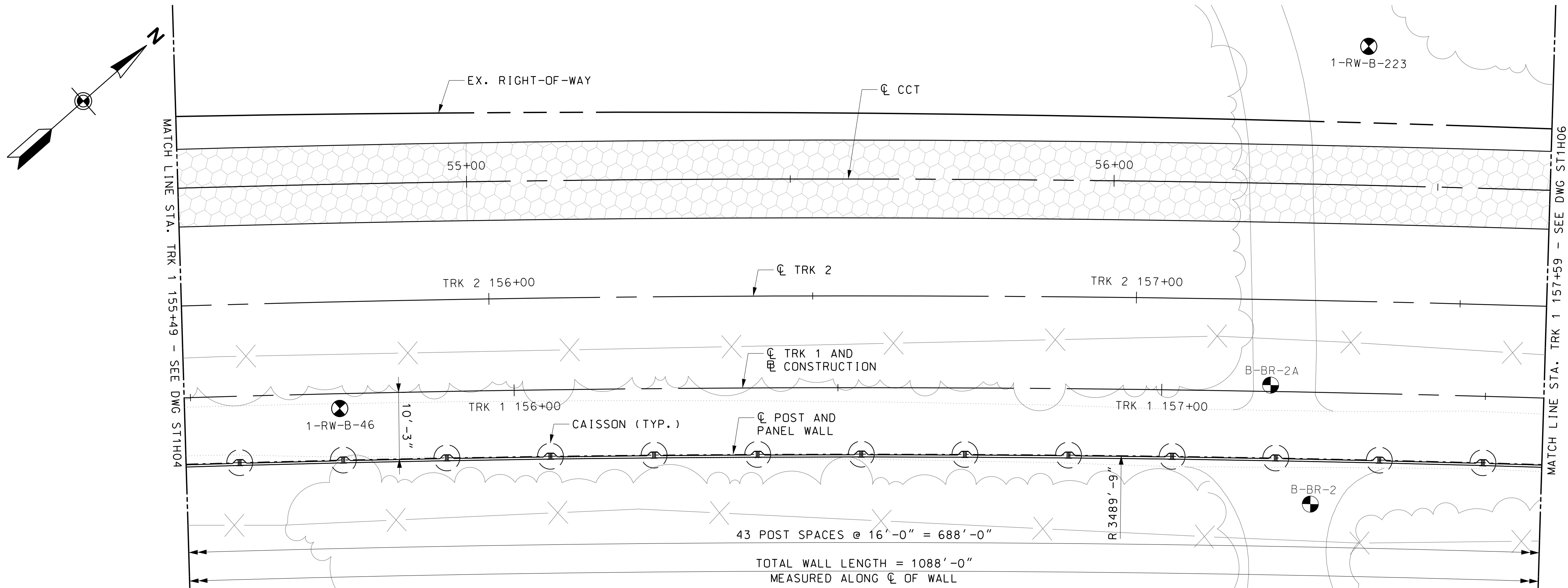
ELEVATION
SCALE: 1" = 10'



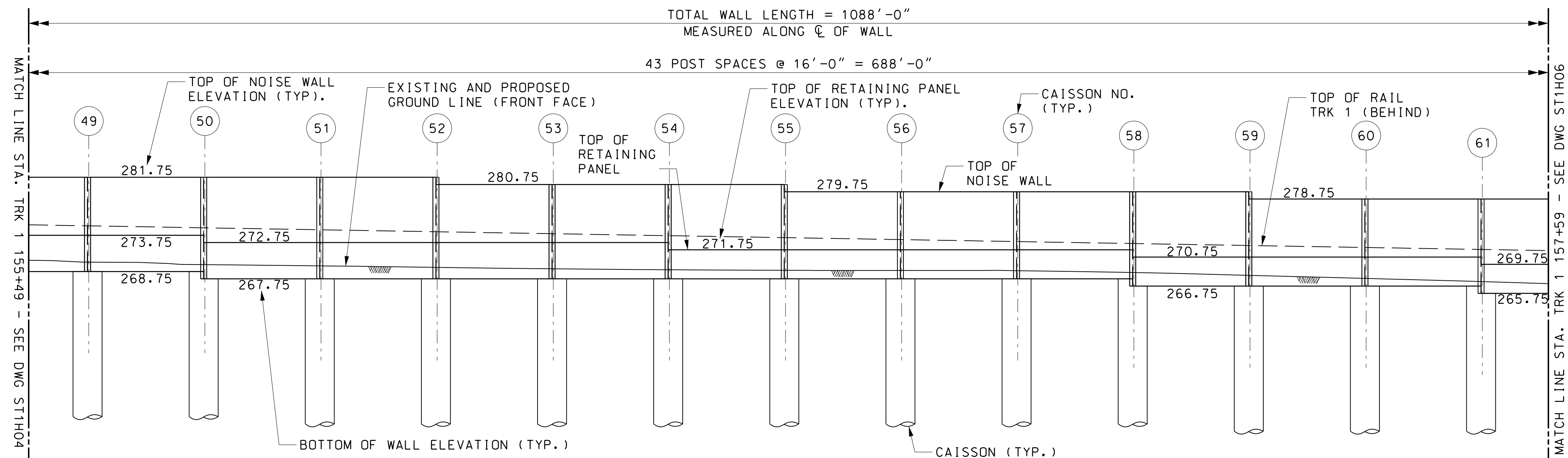
PLAN
SCALE: 1" = 10'



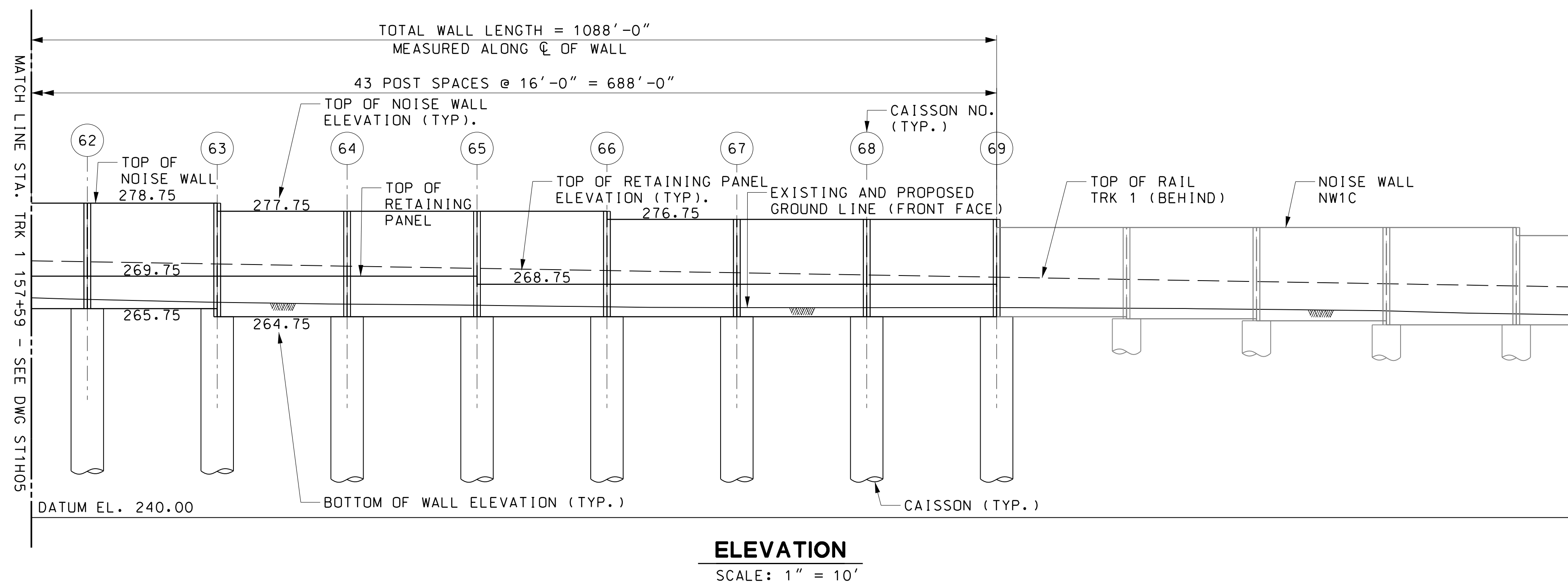
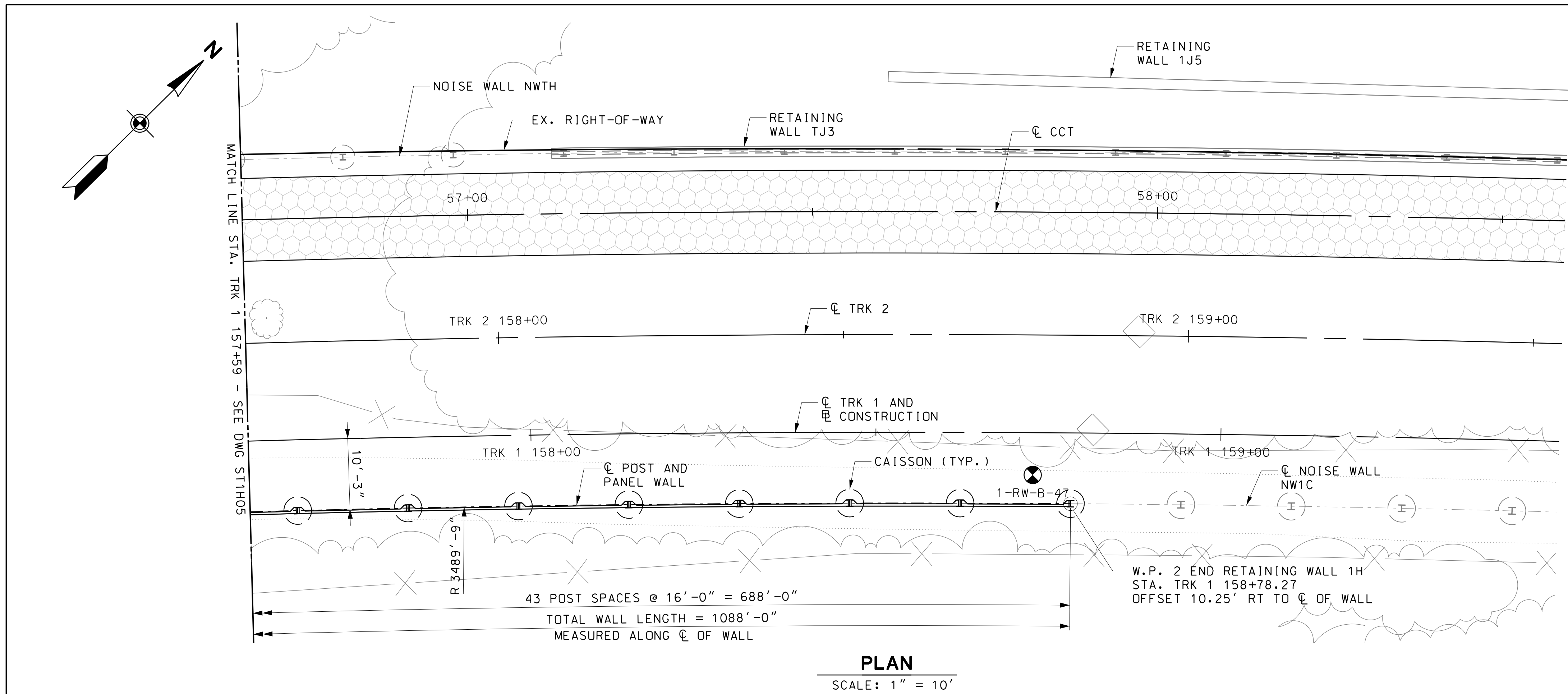
ELEVATION
SCALE: 1" = 10'

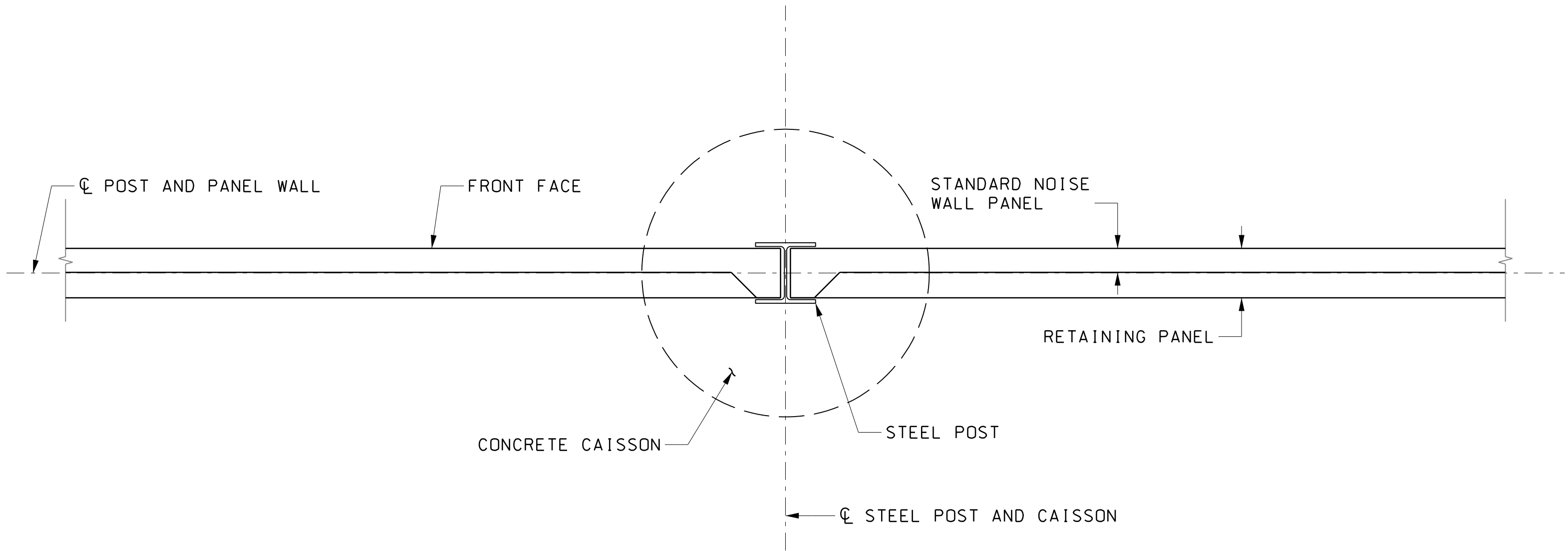


PLAN
SCALE: 1" = 10'

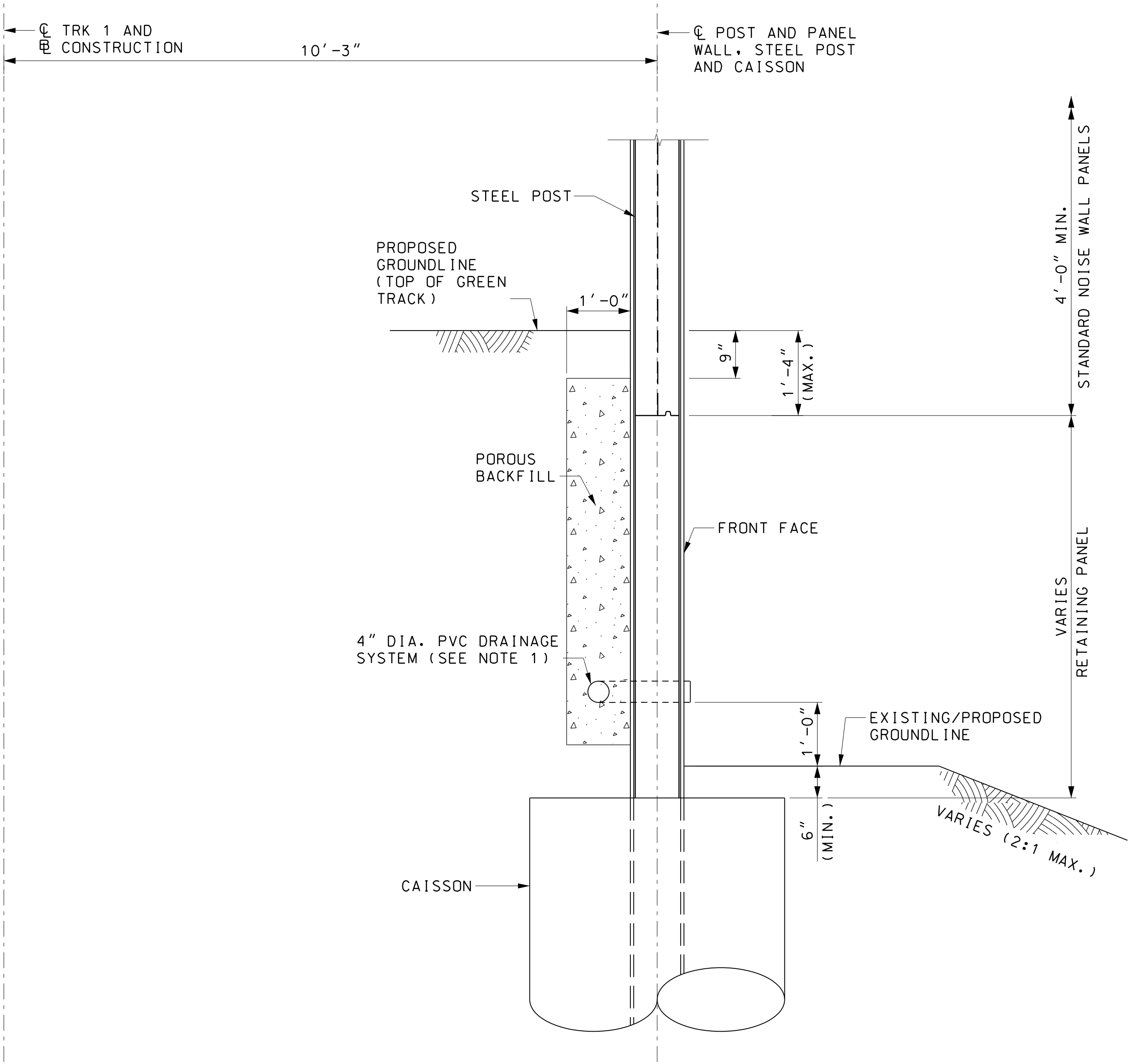


ELEVATION
SCALE: 1" = 10'



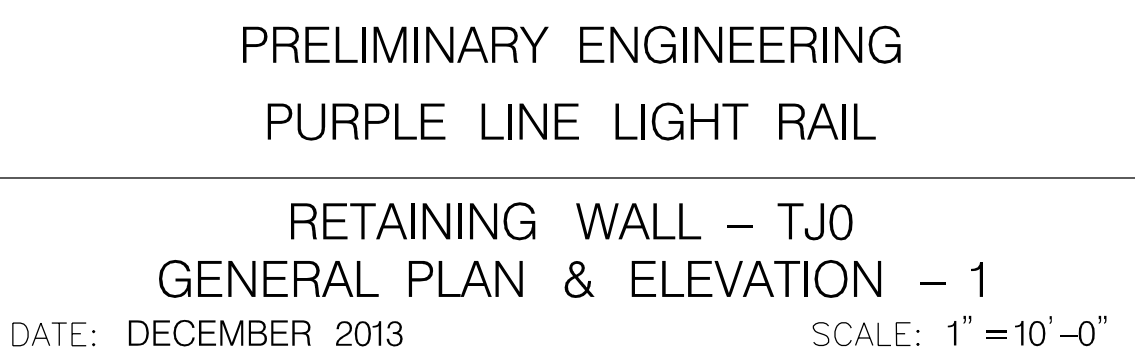
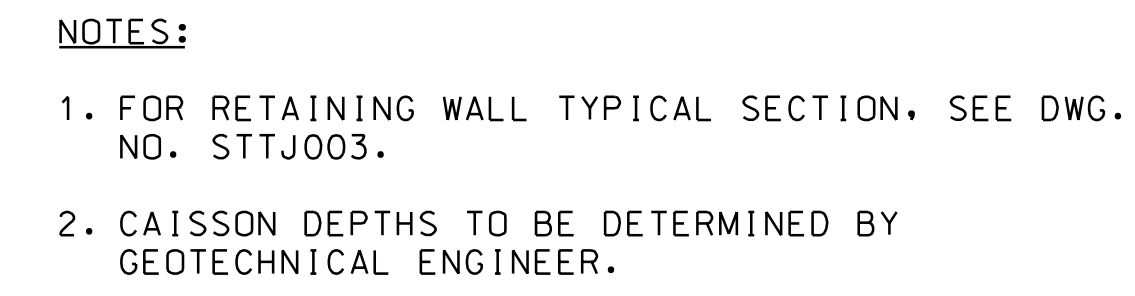


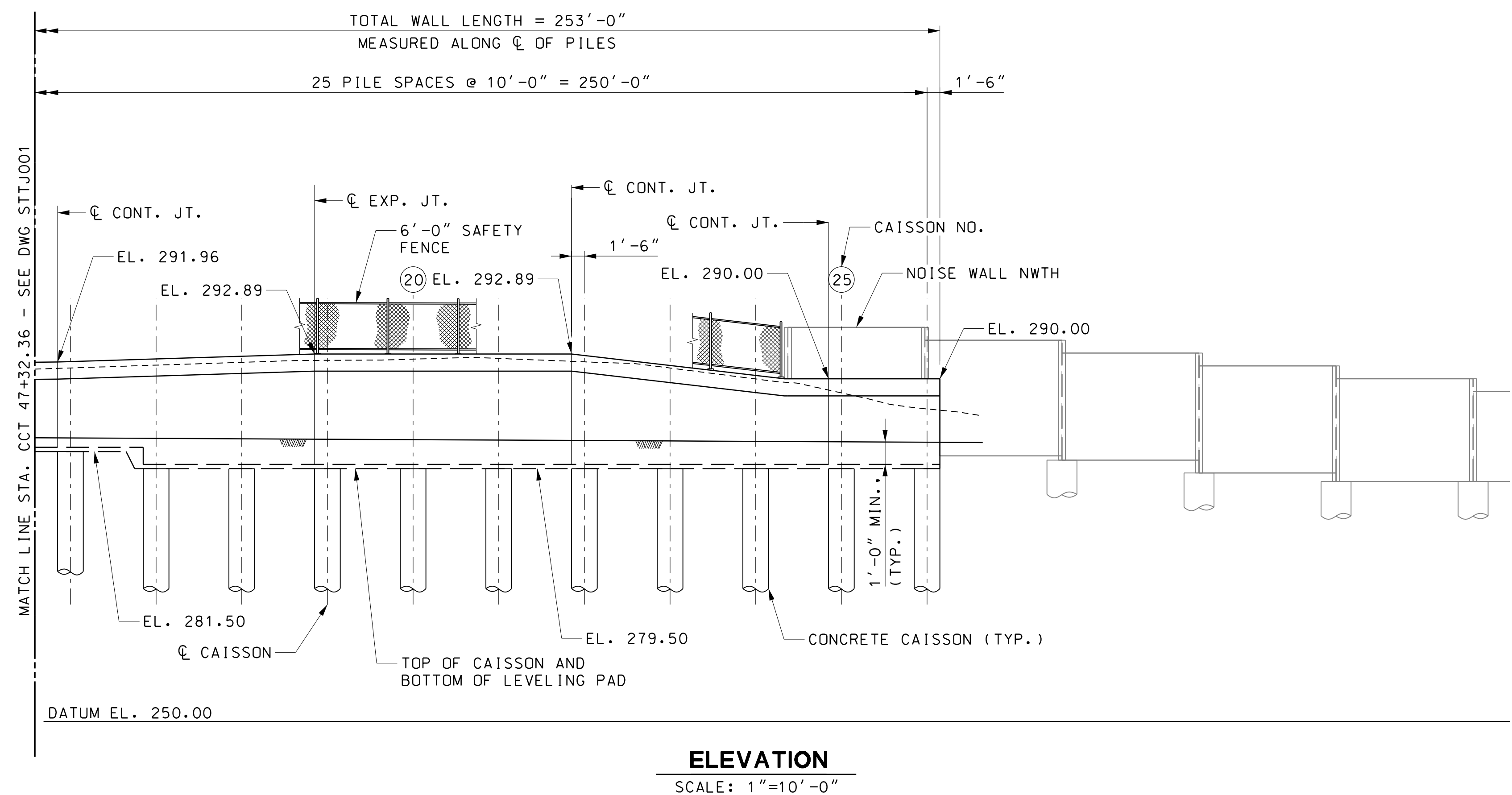
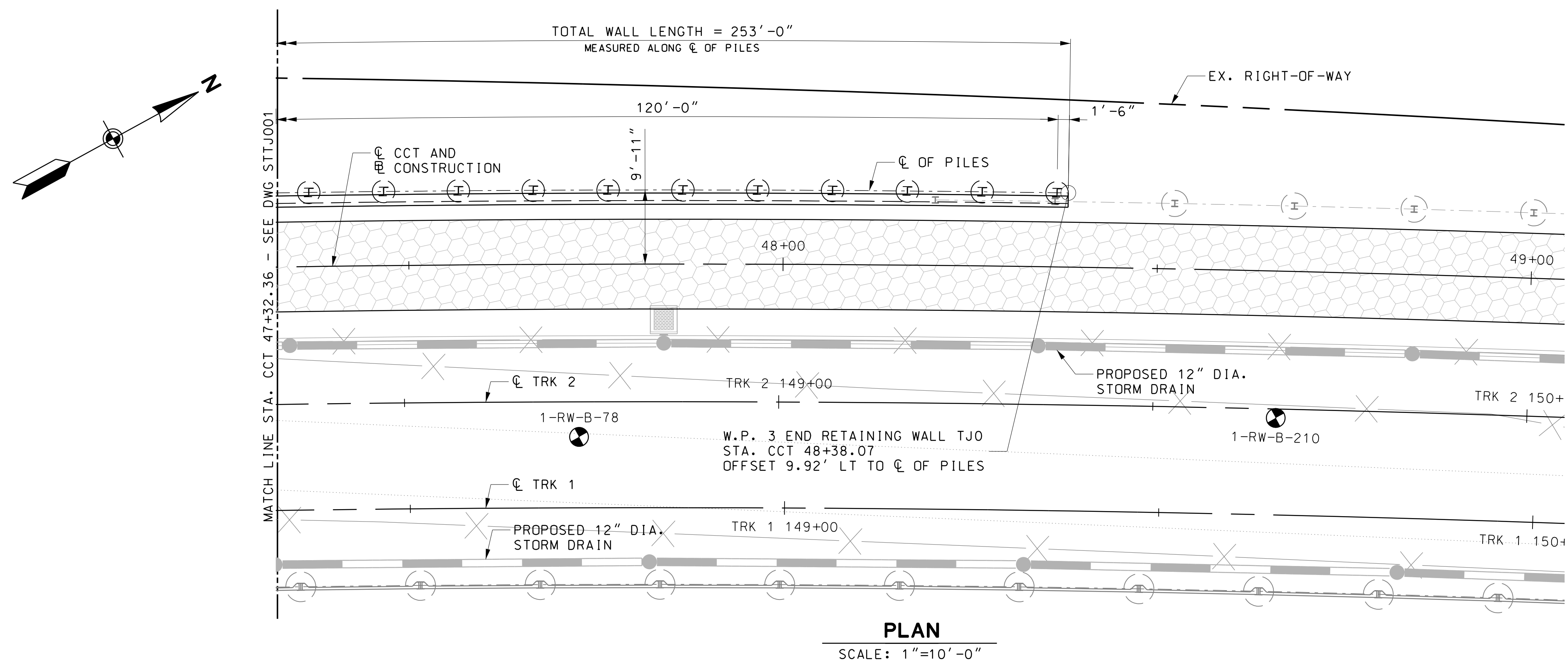
PLAN
SCALE: 3/4"=1'-0"



TYPICAL SECTION THROUGH CAISSON
SCALE: 3/4"=1'-0"

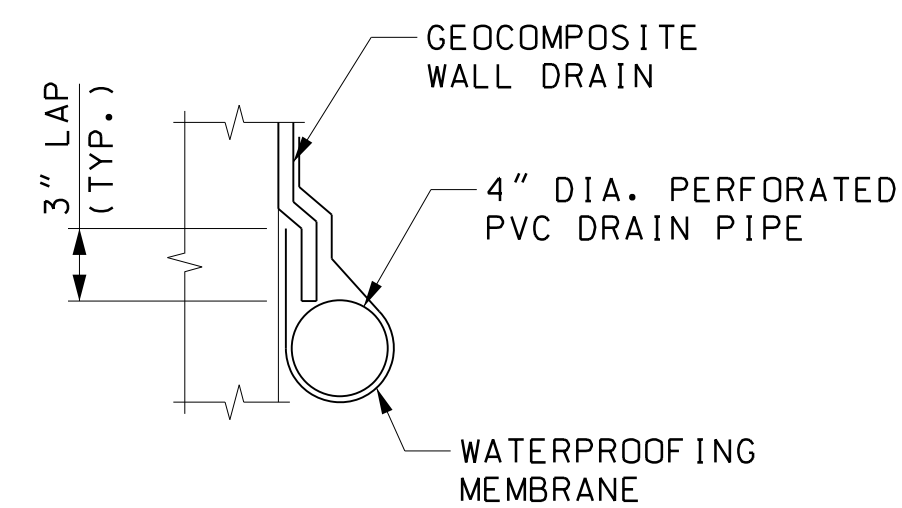
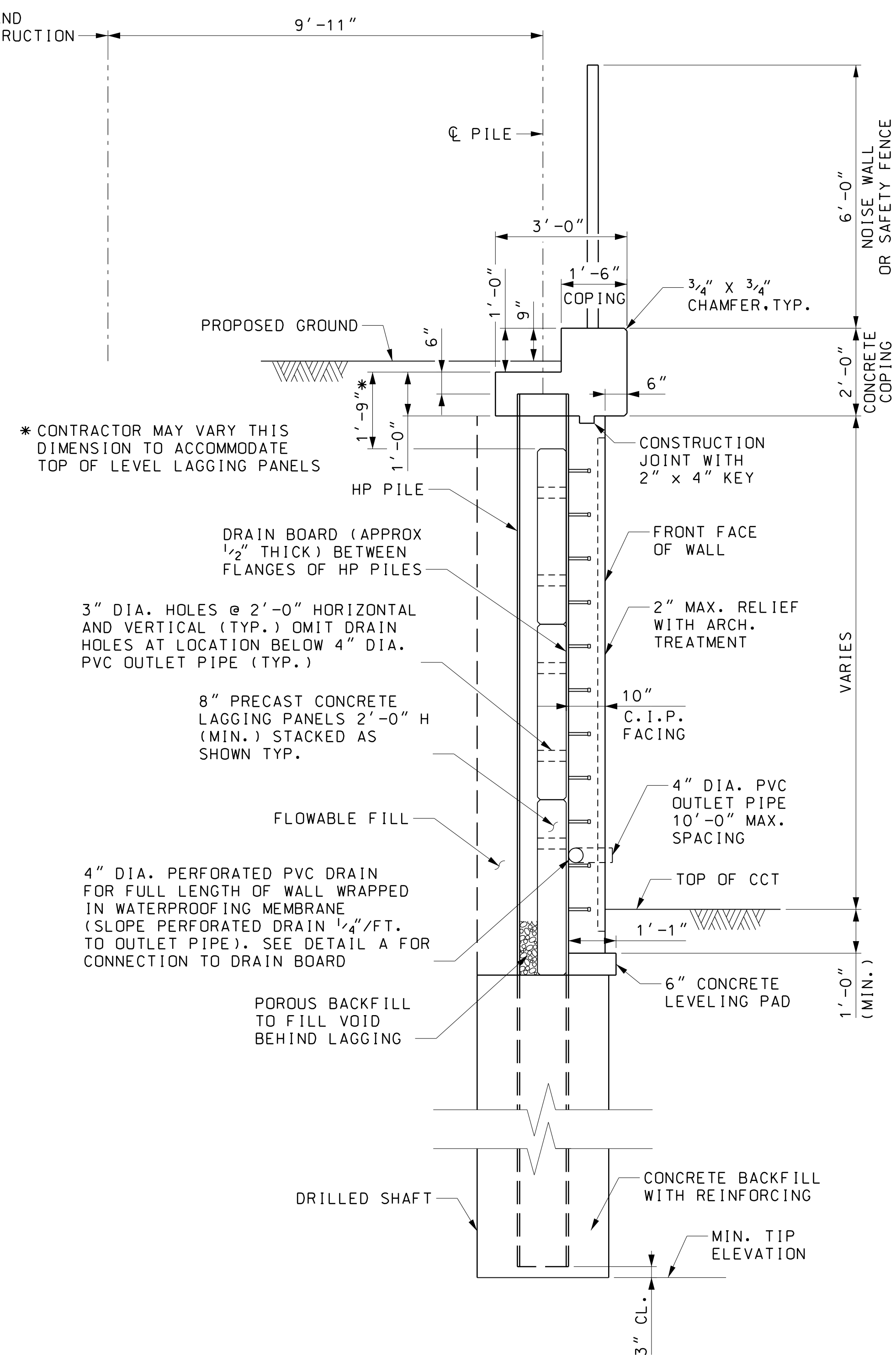
- NOTES:
- 1. PVC DRAIN PIPE SHALL BE LOCATED AT THE MIDPOINT OF EACH PANEL 1'-0" ABOVE THE FINISHED GROUNDLINE.
 - 2. THE ϕ OF THE POSTS SHALL BISECT THE ANGLE MADE BETWEEN RETAINING PANELS AND SHALL BE PERPENDICULAR TO THE BASELINE OF CONSTRUCTION TRACK 1.



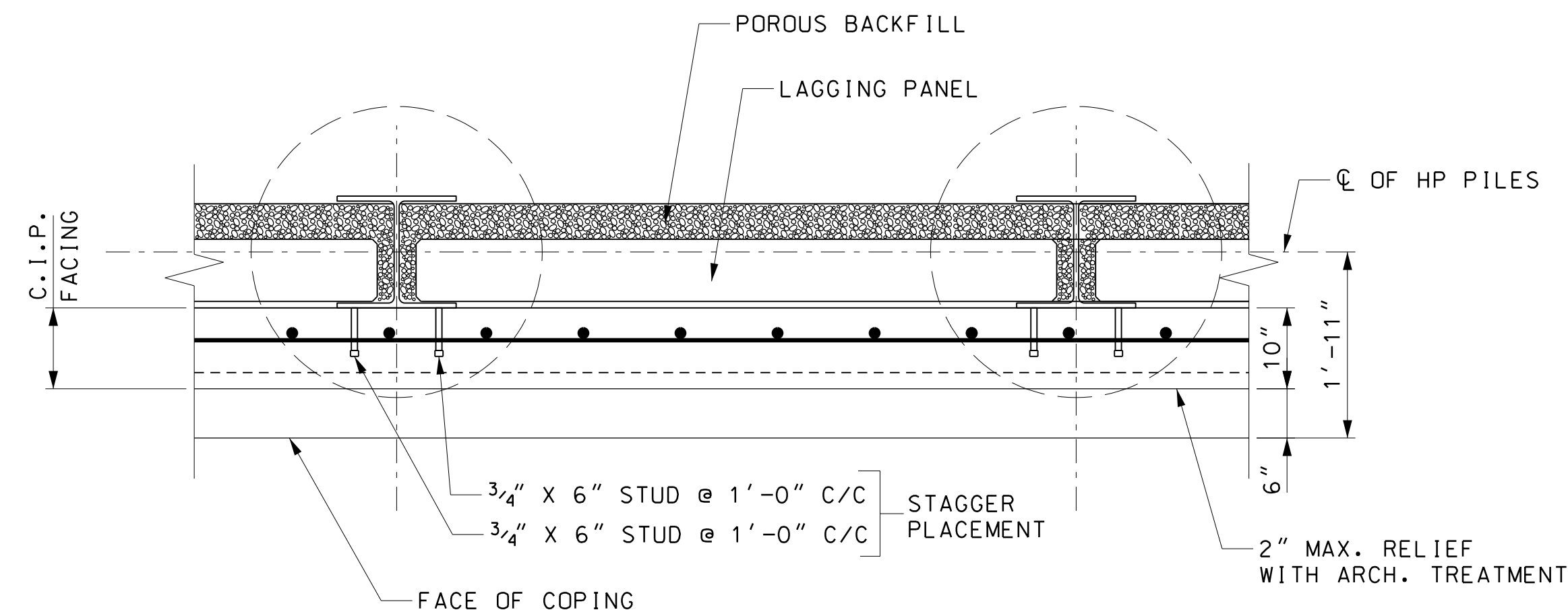


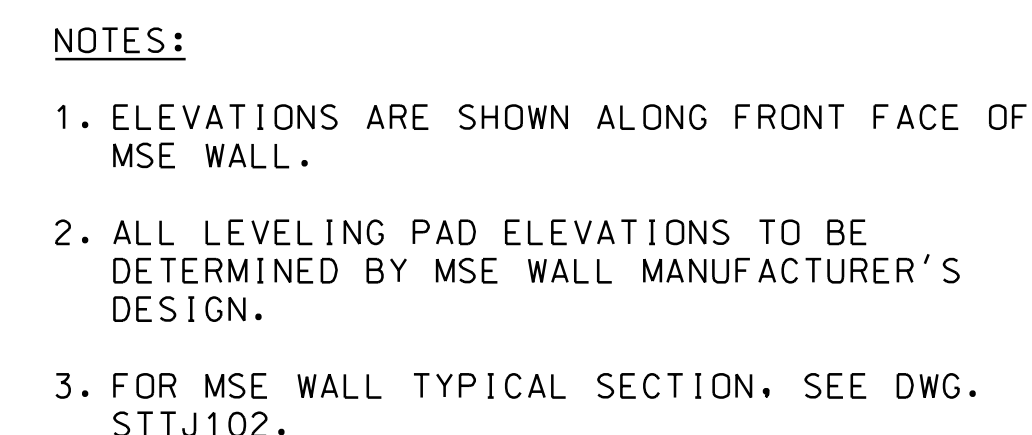
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG.
NO. STTJ003.



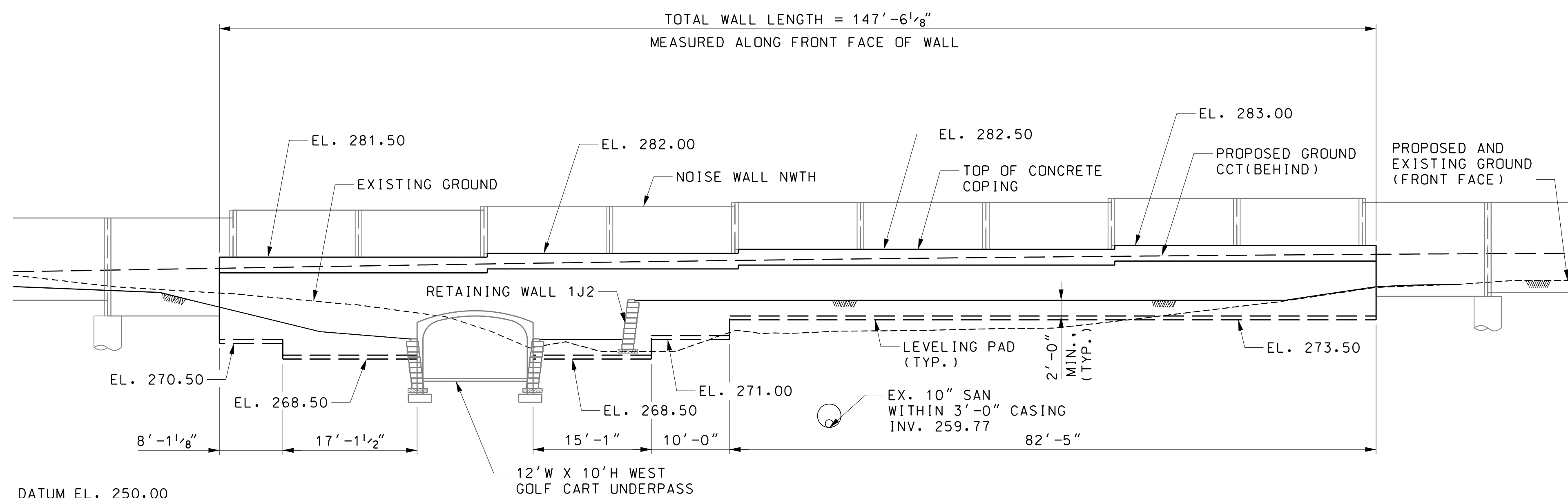
- PROPOSED SEQUENCE OF CONSTRUCTION:
1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
 2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
 3. INSTALL STEEL SOLDIER PILE PLUMB.
 4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON).
FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
 5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT
OF LAGGING PANELS.
 6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED
TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES
AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION
PROCEEDS.
 7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE
CONCRETE CAISSONS.
 8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
 9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.





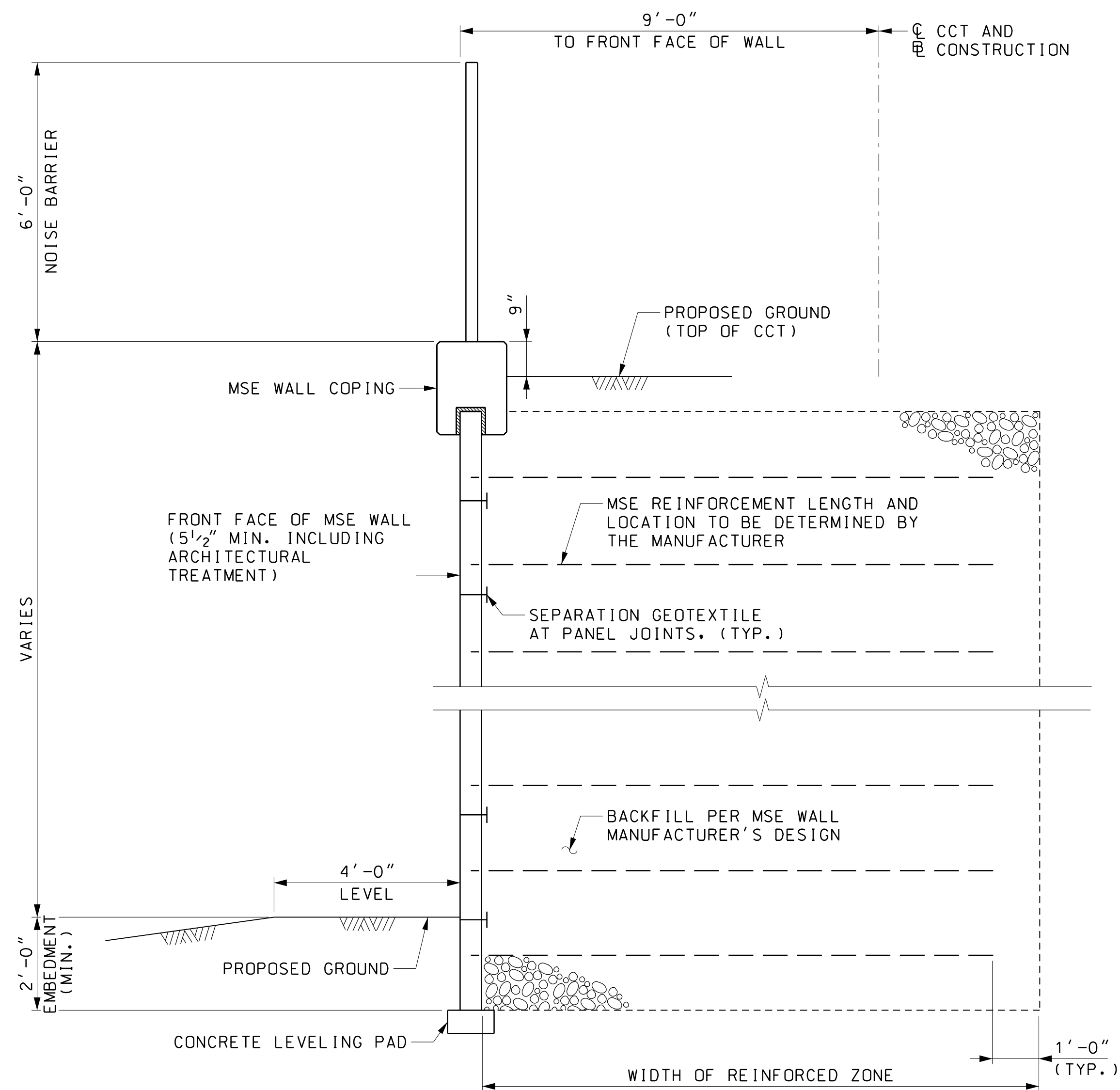
PLAN

SCALE: 1"=10'-0"

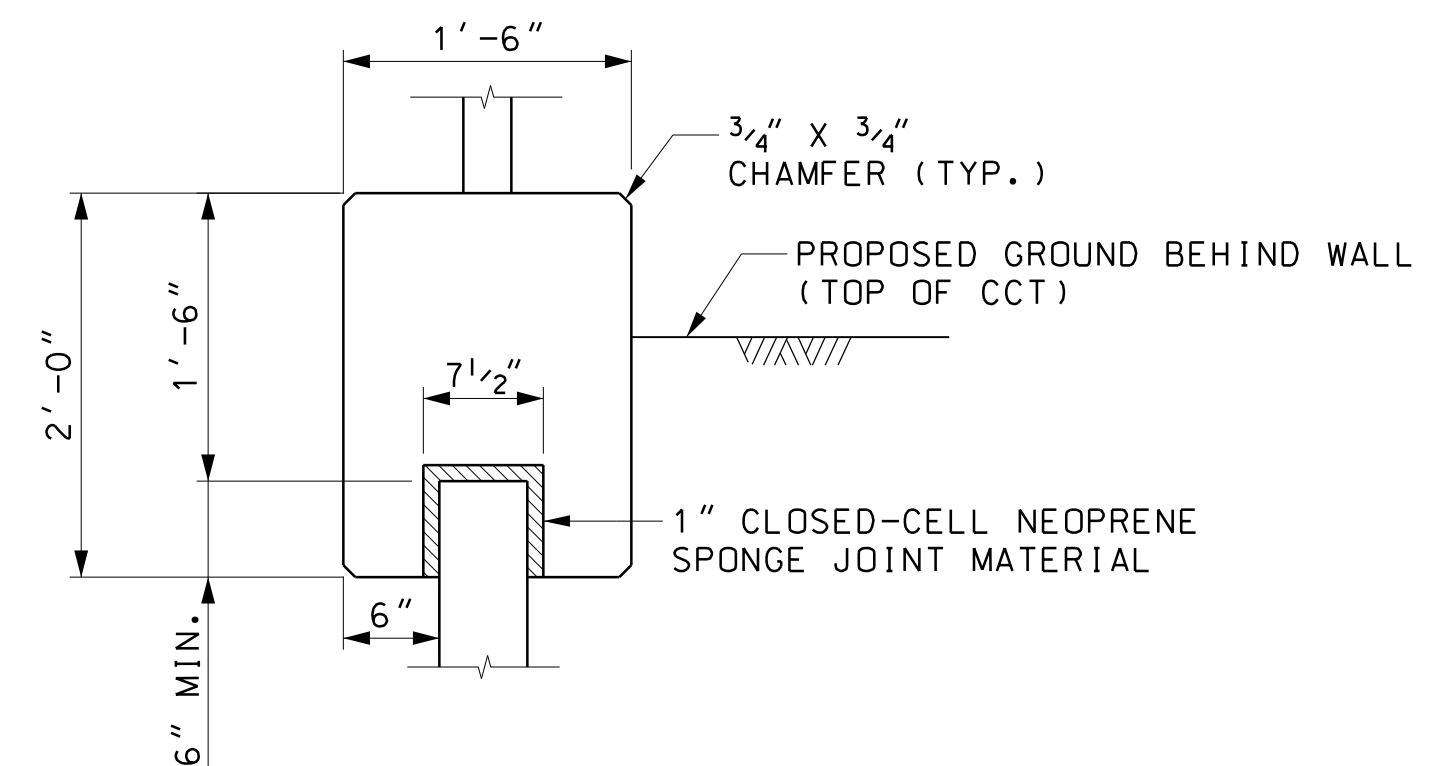


ELEVATION

SCALE: 1"=10'-0"



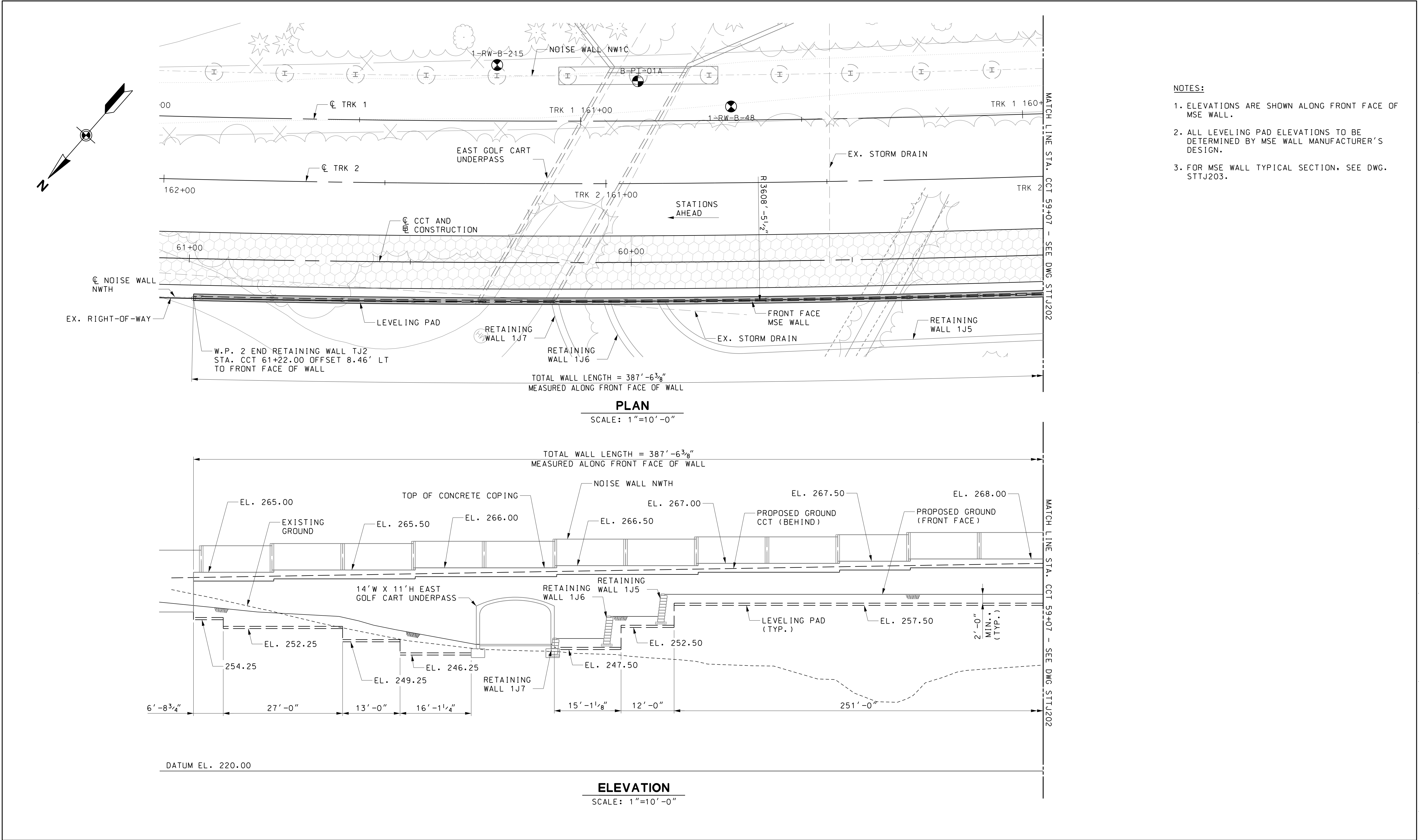
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"

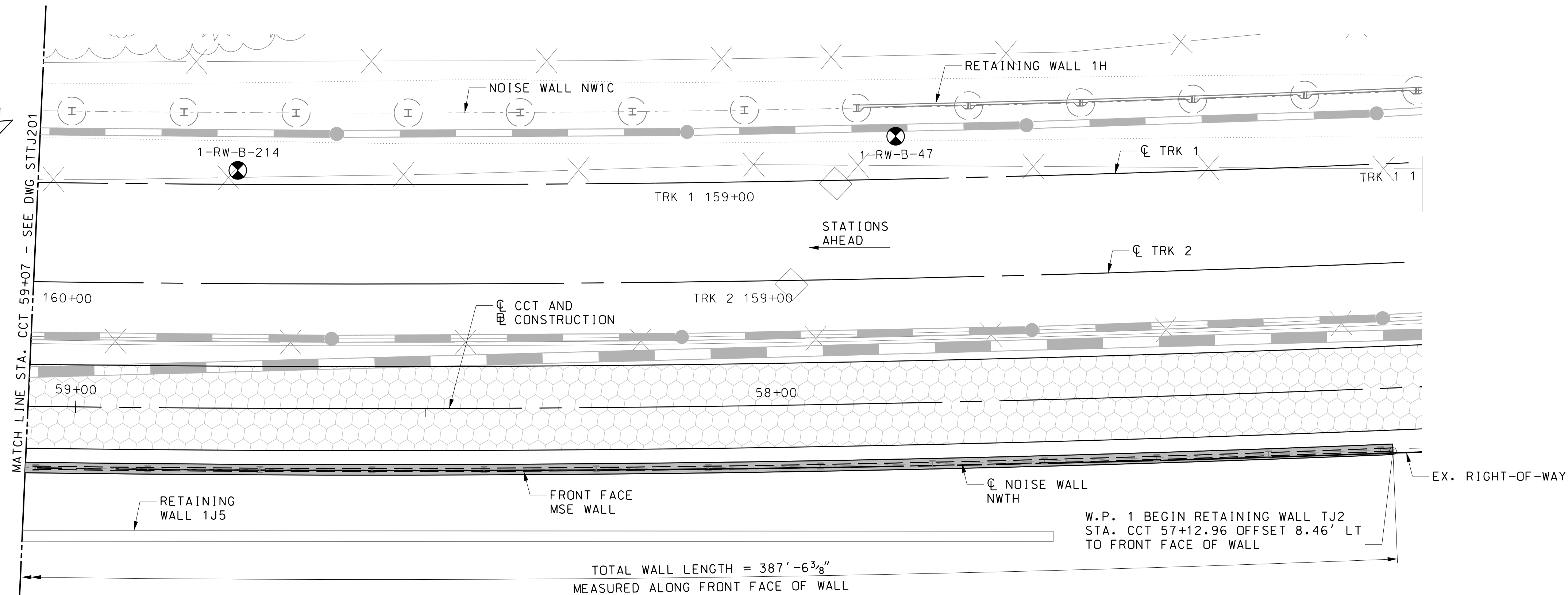
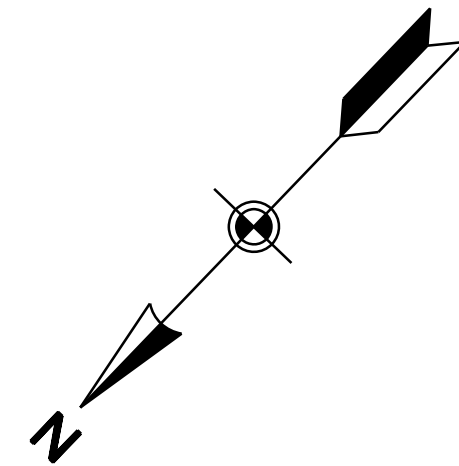


CONCRETE COPING DETAIL
SCALE: 1" = 1'-0"

NOTES:

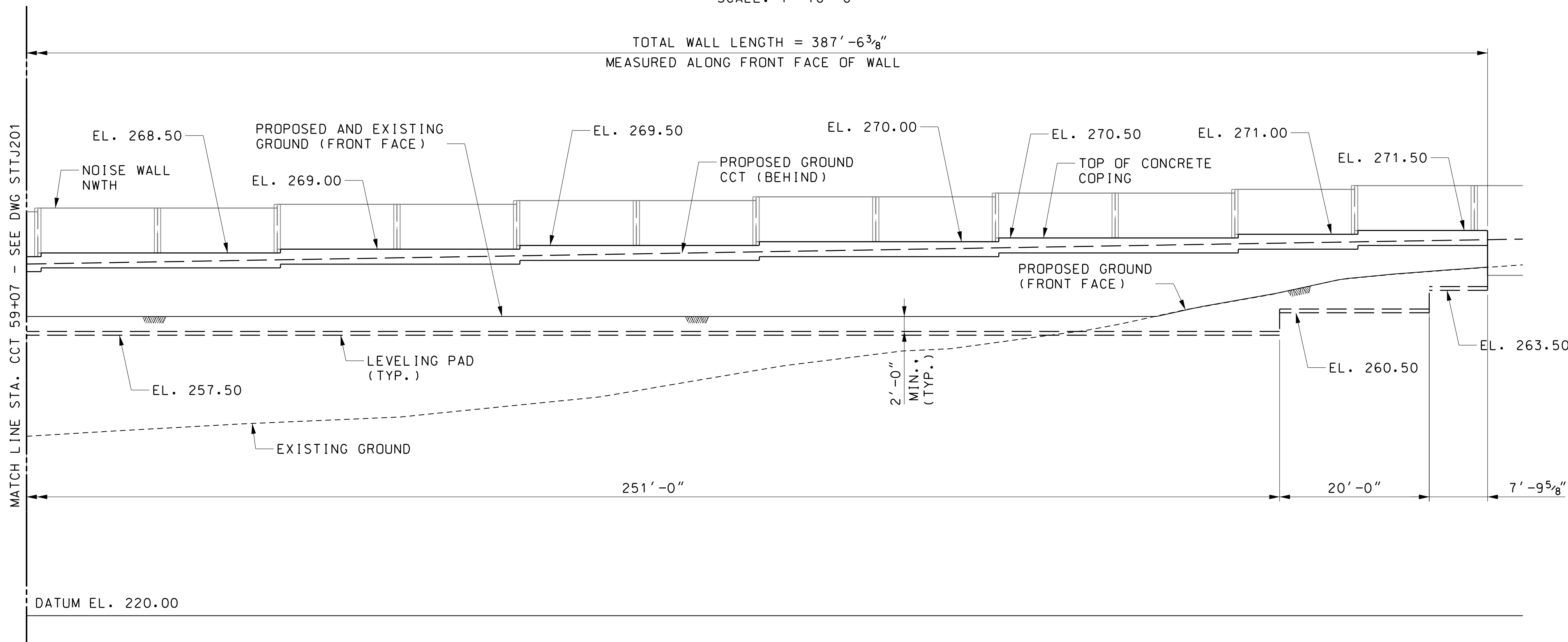
1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.





PLAN

SCALE: 1"=10'-0"

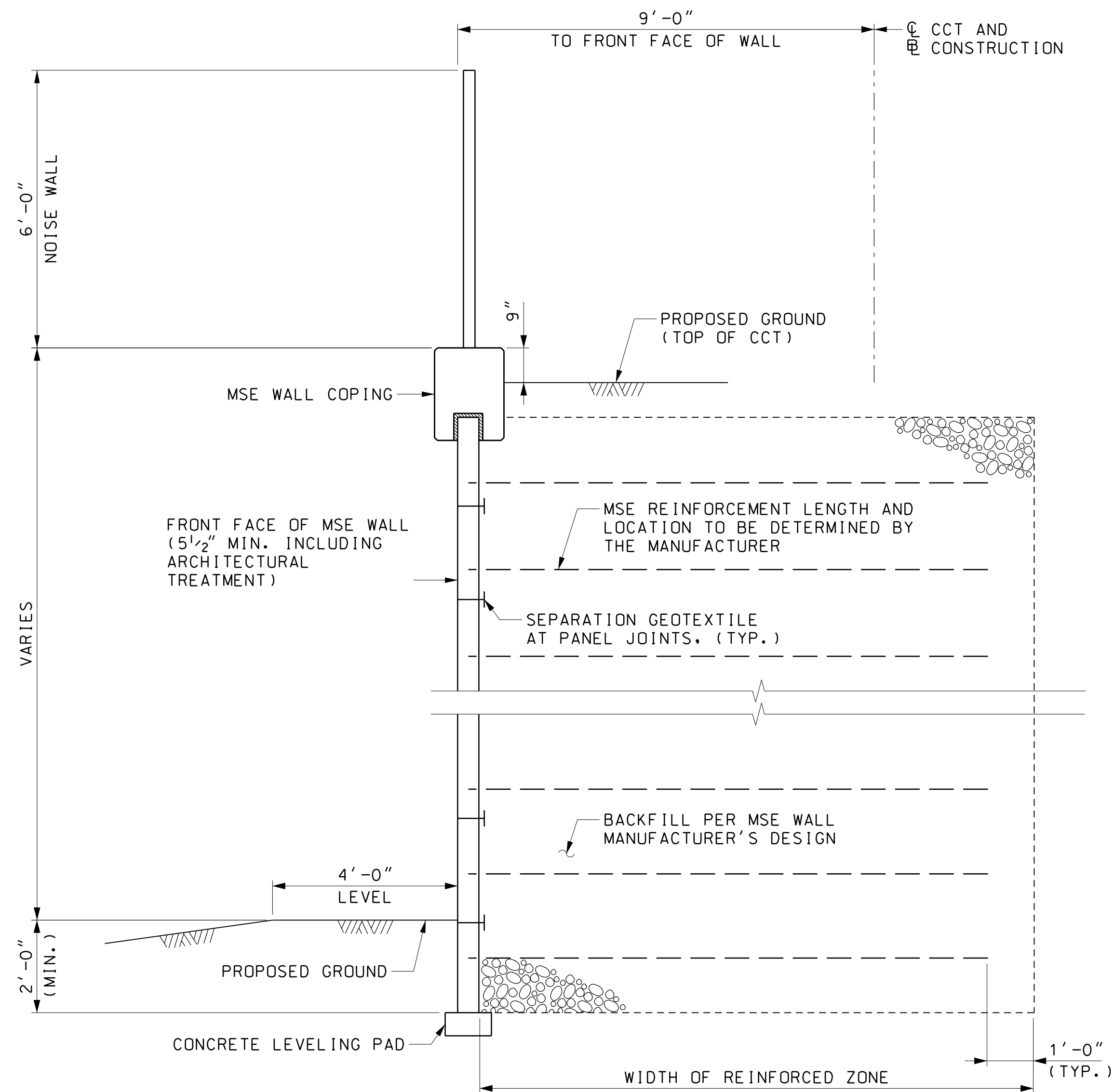


ELEVATION

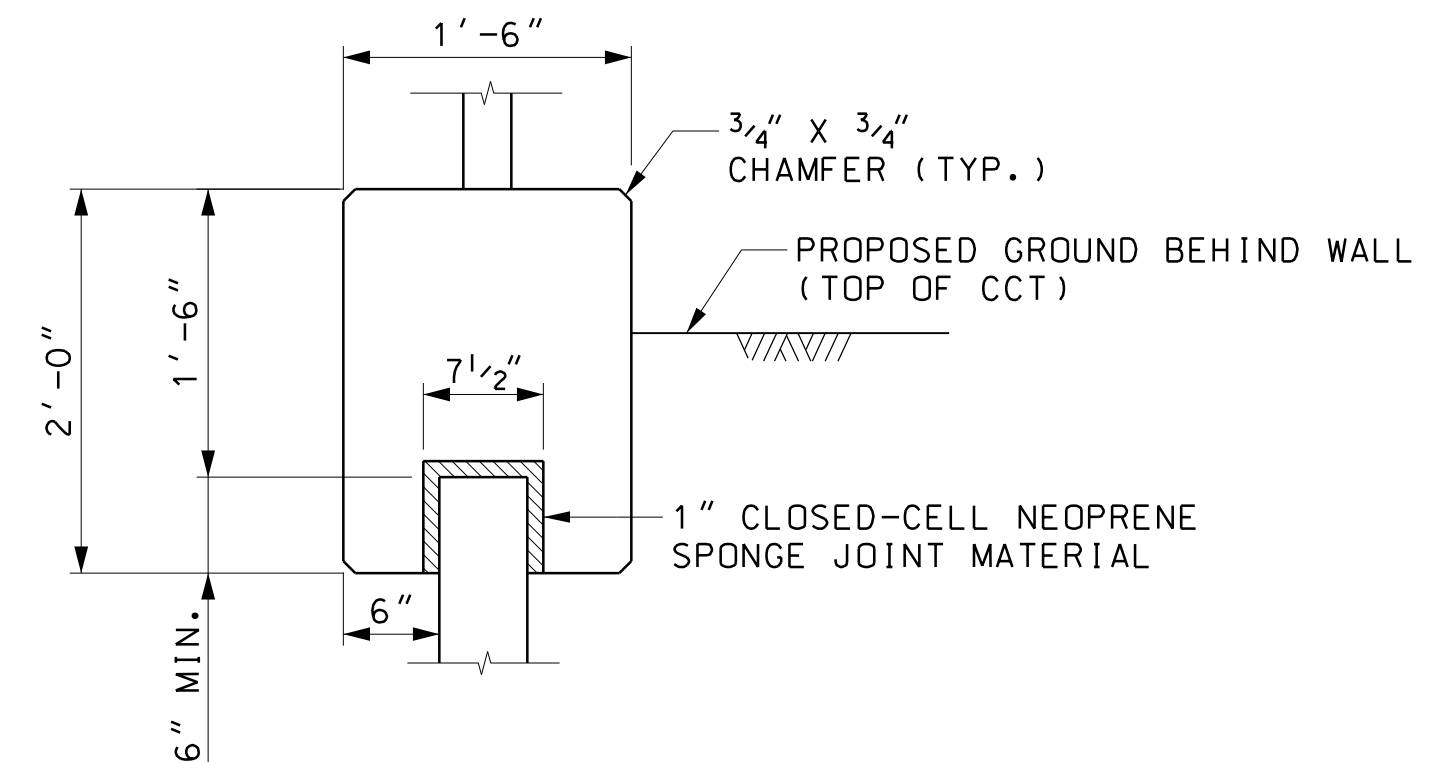
SCALE: 1"=10'-0"

NOTES:

1. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
2. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURER'S DESIGN.
3. FOR MSE WALL TYPICAL SECTION, SEE DWG. STTJ203.



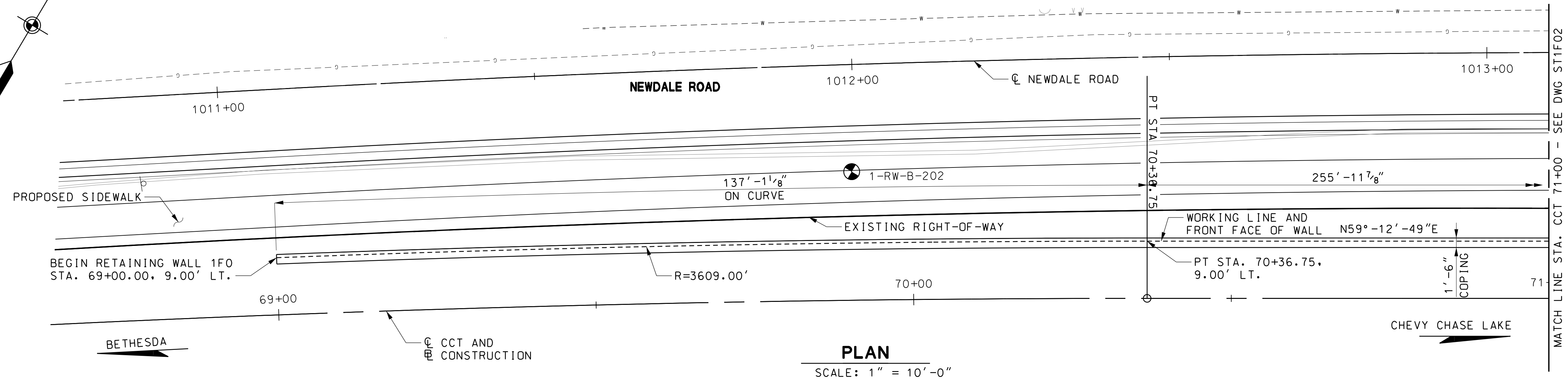
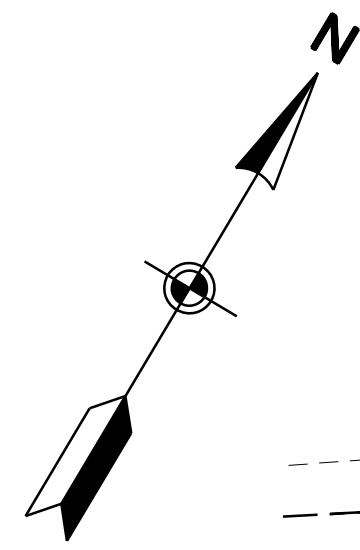
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



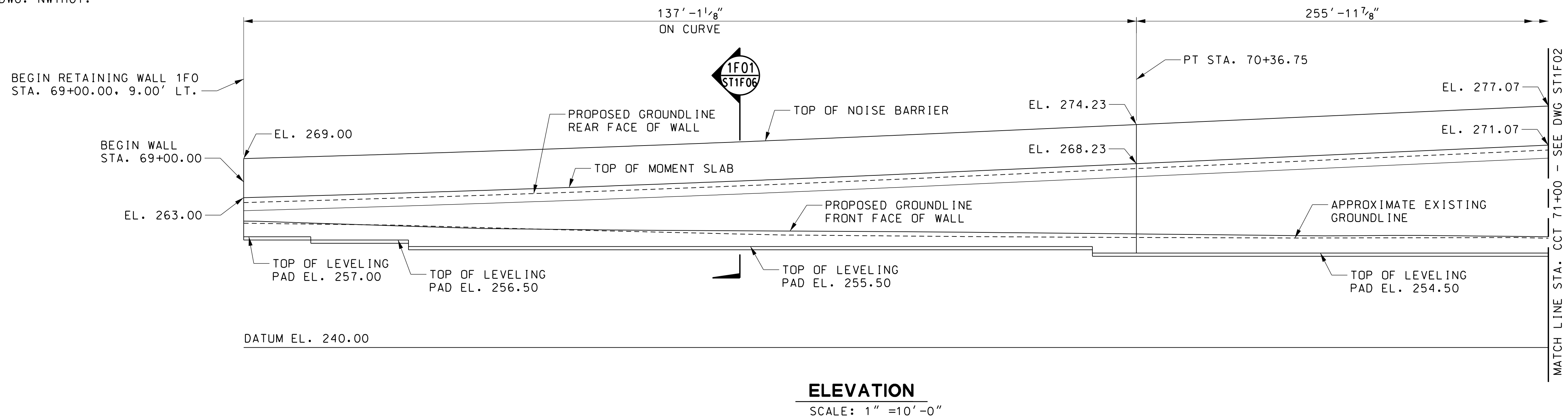
CONCRETE COPING DETAIL
SCALE: 1" = 1'-0"

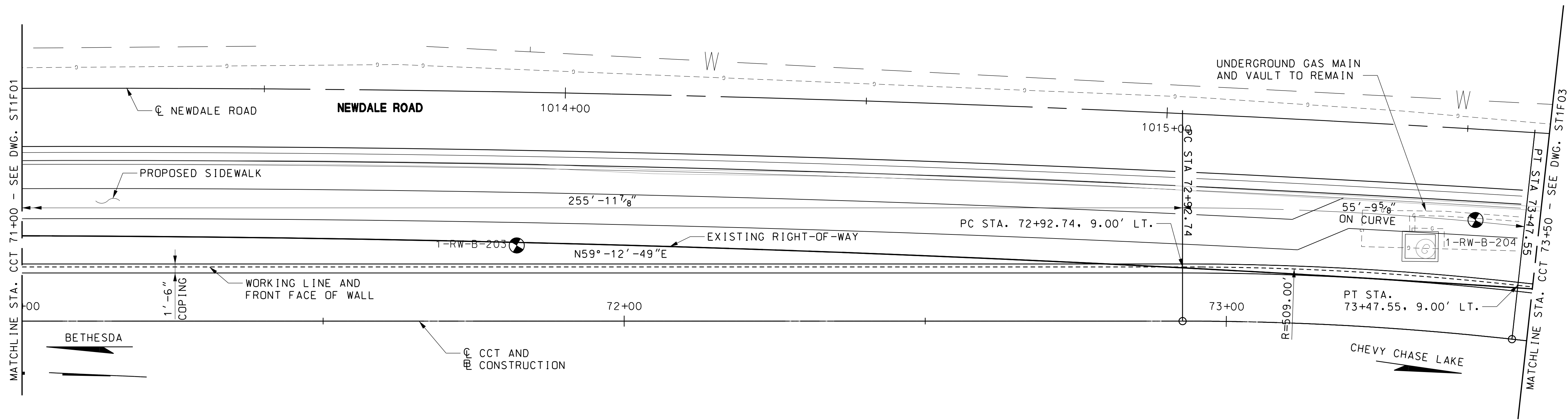
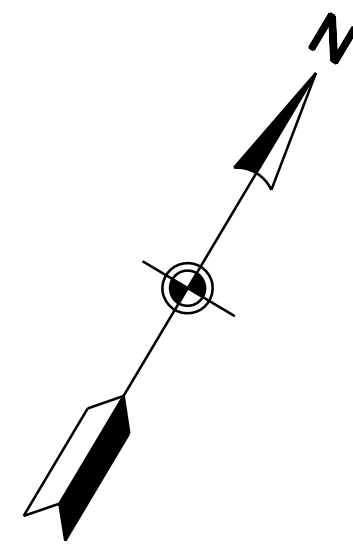
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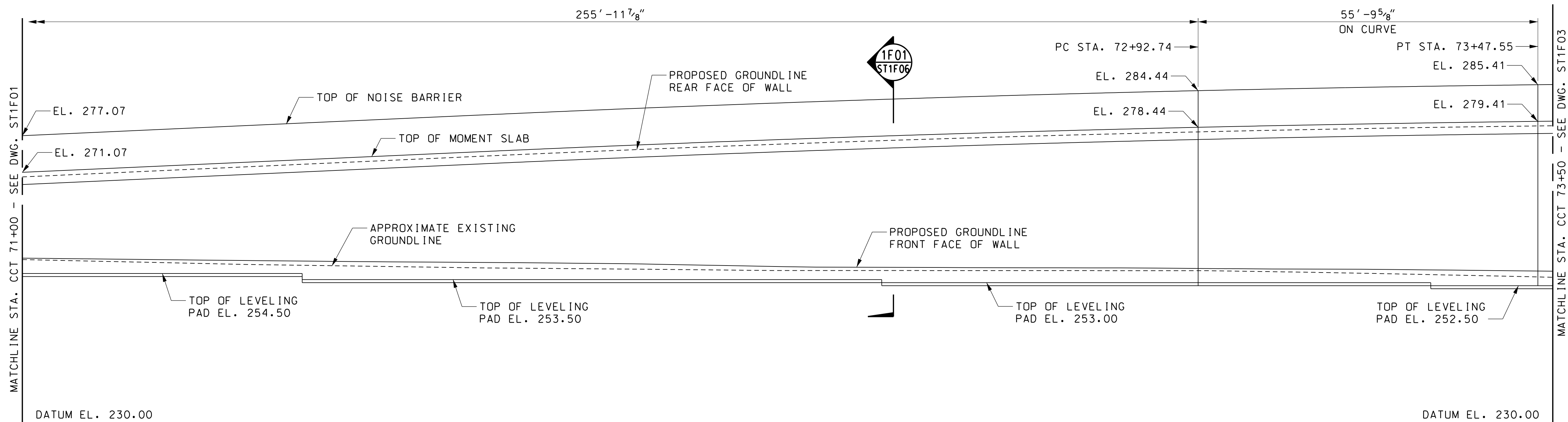
NOTE: FOR CONTINUATION OF
GROUND MOUNTED NOISEWALL NWTH,
SEE DWG. NWTH01.





PLAN

SCALE: 1" = 10'-0"



ELEVATION

SCALE: 1" = 10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN	AC
DRAWN	AC
CHECK	CES
APPR	

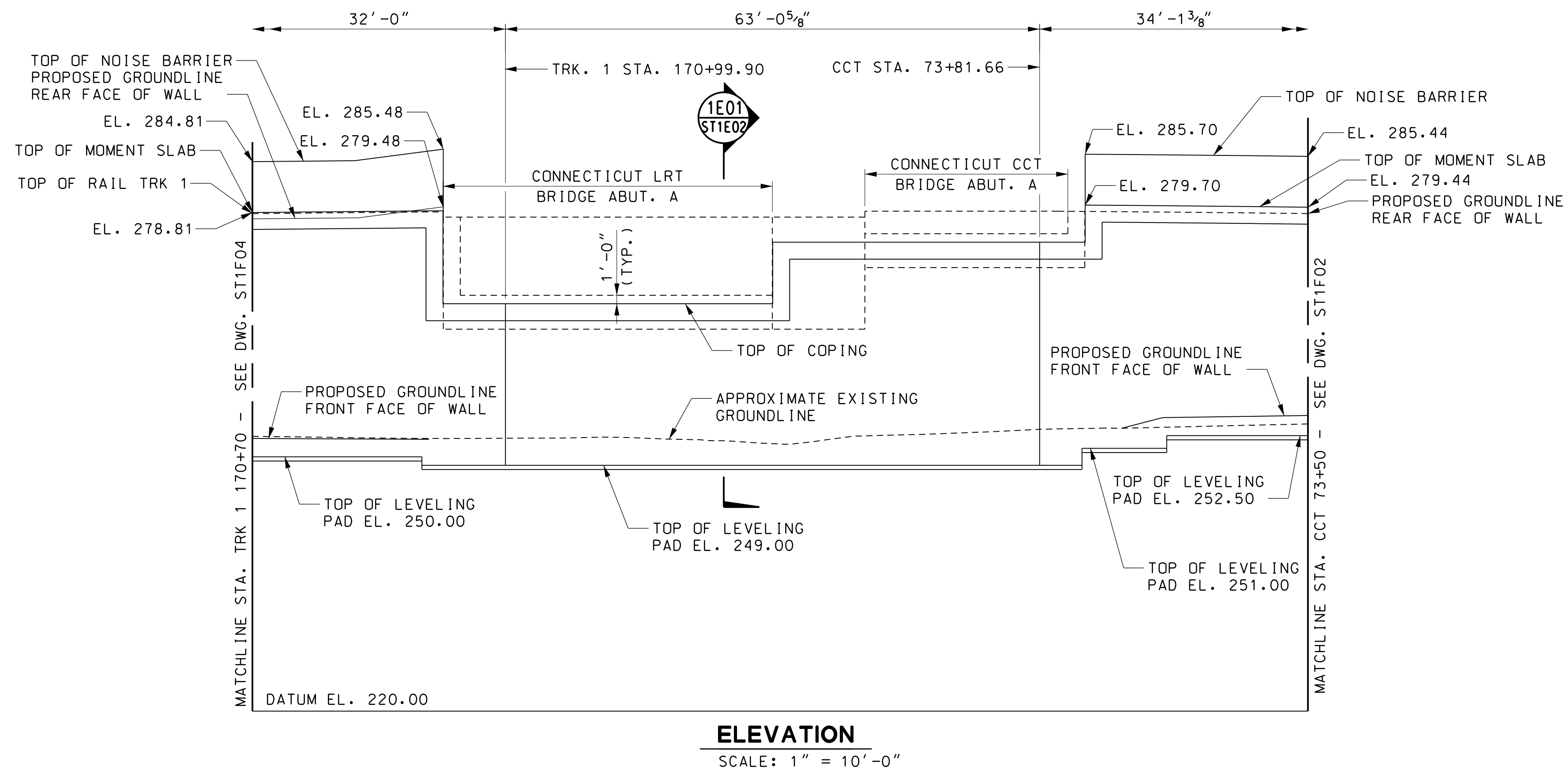
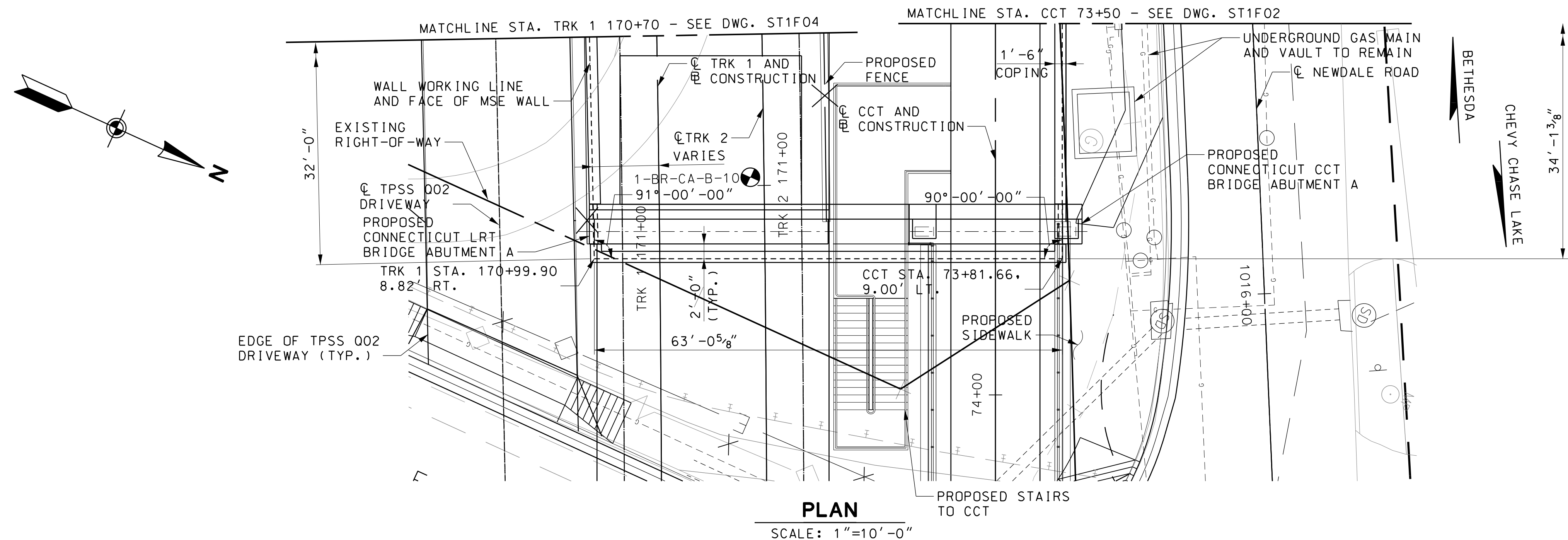
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

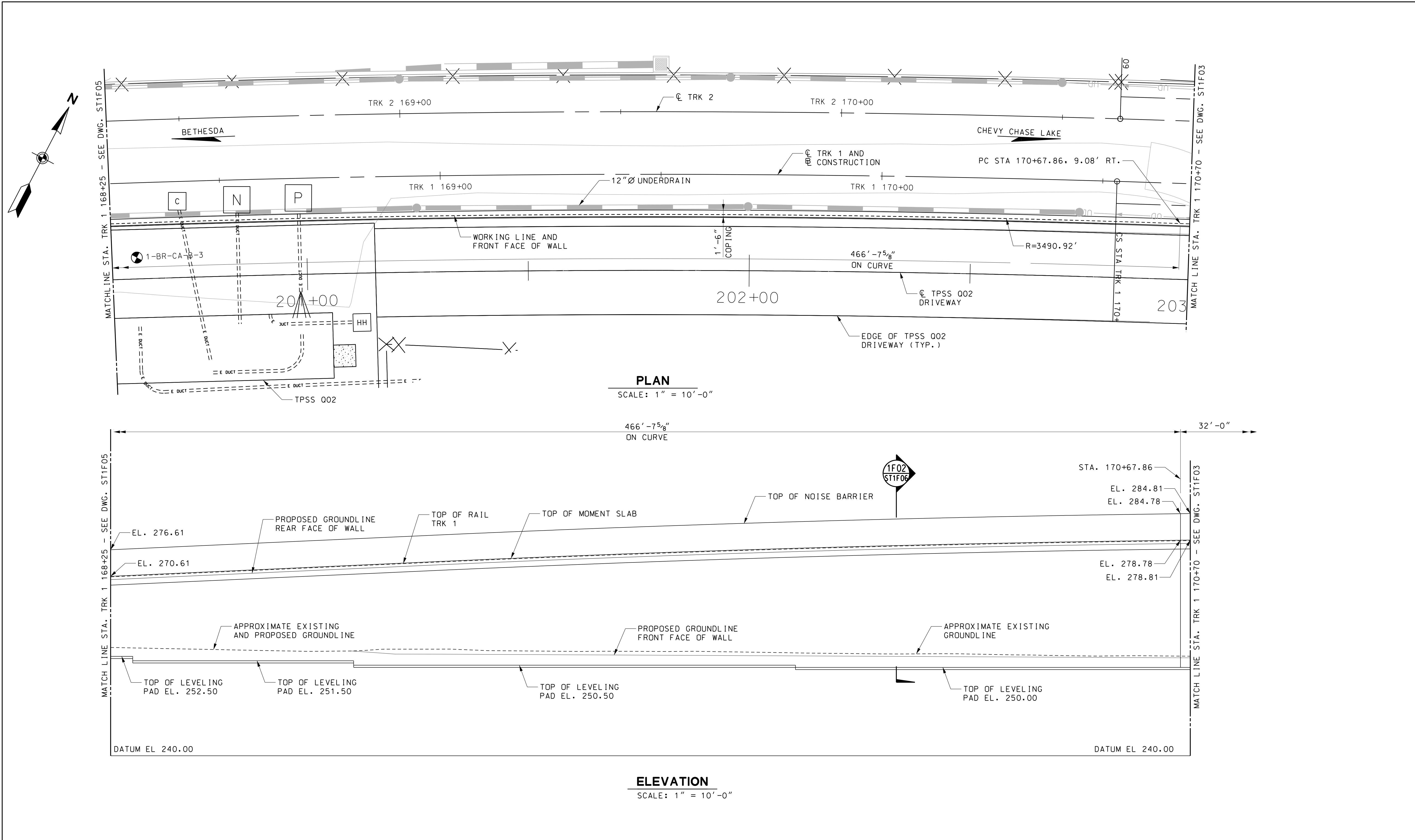
RETAINING WALL 1F0
GENERAL PLAN AND ELEVATION - 2



DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

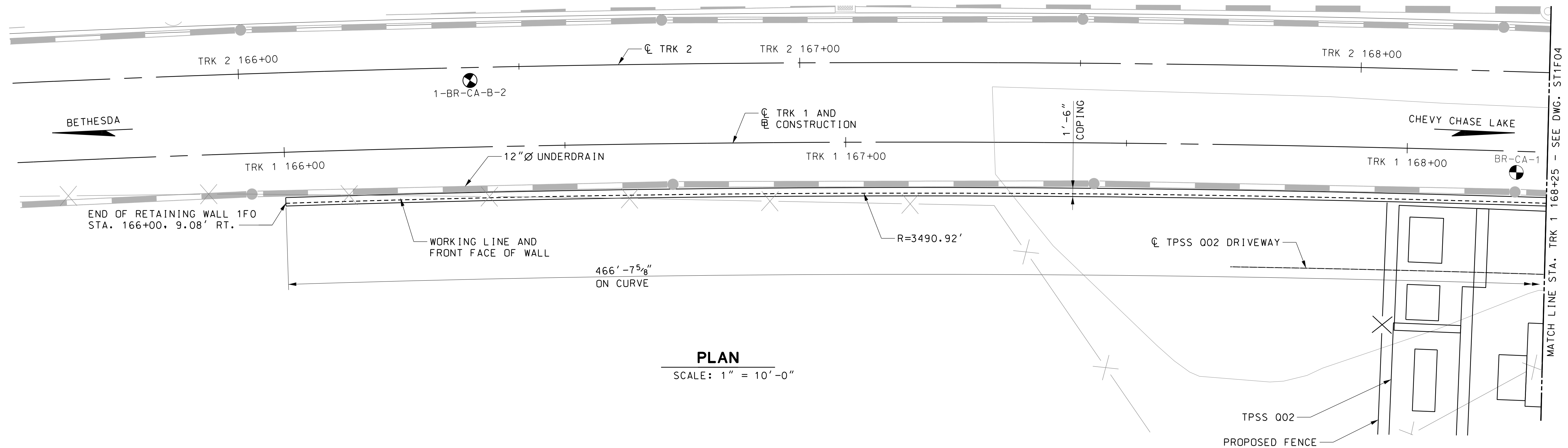
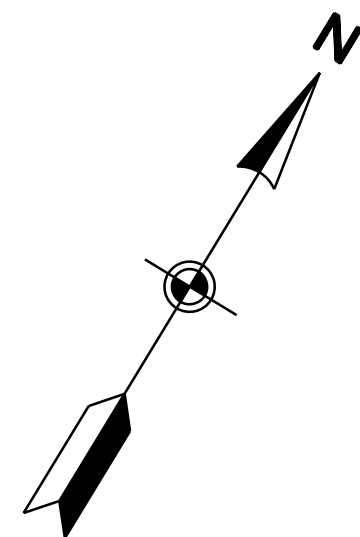
CONTRACT NO. T-1042-0220
DRAWING NO. ST1F02
SHEET NO. 126 OF 828



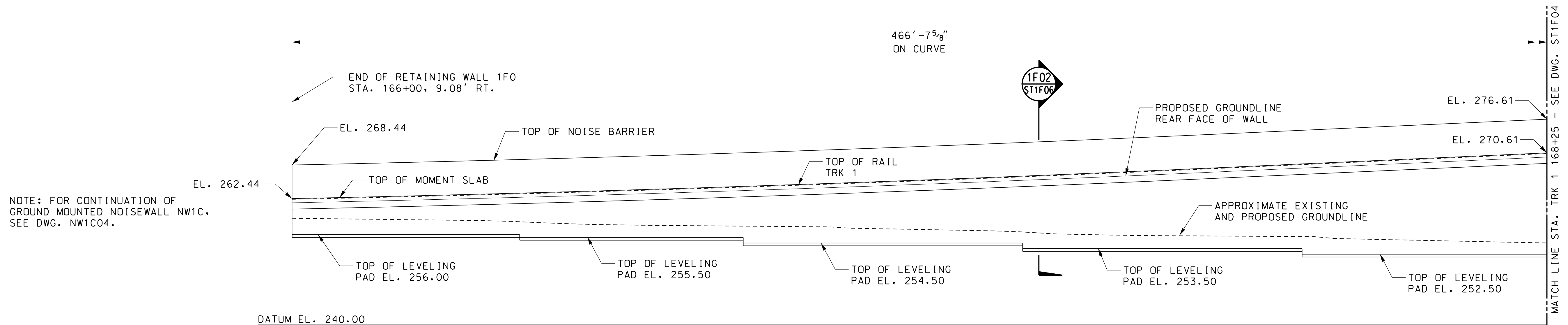


MARYLAND DEPARTMENT OF TRANSPORTATION  MTA Maryland	 WR&A	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESIGN AC	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				DRAWN AC		DRAWING NO. ST1F04
				CHECK CES		SHEET NO. 128 OF 828
				RETAINING WALL 1F0 GENERAL PLAN AND ELEVATION - 4		
				DATE: DECEMBER 2013		SCALE: 1" = 10'-0"

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 01-West\Structures\F-Retaining Walls CCC - Coquelin Culvert\WRA\Sheet Files\1042psT1f04.dgn 12/4/2013

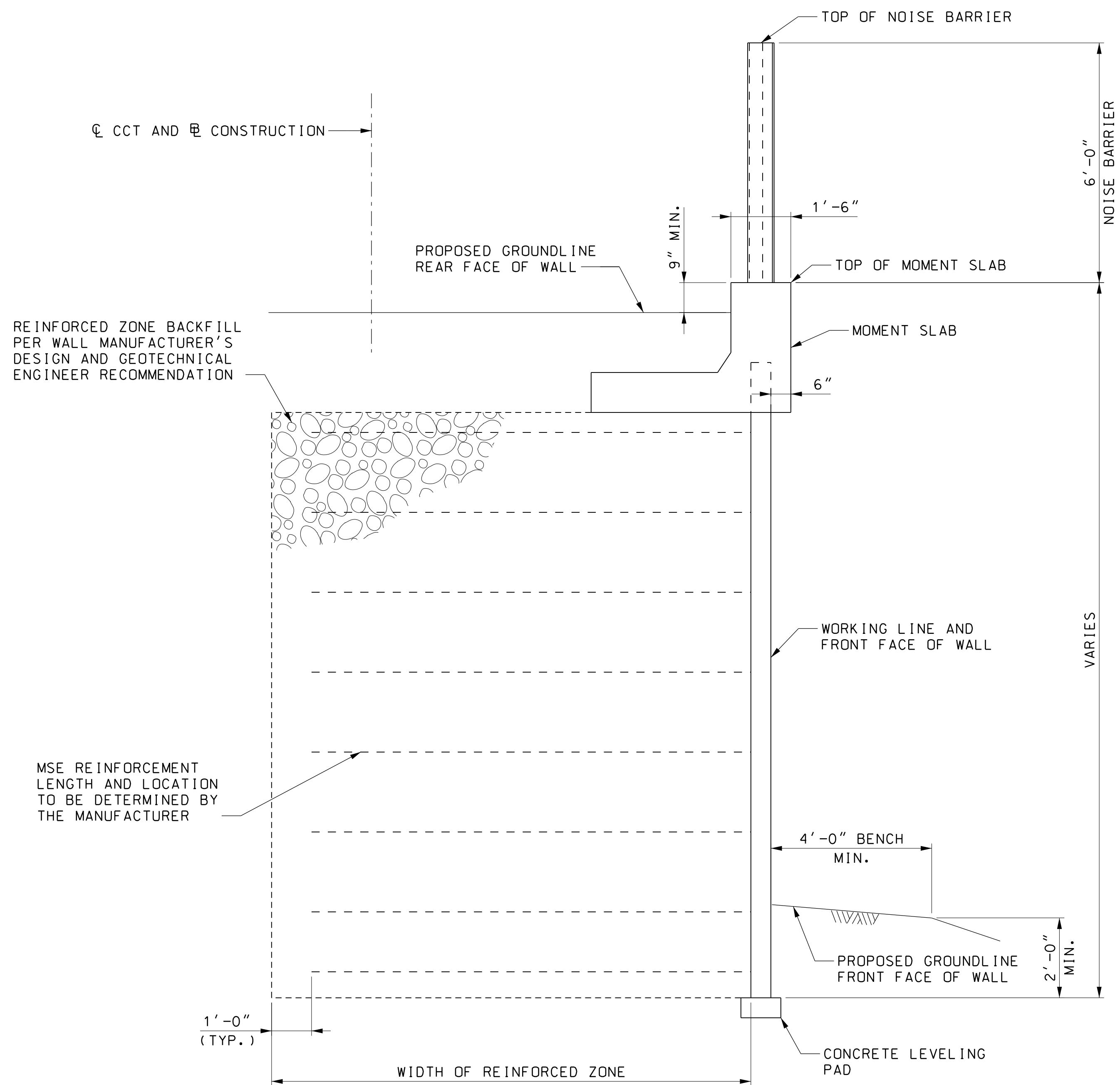


PLAN
SCALE: 1" = 10'-0"



ELEVATION
SCALE: 1" = 10'-0"

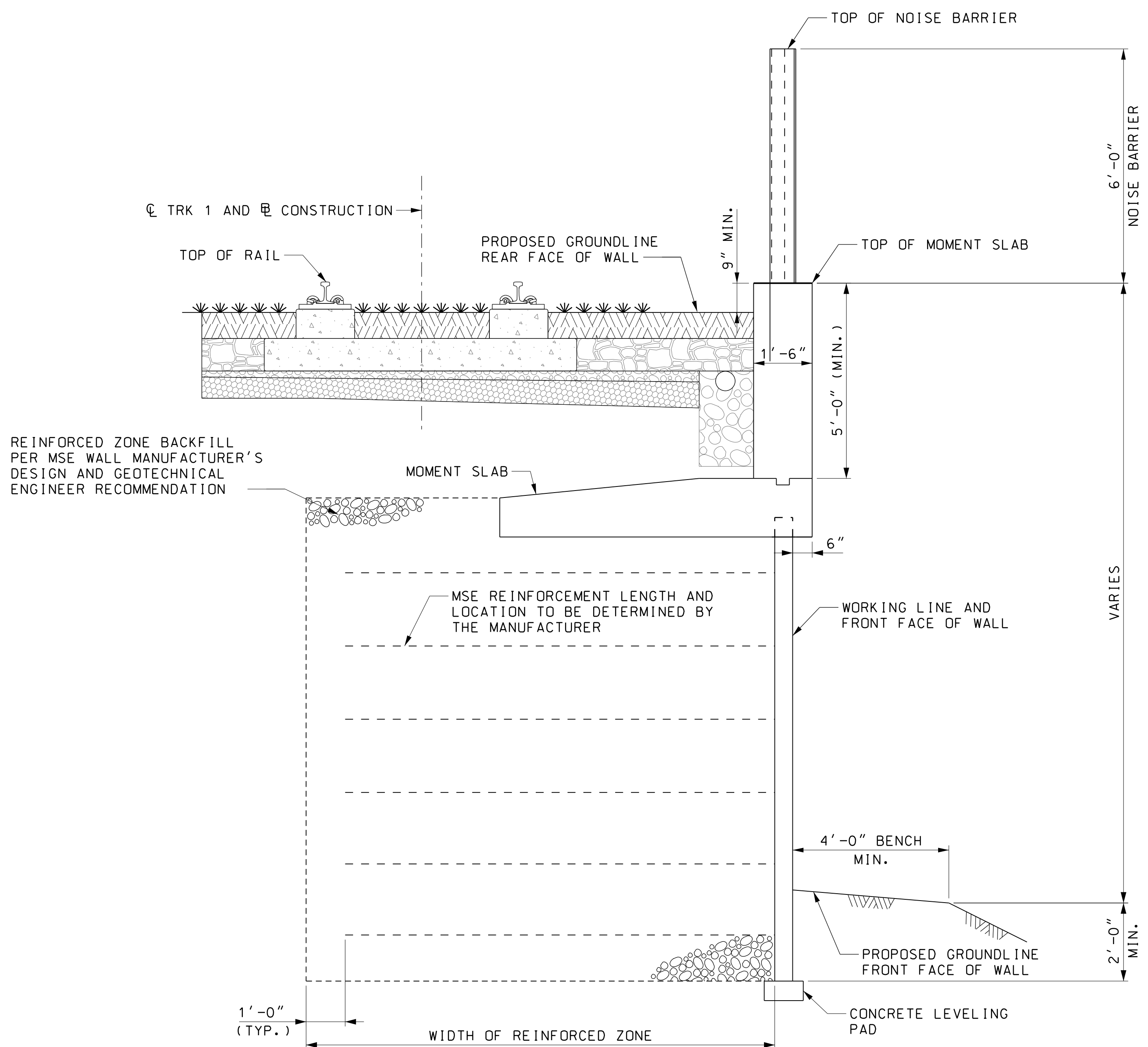
NOTE: FOR CONTINUATION OF
GROUND MOUNTED NOISEWALL NW1C,
SEE DWG. NW1C04.



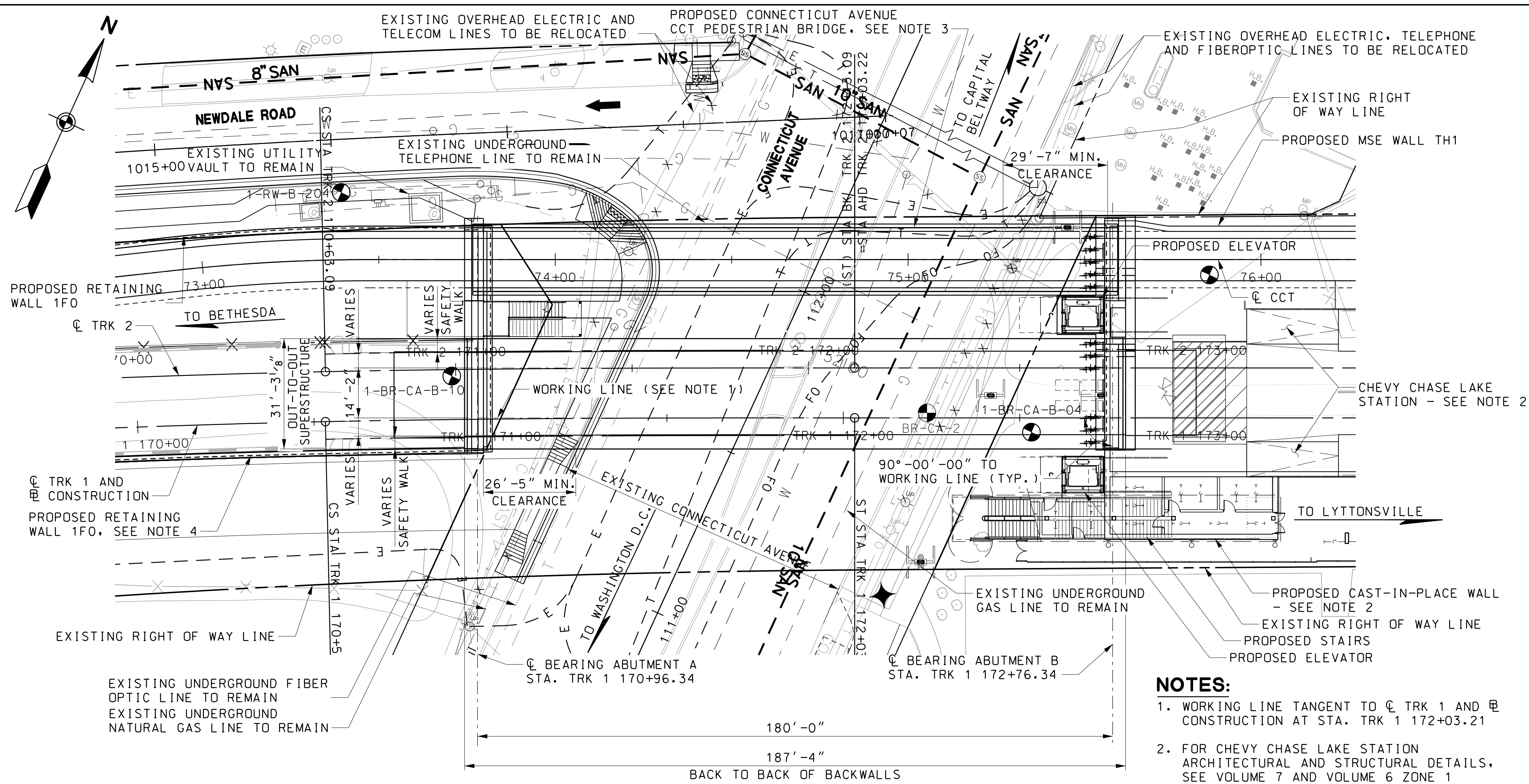
1F01
ST1F06 **TYPICAL CCT MSE WALL SECTION**
SCALE: 1/2"=1'-0"
REF: ST1F01 AND ST1F02

NOTES:

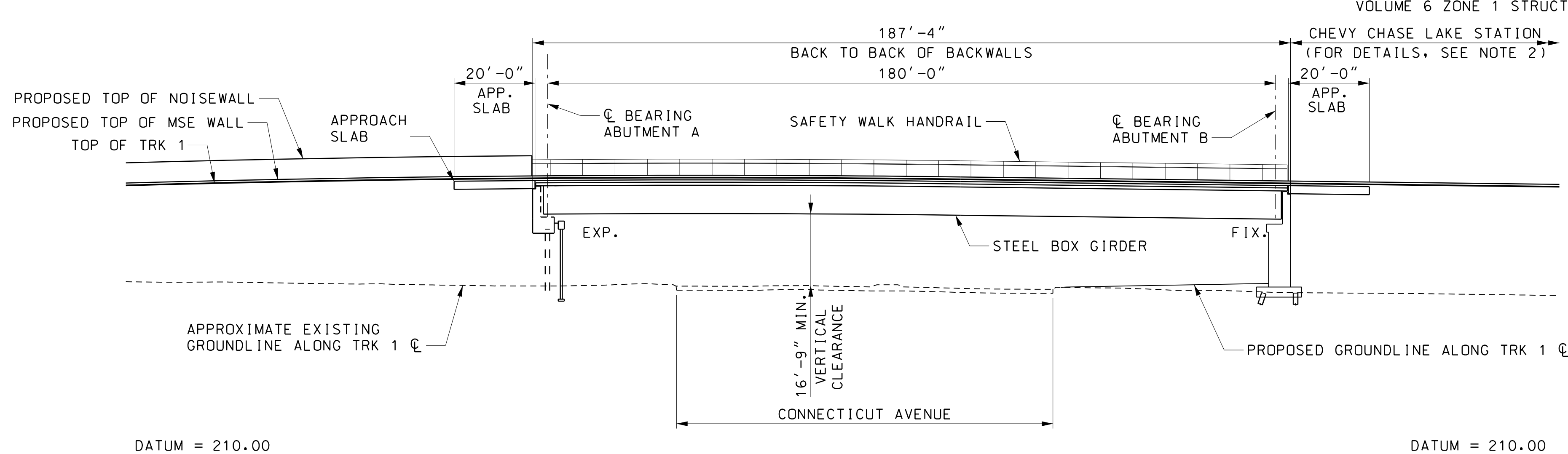
1. MSE WALL MANUFACTURER DESIGN CALCULATIONS FOR SHALL INCLUDE INTERNAL STABILITY AND COMPOUND STABILITY AS INDICATED IN THE DESIGN CRITERIA.
2. STEPPING AND ELEVATIONS OF LEVELING PAD SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



1F02
ST1F06 **TYPICAL LRT MSE WALL SECTION**
SCALE: 1/2"=1'-0"
REF: ST1F04 AND ST1F05



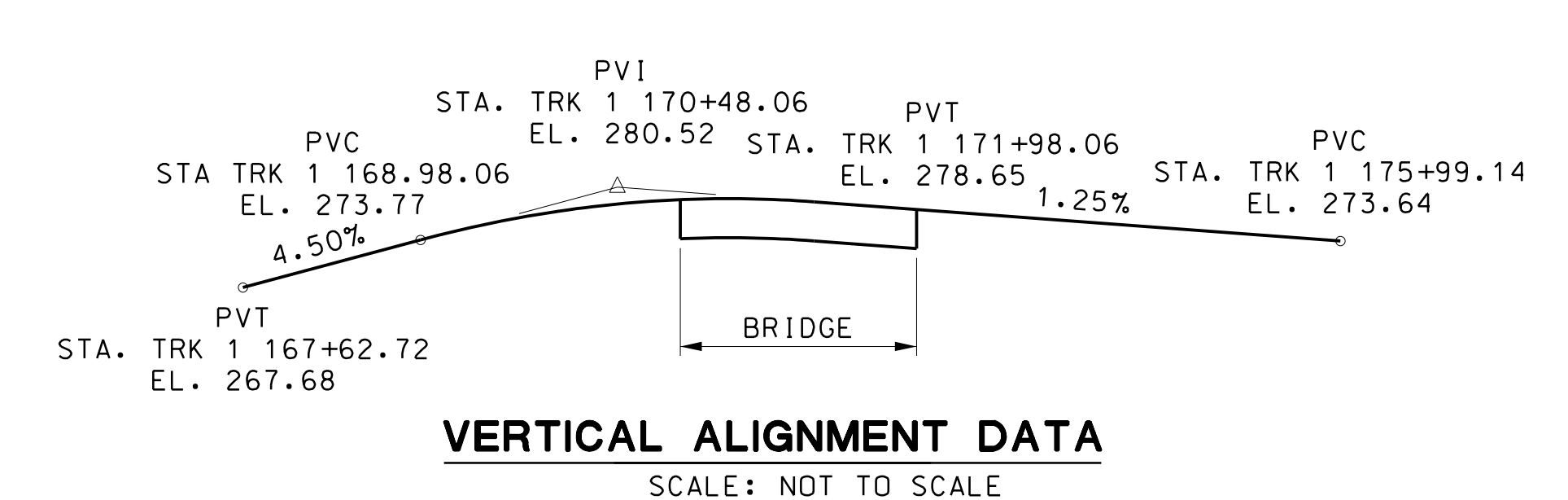
PLAN
SCALE: 1"=20'-0"



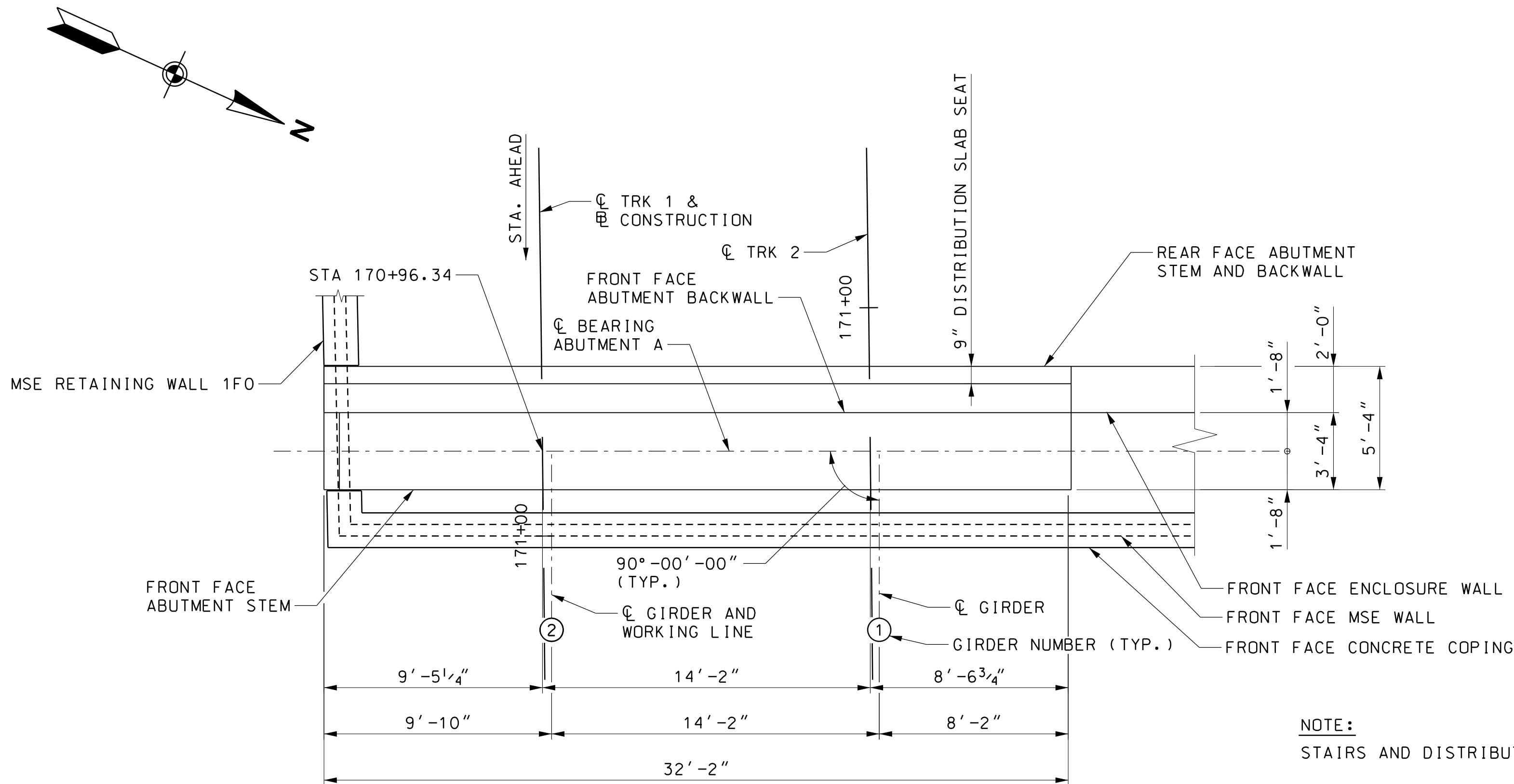
ELEVATION
SCALE: 1"=20'-0"

NOTE:
ELEVATION SHOWN ALONG SOUTH EDGE OF BRIDGE

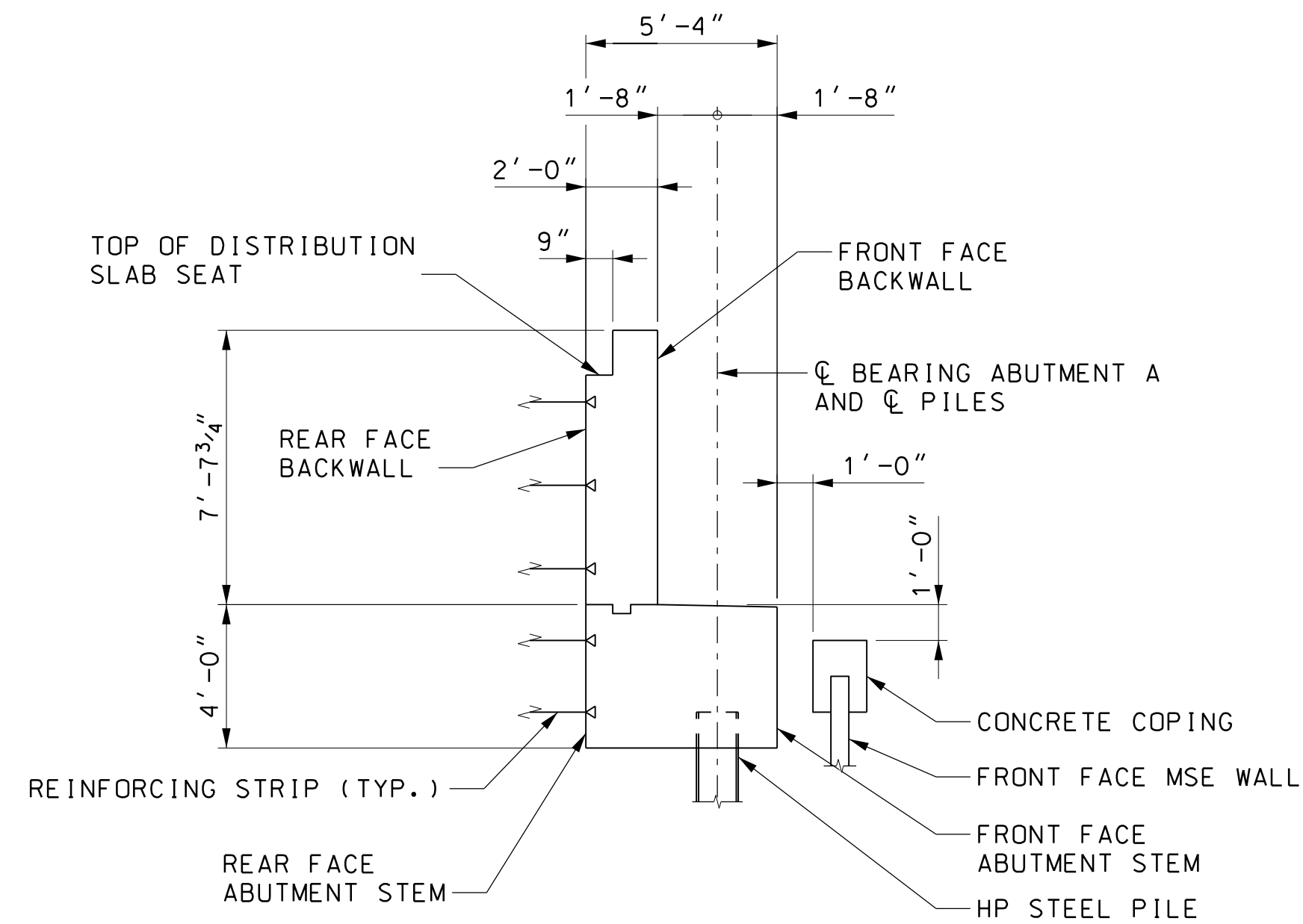
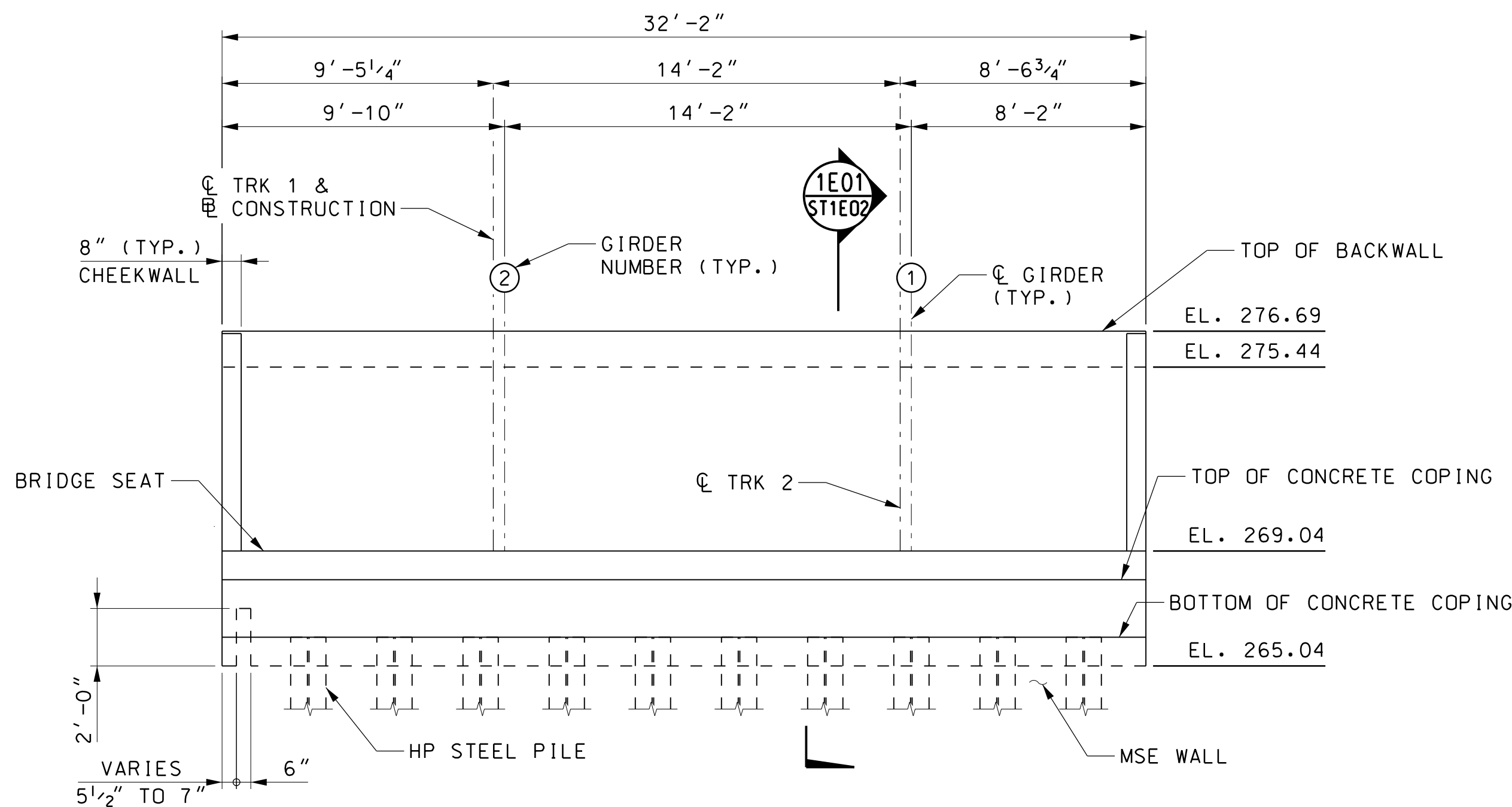
- GENERAL NOTES:**
- SPECIFICATIONS:** ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS
- MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- REINFORCING STEEL DESIGN: FY = 60,000 PSI.
- STRUCTURAL STEEL:** ALL STRUCTURAL STEEL SHALL CONFORM TO A 709 GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS. ALL STRUCTURAL STEEL SHALL BE PAINTED.
- FINISHED PAINT COLOR:** THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.
- LOADING:** PERMANENT LOADS: 150 PCF SUPERSTRUCTURE AND SUBSTRUCTURE CONCRETE, 490 PCF STRUCTURAL STEEL.
- LIVE LOADS: ALL LRT VEHICLES SPECIFIED IN SECTION 9.2.2.2 OF THE MTA PURPLE/RED LIGHT RAIL DESIGN CRITERIA, INCLUDING LRV, CRANE CAR, WORK TRAIN, AND LOCOMOTIVE.
- WIND LOADS: IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AERIAL STRUCTURE).
- THERMAL FORCES:
CONCRETE: 30°F RISE, 40°F FALL, 0.0000060 PER °F.
STEEL: 60°F RISE, 60°F FALL, 0.0000065 PER °F.
RAIL: 45°F RISE, 105°F FALL, 0.0000065 PER °F.
- CONCRETE:** ALL CAST-IN-PLACE CONCRETE FOR ABUTMENT BACKWALLS, SAFETY WALKS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI)
ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 CAN BE USED ON THIS PROJECT
- REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
-ENTIRE SUPERSTRUCTURE
-ABUTMENT BACKWALLS
-CHEEKWALLS
-ABUTMENT BRIDGE SEAT AREAS
- KEYS:** ALL KEYS ARE NOMINAL SIZE.

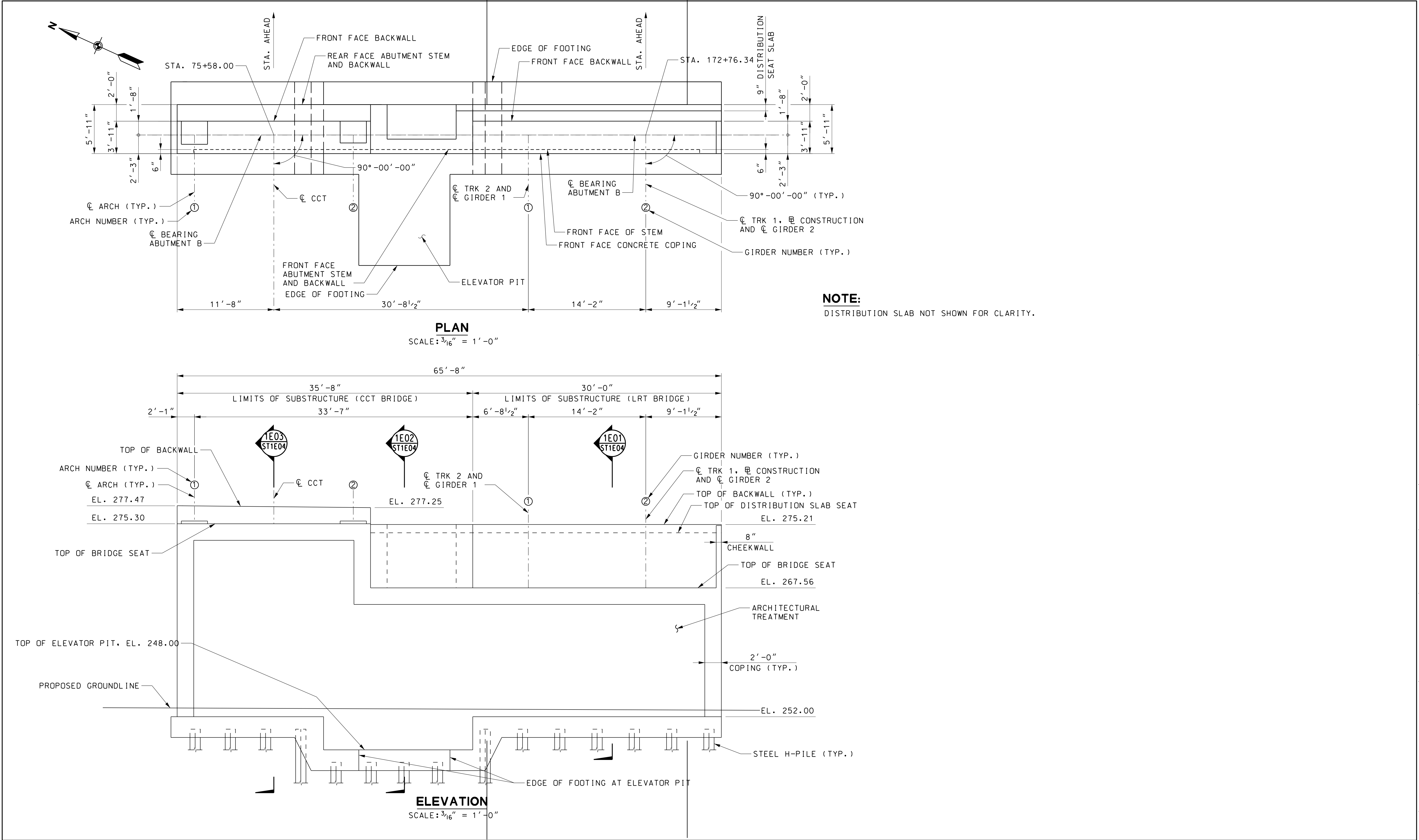






VERTICAL ALIGNMENT DATA
SCALE: NOT TO SCALE

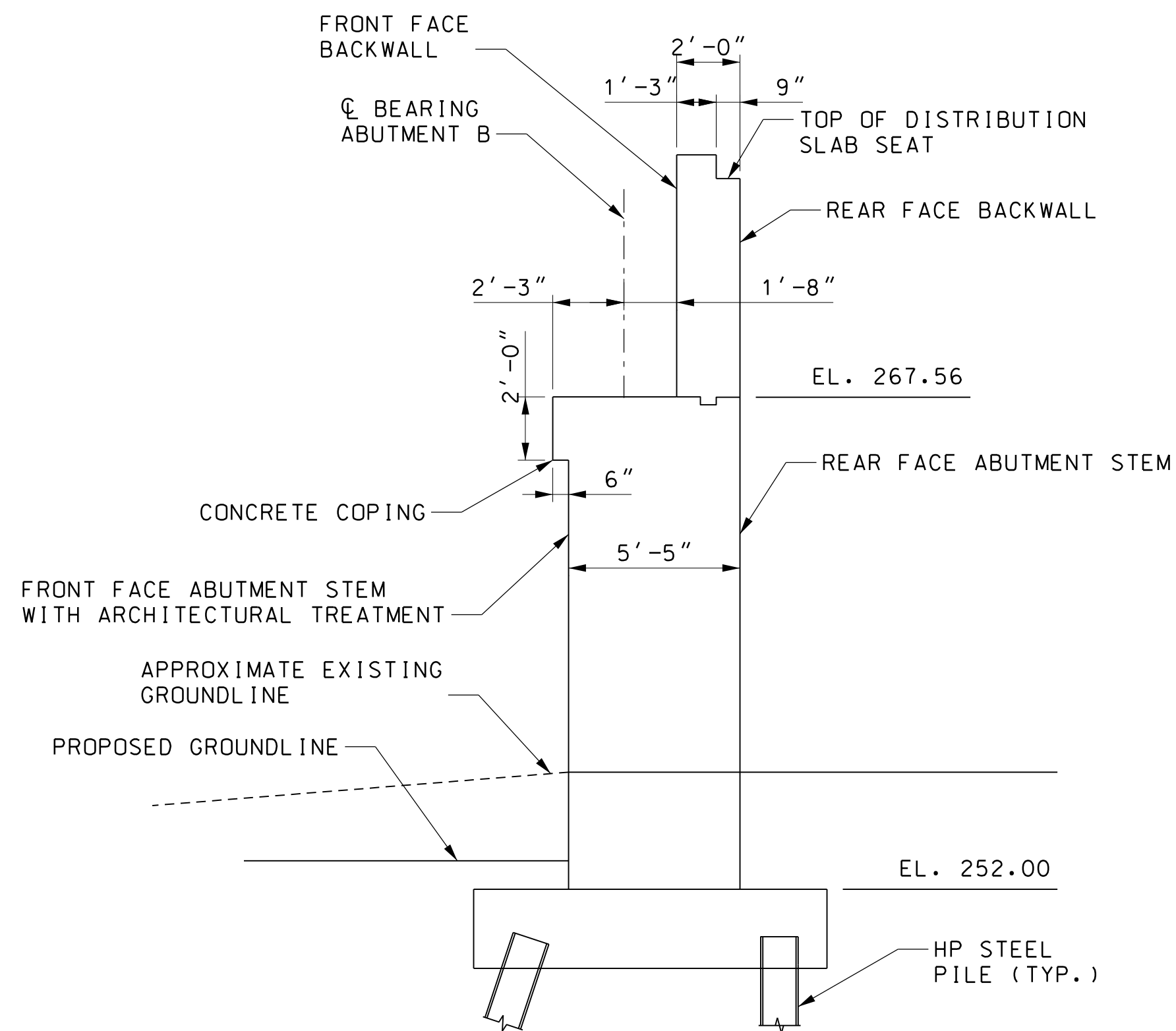


NOTE:
STAIRS AND DISTRIBUTION SLAB NOT SHOWN FOR CLARITY.

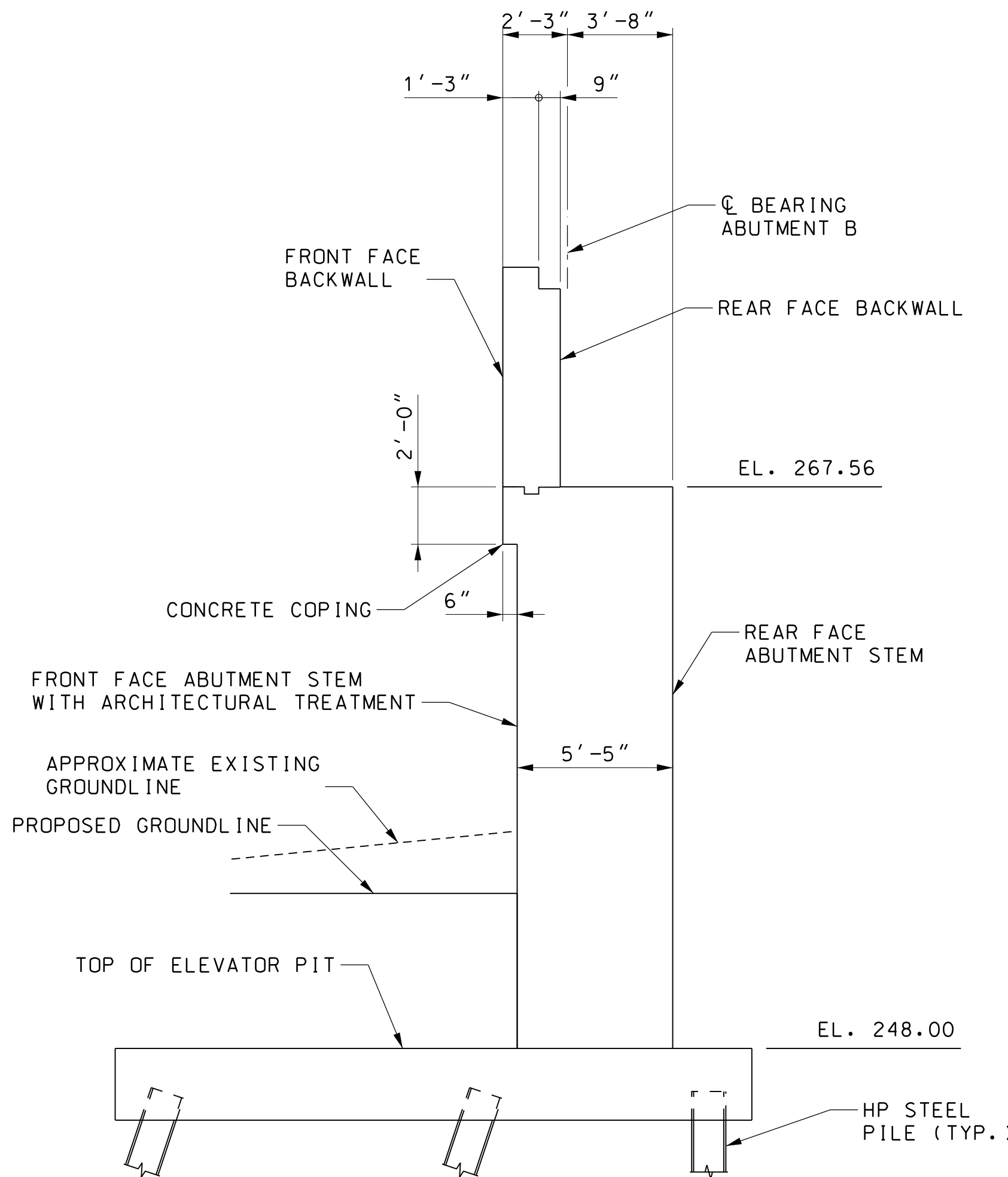




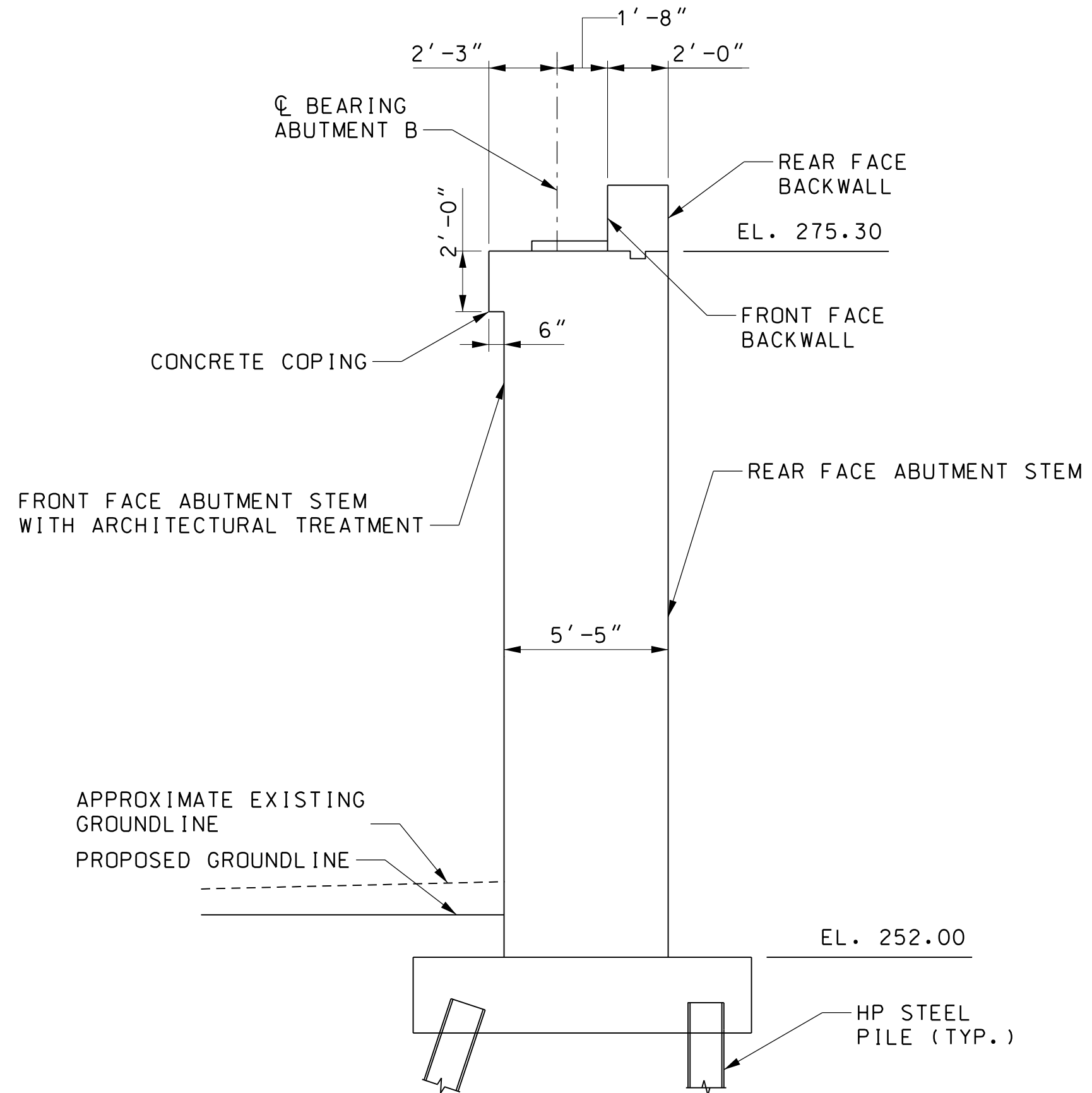
<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div><div><div> MARYLAND TRANSIT ADMINISTRATION</div><div></div></div></div>	<div><div></div><div></div></div>		<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	DESIGN	FJO	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
					DRAWN	JPD		DRAWING NO. ST1E03
					CHECK	CES	CONNECTICUT AVENUE LRT BRIDGE ABUTMENT B PLAN AND ELEVATION	SHEET NO. 133 OF 828
					APPR		DATE: DECEMBER 2013 SCALE: AS SHOWN	



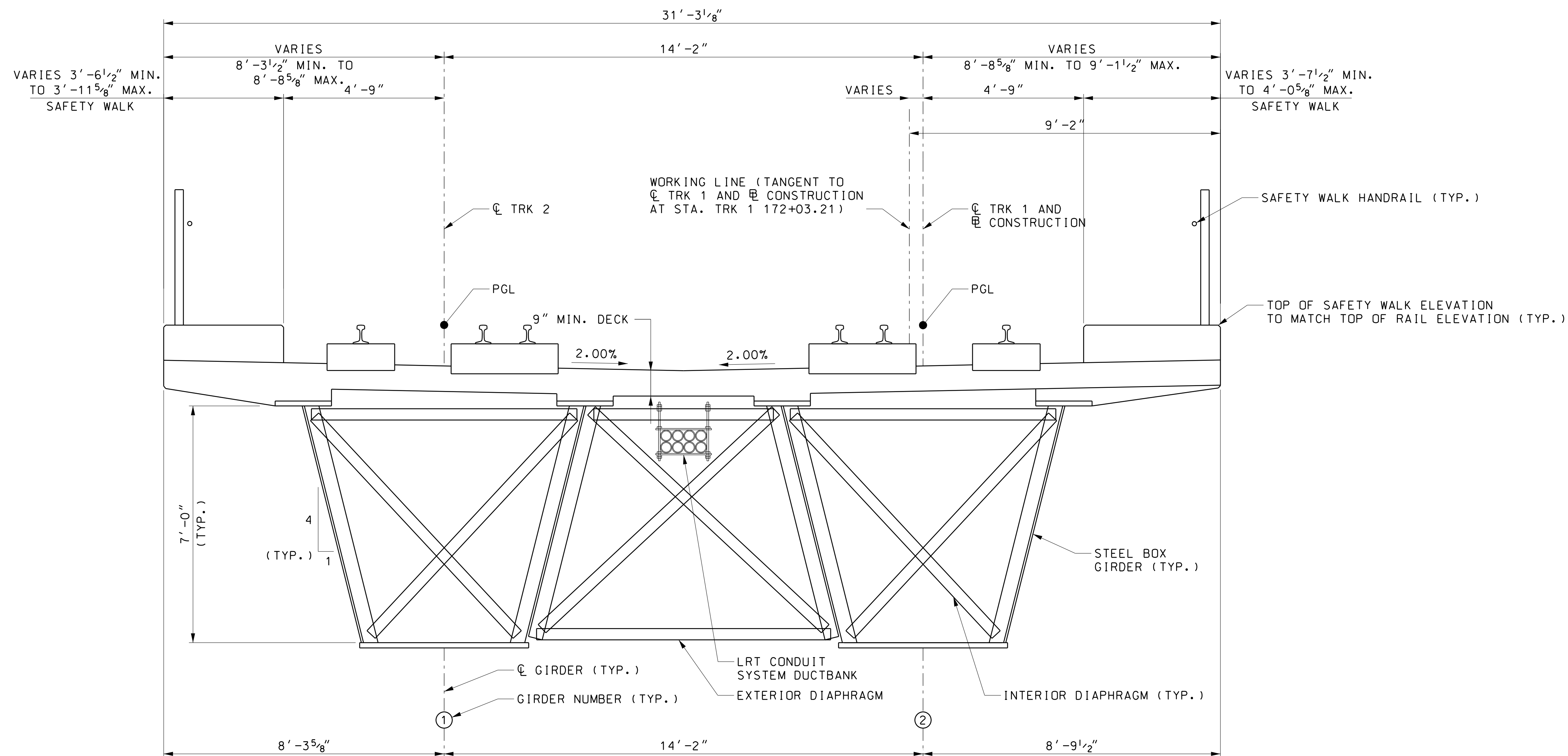
1E01 TYPICAL SECTION
 SCALE: 1/4" = 1'-0"
 REF: ST1E03



1E02 TYPICAL SECTION
 SCALE: 1/4" = 1'-0"
 REF: ST1E03

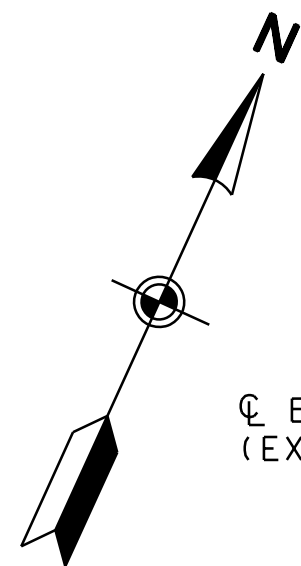


1E03 TYPICAL SECTION
 SCALE: 1/4" = 1'-0"
 REF: ST1E03

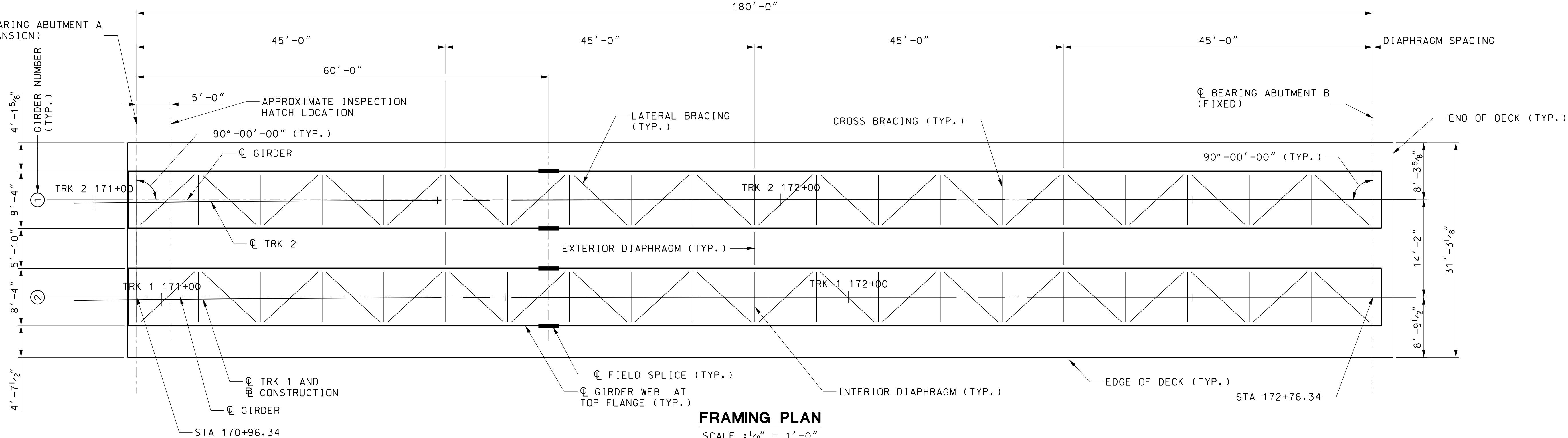


TYPICAL SECTION

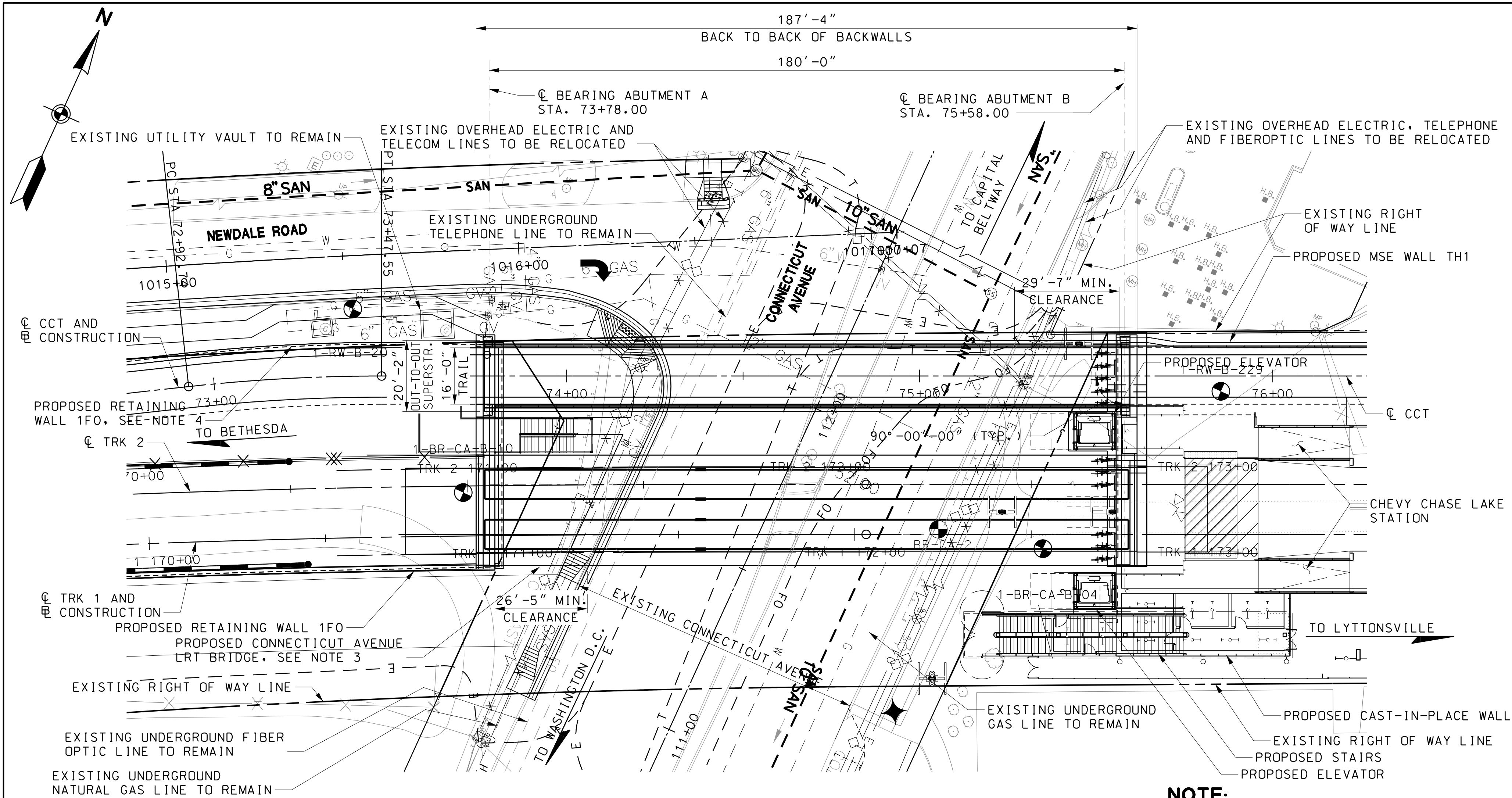
SCALE: 1/2"=1'-0"



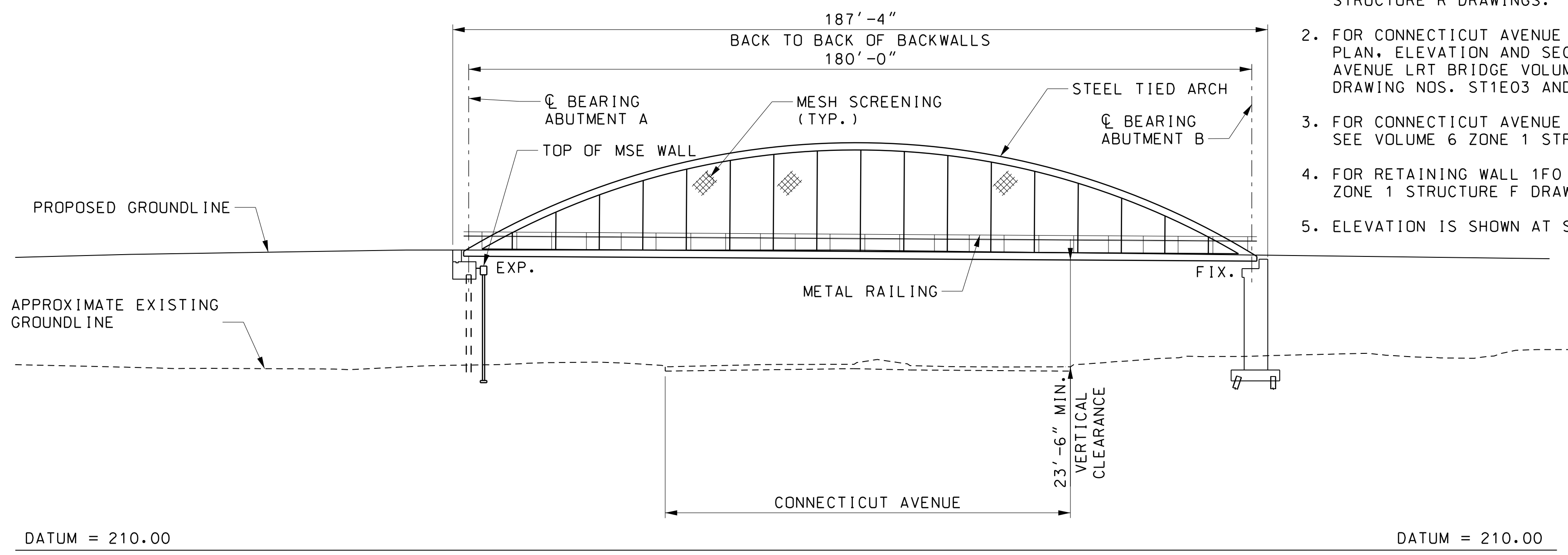
CL BEARING ABUTMENT A
(EXPANSION)



FRAMING PLAN
SCALE : $\frac{1}{8}'' = 1' - 0''$



PLAN
SCALE: 1"=20'-0"



ELEVATION
SCALE: 1"=20'-0"

GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES DATED DECEMBER 2012

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: FY = 60,000 PSI.

LOADING: PERMANENT LOADS: 150 PCF SUPERSTRUCTURE AND SUBSTRUCTURE CONCRETE, 490 PCF STRUCTURAL STEEL

LIVE LOADS: H-10 TRUCK AND 150 PSF PEDESTRIAN LOAD (NOT APPLIED SIMULTANEOUSLY)

STRUCTURAL STEEL: STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500 STEEL GRADE C. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A 709 STEEL GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS. ALL STRUCTURAL STEEL SHALL BE PAINTED.

FINISHED PAINT COLOR: THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.

CONCRETE: ALL CONCRETE FOR ABUTMENT BACKWALLS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

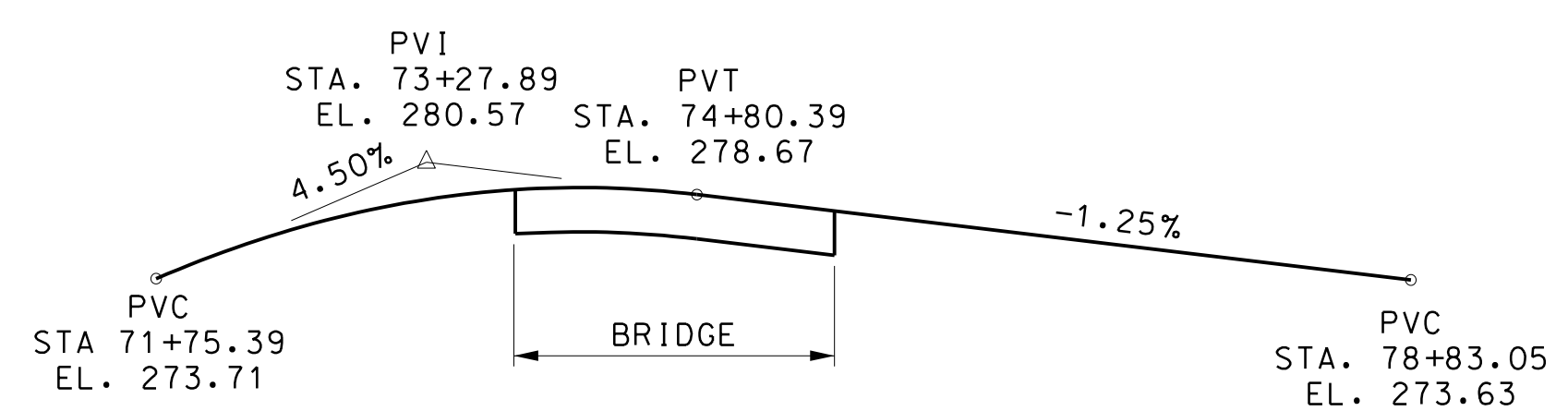
REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
-ENTIRE SUPERSTRUCTURE
-ABUTMENT BACKWALL
-CHEEKWALLS
-ALL BEARING SEAT PADS
-ABUTMENT BRIDGE SEAT AREAS

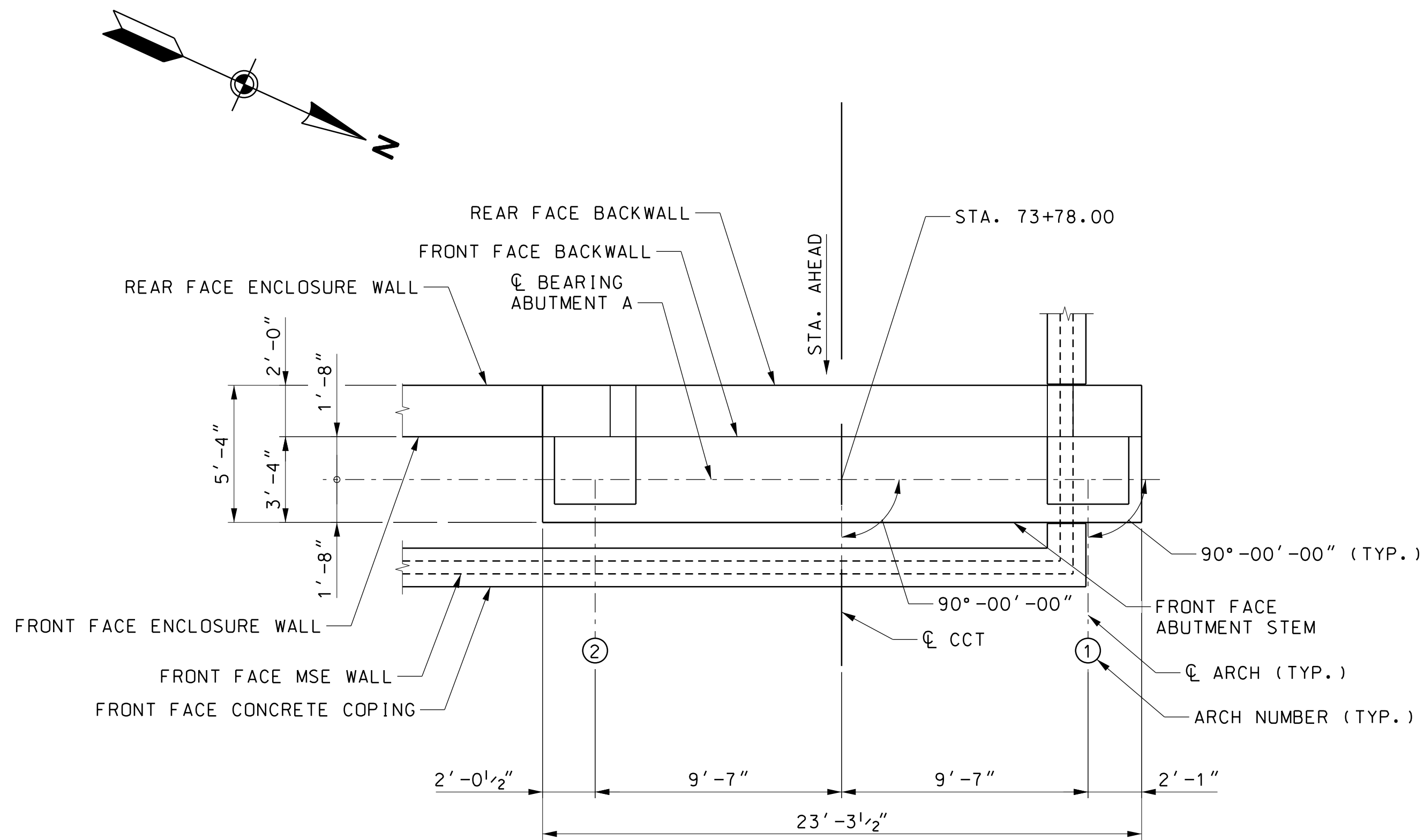
KEYS: ALL KEYS ARE NOMINAL SIZE.



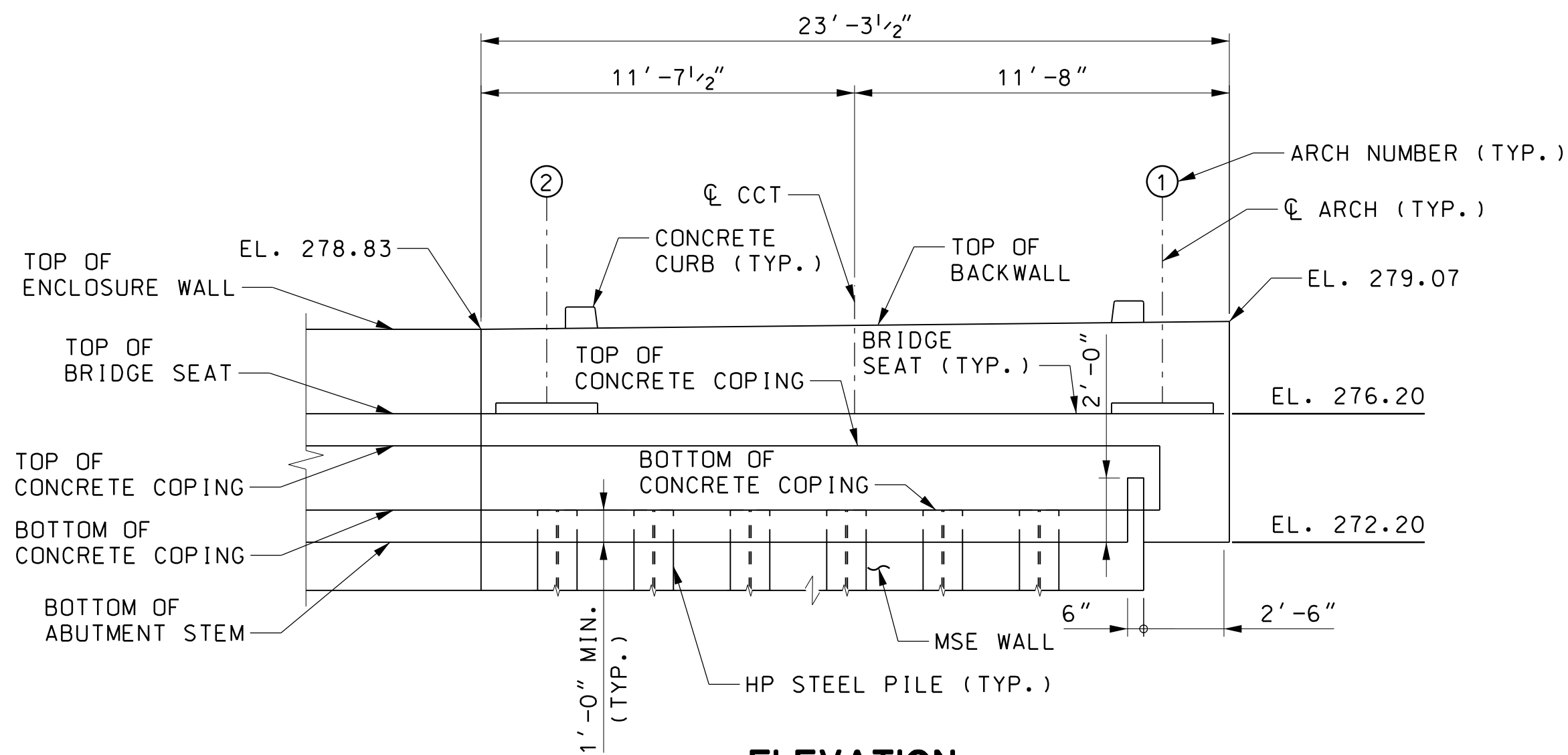
VERTICAL ALIGNMENT DATA
SCALE: NOT TO SCALE

NOTE:

1. FOR CHEVY CHASE LAKE STATION ARCHITECTURAL AND STRUCTURAL DETAILS, SEE VOLUME 7 ZONE 1 STRUCTURE R DRAWINGS.
2. FOR CONNECTICUT AVENUE CCT BRIDGE ABUTMENT B PLAN, ELEVATION AND SECTIONS, SEE CONNECTICUT AVENUE LRT BRIDGE VOLUME 6 ZONE 1 STRUCTURE F DRAWING NOS. ST1E03 AND ST1E04.
3. FOR CONNECTICUT AVENUE LRT BRIDGE DETAILS, SEE VOLUME 6 ZONE 1 STRUCTURE E DRAWINGS.
4. FOR RETAINING WALL 1FO DETAILS SEE VOLUME 6 ZONE 1 STRUCTURE F DRAWINGS.
5. ELEVATION IS SHOWN AT SOUTH EDGE OF BRIDGE.

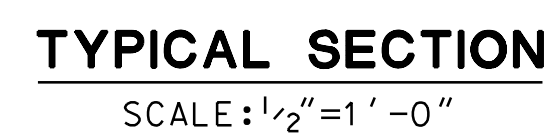


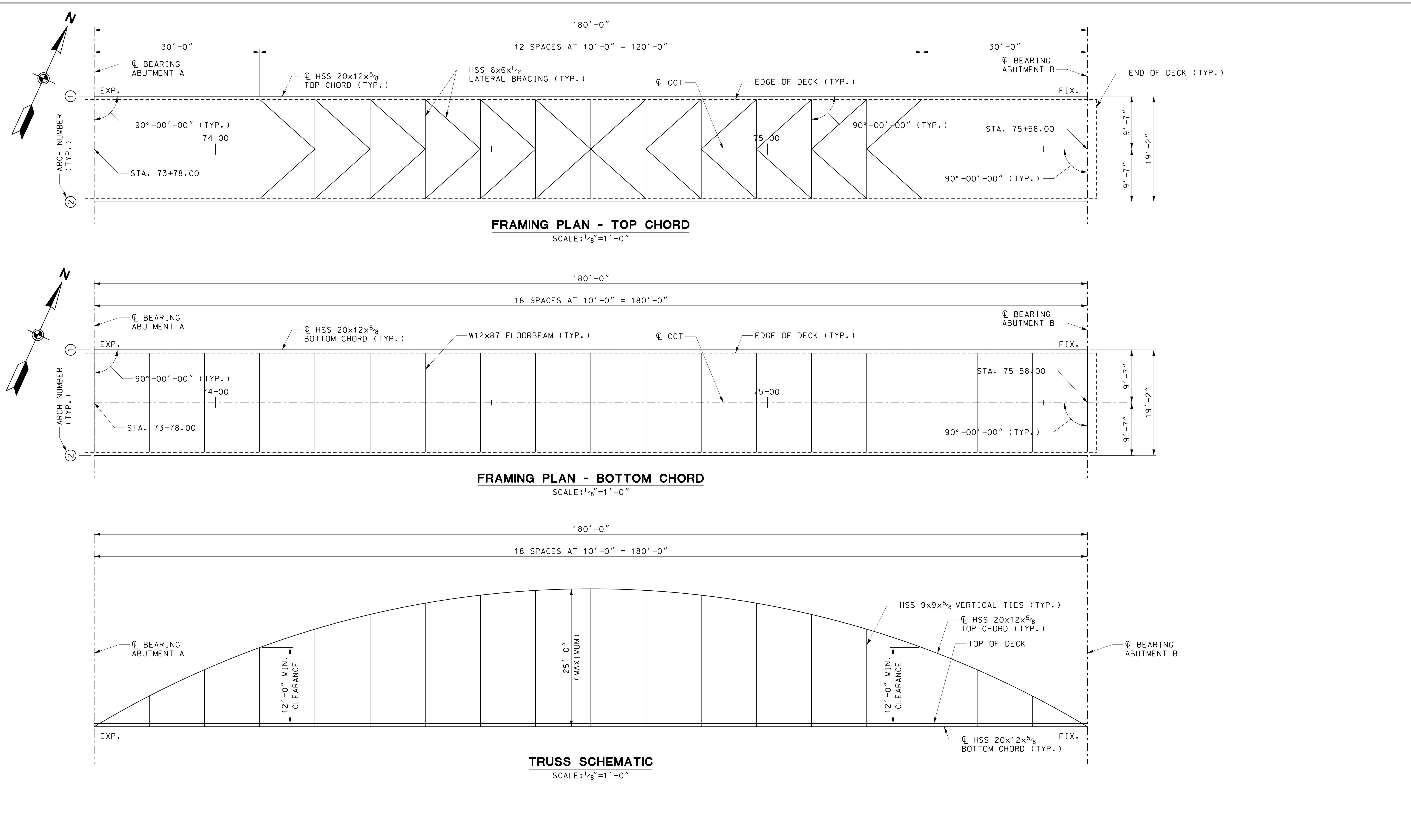
PLAN
SCALE: 1/4" = 1'-0"

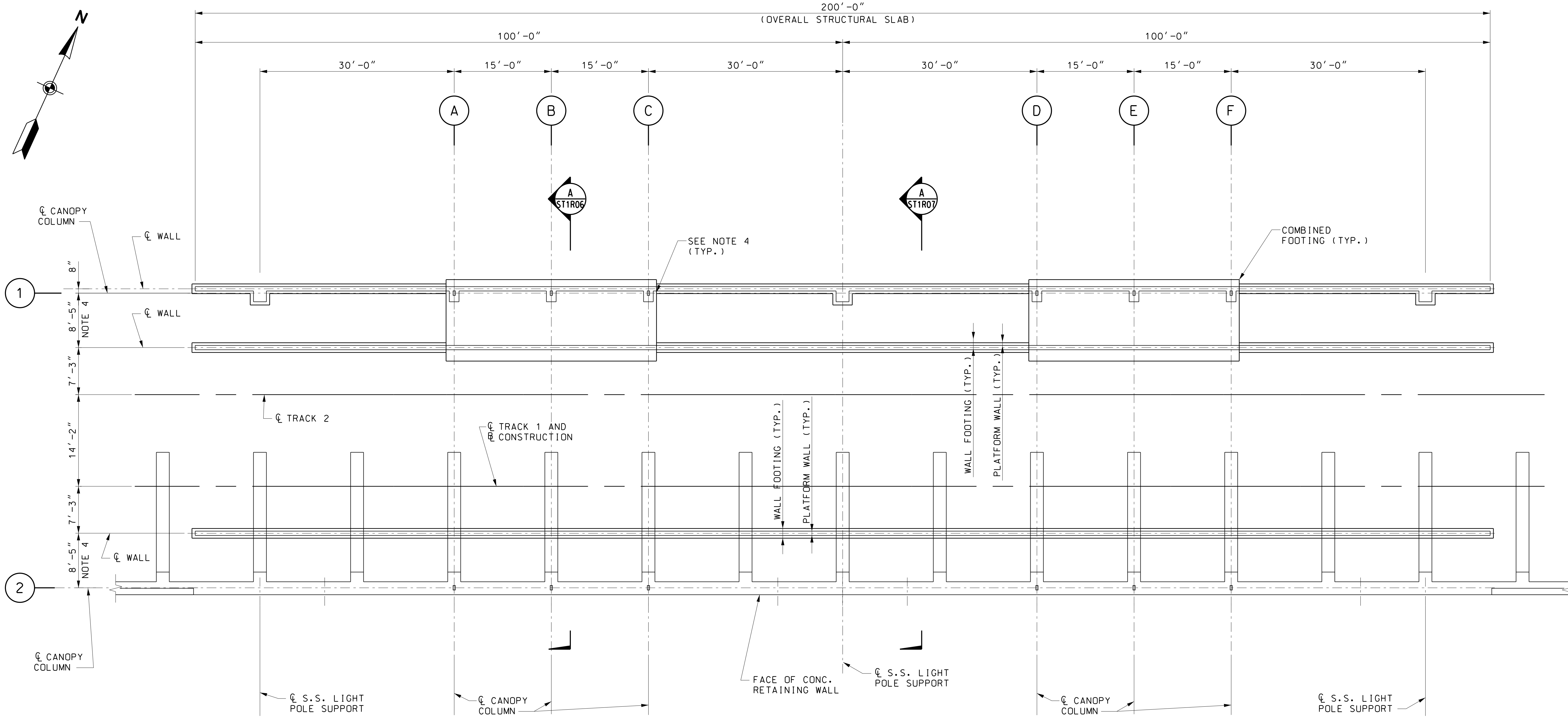


ELEVATION
SCALE: 1/4" = 1'-0"

NOTE:
FOR ABUTMENT B DETAILS, SEE CONNECTICUT AVENUE LRT BRIDGE
DETAILS, VOLUME 6, ZONE 1 STRUCTURE E.

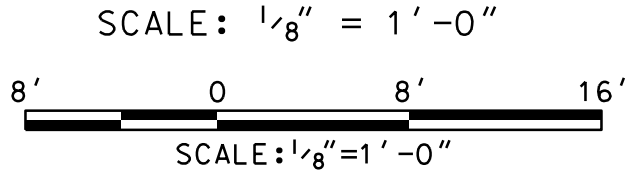




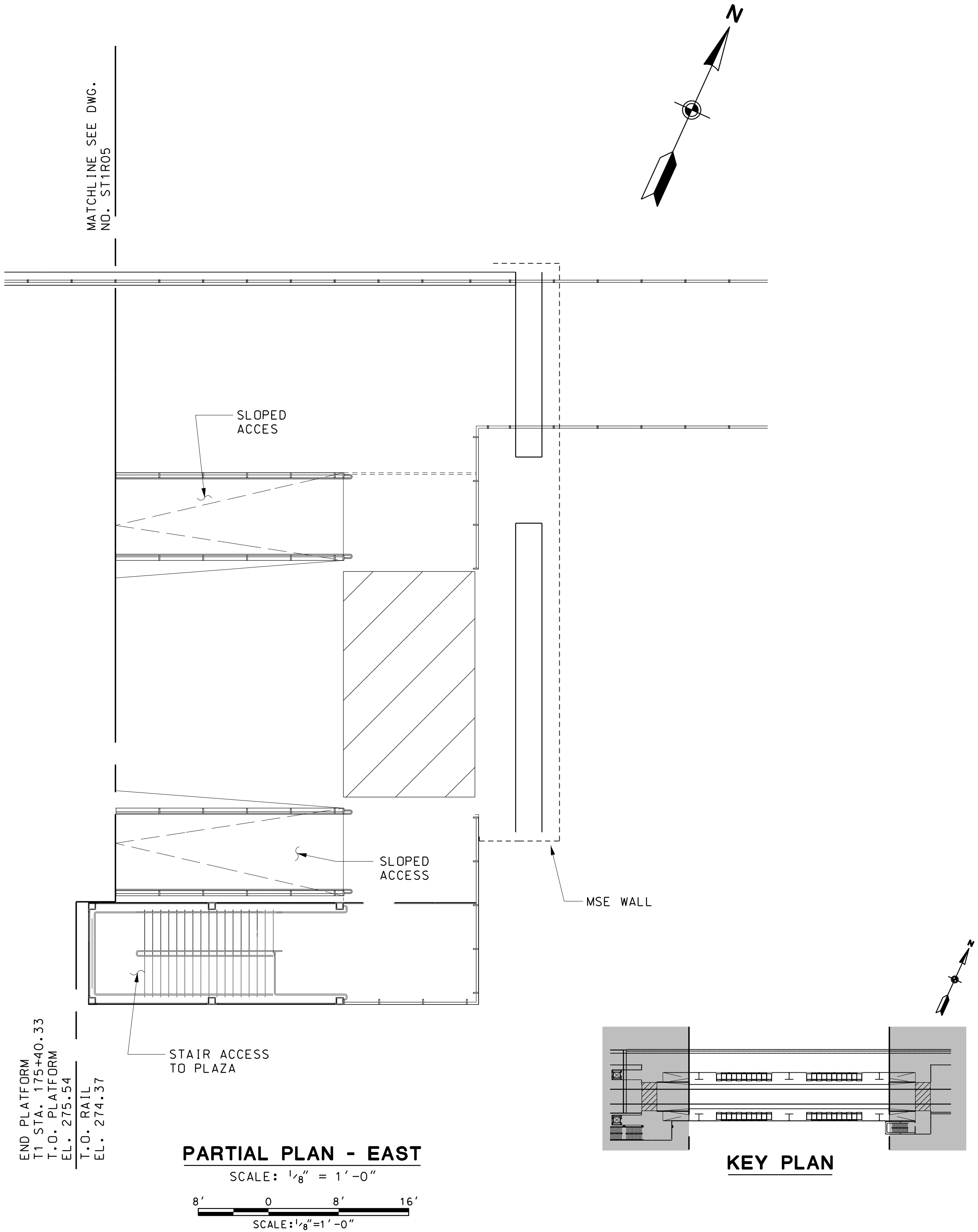
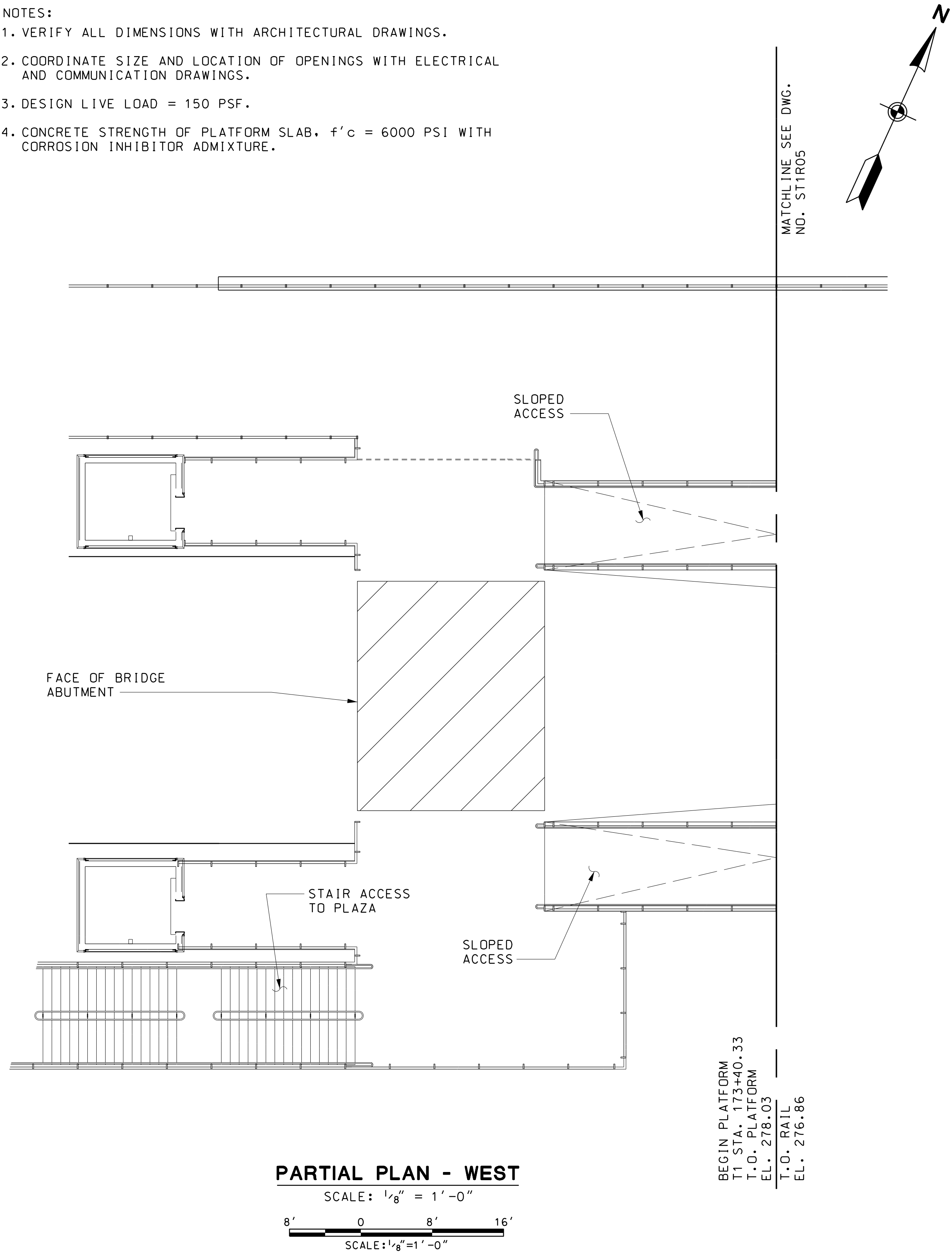


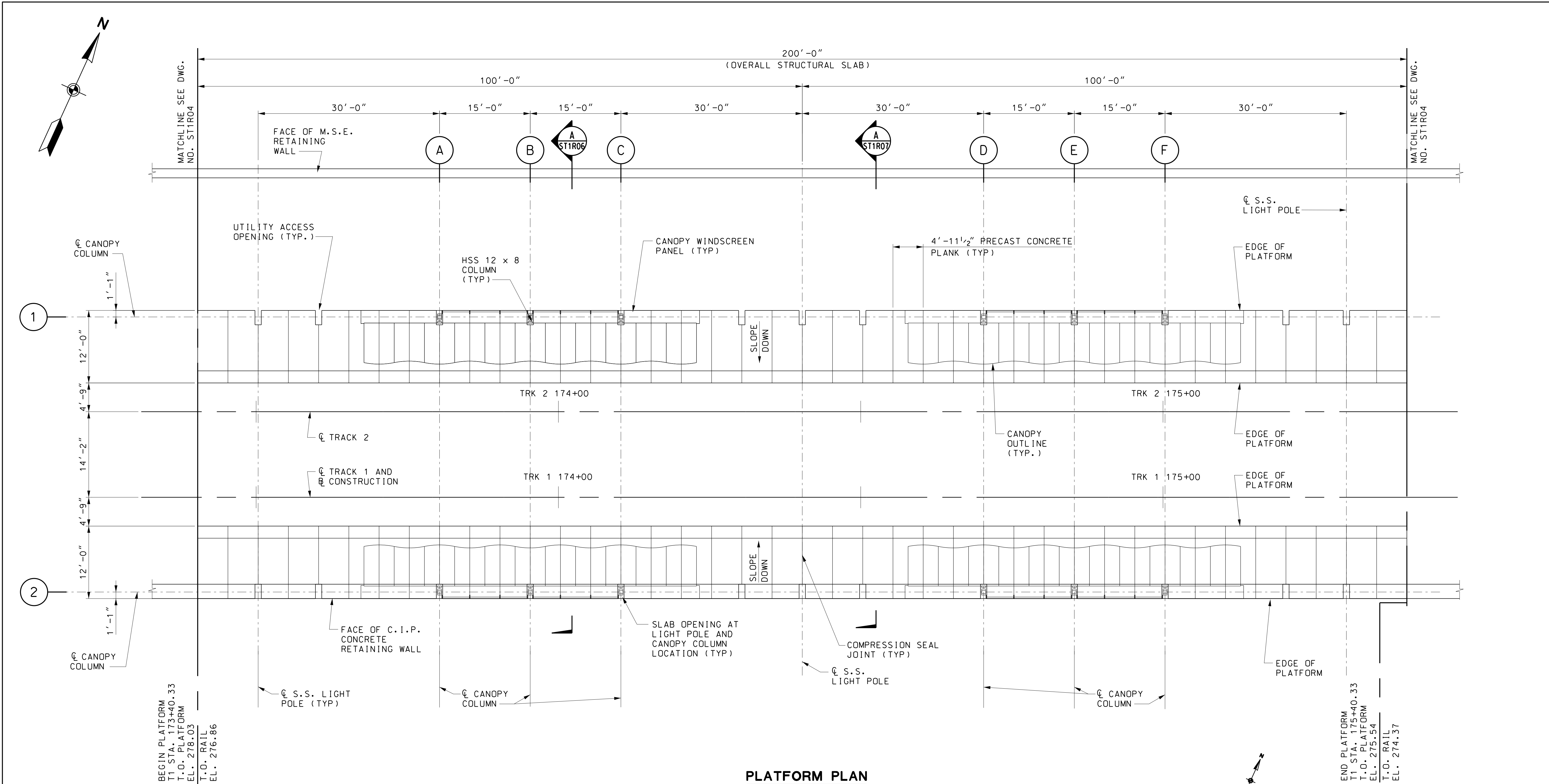
- NOTES:
- 1. CONCRETE STRENGTH OF PLATFORM WALL, $f_c' = 5000$ PSI WITH CORROSION INHIBITOR ADMIXTURE.
 - 2. SPACE CONTROL JOINTS IN THE PLATFORM WALL AT 30'-0" O.C. (MAX).
 - 3. CONCRETE STRENGTH OF THE FOOTINGS, $f_c' = 4000$ PSI.
 - 4. PROVIDE ISOLATION JOINT.

PLATFORM SUPPORT PLAN



- NOTES:
- 1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
 - 2. COORDINATE SIZE AND LOCATION OF OPENINGS WITH ELECTRICAL AND COMMUNICATION DRAWINGS.
 - 3. DESIGN LIVE LOAD = 150 PSF.
 - 4. CONCRETE STRENGTH OF PLATFORM SLAB, $f'c$ = 6000 PSI WITH CORROSION INHIBITOR ADMIXTURE.

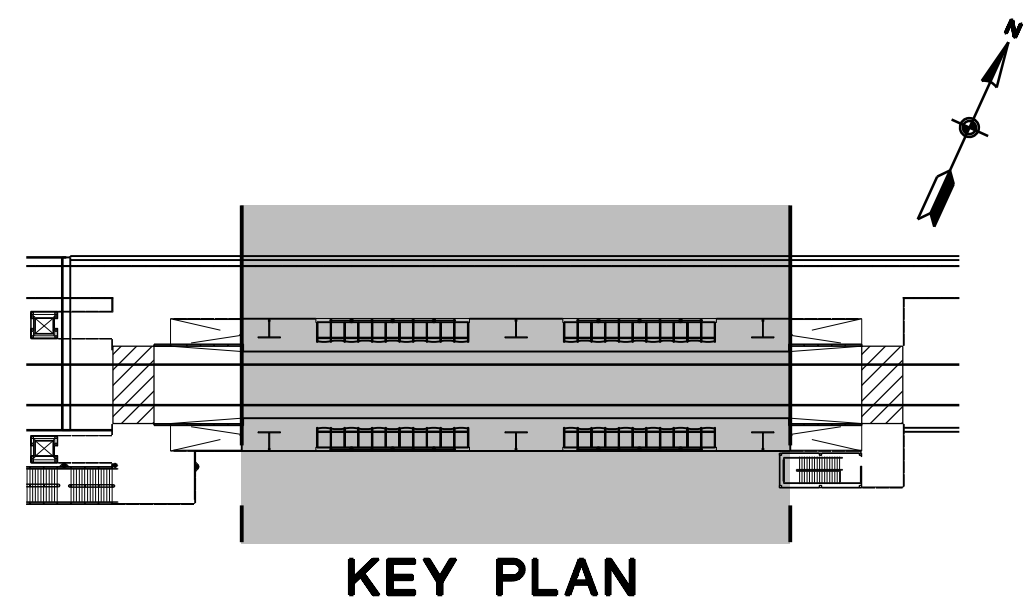




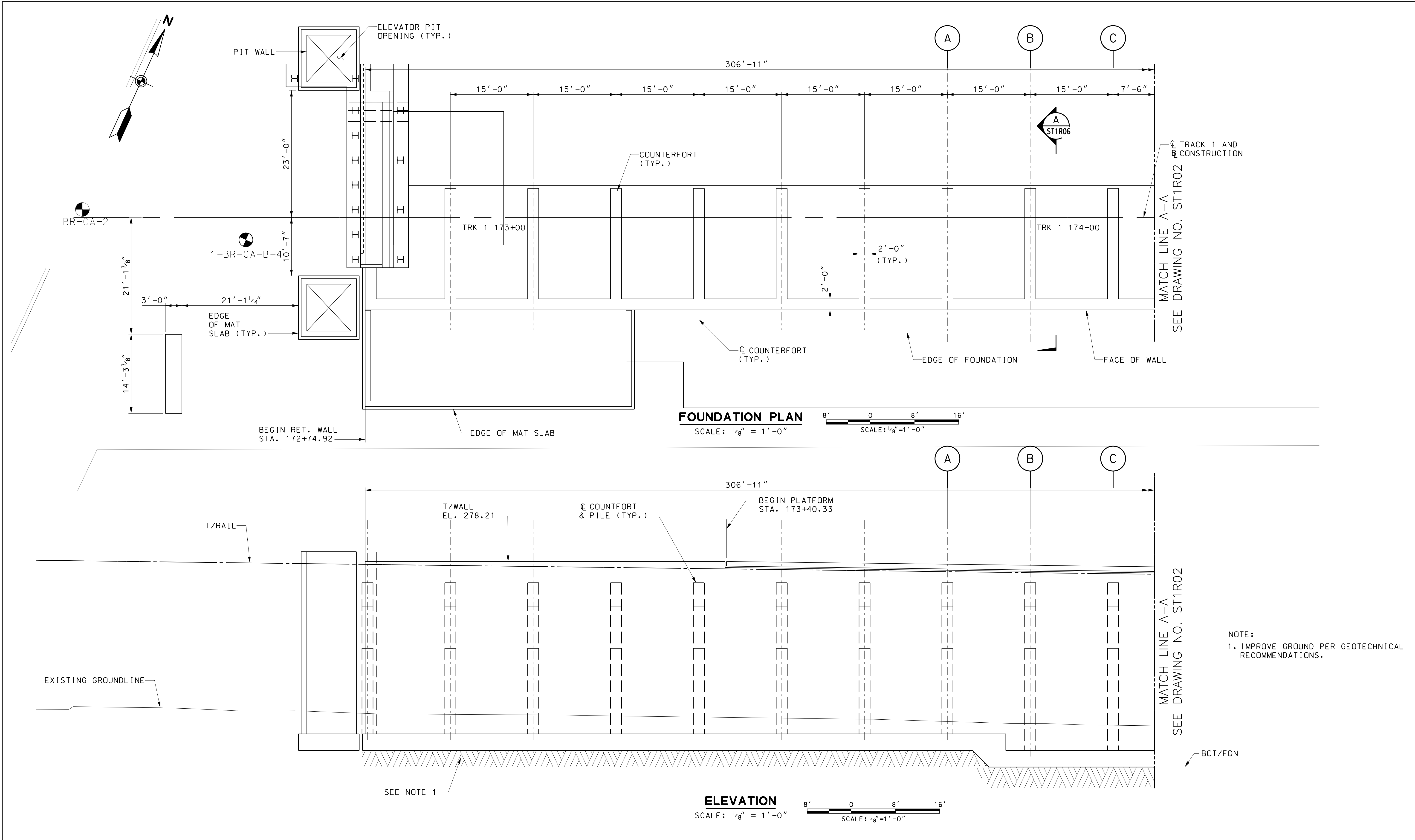
- NOTES:
1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
 2. COORDINATE SIZE AND LOCATION OF OPENINGS WITH ELECTRICAL AND COMMUNICATION DRAWINGS.
 3. DESIGN LIVE LOAD = 150 PSF.
 4. CONCRETE STRENGTH OF PLATFORM SLAB, $f'c = 6000$ PSI WITH CORROSION INHIBITOR ADMIXTURE.

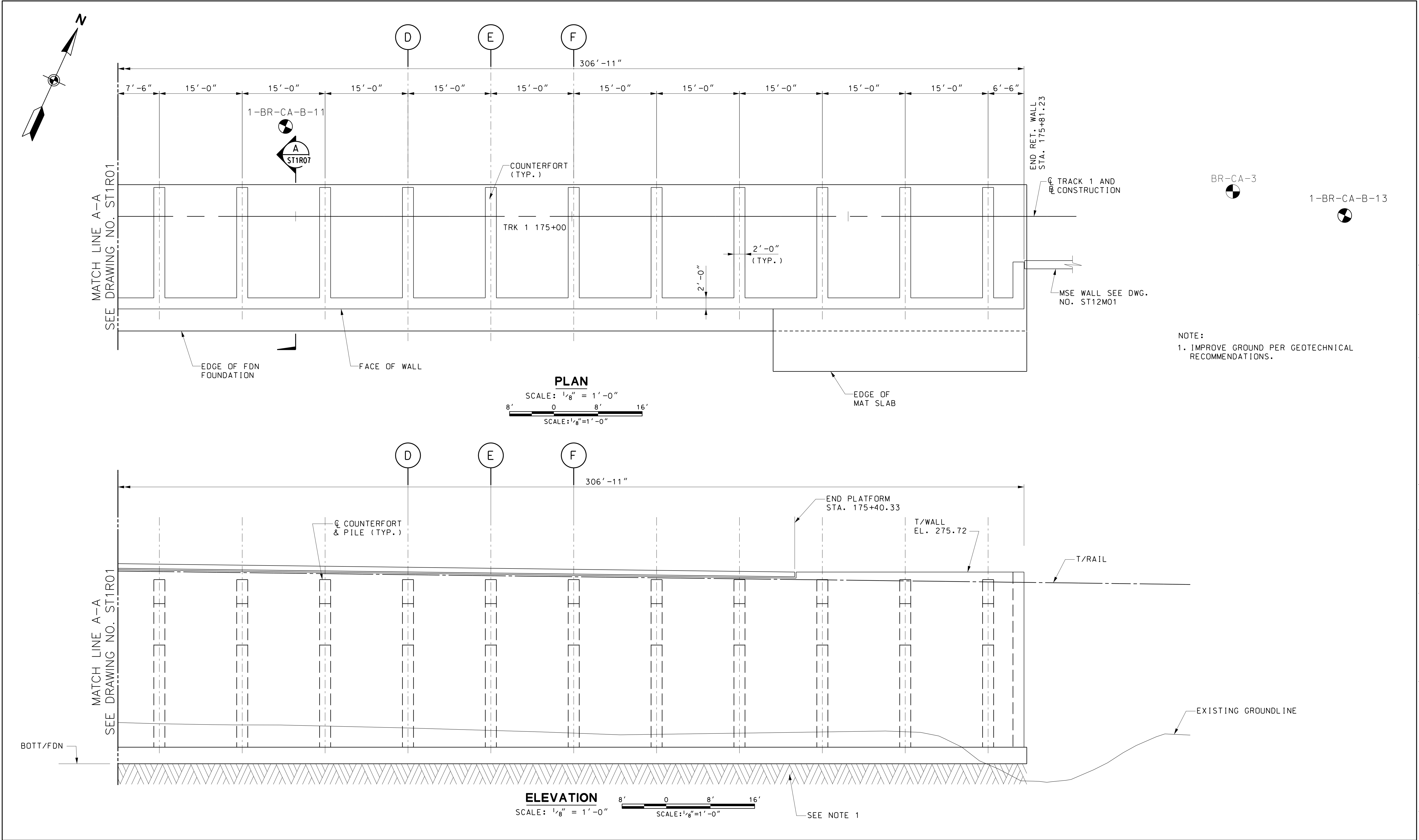
PLATFORM PLAN
SCALE: $\frac{1}{8}" = 1'-0"$

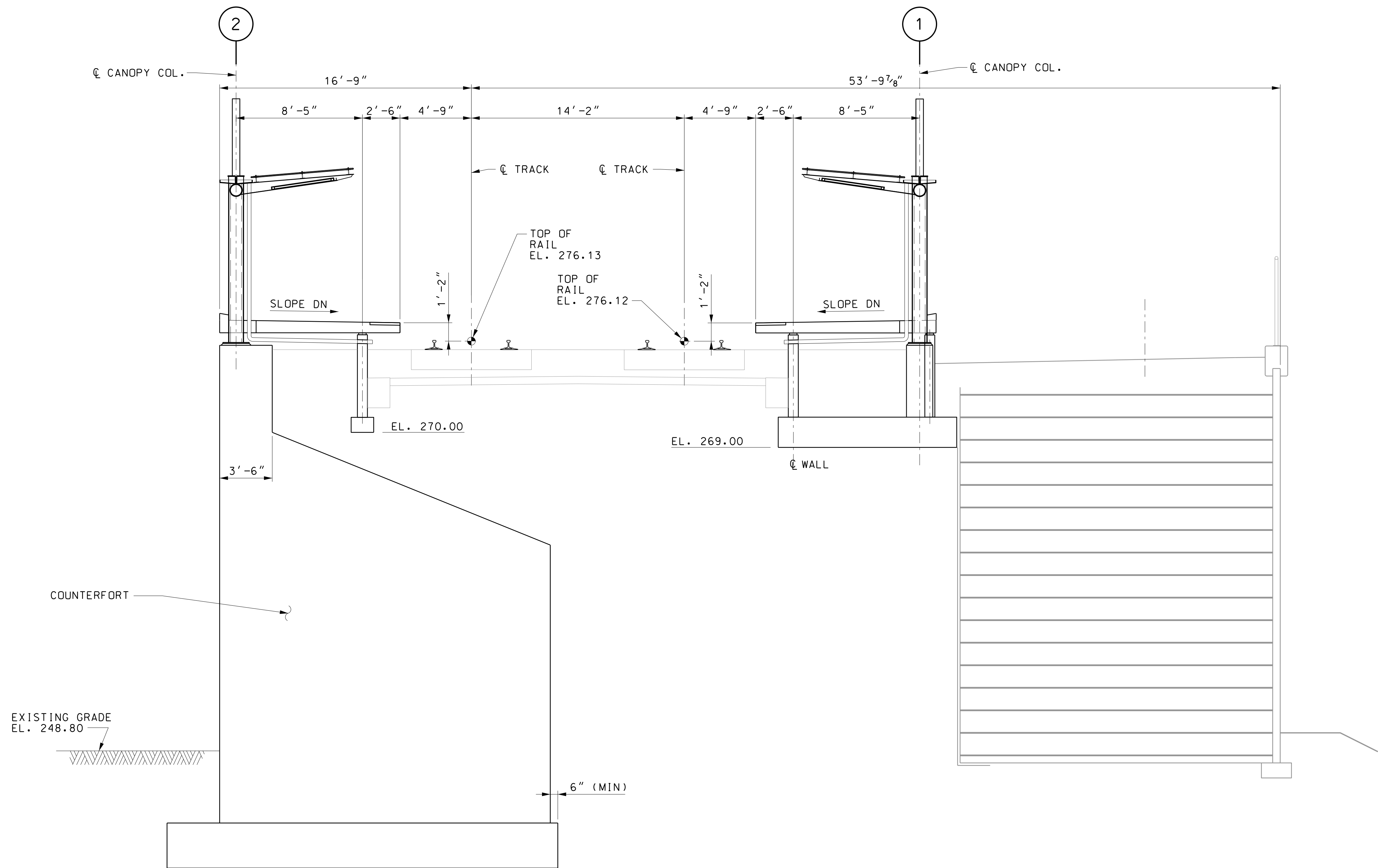
8' 0 8' 16'
SCALE: $\frac{1}{8}" = 1'-0"$



KEY PLAN

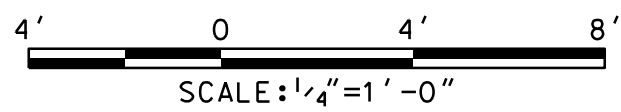




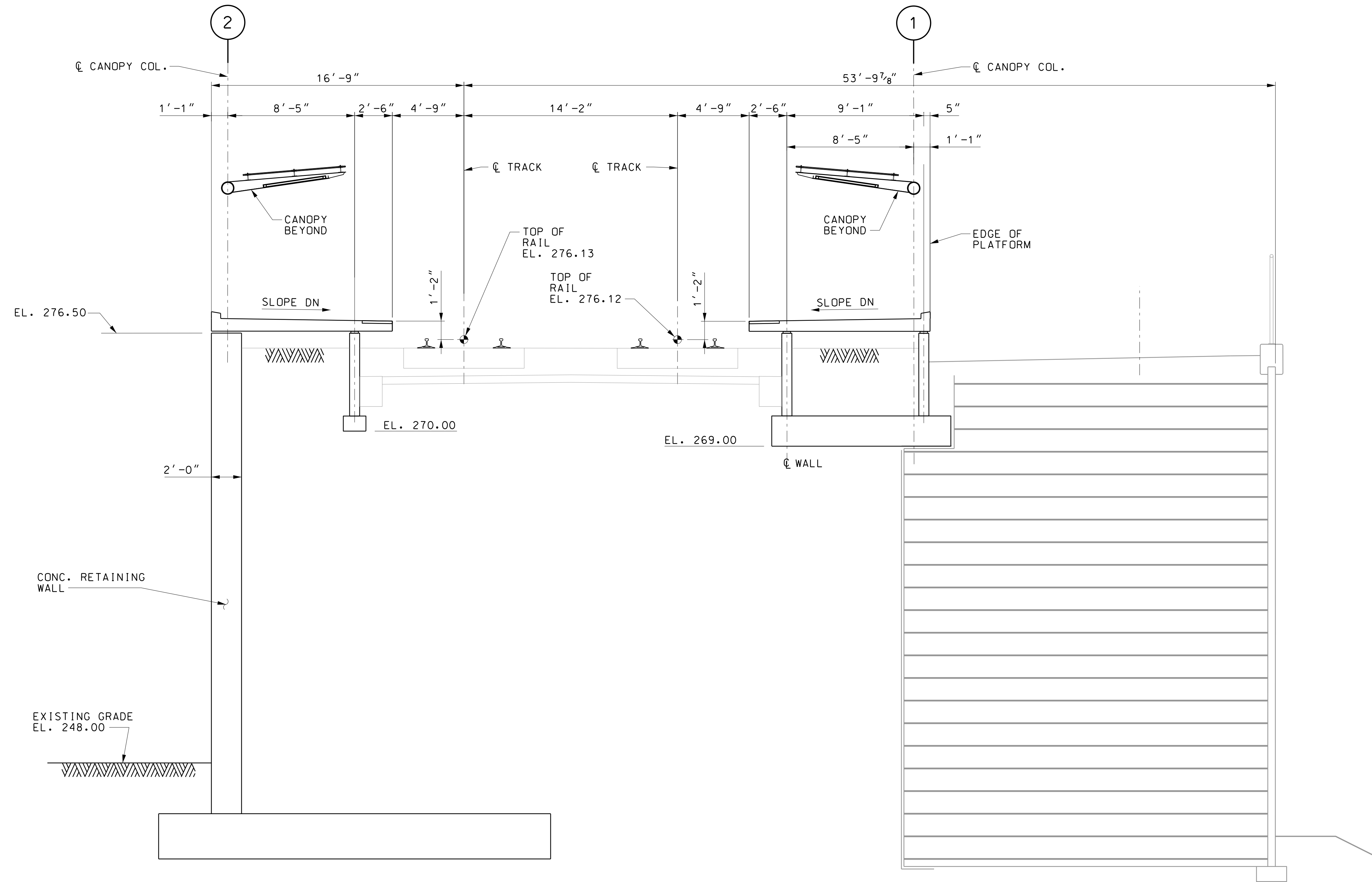


A SECTION AT STA. 174+00
SCALE: 1/4" = 1'-0"

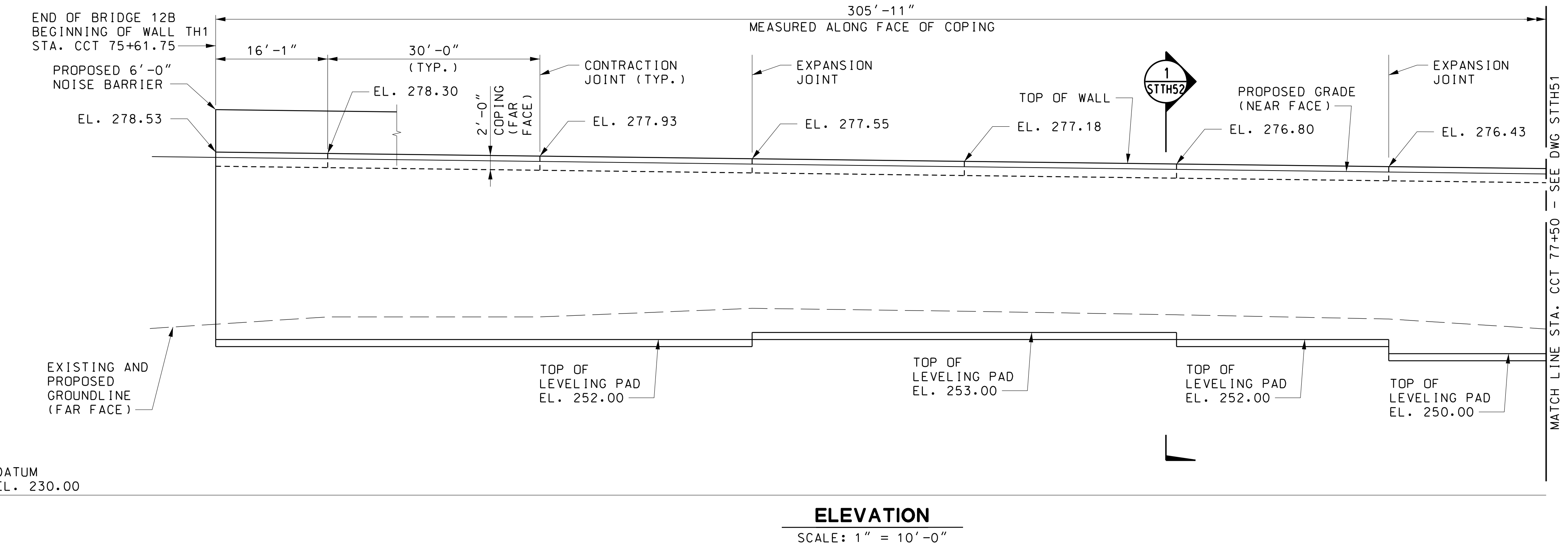
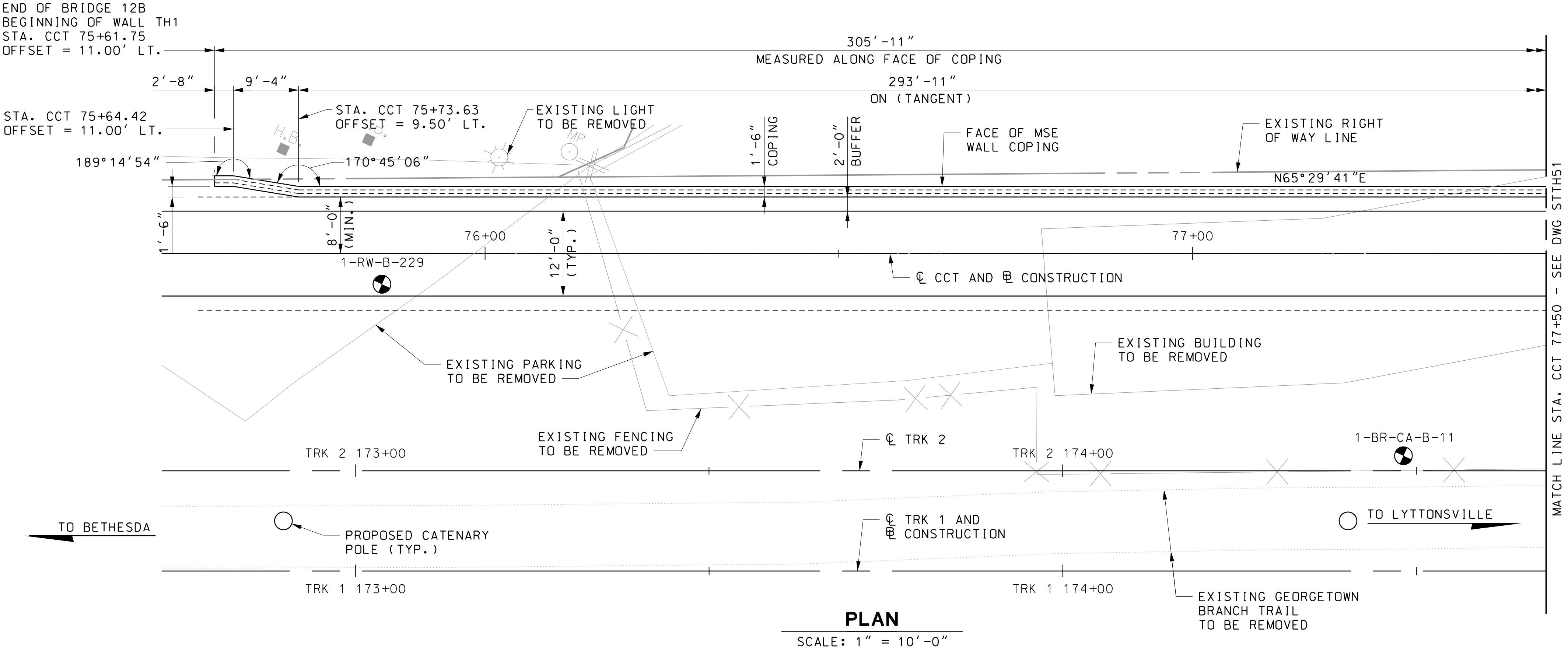
REF: ST1R01
ST1R03
ST1R06



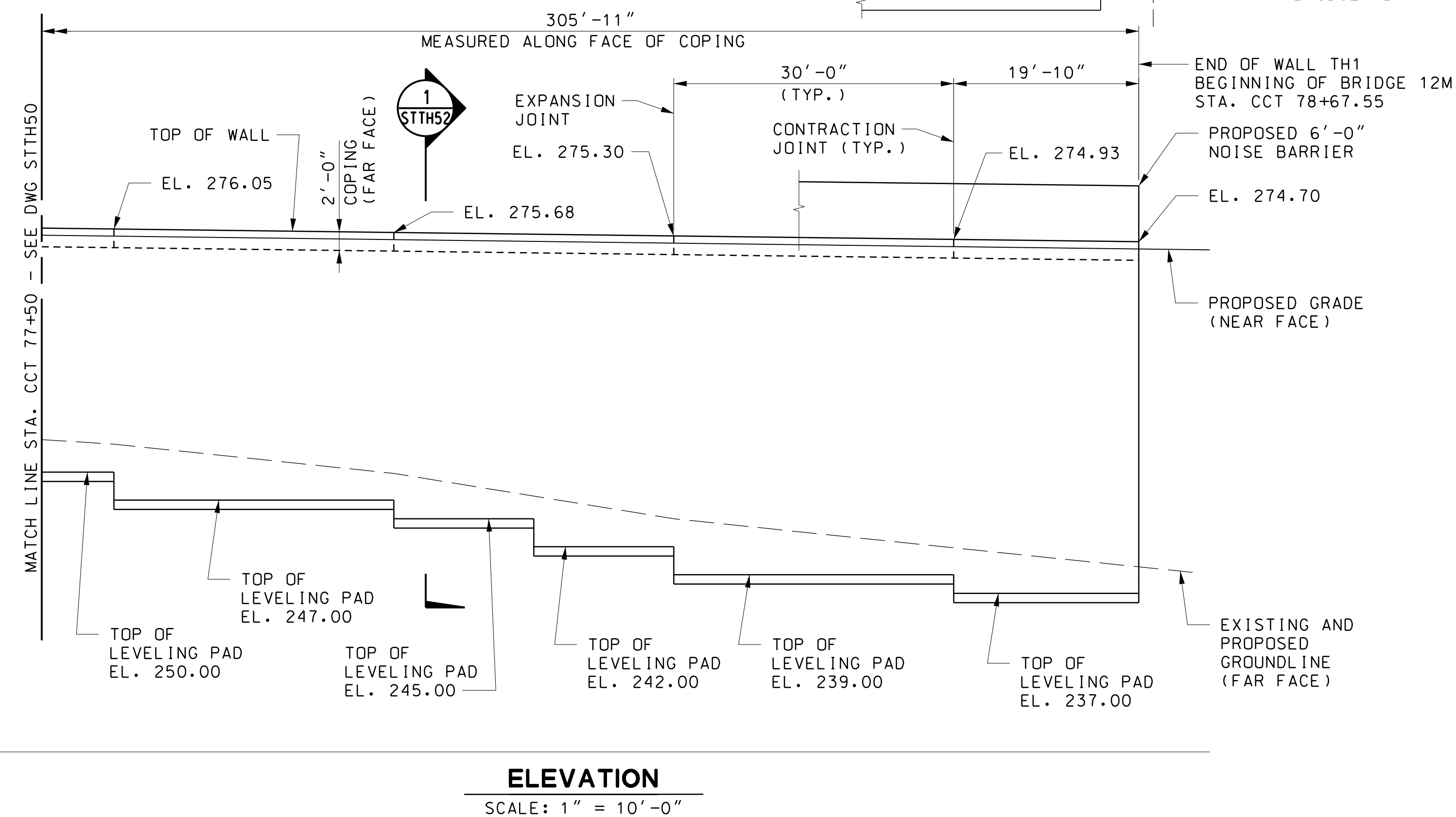
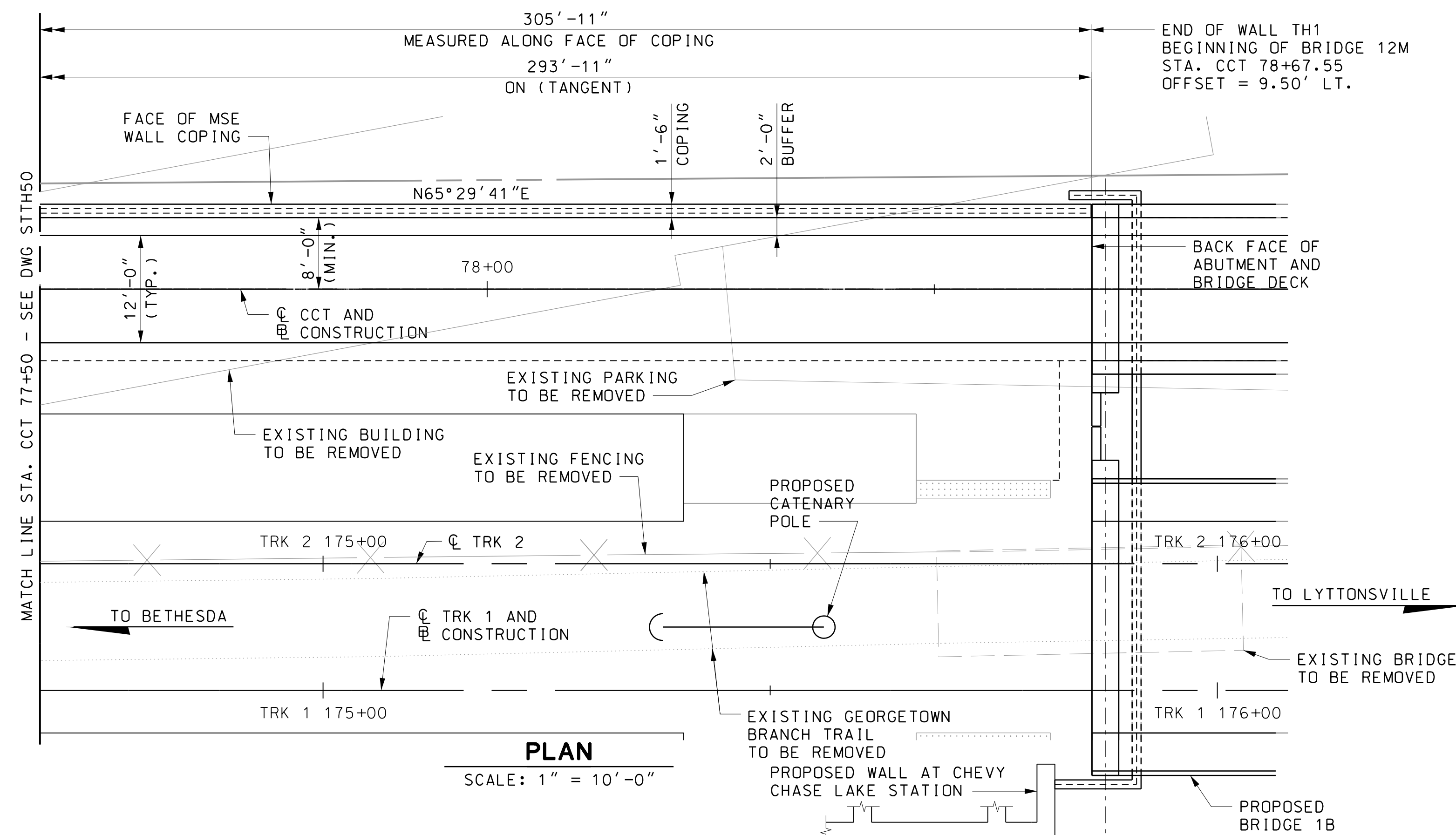
- NOTES:
1. FOR CANOPY FRAMING PLAN SEE DRAWING NO. ST0D01.



A
SECTION AT STA. 174+50
SCALE: 1/4" = 1'-0"
REF: ST1R02
ST1R03
ST1R06
4' 0 4' 8'
SCALE: 1/4"=1'-0"



- GENERAL NOTES:**
- SPECIFICATIONS:** ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012, INCLUDING ALL INTERIM SPECIFICATIONS.
- MTA RED/PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.
- MARYLAND SHA STRUCTURAL STANDARDS VOLUME NOS. 1 AND 2.
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD). CONCRETE SHALL BE ASSUMED TO HAVE $f'_c = 3.0$ KSI FOR DESIGN.
- STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD).
- REINFORCING STEEL DESIGN: $F_y = 60.0$ KSI.
- CONCRETE:** ALL STRUCTURE CONCRETE FOR CAST-IN-PLACE WALL SHALL BE MIX NO. 3 (3.5 KSI) EXCEPT AS NOTED BELOW UNDER REINFORCING STEEL.
- ALL CONCRETE FOR DRILLED SHAFTS SHALL BE MIX NO. 3 (3.5 KSI). CONCRETE FOR CAST IN PLACE FASCIA OF POST AND PANEL SYSTEM SHALL BE MIX NO. 6 (4.5 KSI). CONCRETE FOR PRECAST LAGGING SHALL HAVE A MINIMUM f'_c OF 5.0 KSI.
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER MD SHA STANDARD BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS ON THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER.
- IF THE FRONT FACE OF A RETAINING WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, EPOXY COATED REINFORCEMENT SHALL BE USED IN THE FRONT FACE OF THE STEM OR IN THE MSE PANELS. FOR CAST-IN-PLACE WALLS WITHIN 5 FT OF A SHOULDER OR LANE, MIX. NO. 6 (4.5 KSI) CONCRETE SHALL BE USED FOR THE STEM.
- ONLY GRADE 60 REINFORCING STEEL CAN BE USED ON THIS PROJECT.
- CHAMFERS:** ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH $\frac{3}{4}" \times \frac{3}{4}"$ MILLED CHAMFER STRIPS, UNLESS OTHERWISE NOTED.
- KEYS:** ALL KEYS ARE NOMINAL SIZE.
- LOADING:** ALL APPLICABLE SURCHARGE LOADINGS PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.
- DESIGN PARAMETERS:** EARTH PRESSURE CALCULATED BASED ON COULOMB THEORY.
- ANGLE OF INTERNAL FRICTION:
33 DEGREES FOR EXCELLENT SOIL
30 DEGREES FOR GOOD AND POOR SOILS (AND ALL WALLS ON PILE FOOTINGS)
- SAFE BEARING PRESSURES ARE FACTORED RESISTANCES.
- STEEL PILES SHALL CONFORM TO ASTM A709, GRADE 50. PILES FOR SOLDIER PILE AND LAGGING WALLS SHALL HAVE PROTECTIVE COATING.
- NOTES:**
1. ALL STATION REFERENCES ARE TO THE CL TRK 1 AND E CONSTRUCTION, UNLESS OTHERWISE NOTED.
2. FOR ADDITIONAL NOTES, SEE DWG STTH102.

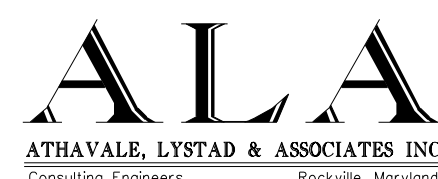


NOTES:

1. ALL STATION REFERENCES ARE TO THE C TRK 1 AND R CONSTRUCTION, UNLESS OTHERWISE NOTED.
2. FOR TYPICAL MSE WALL SECTION, SEE DWG STH52.
3. HORIZONTAL CURVE GEOMETRY IS SHOWN FOR THE RETAINING WALLS BASED ON THE TRACK GEOMETRY AS SHOWN IN VOLUME 01. THE FINAL LAYOUT OF THE WALL WILL BE DETERMINED DURING FINAL DESIGN.
4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STANDARD NO. RW(6.13)-83-157.
5. WALL CONSTRUCTION SHALL BE COORDINATED WITH VOLUMES 04 AND 05.
6. FOR ROADWAY TYPICAL SECTION AND DETAILS, REFER TO VOLUME 01.
7. FOR REQUIREMENTS OF THE ARCHITECTURAL FORMLINER, SEE SPECIAL PROVISIONS.
8. ELEVATION SHOWS THE BACK FACE OF THE RETAINING WALL. NOTE THAT THE WALL ORIENTATION MATCHES THE ORIENTATION OF TRACK PLANS.
9. THE ELEVATION IS A DEVELOPED VIEW ALONG THE FACE OF THE WALL.
10. NOISE BARRIER ON TOP OF WALL TO BE COORDINATED FOR FUTURE SUBMISSION.
11. FOR BRIDGE 1B, REFER TO DWG ST1B01. FOR BRIDGE 12M, REFER TO DWG ST12M01. FOR BRIDGE 12B, REFER TO DWG ST12B01.
12. FOR GENERAL NOTES, SEE DWG STH101.

DATUM
EL. 220.00

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No.	Expiration Date
-------------	-----------------

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
	TI	DE	KML

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

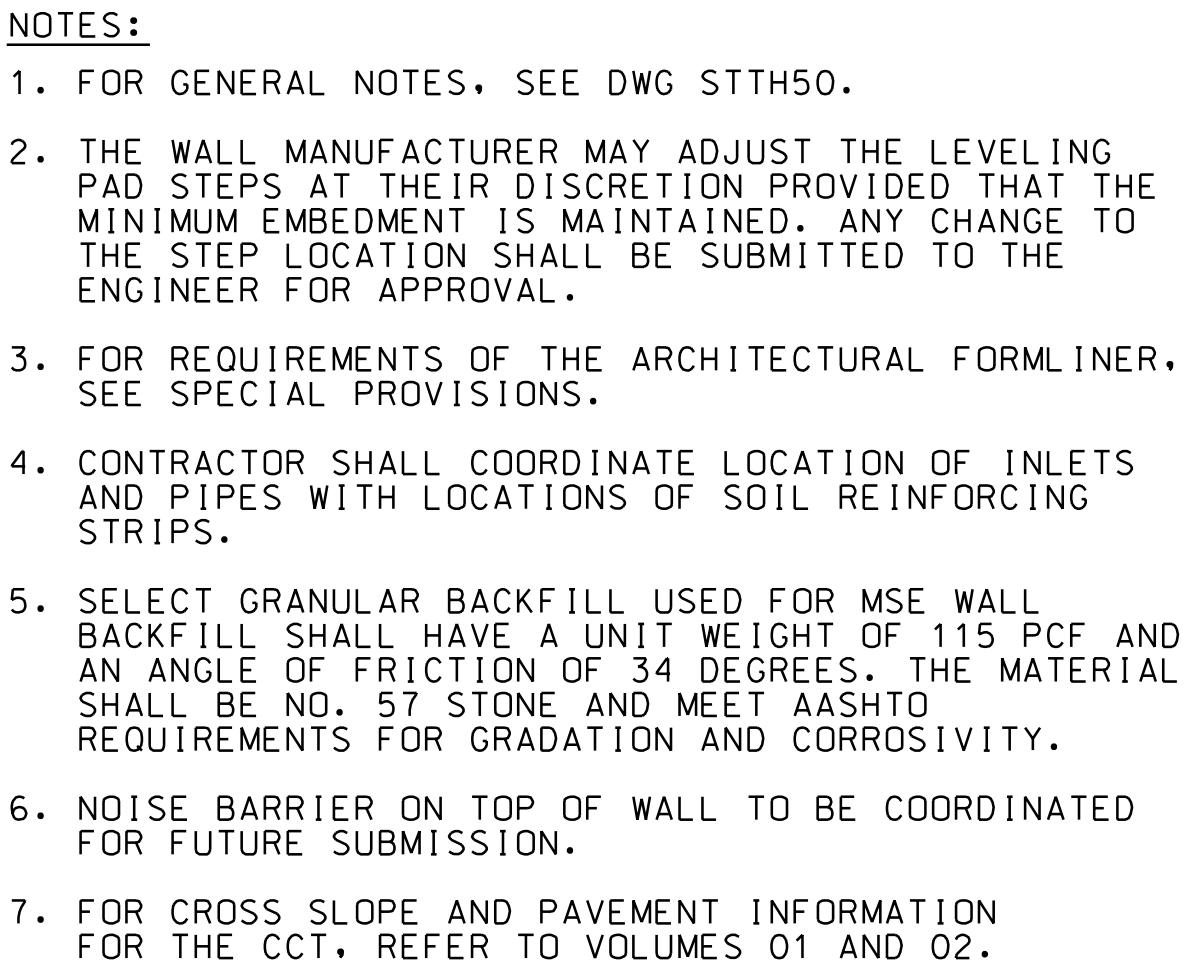
CHEVY CHASE LAKES CCT RETAINING WALL-TH1
GENERAL PLAN AND ELEVATION - 2

DATE: DECEMBER 2013

SCALE: AS SHOWN

CONTRACT NO.	T-1042-0220
DRAWING NO.	STTH51
SHEET NO.	149 OF 828

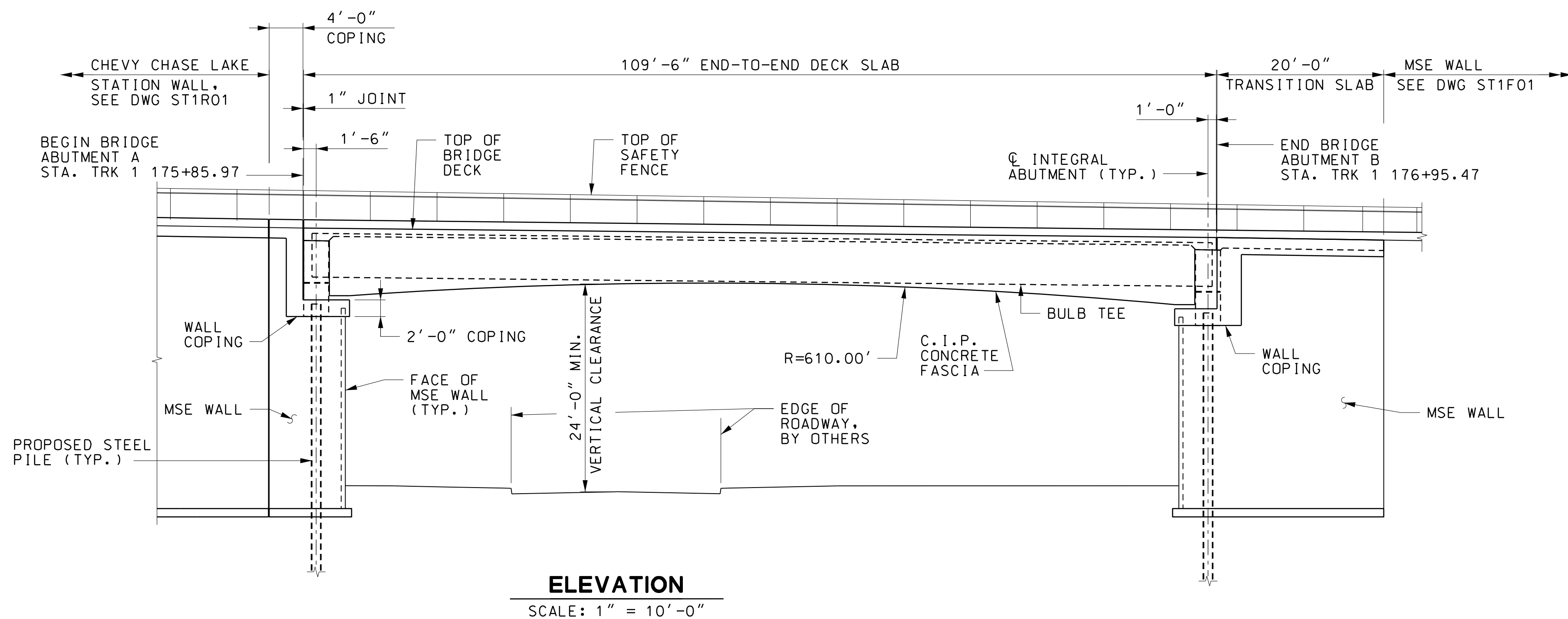
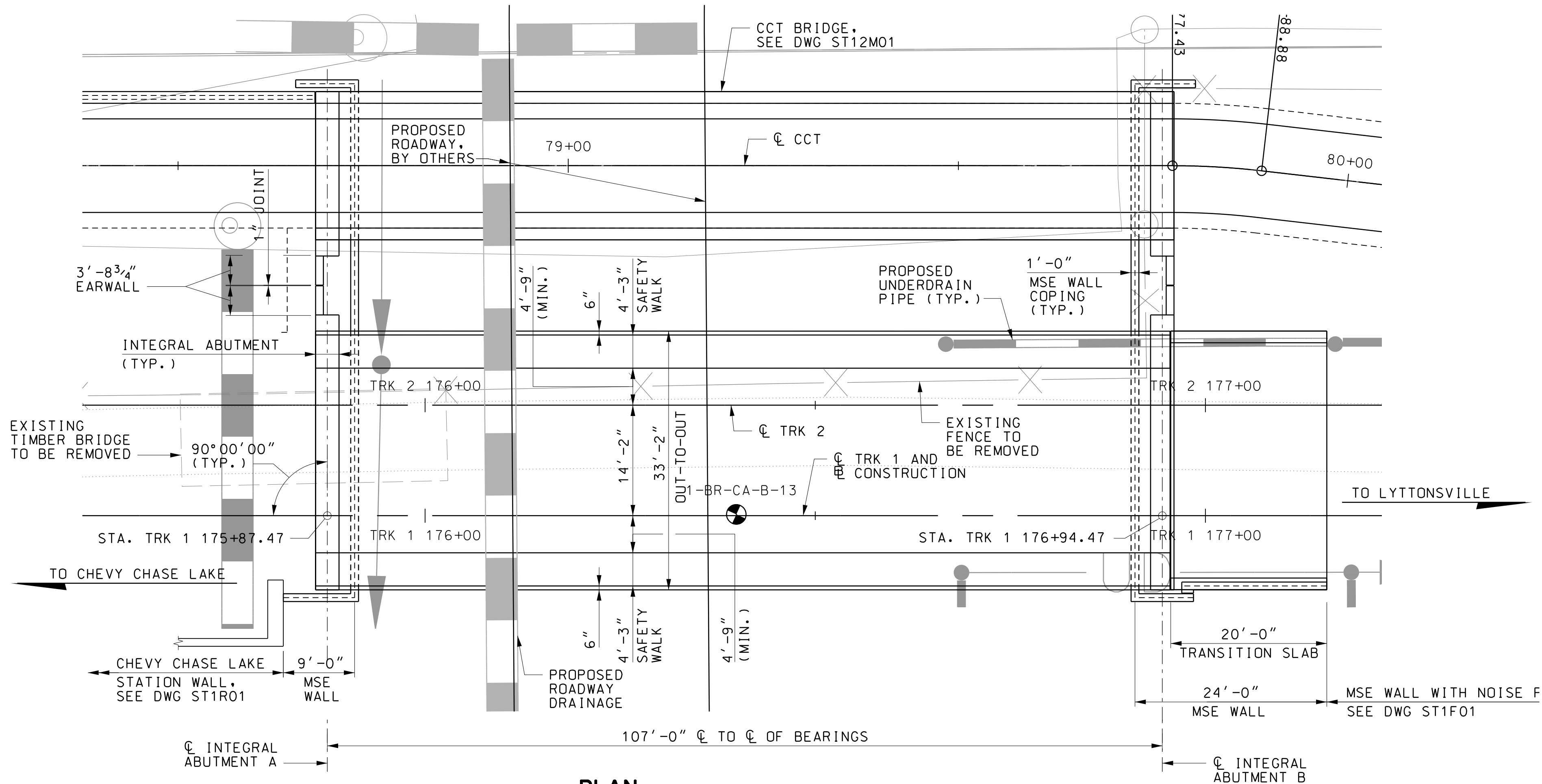
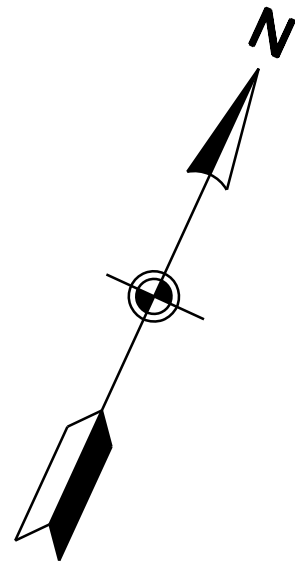
\\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\H-Ret Walls CCC-Coquelin Culvert\ALA\Sheet Files\1042p5TH51.dgn
12/5/2013



CONTRACT NO.
T-1042-0220

DRAWING NO.
STTH52

SHEET NO.
150 OF 828



GENERAL NOTES:

SPECIFICATIONS: ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012, INCLUDING ALL INTERIM SPECIFICATIONS.

MTA RED/PURPLE LINE LIGHT RAIL DESIGN CRITERIA.

MARYLAND SHA STRUCTURAL STANDARDS VOLUME NOS. 1 AND 2.

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD).

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD).

REINFORCING STEEL DESIGN: $F_y = 60$ KSI.

LOADING: HL-93 WITH PROVISIONS FOR 2" WEARING SURFACE FOR EASTBOUND AND WESTBOUND ROADWAY.

STRUCTURAL STEEL: STEEL PILES SHALL CONFORM TO ASTM A709, GRADE 50.

CONCRETE: CONCRETE FOR PCF BULB TEES SHALL HAVE FINAL $F_c' = 8$ KSI. F_c' AT RELEASE SHALL BE 0.8 F_c' FINAL. ALL CONCRETE FOR ABUTMENT BACKWALLS, SUPERSTRUCTURE DECK, SIDEWALKS, COPING AND TRANSITION SLABS SHALL BE MIX NO. 6 CONCRETE (4.5 KSI). ALL OTHER STRUCTURAL CONCRETE SHALL BE MIX NO. 3 (3.5 KSI).

PRESTRESSING STRANDS: PRESTRESSING STRANDS SHALL CONFORM TO ASTM A416 GRADE 270 LOW-RELAXATION.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER MD SHA BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 REINFORCING STEEL CAN BE USED ON THIS PROJECT.

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:

- ENTIRE SUPERSTRUCTURE INCLUDING CURBS
- ABUTMENT BACKWALLS
- PARAPET PORTION OF WINGWALLS
- APPROACH SLABS INCLUDING CURBS
- ABUTMENT BRIDGE SEAT AREAS
- EAR WALLS

KEYS: ALL KEYS ARE NOMINAL SIZE.

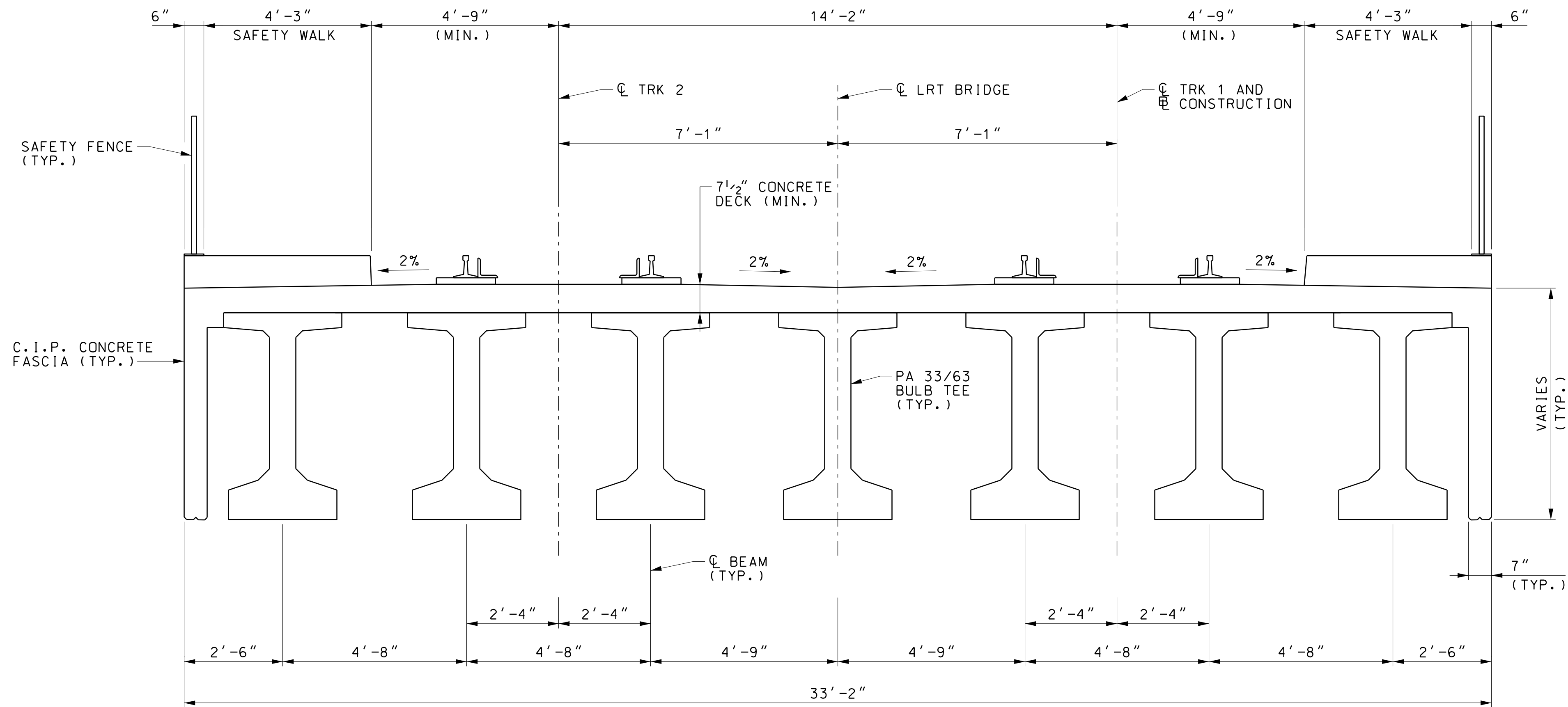
CHAMFERS: ALL EXPOSED CORNERS OF ALL CONCRETE STRUCTURES SHALL BE CHAMFERED WITH $\frac{3}{4}" \times \frac{3}{4}"$ MILLED CHAMFERED STRIPS UNLESS NOTED OTHERWISE.

EXISTING STRUCTURE: EXISTING STRUCTURE SHOWN IN LONG DASHED LINES.

EXISTING STRUCTURE TO BE REMOVED IN ITS ENTIRETY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR NOTED ON THE PLANS. SEE SEQUENCE OF CONSTRUCTION SHEETS FOR DETAILS.

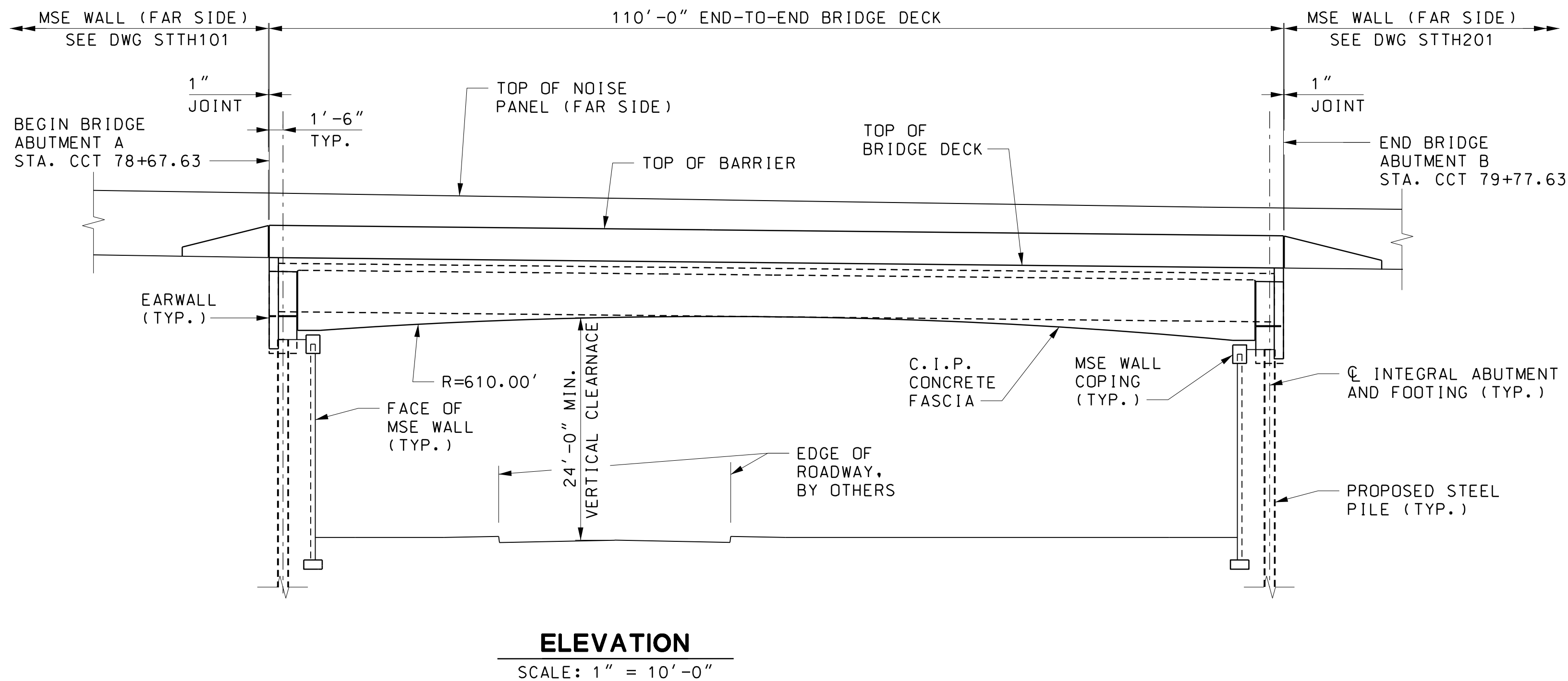
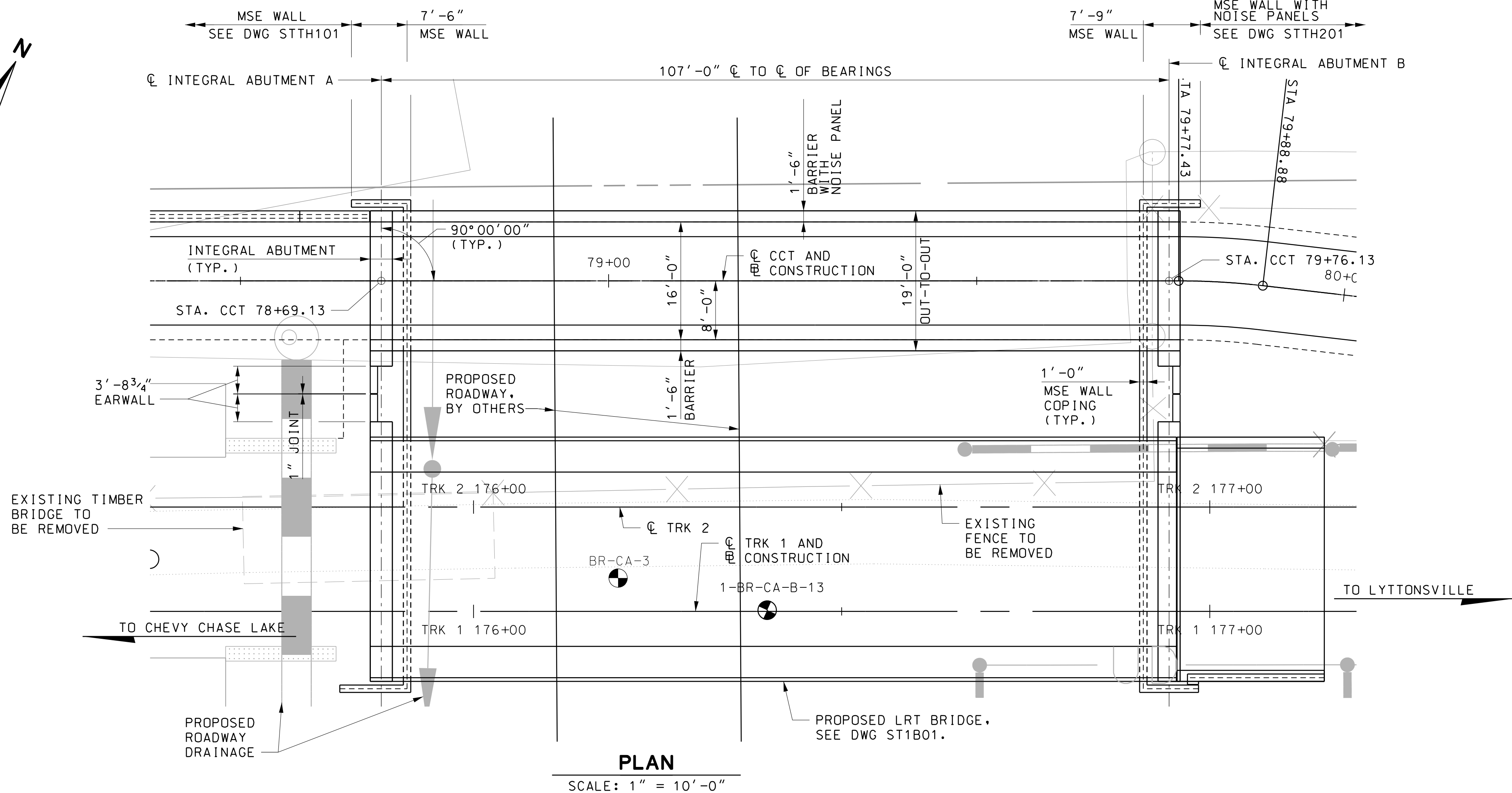
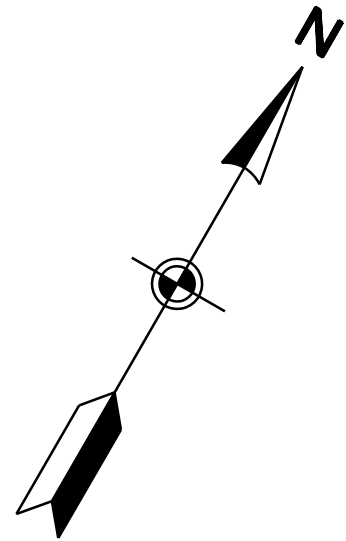
NOTE:

ALL STATION REFERENCES ARE TO THE CL TRK 1 AND CL CONSTRUCTION, UNLESS OTHERWISE NOTED.



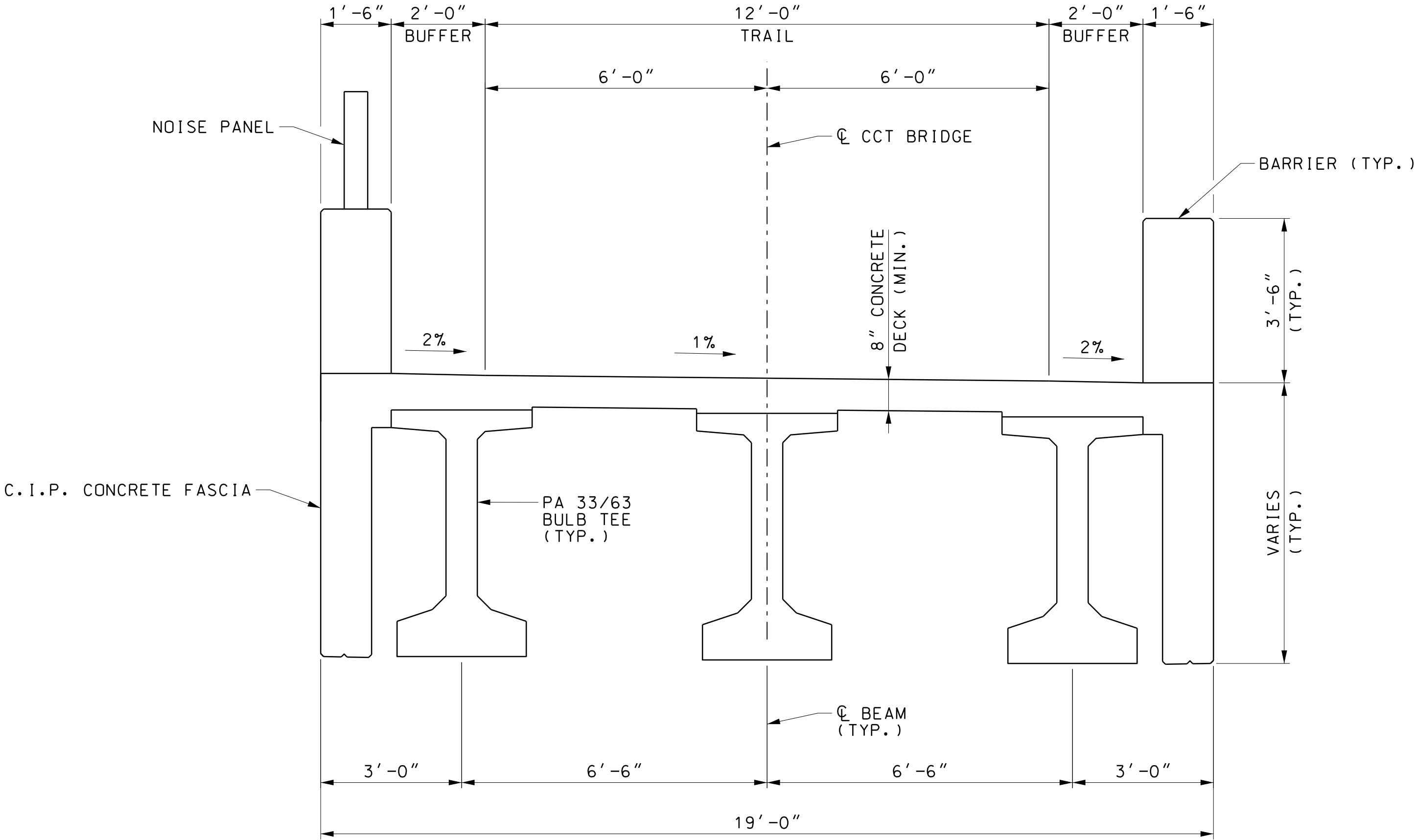
LRT BRIDGE - TYPICAL SECTION
SCALE: 1/2" = 1'-0"

- NOTES:**
1. ALL STATION REFERENCES ARE TO THE CL TRK 1 AND CL CONSTRUCTION UNLESS OTHERWISE NOTED.
 2. FOR GENERAL PLAN, ELEVATION, ADDITIONAL NOTES AND GENERAL NOTES, SEE DWG ST1B01.

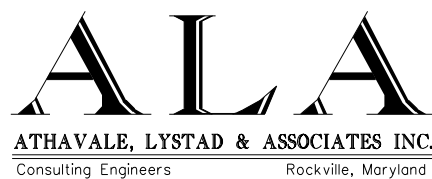
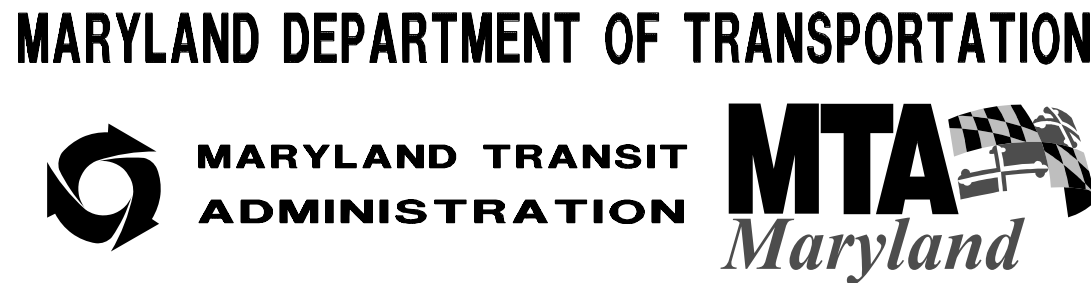


- GENERAL NOTES:**
- SPECIFICATIONS:** ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
- AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, DATED 2009.
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012, INCLUDING ALL INTERIM SPECIFICATIONS.
- MTA RED/PURPLE LINE LIGHT RAIL DESIGN CRITERIA.
- MARYLAND SHA STRUCTURAL STANDARDS VOLUME NOS. 1 AND 2.
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD).
- STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD).
- REINFORCING STEEL DESIGN: $F_y = 60$ KSI.
- LOADING:** H-10 OR 150 PSF PEDESTRIAN LOAD.
- STRUCTURAL STEEL:** STEEL PILES SHALL CONFORM TO ASTM A709, GRADE 50.
- CONCRETE:** CONCRETE FOR PCEF BULB TEES SHALL HAVE FINAL $F_c' = 8$ KSI. F_c' AT RELEASE SHALL BE 0.8 F_c' FINAL. ALL CONCRETE FOR ABUTMENT BACKWALLS, SUPERSTRUCTURE DECK, SIDEWALK, PARAPETS, COPING, TRANSITION SLABS AND SLEEPER SLABS SHALL BE MIX NO. 6 CONCRETE (4.5 KSI). ALL OTHER STRUCTURAL CONCRETE SHALL BE MIX NO. 3 (3.5 KSI).
- PRESTRESSING STRANDS:** PRESTRESSING STRANDS SHALL CONFORM TO ASTM A416 GRADE 270 LOW-RELAXATION.
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER MD SHA BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 REINFORCING STEEL CAN BE USED ON THIS PROJECT.
- REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
- ENTIRE SUPERSTRUCTURE (INCLUDING PARAPETS AND SIDEWALKS)
 - ABUTMENT BACKWALLS
 - PARAPET PORTION OF WINGWALLS
 - APPROACH SLABS INCLUDING BARRIERS AND SLEEPER PADS
 - CHEEKWALLS
 - ALL BEARING SEAT PADS
 - ABUTMENT BRIDGE SEAT AREAS
 - END POSTS
- KEYS:** ALL KEYS ARE NOMINAL SIZE.
- CHAMFERS:** ALL EXPOSED CORNERS OF ALL CONCRETE STRUCTURES SHALL BE CHAMFERED WITH $\frac{3}{4}" \times \frac{3}{4}"$ MILLED CHAMFERED STRIPS UNLESS NOTED OTHERWISE.
- EXISTING STRUCTURE:** EXISTING STRUCTURE SHOWN IN LONG DASHED LINES.
- EXISTING STRUCTURE TO BE REMOVED IN ITS ENTIRETY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR NOTED ON THE PLANS. SEE SEQUENCE OF CONSTRUCTION SHEETS FOR DETAILS.

- NOTES:
1. FOR GENERAL NOTES, SEE DWG ST12M01.
 2. FOR REQUIREMENTS OF THE ARCHITECTURAL FORMLINER, SEE SPECIAL PROVISIONS.
 3. FENCING AND/OR RAILING ON TOP OF WALL TO BE COORDINATED FOR FUTURE SUBMISSION.
 4. FOR CROSS SLOPE AND PAVEMENT INFORMATION FOR THE CCT, REFER TO VOLUMES 01 AND 02.



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



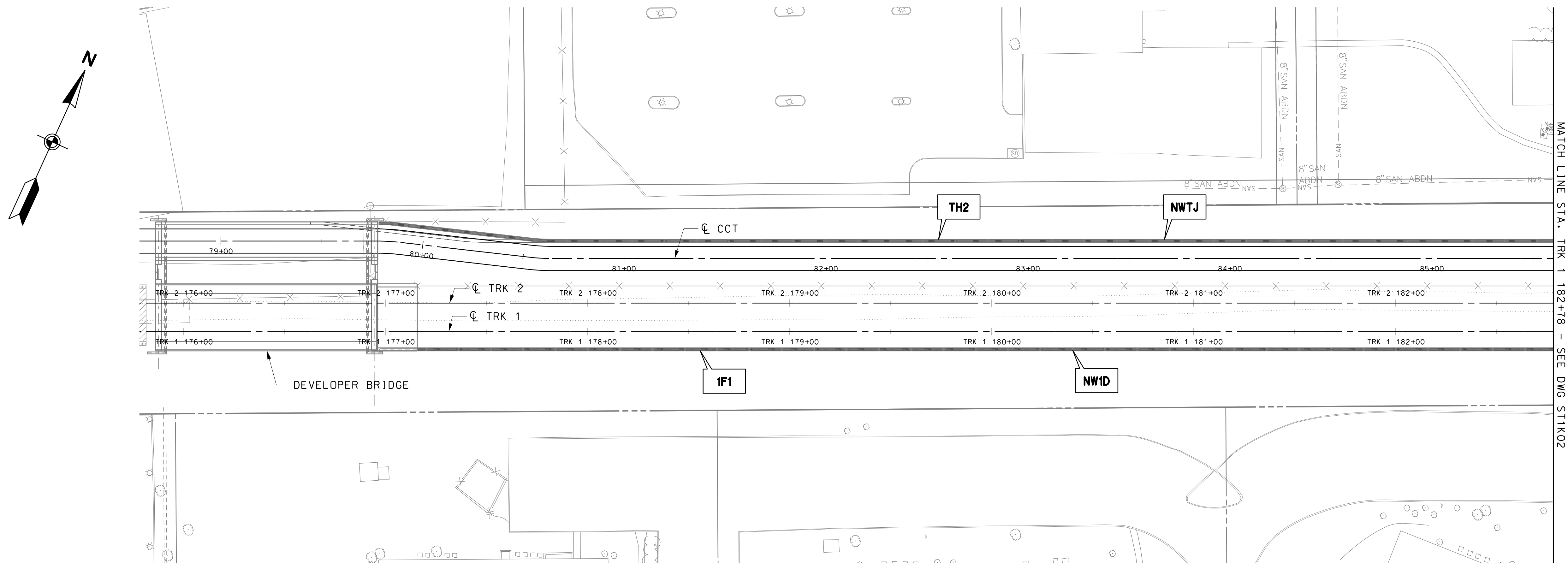
PROFESSIONAL CERTIFICATION

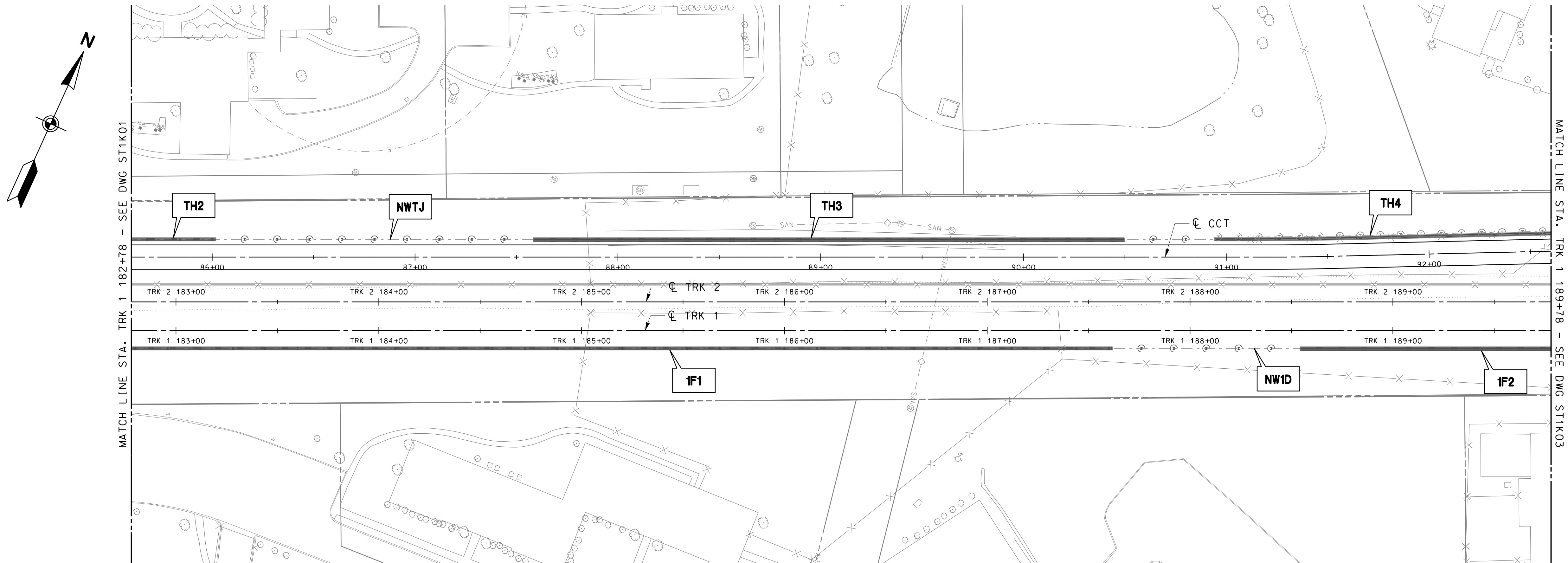
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

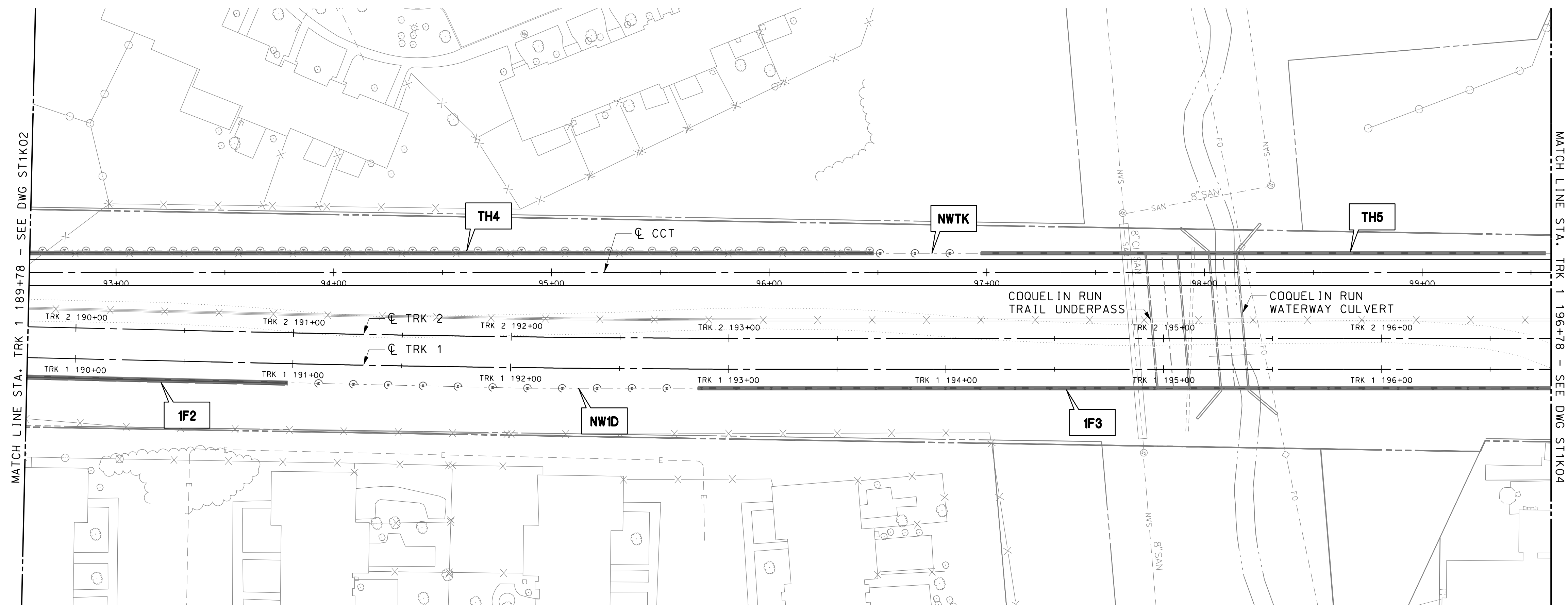
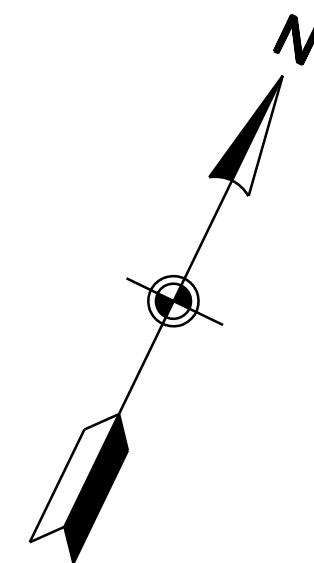
License No. Expiration Date

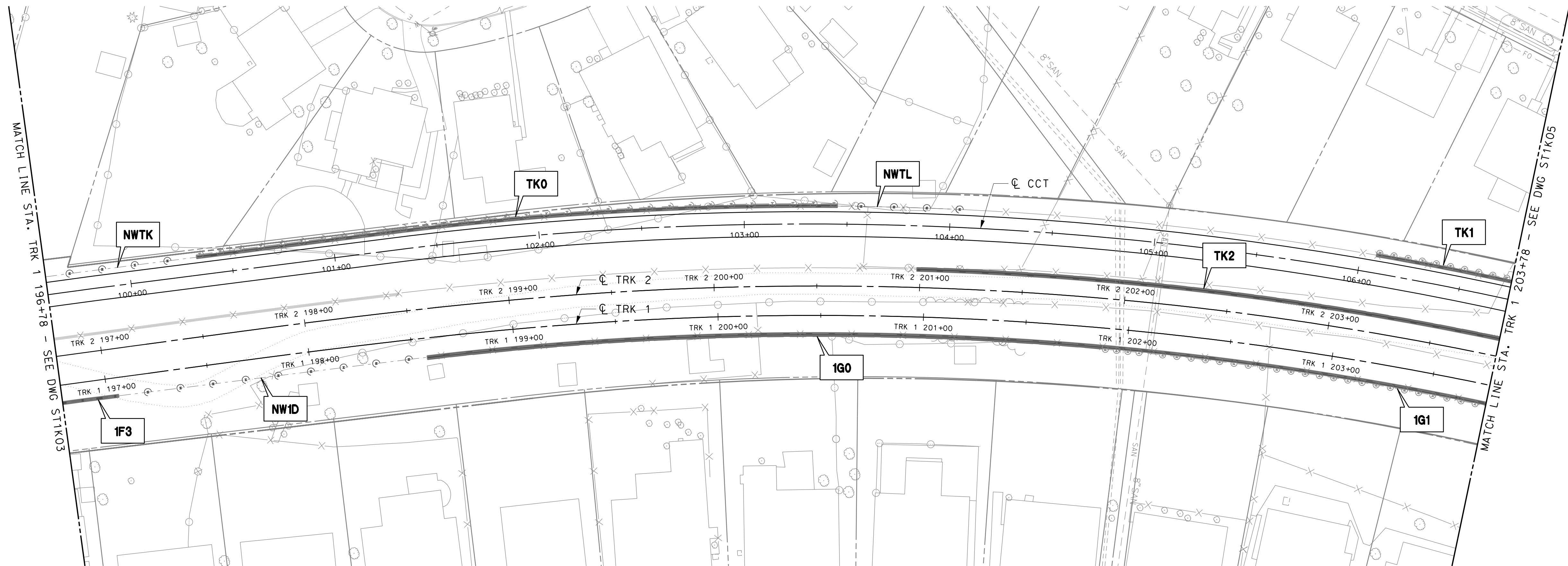
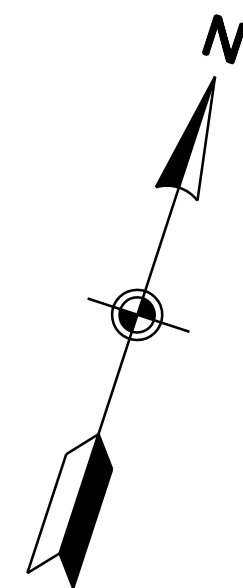
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

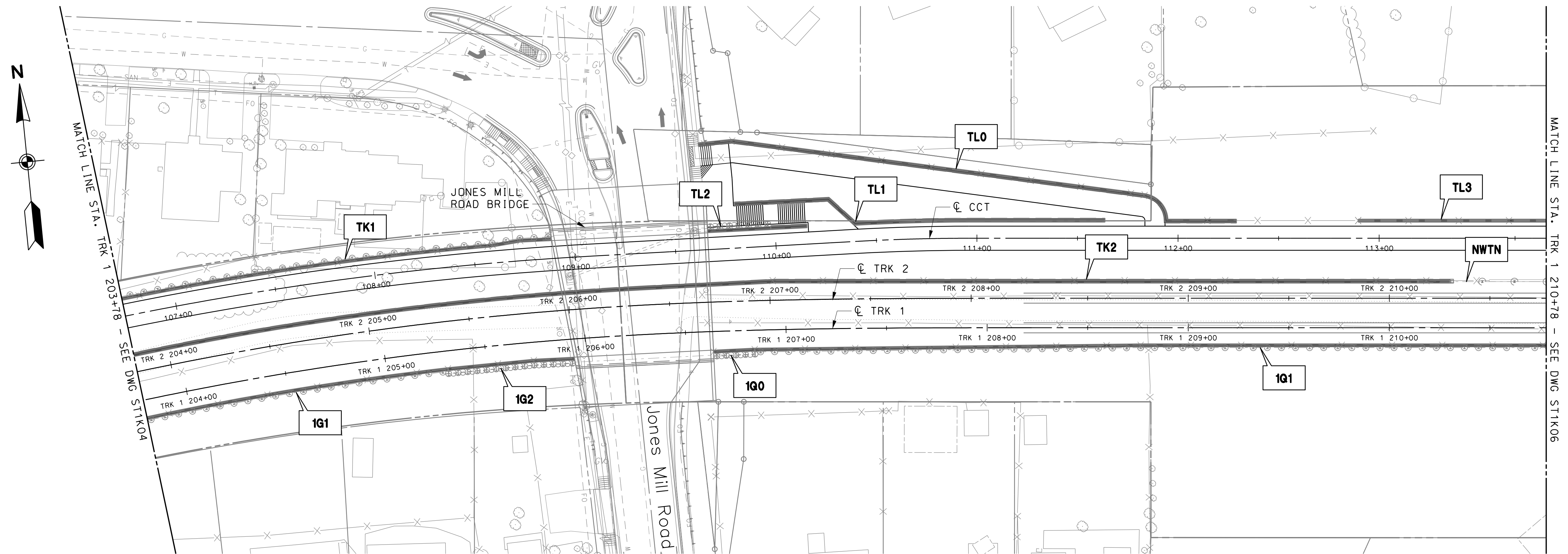
APPR. CHECK. DRAWN DESIGN	KML	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
	AV		DRAWING NO. ST12M02
	TI	CHEVY CHASE LAKE CCT BRIDGE – 12M PROPOSED TYPICAL SECTION	SHEET NO. 154 OF 828
			DATE: DECEMBER 2013 SCALE: AS SHOWN

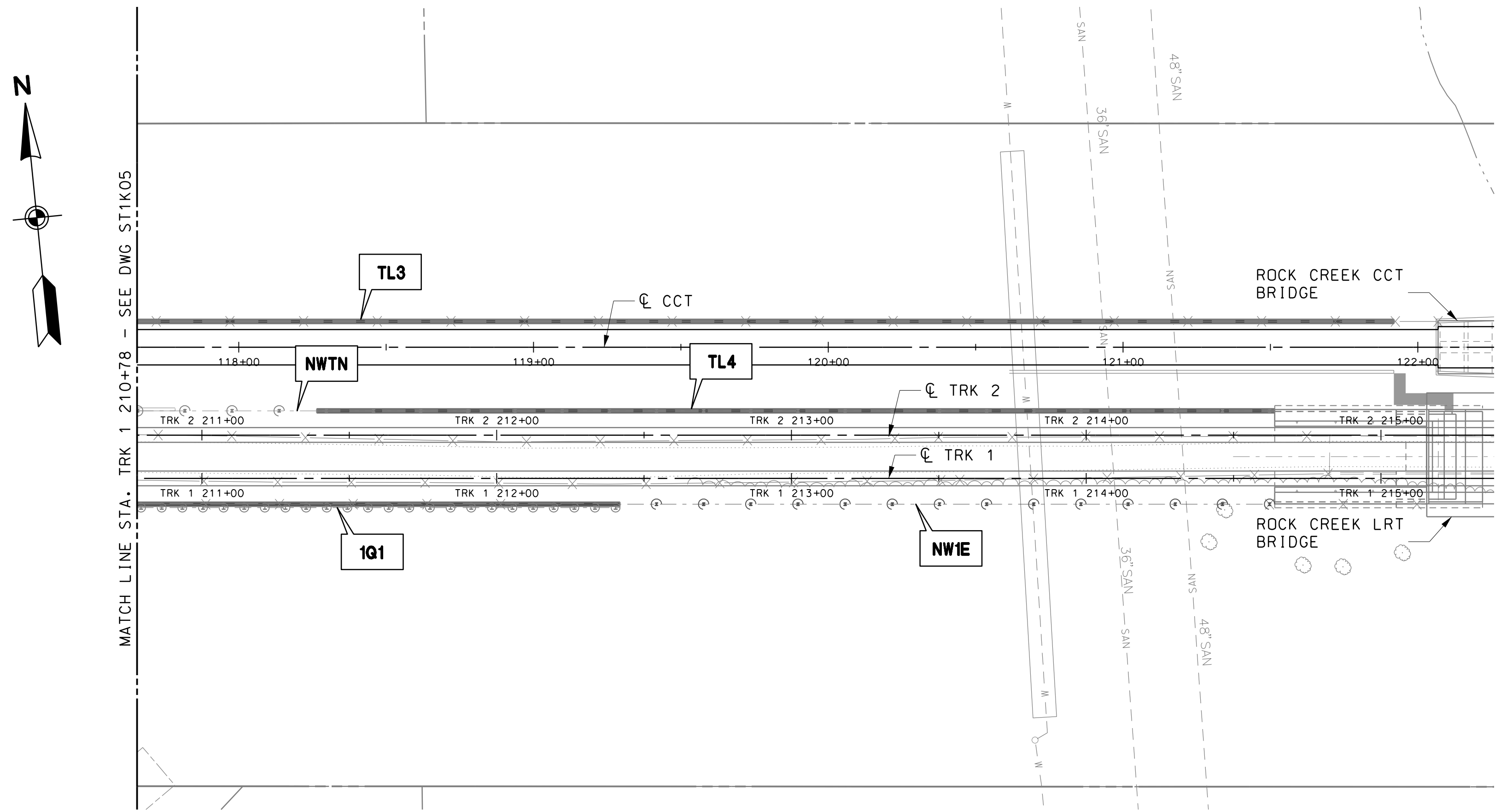


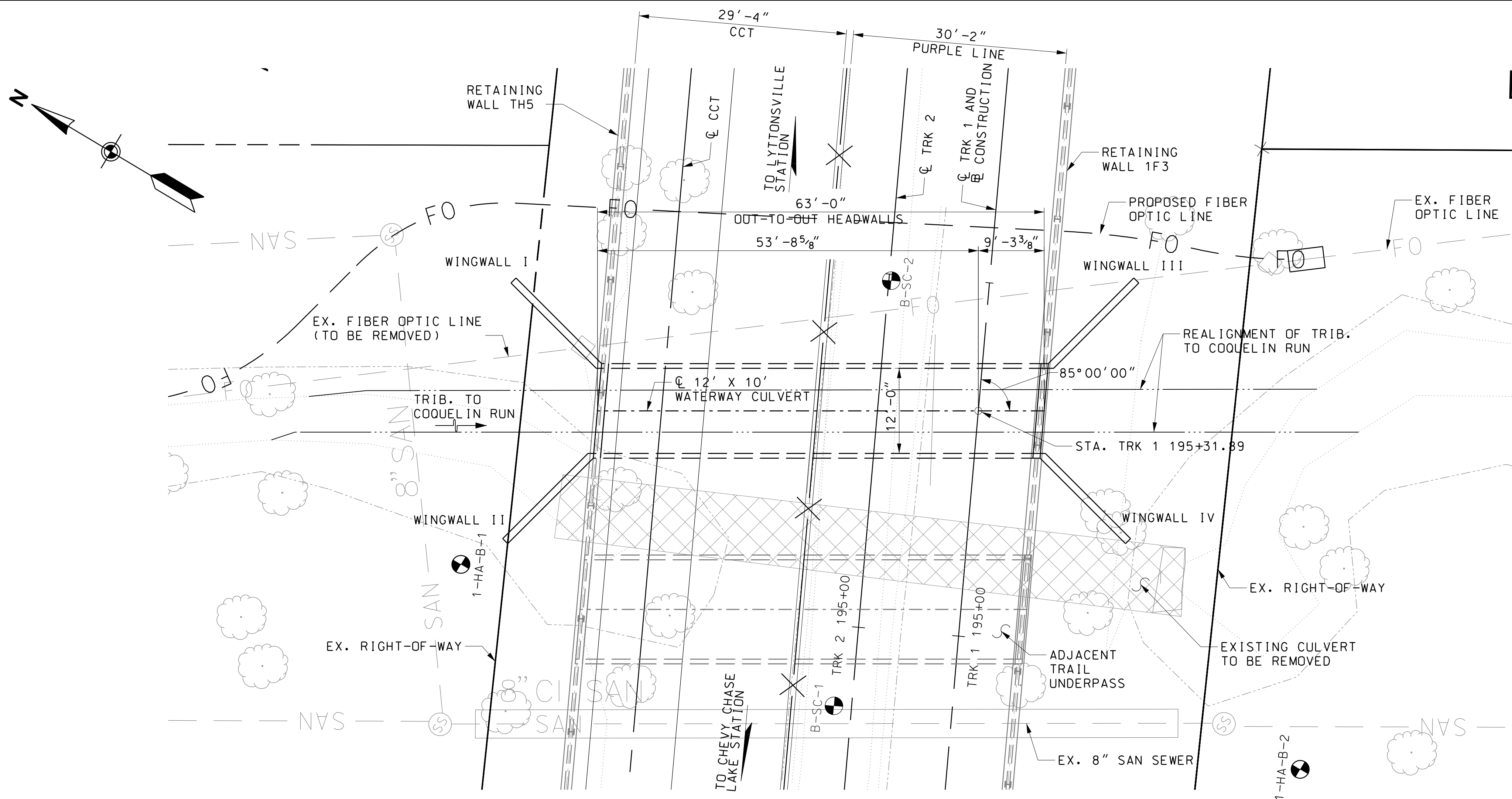






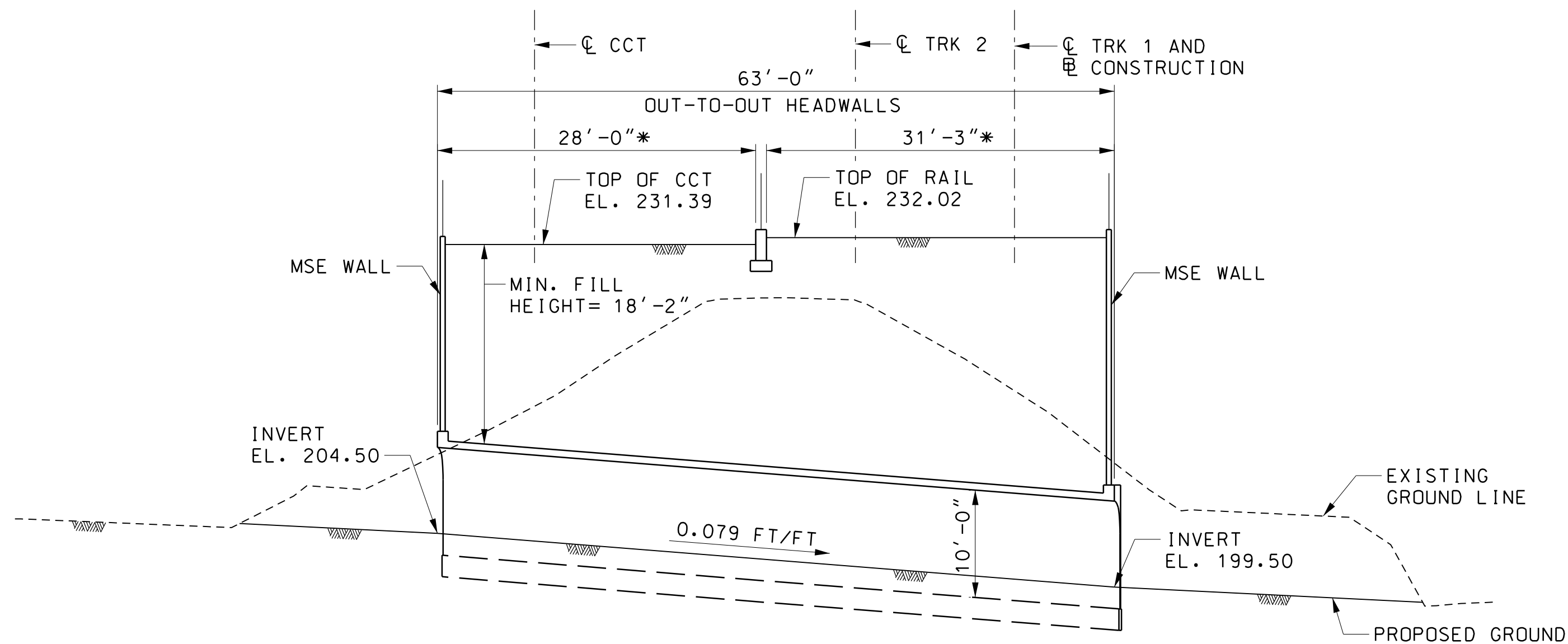






PLAN

SCALE: 1"=10'



LONGITUDINAL SECTION

SCALE: 1"=10'

GENERAL NOTES

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012.

MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

LOADING: AW4 LRT VEHICLE. DESIGN IS BASED ON AN ASSUMED MAXIMUM FILL HEIGHT OF 23.8 FT.

CONCRETE: ALL CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). ALL PRECAST CONCRETE SHALL HAVE $f'_c = 5000$ PSI.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60.

ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

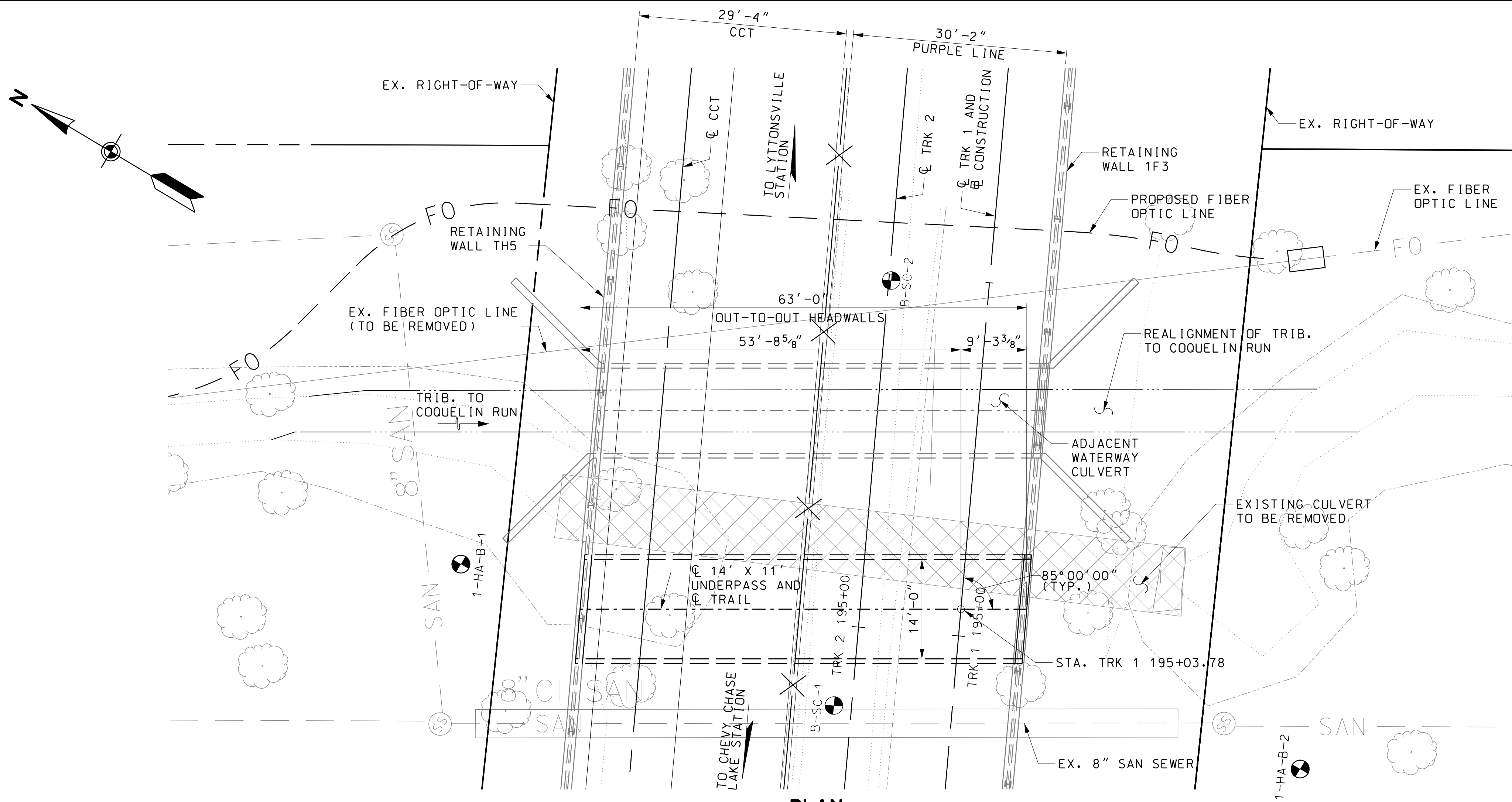
EXISTING STRUCTURE: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS.

EXISTING STRUCTURE SHOWN HATCHED, TO BE REMOVED.

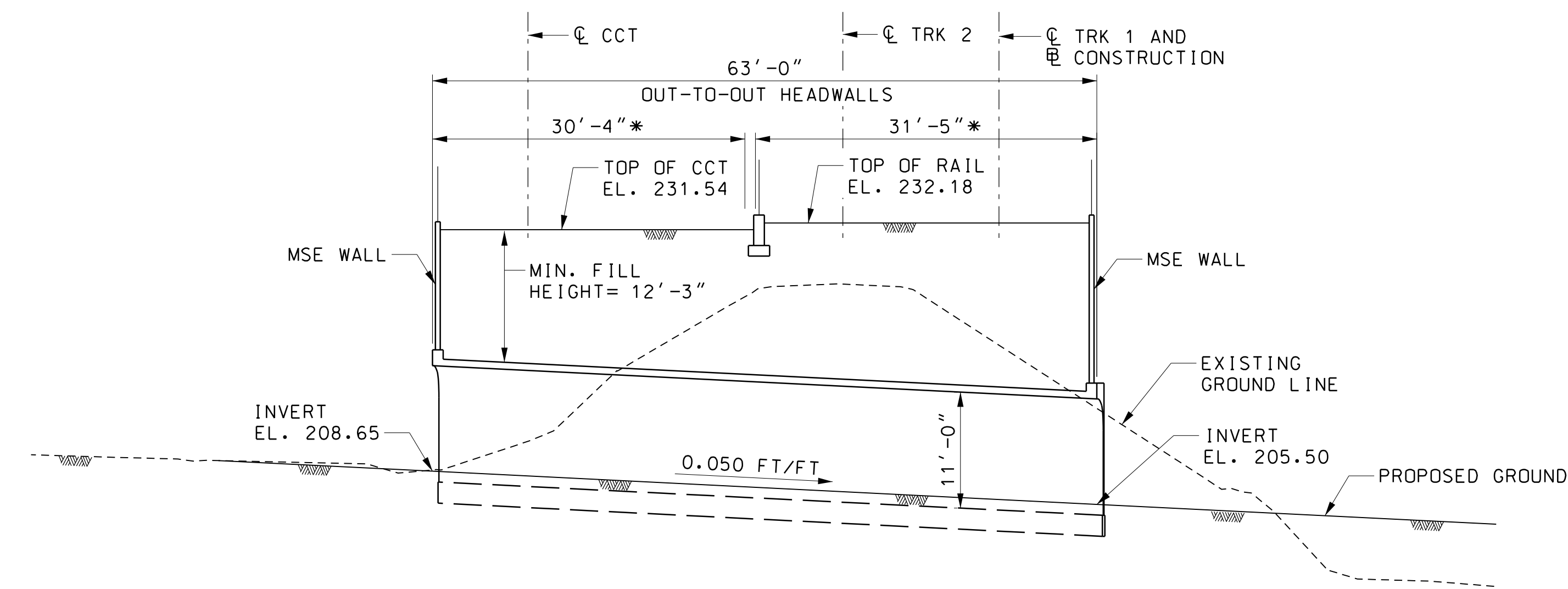
KEYS: ALL KEYS ARE NOMINAL SIZE.

NOTES:

1. LONGITUDINAL SECTION SHOWN ALONG CENTERLINE OF CULVERT.
2. DIMENSIONS SHOWN WITH * ARE PERPENDICULAR TO THE BASELINE OF CONSTRUCTION.
3. SCOUR COUNTERMEASURES MUST BE PLACED UPSTREAM AND DOWNSTREAM OF THE CULVERT.



PLAN
SCALE: 1"=10'



LONGITUDINAL SECTION
SCALE: 1"=10'

GENERAL NOTES

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012.

MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

LOADING: AW4 LRT VEHICLE. DESIGN IS BASED ON AN ASSUMED MAXIMUM FILL HEIGHT OF 16.0 FT.

CONCRETE: ALL CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). ALL PRECAST CONCRETE SHALL HAVE $f'_c = 5000$ PSI.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60.

ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

EXISTING STRUCTURE: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS.

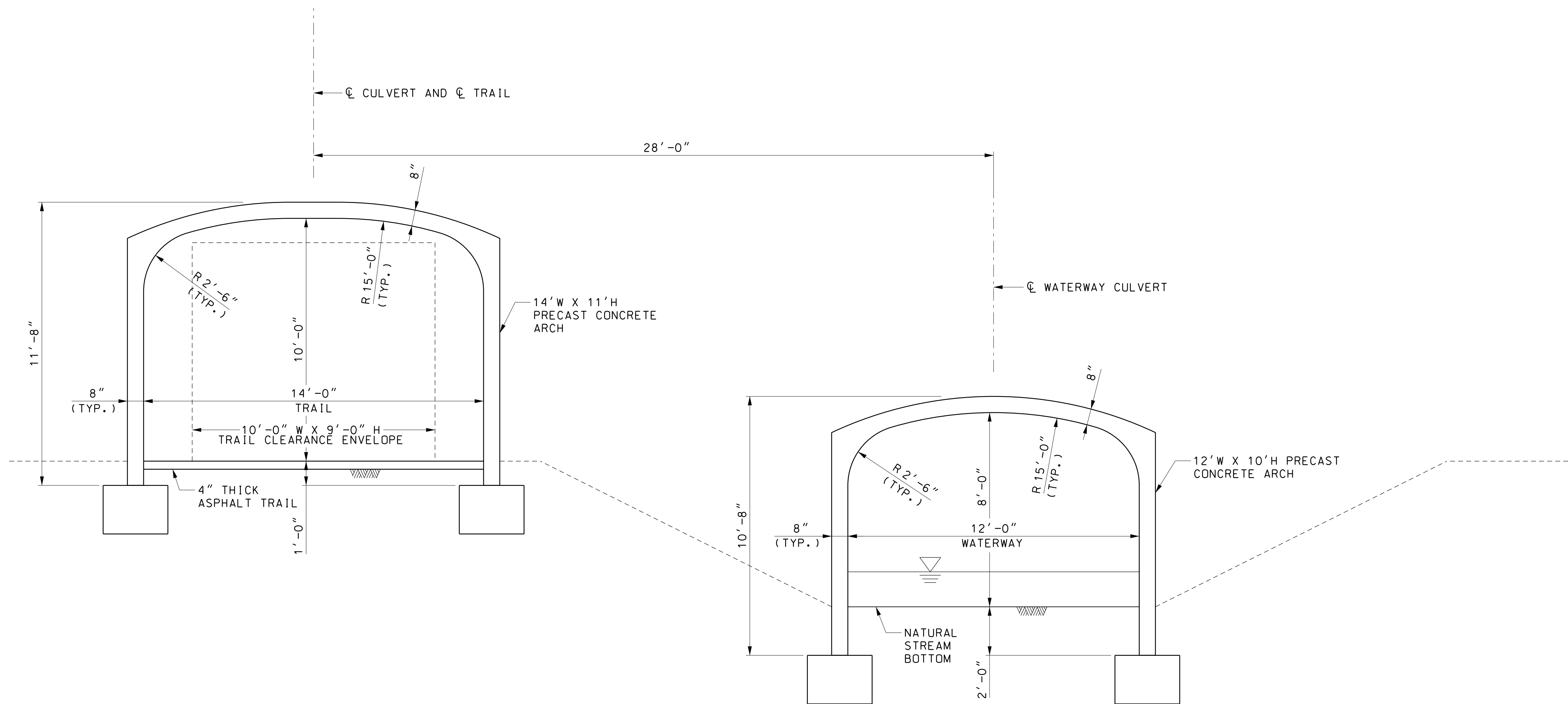
EXISTING STRUCTURE SHOWN HATCHED, TO BE REMOVED.

KEYS: ALL KEYS ARE NOMINAL SIZE.

GEOTECHNICAL DESIGN PARAMETERS: PRIOR TO CONSTRUCTING CULVERT, GEOTECHNICAL ENGINEER TO VERIFY IN FIELD FOUNDATION CAPACITY. UNDERCUTTING OF SOILS MAY BE REQUIRED TO MEET FOUNDATION CAPACITY.

NOTES:

1. LONGITUDINAL SECTION SHOWN ALONG CENTERLINE OF CULVERT.
2. DIMENSIONS SHOWN WITH * ARE PERPENDICULAR TO THE BASELINE OF CONSTRUCTION.



TYPICAL CULVERT SECTION

SCALE: $\frac{3}{8}" = 1' -0"$

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN	MWM
DRAWN	BCB
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

COQUELIN RUN CULVERT
TYPICAL SECTION

DATE: DECEMBER 2013

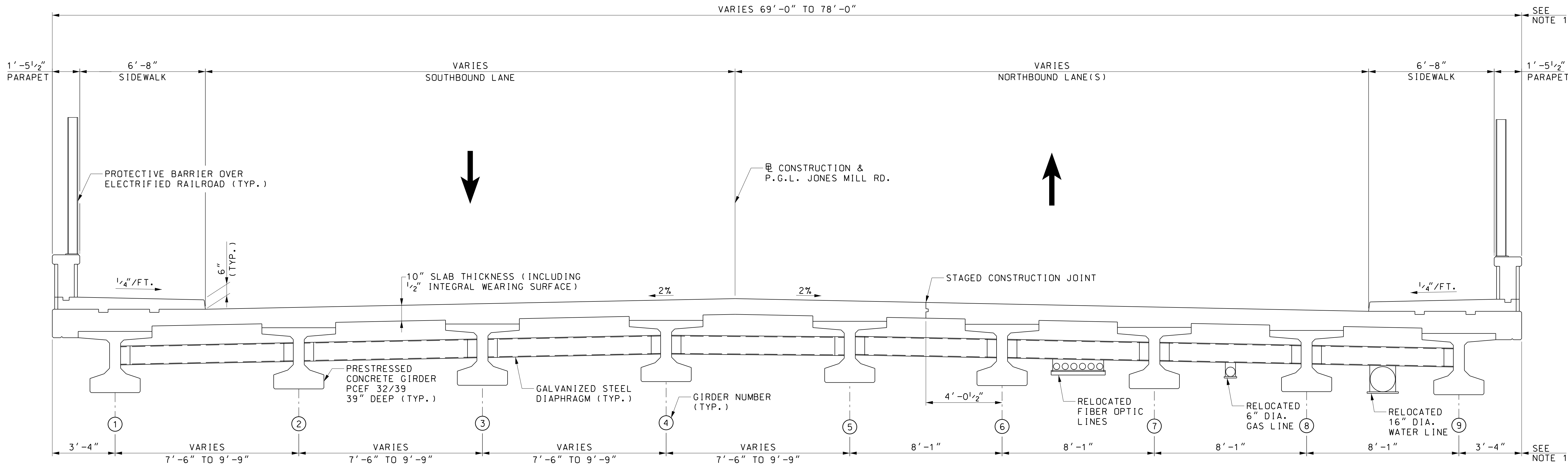
SCALE: $3/8" = 1' -0"$

CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1K103

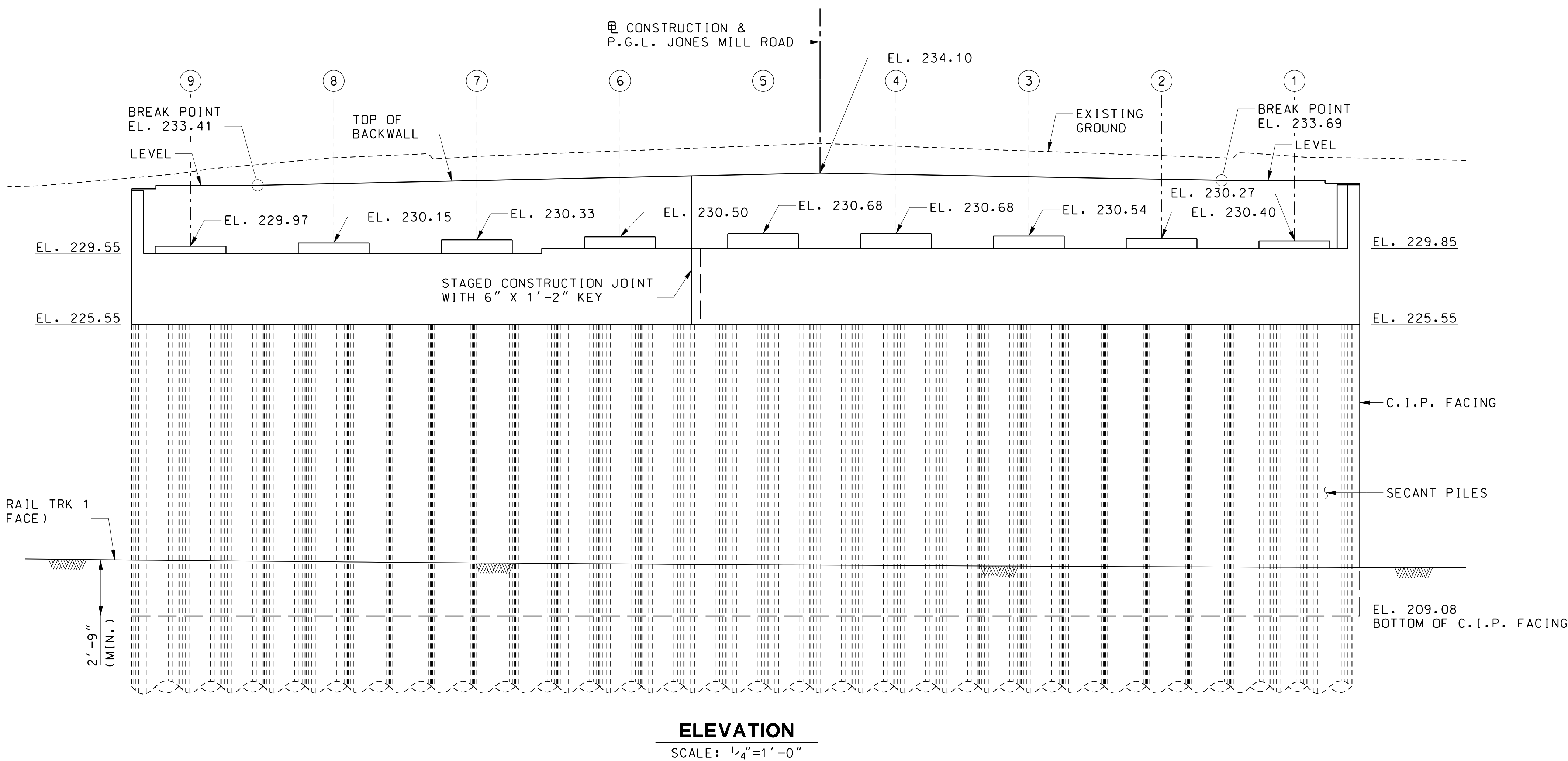
SHEET NO.
163 OF 828

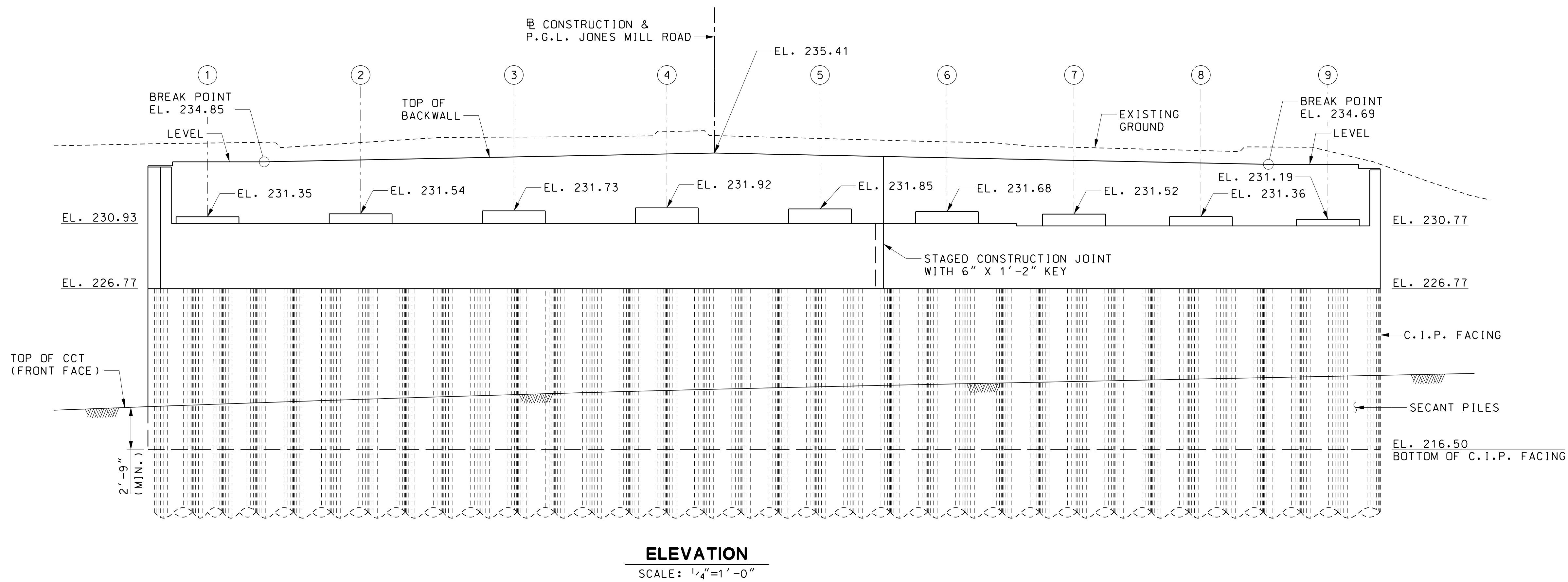
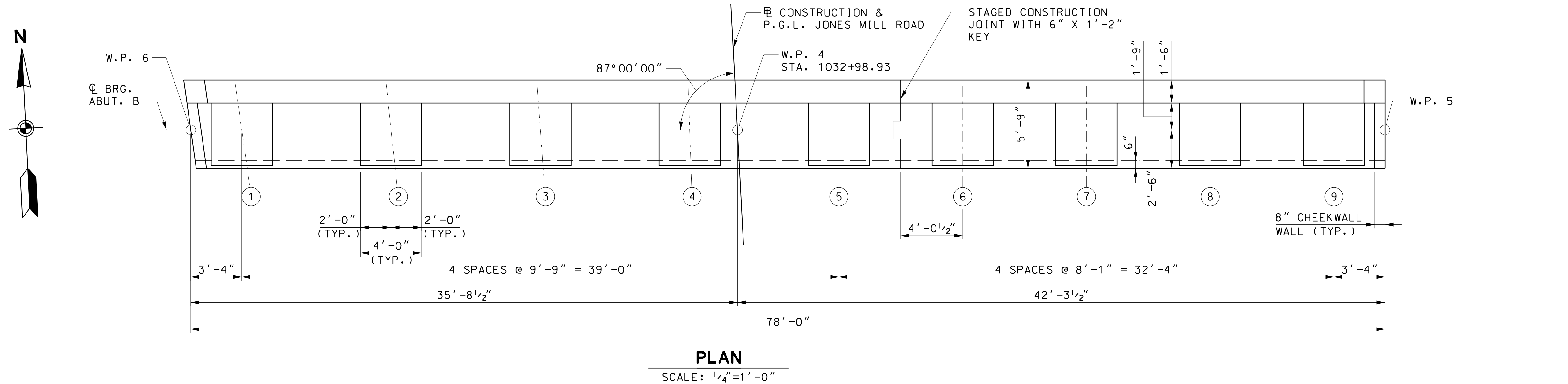
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12/5/2013

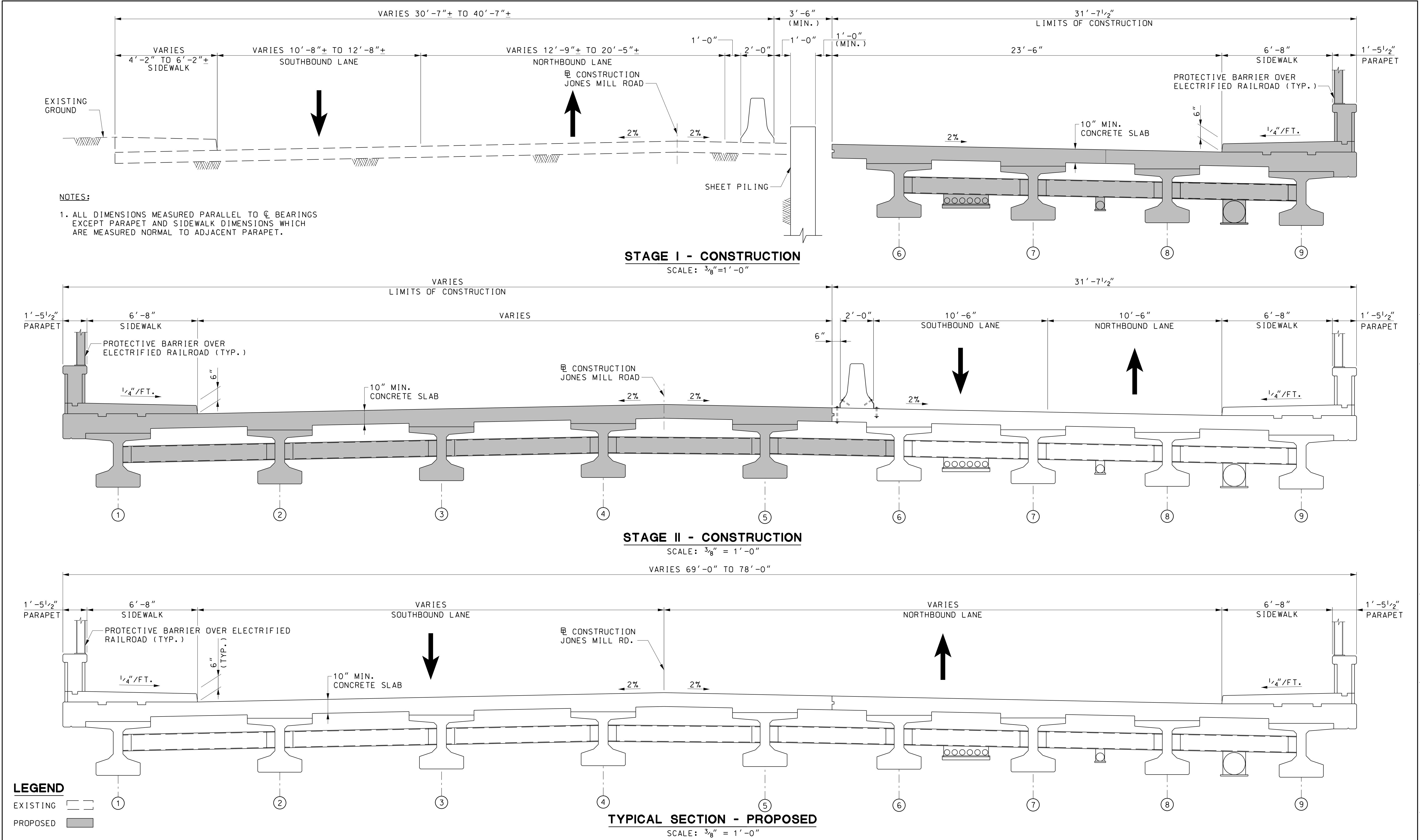


TYPICAL SECTION
SCALE: 3/8" = 1'-0"

- NOTES:
1. DIMENSION MEASURED PARALLEL TO C BRG.
 2. PARAPET AND SIDEWALK DIMENSIONS MEASURED NORMAL TO ADJACENT PARAPET.

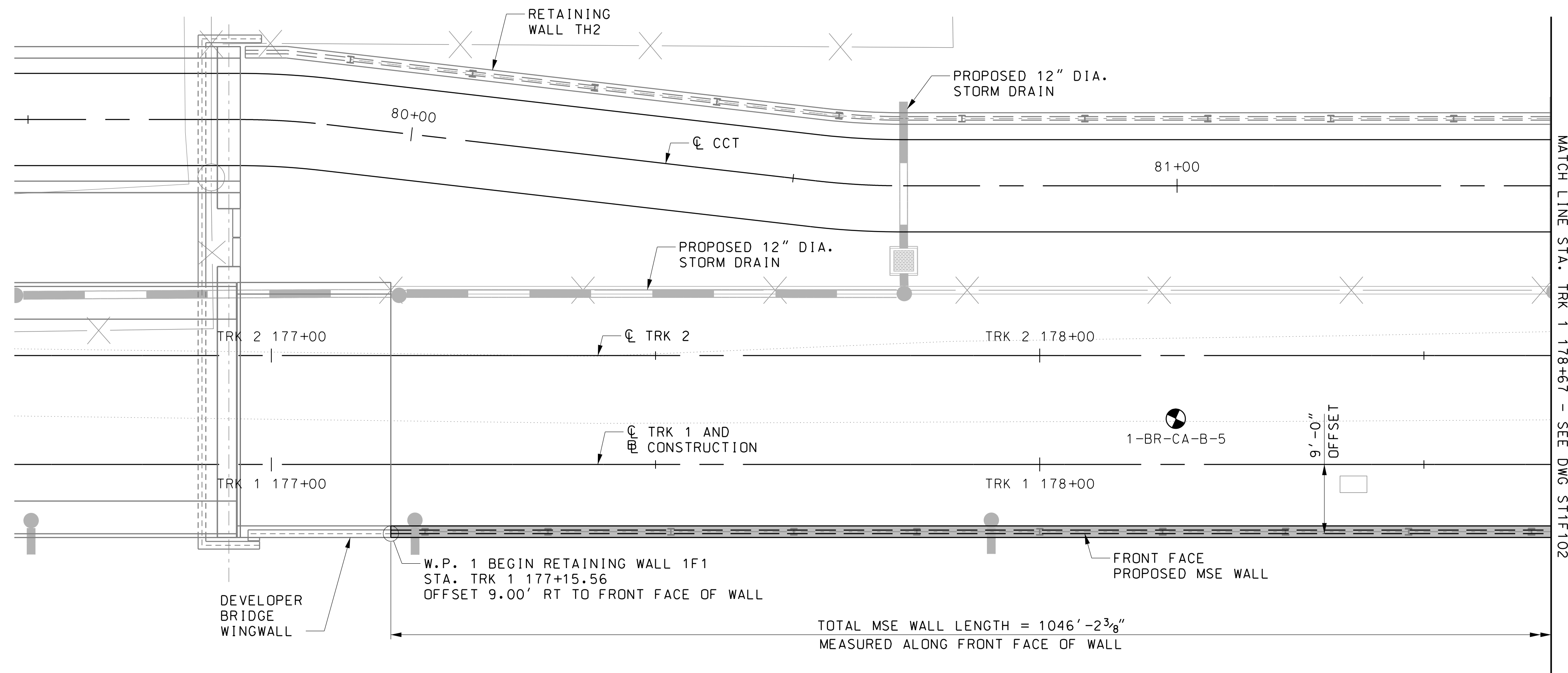
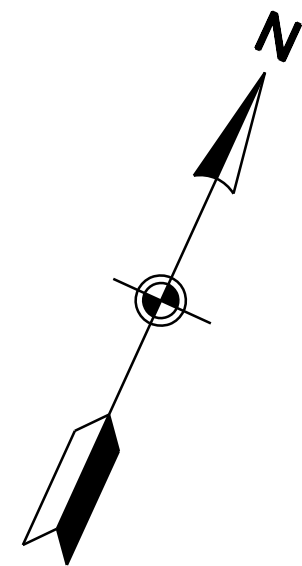




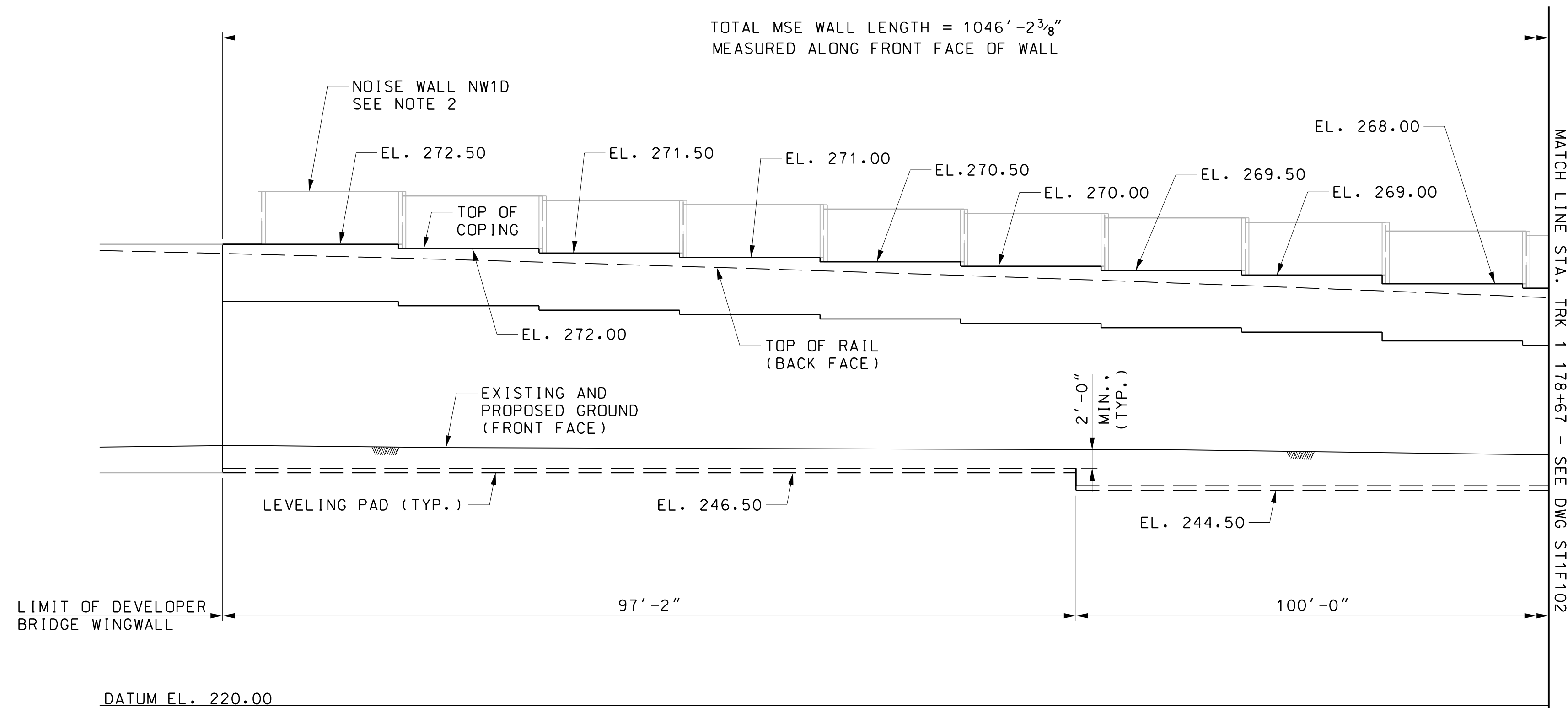


<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div>MARYLAND TRANSIT ADMINISTRATION</div> <div>MTA Maryland</div>	<div>Gannett Fleming</div> <div>WR&A</div>	<div>MERCADO CONSULTANTS, INC.</div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	APPR	CHECK	DRAWN	DESIGN	MWM	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div> <div>JONES MILL ROAD BRIDGE</div> <div>SEQUENCE OF CONSTRUCTION</div> <div>DATE: DECEMBER 2013</div> <div>SCALE: $\frac{3}{8}" = 1' - 0"$</div>	CONTRACT NO.	T-1042-0220
									BCB		DRAWING NO.	ST1L06
									CRA		SHEET NO.	169 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 01-West\Structures\L-Jones Mill Highway Bridge\Sheet Files\1042ST1L15.dgn 12/11/2013



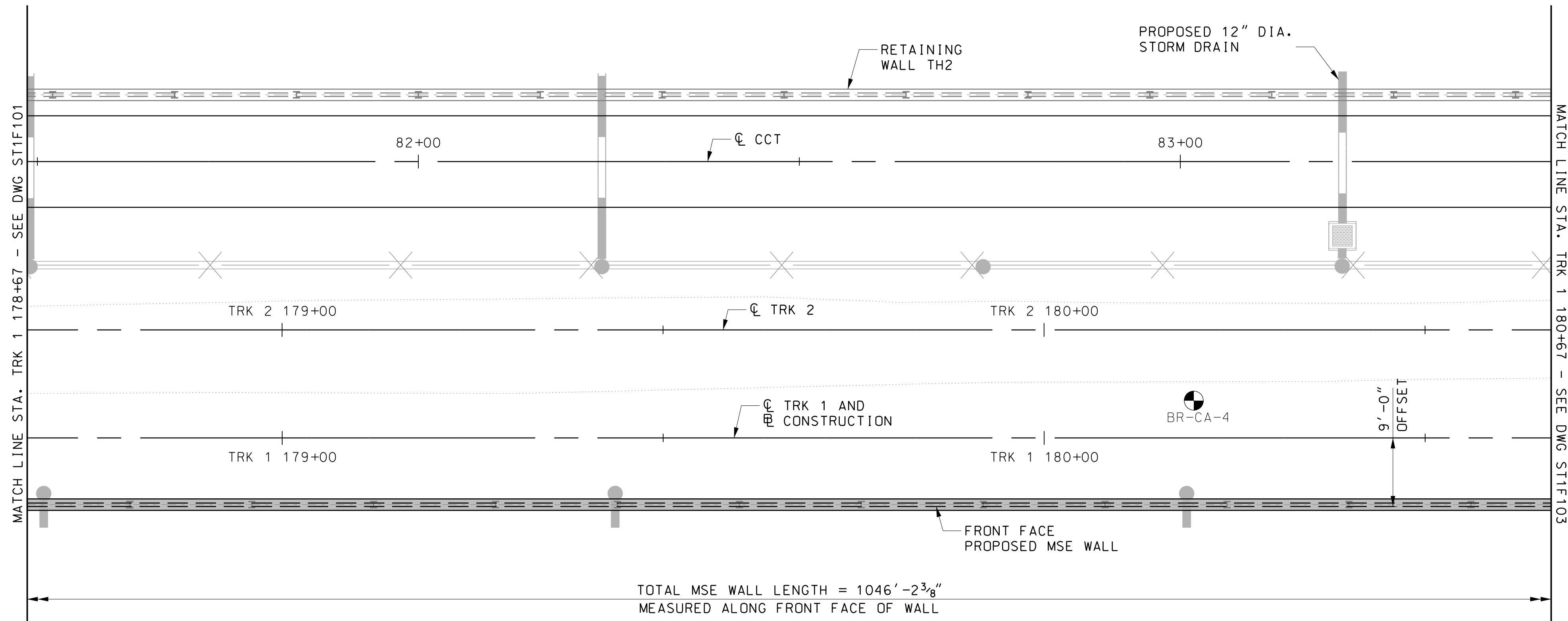
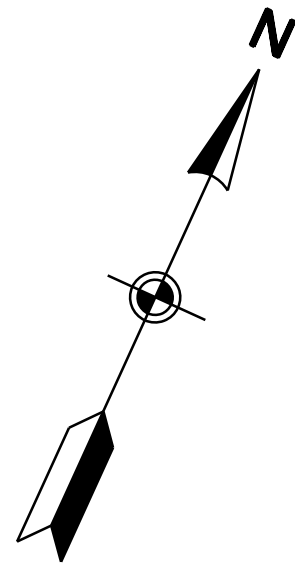
PLAN
SCALE: 1"=10'-0"



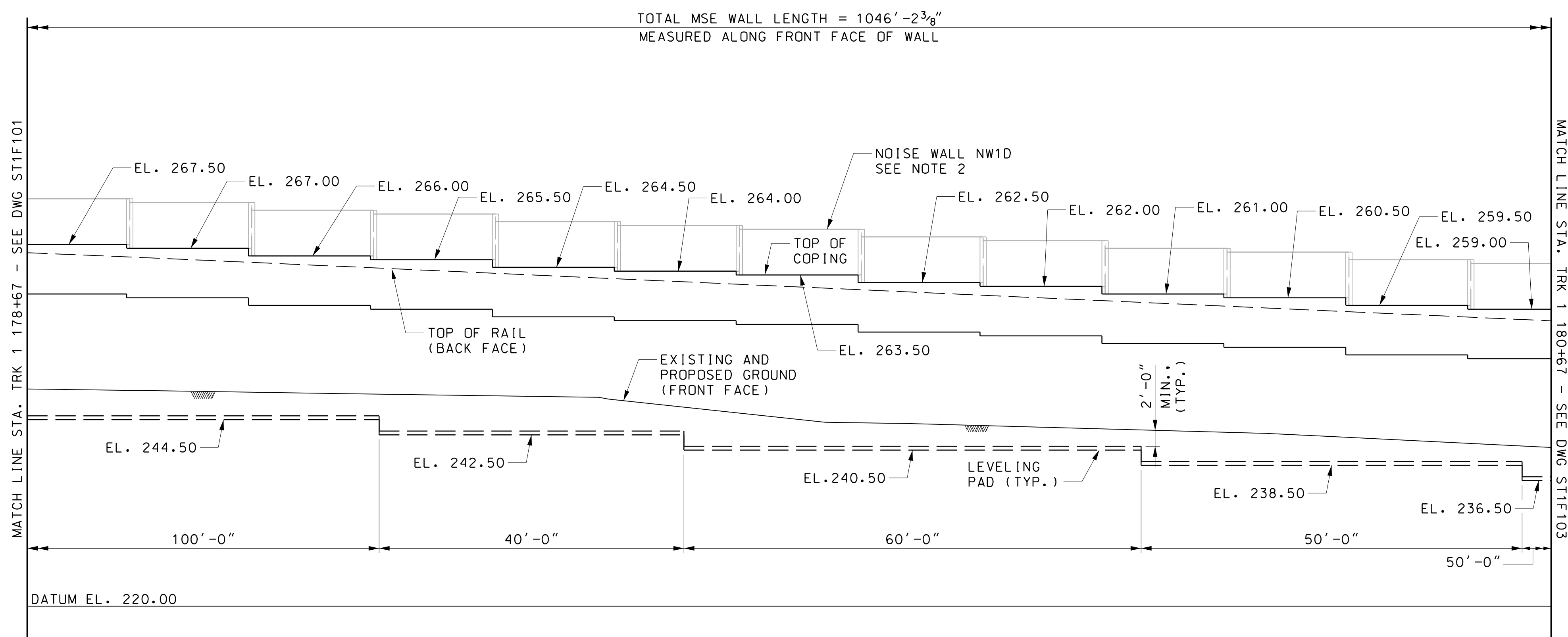
ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.

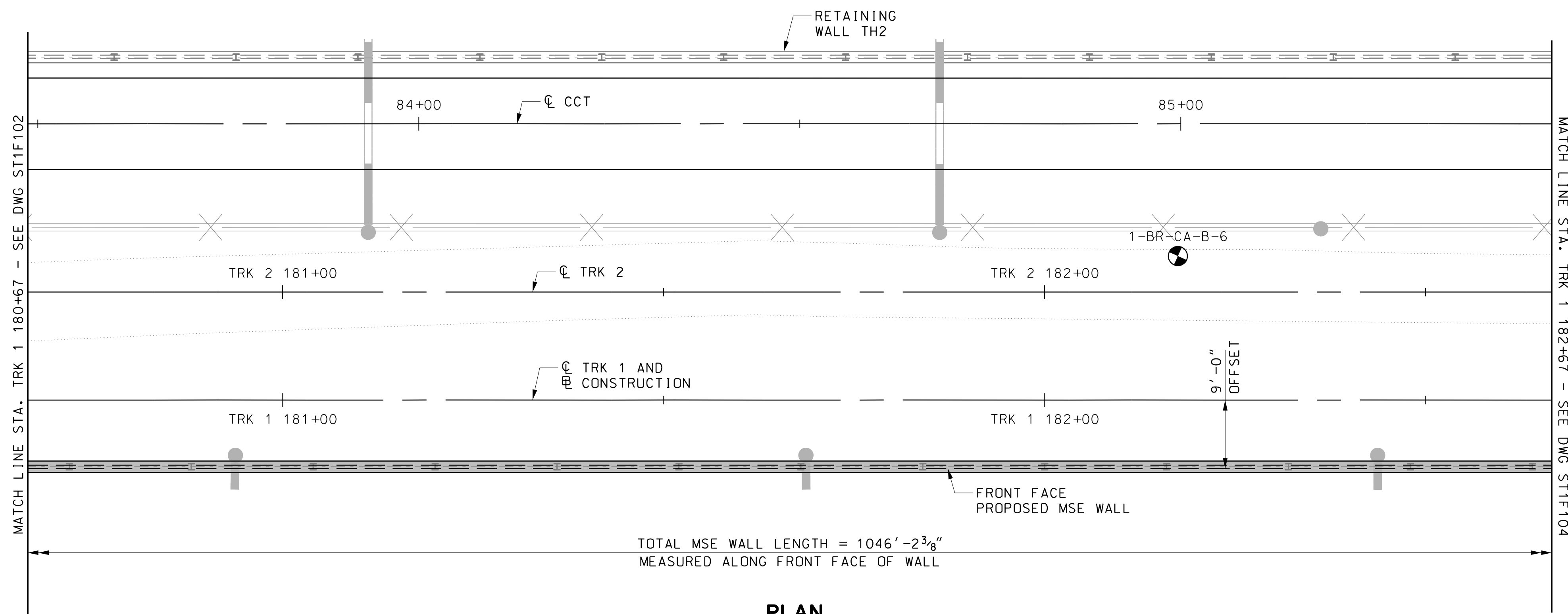
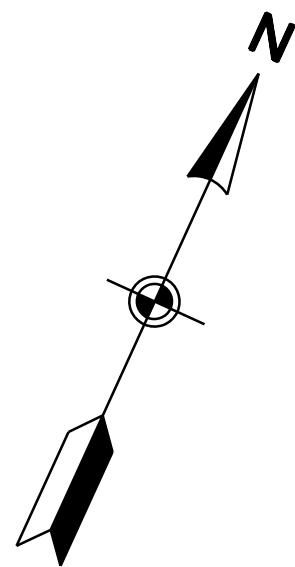


PLAN
SCALE: 1"=10'-0"



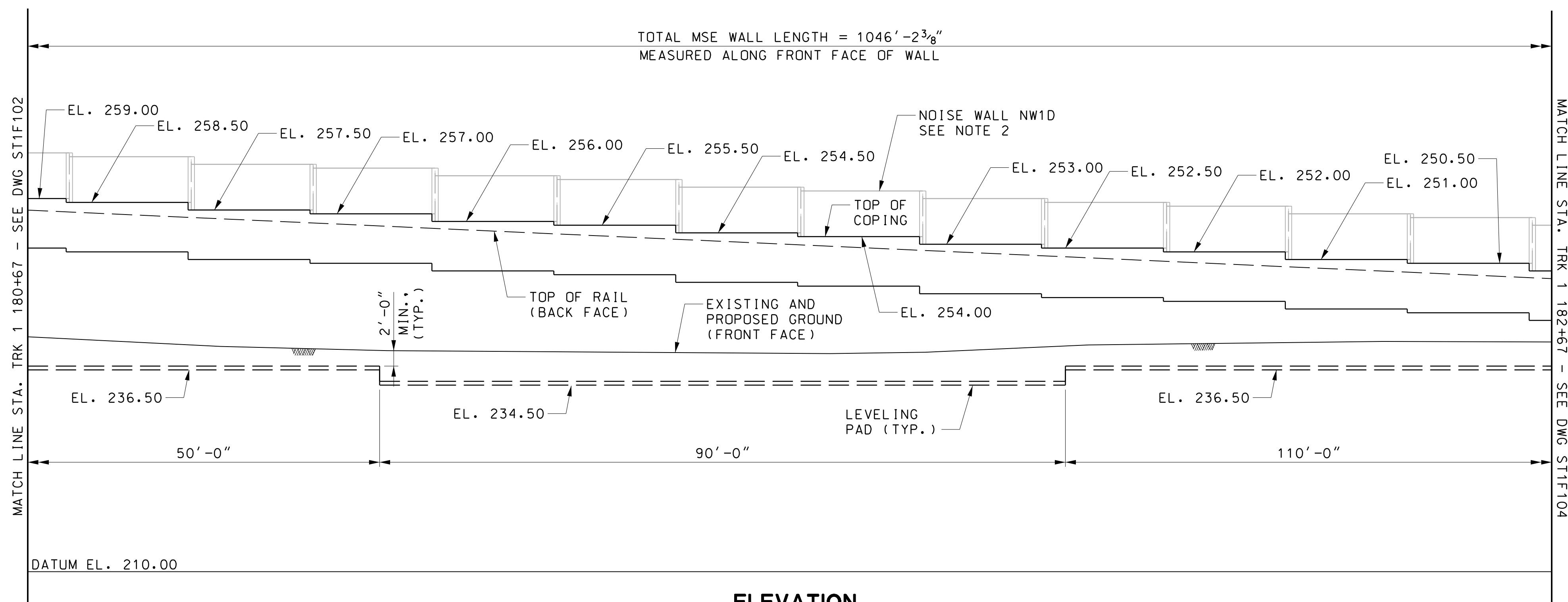
ELEVATION
SCALE: 1"=10'-0"

- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
 2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



PLAN

SCALE: 1"=10'-0"

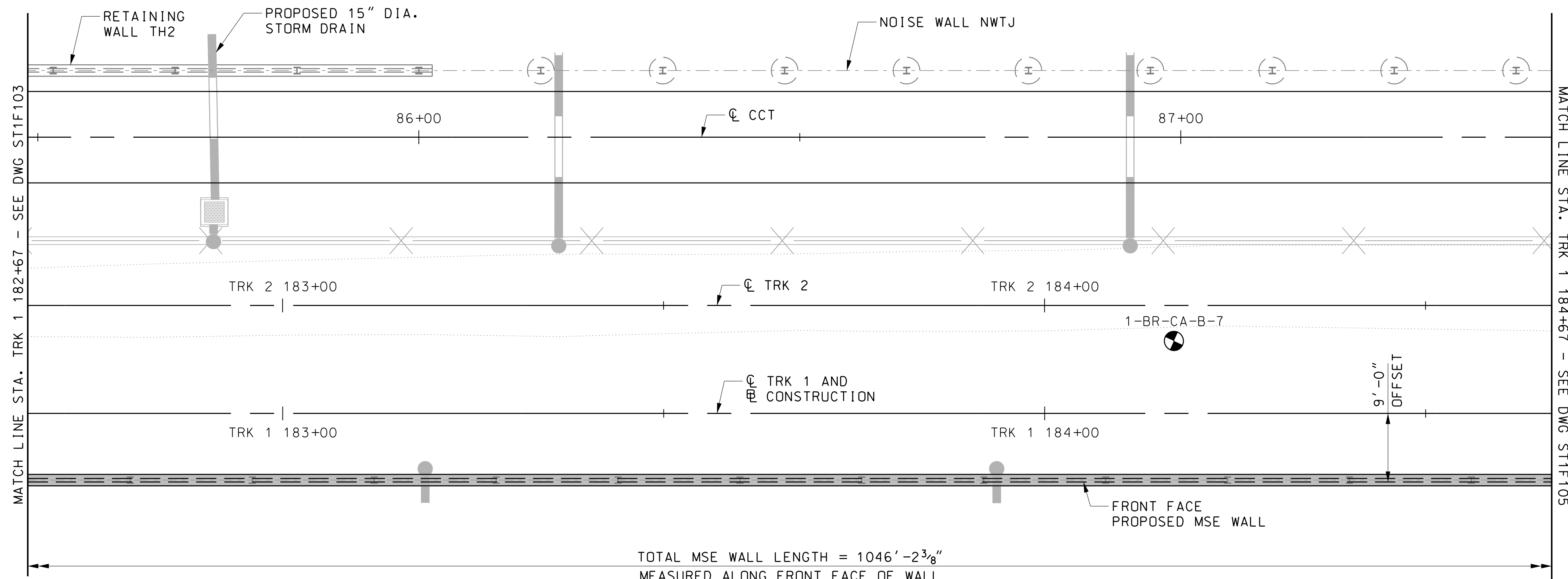
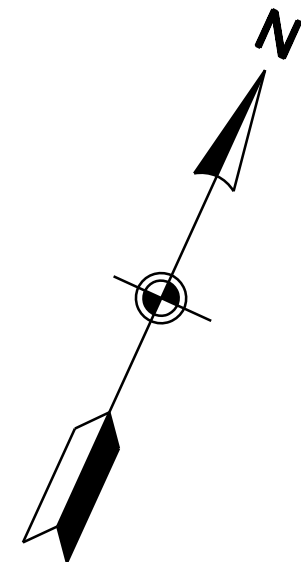


ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.

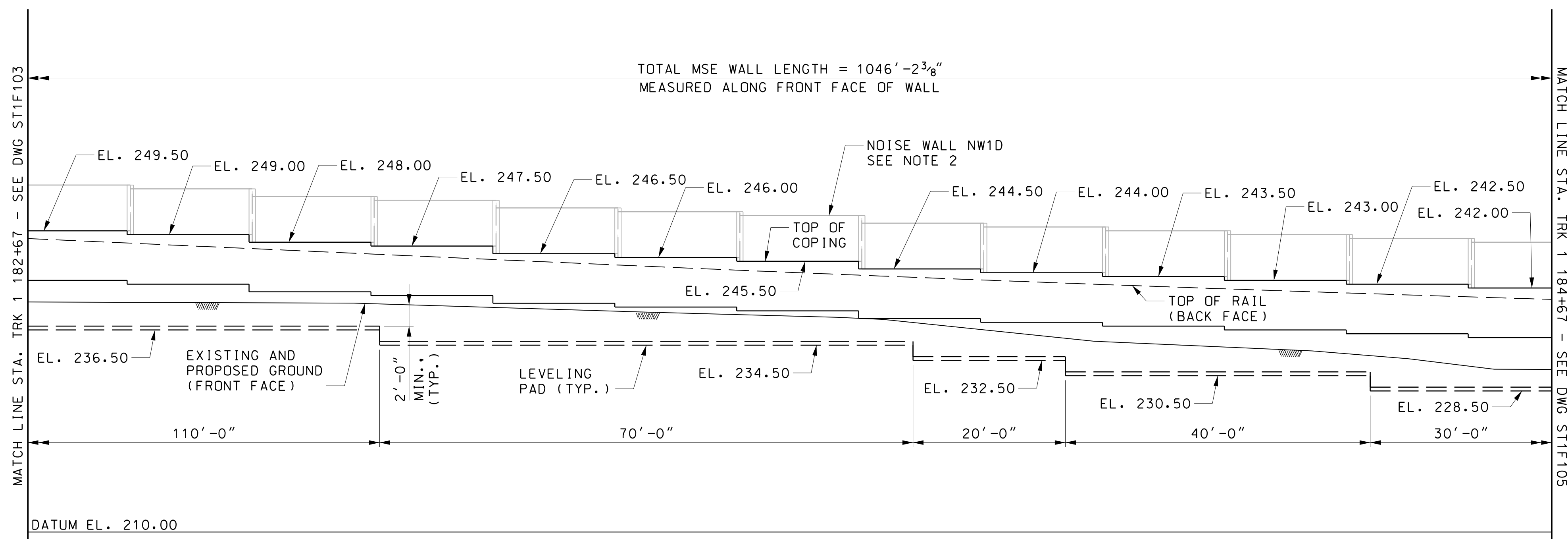


PLAN

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



ELEVATION

SCALE: 1"=10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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APPR	CHECK	DRAWN	DESIGN
		MWM	
		JY	
		CRA	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

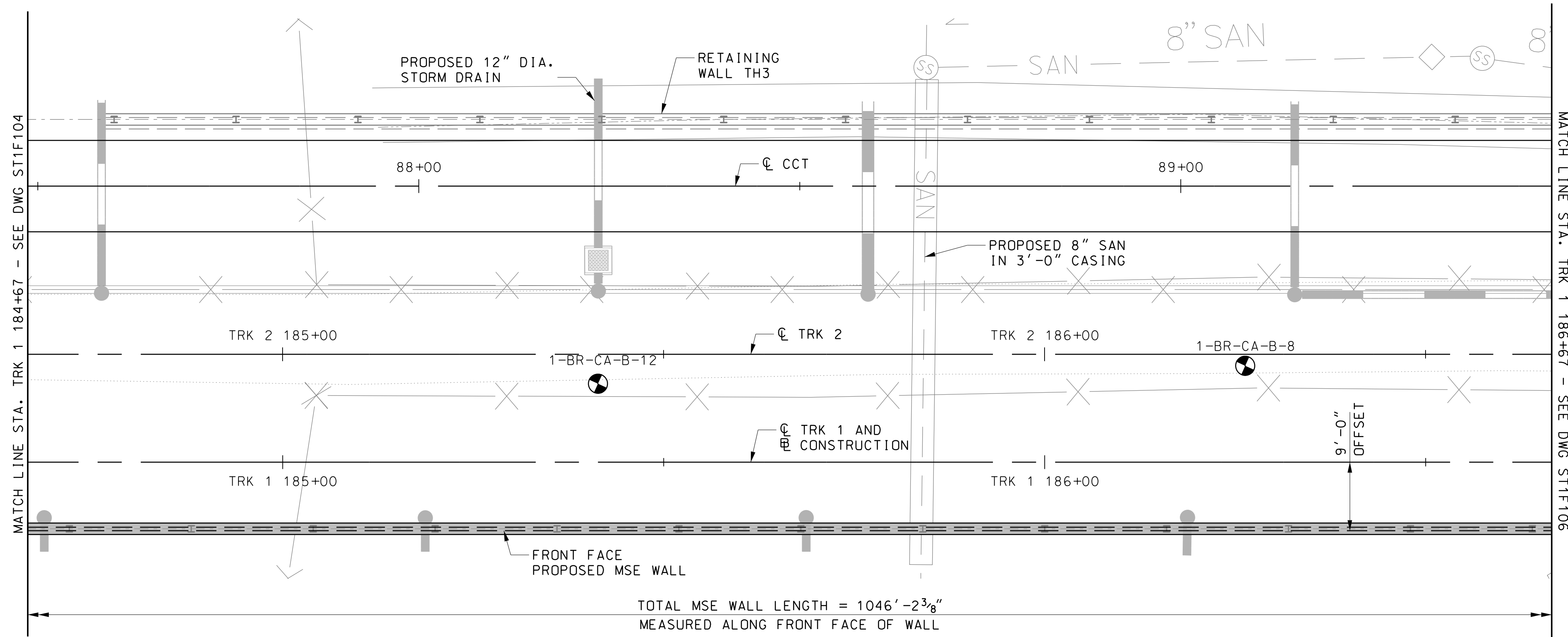
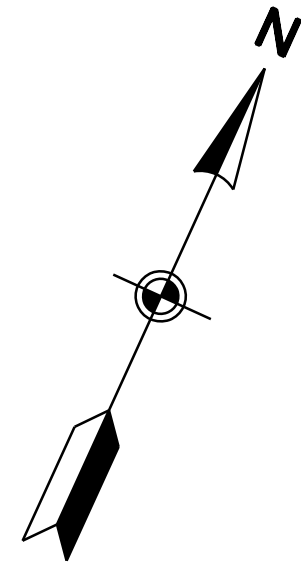
RETAINING WALL – 1F1
GENERAL PLAN & ELEVATION – 4

DATE: DECEMBER 2013

SCALE: 1"=10'-0"

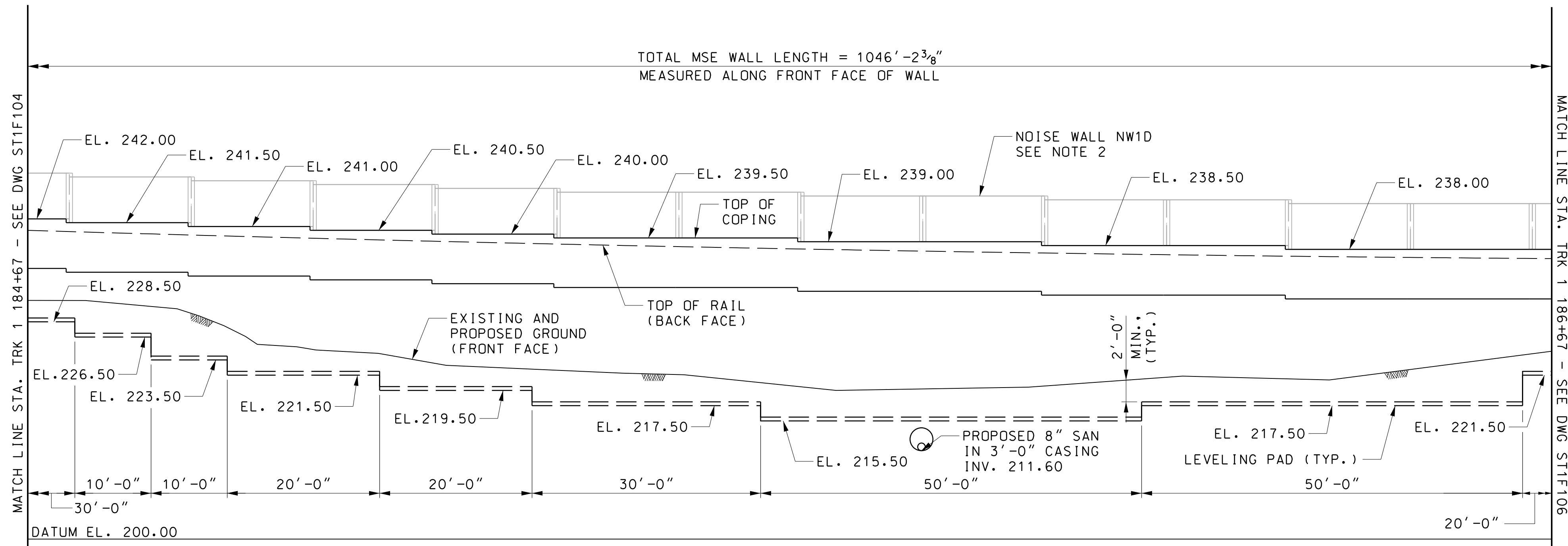
CONTRACT NO. T-1042-0220
DRAWING NO. ST1F104
SHEET NO. 173 OF 828

c:\pwworking\mtopw\mci-brian_burns\00125138\1042pST1f14.dgn
12/5/2013



PLAN

SCALE: 1"=10'-0"

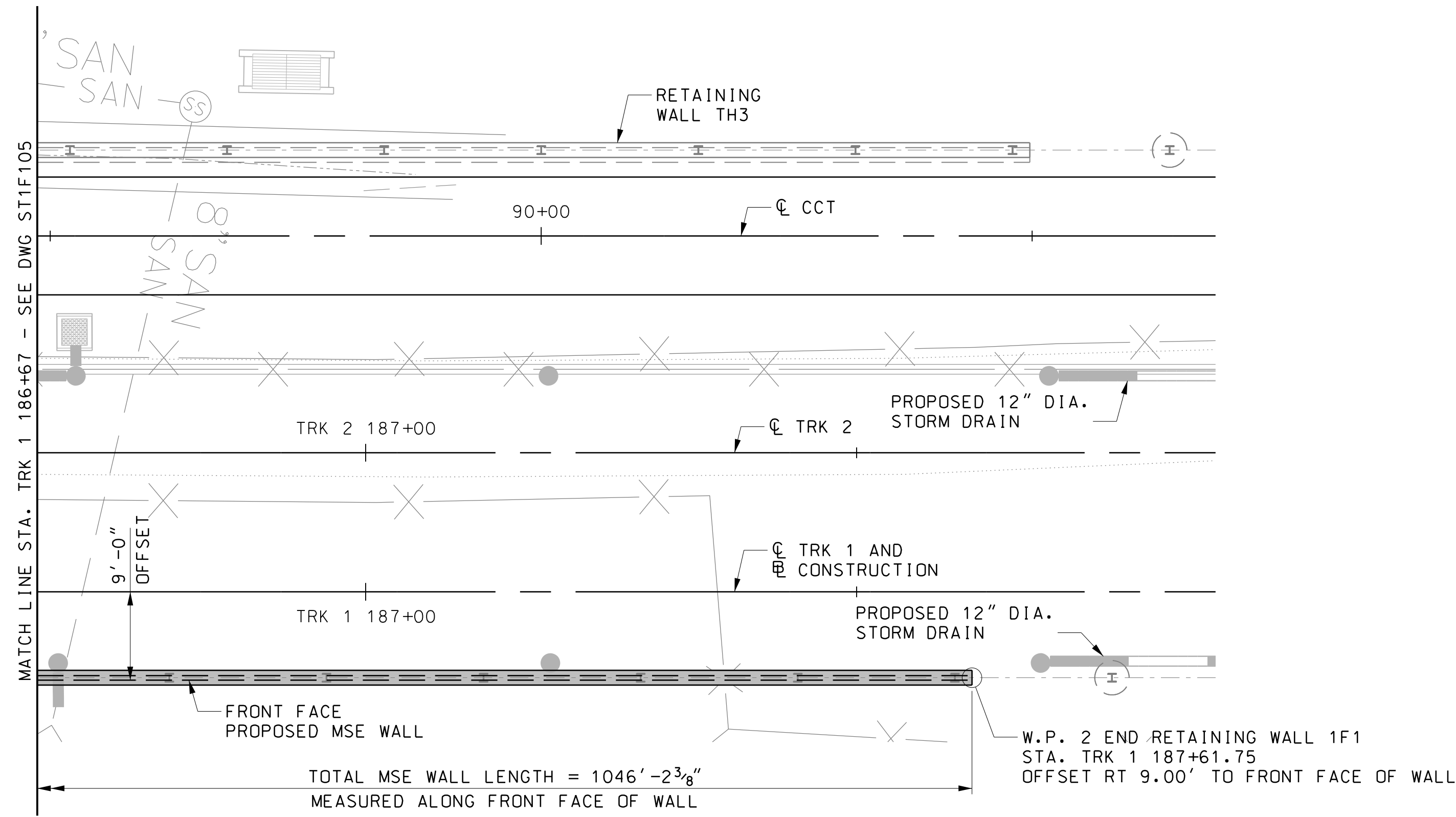
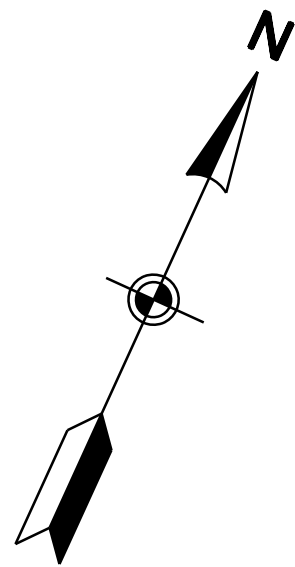


ELEVATION

SCALE: 1"=10'-0"

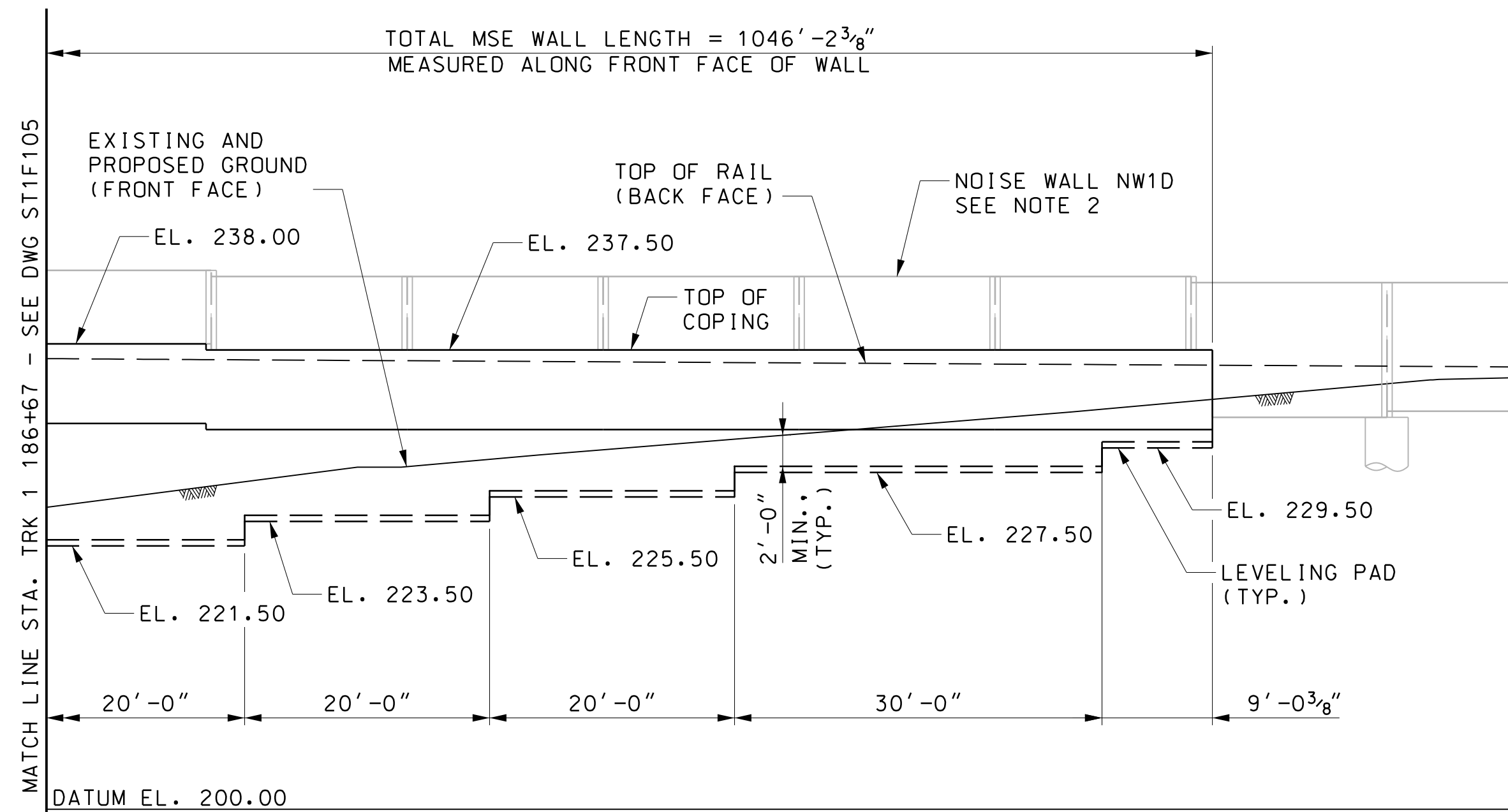
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



PLAN

SCALE: 1"=10'-0"

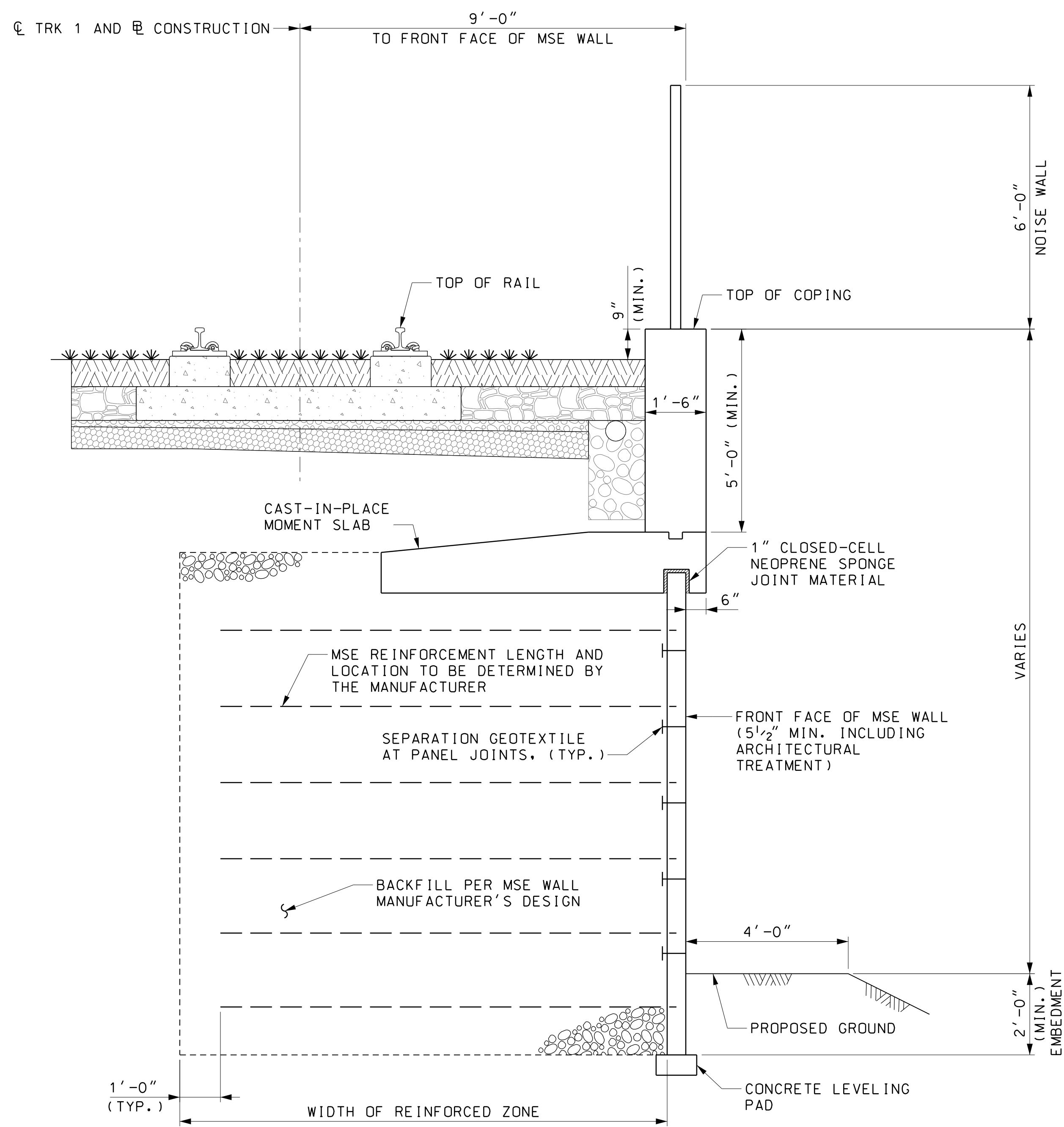


ELEVATION

SCALE: 1"=10'-0"

NOTES:

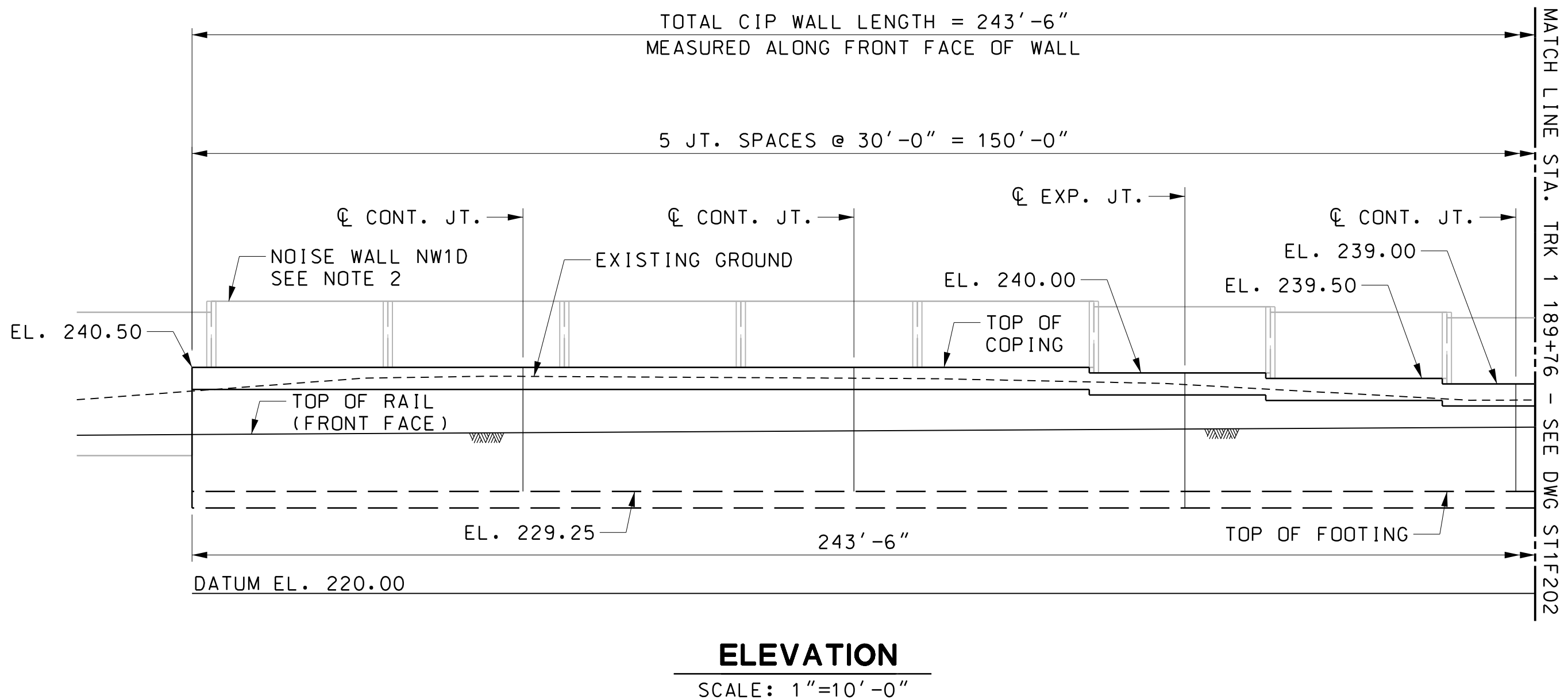
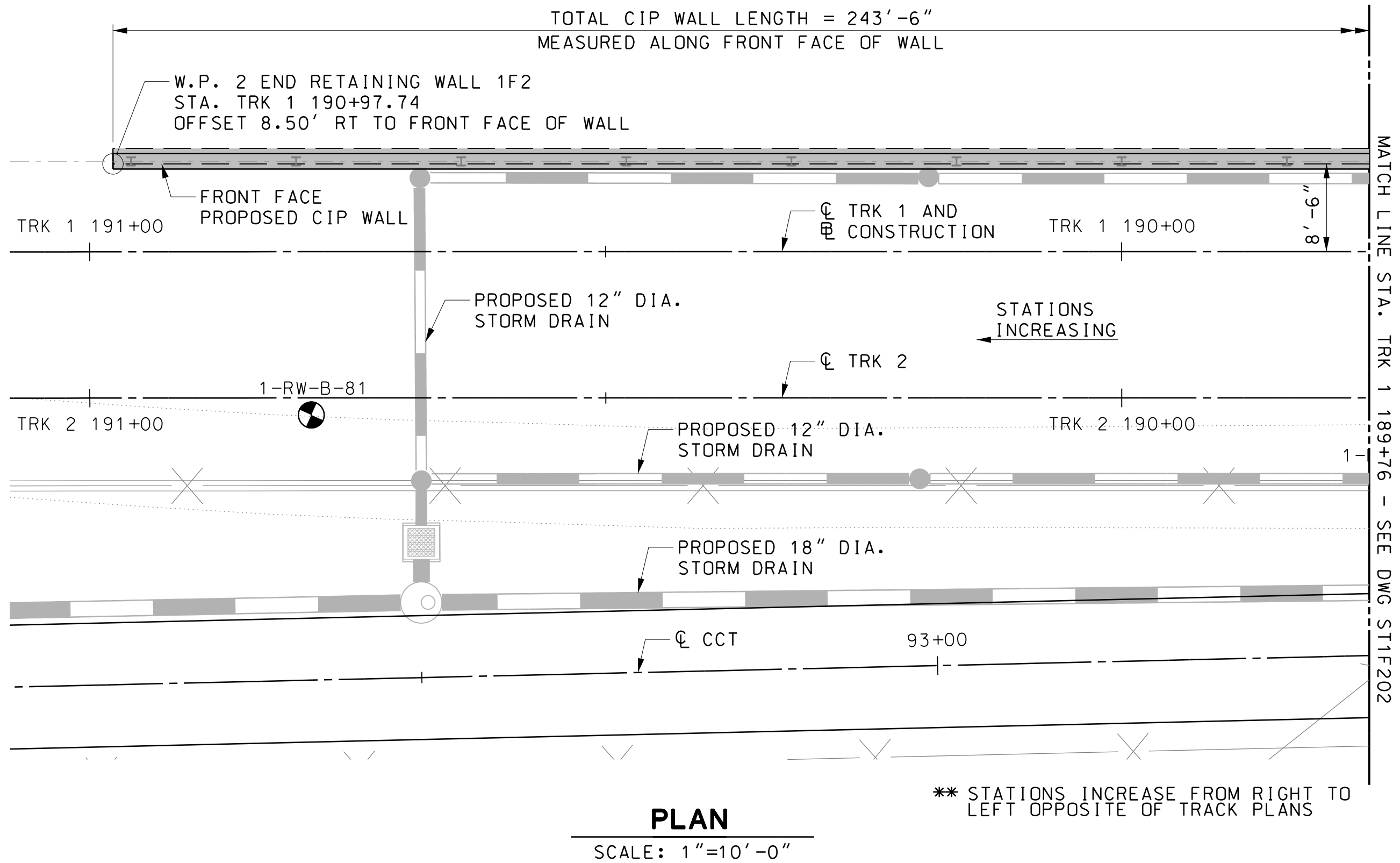
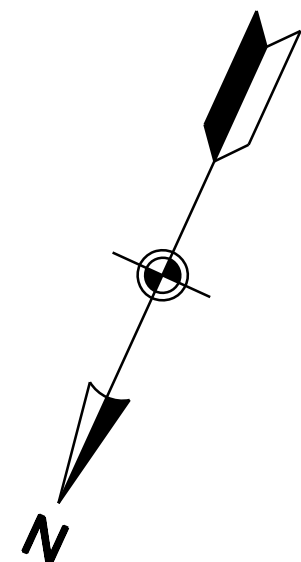
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F107.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



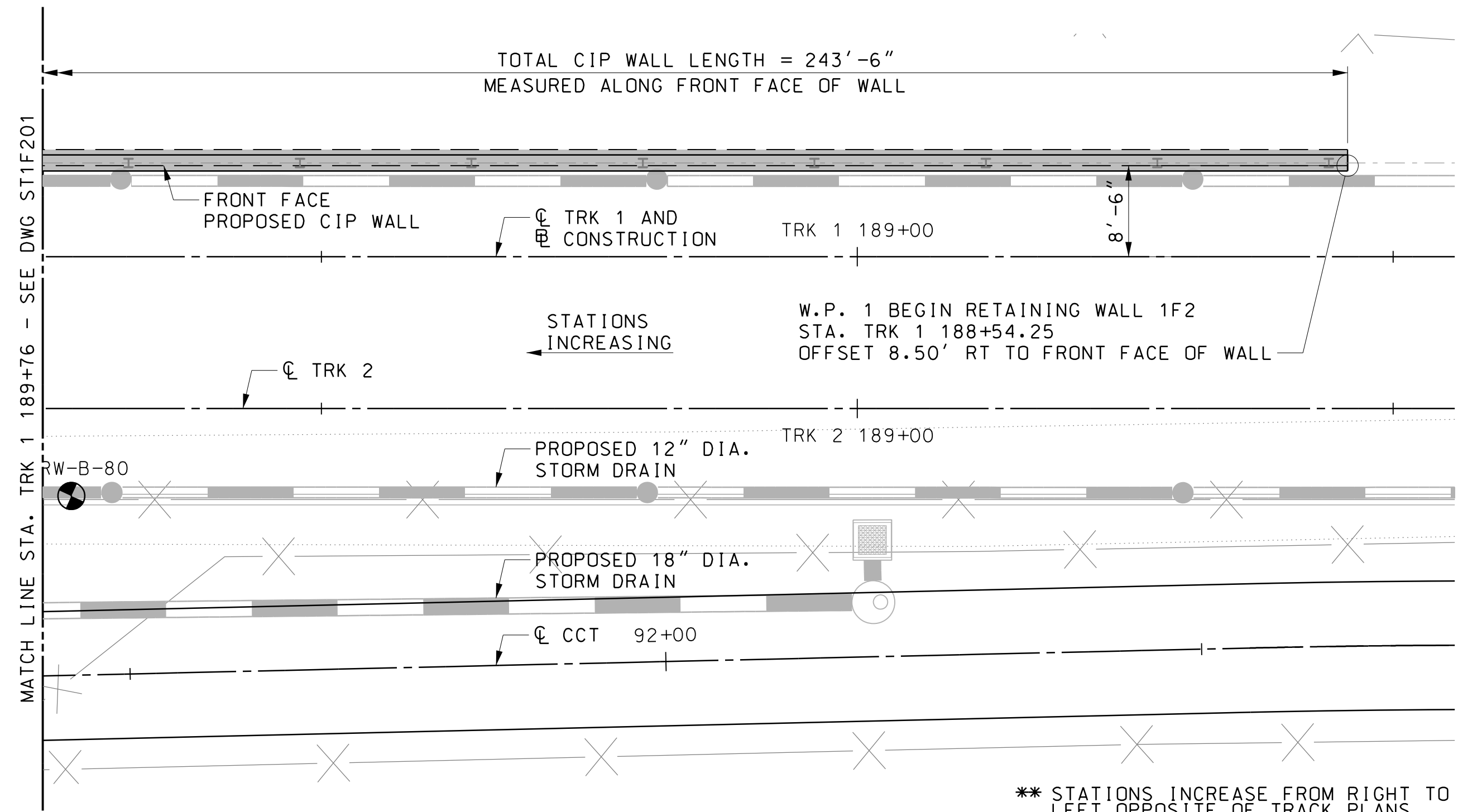
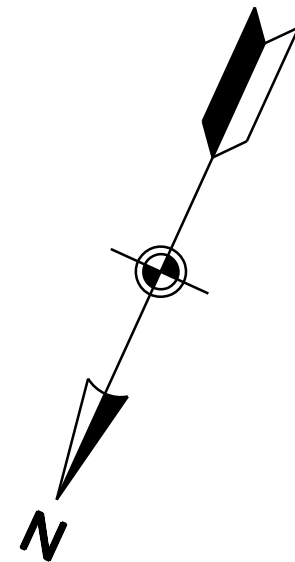
TYPICAL SECTION
SCALE: 1/2" = 1'-0"

NOTES:

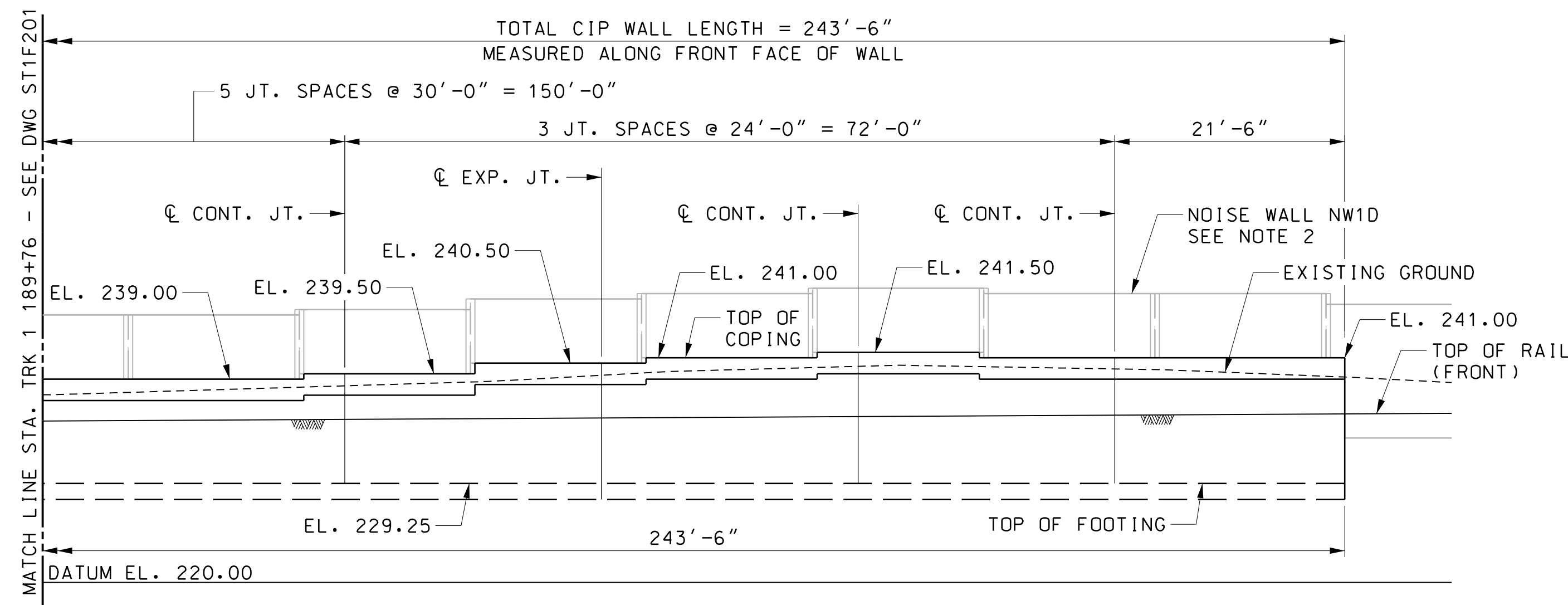
1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F203.
 2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



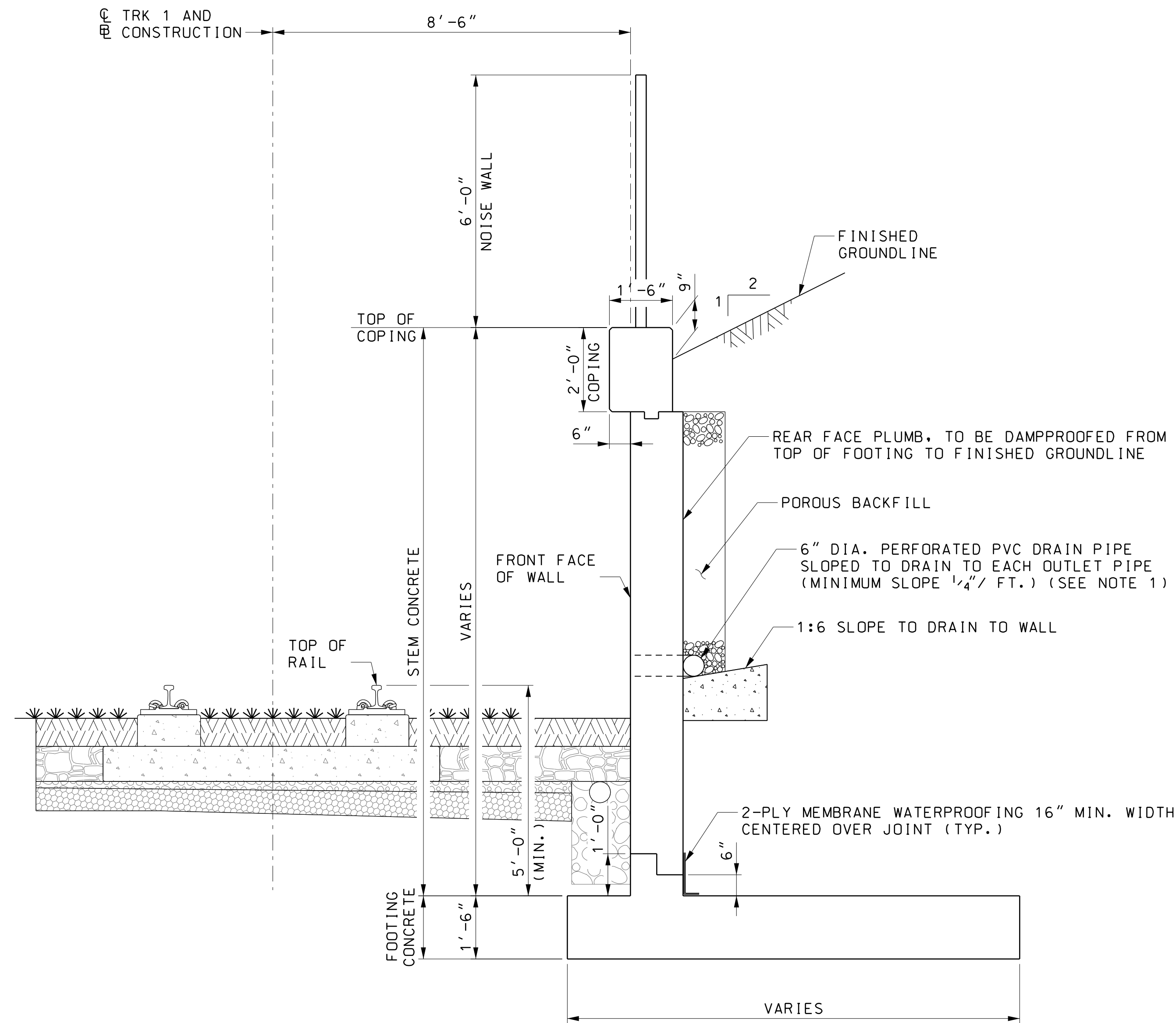
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

NOTES:

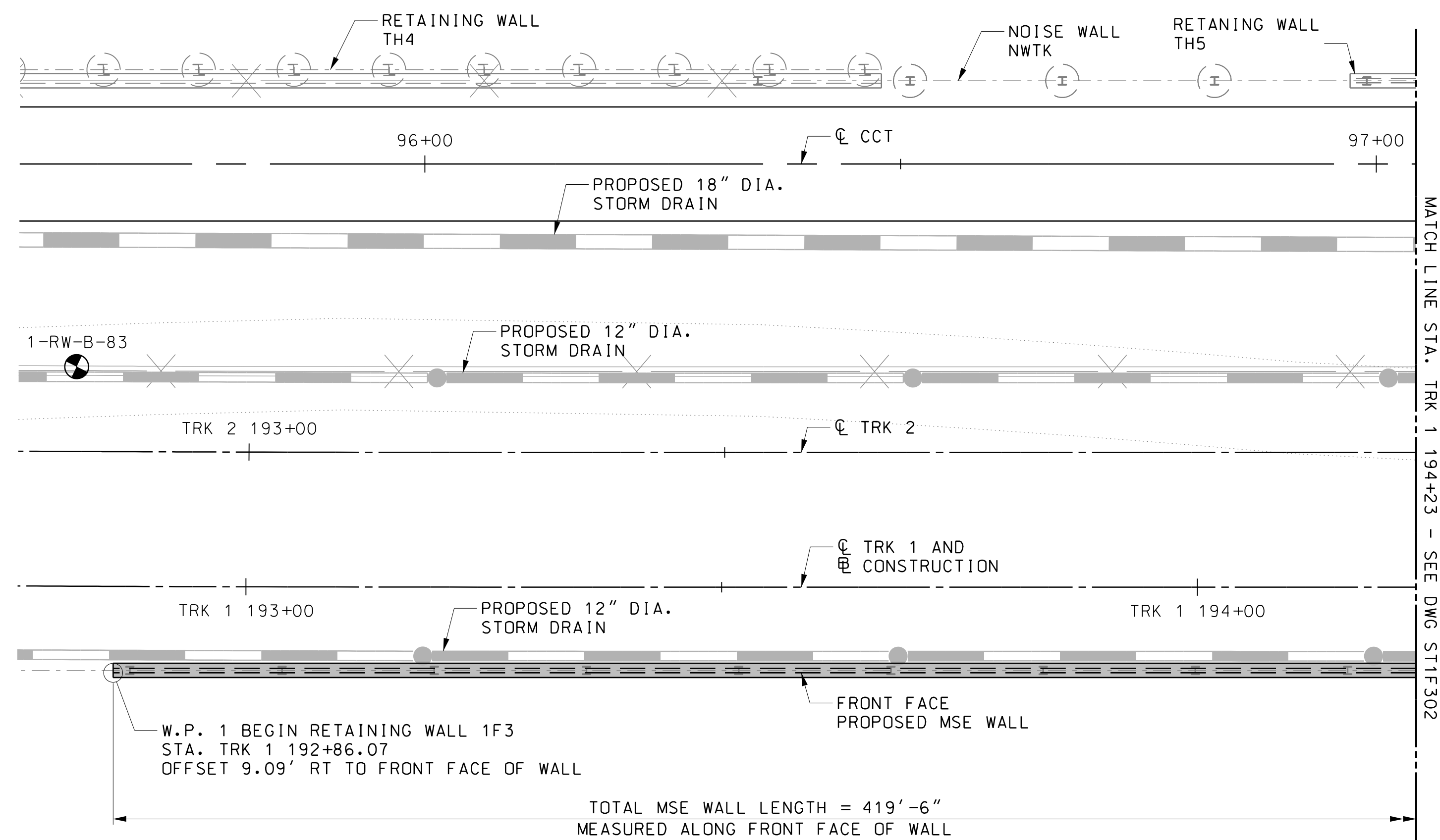
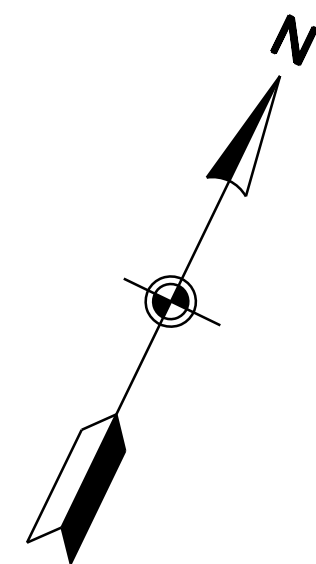
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F203.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



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

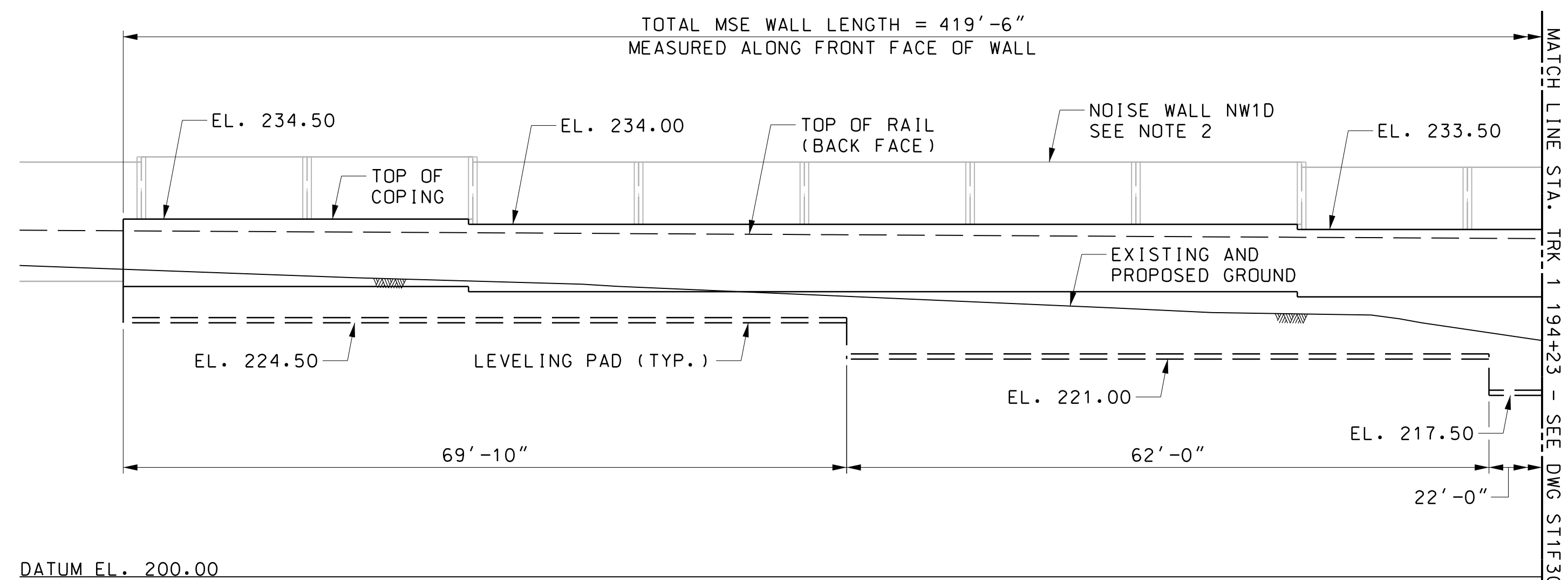
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



PLAN

SCALE: 1"=10'-0"

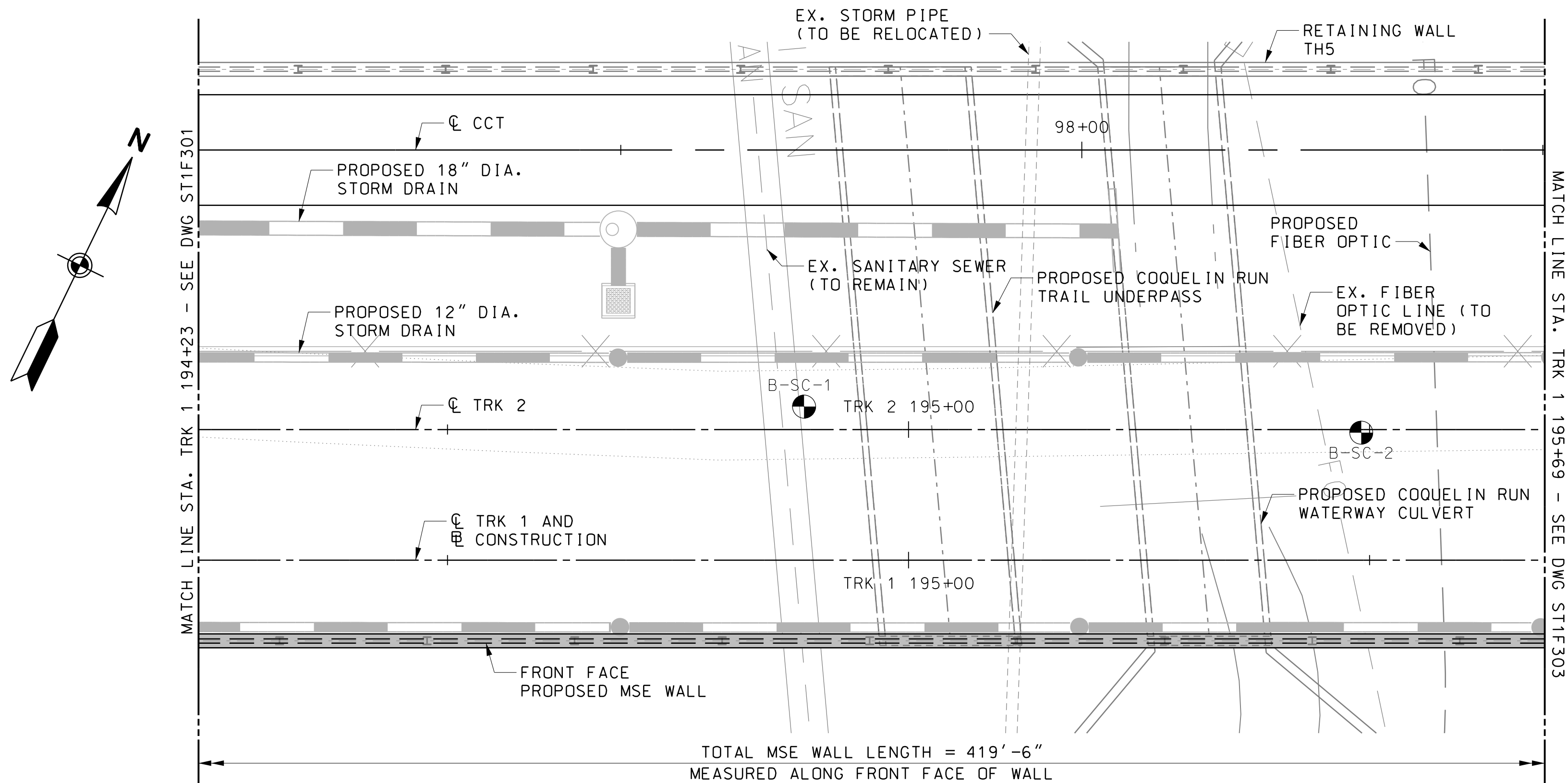


ELEVATION

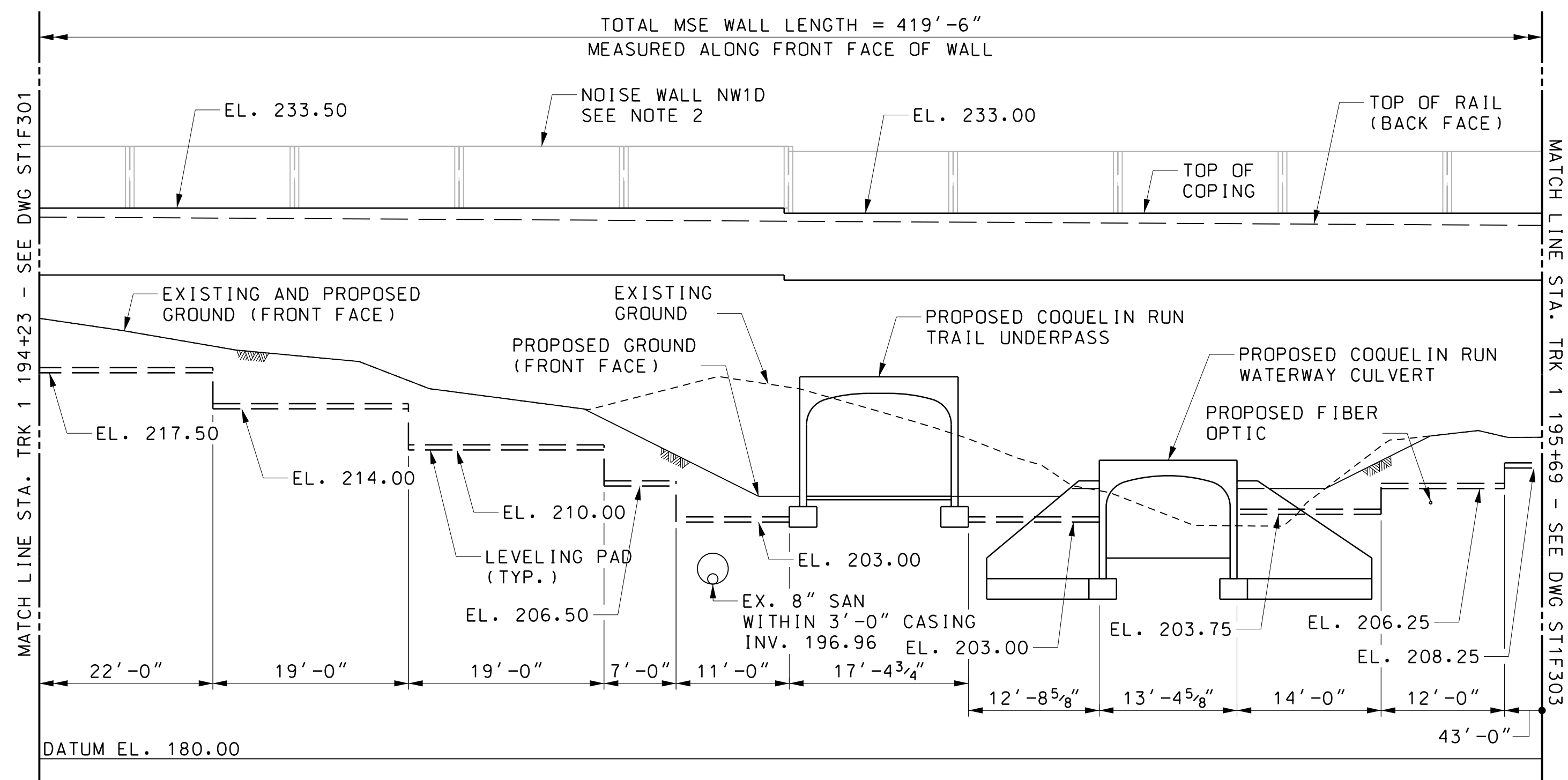
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F304.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



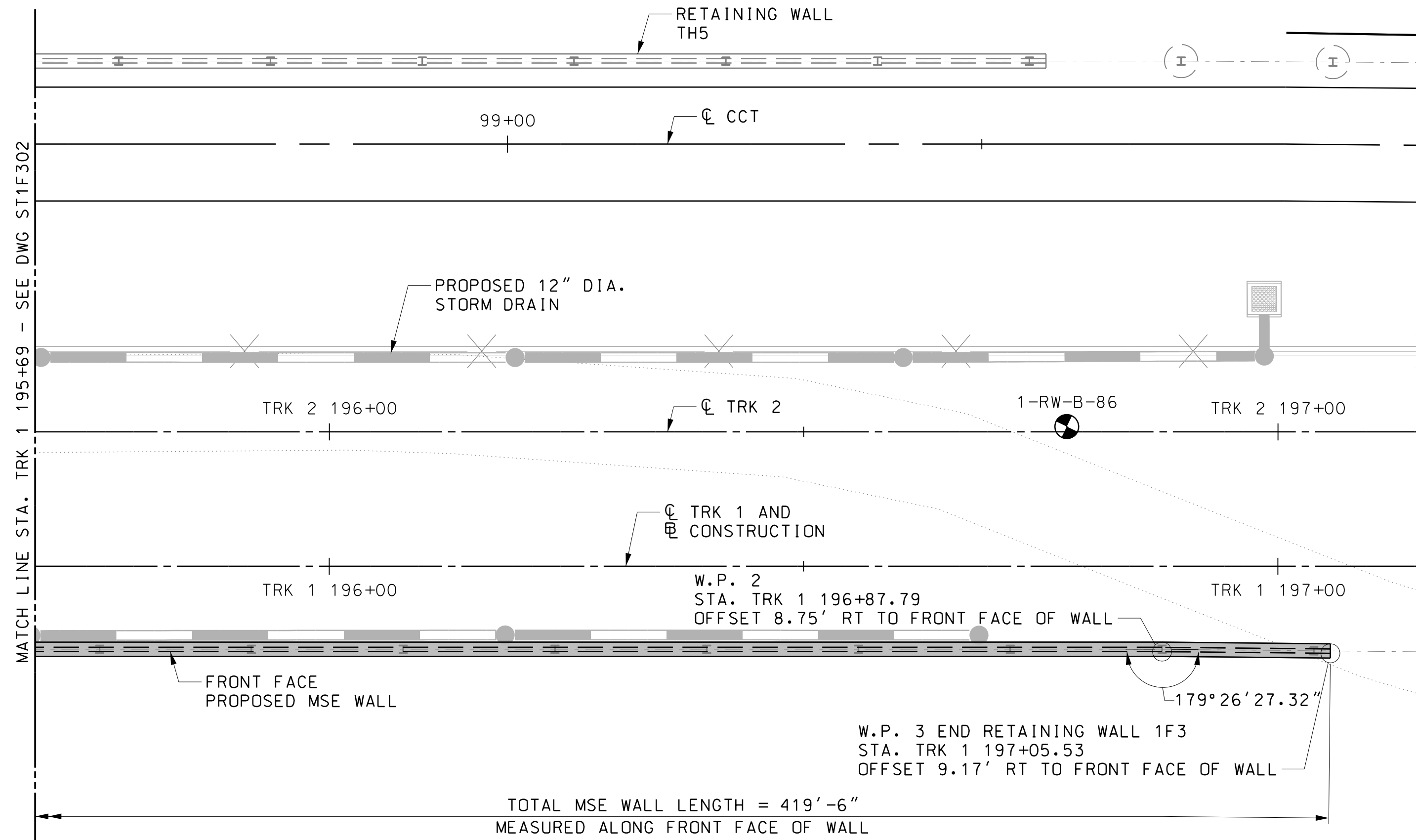
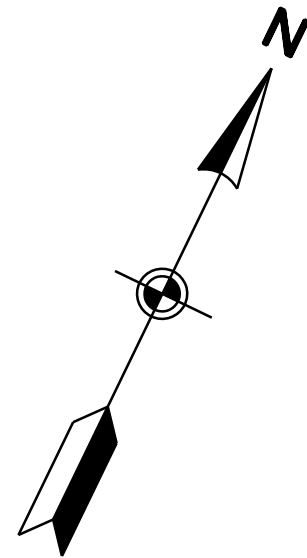
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

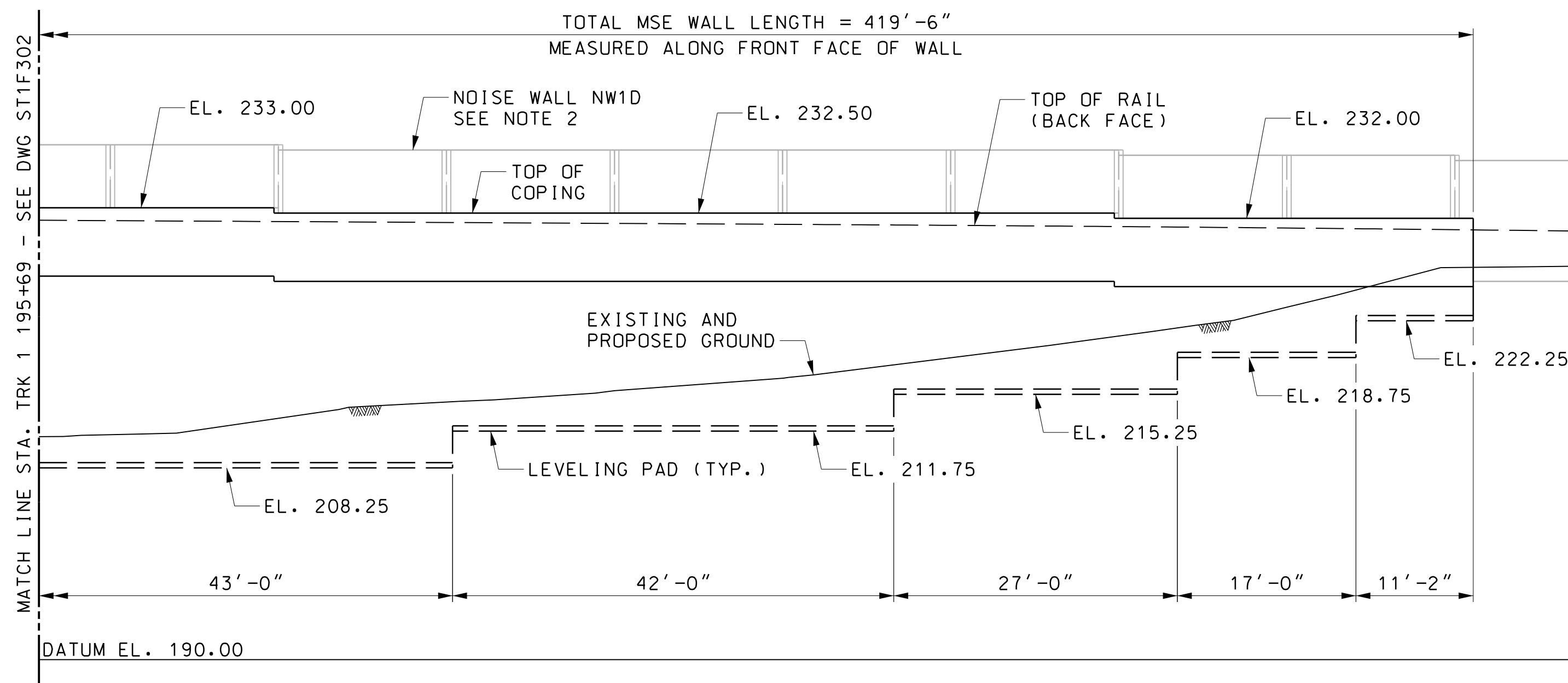
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F304.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.



PLAN

SCALE: 1"=10'-0"

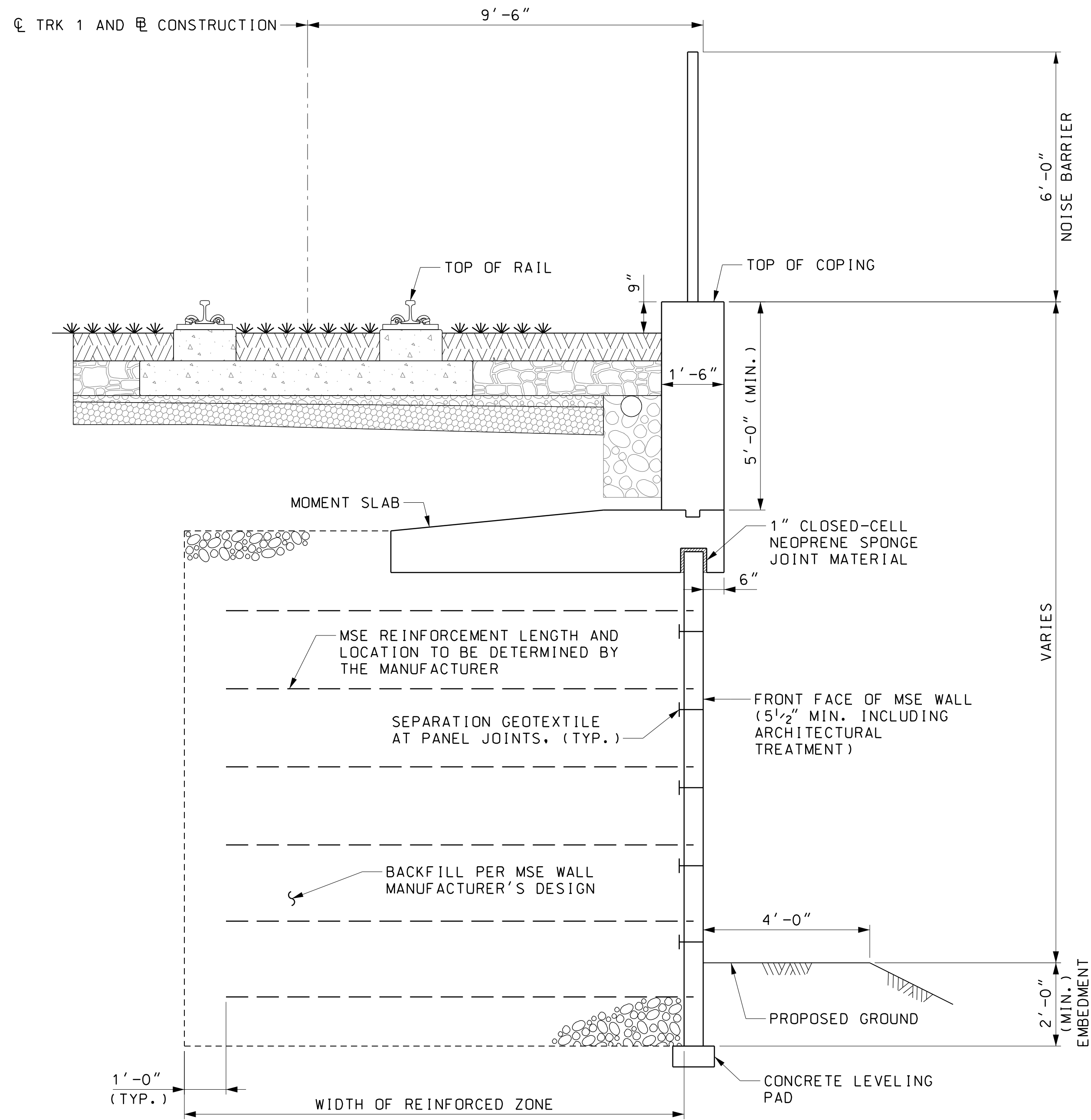


ELEVATION

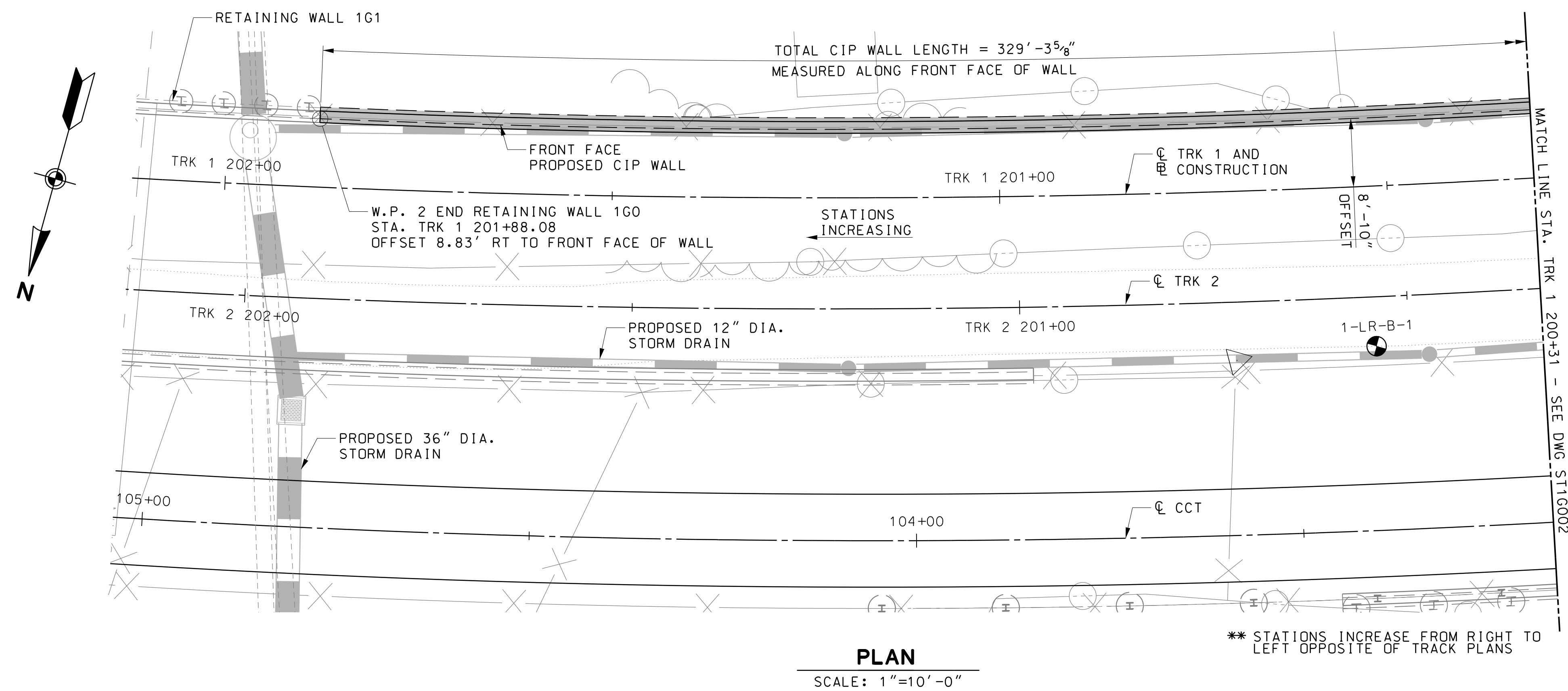
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1F304.
2. FOR NOISE WALL NW1D GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NW1D01 TO NW1D12.

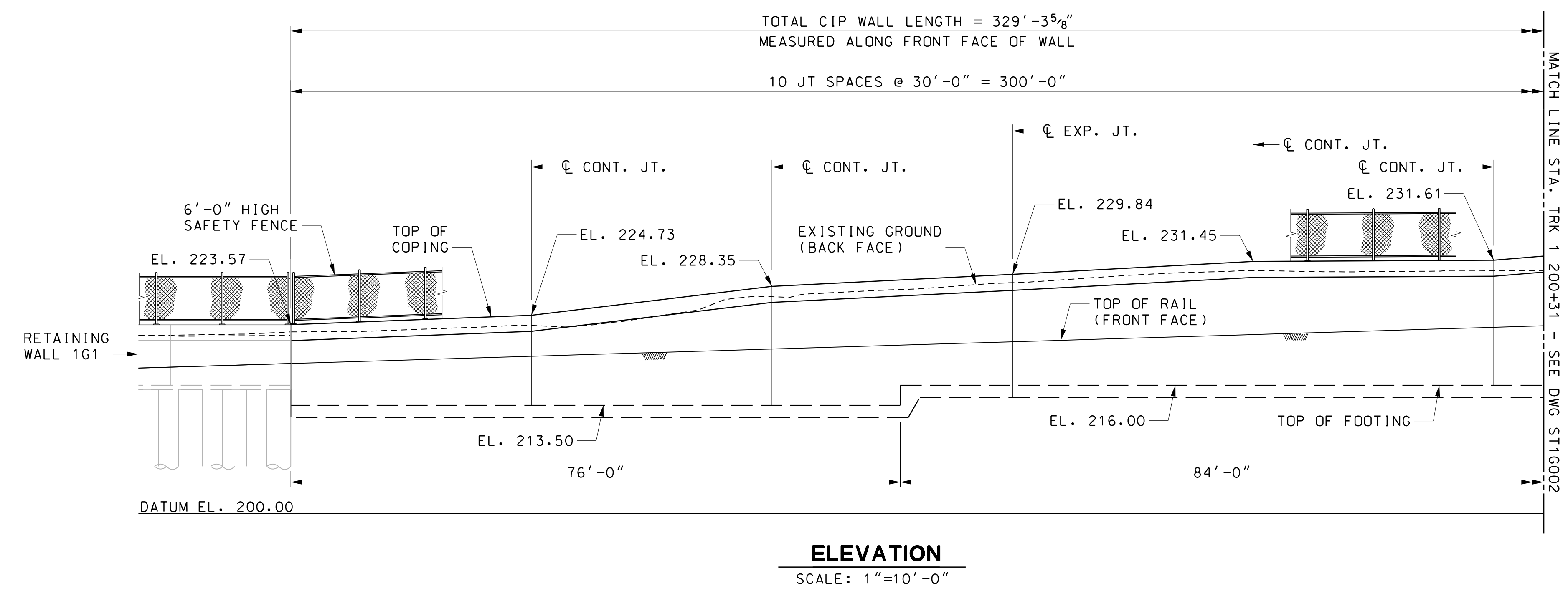


- NOTES:
1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
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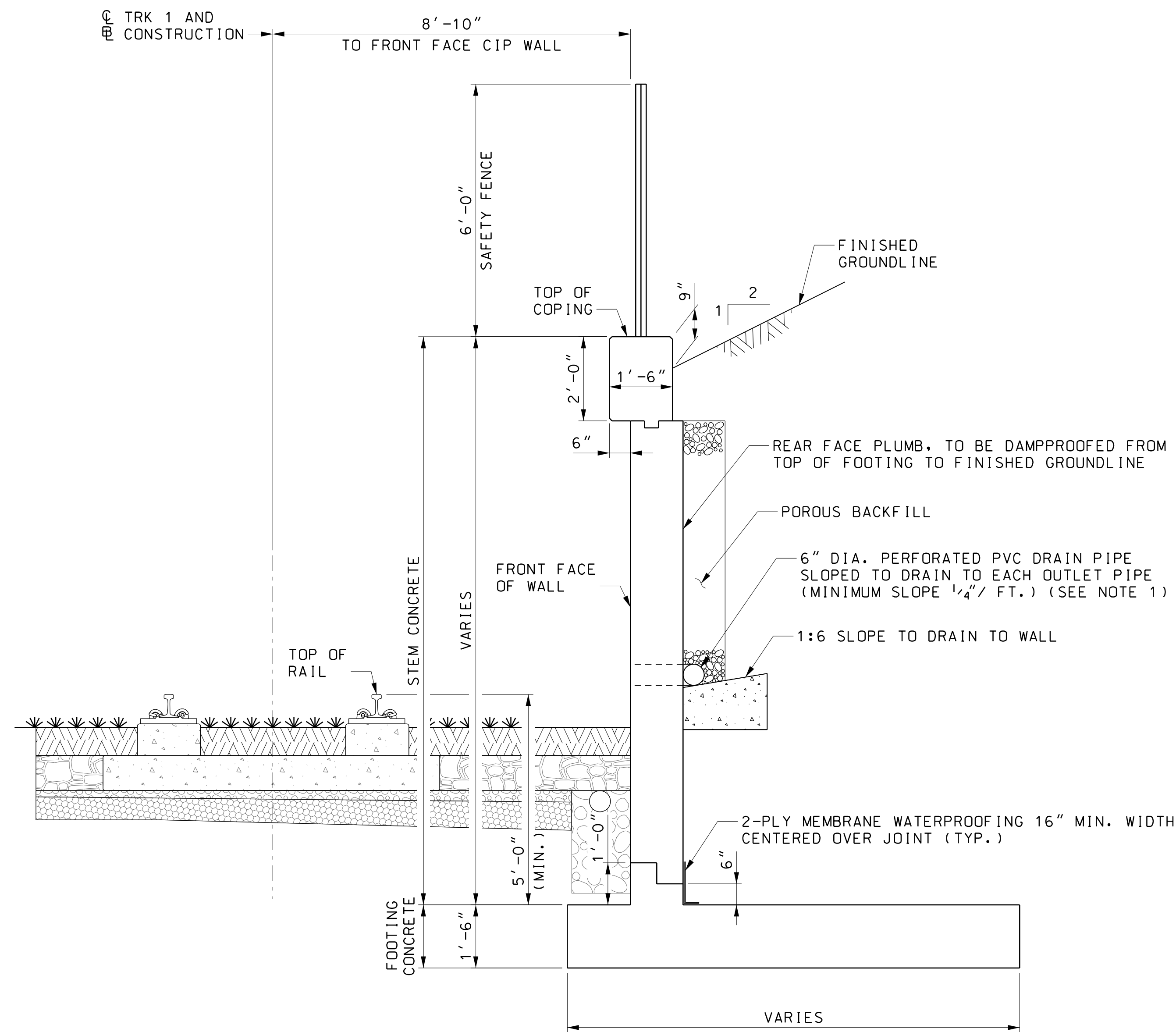
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1G003.



MARYLAND DEPARTMENT OF TRANSPORTATION 			PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	APPR CHECK DRAWN DESIGN MWM BCB CRA	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL		CONTRACT NO. T-1042-0220
						RETAINING WALL - 1G0 GENERAL PLAN & ELEVATION - 1		DRAWING NO. ST1G001
						DATE: DECEMBER 2013 SCALE: 1"=10'-0"		SHEET NO. 184 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 01-West\Structures\G-Ret Walls Coquelin Culvert - Jones Mill\Sheet Files\1042pST1g01.dgn 12/6/2013



NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.

TYPICAL SECTION

SCALE: $\frac{1}{2}" = 1'-0"$

MARYLAND DEPARTMENT OF TRANSPORTATION



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License No. Expiration Date

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DESIGN	MWM
DRAWN	BCB
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

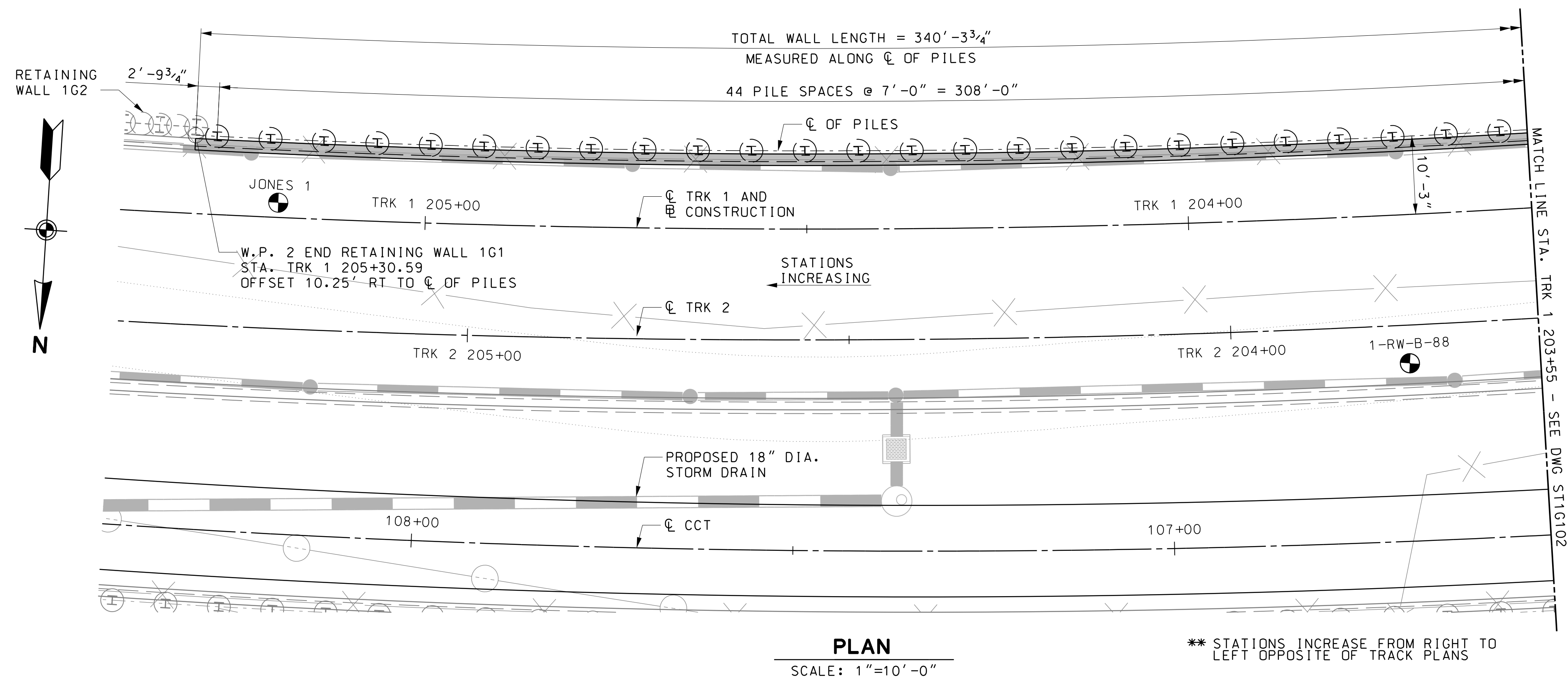
RETAINING WALL – 1G0
TYPICAL SECTION

DATE: DECEMBER 2013

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

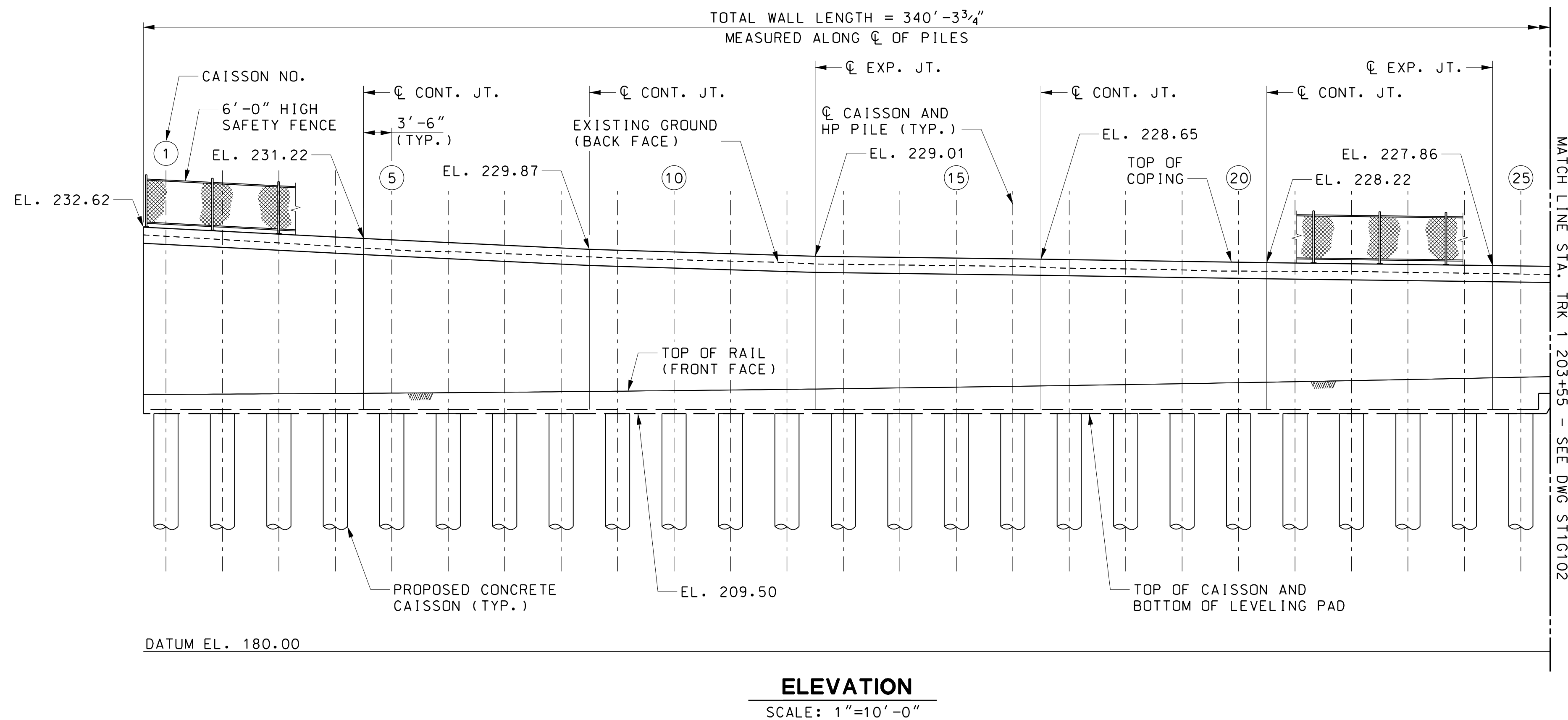
CONTRACT NO.	T-1042-0220
DRAWING NO.	ST1G003
SHEET NO.	186 OF 828

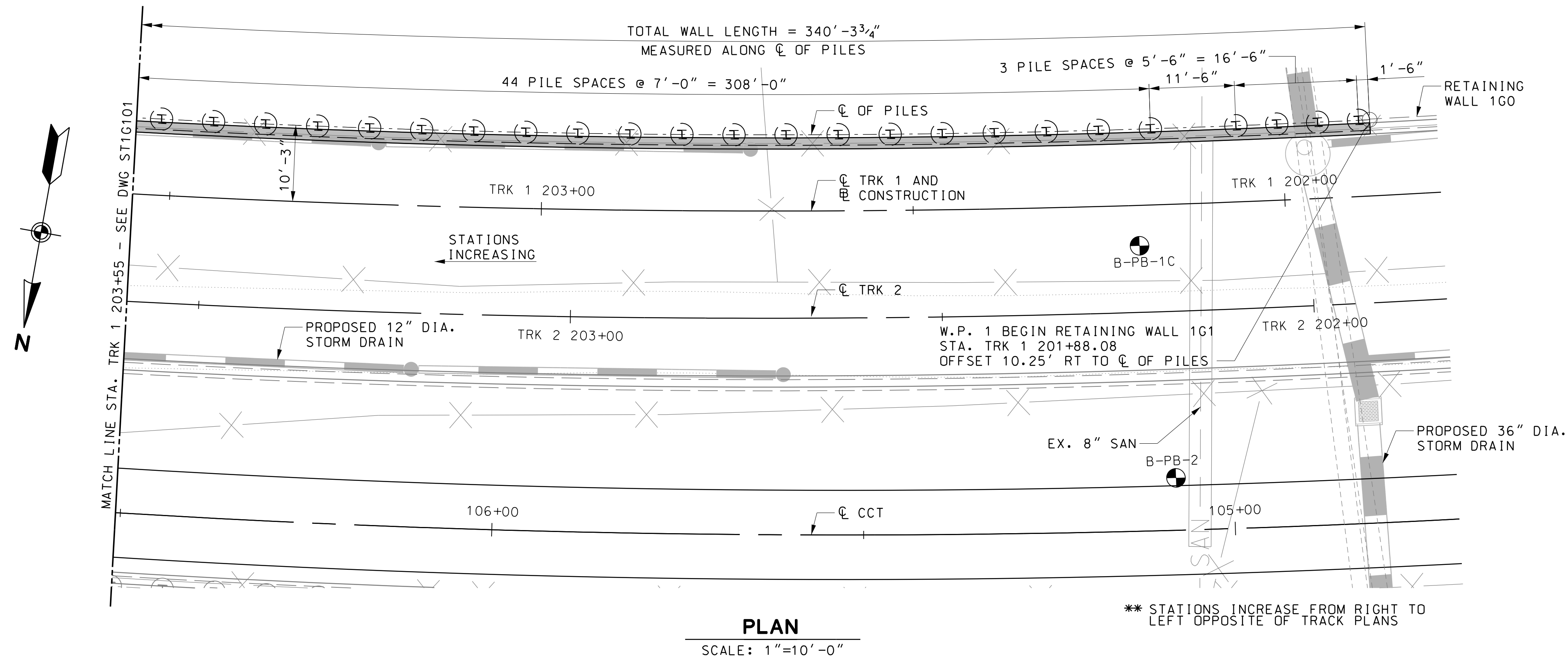
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12/5/2013



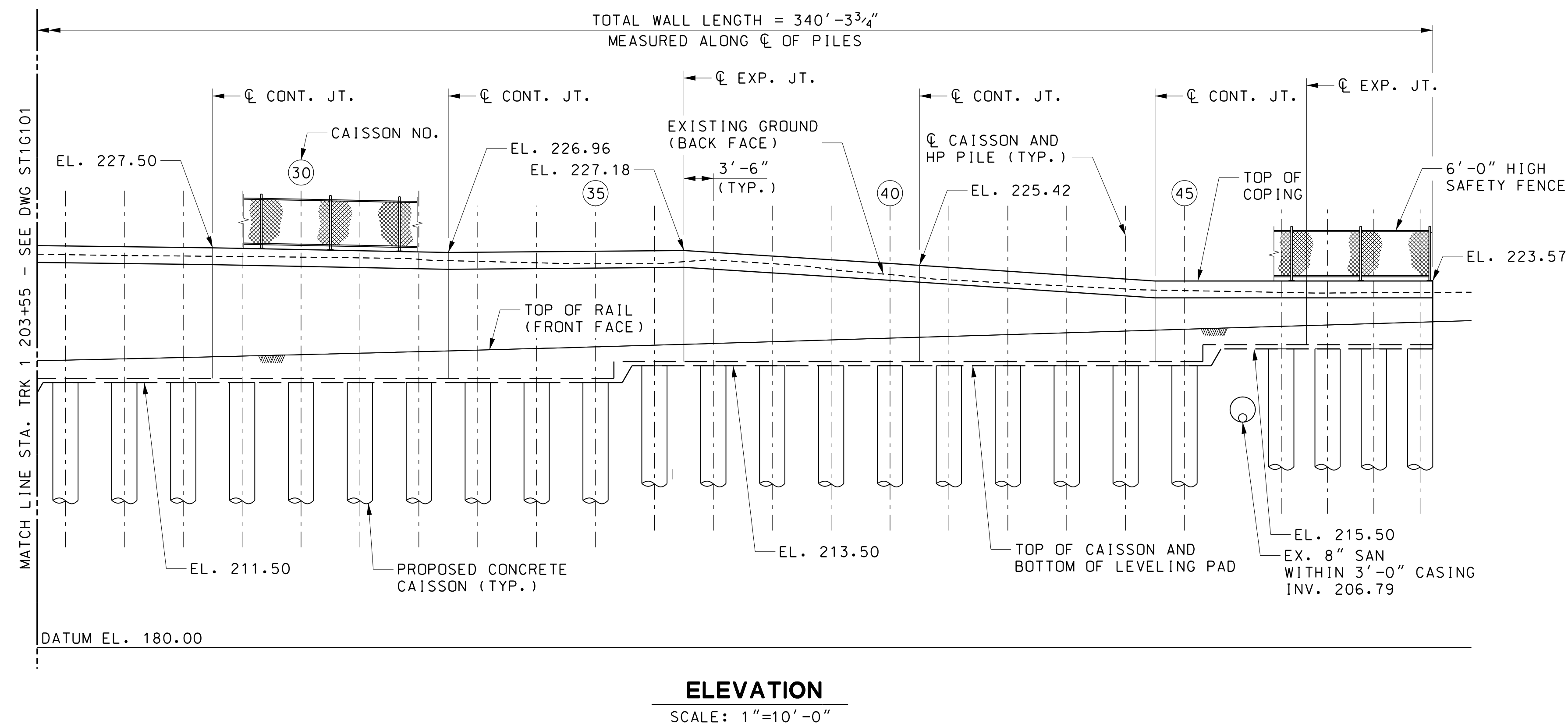
NOTES:

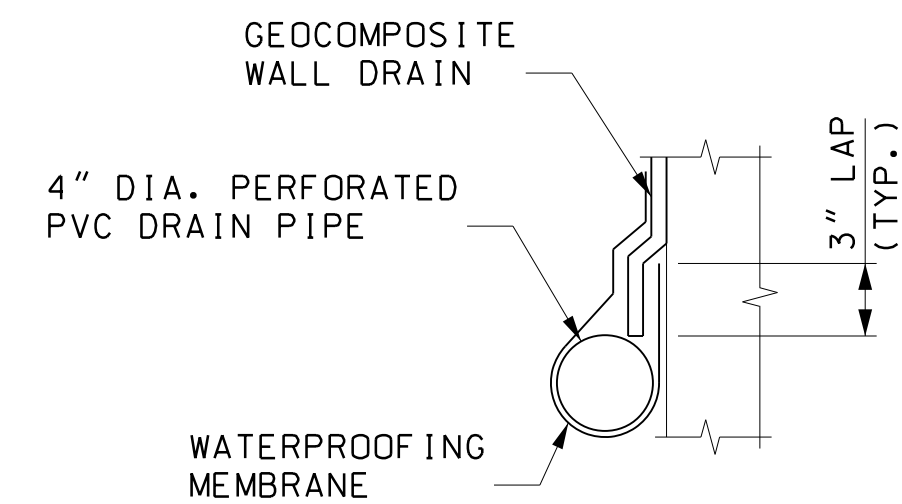
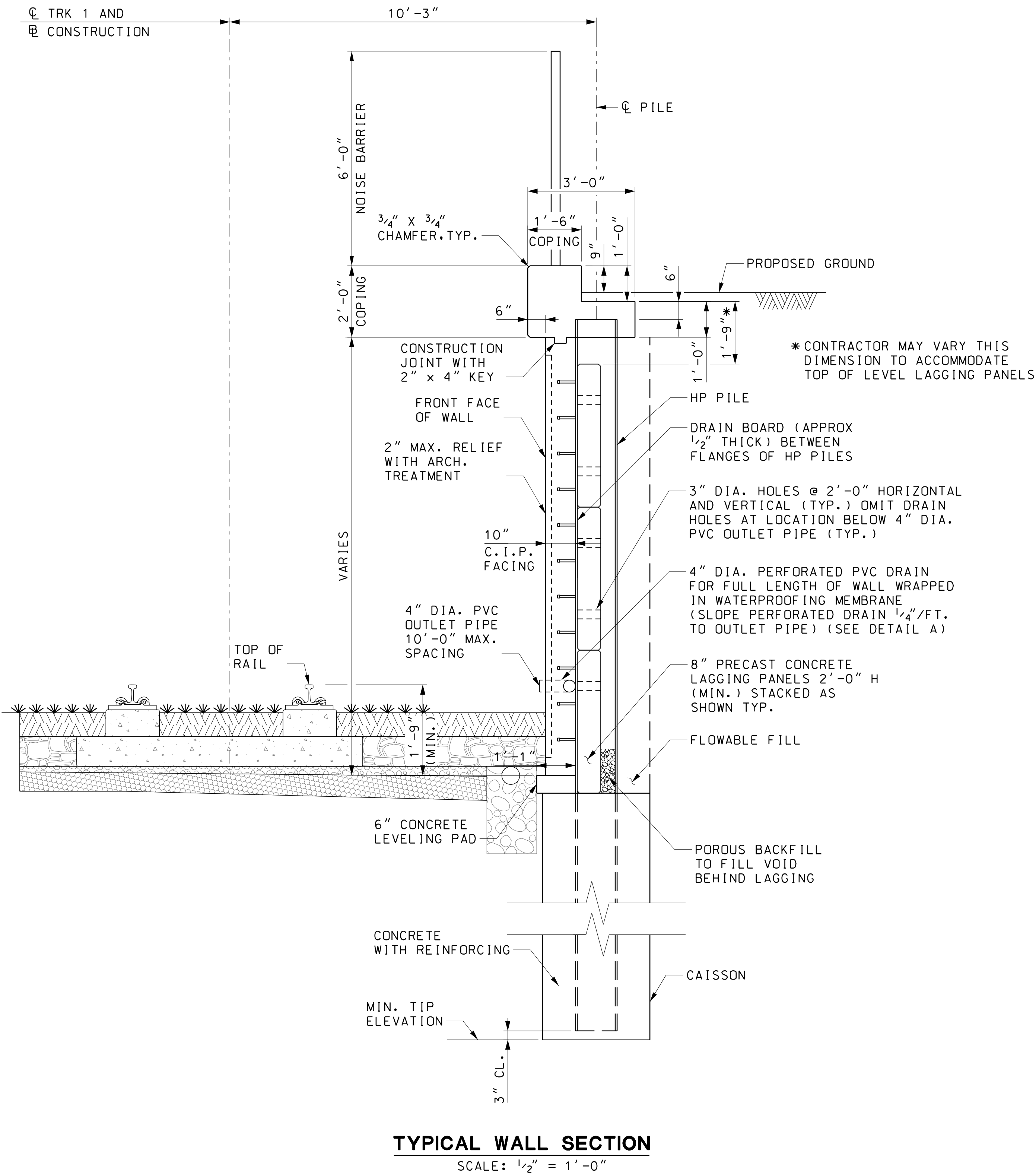
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1G103.



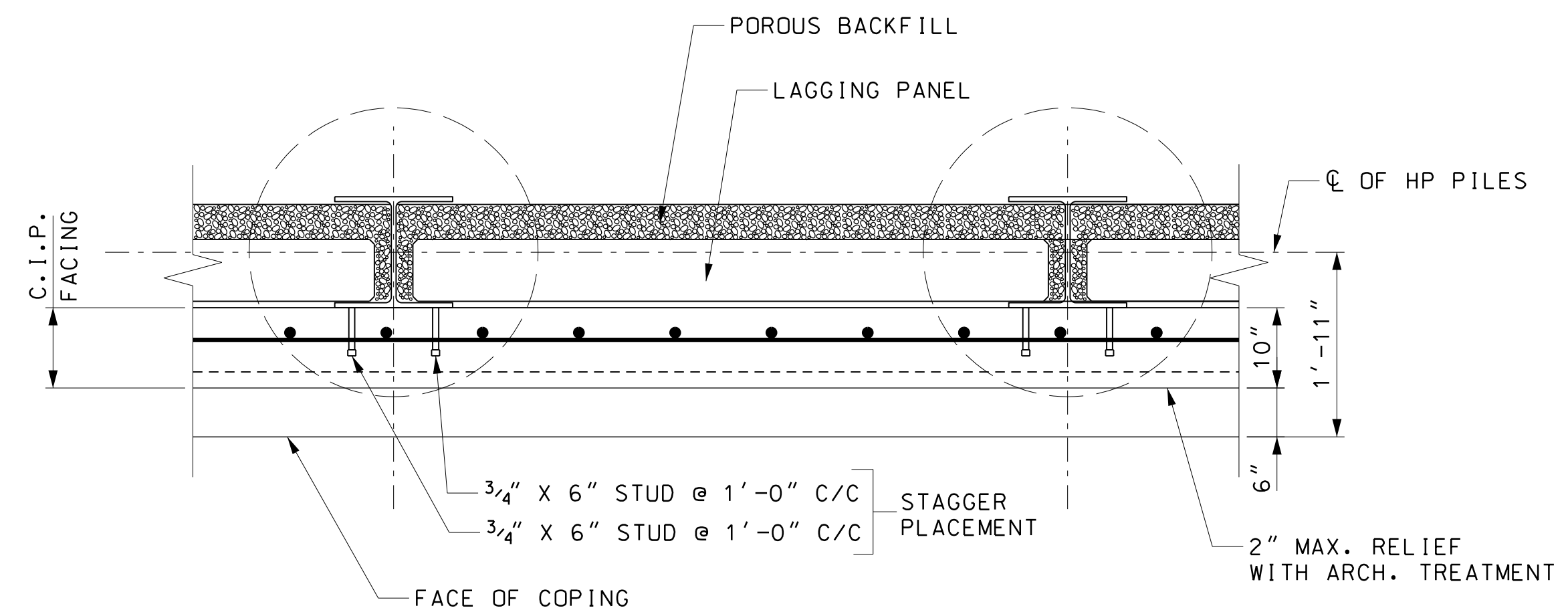


NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1G103.





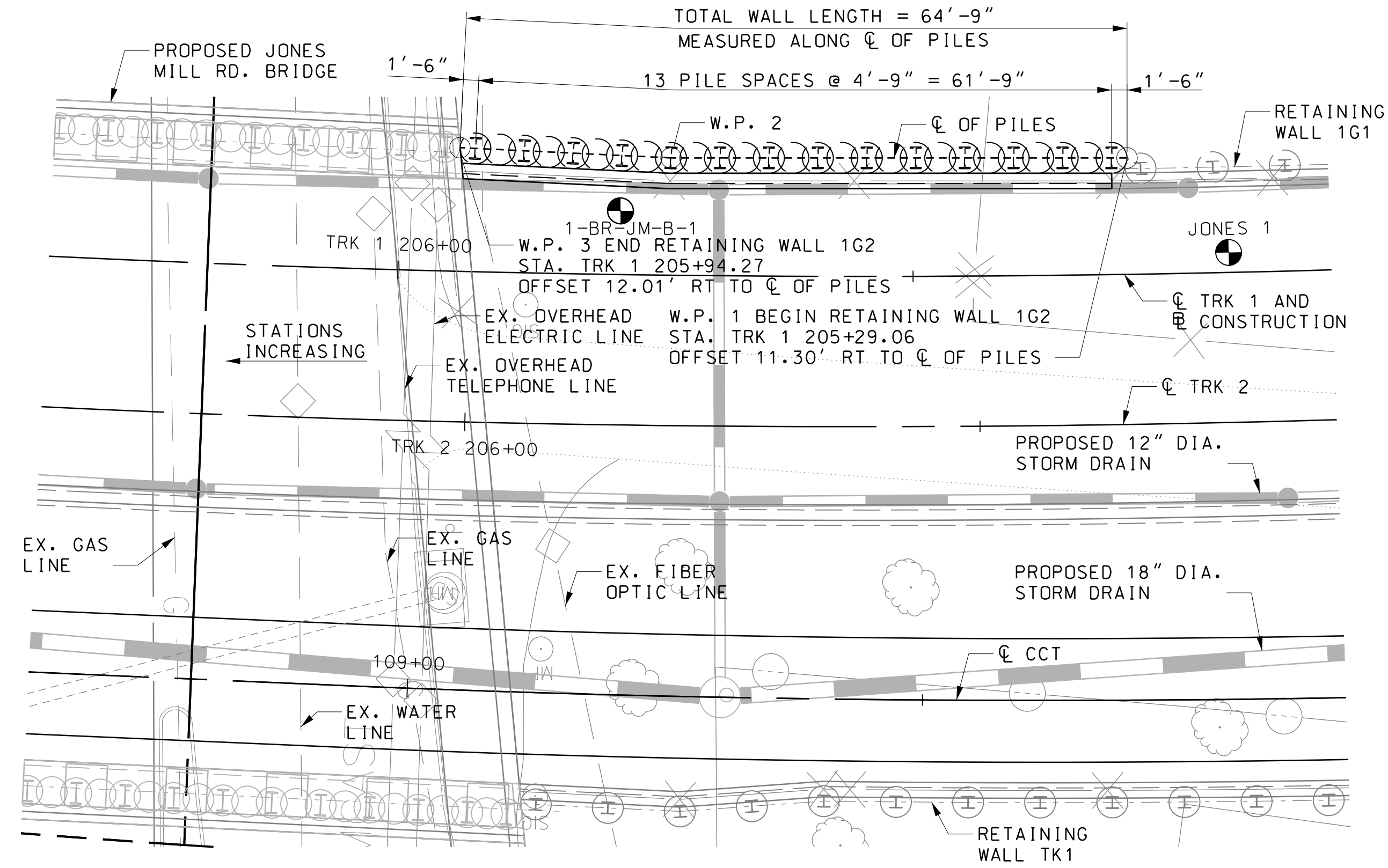
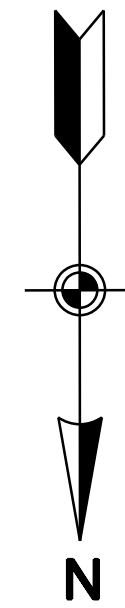
DETAIL A
SCALE: 1 1/2" = 1'-0"



TYPICAL FACING DETAIL
SCALE: 3/4" = 1'-0"

PROPOSED SEQUENCE OF CONSTRUCTION:

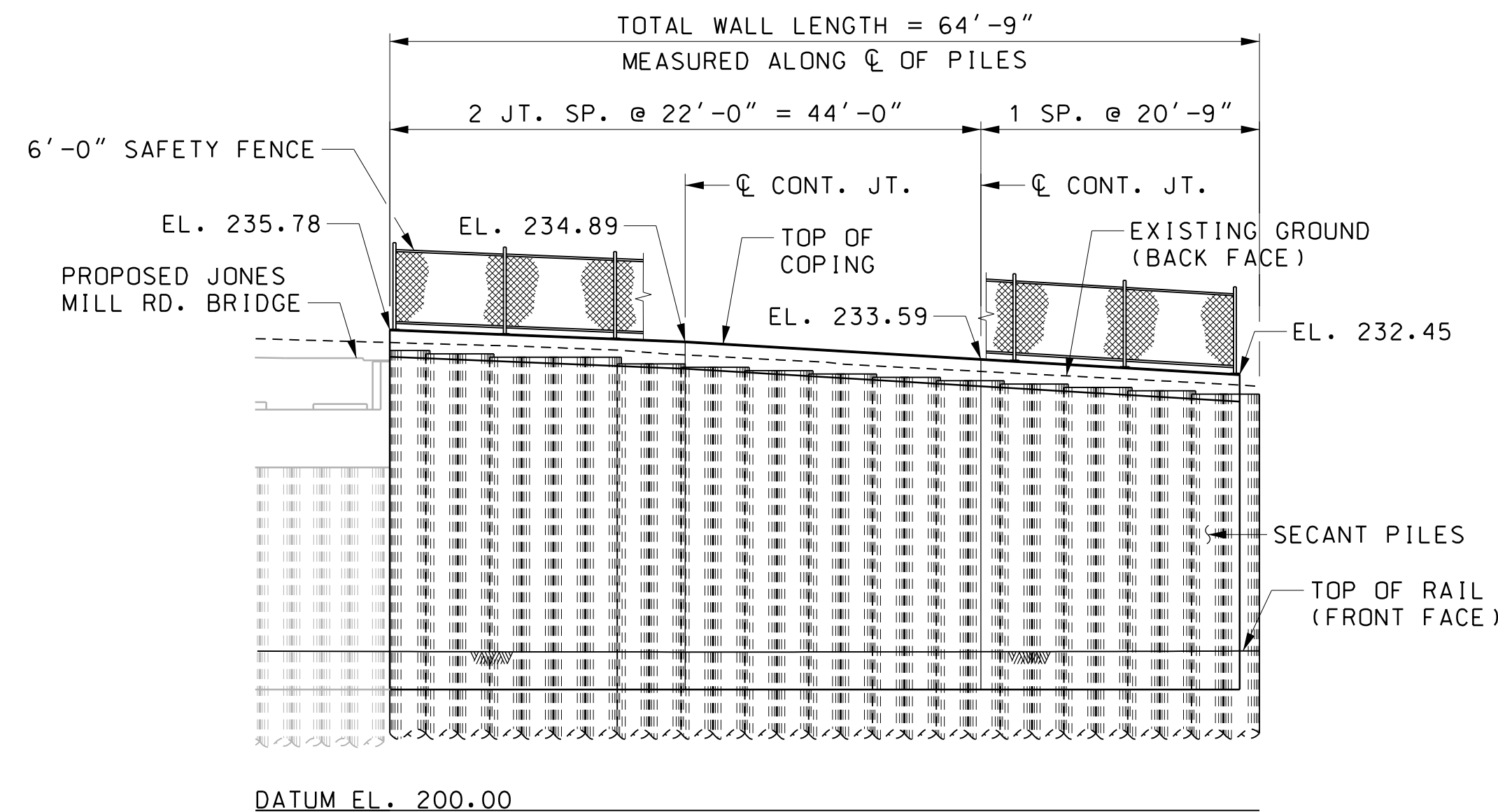
1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON). FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE CONCRETE CAISSONS.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.



PLAN

SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

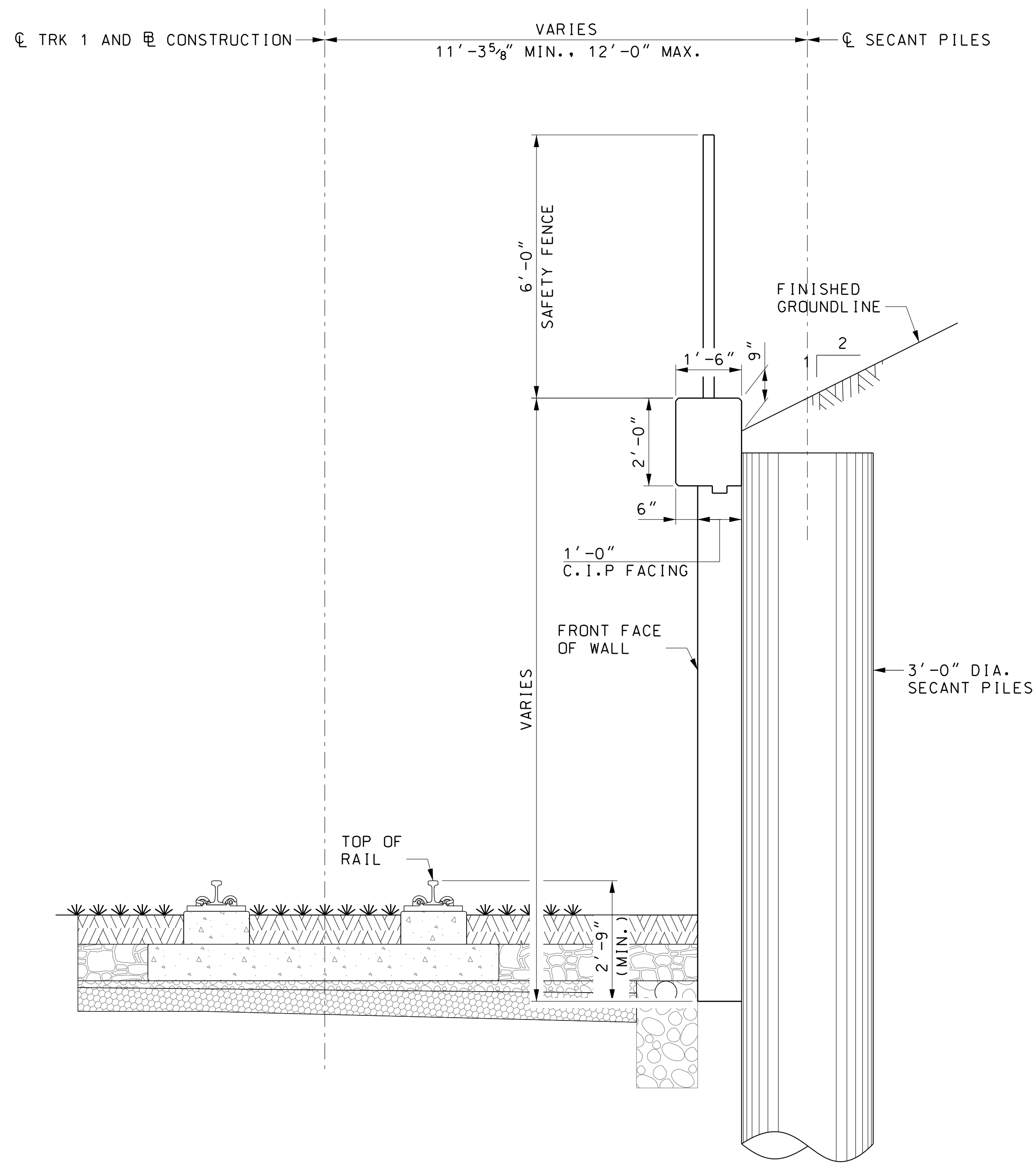


ELEVATION

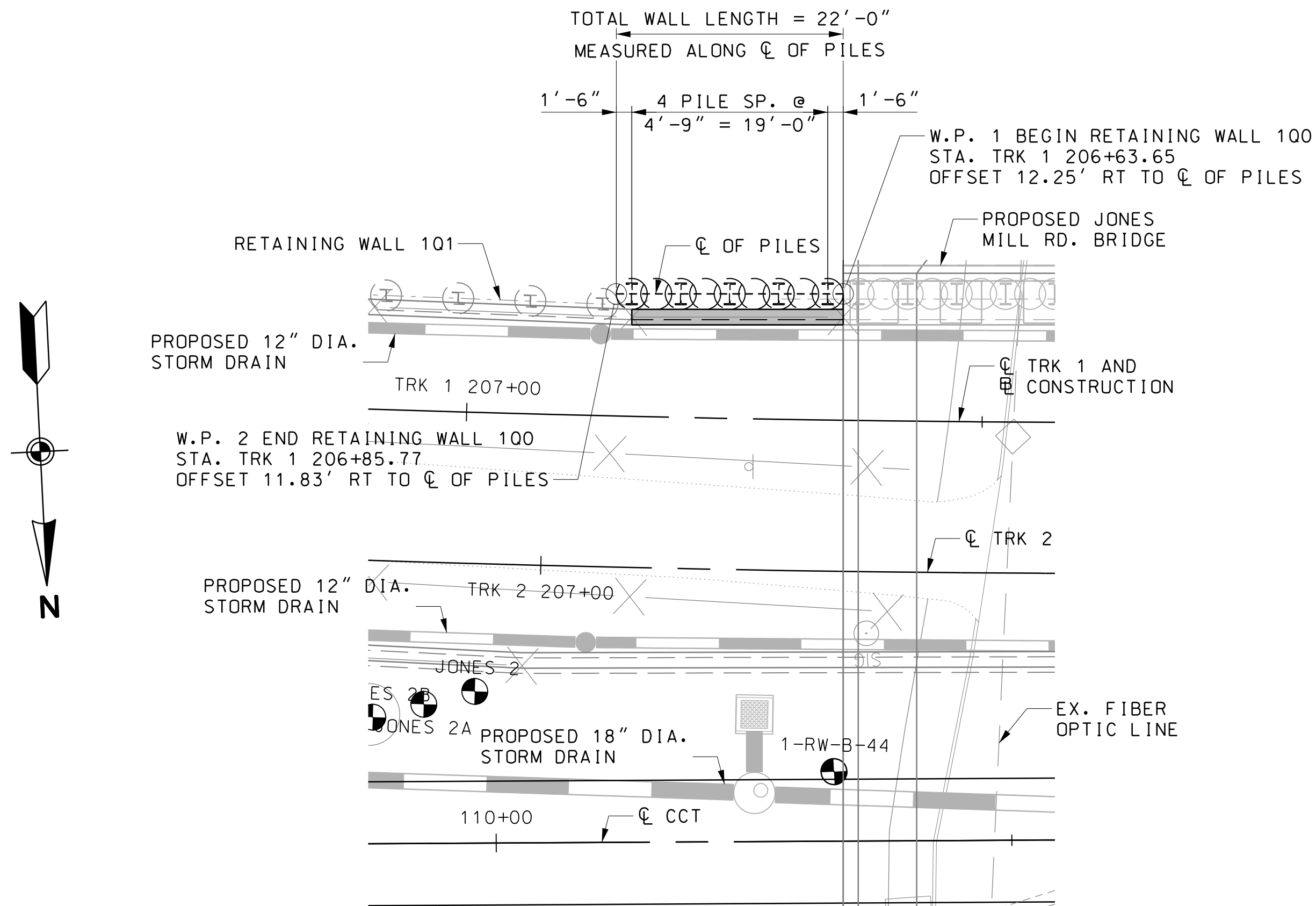
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1G202.
2. SECANT PILES FOR WALL 1G2 SHALL BE CONSTRUCTED AT SAME TIME AS SECANT PILES IN JONES MILL ROAD BRIDGE ABUTMENT.

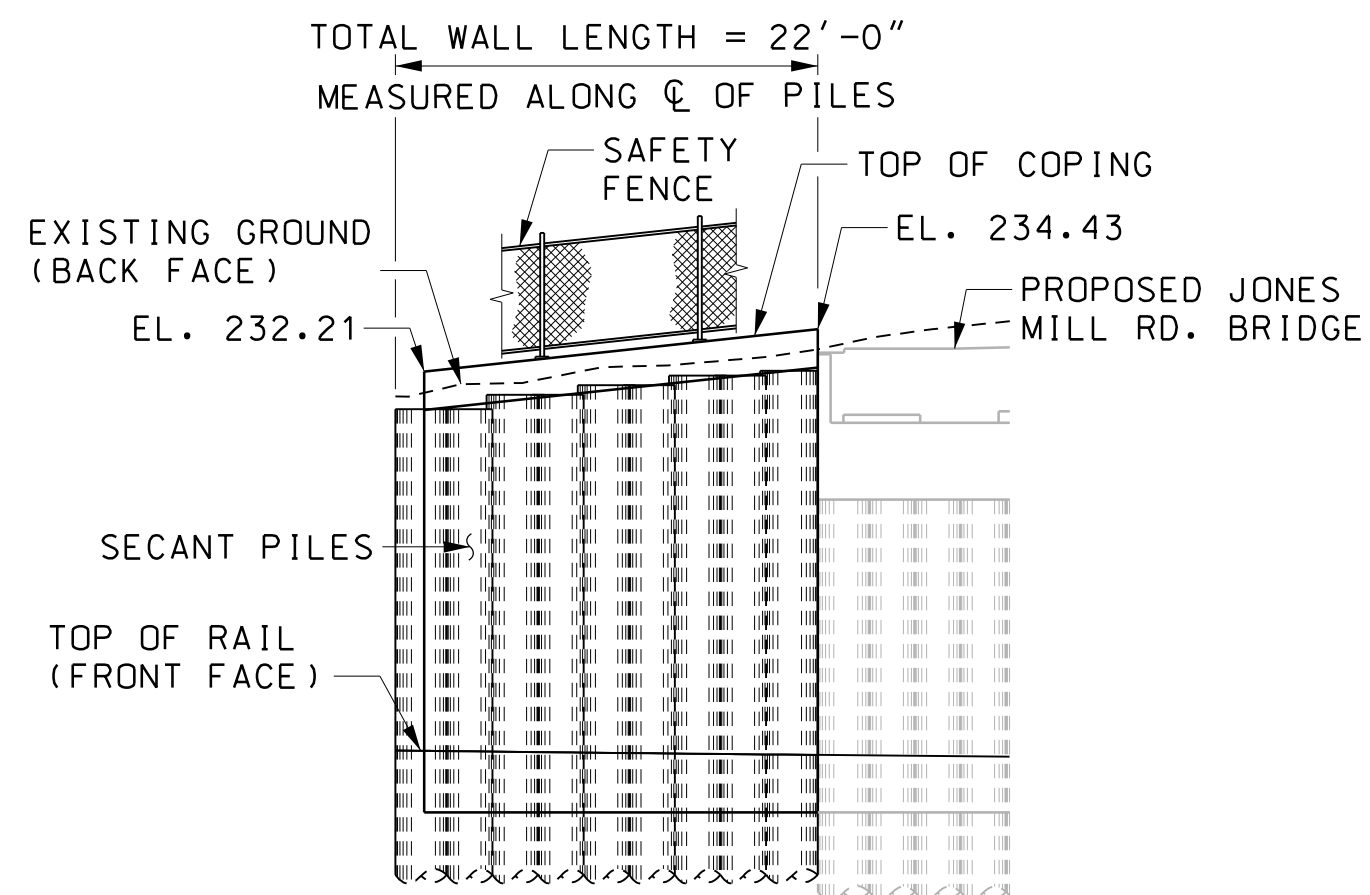


TYPICAL SECTION
SCALE: 1/2" = 1'-0"



PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST10002.
2. SECANT PILES SHALL BE CONSTRUCTED AT SAME TIME AS SECANT PILES IN JONES MILL ROAD BRIDGE ABUTMENT.

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 1Q0
GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013

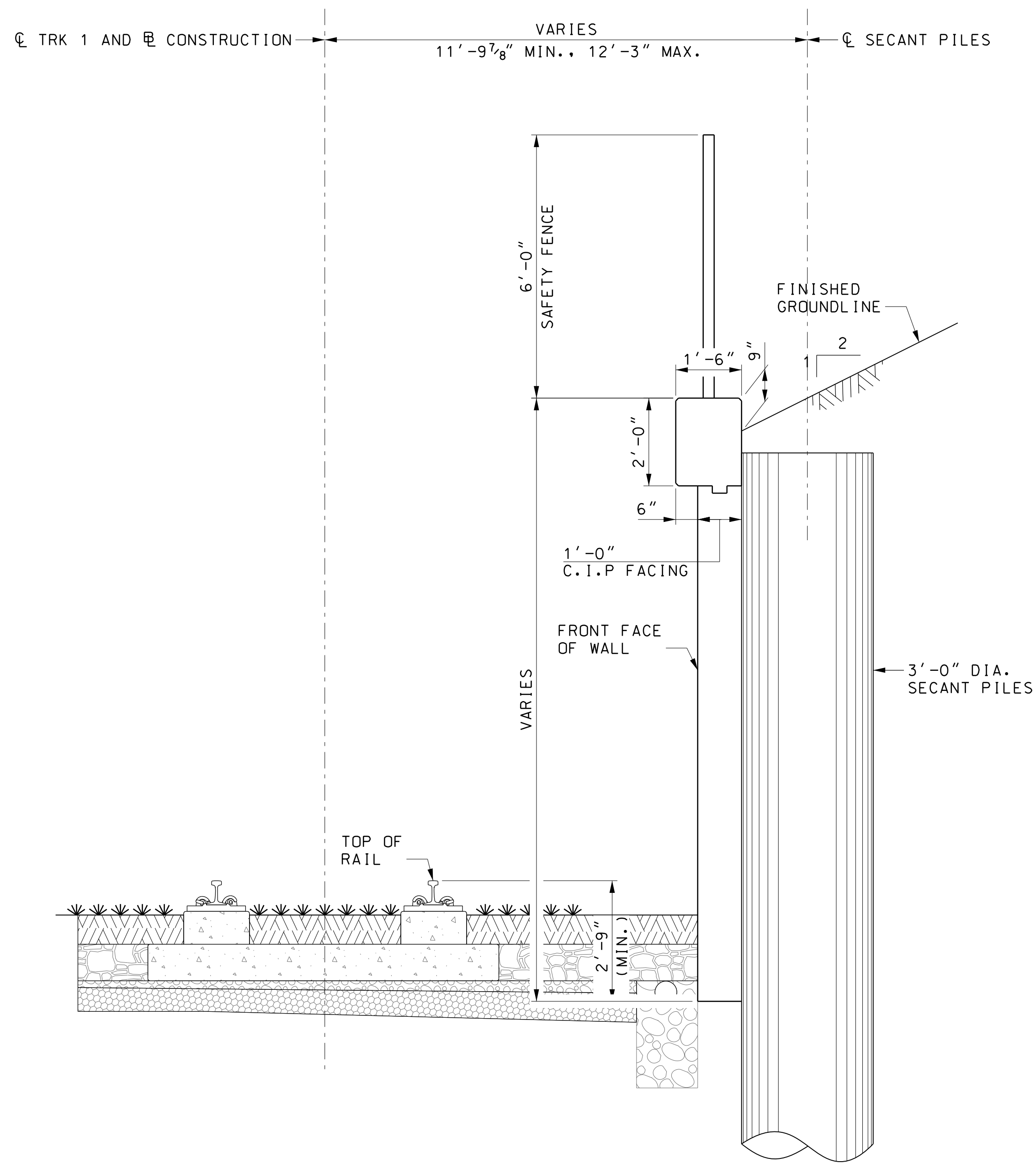
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CONTRACT NO.
T-1042-0220

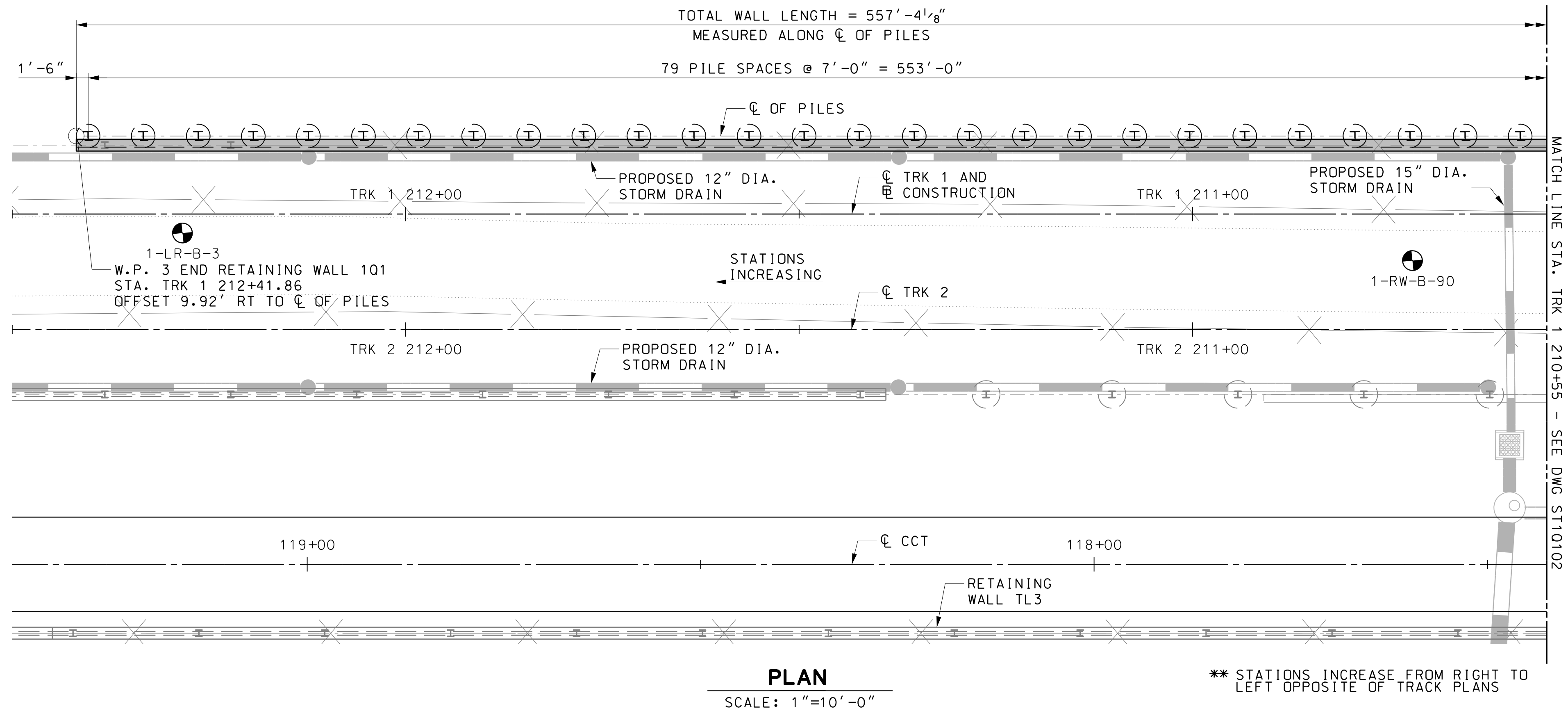
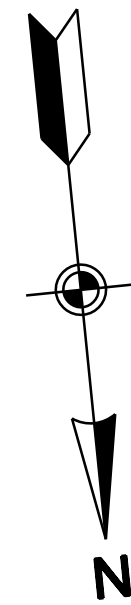
DRAWING NO.
ST1Q001

SHEET NO.
192 OF 828

c:\pwworking\mtpow\mci-brian_burns\00125147\1042pST1q01.dgn
12/5/2013

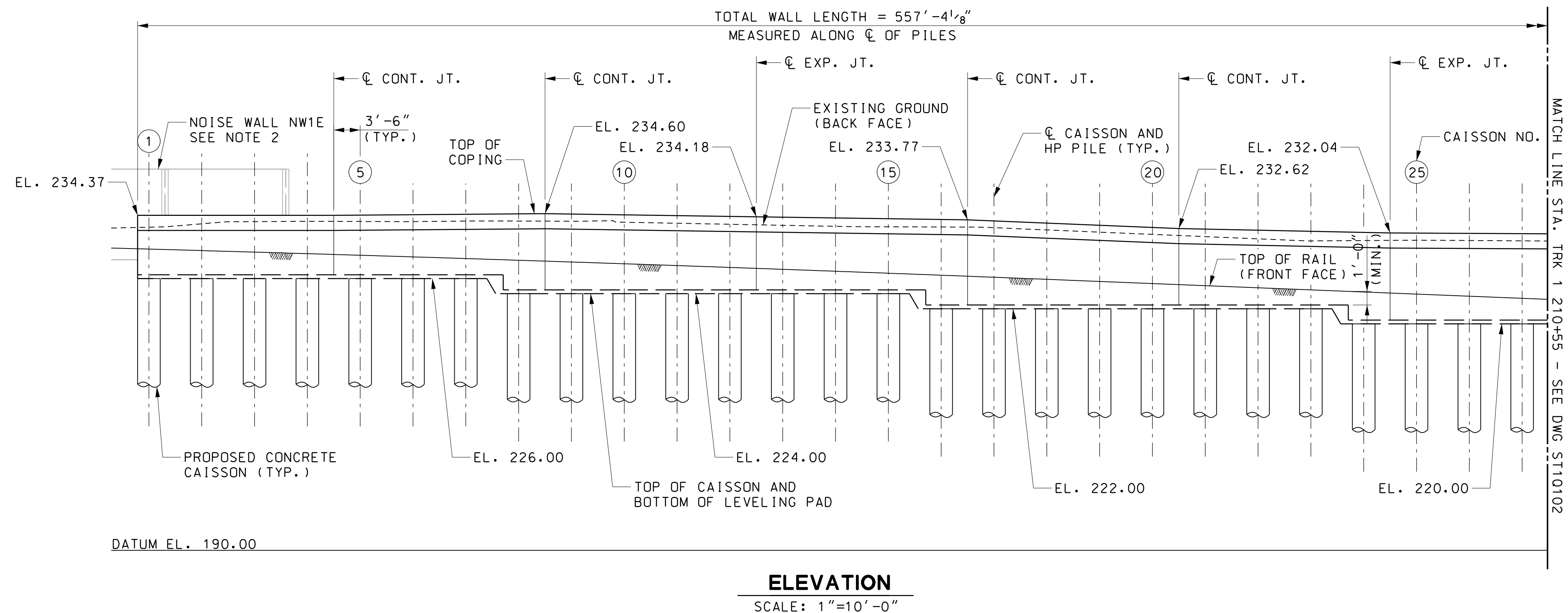


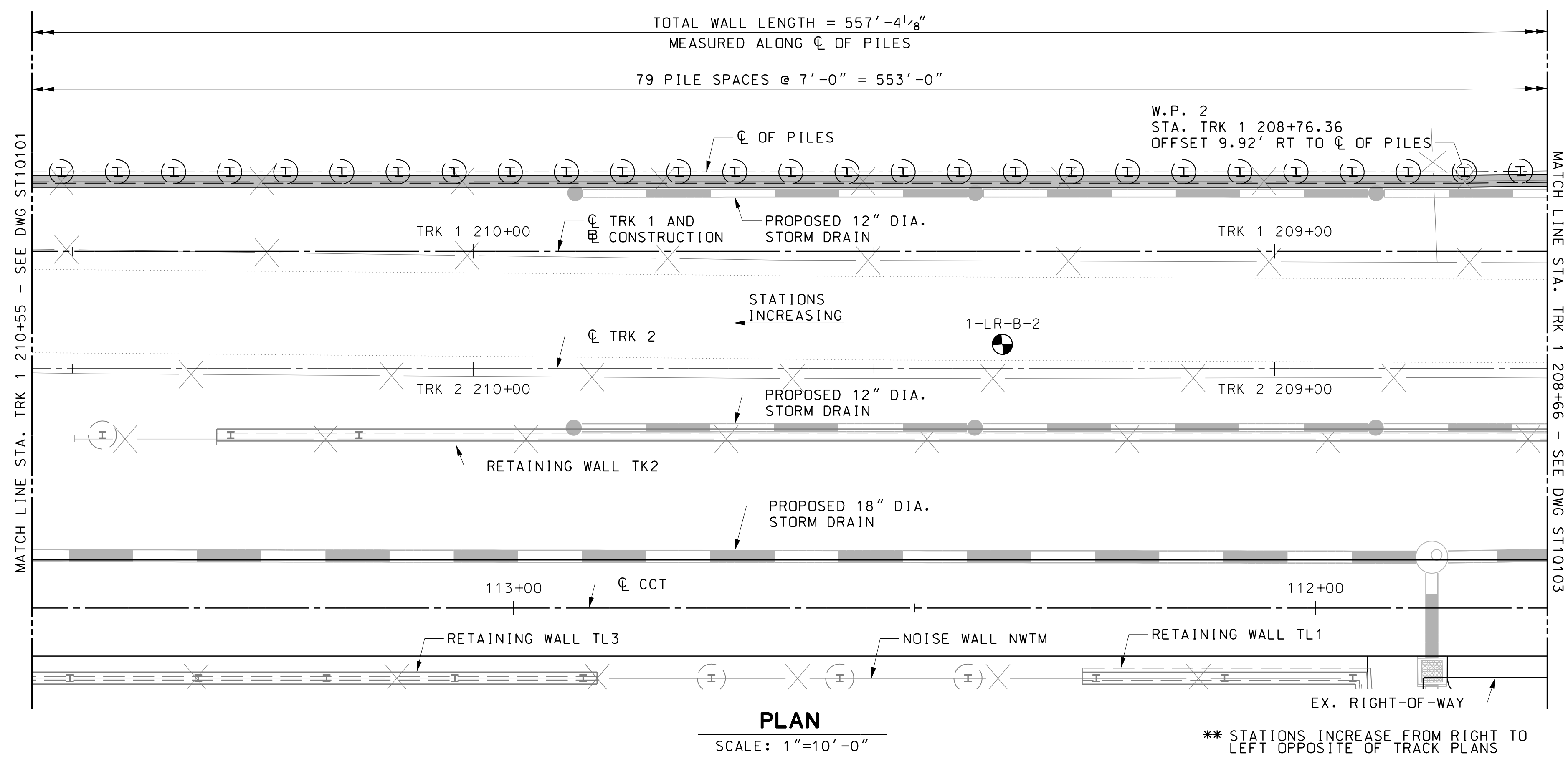
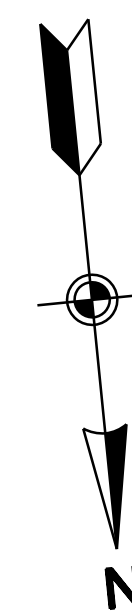
TYPICAL SECTION
SCALE: 1/2" = 1'-0"



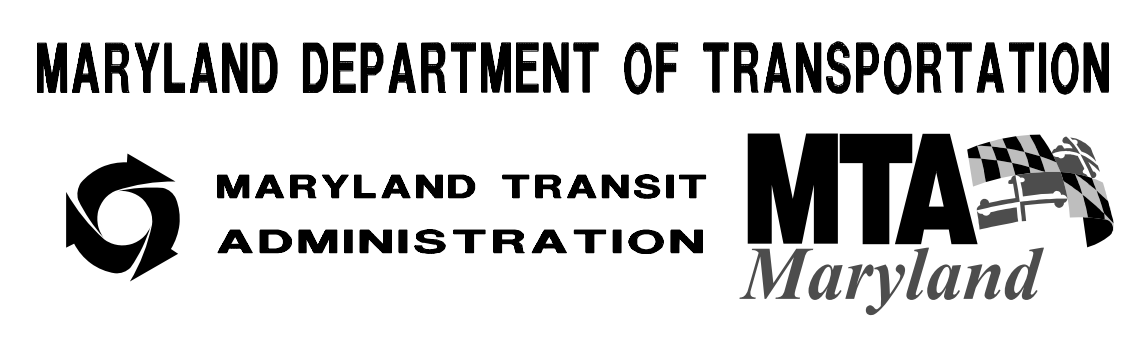
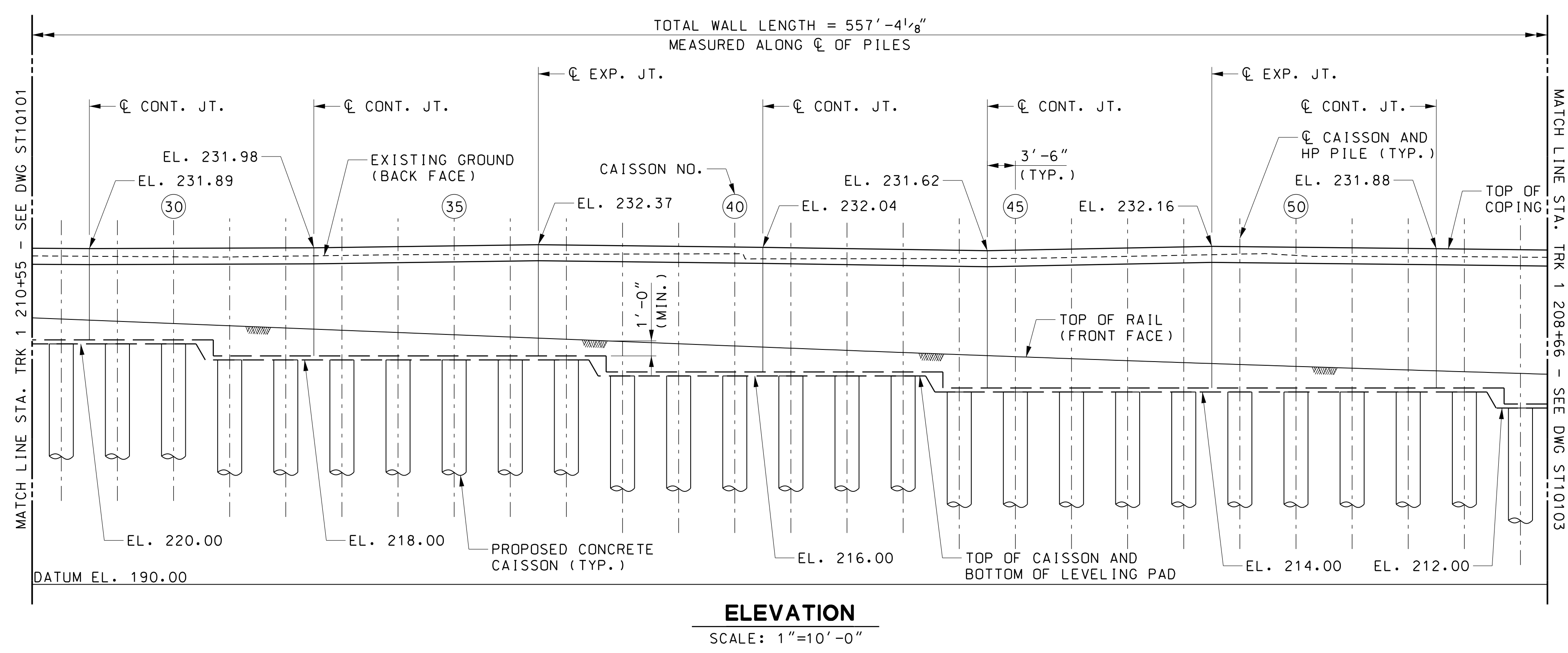
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1Q104.
2. FOR NOISE WALL NW1E GENERAL PLAN AND ELEVATION, SEE DWG. NO. NW1E01.





NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST10104.



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License No. Expiration Date

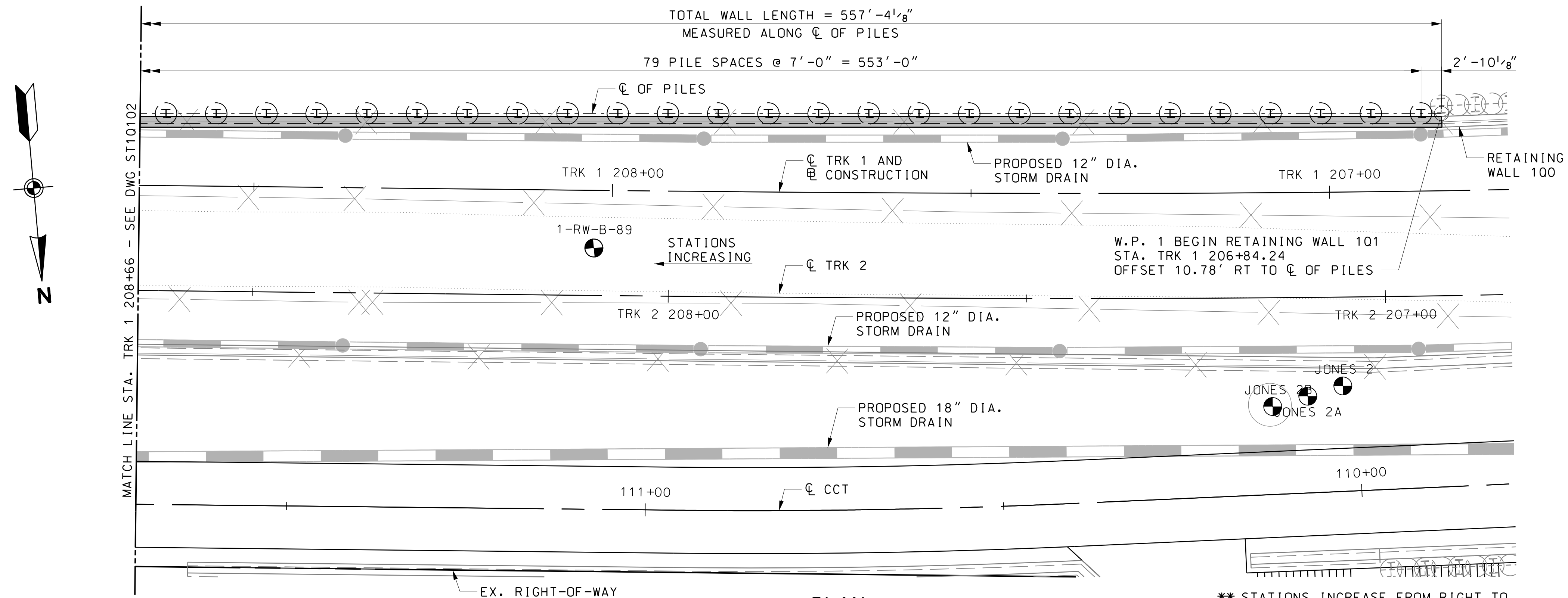
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APPR	CHECK	DRAWN	DESIGN
		MWM	
		BCB	
		CRA	

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
RETAINING WALL - 1Q1 GENERAL PLAN & ELEVATION - 2	
DATE: DECEMBER 2013	SCALE: 1" = 10'-0"

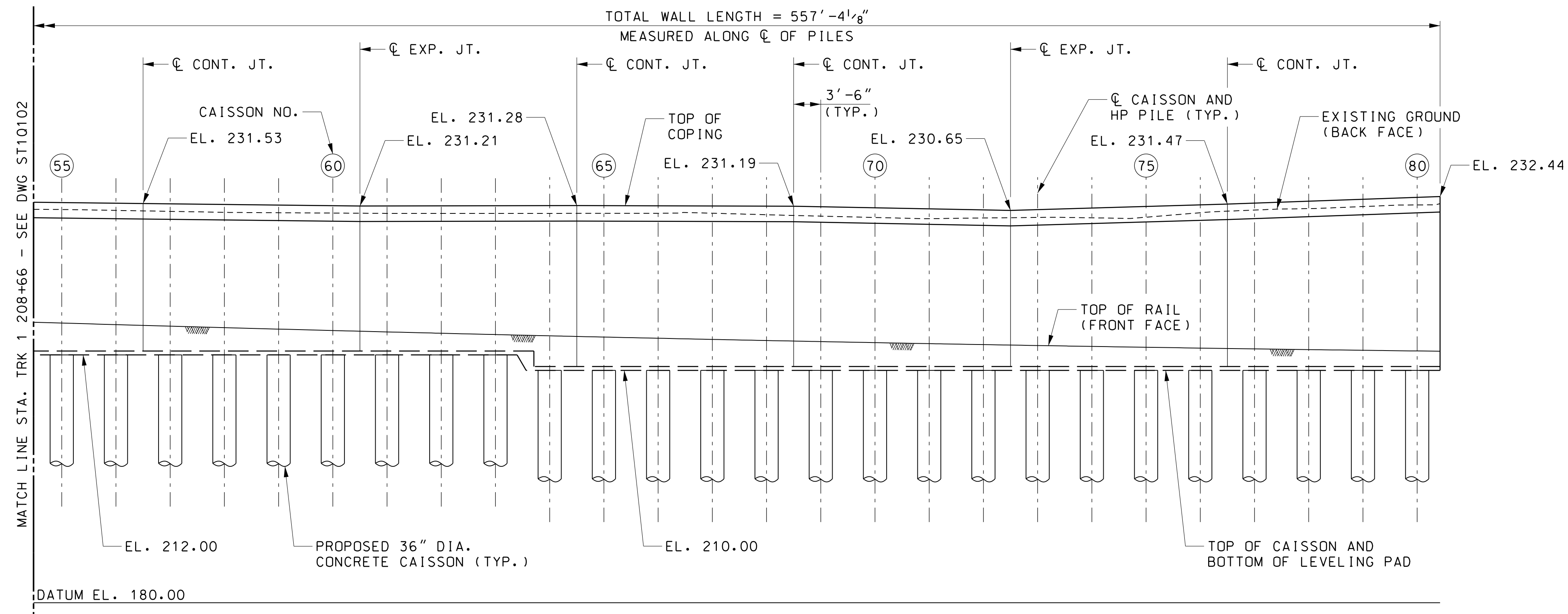
CONTRACT NO. T-1042-0220
DRAWING NO. ST1Q102
SHEET NO. 195 OF 828

c:\pwworking\mtdpw\mci-brian_burns\00125147\1042pST1q12.dgn
12/5/2013

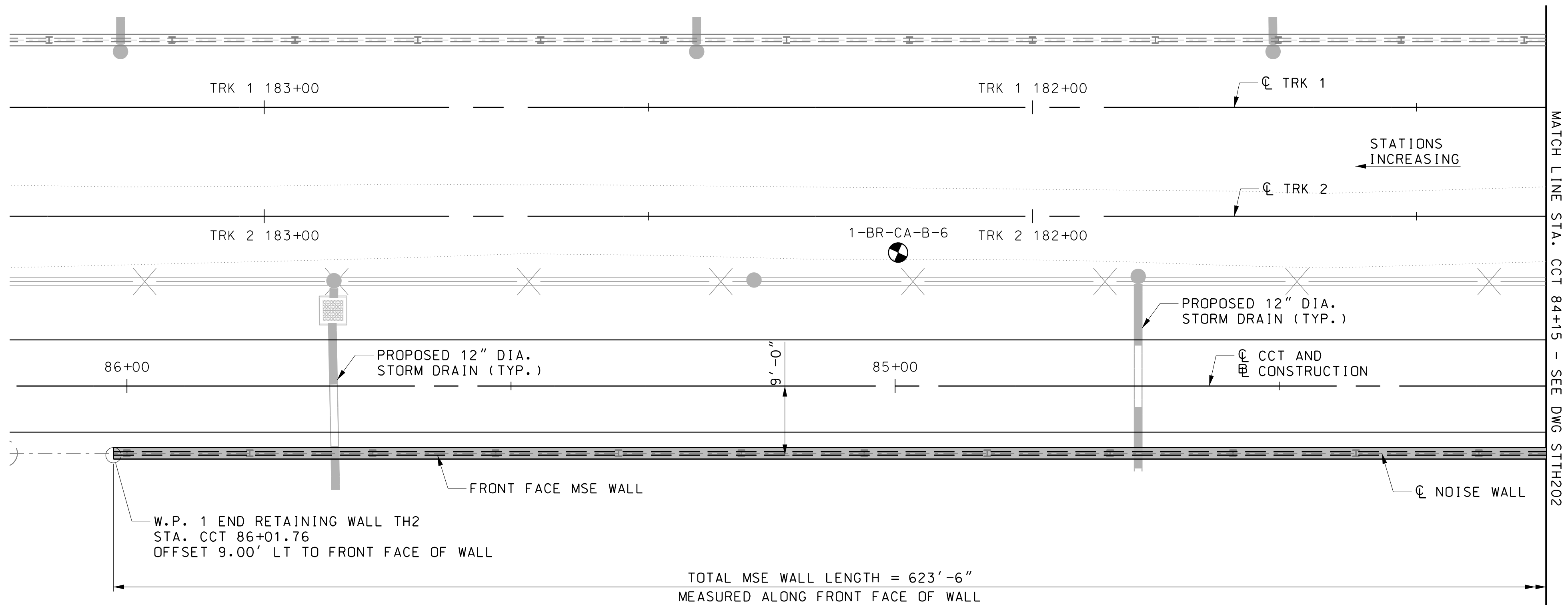
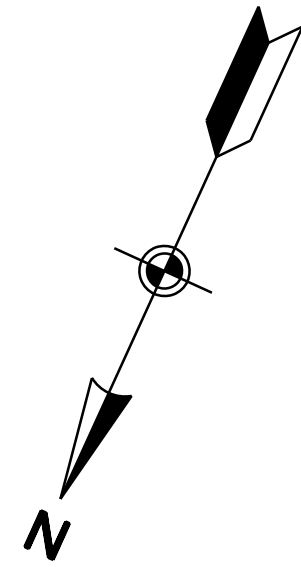


PLAN
SCALE: 1"=10'-0"

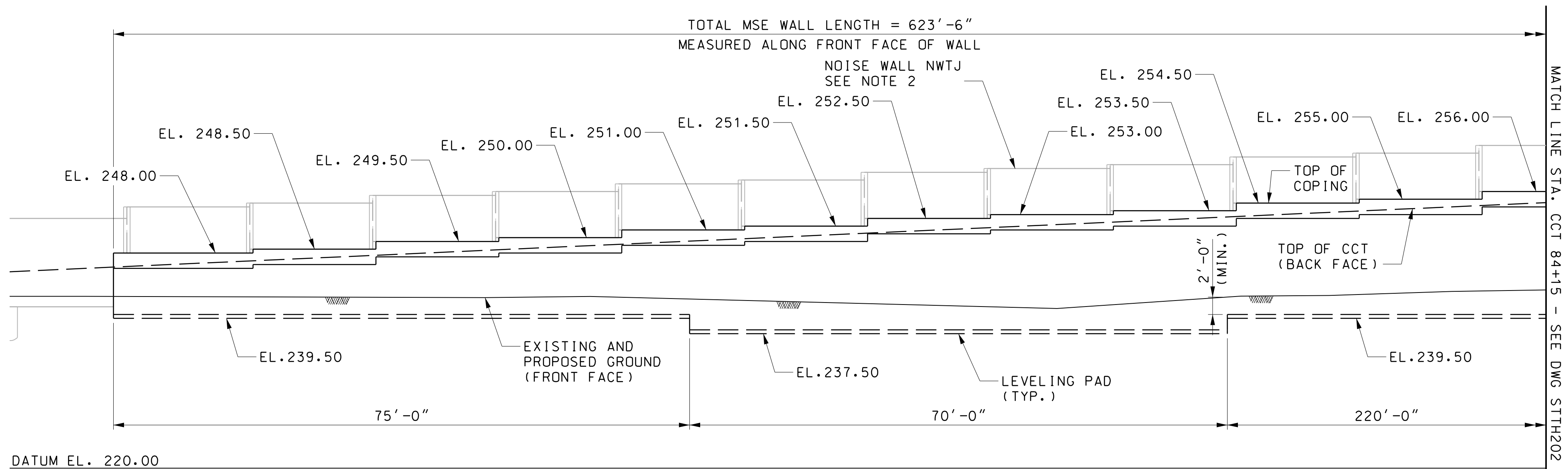
- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST10104.



ELEVATION
SCALE: 1"=10'-0"

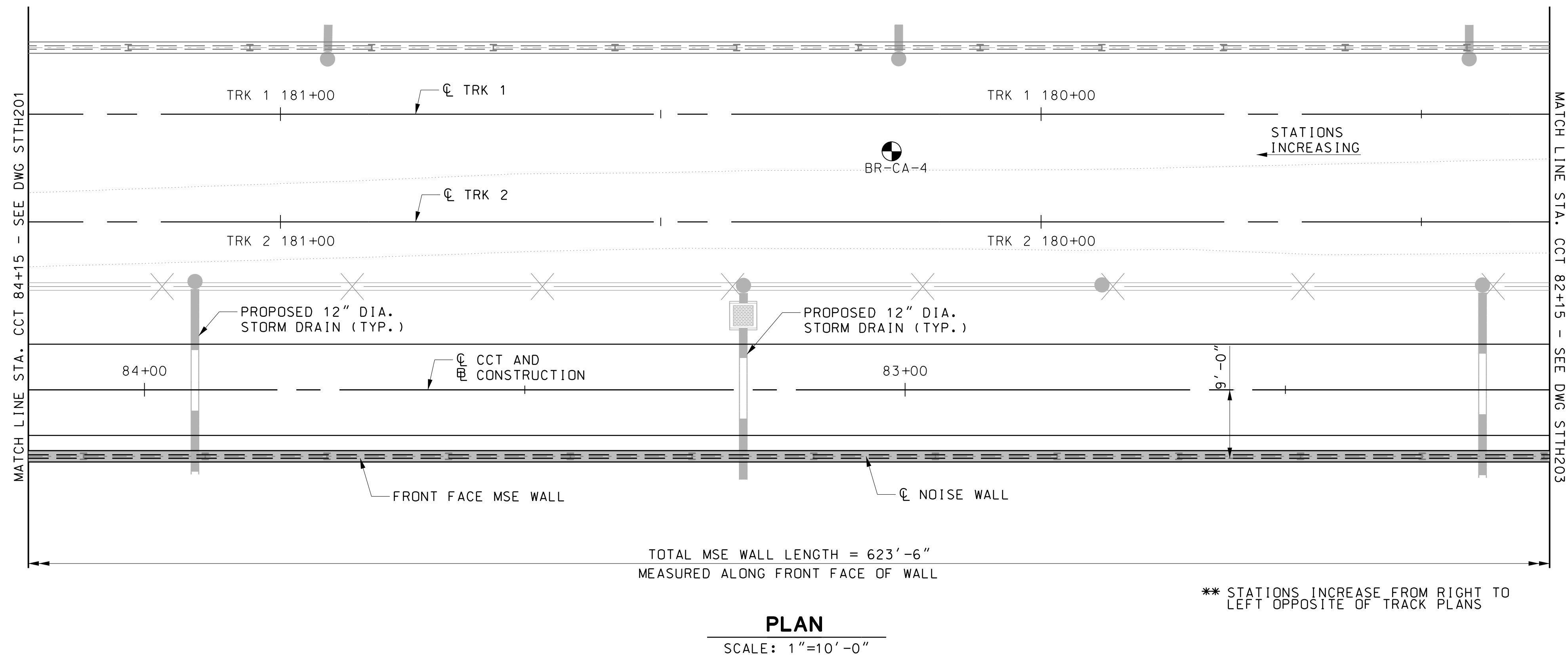
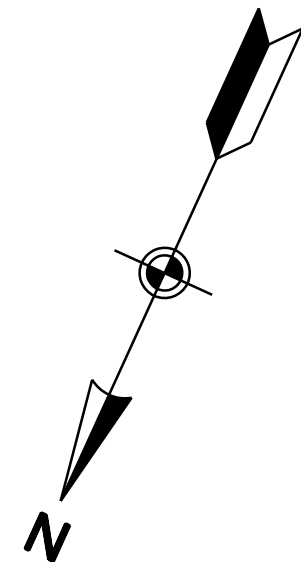


PLAN
SCALE: 1"=10'-0"

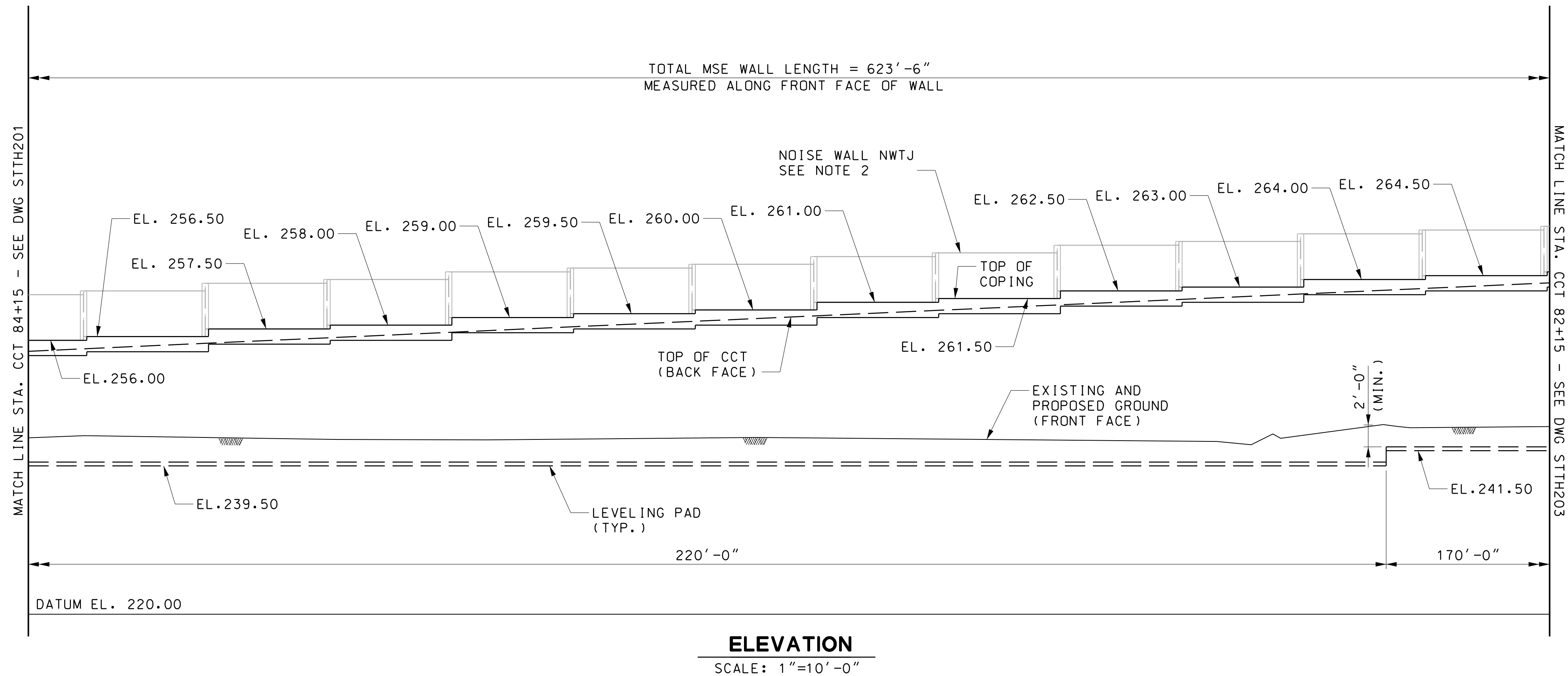


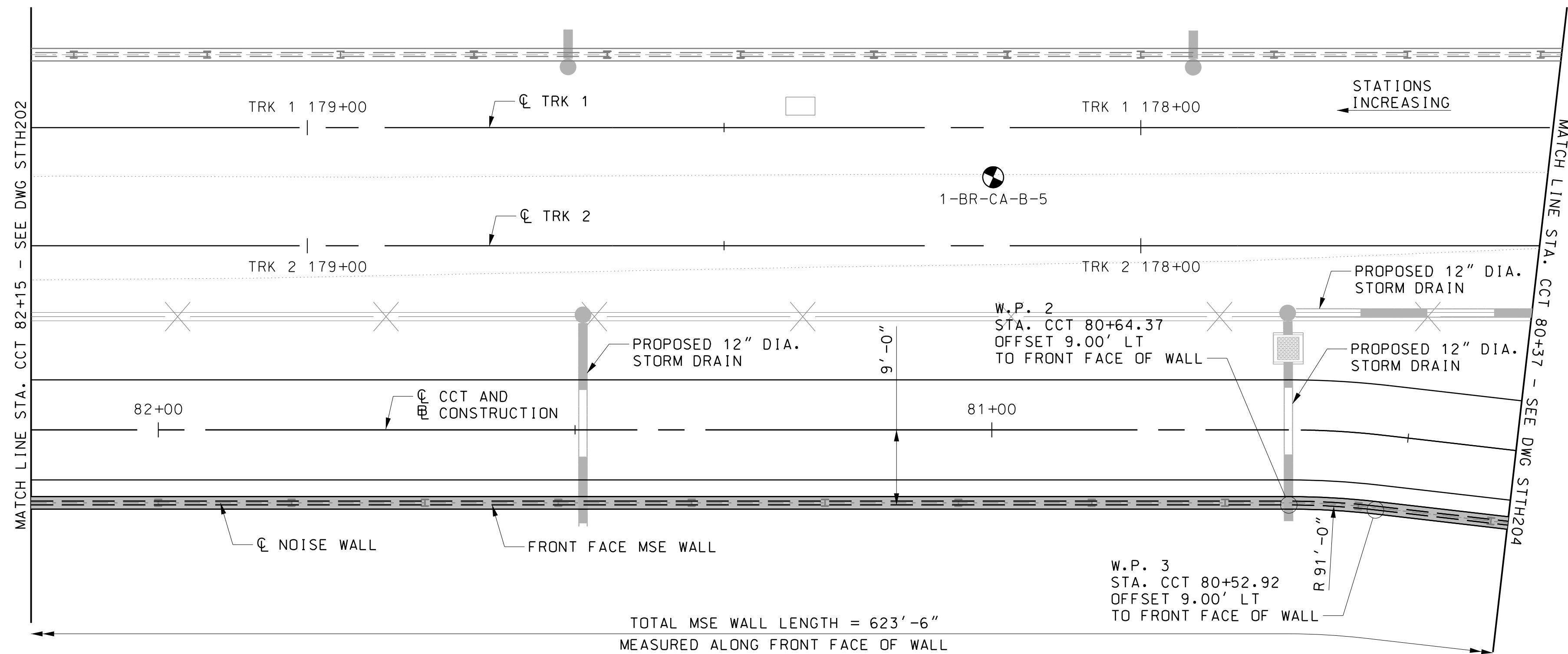
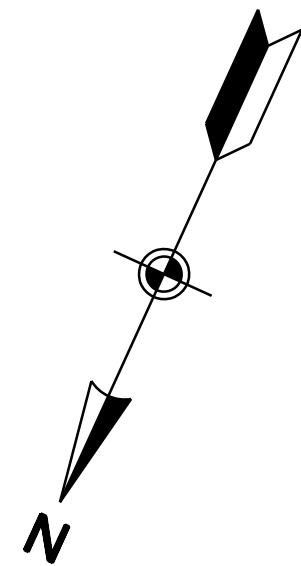
ELEVATION
SCALE: 1"=10'-0"

- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH205.
 2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.



- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH205.
 2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.



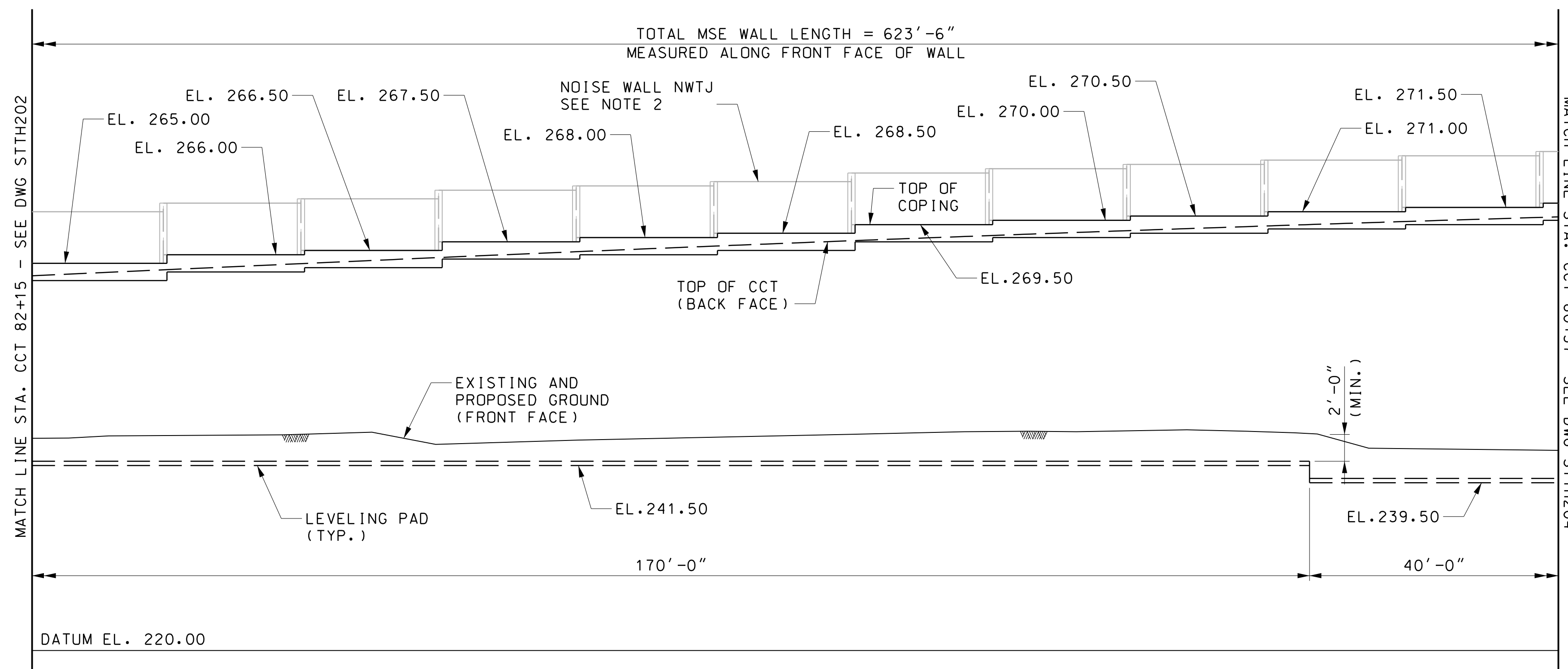


PLAN
SCALE: 1"=10'-0"

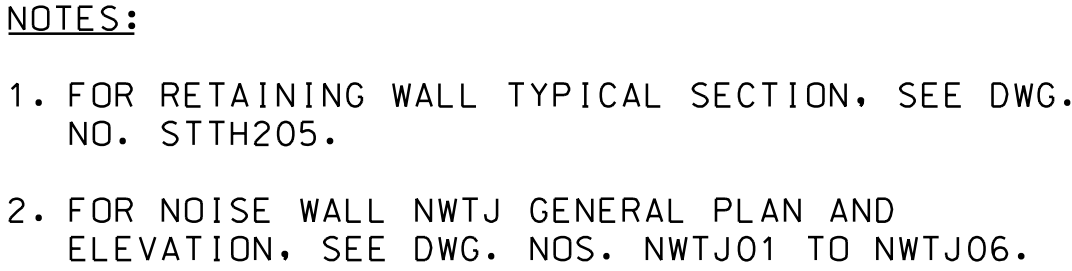
** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

NOTES:

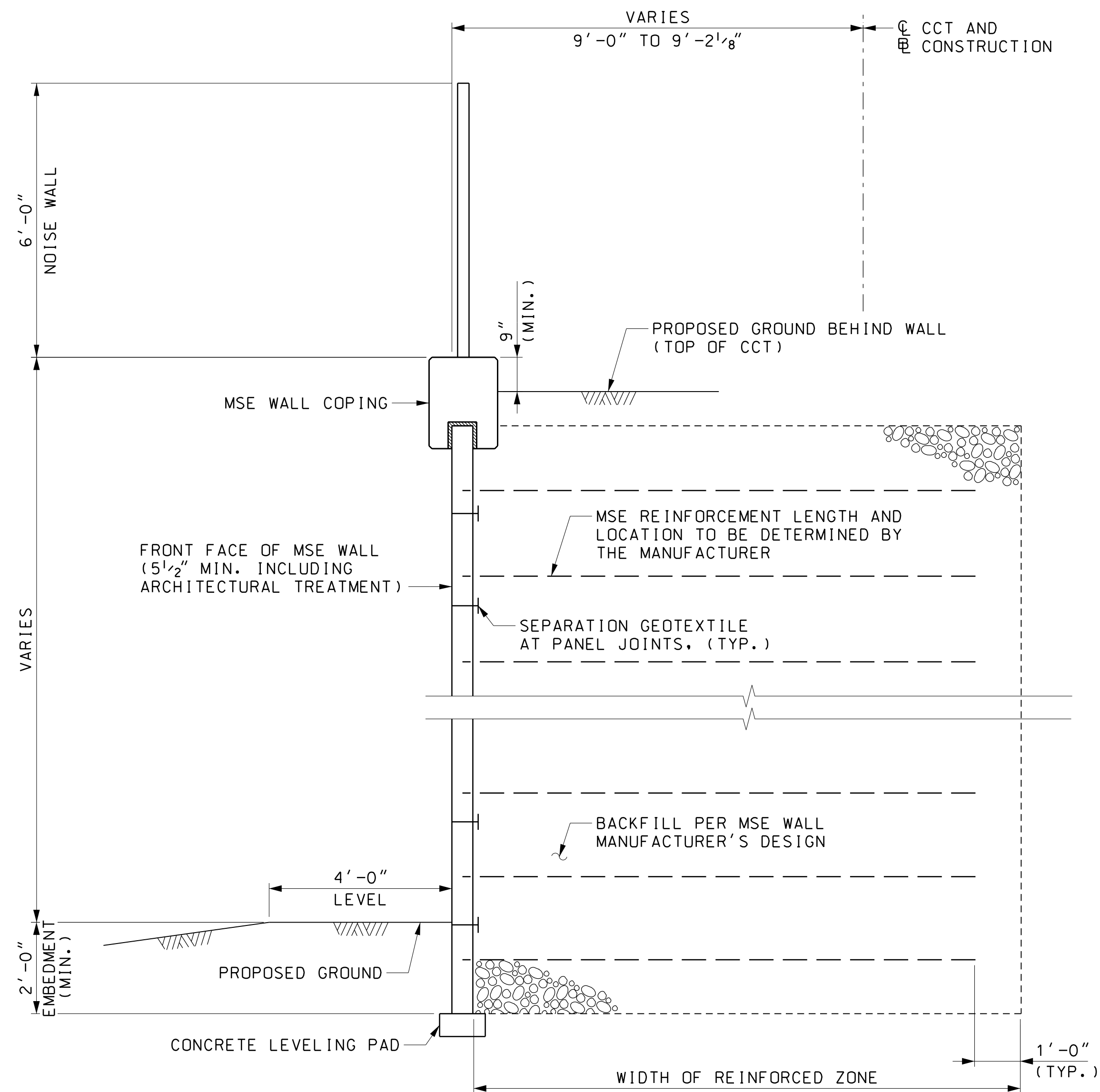
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH205.
2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.



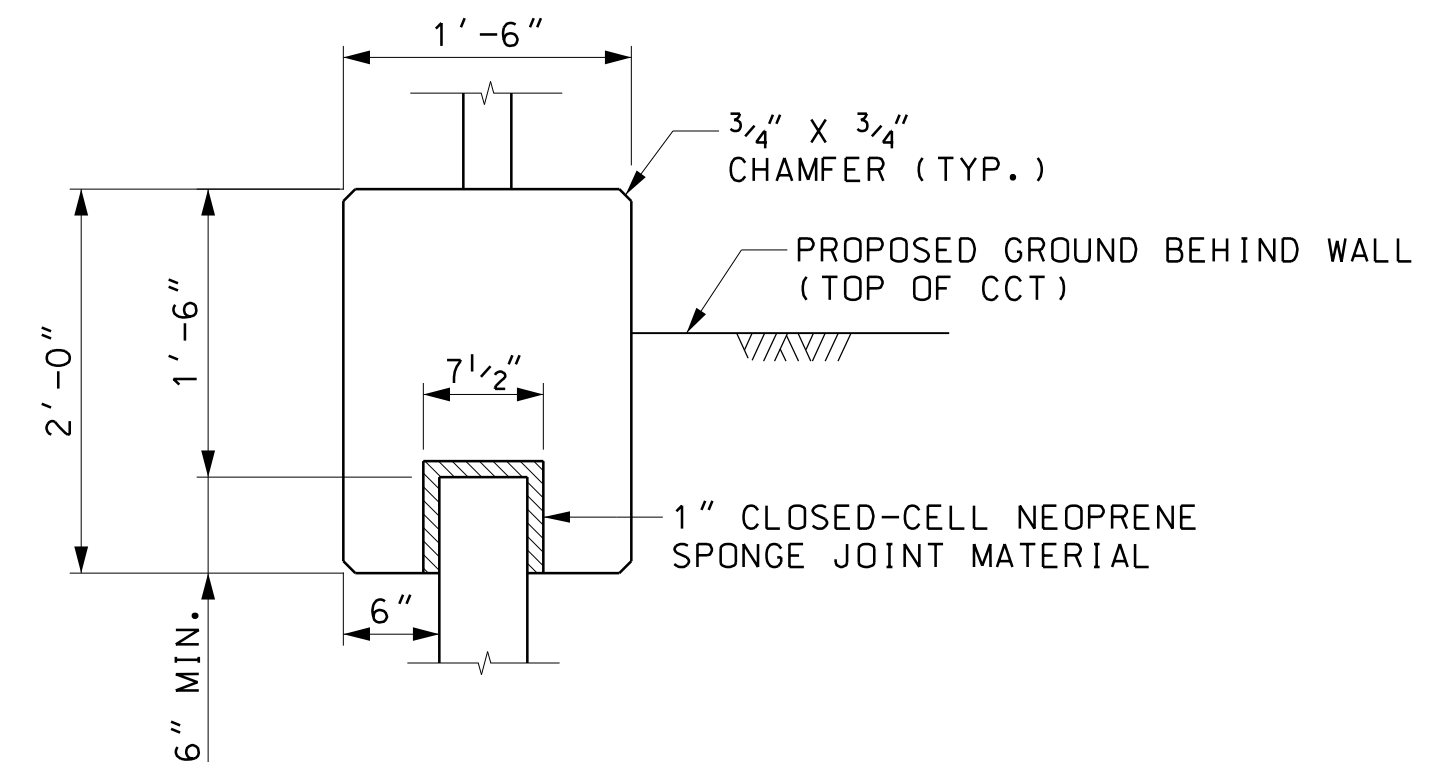
ELEVATION
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10' -0"



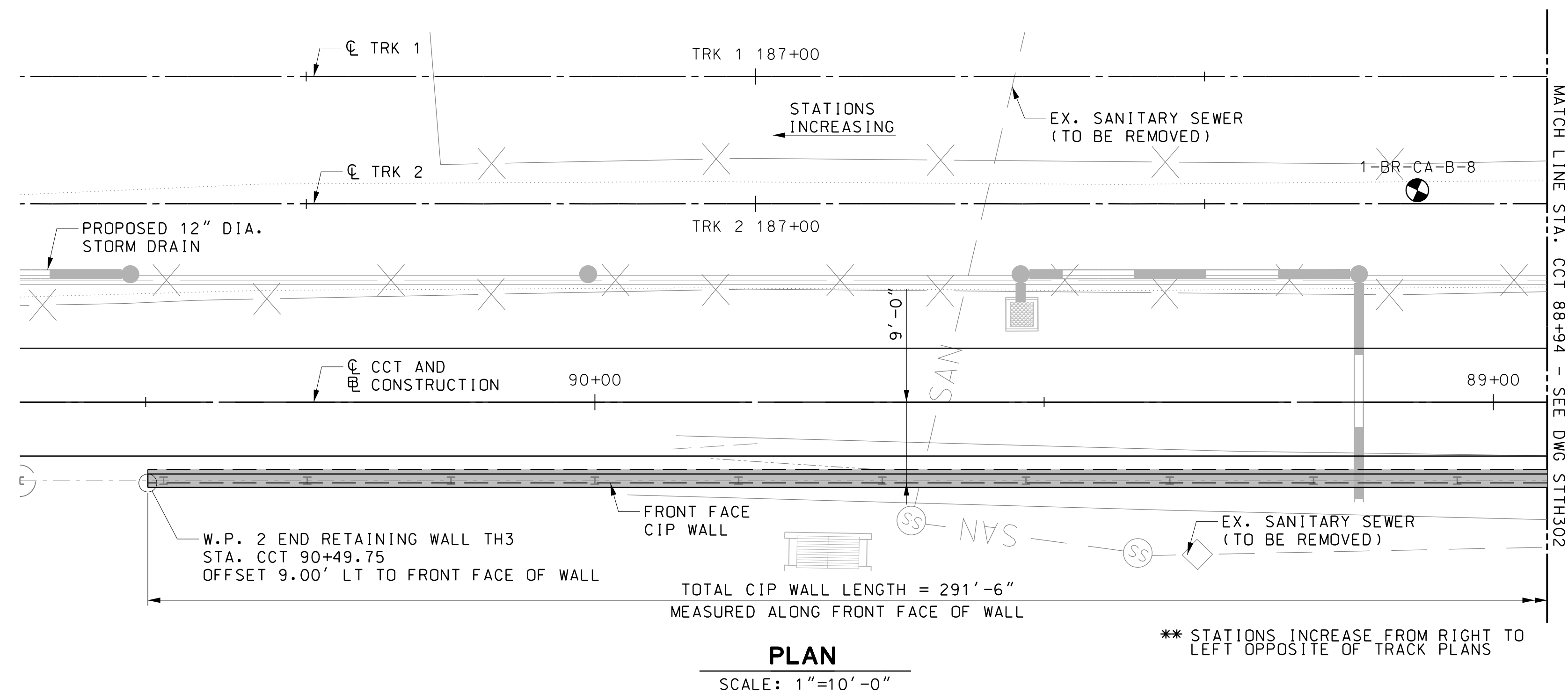
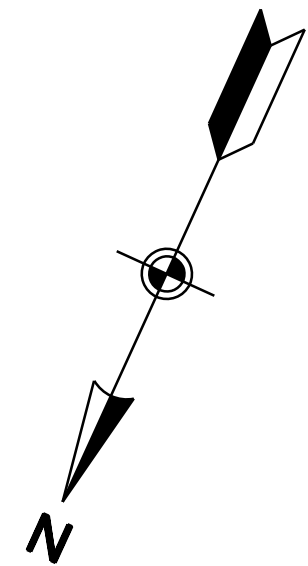
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



CONCRETE COPING DETAIL
SCALE: 1" = 1'-0"

NOTES:

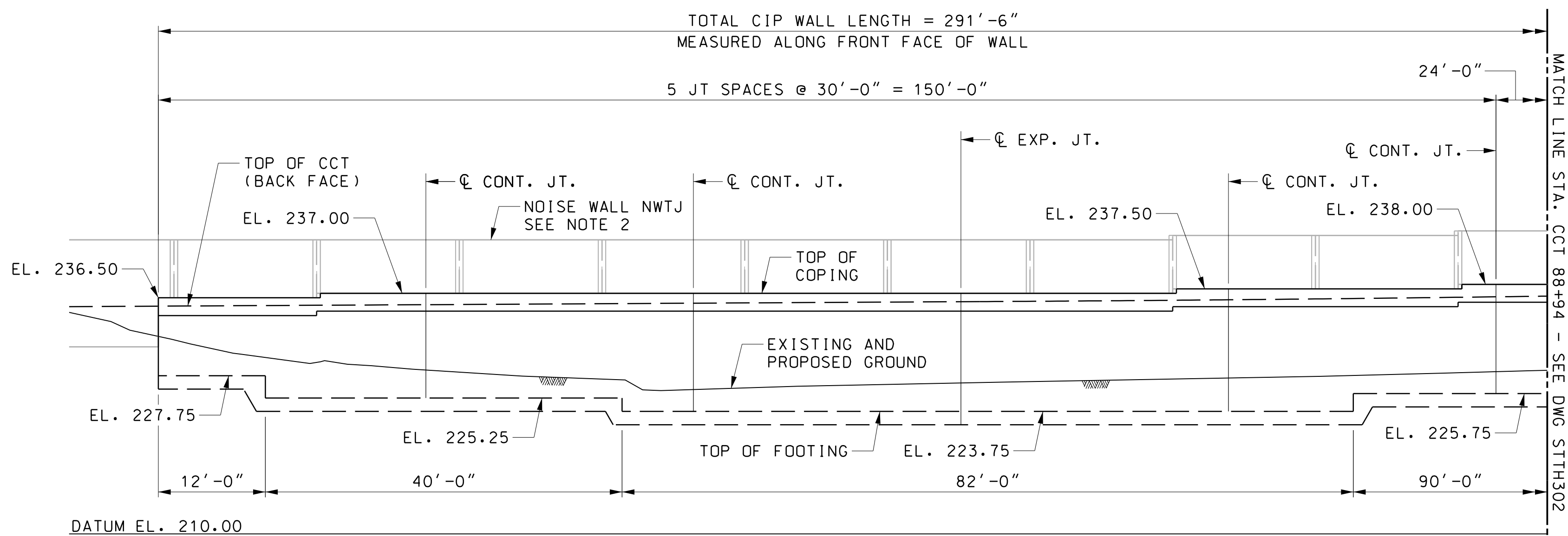
1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



PLAN

SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

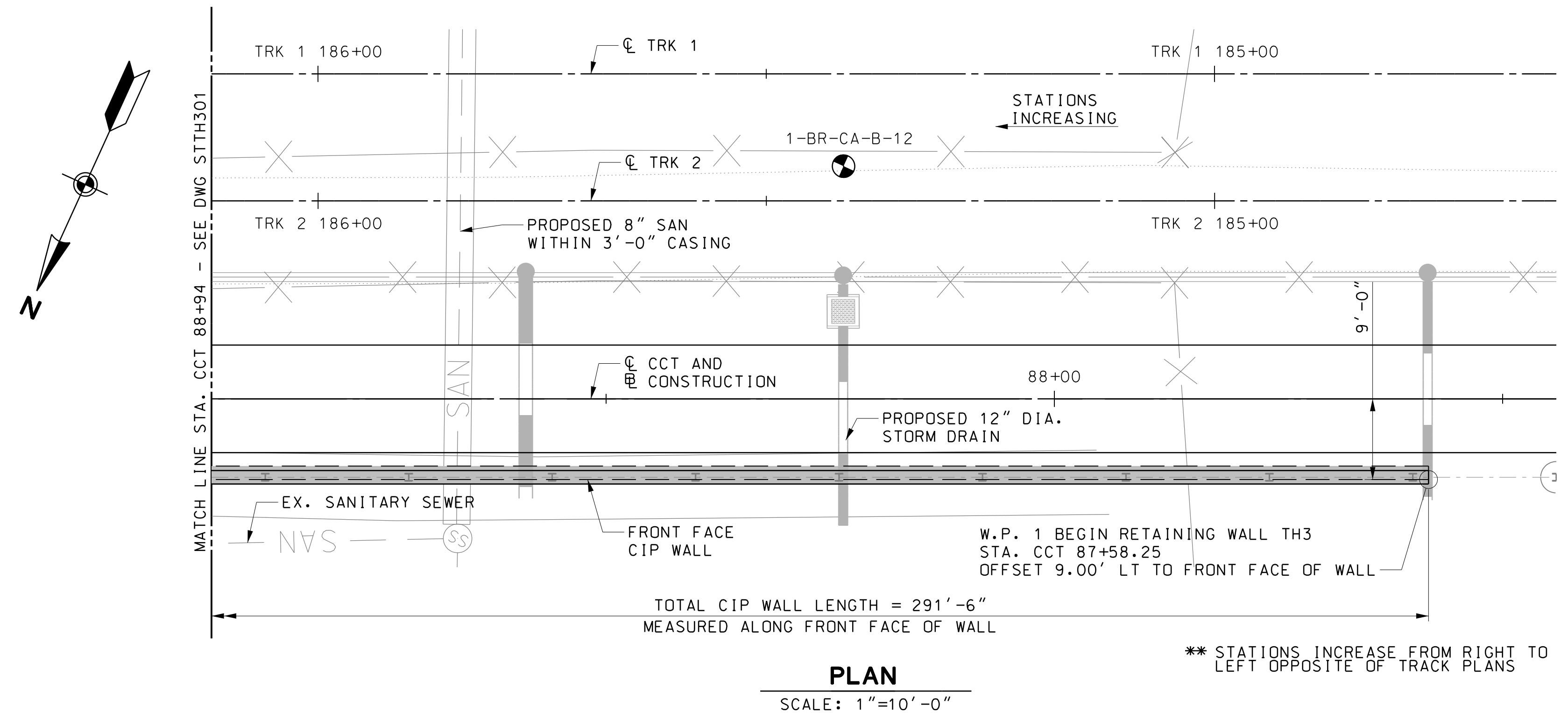


ELEVATION

SCALE: 1"=10'-0"

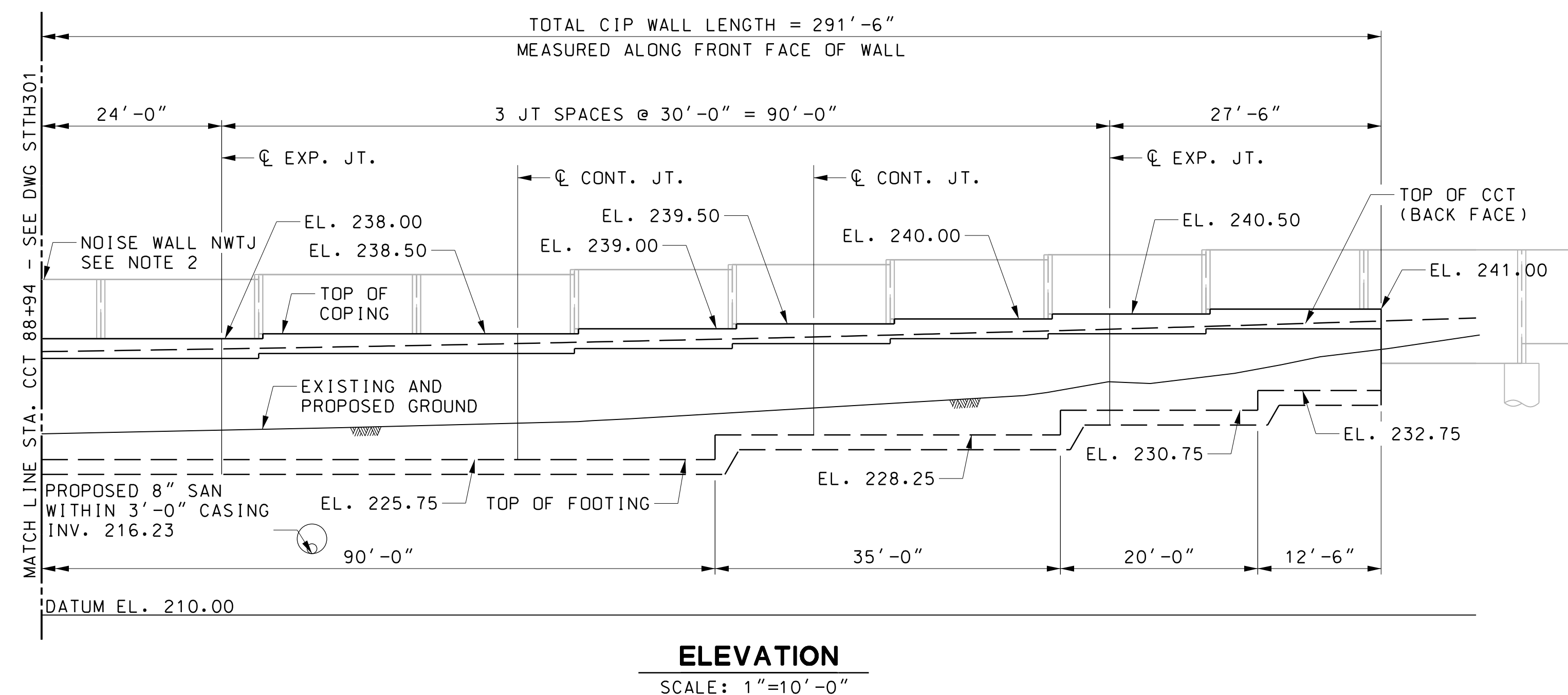
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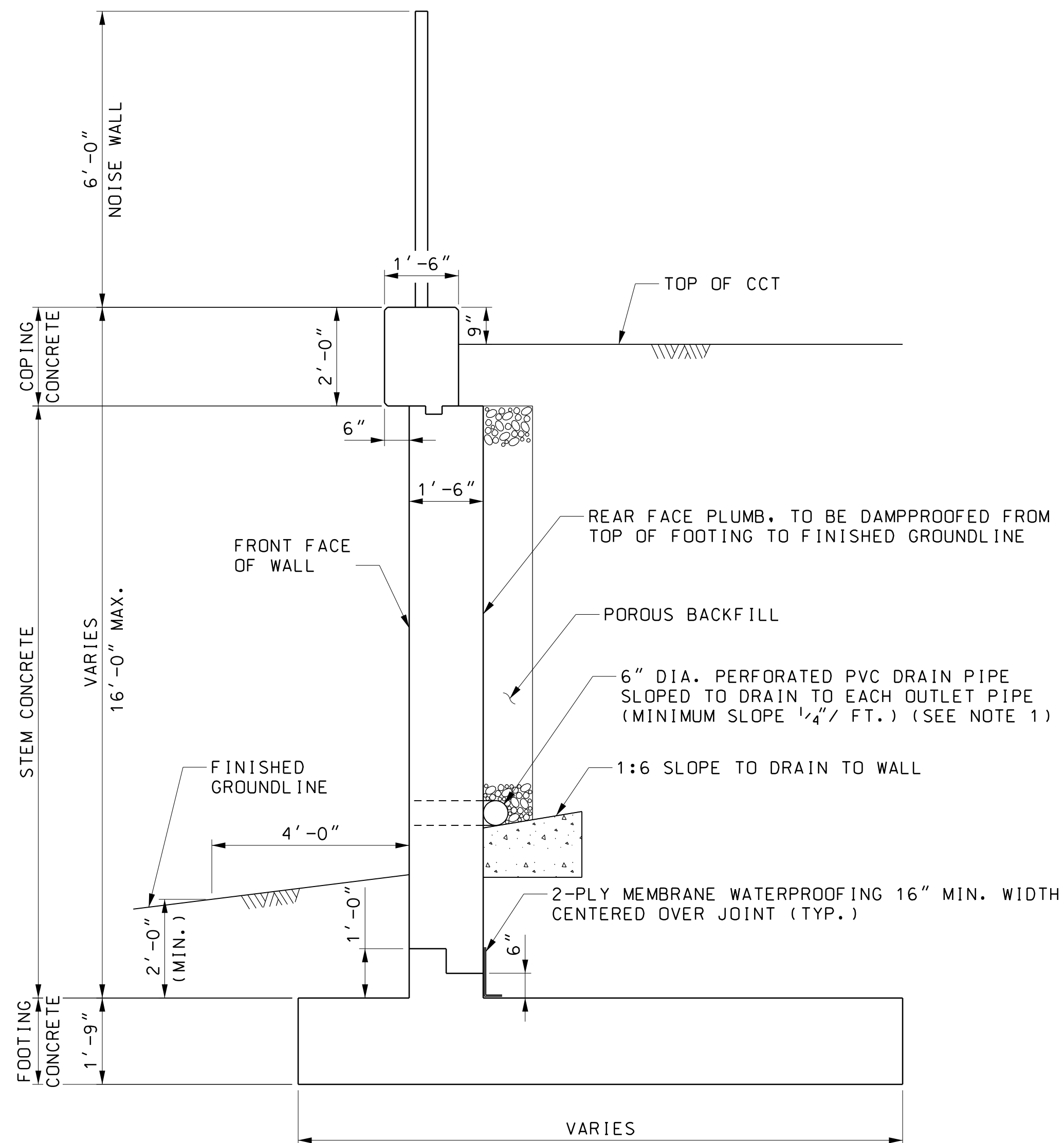
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STH303.
2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.



NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH303.
2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.

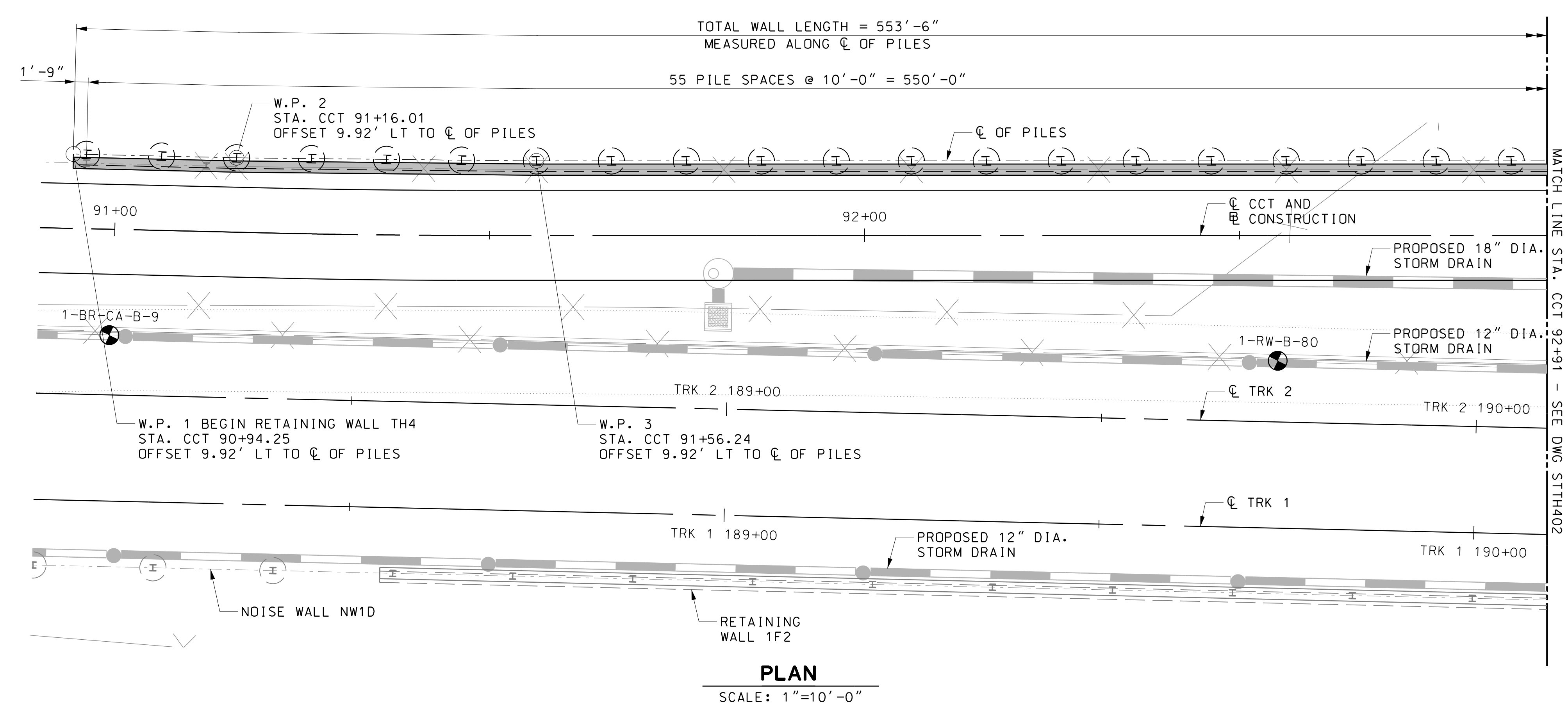
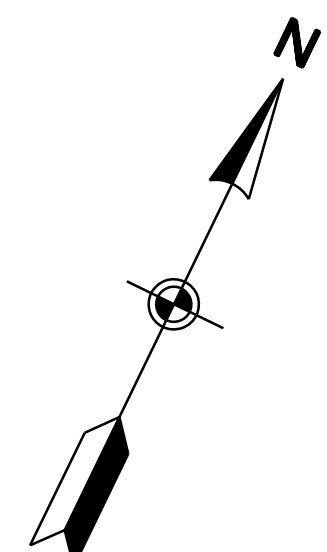




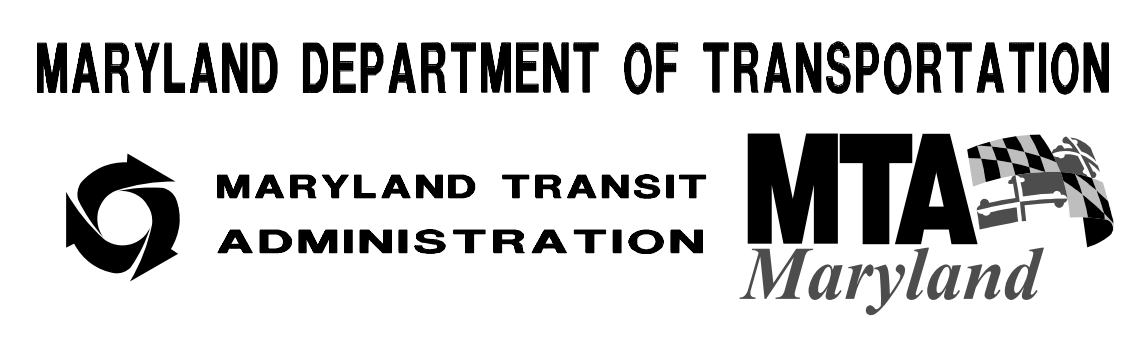
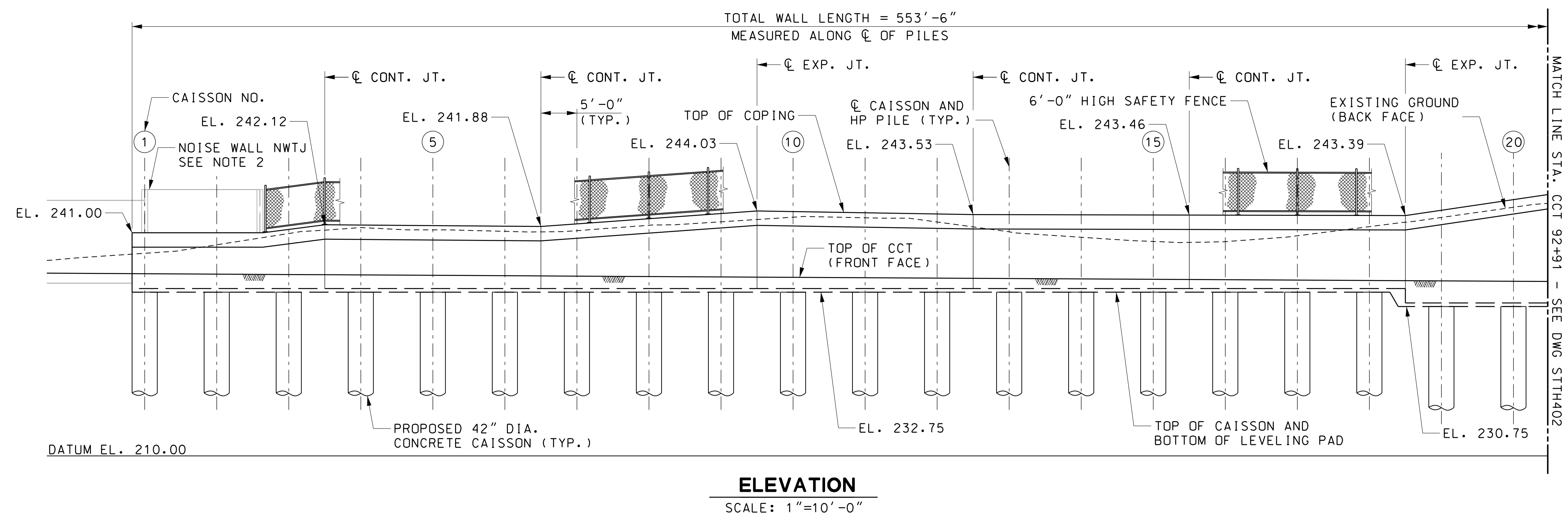
TYPICAL SECTION
SCALE: 1/2" = 1'-0"

NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STH404.
 2. FOR NOISE WALL NWTJ GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTJ01 TO NWTJ06.



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

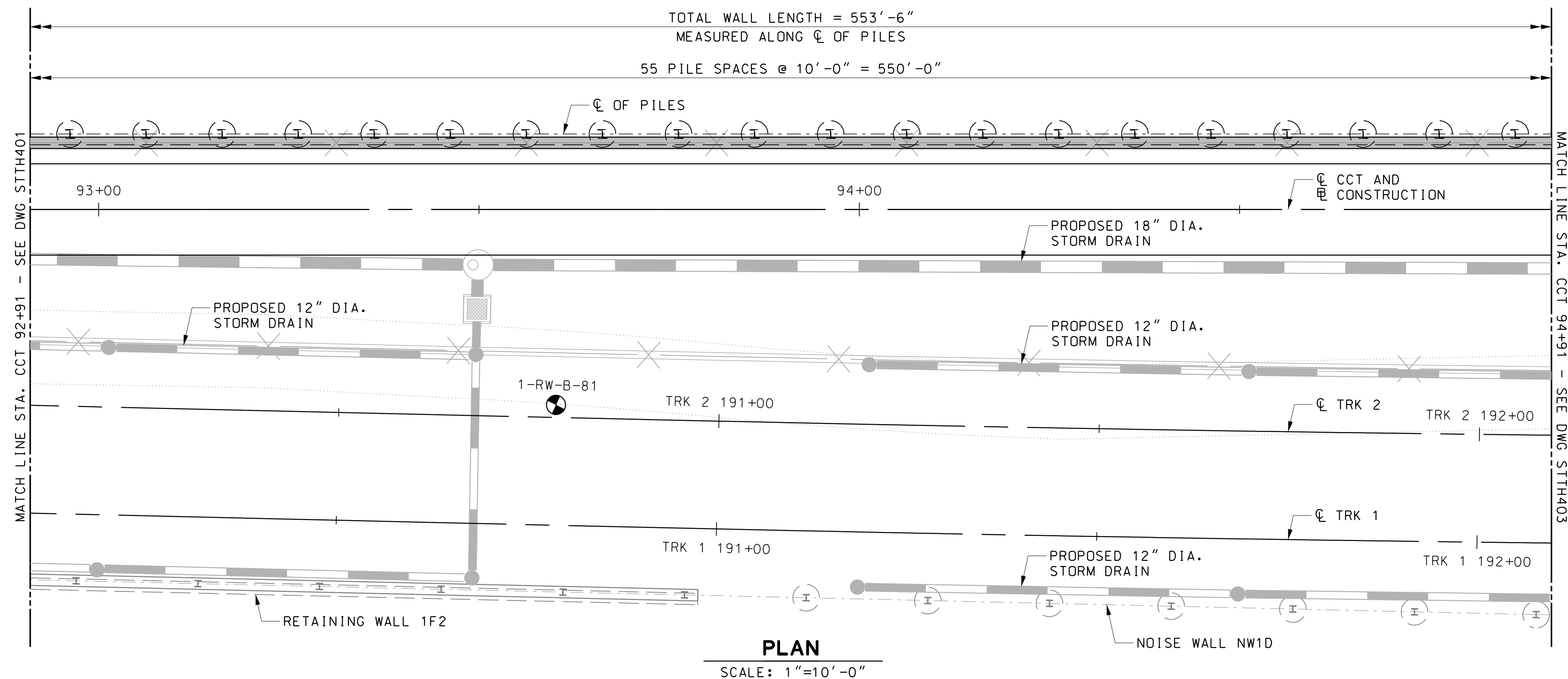
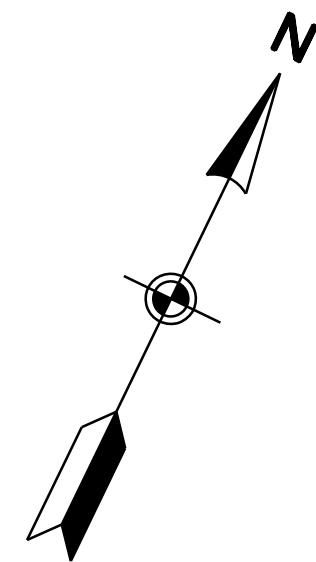
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
		MWM	
		BCB	
		CRA	

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
RETAINING WALL – TH4 GENERAL PLAN & ELEVATION – 1	
DATE: DECEMBER 2013	SCALE: 1" = 10'-0"

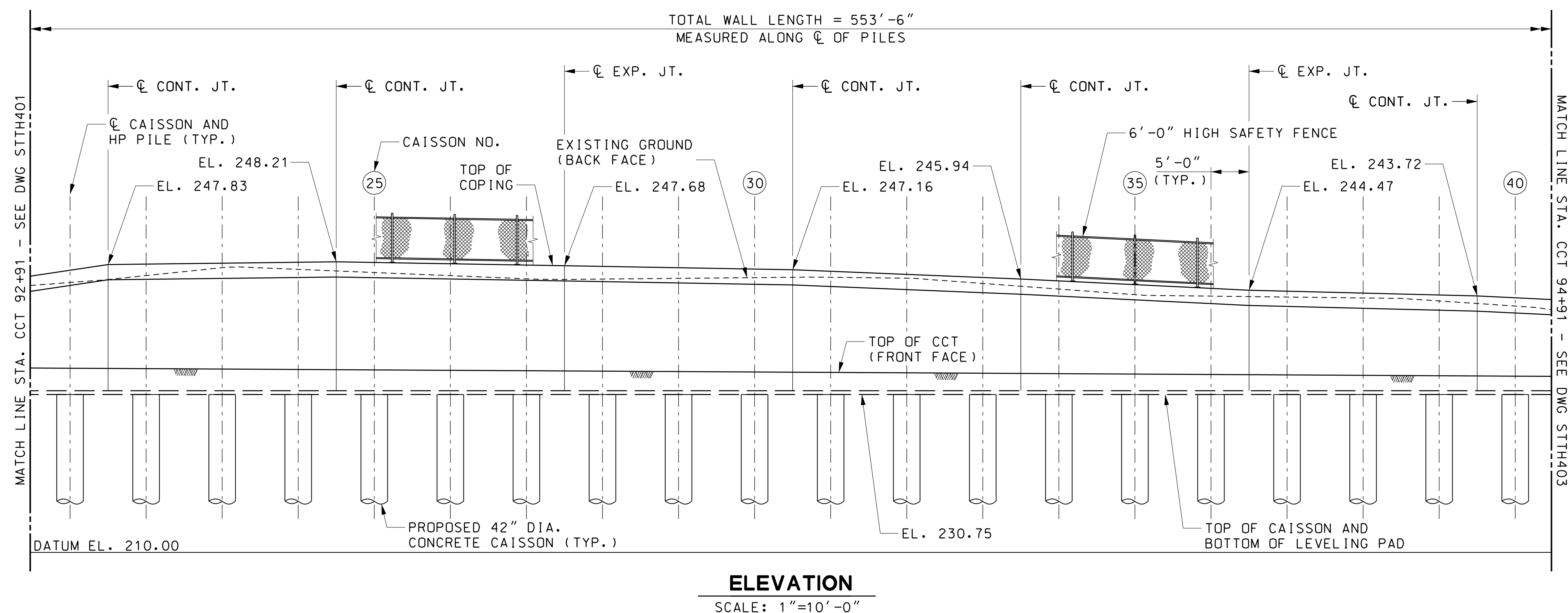
CONTRACT NO. T-1042-0220
DRAWING NO. STTH401
SHEET NO. 206 OF 828

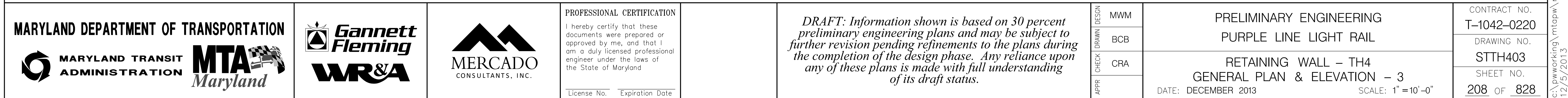
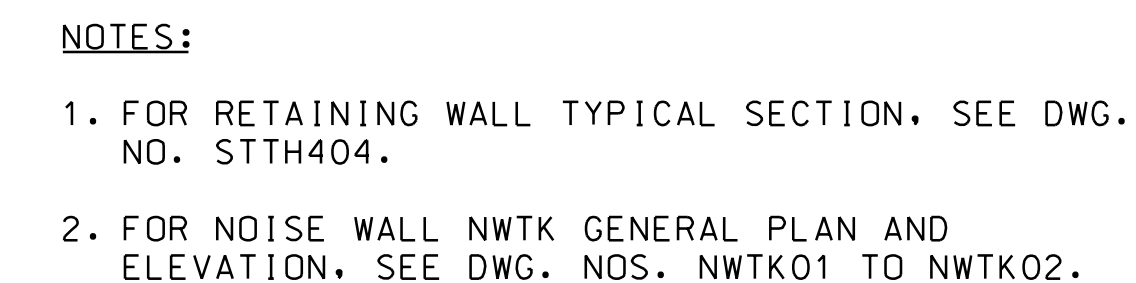
c:\pwworking\mtpw\mci-brian_burns\00125270\1042pSTth41.dgn 12/5/2013



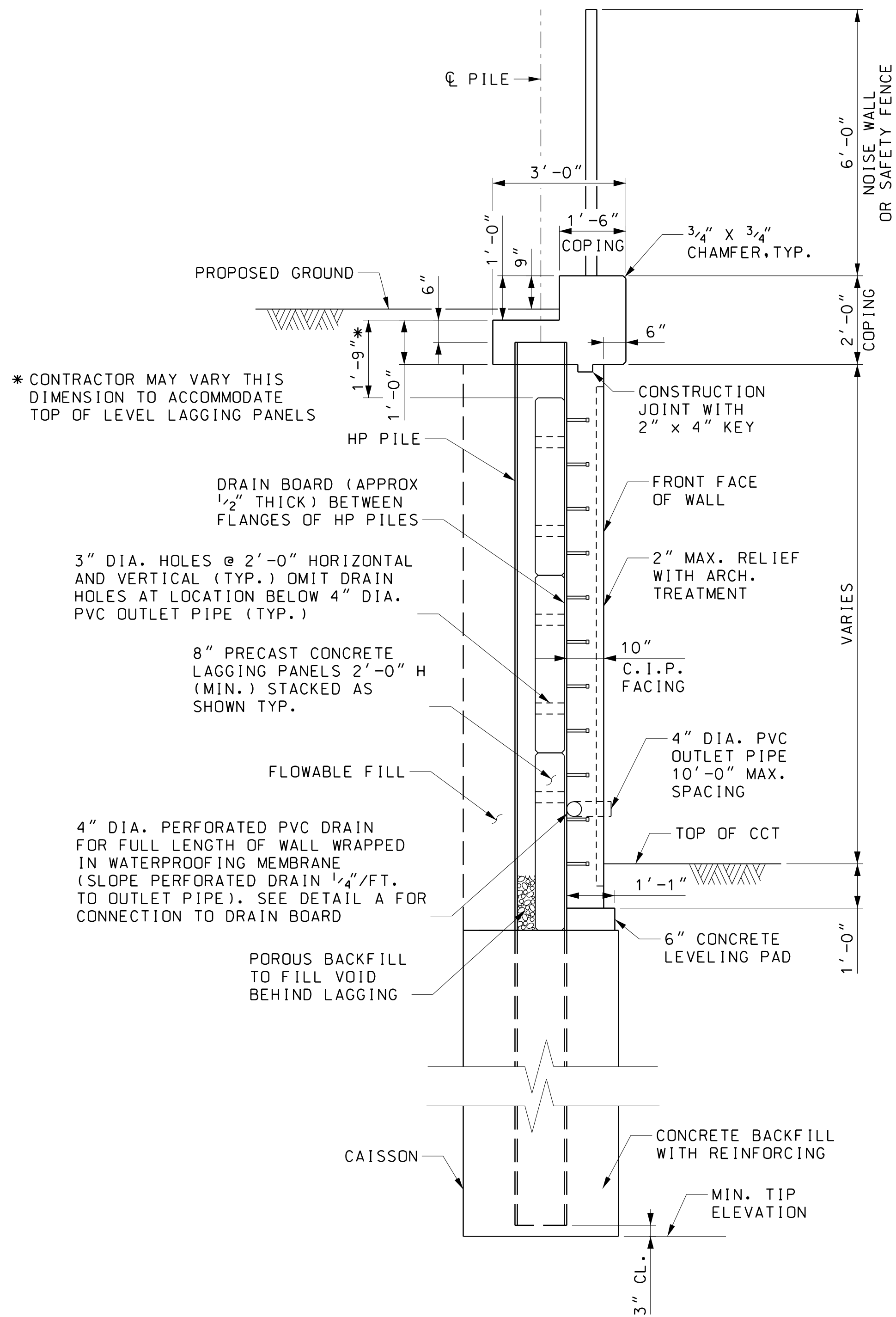
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH404.

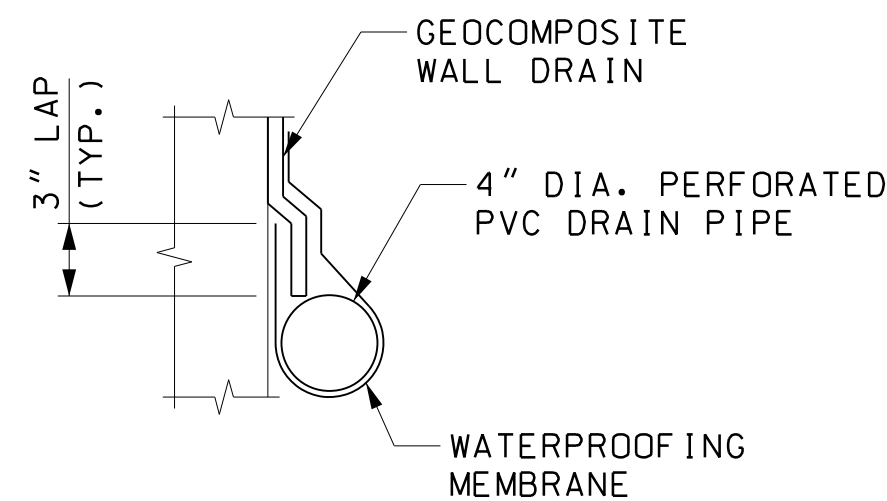




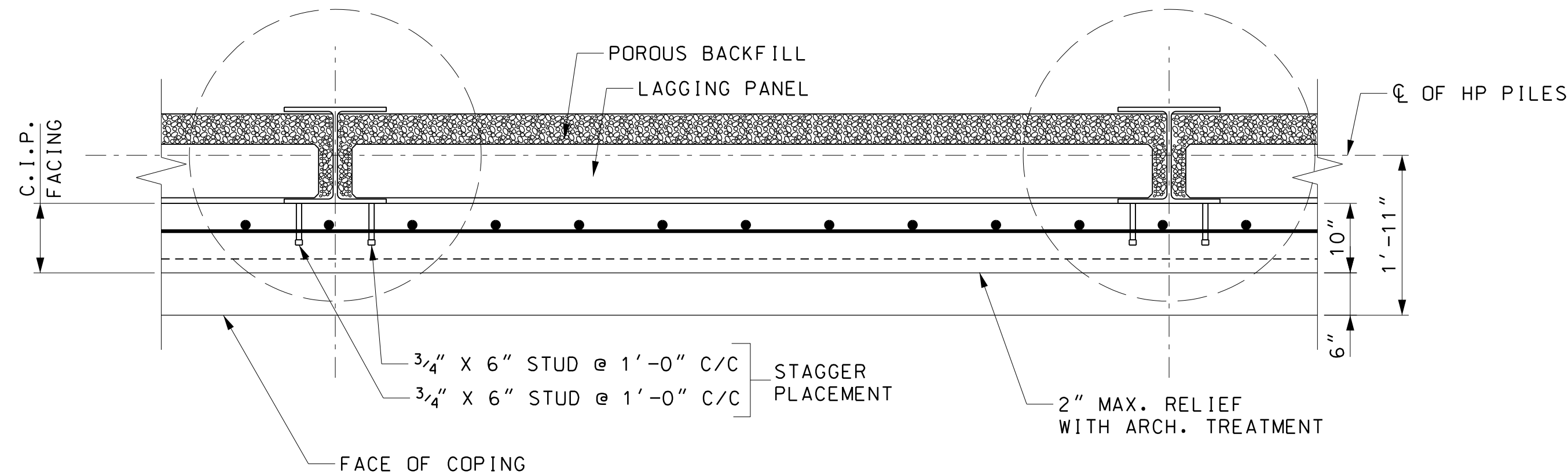
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12/5/2013



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



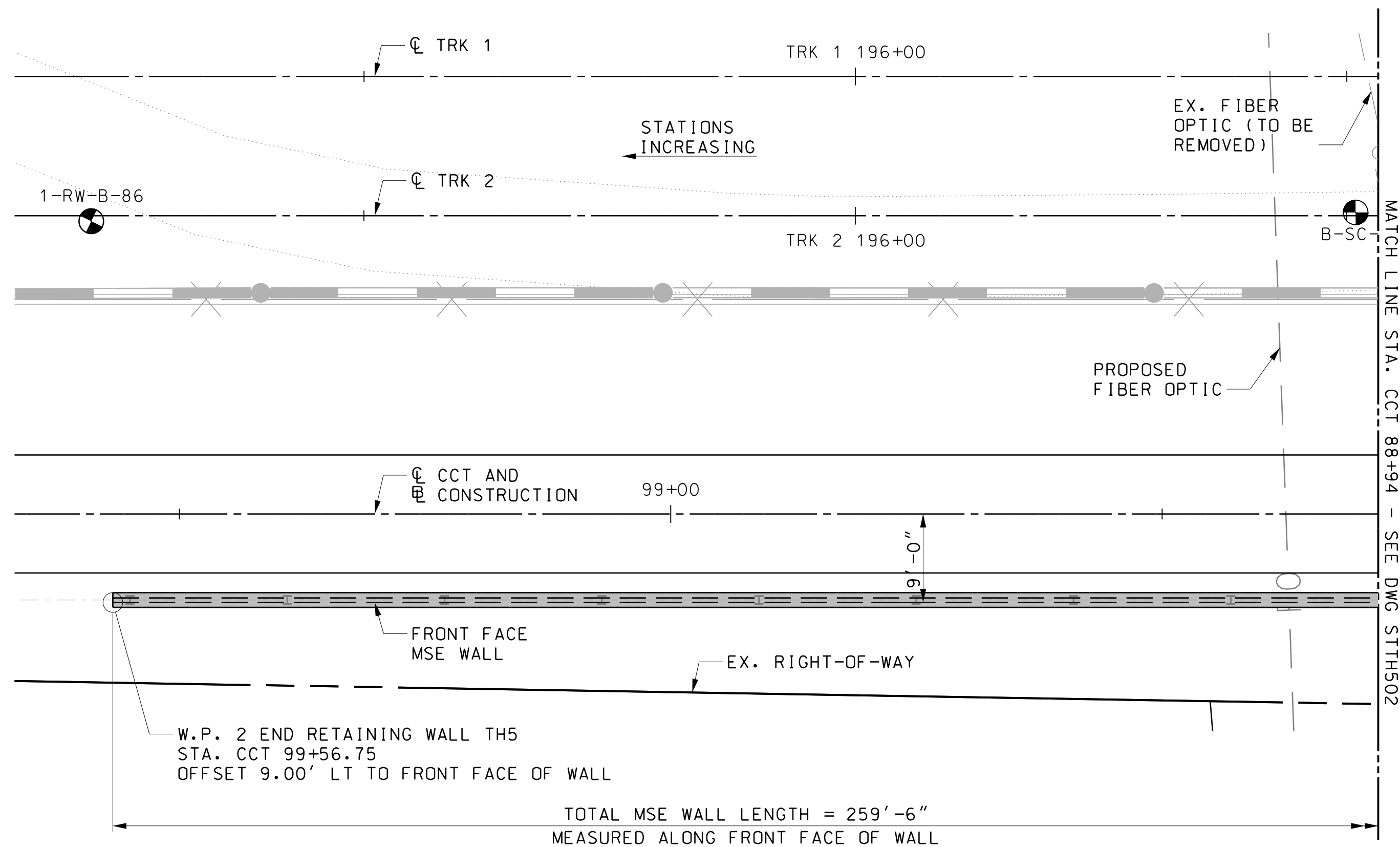
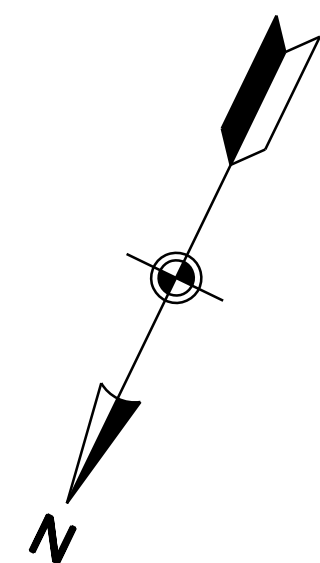
DETAIL A
SCALE: 1 1/2" = 1'-0"



TYPICAL FACING DETAIL
SCALE: 3/4" = 1'-0"

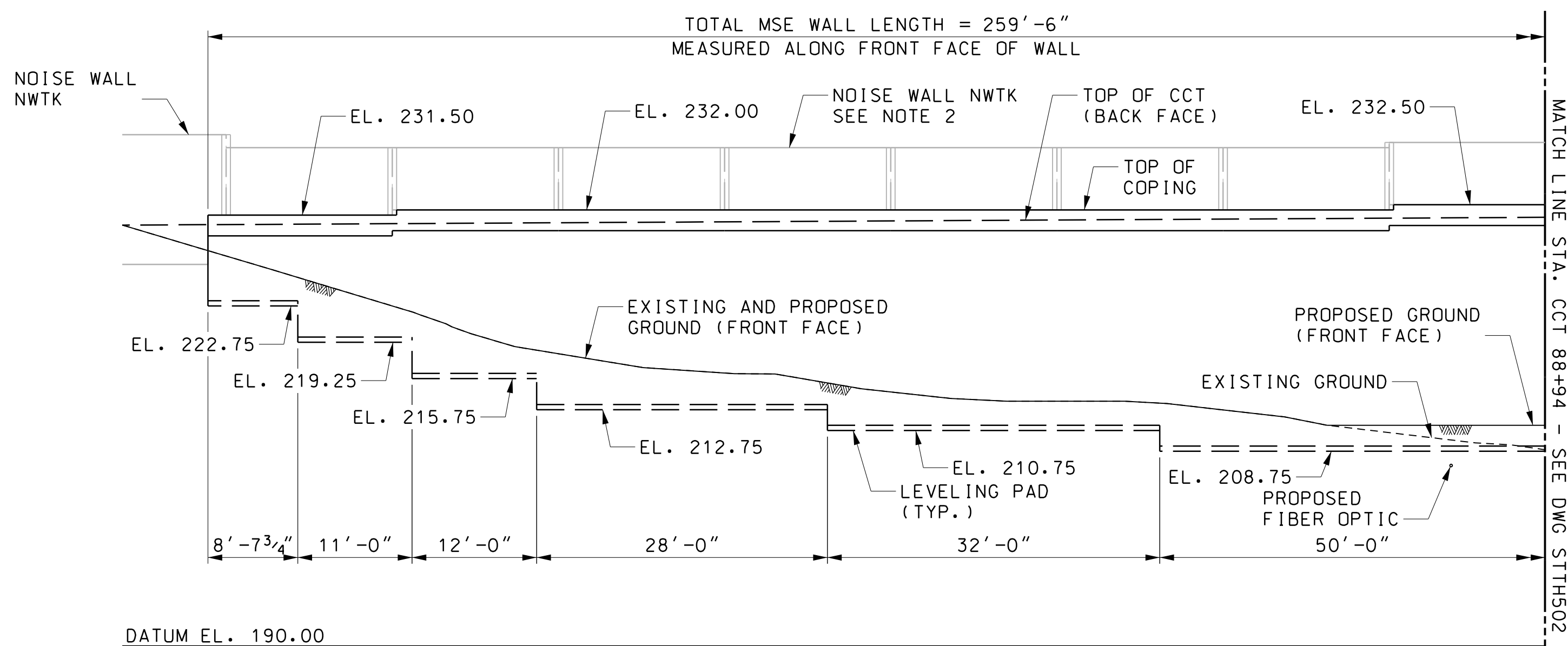
PROPOSED SEQUENCE OF CONSTRUCTION:

1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON). FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE CONCRETE CAISSONS.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.



PLAN
SCALE: 1"=10'-0"

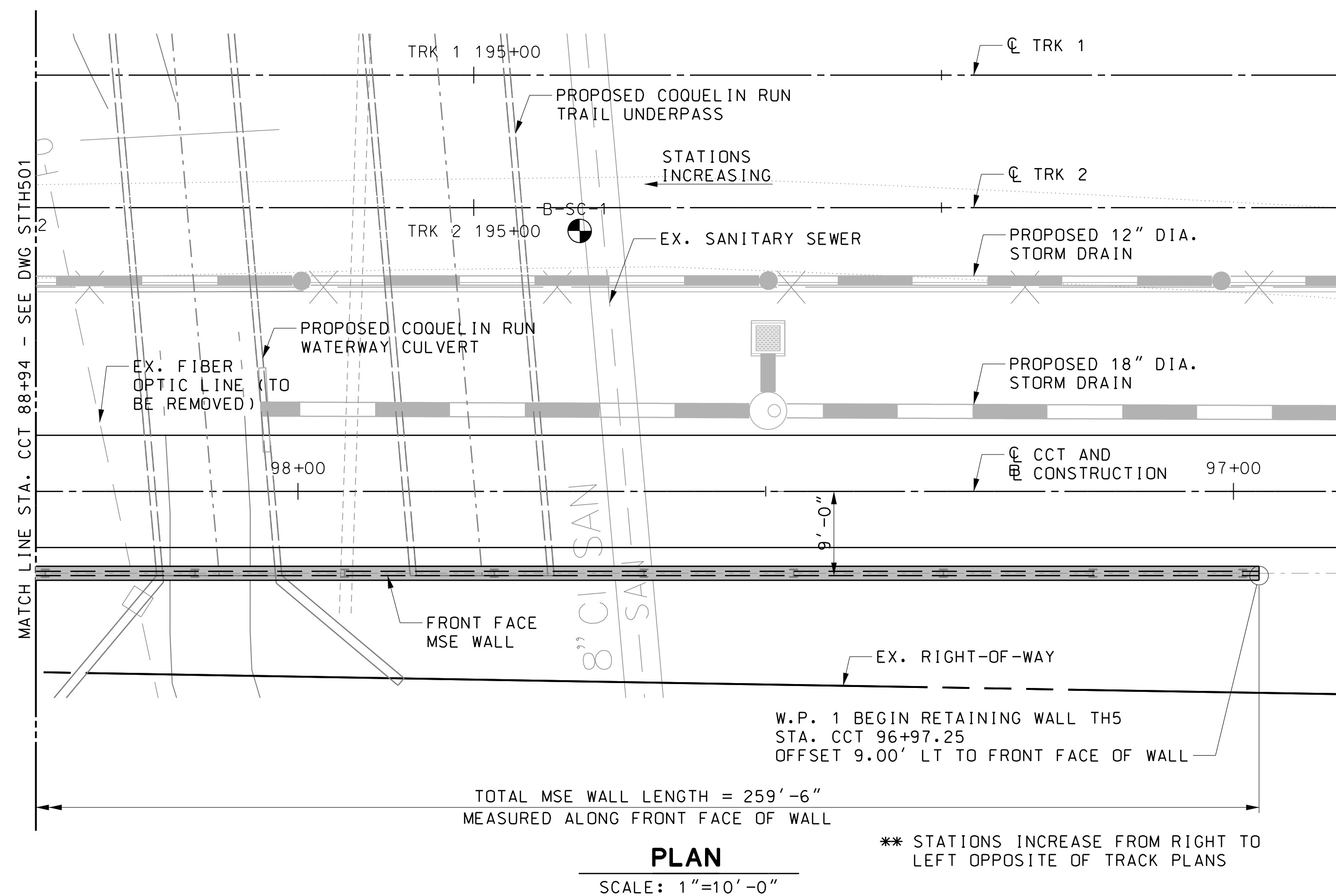
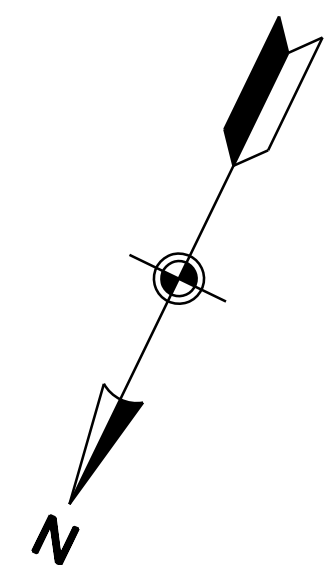
** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS



ELEVATION
SCALE: 1"=10'-0"

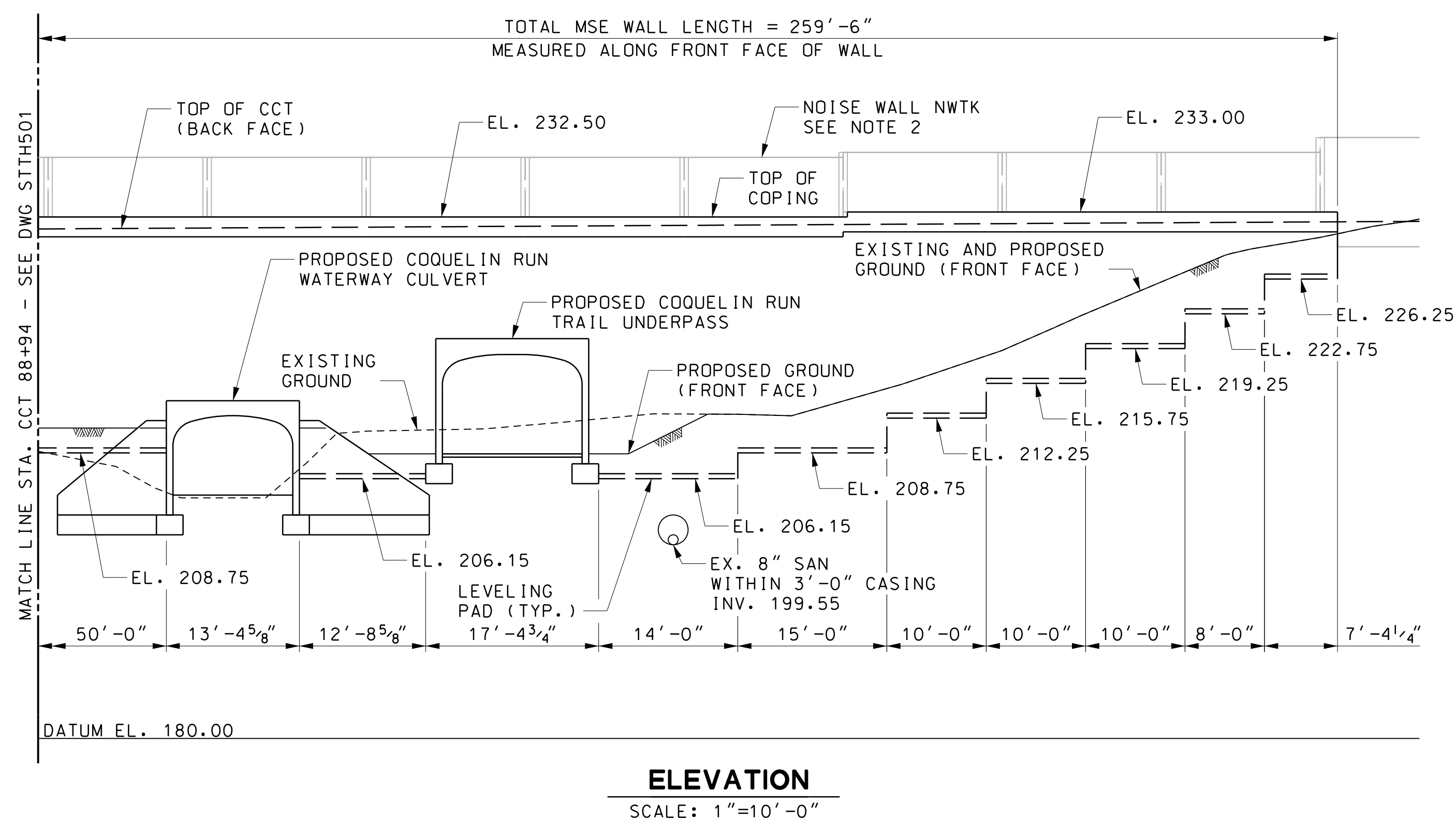
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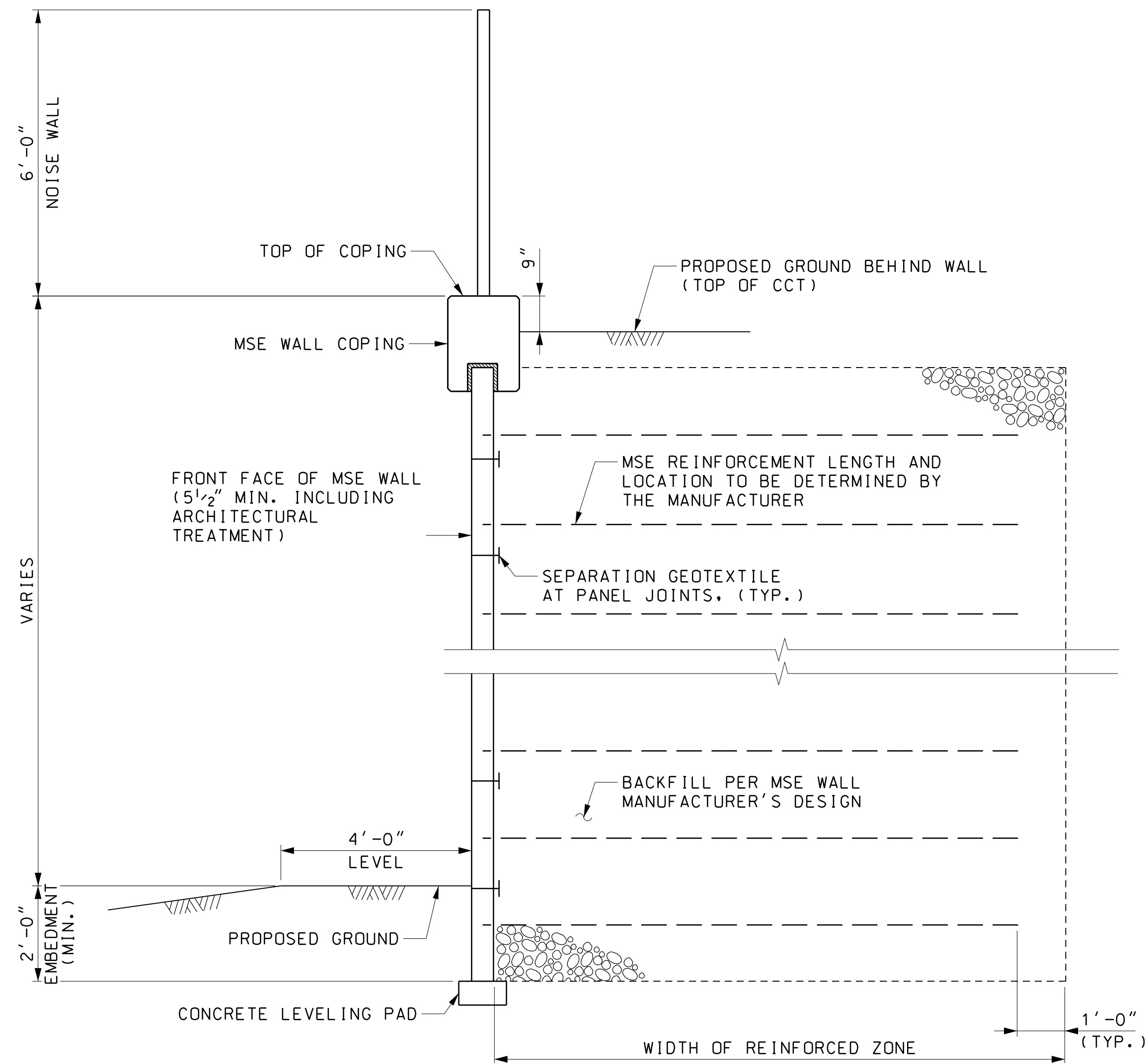
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH503.
2. FOR NOISE WALL NWTK GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTK01 TO NWTK02.



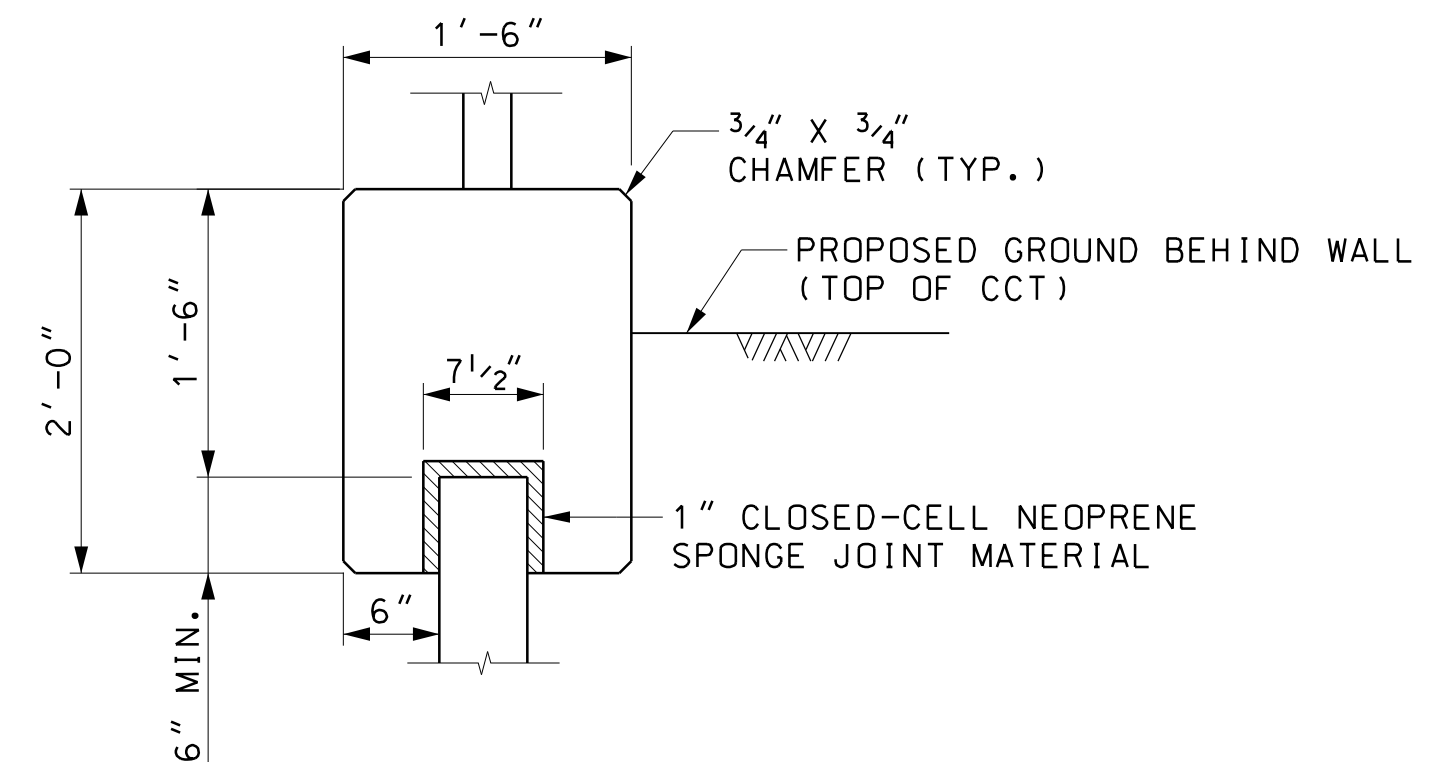
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTH503.
2. FOR NOISE WALL NWTG GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTG01 TO NWTG02.





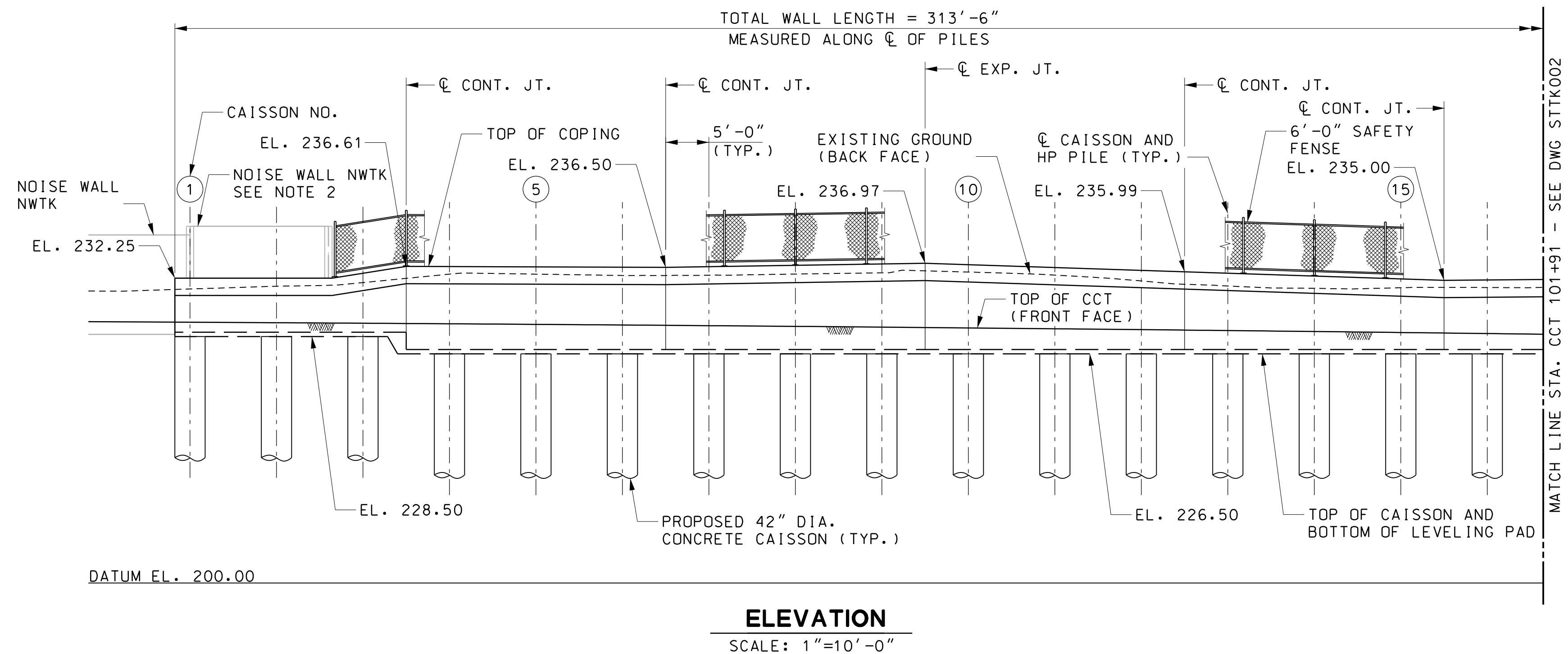
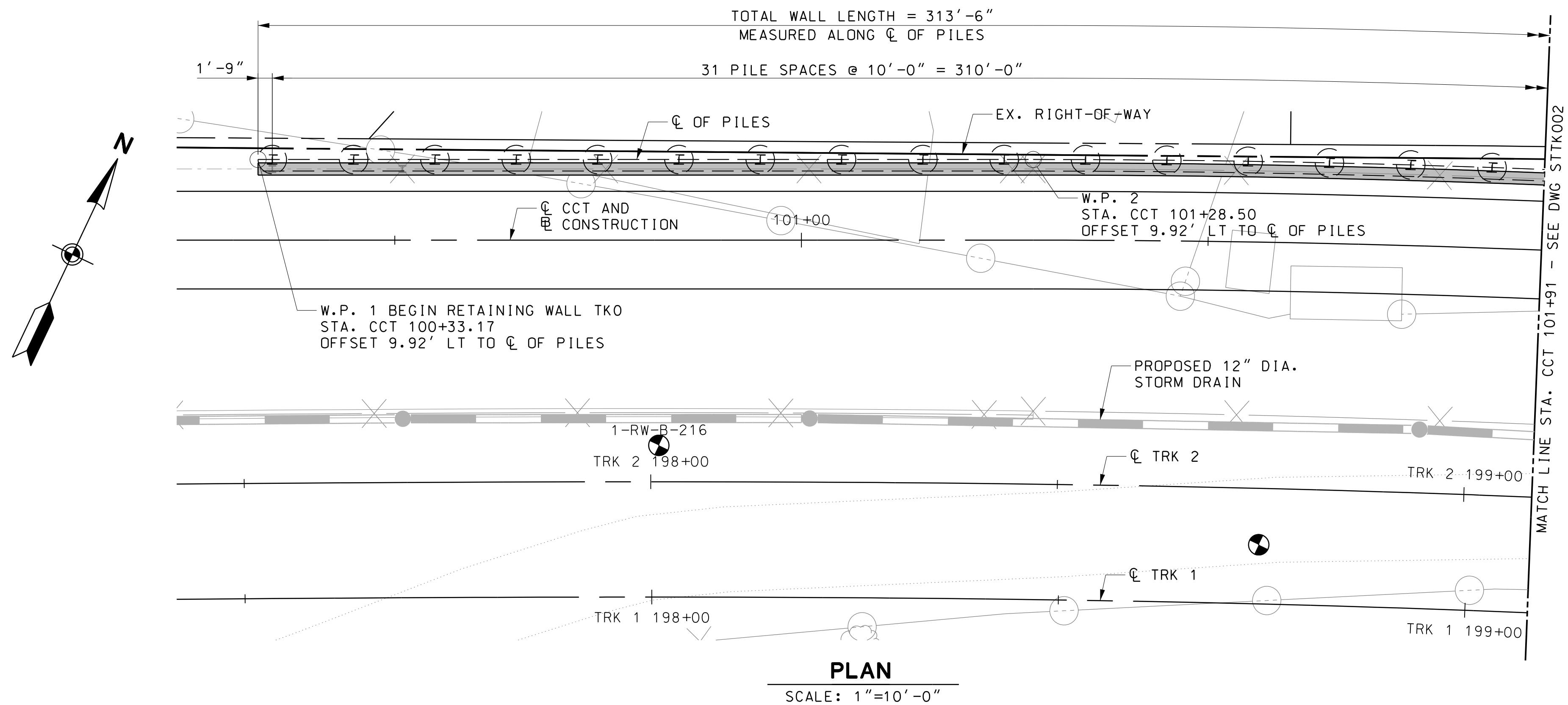
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

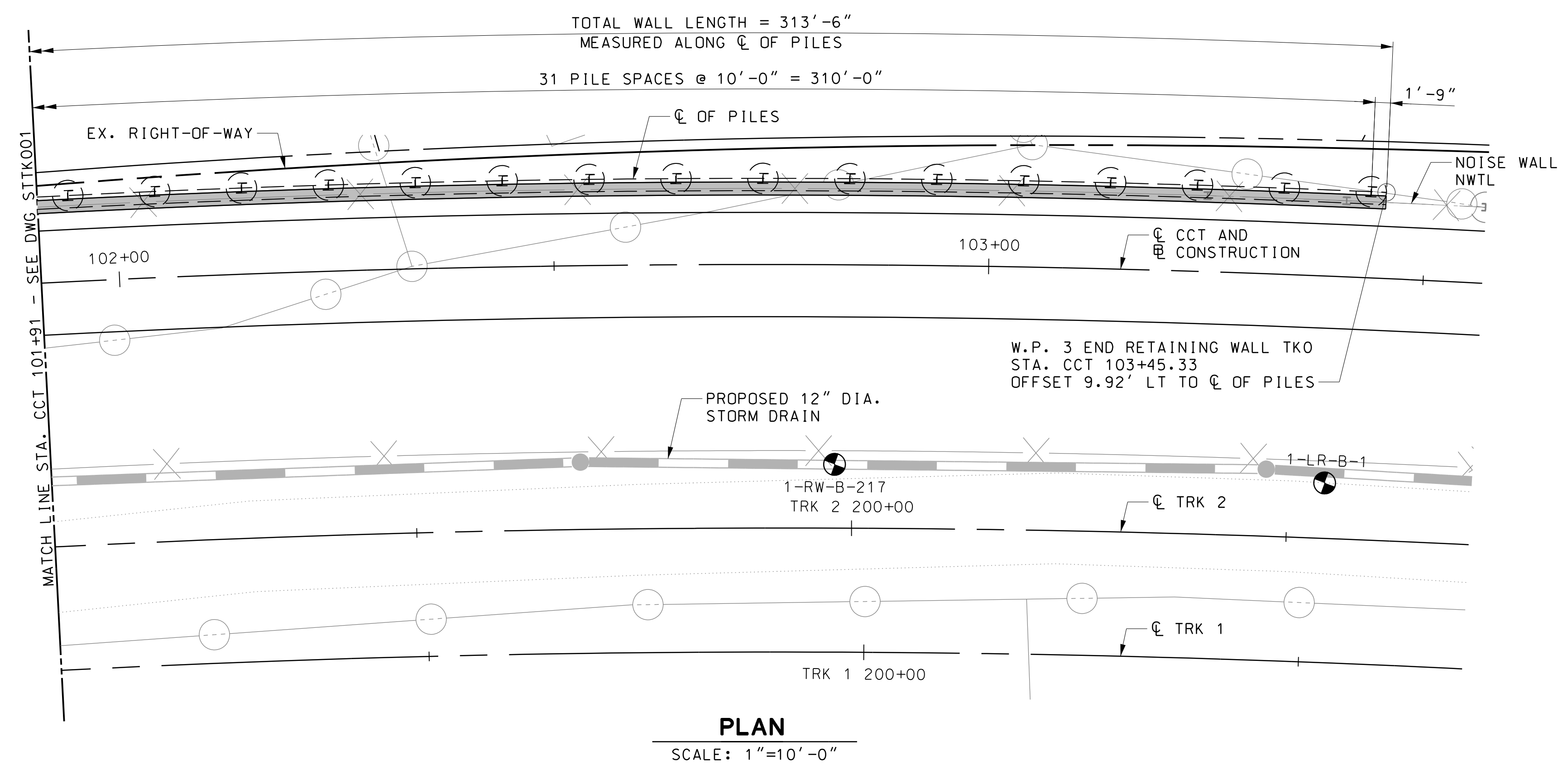
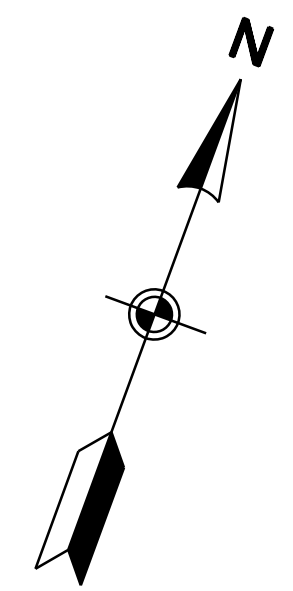
NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.

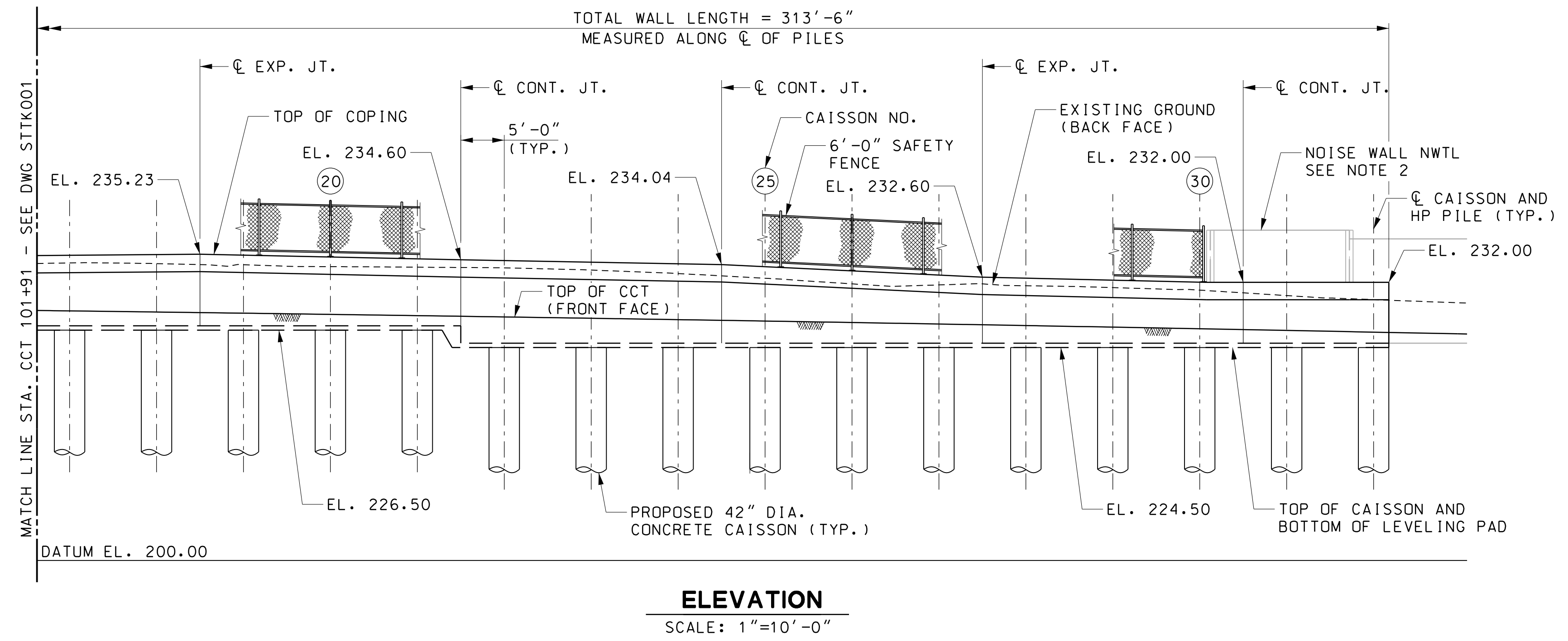


NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK003.
2. FOR NOISE WALL NWTK GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTK01 TO NWTK02.

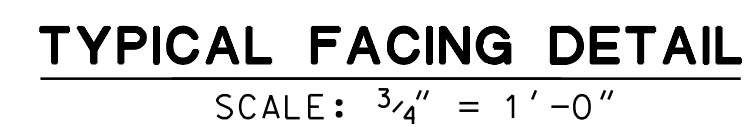


PLAN
SCALE: 1"=10'-0"

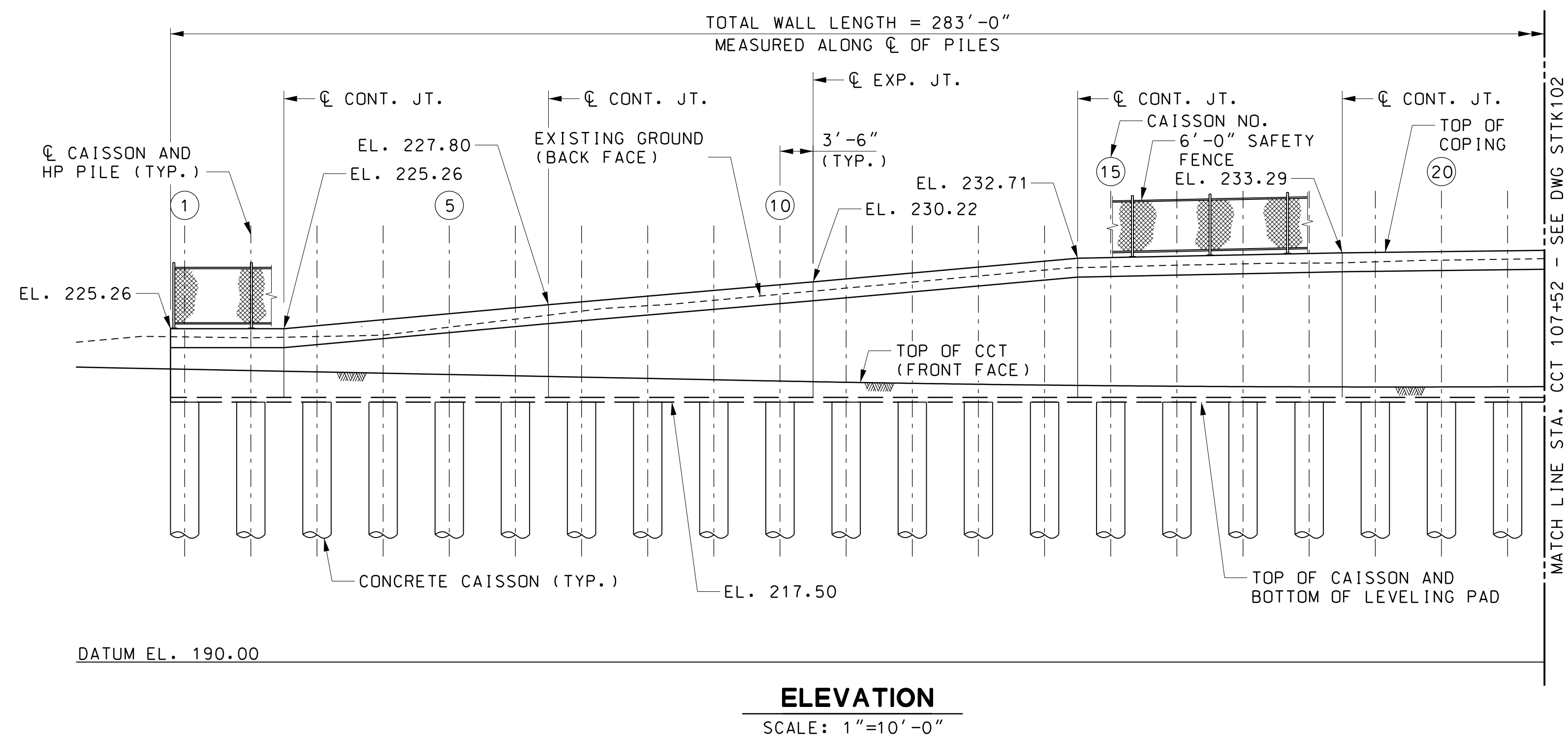
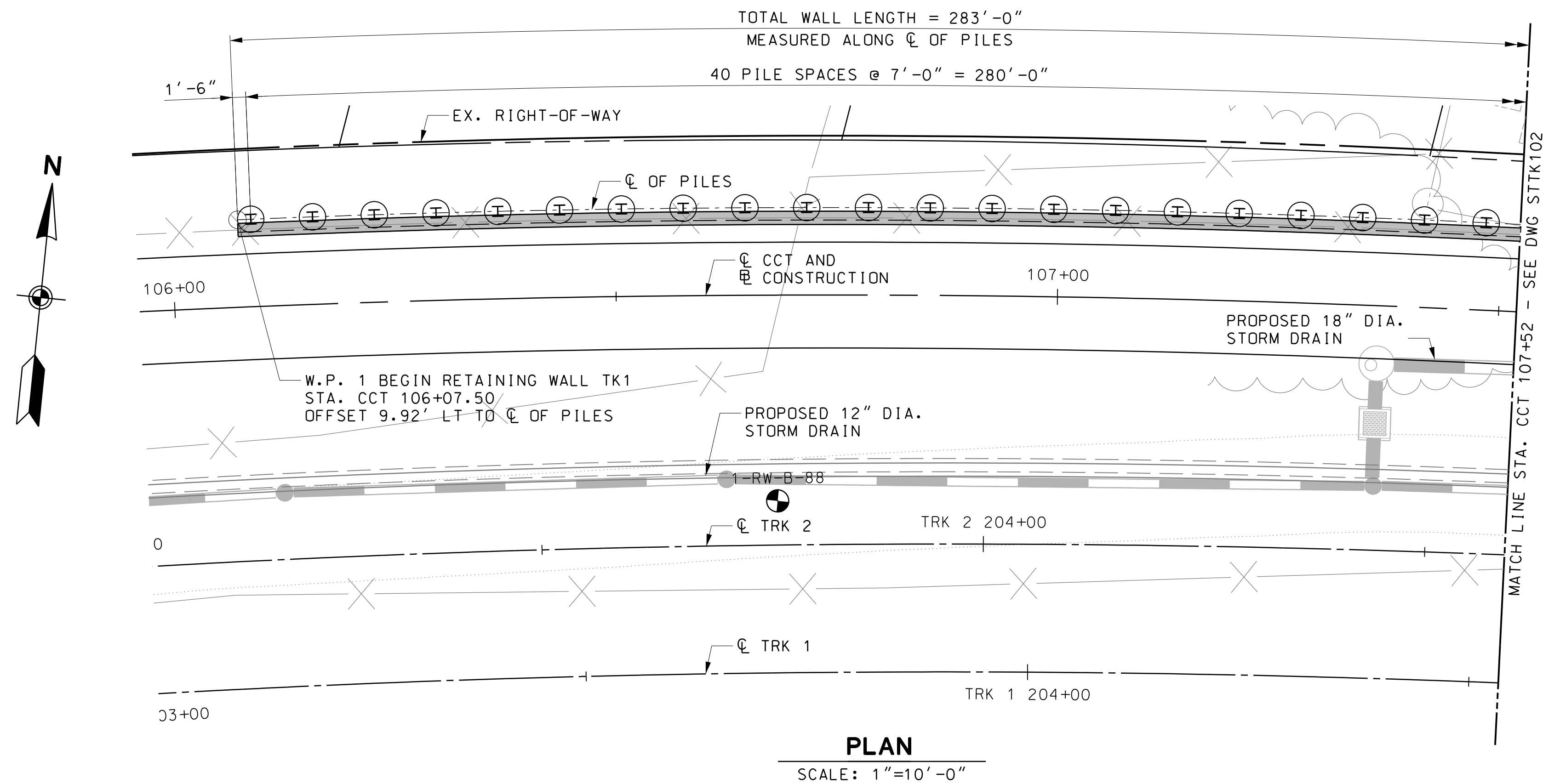


ELEVATION
SCALE: 1"=10'-0"

- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK003.
 2. FOR NOISE WALL NWTL GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTL01 TO NWTL02.

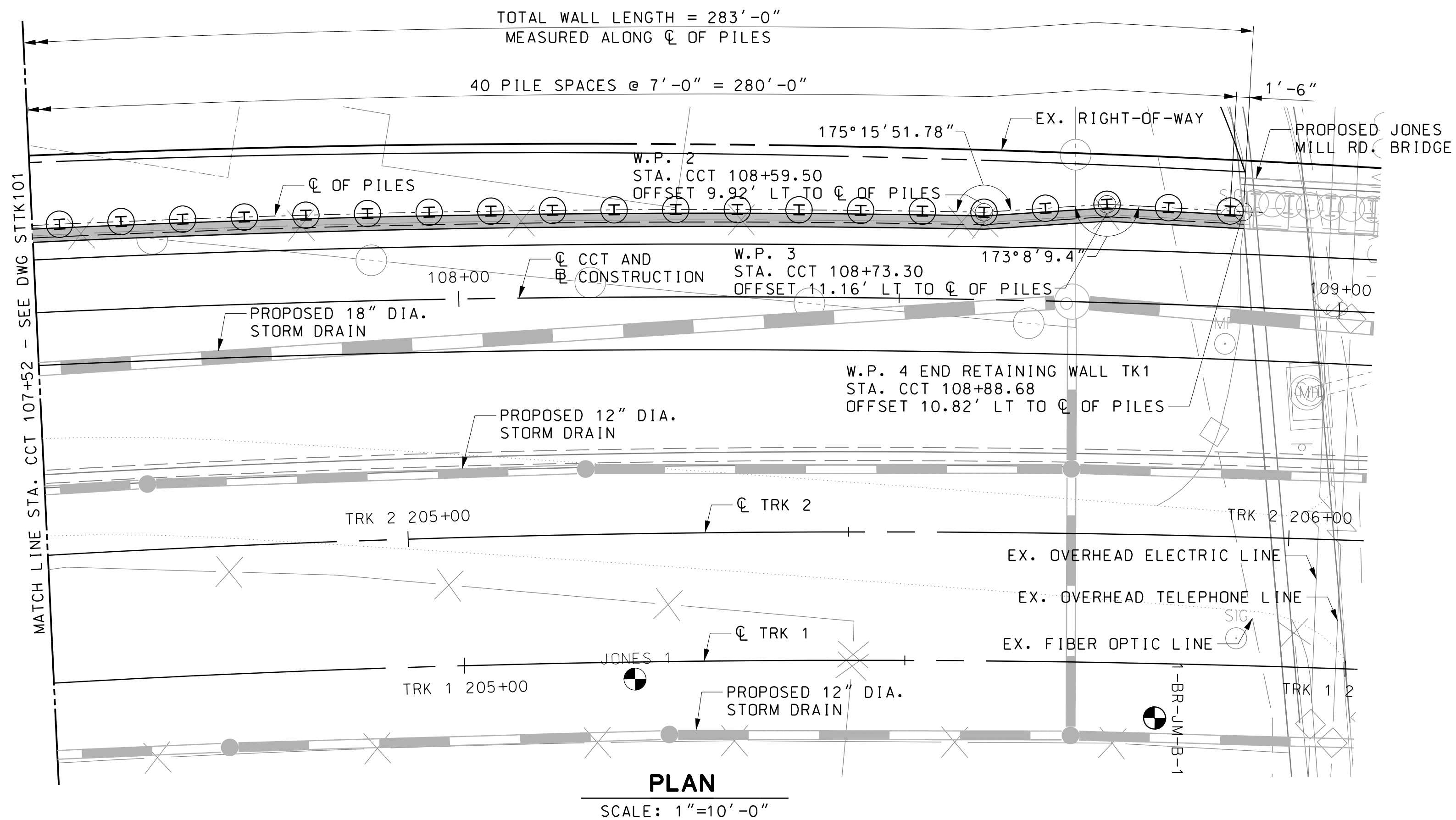
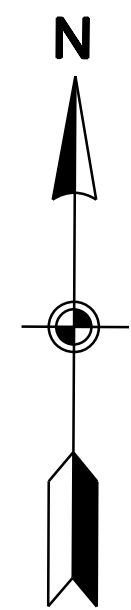


1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON).
FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT
OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED
TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES
AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION
PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE
CONCRETE CAISSON.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.



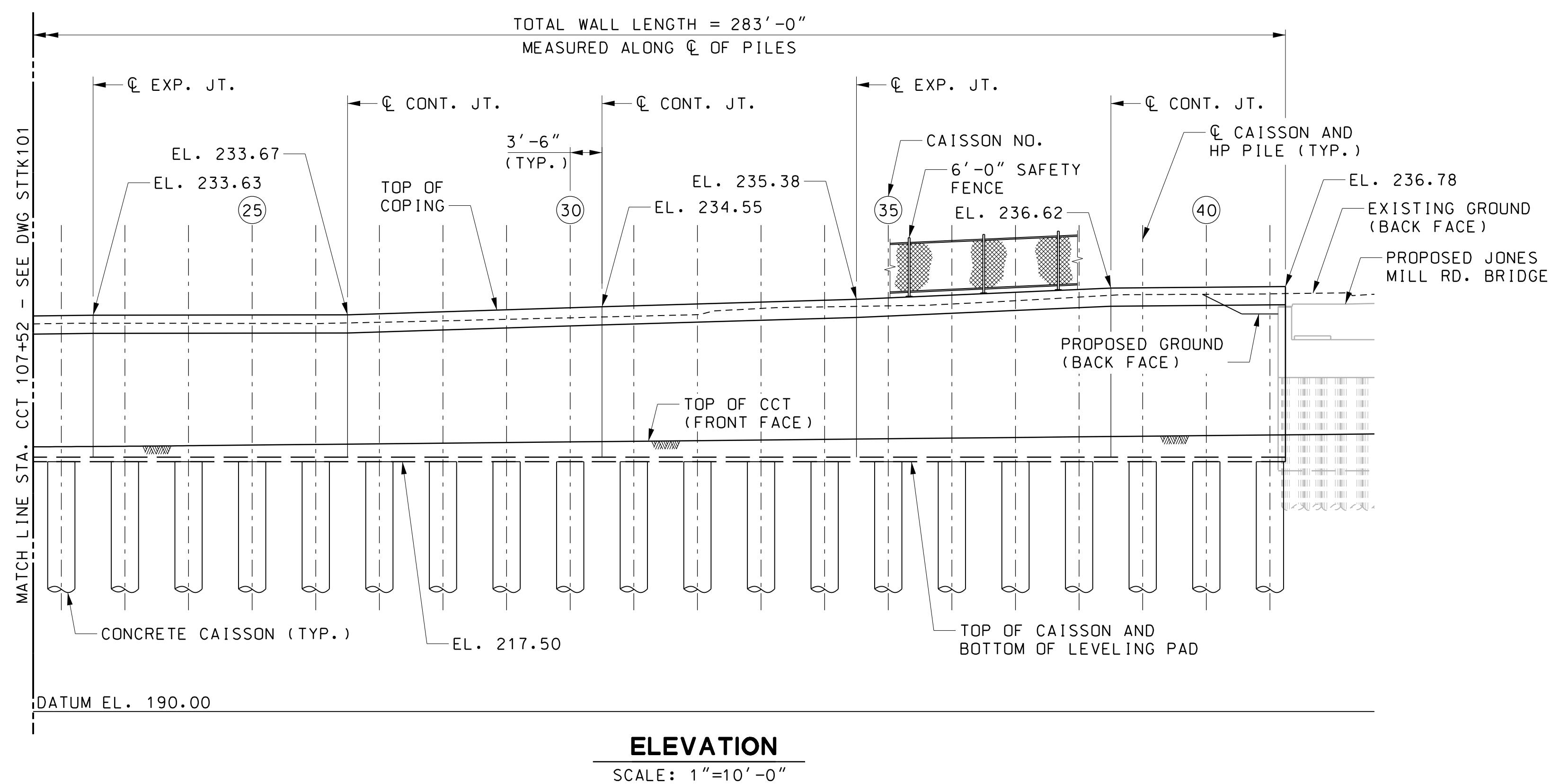
NOTES:

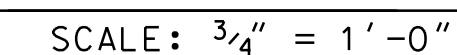
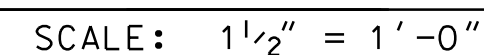
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK103.
2. FOR NOISE WALL NWTL GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTLO1 TO NWTLO2.



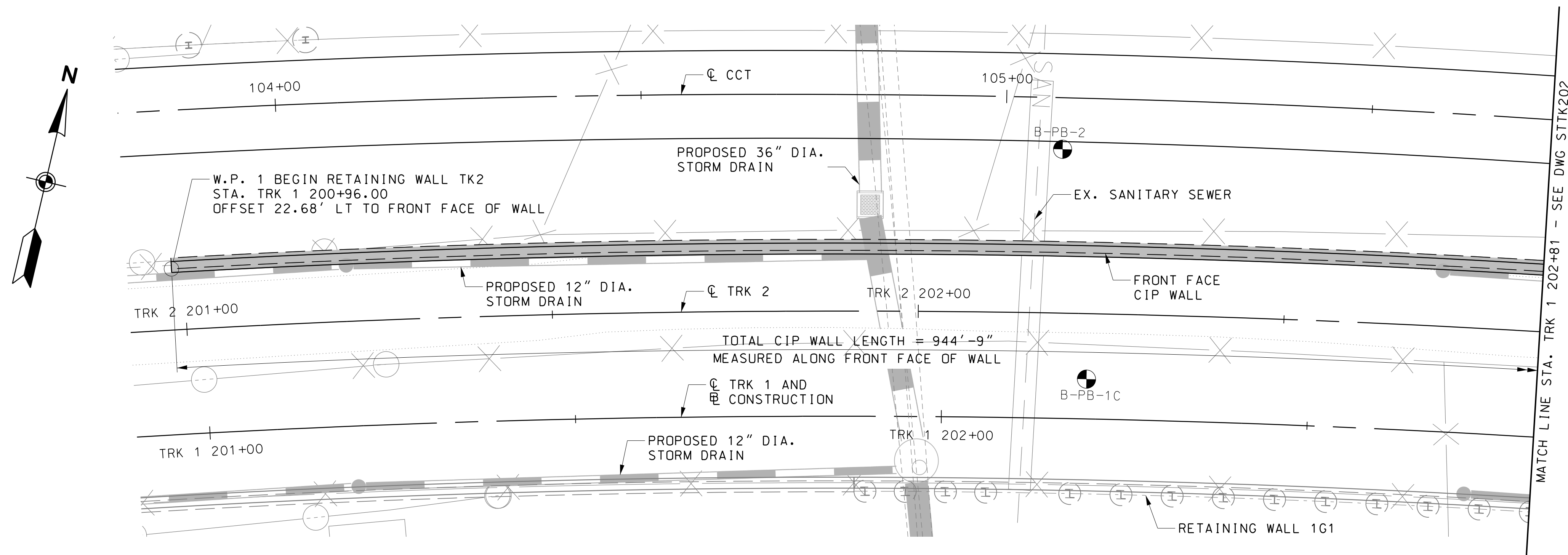
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK103.

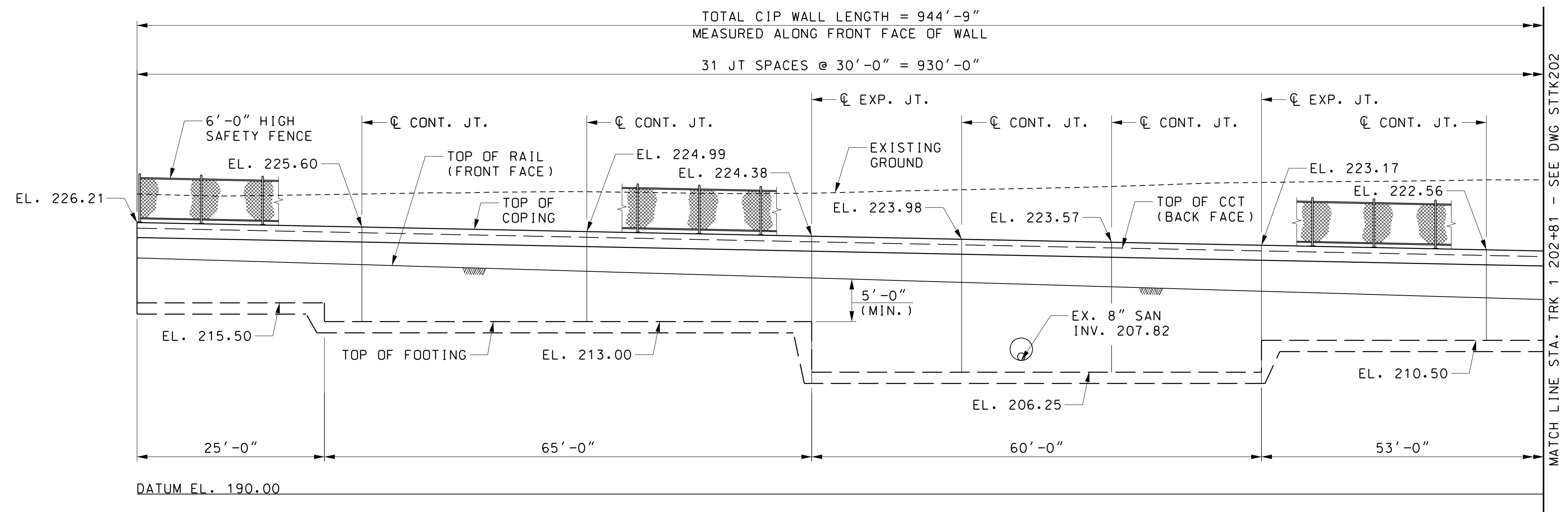




1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON).
FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT
OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED
TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES
AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION
PROCEEDS.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE
CONCRETE CAISSON.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.

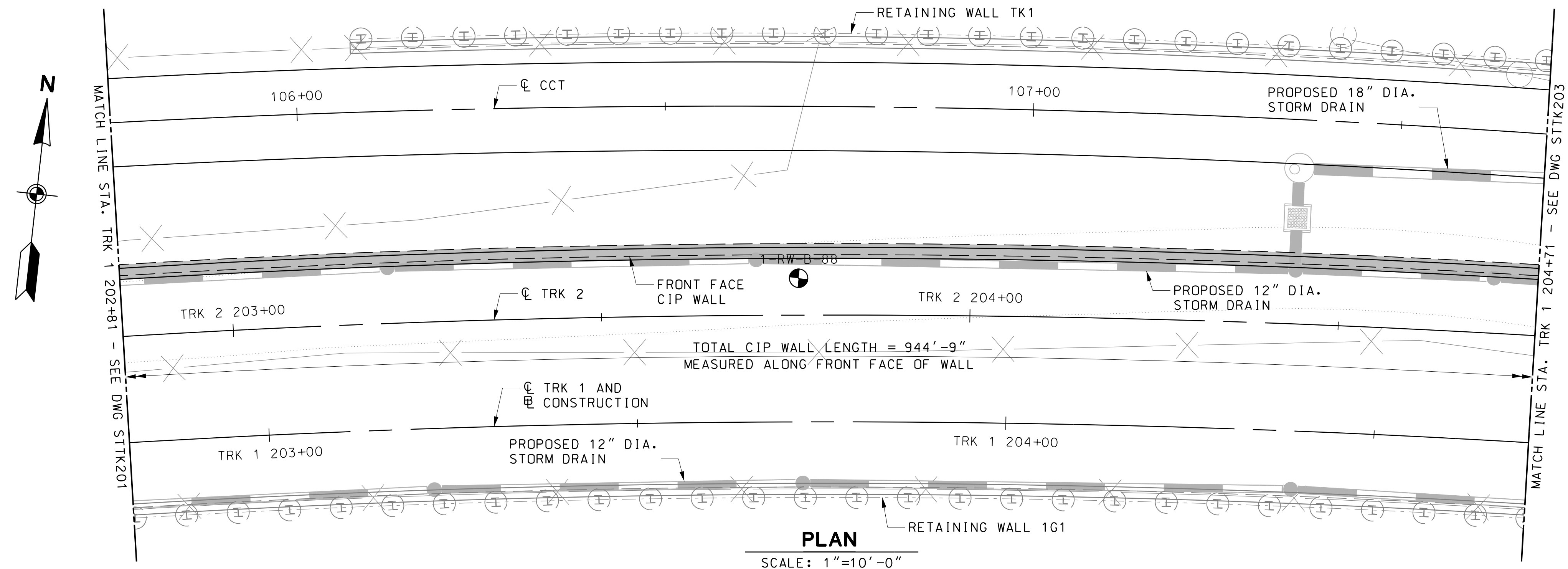


PLAN
SCALE: 1"=10'-0"



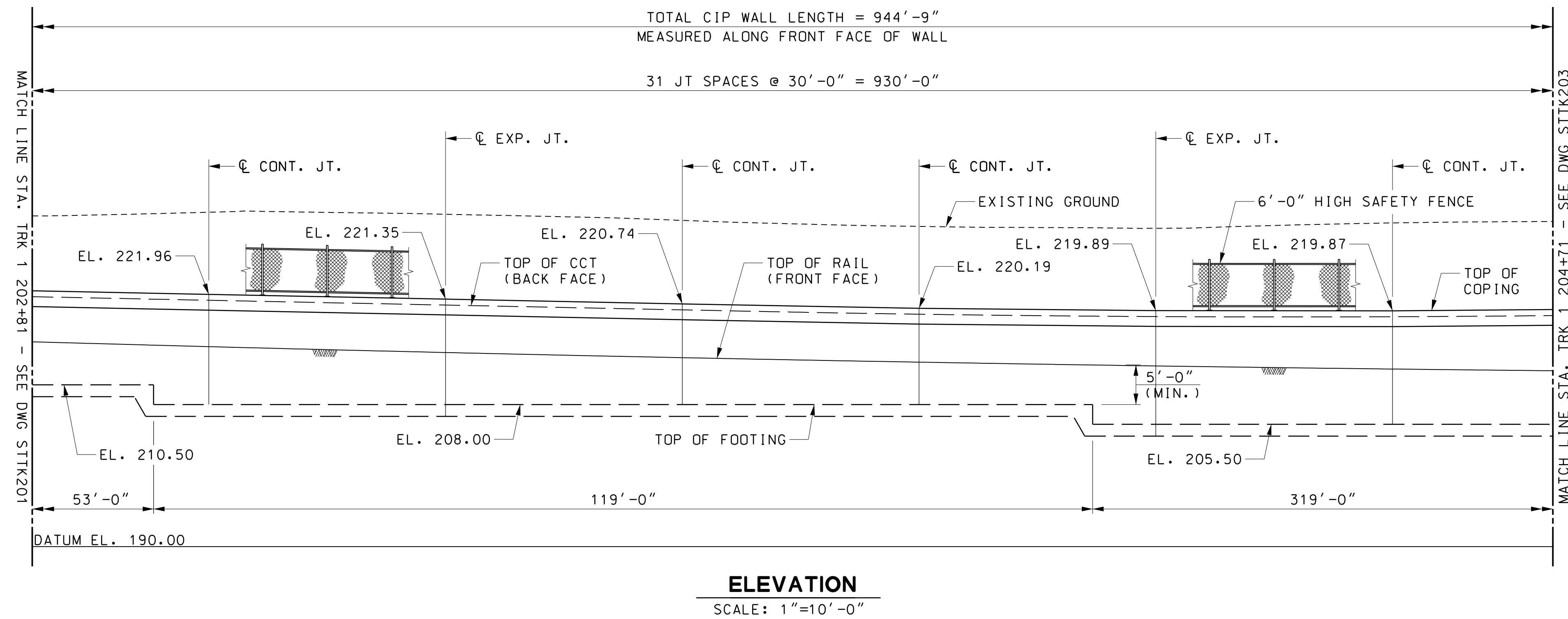
ELEVATION
SCALE: 1"=10'-0"

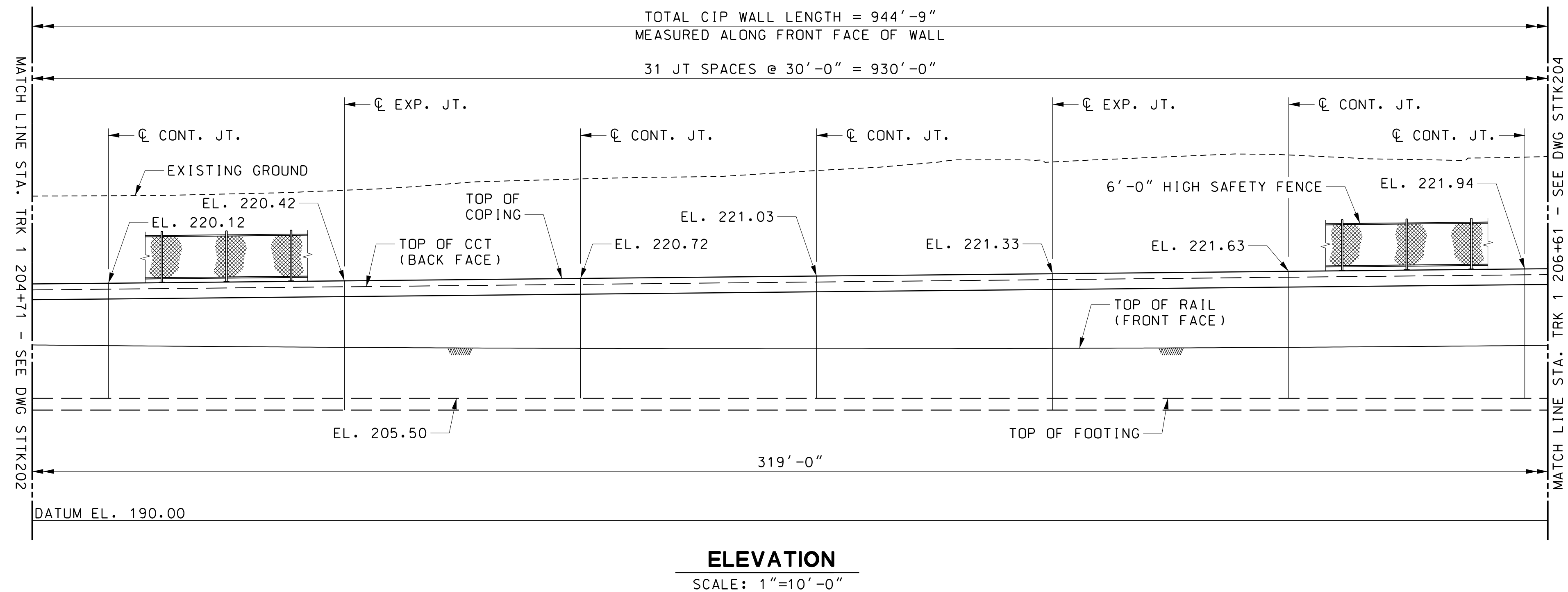
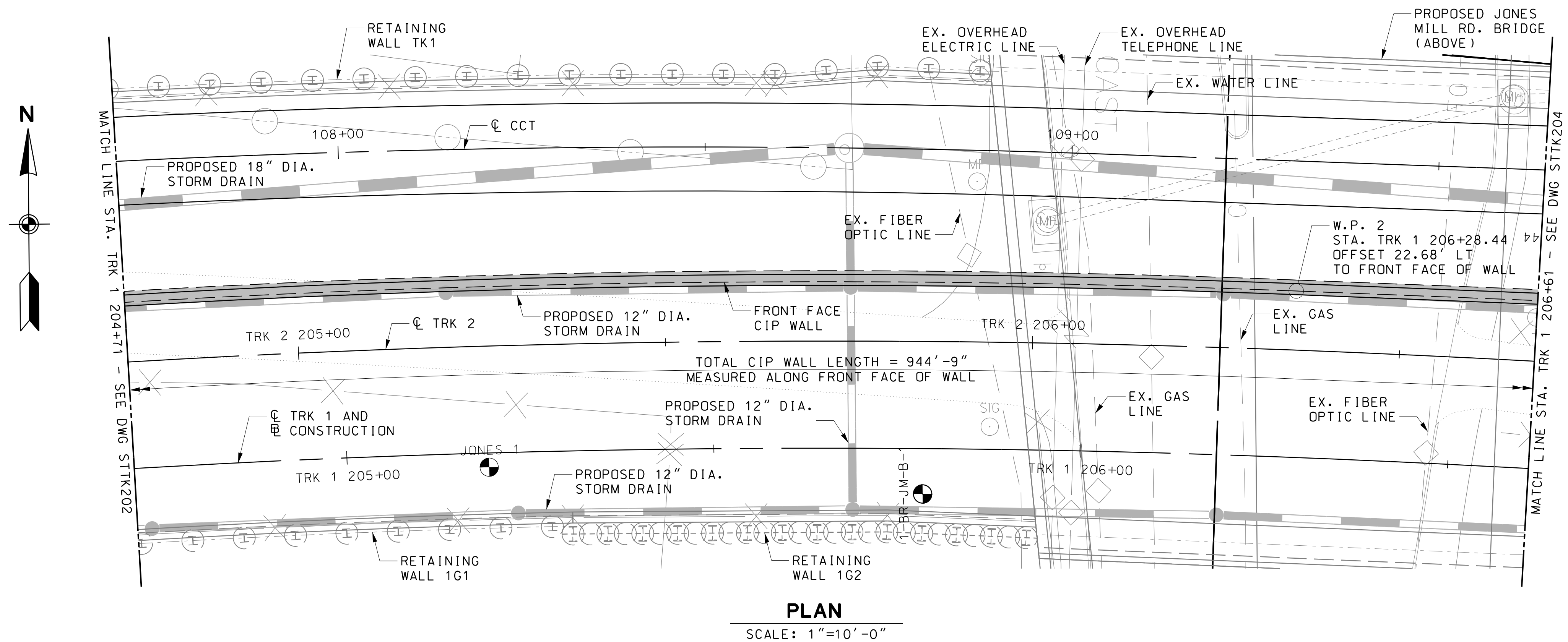
NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK206.



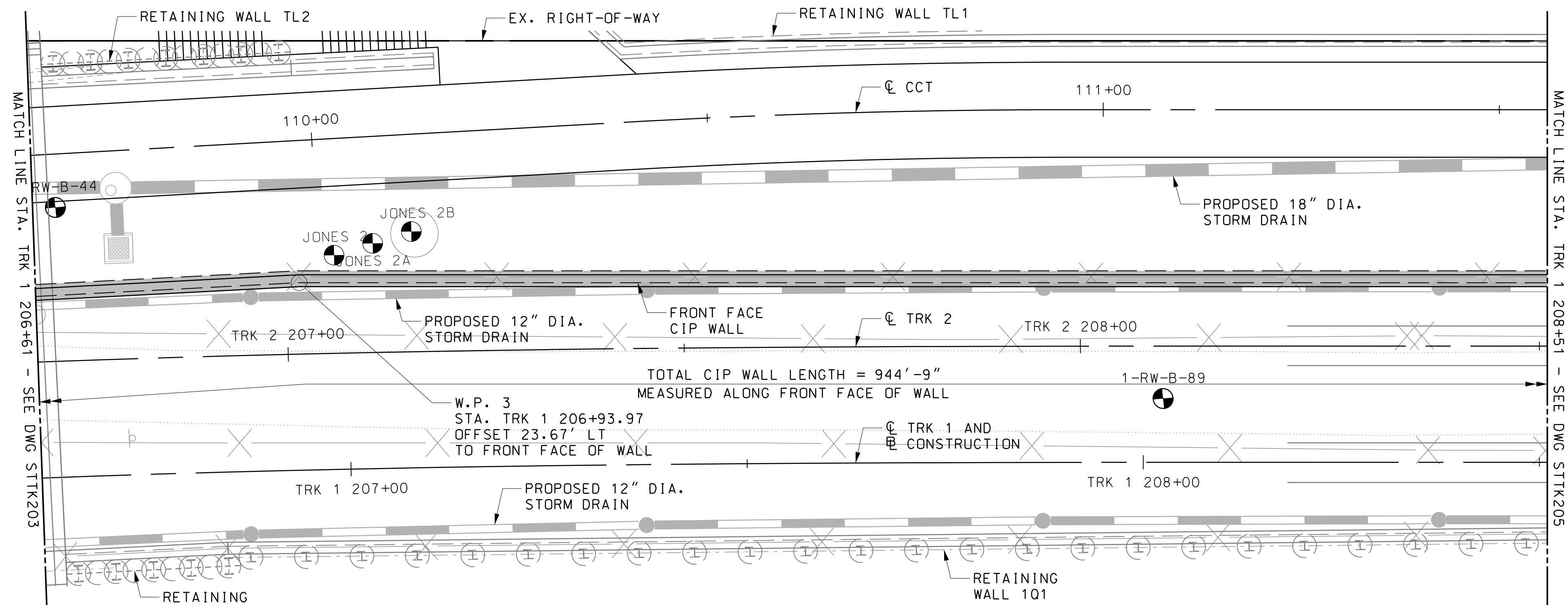
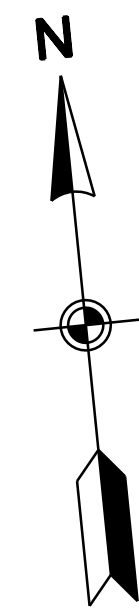
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK206.



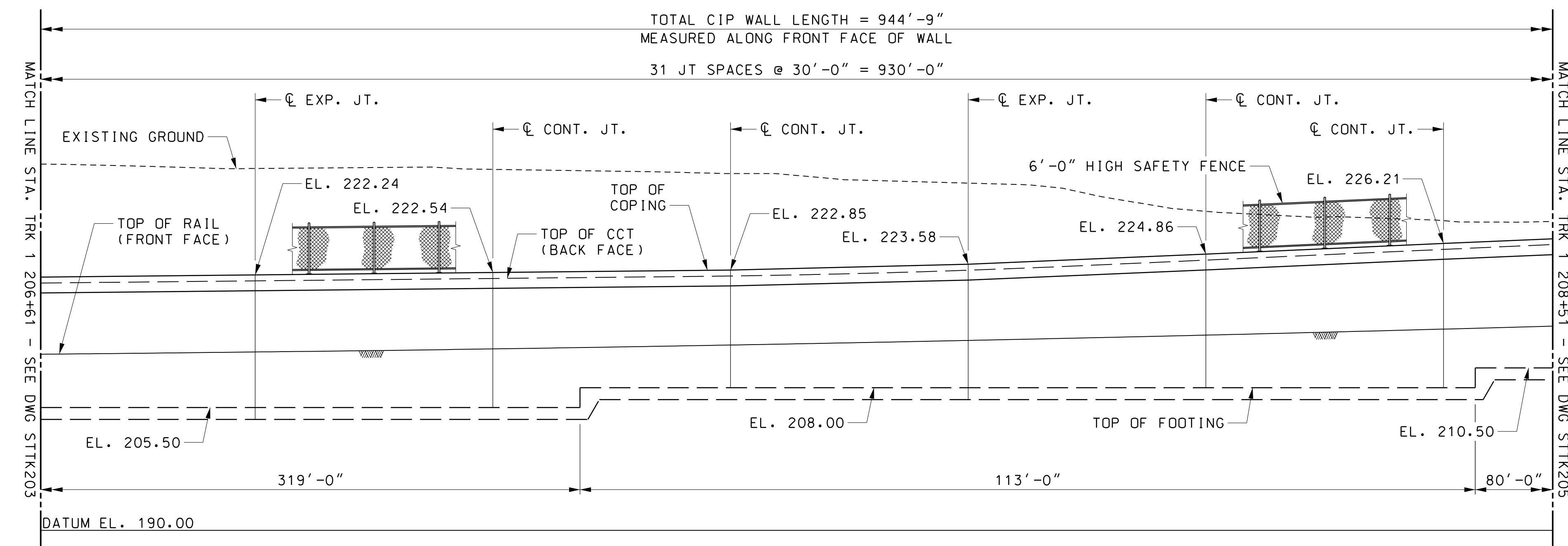


- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK206.



PLAN

SCALE: 1"=10'-0"

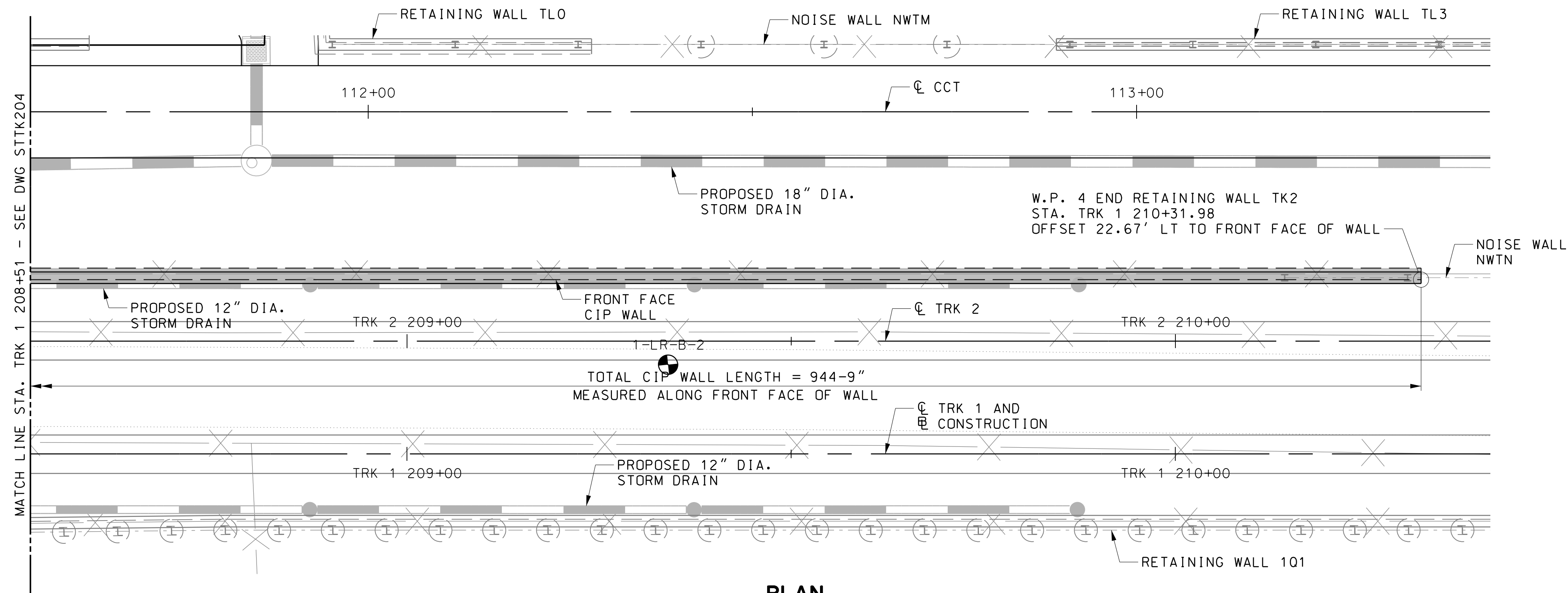
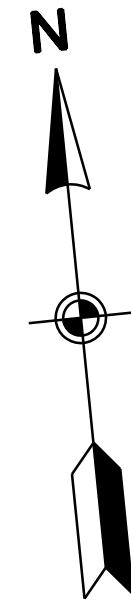


ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK206.

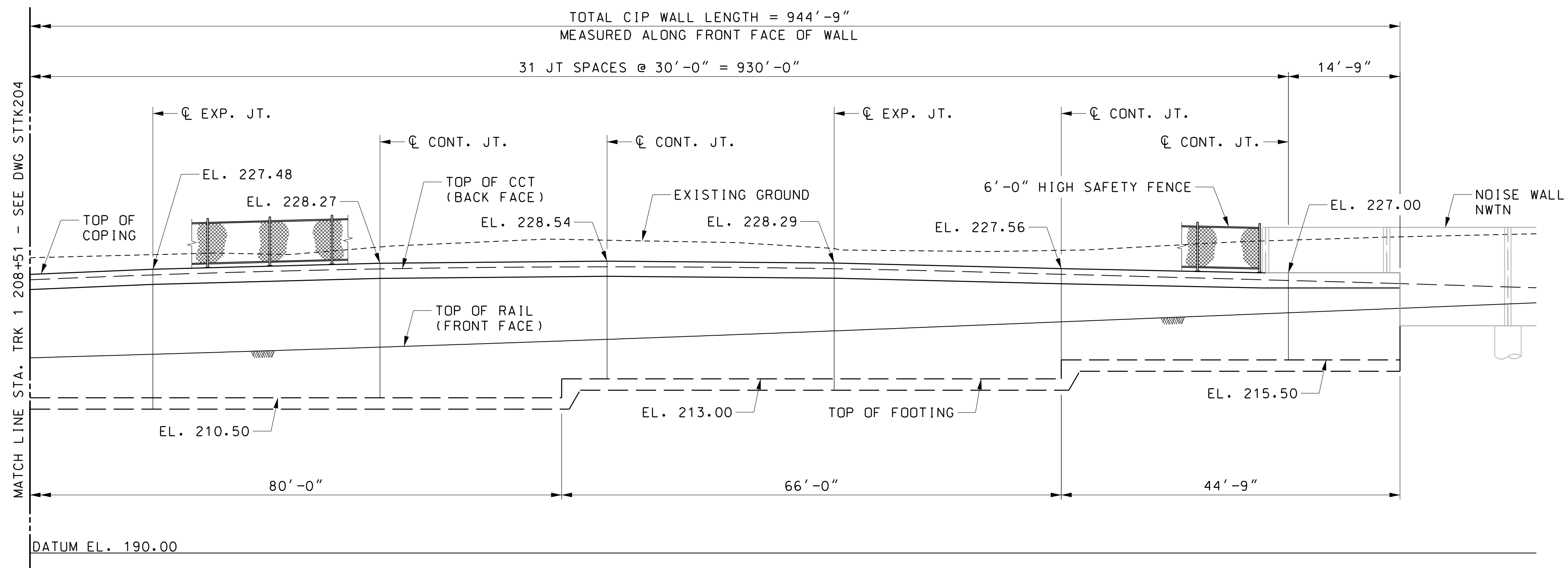


PLAN

SCALE: 1"=10'-0"

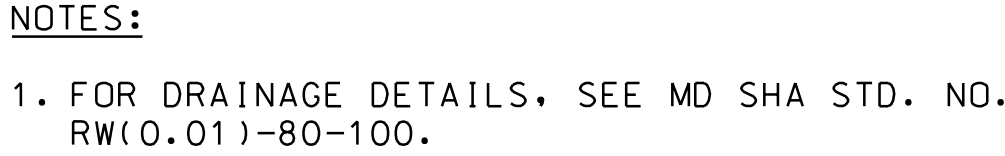
NOTES:

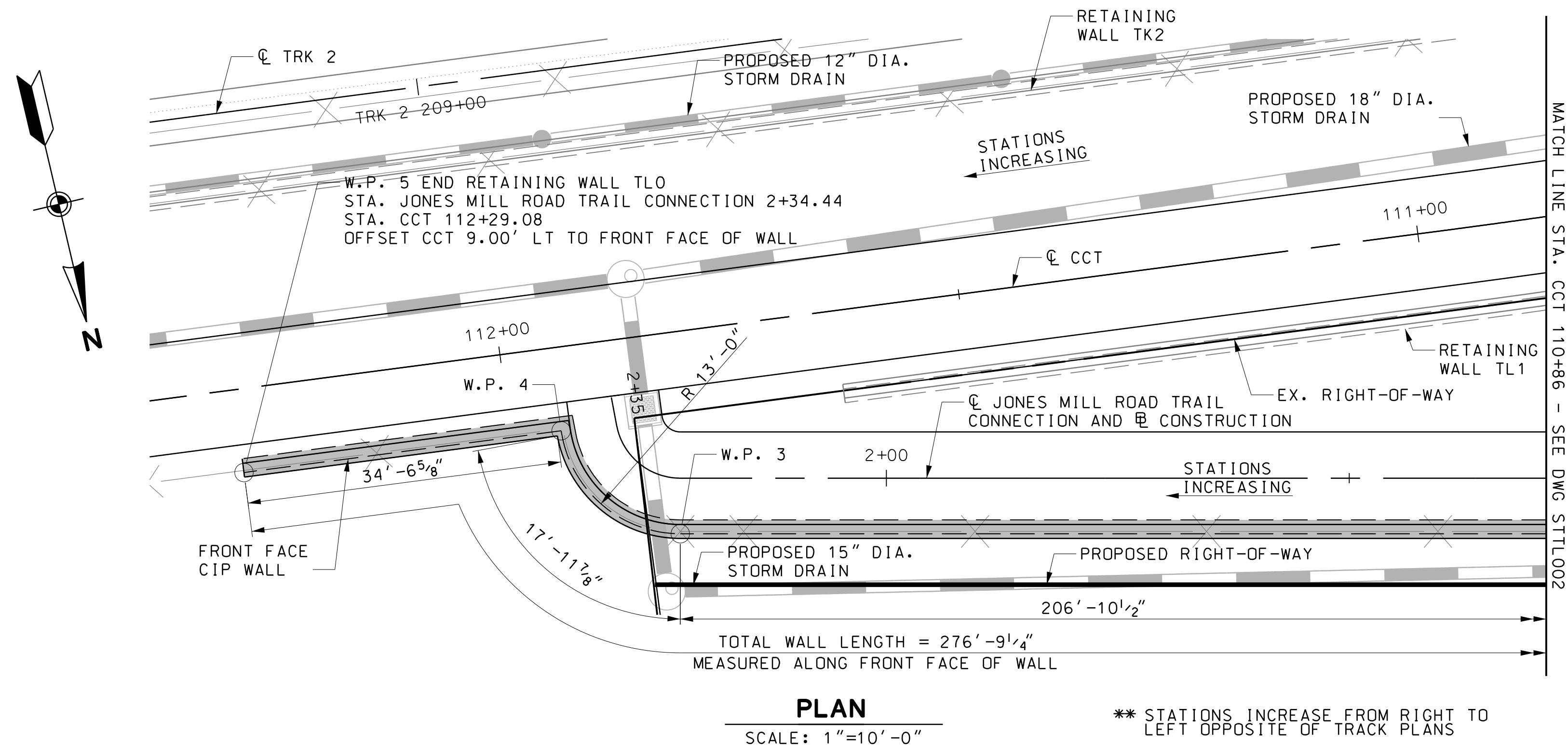
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTK206.



ELEVATION

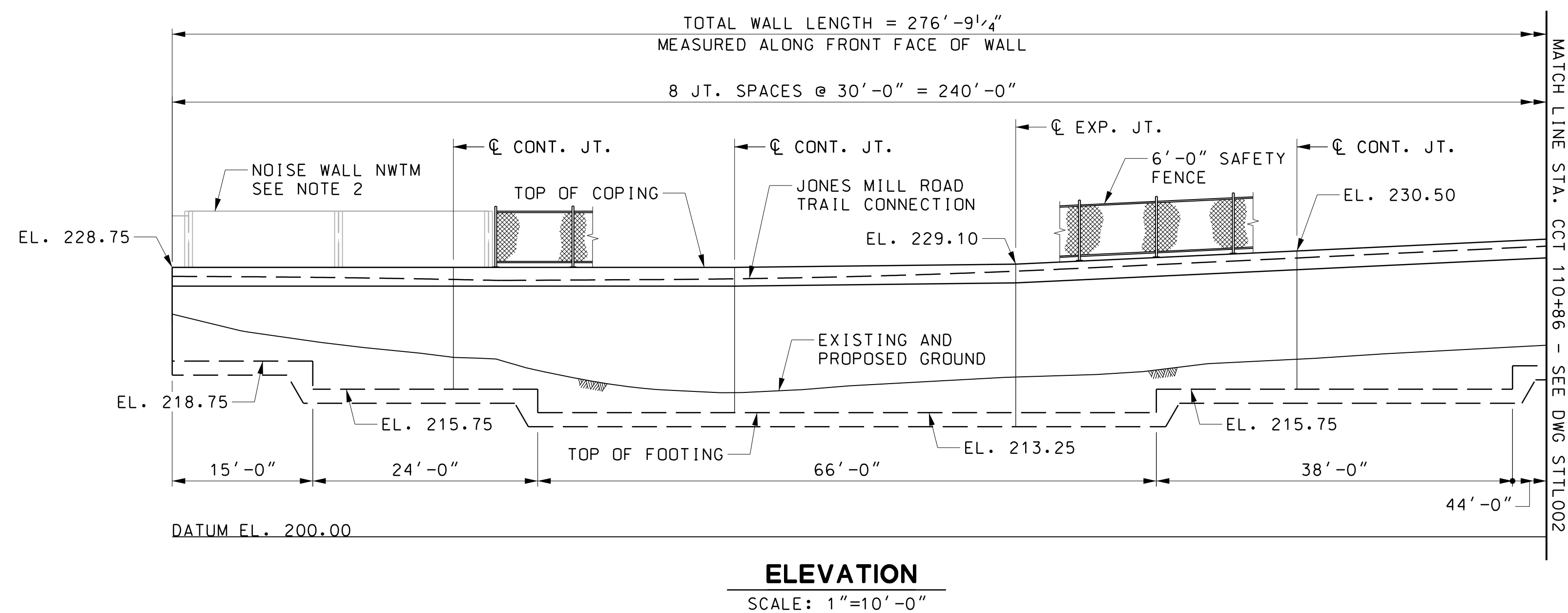
SCALE: 1"=10'-0"

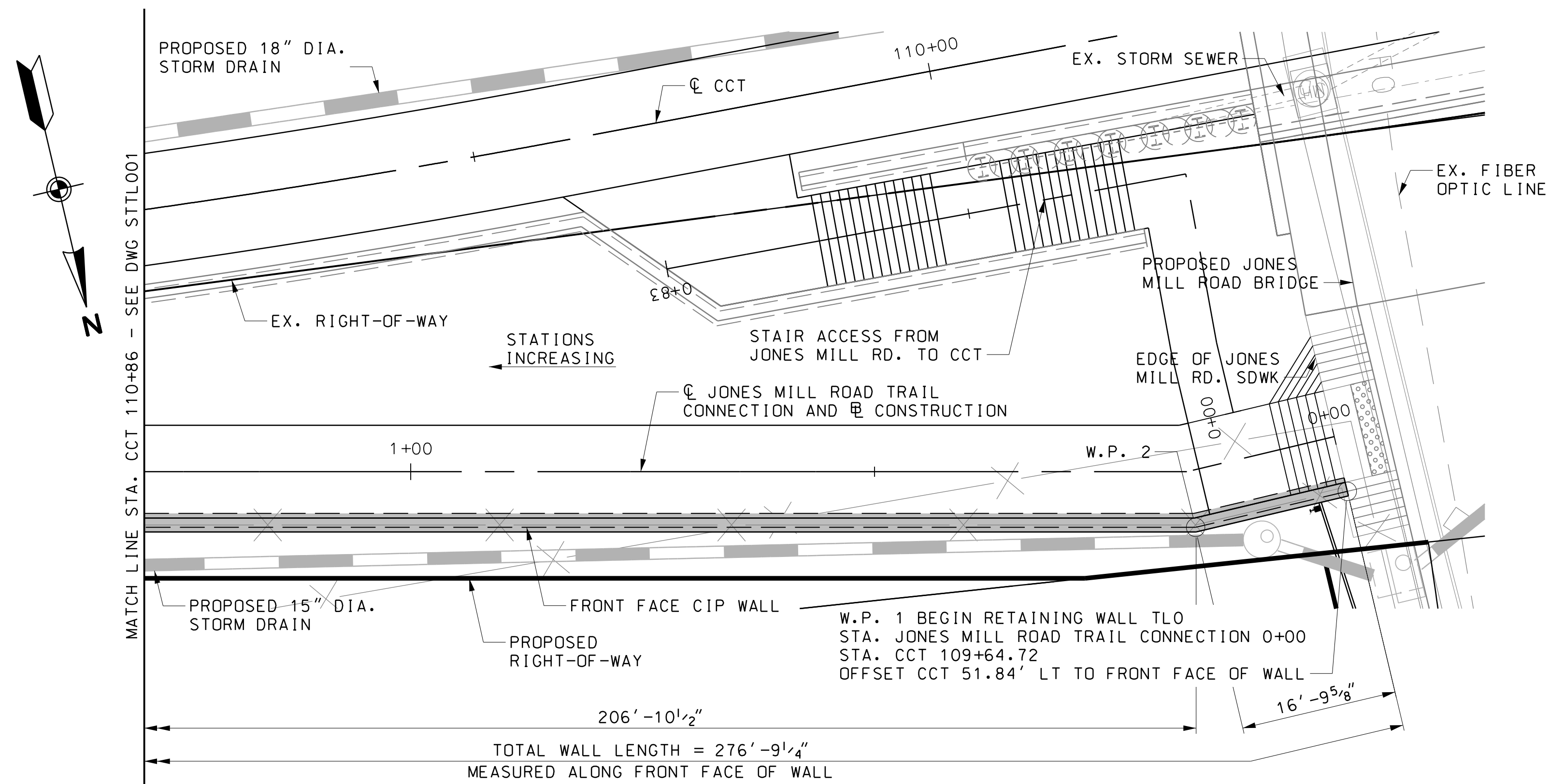




NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL003.
2. FOR NOISE WALL NWTM GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTM01 TO NWTM03.

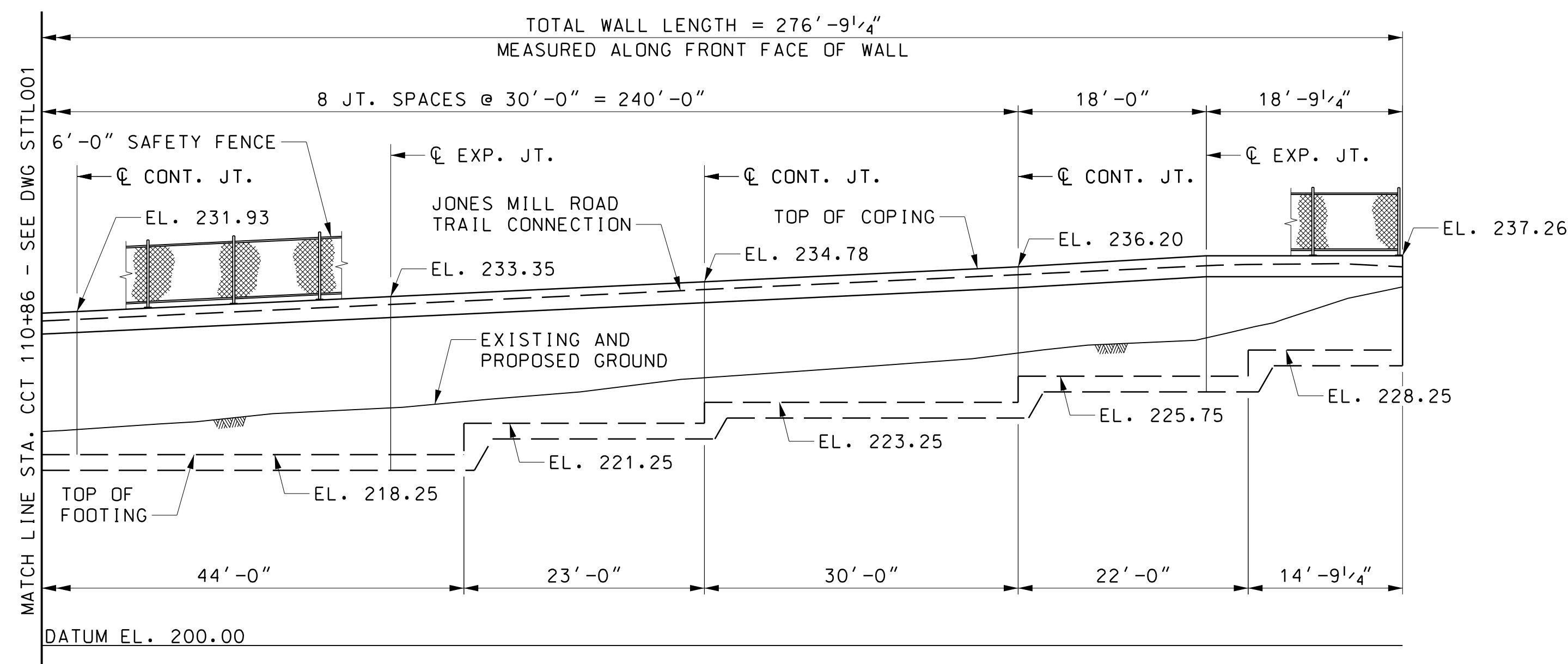




PLAN

SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

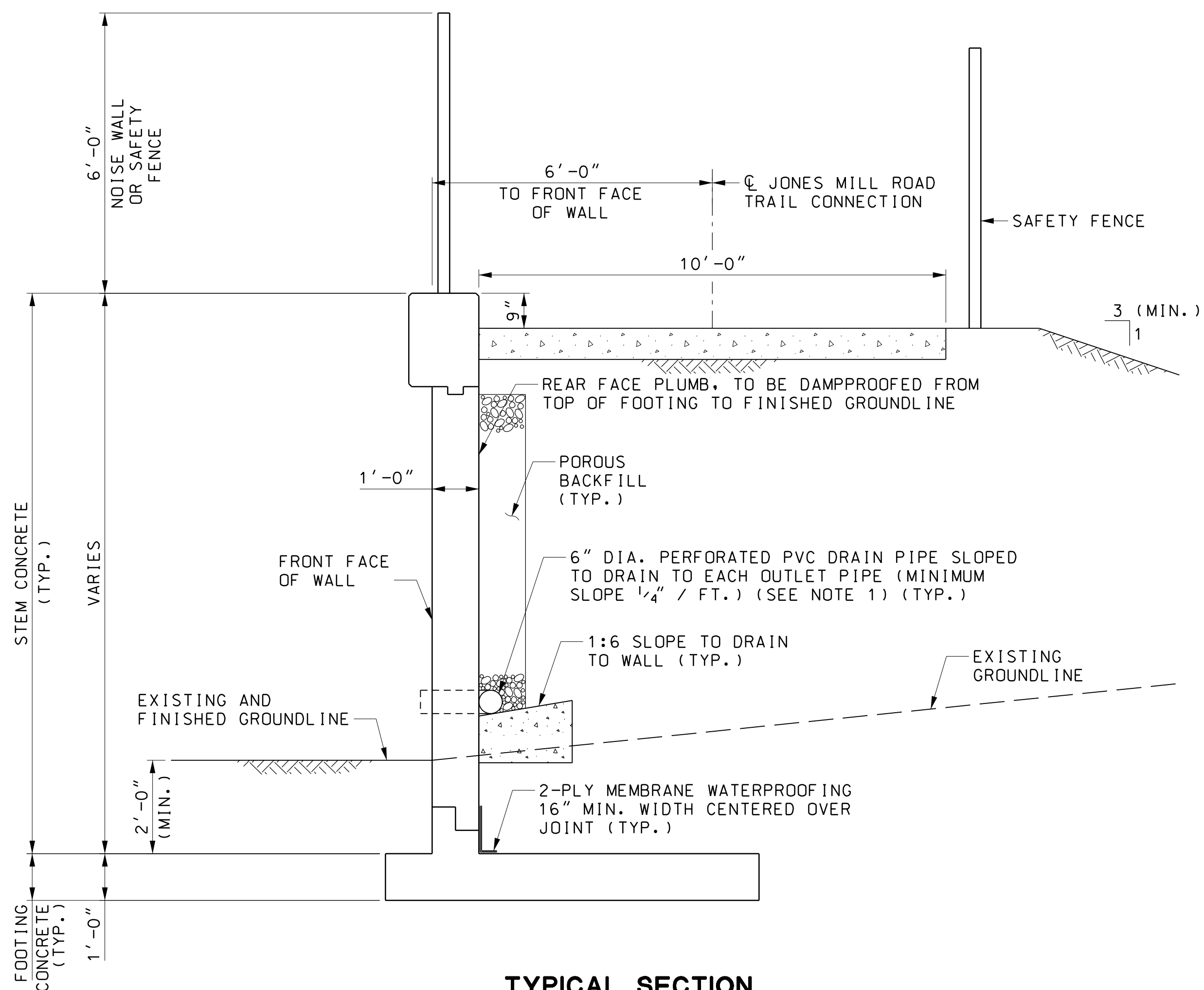


ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL003.

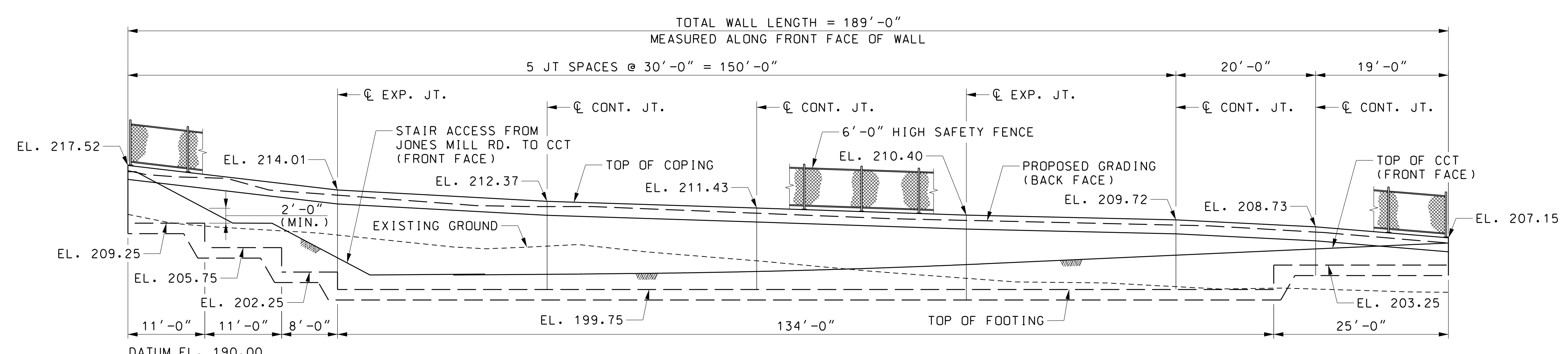
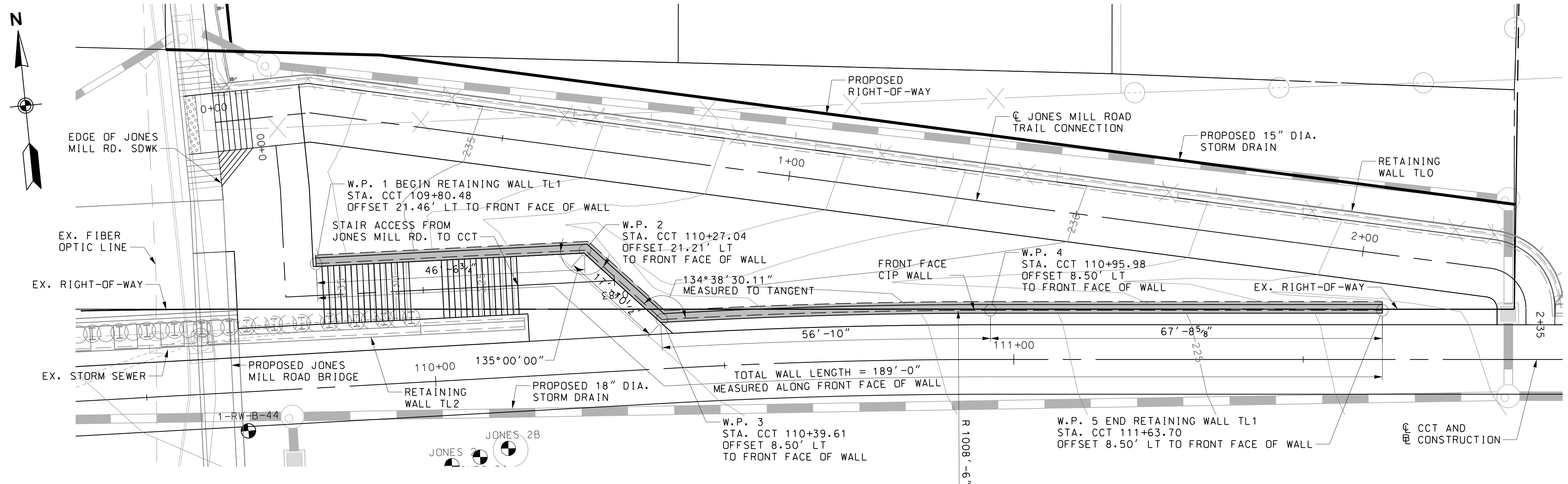


TYPICAL SECTION

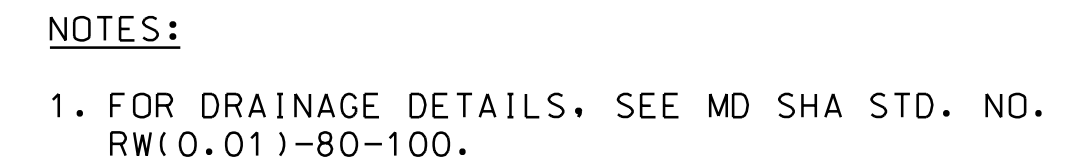
SCALE: 1/2" = 1'-0"

NOTES:

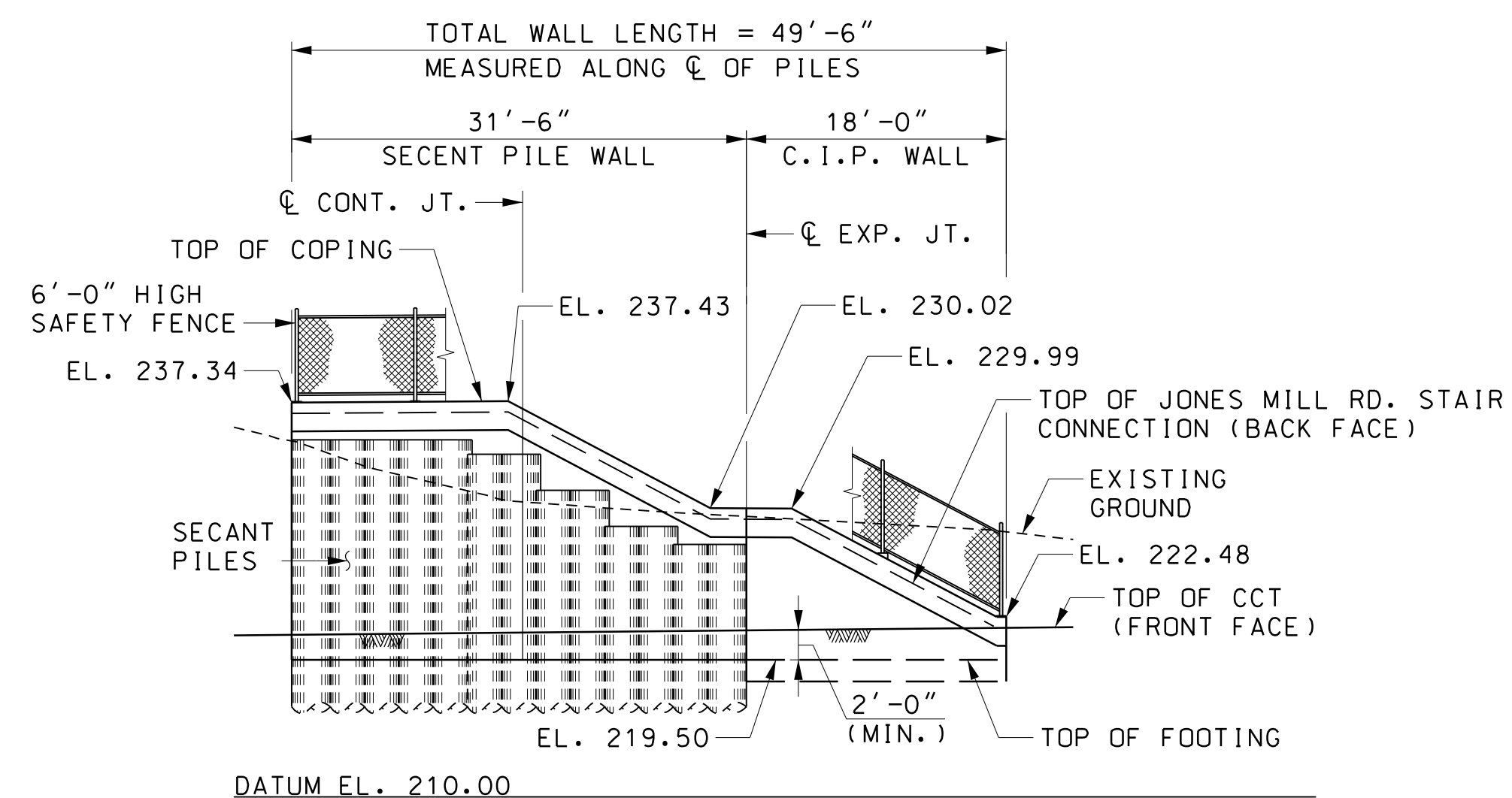
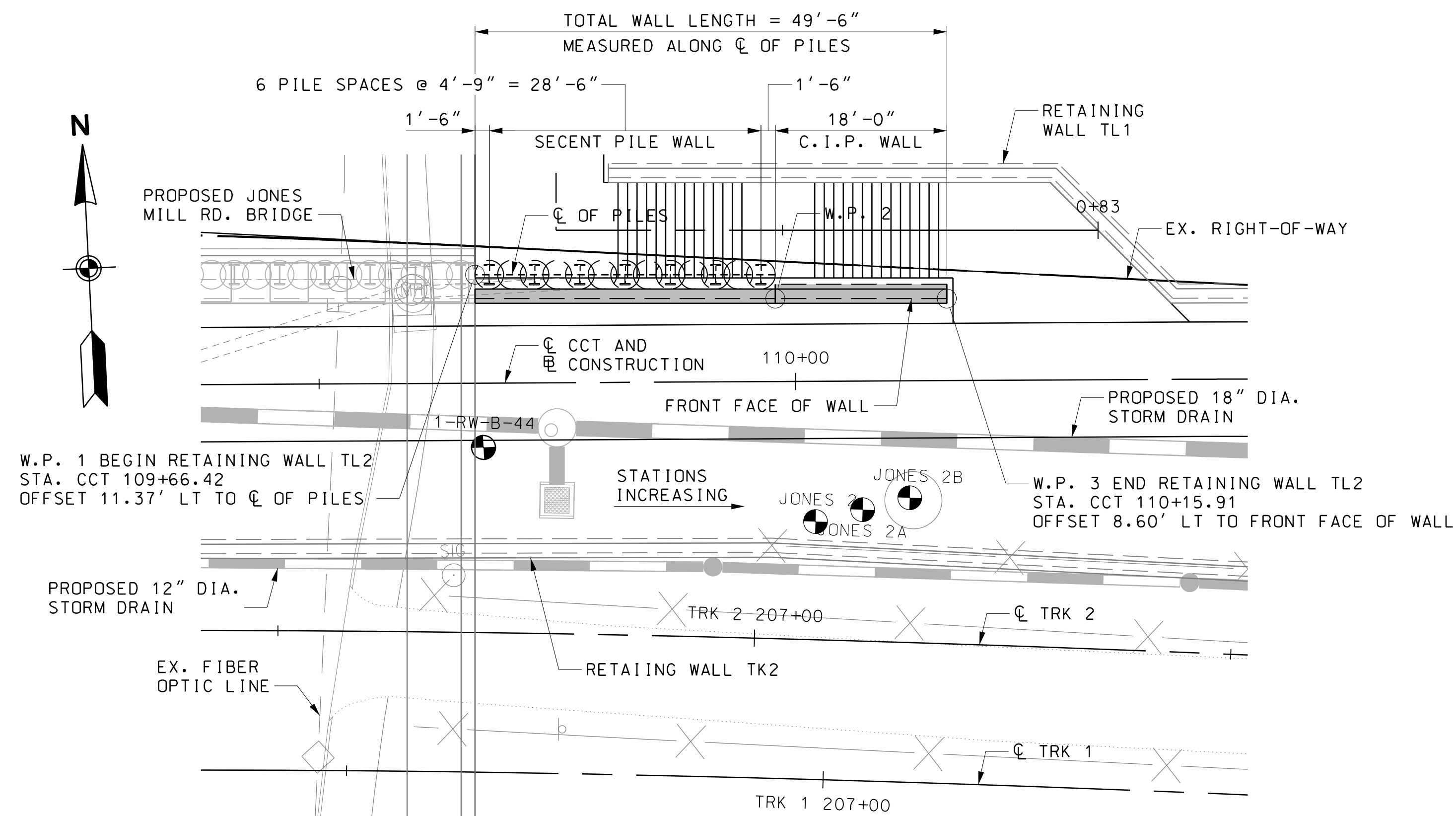
1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



- NOTES:
- FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL102.
 - PROPOSED GRADING SHOWN IN PLAN VIEW.

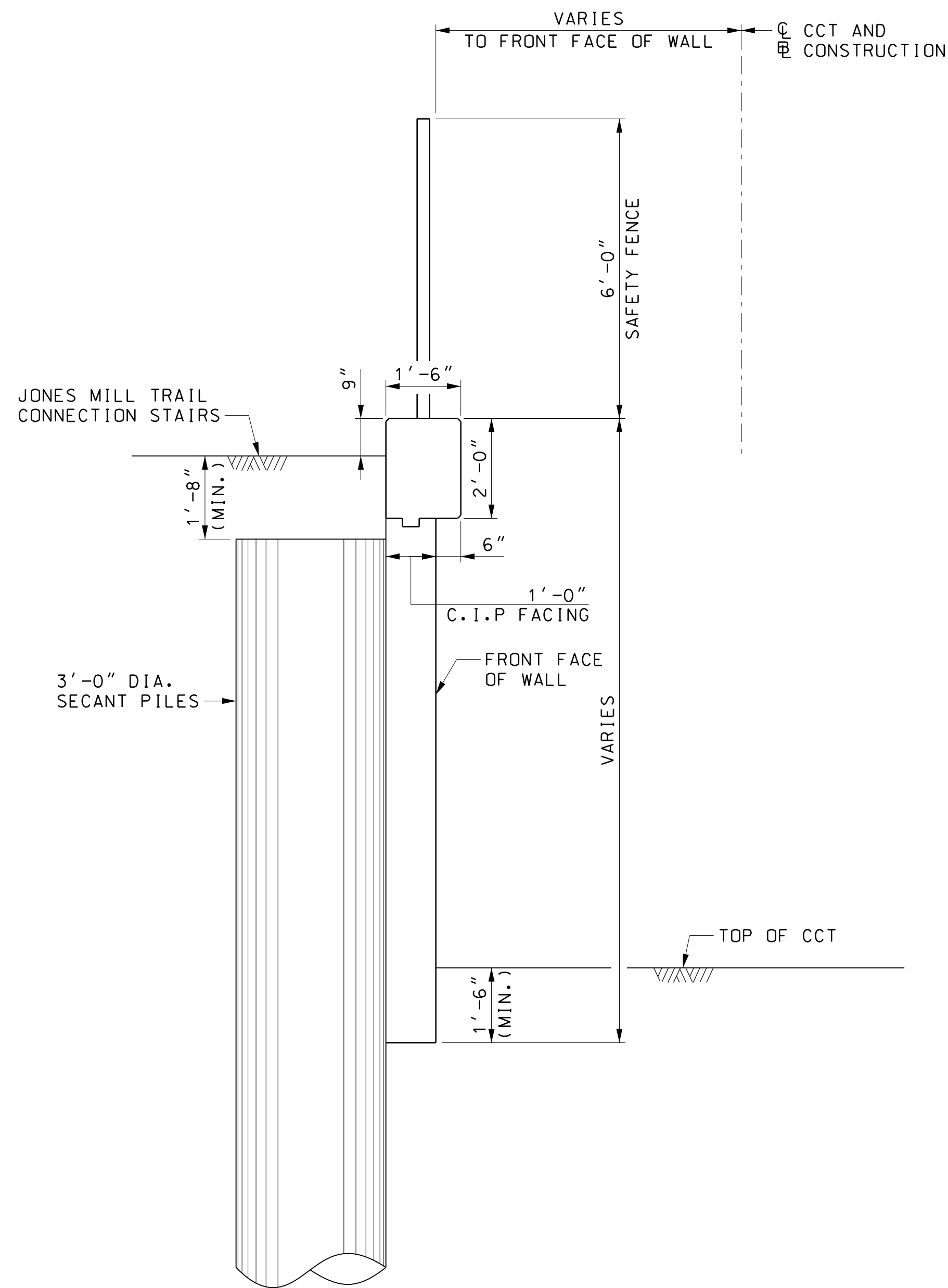


ow:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\L-Ret Walls Jones Mill-Rock Creek\Sheet Files\1042pSt112.dgn
12/10/2013



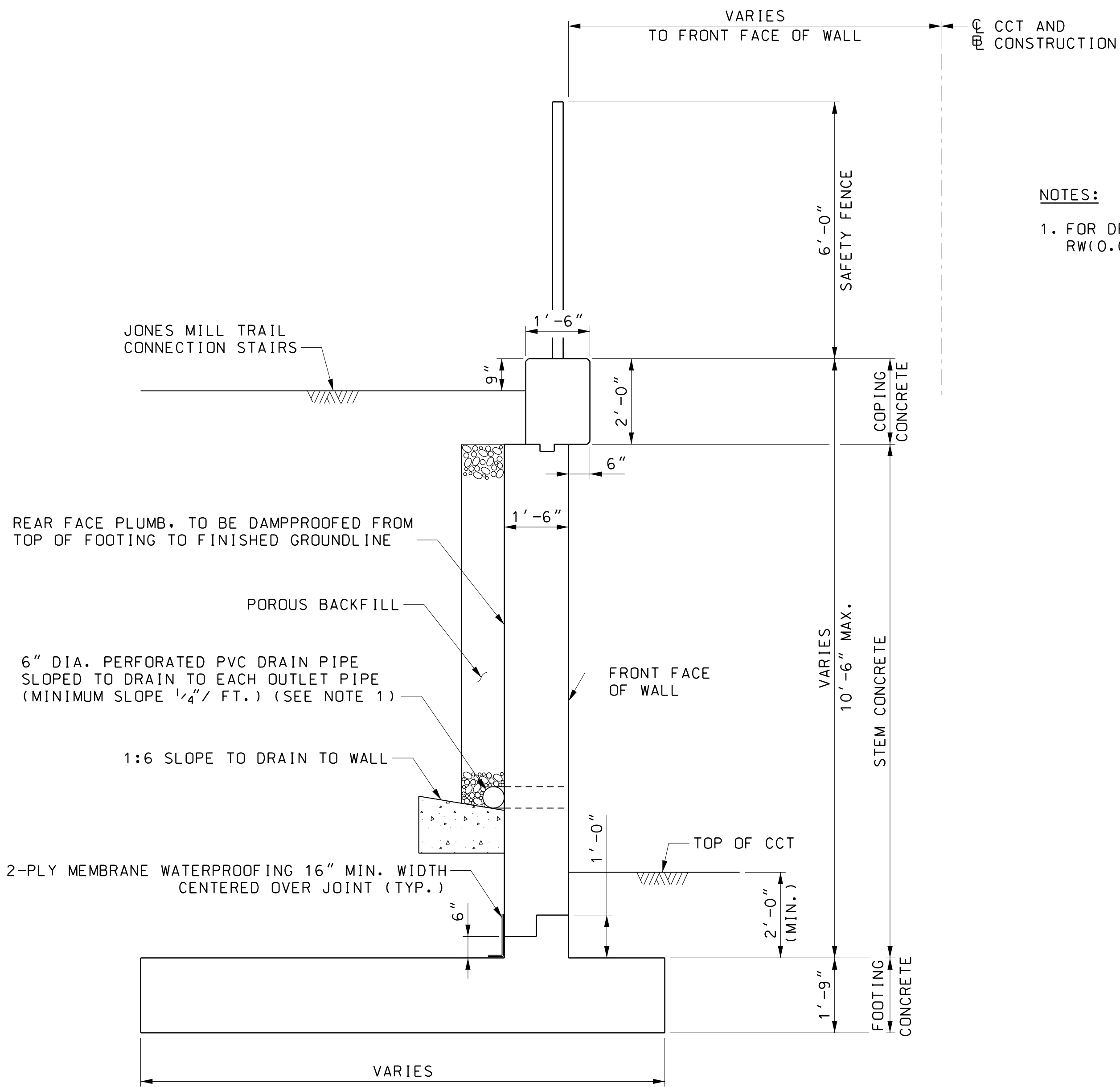
NOTES:

1. SECANT PILES SHALL BE CONSTRUCTED AT SAME TIME AS SECANT PILES IN JONES MILL RD. BRIDGE ABUTMENT.
2. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL202.



SECANT PILE WALL TYPICAL SECTION

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

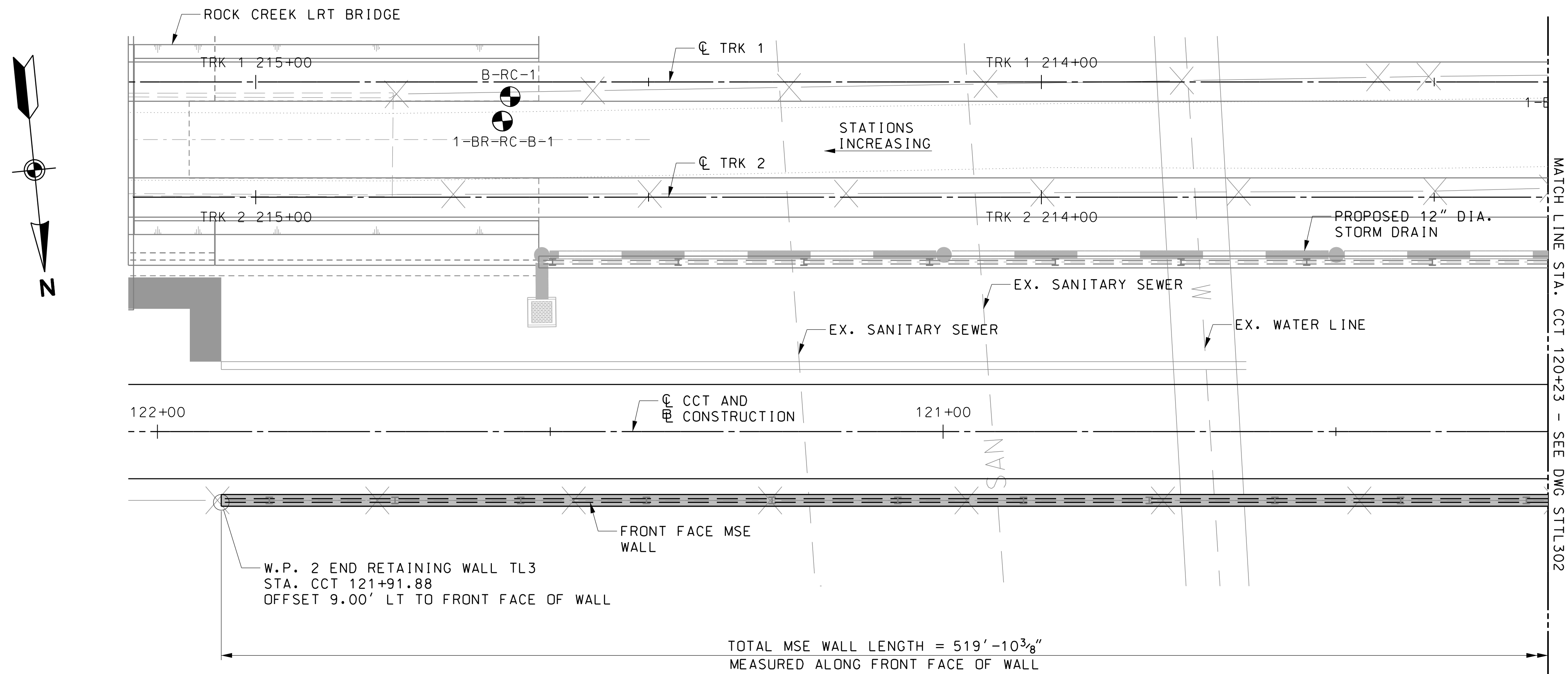


CAST-IN-PLACE WALL TYPICAL SECTION

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

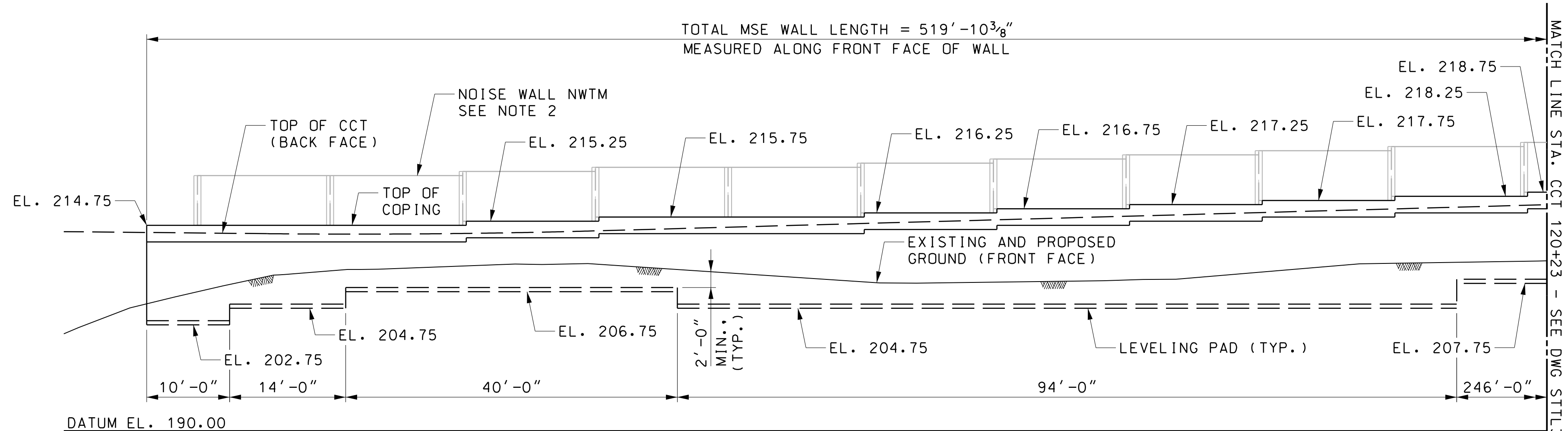
NOTES:

1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.



PLAN
SCALE: 1"=10'-0"

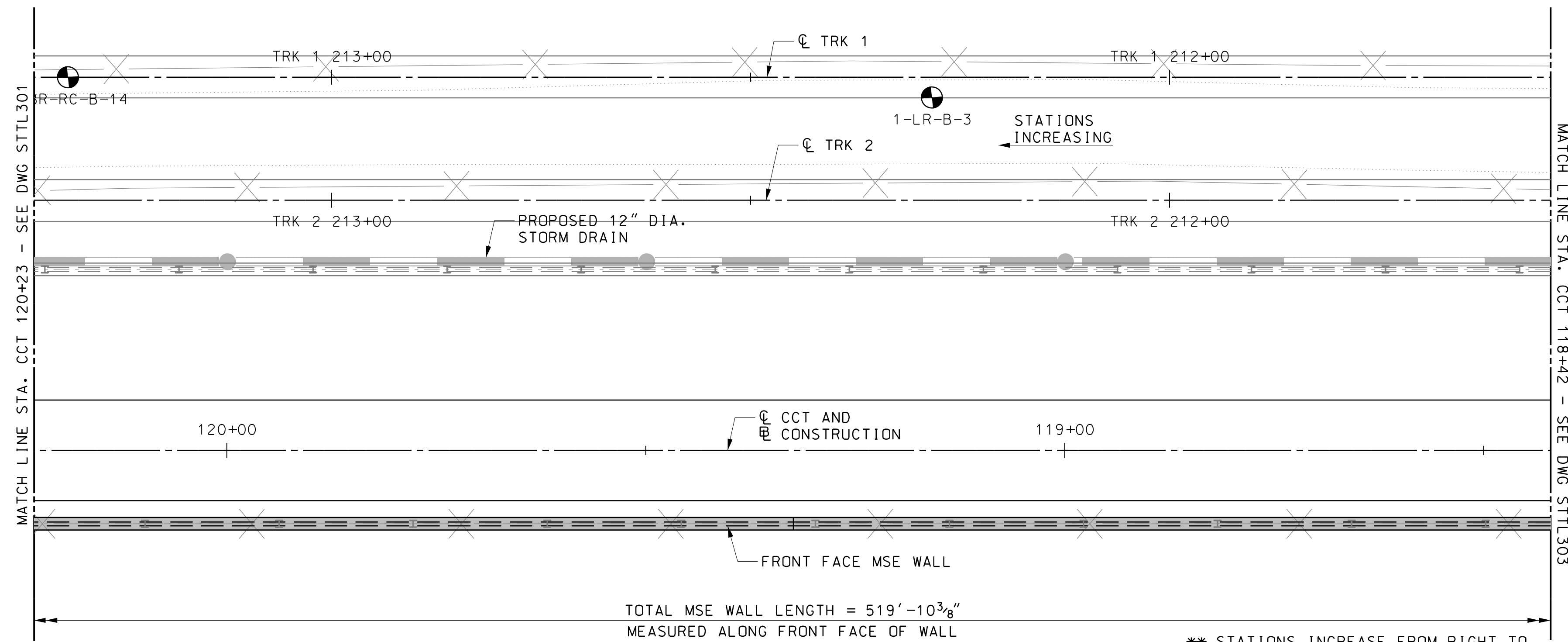
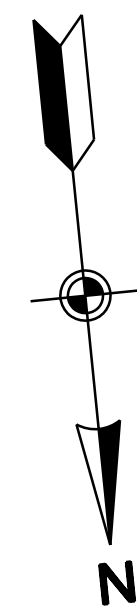
** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS



ELEVATION
SCALE: 1"=10'-0"

NOTES:

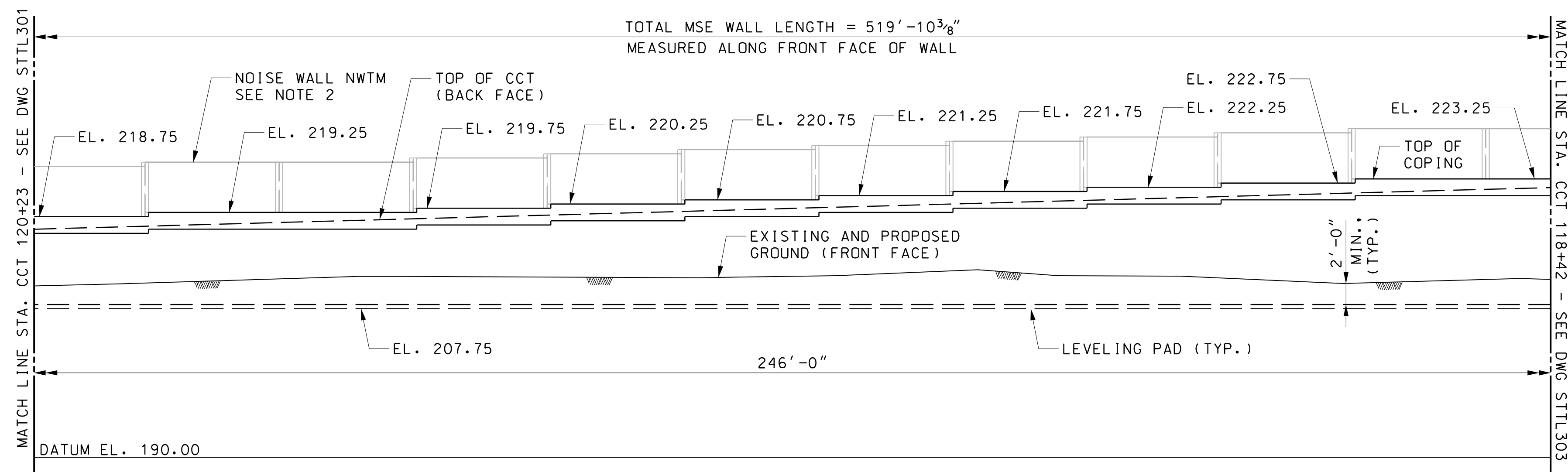
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL304.
2. FOR NOISE WALL NWTM GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTM01 TO NWTM03.



TOTAL MSE WALL LENGTH = $519' - 10\frac{3}{8}''$
MEASURED ALONG FRONT FACE OF WALL

** STATIONS INCREASE FROM RIGHT TO
LEFT OPPOSITE OF TRACK PLANS

PLAN
SCALE: 1"=10'-0"

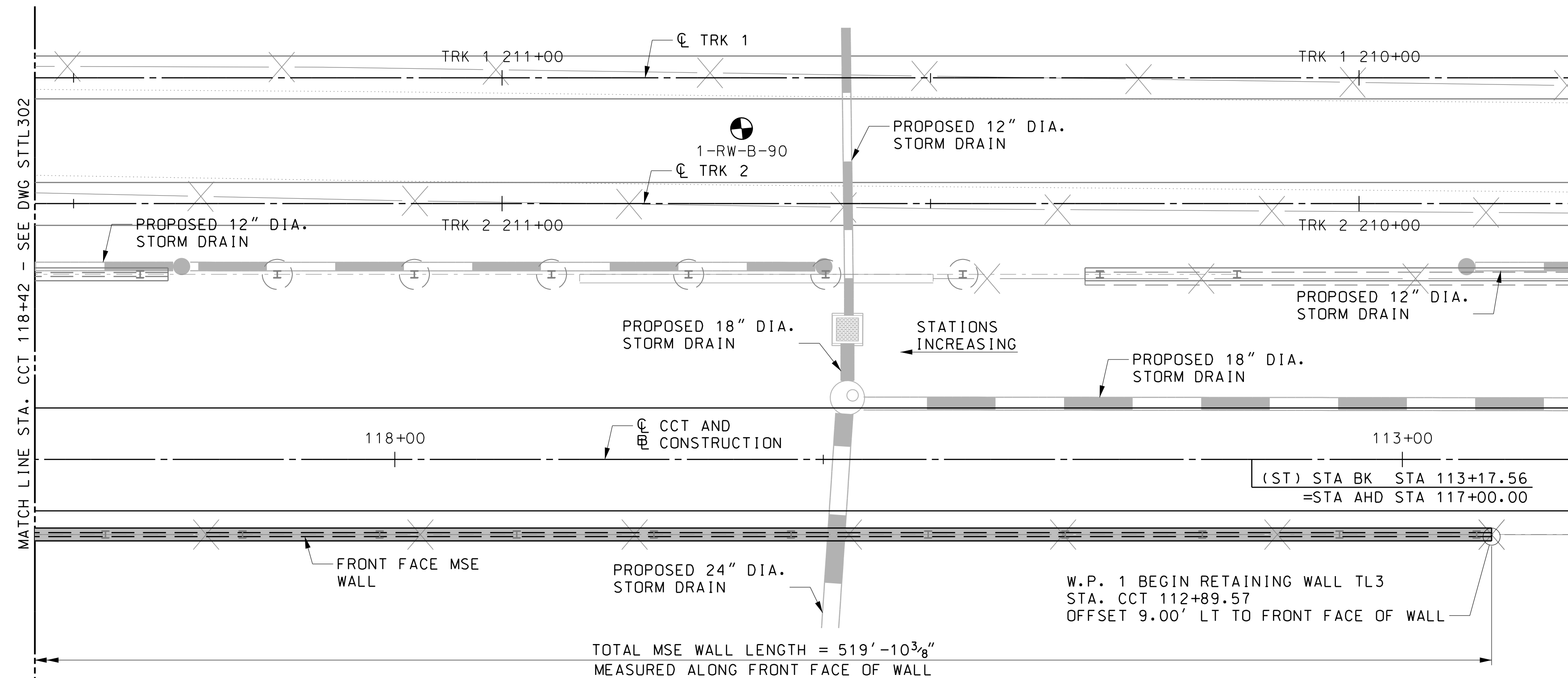
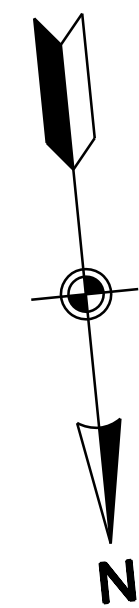


TOTAL MSE WALL LENGTH = $519' - 10\frac{3}{8}''$
MEASURED ALONG FRONT FACE OF WALL

ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL304.
2. FOR NOISE WALL NWTM GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTM01 TO NWTM03.

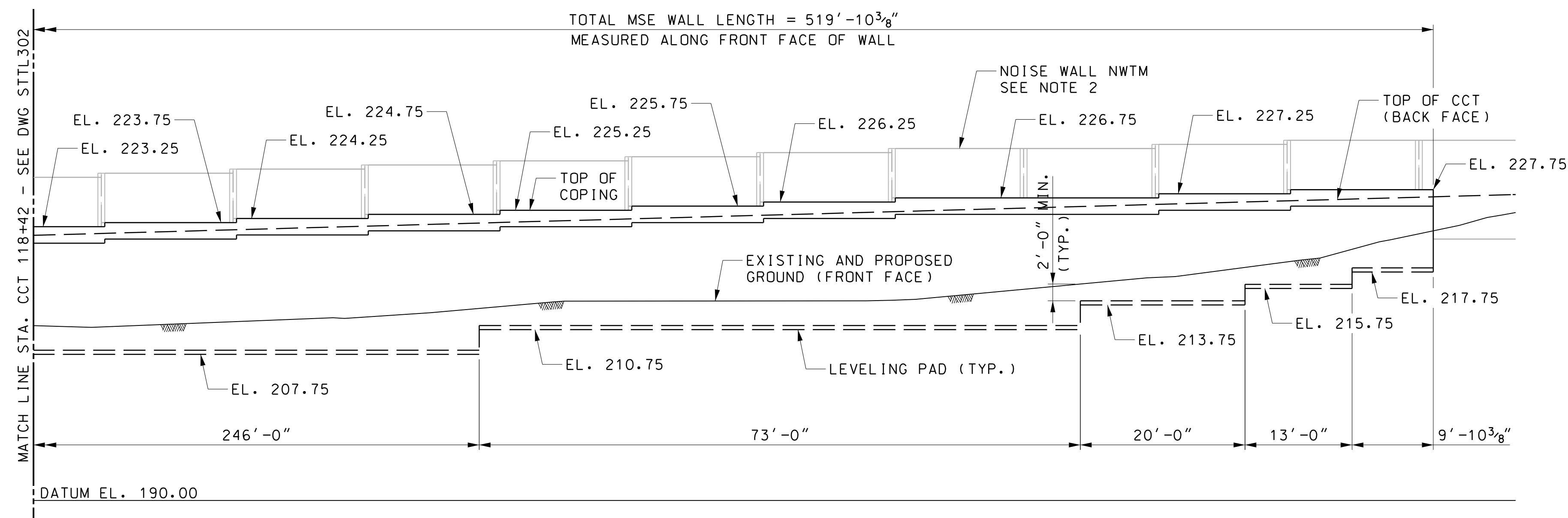


PLAN

SCALE: 1"=10'-0"

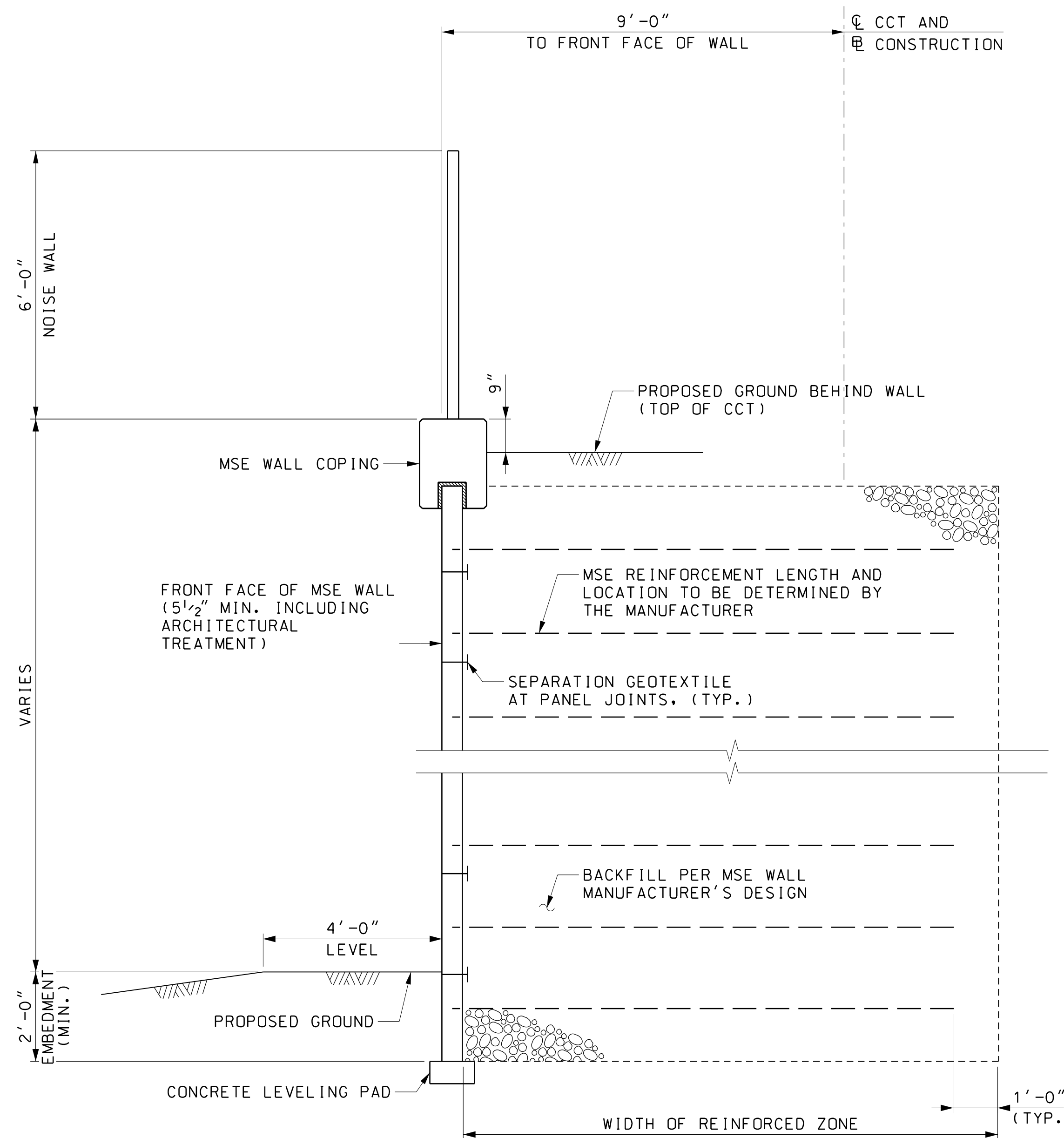
NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL304.
2. FOR NOISE WALL NWTM GENERAL PLAN AND ELEVATION, SEE DWG. NOS. NWTM01 TO NWTM03.

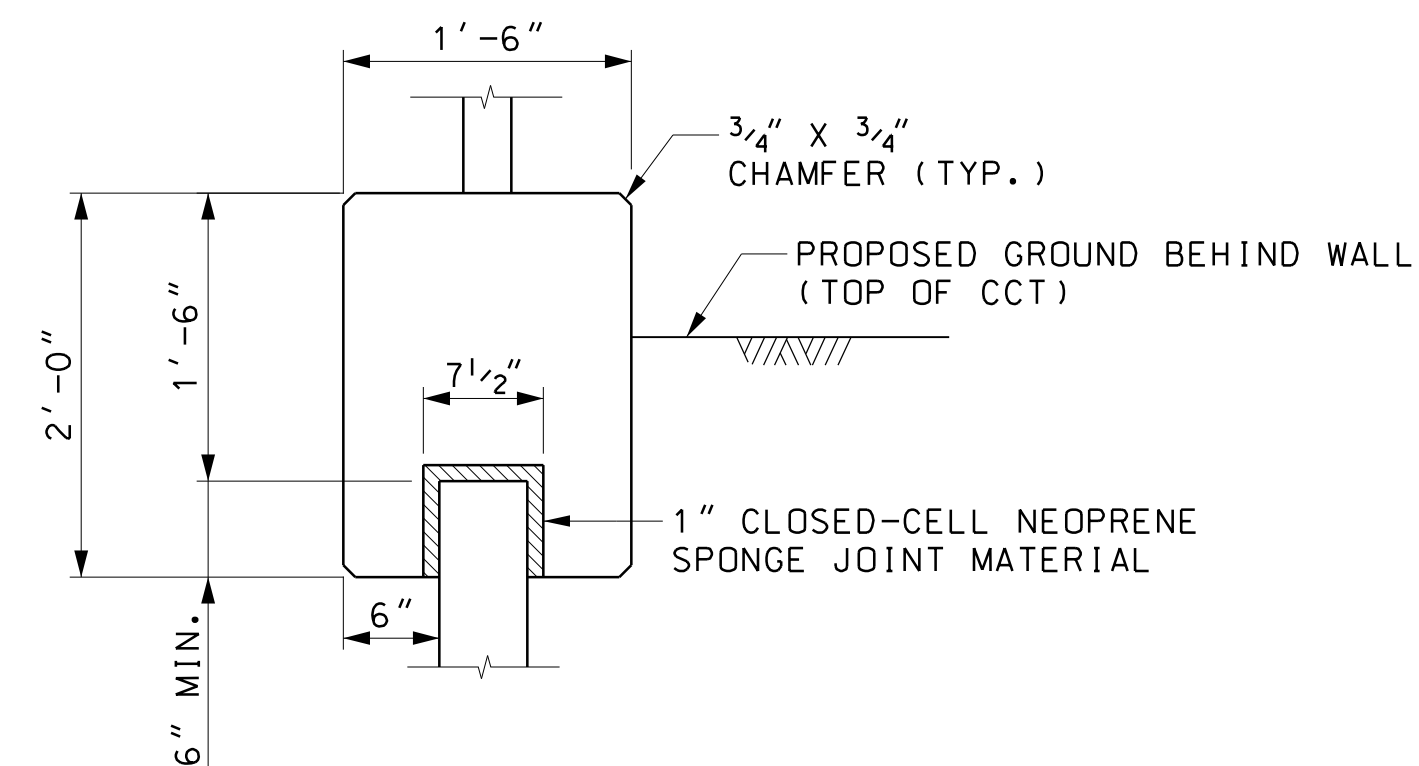


ELEVATION

SCALE: 1"=10'-0"



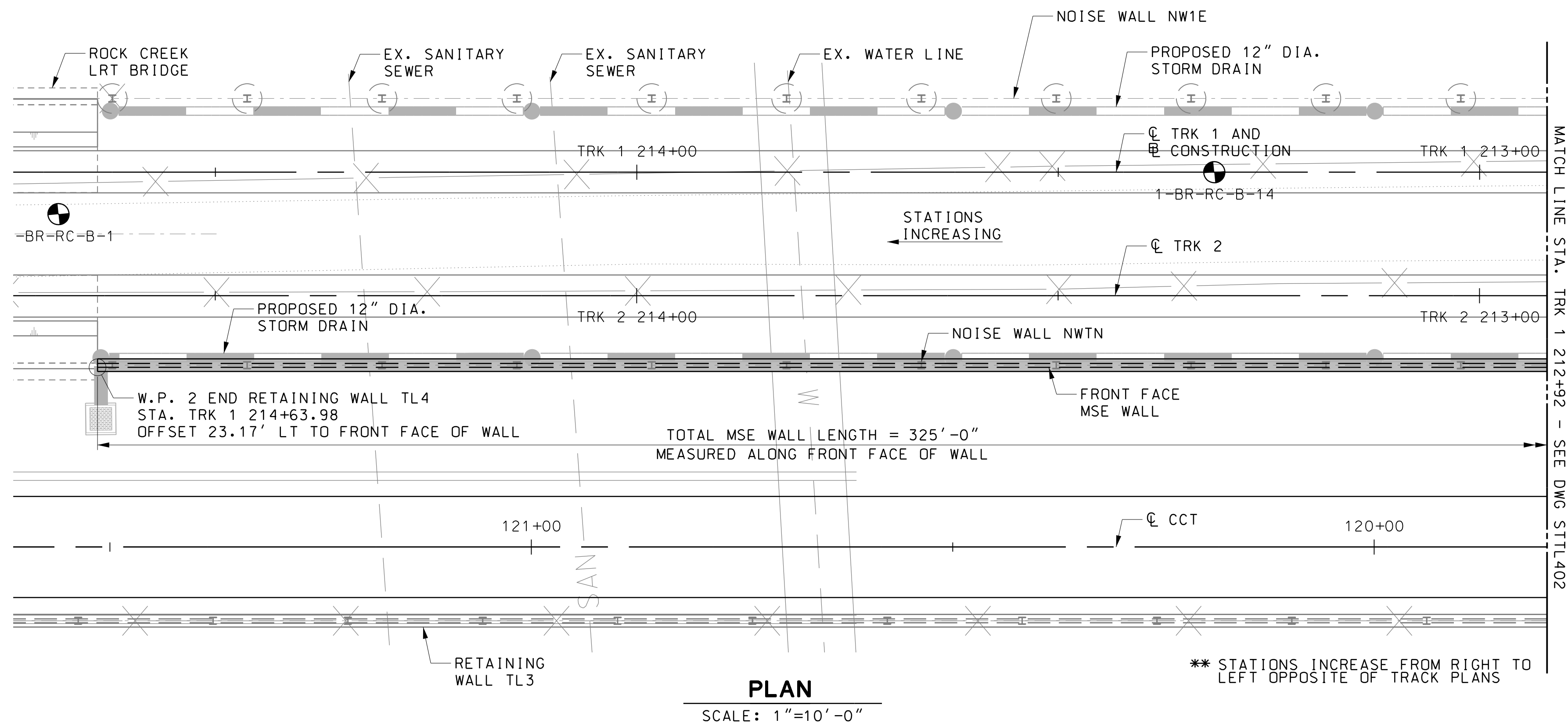
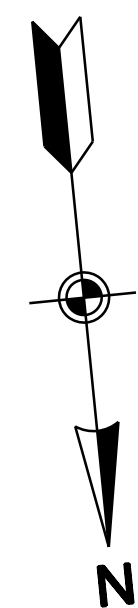
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



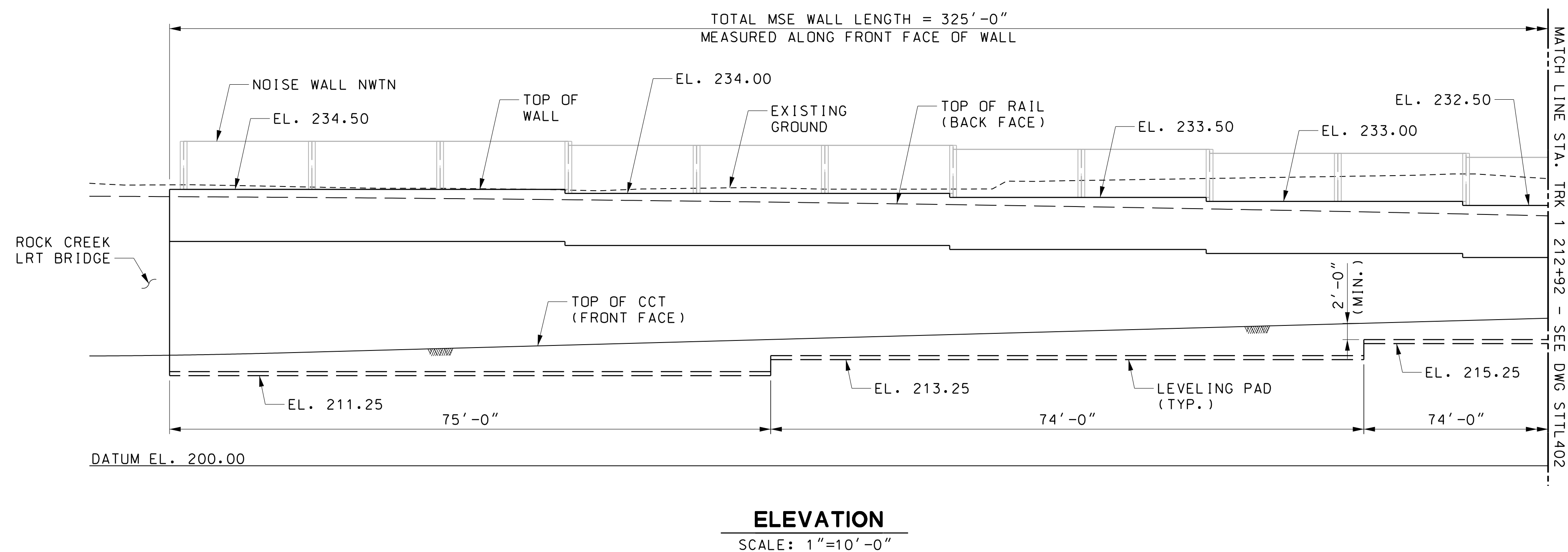
CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

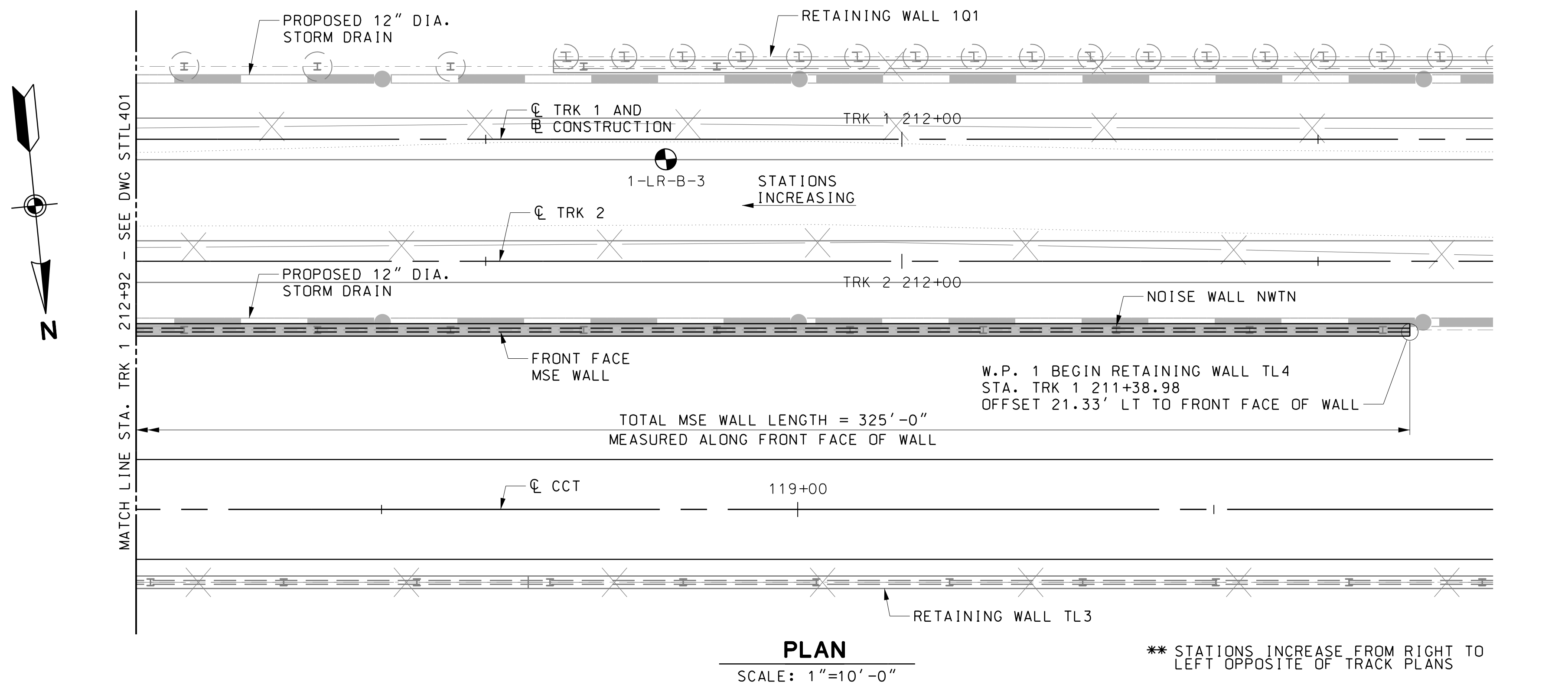
NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.

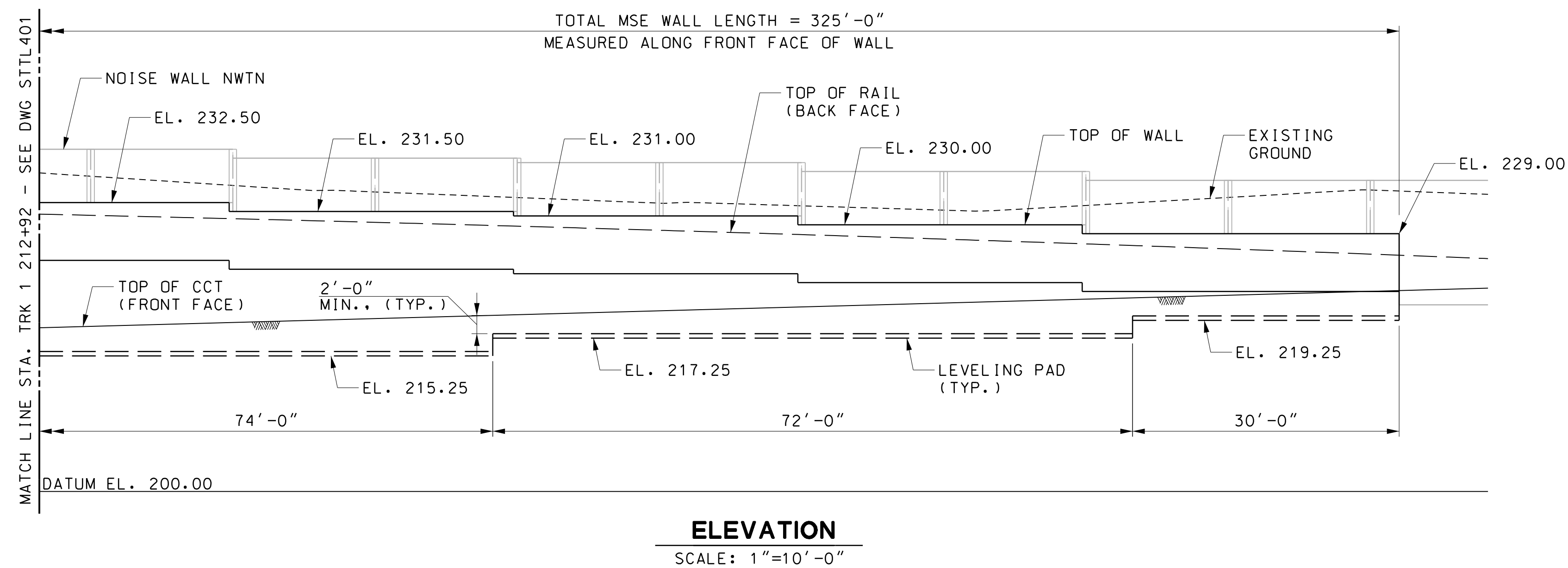


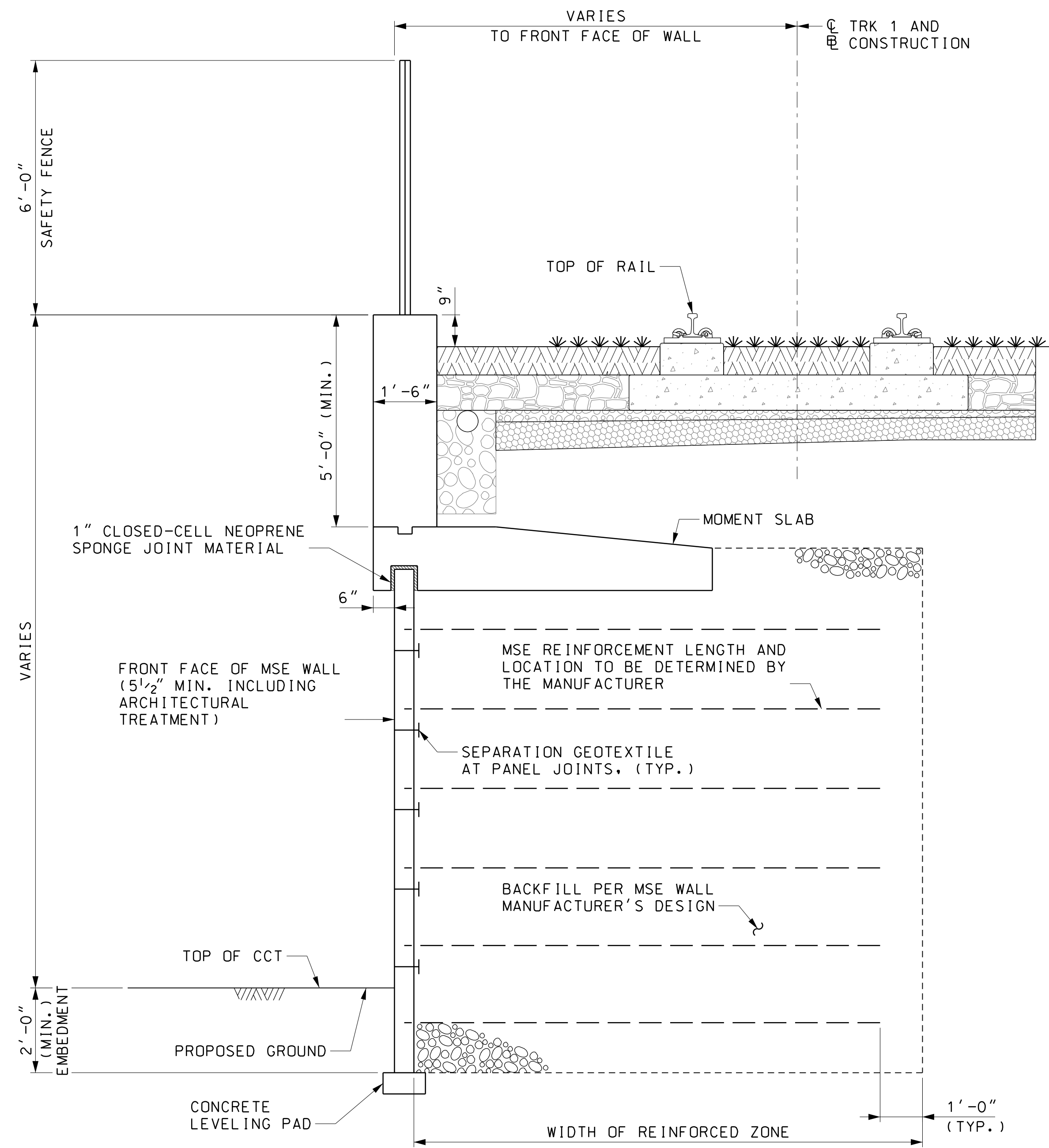
- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL403.





NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTL403.

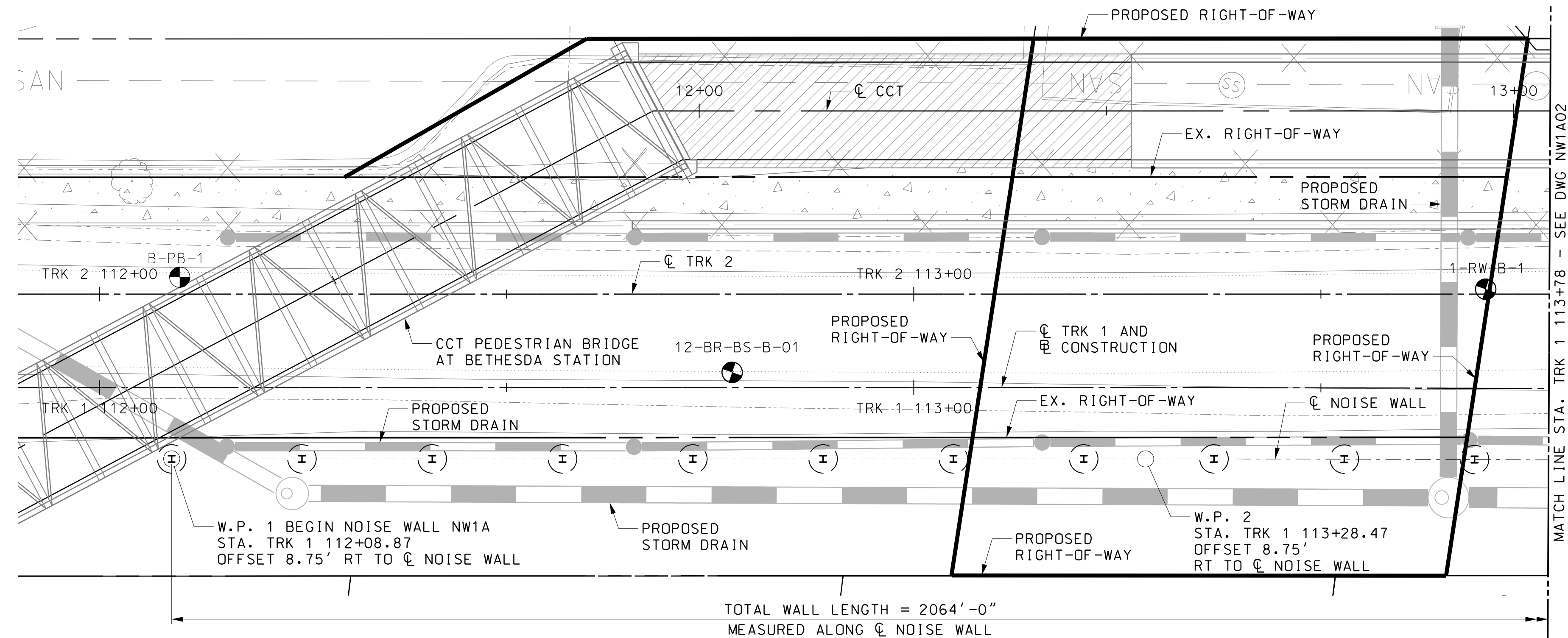
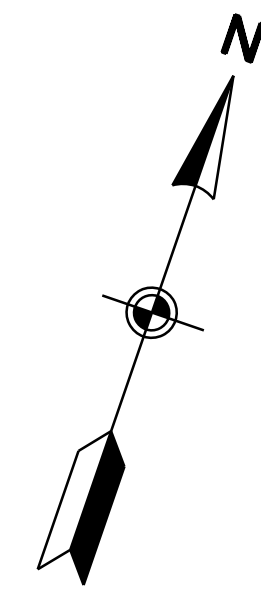




TYPICAL SECTION
SCALE: 1/2" = 1'-0"

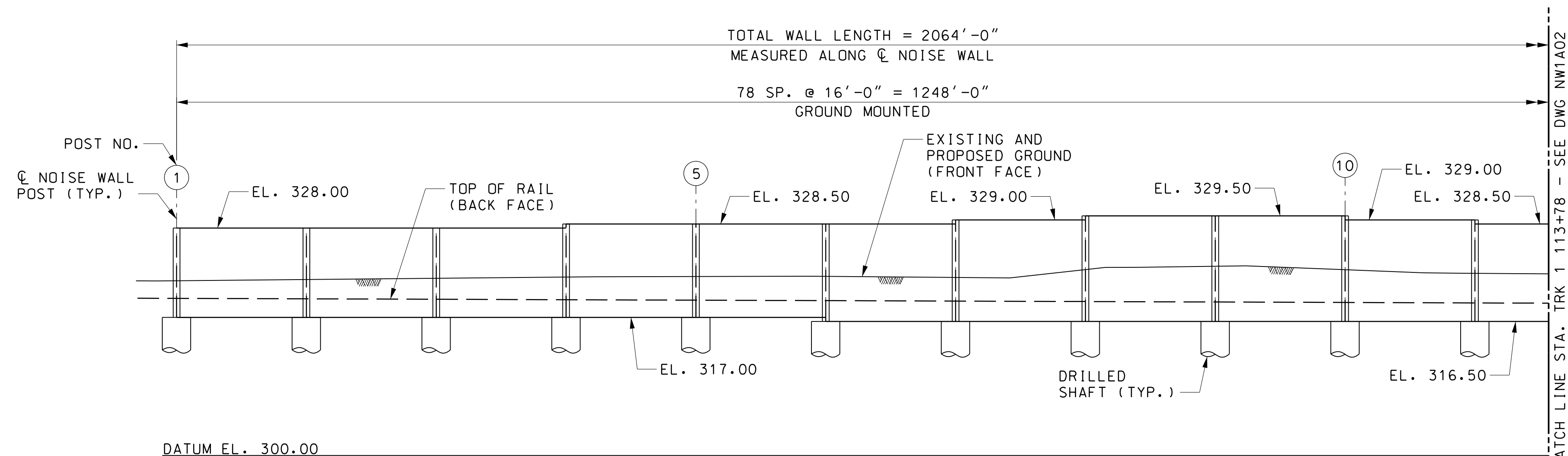
NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
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PLAN

SCALE: 1"=10'-0"

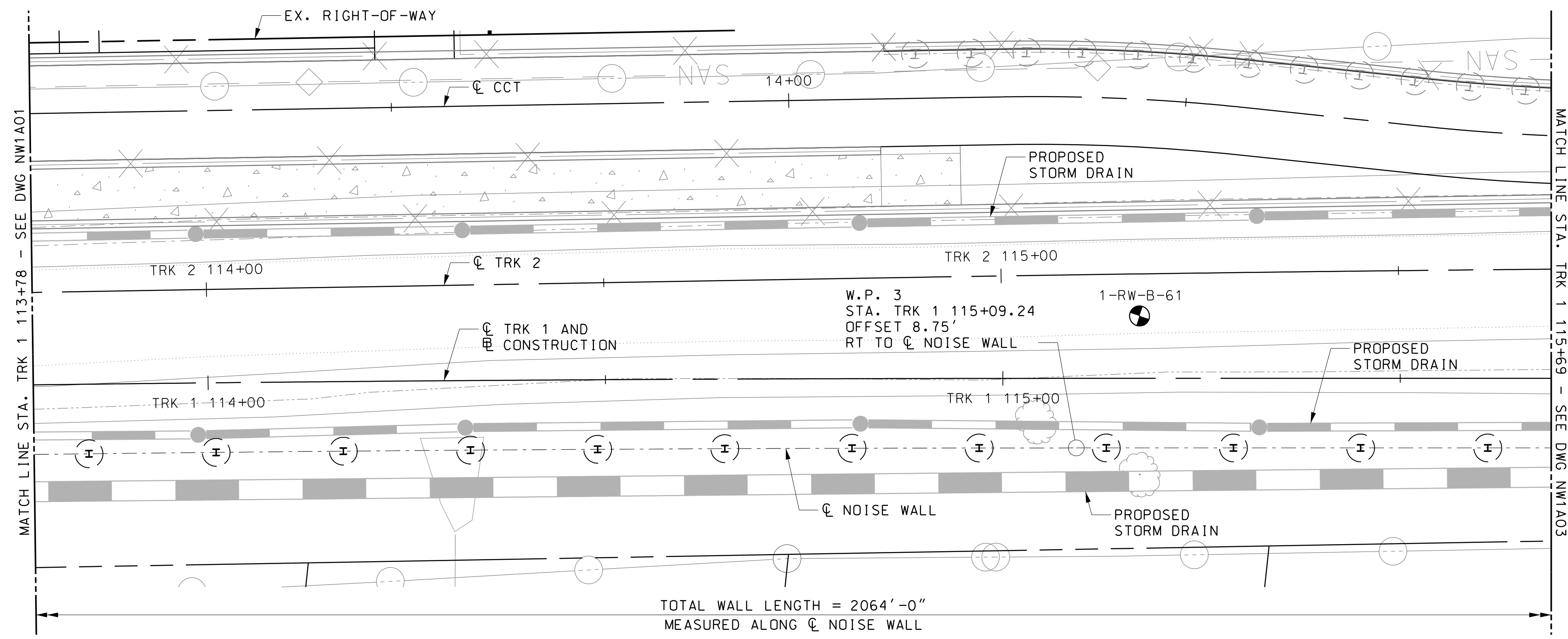
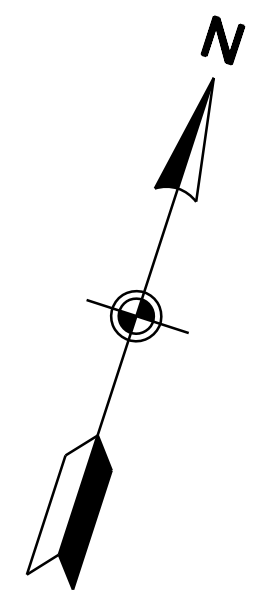


ELEVATION

SCALE: 1"=10'-0"

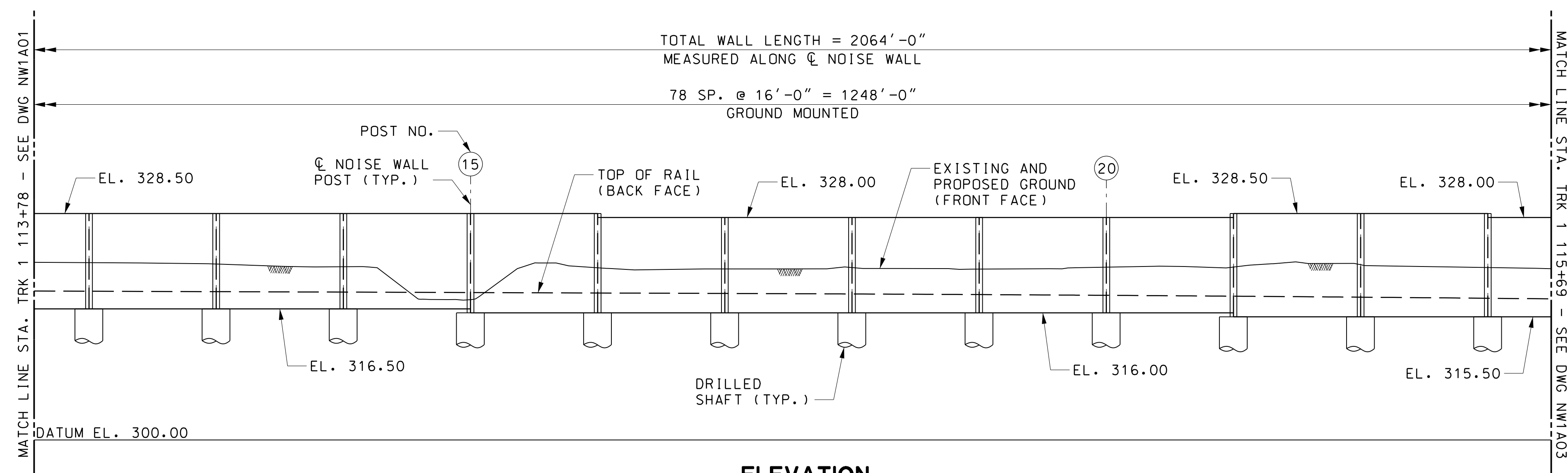
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".



PLAN

SCALE: 1"=10'-0"

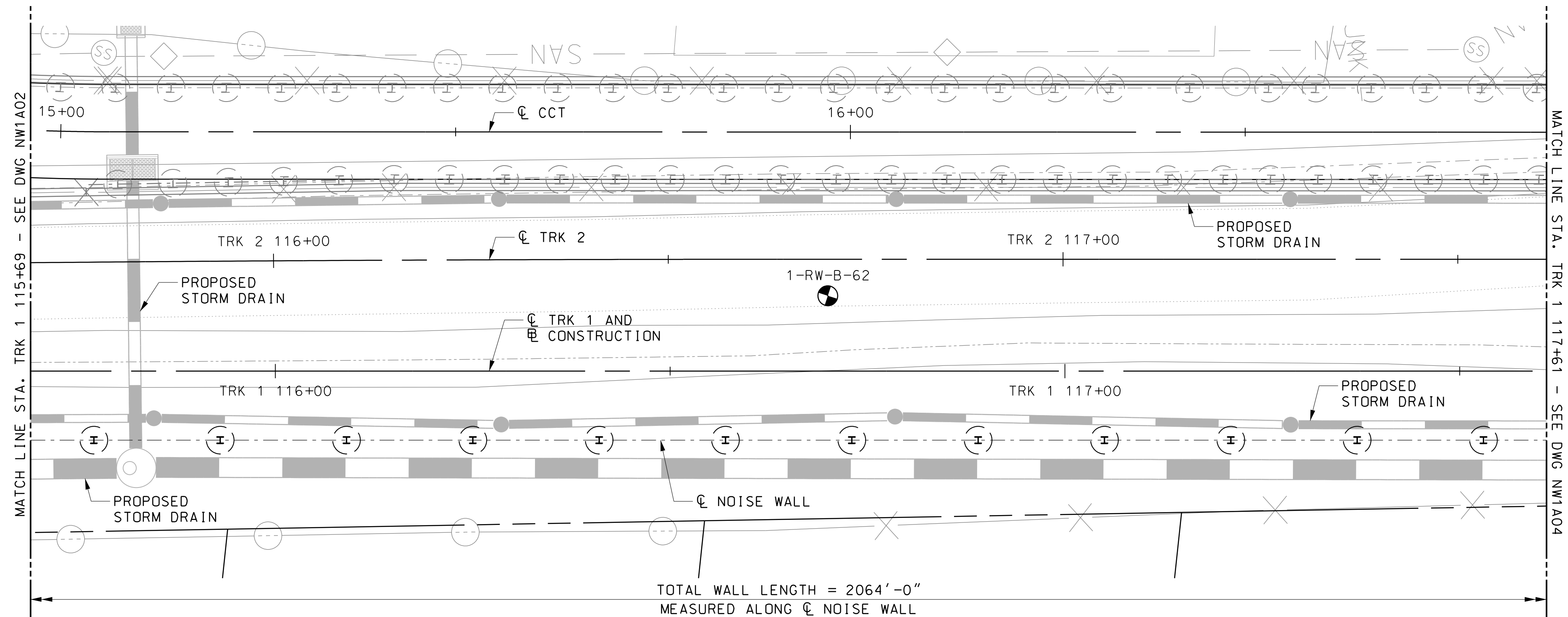
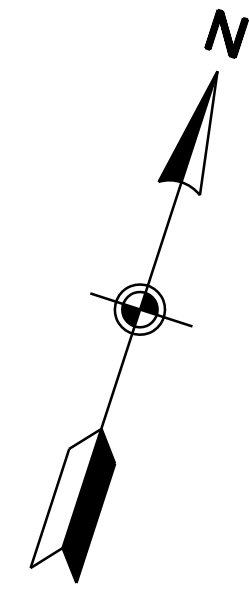


ELEVATION

SCALE: 1"=10'-0"

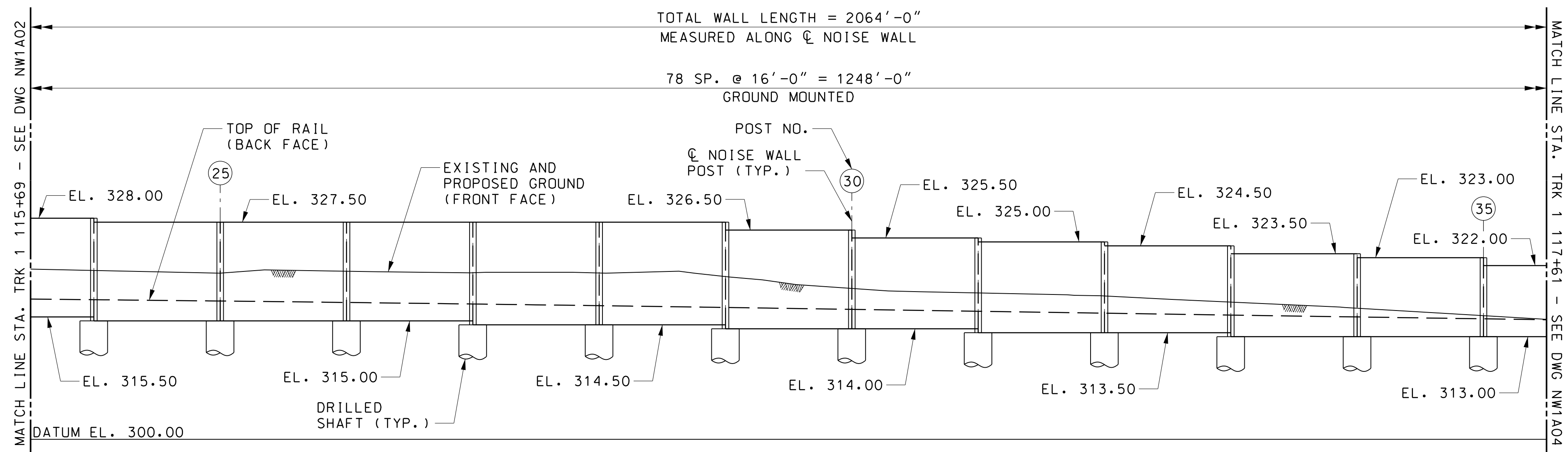
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".



PLAN

SCALE: 1"=10'-0"

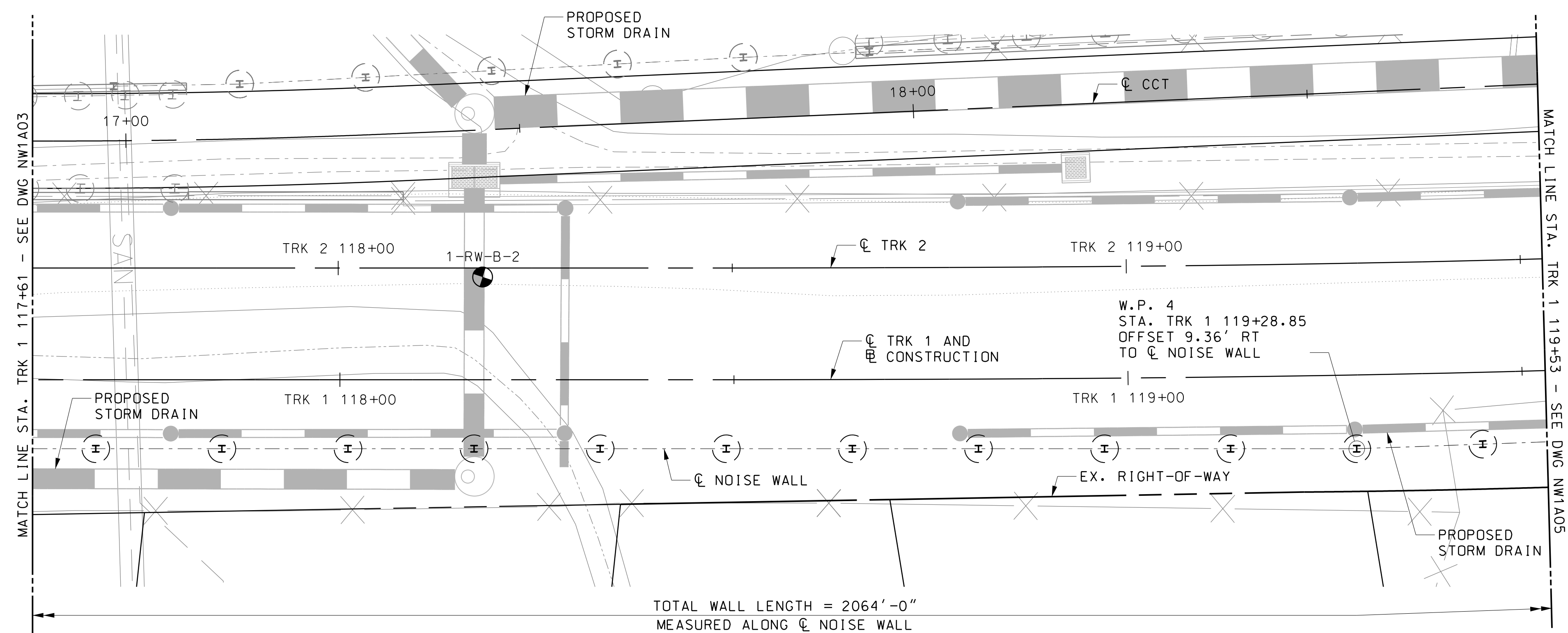
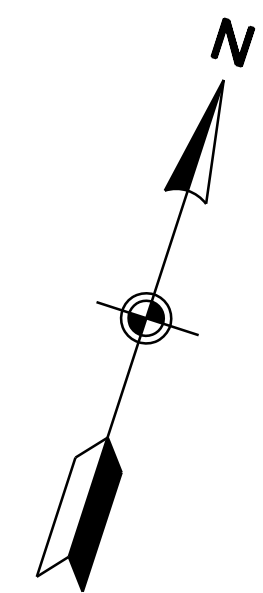


ELEVATION

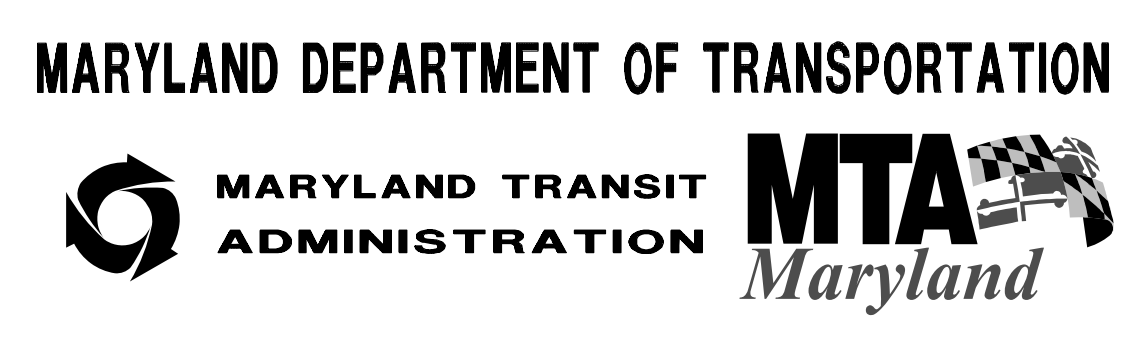
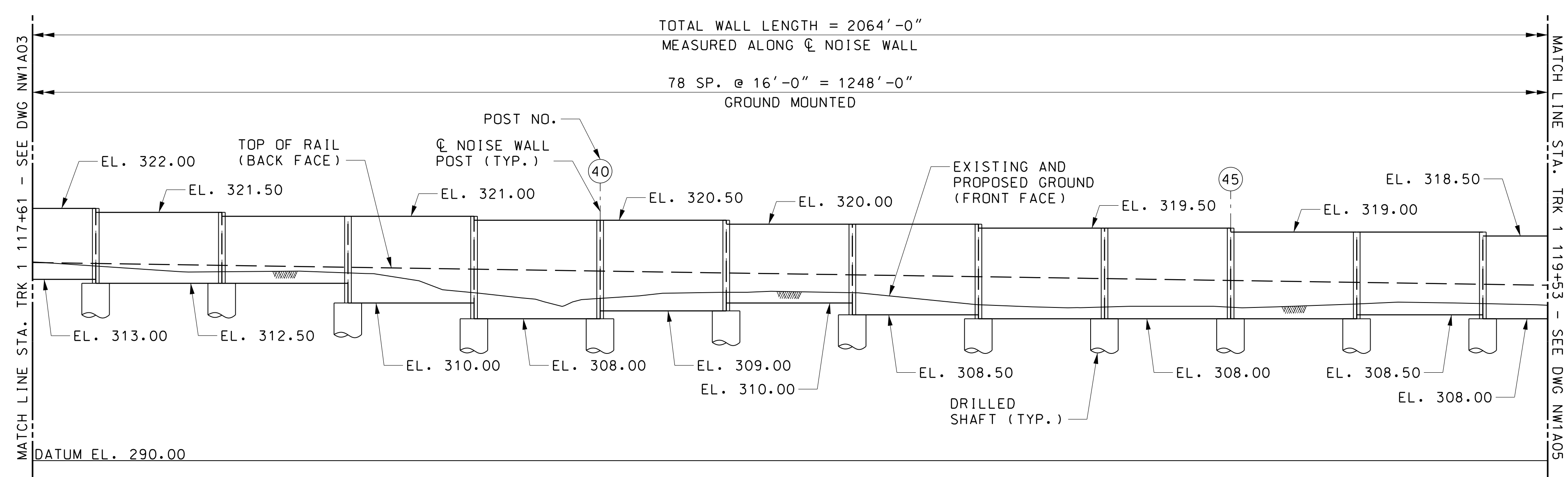
SCALE: 1"=10'-0"

NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
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- NOTES:
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 2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

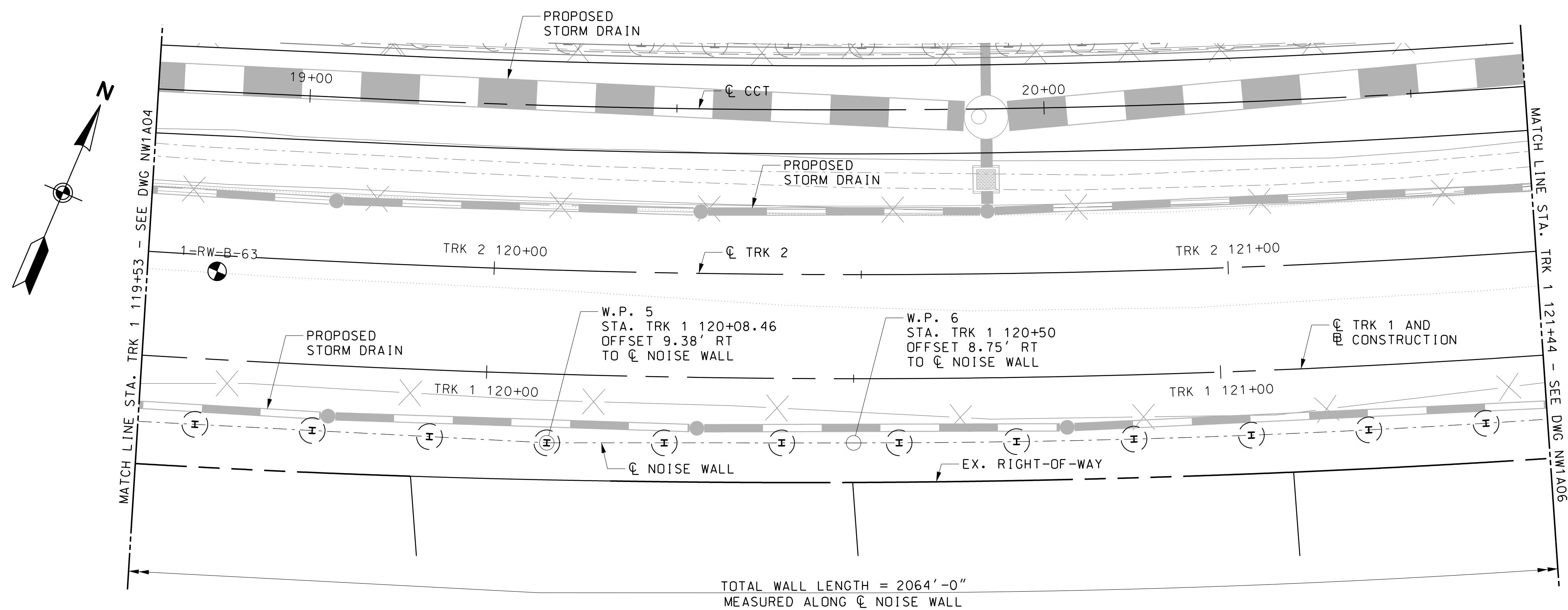
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
			MWM
			BCB
			CRA

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
NOISE WALL NW1A GENERAL PLAN & ELEVATION - 4	
DATE: DECEMBER 2013	SCALE: 1" = 10'-0"

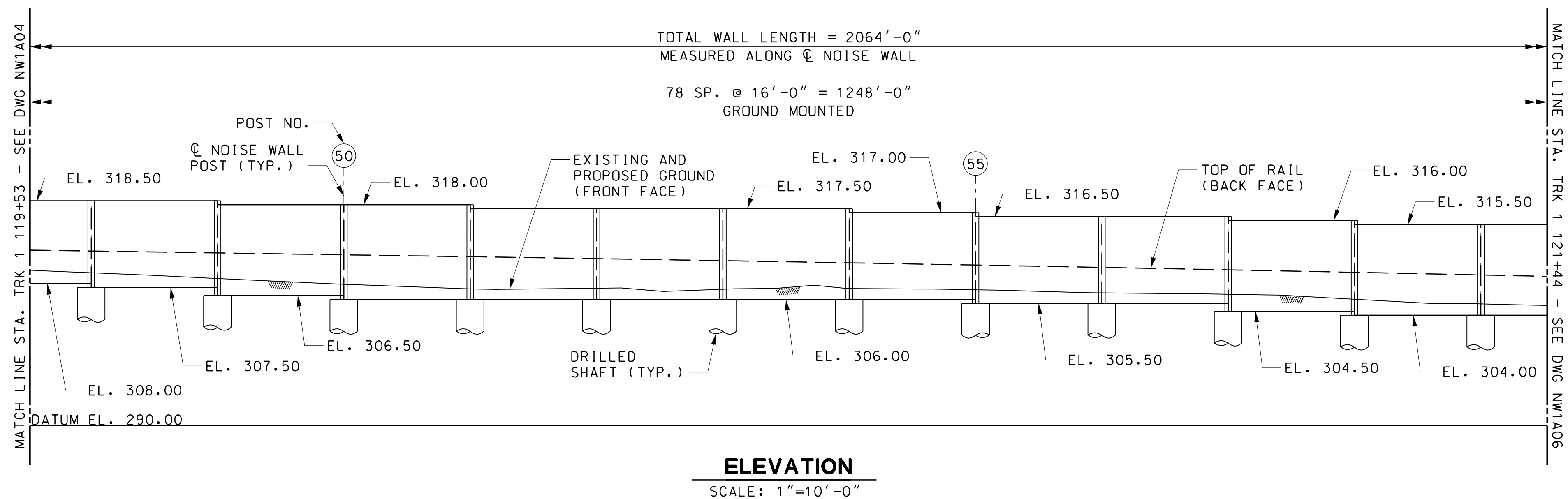
CONTRACT NO. T-1042-0220
DRAWING NO. NW1A04
SHEET NO. 242 OF 828

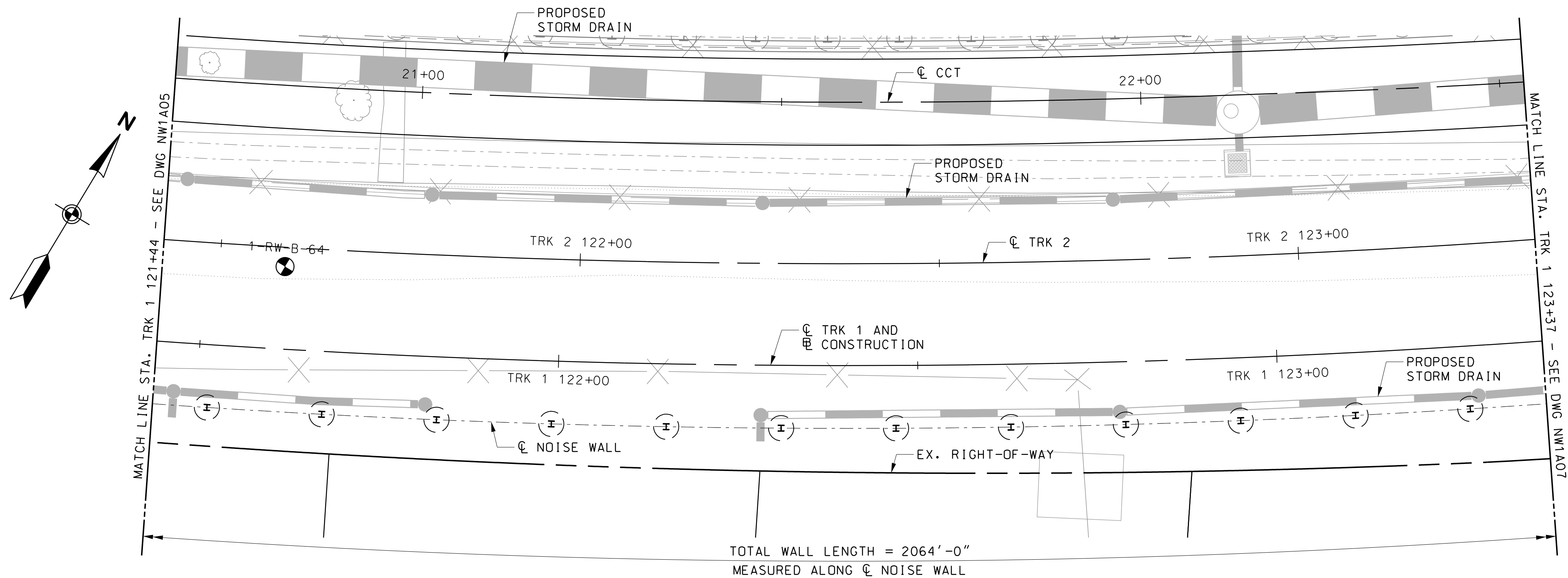
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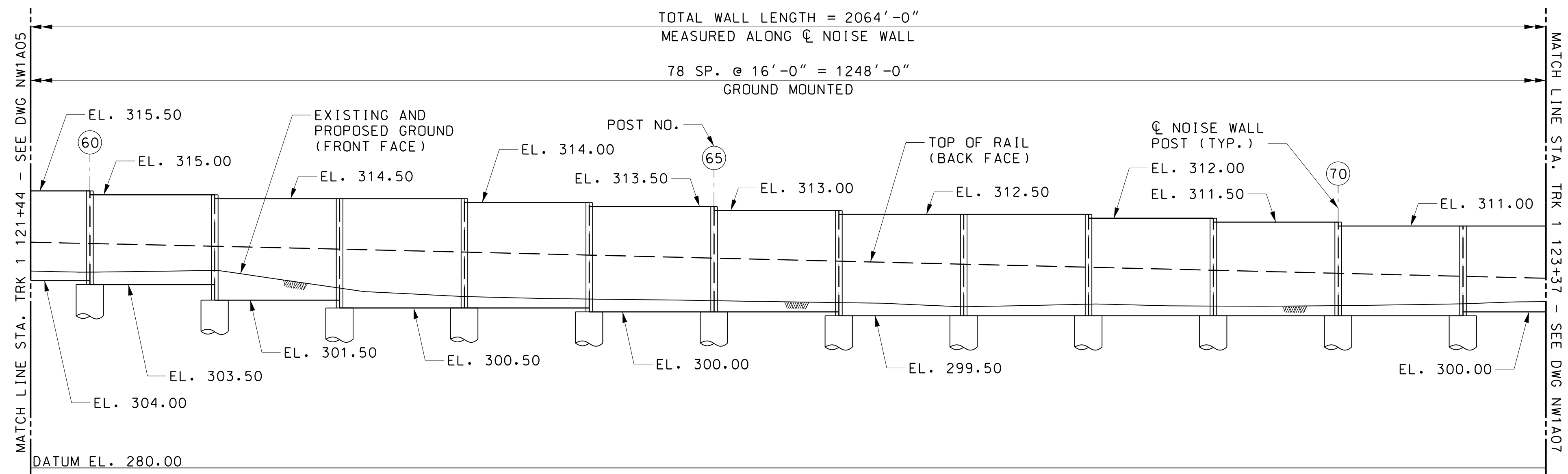
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".





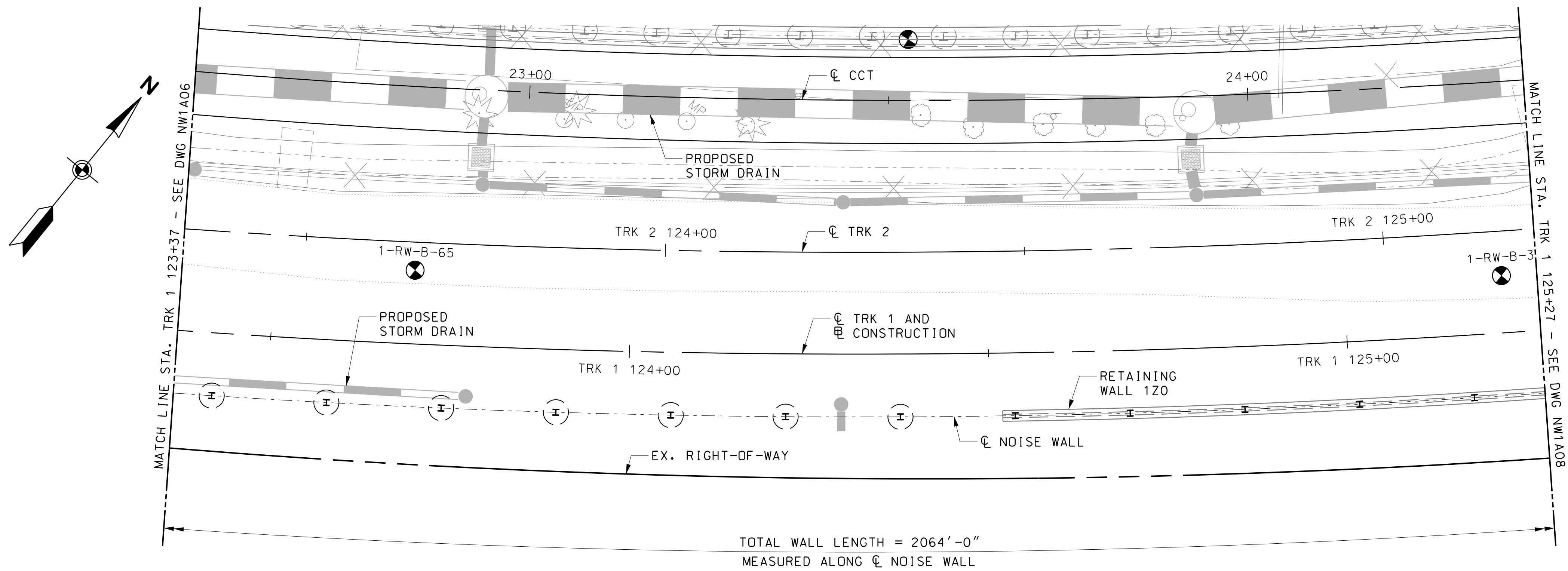
PLAN
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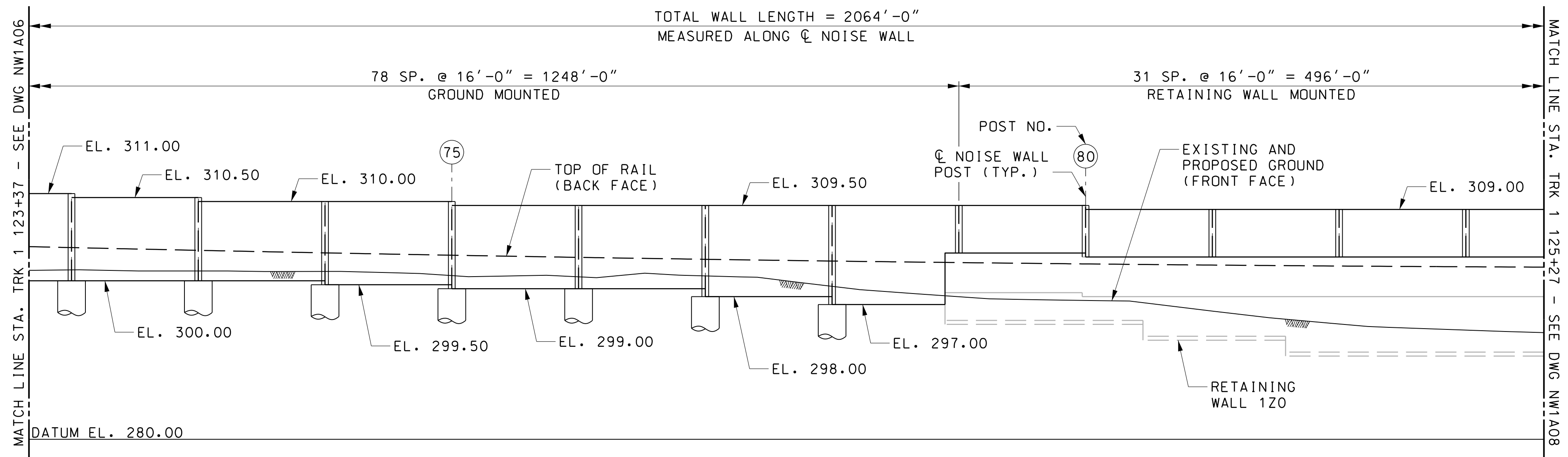
ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
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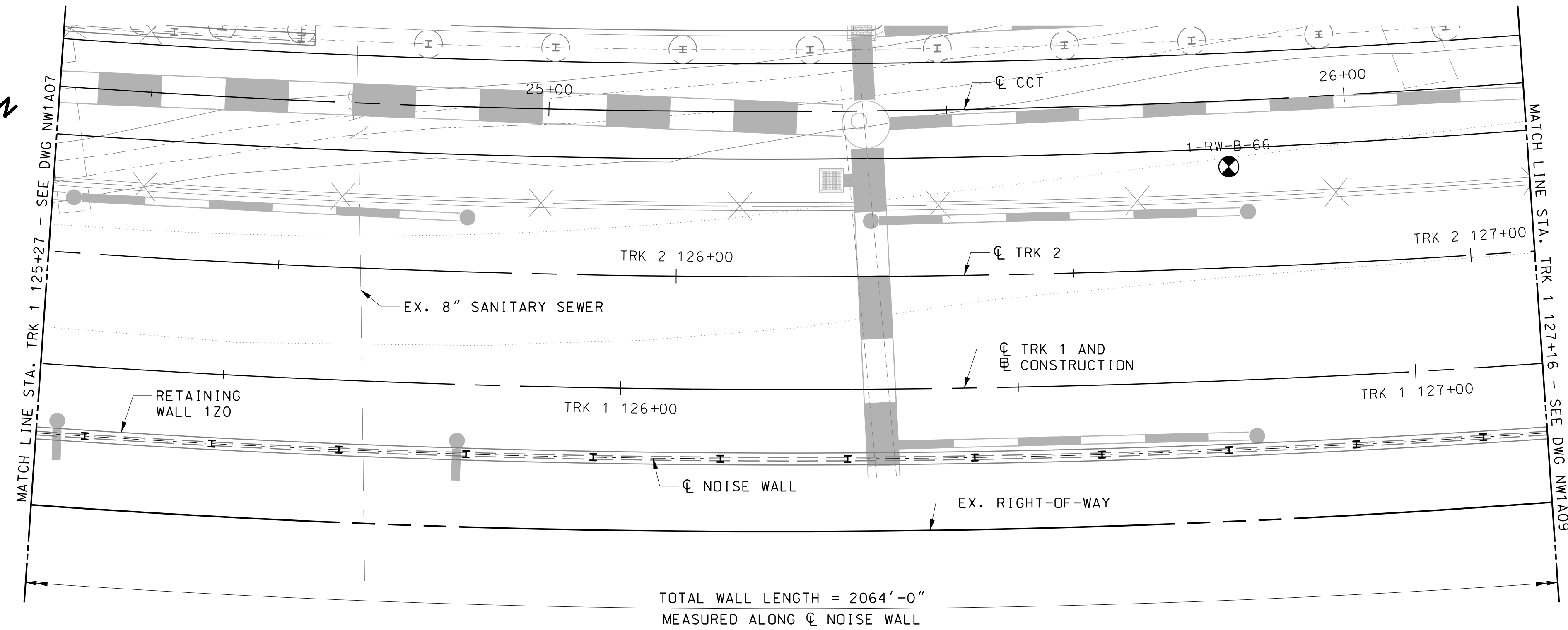
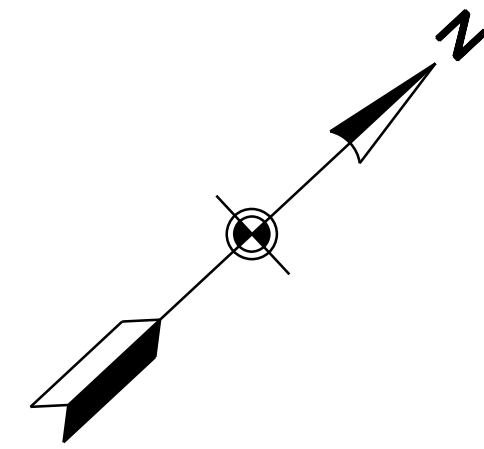
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

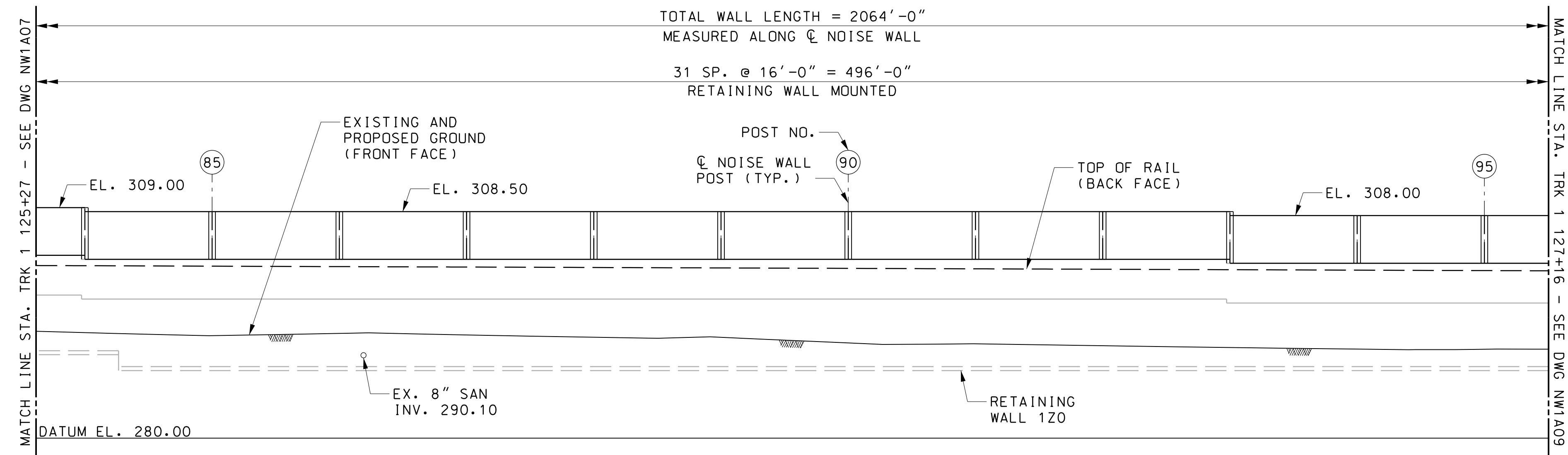
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
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PLAN

SCALE: 1"=10'-0"

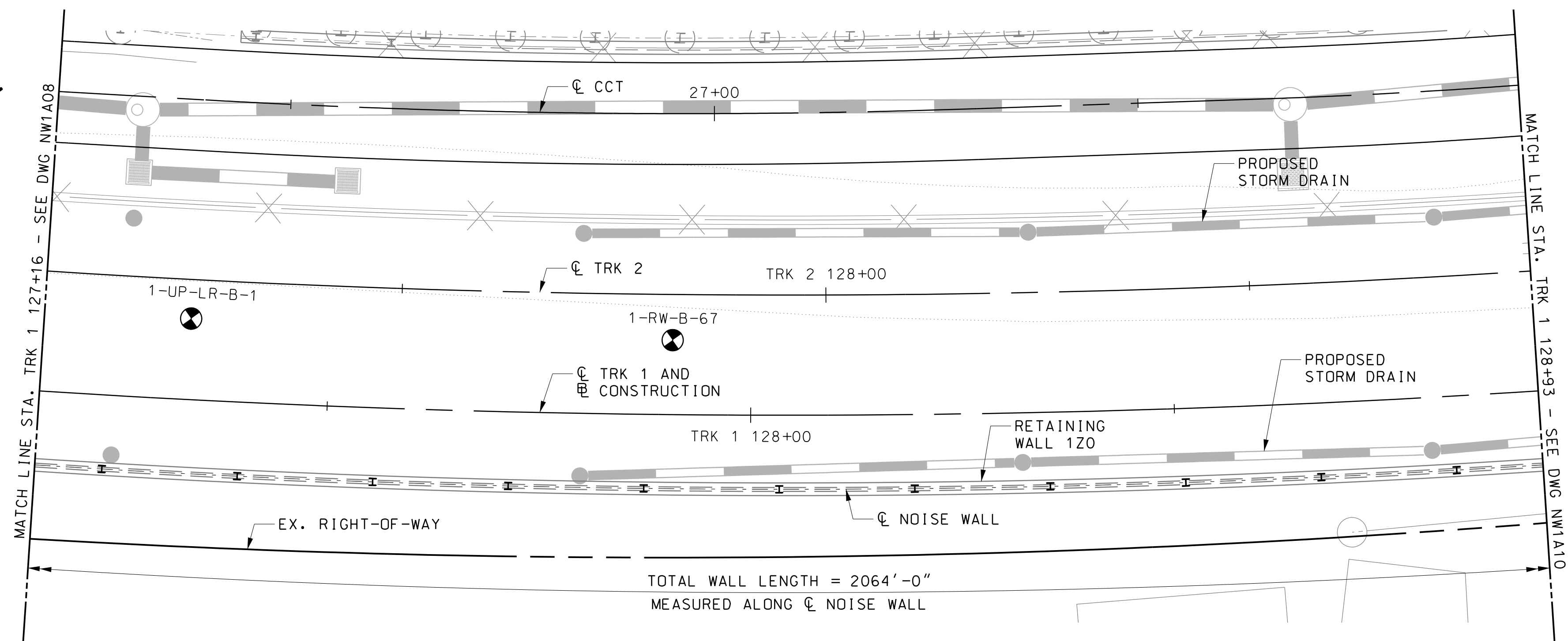
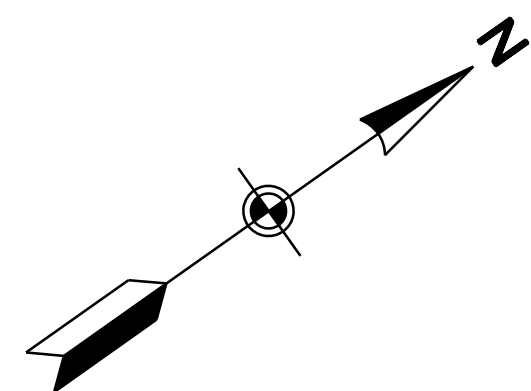


ELEVATION

SCALE: 1"=10'-0"

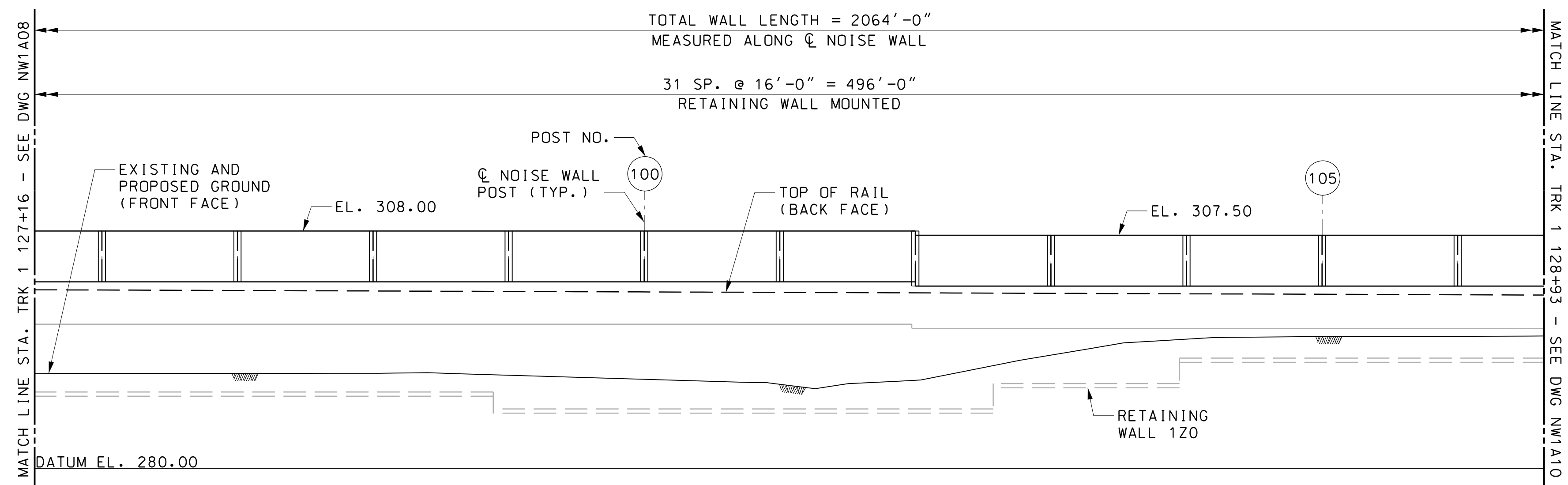
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
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PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"

NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

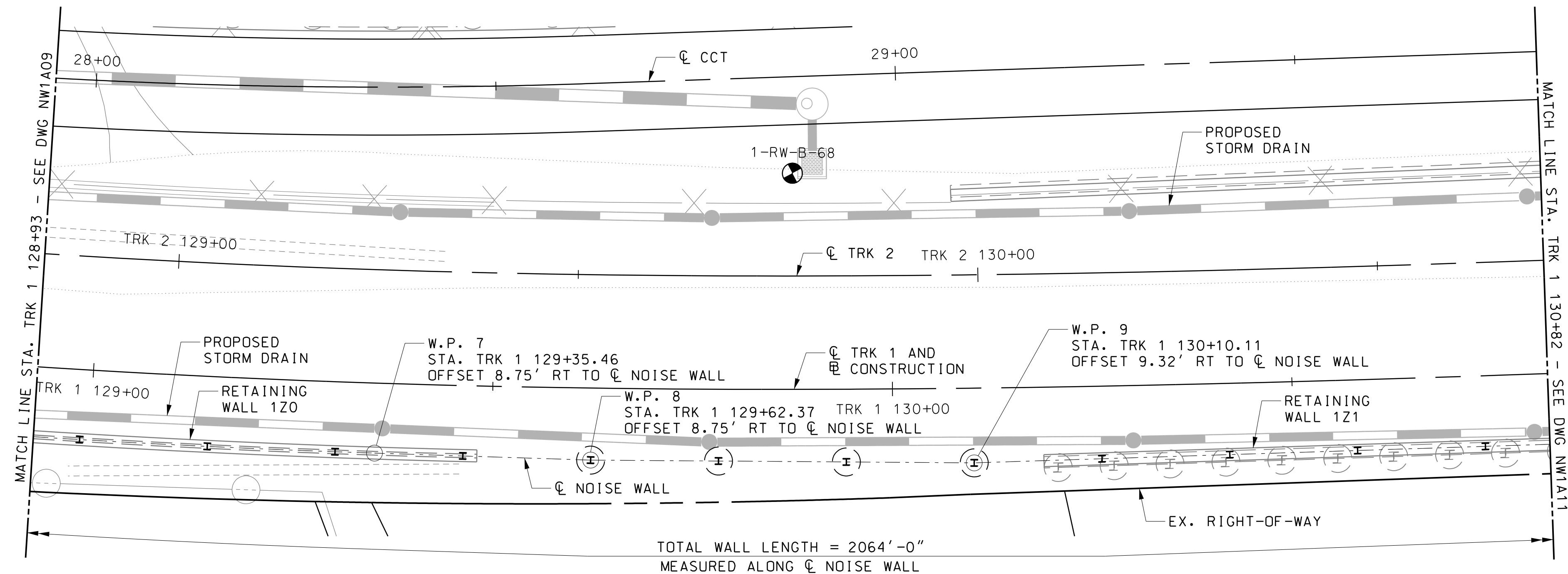
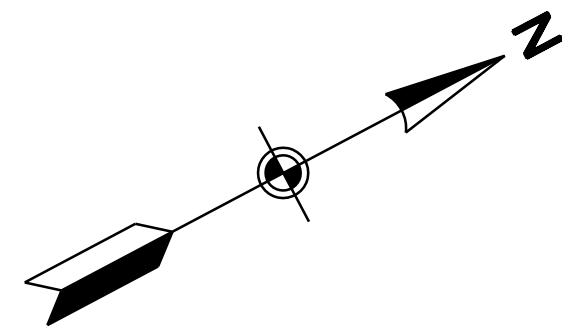
DESIGN	MWM
DRAWN	BCB
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

NOISE WALL NW1A
GENERAL PLAN & ELEVATION – 9
DATE: DECEMBER 2013 SCALE: 1" = 10'-0"

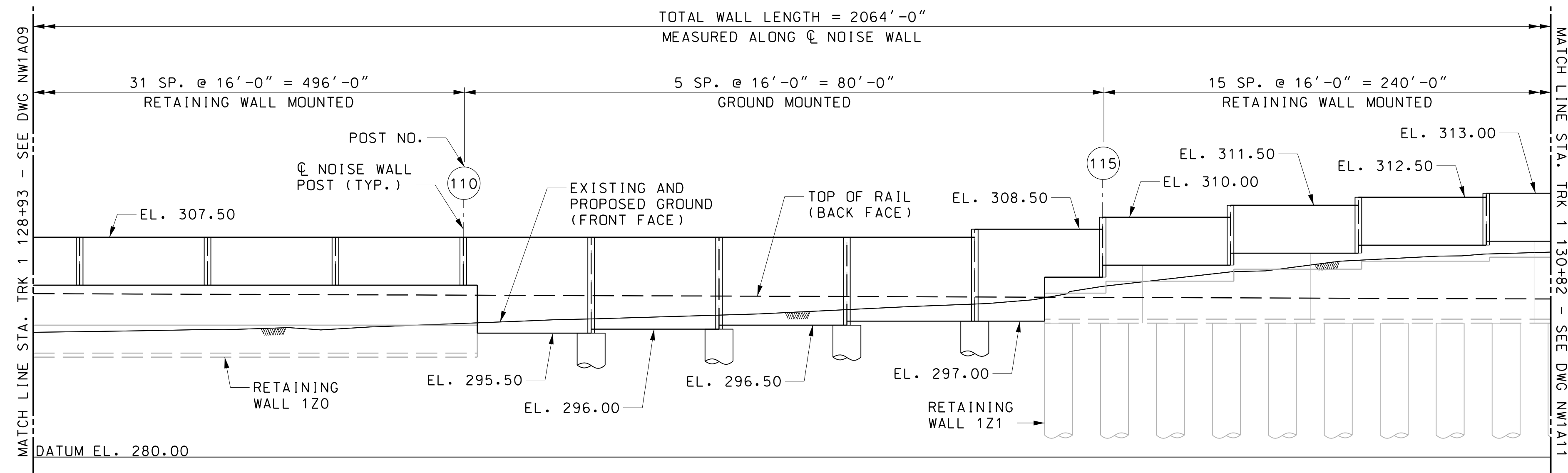
CONTRACT NO.
T-1042-0220
DRAWING NO.
NW1A09
SHEET NO.
247 OF 828

c:\pwworking\mtpaw\mci-brian_burns\00153742\1042pStnw1a09.dgn 12/5/2013



PLAN

SCALE: 1"=10'-0"

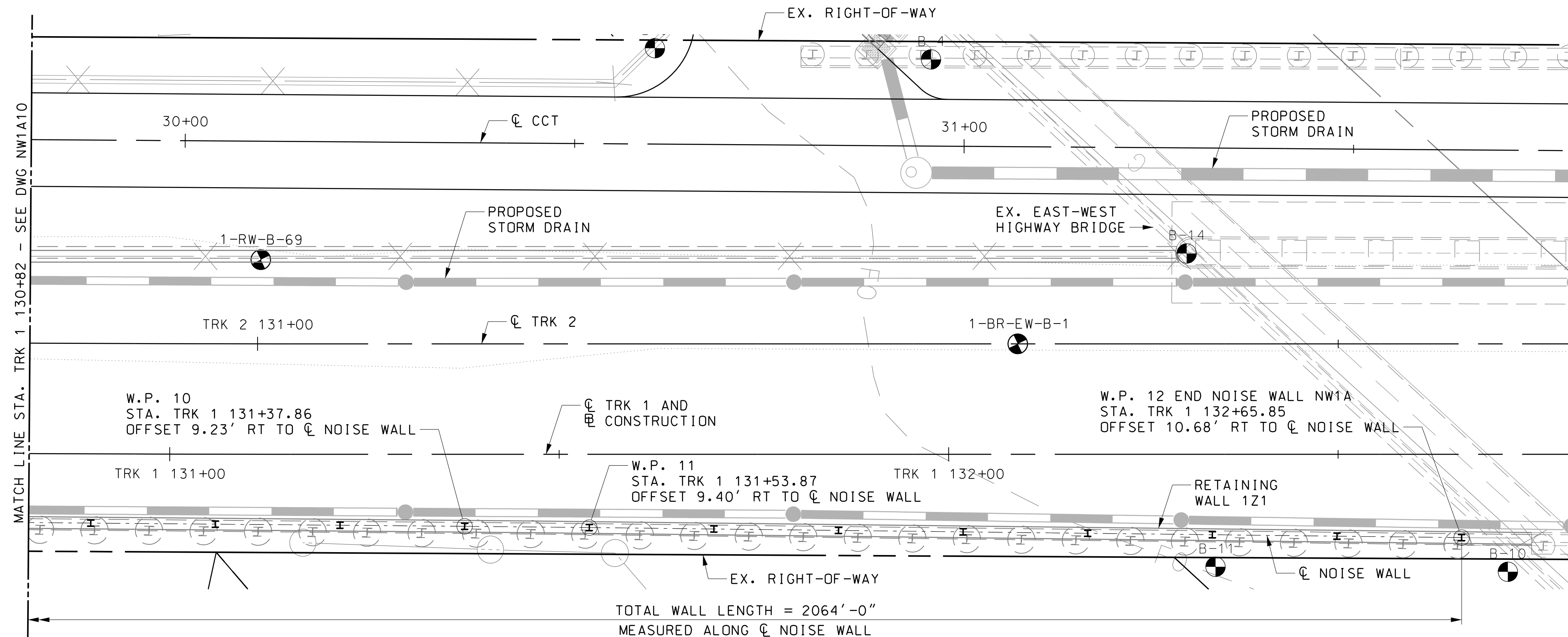
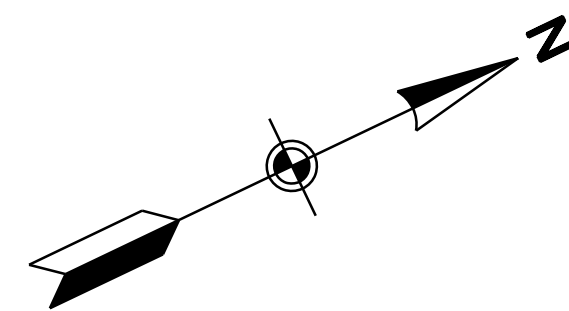


ELEVATION

SCALE: 1"=10'-0"

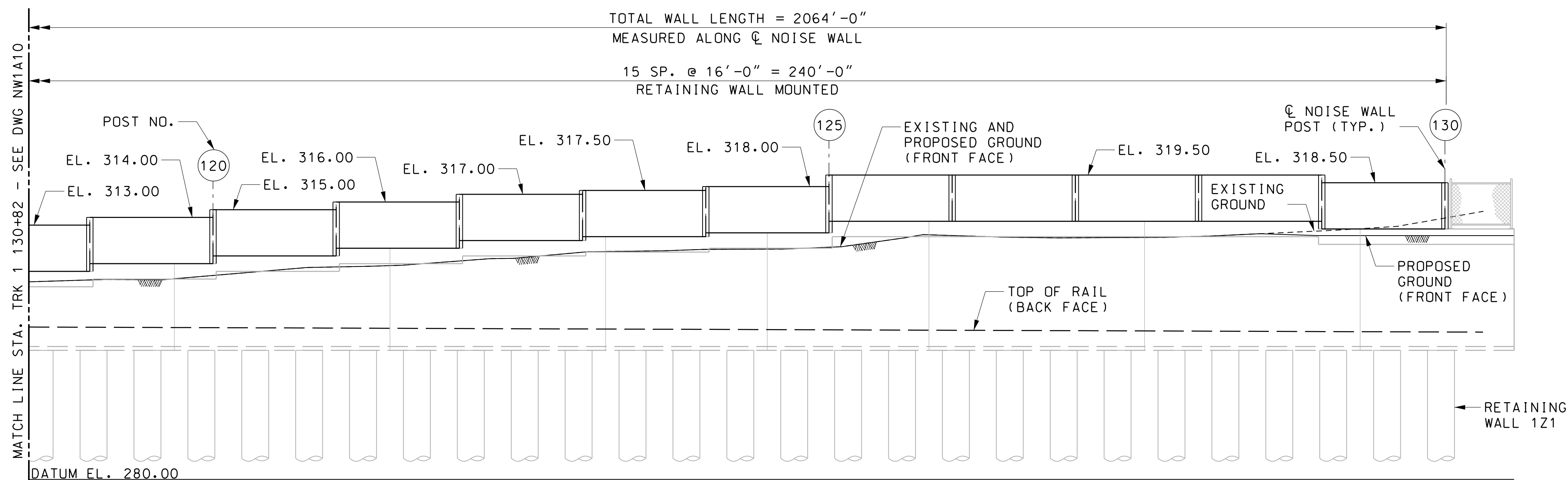
NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".



PLAN

SCALE: 1"=10'-0"

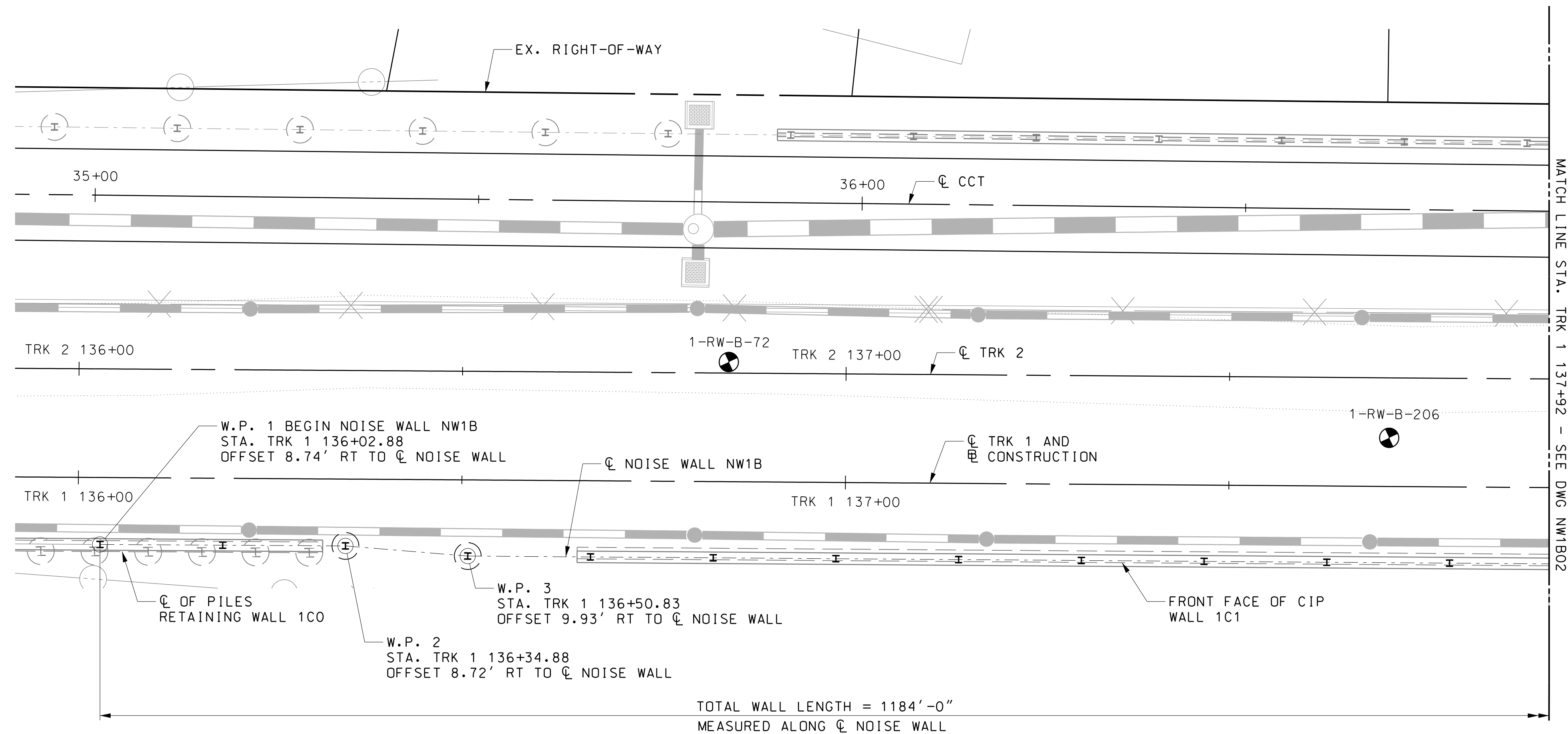
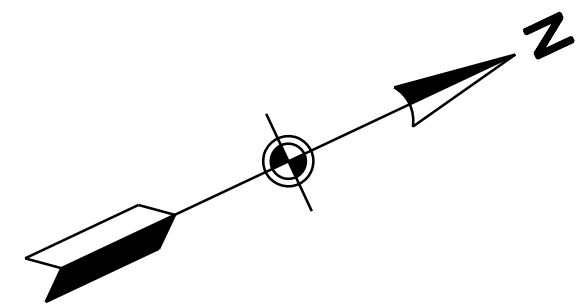


ELEVATION

SCALE: 1"=10'-0"

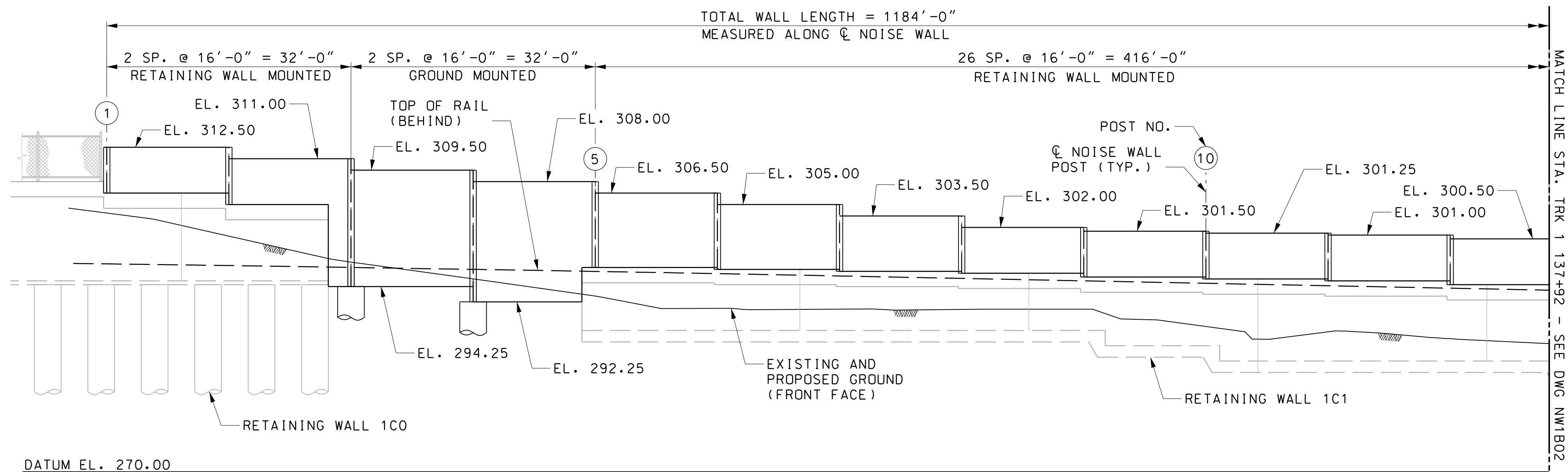
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PLAN

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ELEVATION

SCALE: 1"=10'-0"

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MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

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APPR	CHECK	DRAWN	DESIGN
		MWM	
		JY	
		CRA	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

NOISE WALL NW1B
GENERAL PLAN & ELEVATION - 1

DATE: DECEMBER 2013

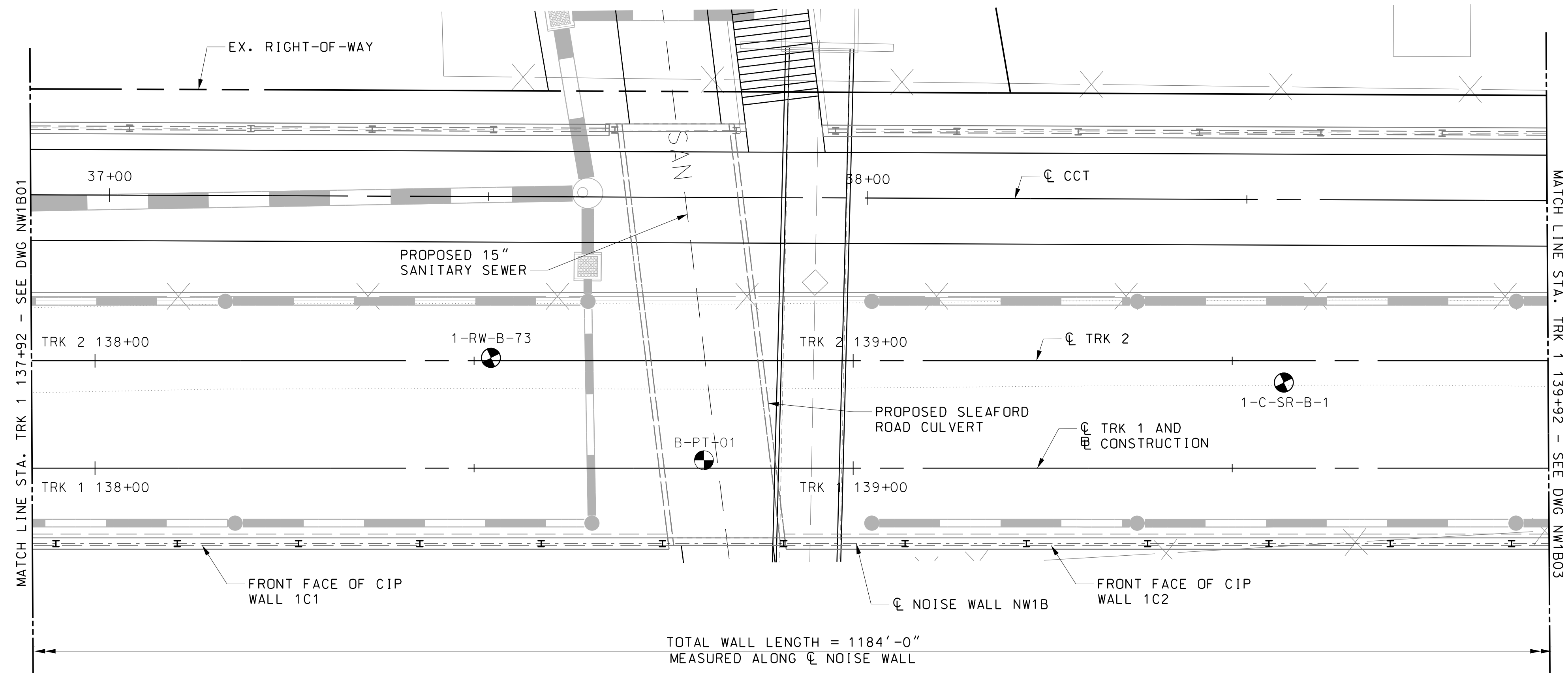
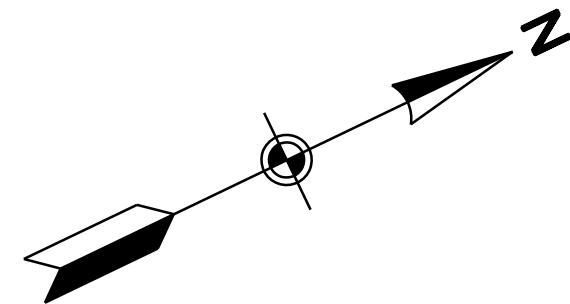
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CONTRACT NO.
T-1042-0220

DRAWING NO.
NW1B01

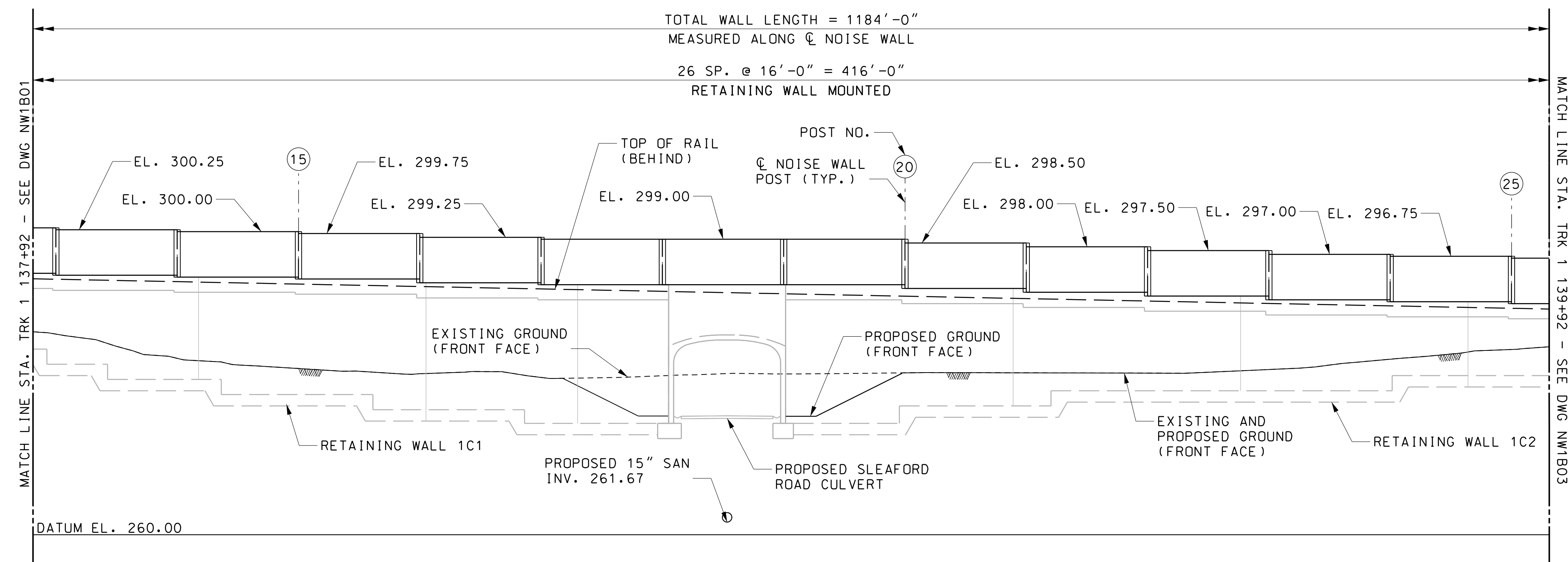
SHEET NO.
250 OF 828

c:\pwworking\mtdotpw\mci-brian_burns\00153742\1042pStnw1b01.dgn 12/5/2013



PLAN

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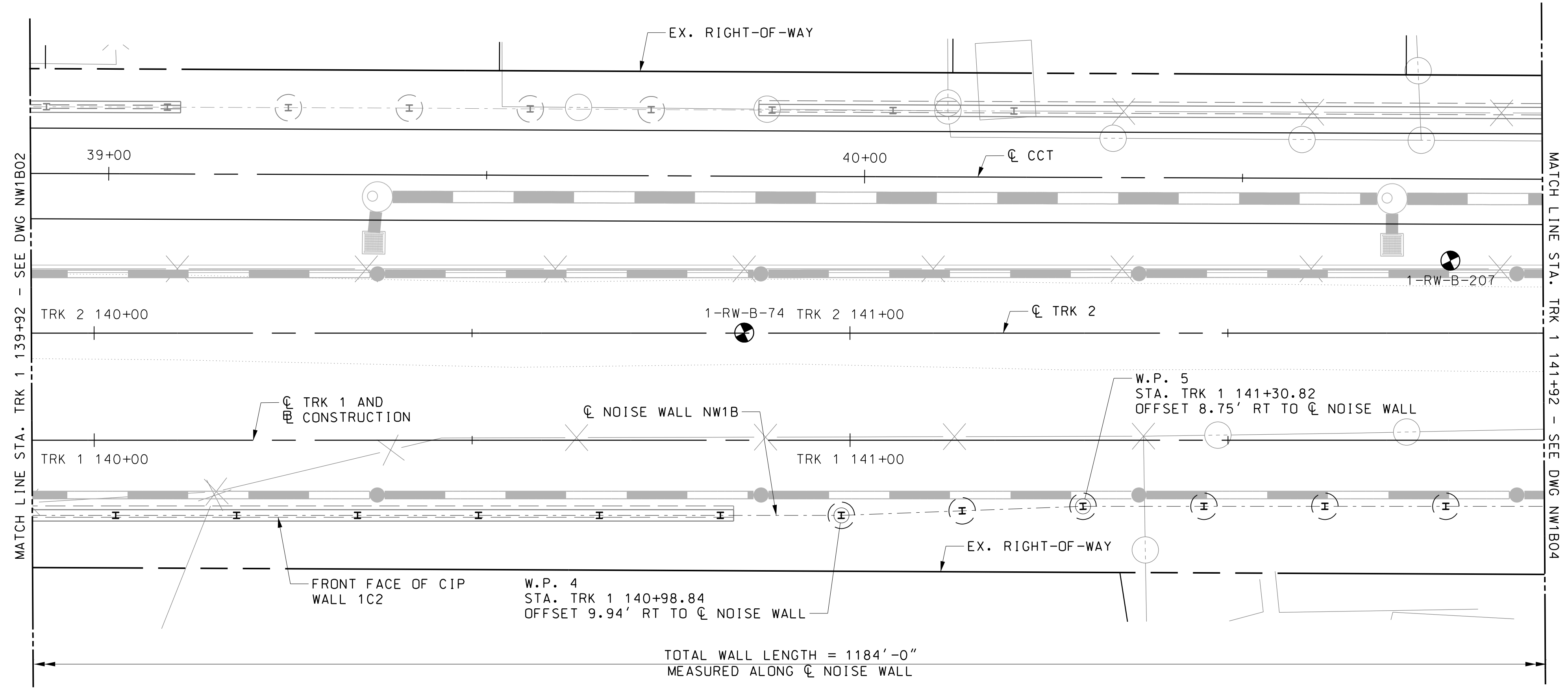
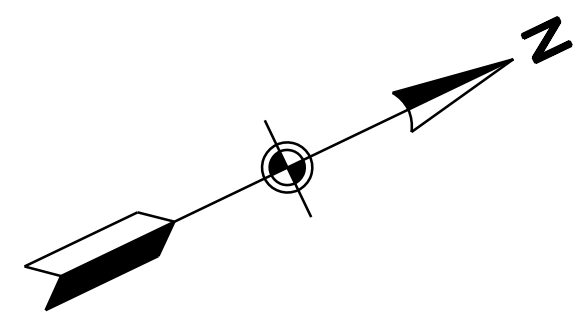


ELEVATION

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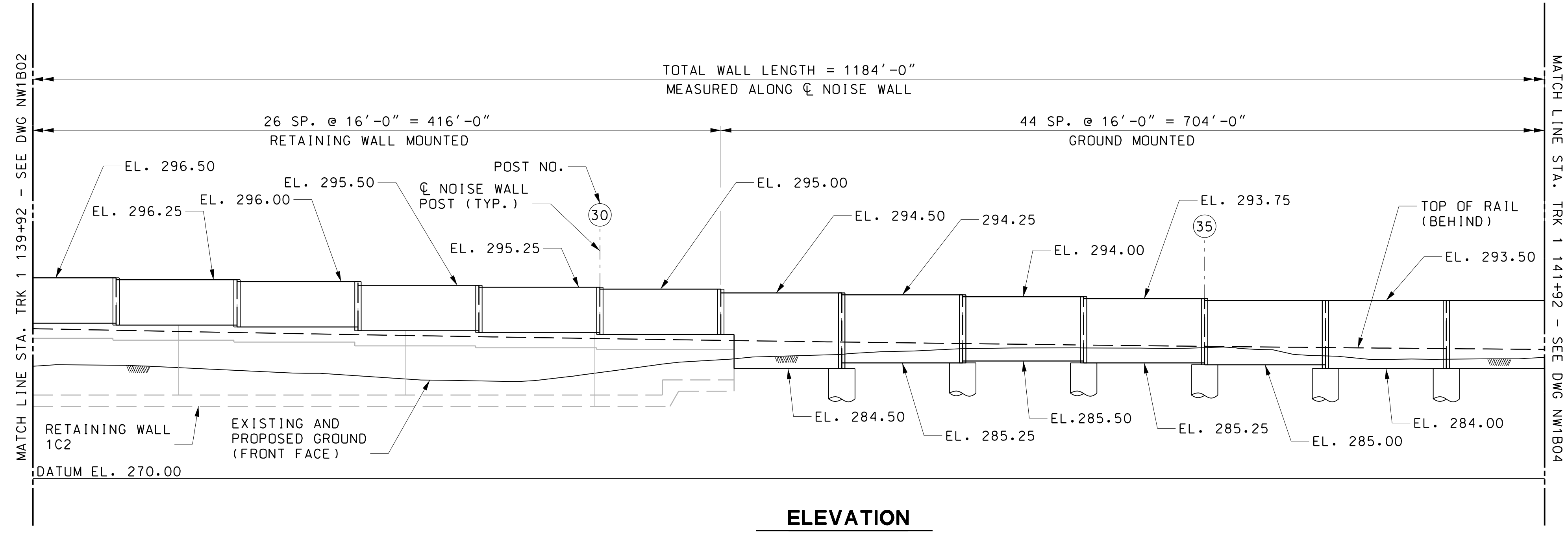
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PLAN

SCALE: 1"=10'-0"




ELEVATION


SCALE: 1"=10'-0"

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MARYLAND DEPARTMENT OF TRANSPORTATION

 MARYLAND TRANSIT ADMINISTRATION







MERCADO
CONSULTANTS, INC.

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

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APPR	CHECK	DRAWN	DESIGN
			MWM
			JY
			CRA

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

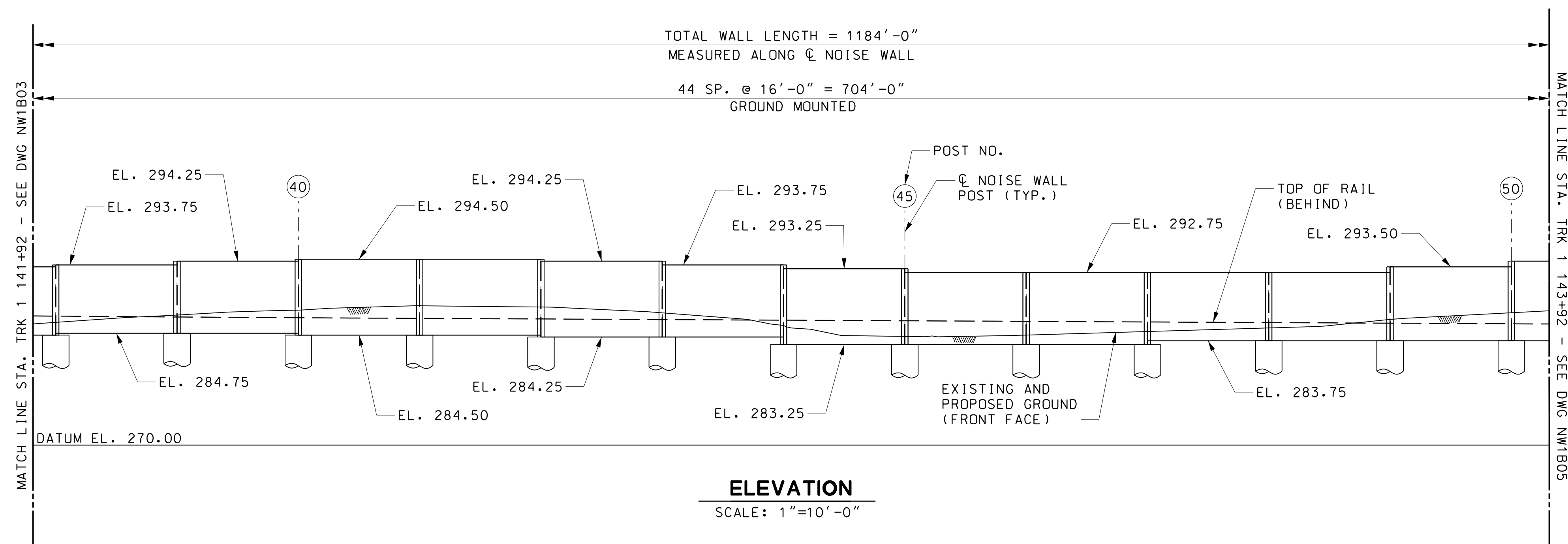
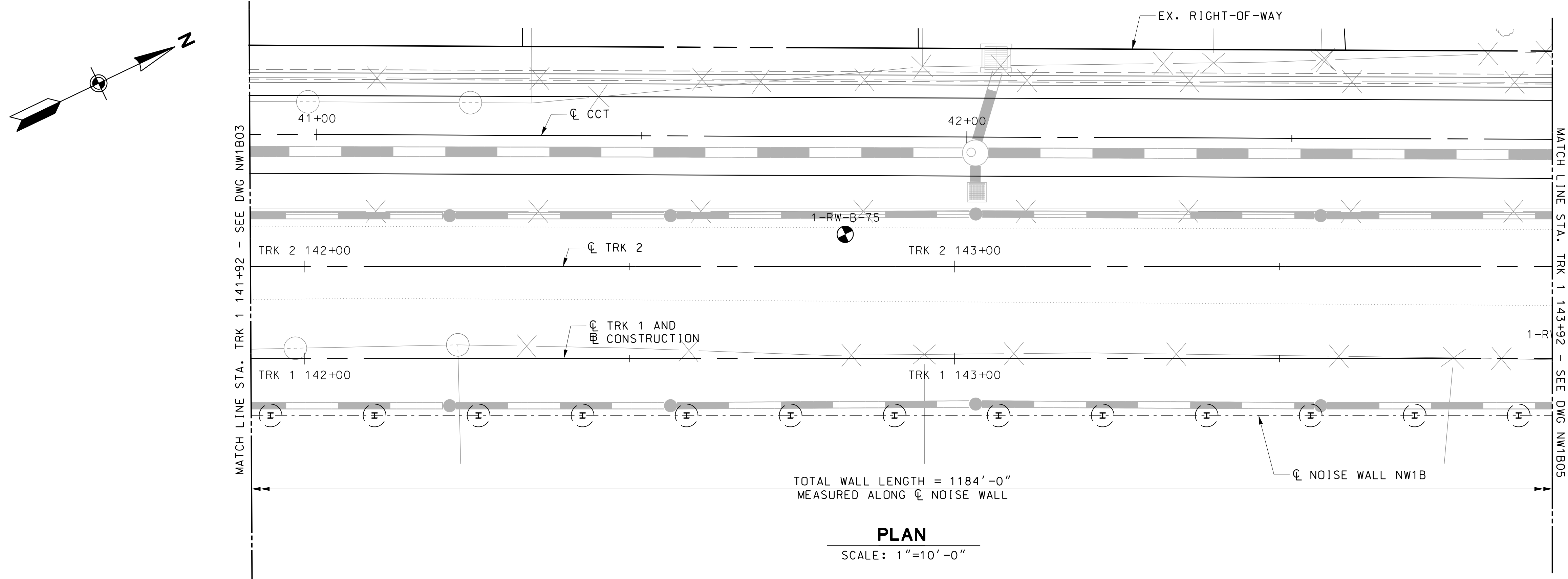
NOISE WALL NW1B
GENERAL PLAN & ELEVATION – 3

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

CONTRACT NO. T-1042-0220
DRAWING NO. NW1B03
SHEET NO. 252 OF 828

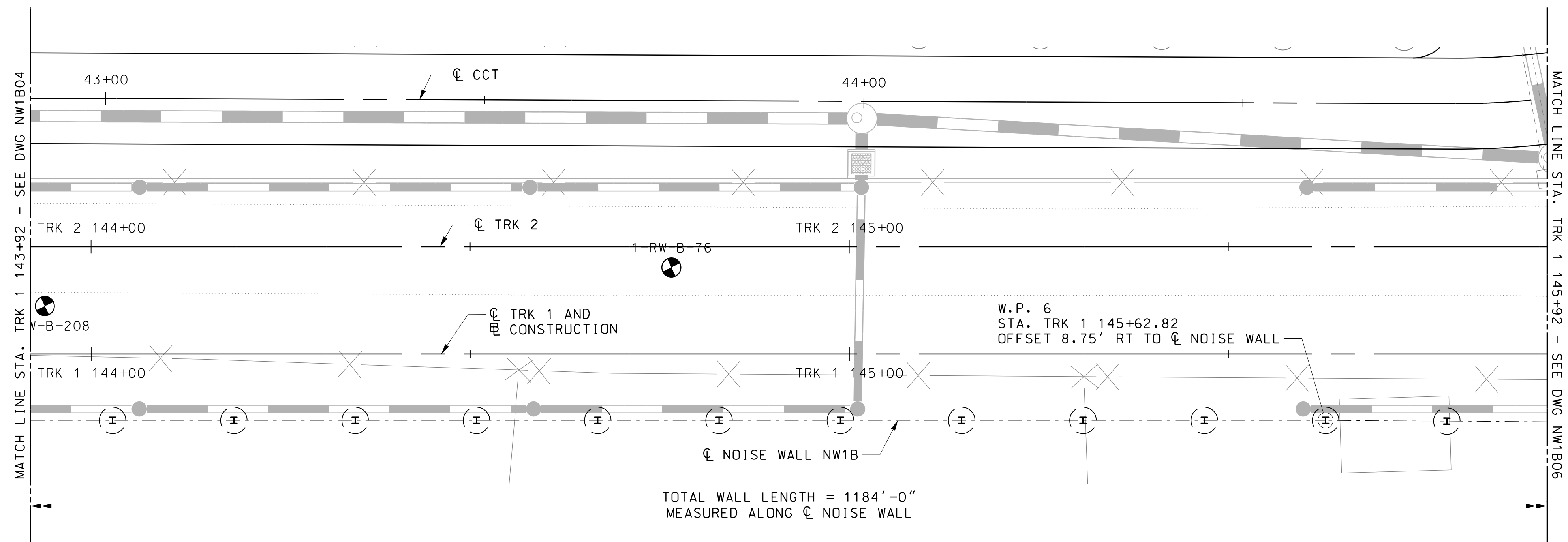
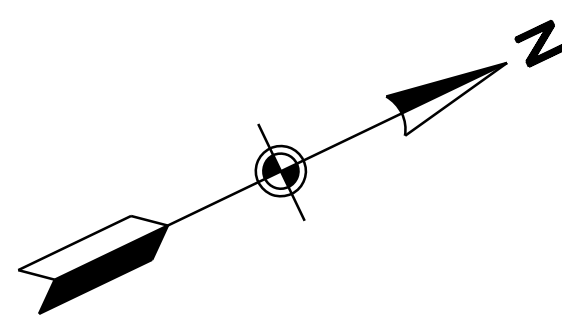
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NOTES:

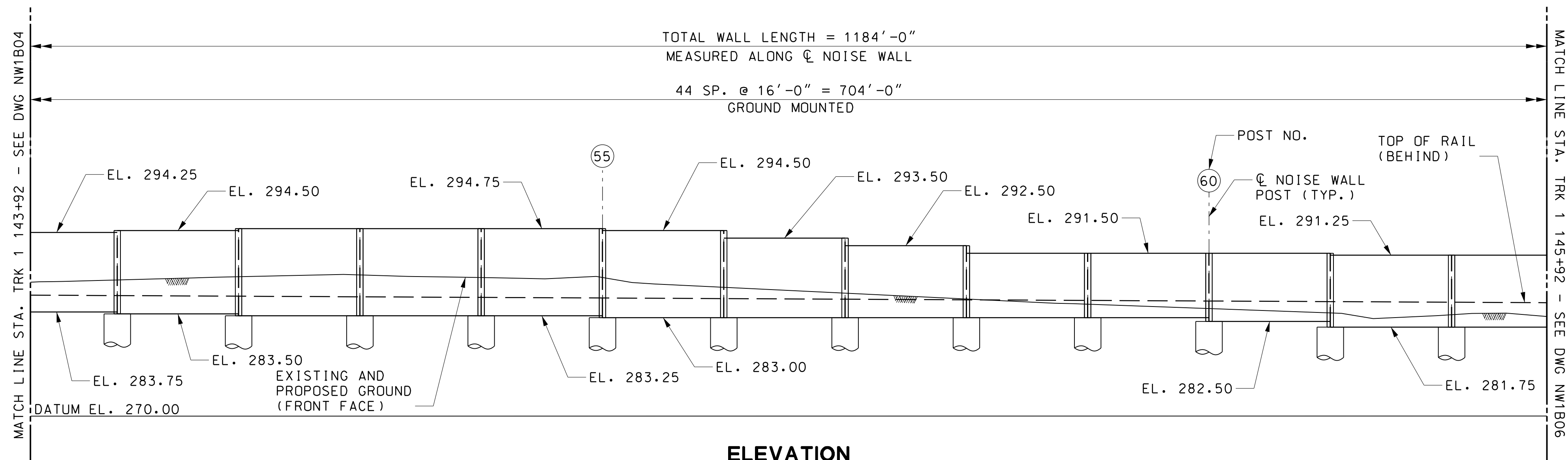
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PLAN

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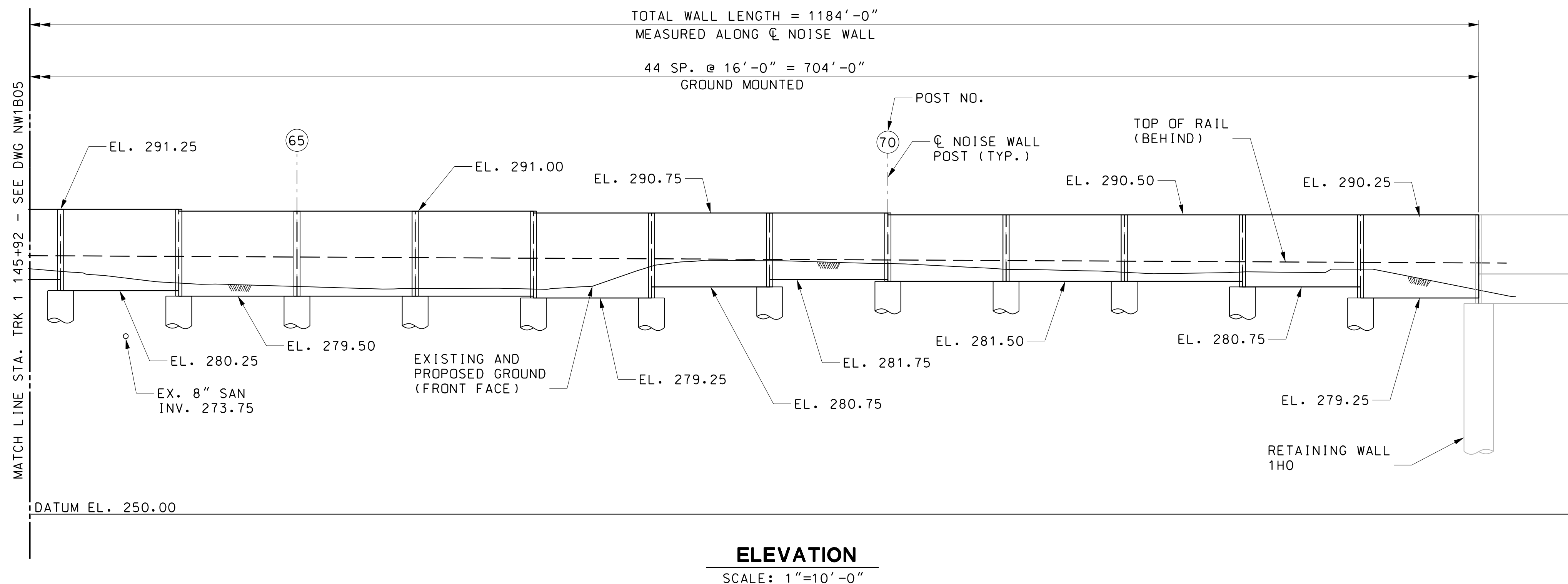
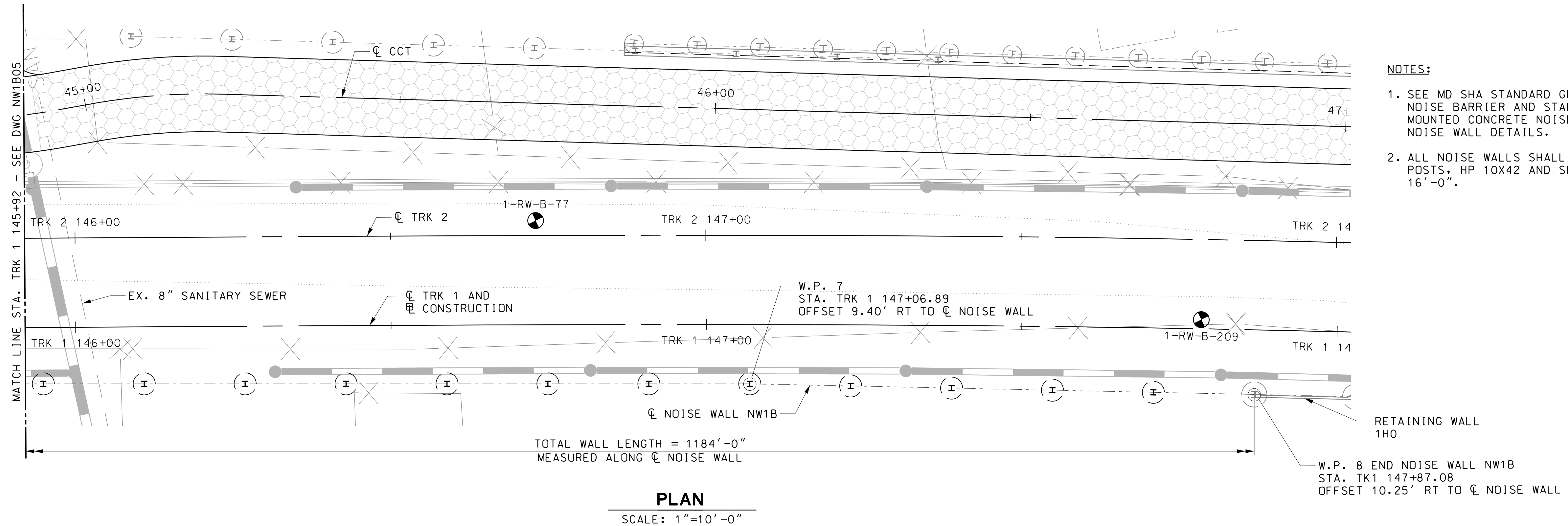
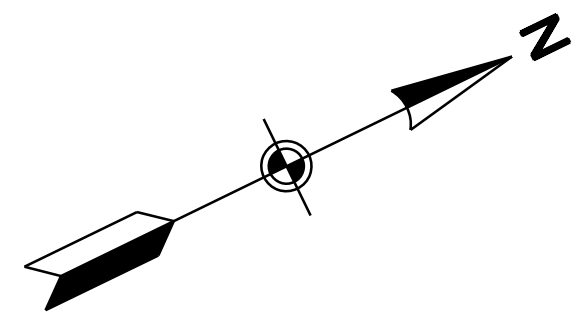


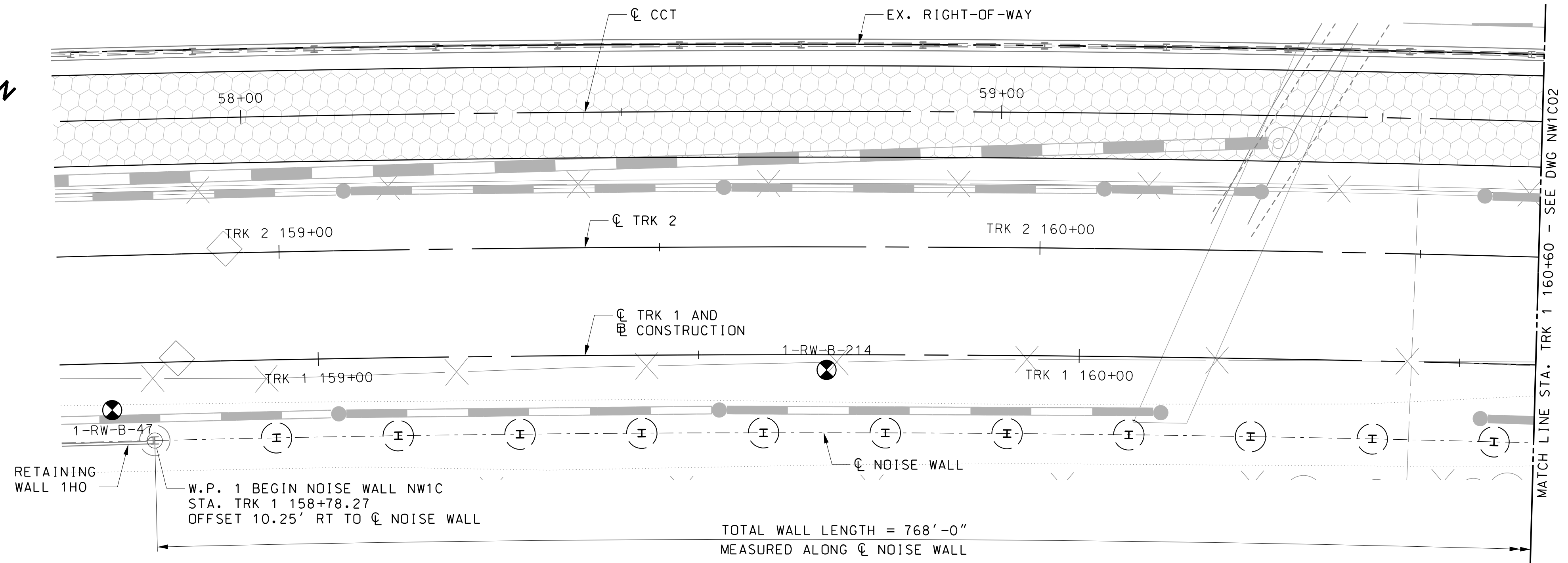
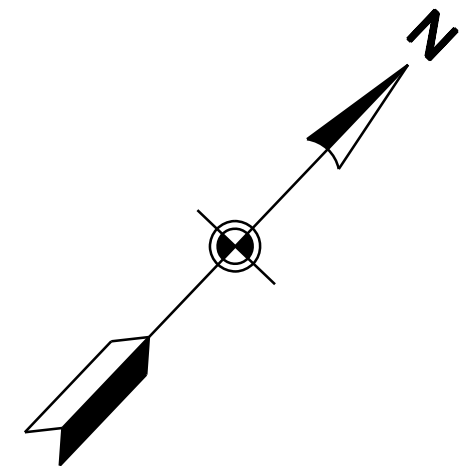
ELEVATION

SCALE: 1"=10'-0"

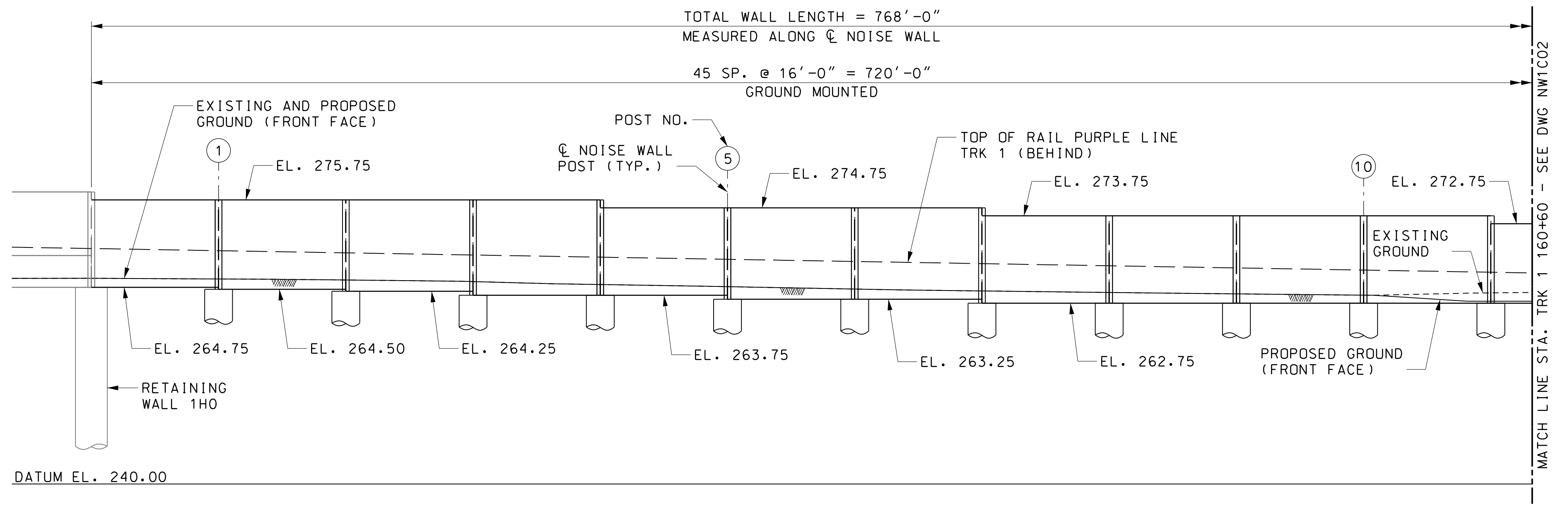
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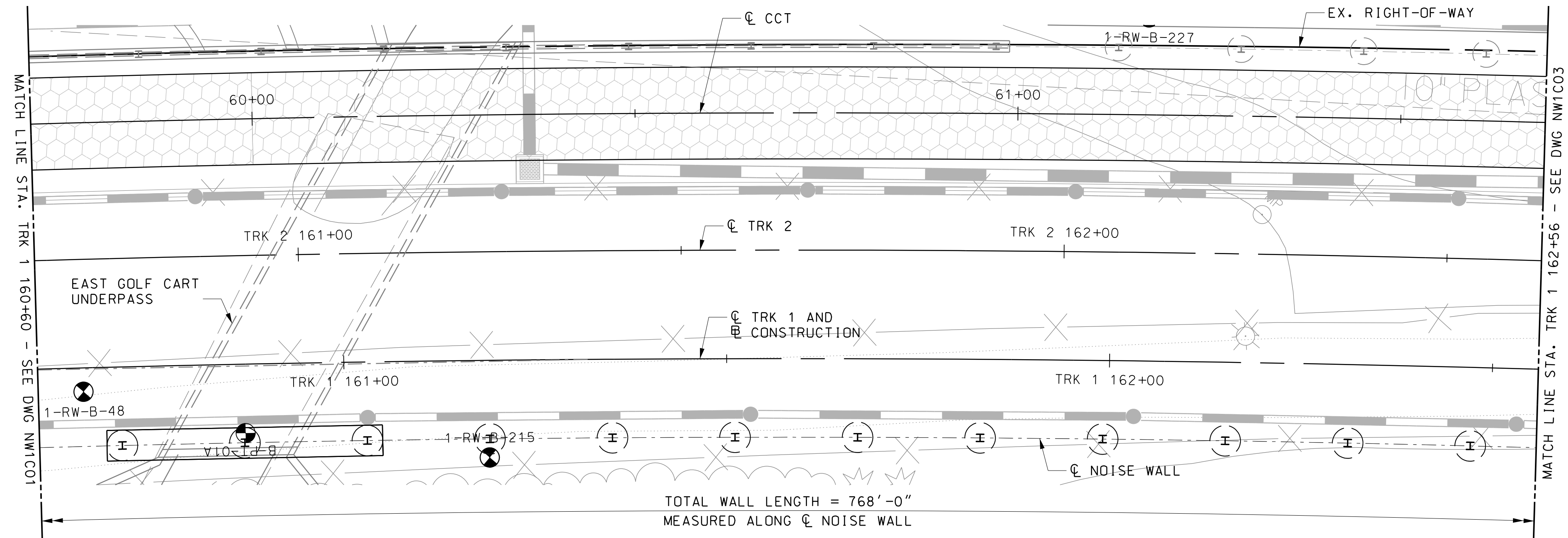
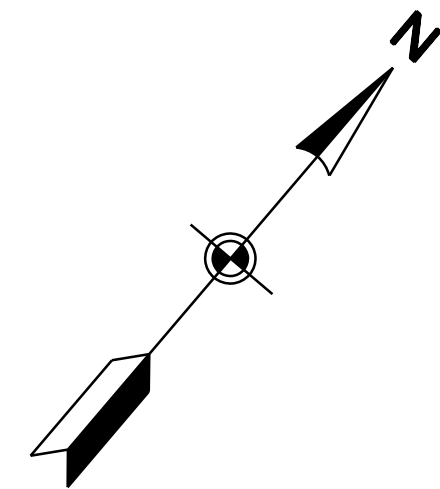
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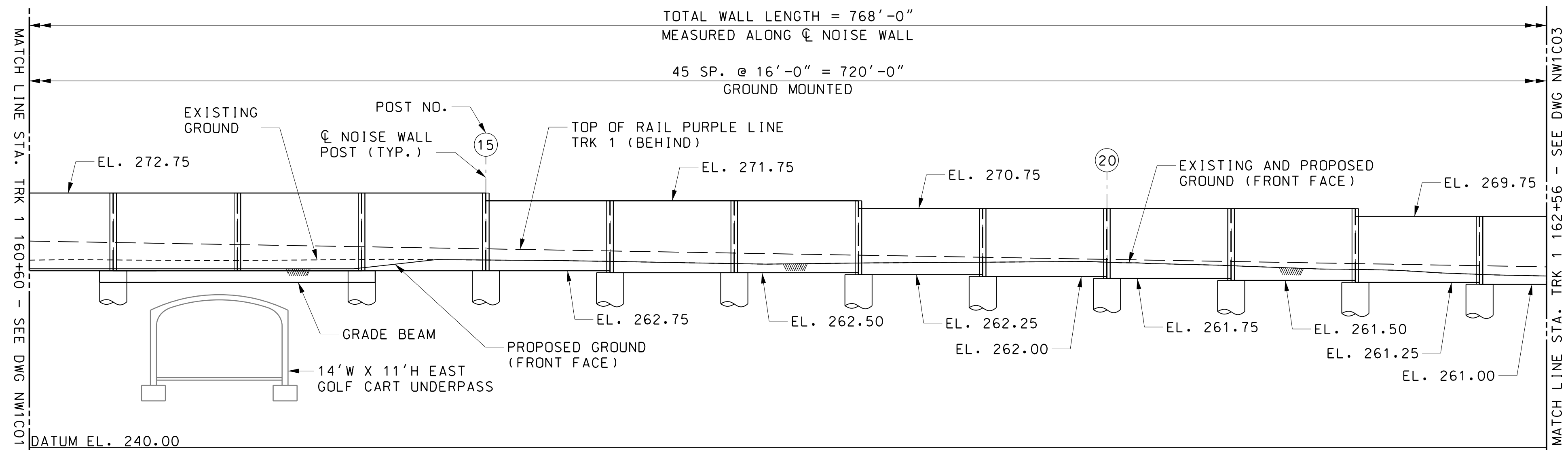
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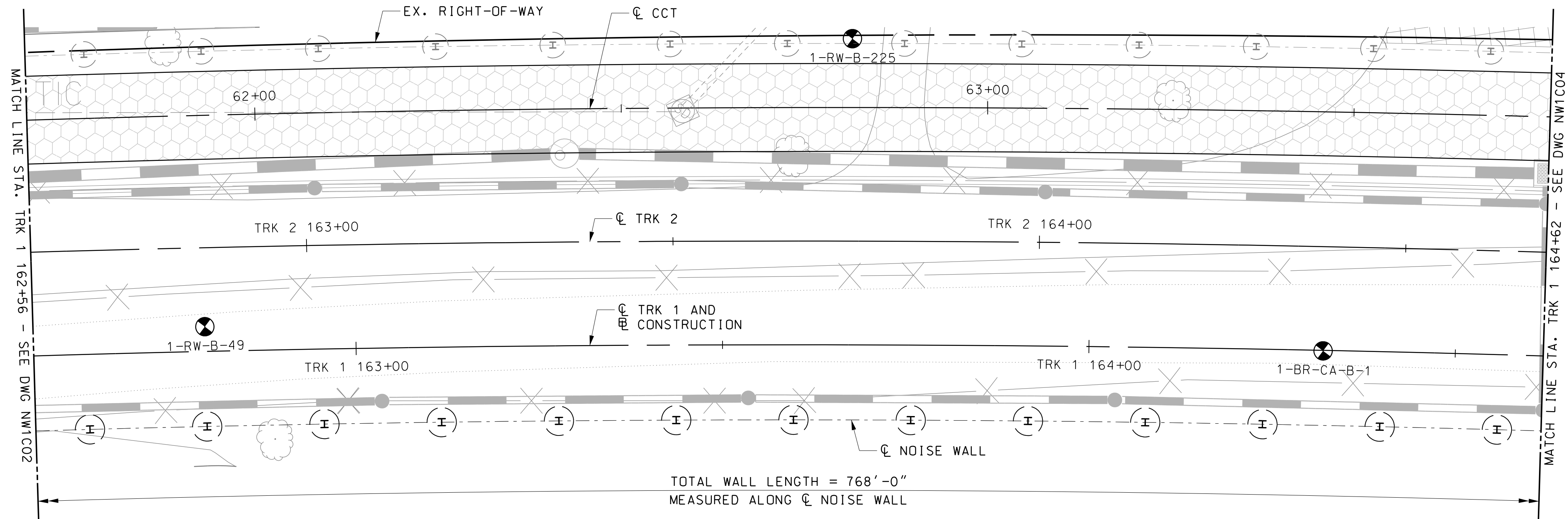
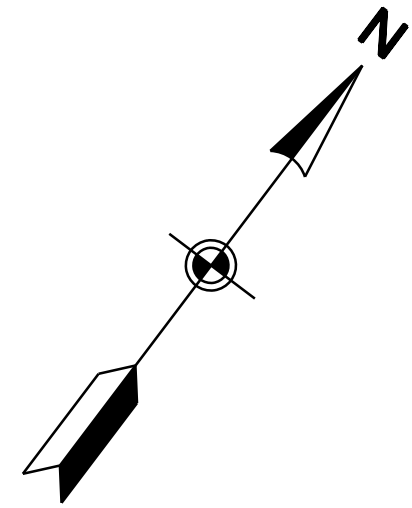


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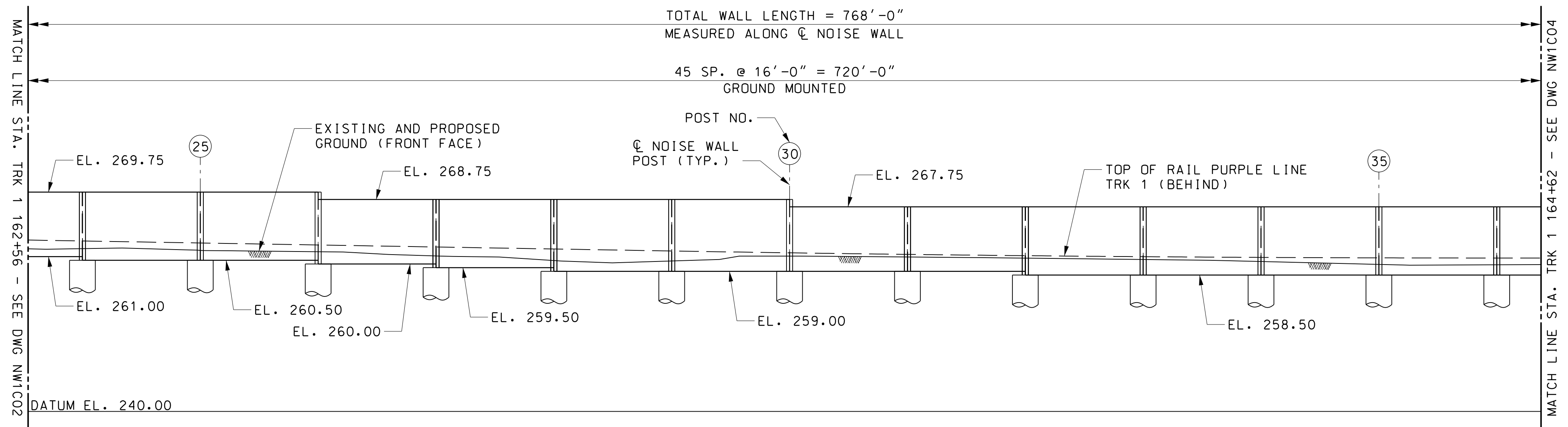
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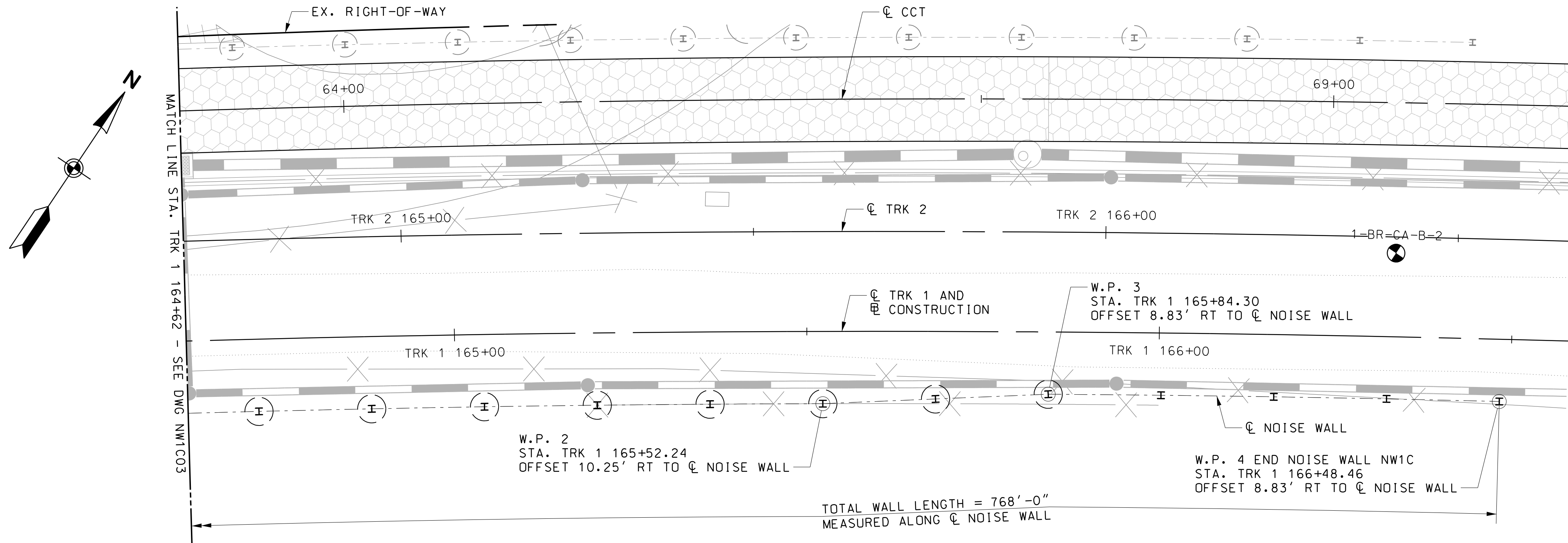


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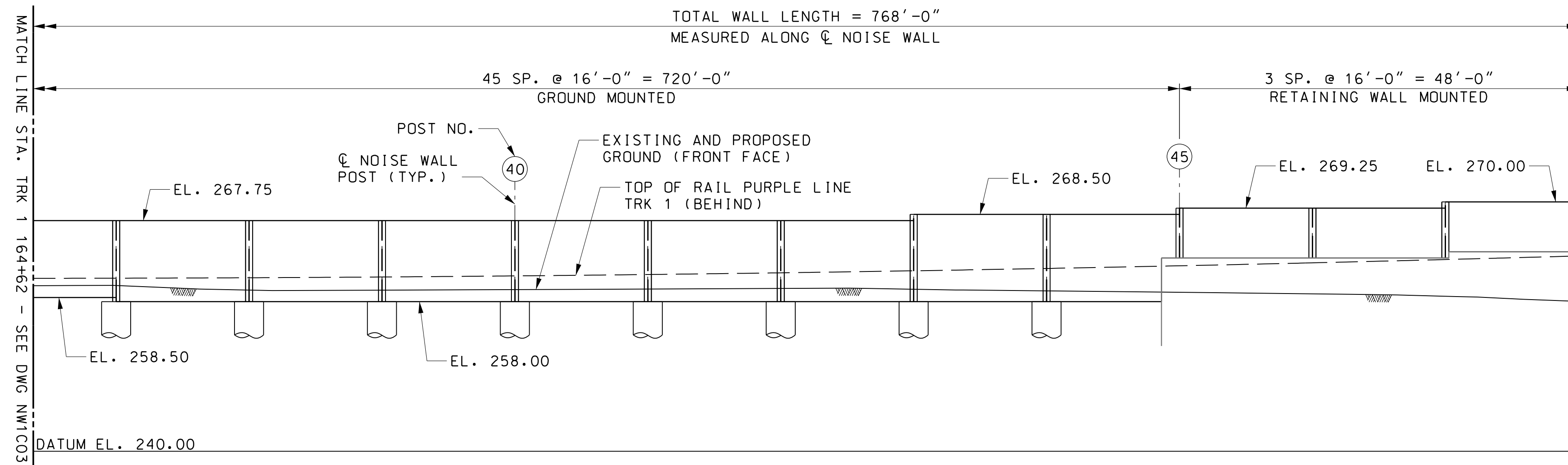
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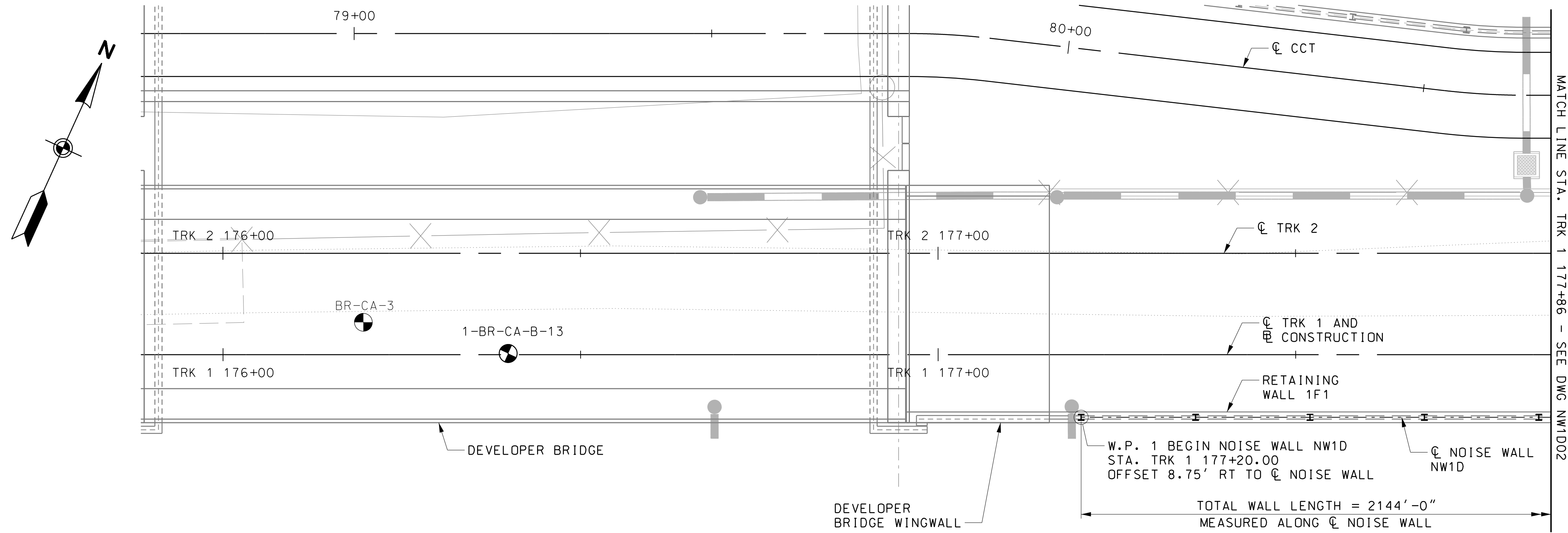


ELEVATION

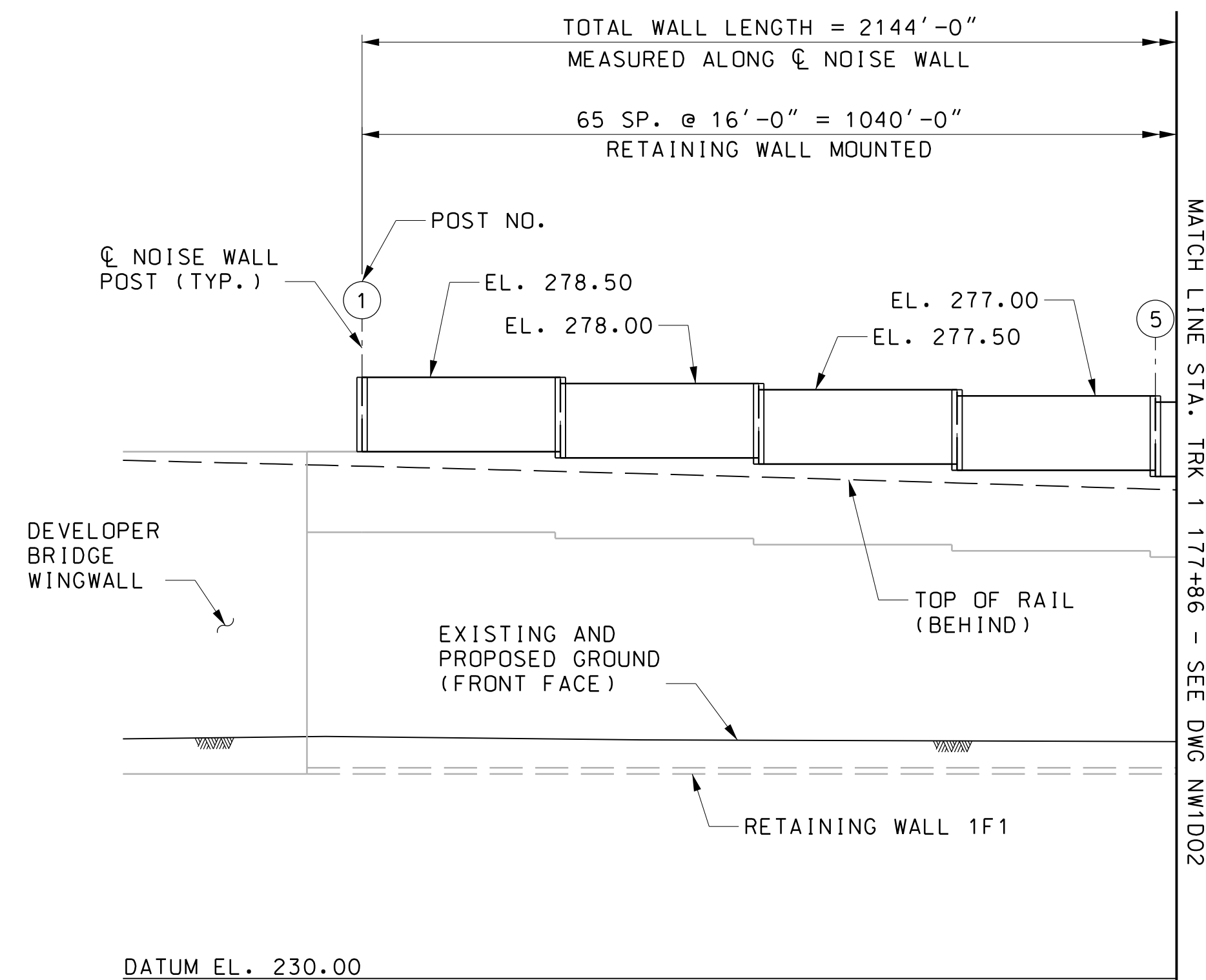
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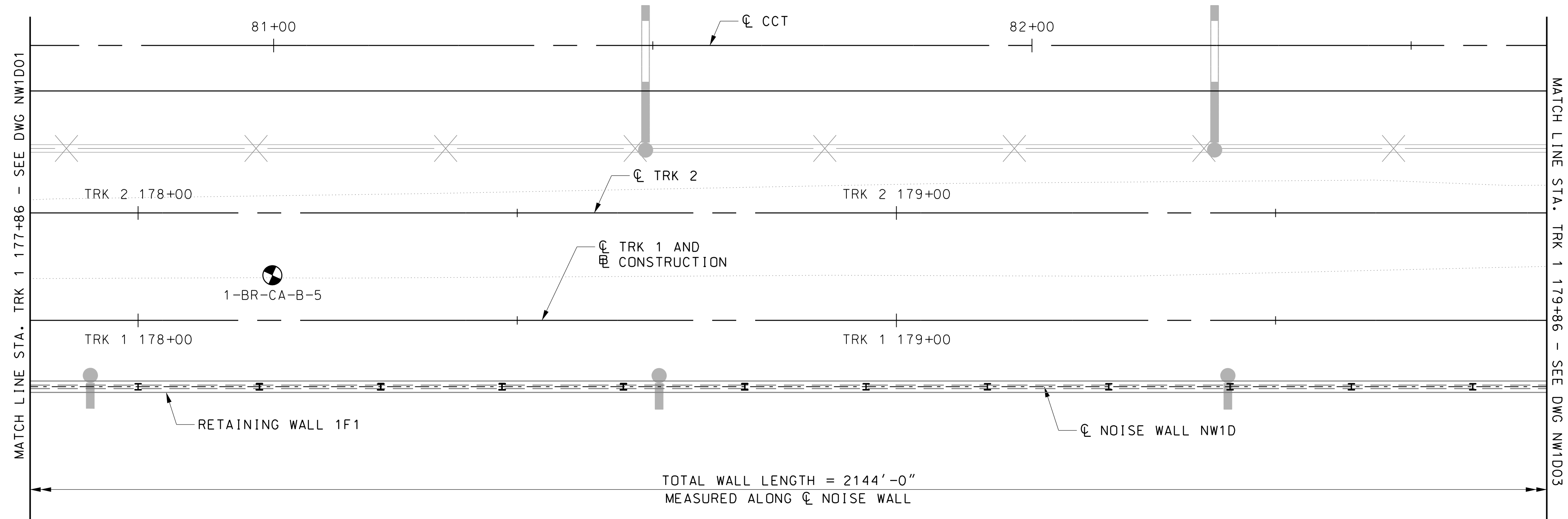
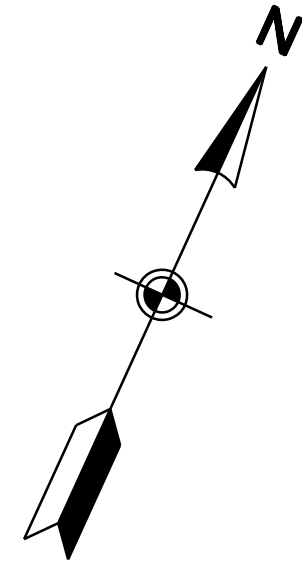


PLAN
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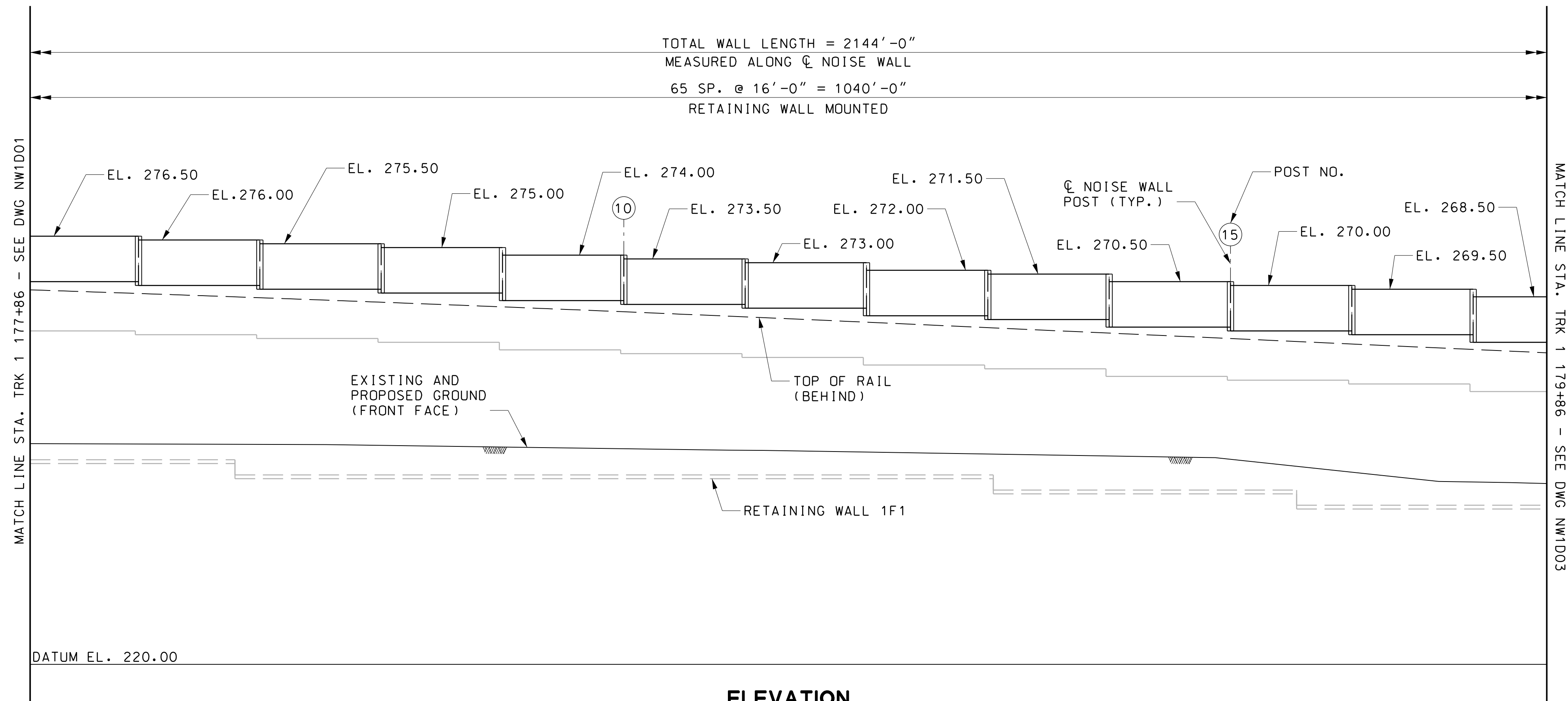


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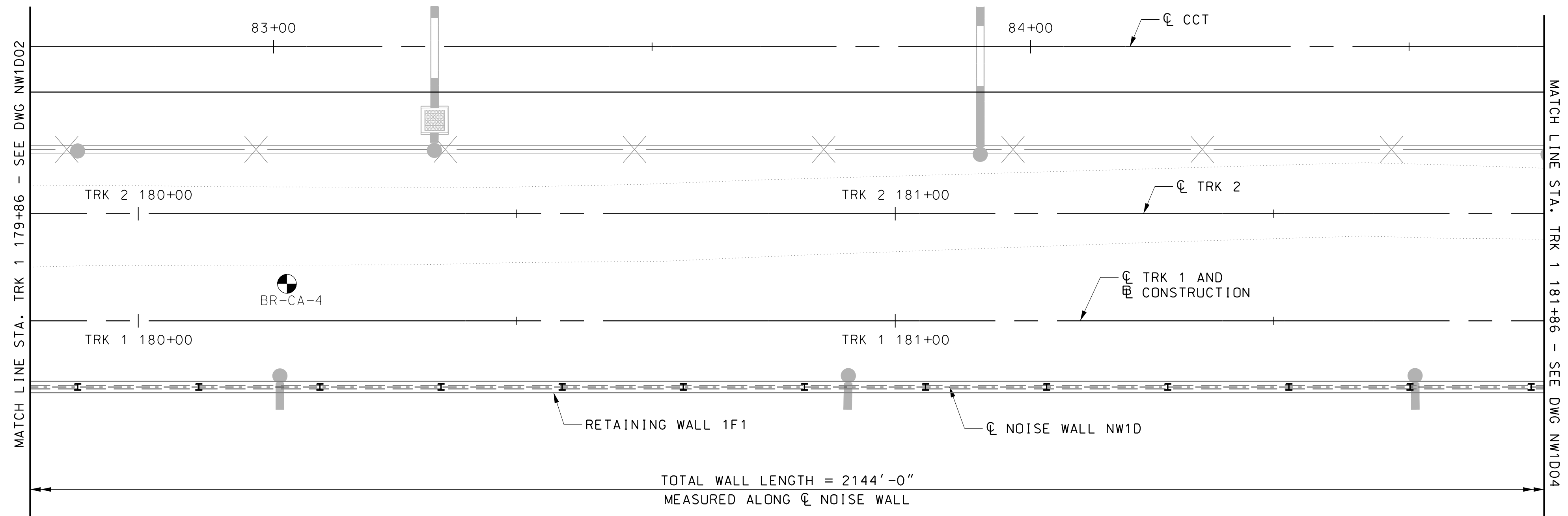
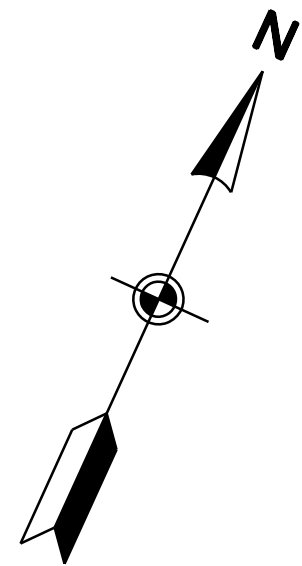


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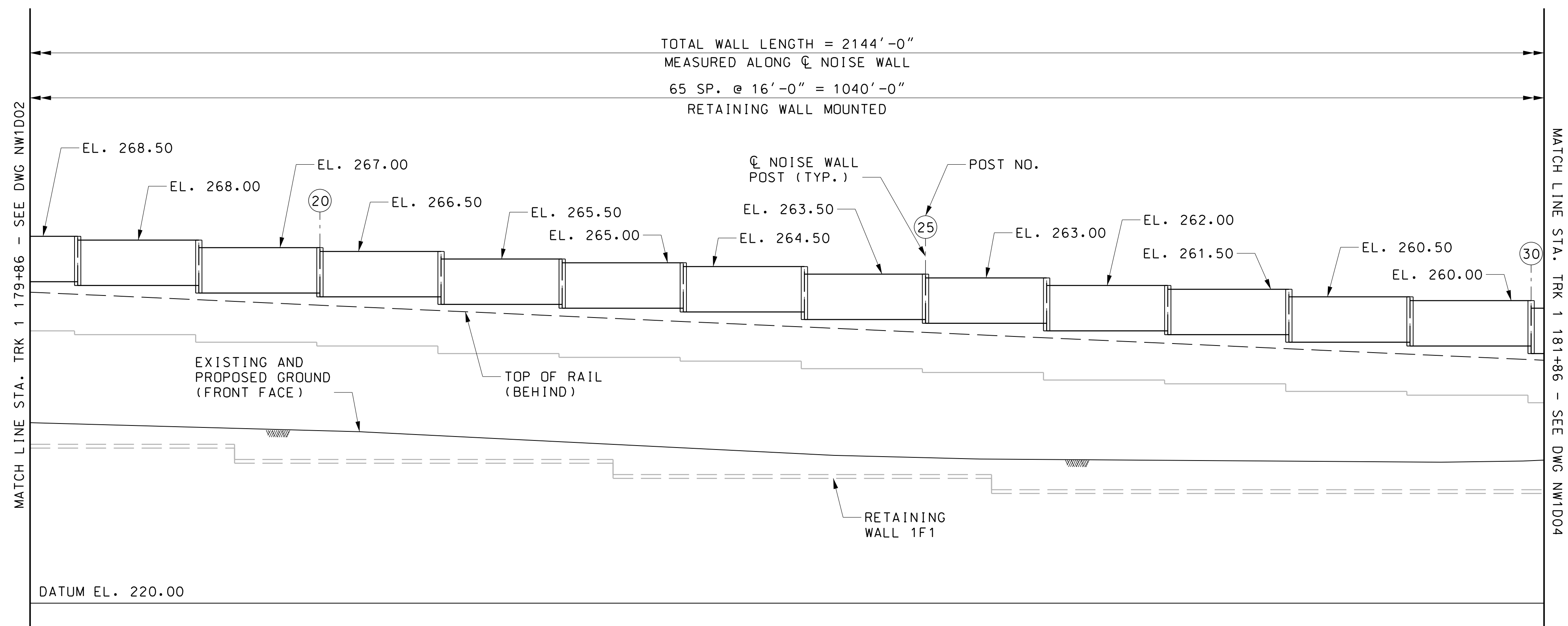


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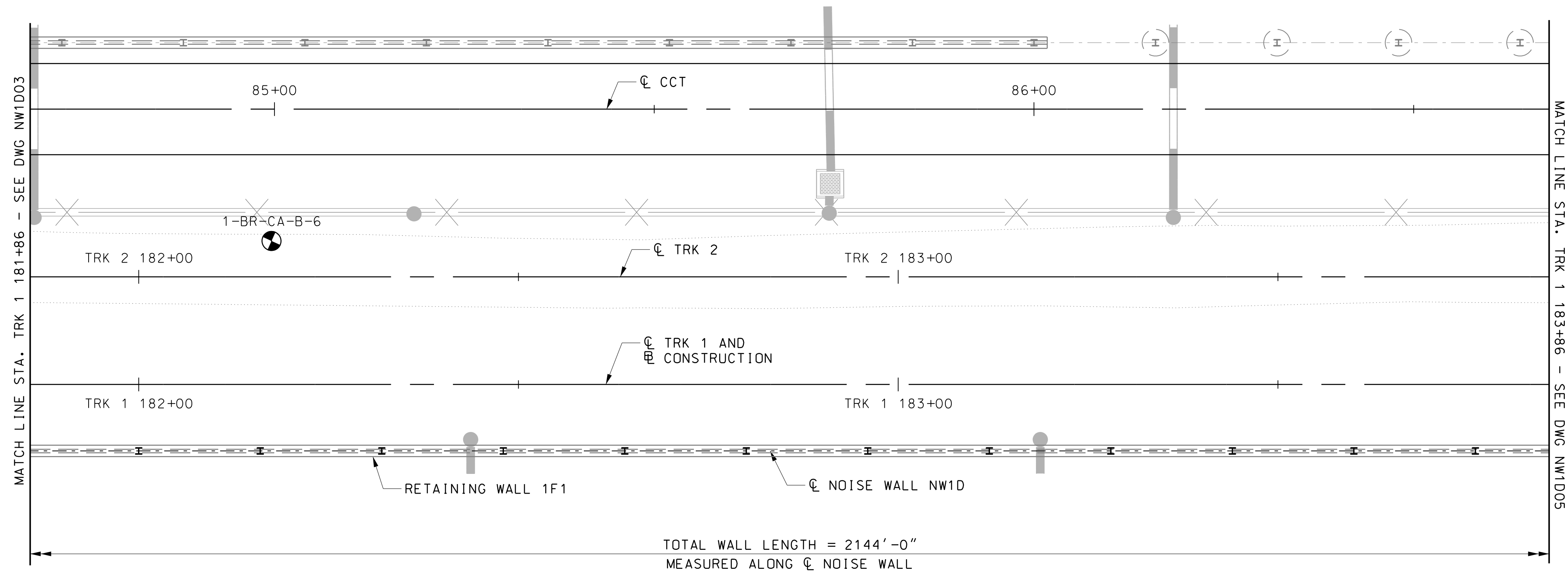
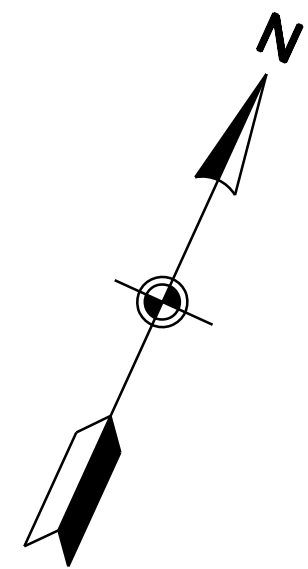


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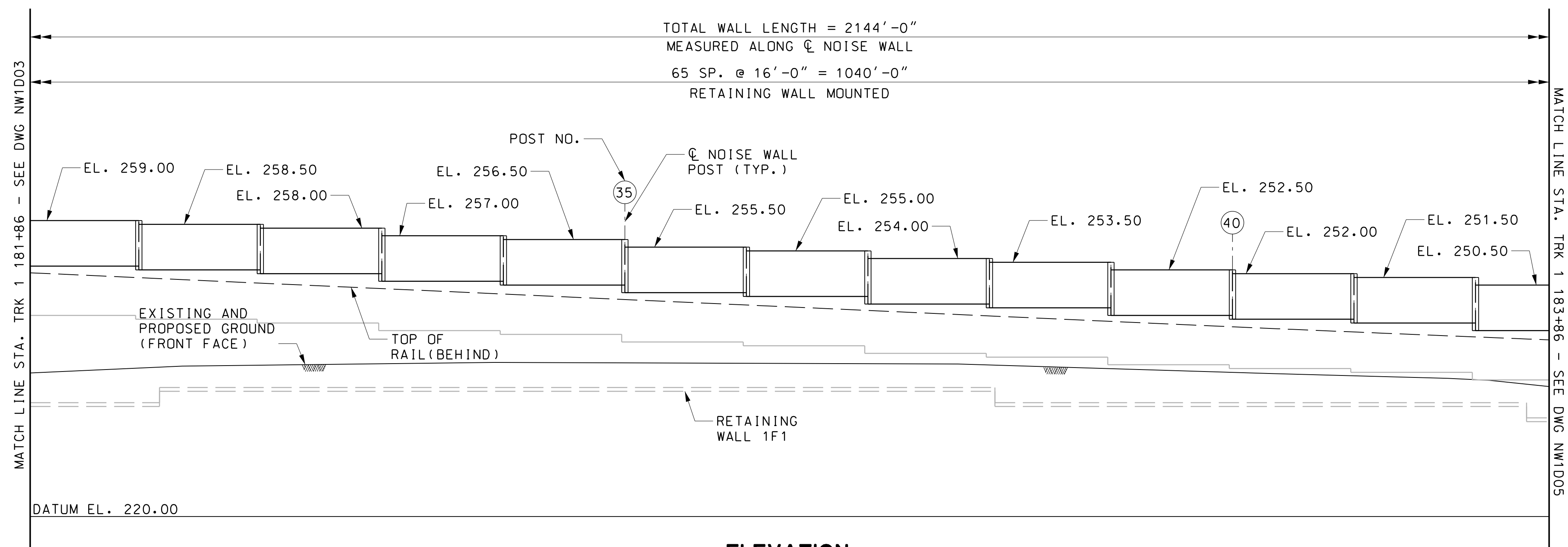


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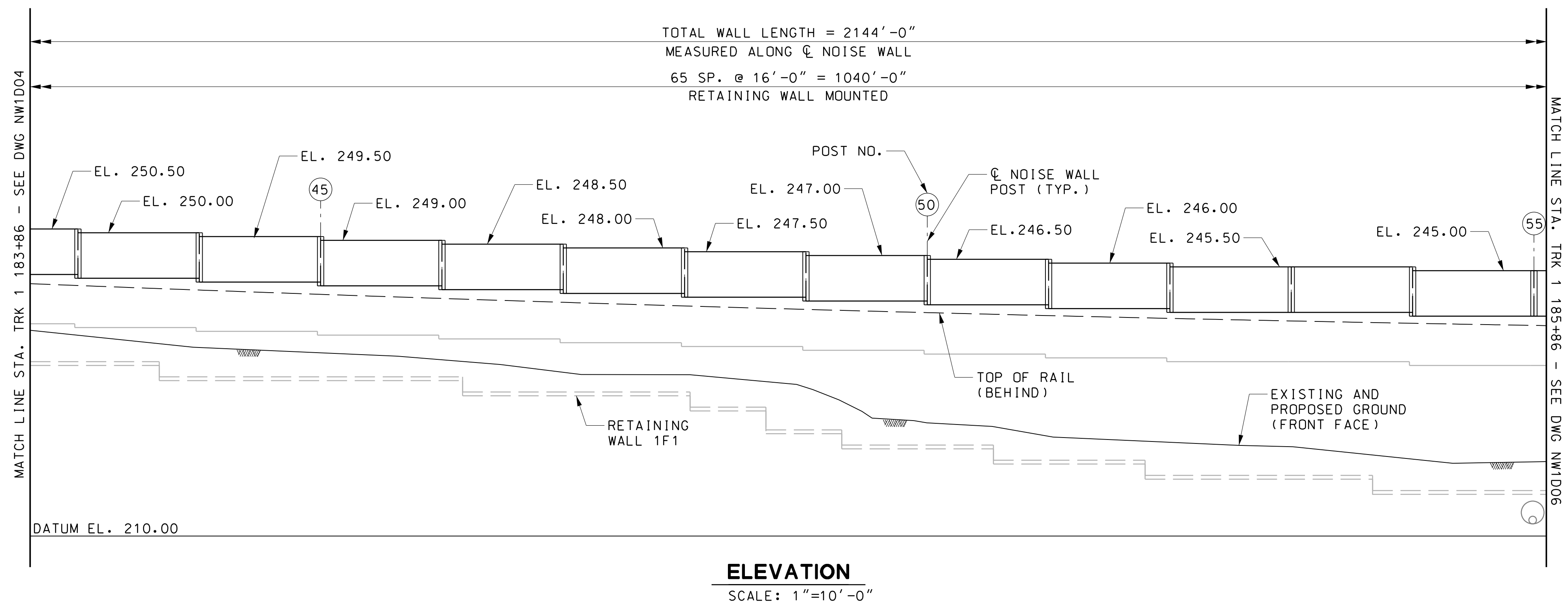
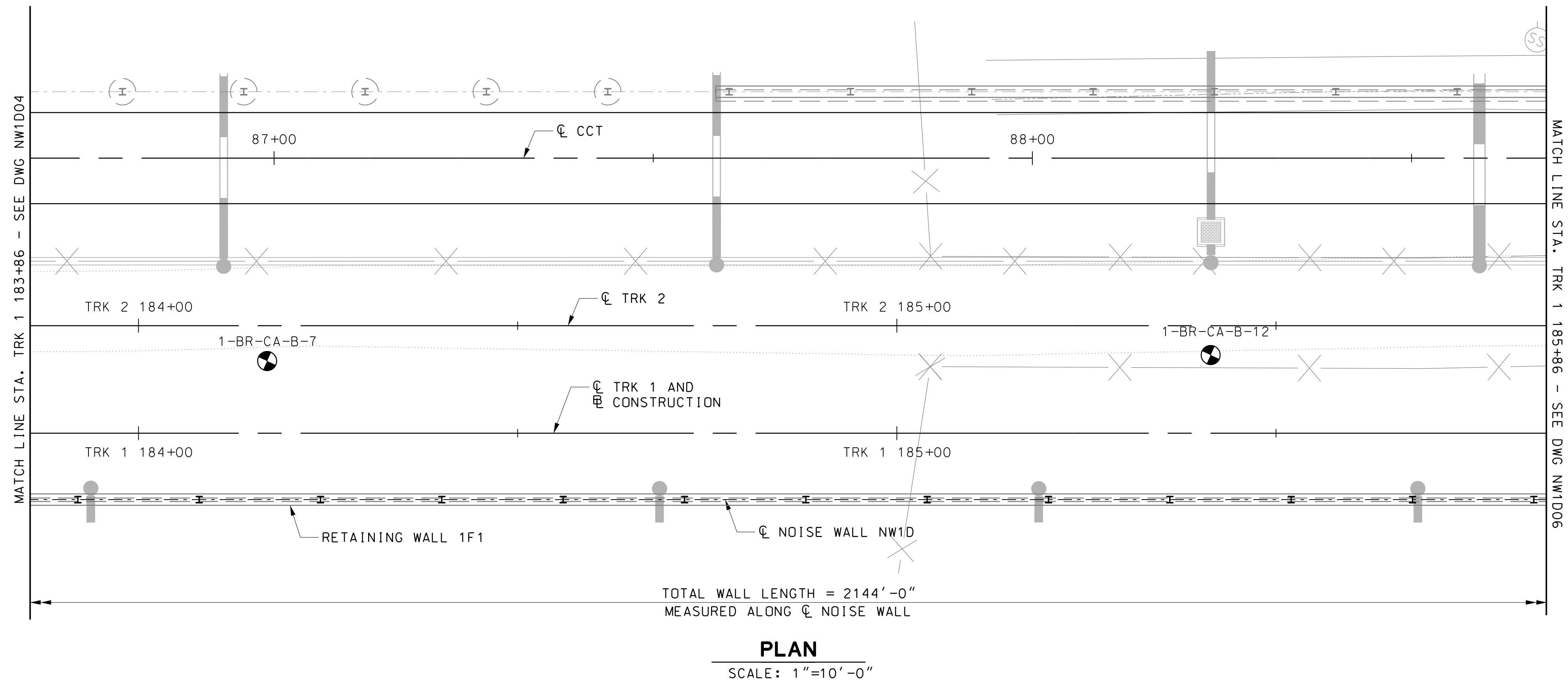
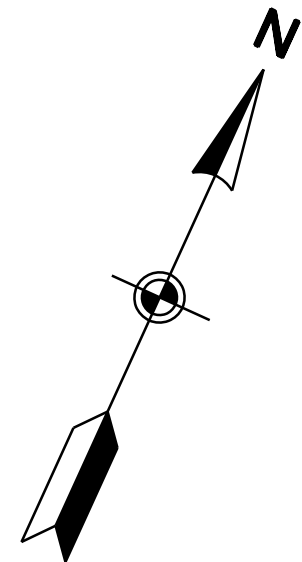
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

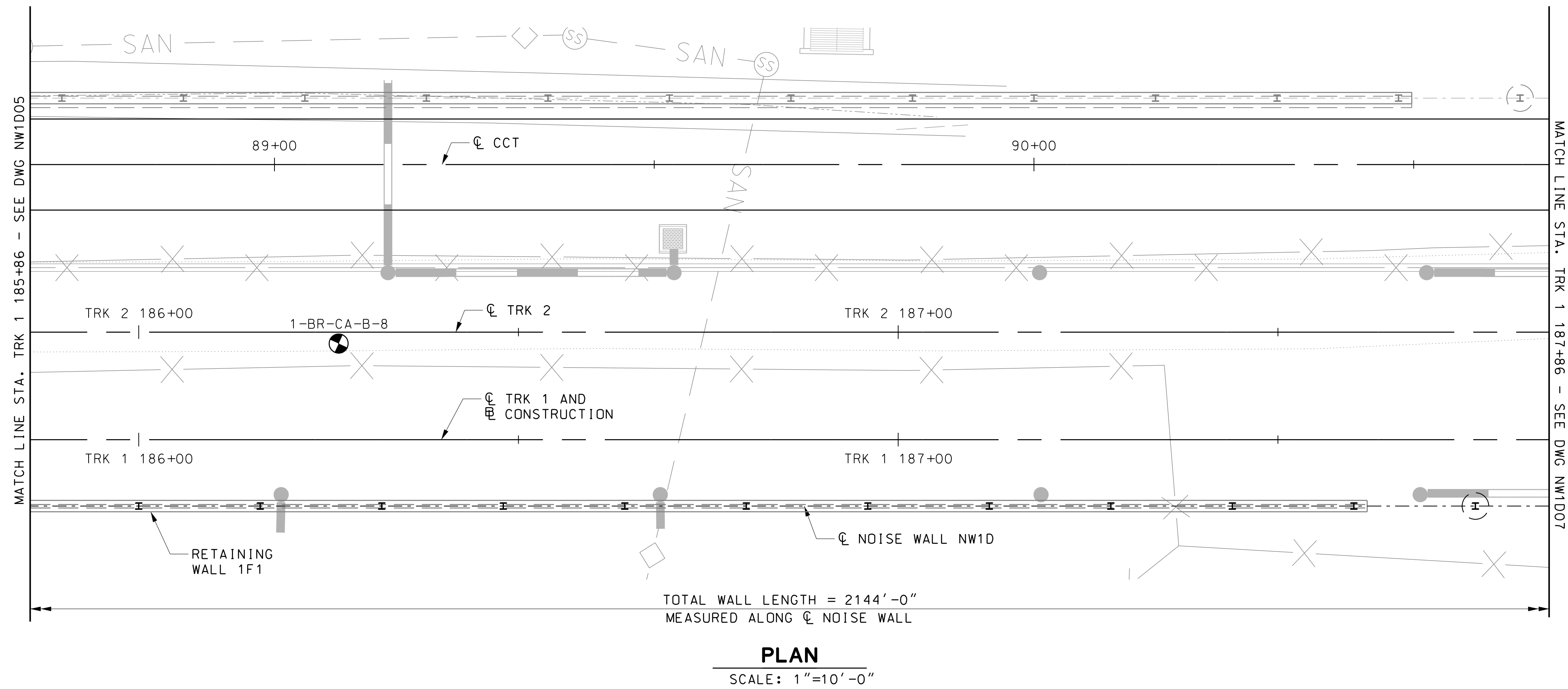
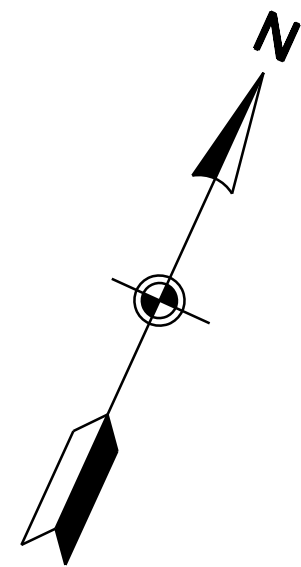
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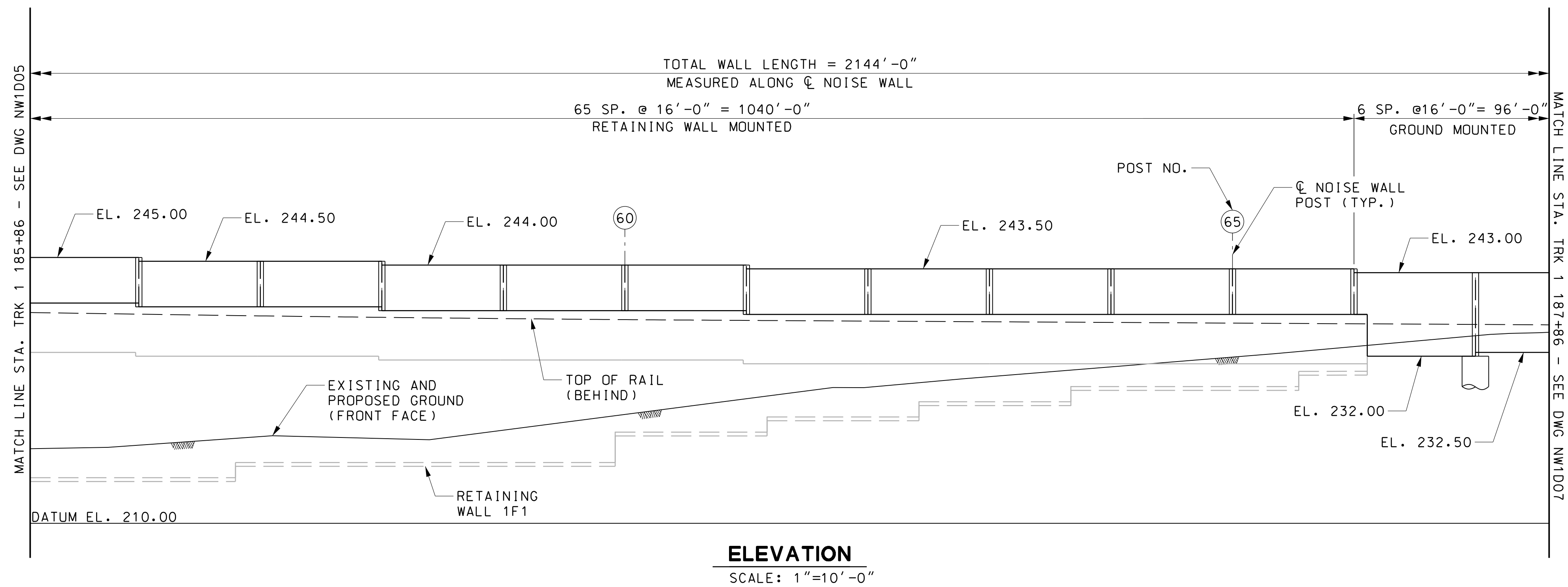


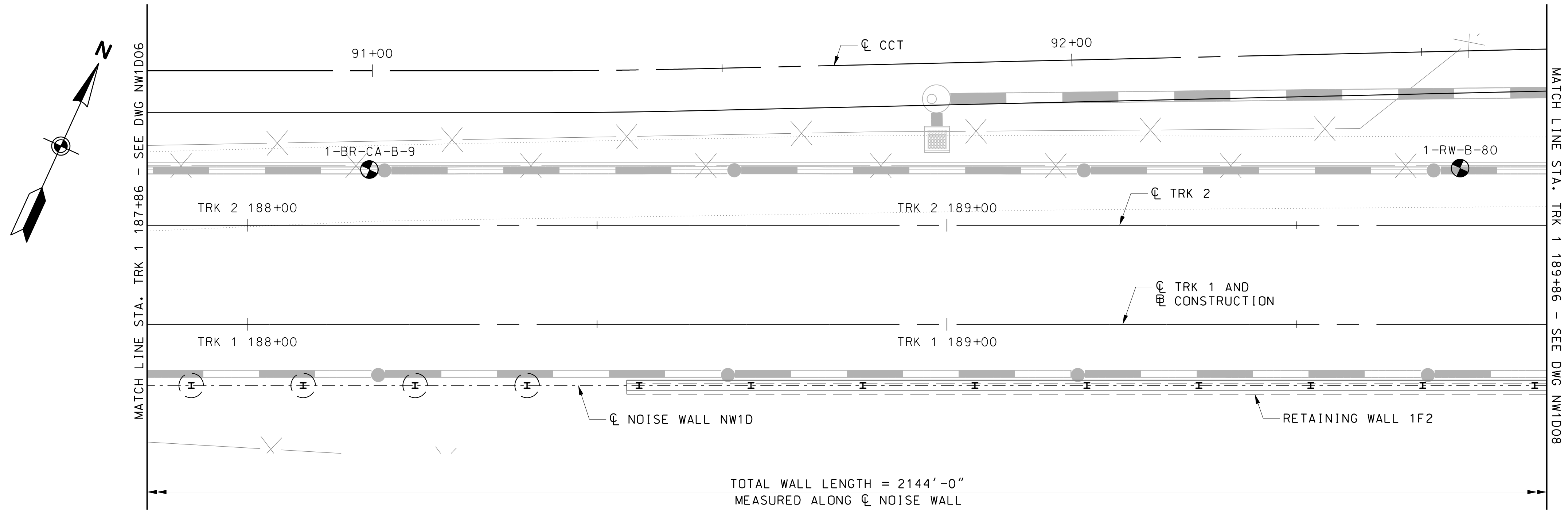
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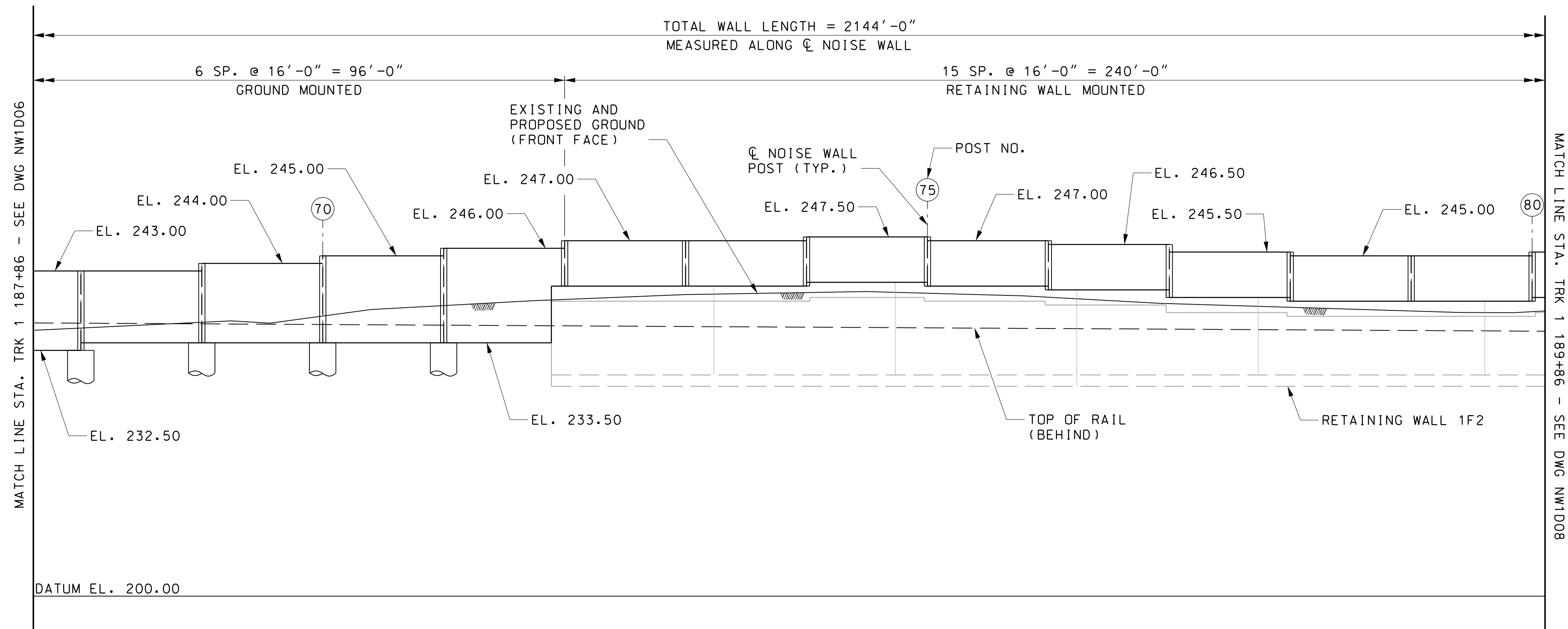


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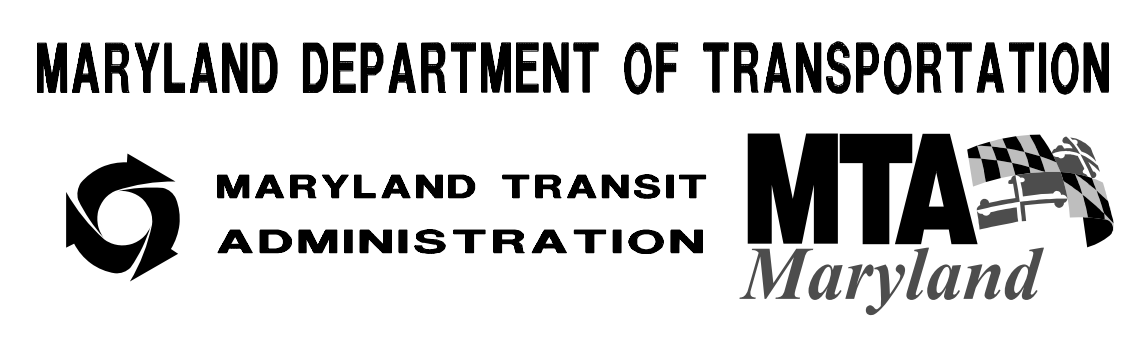
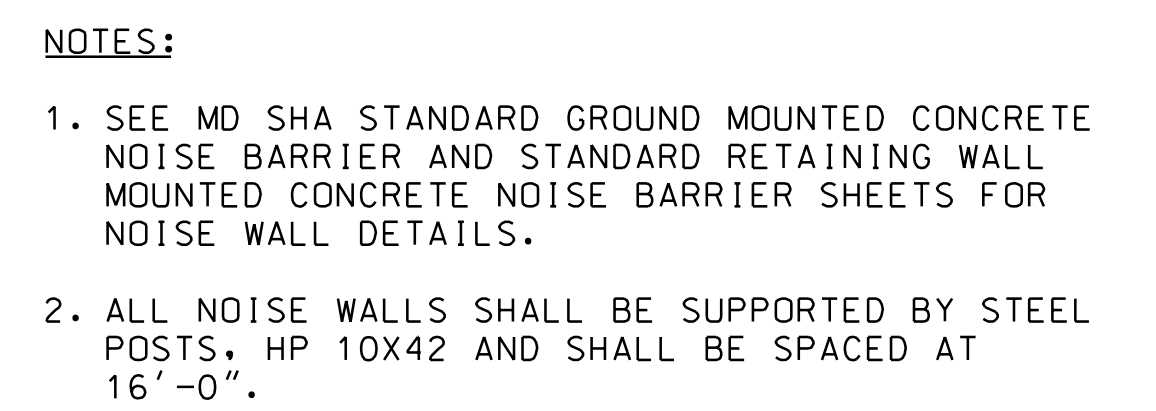
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

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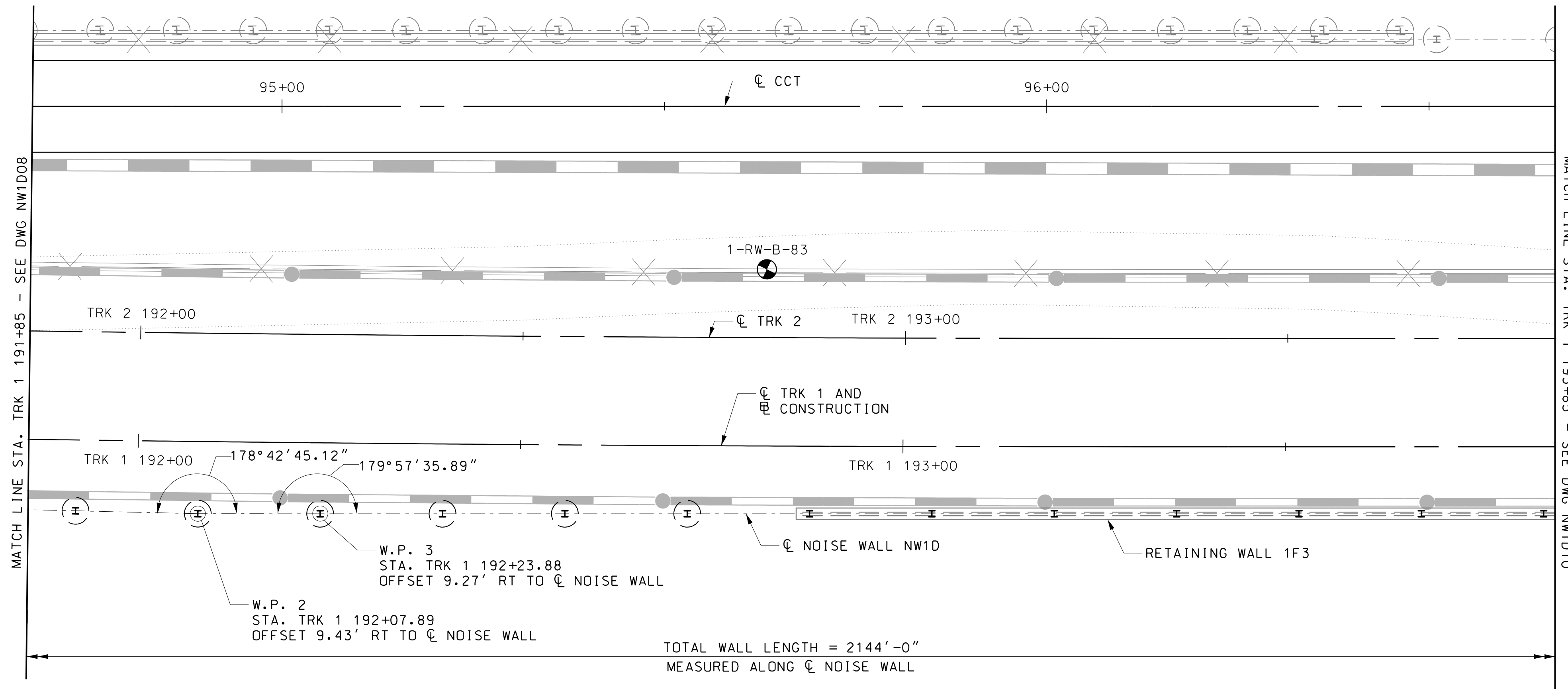
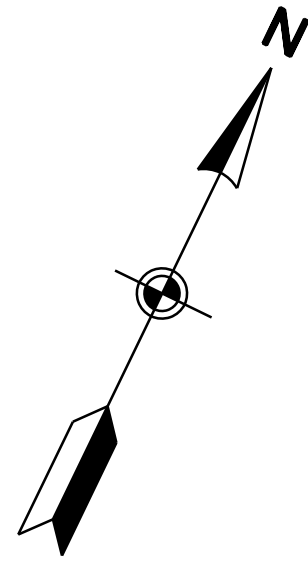


PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

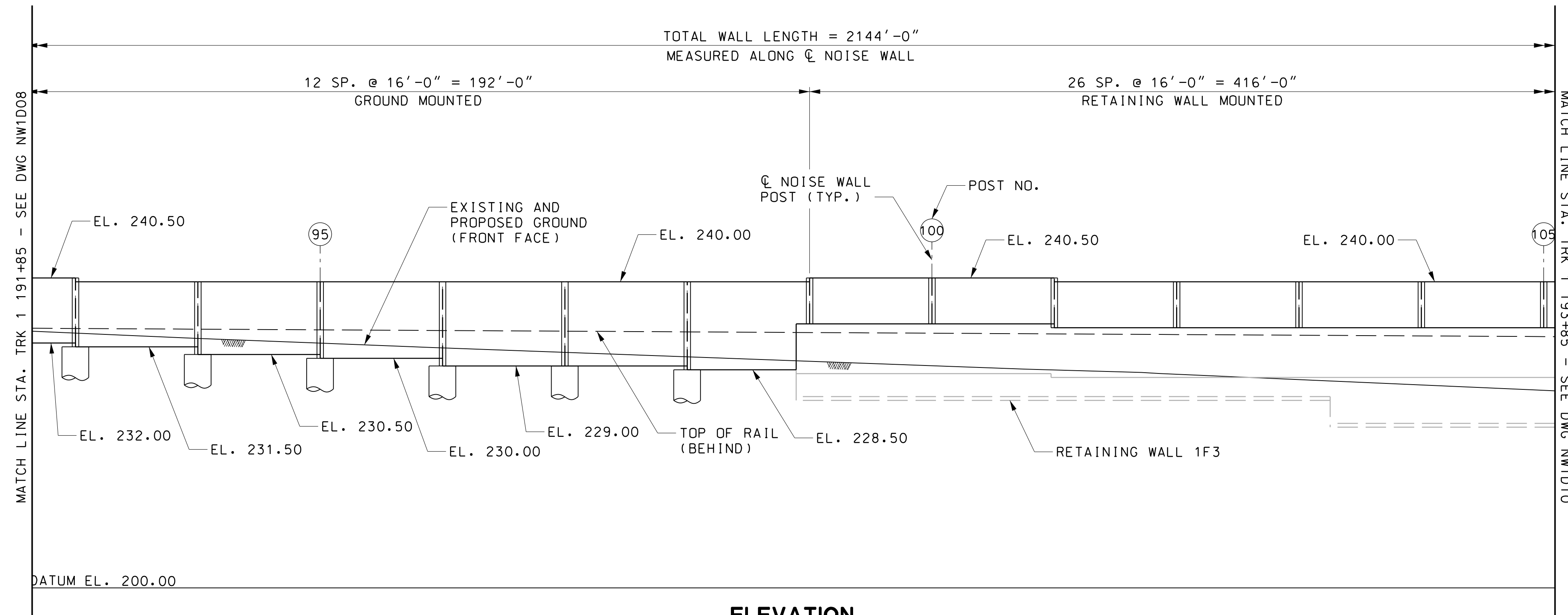
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APPR	CHECK	CRA	NOISE WALL NW1D GENERAL PLAN & ELEVATION – 8 DATE: DECEMBER 2013SCALE: 1" = 10'-0"	CONTRACT NO.	T-1042-0220
	DRAWN	BCB		DRAWING NO.	NW1D08
	DESIGN	MWM		SHEET NO.	267 OF 828
	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL				

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12/10/2013



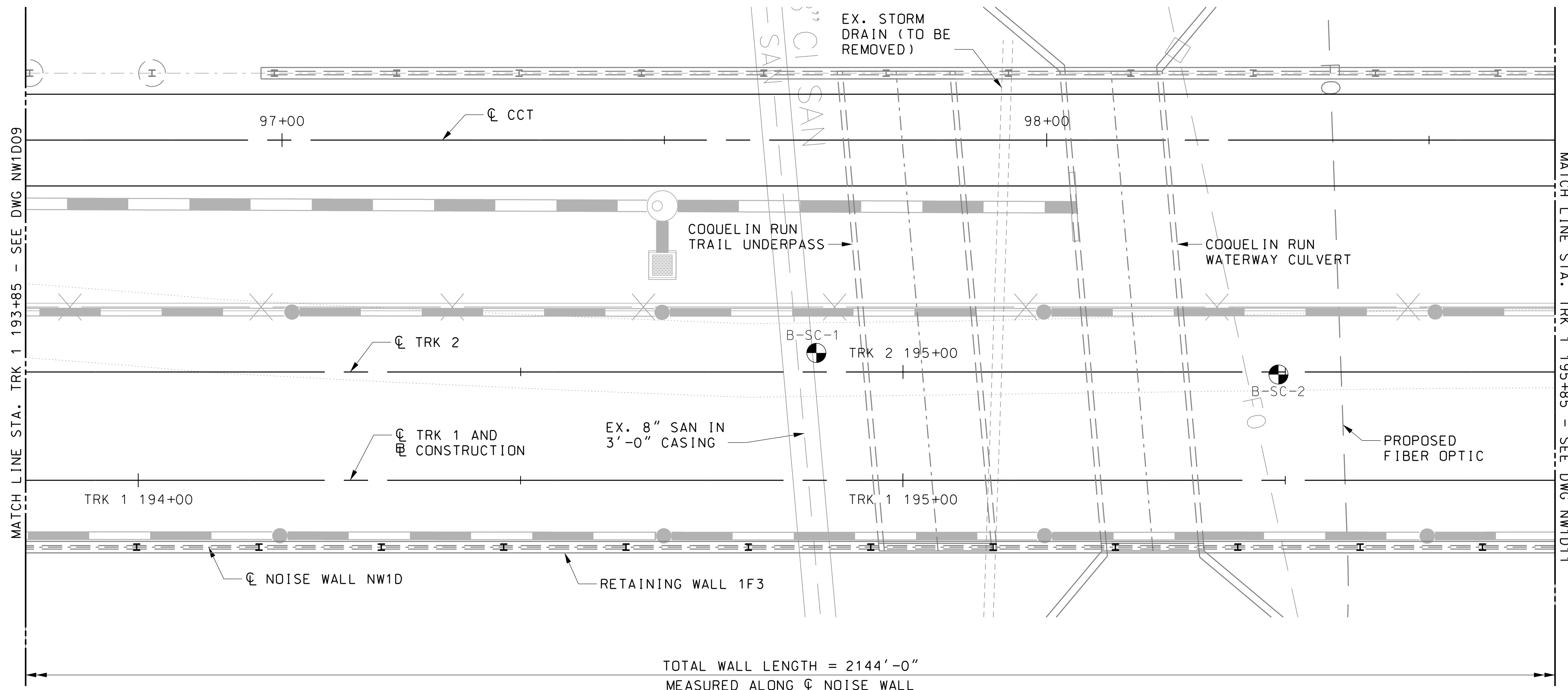
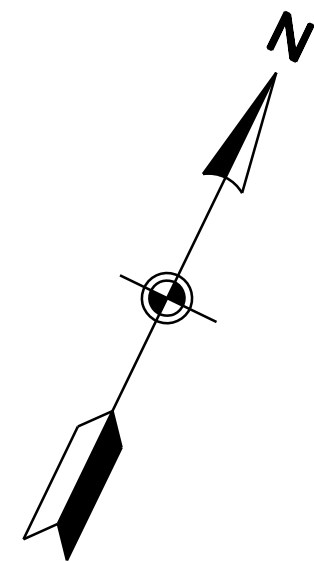
PLAN
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ELEVATION
SCALE: 1"=10'-0"

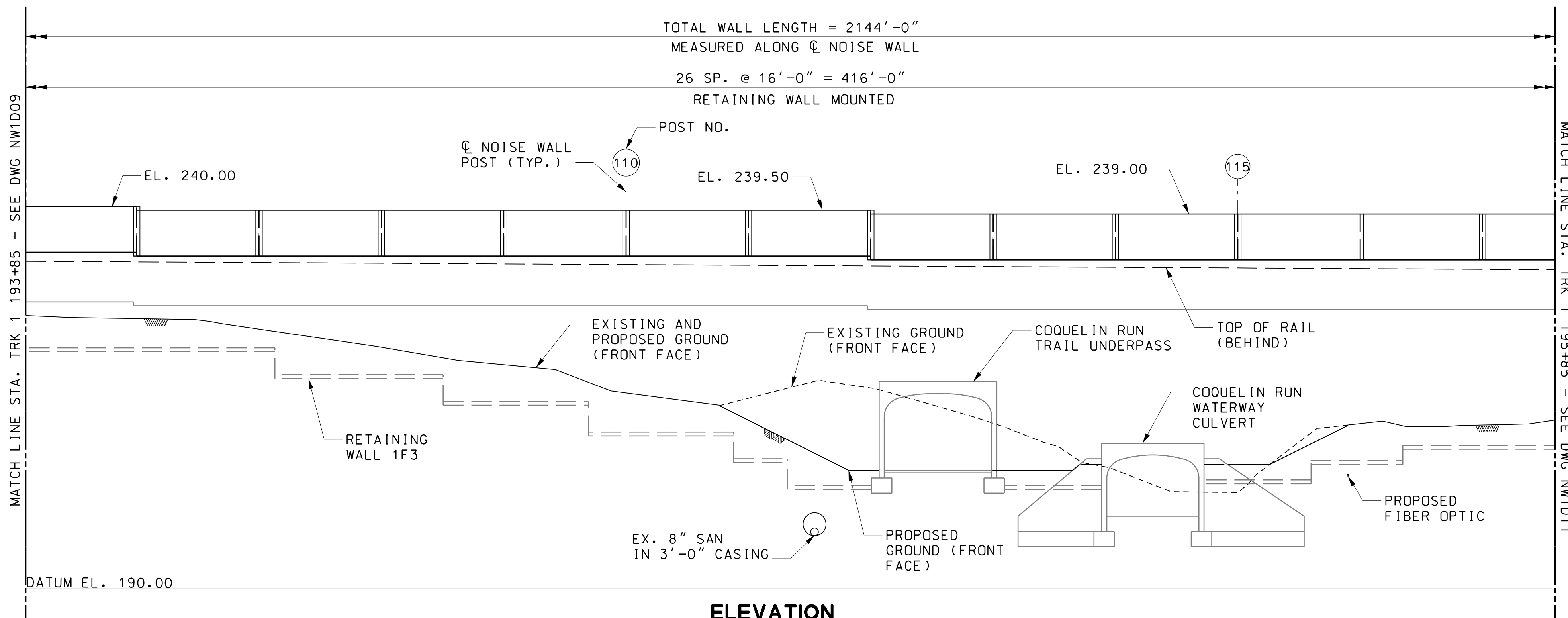
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PLAN

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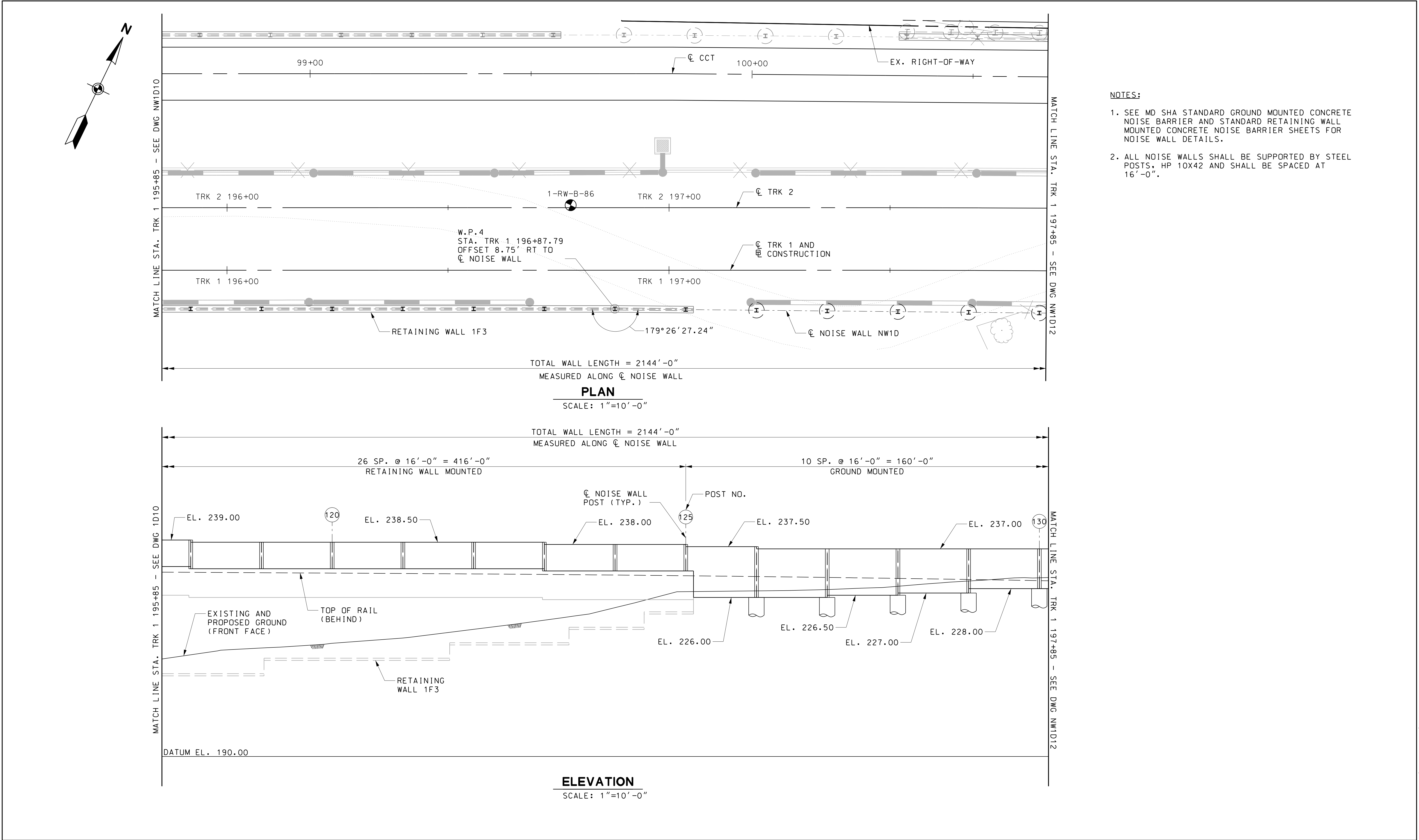


ELEVATION

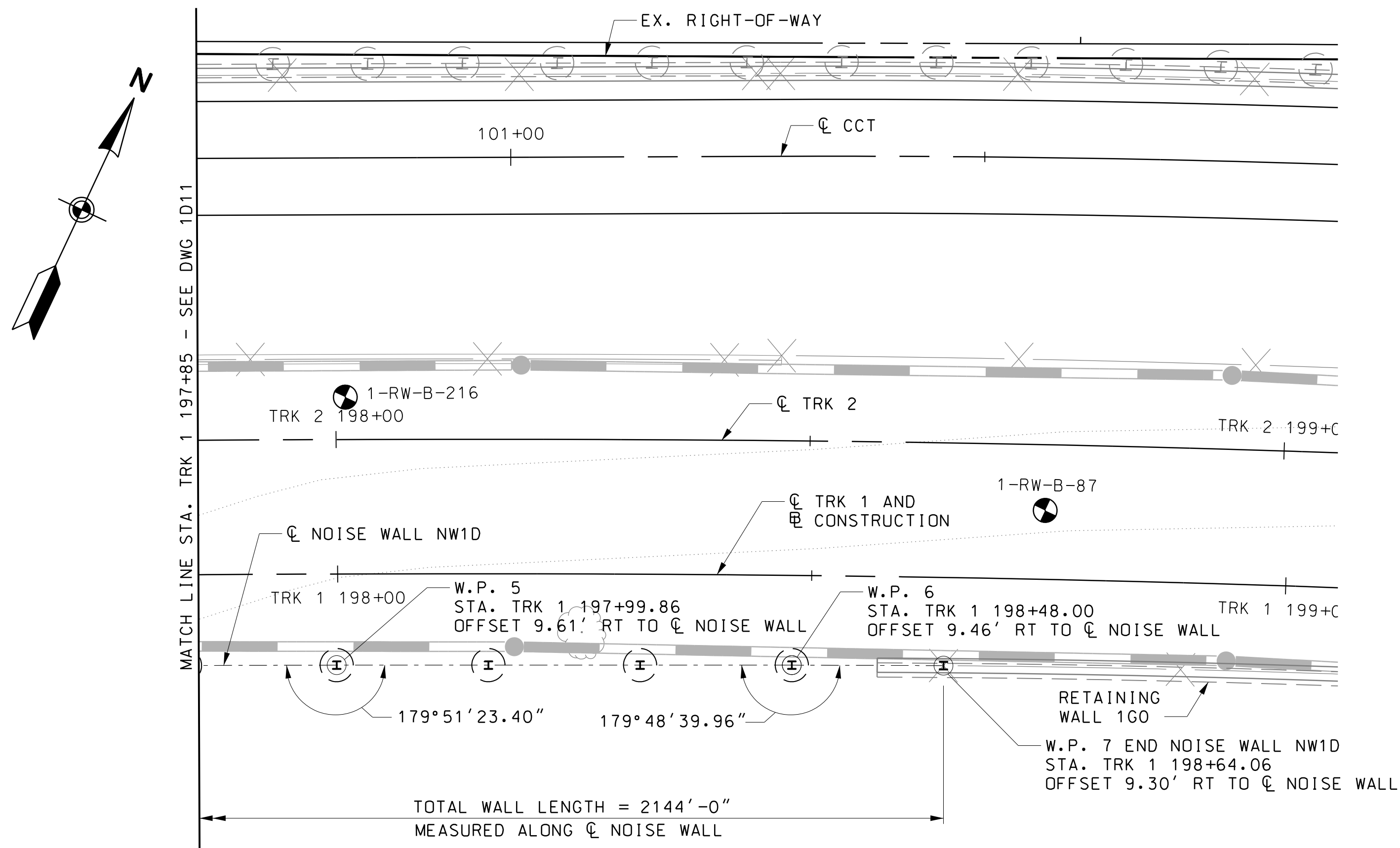
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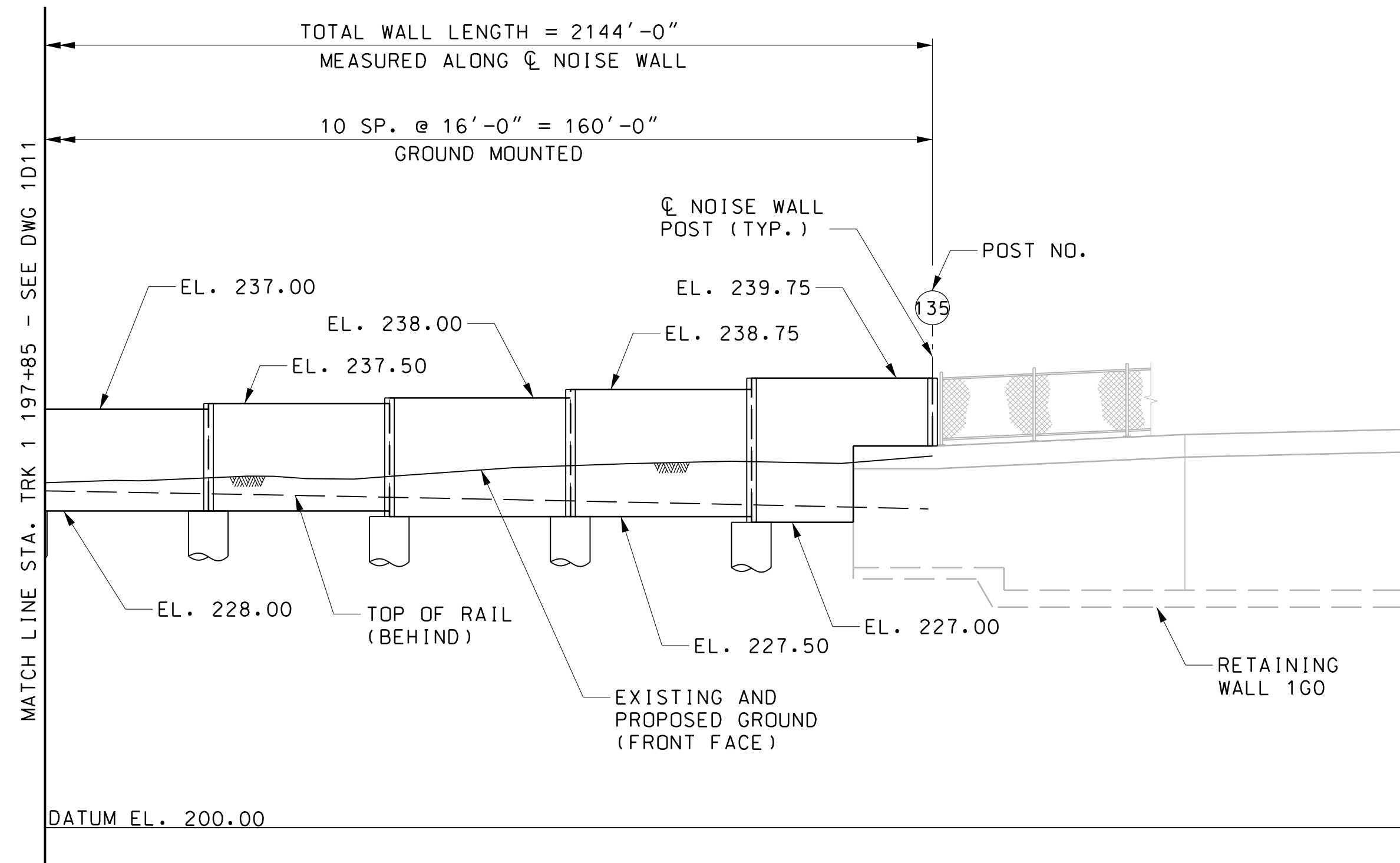
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 2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".



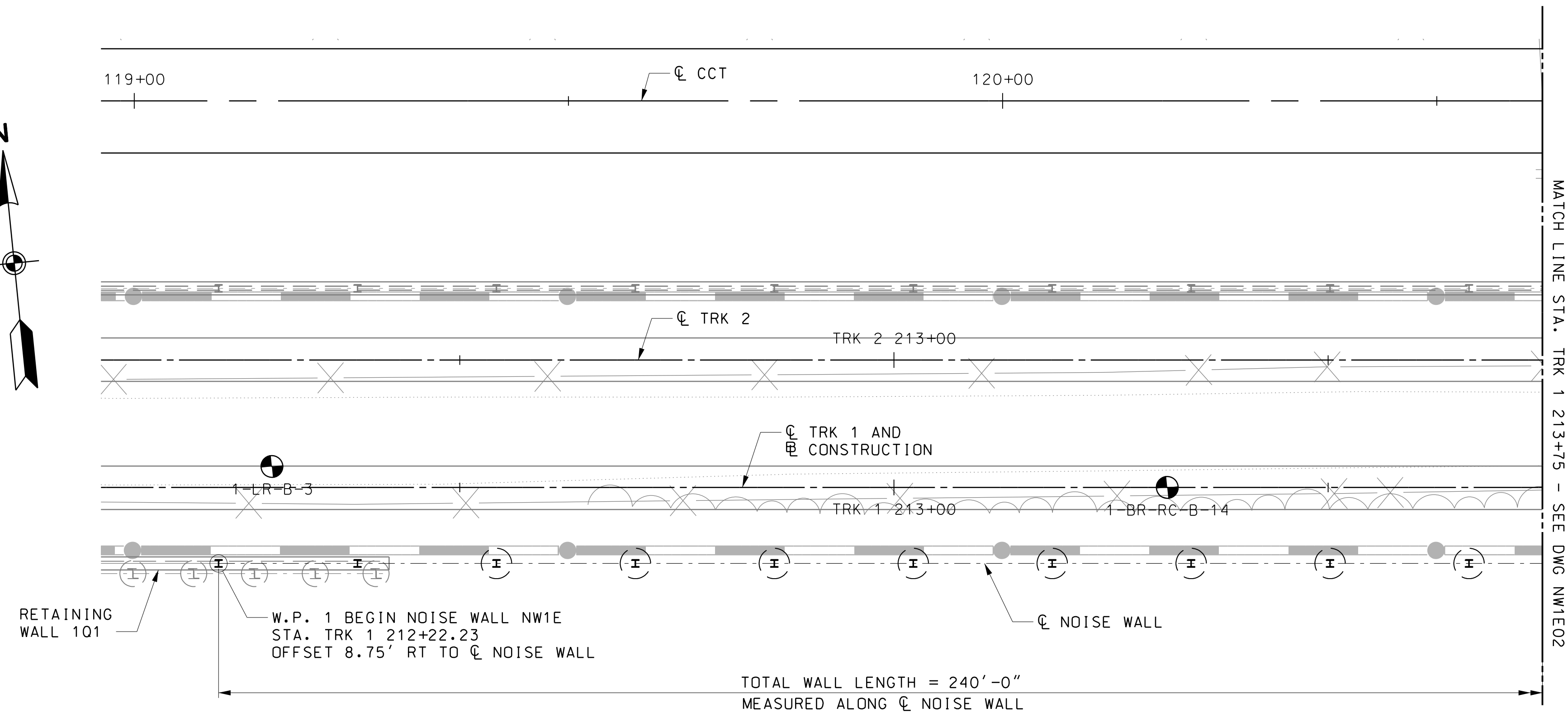
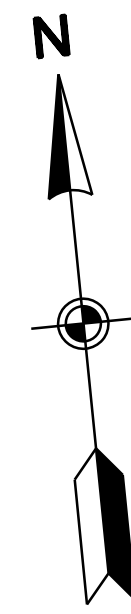
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

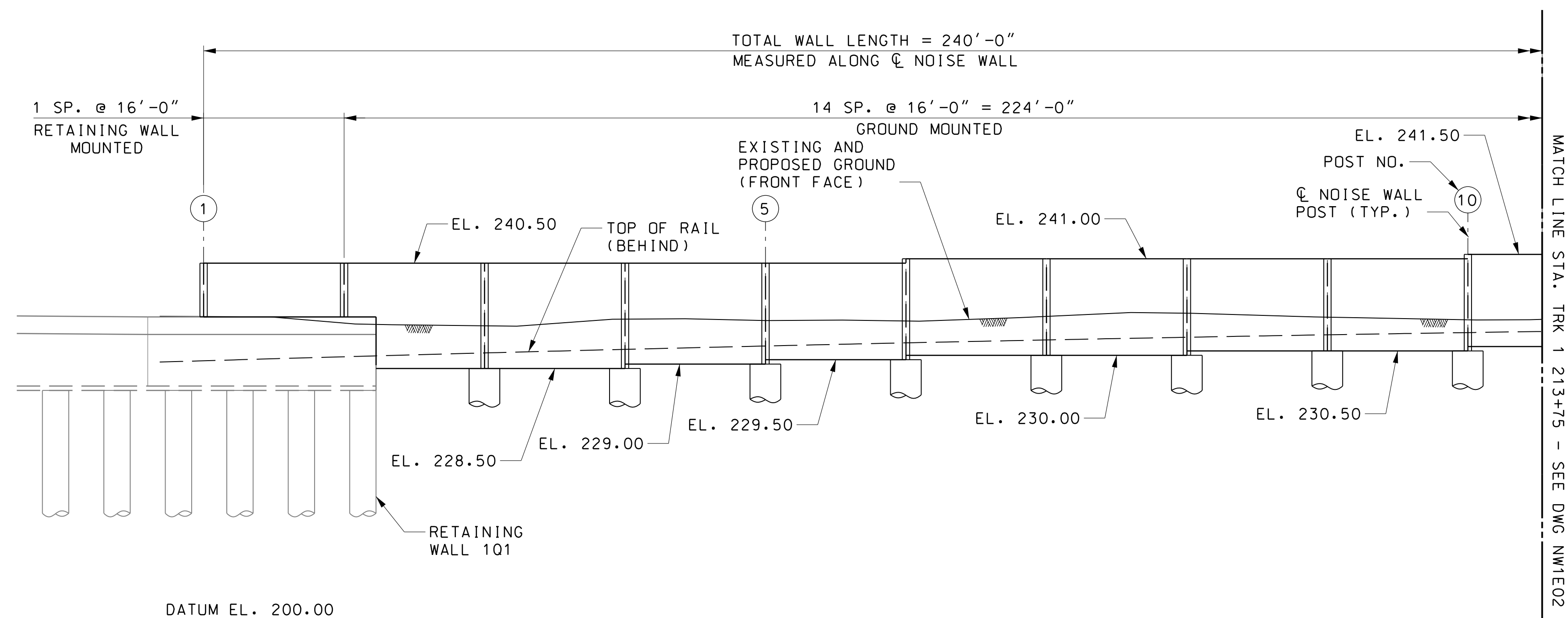
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PLAN

SCALE: 1"=10'-0"

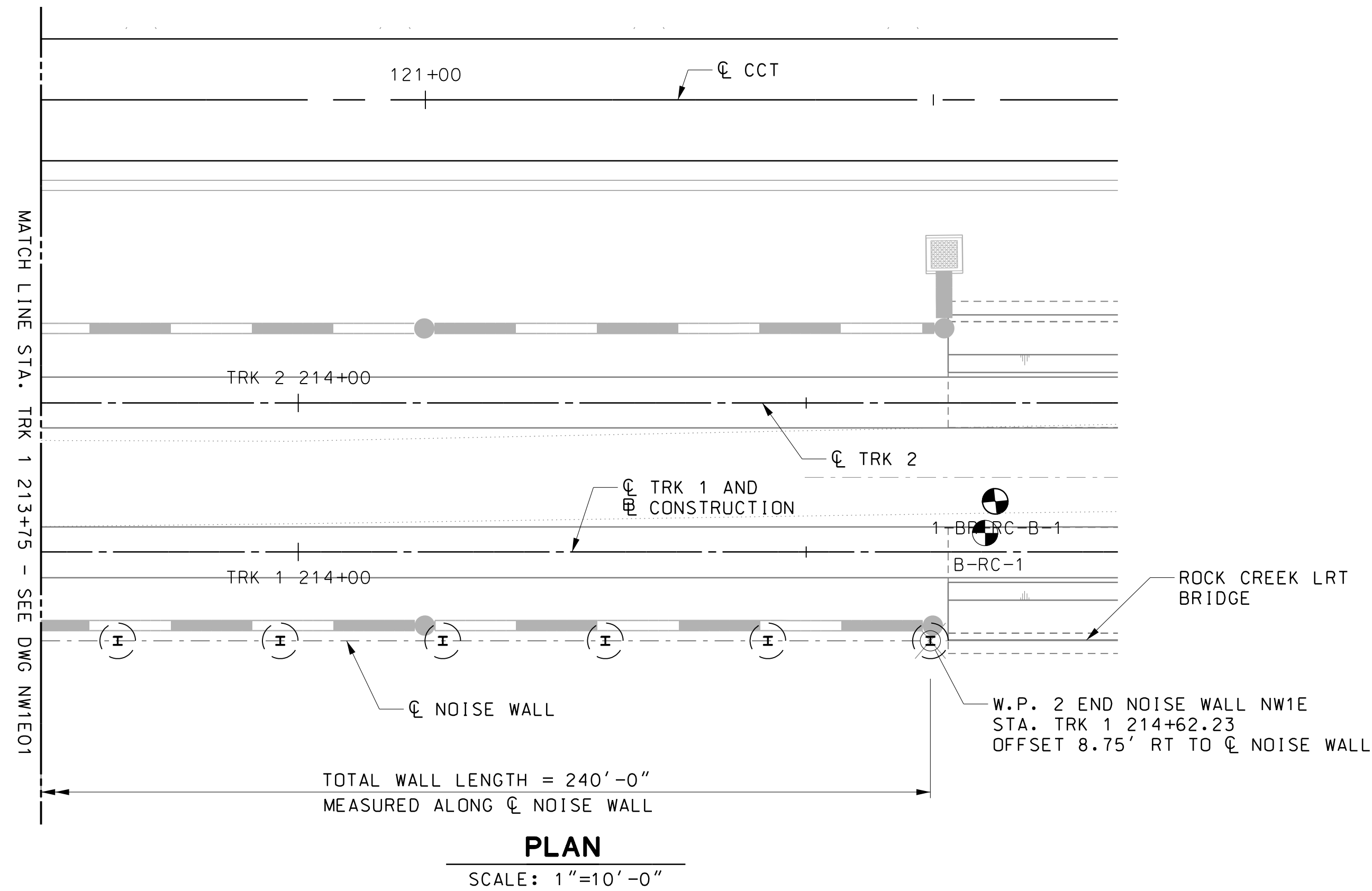
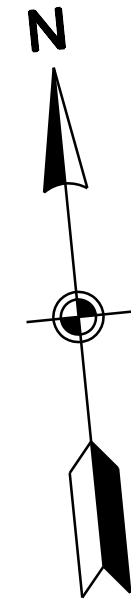


ELEVATION

SCALE: 1"=10'-0"

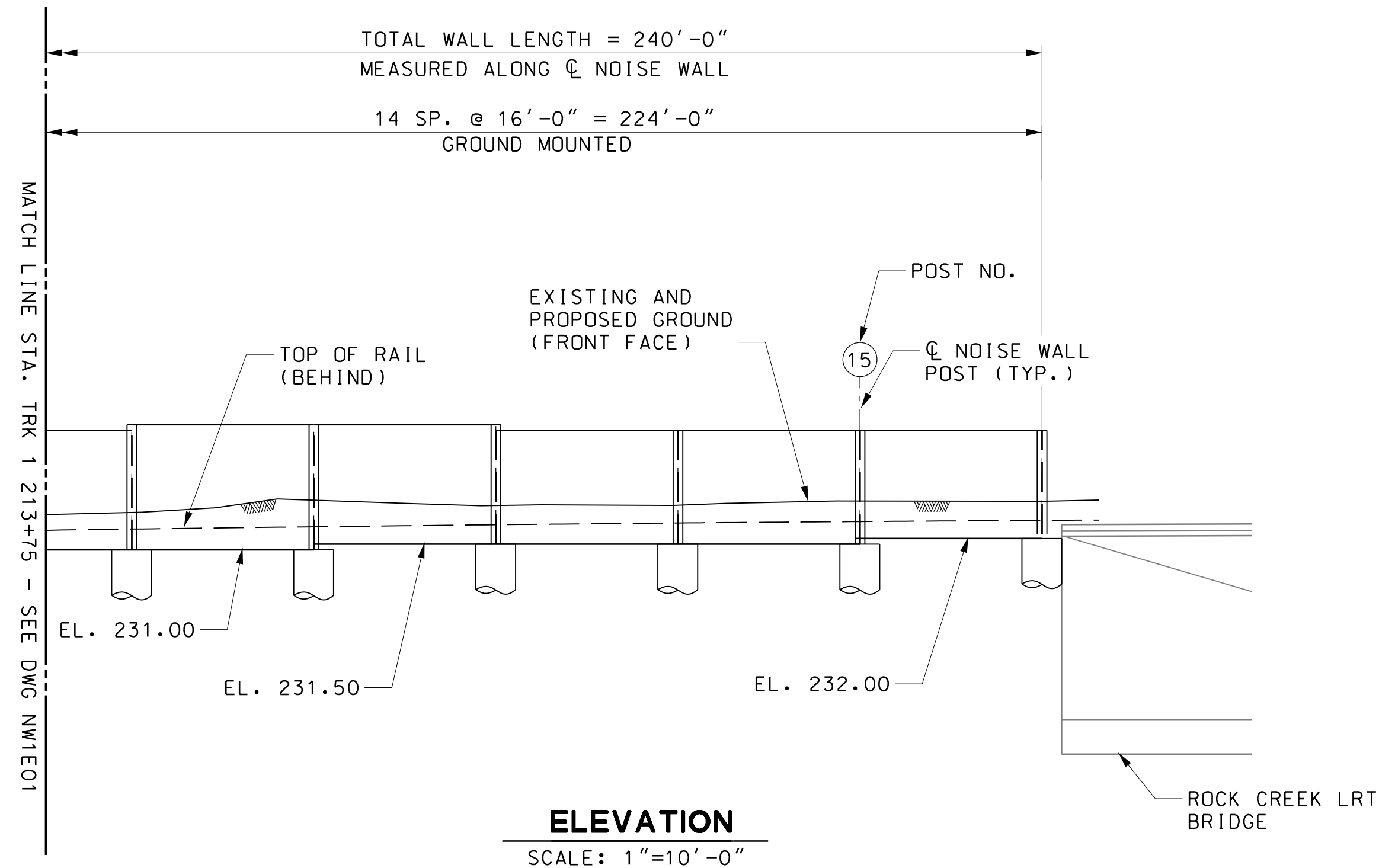
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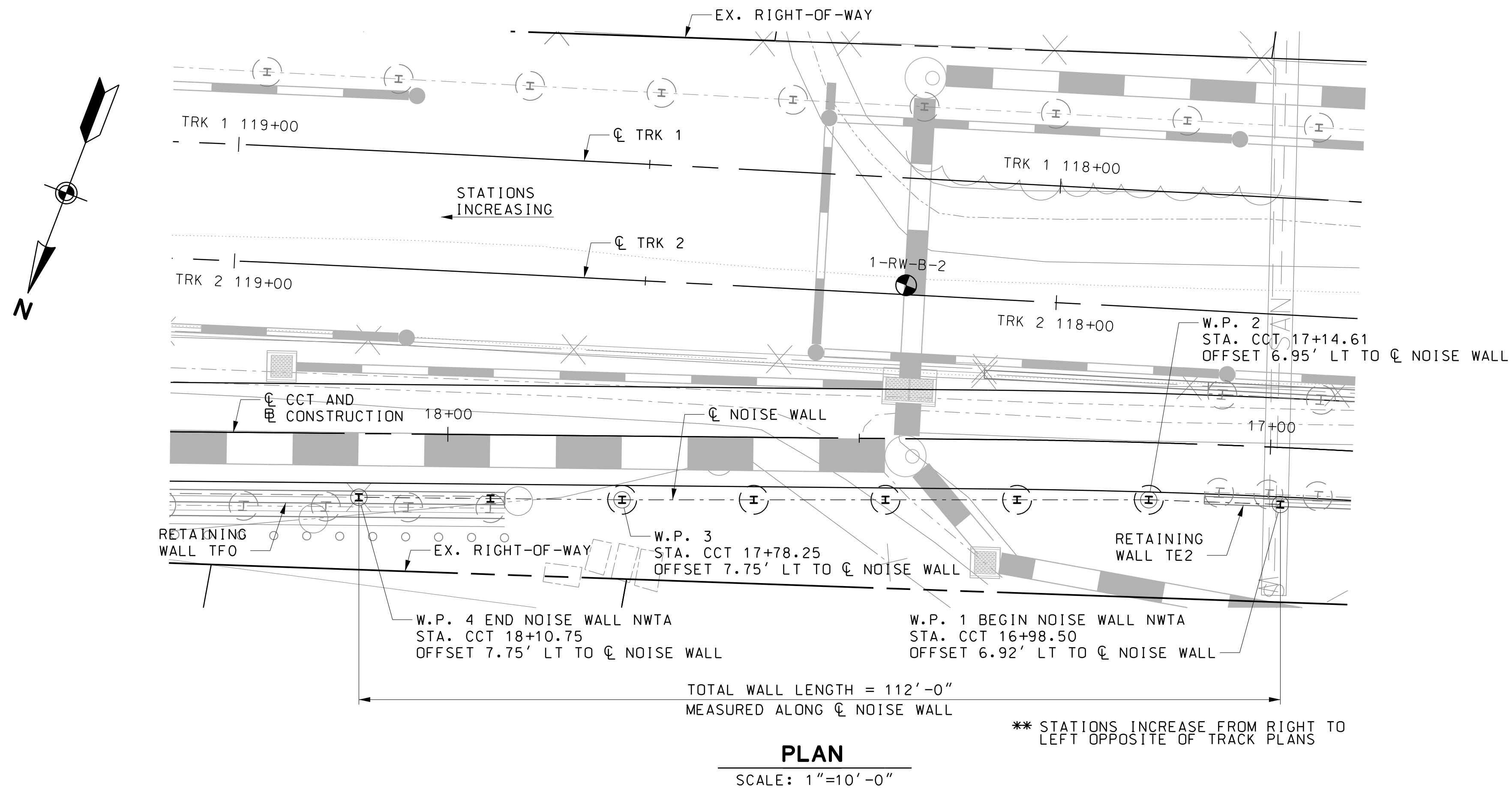
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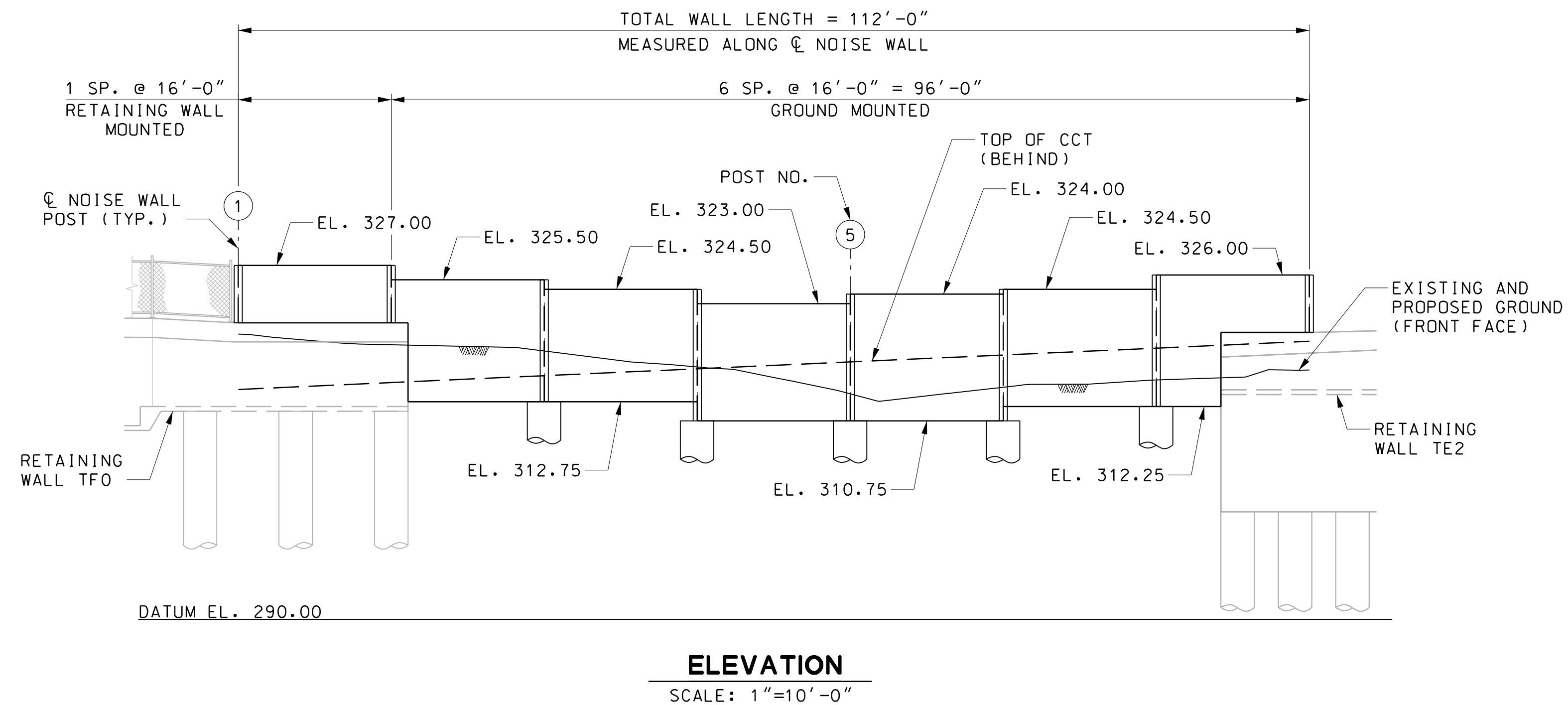
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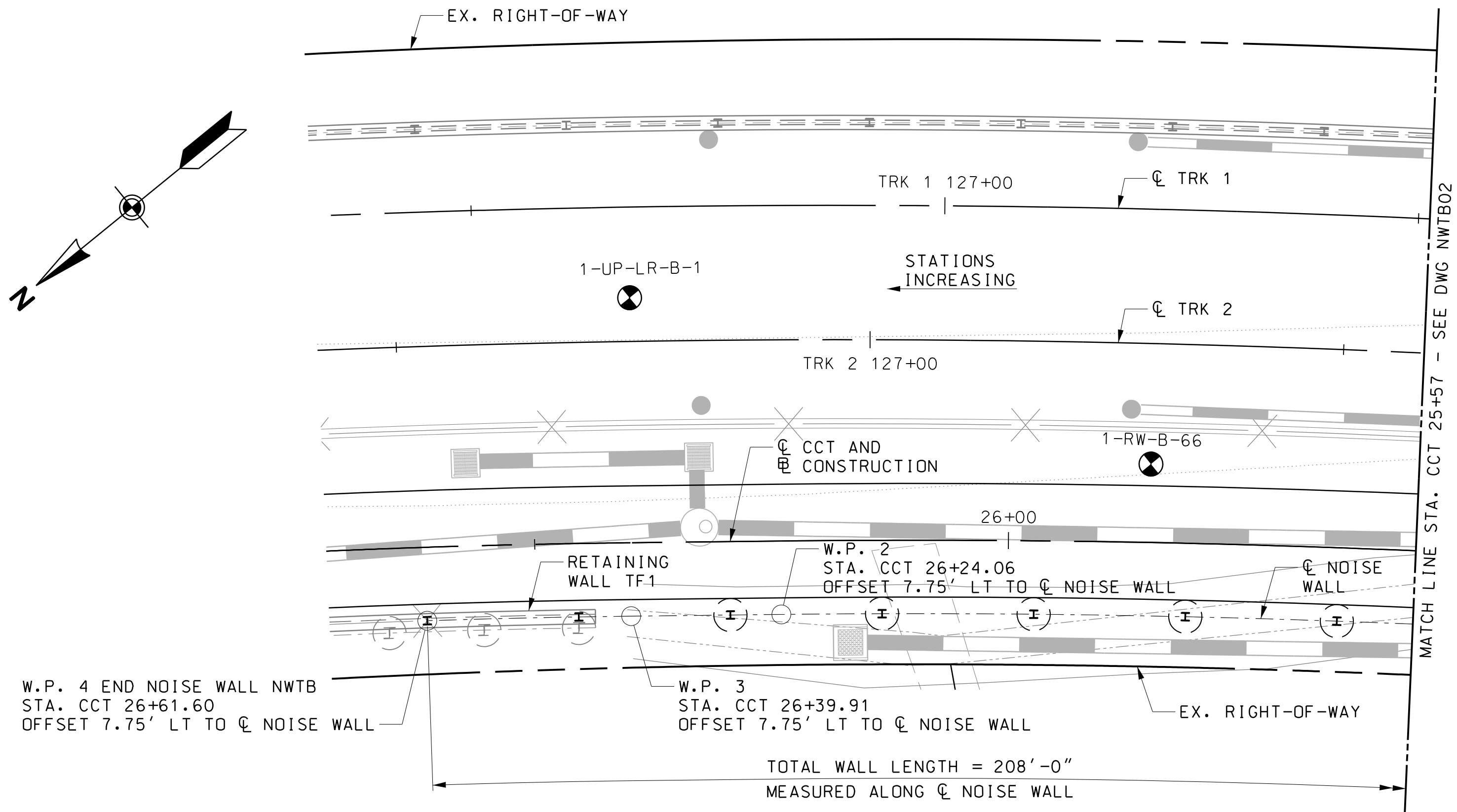




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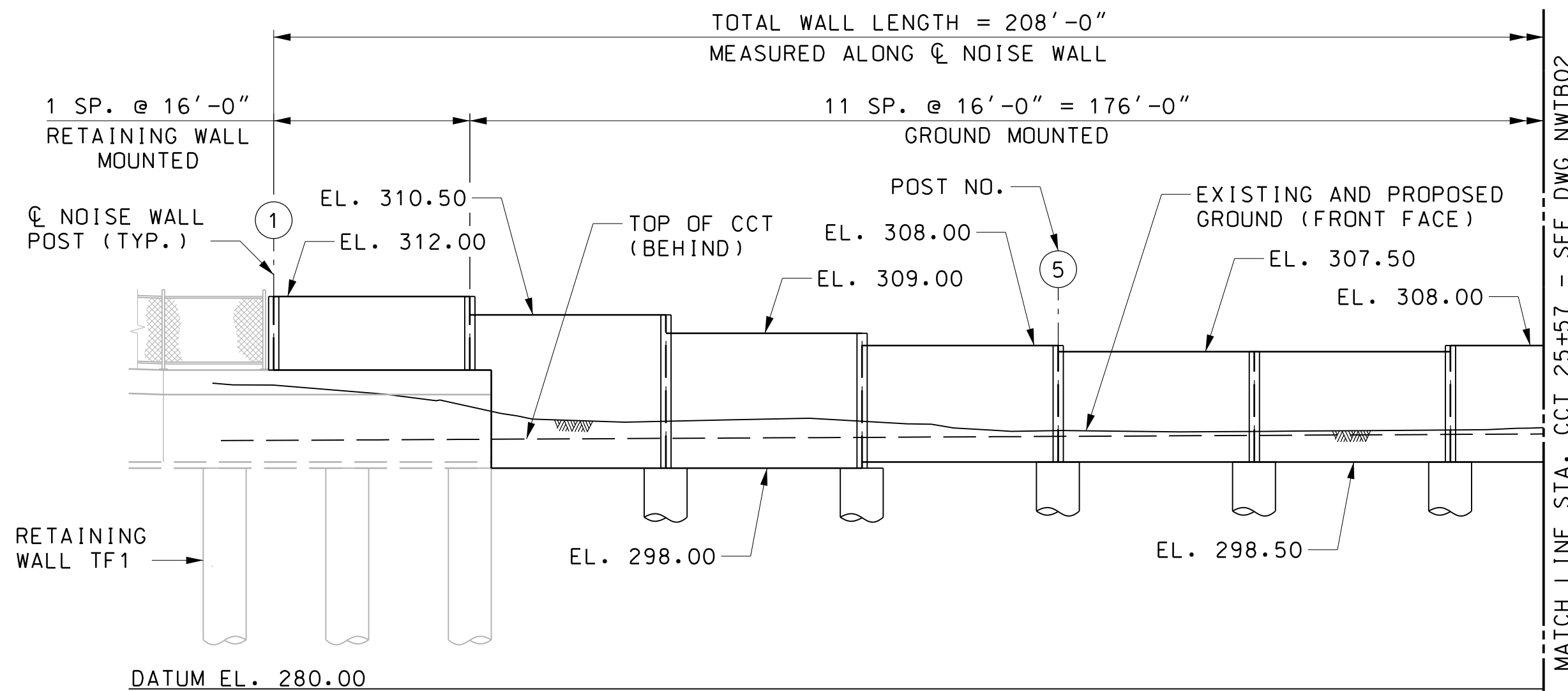
PLAN

SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

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ELEVATION

SCALE: 1"=10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

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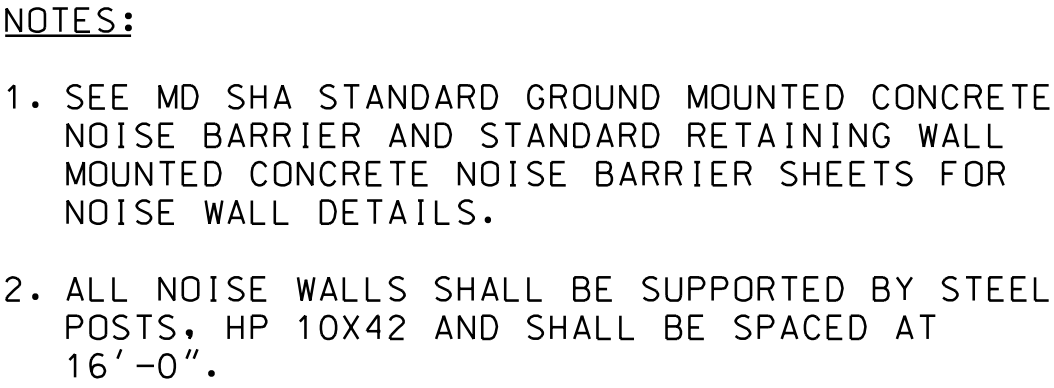
DESIGN	MWM
DRAWN	BCB
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

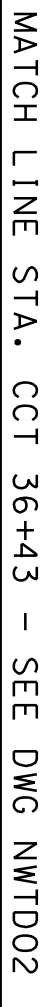
NOISE WALL NWTB
GENERAL PLAN & ELEVATION - 1
DATE: DECEMBER 2013 SCALE: 1"=10'-0"

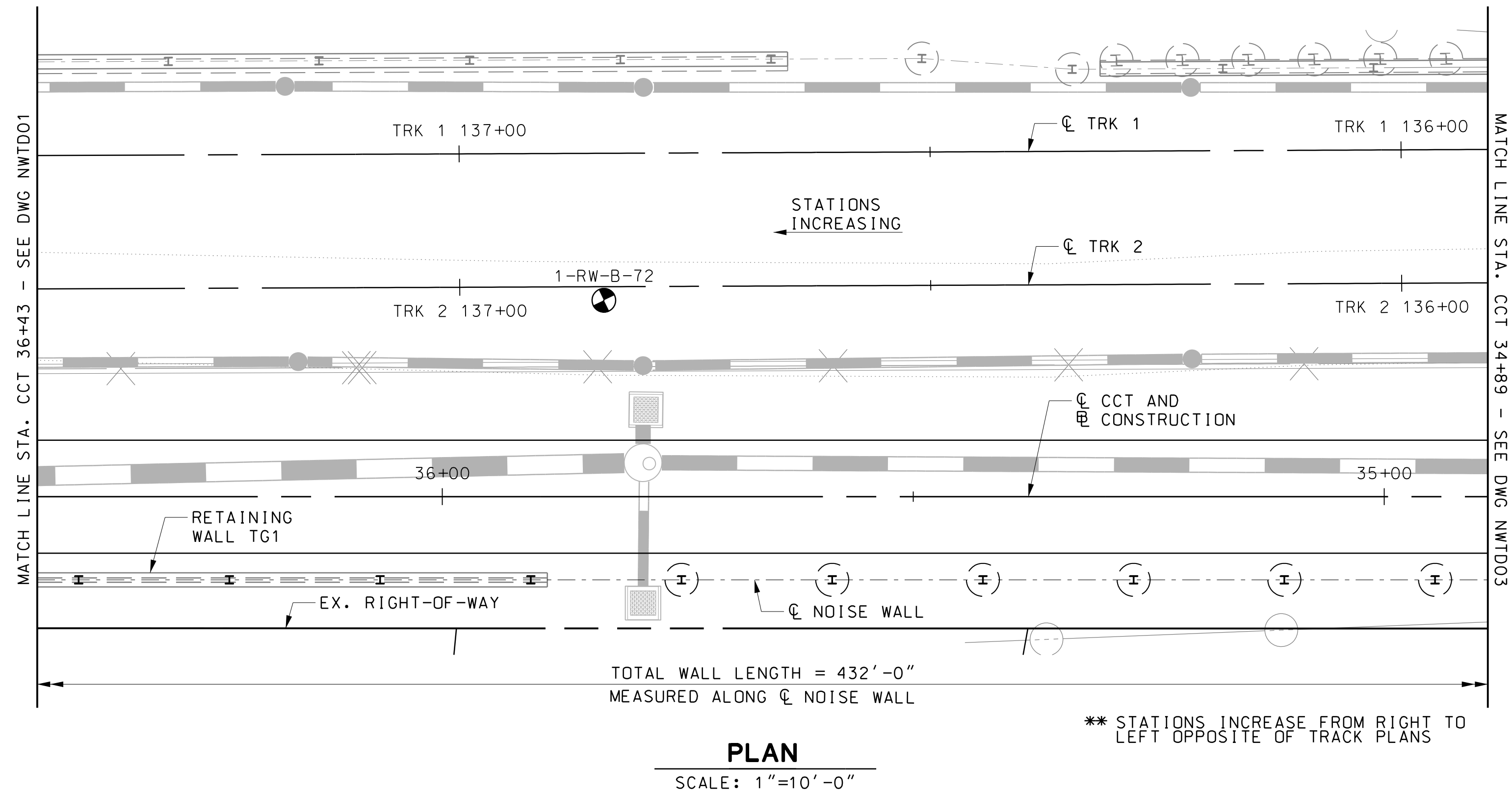
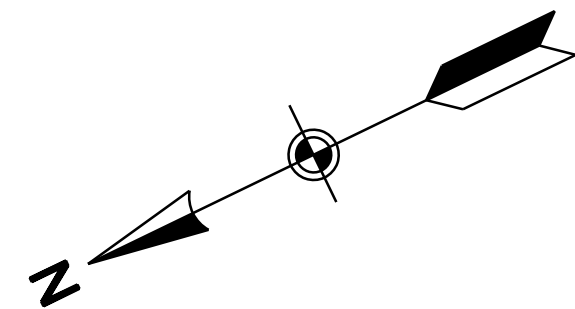
CONTRACT NO.
T-1042-0220
DRAWING NO.
NWTB01
SHEET NO.
275 OF 828

c:\pwworking\mtpw\mci-brian_burns\00153742\1042pStnwtb01.dgn 12/5/2013



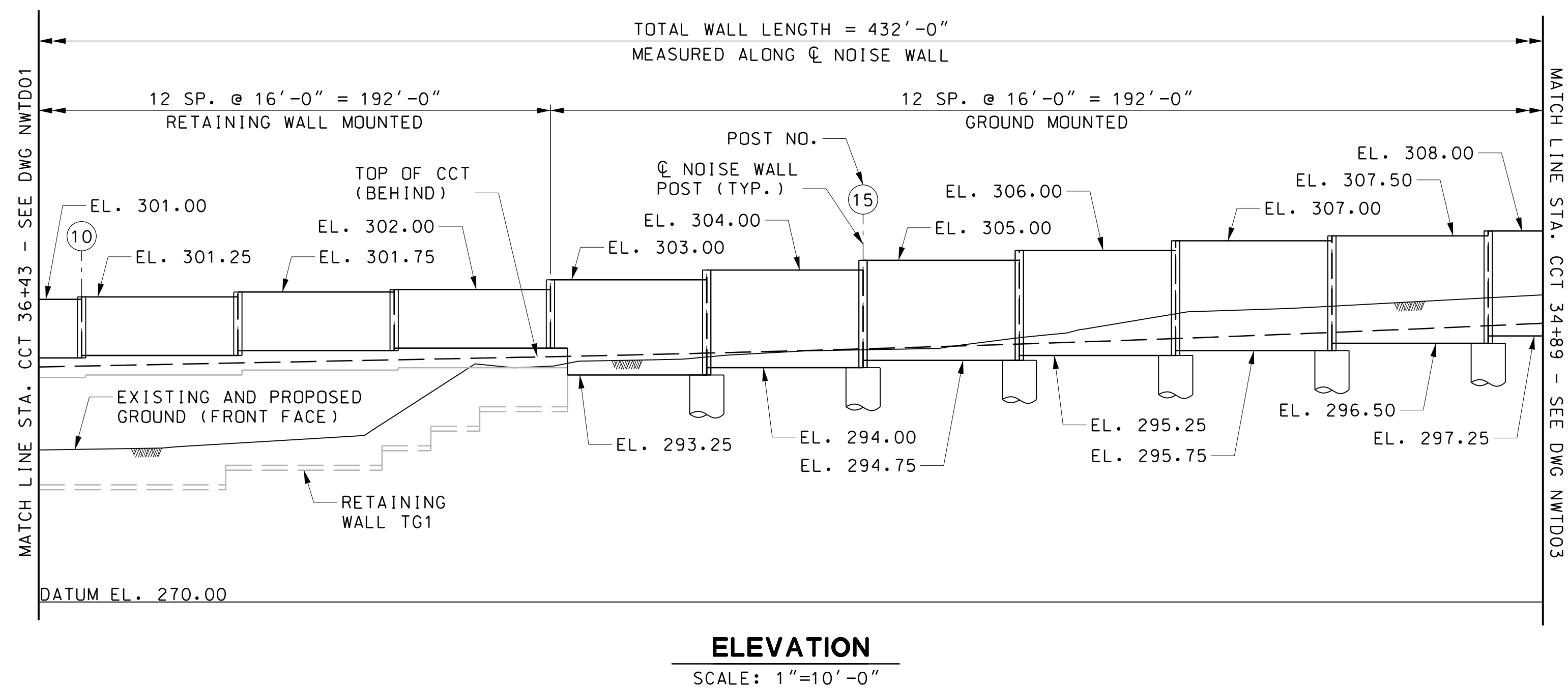
** STATIONS INCREASE FROM RIGHT TO
LEFT OPPOSITE OF TRACK PLANS

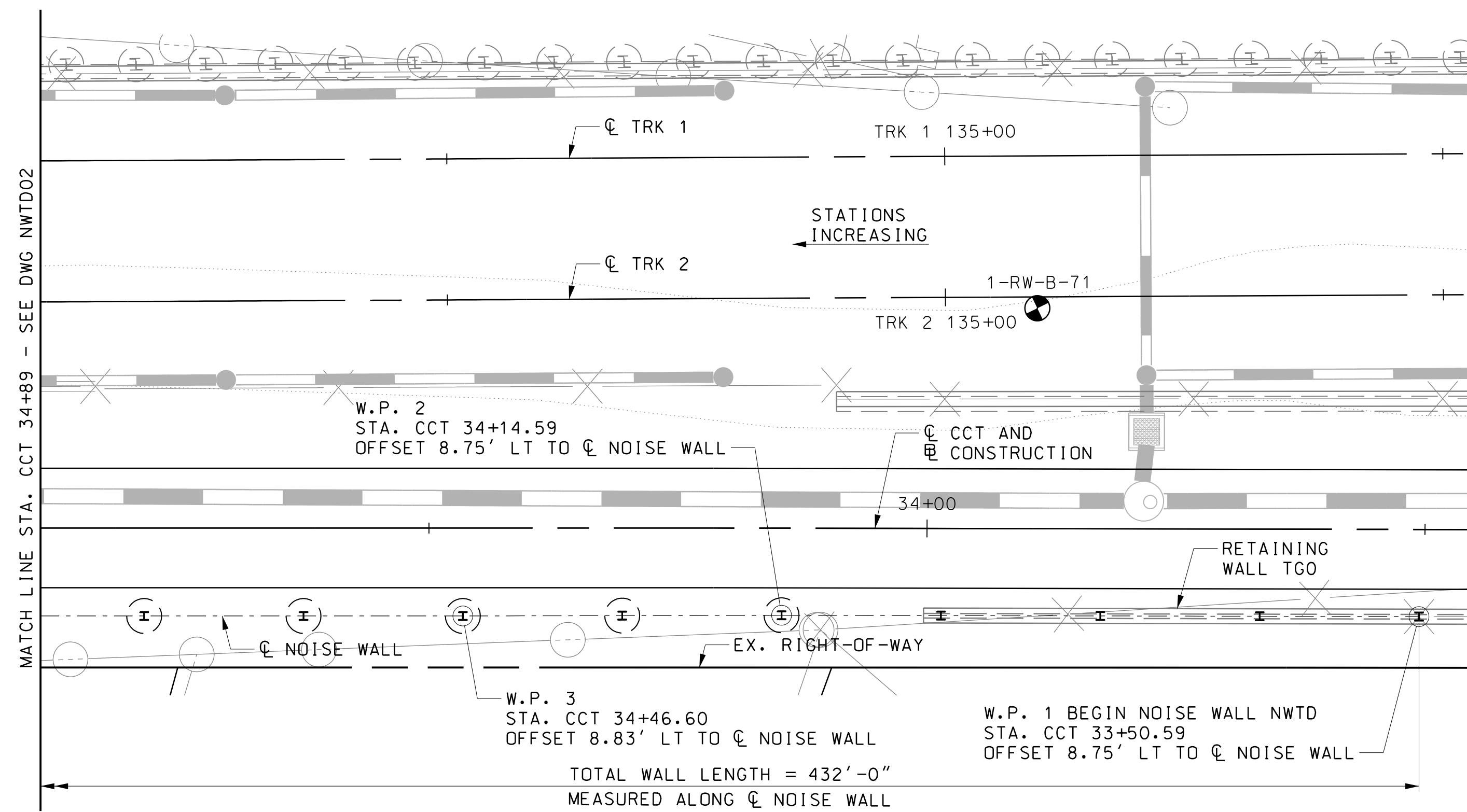
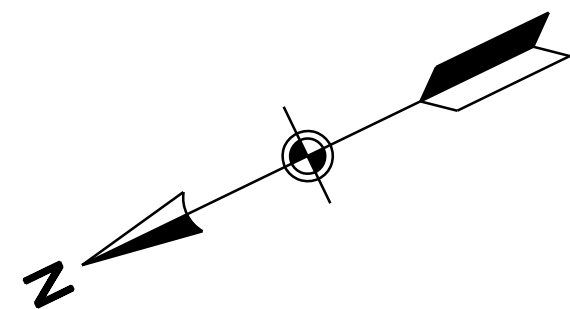




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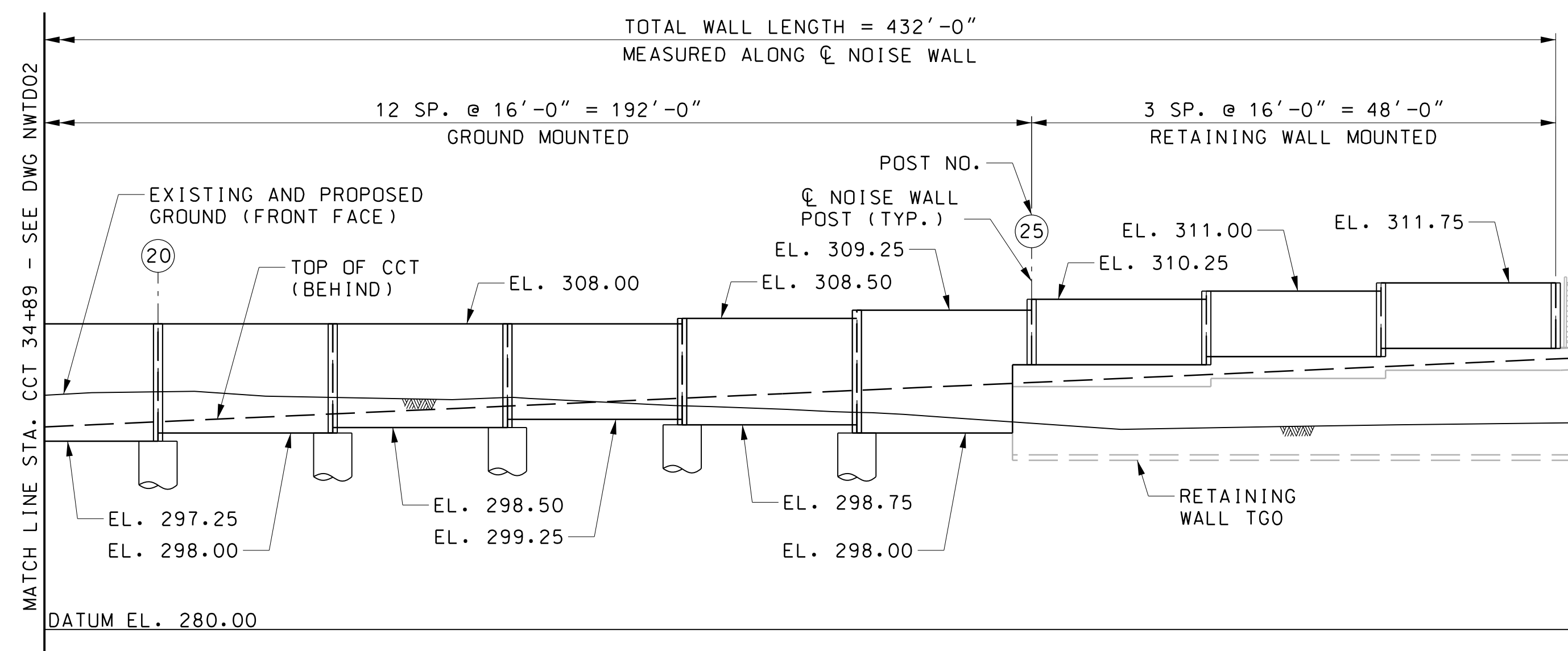


PLAN
SCALE: 1"=10'-0"

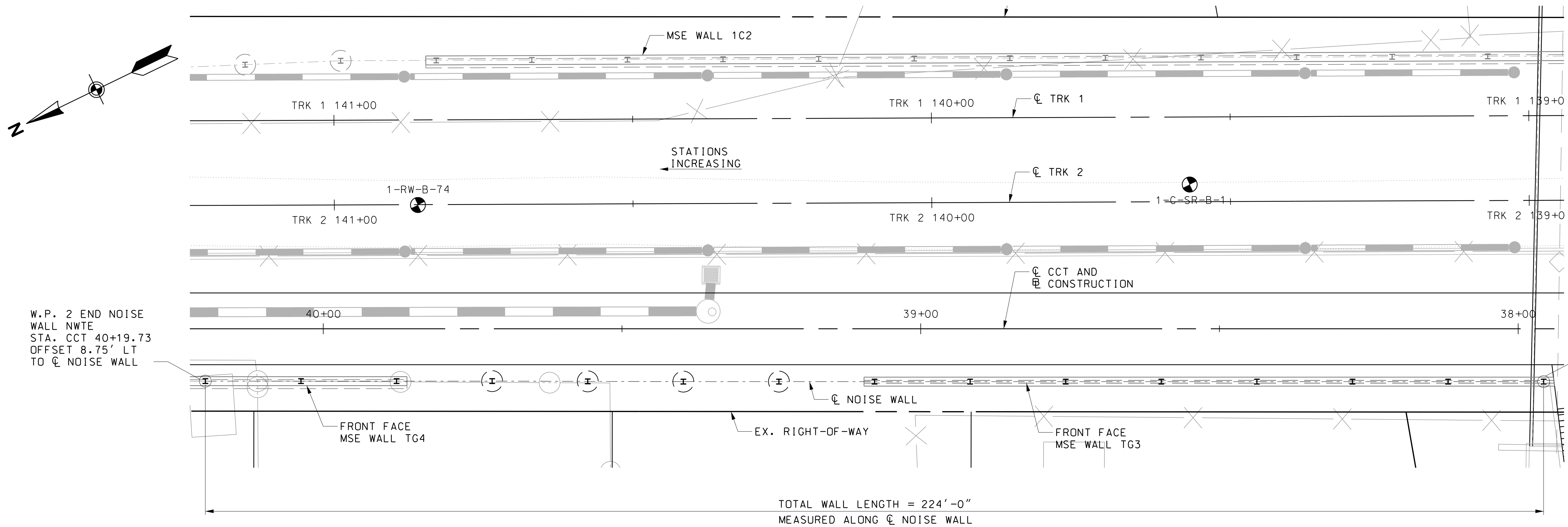
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ELEVATION
SCALE: 1"=10'-0"



W.P. 2 END NOISE WALL NWTE
STA. CCT 40+19.73
OFFSET 8.75' LT TO CL NOISE WALL

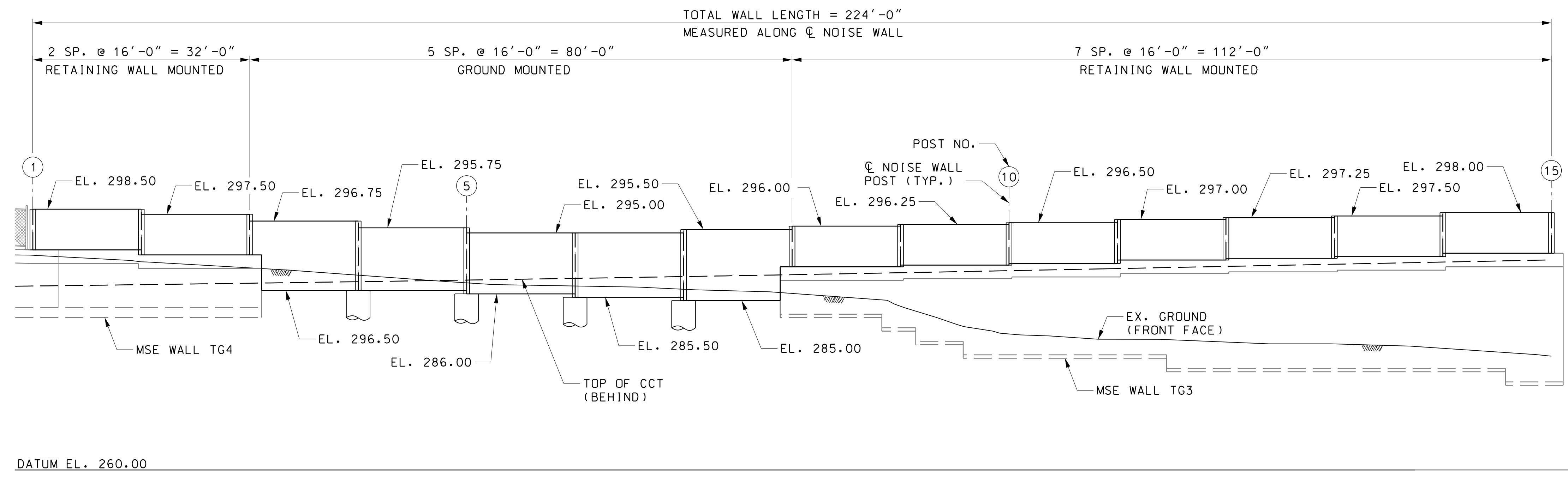
W.P. 1 BEGIN NOISE WALL NWTE
STA. CCT 37+95.73
OFFSET 8.75' LT TO CL NOISE WALL

PLAN
SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

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DATUM EL. 260.00

ELEVATION
SCALE: 1"=10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

MTA Maryland

Gannett Fleming

WR&A

MERCADO

CONSULTANTS, INC.

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

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APPR	CHECK	DRAWN	DESIGN
			MWM
			JY
			CRA

PRELIMINARY ENGINEERING

PURPLE LINE LIGHT RAIL

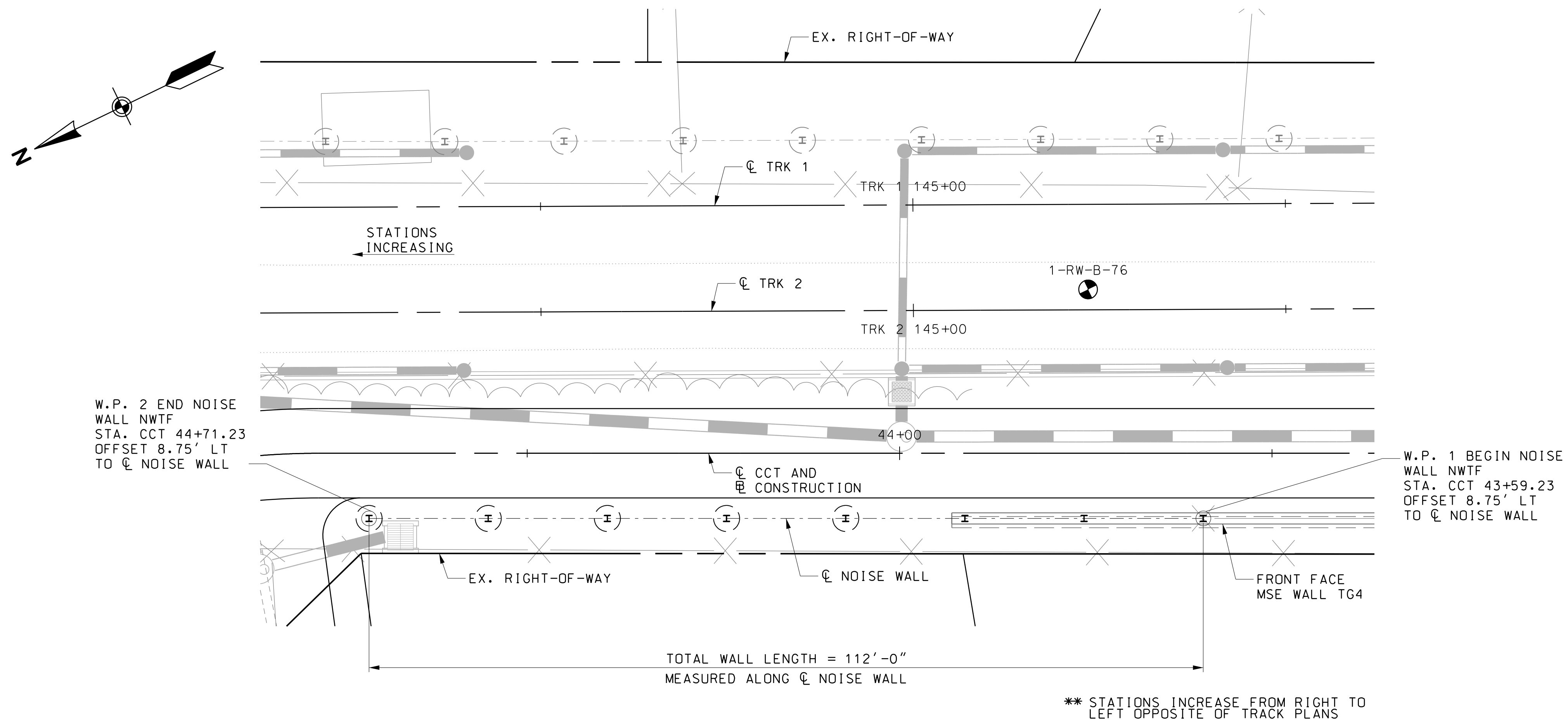
NOISE WALL NWTE

GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013 SCALE: 1" = 10'-0"

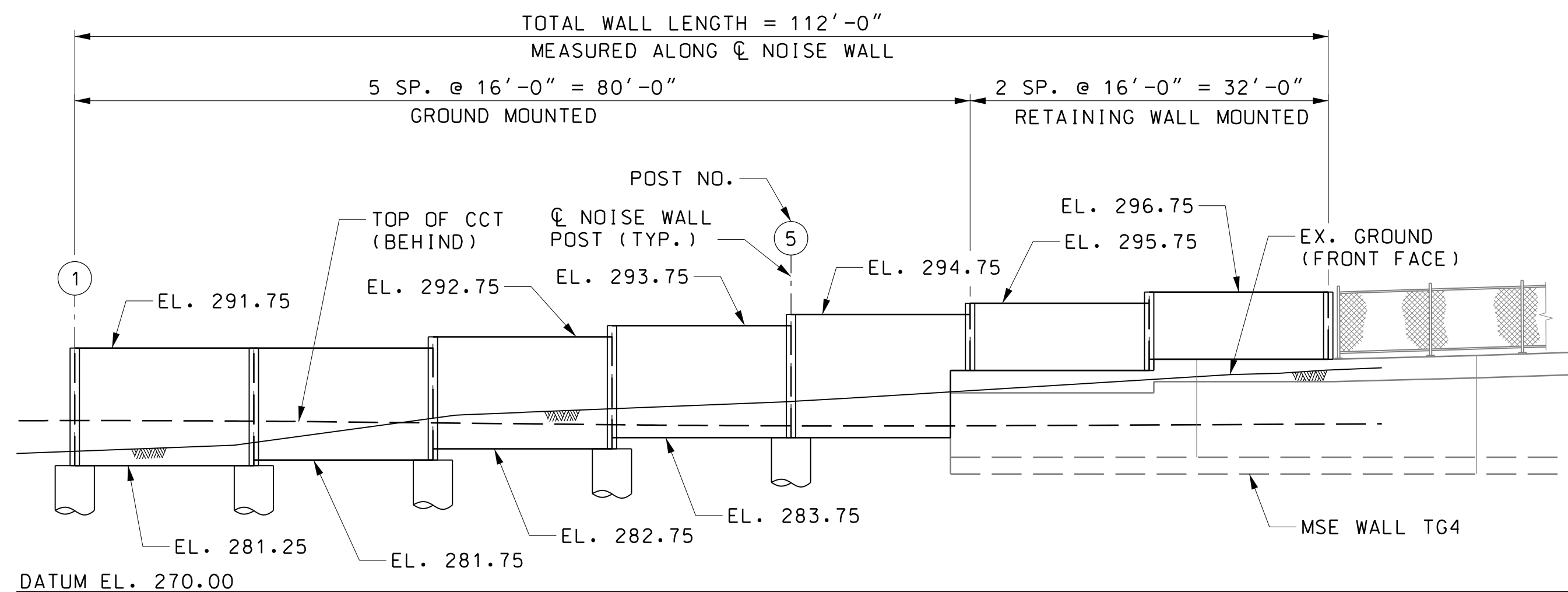
CONTRACT NO.	T-1042-0220
DRAWING NO.	NWTE01
SHEET NO.	280 OF 828

c:\pwworking\mtapw\mci-brian_burns\00153742\1042pStmwte01.dgn 12/5/2013



PLAN

SCALE: 1"=10'-0"

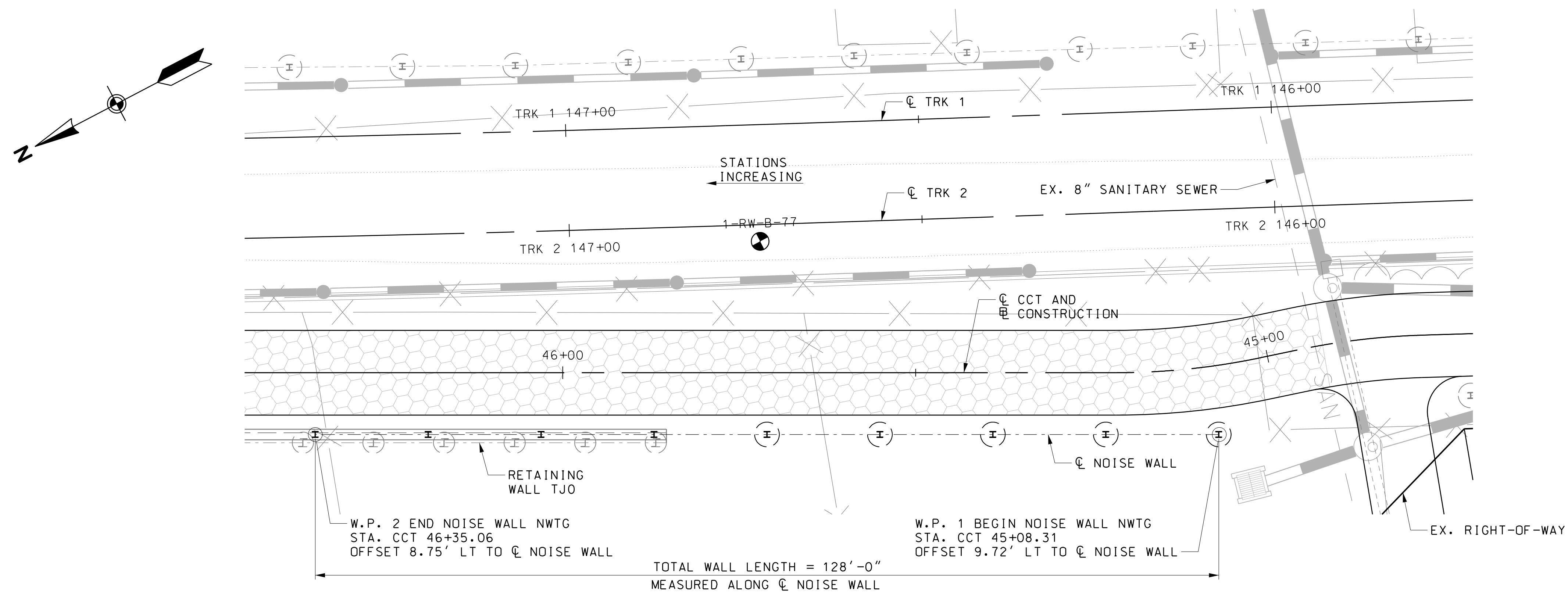


ELEVATION

SCALE: 1"=10'-0"

NOTES:

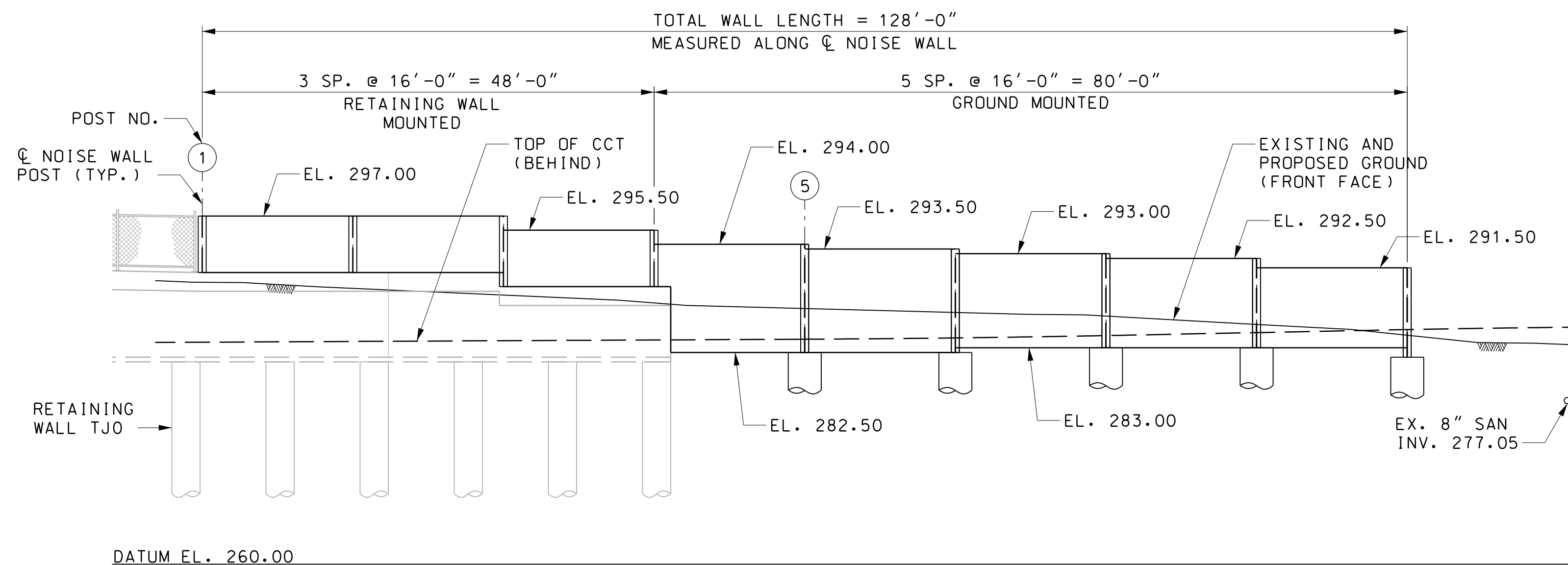
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PLAN

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** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

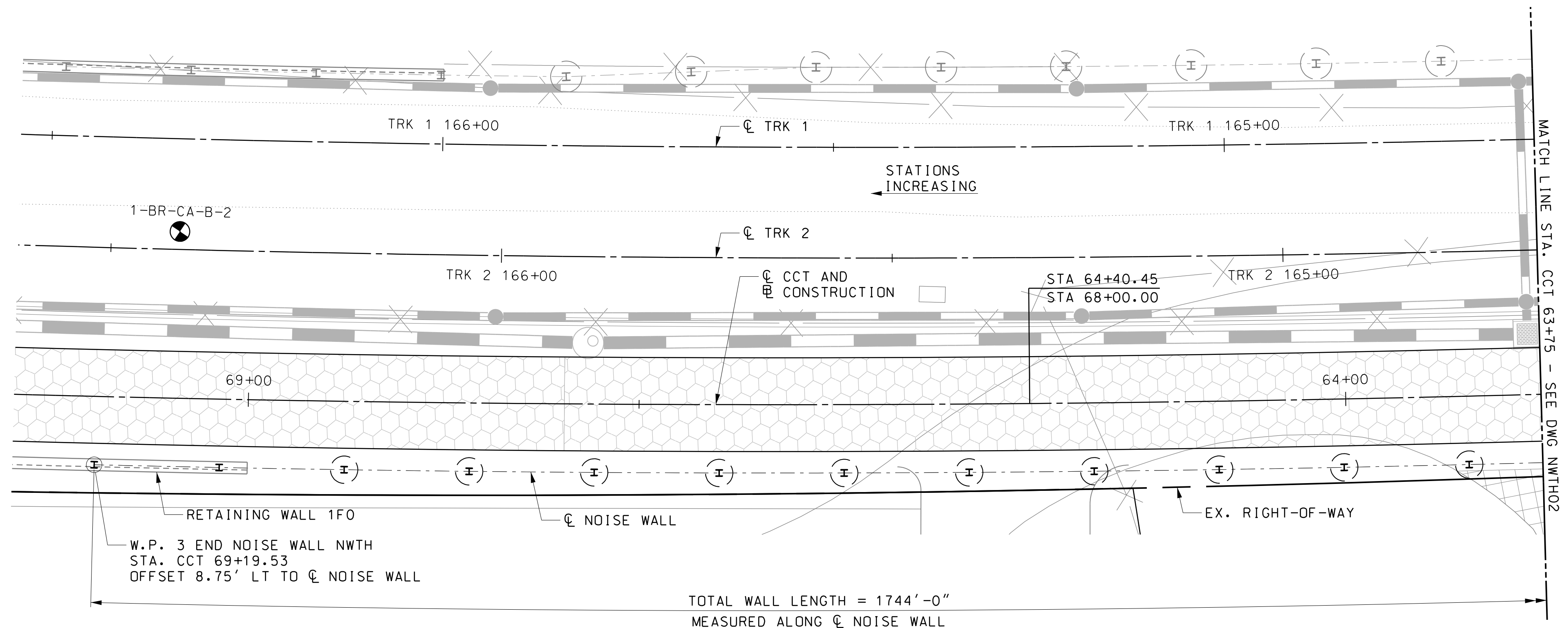
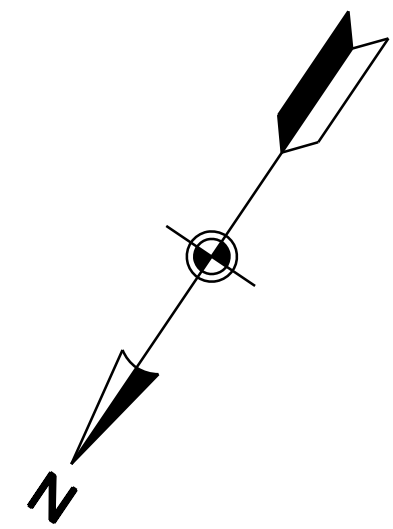


ELEVATION

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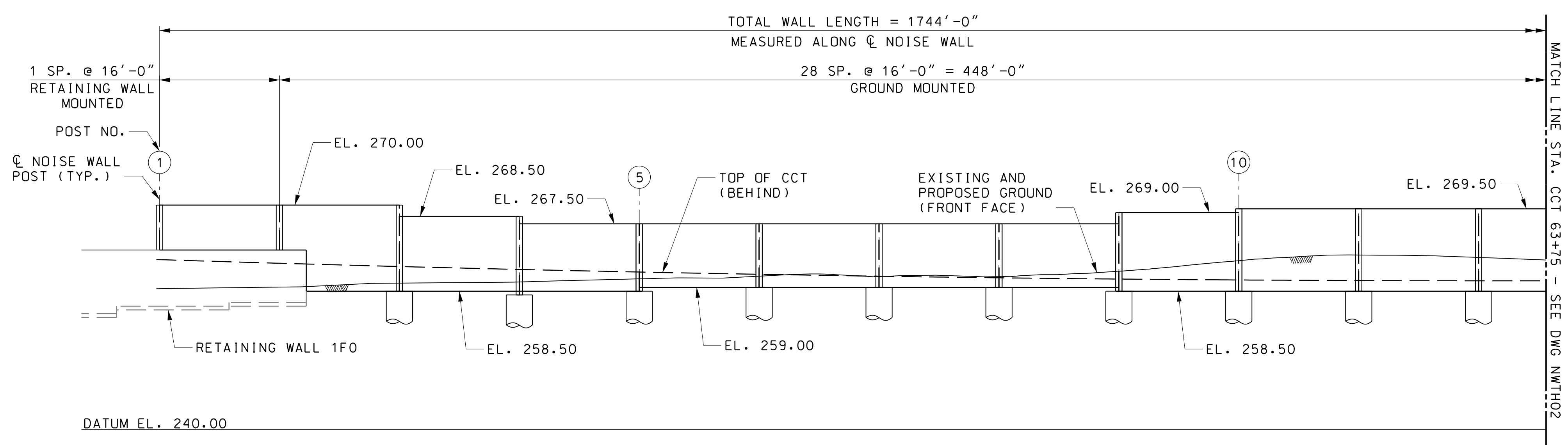
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TOTAL WALL LENGTH = 1744'-0"
MEASURED ALONG CL NOISE WALL

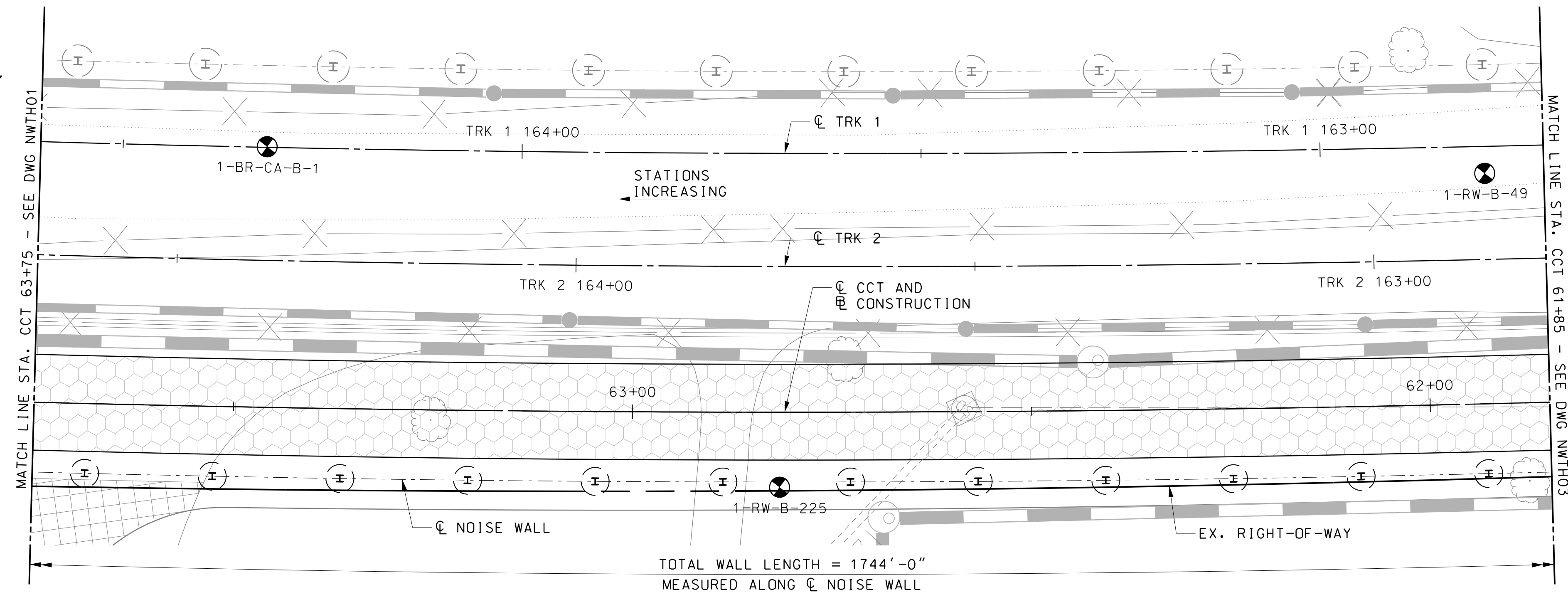
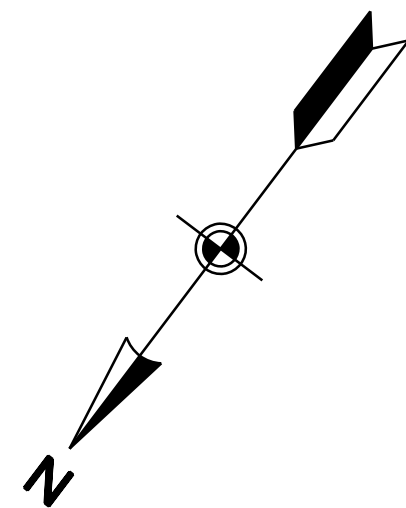
PLAN
SCALE: 1"=10'-0"



ELEVATION
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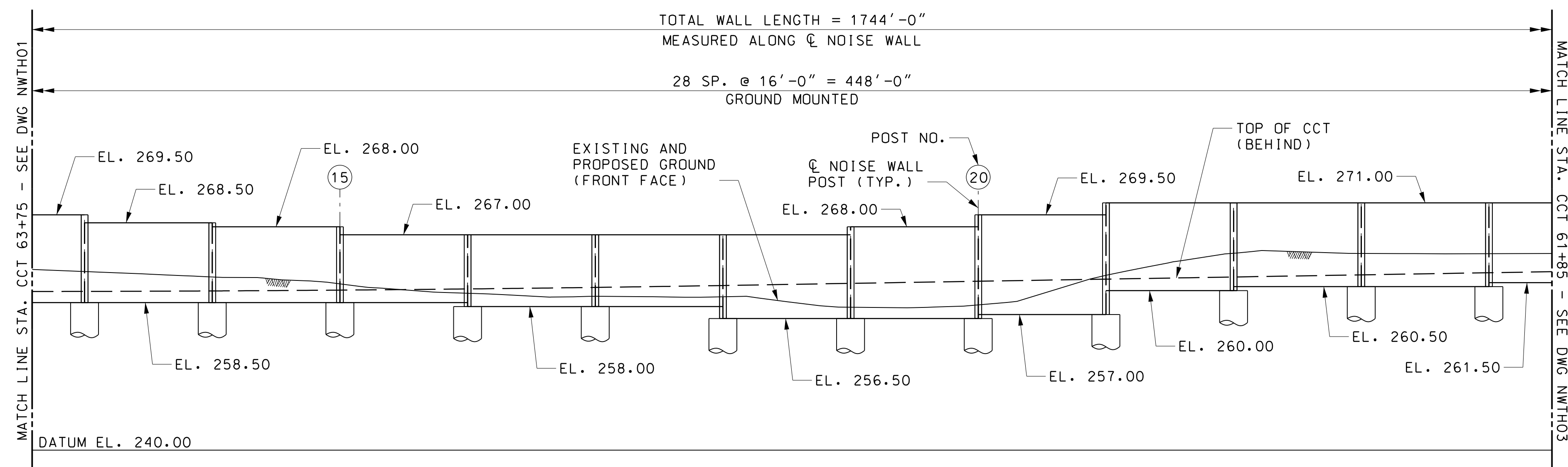
PLAN

SCALE: 1"=10'-0"

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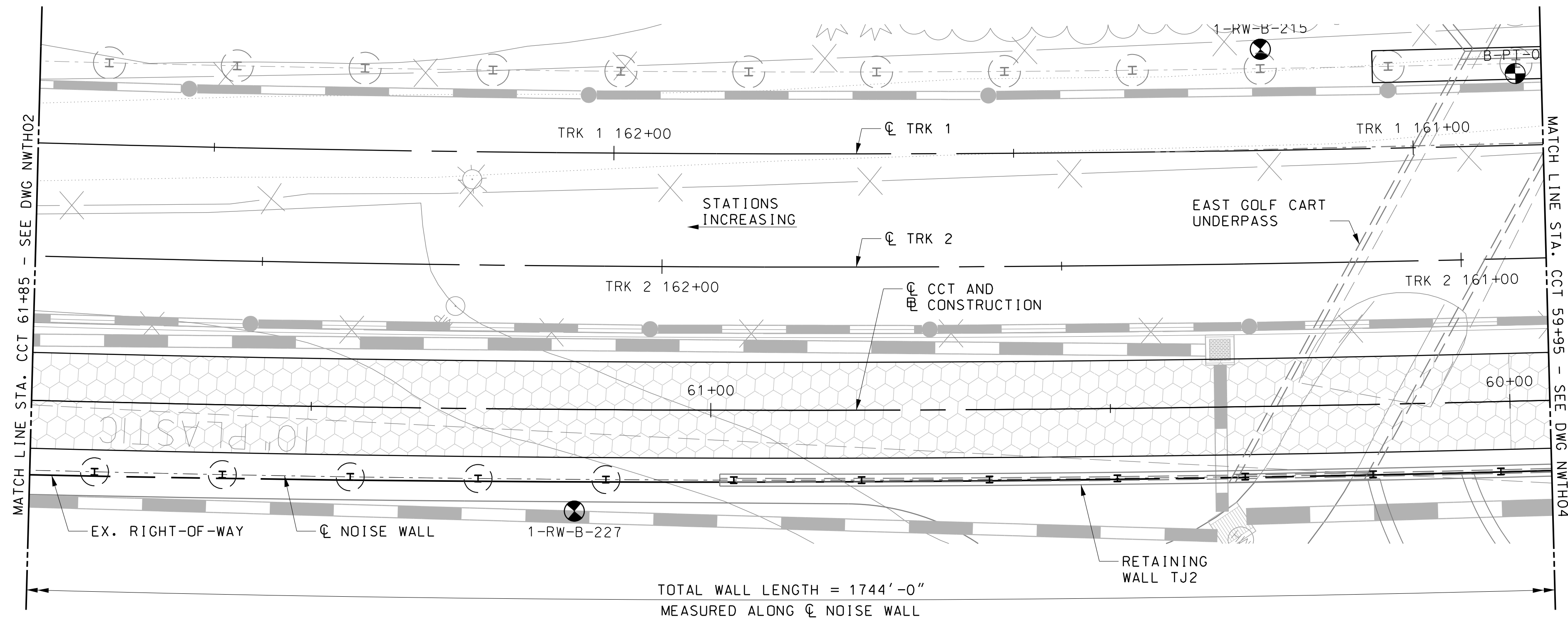
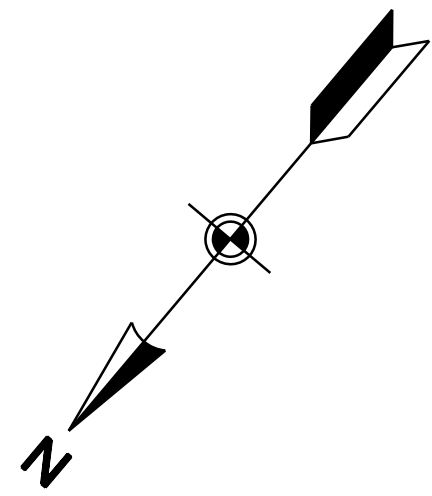
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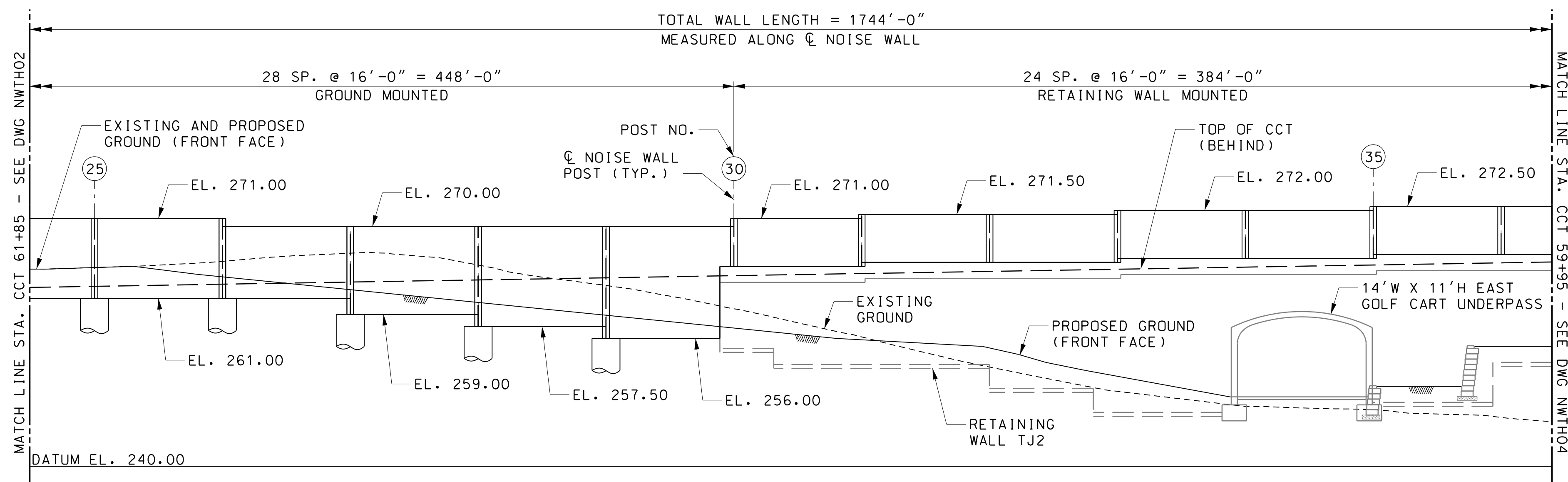
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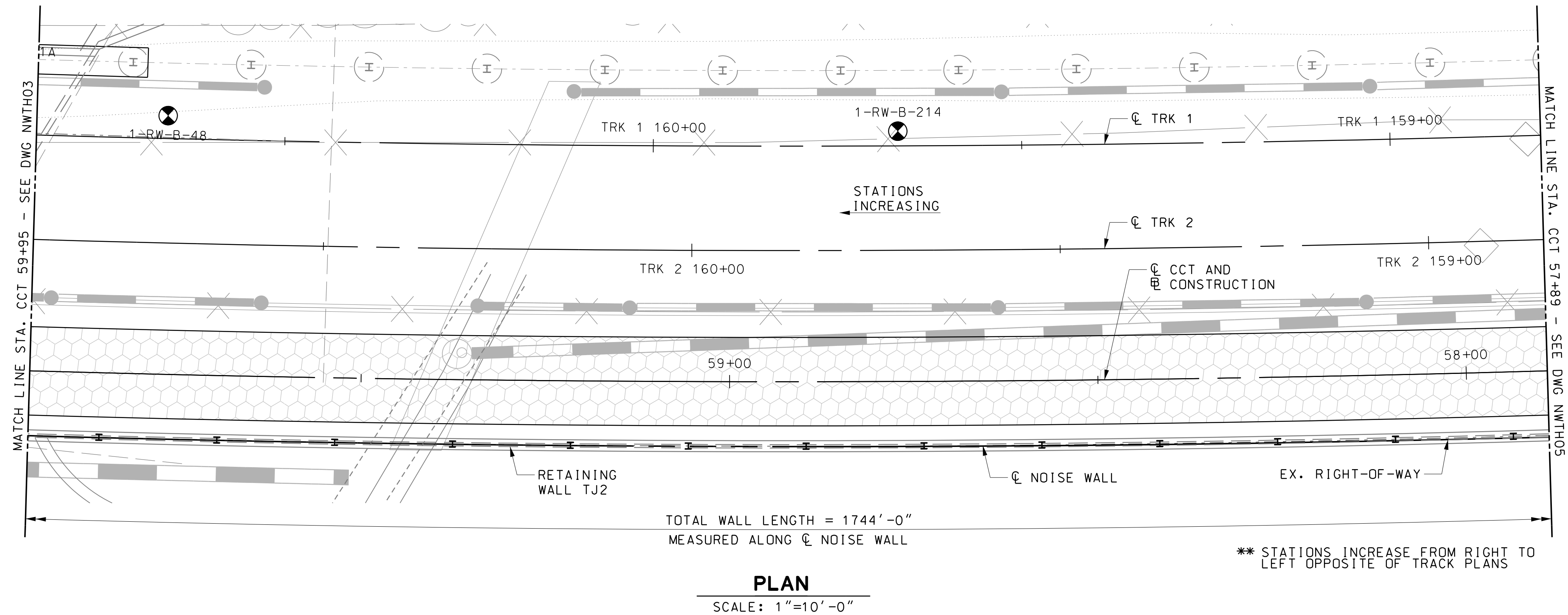
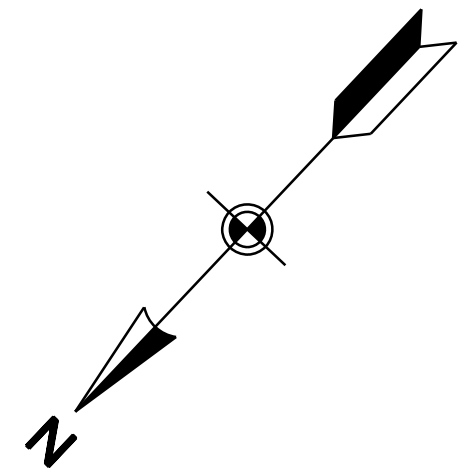
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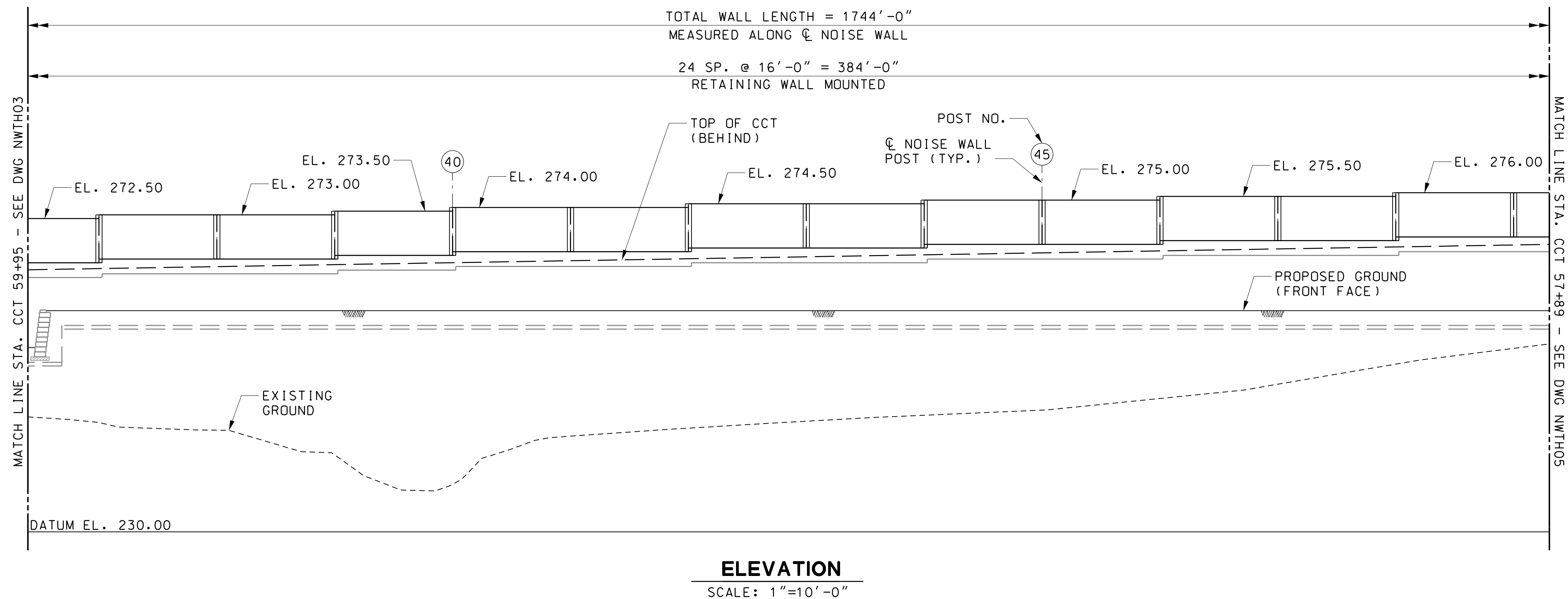
ELEVATION

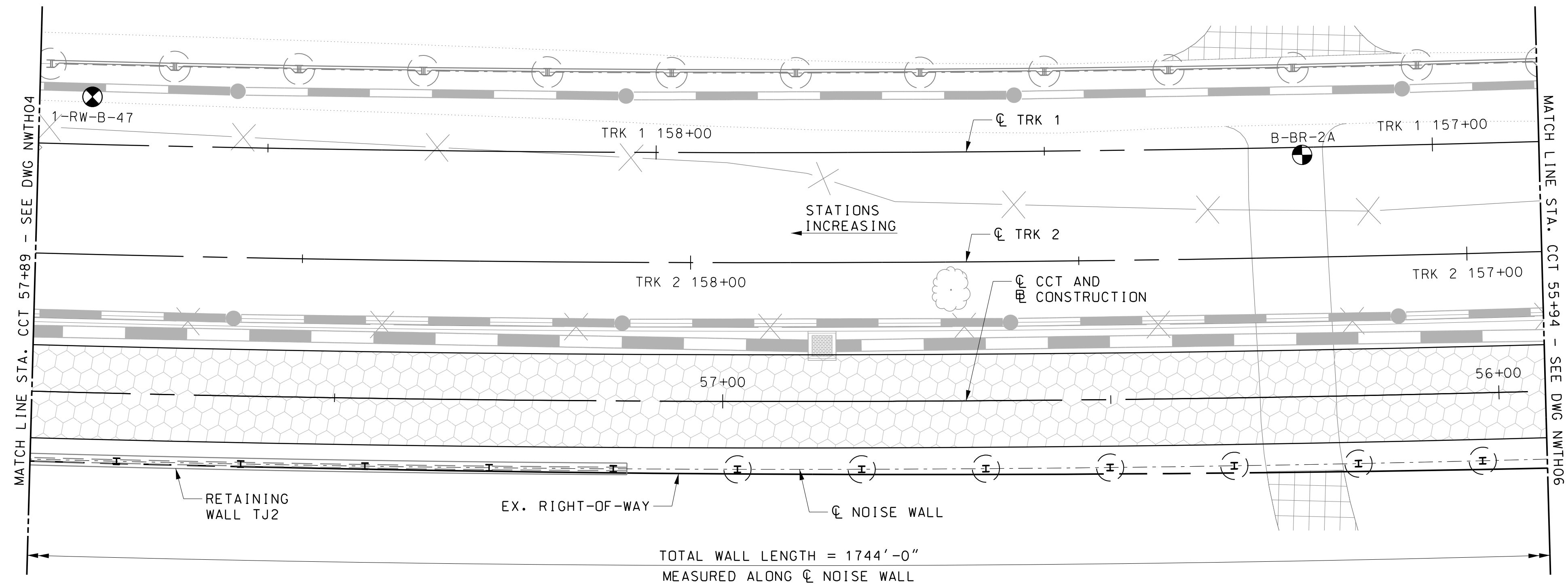
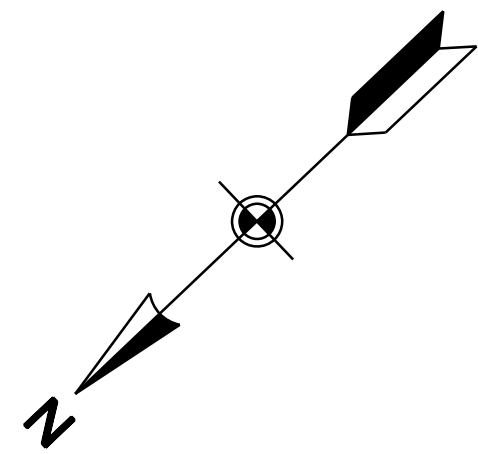
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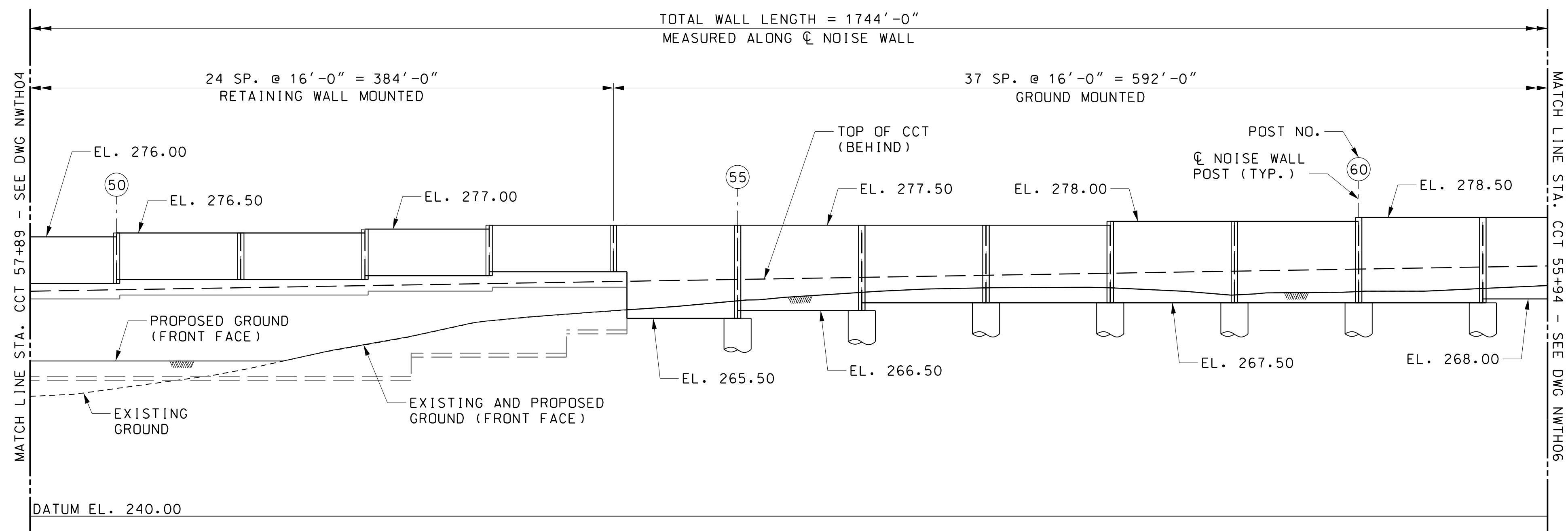
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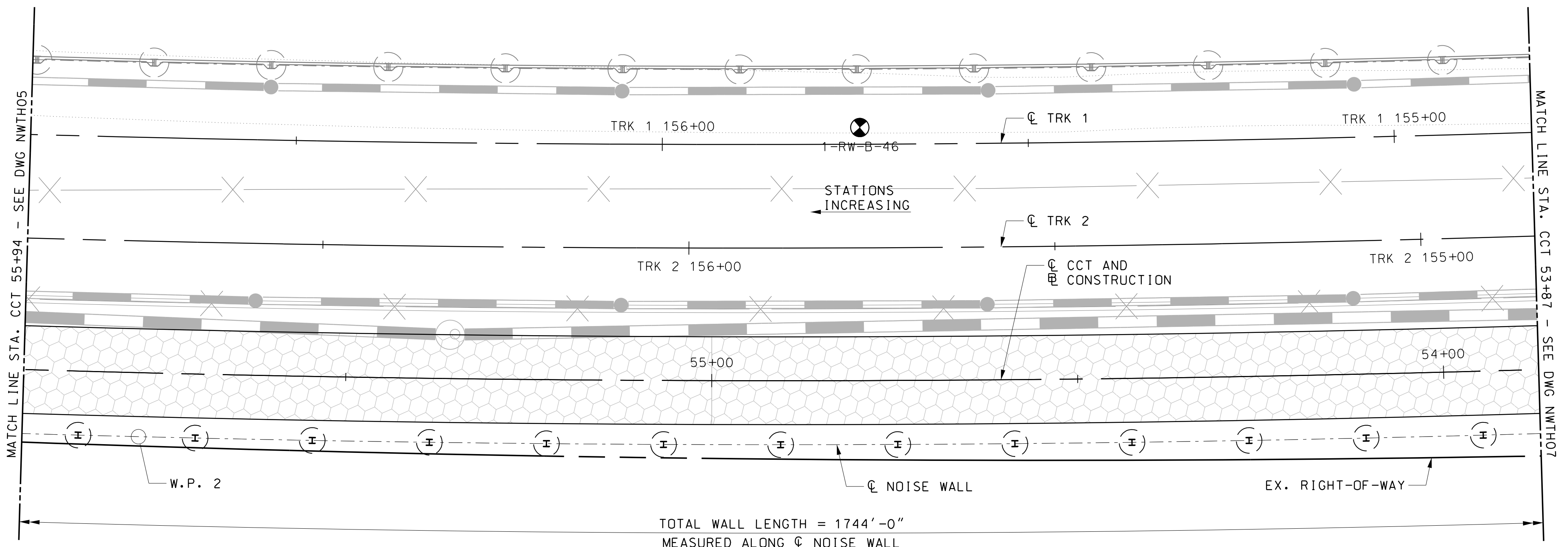
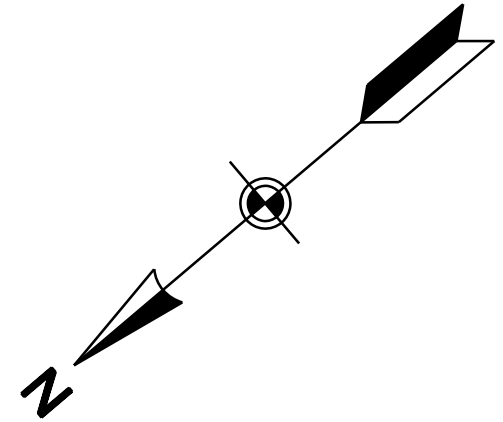


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SCALE: 1"=10'-0"

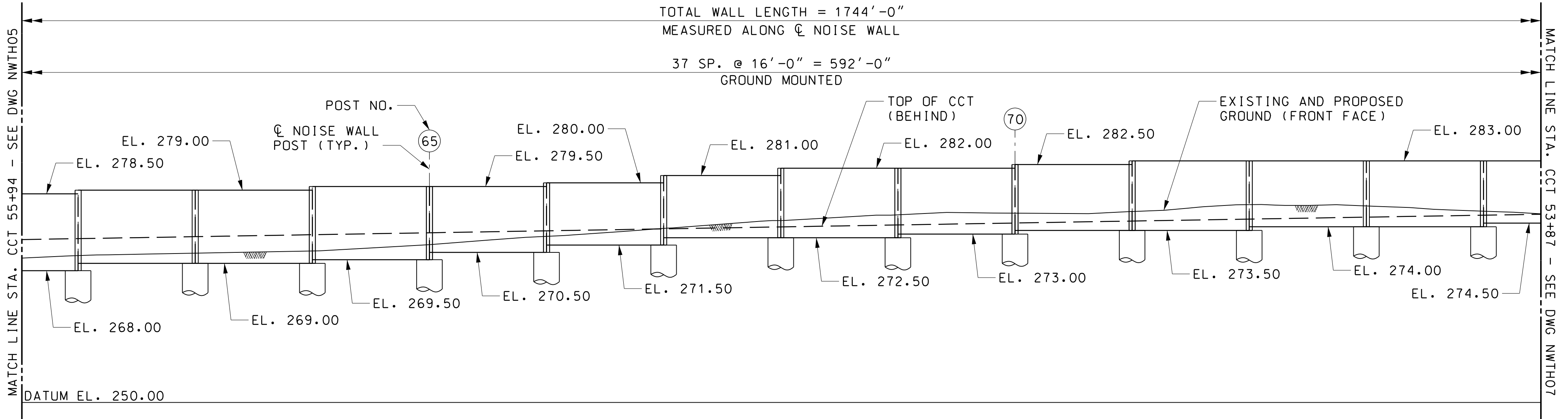
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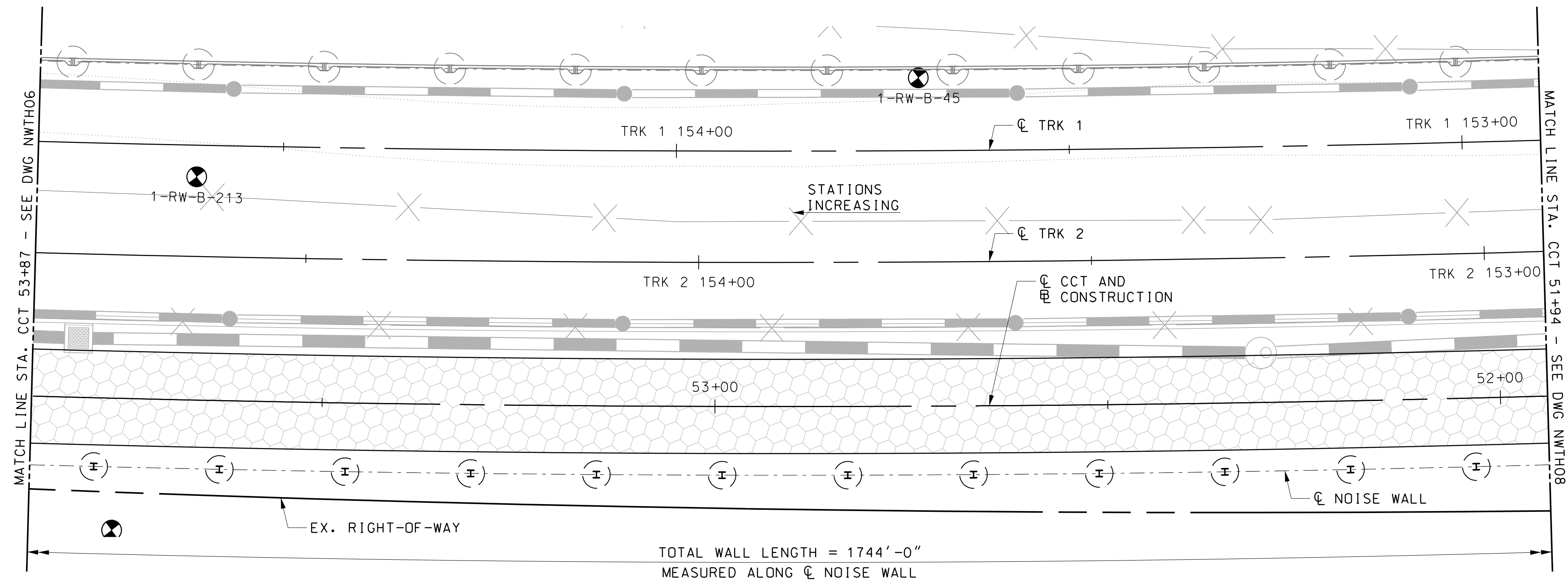
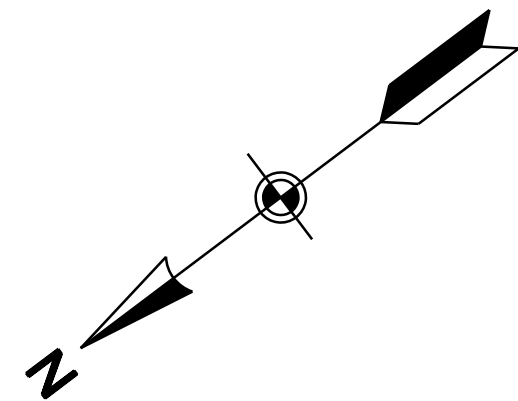


PLAN
SCALE: 1"=10'-0"

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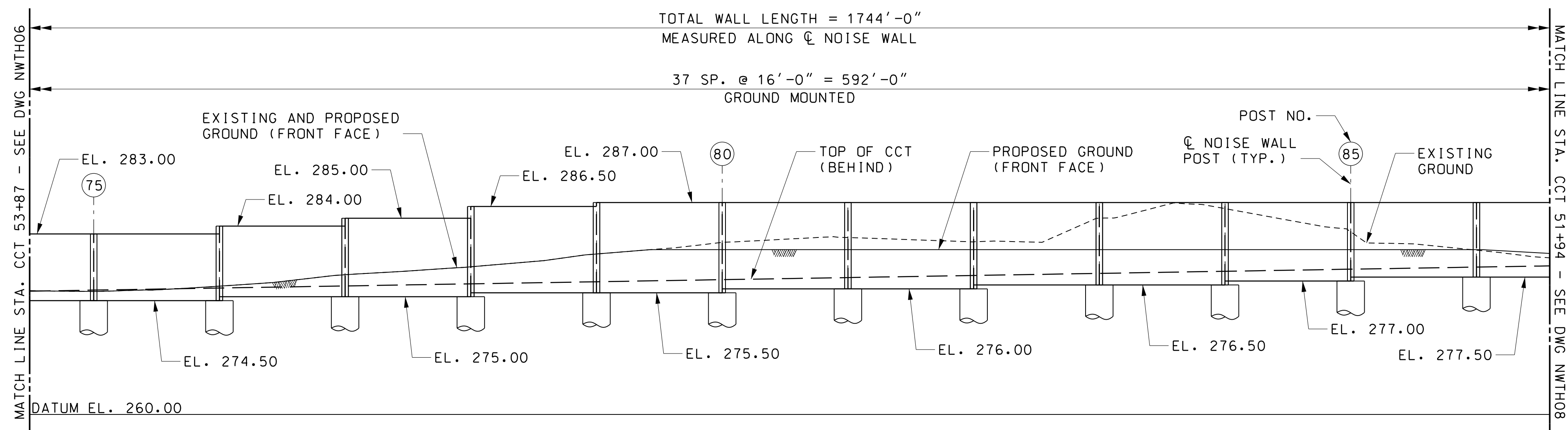


ELEVATION
SCALE: 1"=10'-0"



PLAN

SCALE: 1"=10'-0"

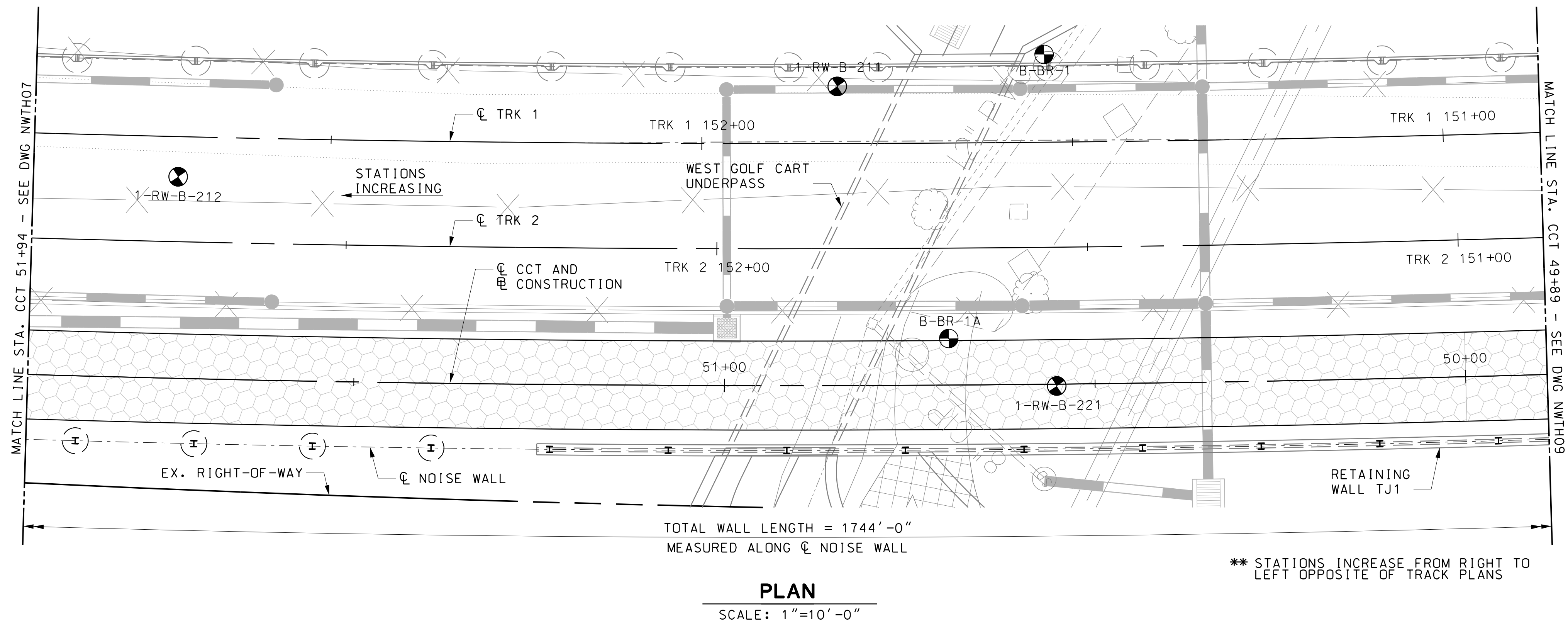
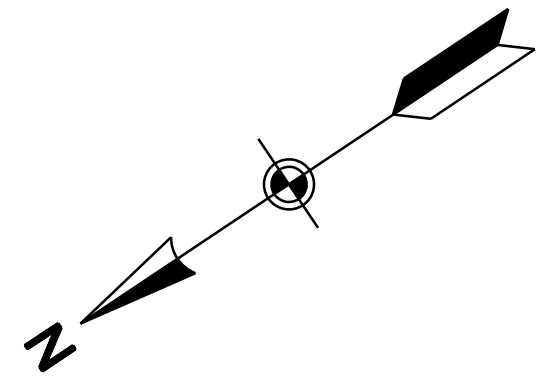


ELEVATION

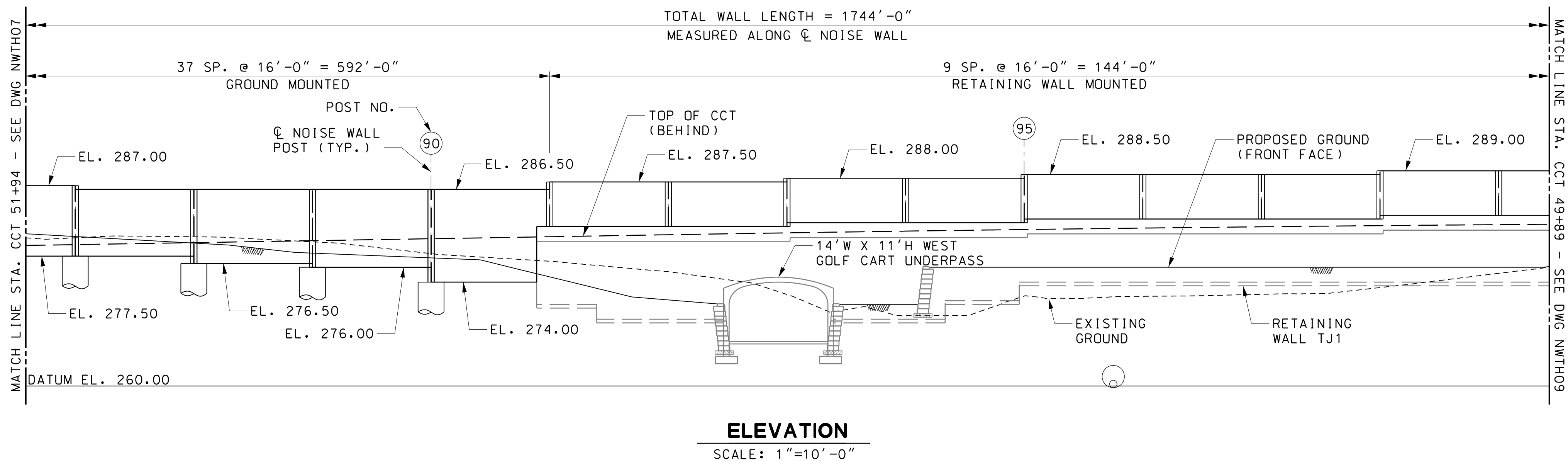
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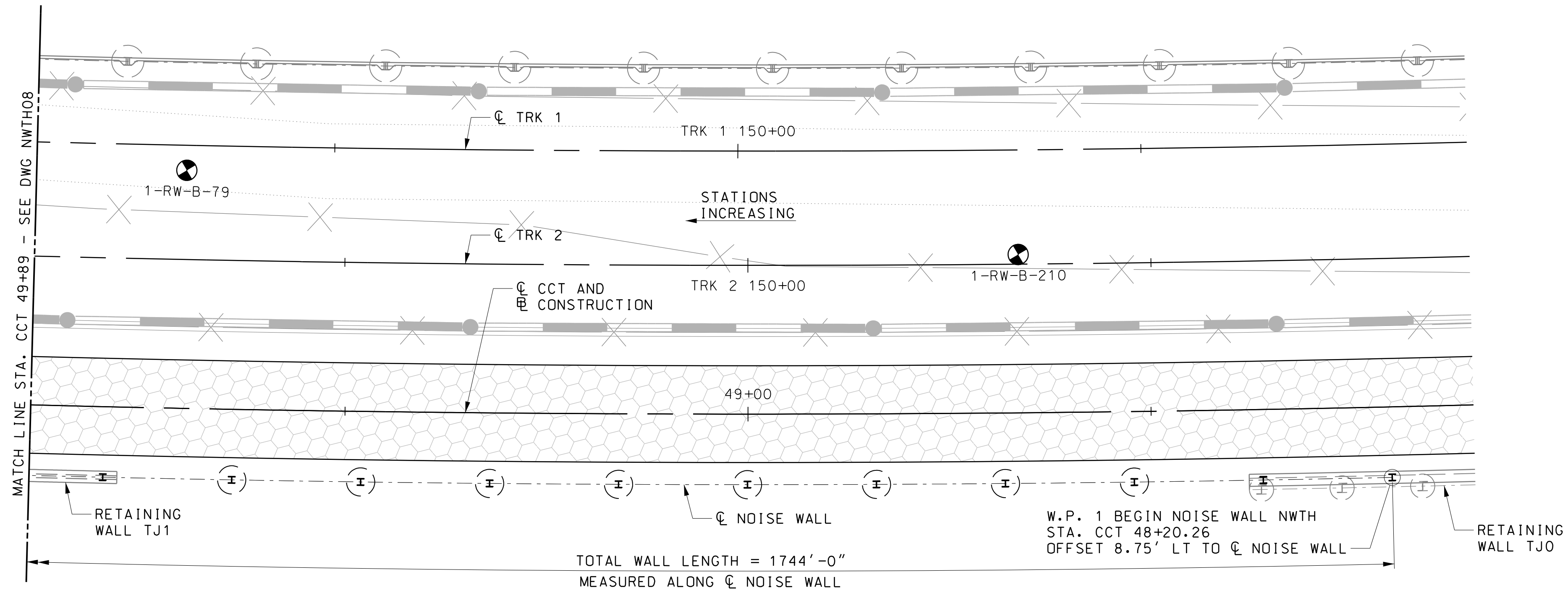
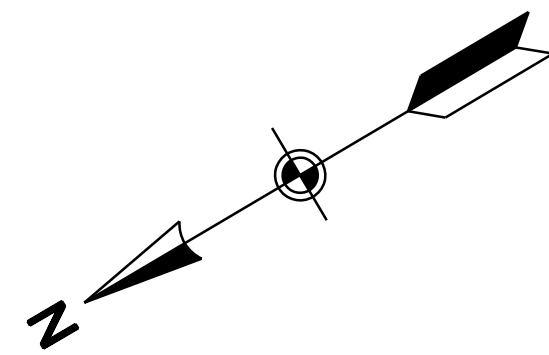
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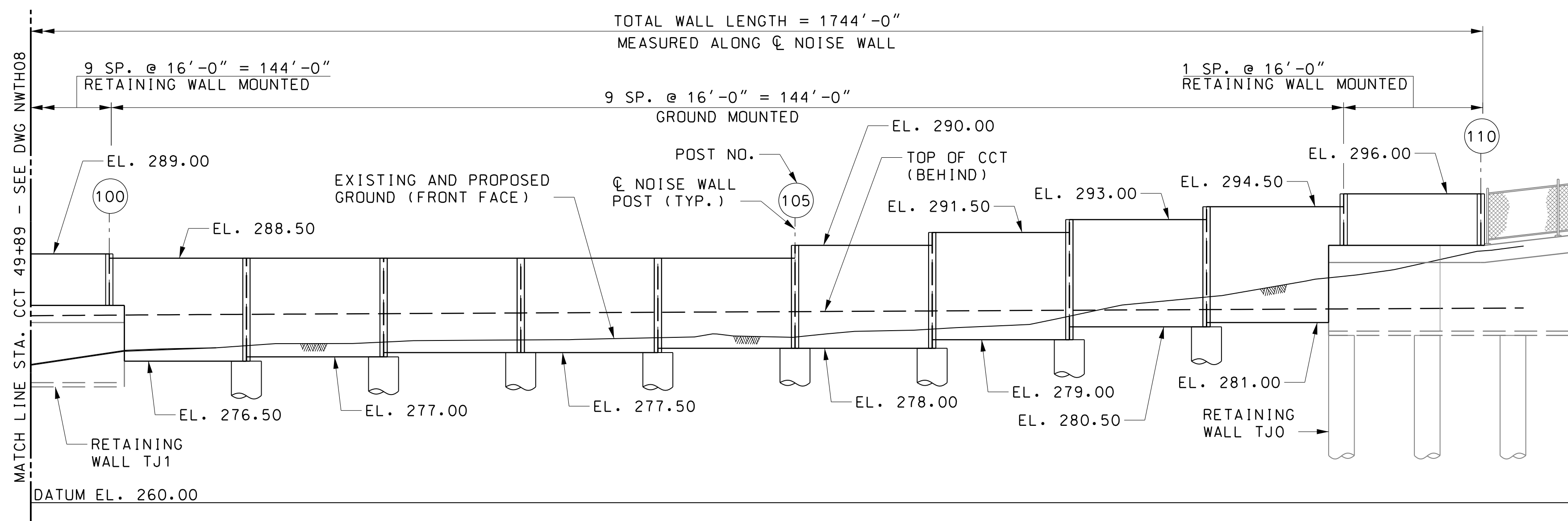
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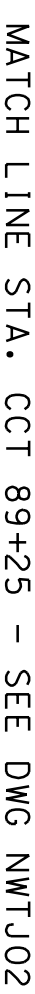
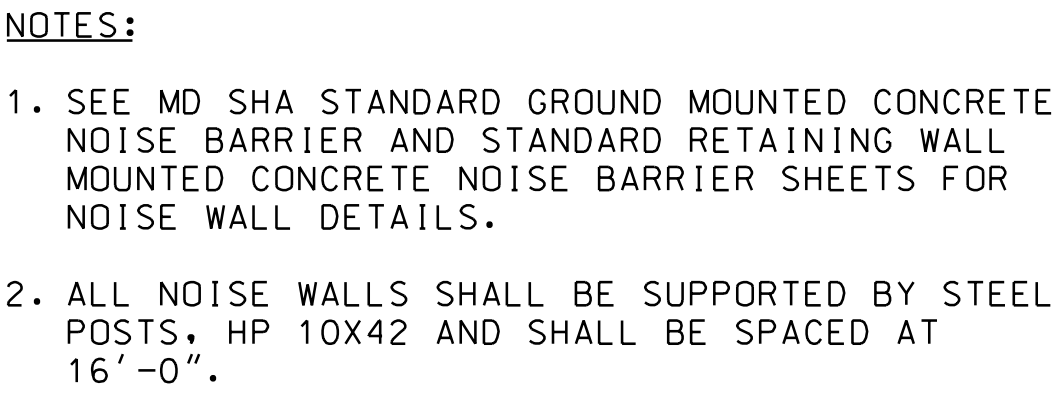





PLAN
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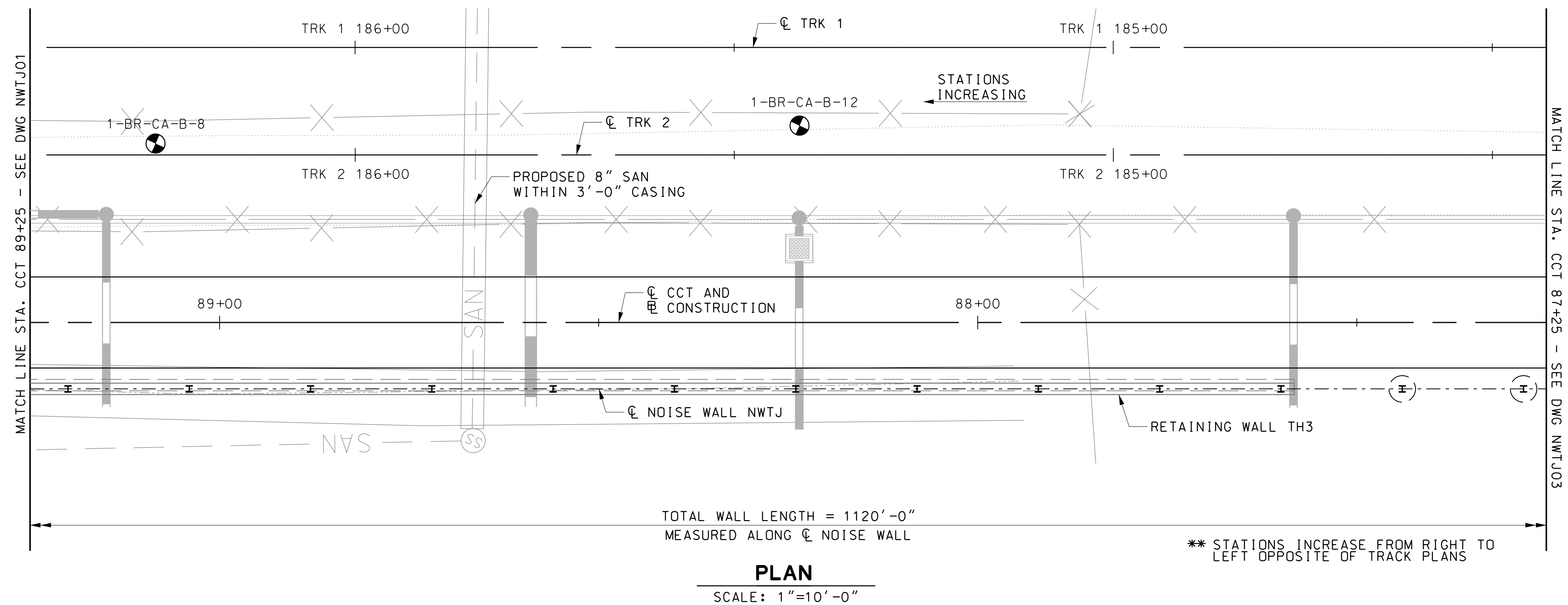
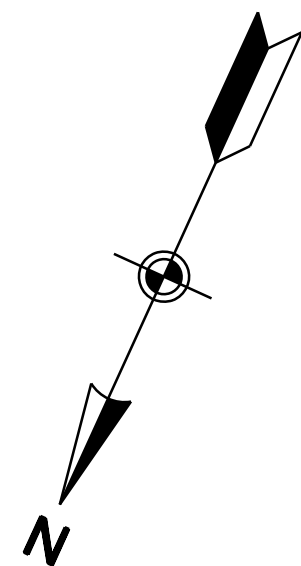
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SCALE: 1"=10'-0"

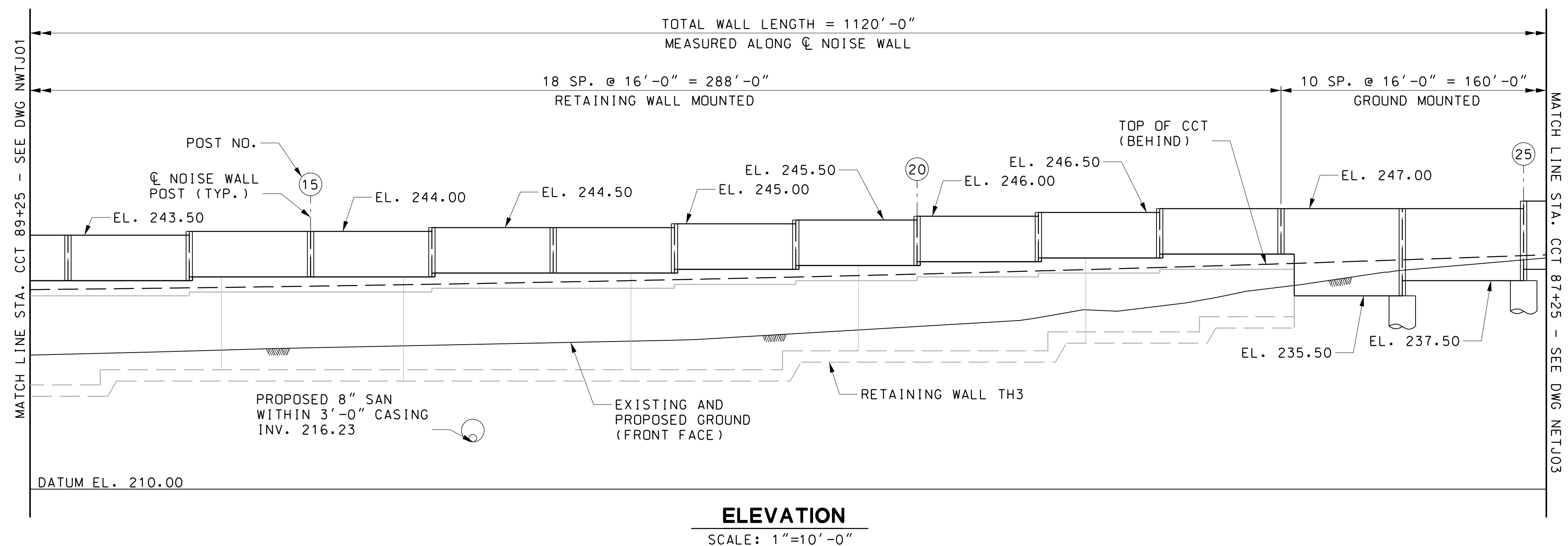


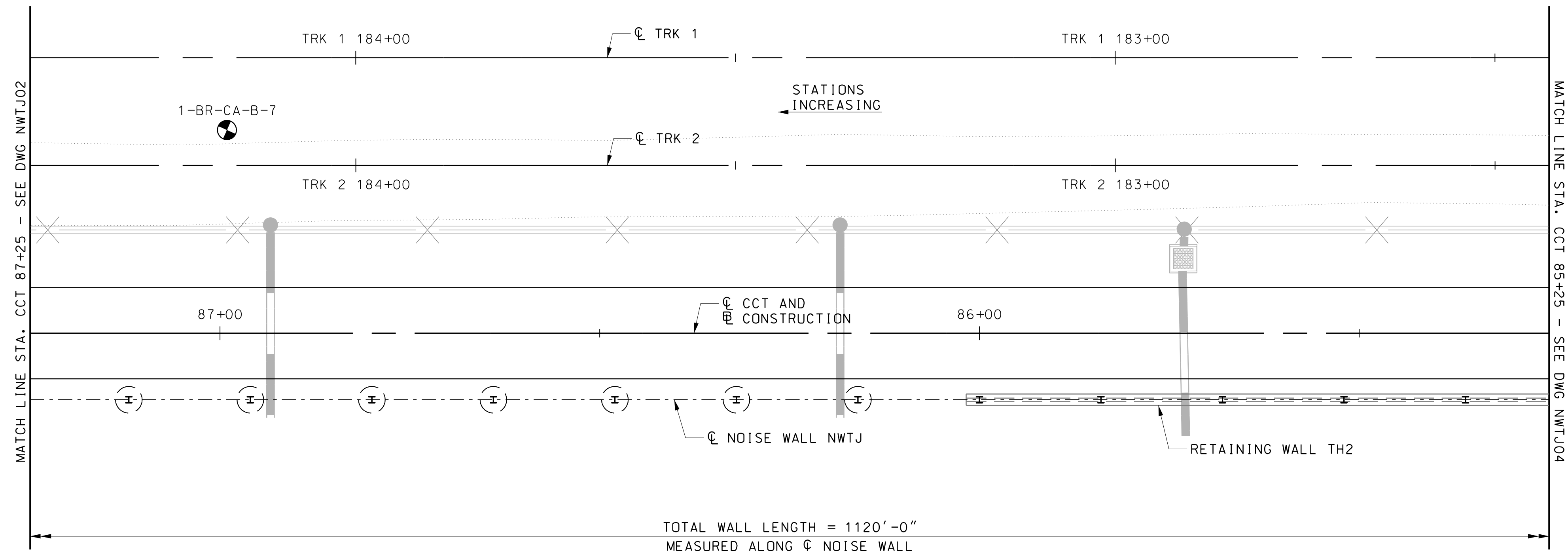
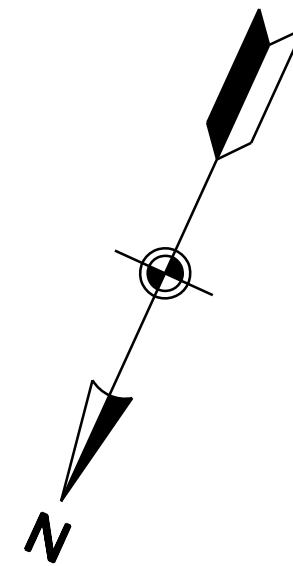
			PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. _____ Expiration Date _____	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESGN MWM	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220	
					DRAWN BCB		DRAWING NO. NWTJ01	
					CHECK CRA		NOISE WALL NWTJ GENERAL PLAN & ELEVATION – 1	SHEET NO. 292 OF 828
					APPR _____		DATE: DECEMBER 2013 SCALE: 1" = 10'-0"	



NOTES:

1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42 AND SHALL BE SPACED AT 16'-0".

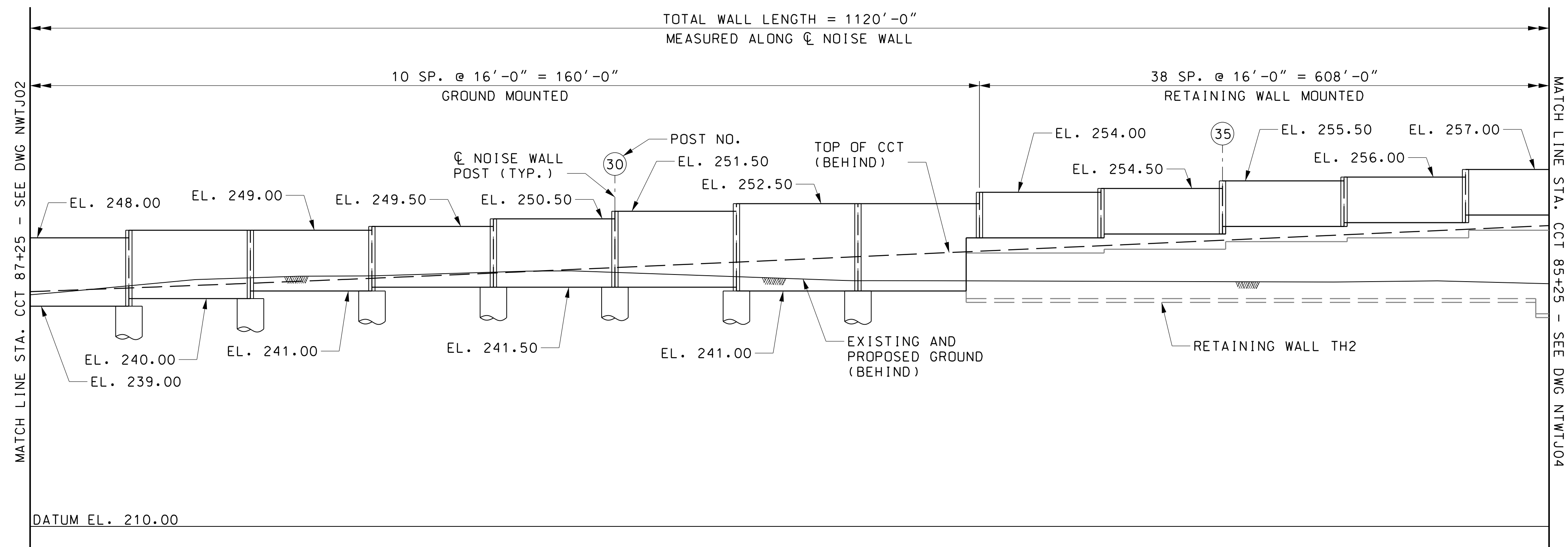




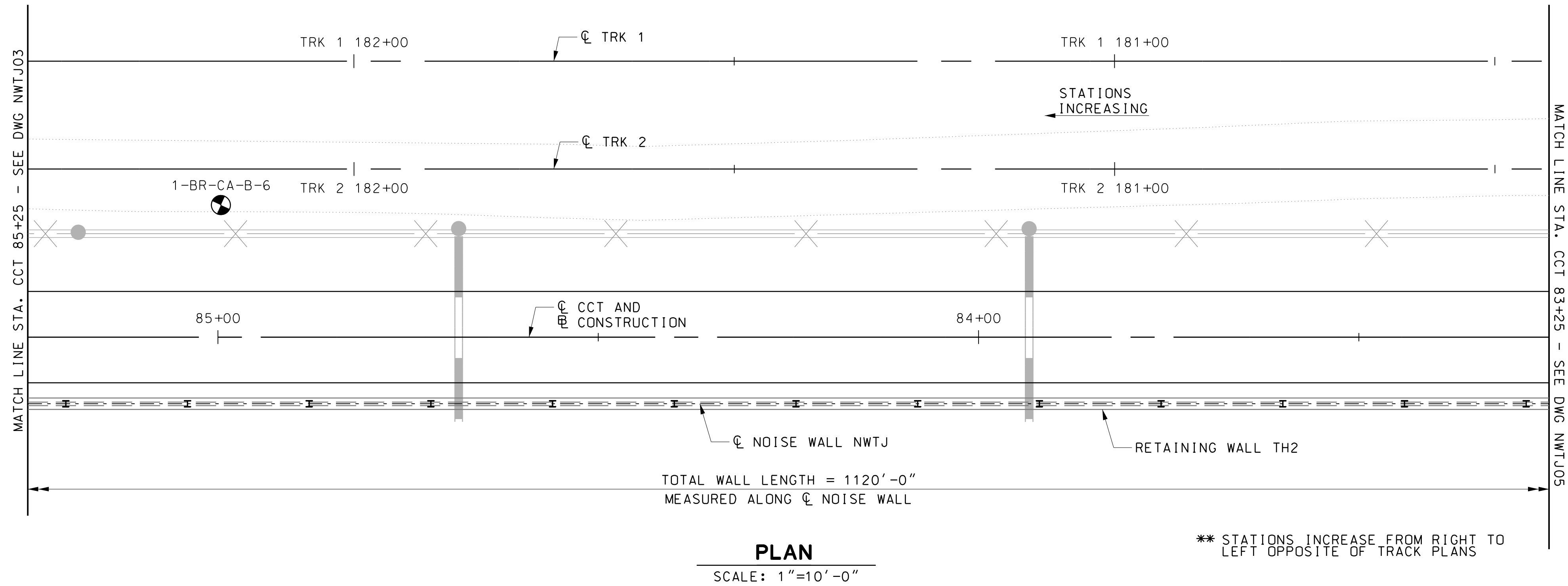
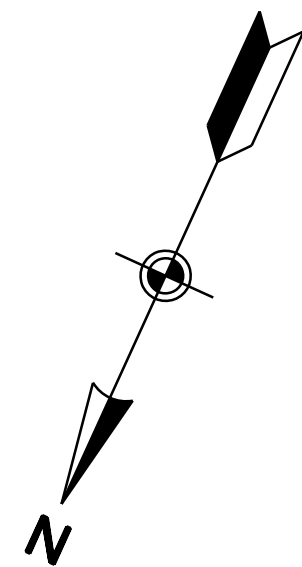
PLAN
SCALE: 1"=10'-0"

NOTES:

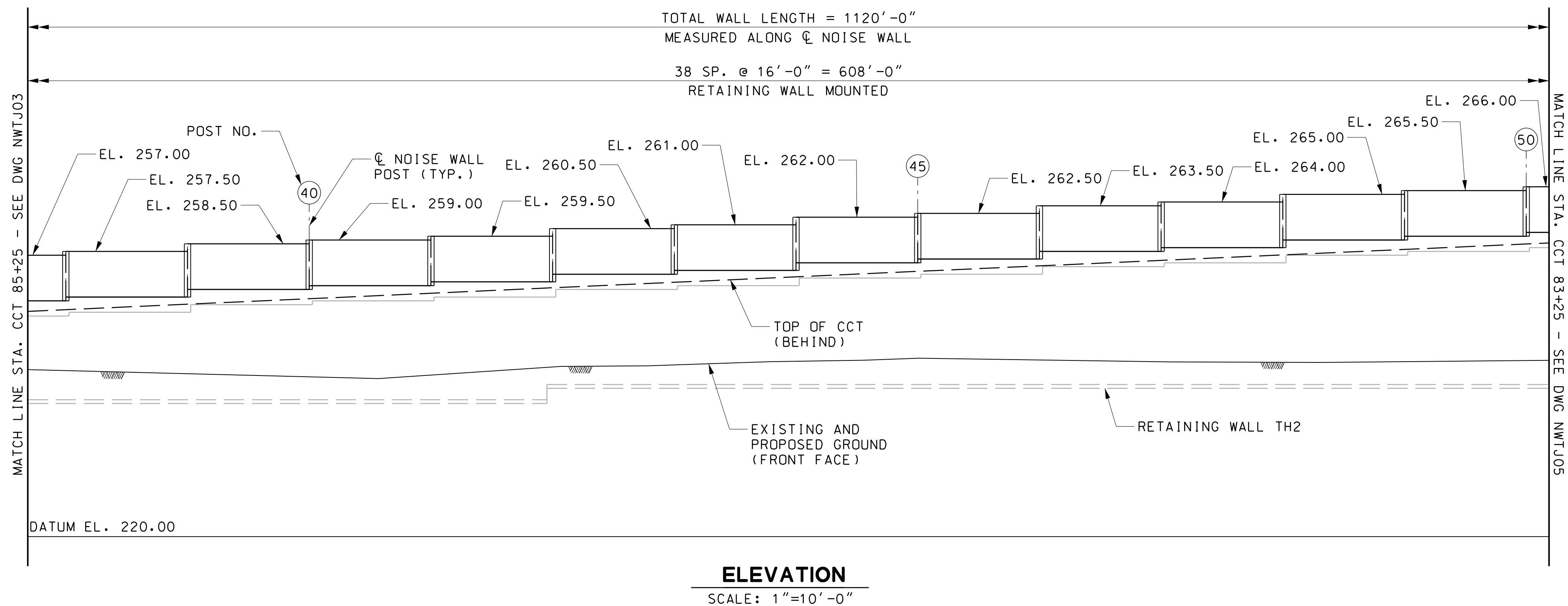
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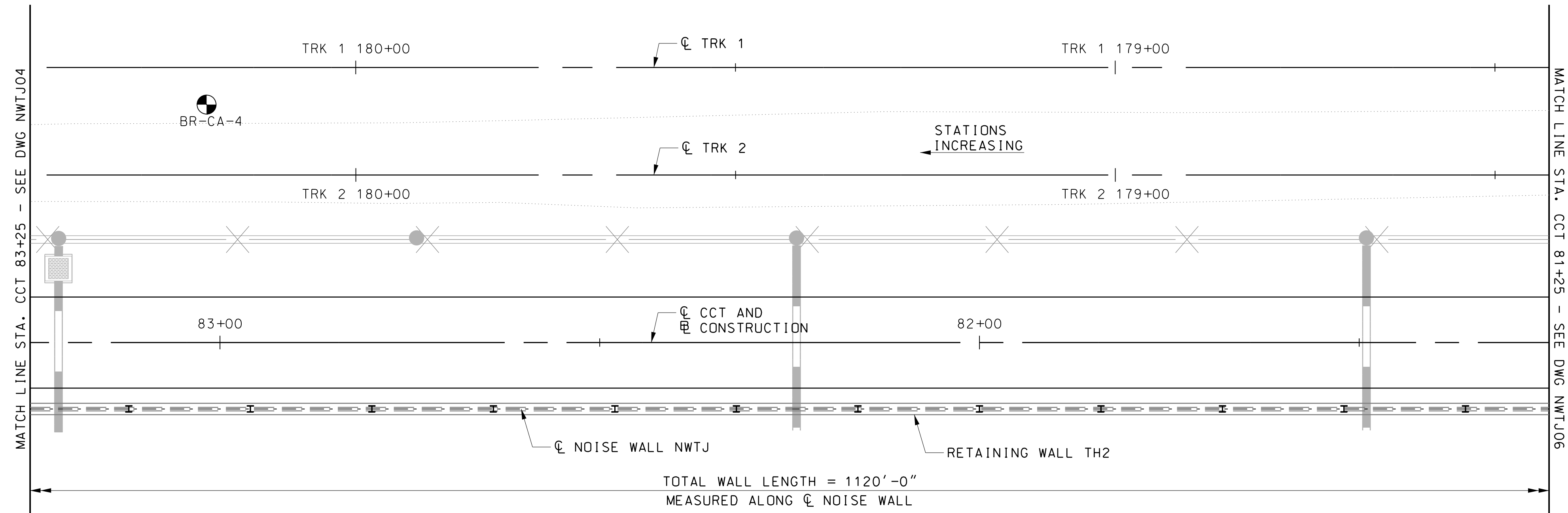
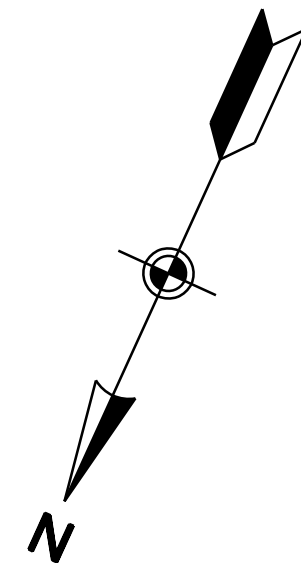


ELEVATION
SCALE: 1"=10'-0"



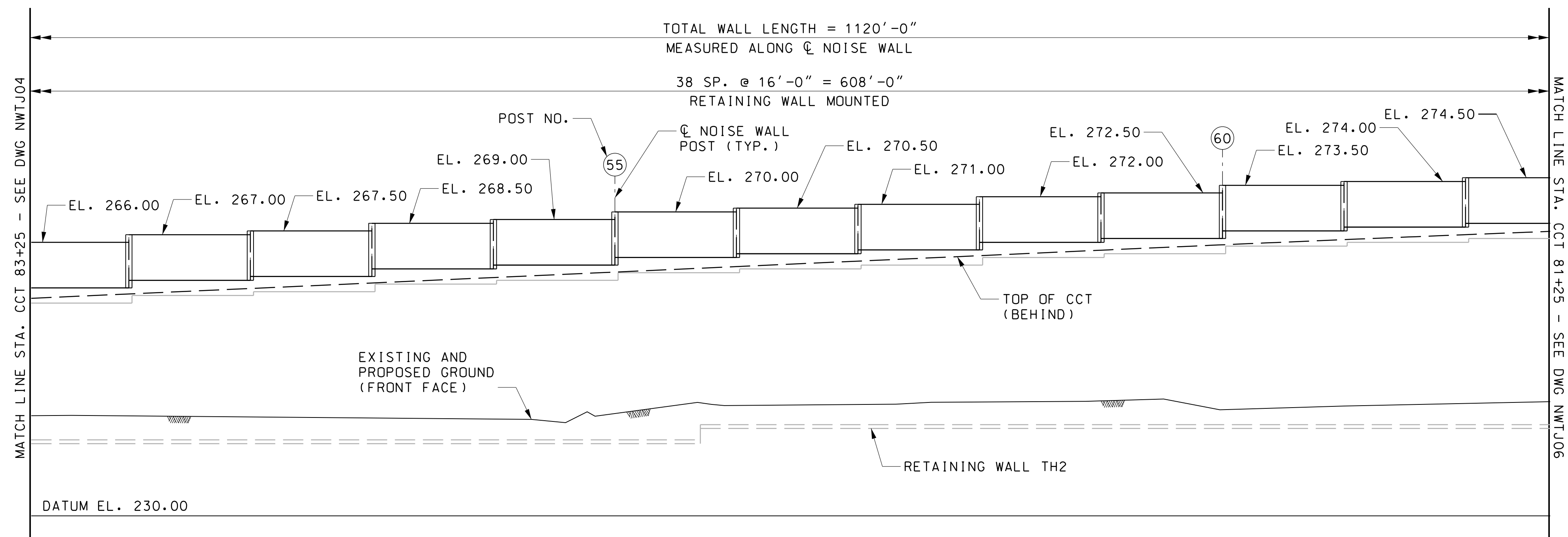
- NOTES:
1. SEE MD SHA STANDARD GROUND MOUNTED CONCRETE NOISE BARRIER AND STANDARD RETAINING WALL MOUNTED CONCRETE NOISE BARRIER SHEETS FOR NOISE WALL DETAILS.
 2. ALL NOISE WALLS SHALL BE SUPPORTED BY STEEL POSTS, HP 10X42.





PLAN
SCALE: 1"=10'-0"

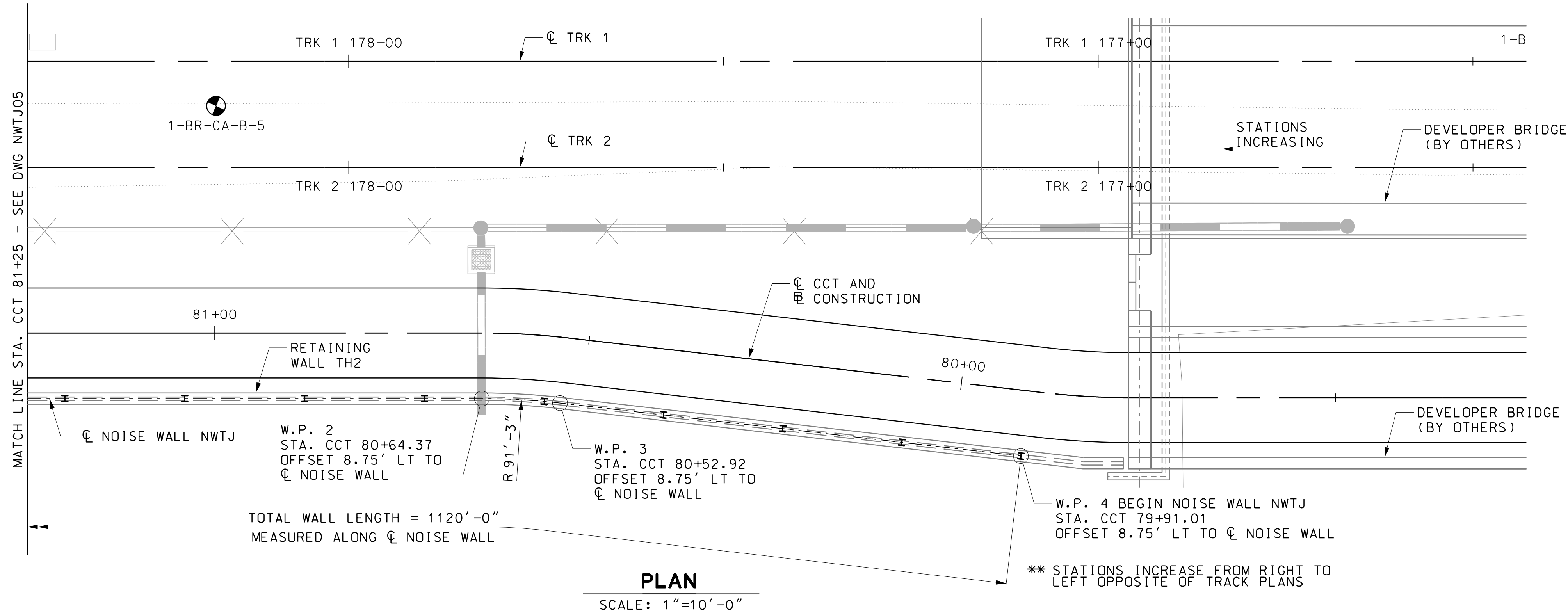
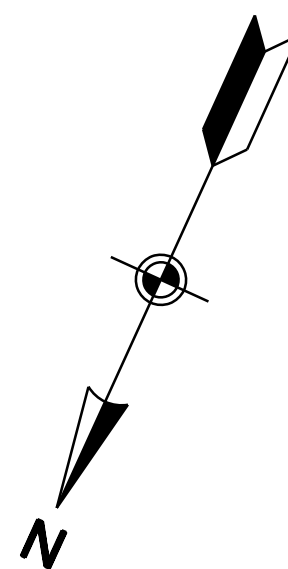
** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS



ELEVATION
SCALE: 1"=10'-0"

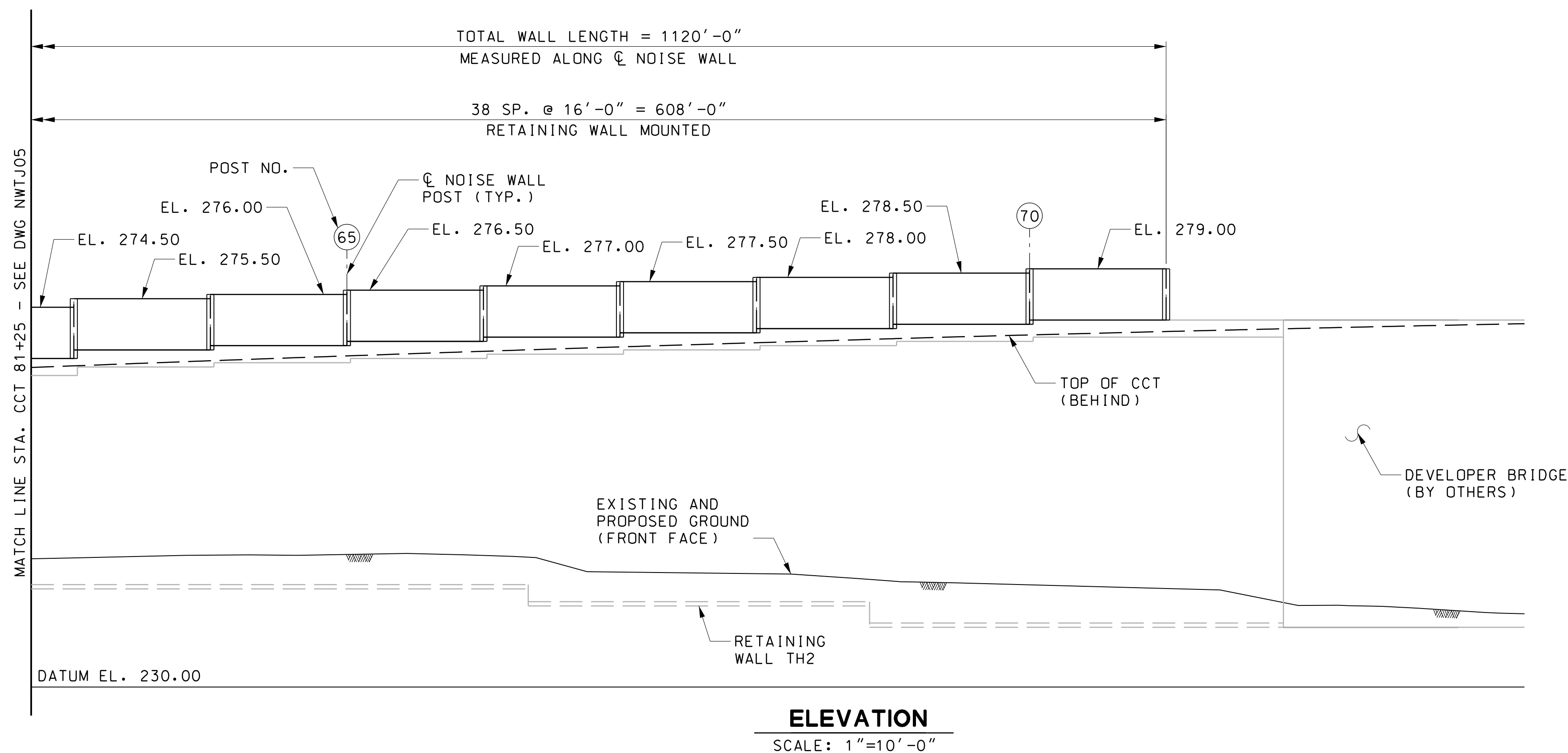
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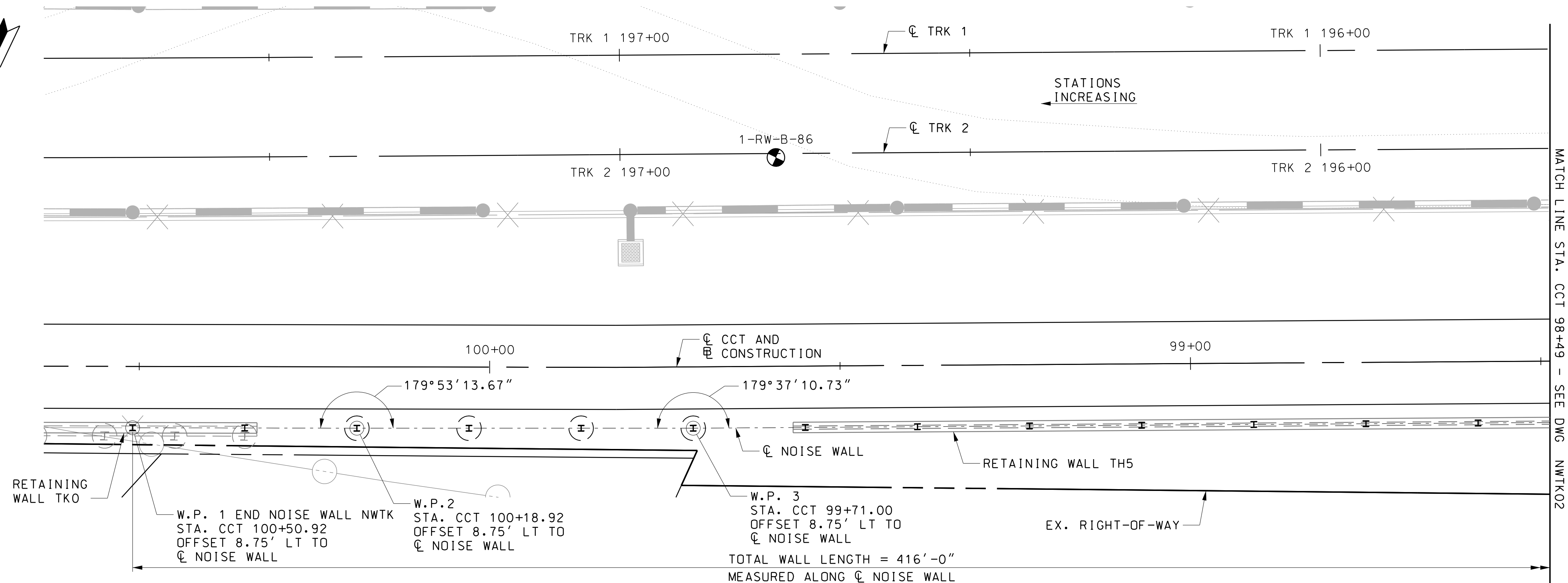
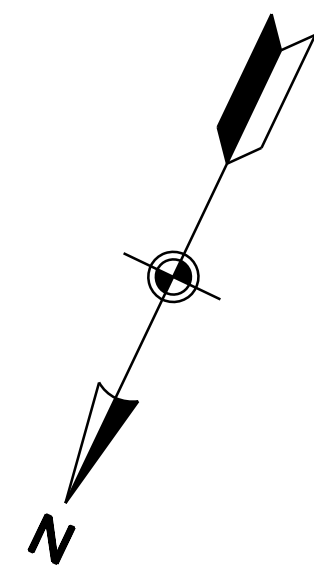
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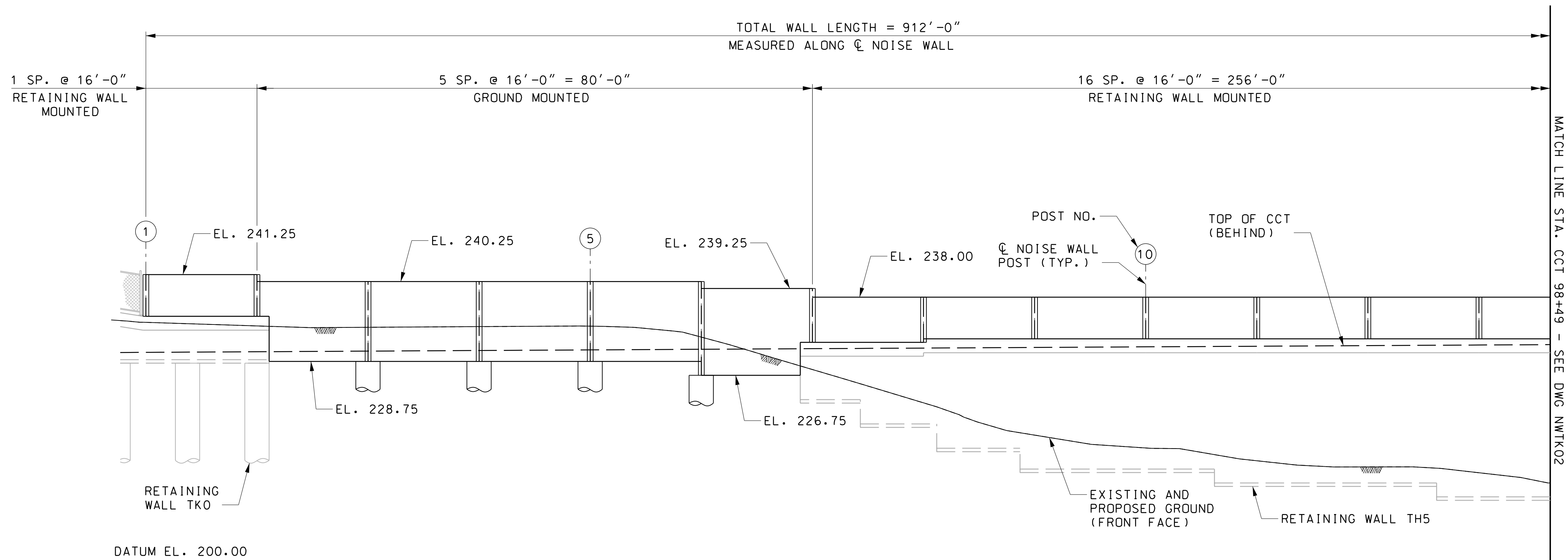
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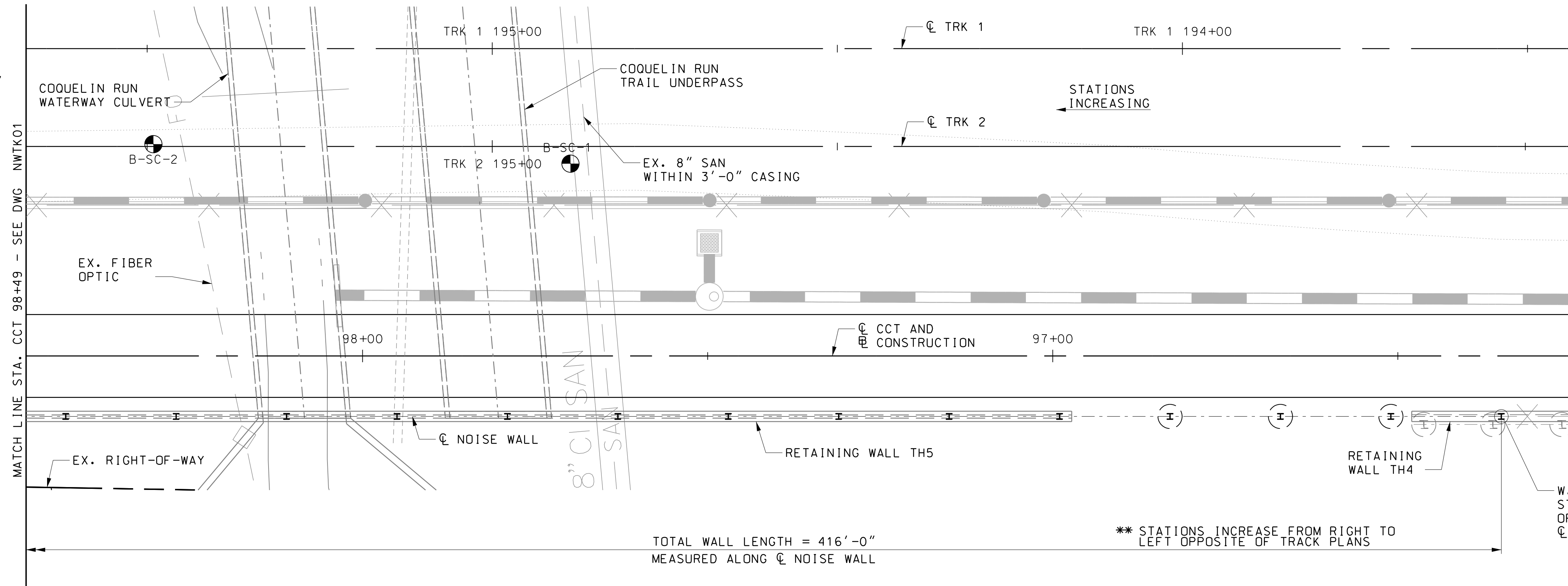
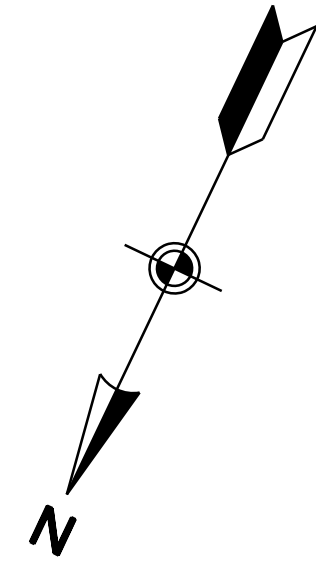
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

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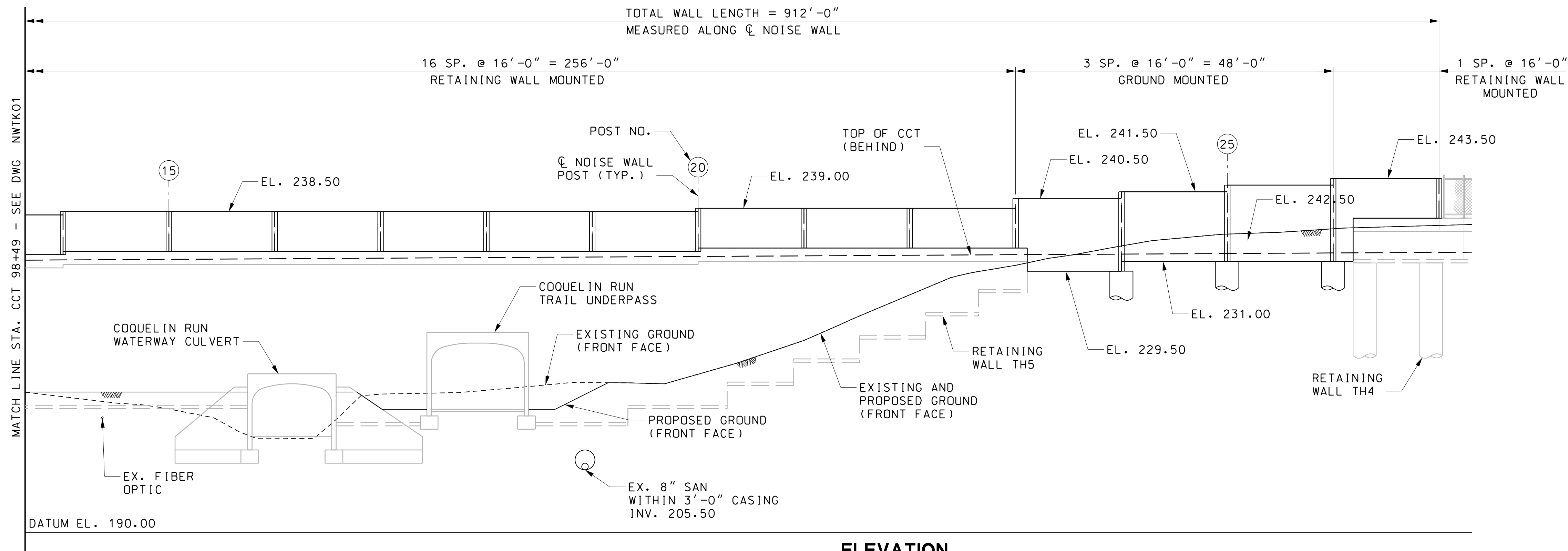


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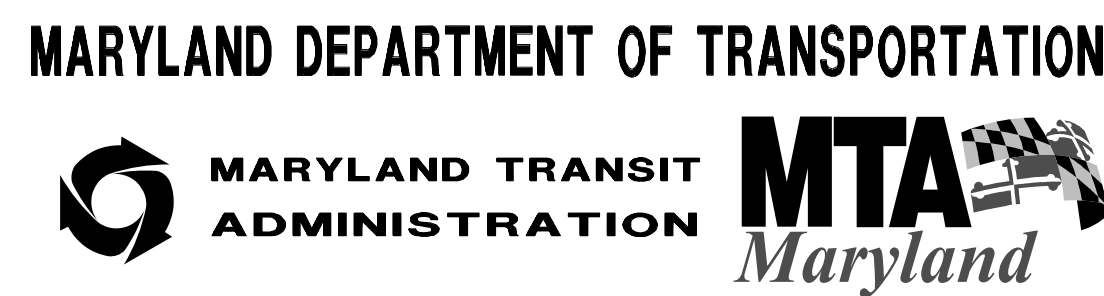
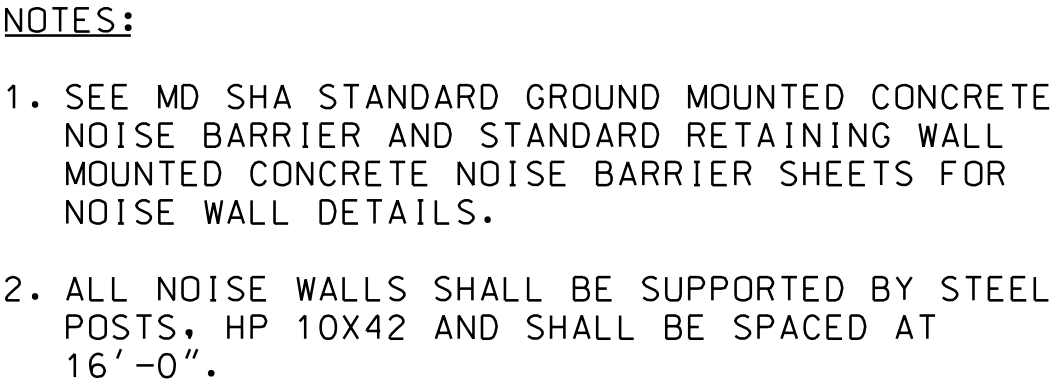
PLAN

SCALE: 1"=10'-0"



ELEVATION

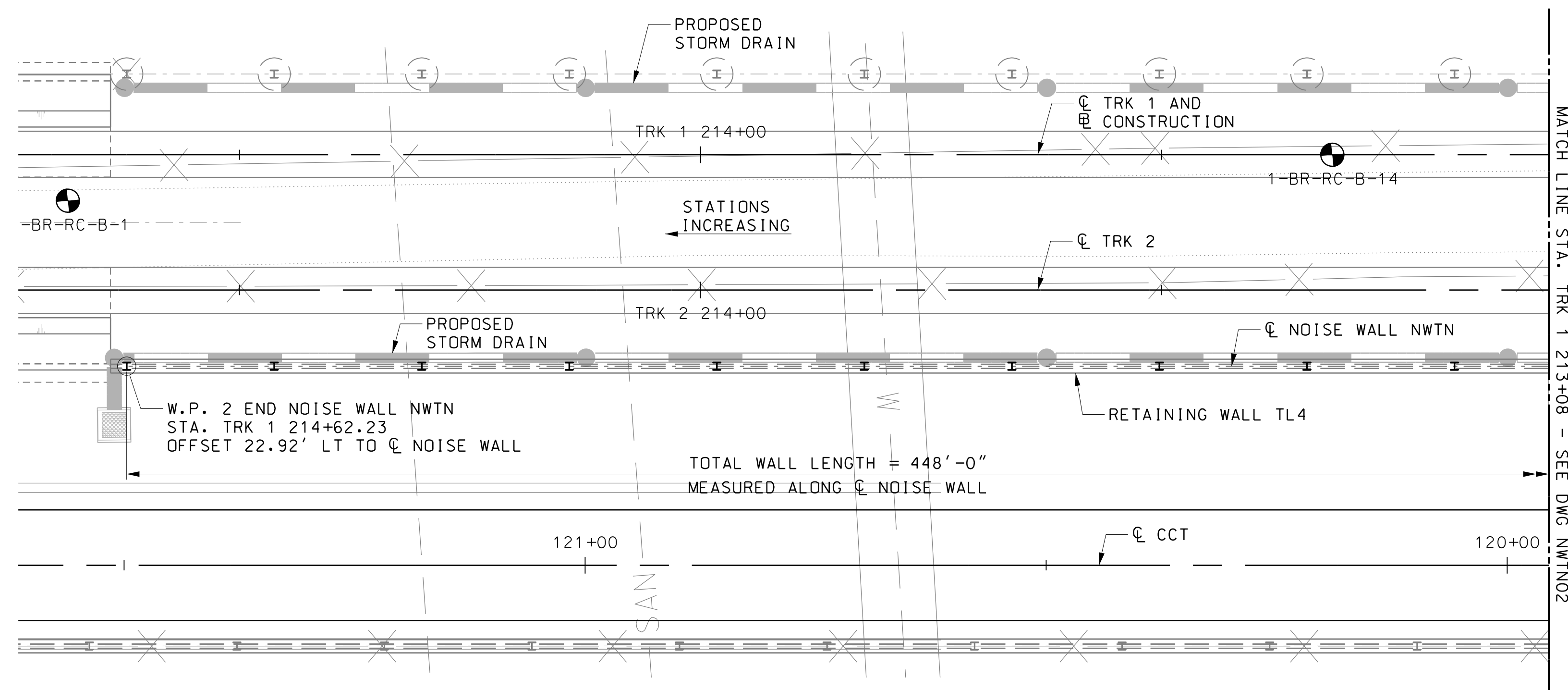
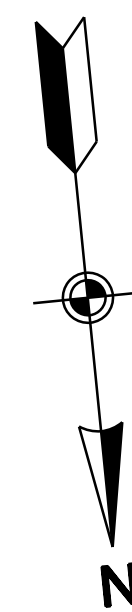
SCALE: 1"=10'-0"



DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

<div> <div>APPR.</div> <div>CHECK</div> <div>DRAWN</div> <div>DESIGN</div> </div>	MWM	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div>	<div>CONTRACT NO.</div> <div>T-1042-0220</div>
	JY		<div>DRAWING NO.</div> <div>NWTL01</div>
	CRA	<div>NOISE WALL NWTL</div> <div>GENERAL PLAN & ELEVATION</div> <div> <div>DATE: DECEMBER 2013</div> <div>SCALE: 1" = 10' - 0"</div> </div>	<div>SHEET NO.</div> <div>300 OF 828</div>

c:\pwworking\mtapw\mci-brian_burns\d0153742\1042pSTnwt01.dgn
12/5/2013

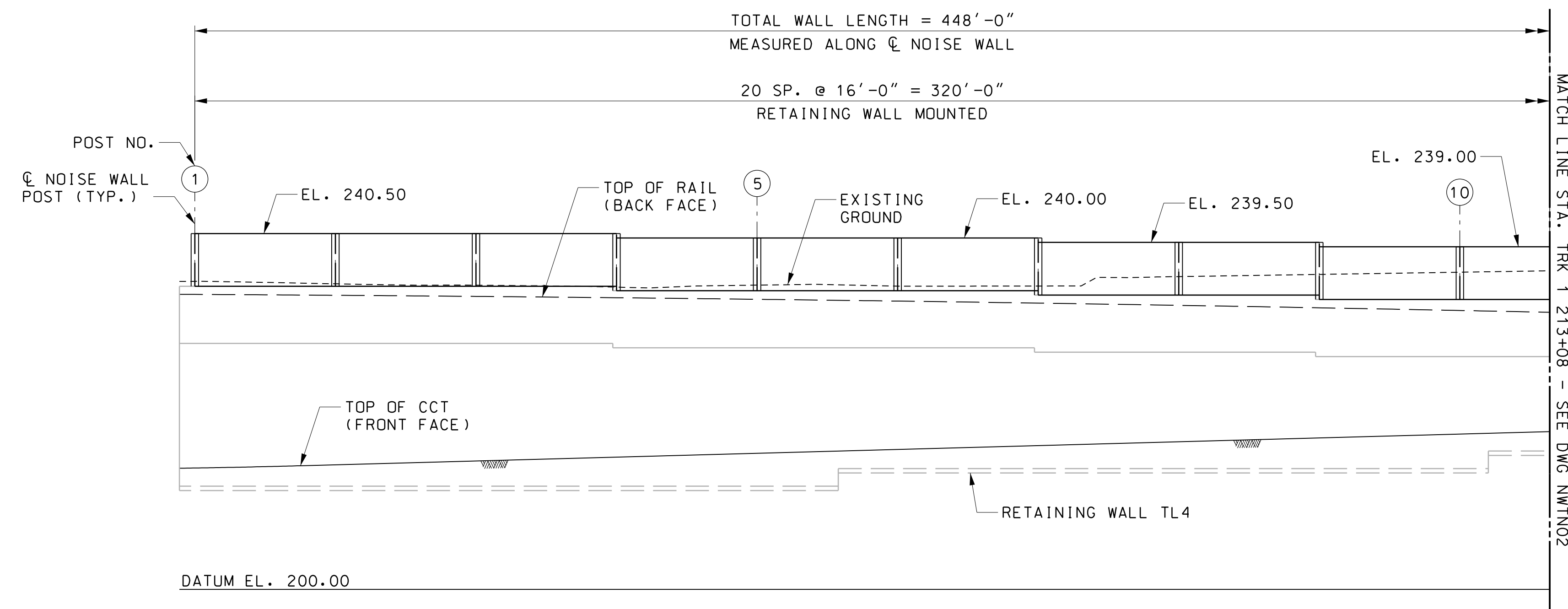


PLAN
SCALE: 1"=10'-0"

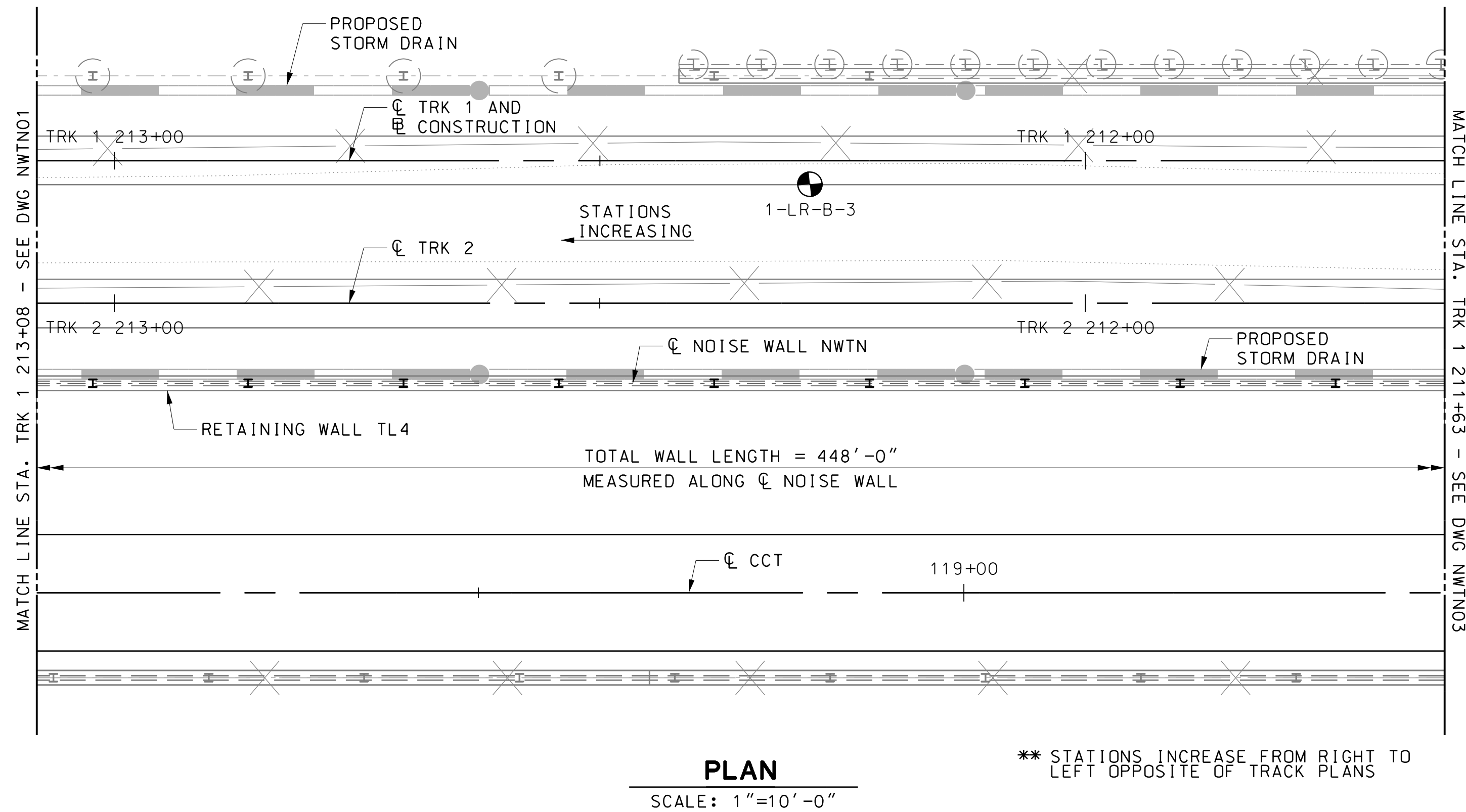
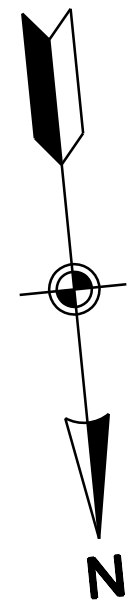
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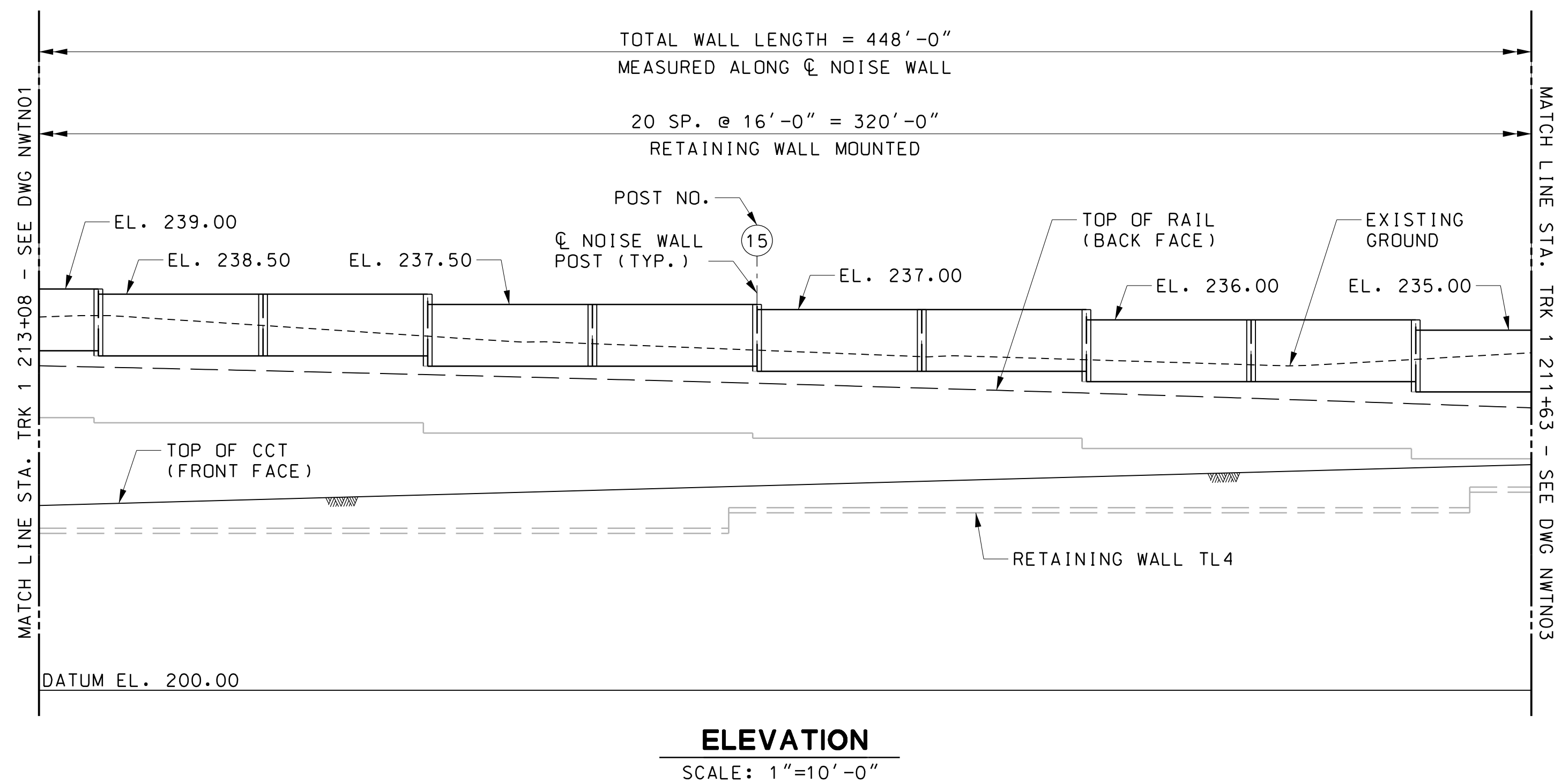


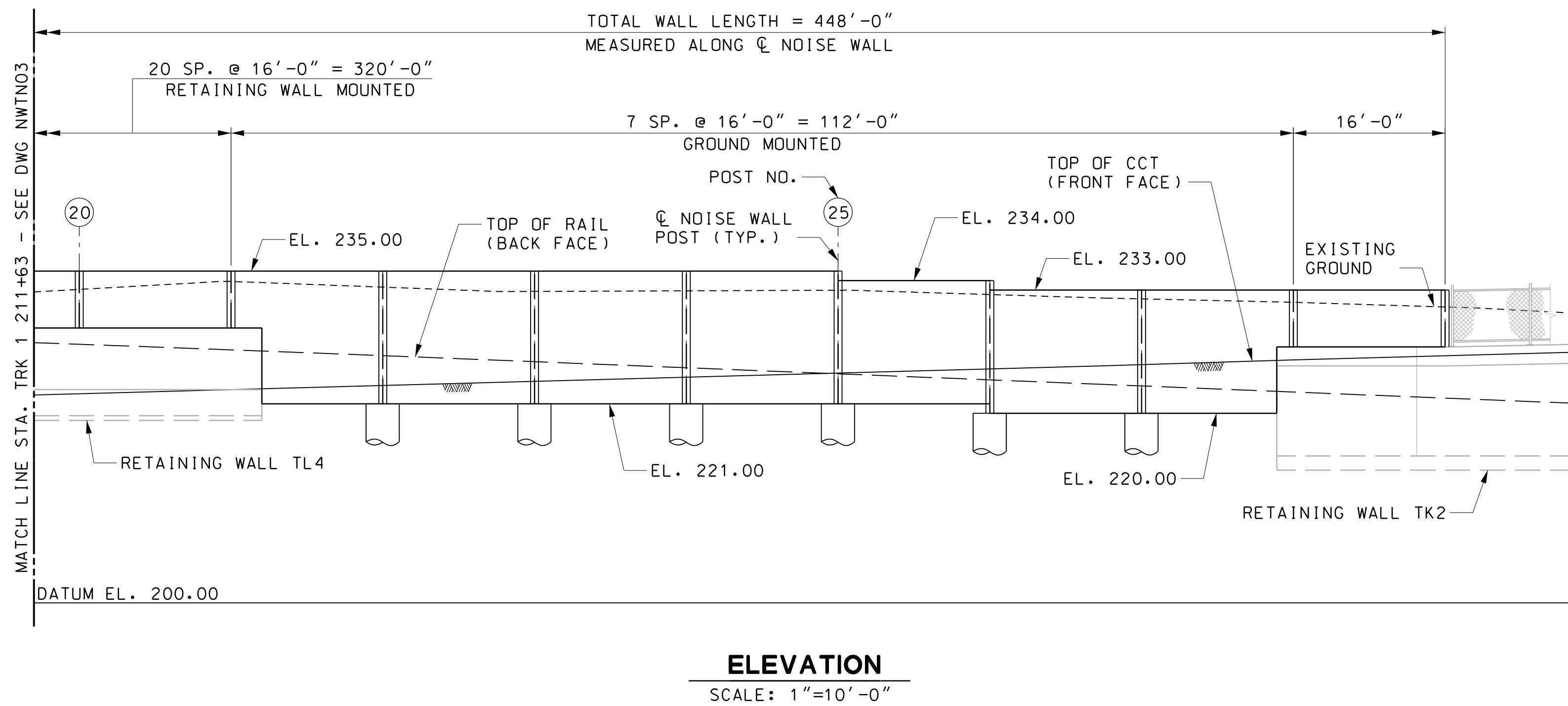
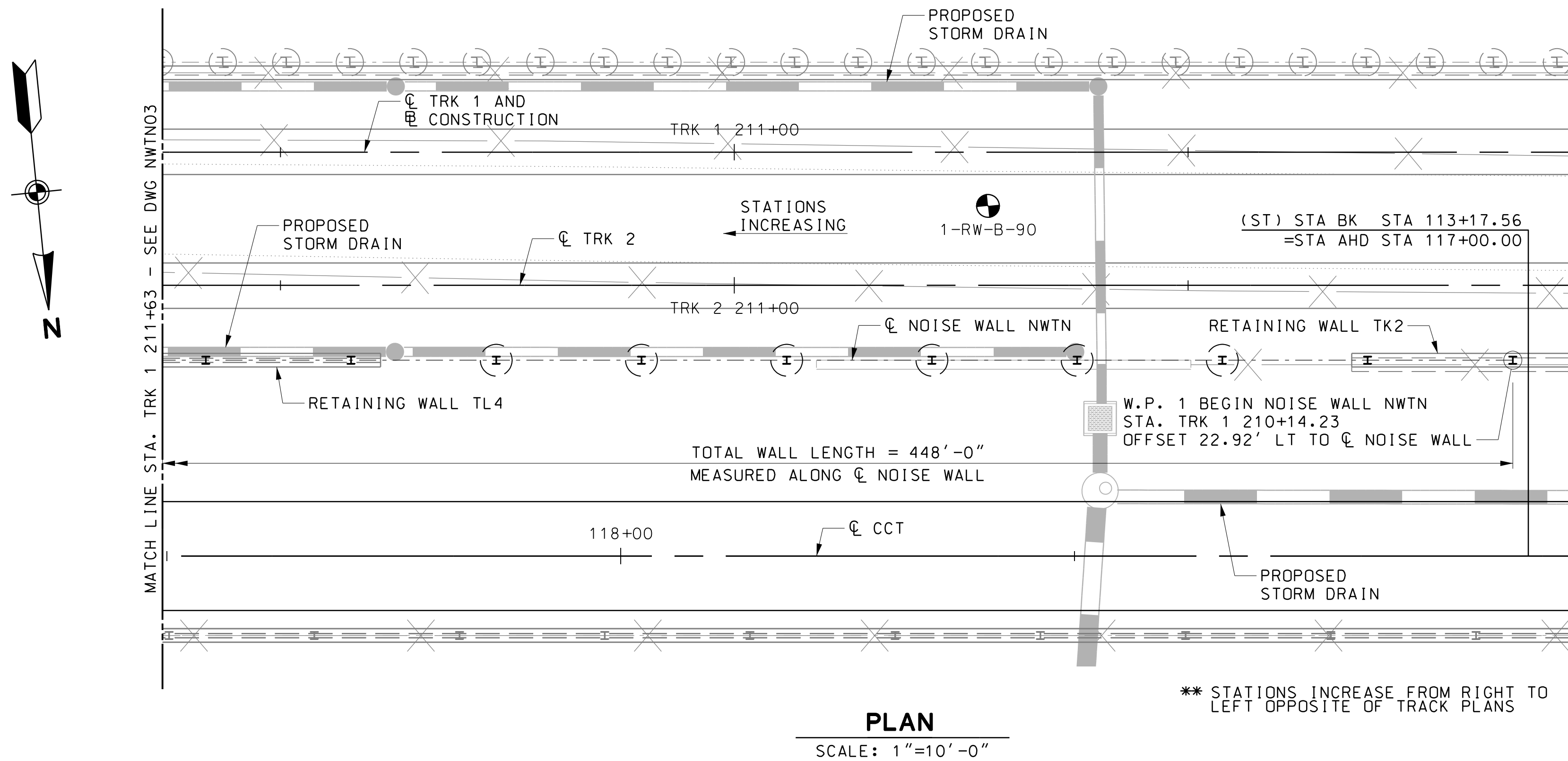
ELEVATION
SCALE: 1"=10'-0"



NOTES:

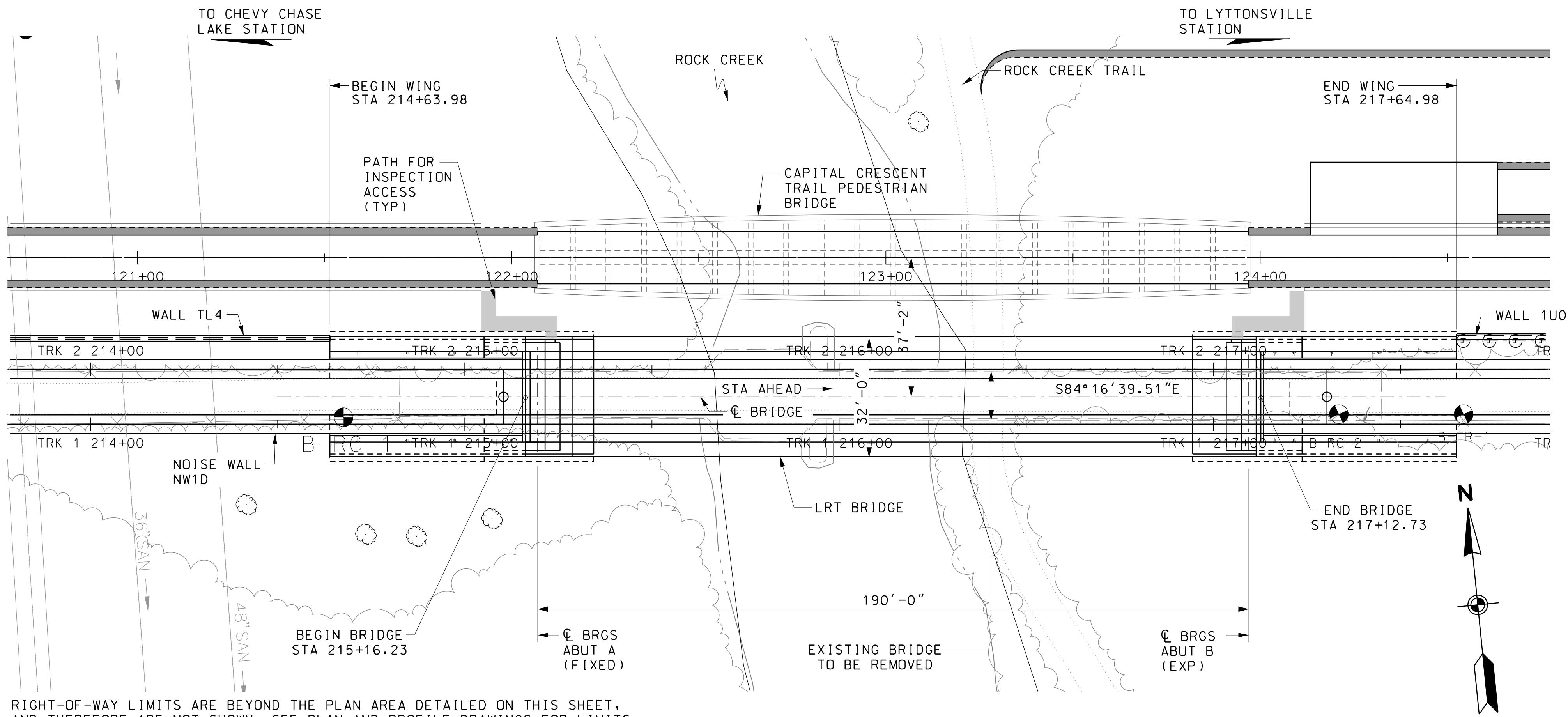
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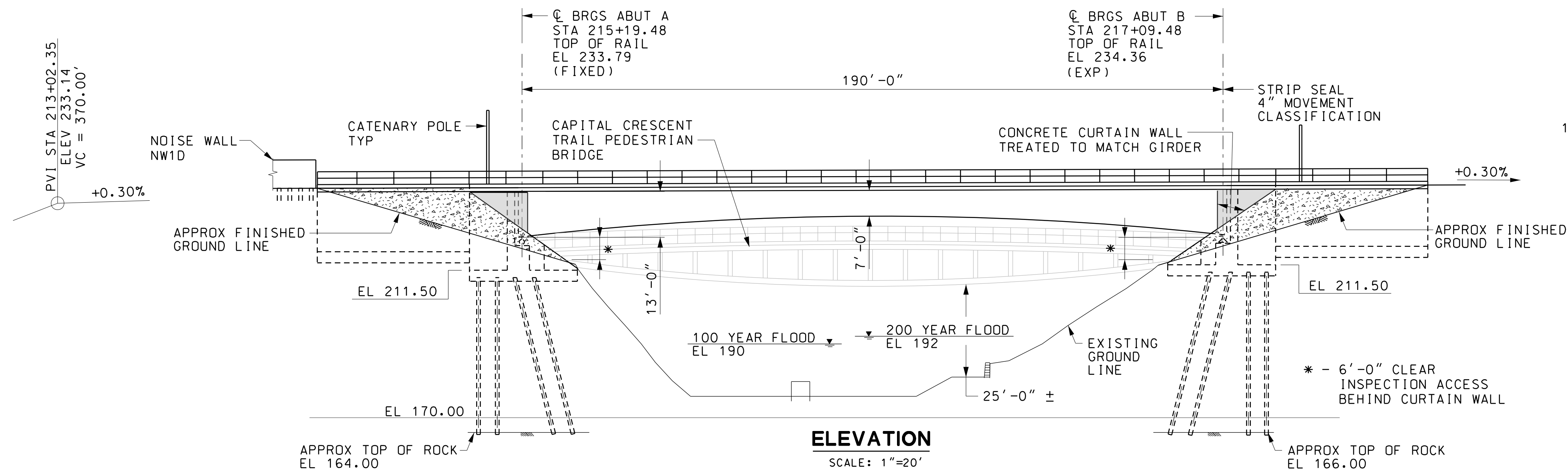


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PLAN
SCALE: 1"=20'



ELEVATION
SCALE: 1"=20'

GENERAL NOTES:

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: FY = 60,000 PSI.

ALL STRUCTURAL STEEL SHALL CONFORM TO A 709 GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS. ALL STRUCTURAL STEEL SHALL BE PAINTED.

THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.

PERMANENT LOADS: 150 PCF SUPERSTRUCTURE AND SUBSTRUCTURE CONCRETE. 490 PCF STRUCTURAL STEEL.

LIVE LOADS: ALL LRT VEHICLES SPECIFIED IN SECTION 9.2.2.2 OF THE MTA PURPLE/RED LIGHT RAIL DESIGN CRITERIA. INCLUDING LRV, CRANE CAR, WORK TRAIN, AND LOCOMOTIVE.

WIND LOADS: IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AERIAL STRUCTURE).

ALL CAST-IN-PLACE CONCRETE FOR ABUTMENT BACKWALLS, SAFETY WALKS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI) ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

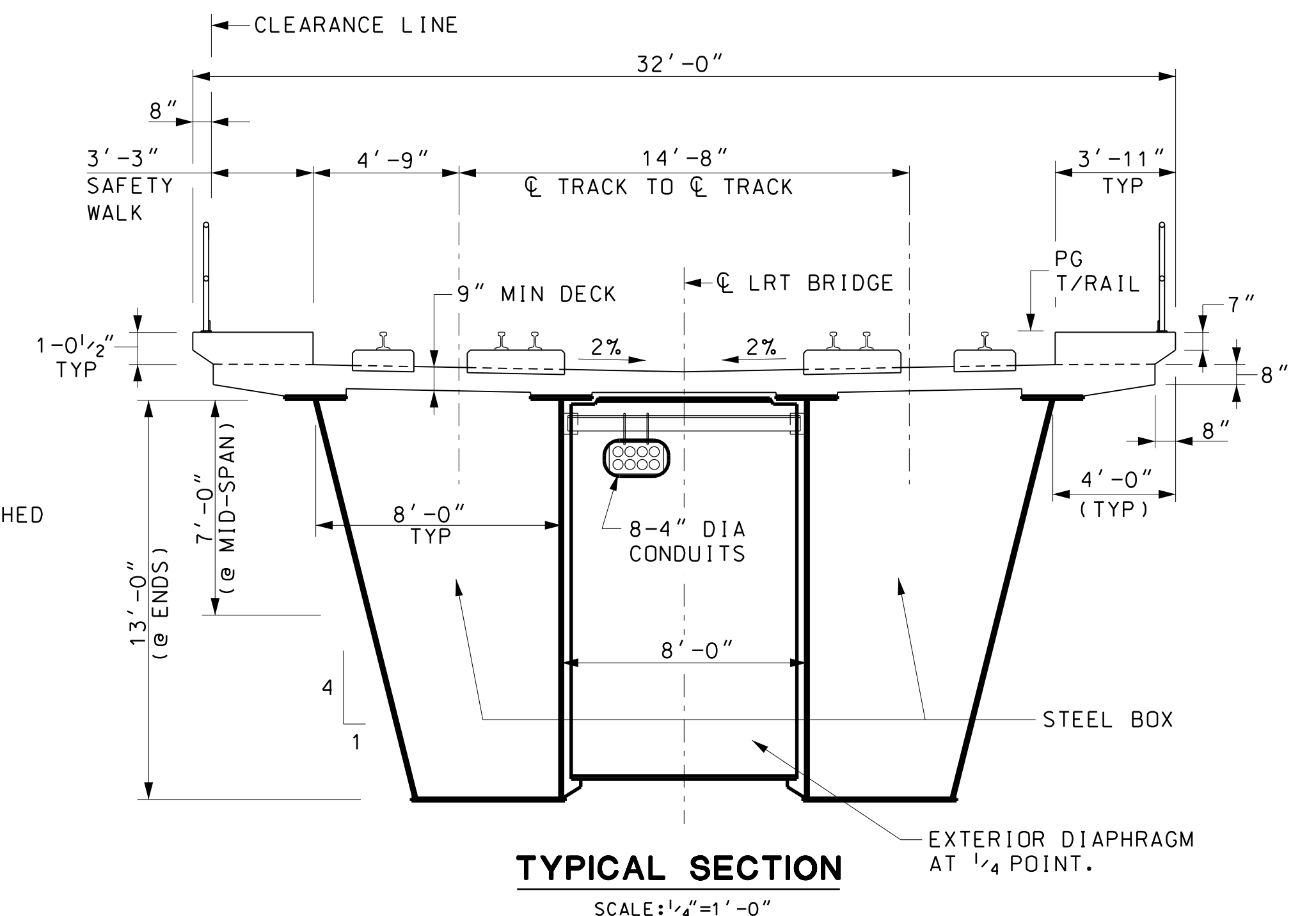
REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

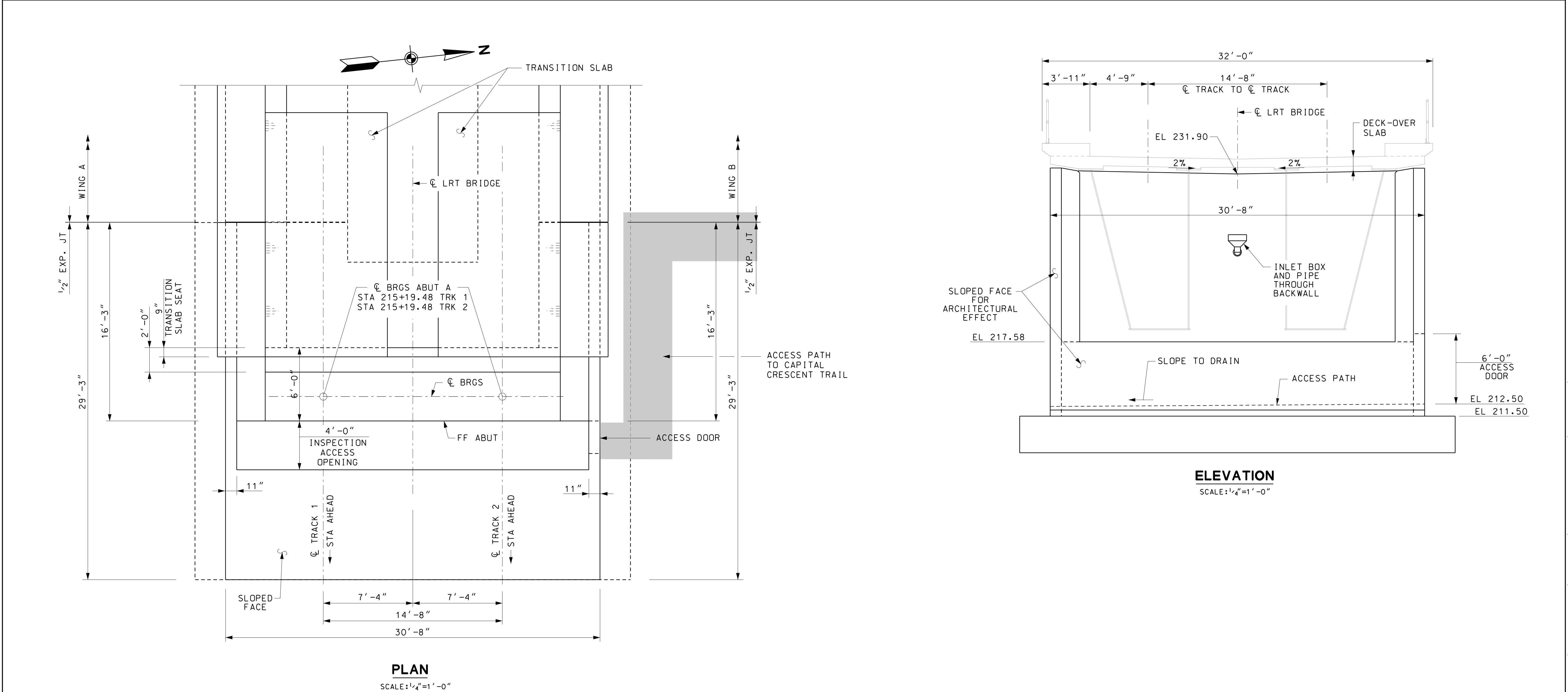
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

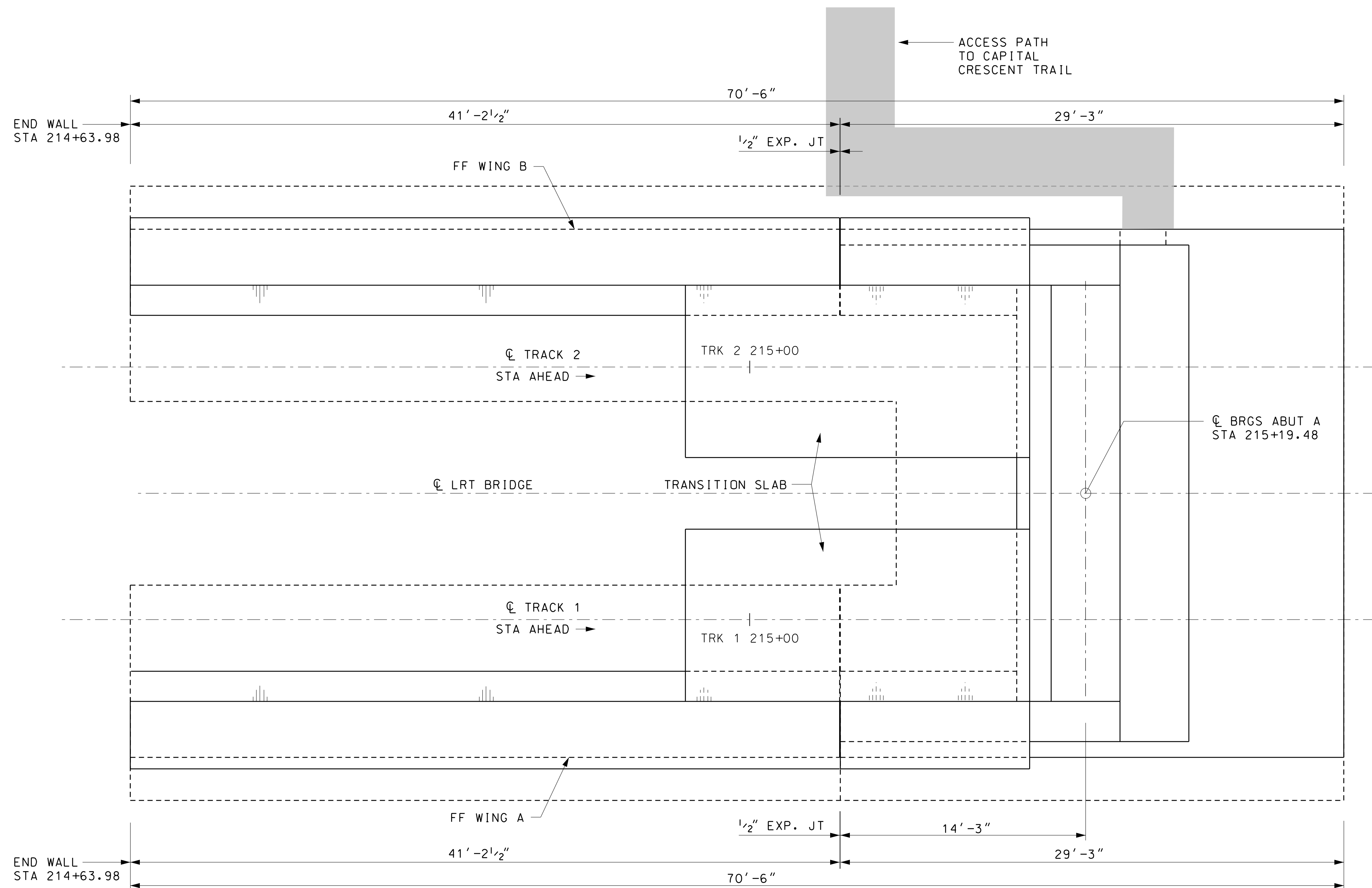
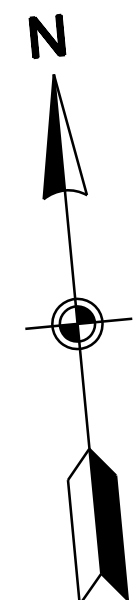
REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:

- ENTIRE SUPERSTRUCTURE
- ABUTMENT BACKWALLS
- CHEEKWALLS
- ABUTMENT BRIDGE SEAT AREAS



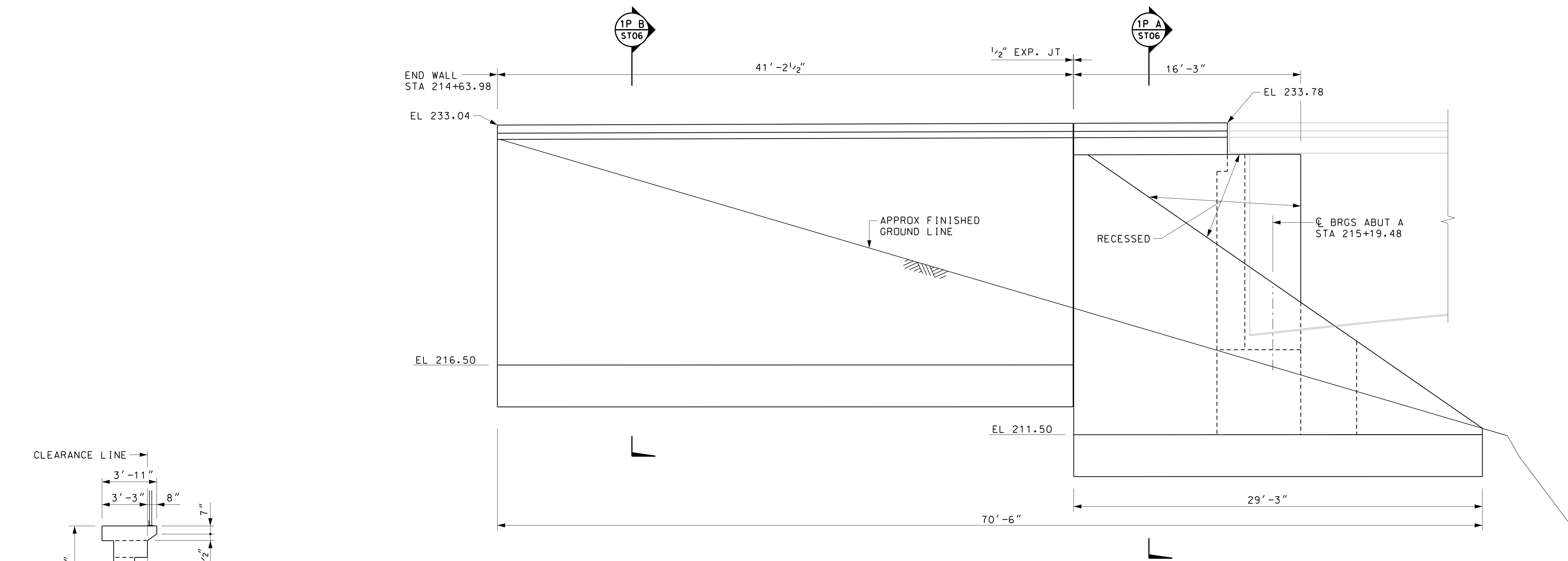
TYPICAL SECTION
SCALE: 1/4"=1'-0"





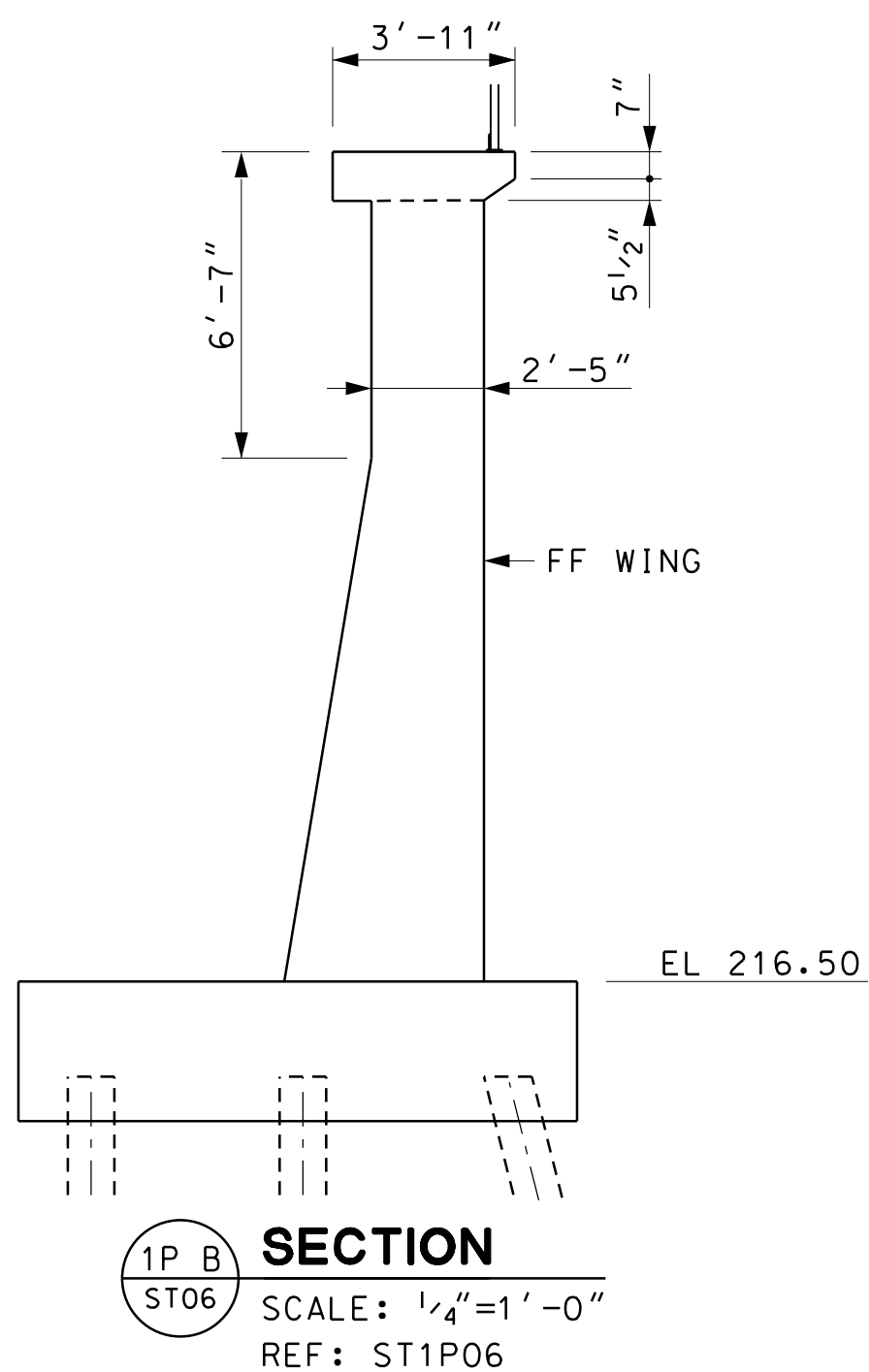
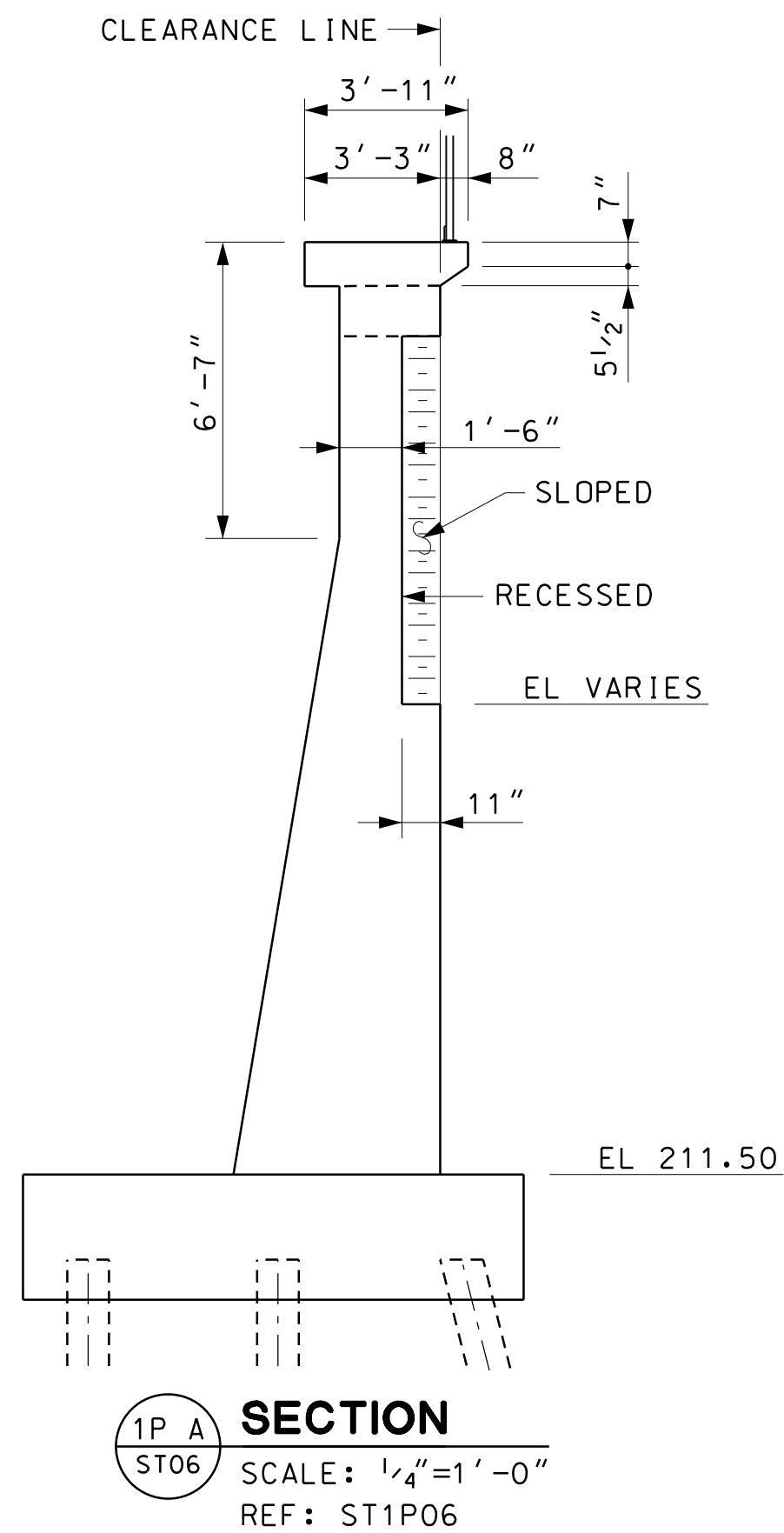
ABUTMENT A - WING PLAN

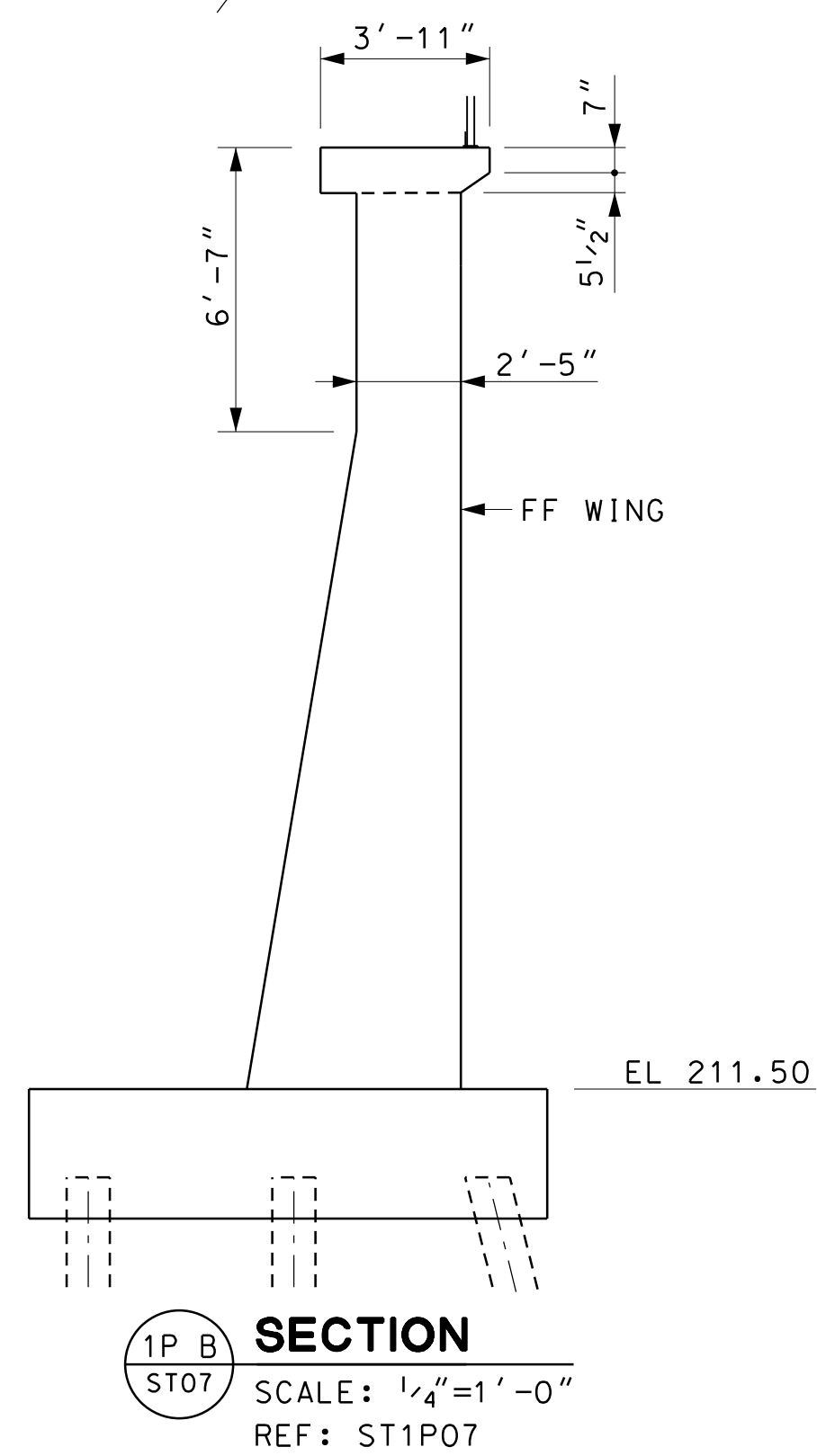
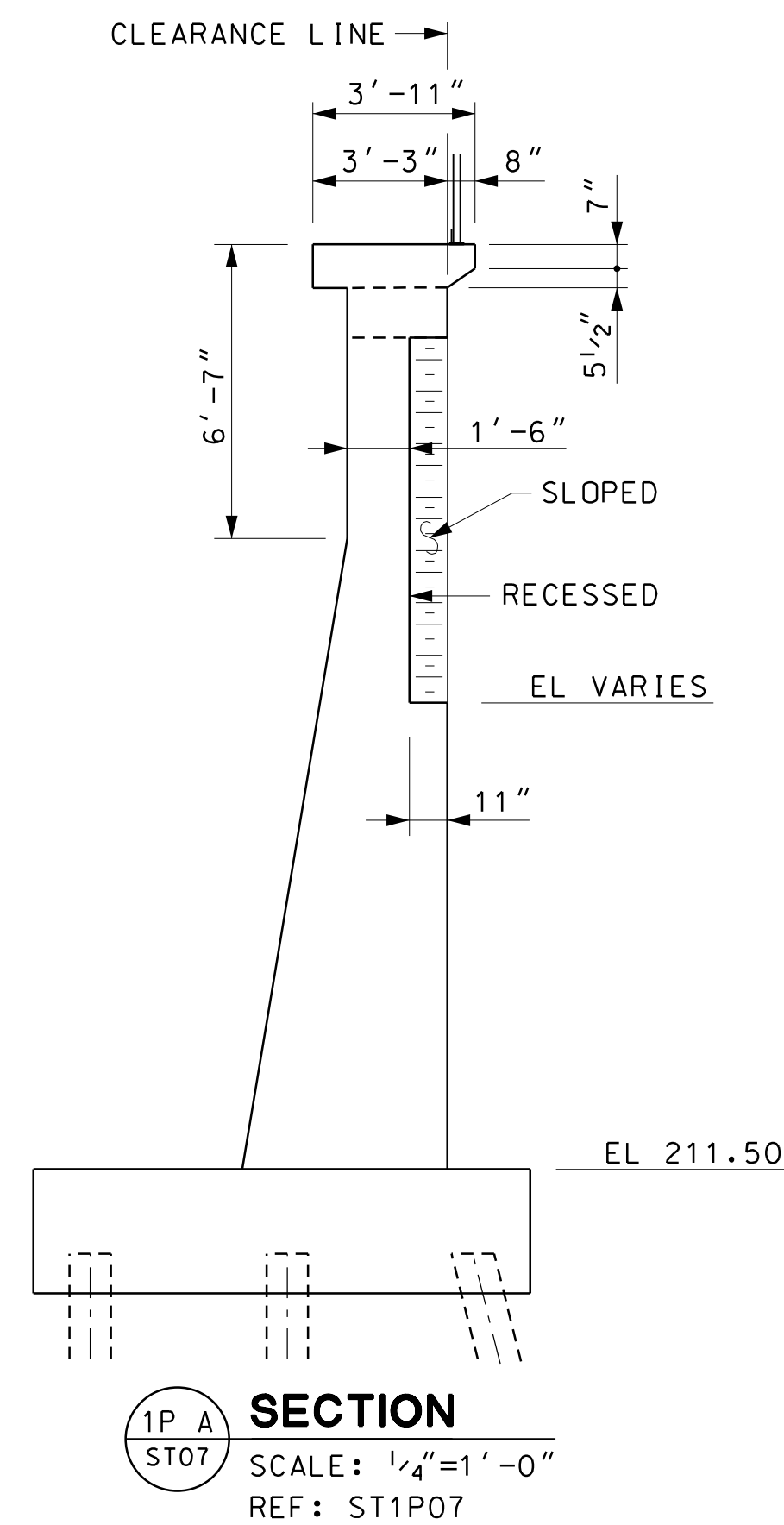
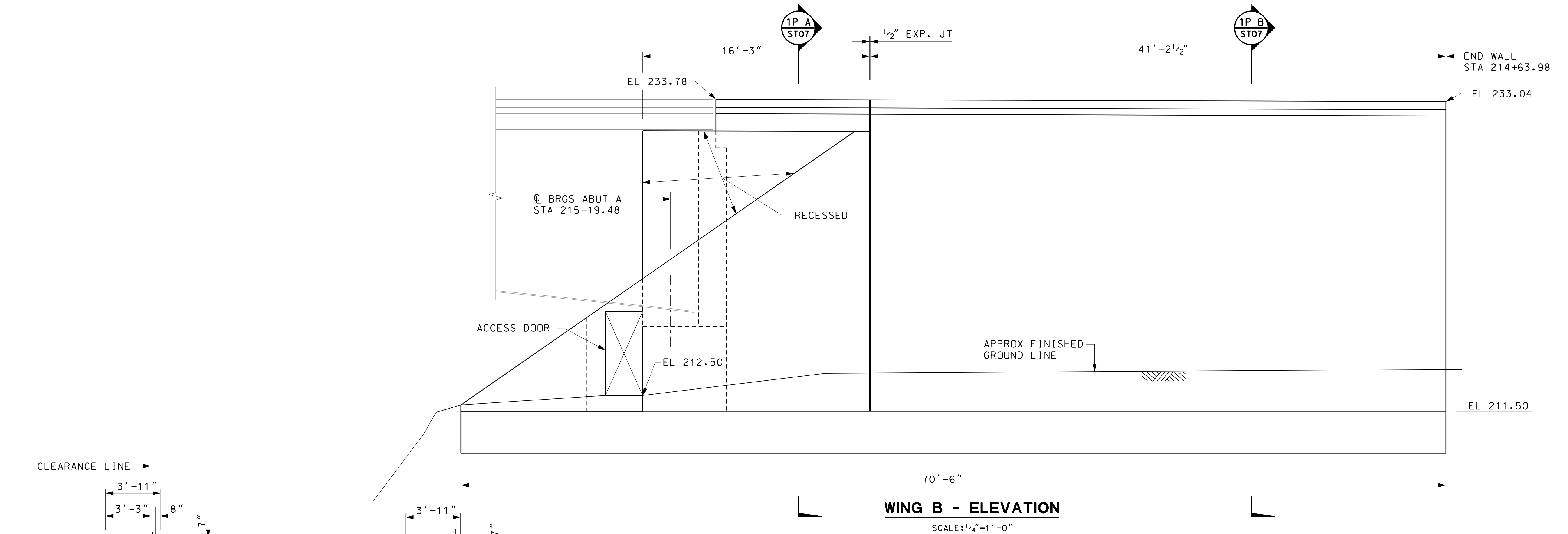
SCALE: 1/4"=1'-0"

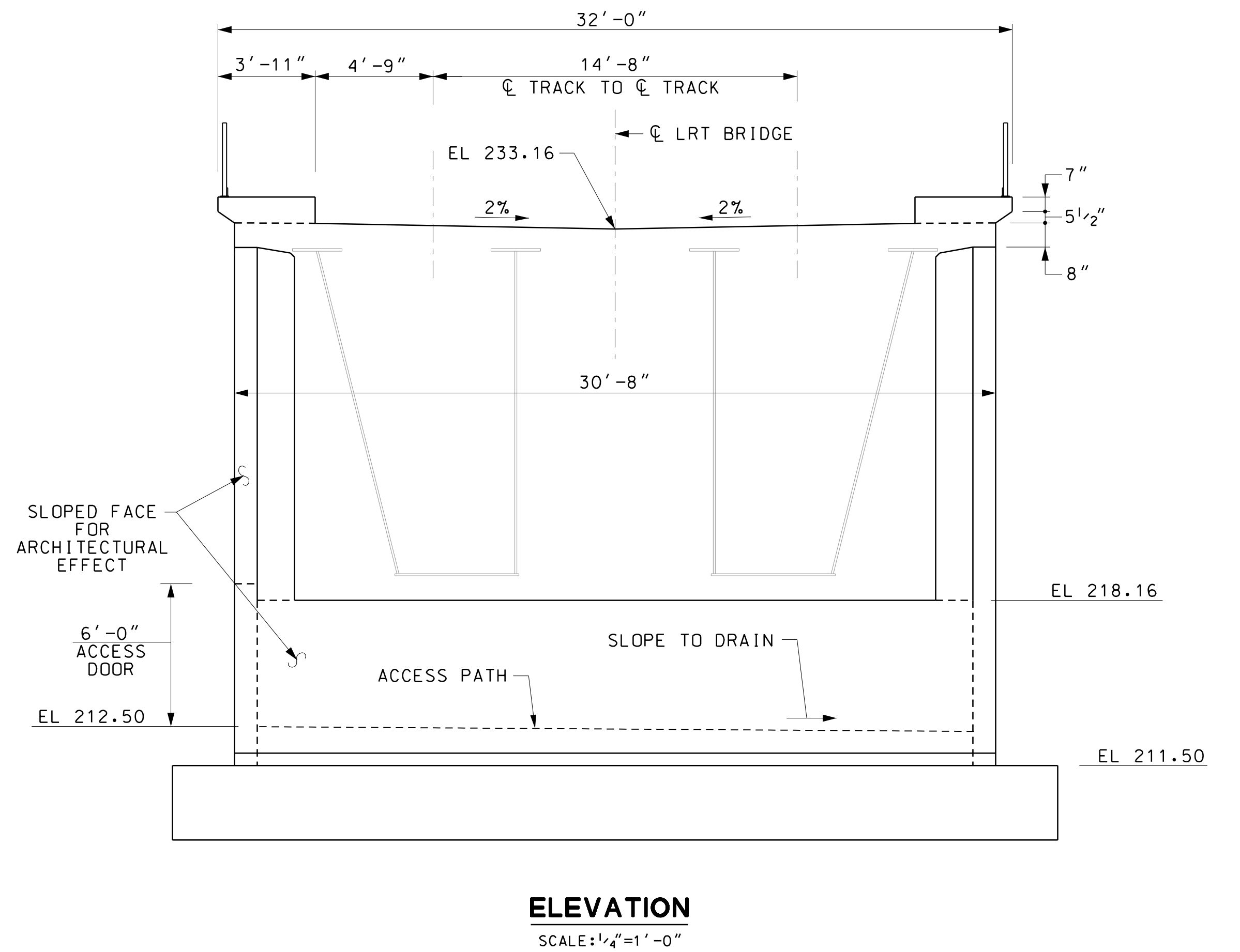
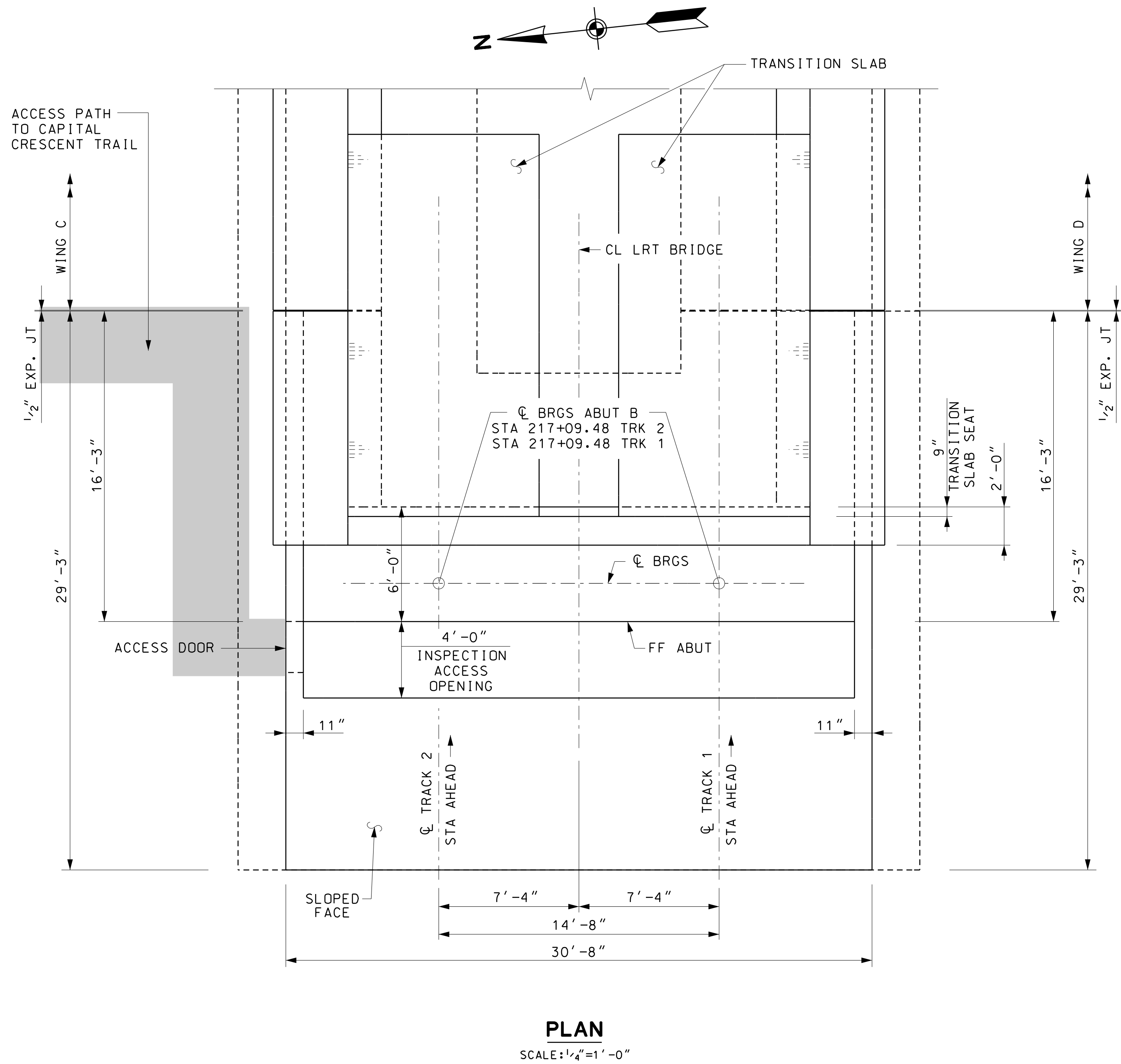


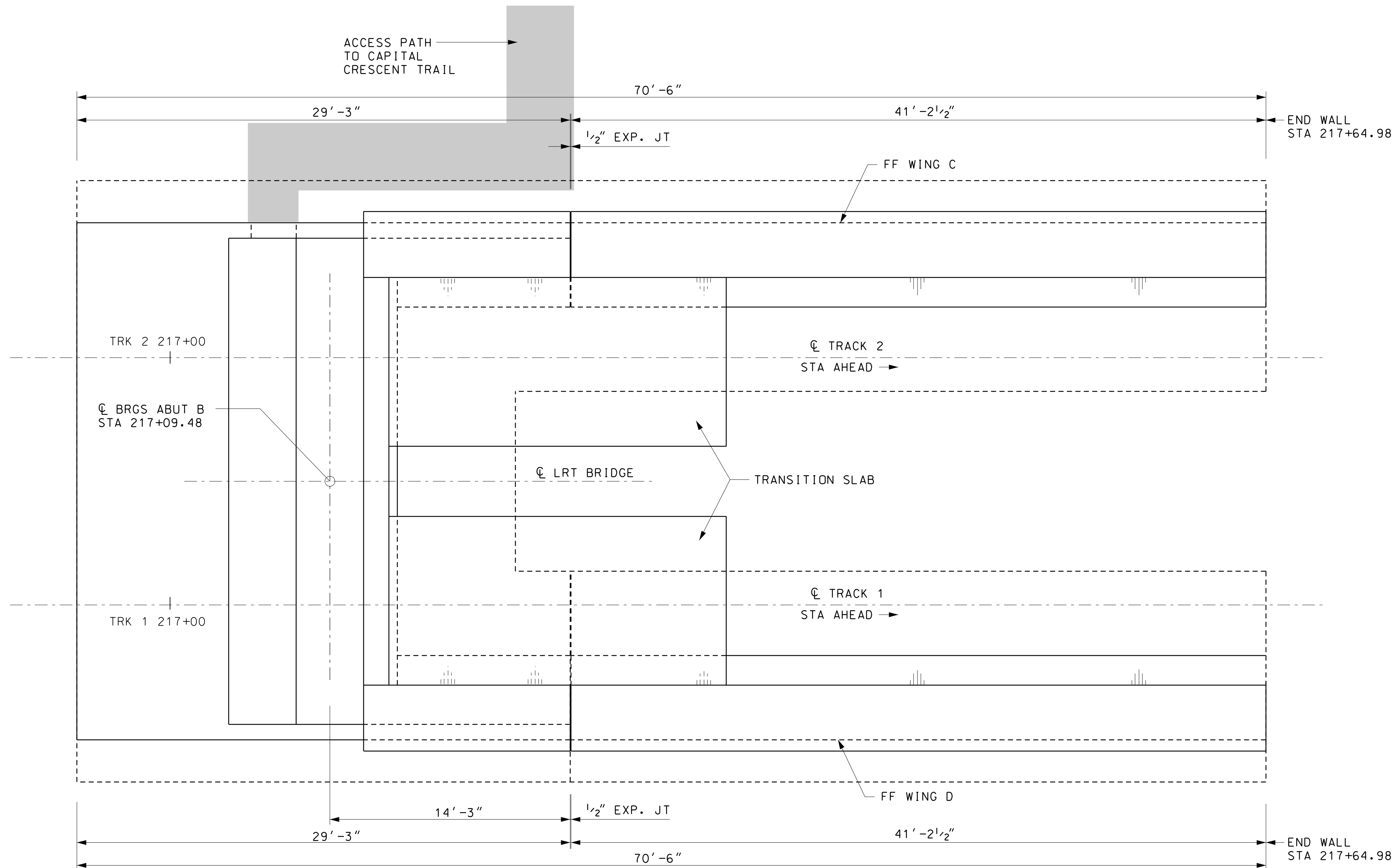
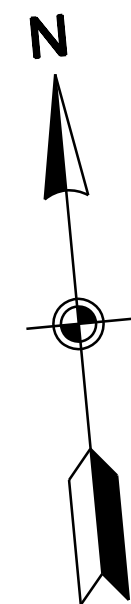
WING A - ELEVATION

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

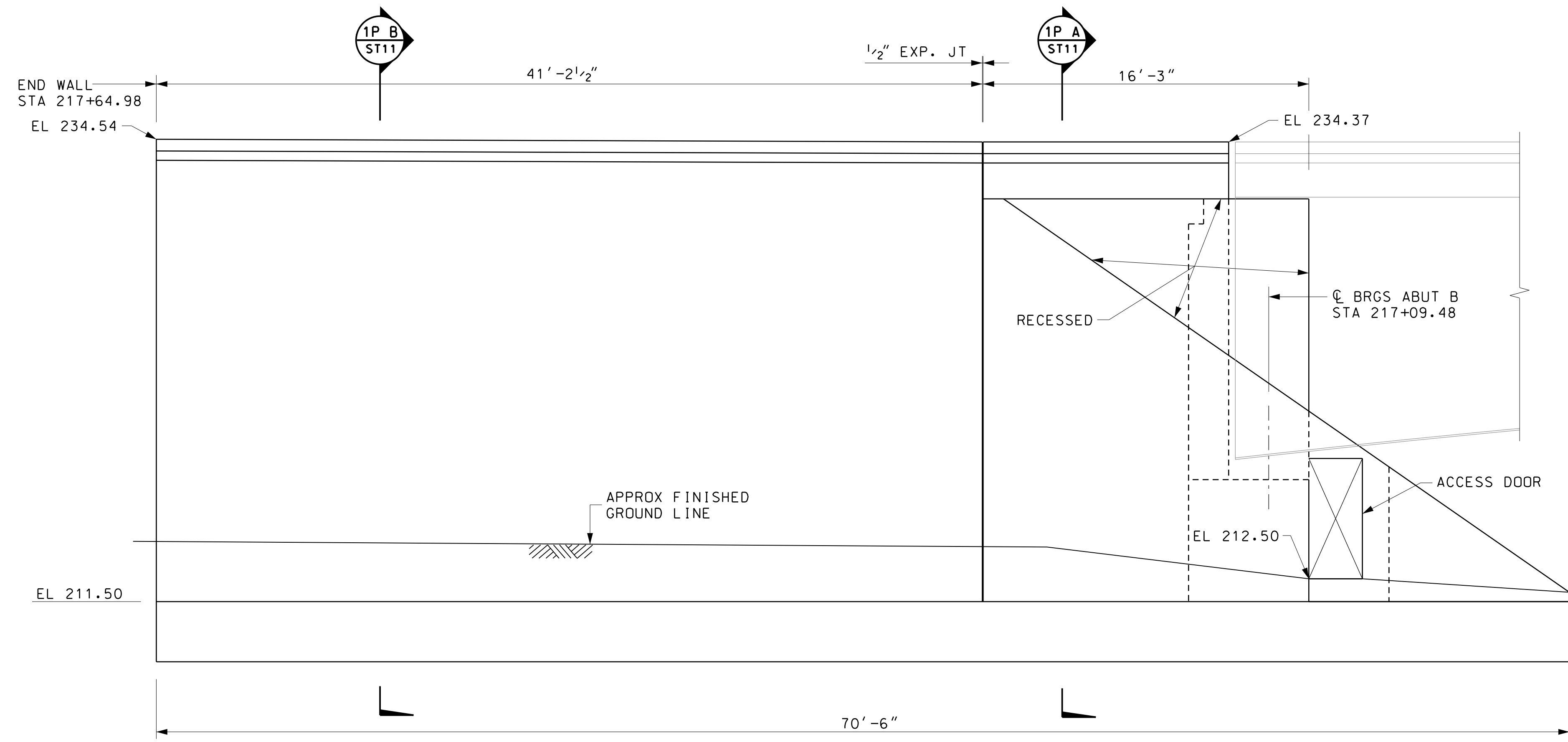




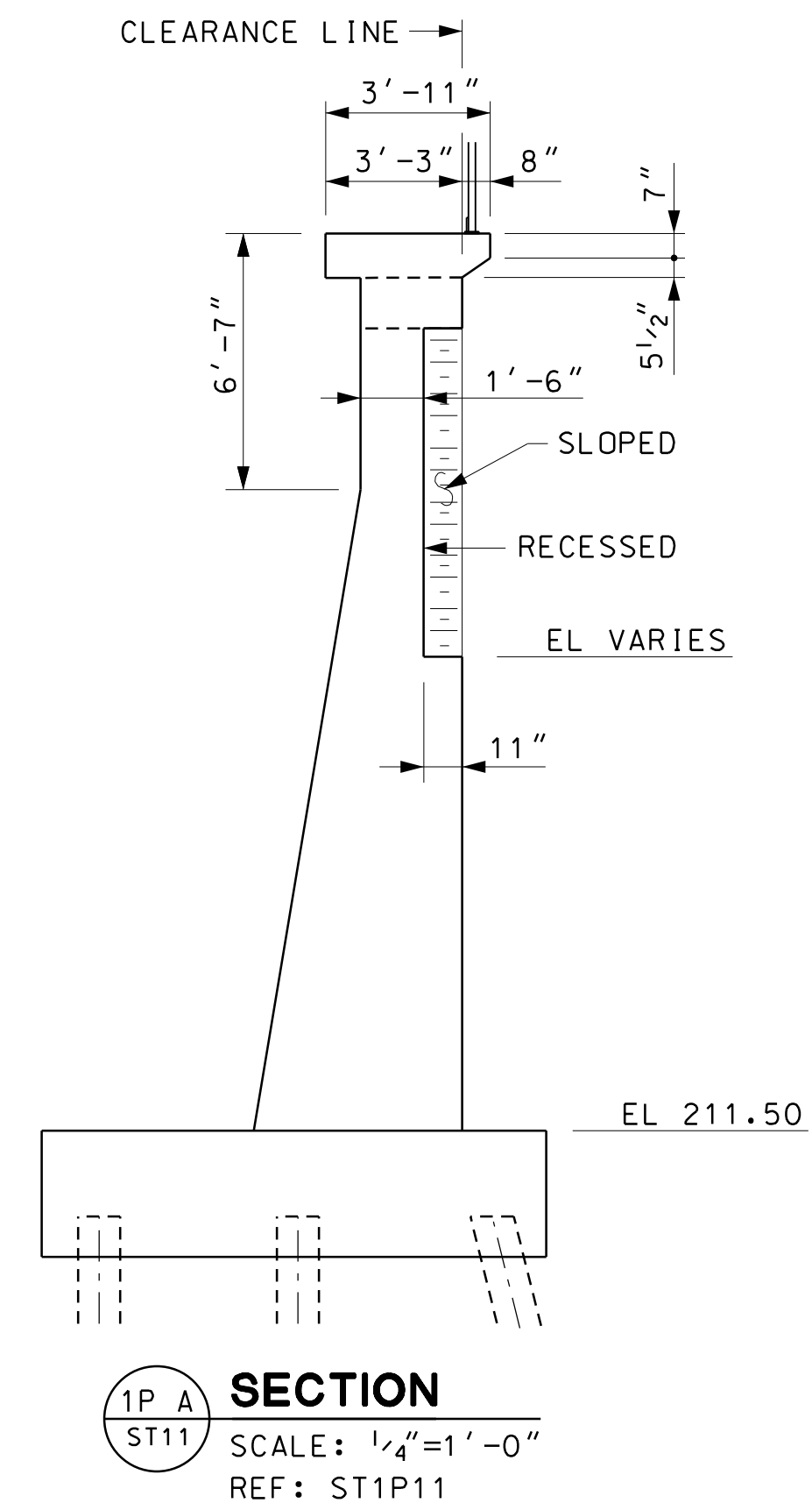
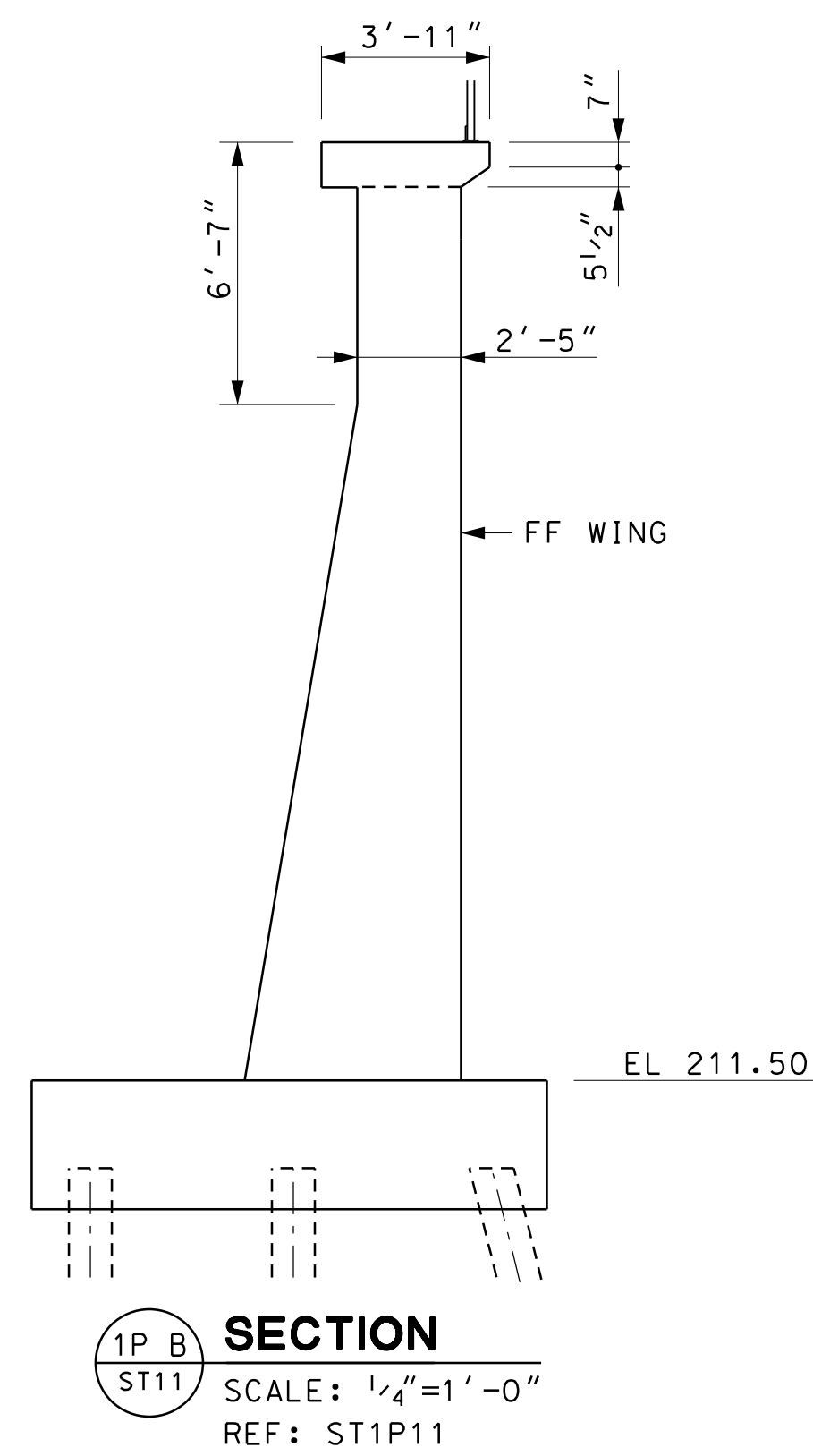


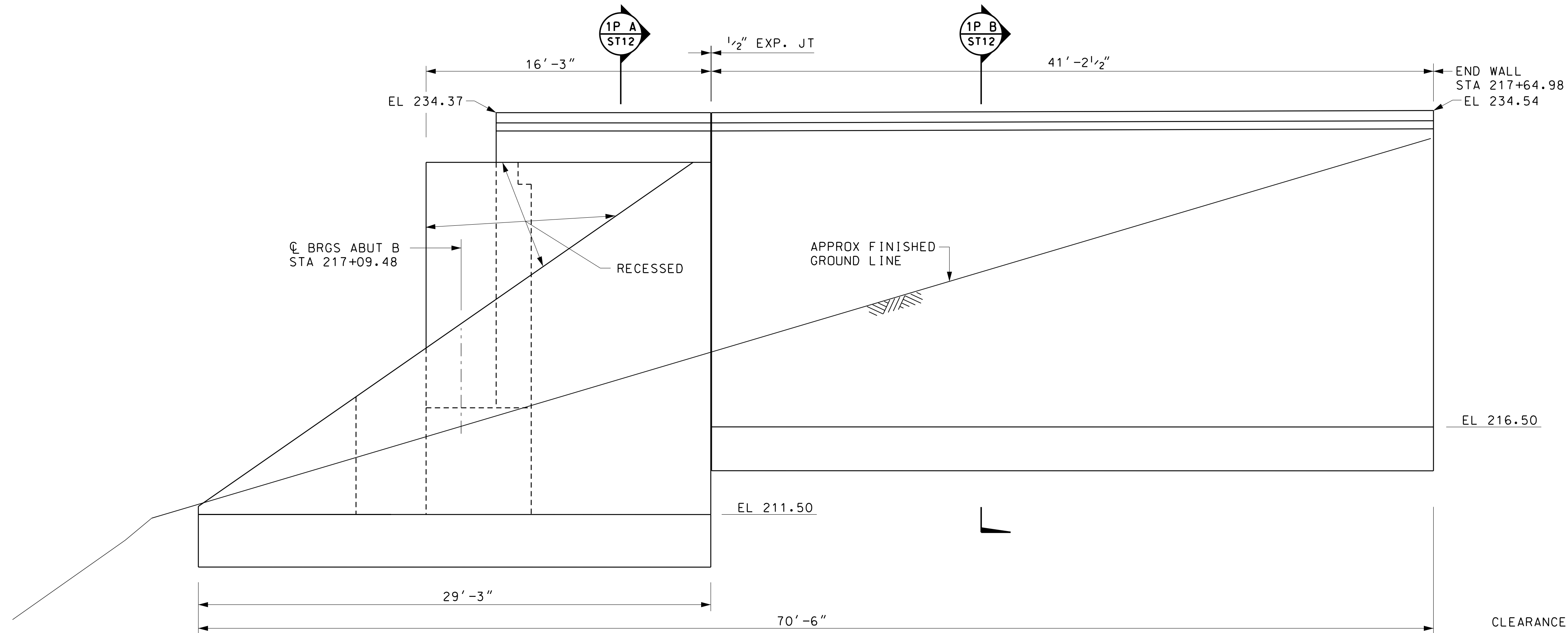


ABUTMENT B - WING PLAN
SCALE: 1/4"=1'-0"

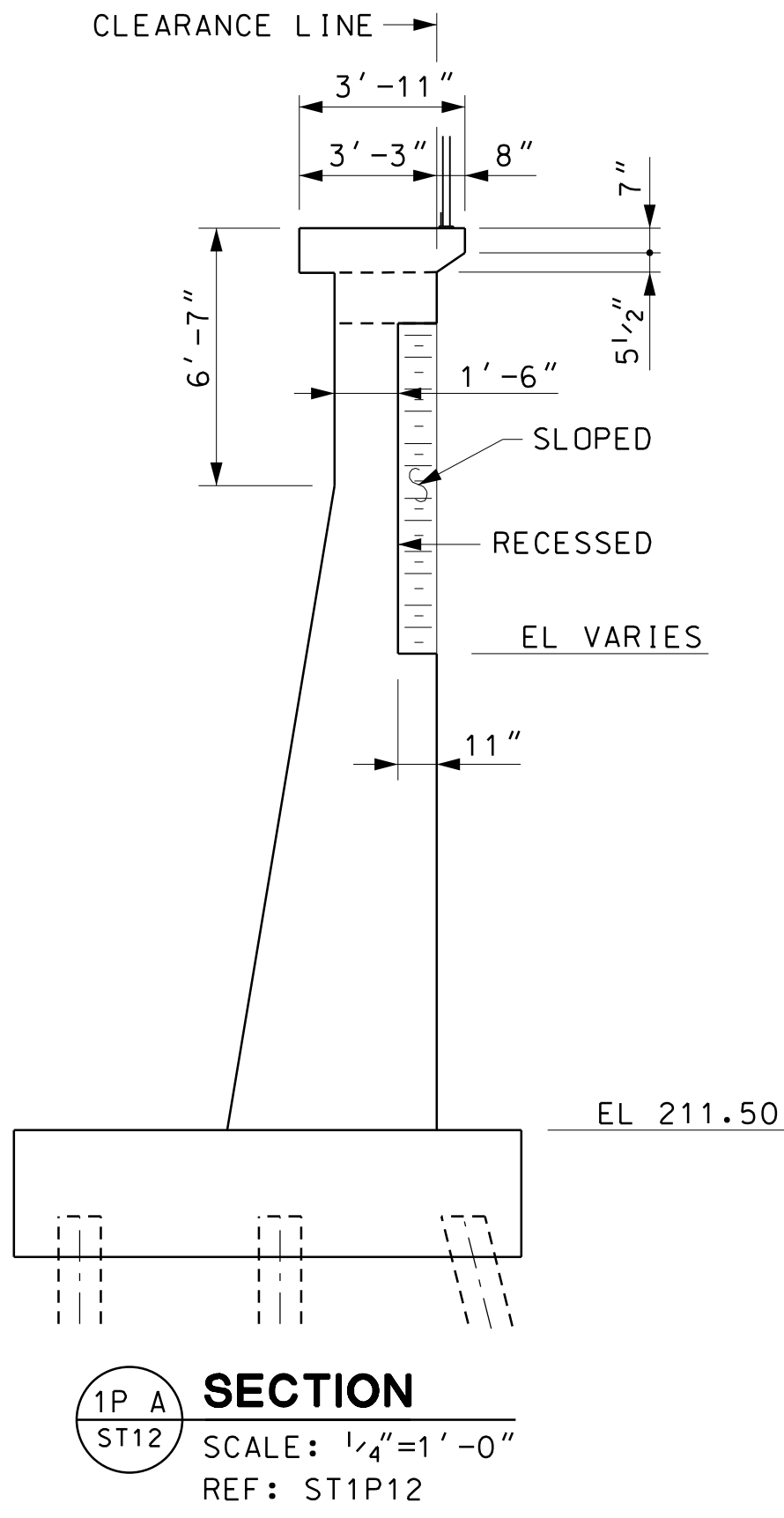
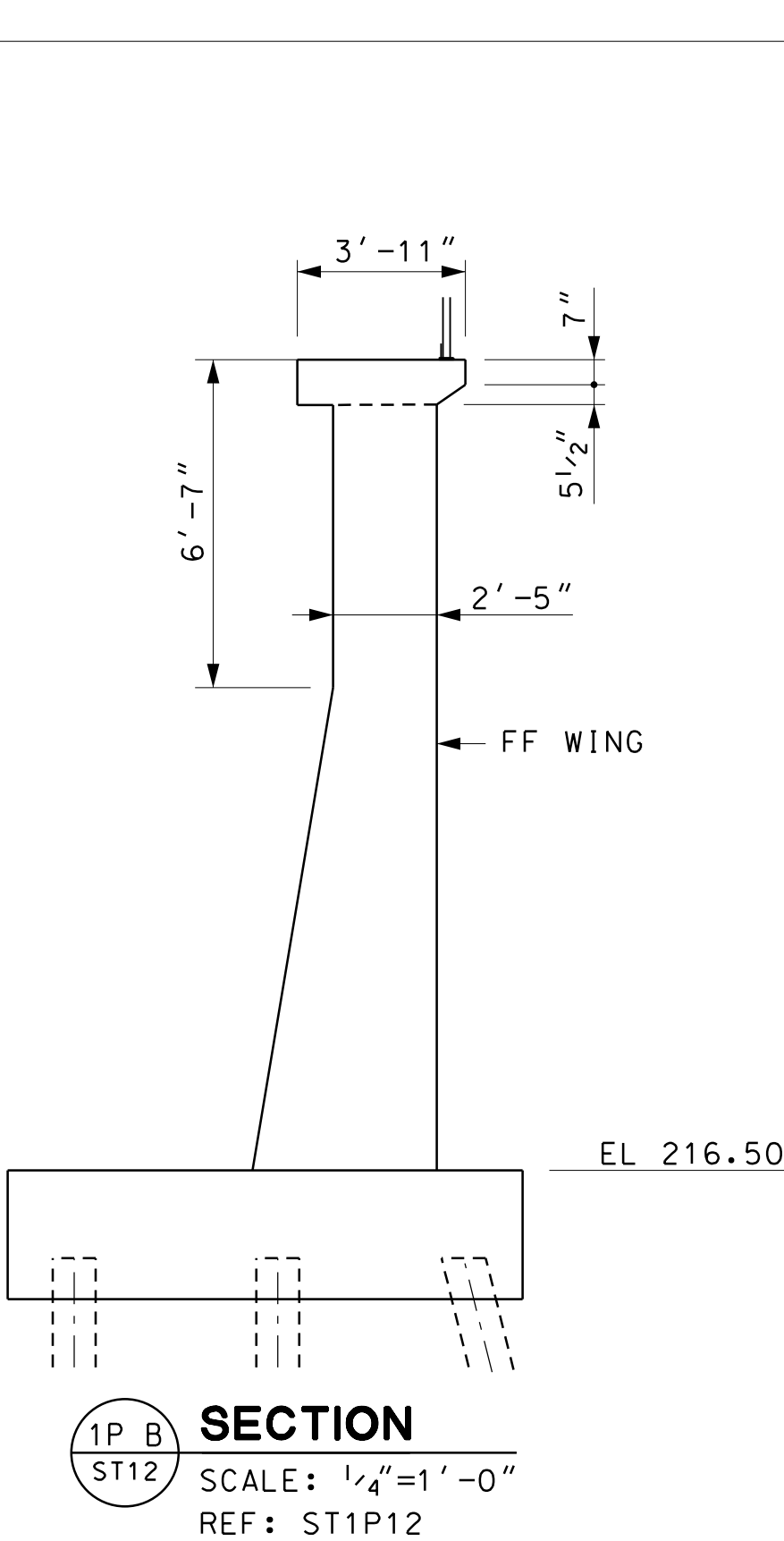


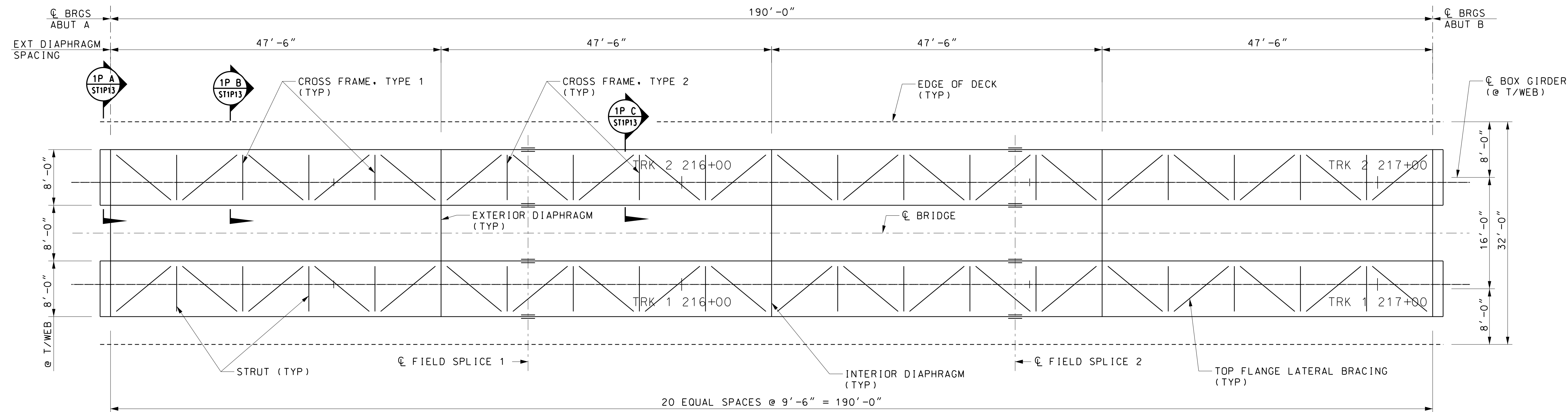
WING C - ELEVATION
SCALE: 1/4"=1' - 0"



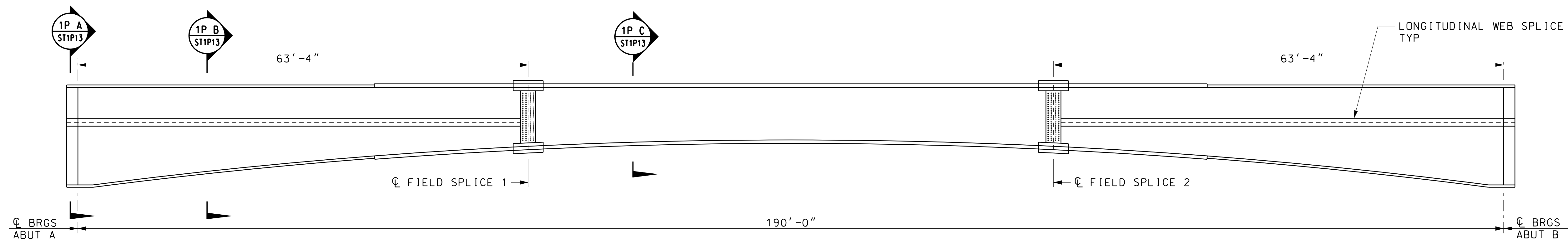


WING D - ELEVATION
SCALE: 1/4"=1'-0"

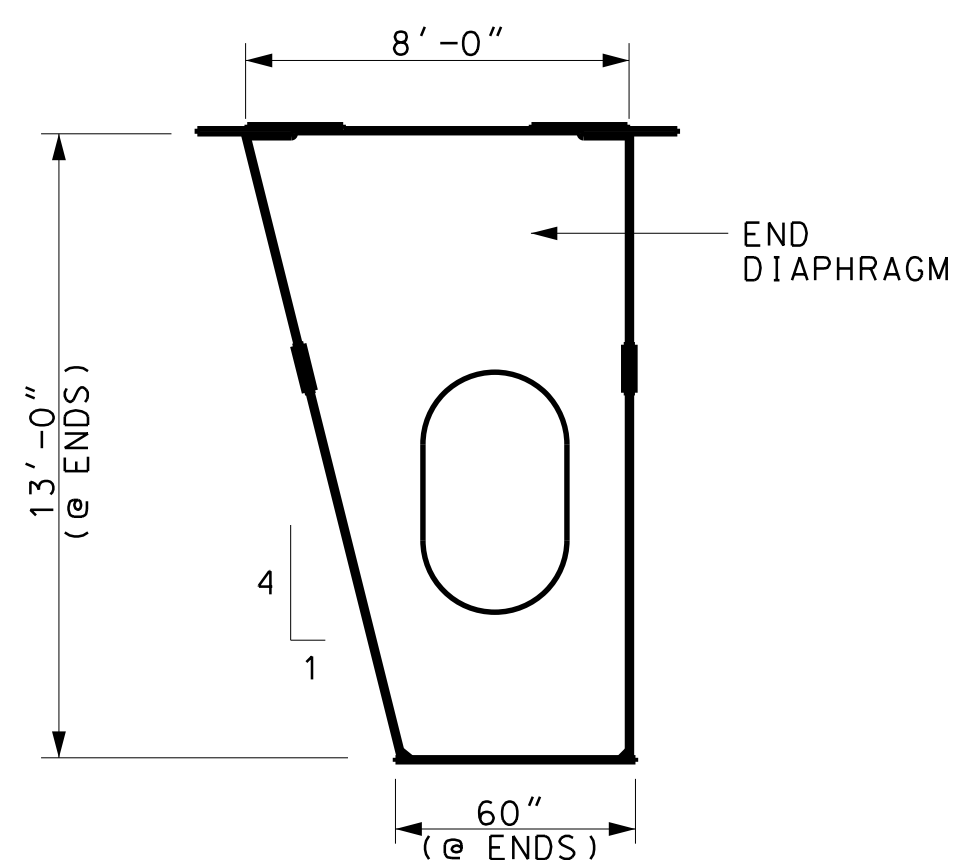




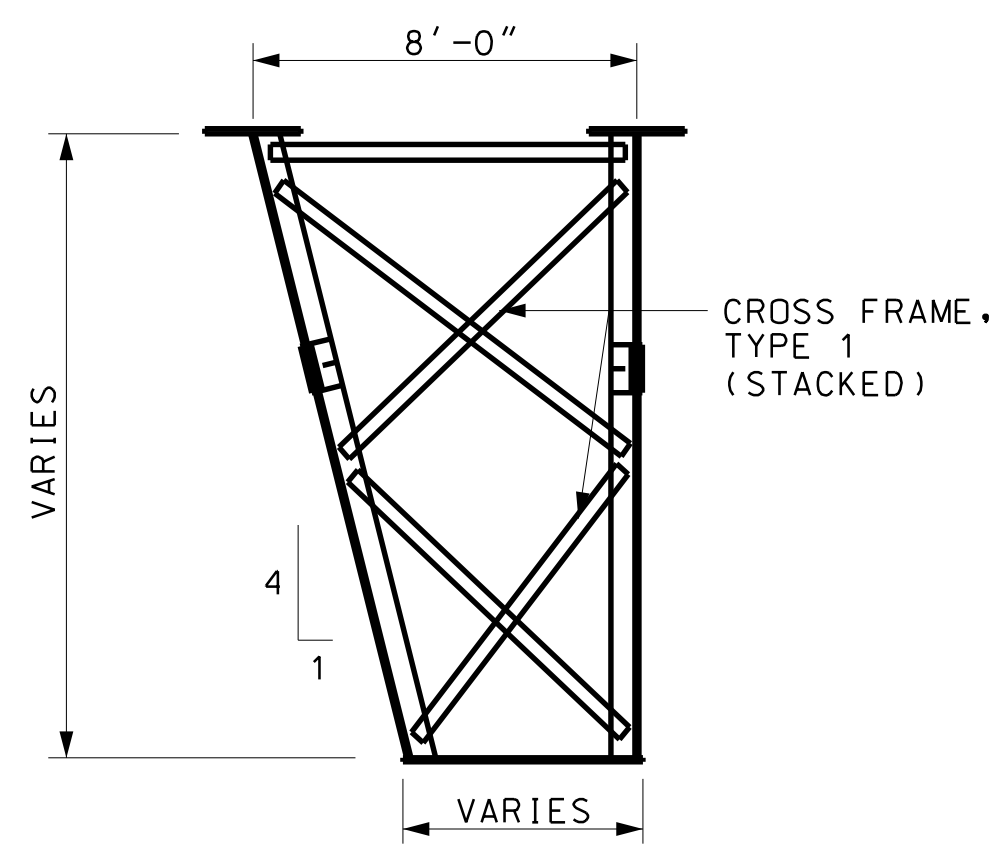
FRAMING PLAN
SCALE: 1/8"=1'-0"



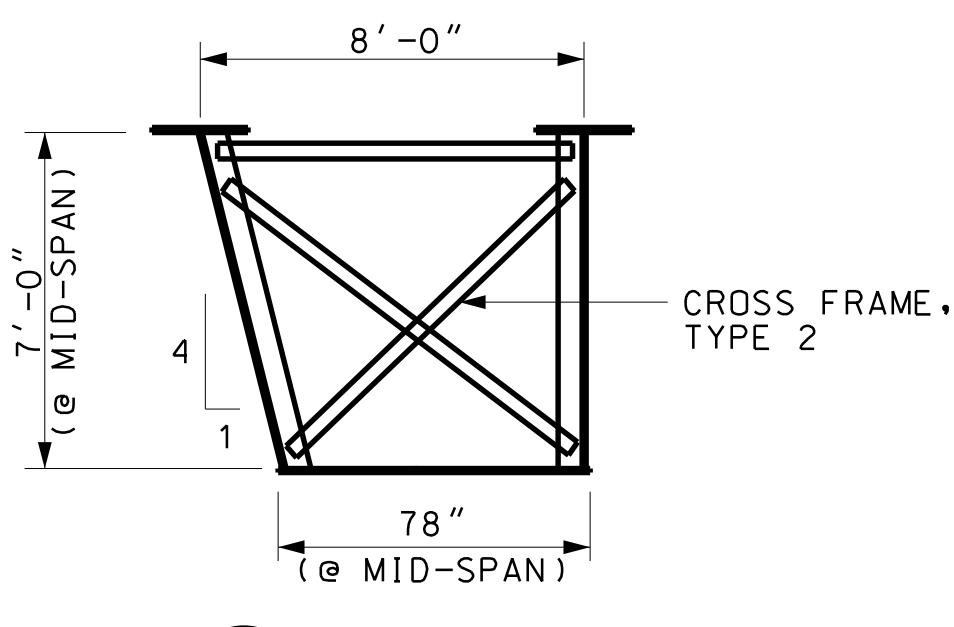
GIRDER ELEVATION
NOT TO SCALE



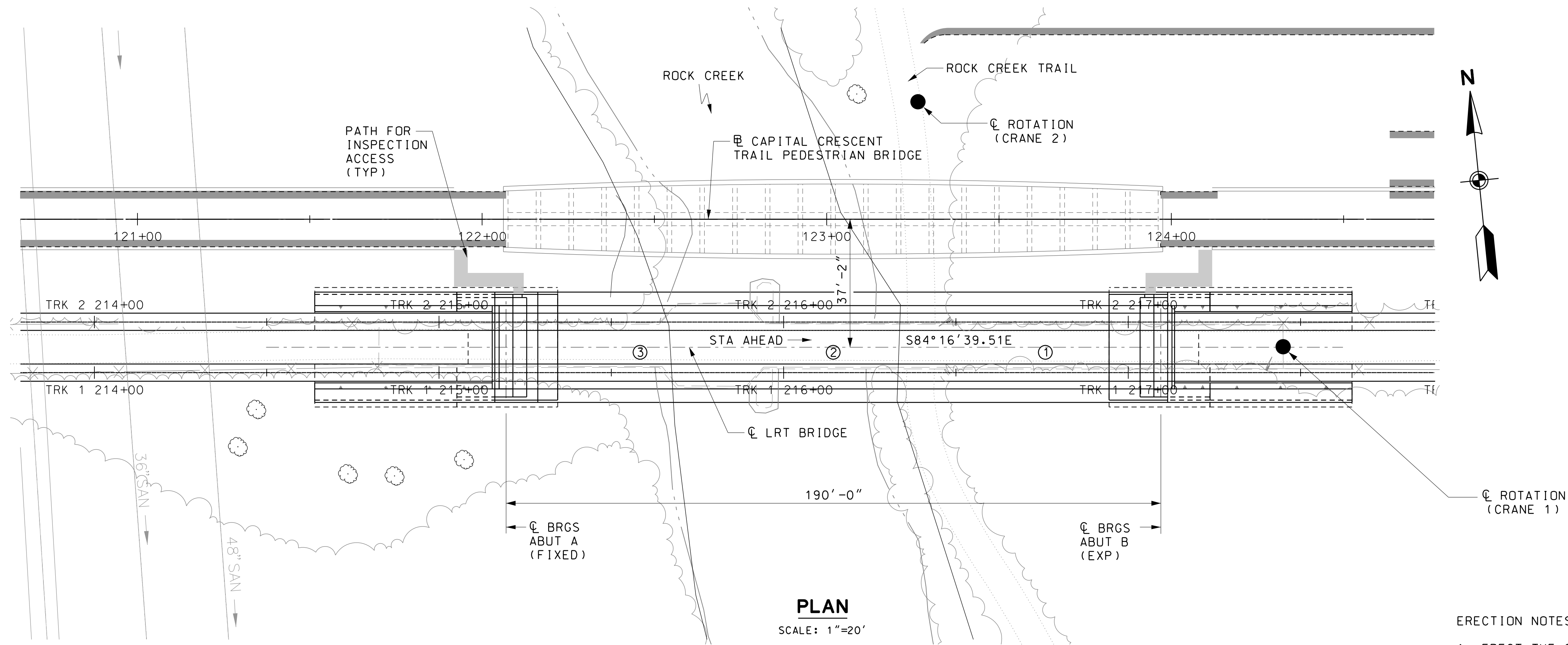
SECTION
SCALE: 1/4"=1'-0"
REF: ST1P13



SECTION
SCALE: 1/4"=1'-0"
REF: ST1P13

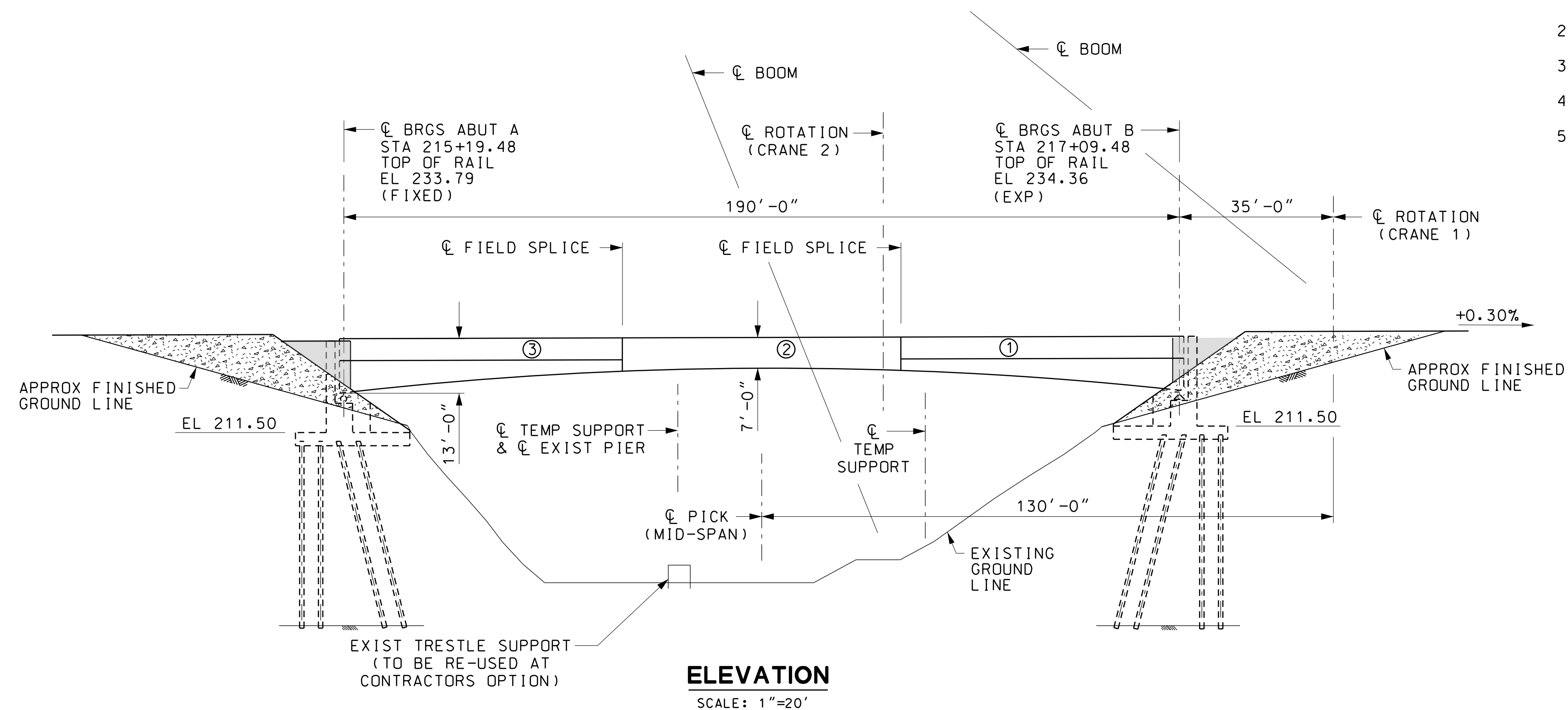


SECTION
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REF: ST1P13



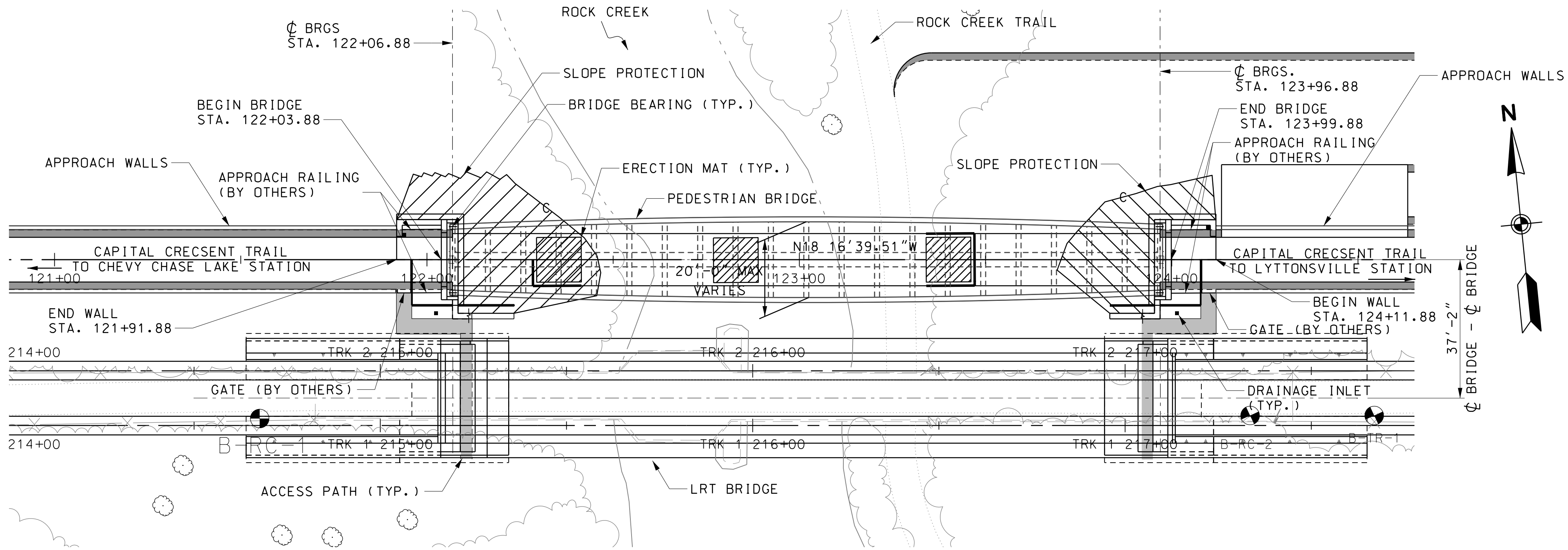
ERECTION NOTES:

1. ERECT THE STRUCTURAL STEEL FROM EITHER THE LRT ROADBED OR GRADED AREA NEAR THE HAUL ROAD IN THE NORTHEAST QUADRANT OF THE SITE.
2. ERECTION CRANES ARE NOT PERMITTED WITHIN THE SLOPES.
3. USE TWO TEMPORARY TOWERS ONLY AS INDICATED.
4. ALTERNATE ERECTION SCHEMES ARE PERMITTED ONLY AS APPROVED BY THE ENGINEER.
5. TOTAL STRUCTURAL STEEL WEIGHT IS 259 TONS.



GENERAL NOTES

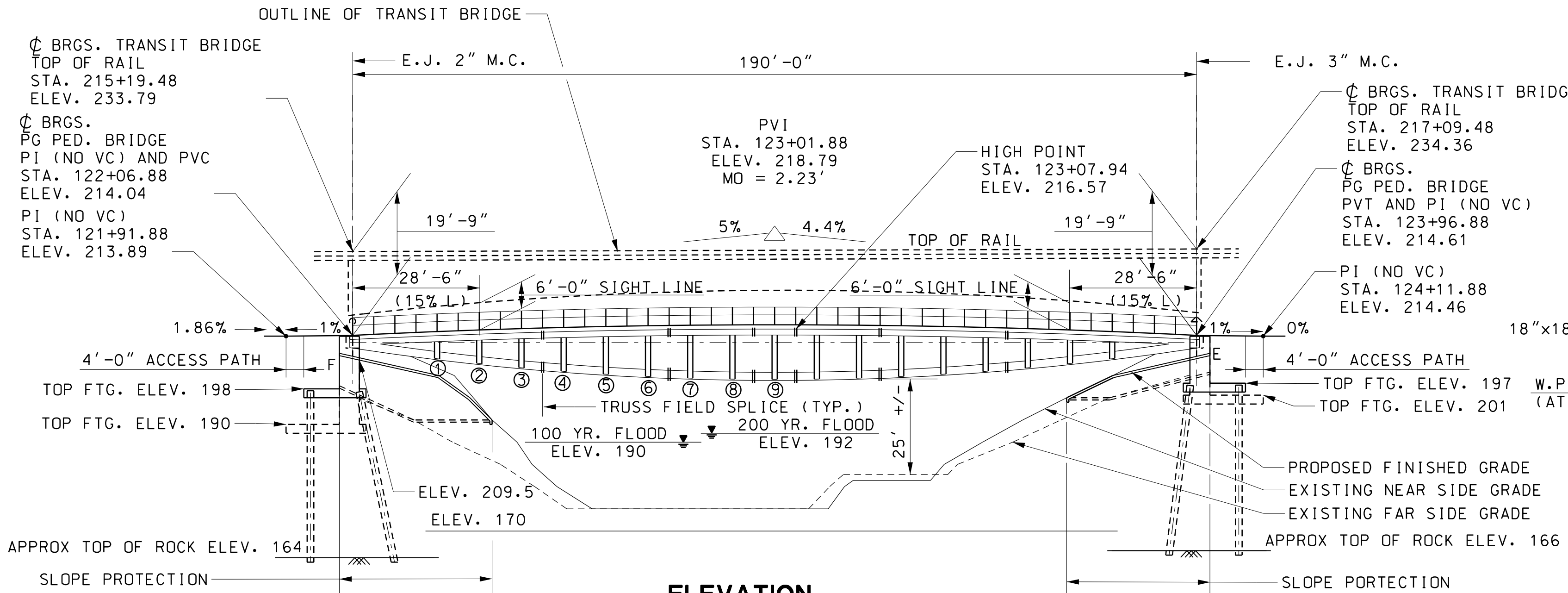
- SPECIFICATIONS: AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, DATED SEPTEMBER 2009
- MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA MANUAL, REV. 1, DATED APRIL 2012.
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCES FACTOR DESIGN (LRFD)
- LOADING: LIVE LOAD = 90 PSF POSITIONED FOR MAXIMUM LOAD EFFECTS, OR H10 DESIGN VEHICLE, WHICHEVER GOVERNS.
- STRUCTURAL STEEL DESIGN: ALL STRUCTURAL STEEL SHALL COMFORM TO ASTM A 709 STEEL GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS.
- FINISHED PAINT COLOR: THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.
- CONCRETE DESIGN: ALL CONCRETE FOR ABUTMENT BACKWALLS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).
- REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 CAN BE USED ON THIS PROJECT
- REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED
- ENTIRE SUPERSTRUCTURE
 - ABUTMENT BACKWALLS
 - CHEEKWALLS
 - ALL BEARING SEATS
 - ABUTMENT BRIDGE SEAT AREAS



PLAN

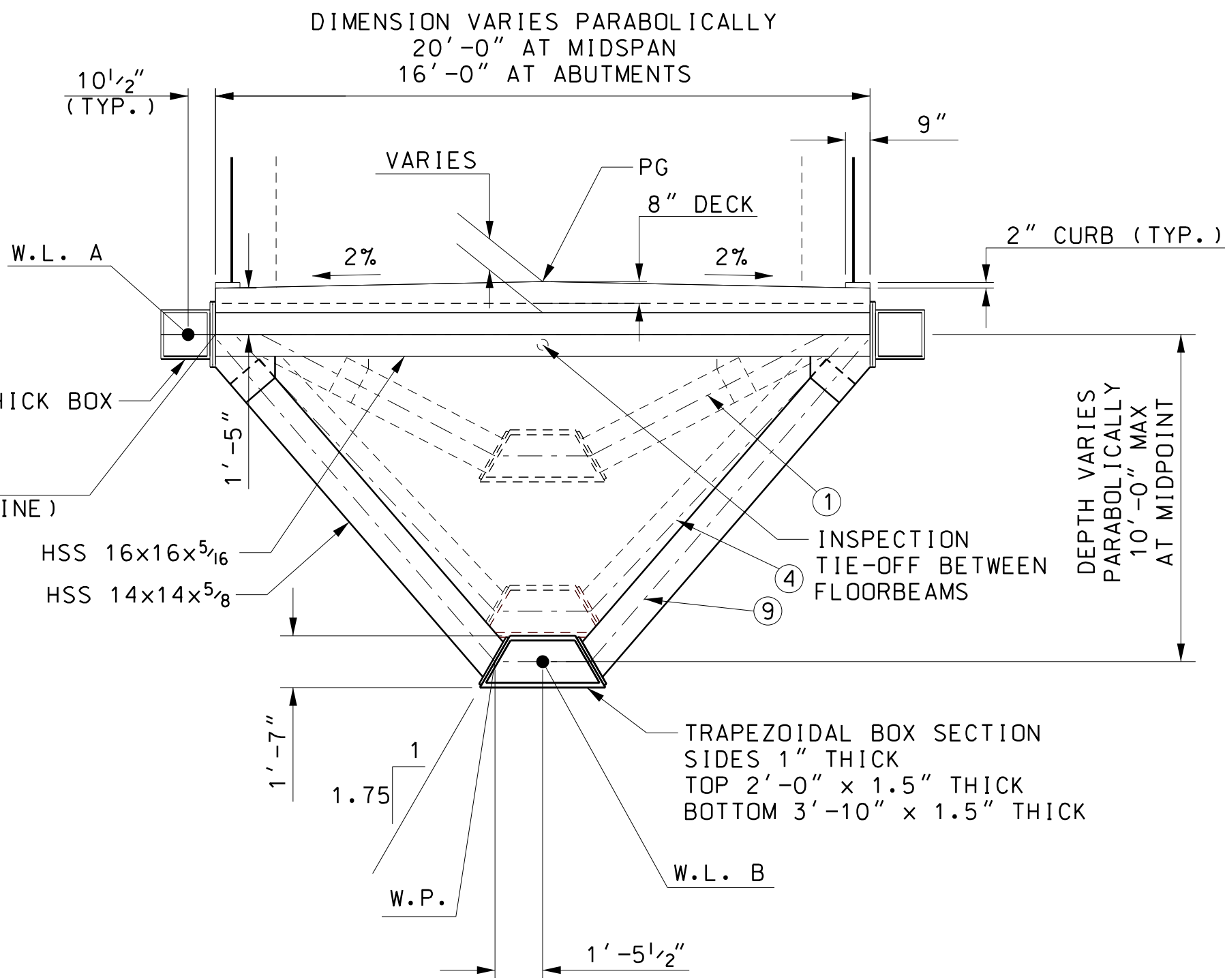
SCALE: 1"=20'

RIGHT-OF-WAY LIMITS ARE BEYOND THE PLAN AREA DETAILED ON THIS SHEET, AND THEREFORE ARE NOT SHOWN. SEE PLAN AND PROFILE DRAWINGS FOR LIMITS



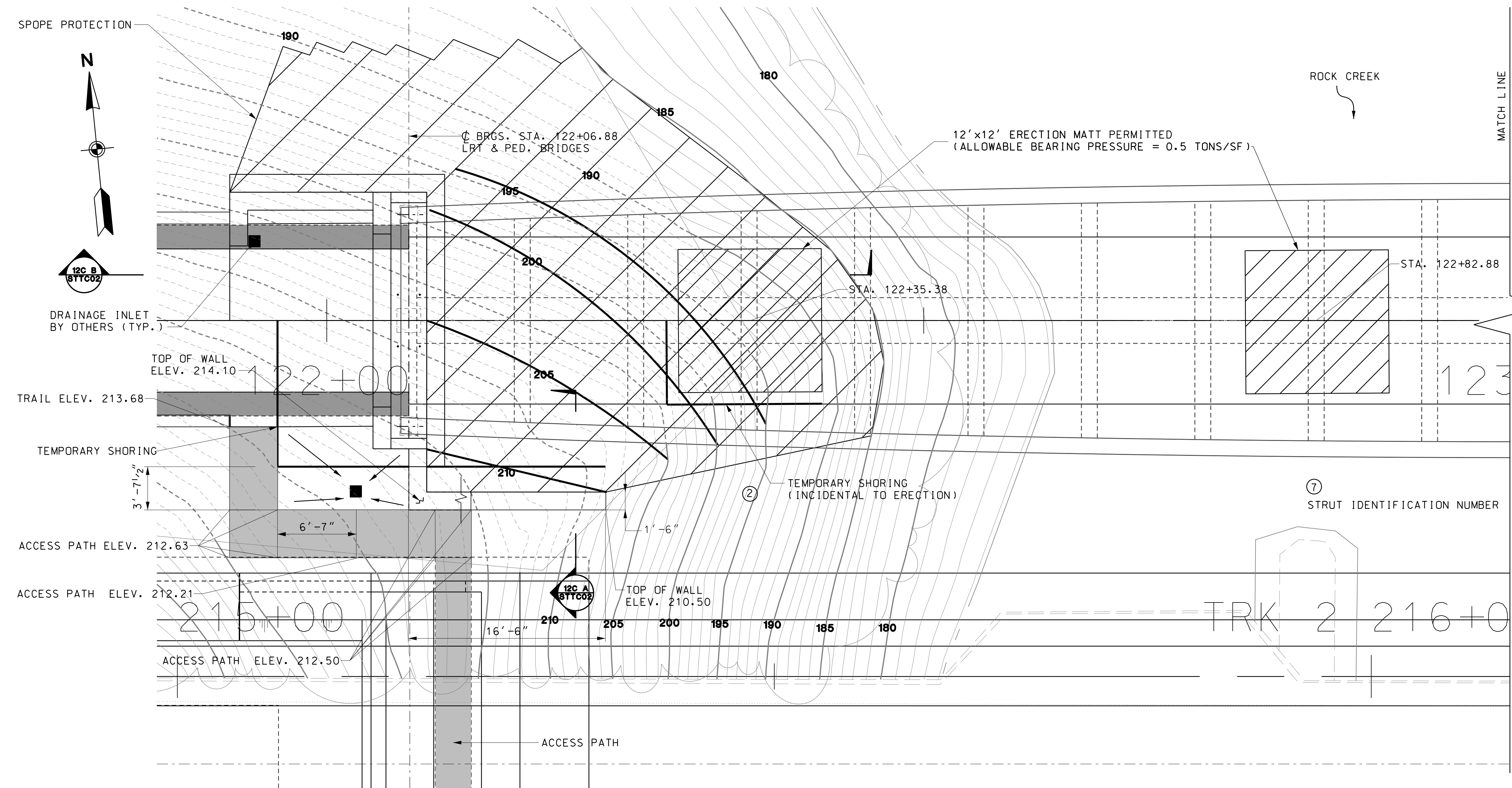
ELEVATION

SCALE: 1"=20'



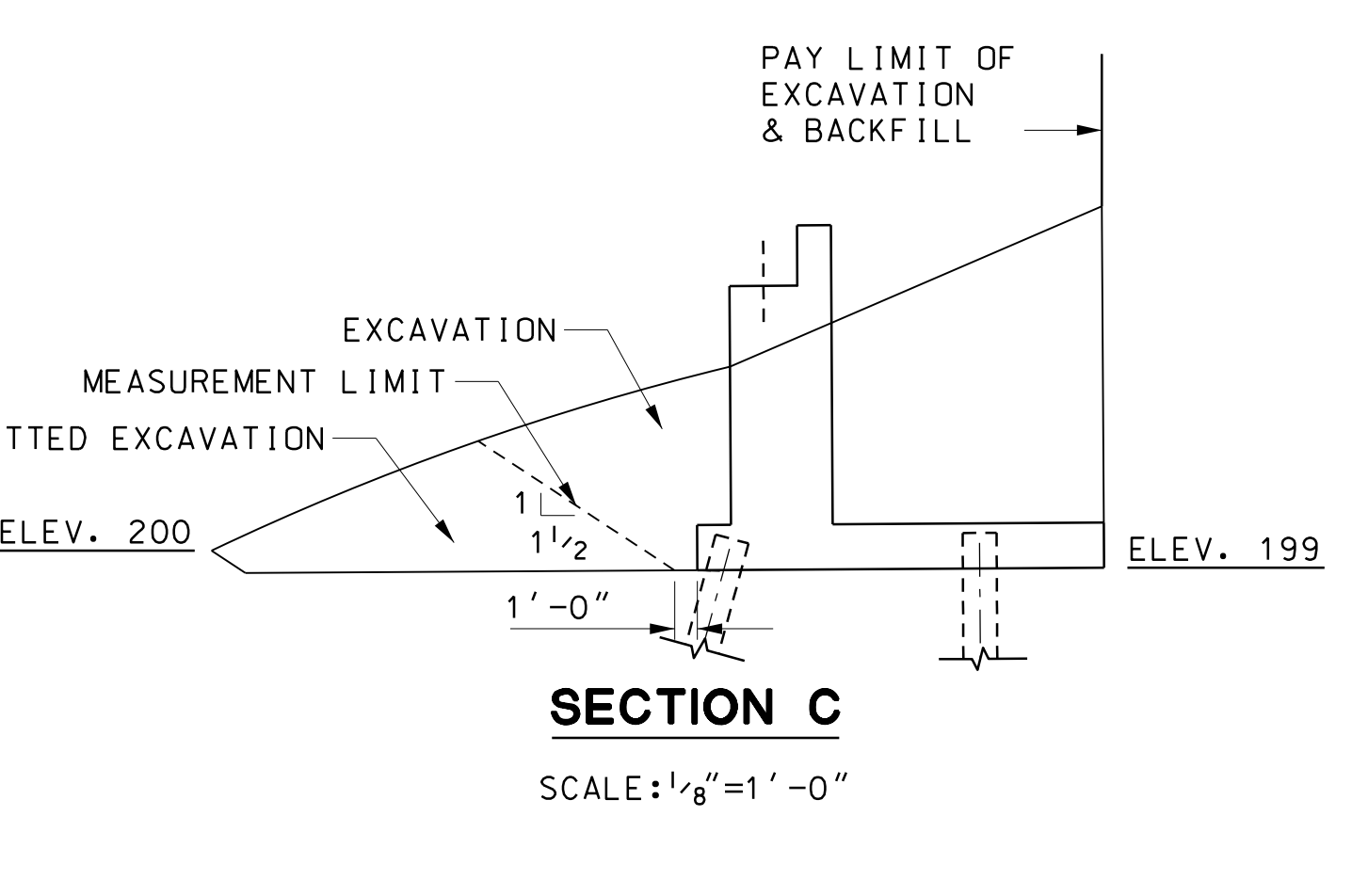
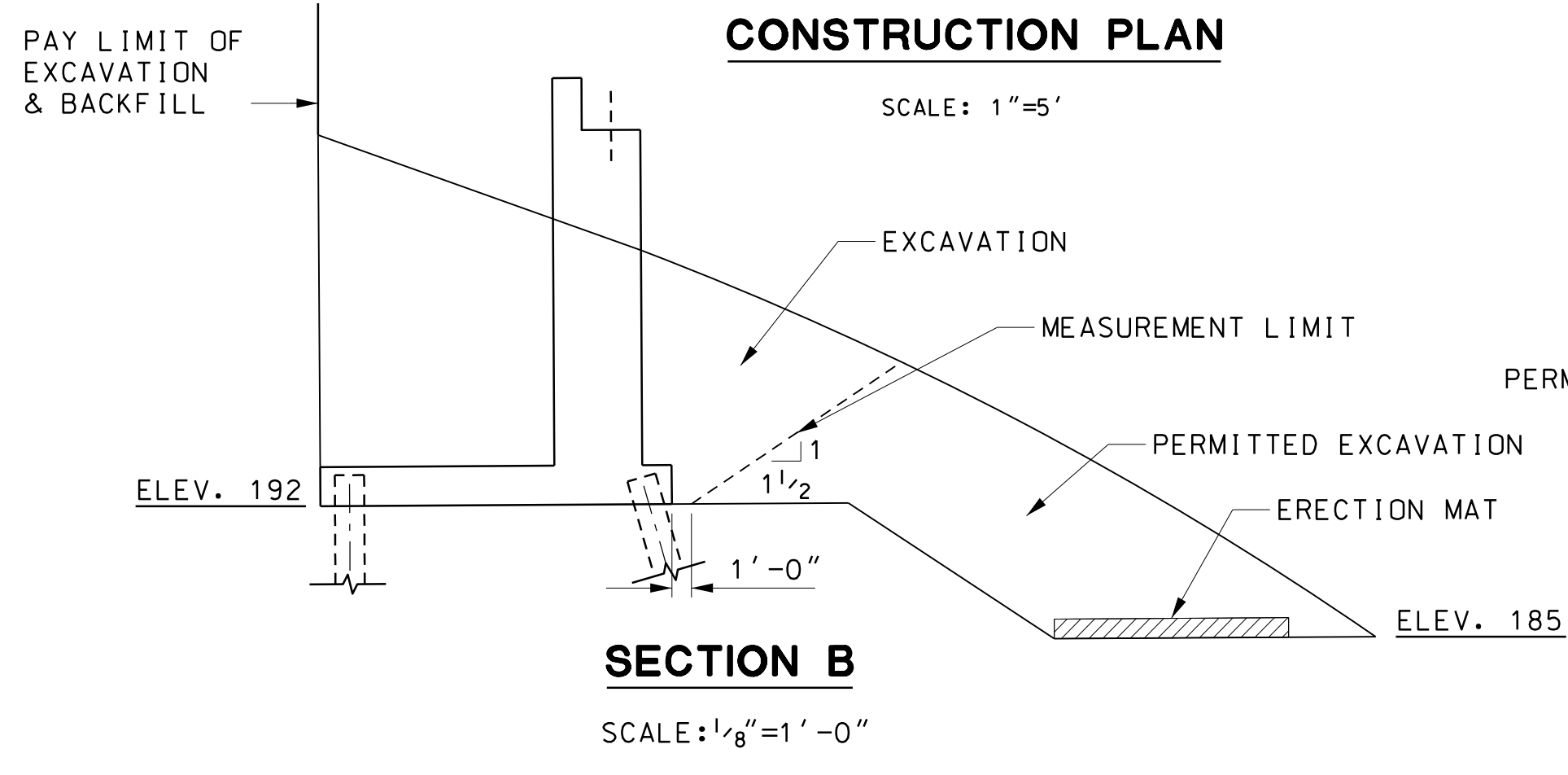
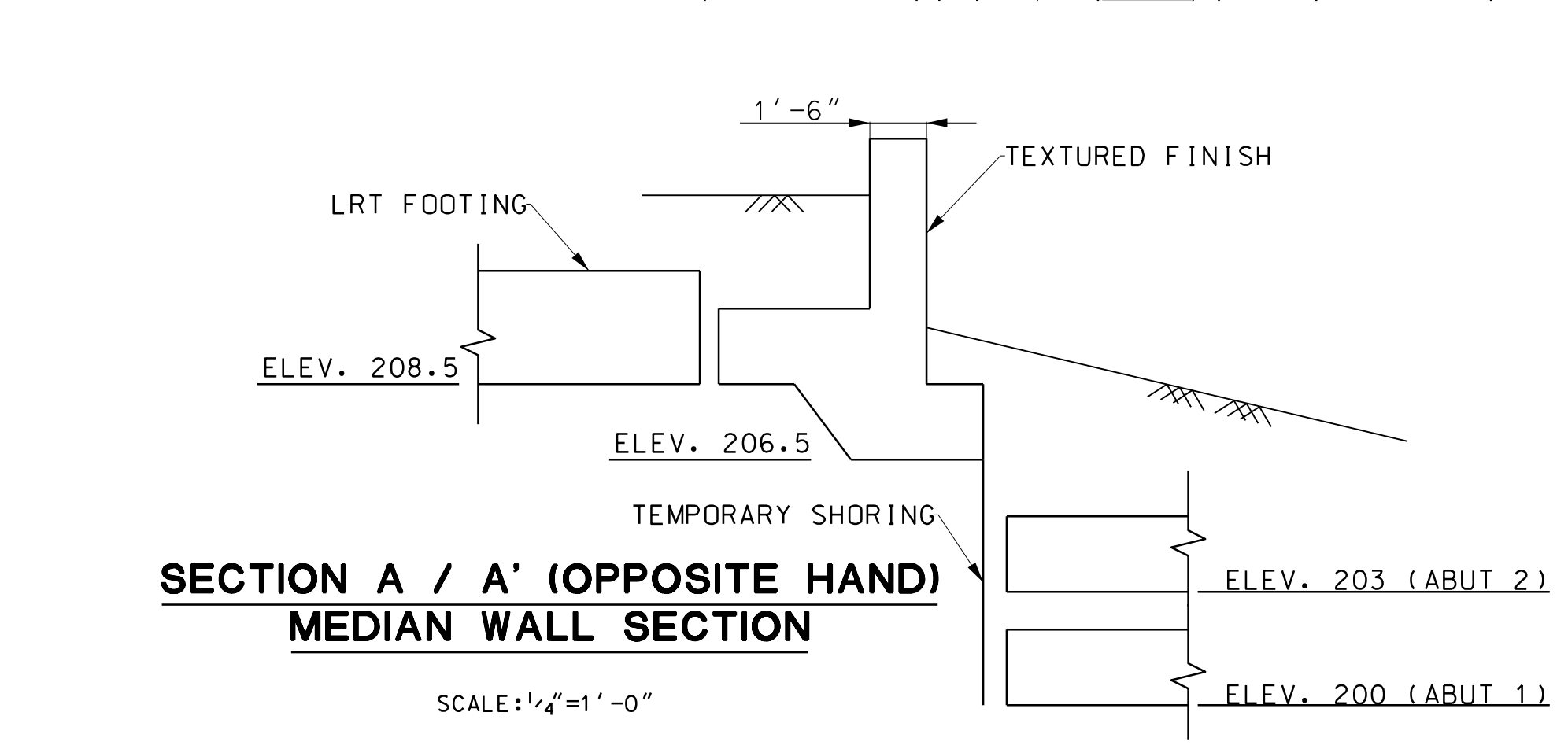
TYPICAL SECTION

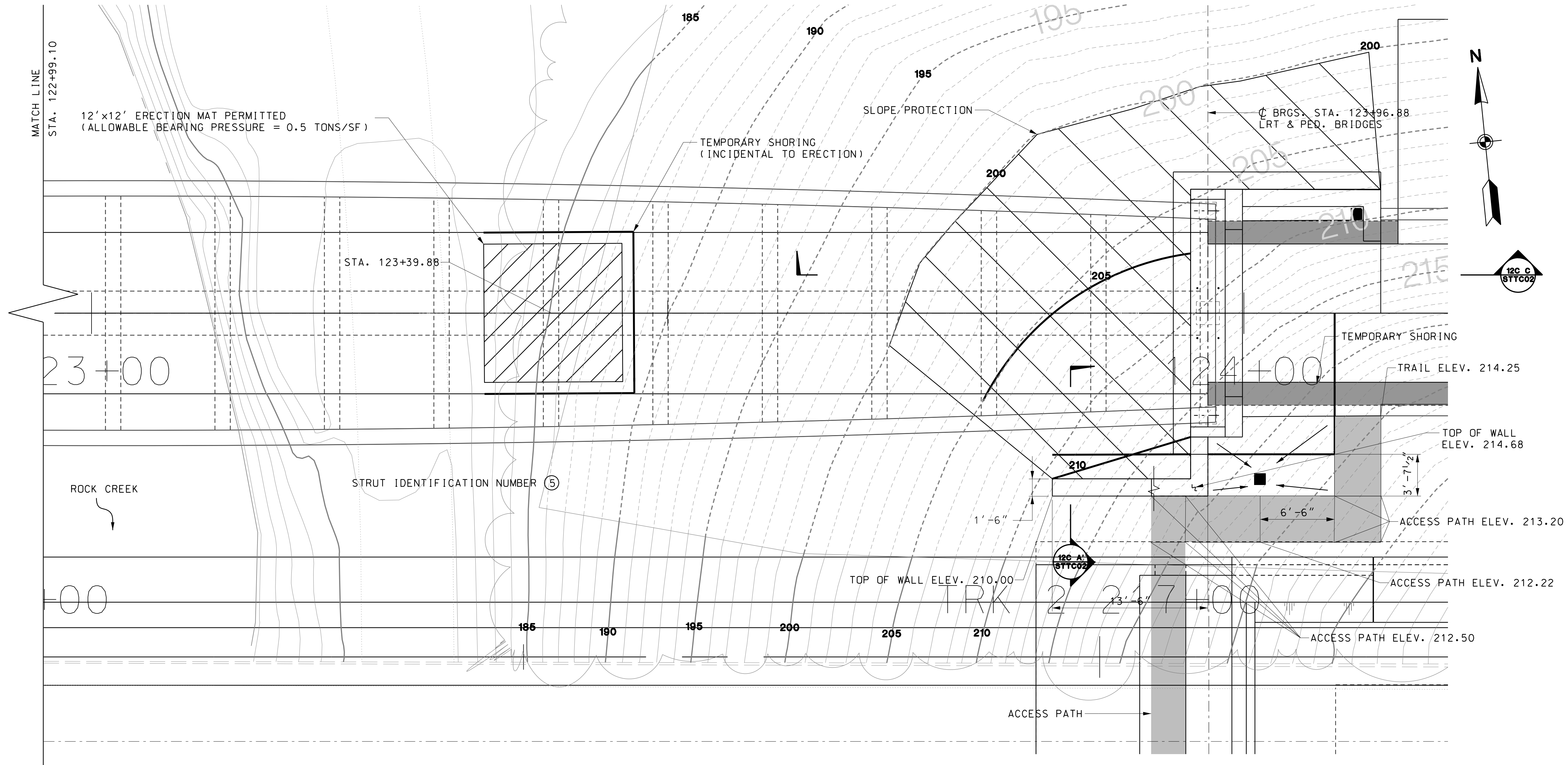
SCALE: 1/4"=1'-0"



MATCH LINE
STA. 122+99.10

- NOTES:
1. PEDESTRIAN COMFORT: VERTICAL ACCELERATION DUE TO INDUCED VIBRATION WILL BE LIMITED TO 3% GRAVITY (ANSI S3.18-2002, C.2.3) FOR:
A. H10 VEHICLE TRANSVERSING BRIDGE, EVALUATED AT SPEEDS RANGING FROM 5 MPH TO 30 MPH
B. SYNCHRONOUS PASSAGE OF PEDESTRIANS (WITH AVERAGE DENSITY OF 60 PSF) TRANSVERSING BRIDGE, EVALUATED AT A SPEED OF 3.5 MPH
 2. SYSTEM PERFORMANCE CHARACTERISTICS:
A. NATURAL FRUQUENCY (FIRST MODE) = 1.8 CPS
B. LL DEFLECTION (AT 90 PSF) = L/720
 3. ERECTION CRANES ARE NOT PERMITTED WITHIN THE ONE HUNDRED YEAR FLOOD BOUNDARY OR ON OR WITHIN SLOPES.
 4. ERECTION TOWERS ARE ONLY PERMITTED AS INDICATED.
 5. STEEL SUPERSTRUCTURE TO BE ERECTED FROM LRT TRANSIT BRIDGE APPROACH AREA USING EITHER ONE OR TWO CRAWLER CRANES POSITIONED AS INDICATED. TWO ERECTION METHODS ARE ACCEPTABLE.
 6. CRAWLER CRANE(S) EACH - 275 TON CAPACITY, WITH LIFTING CAPACITY CONSISTENT WITH THE RADII INDICATED. (ESTIMATED GROSS WEIGHT IS 320 K EACH.)
 7. TOTAL WEIGHT OF STEEL SUPERSTRUCTURE = 164 TONS.

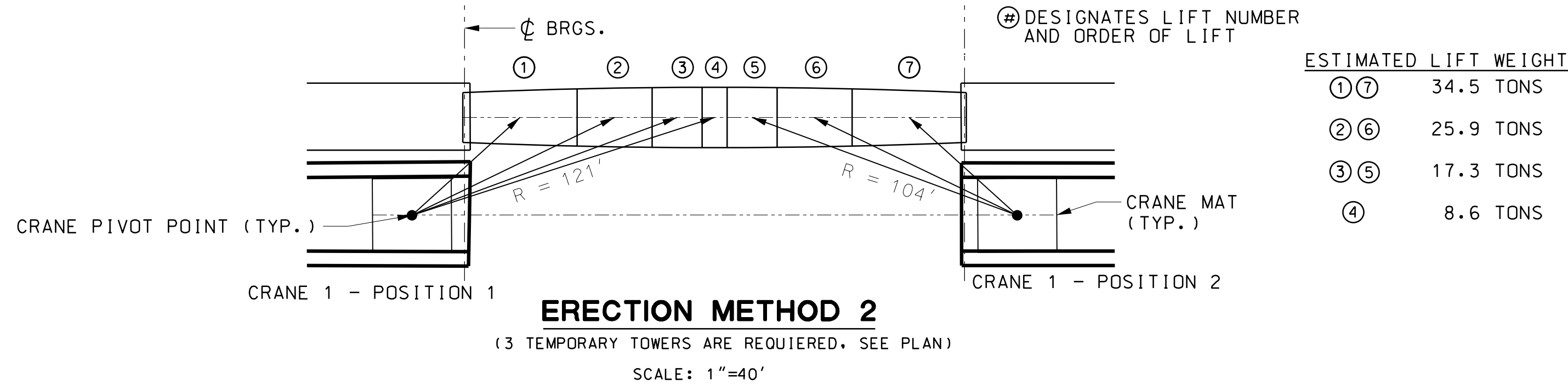
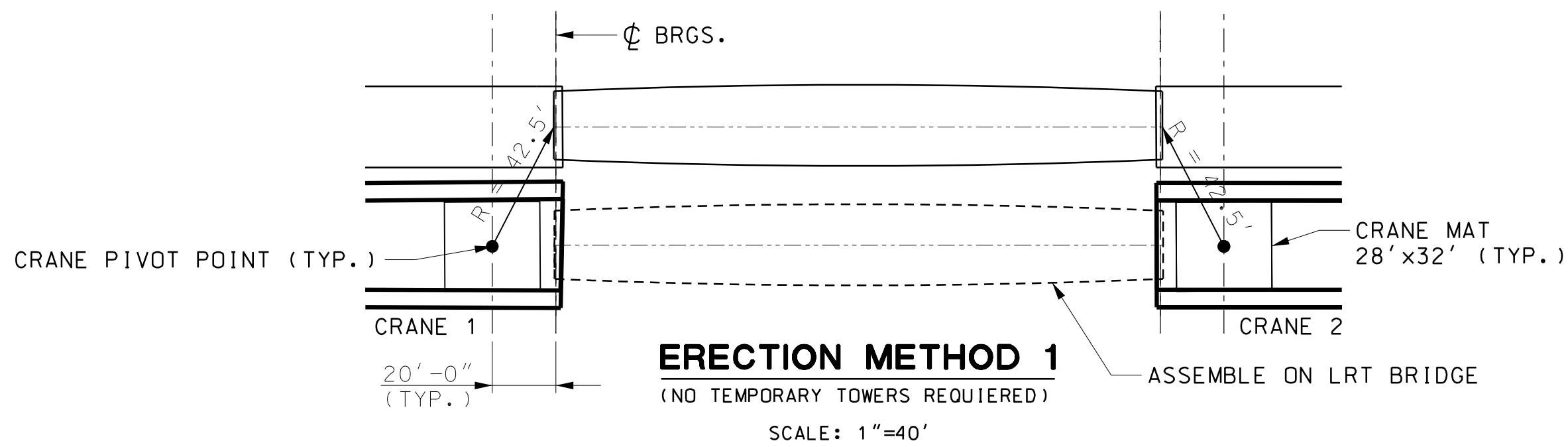


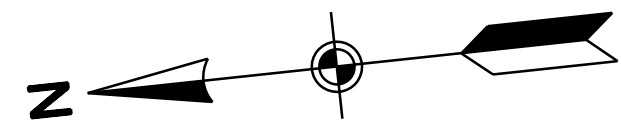


CONSTRUCTION PLAN

SCALE: 1"=5'

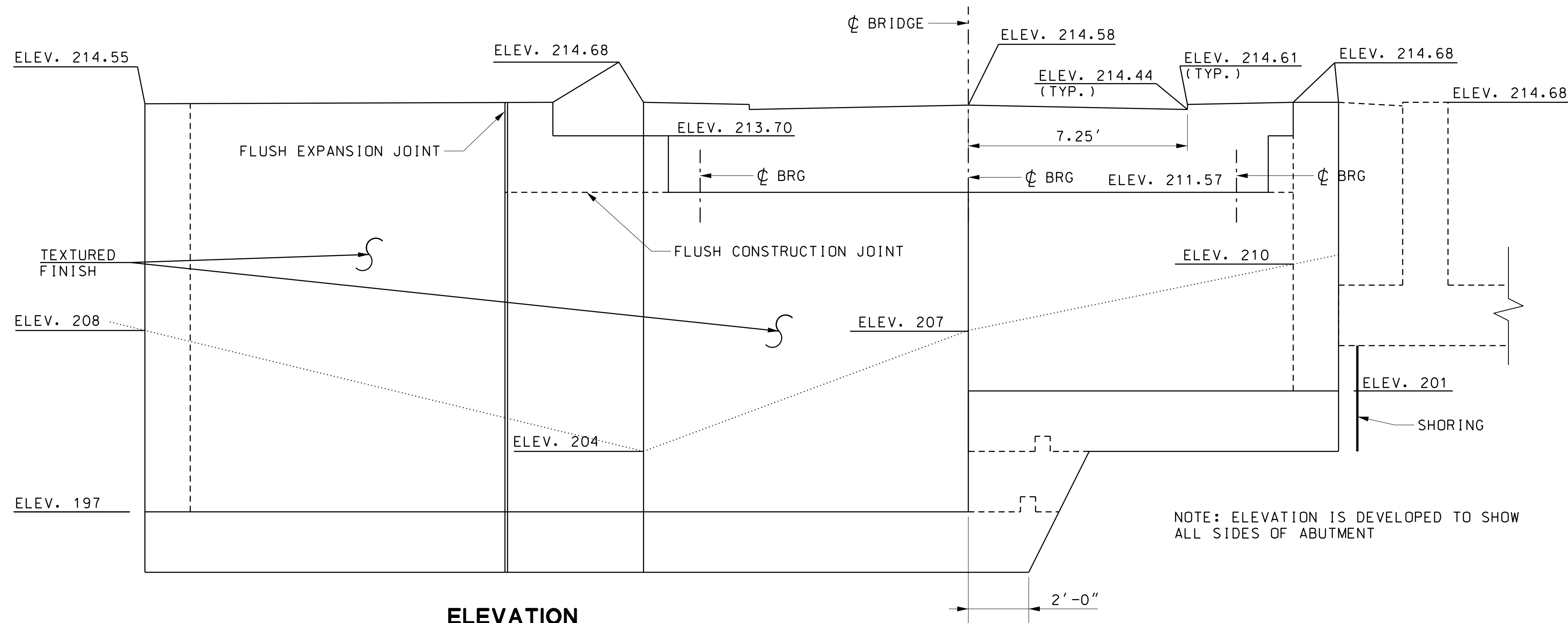
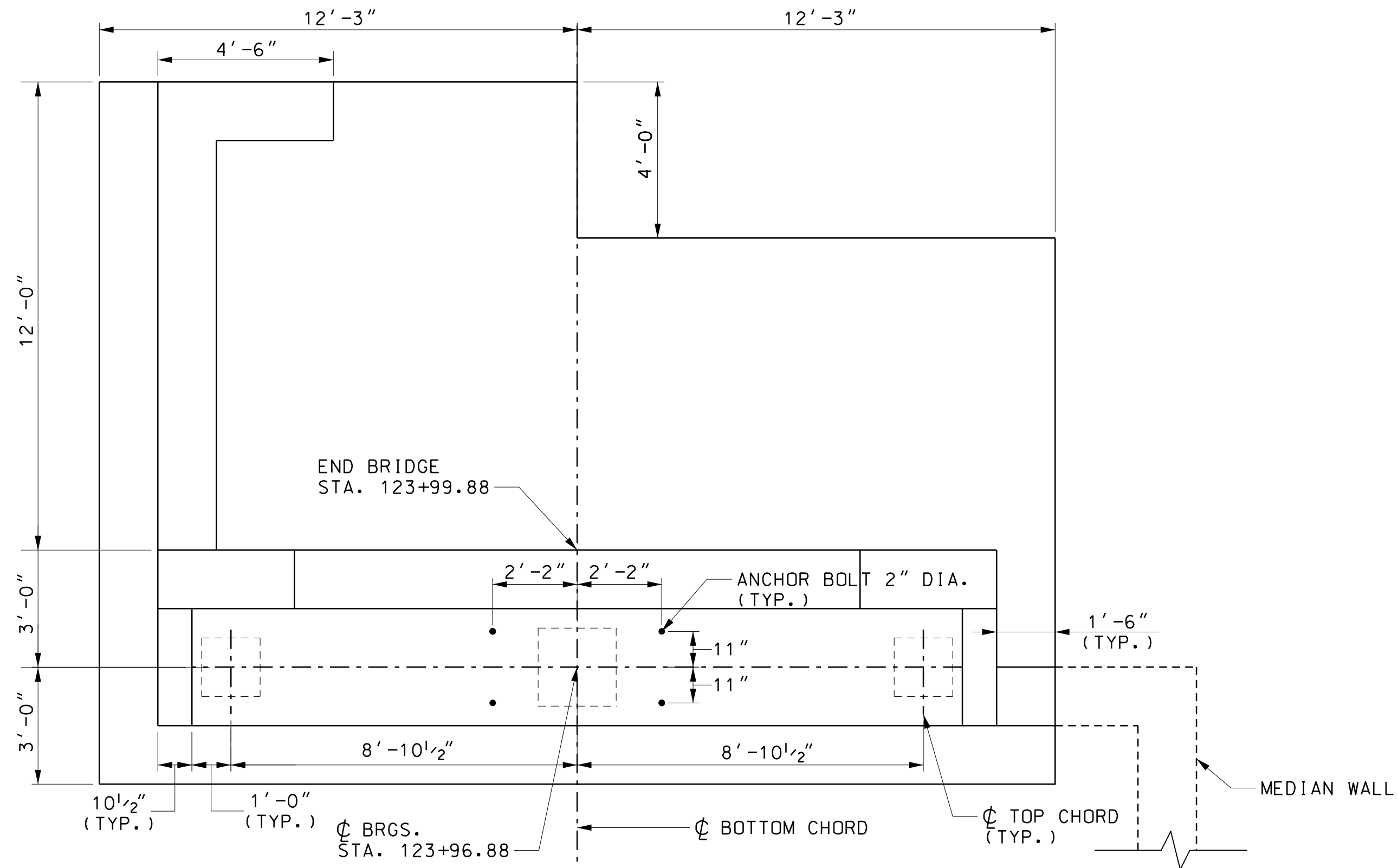
ERECTION SCHEMATICS





PLAN

SCALE: $\frac{3}{8}"=1'-0"$



ELEVATION

SCALE: $\frac{3}{8}"=1'-0"$

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
			LMK
			LMK
			TGL

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

CAPITAL CRESCENT TRAIL PEDESTRIAN BRIDGE
ABUTMENT B – PLAN & ELEVATION

DATE: DECEMBER 2013

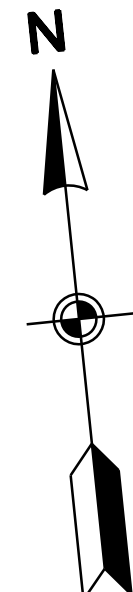
SCALE: VARIES

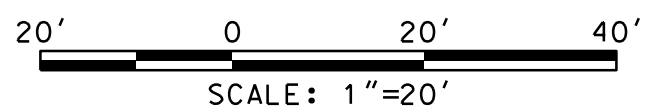
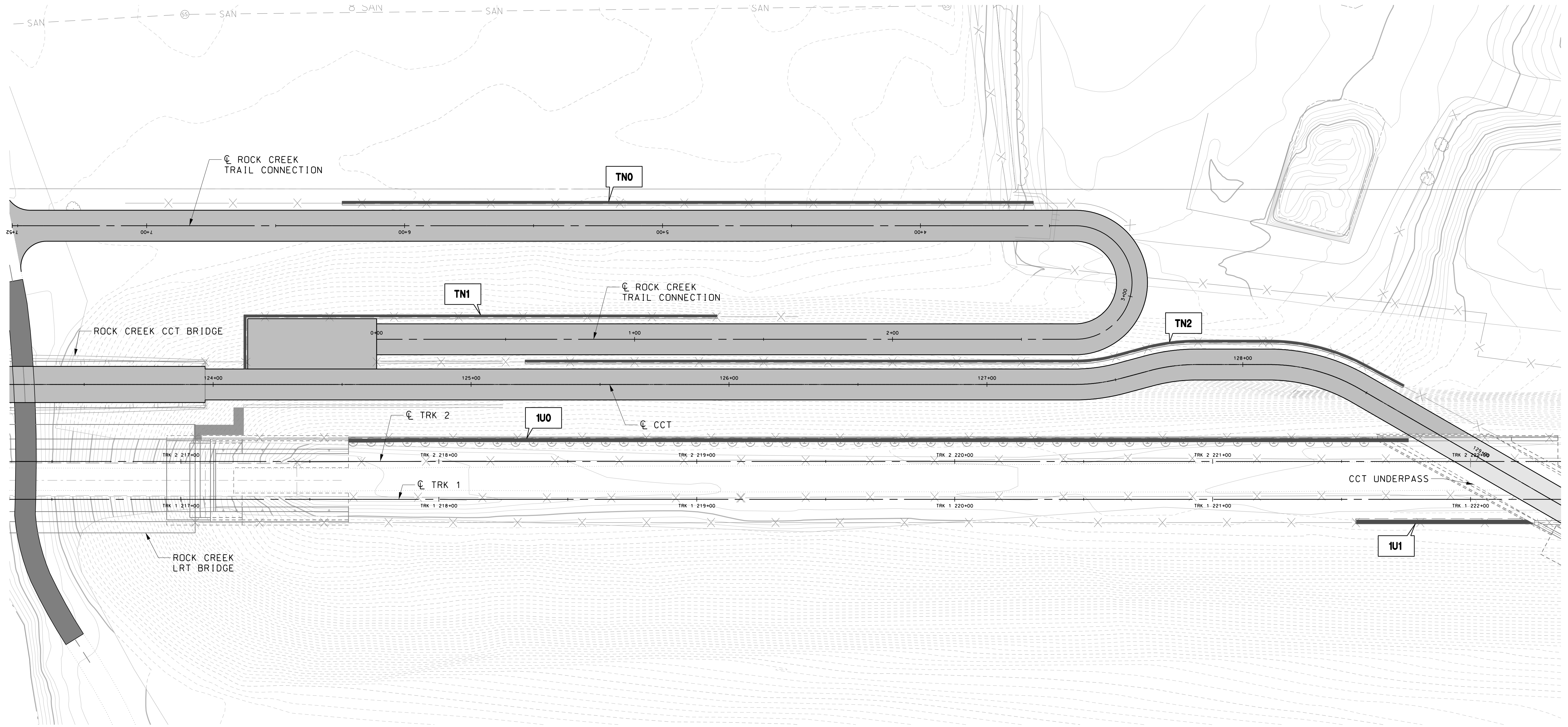
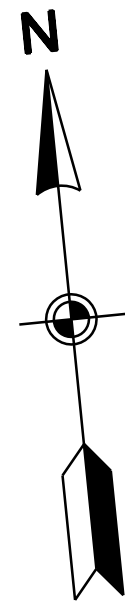
CONTRACT NO.
T-1042-0220

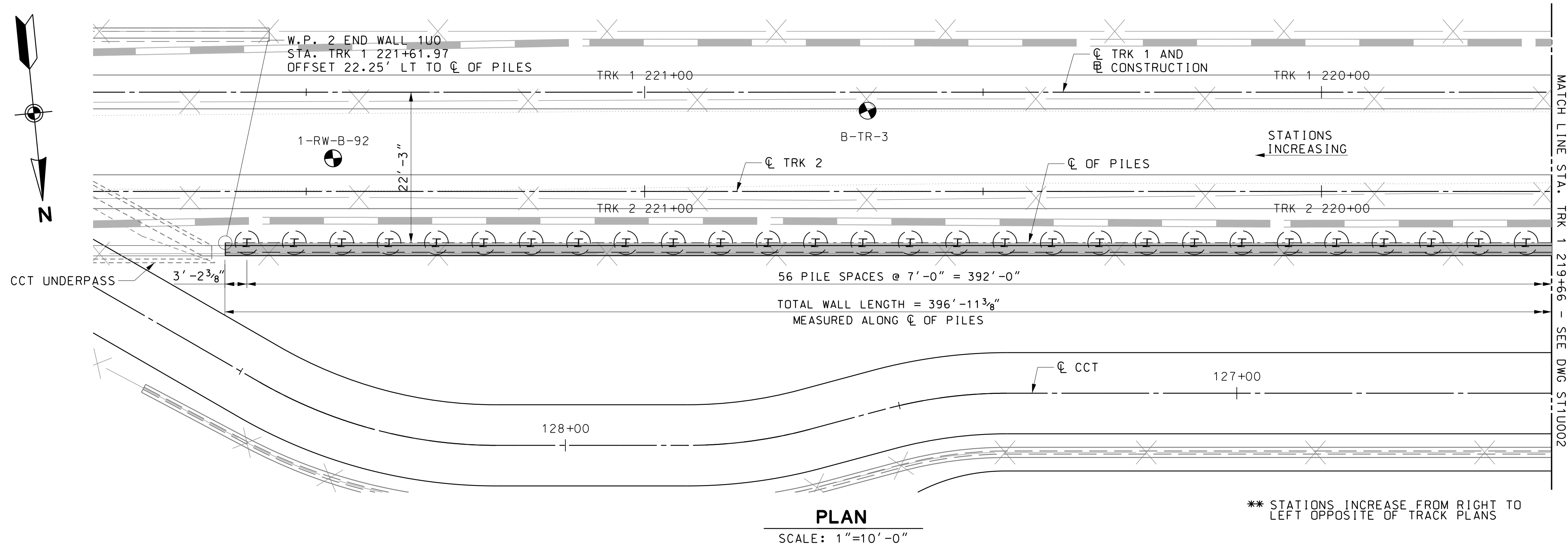
DRAWING NO.
STTC05

SHEET NO.
319 OF 828

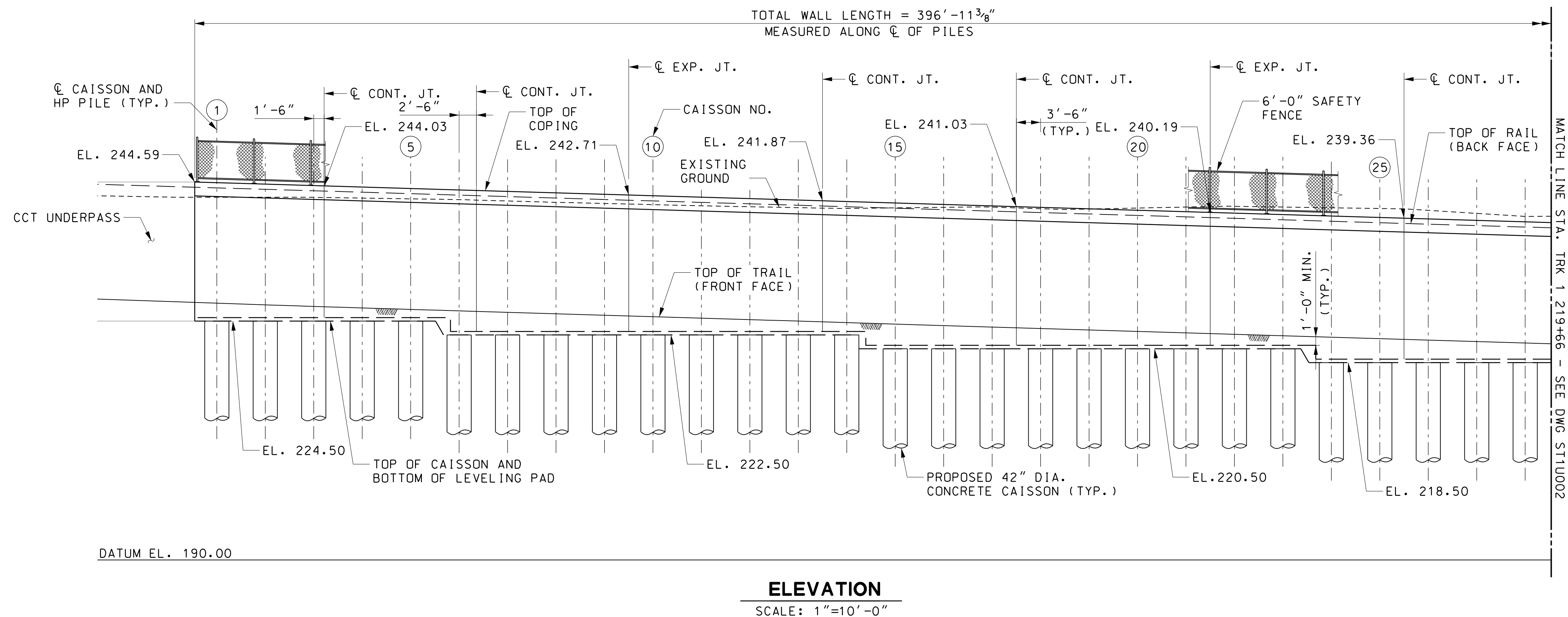
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\C-Rock Creek CCT Bridge\Sheet Files\1042pSttC05.dgn 12/18/2013

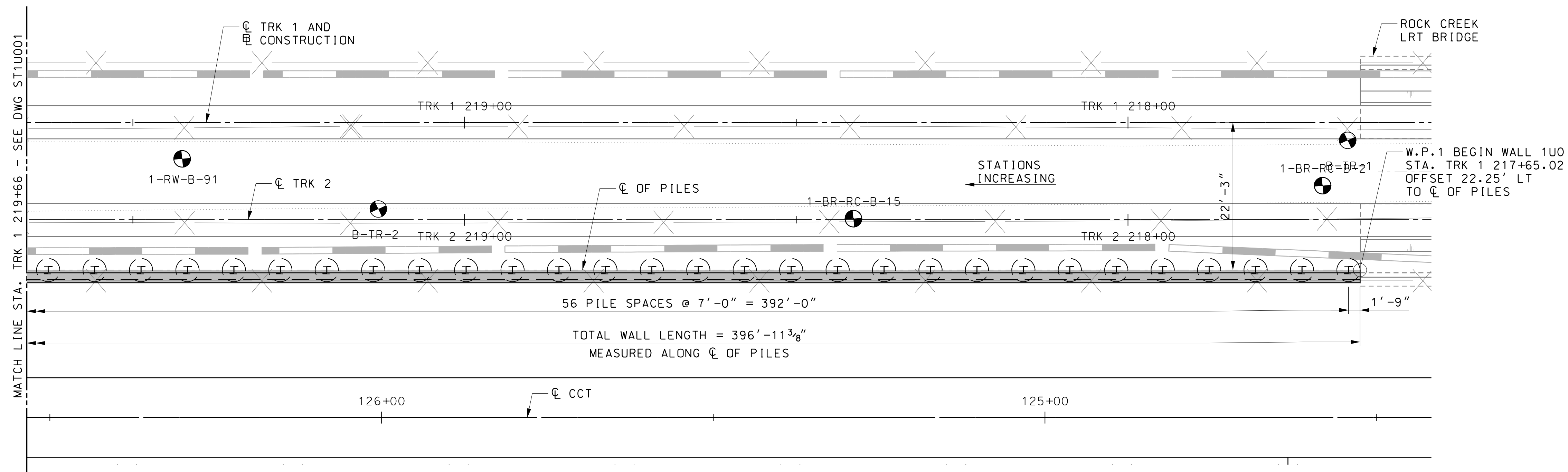
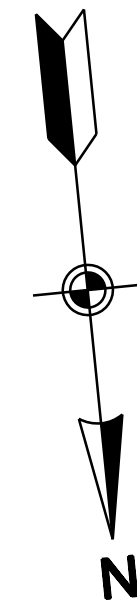






- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1U003.
 2. ELEVATIONS ARE SHOWN ALONG CL OF PILES

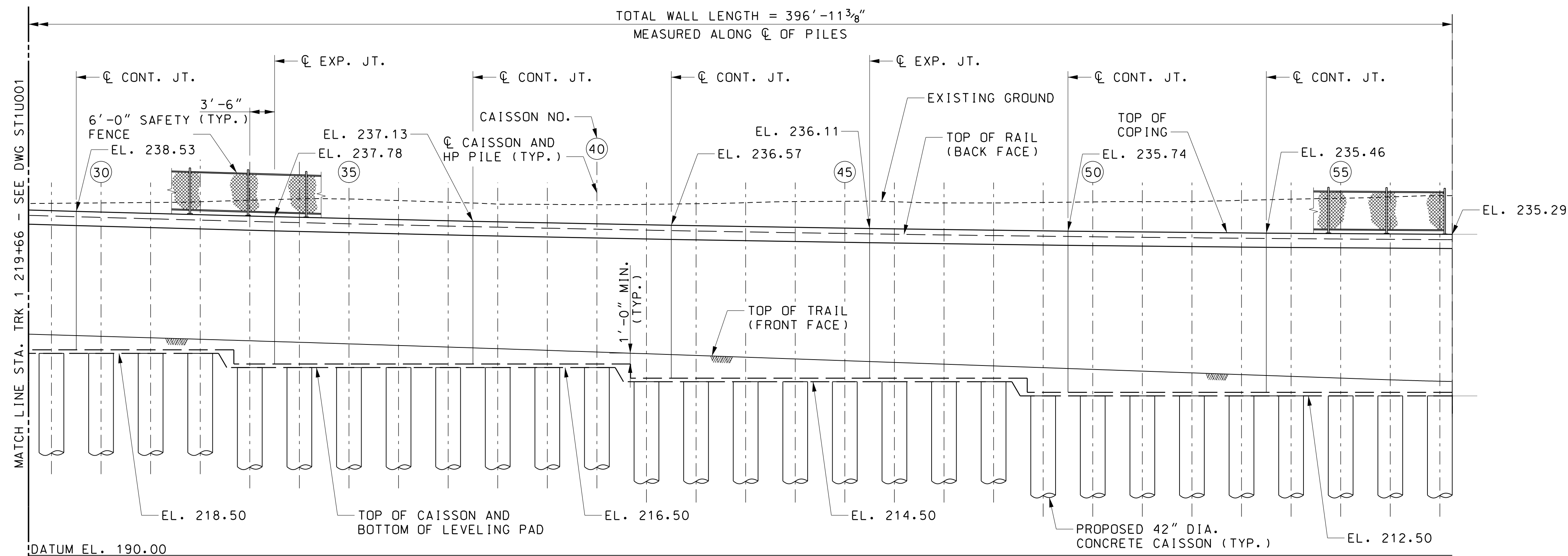




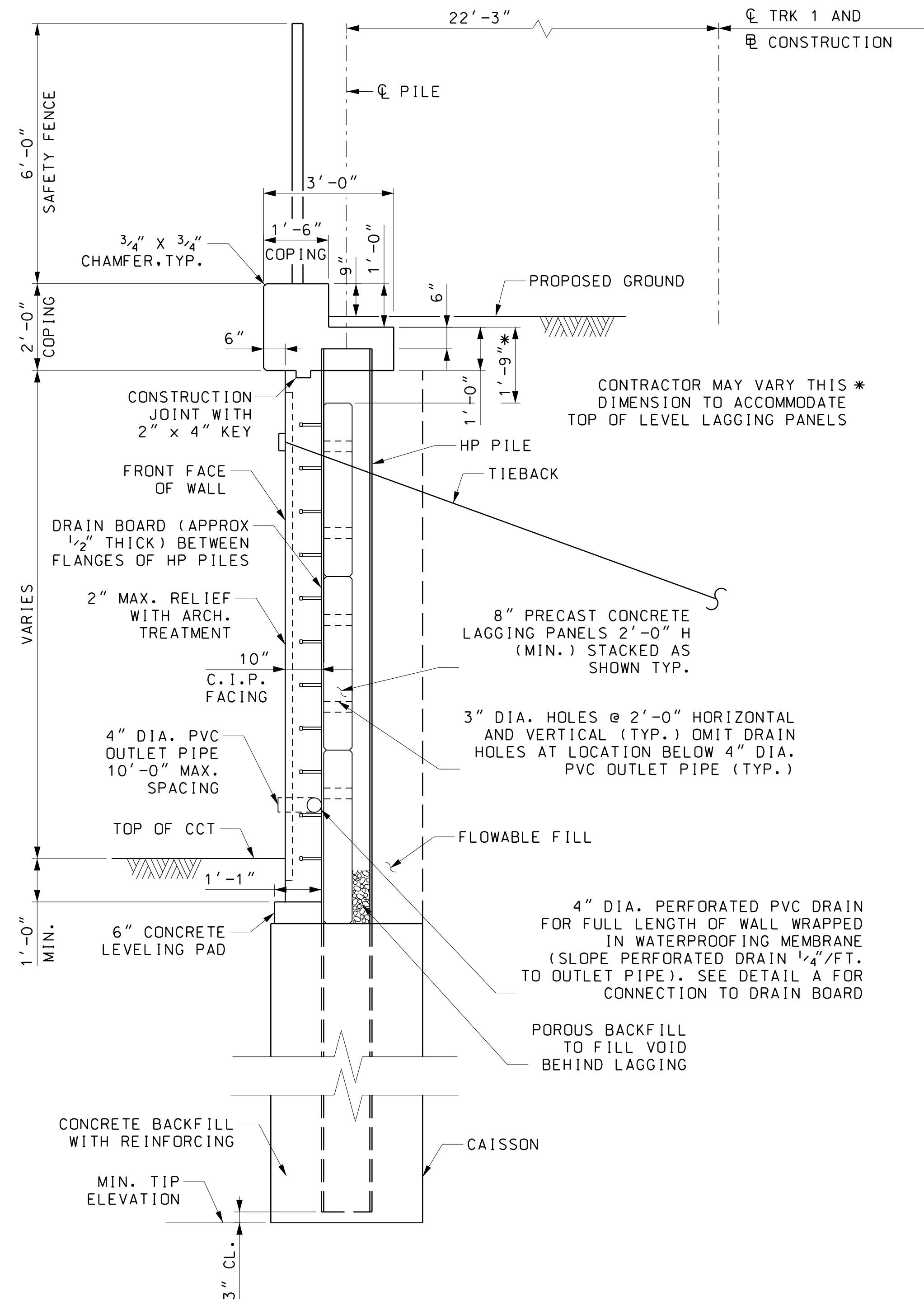
PLAN
SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS

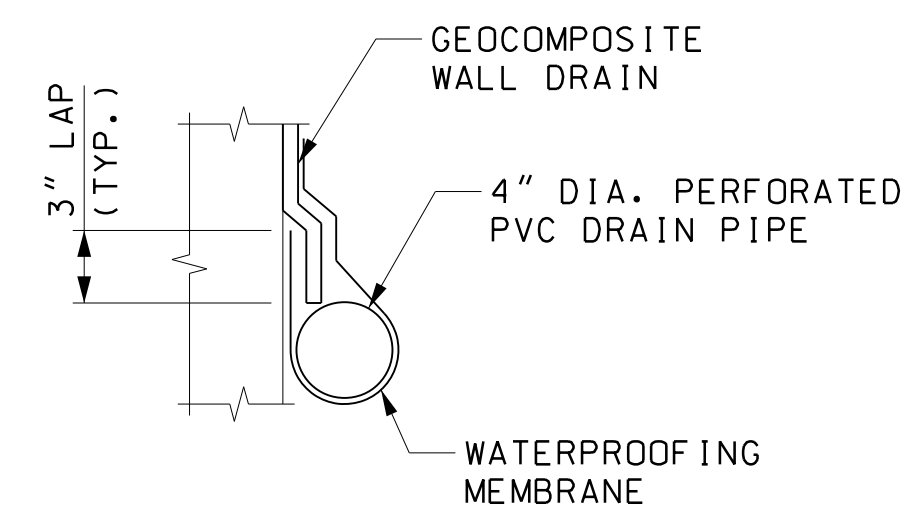
- NOTES:
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1U003.
 2. ELEVATIONS ARE SHOWN ALONG CL OF PILES



ELEVATION
SCALE: 1"=10'-0"

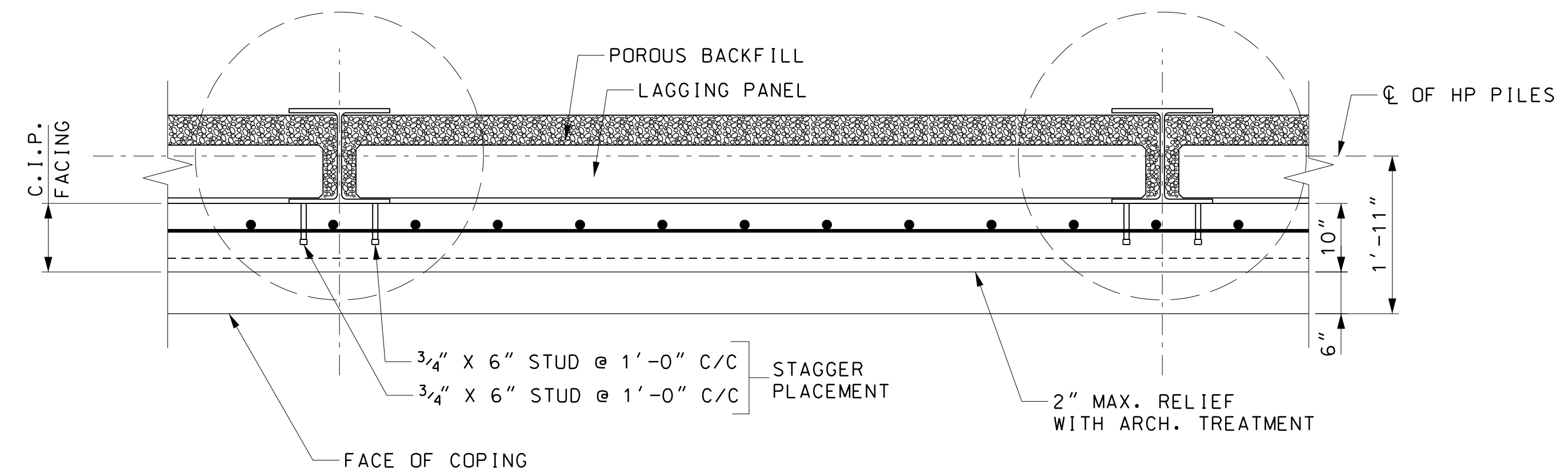


TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



DETAIL A

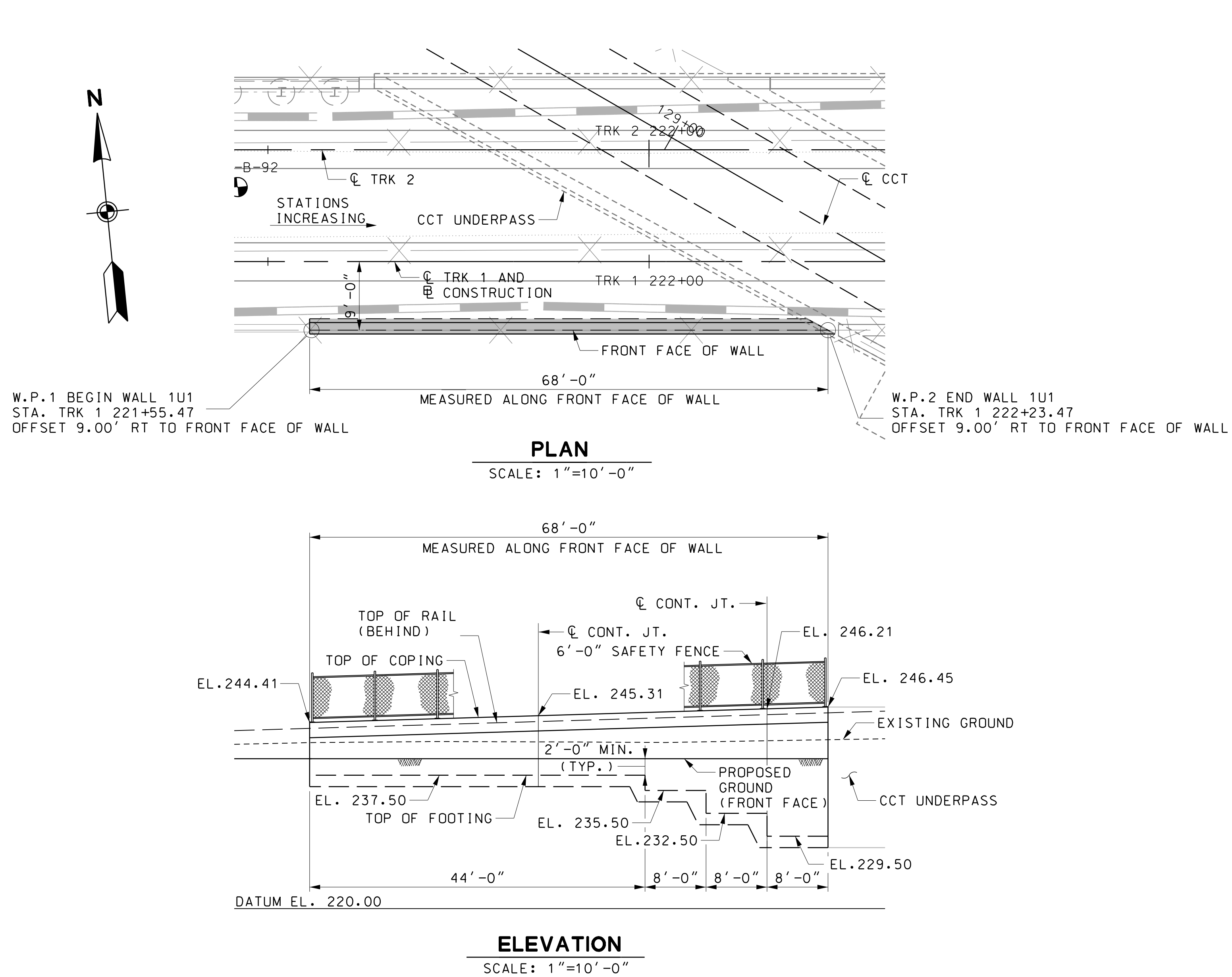
SCALE: 1 1/2" = 1'-0"



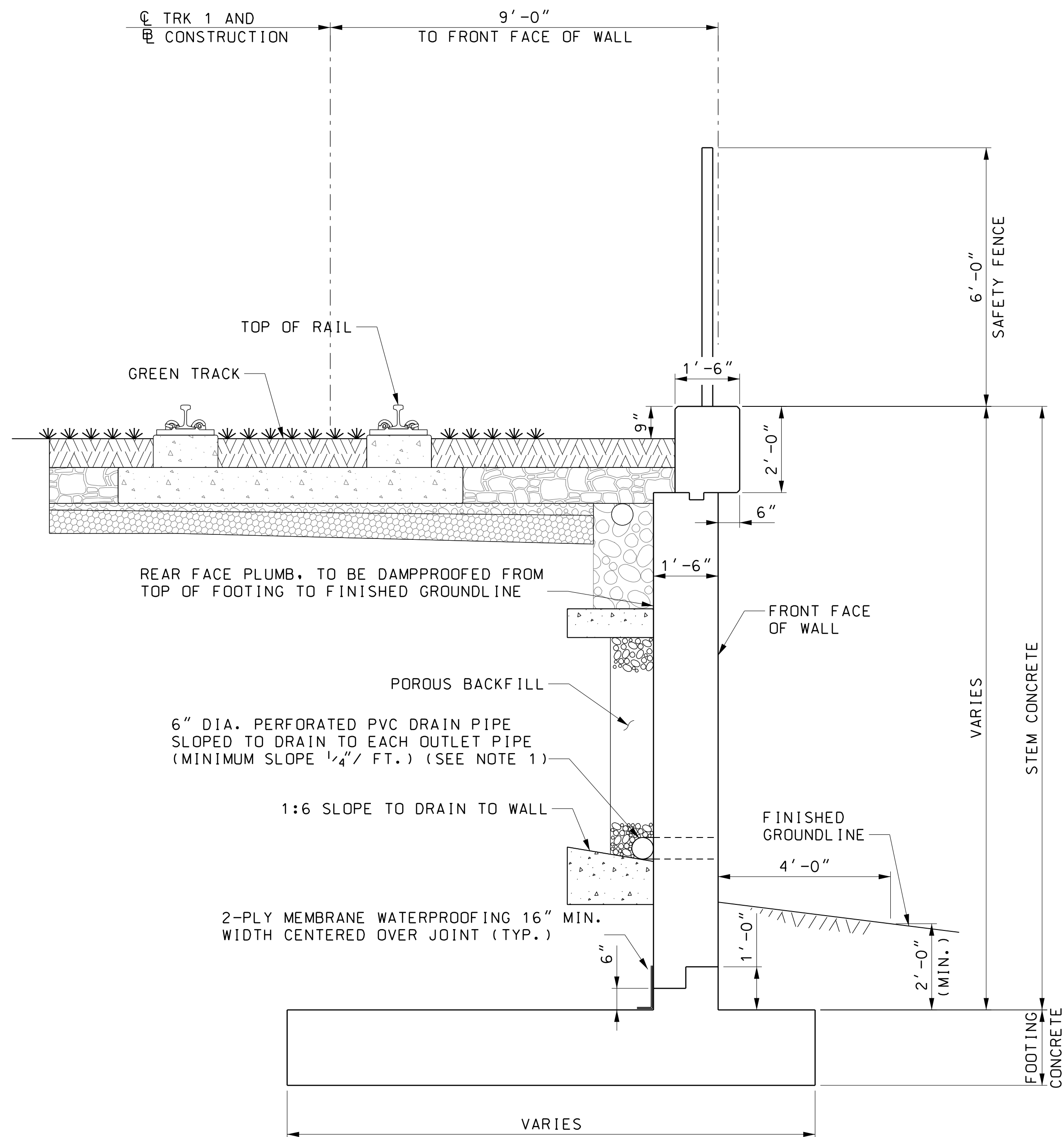
TYPICAL FACING DETAIL
SCALE: $\frac{3}{4}" = 1' - 0"$

- PROPOSED SEQUENCE OF CONSTRUCTION:

1. DRILL CAISSON HOLE TO ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED ELEVATION (TOP OF CAISSON).
FILL REMAINDER OF HOLE WITH FLOWABLE FILL.
5. EXCAVATE AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT
OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED
TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES
AND TO ALLOW PLACEMENT OF FOLLOWING LAGGING PANELS AS EXCAVATION
PROCEEDS. INSTALL TIEBACKS AS NECESSARY.
7. COMPLETE INSTALLATION OF PANELS SO THEY ARE RESTING ON TOP OF THE
CONCRETE CAISSON.
8. INSTALL SHEET DRAIN AND OUTLET PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATION AREA BEHIND LAGGING WITH POROUS BACKFILL.

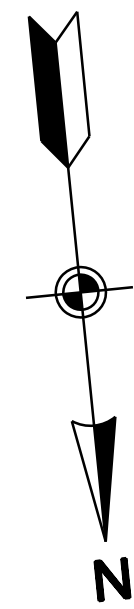


- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. ST1U102.

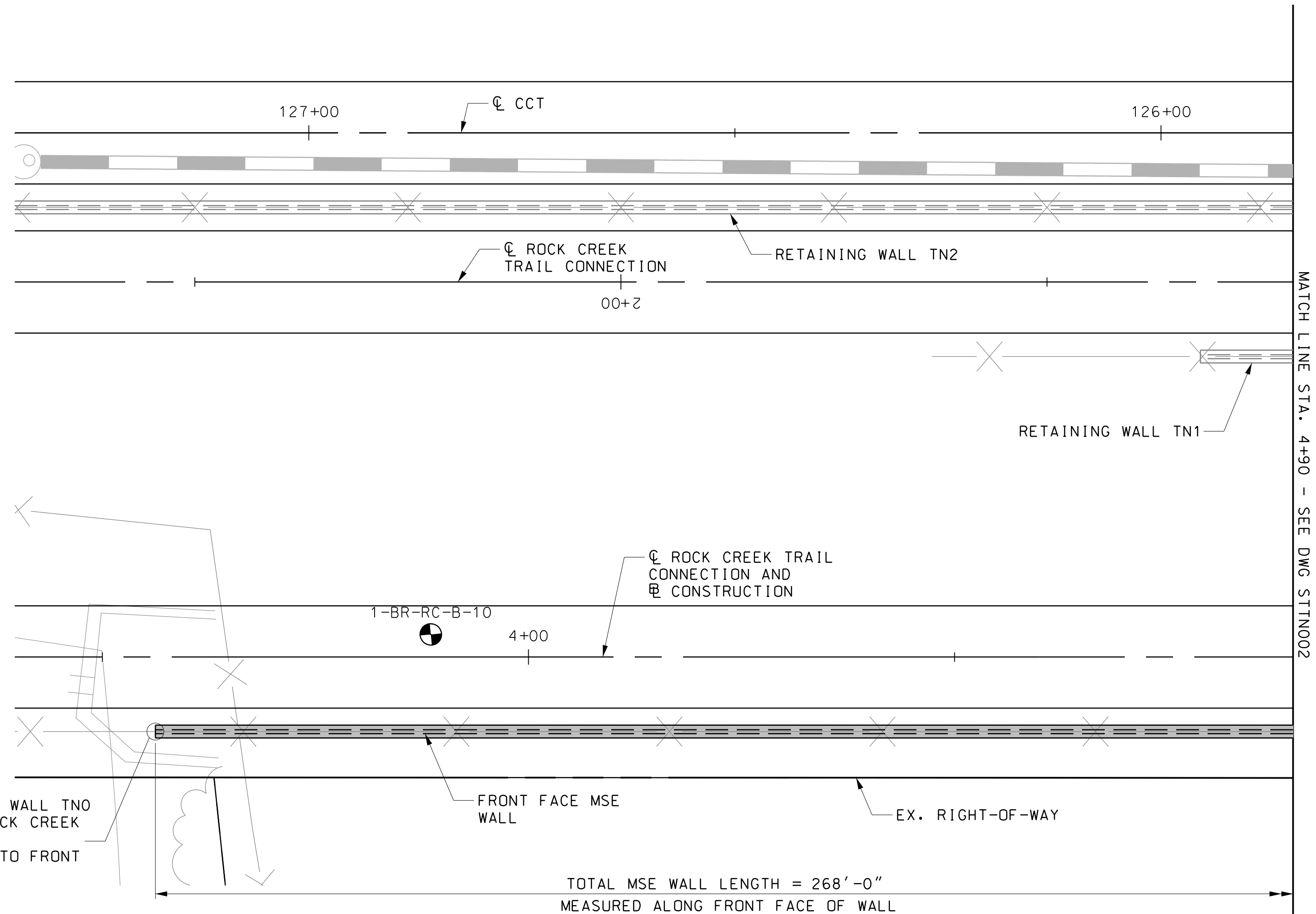


NOTES:
 1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(O.01)-80-100.

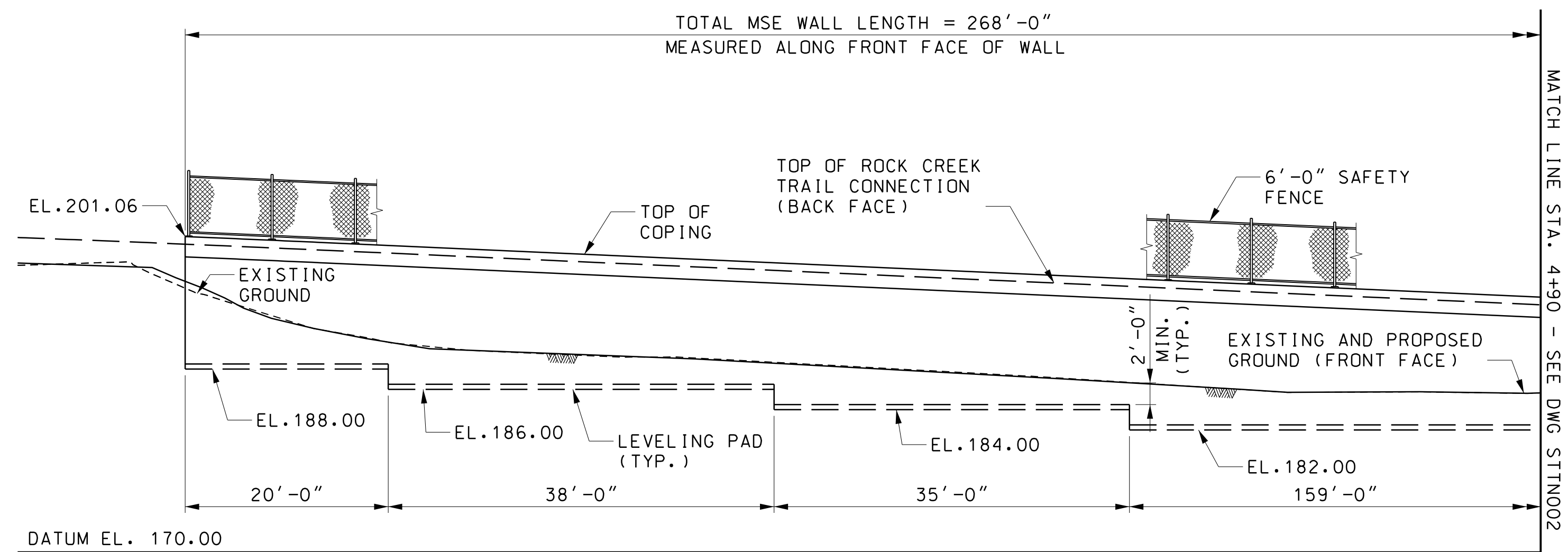
TYPICAL SECTION
 SCALE: 1/2" = 1'-0"



W.P. 1 BEGIN MSE WALL TNO
STA. 3+56.22 ROCK CREEK
TRAIL CONNECTION
OFFSET 9.00' RT TO FRONT
FACE OF WALL



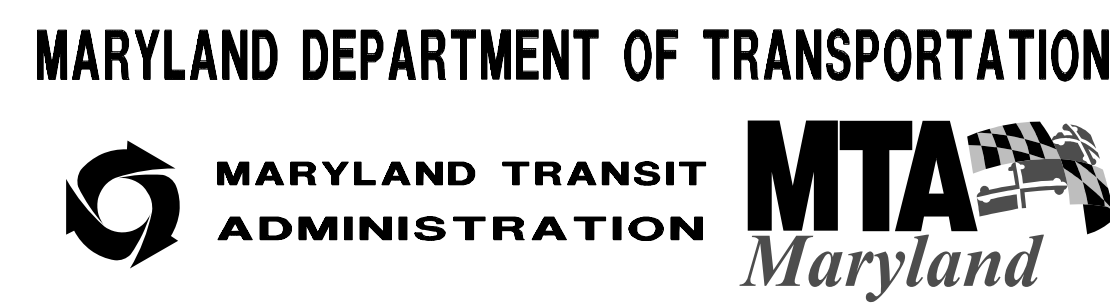
PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTN003.
2. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
3. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURE'S DESIGN.



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
License No. Expiration Date

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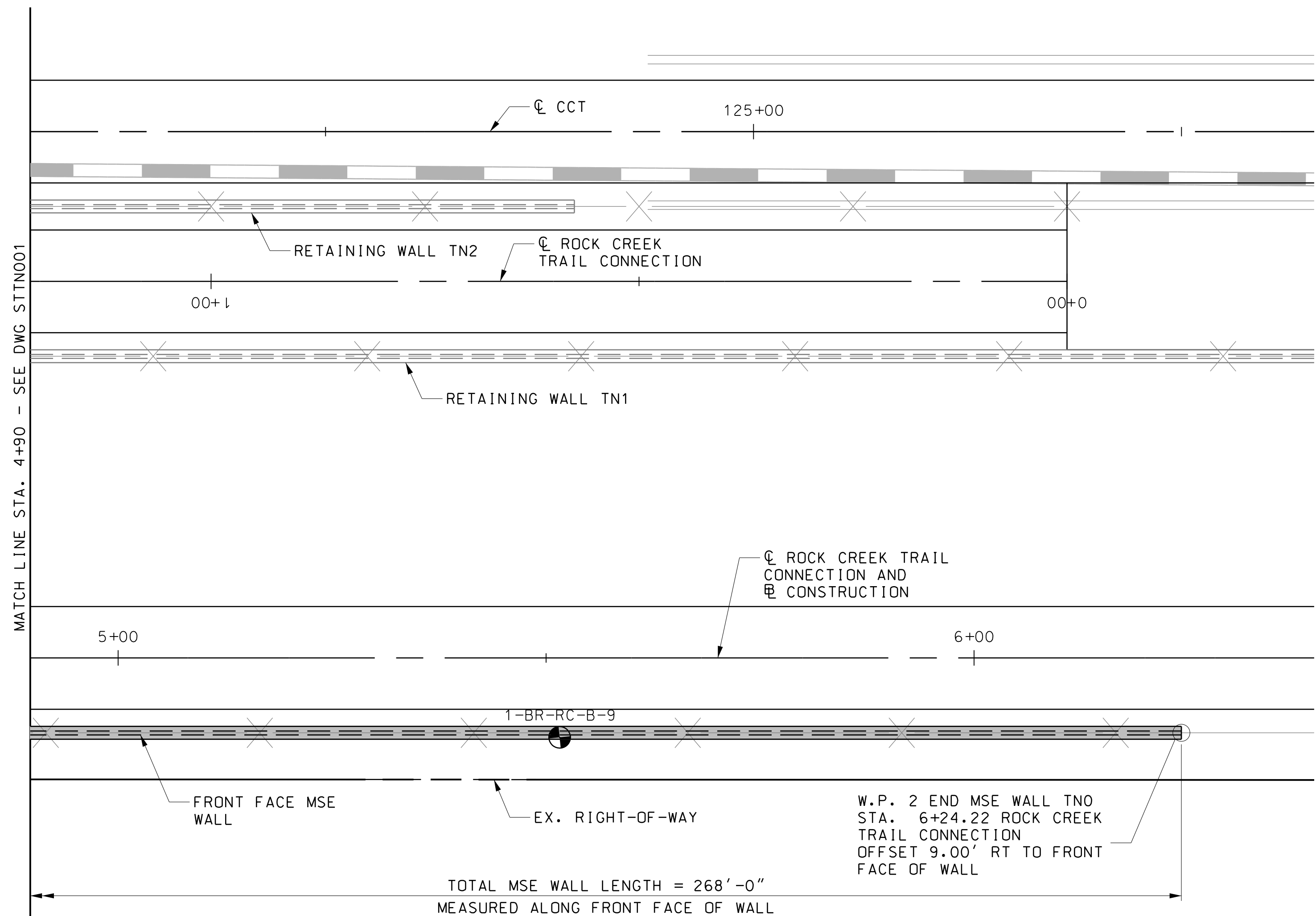
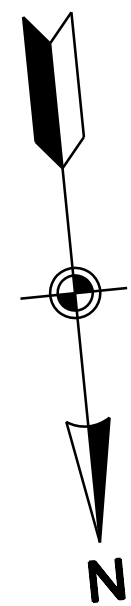
DESIGN	MWM
DRAWN	JY
CHECK	CRA
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

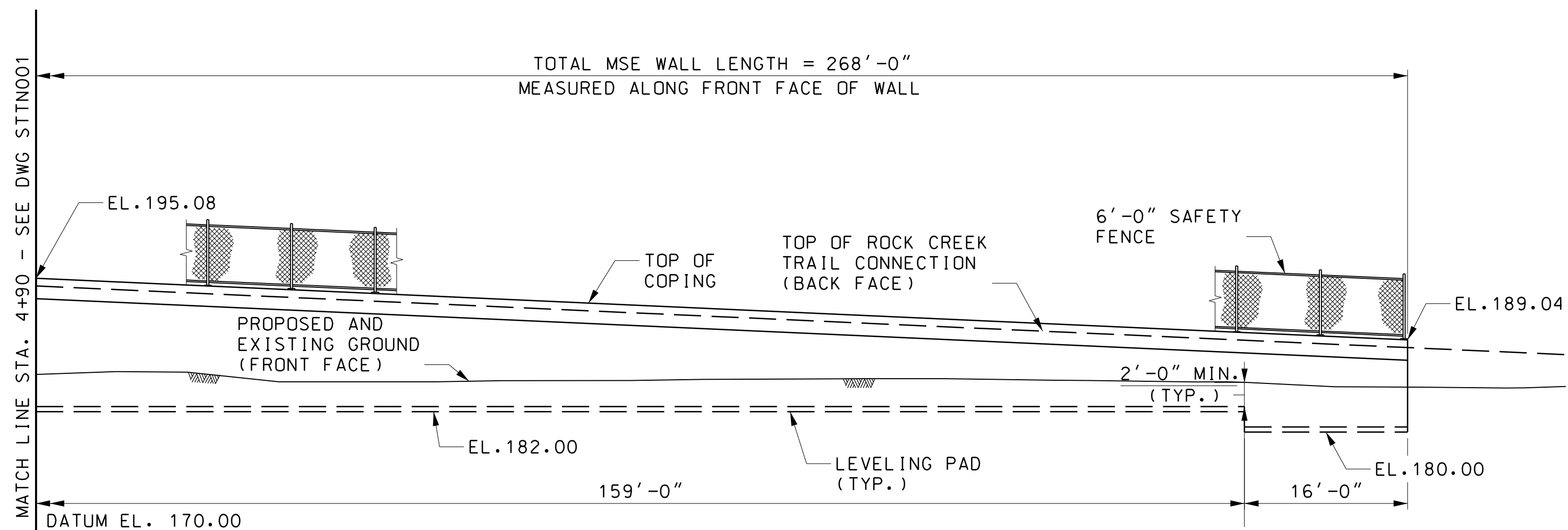
RETAINING WALL – TNO
GENERAL PLAN & ELEVATION – 1
DATE: DECEMBER 2013 SCALE: 1"=10'-0"

CONTRACT NO. T-1042-0220
DRAWING NO. STTN001
SHEET NO. 327 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\N-Rock Creek Ped Connection Ret Walls\Mercado\Sheet Files\1042pSttn01.dgn 12/6/2013



PLAN
SCALE: 1"=10'-0"



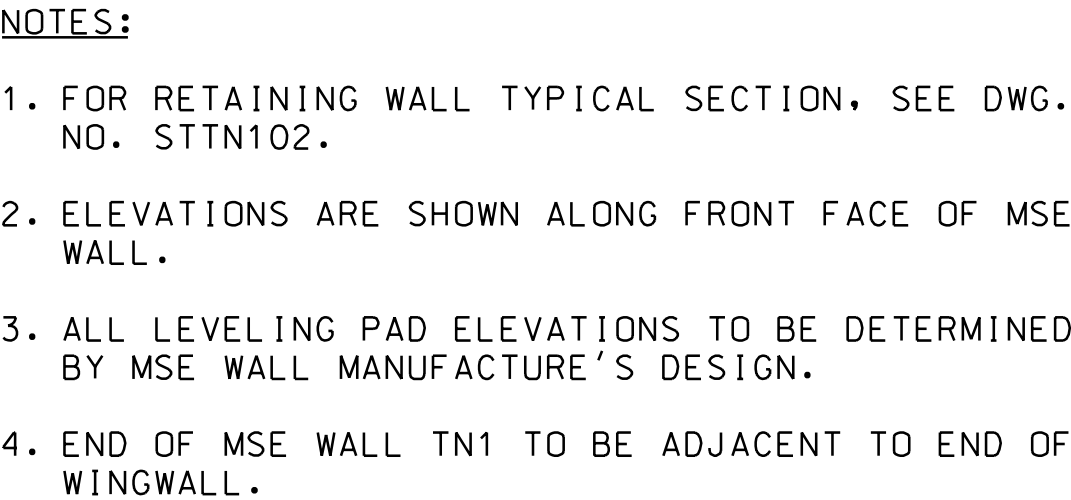
ELEVATION
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTN003.
2. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
3. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURE'S DESIGN.



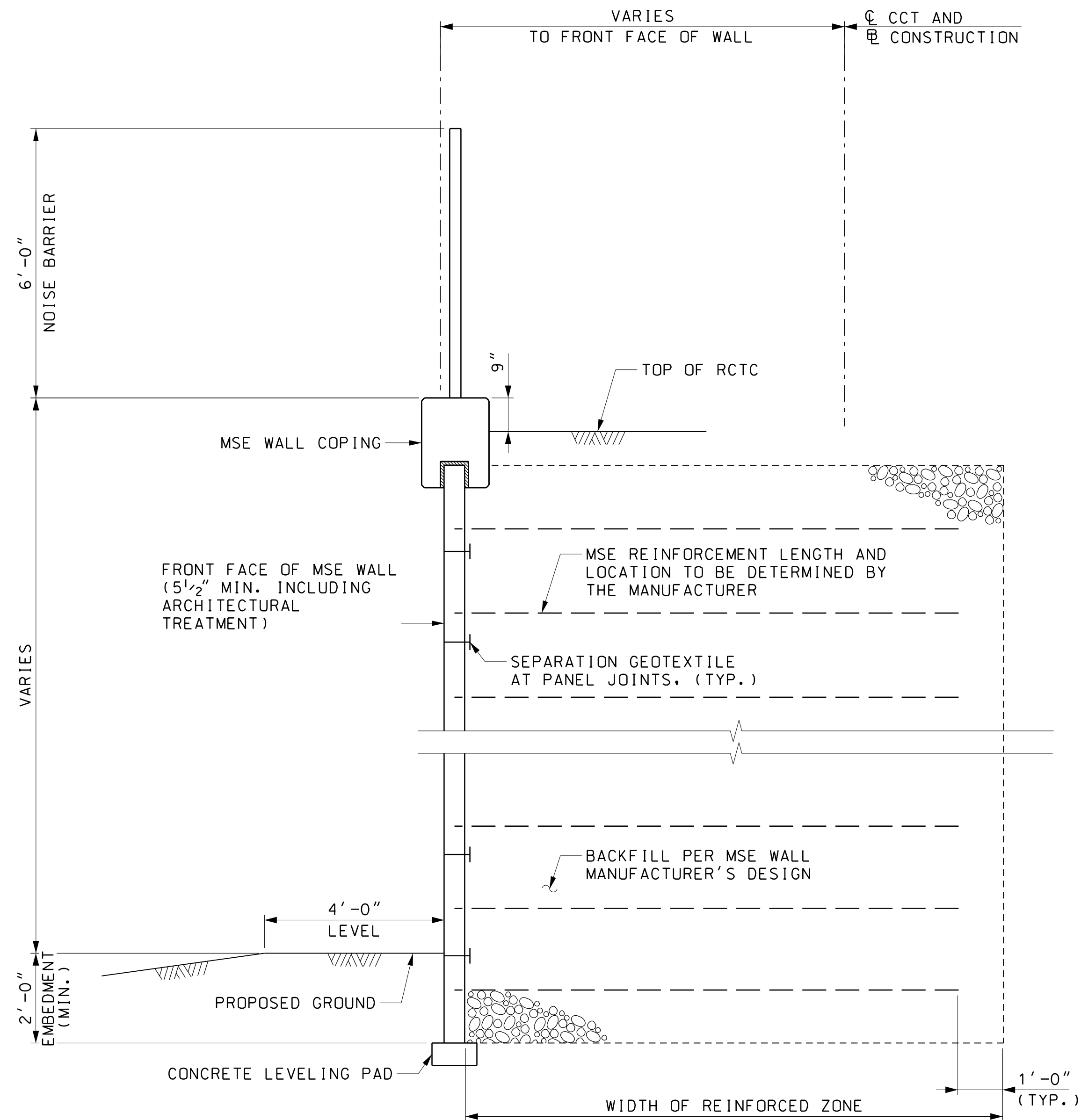
1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



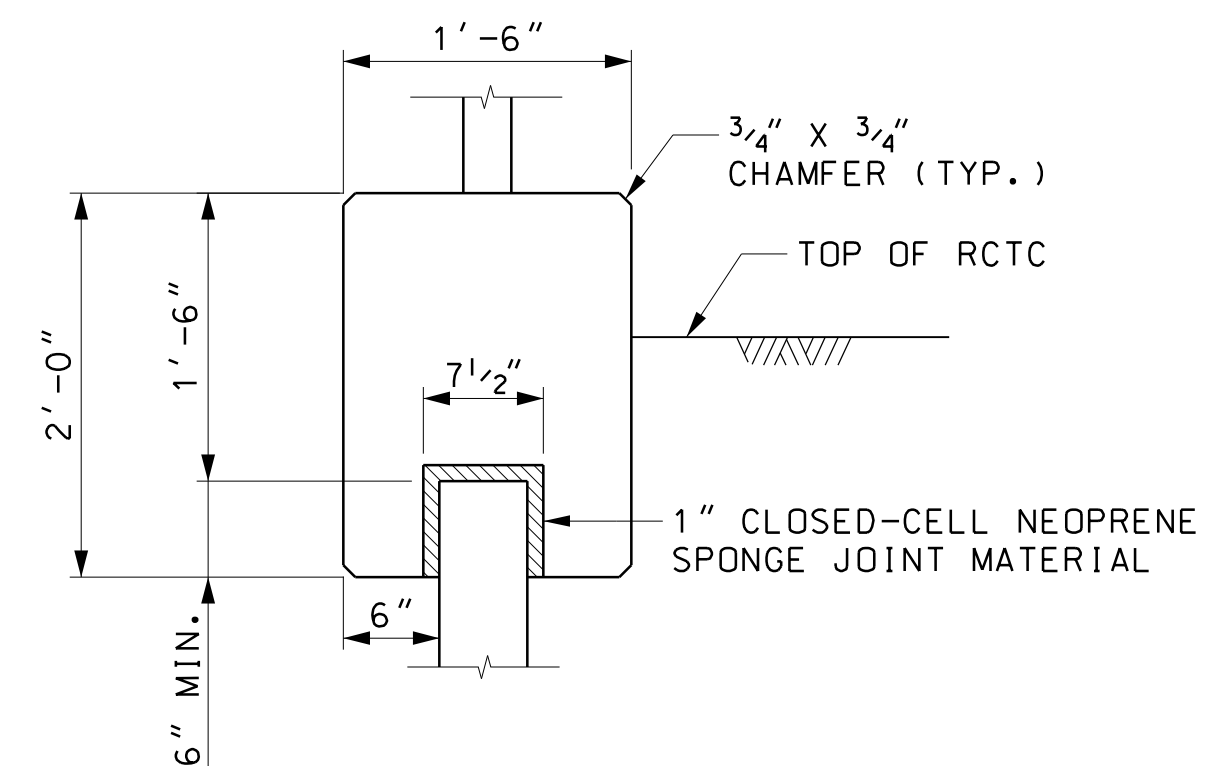
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SCALE: 1"=10'-0"



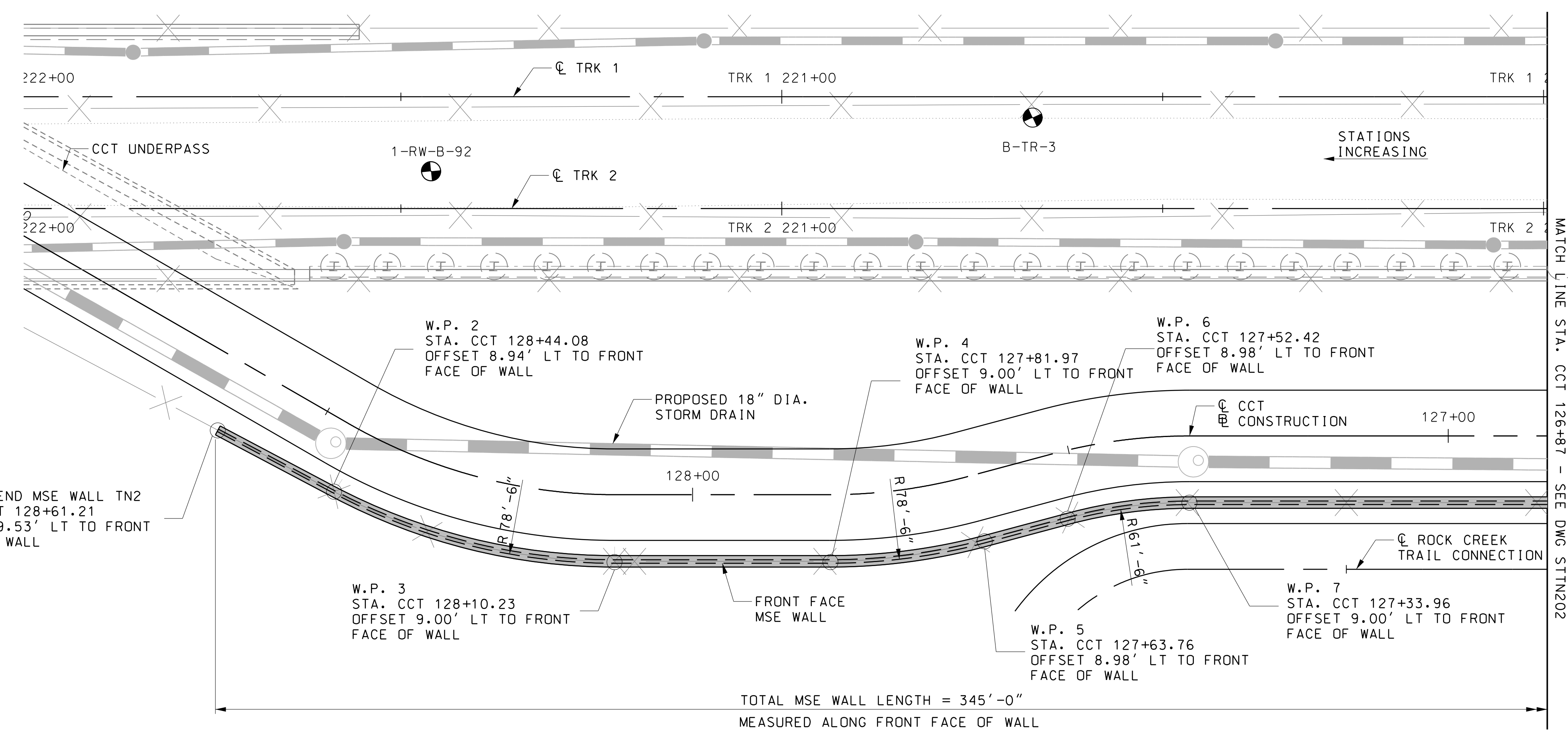
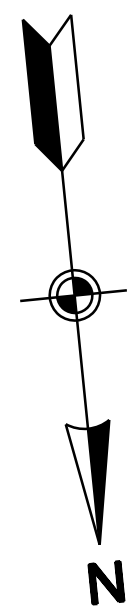
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

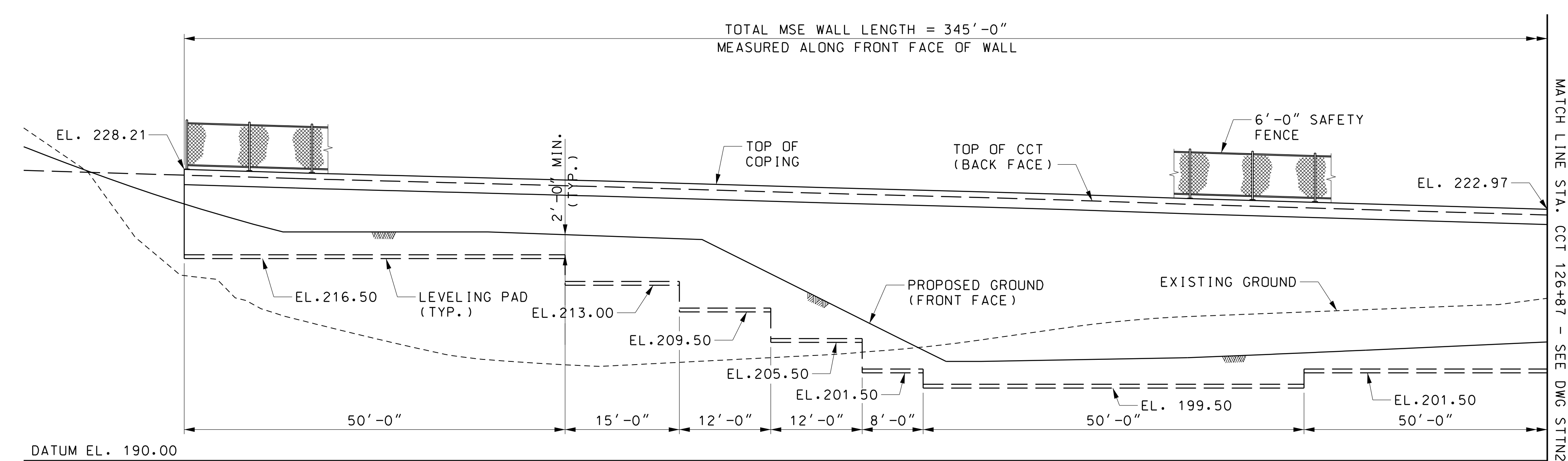
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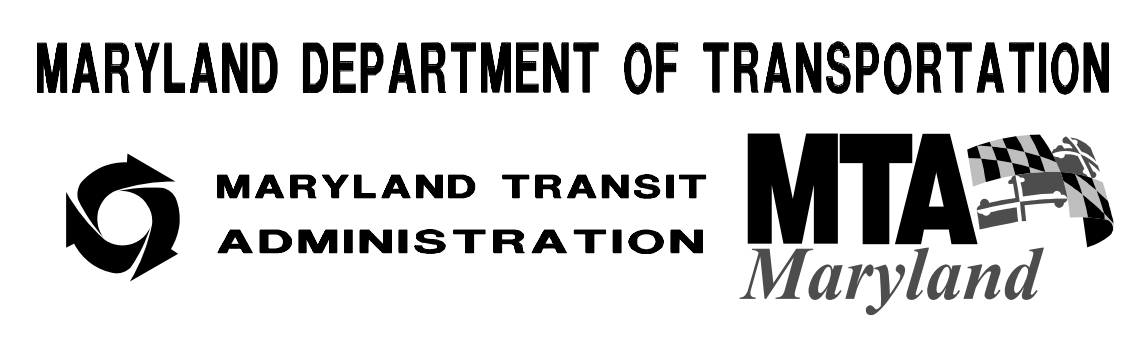
PLAN
SCALE: 1"=10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT OPPOSITE OF TRACK PLANS



ELEVATION
SCALE: 1"=10'-0"

- NOTES:**
1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTN203.
 2. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
 3. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURE'S DESIGN.



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
License No. Expiration Date

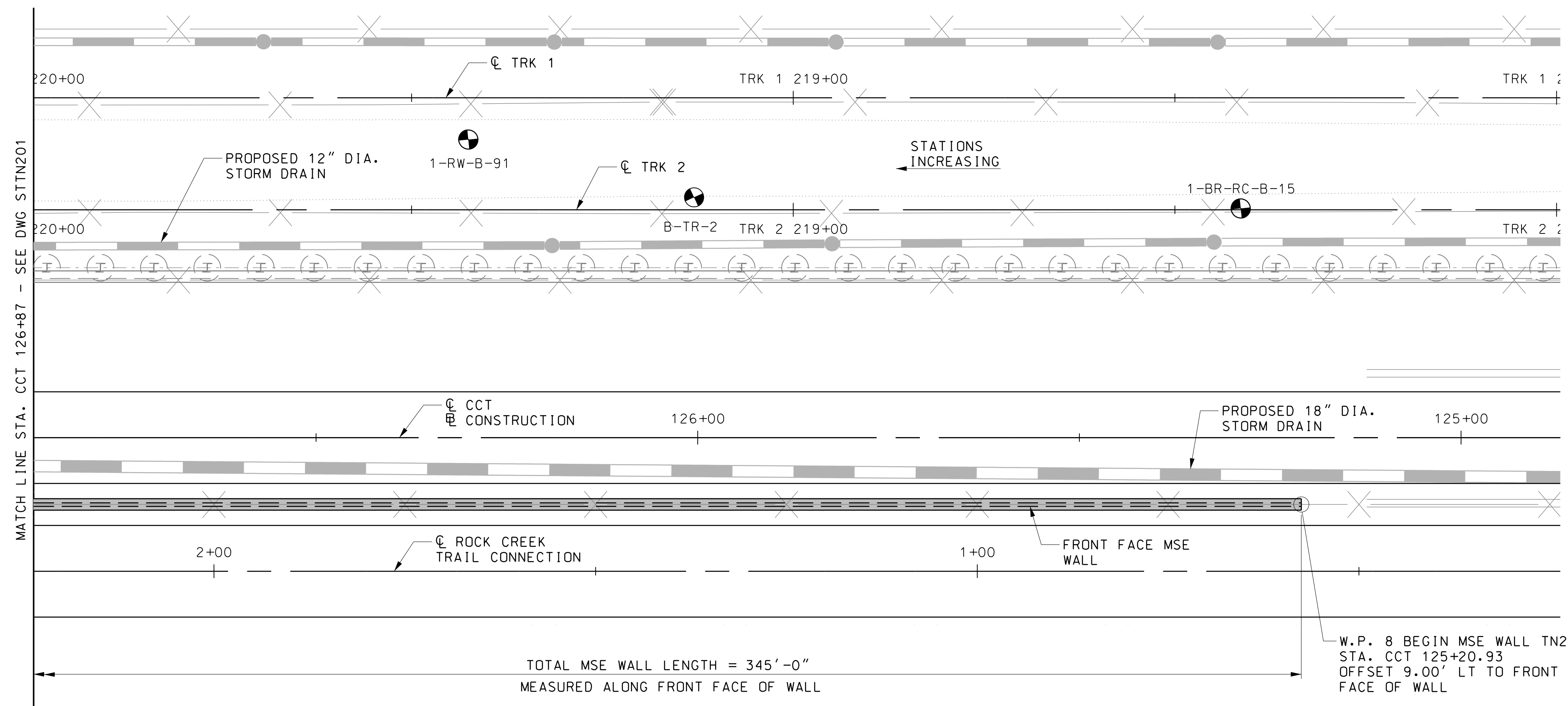
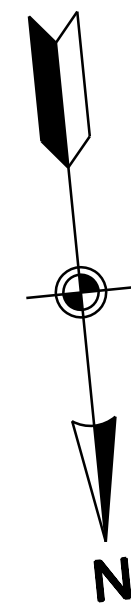
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
		MWM	
		JY	
		CRA	

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
RETAINING WALL – TN2 GENERAL PLAN & ELEVATION – 1	
DATE: DECEMBER 2013	SCALE: 1" = 10'-0"

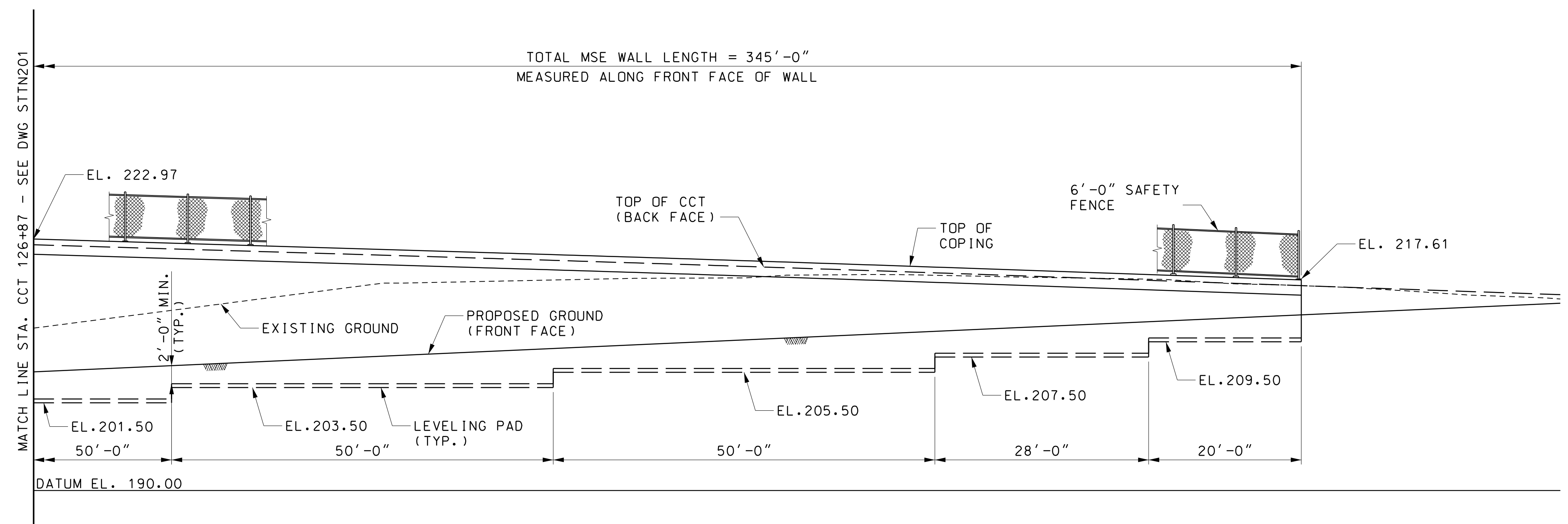
CONTRACT NO. T-1042-0220
DRAWING NO. STTN201
SHEET NO. 332 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\N-Rock Creek Ped Connection Ret Walls\Mercado\Sheet Files\1042pSttn21.dgn 12/9/2013



PLAN

SCALE: 1"=10'-0"

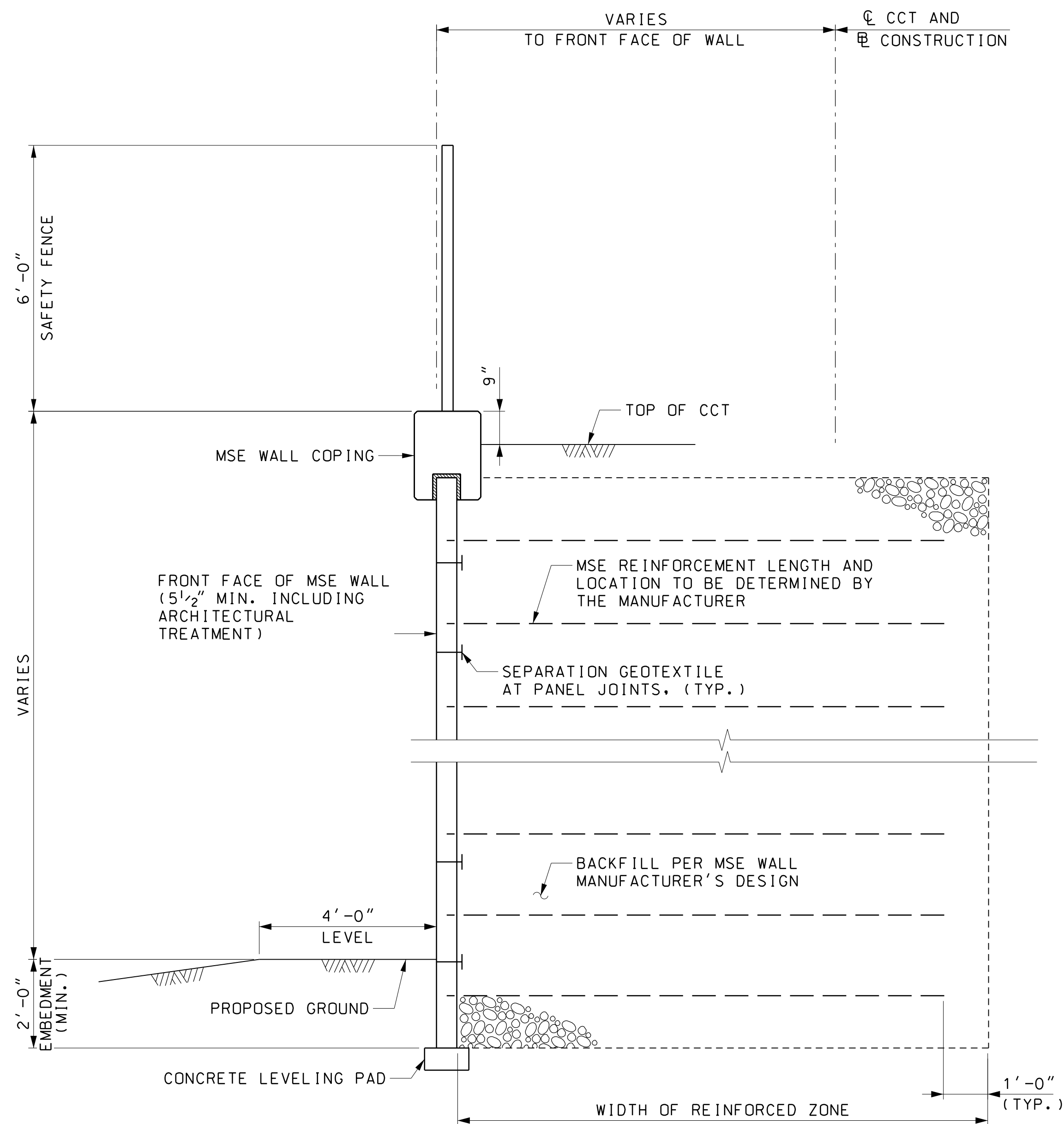


ELEVATION

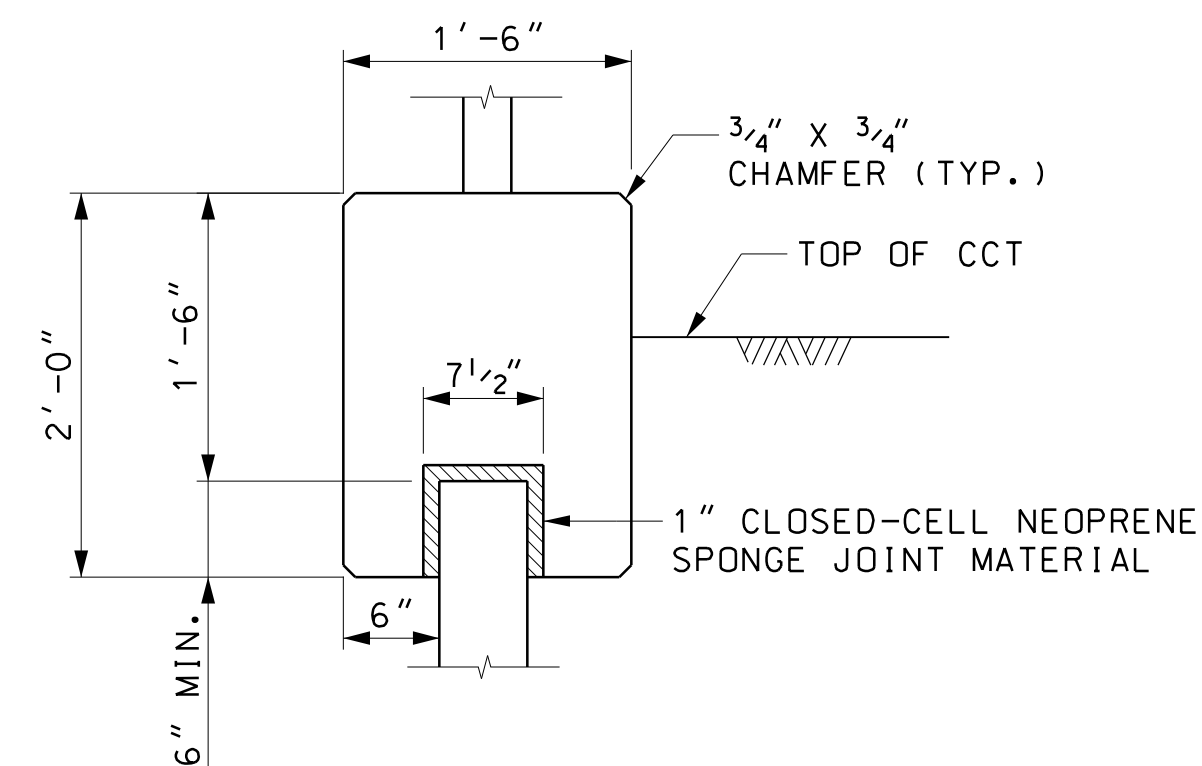
SCALE: 1"=10'-0"

NOTES:

1. FOR RETAINING WALL TYPICAL SECTION, SEE DWG. NO. STTN203.
2. ELEVATIONS ARE SHOWN ALONG FRONT FACE OF MSE WALL.
3. ALL LEVELING PAD ELEVATIONS TO BE DETERMINED BY MSE WALL MANUFACTURE'S DESIGN.



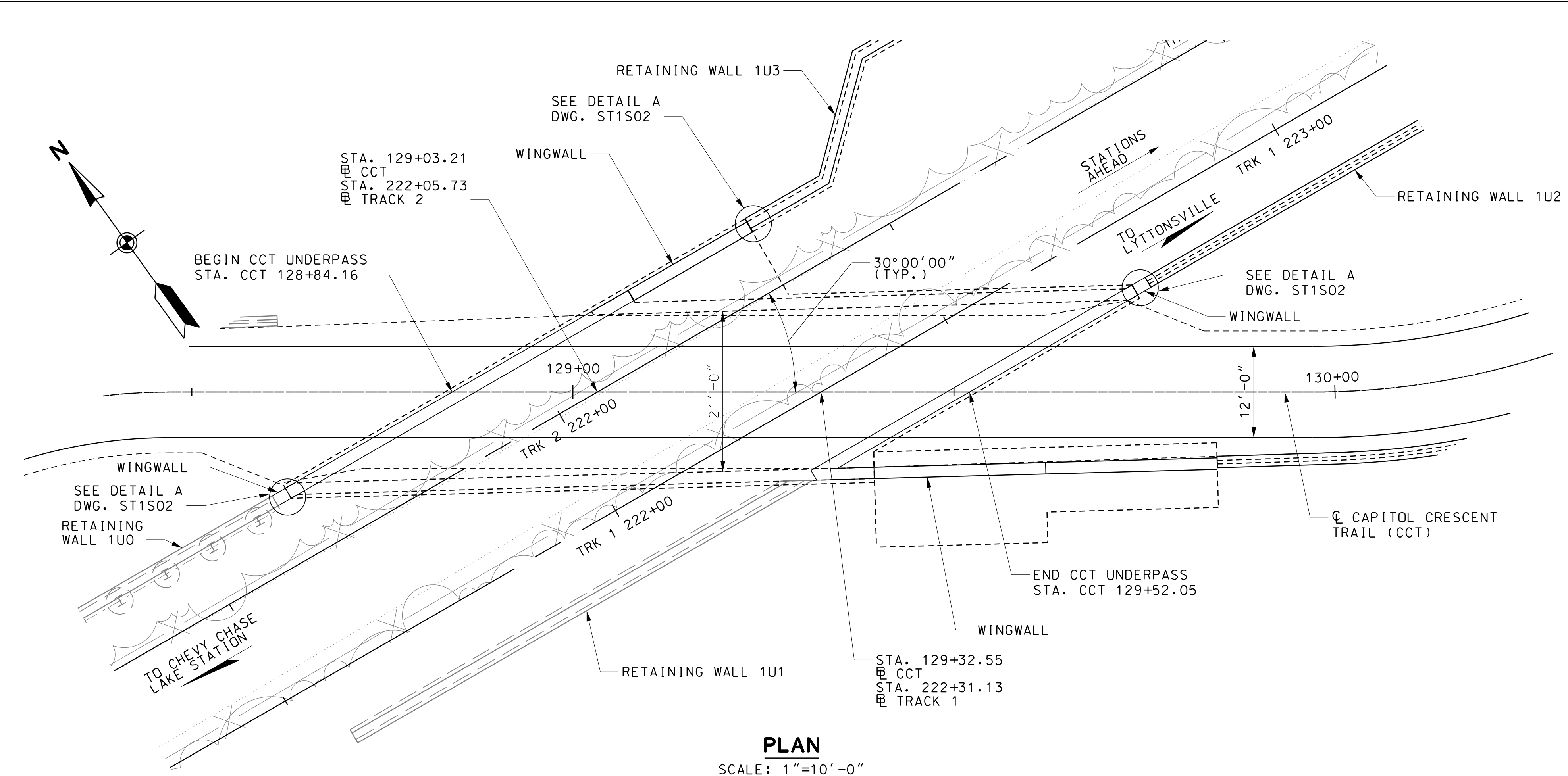
TYPICAL MSE WALL SECTION
SCALE: 1/2" = 1'-0"



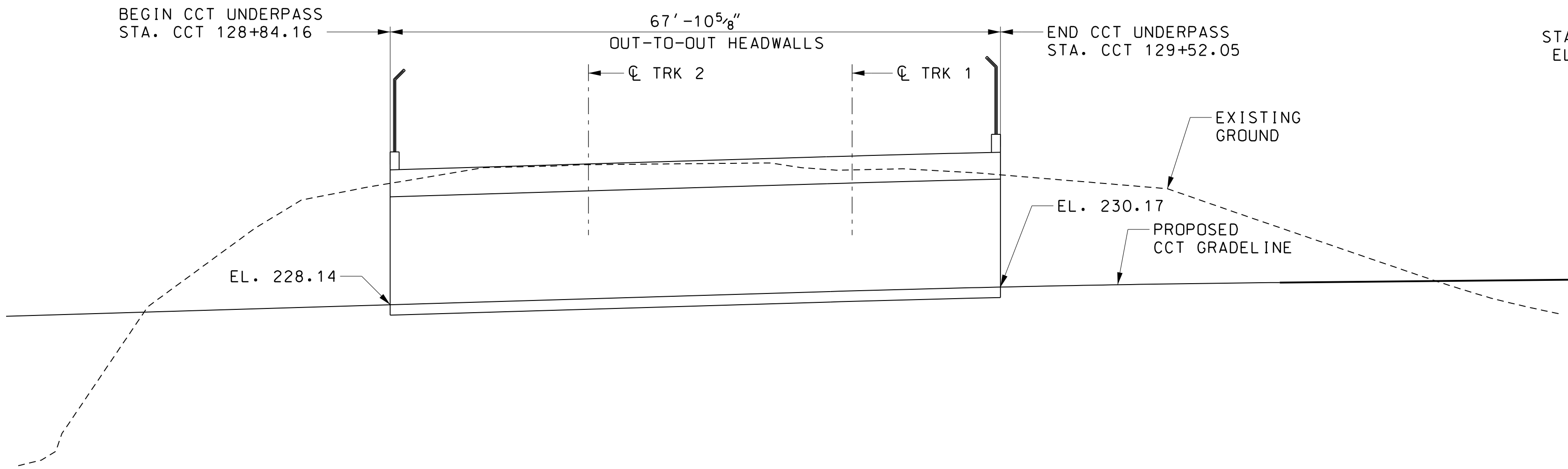
CONCRETE COPING DETAIL
SCALE: 1"=1'-0"

NOTES:

1. THE DESIGN CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO, CALCULATIONS FOR GLOBAL STABILITY, EXTERNAL STABILITY (SLIDING AND OVERTURNING), AND BEARING PRESSURE AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



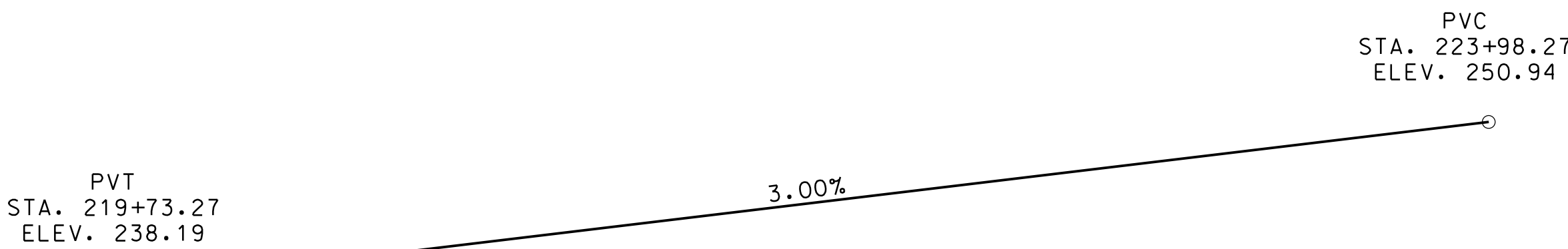
PLAN
SCALE: 1"=10'-0"



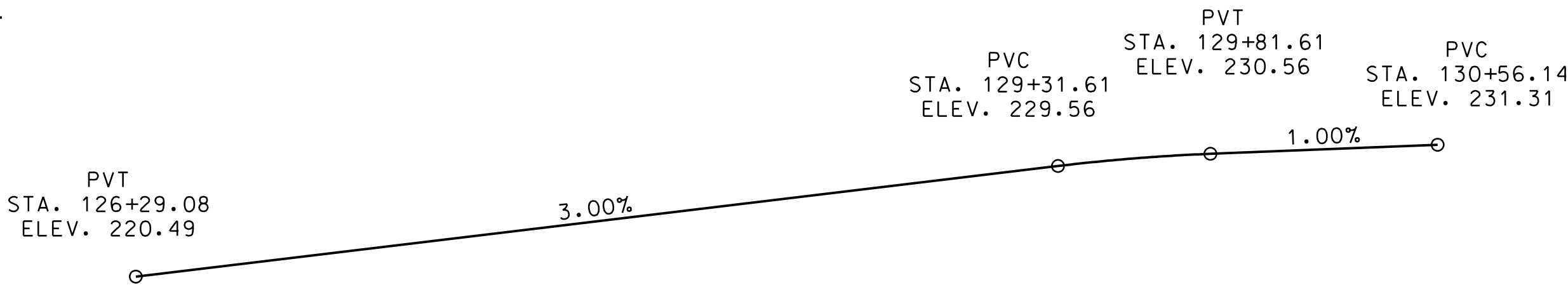
LONGITUDINAL SECTION
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GENERAL NOTES

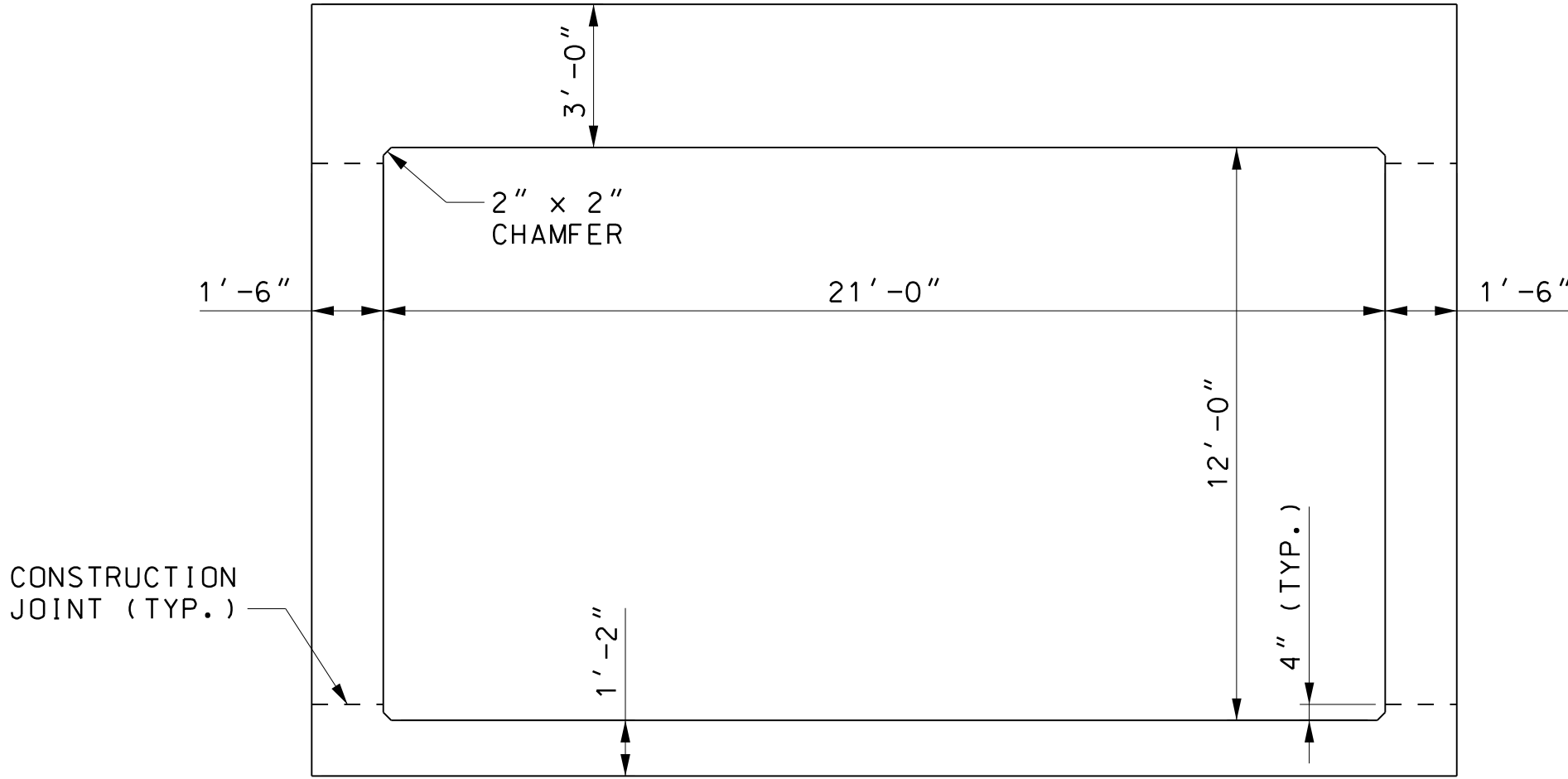
- SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012.
- MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA
- CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
- REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.
- LOADING: AW4 LRT VEHICLE. DESIGN IS BASED ON AN ASSUMED MAXIMUM FILL HEIGHT OF 5.5 FT.
- CONCRETE: ALL CAST-IN-PLACE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). ALL PRECAST CONCRETE SHALL BE $f'_c = 5000$ PSI.
- REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60.
- KEYS: ALL KEYS ARE NOMINAL SIZE.
- GEOTECHNICAL DESIGN PARAMETERS: PRIOR TO CONSTRUCTING CULVERT, GEOTECH ENGINEER TO VERIFY IN FIELD FOUNDATION CAPACITY. UNDERCUT OF SOILS MAY BE REQUIRED TO MEET FOUNDATION CAPACITY.



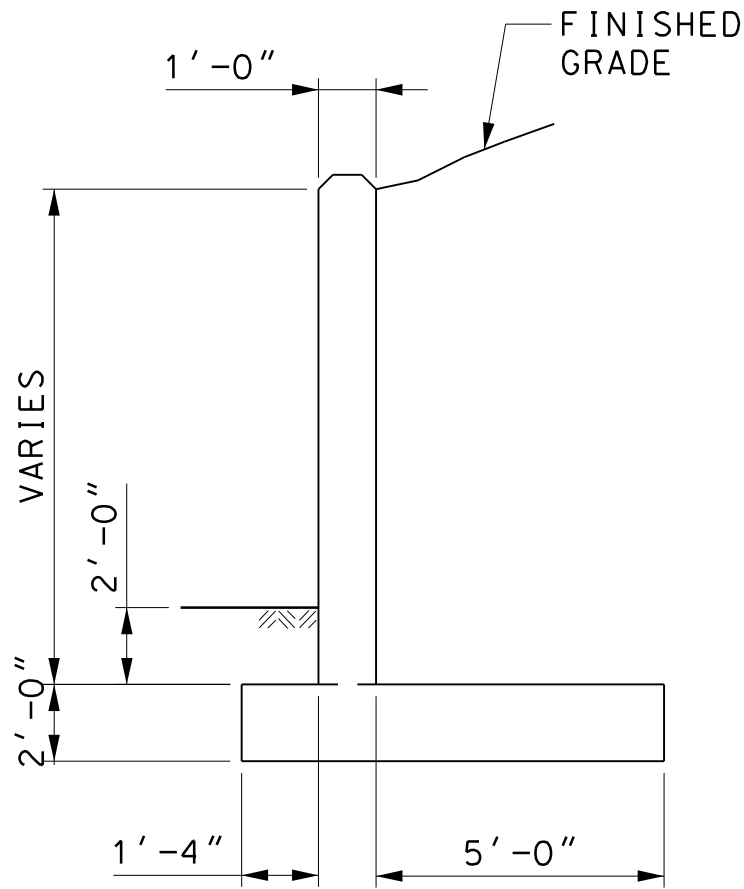
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SCALE: NOT TO SCALE



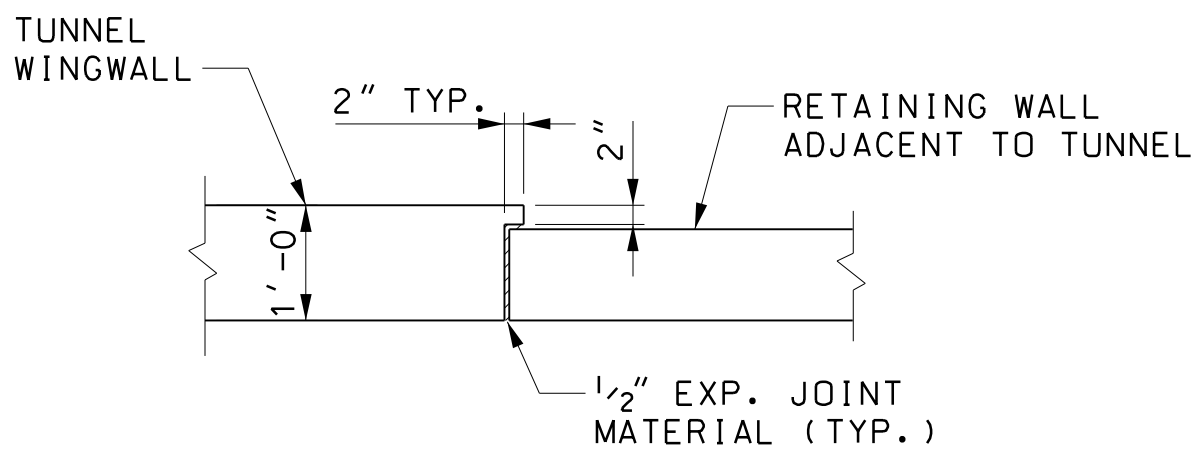
VERTICAL PROFILE - CCT
SCALE: NOT TO SCALE



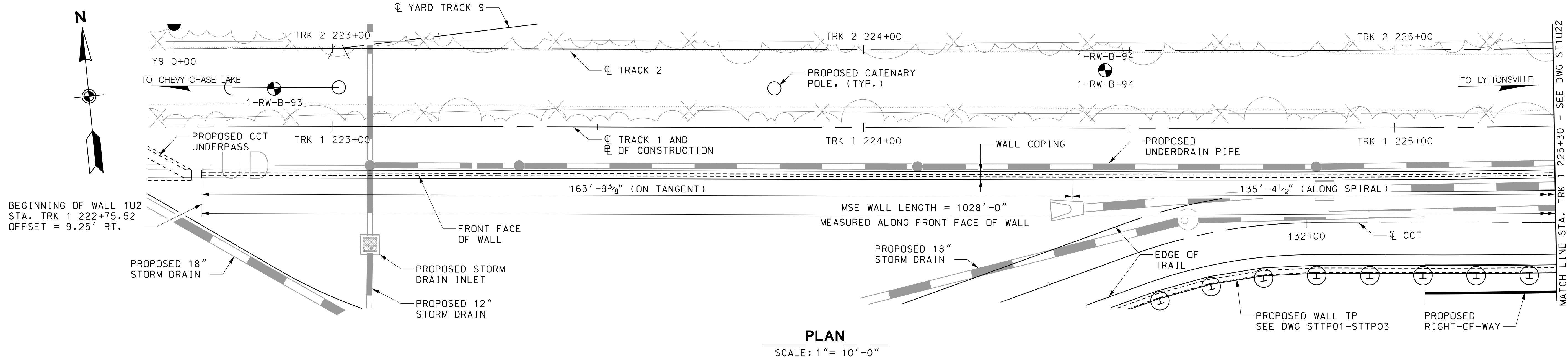
TYPICAL SECTION THRU CCT UNDERPASS
N.T.S.



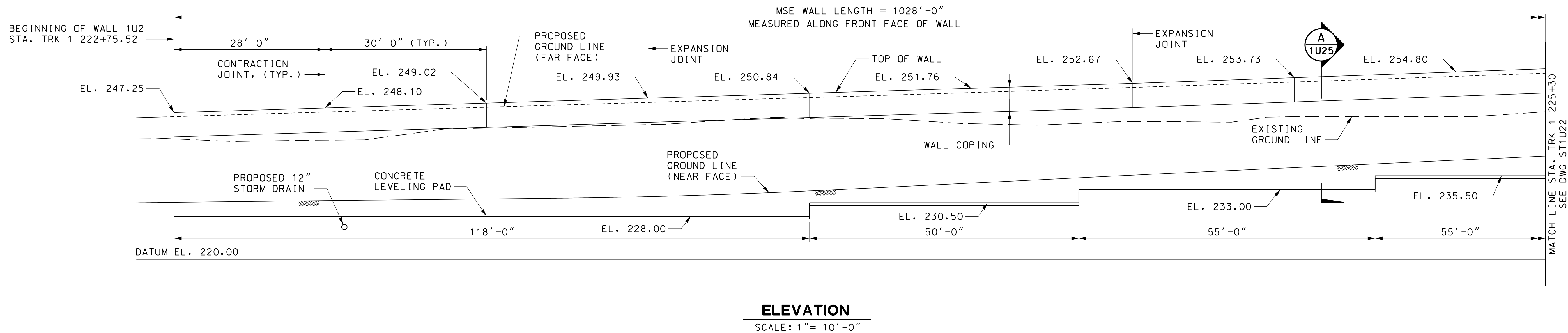
WINGWALL SECTION
N.T.S.

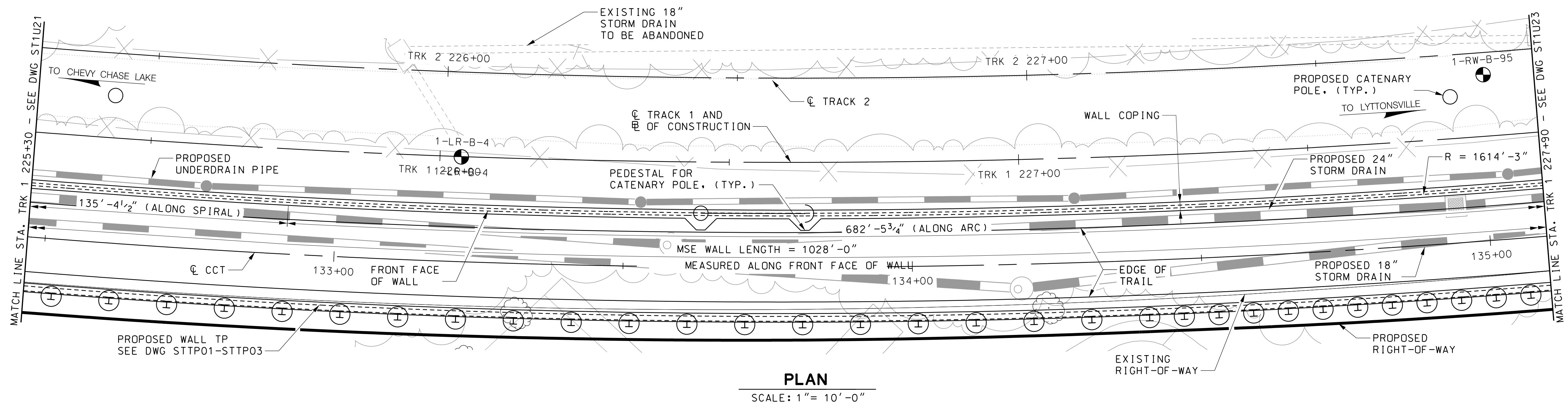
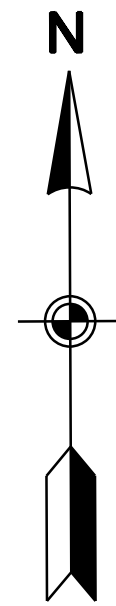


DETAIL A
N.T.S.



- NOTES:
1. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



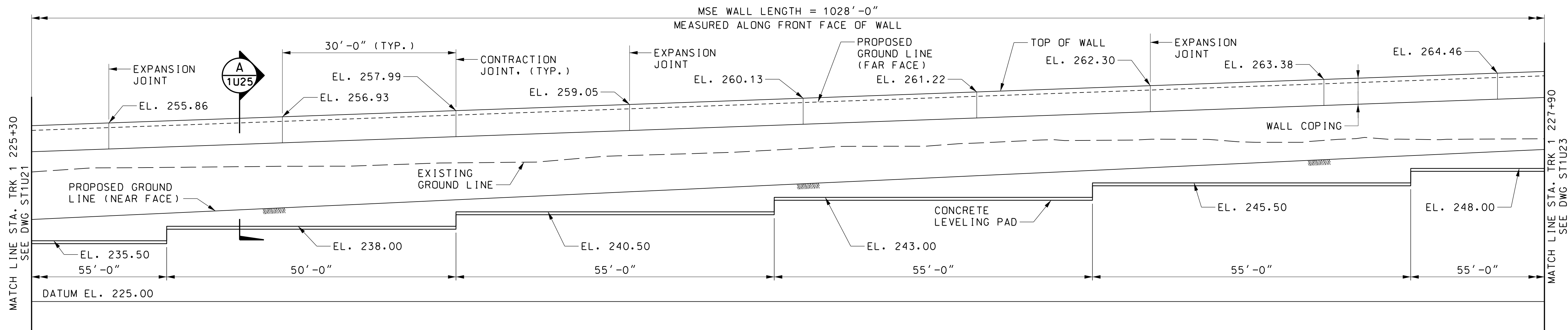


PLAN

SCALE: 1" = 10'-0"

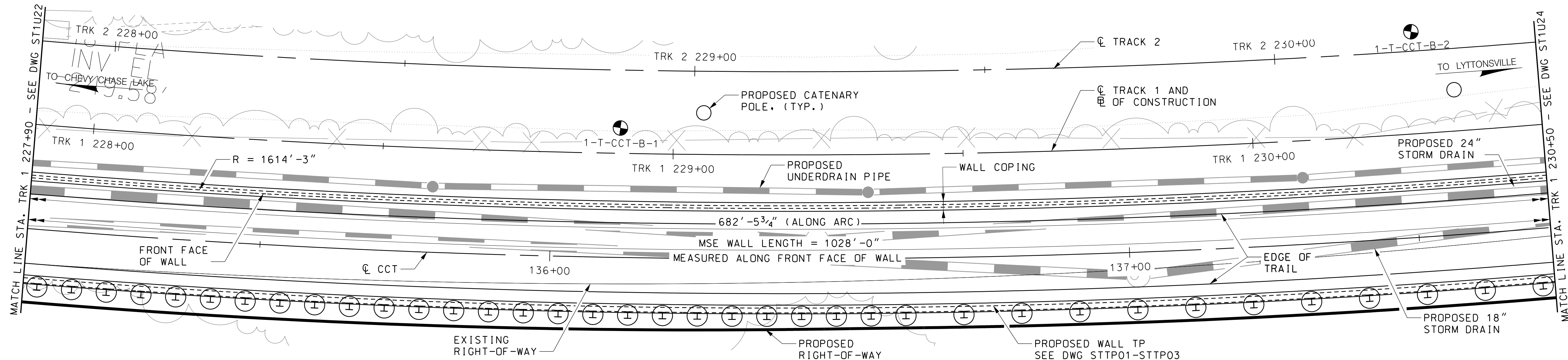
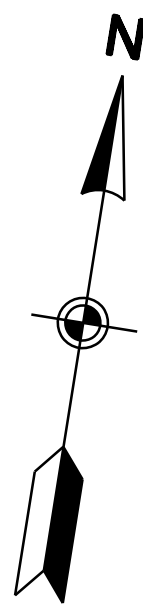
NOTES:

1. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1" = 10'-0"

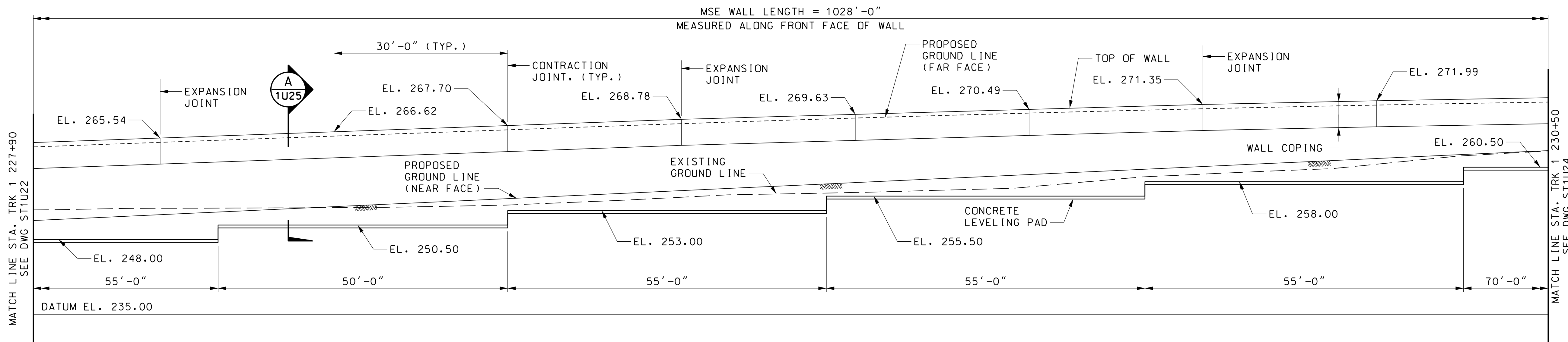


PLAN

SCALE: 1"= 10'-0"

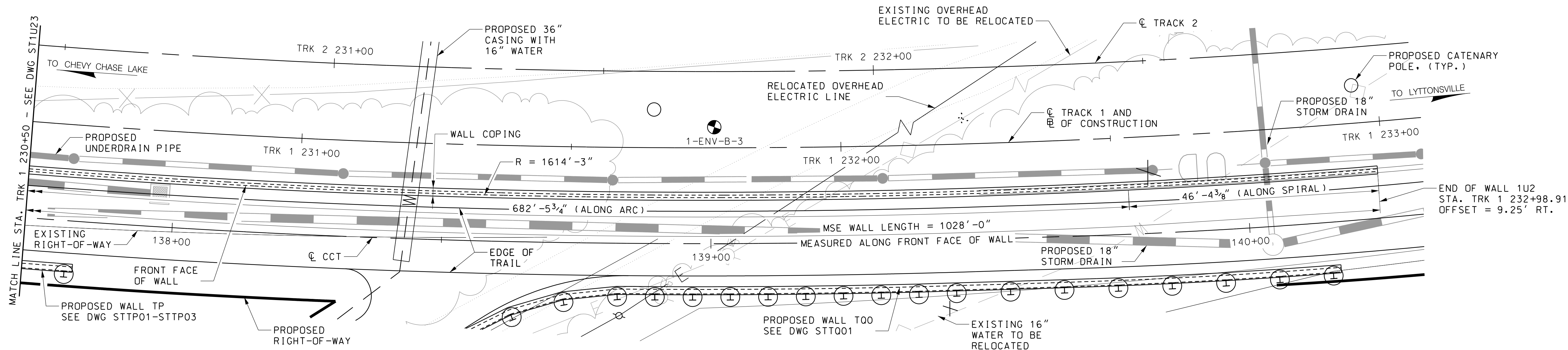
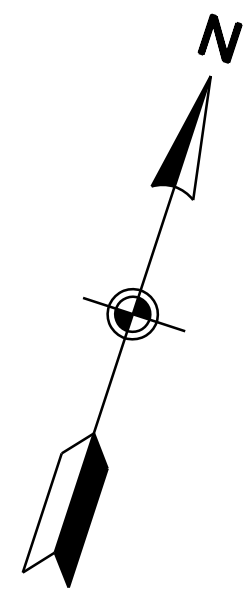
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3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1"= 10'-0"

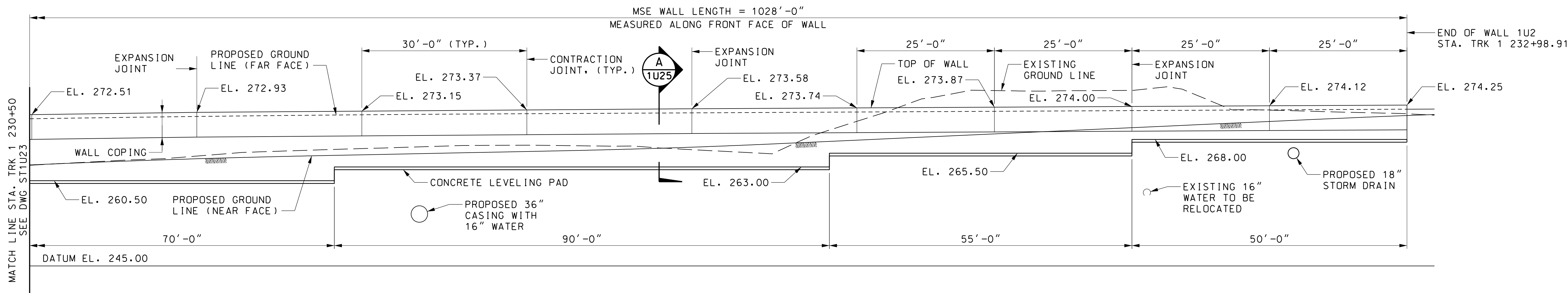


PLAN

SCALE: 1" = 10' - 0"

NOTES:

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3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1" = 10' - 0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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DESIGN	AFM
DRAWN	AFM
CHECK	AR
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

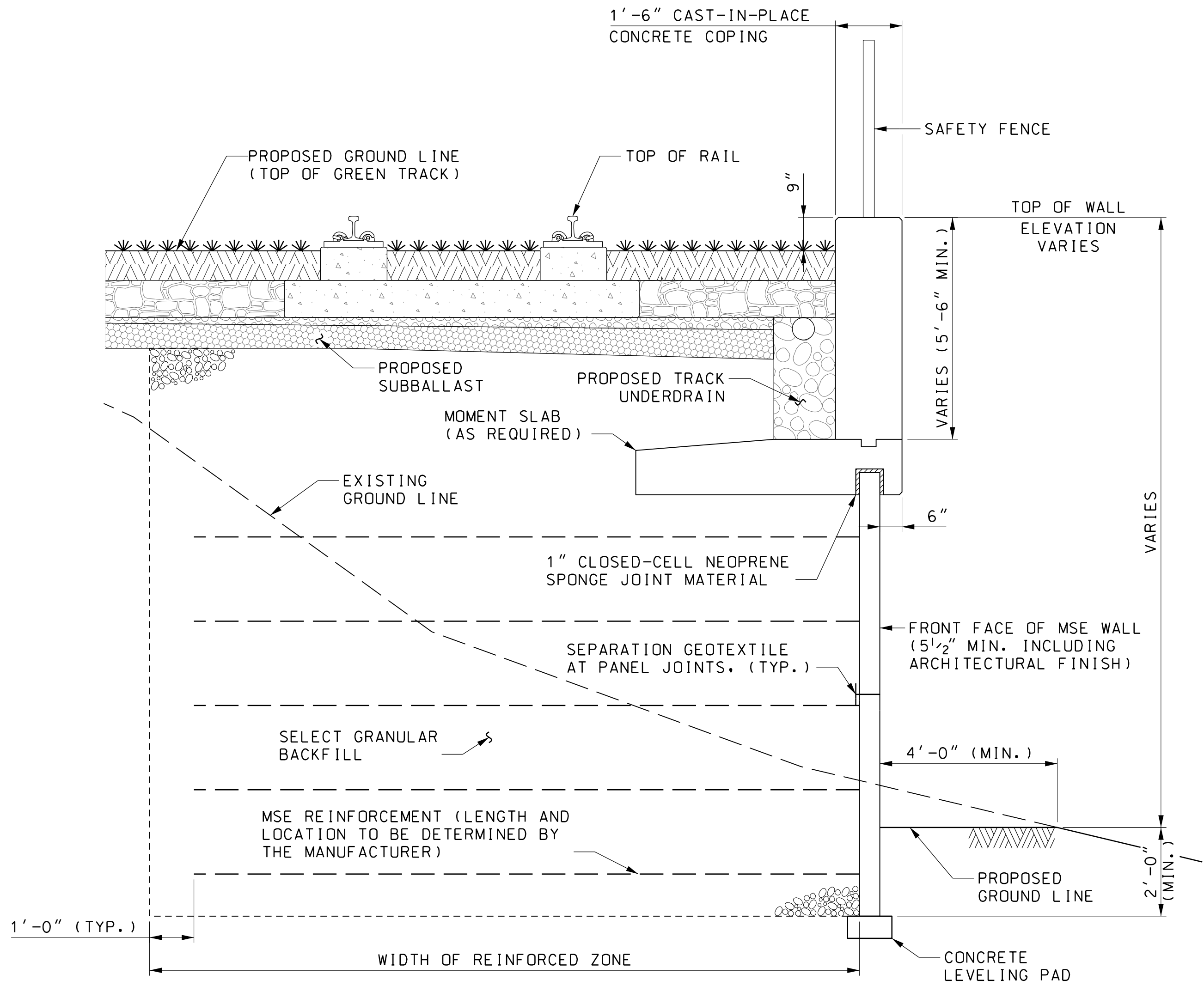
RETAINING WALL - 1U2
GENERAL PLAN & ELEVATION - 4

DATE: DECEMBER 2013

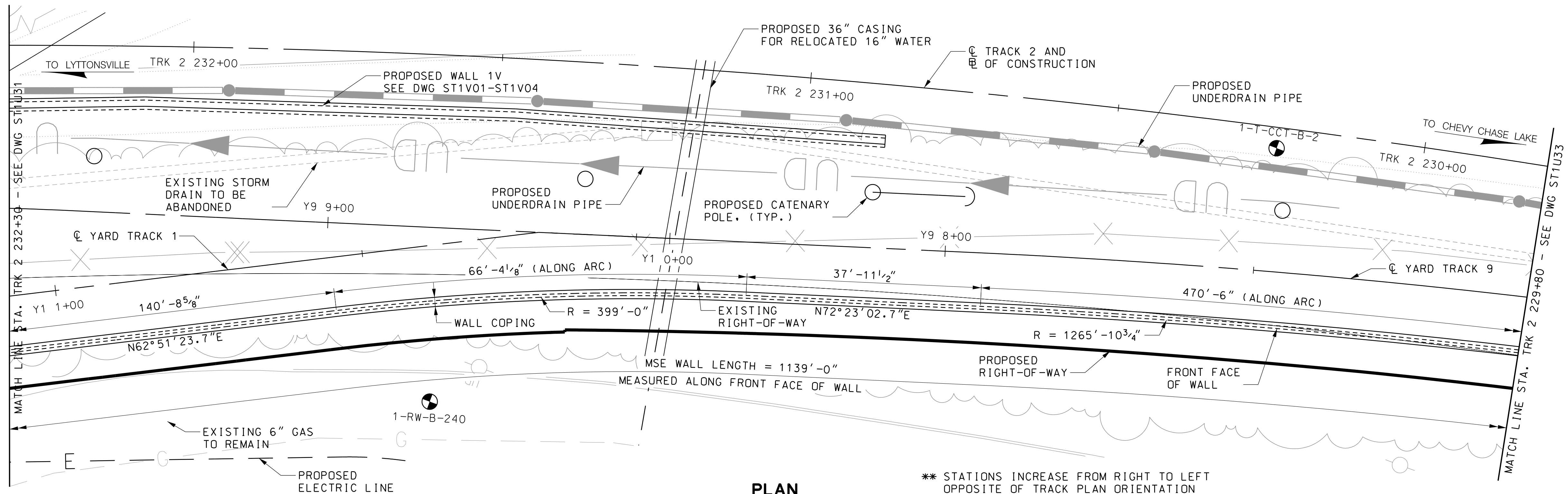
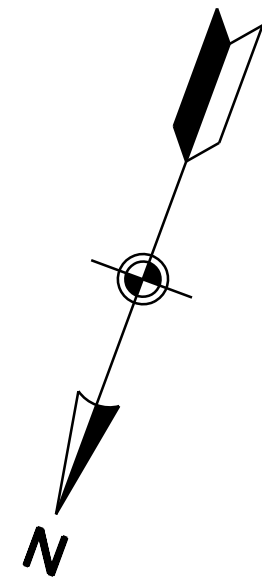
SCALE: 1" = 10' - 0"

CONTRACT NO.	T-1042-0220
DRAWING NO.	ST1U24
SHEET NO.	340 OF 828

- NOTES:**
- 1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
 - 2. MSE WALL MANUFACTURER DESIGN CALCULATIONS FOR MSE WALLS SHALL INCLUDE CALCULATIONS FOR INTERNAL STABILITY AND COMPOUND STABILITY AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
 - 3. NO. 57 STONE OF APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
 - 4. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL MANUFACTURER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.



SECTION
SCALE: 1/2"=1'-0"
REF: 1U21-1U24



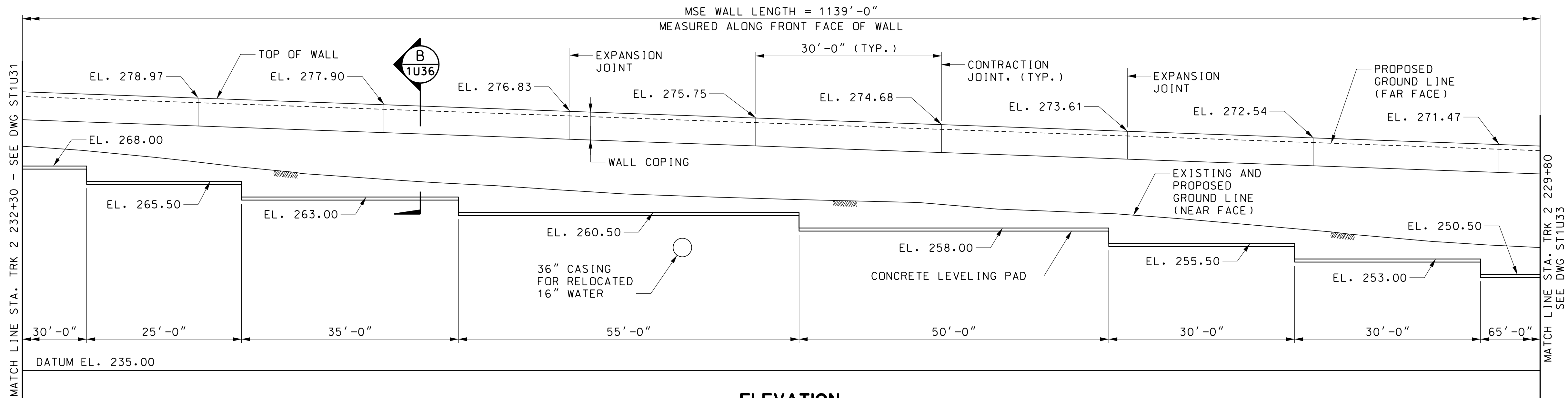
PLAN

SCALE: 1" = 10' -0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

NOTES:

1. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1" = 10' -0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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DESIGN AFM
DRAWN AFM
CHECK AR
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 1U3
GENERAL PLAN & ELEVATION - 2

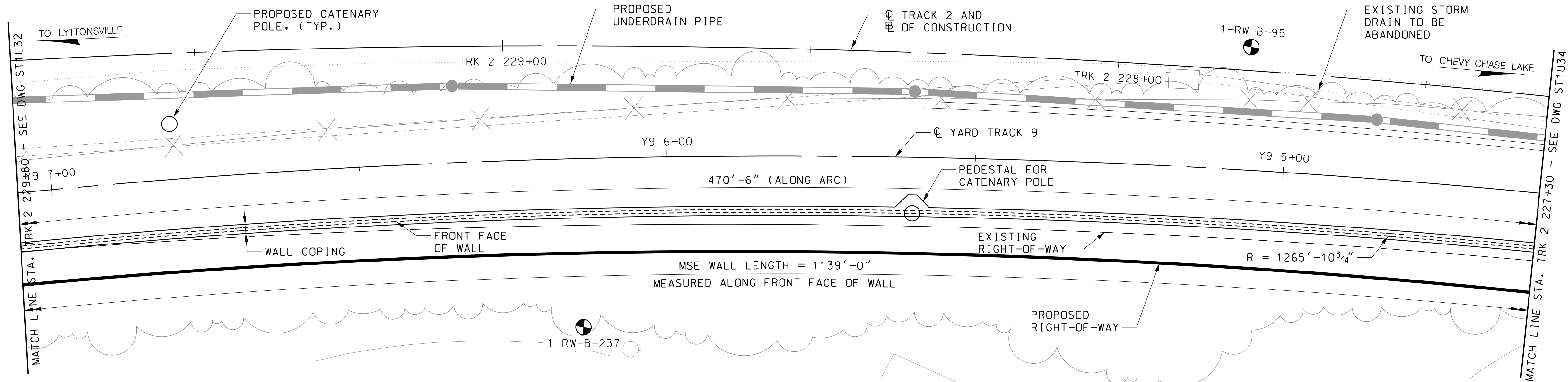
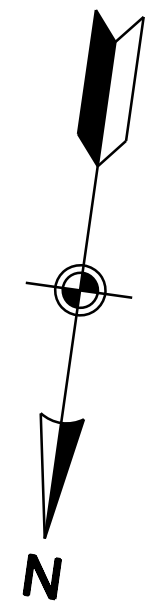
DATE: DECEMBER 2013

SCALE: 1" = 10' -0"

CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1U32

SHEET NO.
343 OF 828



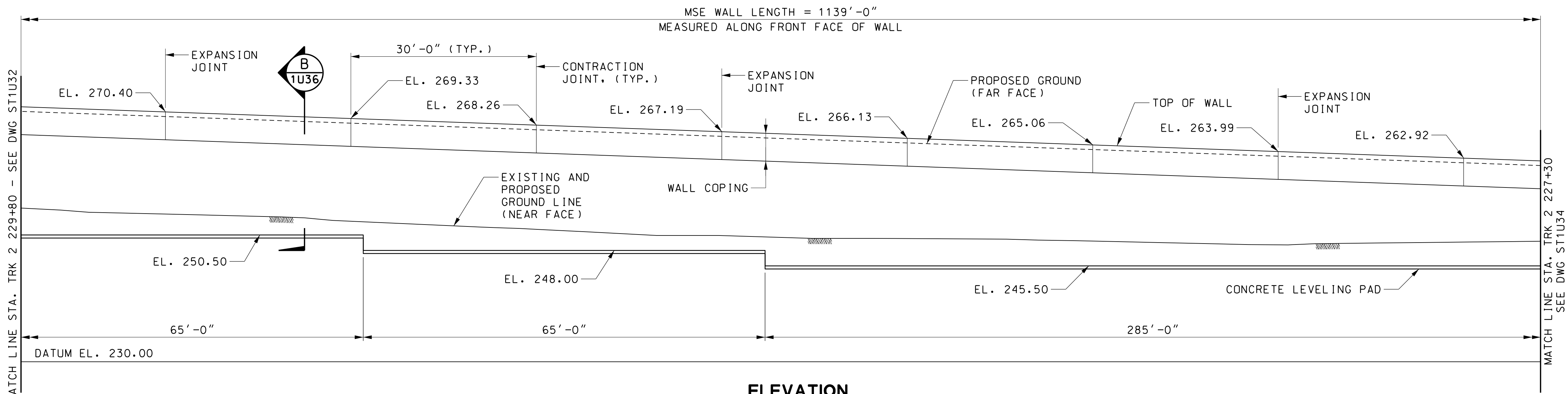
** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

NOTES:

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2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN

SCALE: 1"= 10'-0"



ELEVATION

SCALE: 1"= 10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR CHECK DRAWN DESIGN
AFM
AFM
AR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 1U3
GENERAL PLAN & ELEVATION - 3

DATE: DECEMBER 2013

SCALE: 1"=10'-0"

CONTRACT NO.

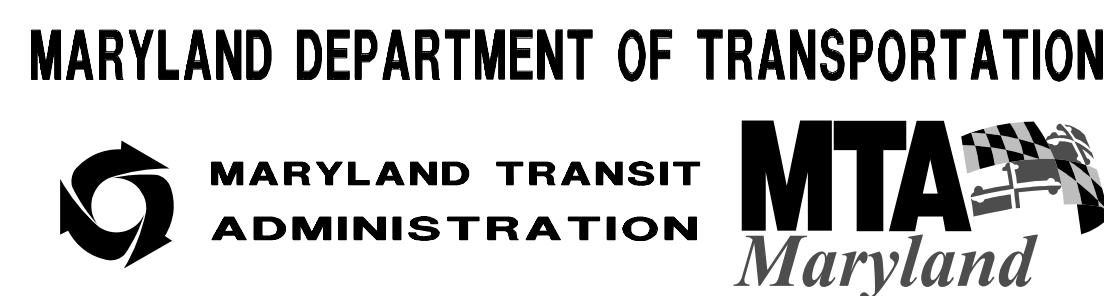
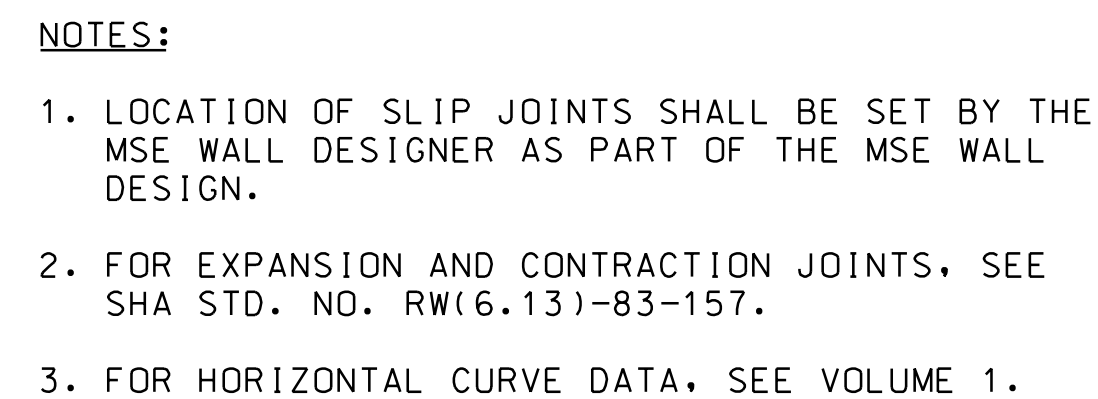
T-1042-0220

DRAWING NO.

ST1U33

SHEET NO.

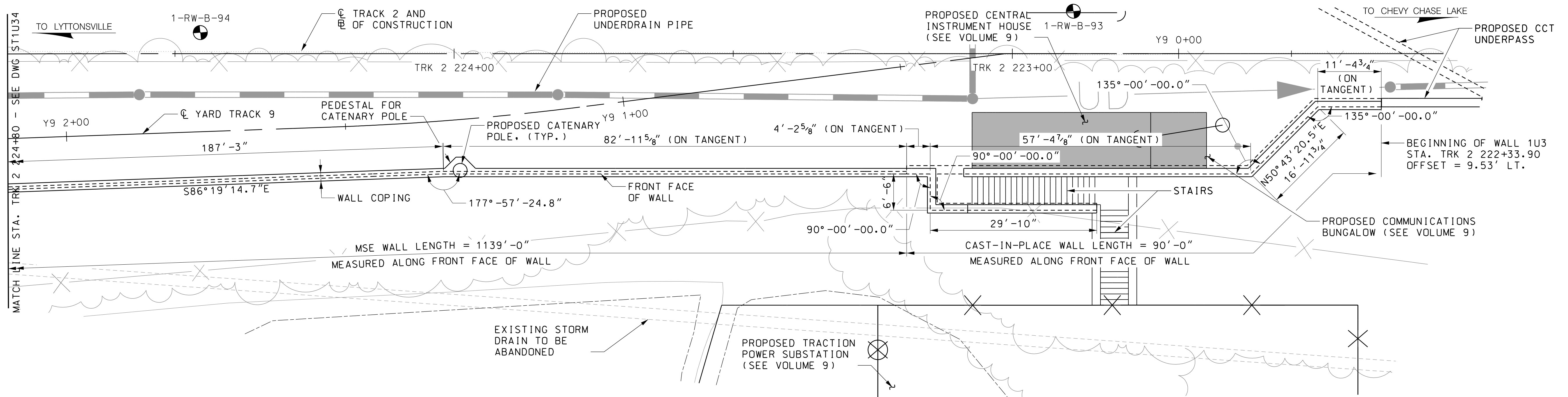
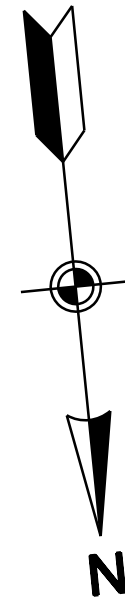
344 OF 828



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DRAWN	AFM	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL
	AFM	
CHECK	AR	RETAINING WALL – 1U3 GENERAL PLAN & ELEVATION – 4
APPR		
DATE: DECEMBER 2013		SCALE: 1" = 10' - 0"

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST1U34
SHEET NO.
345 OF 828



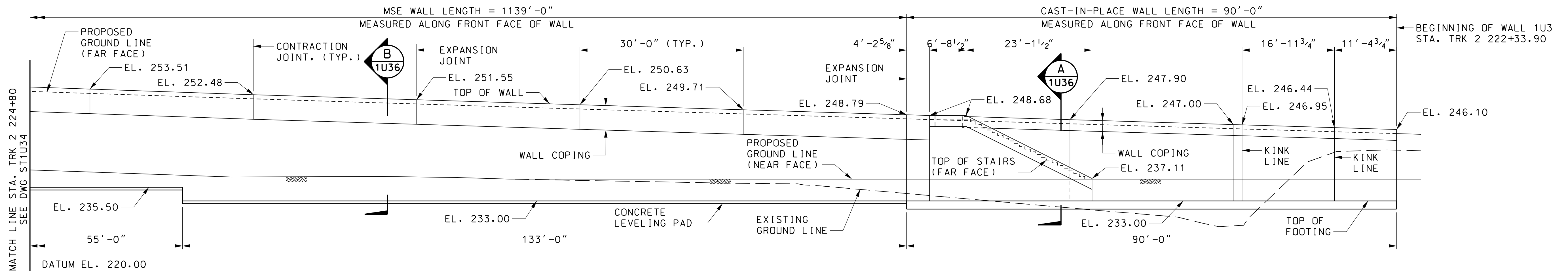
NOTES:

1. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN

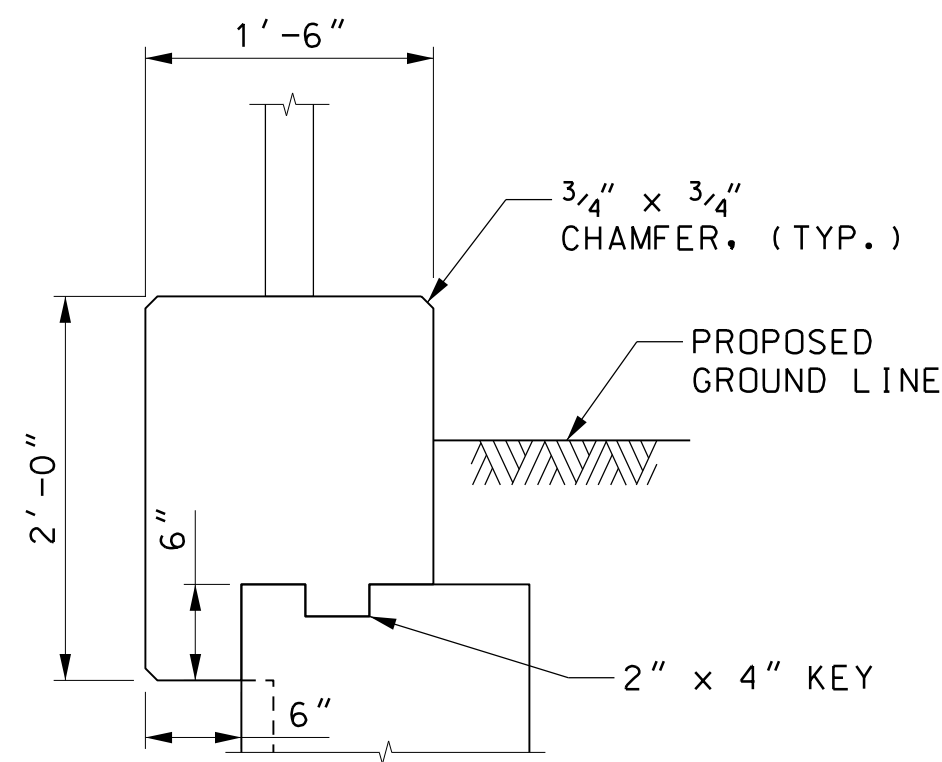
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** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION



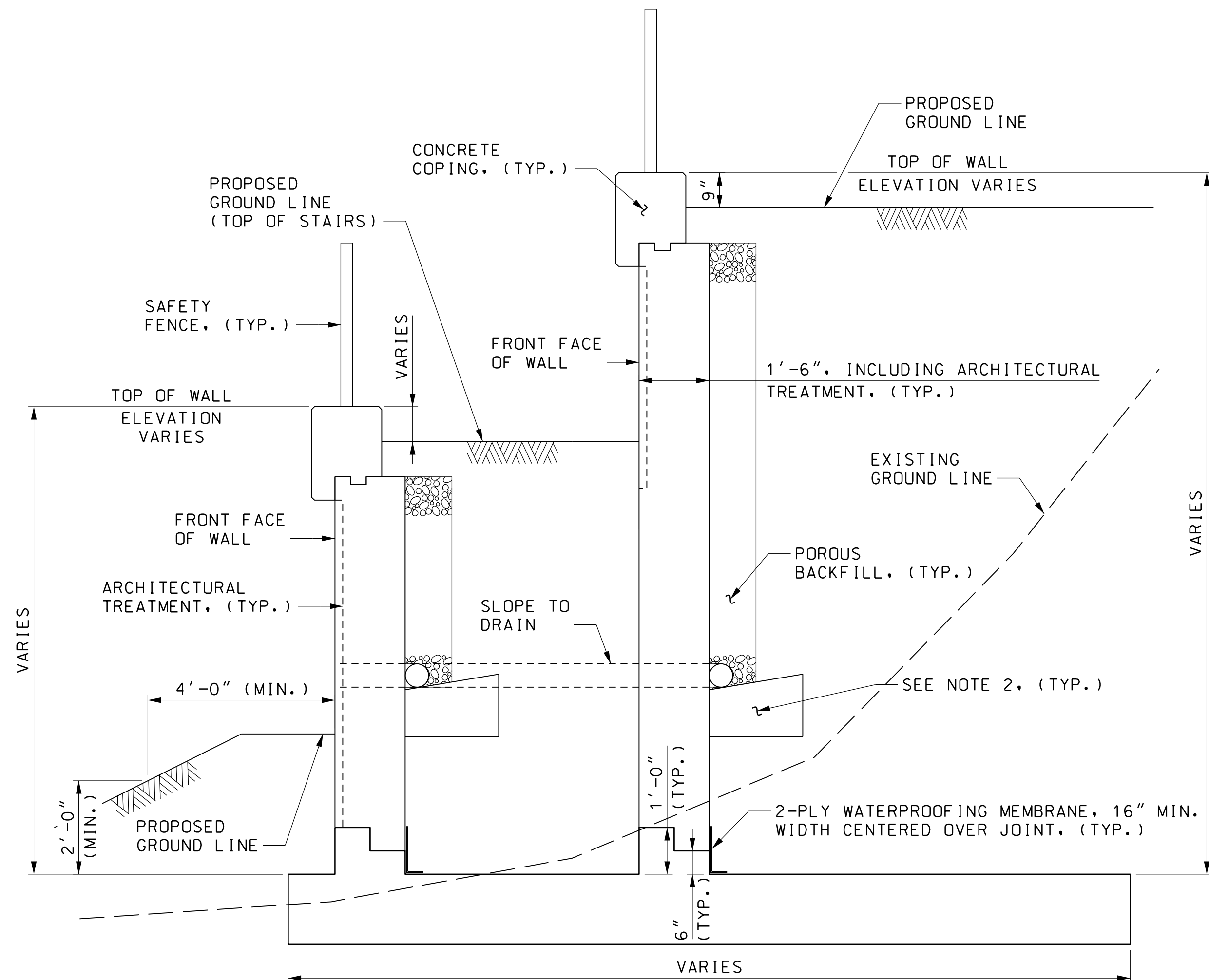
ELEVATION

SCALE: 1" = 10'-0"

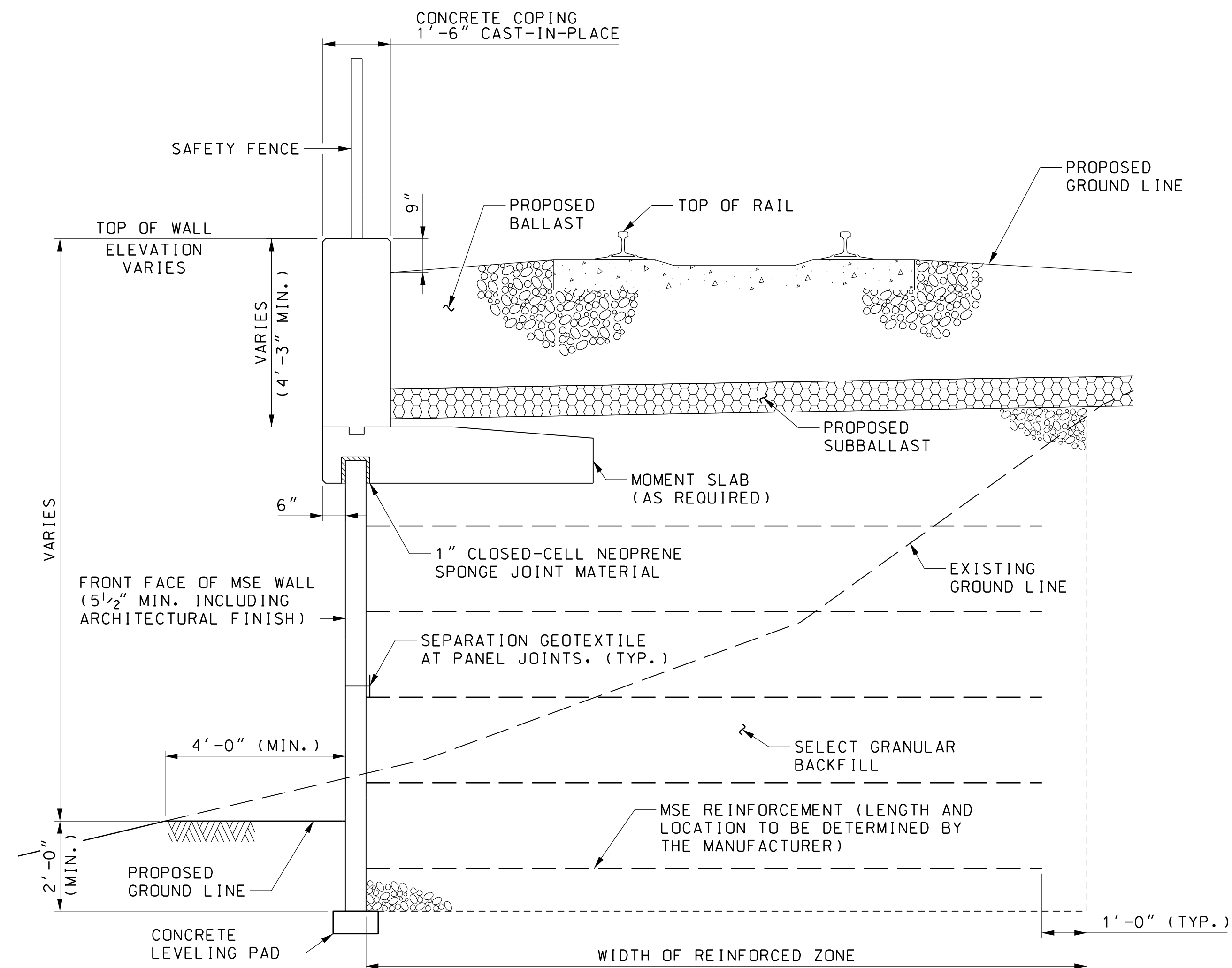


COPING DETAIL
SCALE: 1" = 1'-0"

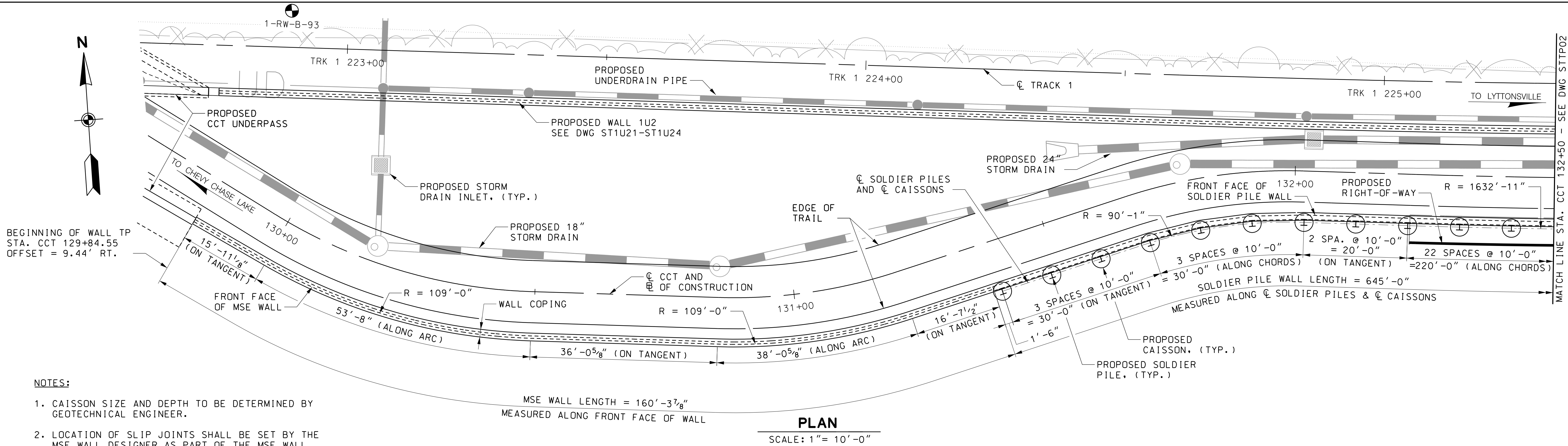
- NOTES:**
1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
 2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.
 3. MSE WALL MANUFACTURER DESIGN CALCULATIONS FOR MSE WALLS SHALL INCLUDE CALCULATIONS FOR INTERNAL STABILITY AND COMPOUND STABILITY AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
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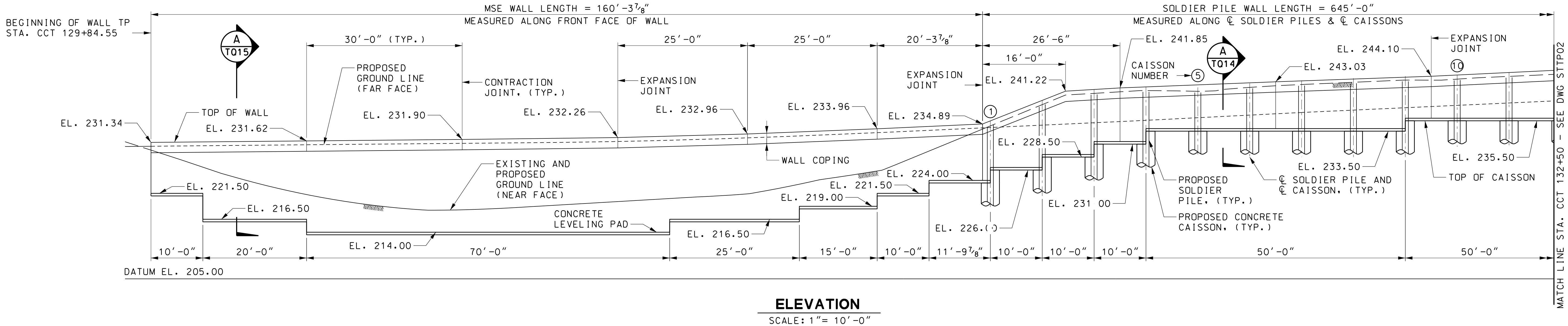
A SECTION
SCALE: 1/2" = 1'-0"
REF: 1U35

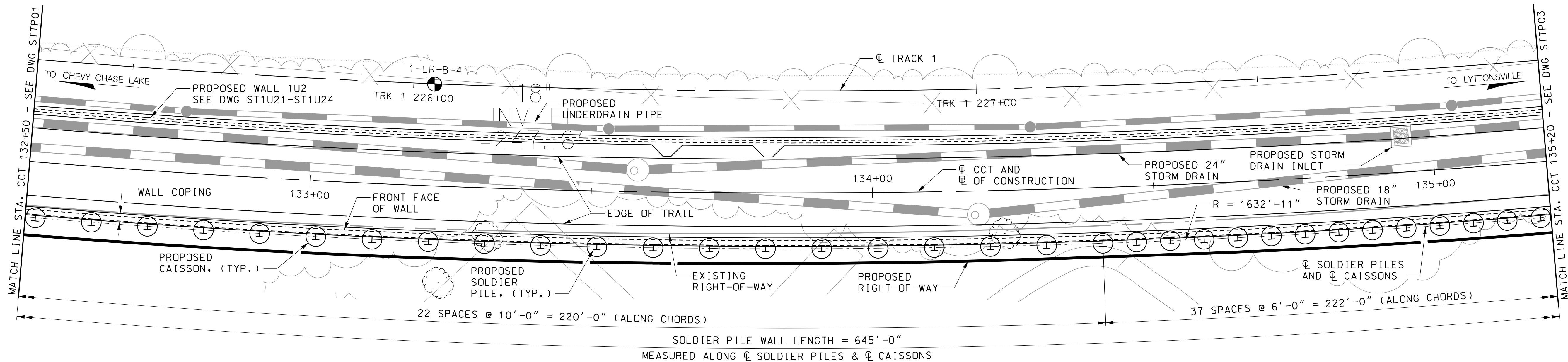
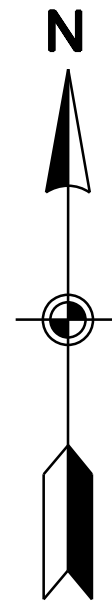


B SECTION
SCALE: 1/2" = 1'-0"
REF: 1U31-1U35



- NOTES:
1. CAISSON SIZE AND DEPTH TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
 2. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
 3. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 4. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



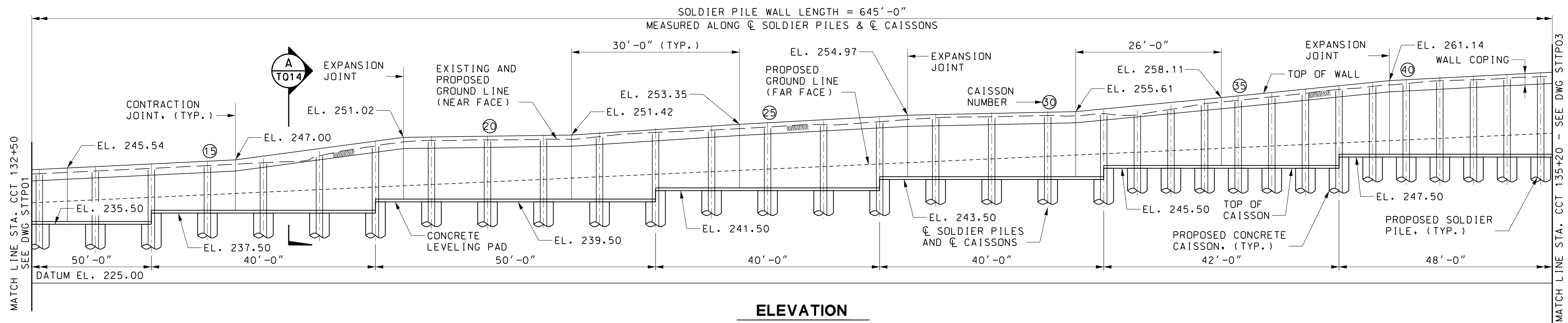


NOTES:

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3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN

SCALE: 1"= 10'-0"



ELEVATION

SCALE: 1"= 10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR CHECK DRAWN DESIGN

AFM

AFM

AR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - TP
GENERAL PLAN & ELEVATION - 2

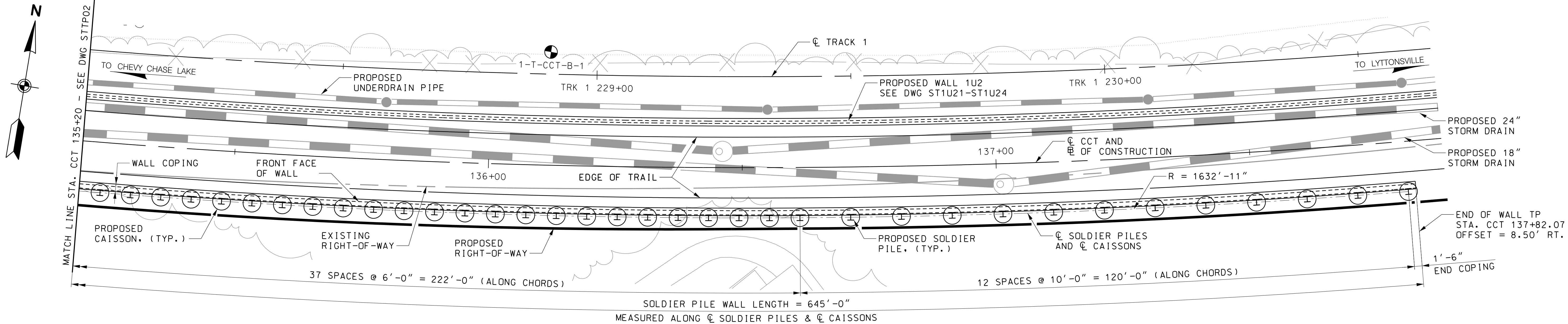
DATE: DECEMBER 2013

SCALE: 1"=10'-0"

CONTRACT NO.
T-1042-0220

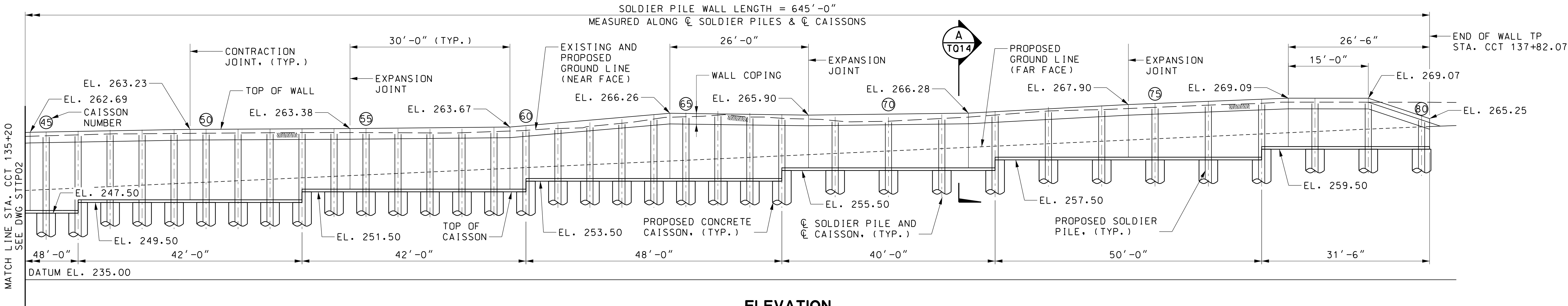
DRAWING NO.
STTP02

SHEET NO.
349 OF 828

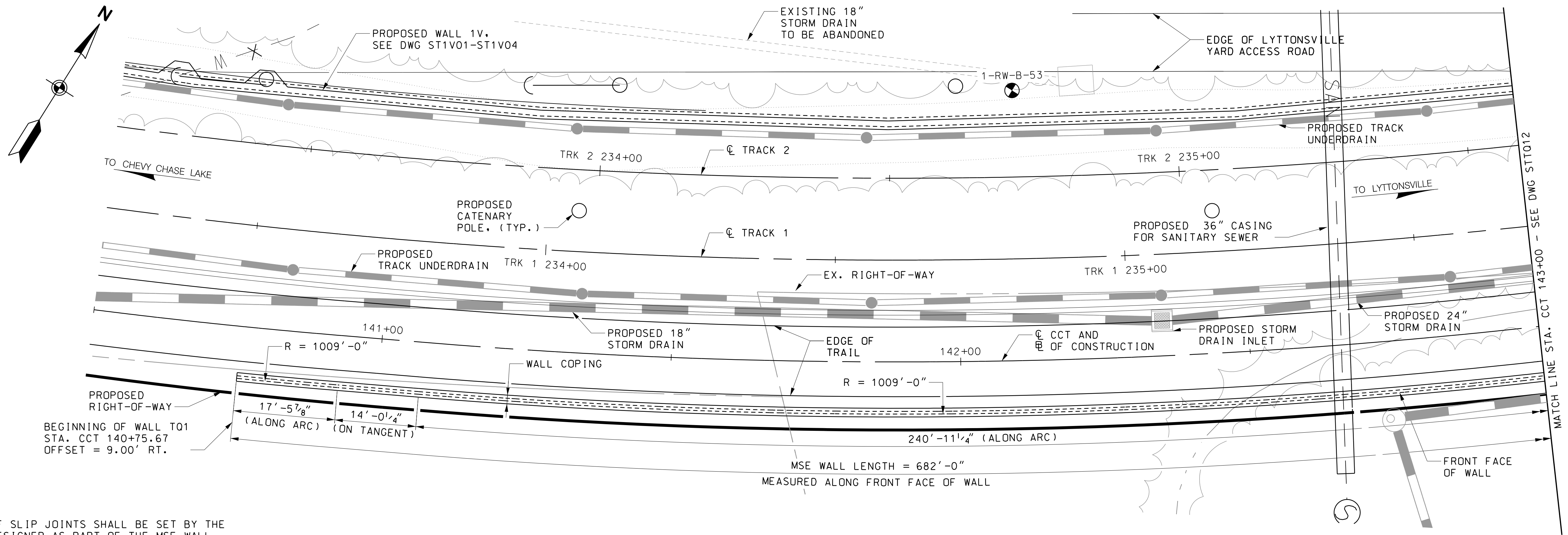


- NOTES:
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 - FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 - FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN
SCALE: 1" = 10'-0"



ELEVATION
SCALE: 1" = 10'-0"

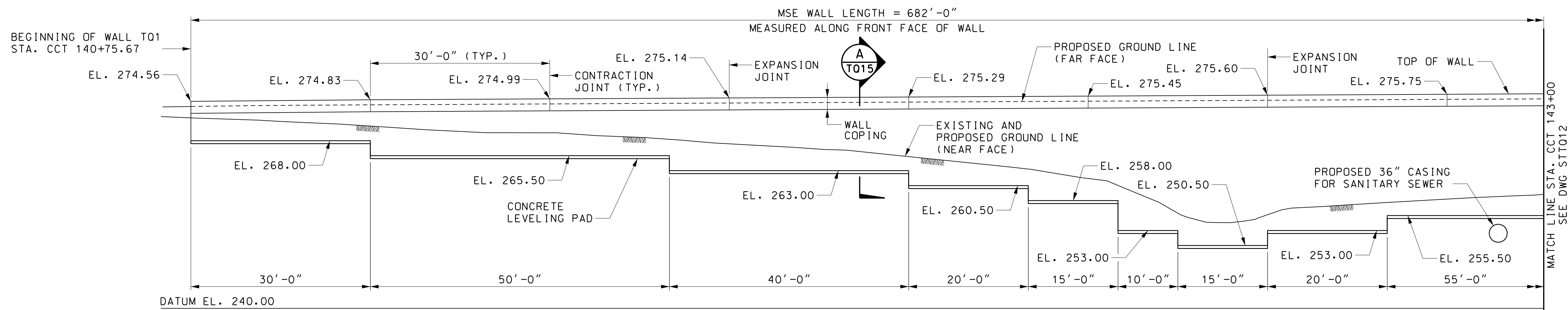


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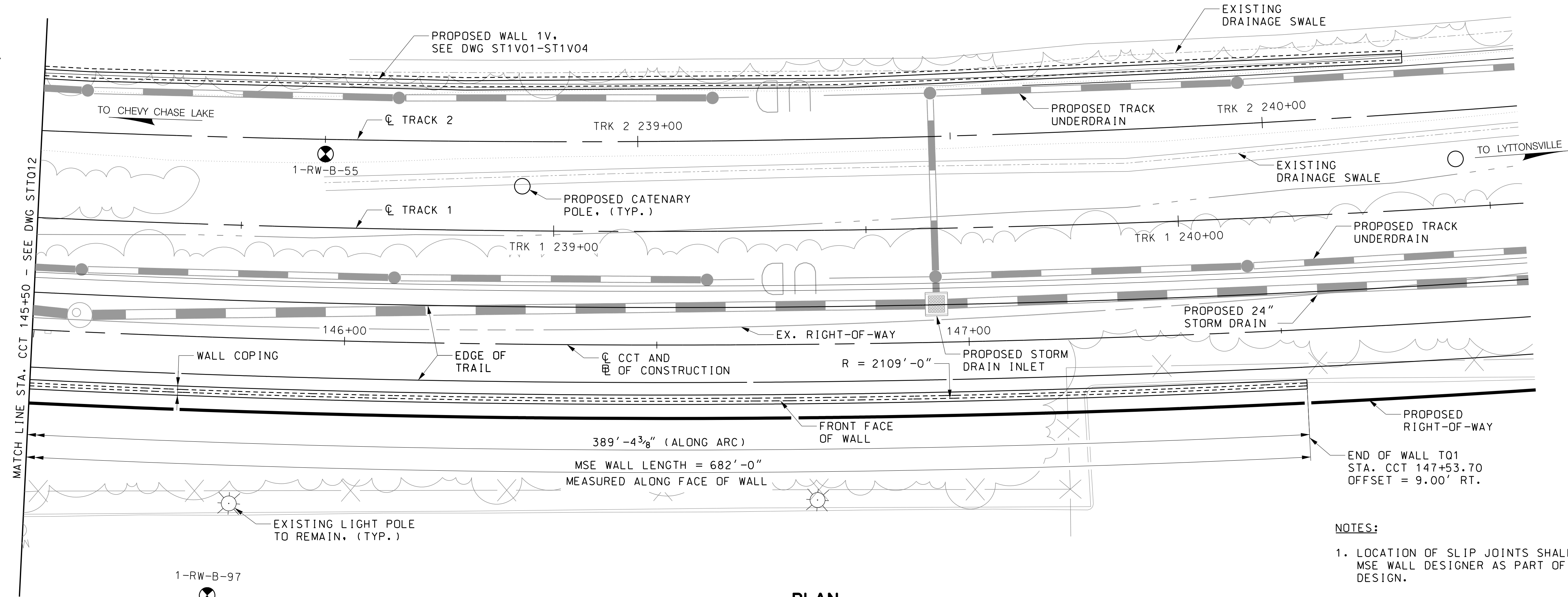
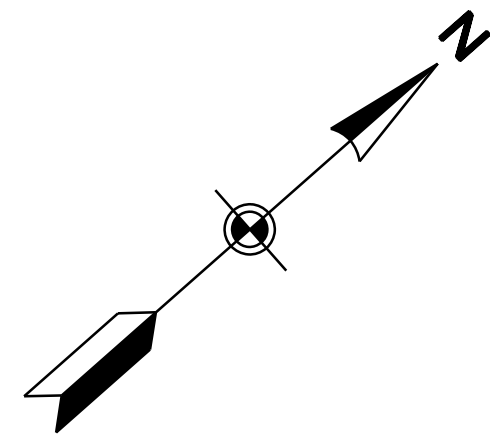
PLAN

SCALE: 1" = 10' - 0"



ELEVATION

SCALE: 1" = 10' - 0"

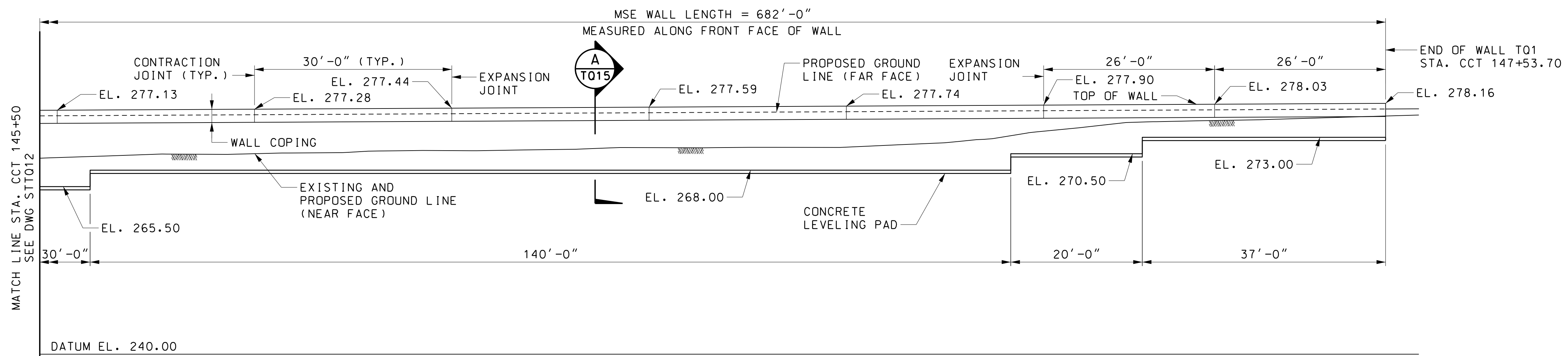


PLAN

SCALE: 1" = 10'-0"

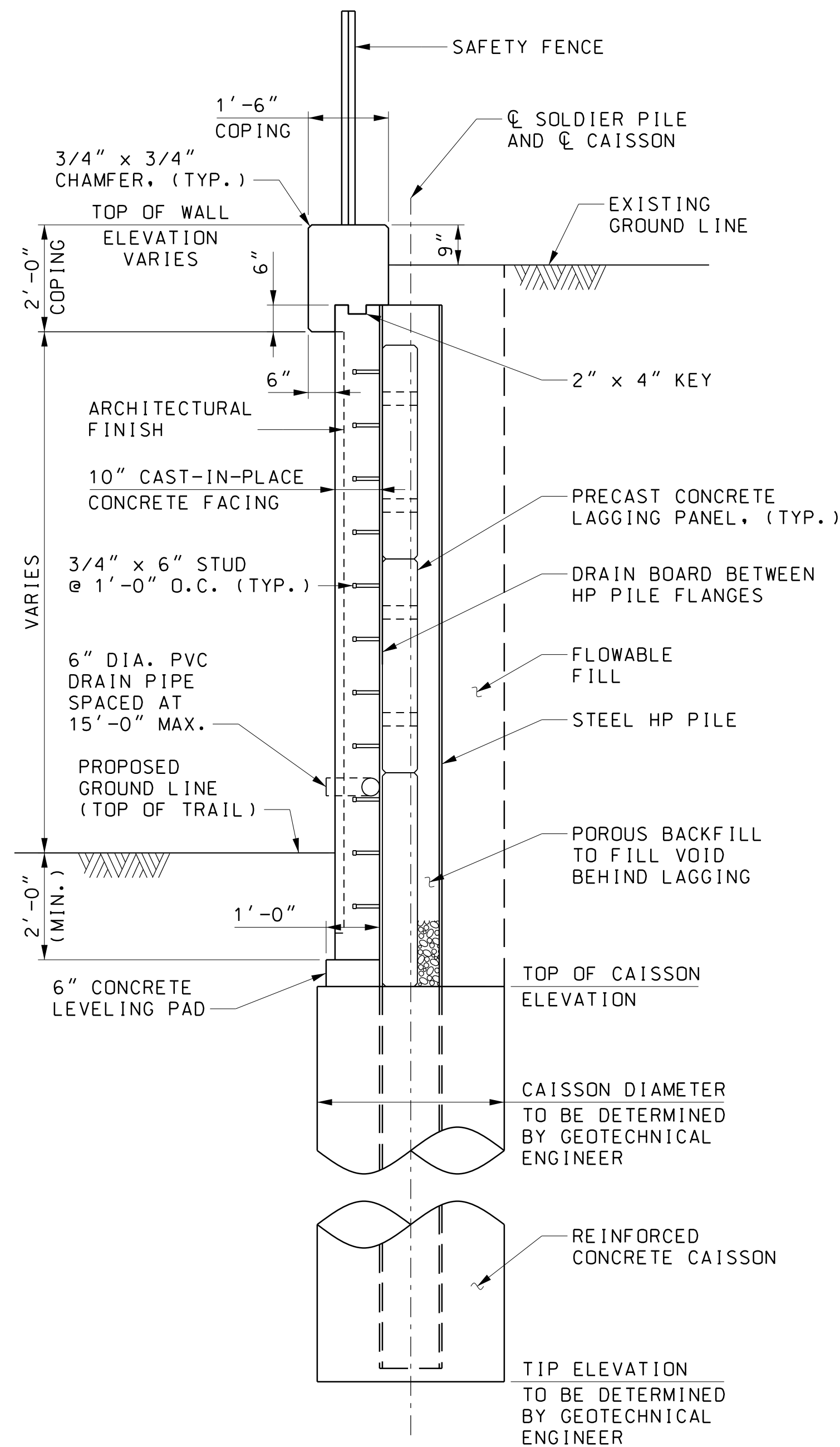
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2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

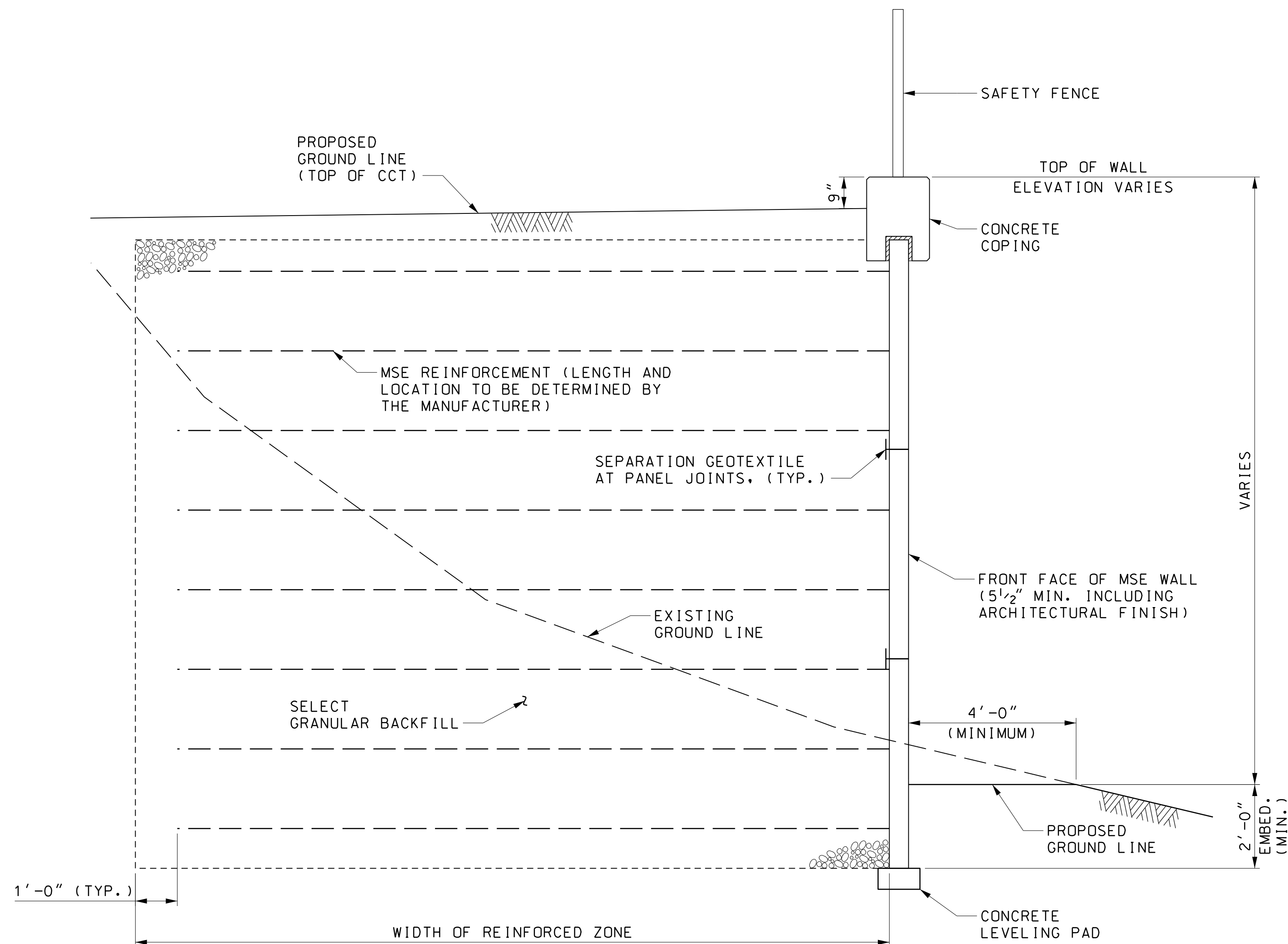
SCALE: 1" = 10'-0"



A SECTION
T014 SCALE: 1/2"=1'-0"
REF: TP01-TP03, TQ01

- PROPOSED SEQUENCE OF CONSTRUCTION (SOLDIER PILE WALL):**
1. DRILL SHAFT FOR CAISSON TO DIAMETER AND TIP ELEVATION REQUIRED.
 2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
 3. INSTALL STEEL HP SOLDIER PILE PLUMB.
 4. PLACE CAISSON CONCRETE TO REQUIRED TOP OF CAISSON ELEVATION. FILL REMAINDER OF SHAFT WITH FLOWABLE FILL IN ACCORDANCE WITH SECTION 314 OF THE MD SHA STANDARD SPECIFICATIONS.
 5. EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
 6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES AND TO ALLOW FOR PLACEMENT OF SUBSEQUENT LAGGING PANELS AS EXCAVATION PROCEEDS.
 7. CONTINUE INSTALLATION OF PANELS UNTIL THEY ARE RESTING ON TOP OF THE CONCRETE CAISSONS.
 8. INSTALL SHEET DRAIN AND DRAINAGE PIPE SYSTEM.
 9. BACKFILL OVER-EXCAVATED AREA BEHIND LAGGING WITH POROUS BACKFILL.
 10. CONSTRUCT CONCRETE FACING AND COPING.

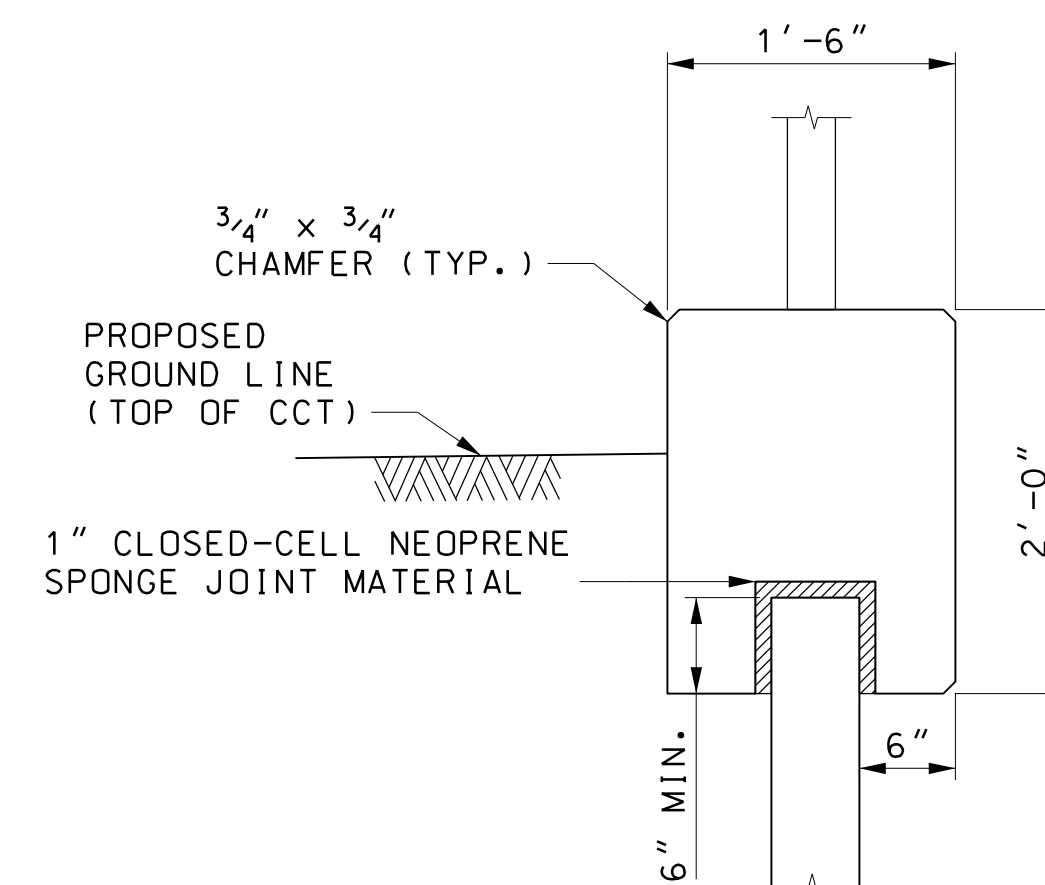
- NOTES:**
1. ARCHITECTURAL FINISH TO BE DETERMINED.



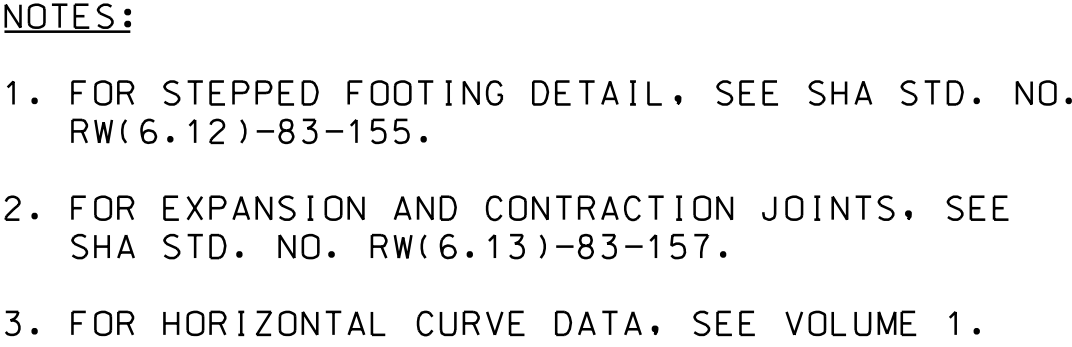
SECTION
 SCALE: 1/2"=1'-0"
 REF: TP01, TQ11-TQ13

NOTES:

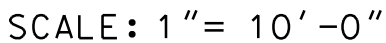
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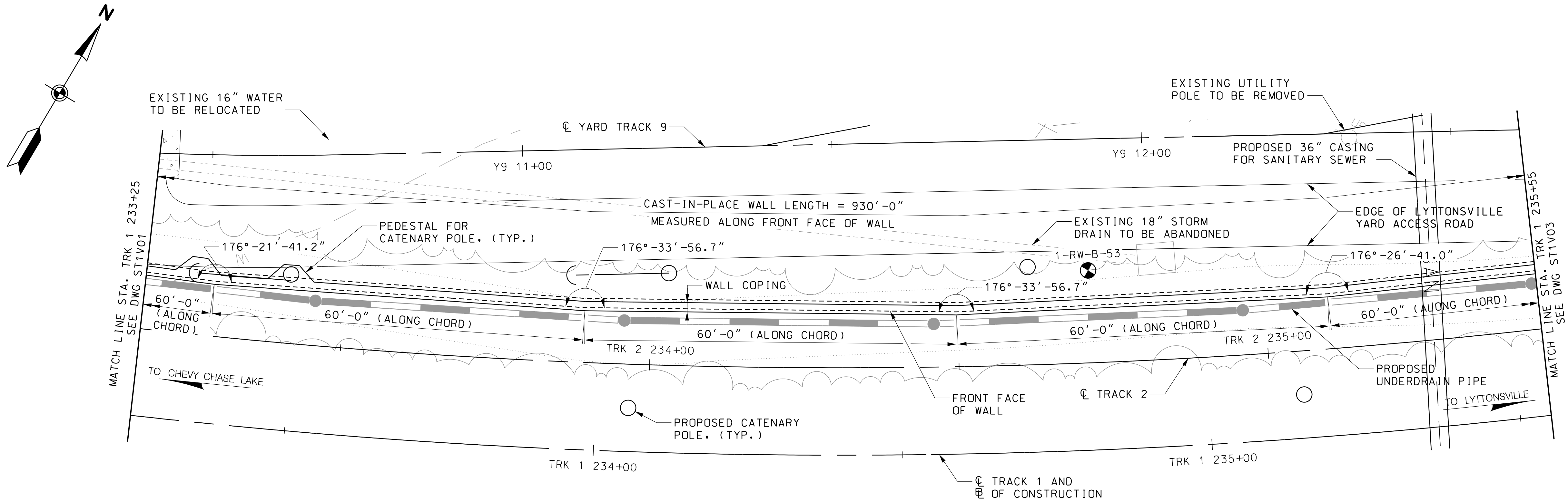


COPING DETAIL
 SCALE: 1"= 1'-0"



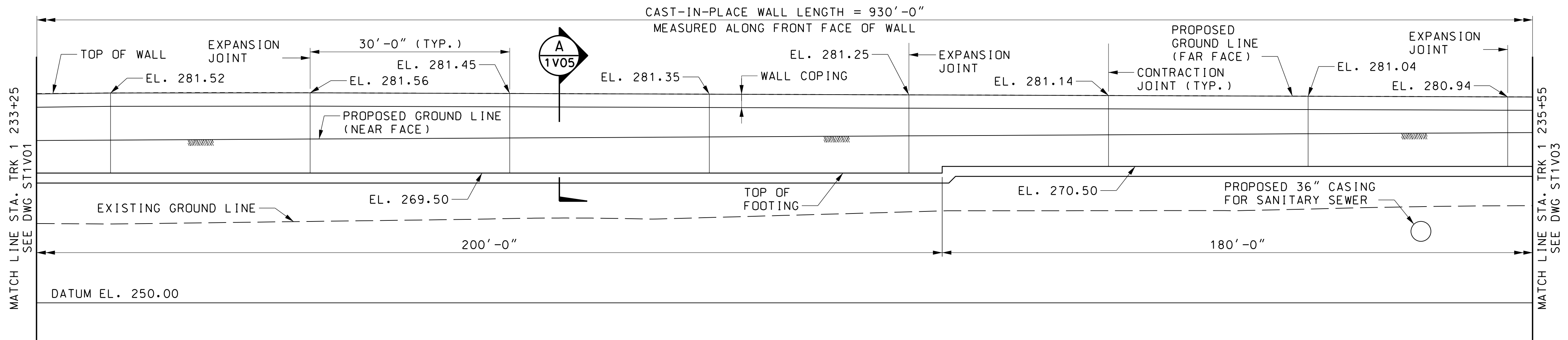
SCALE: 1" = 10' - 0"



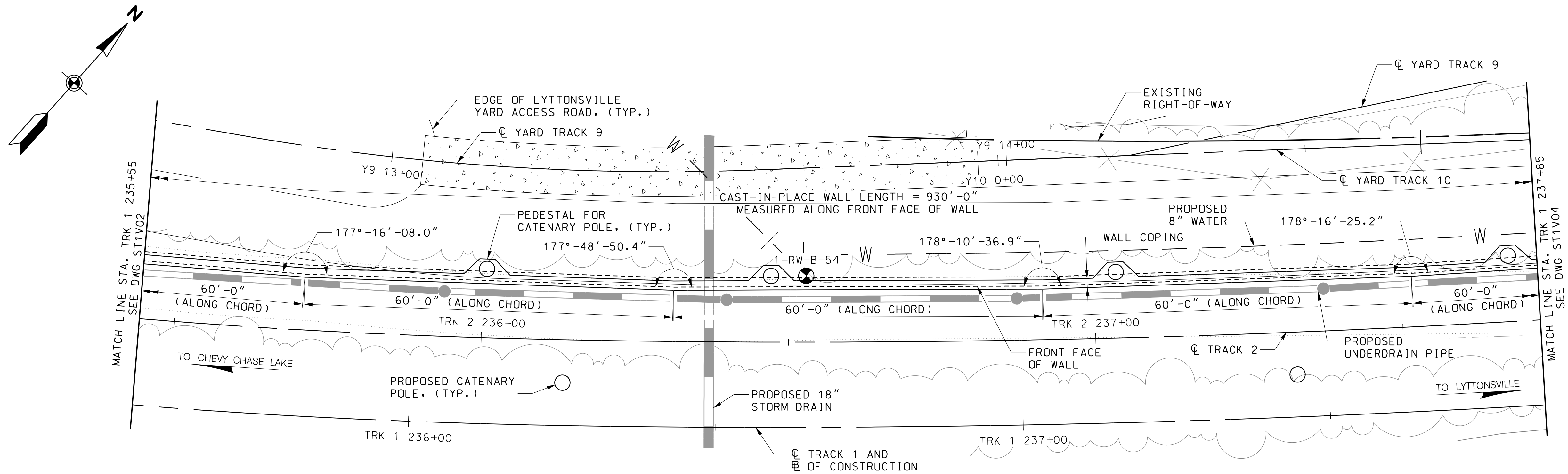


- NOTES:
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN
SCALE: 1"= 10'-0"

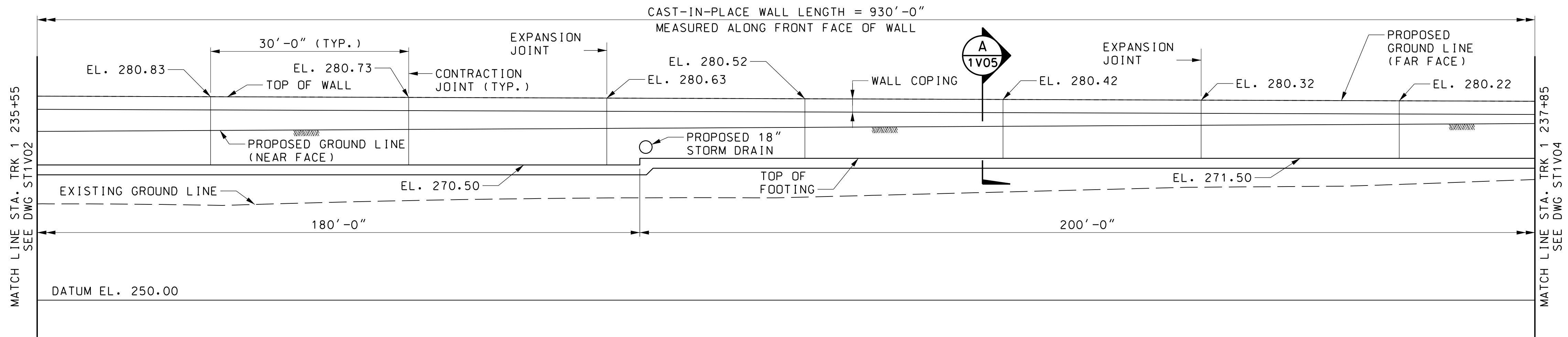


ELEVATION
SCALE: 1"= 10'-0"

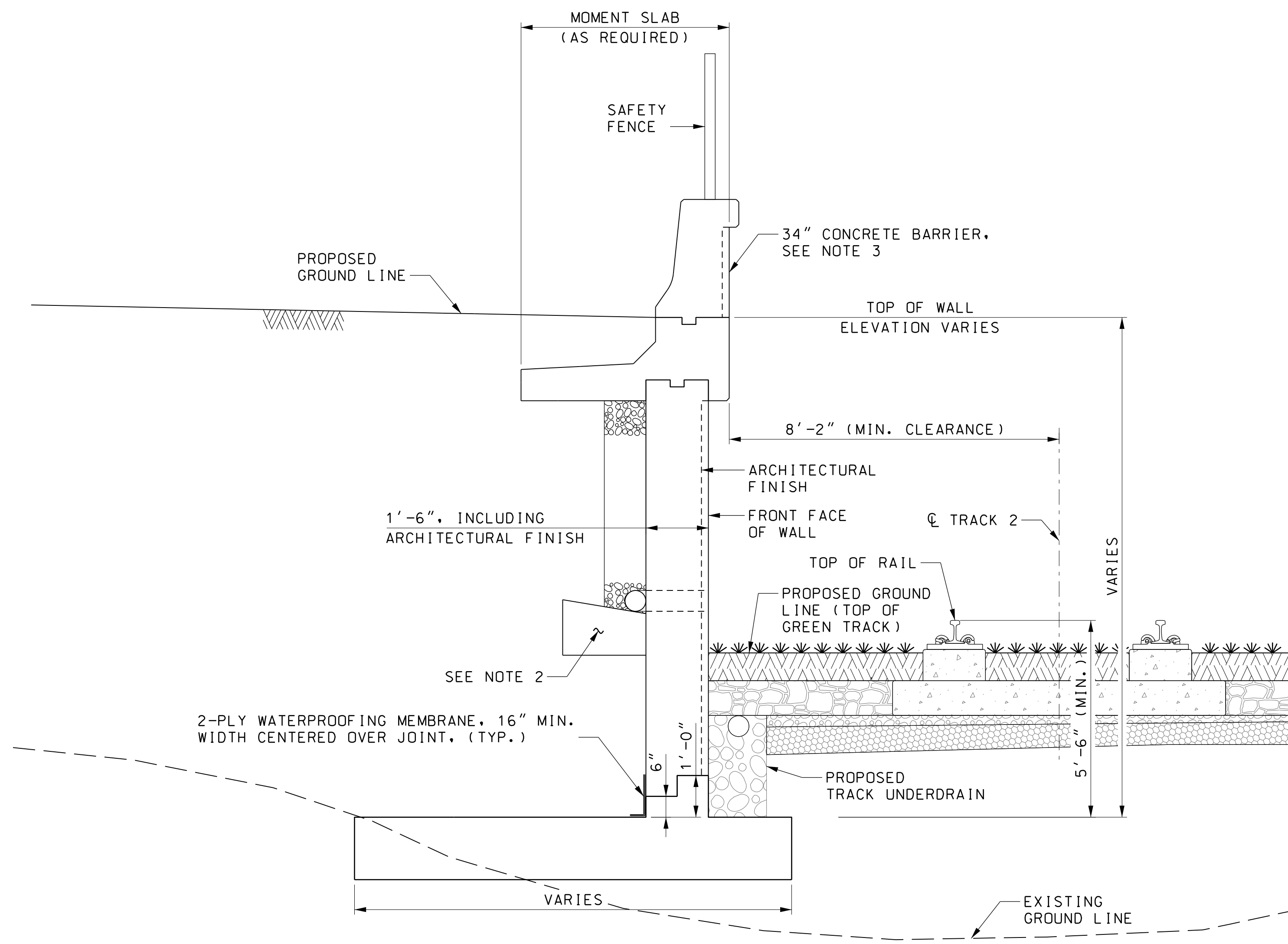


- NOTES:
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

PLAN
SCALE: 1"= 10'-0"



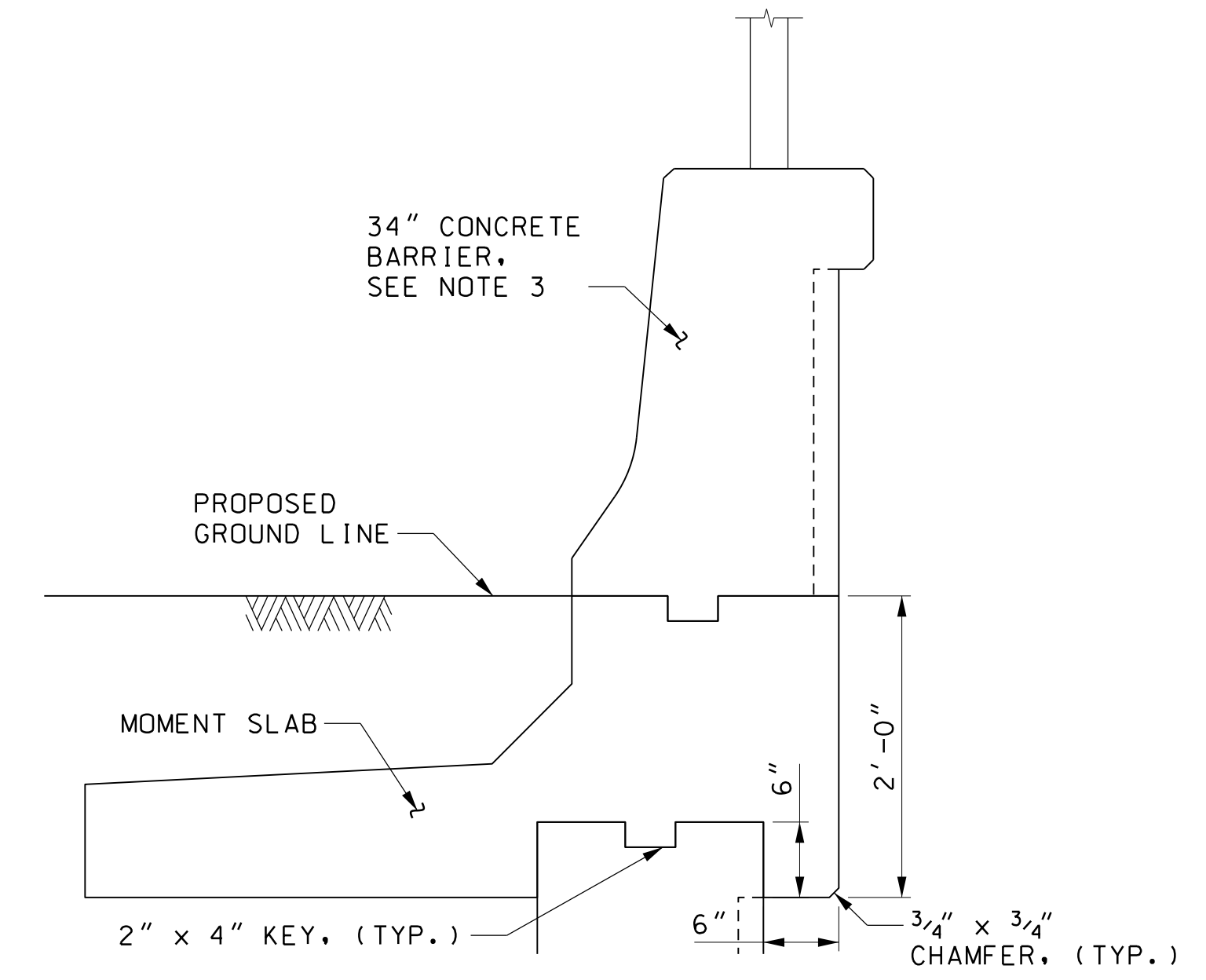
ELEVATION
SCALE: 1"= 10'-0"



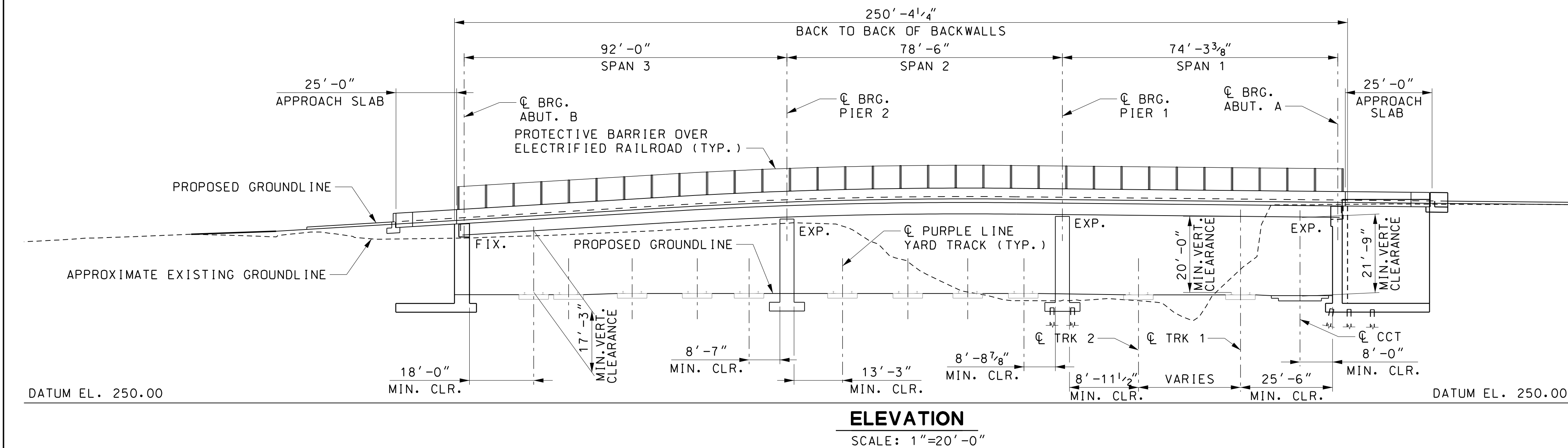
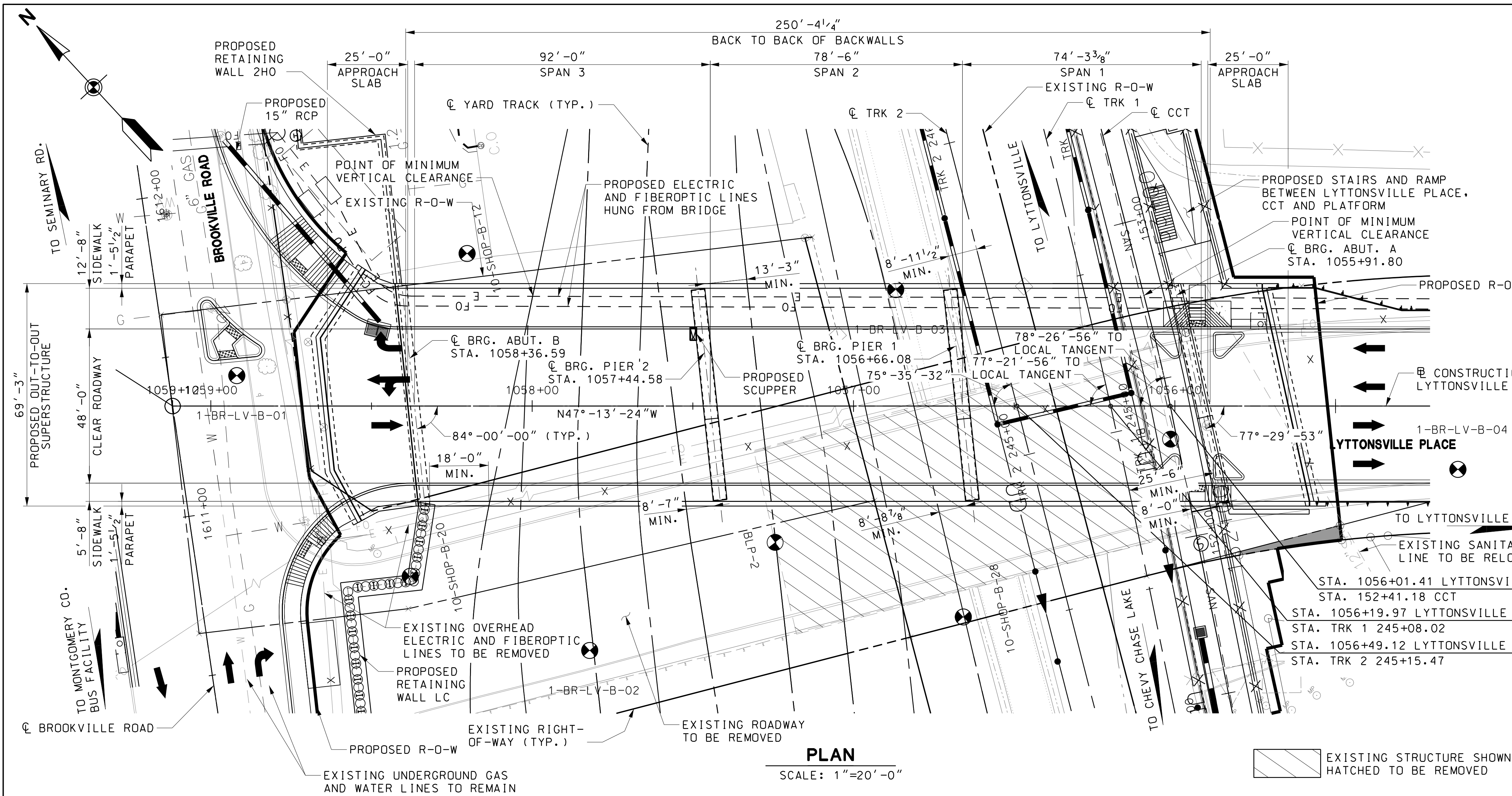
A SECTION
 1V05 SCALE: 1/2"=1'-0"
 REF: 1V01-1V04

NOTES:

1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.
3. FOR CONCRETE BARRIER DETAILS, SEE SHA STD. NO. BR-SS(6.47)-03-349A.



MOMENT SLAB DETAIL
 SCALE: 1"= 1'-0"



GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A 709 GRADE 50W, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHAMPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS.

FINISHED PAINT COLOR: THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.

LOADING: HL-93 WITH PROVISIONS FOR FUTURE 2" WEARING SURFACE AND 15 LBS/FT FOR USE OF STEEL BRIDGE DECK FORMS WHICH REMAIN IN PLACE.

CONCRETE: ALL CONCRETE FOR ABUTMENT BACKWALLS AND PARAPETS AT ABUTMENTS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

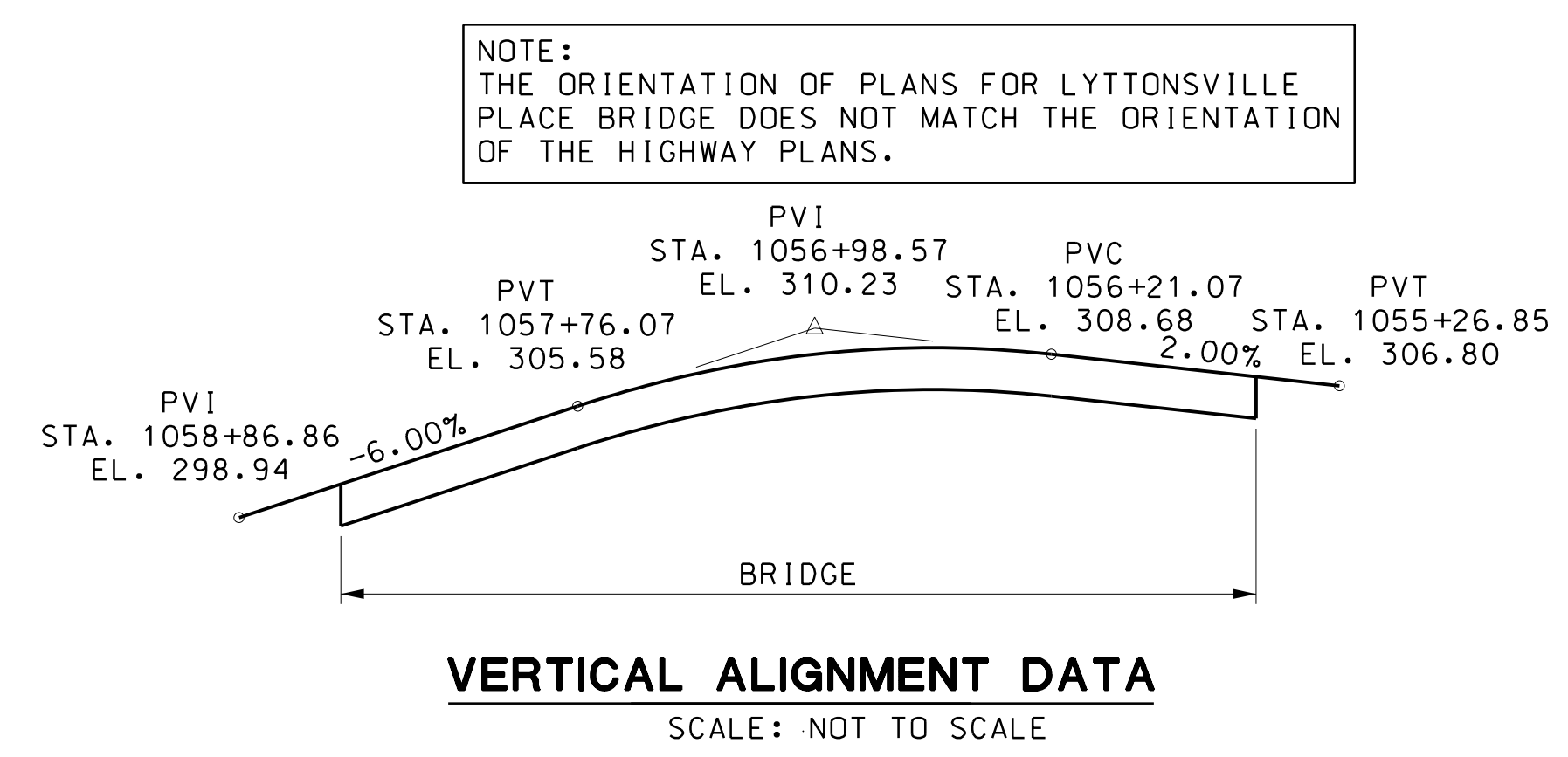
ONLY GRADE 60 CAN BE USED ON THIS PROJECT



REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:

- ENTIRE SUPERSTRUCTURE (INCLUDING PARAPETS)
- ABUTMENT BACKWALLS
- CHEEKWALLS
- ALL BEARING SEAT PADS
- ABUTMENT BRIDGE SEAT AREAS
- END POSTS
- PIER CAP

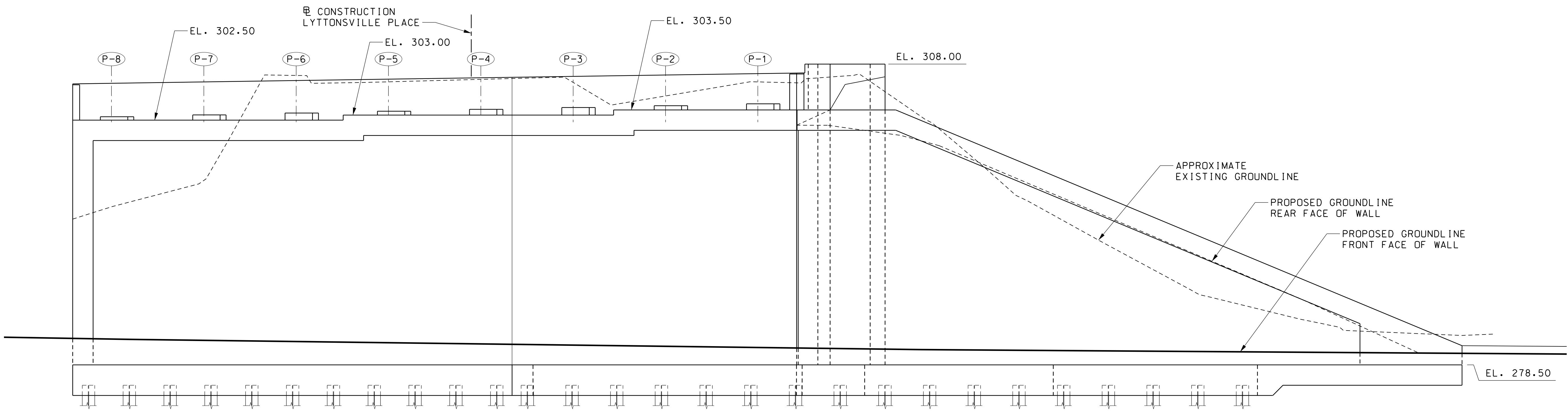
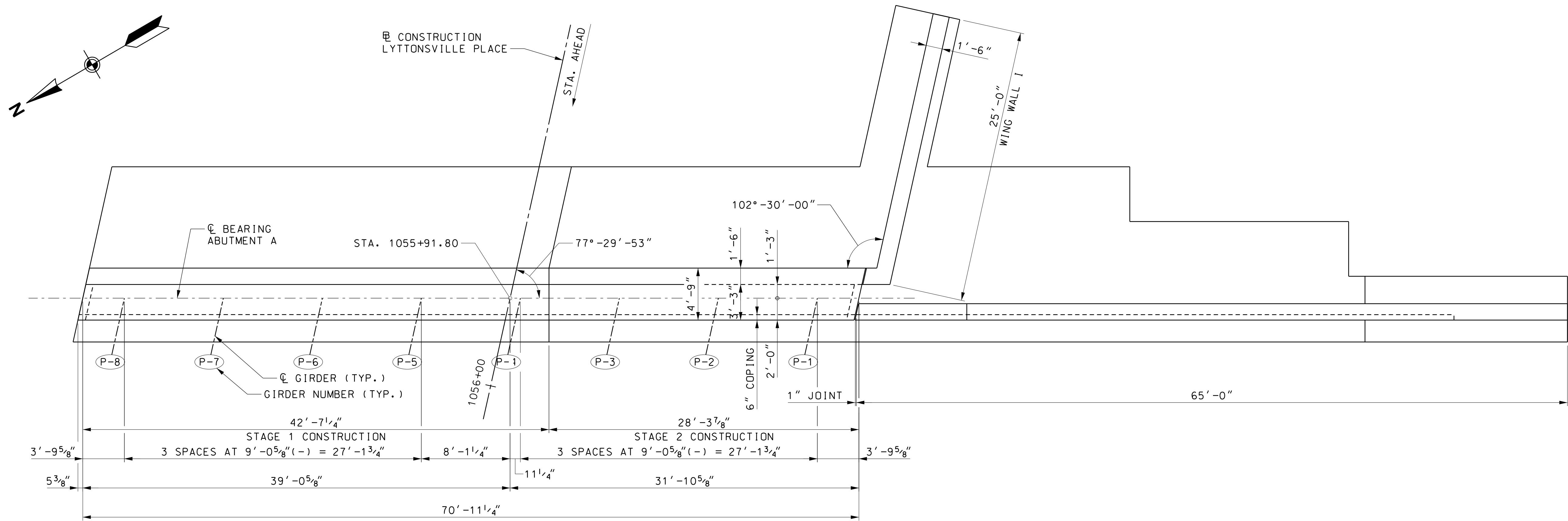
KEYS: ALL KEYS ARE NOMINAL SIZE.

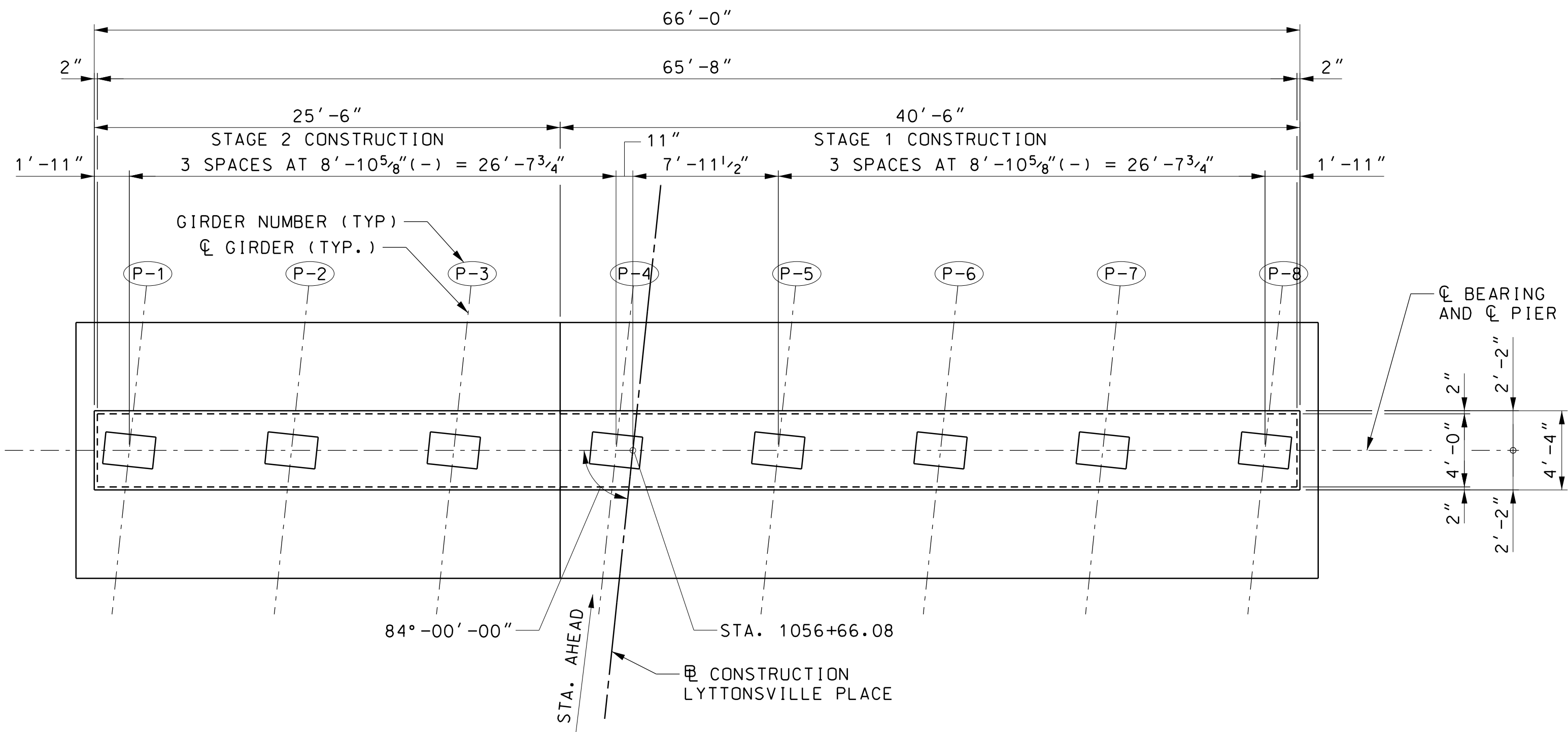
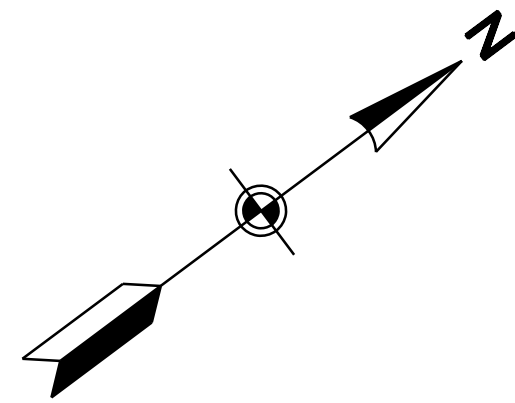
EXISTING STRUCTURE: EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY OR TO AN ELEVATION TBD NECESSARY FOR TRACK AND SWM CONSTRUCTION



MARYLAND DEPARTMENT OF TRANSPORTATION 		PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESIGN ZMG CHECK DRAWING KPL APPROVE CES	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL		CONTRACT NO. T-1042-0220
					LYTTONSVILLE PLACE BRIDGE GENERAL PLAN AND ELEVATION DATE: DECEMBER 2013 SCALE: AS SHOWN		DRAWING NO. ST1T01 SHEET NO. 362 OF 828

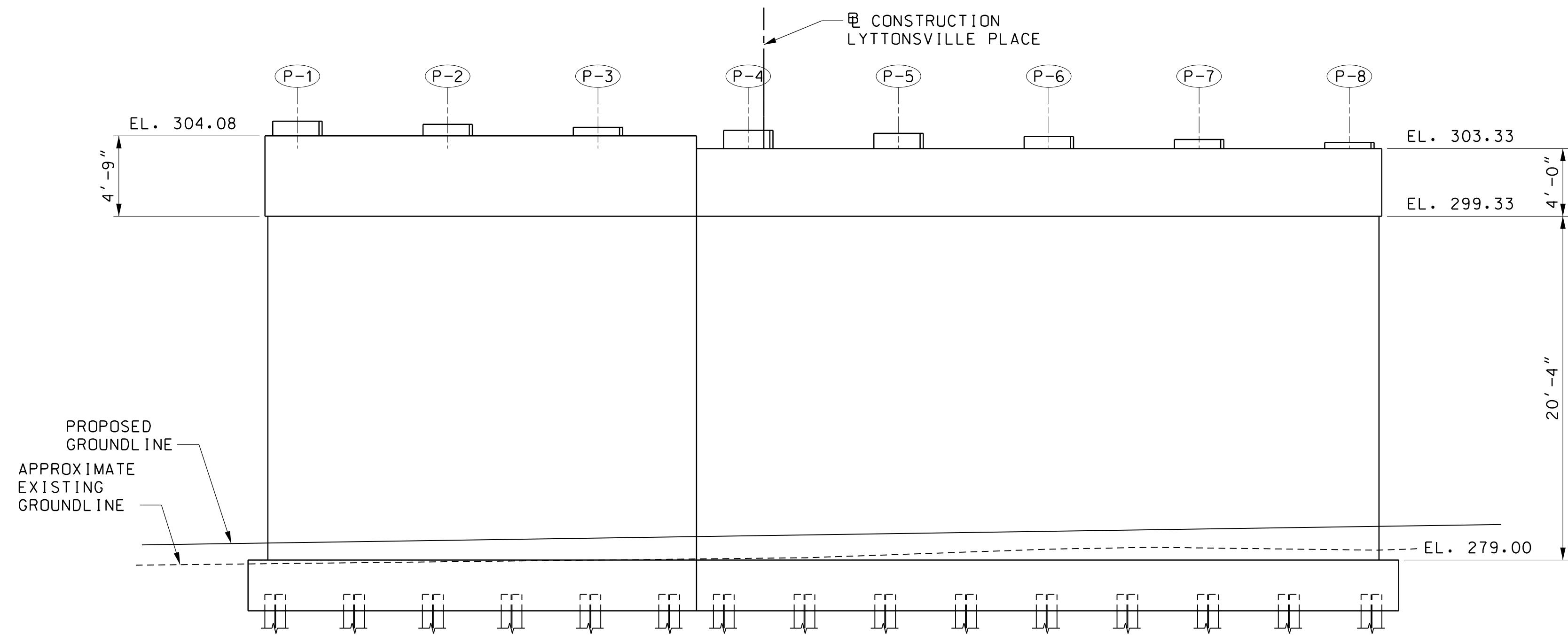
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 01-West\Structures\T-Lyttonsville Place Hwy Bridge\Sheet Files\1042pST1T01.dgn 12/6/2013





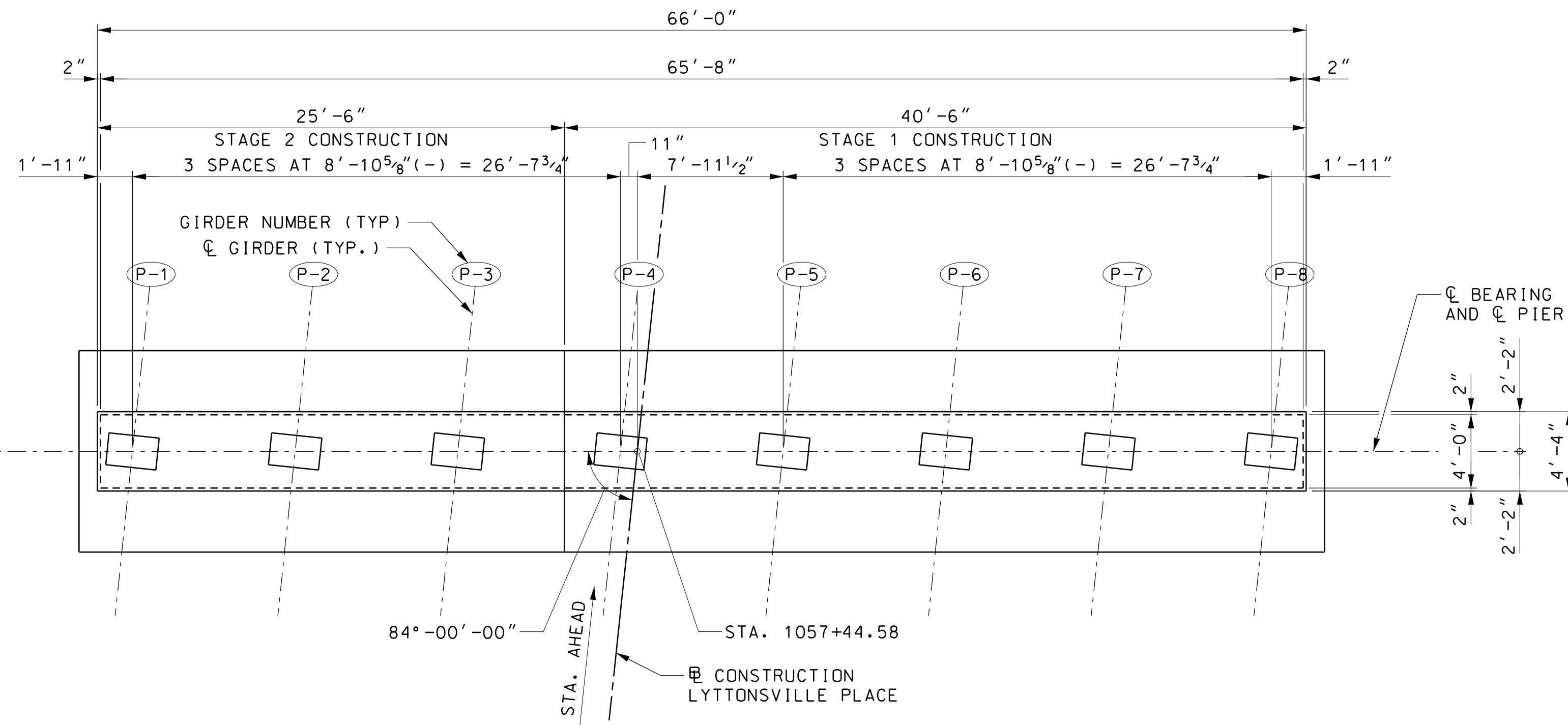
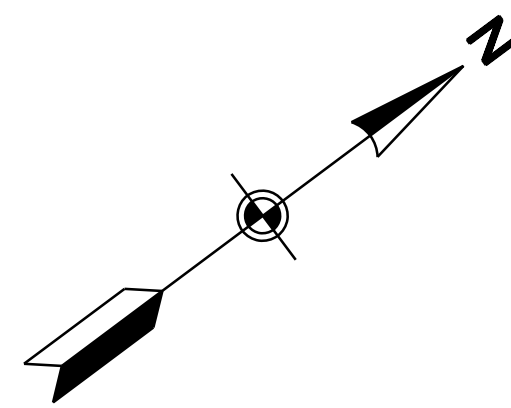
PLAN

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



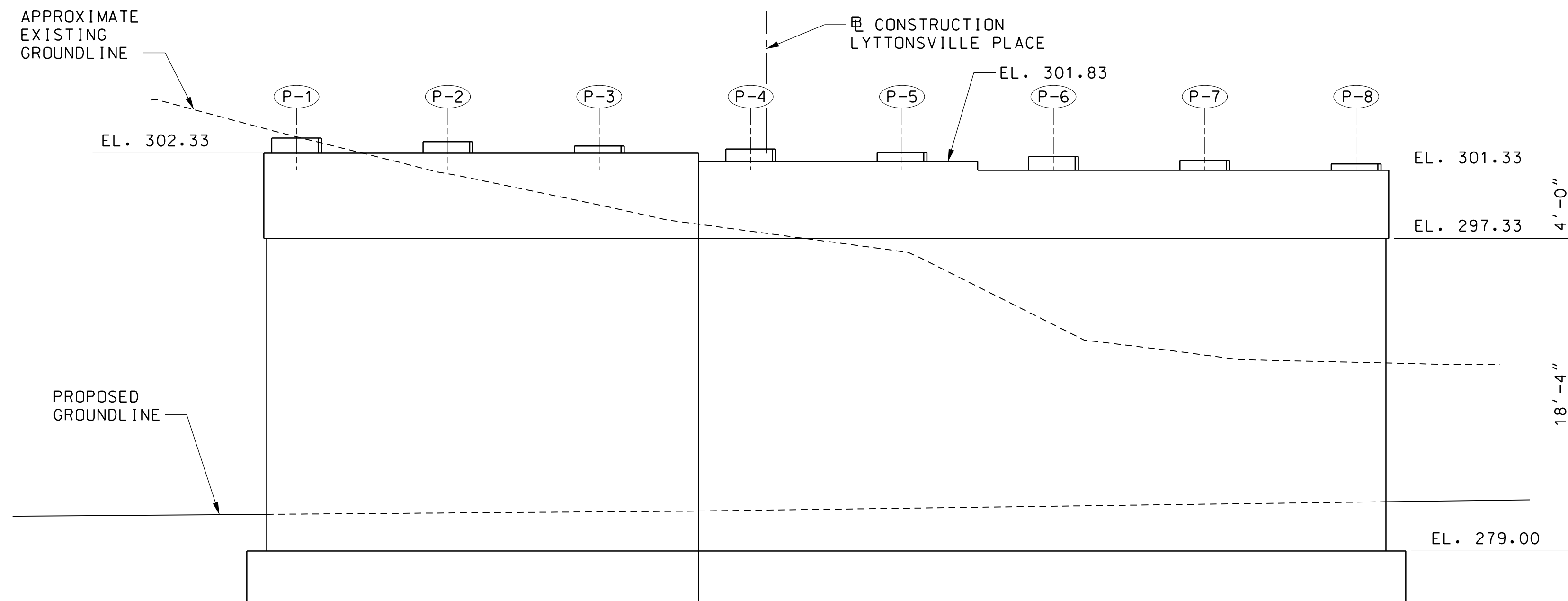
ELEVATION

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



PLAN

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



ELEVATION

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

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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APPR	CHECK	DRAWN	DESIGN
			ZMG
			KPL
			CES

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

LYTTONSVILLE PLACE BRIDGE
PIER 2 – PLAN AND ELEVATION

DATE: DECEMBER 2013

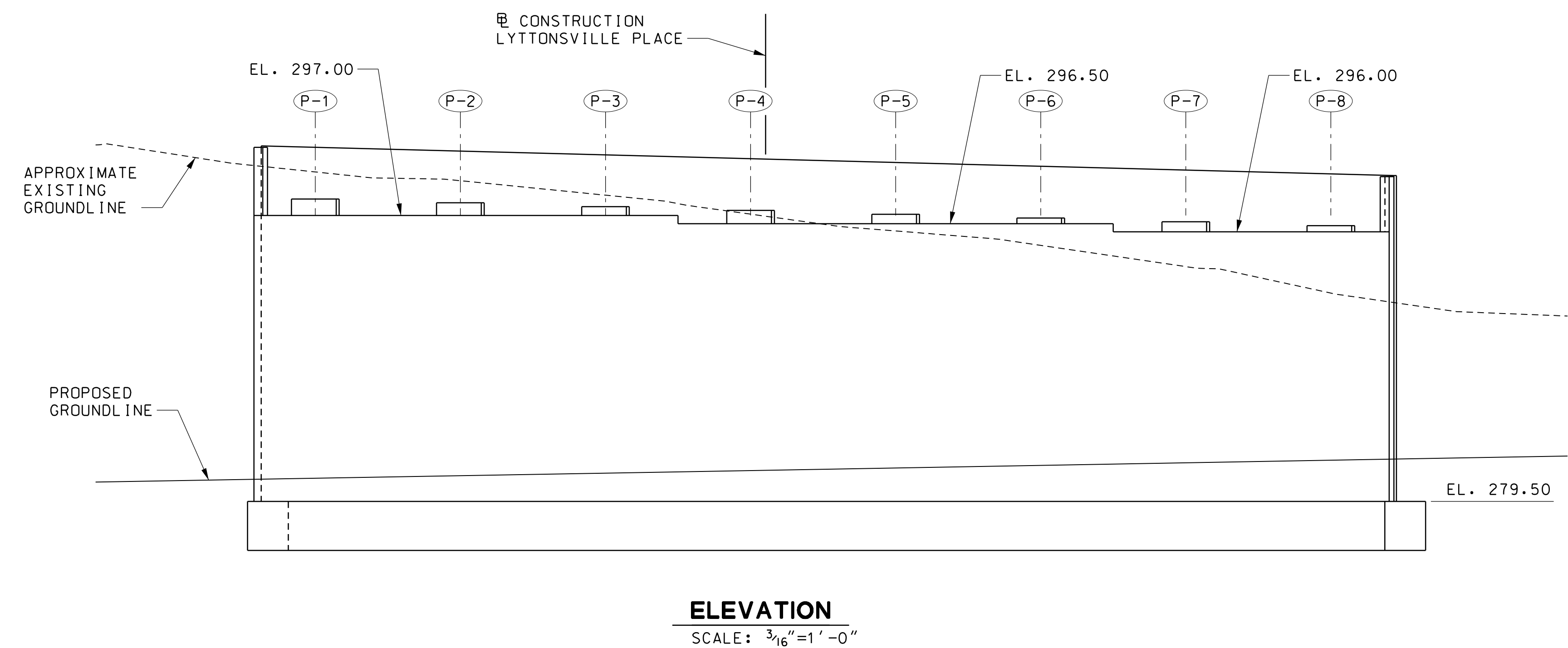
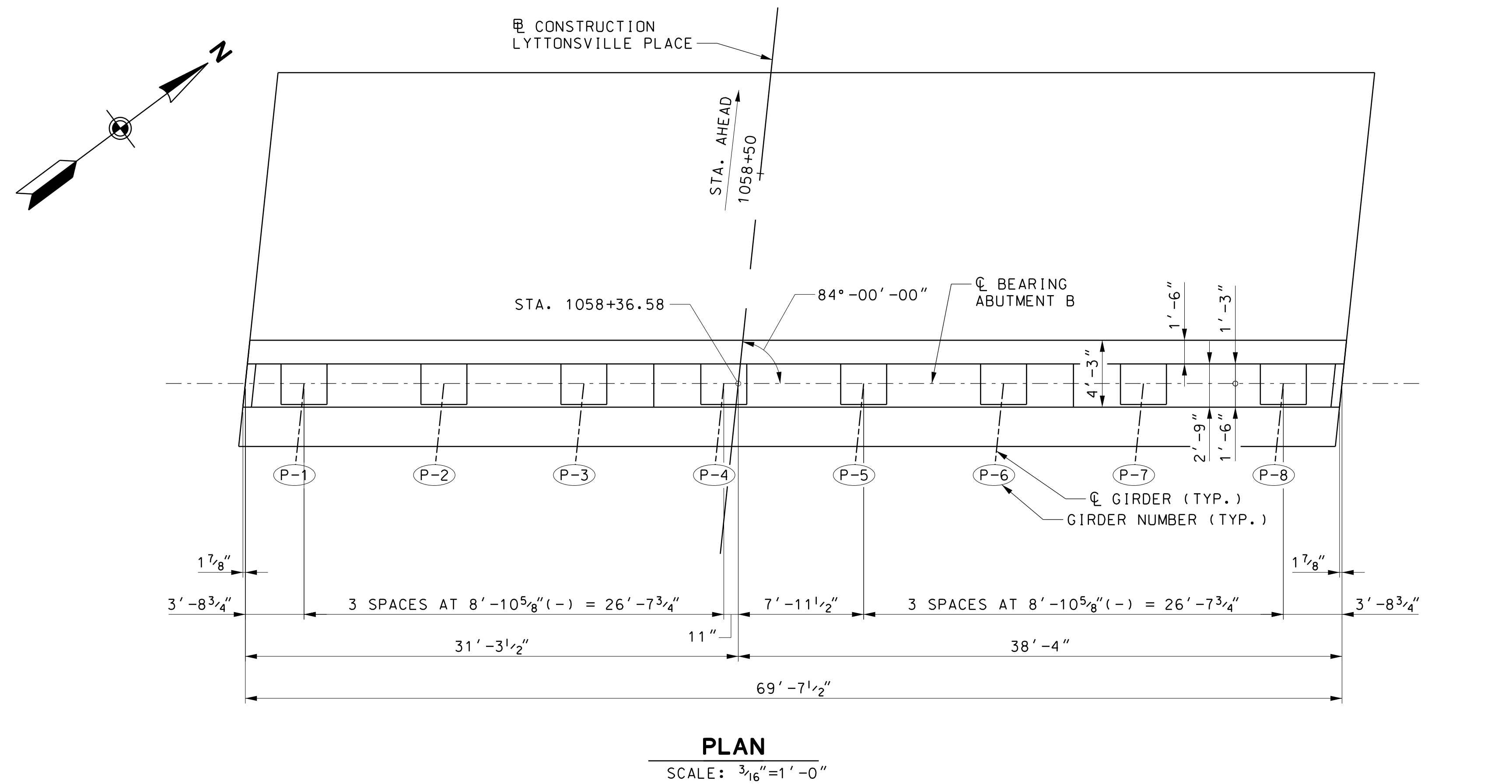
SCALE: 3/16"=1'-0"

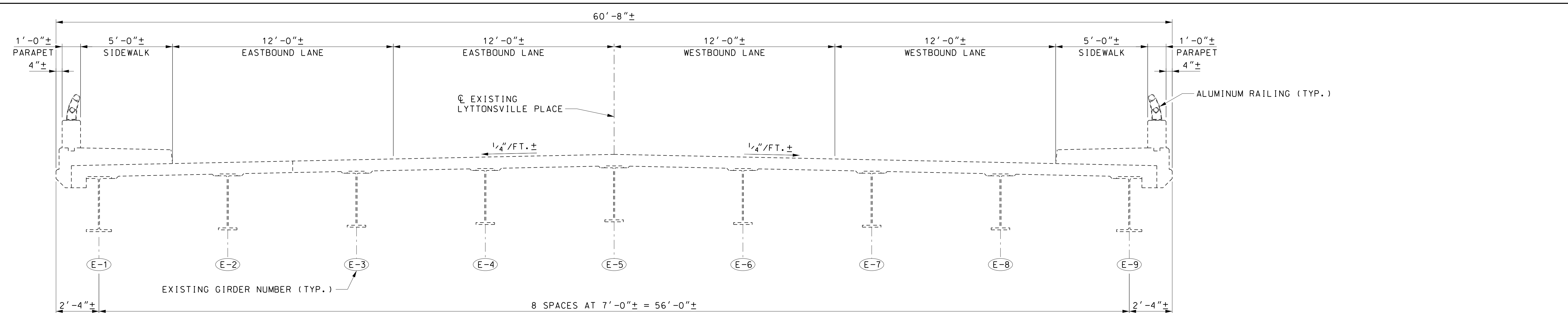
CONTRACT NO.
T-1042-0220

DRAWING NO.
ST1T07

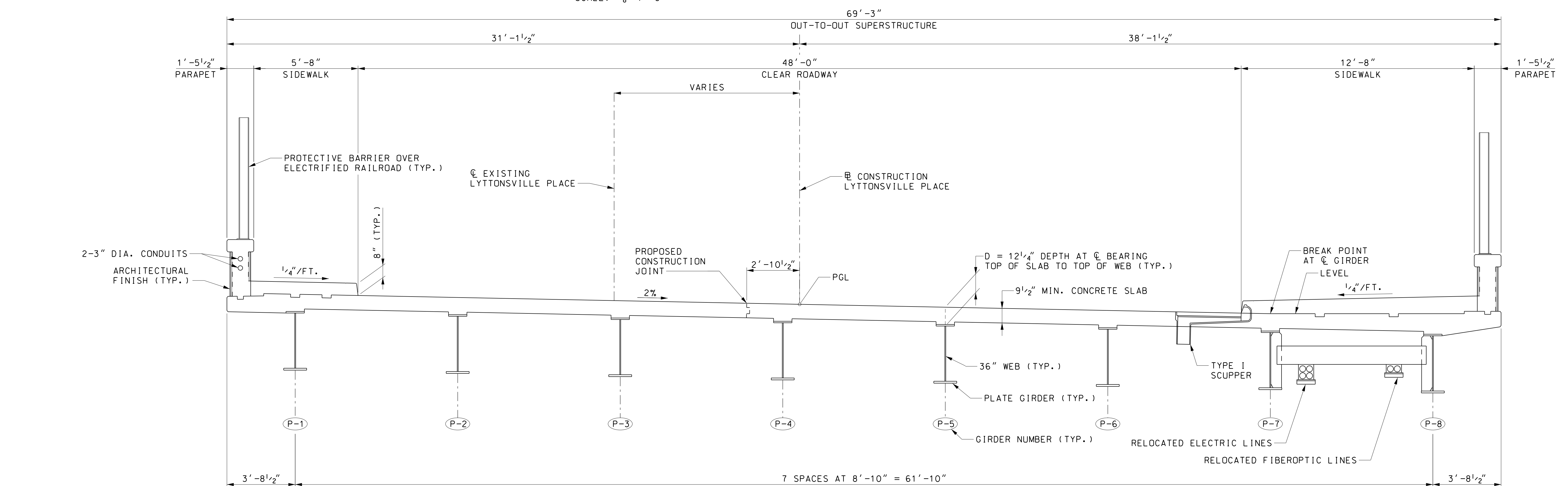
SHEET NO.
365 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 01-West\Structures\T-Lyttonsville Place Hwy Bridge\Sheet Files\1042pST1T07.dgn 12/4/2013



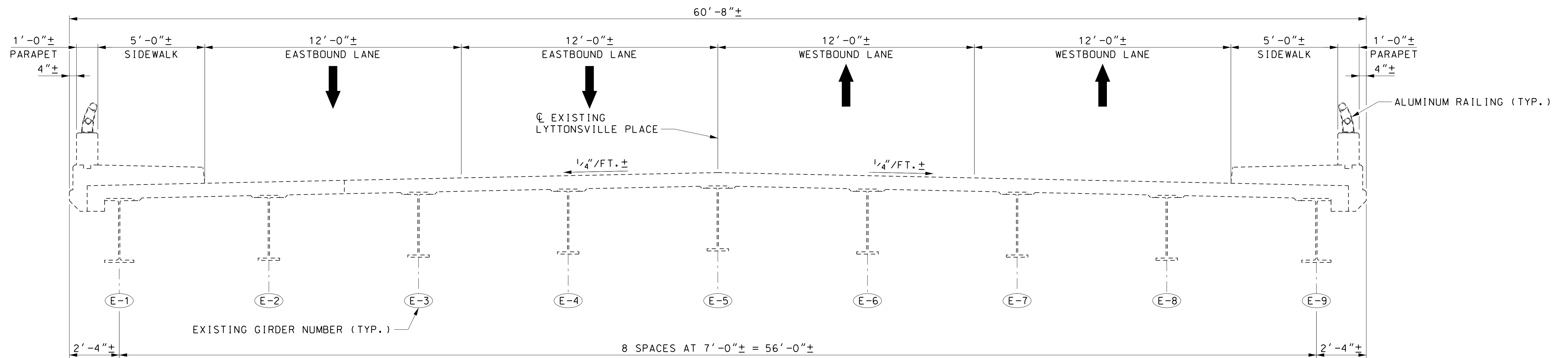


TYPICAL SECTION - EXISTING
SCALE: 3/8"=1'-0"

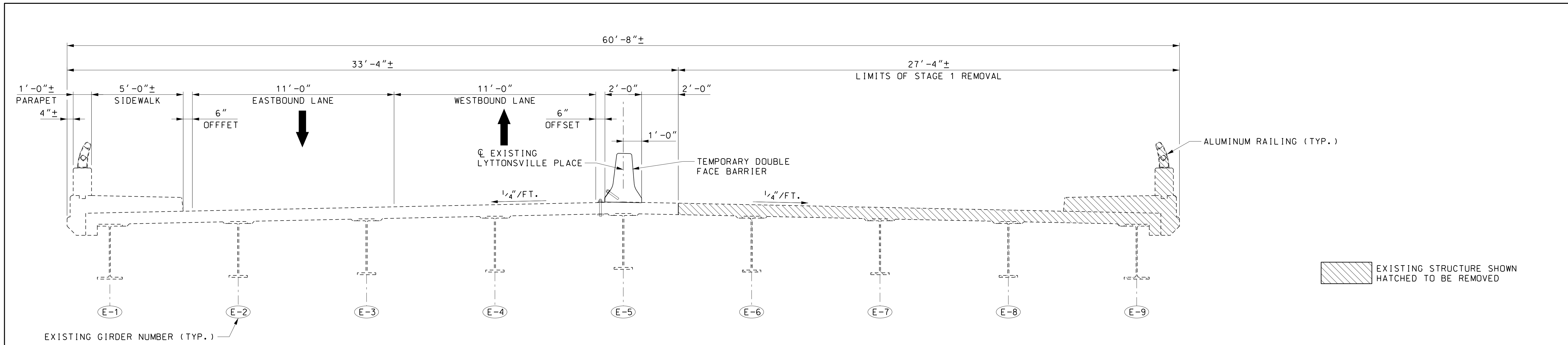


TYPICAL SECTION - PROPOSED
SCALE: 3/8"=1'-0"

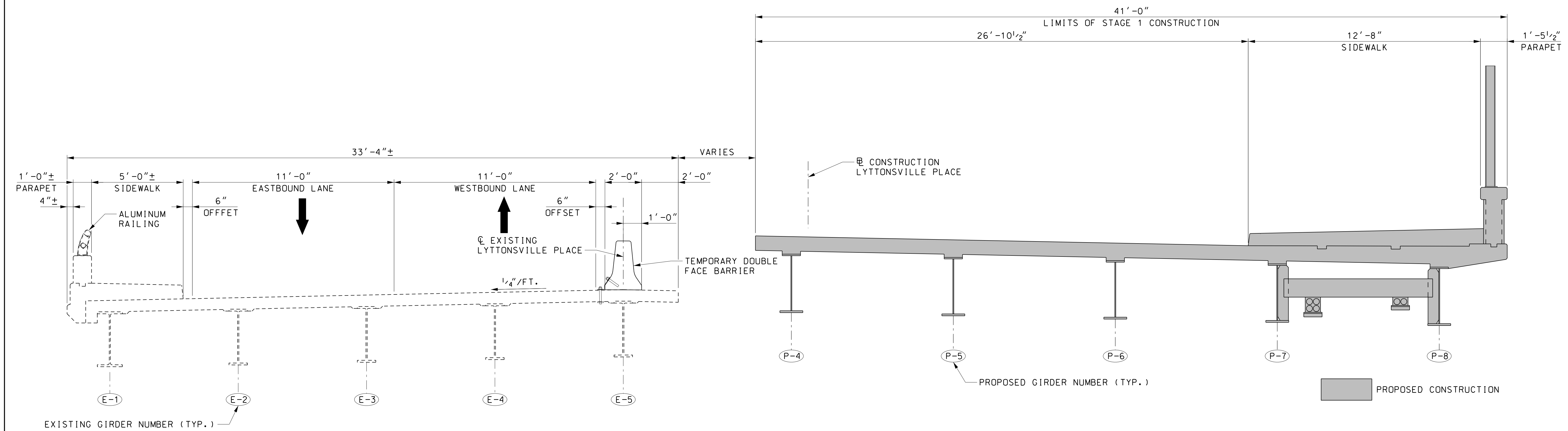
NOTE:
NUMBER AND SIZE OF
CONDUITS TO BE DETERMINED.



TYPICAL SECTION - EXISTING
SCALE: 3/8"=1'-0"

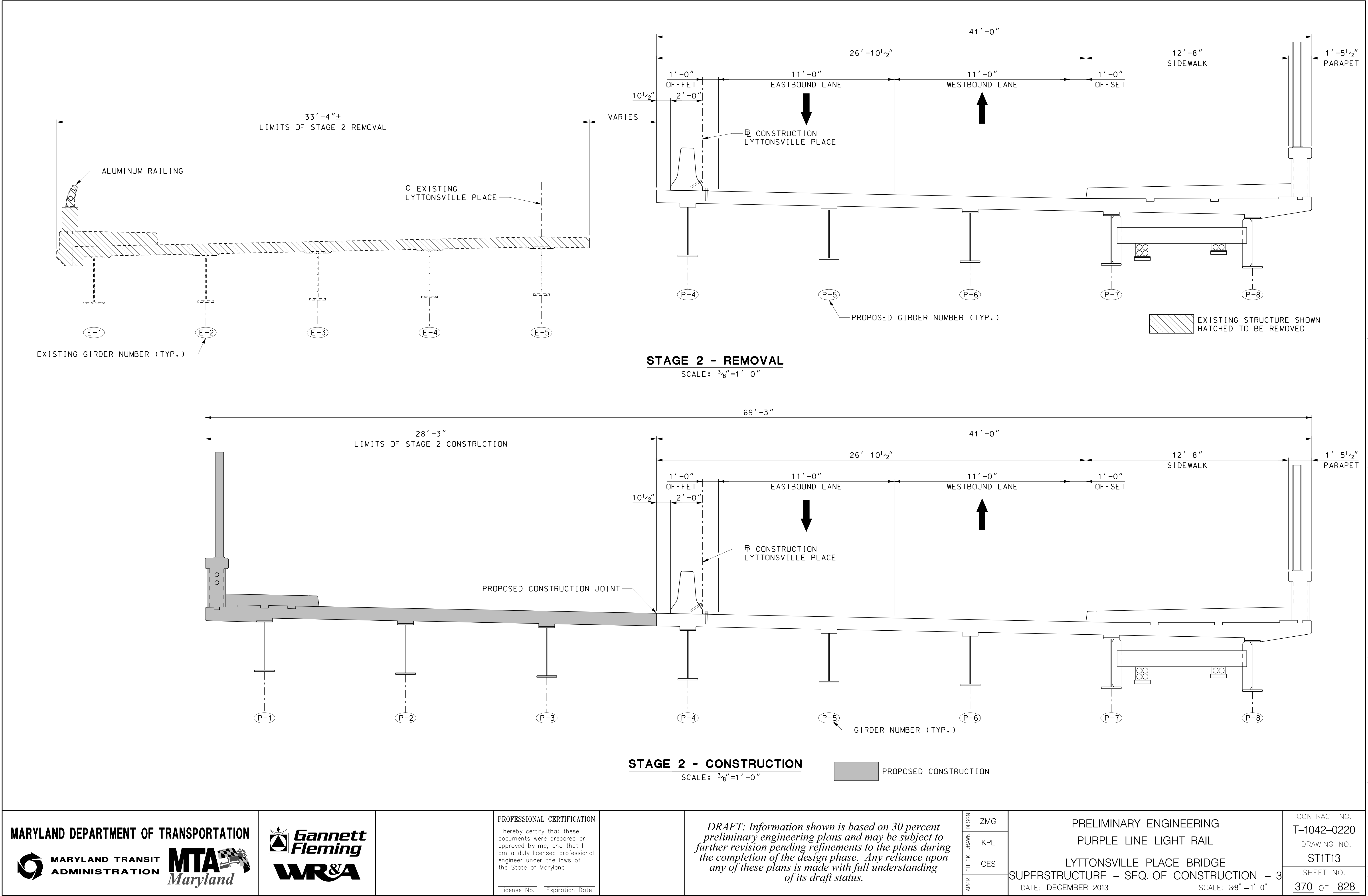


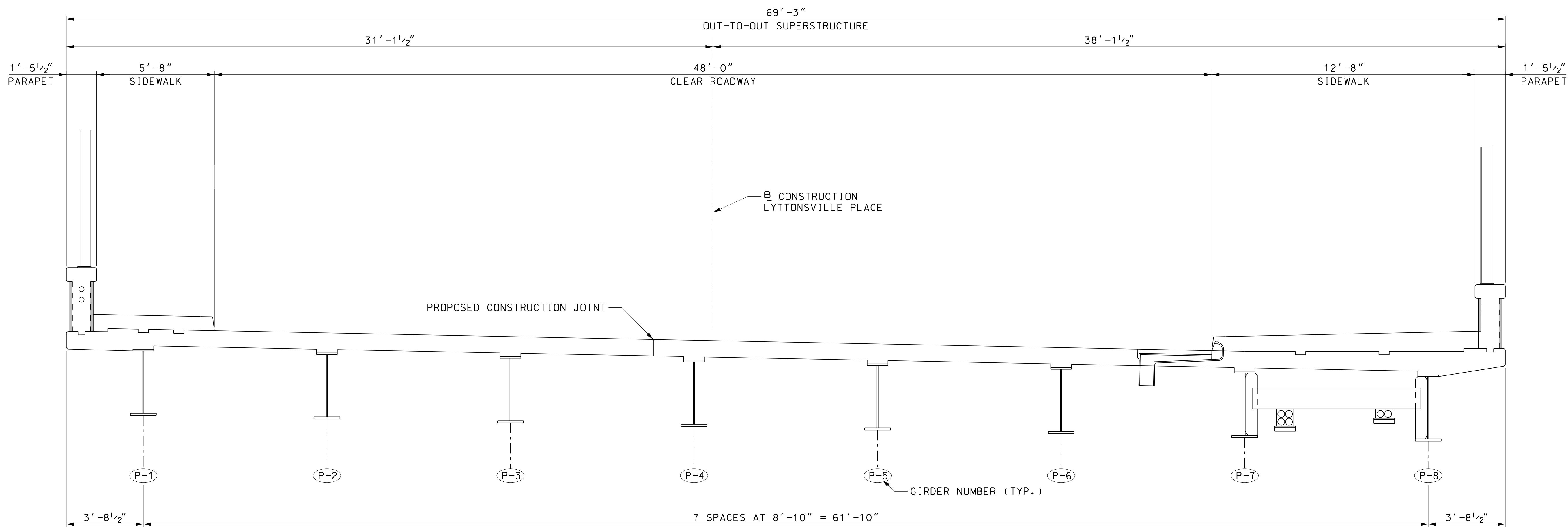
STAGE 1 - REMOVAL
SCALE: $\frac{3}{8}" = 1' - 0"$



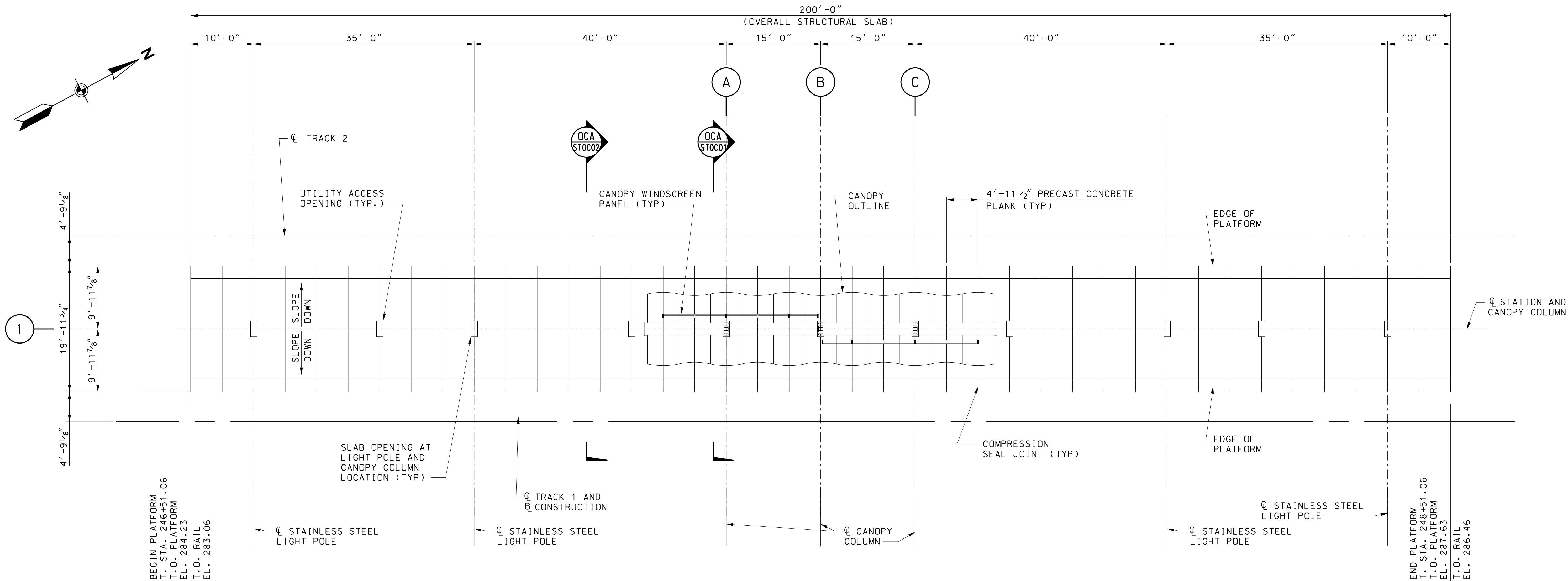
STAGE 1 - CONSTRUCTION
SCALE: $\frac{3}{8}" = 1' - 0"$

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 01-West\Structures\T-Lyttonsville Place Hwy Bridge\Sheet Files\1042pST1t12.dgn 12/4/2013



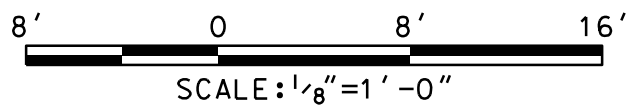


TYPICAL SECTION - PROPOSED
SCALE: $\frac{3}{8}" = 1' - 0"$

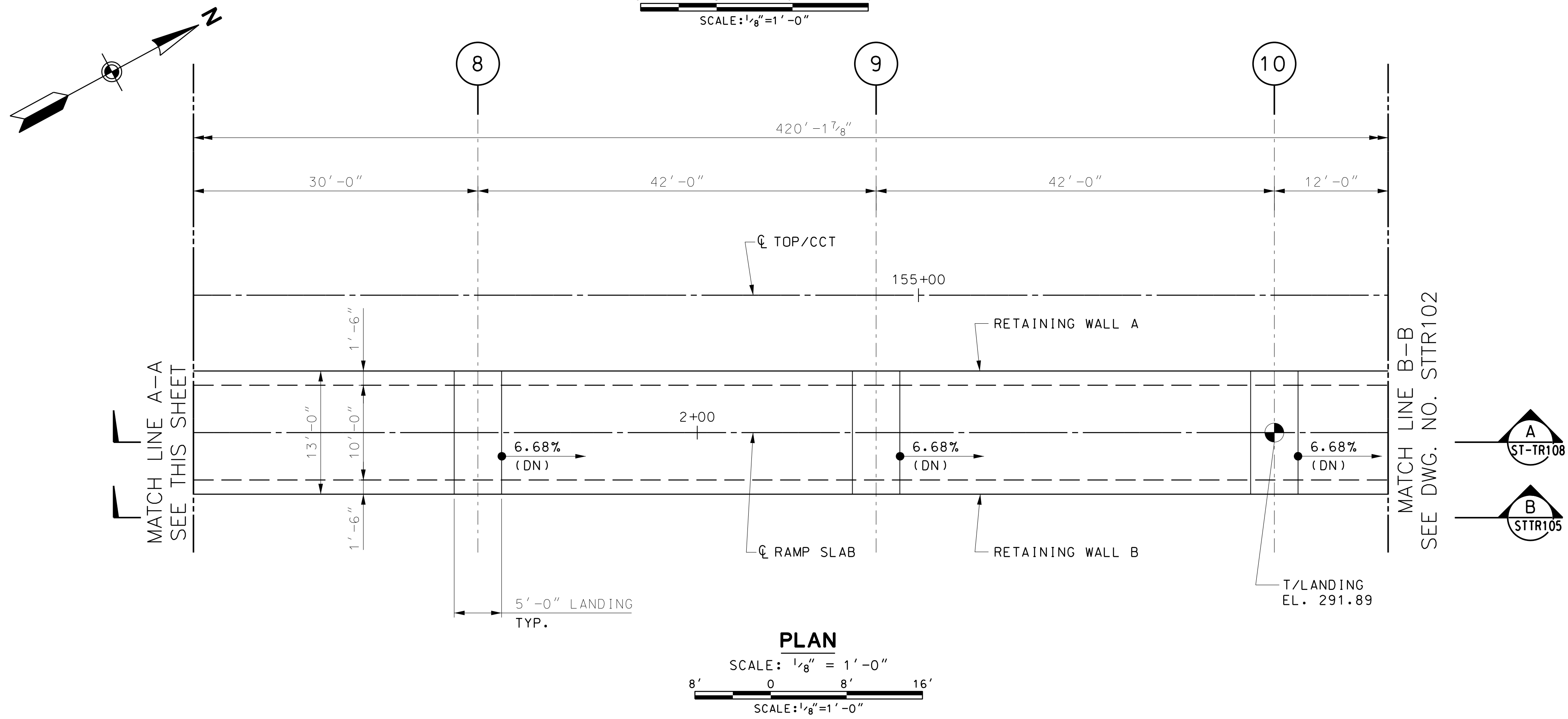


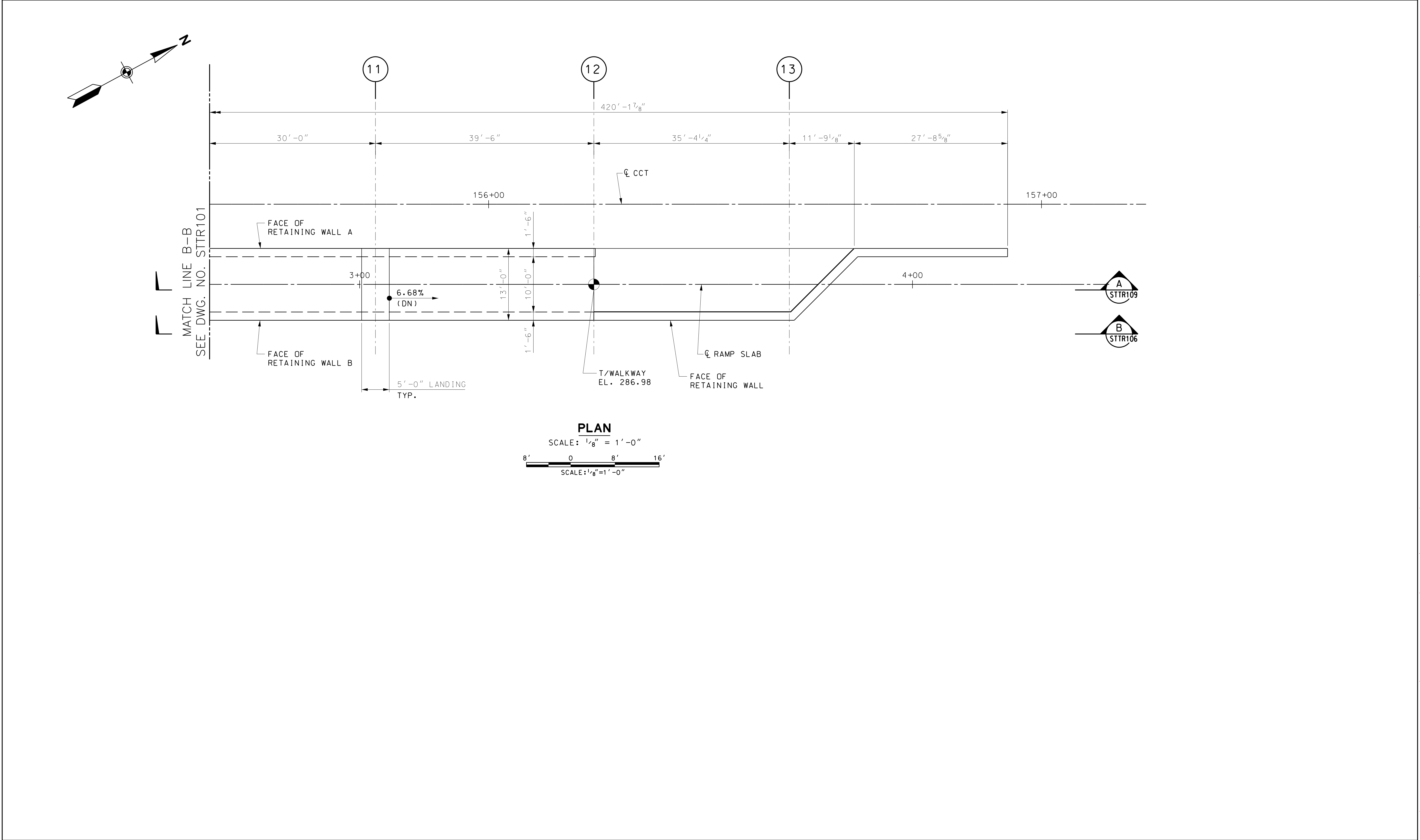
PLATFORM PLAN





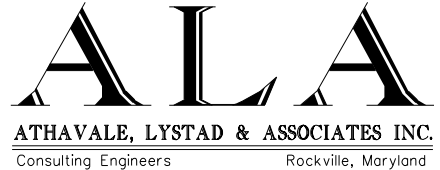
SCALE: 1/8" = 1'-0"



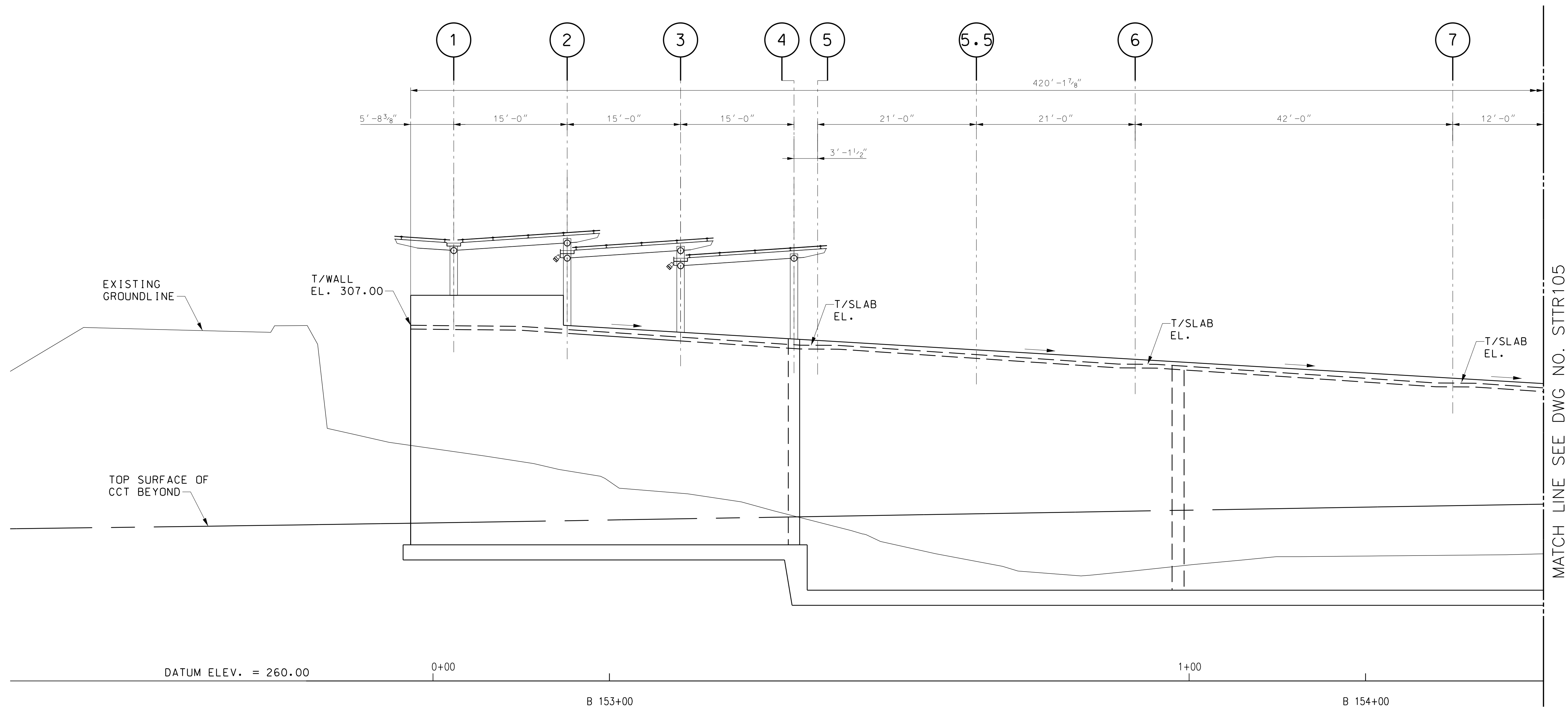
NOTE:
FOR NOTES, SEE DWG. NO. STOA01 IN VOLUME 7.



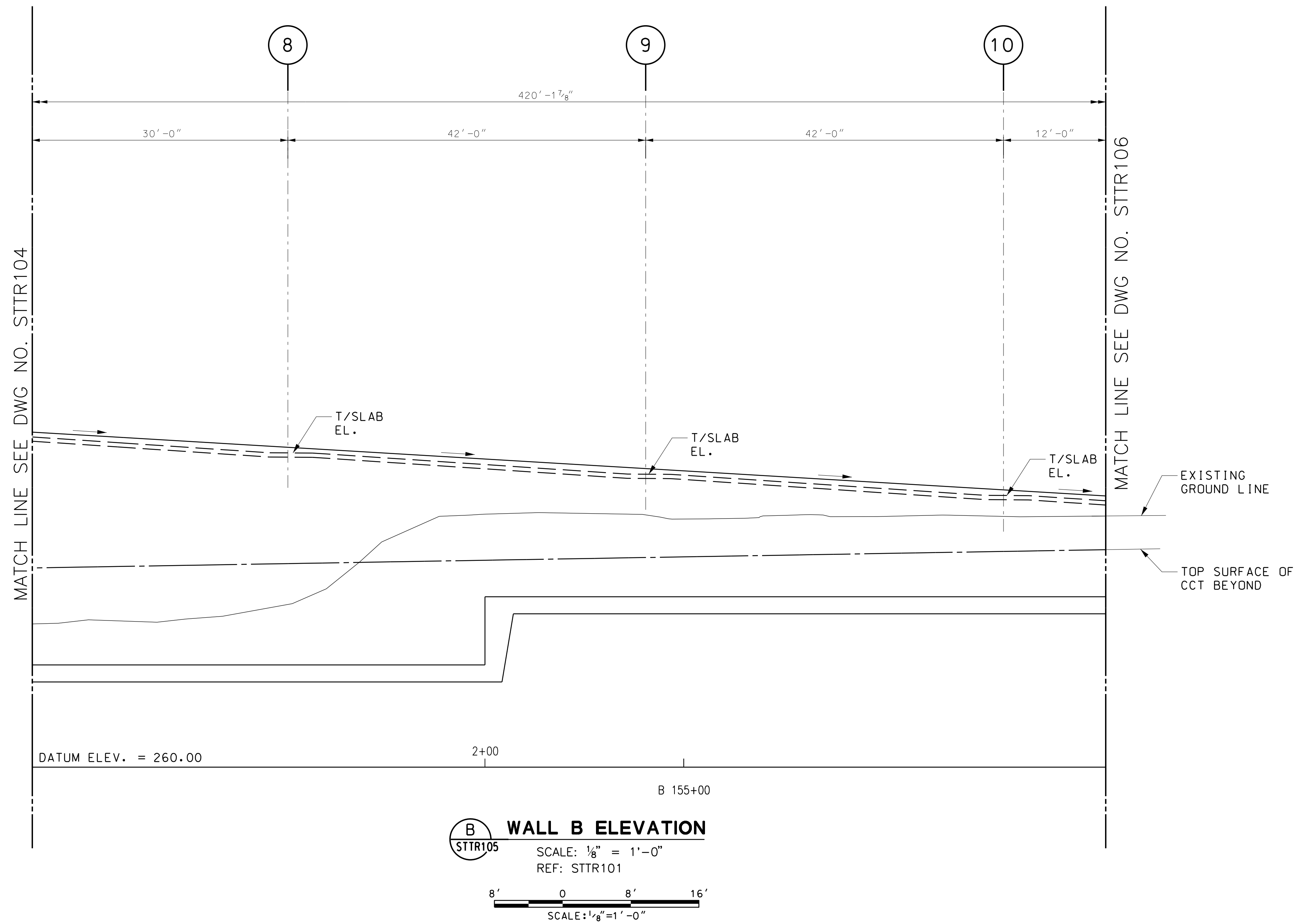


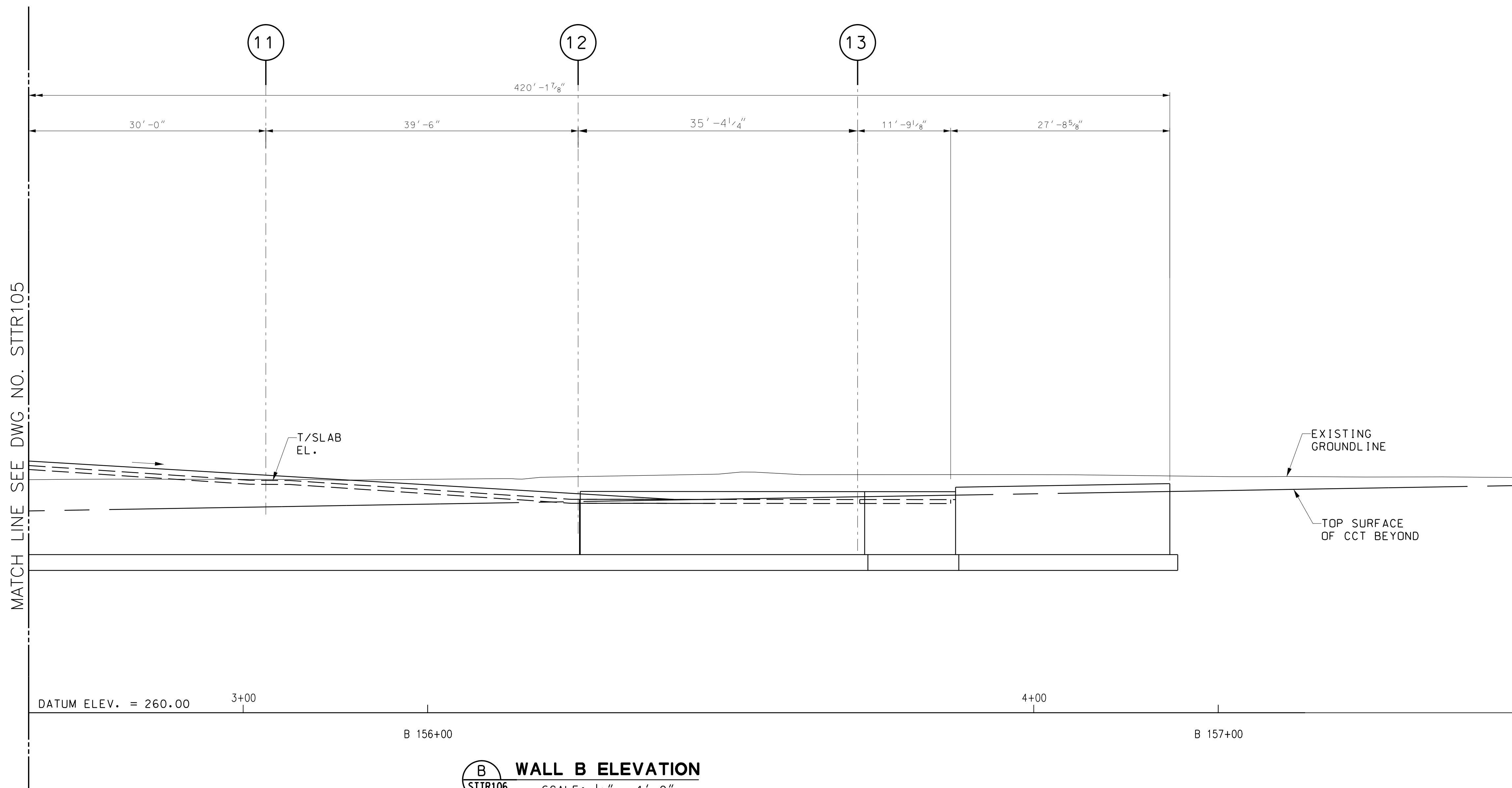
<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div><div> MARYLAND TRANSIT ADMINISTRATION</div><div></div></div>	<div></div> <div></div>	<div></div> <div>ATHAVALE, LYSTAD & ASSOCIATES INC. <small>Consulting Engineers Rockville, Maryland</small></div>	PROFESSIONAL CERTIFICATION	<div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	DESIGN	BT	<div>PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL</div> <div>LYTTONSVILLE PLACE CONNECTION RAMP GENERAL PLAN SHEET 2 OF 2</div> <div>DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"</div>	CONTRACT NO.	T-1042-0220
			CHECK			JE	DRAWING NO.		STTR102	
			DRAWN			RG	SHEET NO.		374 OF 828	

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 12\Structures\R-Ret Walls Lyttonsville Pl Bridge-CCT Ped Bridge-STTR102.dgn 12/11/2013



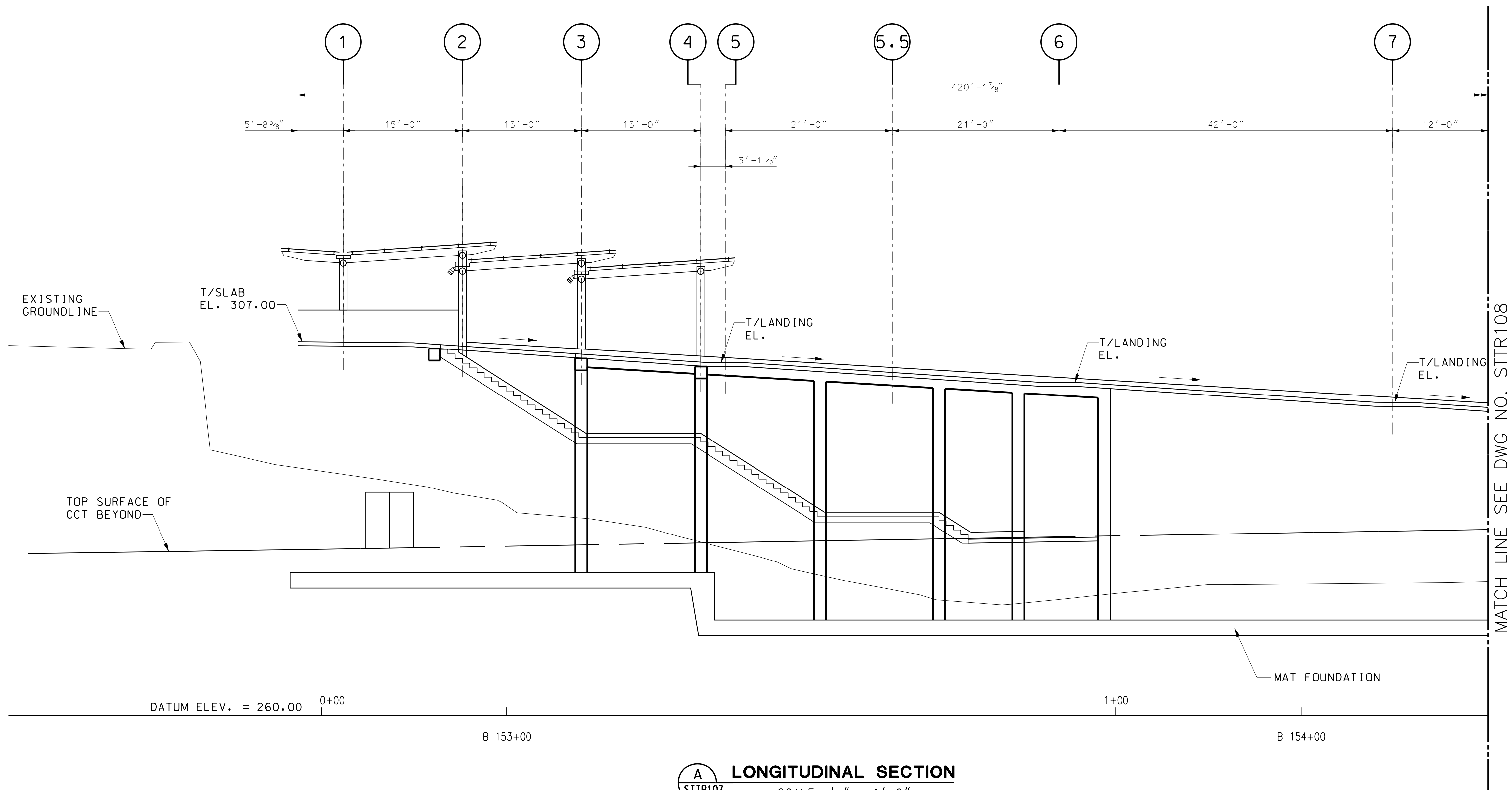
B WALL B ELEVATION
SCALE: 1/8" = 1'-0"
REF: STTR101
STTR103
8' 0 8' 16'
SCALE: 1/8" = 1'-0"



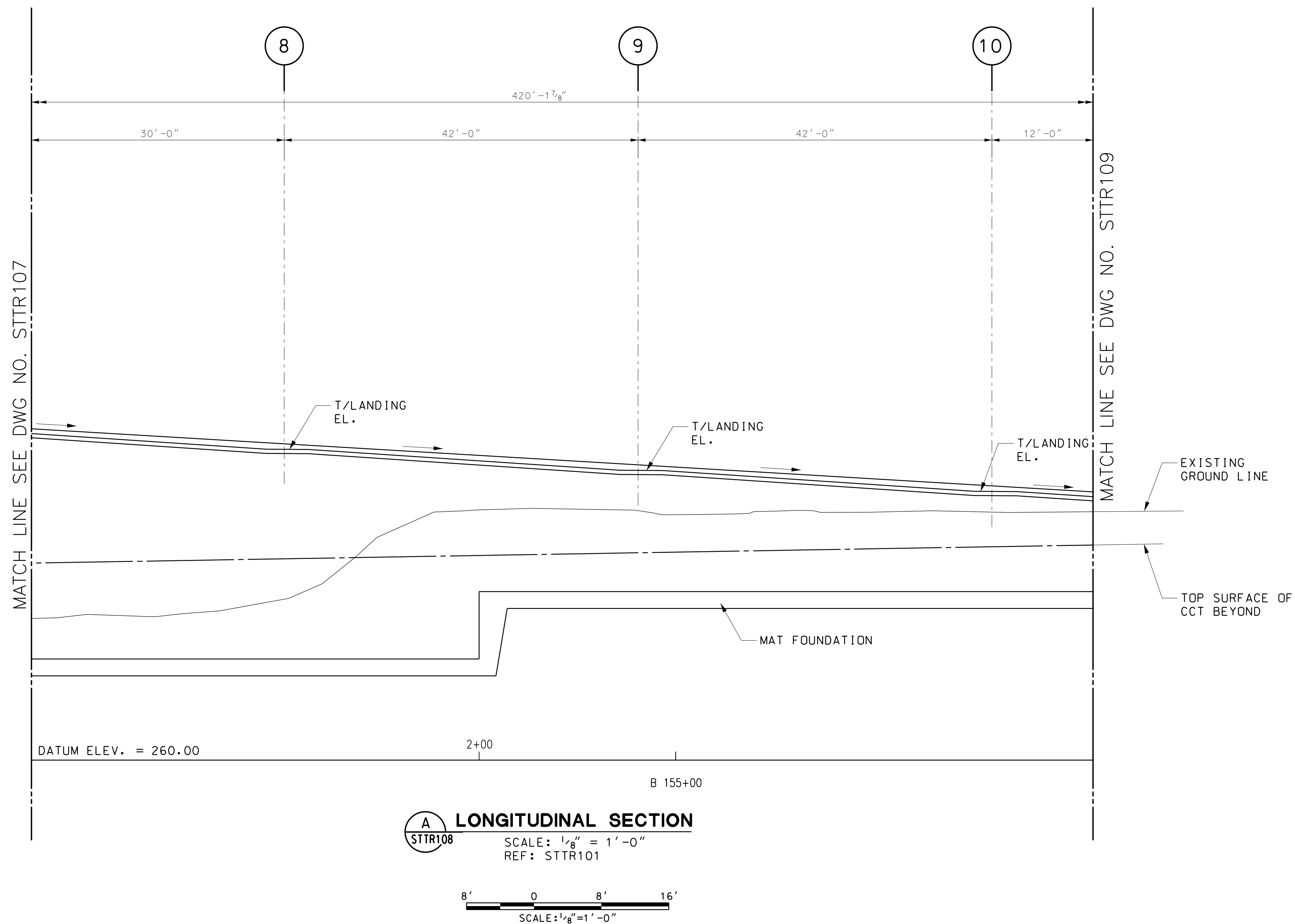


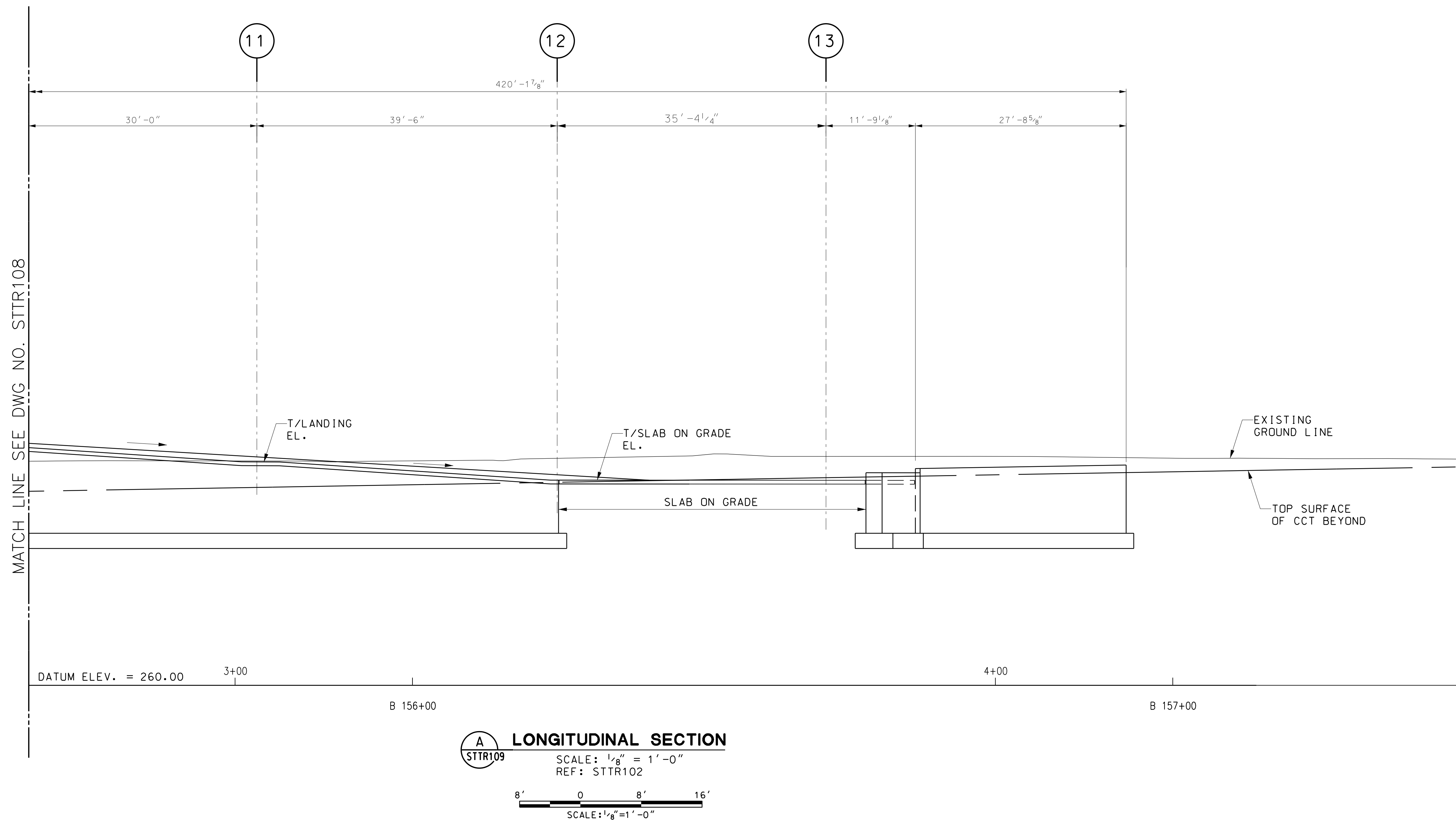
WALL B ELEVATION
SCALE: 1/8" = 1'-0"
REF: STTR102

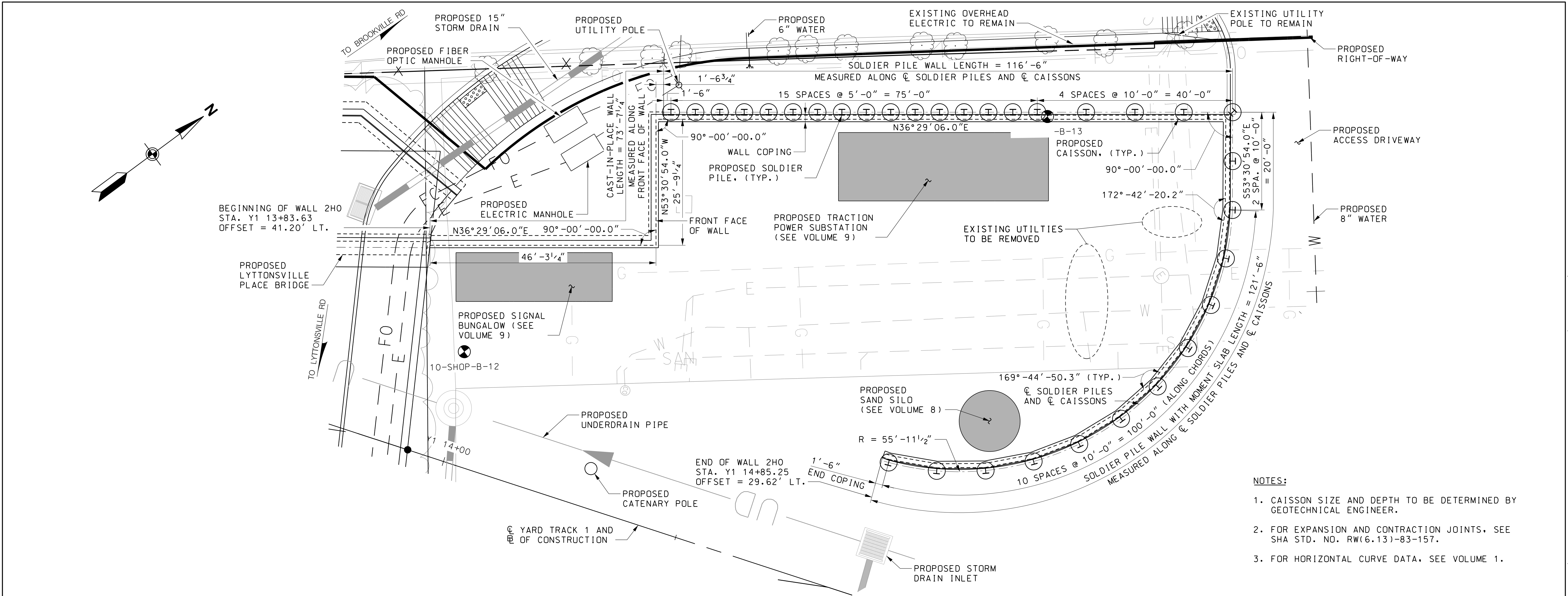
8' 0 8' 16'
SCALE: 1/8" = 1'-0"



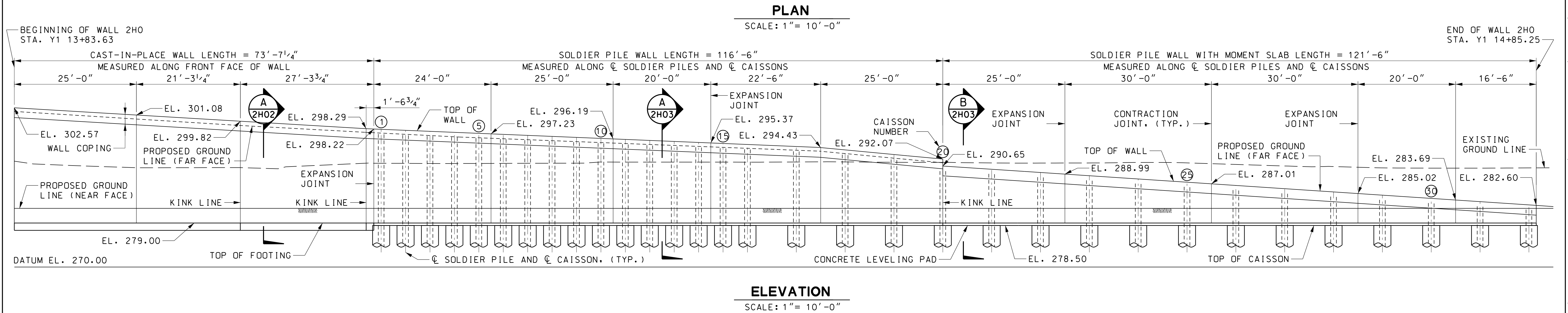
A LONGITUDINAL SECTION
STTR107
SCALE: 1/8" = 1'-0"
REF: STTR101
8' 0 8' 16'
SCALE: 1/8"=1'-0"



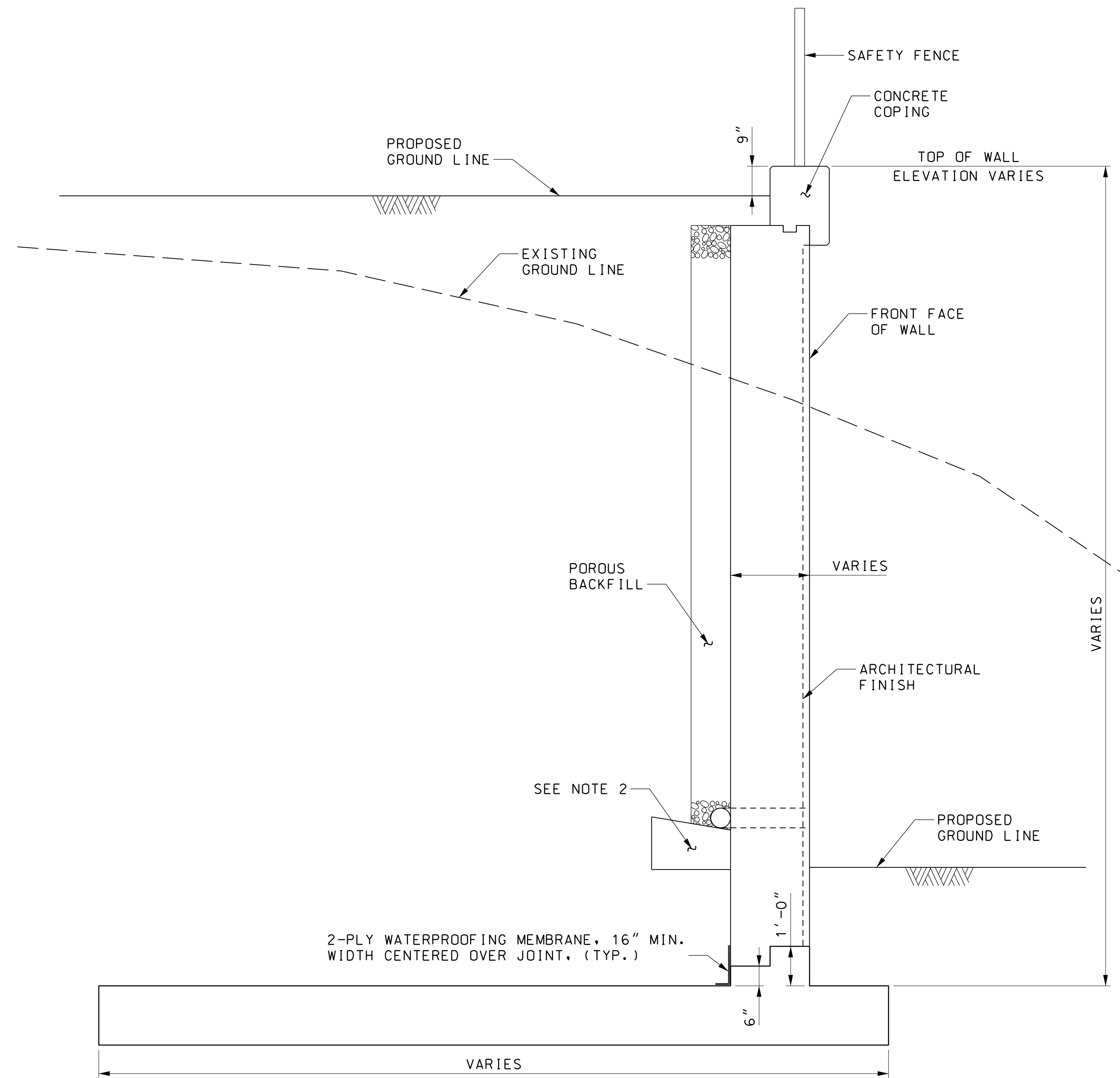




- NOTES:**
1. CAISSON SIZE AND DEPTH TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

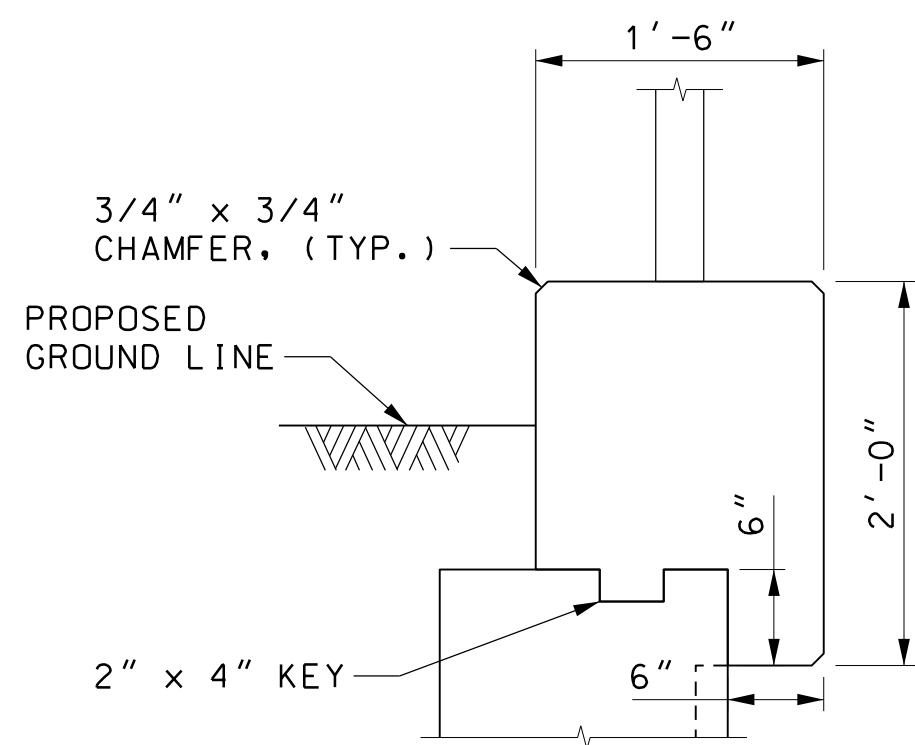


 MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION 	 Gannett Fleming 	 STV Incorporated	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	APPR CHECK DRAWN DESIGN AFM AFM AR	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL		CONTRACT NO. T-1042-0220	
						RETAINING WALL - 2H0 GENERAL PLAN & ELEVATION		DRAWING NO. ST2H01	
						DATE: DECEMBER 2013 SCALE: 1" = 10'-0"		SHEET NO. 382 OF 828	

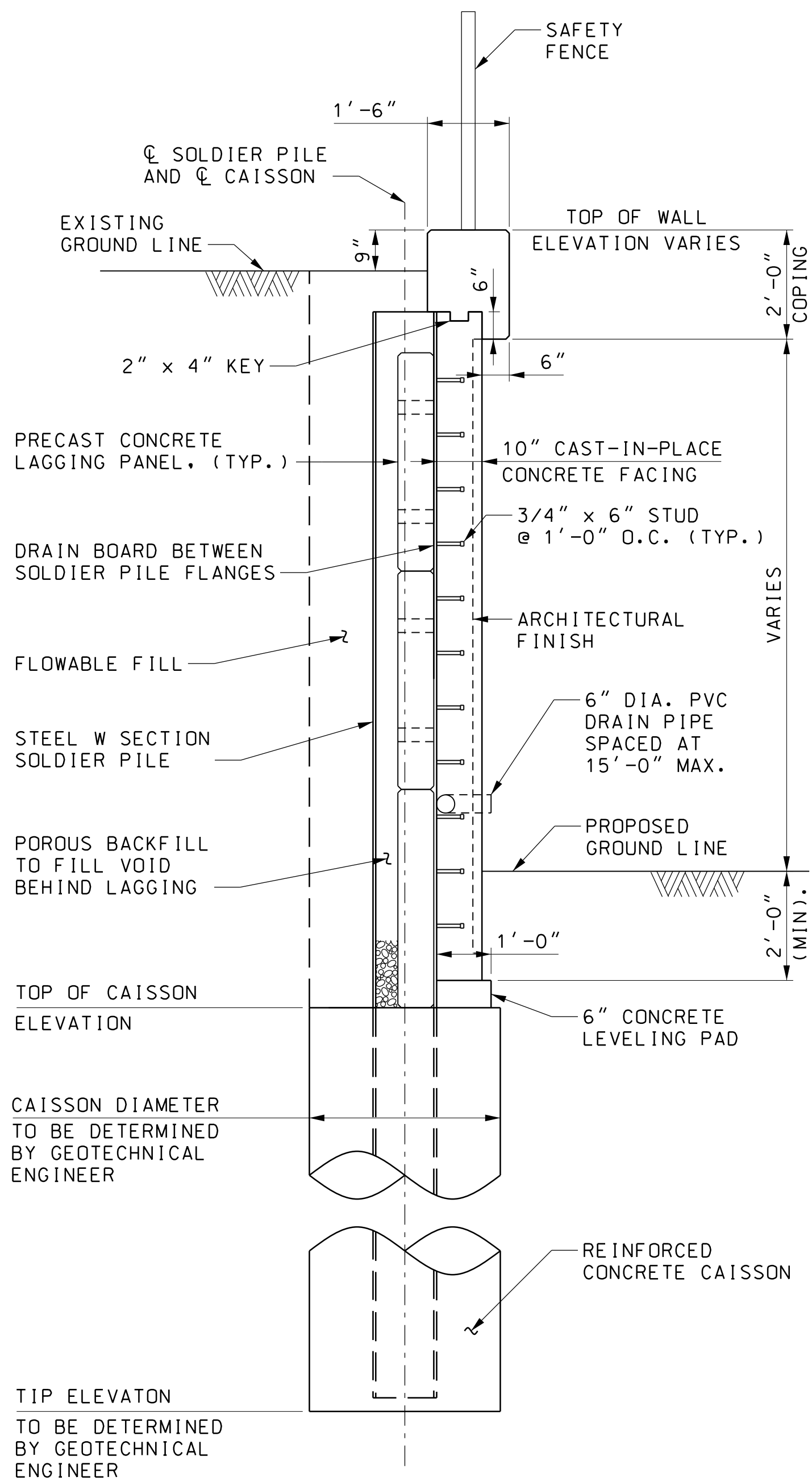


A SECTION
 2H02 SCALE: 1/2"=1'-0"
 REF: 2H01

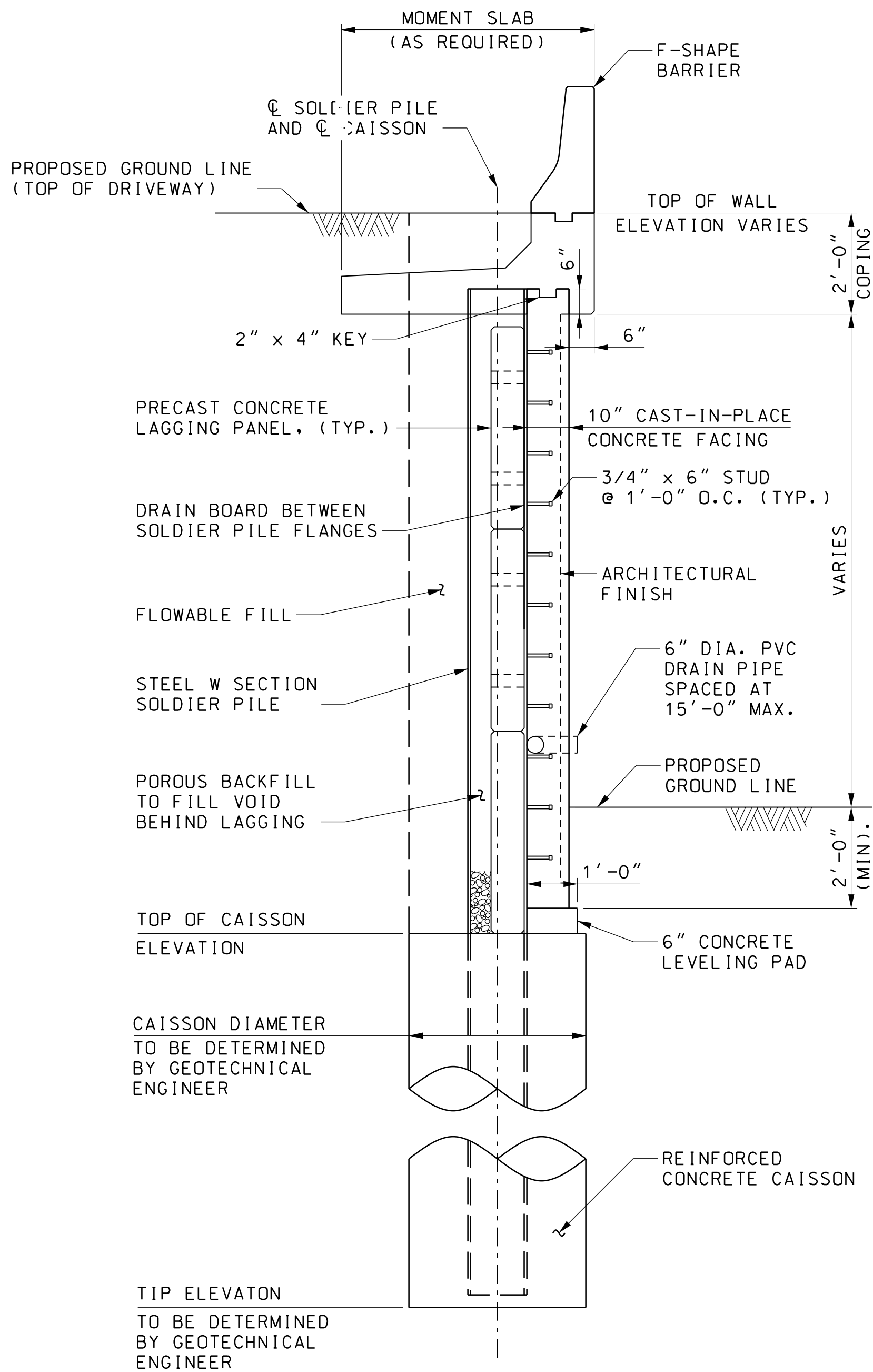
- NOTES:**
1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
 2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.



COPING DETAIL
 SCALE: 1"= 1'-0"



SECTION A
2H03
SCALE: 1"=1'-0"
REF: 2H01



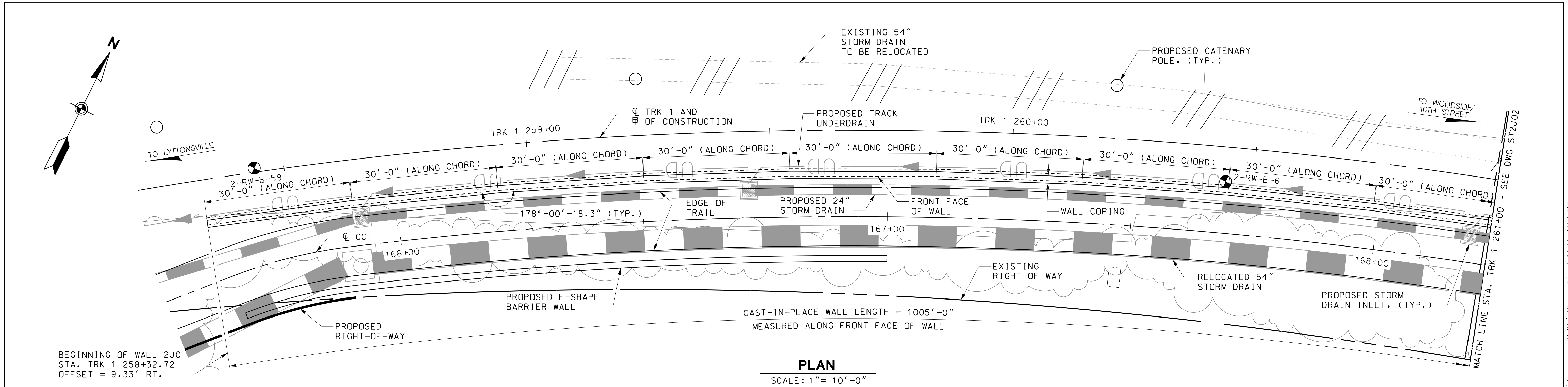
SECTION B
2H03
SCALE: 1"=1'-0"
REF: 2H01

PROPOSED SEQUENCE OF CONSTRUCTION (SOLDIER PILE WALL):

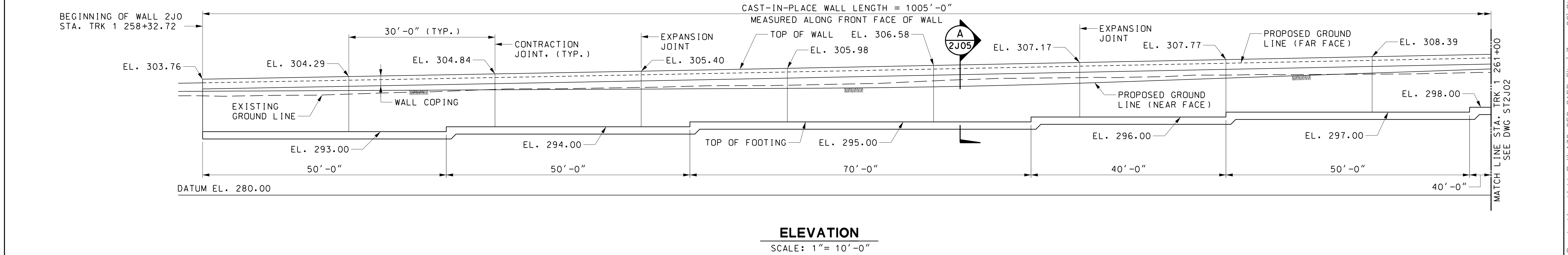
1. DRILL SHAFT FOR CAISSON TO DIAMETER AND TIP ELEVATION REQUIRED.
2. INSTALL REINFORCING CAGE FOR CONCRETE CAISSON.
3. INSTALL STEEL W SECTION SOLDIER PILE PLUMB.
4. PLACE CAISSON CONCRETE TO REQUIRED TOP OF CAISSON ELEVATION. FILL REMAINDER OF SHAFT WITH FLOWABLE FILL IN ACCORDANCE WITH SECTION 314 OF THE MD SHA STANDARD SPECIFICATIONS.
5. EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO START PLACEMENT OF LAGGING PANELS.
6. CONTINUE TO EXCAVATE SOIL AND CHIP OUT FLOWABLE FILL AS REQUIRED TO ALLOW LAGGING PANELS TO SLIDE DOWN BETWEEN SOLDIER PILE FLANGES AND TO ALLOW FOR PLACEMENT OF SUBSEQUENT LAGGING PANELS AS EXCAVATION PROCEEDS.
7. CONTINUE INSTALLATION OF PANELS UNTIL THEY ARE RESTING ON TOP OF THE CONCRETE CAISSONS.
8. INSTALL SHEET DRAIN AND DRAINAGE PIPE SYSTEM.
9. BACKFILL OVER-EXCAVATED AREA BEHIND LAGGING WITH POROUS BACKFILL.
10. CONSTRUCT CONCRETE FACING AND COPING OR MOMENT SLAB.

NOTES:

1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.

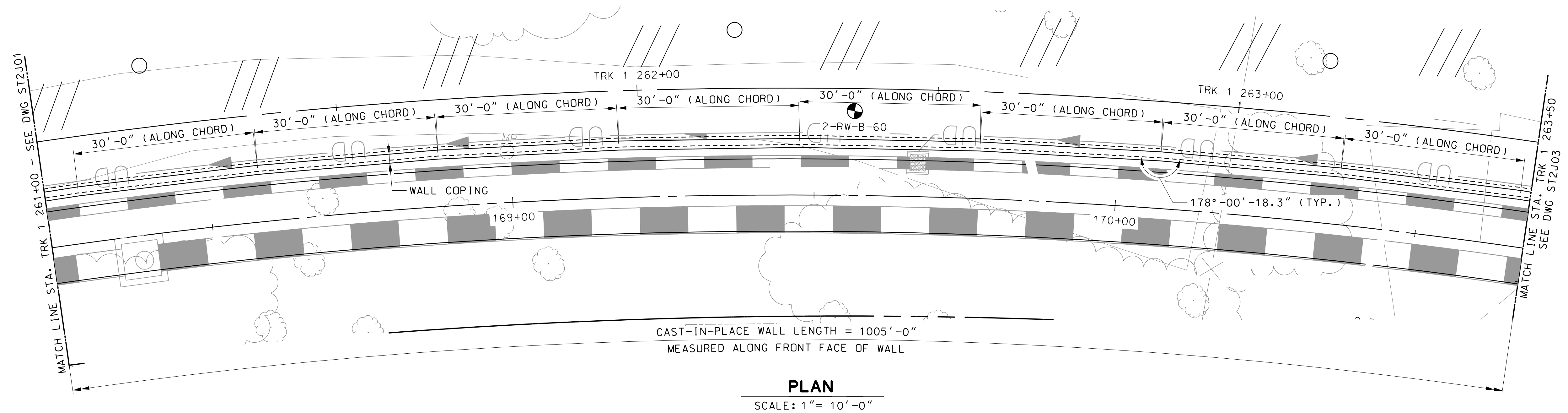


- NOTES:**
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

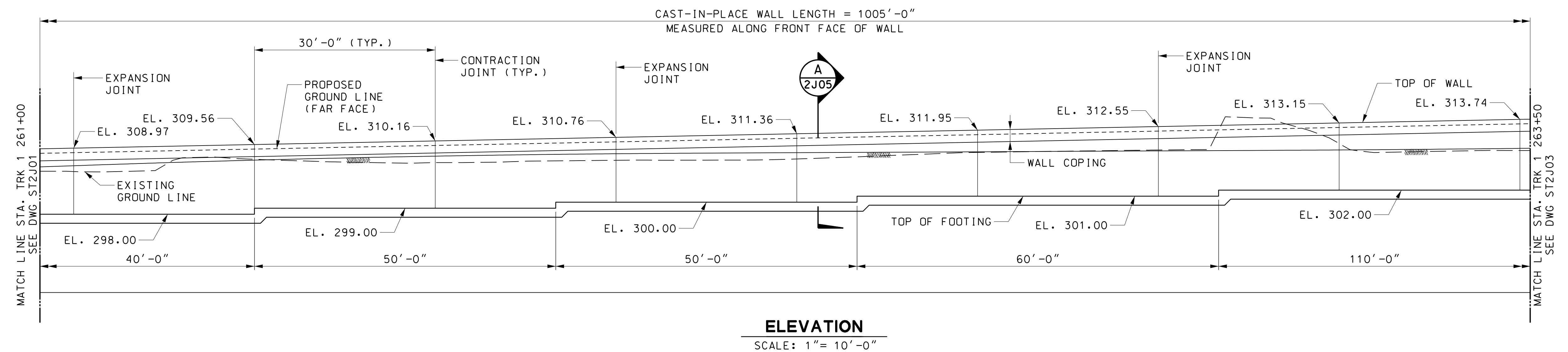


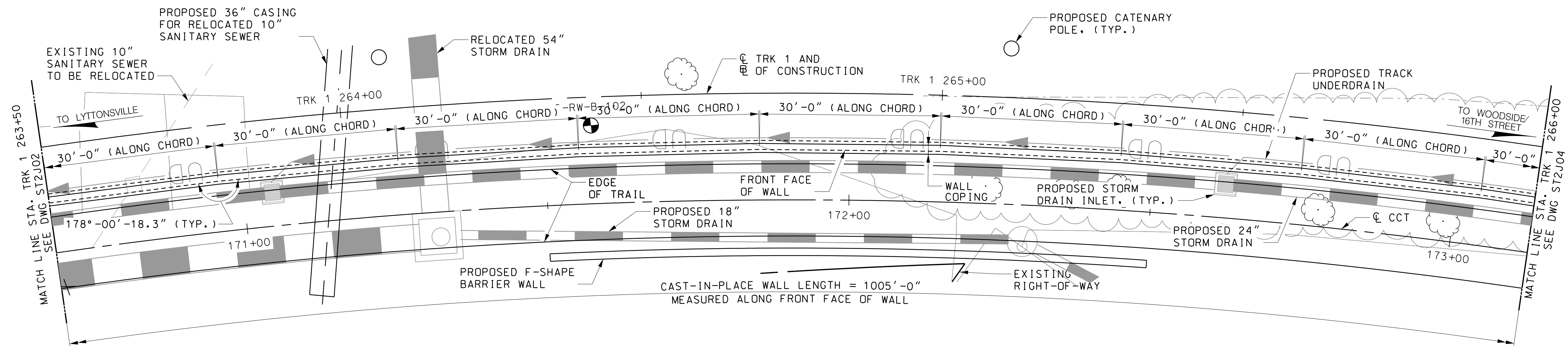
MARYLAND DEPARTMENT OF TRANSPORTATION 		 STV Incorporated	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESIGN AFM	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
					CHECK AFM		DRAWING NO. ST2J01
					APPROVED AR		SHEET NO. 385 OF 828
RETAINING WALL - 2J0 GENERAL PLAN & ELEVATION - 1						DATE: DECEMBER 2013	SCALE: 1" = 10'-0"

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 02\Structures\J-Ret Walls Stewart Ave-CCT Ped Bridge over CSXT\Sheet Files\1042pST2J01.dgn 12/9/2013



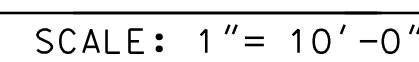
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

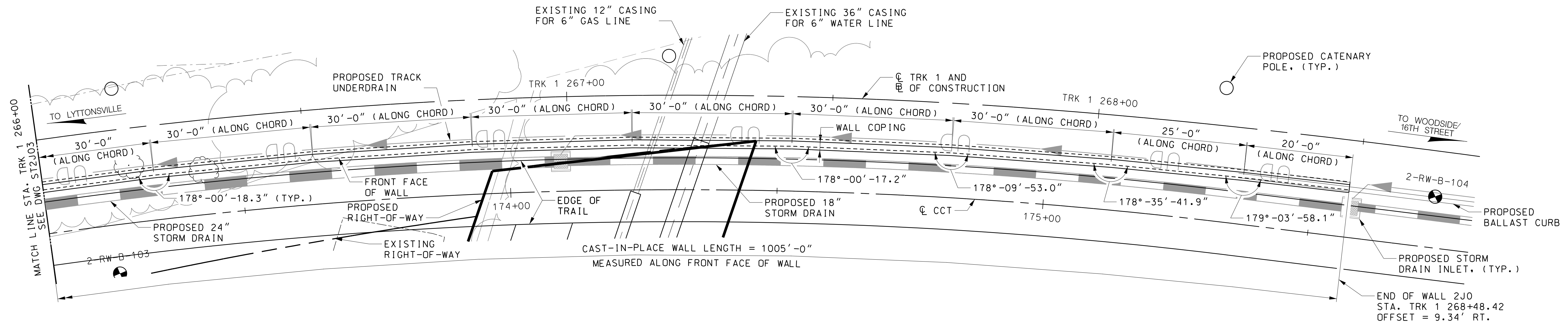
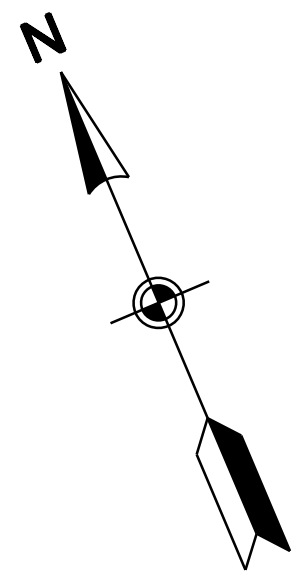




SCALE: 1" = 10' - 0"

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



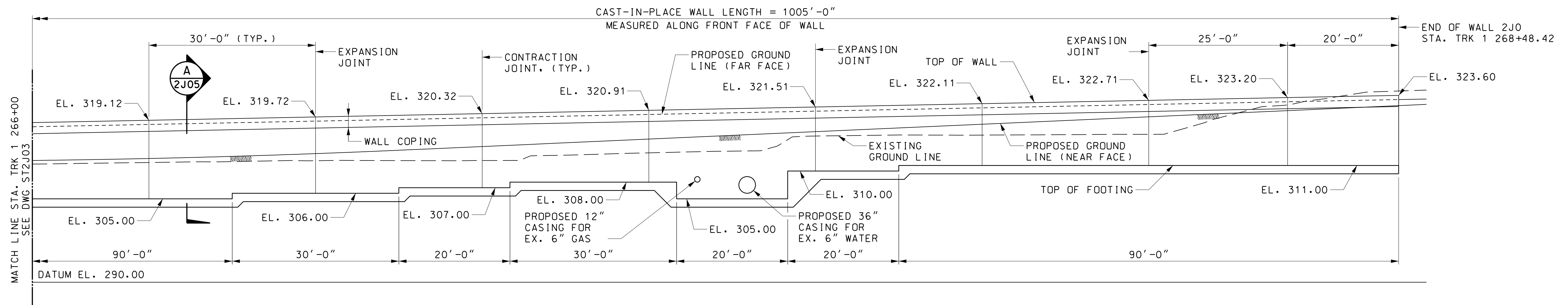


PLAN

SCALE: 1" = 10'-0"

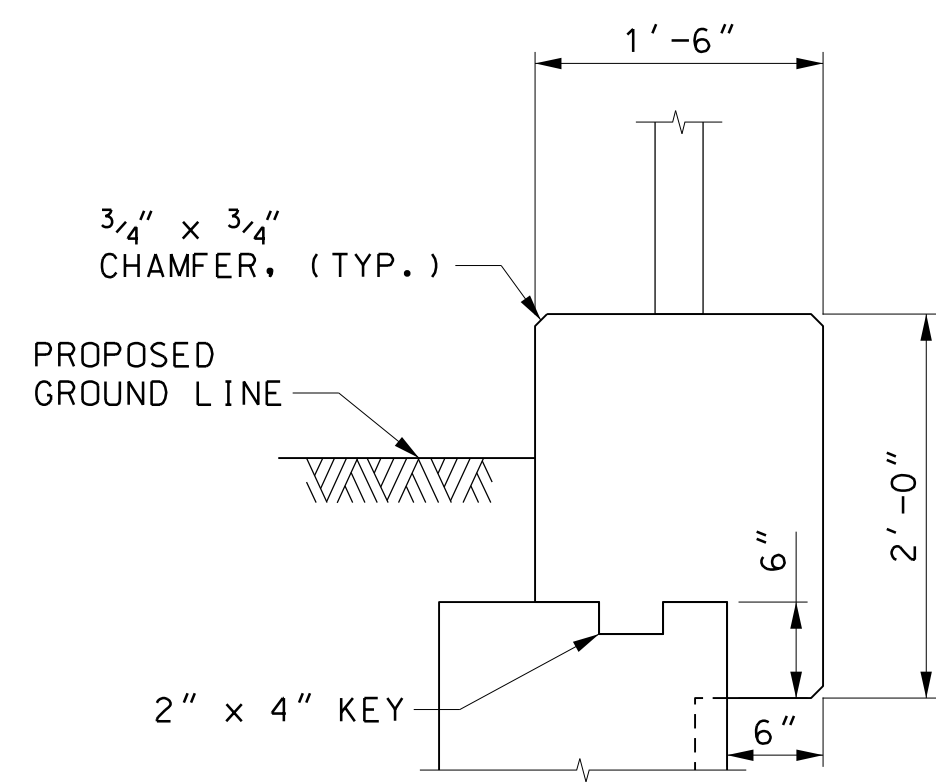
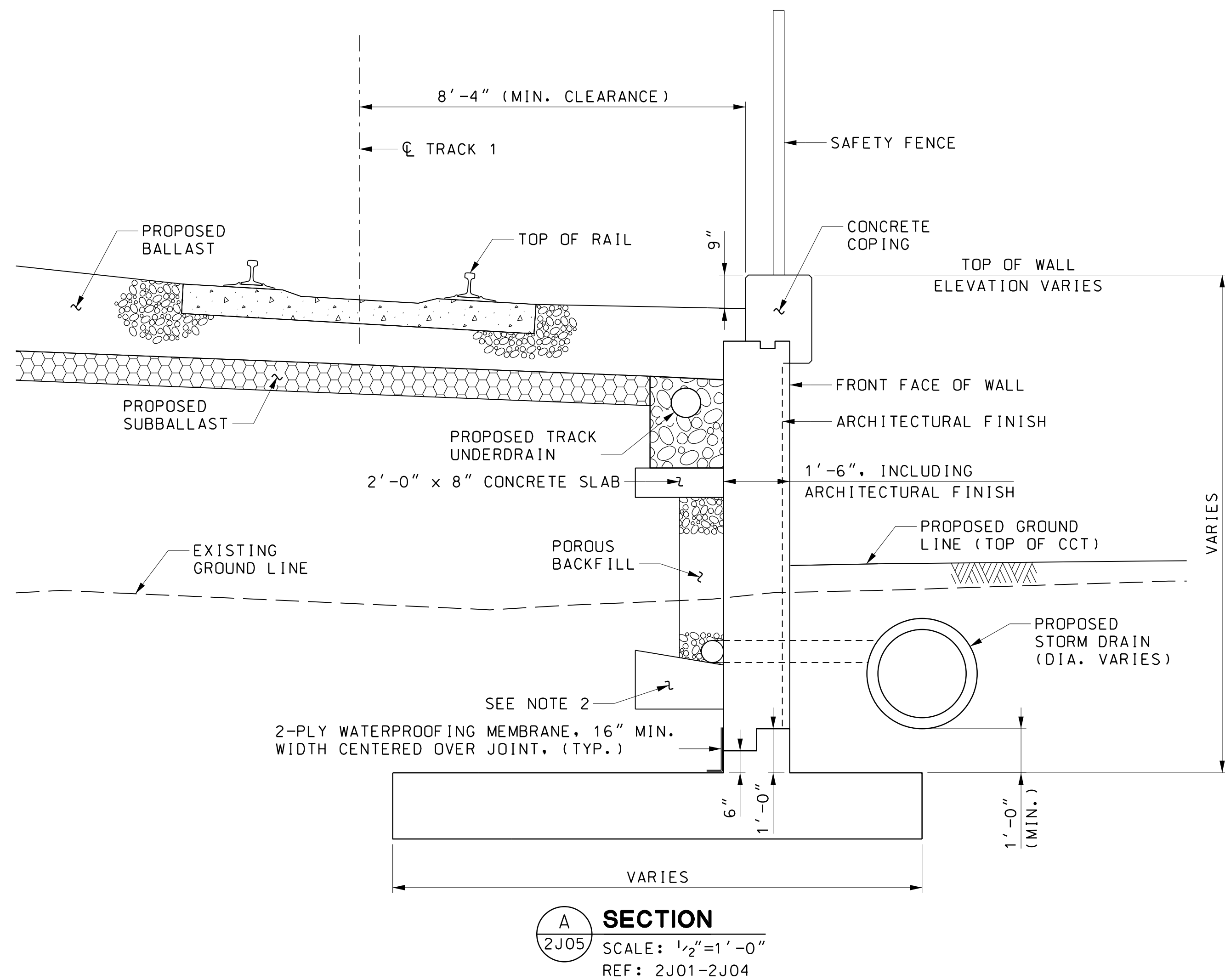
NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



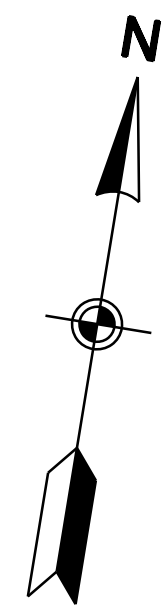
ELEVATION

SCALE: 1" = 10'-0"



NOTES:

1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.



BEGINNING OF WALL 2J1
STA. TRK 1 261+21.28
OFFSET = 29.04' LT.

CAST-IN-PLACE WALL LENGTH = 205'-0"
MEASURED ALONG FRONT FACE OF WALL

END OF WALL 2J1
STA. TRK 1 263+19.92
OFFSET = 26.73' LT.

EXISTING 21"
STORM DRAIN
TO REMAIN

PROPOSED
CONCRETE BARRIER

PROPOSED
RIGHT-OF-WAY

TO LYTTONSVILLE

TRK 1 261+00

EXISTING
RIGHT-OF-WAY

TRK 1 AND
OF CONSTRUCTION

TRK 1 262+00

PROPOSED WALL 2J0
SEE DWG ST2J01-ST2J04

PLAN

SCALE: 1" = 10'-0"

NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

BEGINNING OF WALL 2J1
STA. TRK 1 261+21.28

CAST-IN-PLACE WALL LENGTH = 205'-0"
MEASURED ALONG FRONT FACE OF WALL

END OF WALL 2J1
STA. TRK 1 263+19.92

EL. 313.34

EL. 313.34

EL. 315.27

EL. 313.70

EL. 316.83

EL. 318.40

EL. 319.29

EL. 319.12

EL. 316.56

EL. 314.43

EL. 305.50

EL. 306.50

EL. 307.50

EL. 308.50

DATUM EL. 290.00

ELEVATION

SCALE: 1" = 10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

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DESIGN	AFM
CHECK	AFM
DRAWN	AR
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - 2J1
GENERAL PLAN & ELEVATION

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

CONTRACT NO.
T-1042-0220

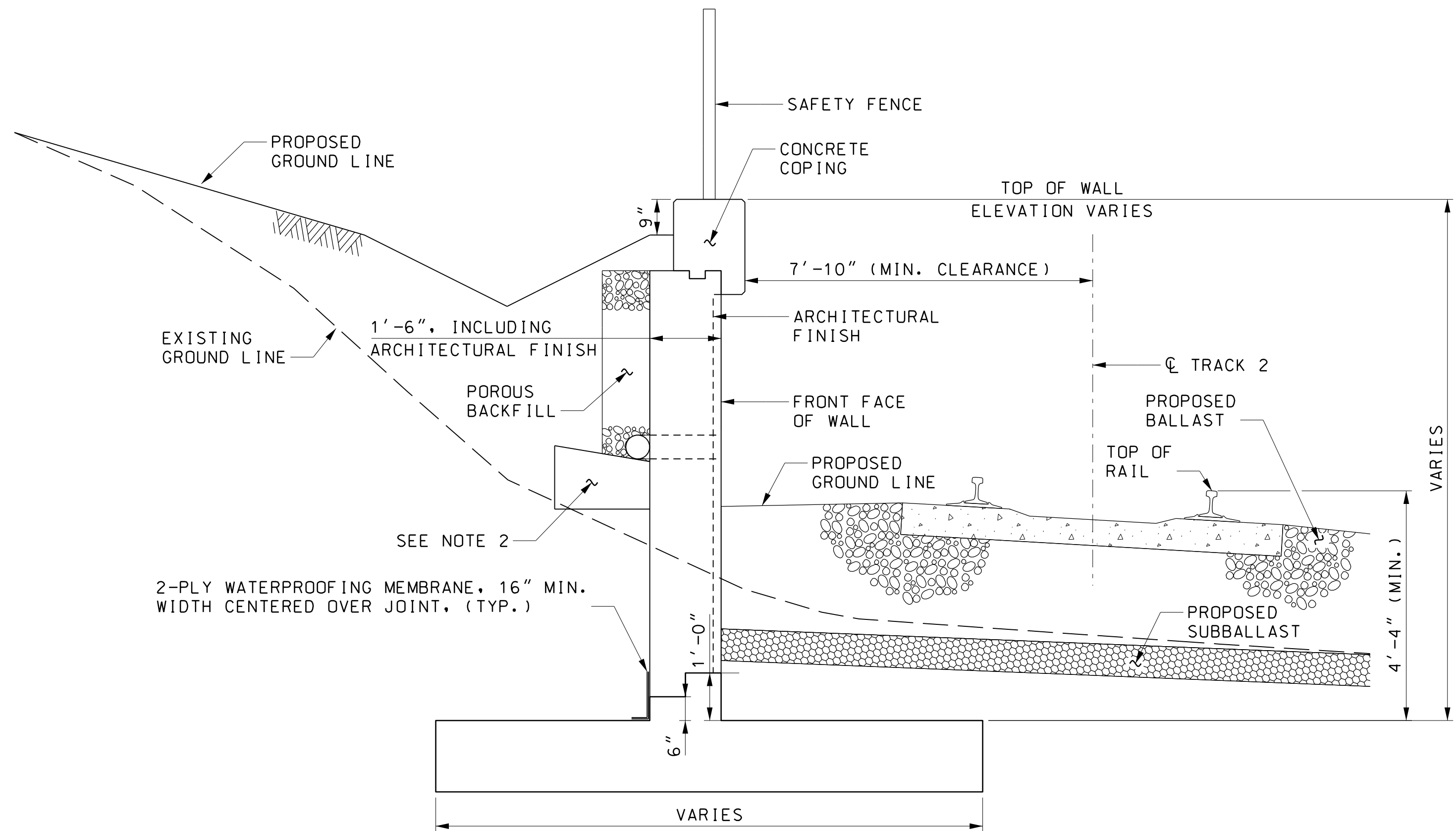
DRAWING NO.
ST2J11

SHEET NO.
390 OF 828

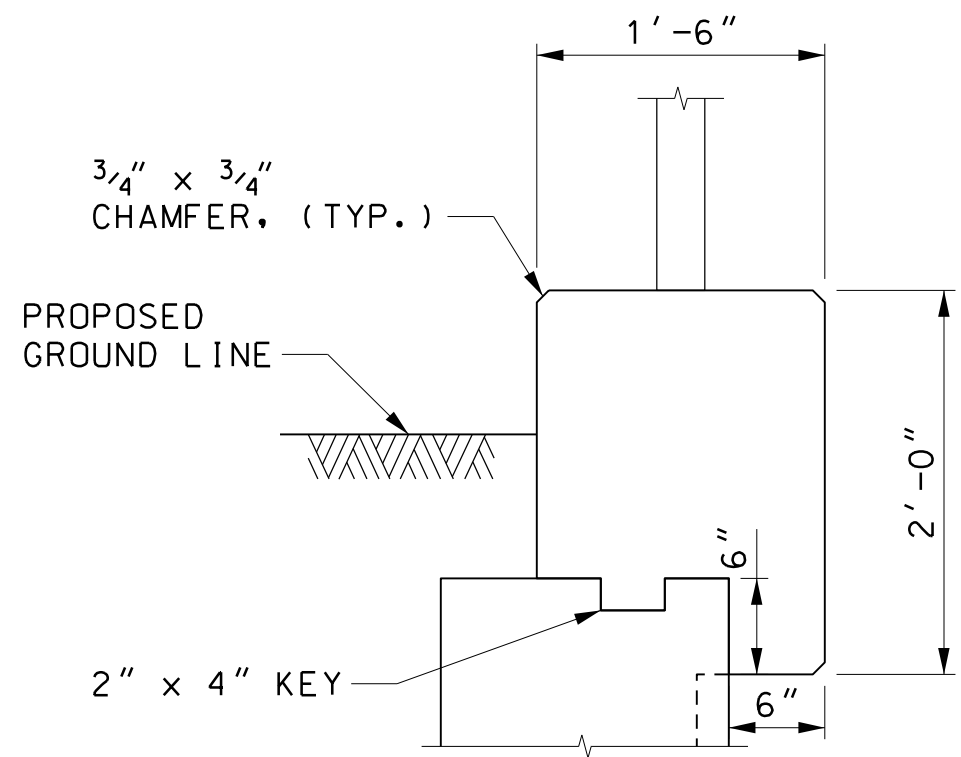
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 02\Structures\J-Ret Walls Stewart Ave-CCT Ped Bridge over CSXT\Sheet Files\1042pST2J11.dgn 12/10/2013

NOTES:

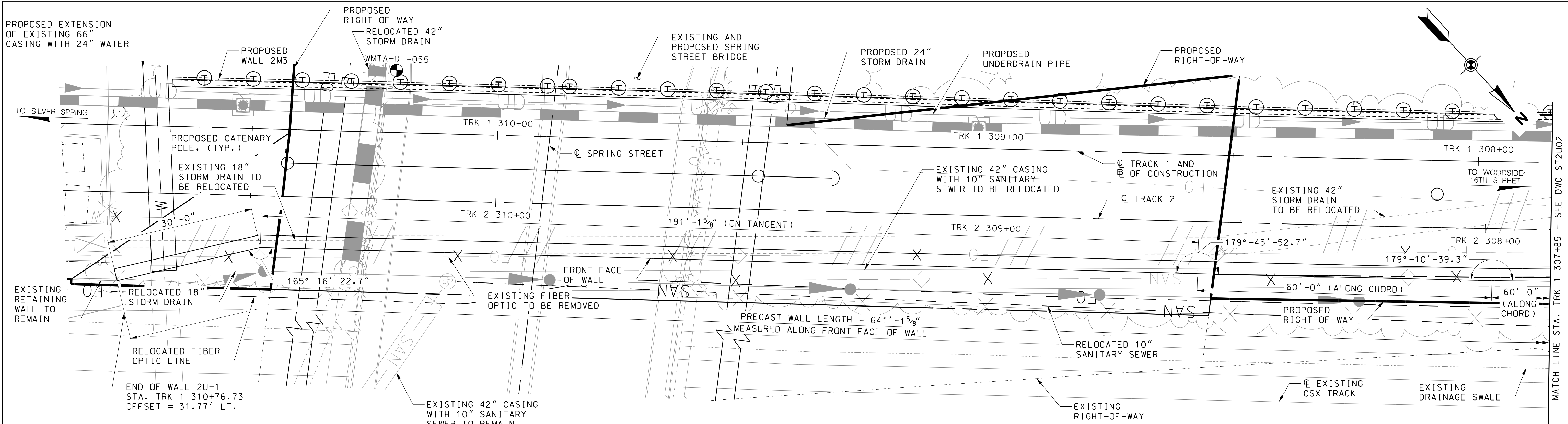
1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.



A SECTION
2J12 SCALE: 1/2"=1'-0"
REF: 2J11



COPING DETAIL
SCALE: 1"= 1'-0"



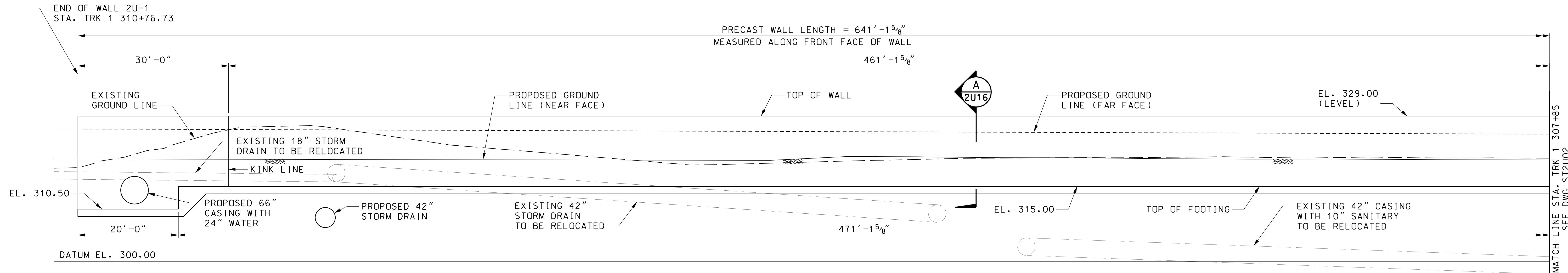
PLAN

SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

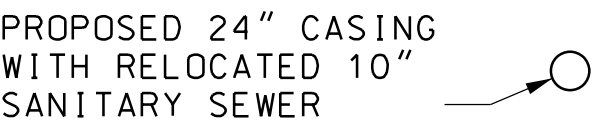
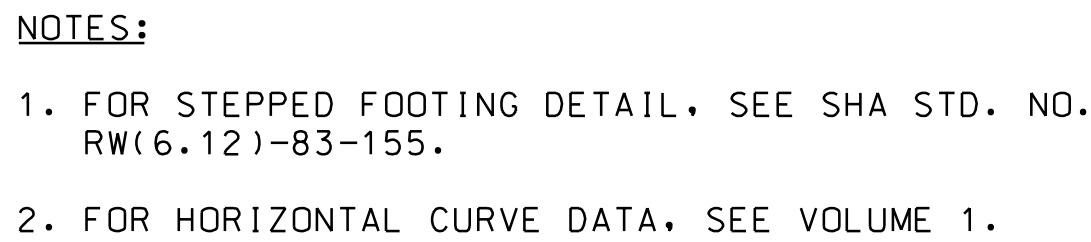
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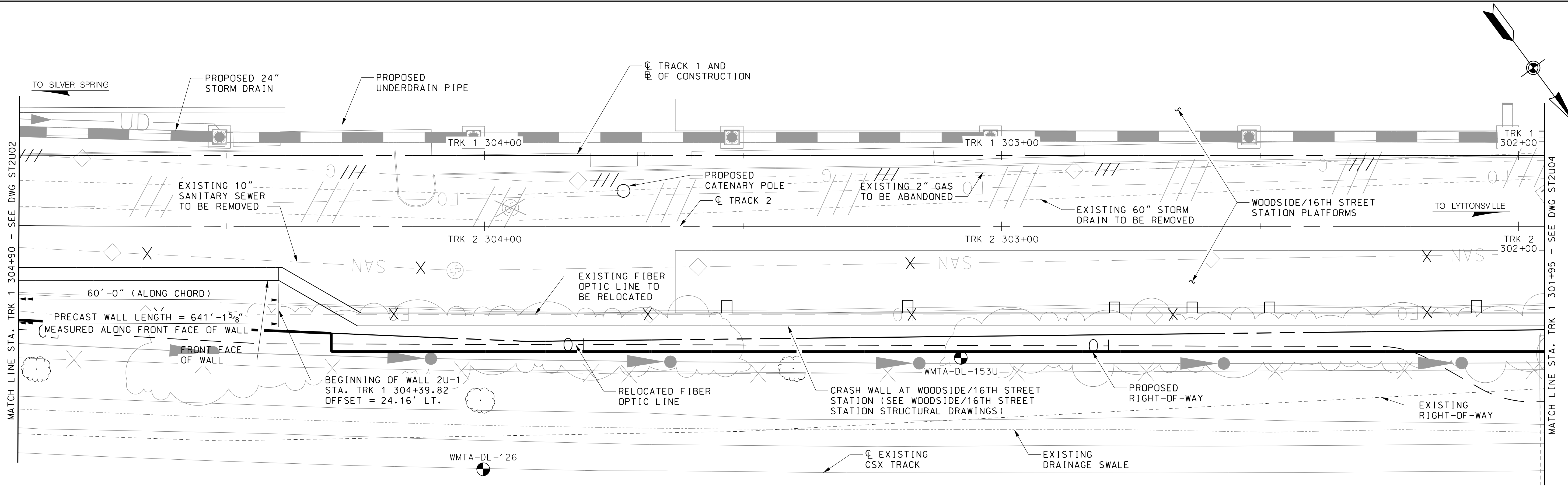
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1"= 10'-0"

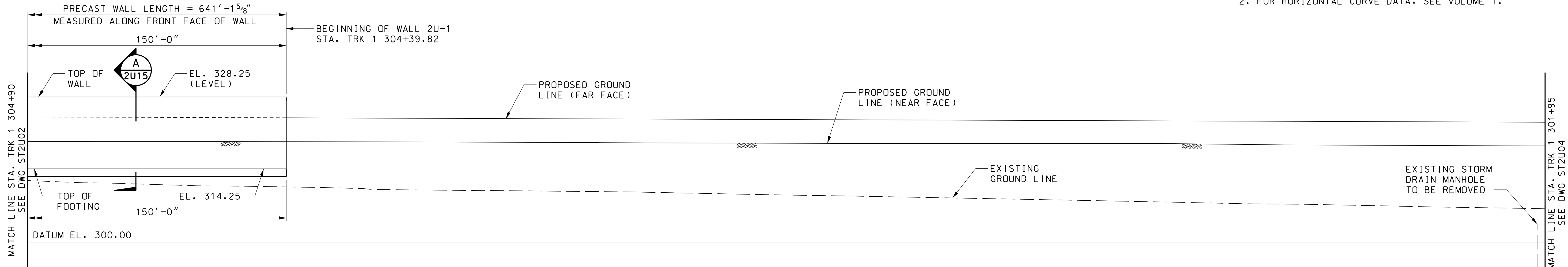




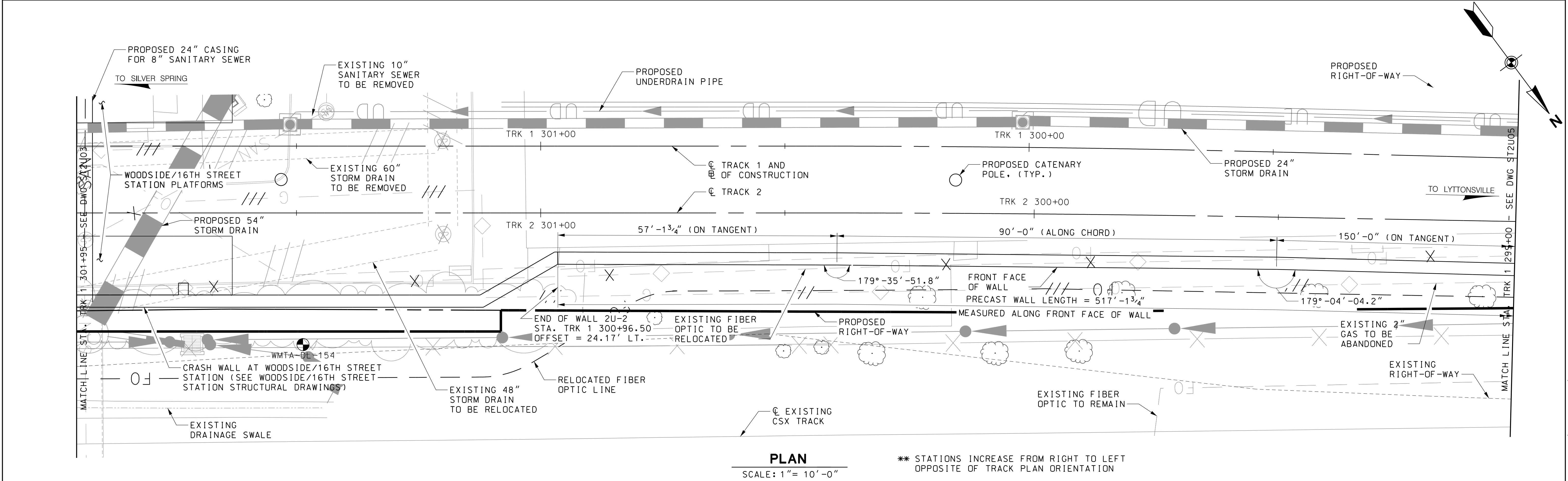
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

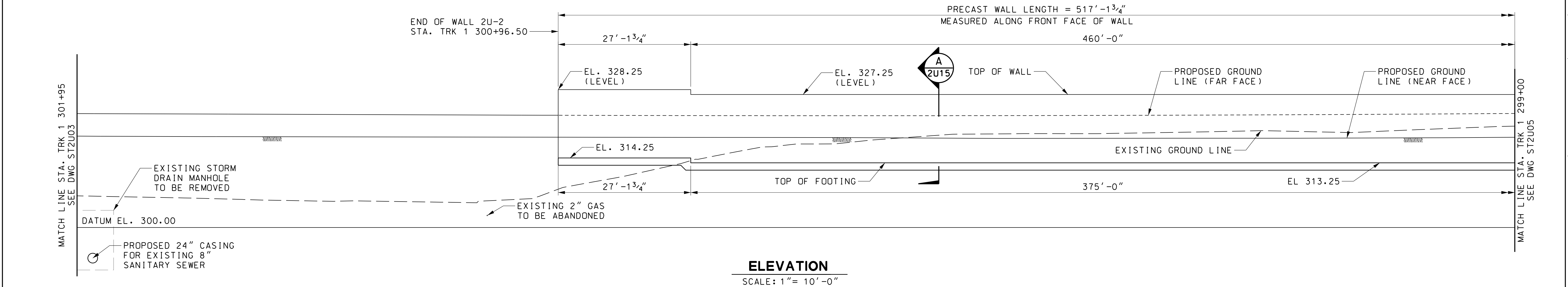
- NOTES:**
- 1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



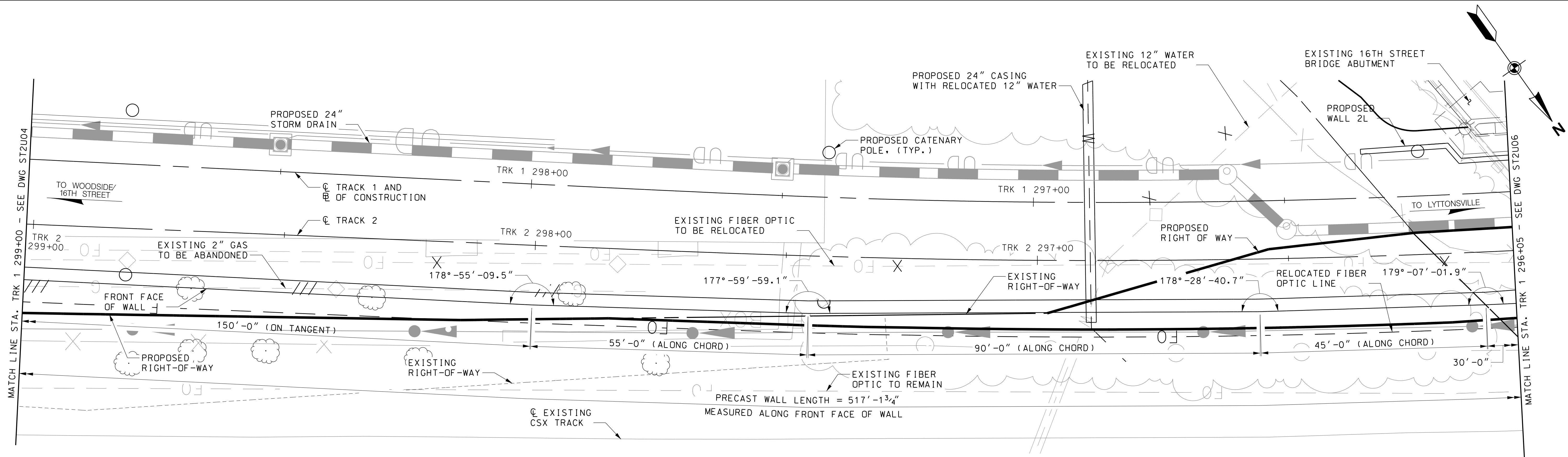
ELEVATION
SCALE: 1"= 10'-0"



- NOTES:
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



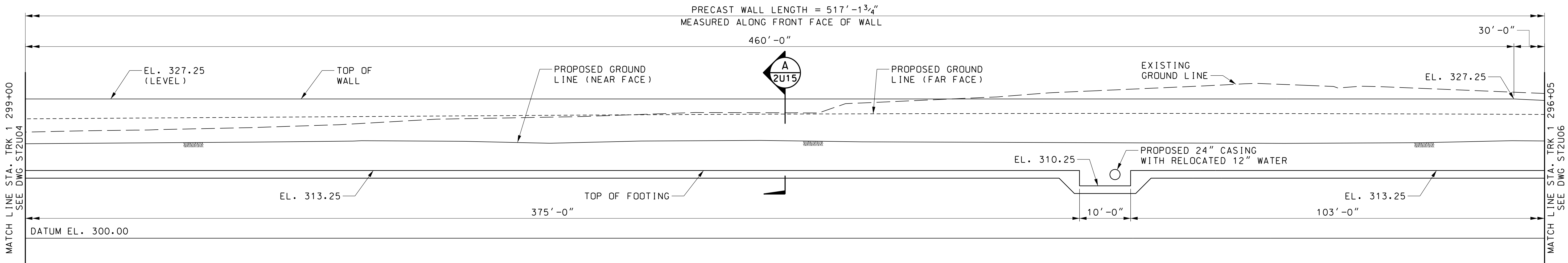
<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div>MARYLAND TRANSIT ADMINISTRATION</div> <div>MTA Maryland</div>	<div>Gannett Fleming</div> <div>WR&A</div>	<div>STV</div> <div>STV Incorporated</div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	APPR	CHECK	DRAWN	DESIGN	AFM
									AFM
									AR
<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div> <div>CSX CORRIDOR CRASH WALL – 2U</div> <div>GENERAL PLAN & ELEVATION – 4</div> <div>DATE: DECEMBER 2013</div> <div>SCALE: 1" = 10'-0"</div>									<div>CONTRACT NO.</div> <div>T-1042-0220</div> <div>DRAWING NO.</div> <div>ST2U04</div> <div>SHEET NO.</div> <div>395 OF 828</div>



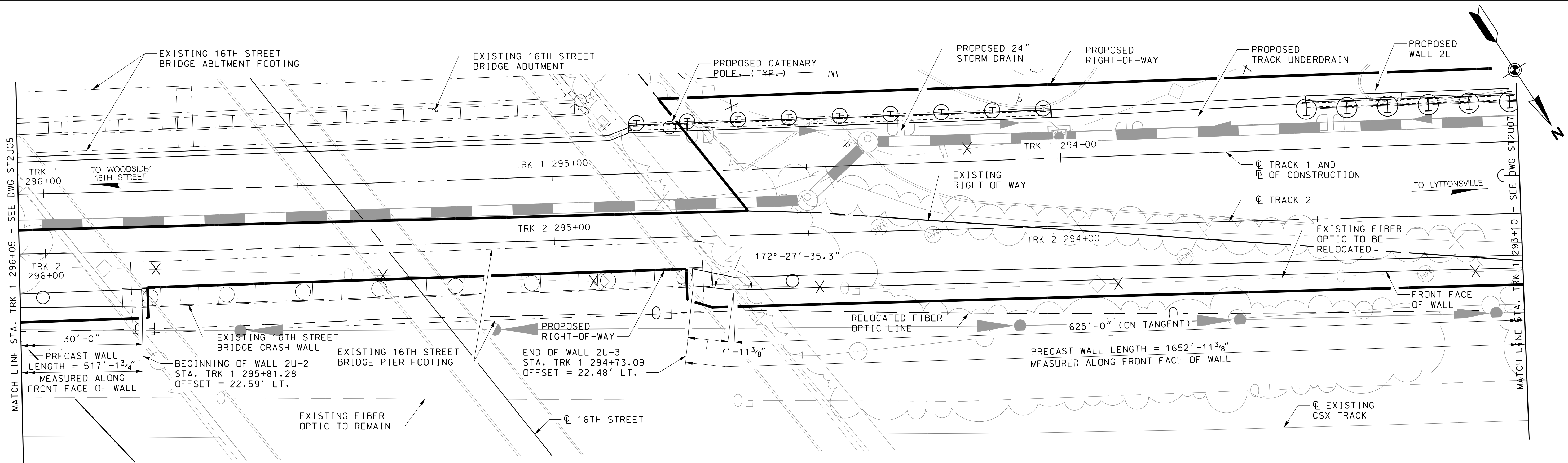
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:**
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION
SCALE: 1"= 10'-0"



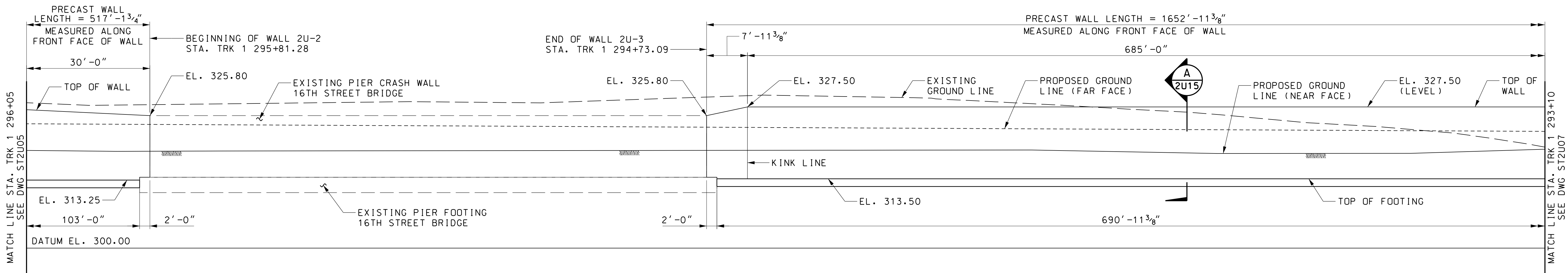
PLAN

SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

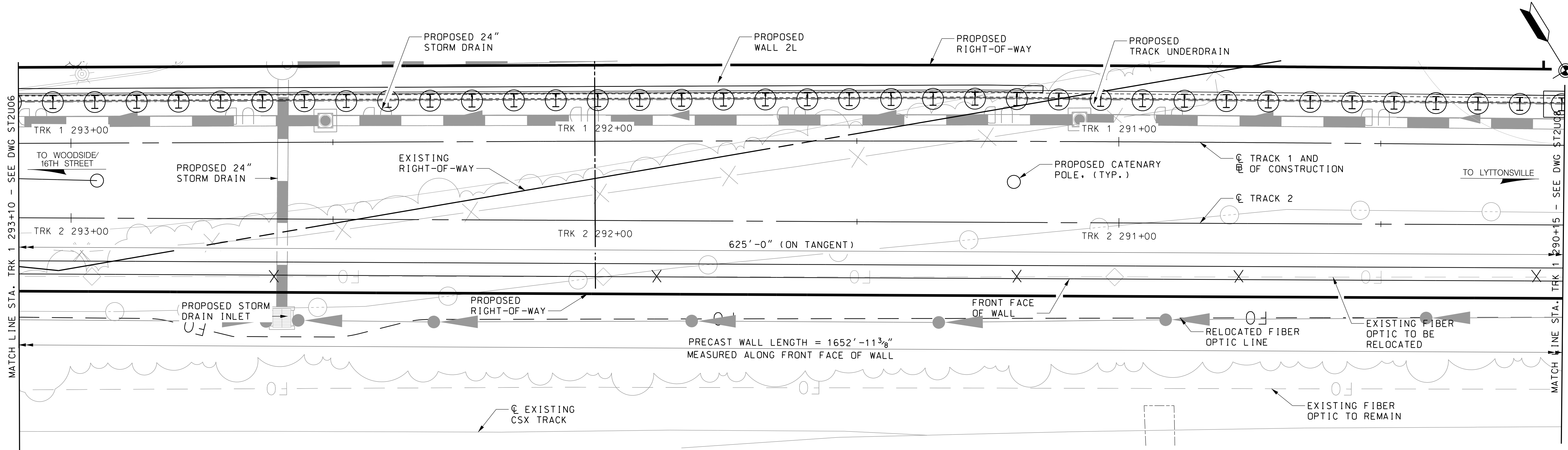
NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1"= 10'-0"



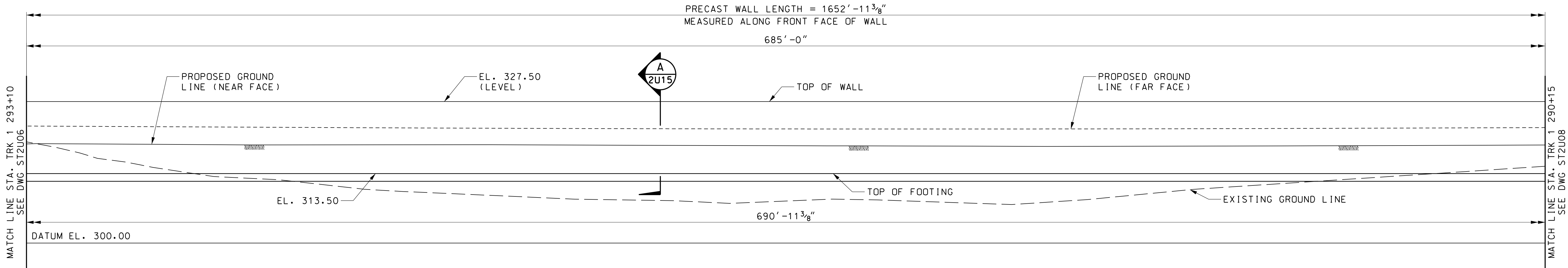
PLAN

SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

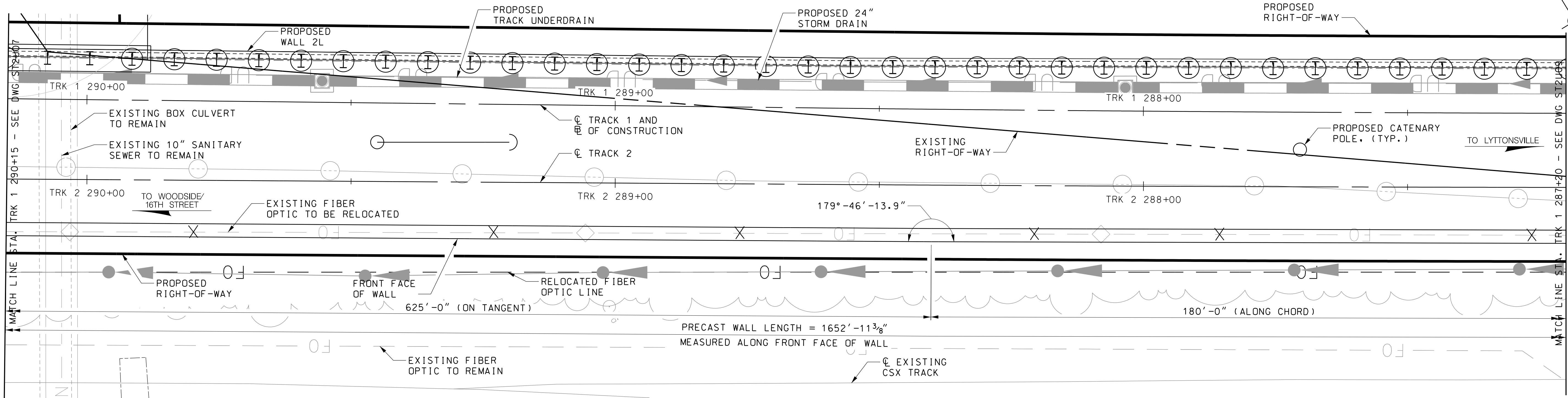
NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1"= 10'-0"



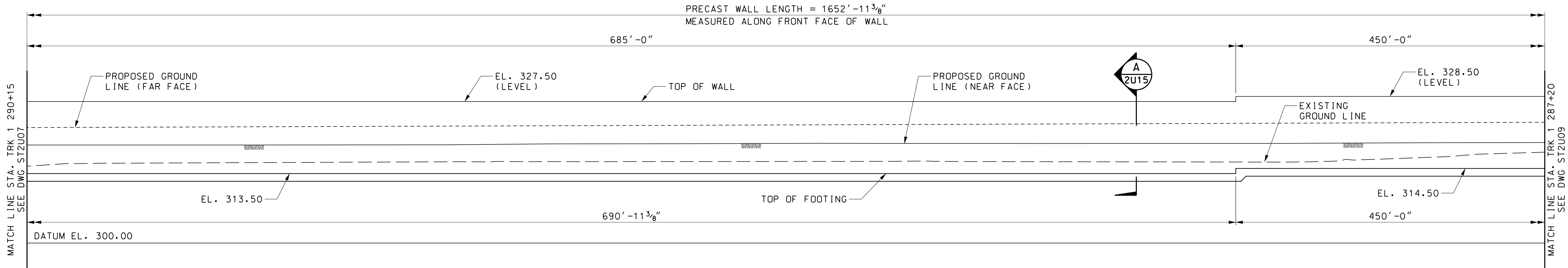
PLAN

SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

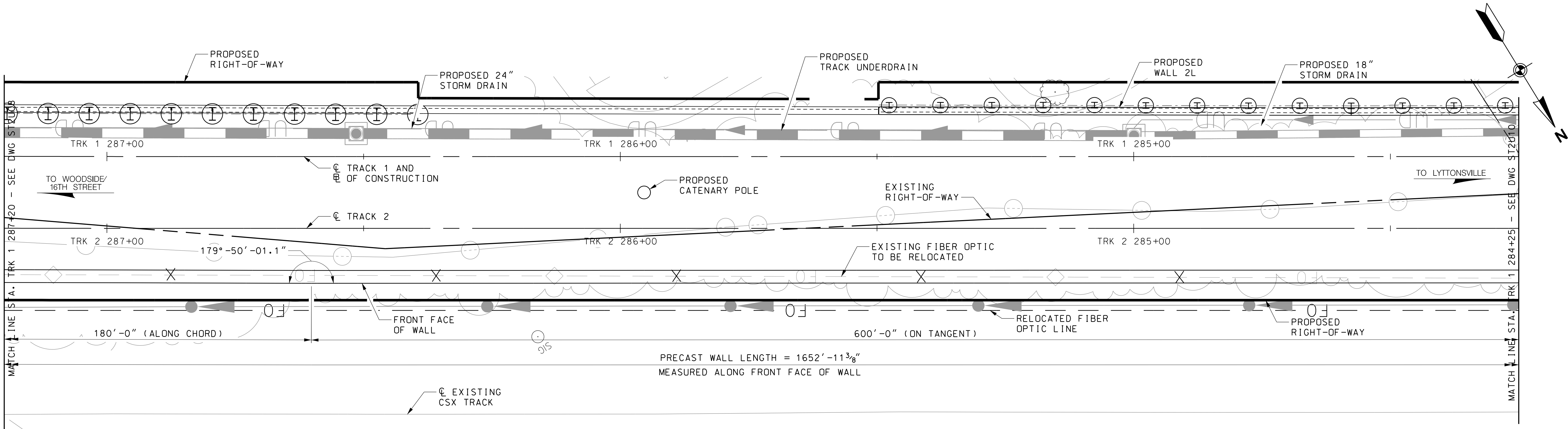
NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

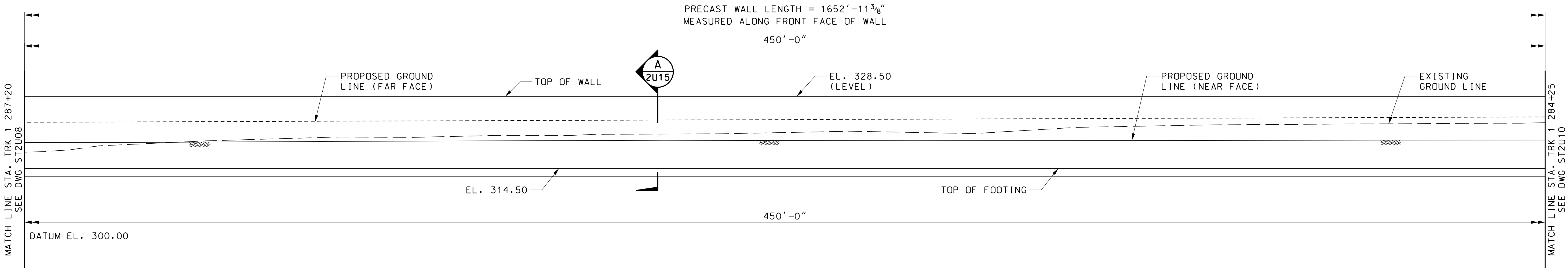
SCALE: 1"= 10'-0"



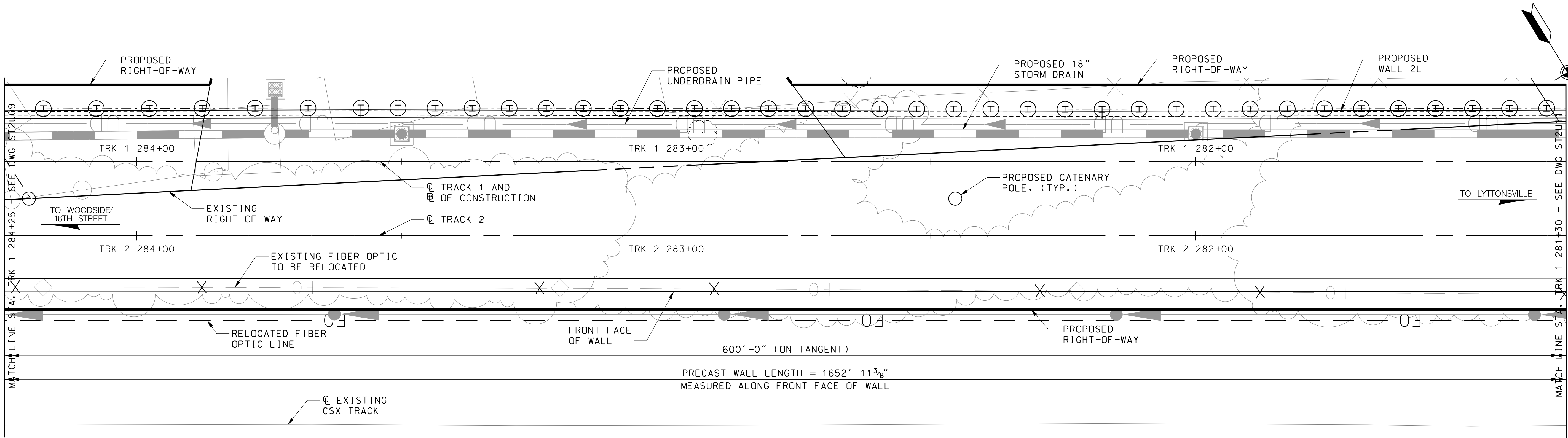
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:
- 1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



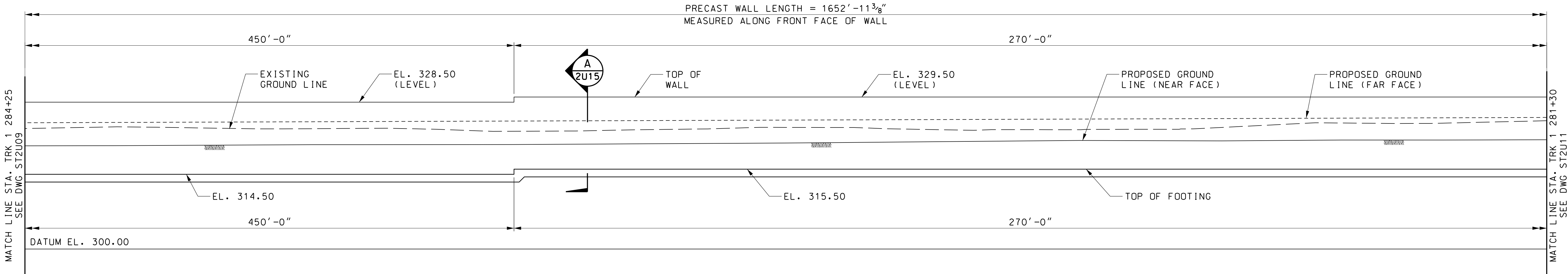
ELEVATION
SCALE: 1"= 10'-0"



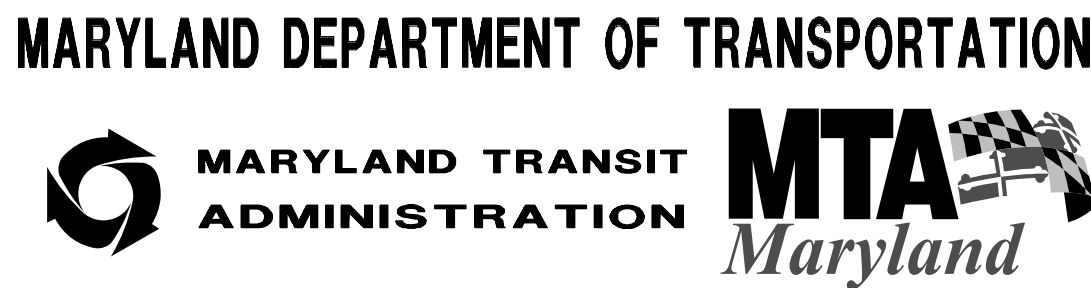
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:
- 1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION
SCALE: 1"= 10'-0"



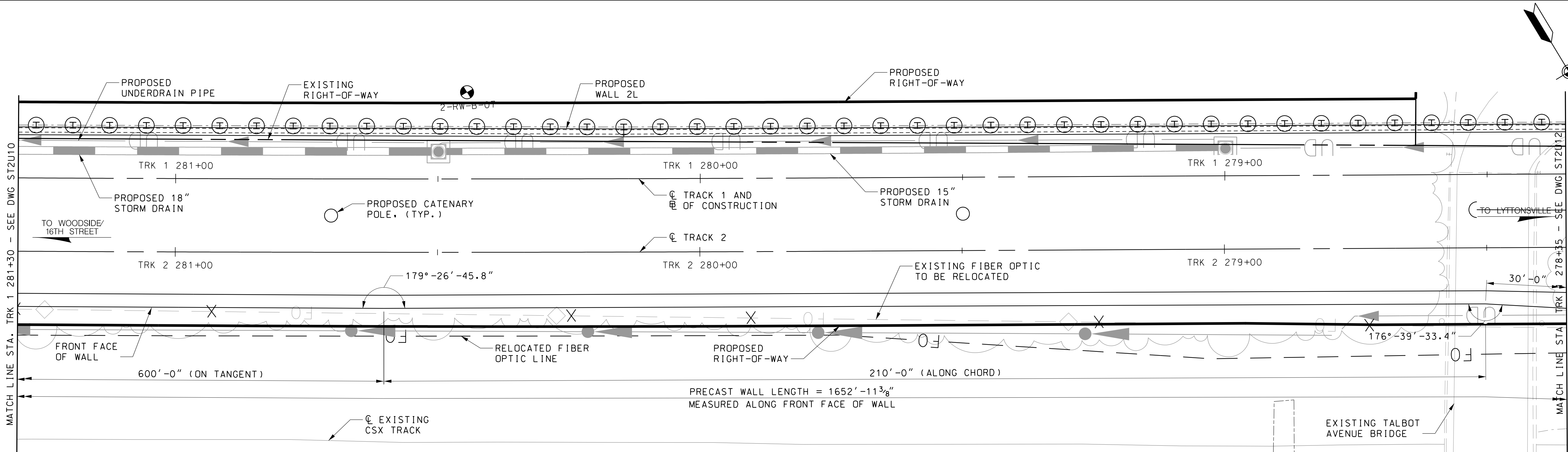
PROFESSIONAL CERTIFICATION
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APPR	CHECK	DRAWN	DESIGN
			AFM
			AFM
			AR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL
CSX CORRIDOR CRASH WALL – 2U
GENERAL PLAN & ELEVATION – 10
DATE: DECEMBER 2013
SCALE: 1"=10'-0"

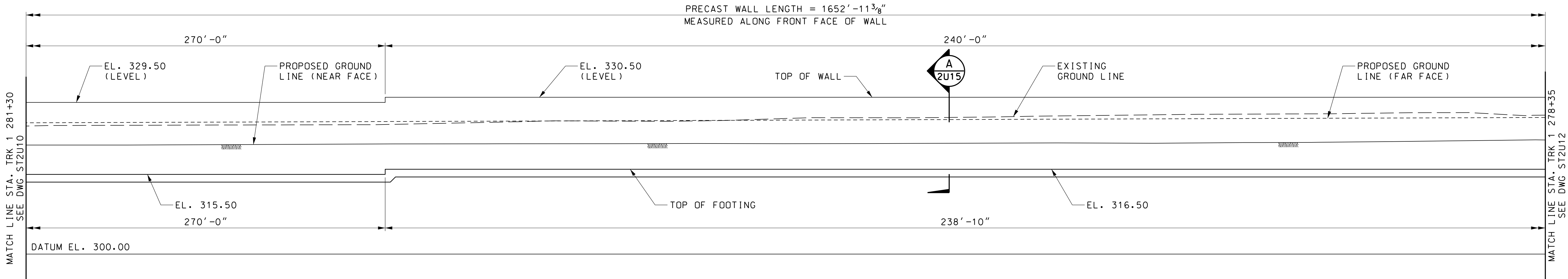
CONTRACT NO.
T-1042-0220
DRAWING NO.
ST2U10
SHEET NO.
401 OF 828



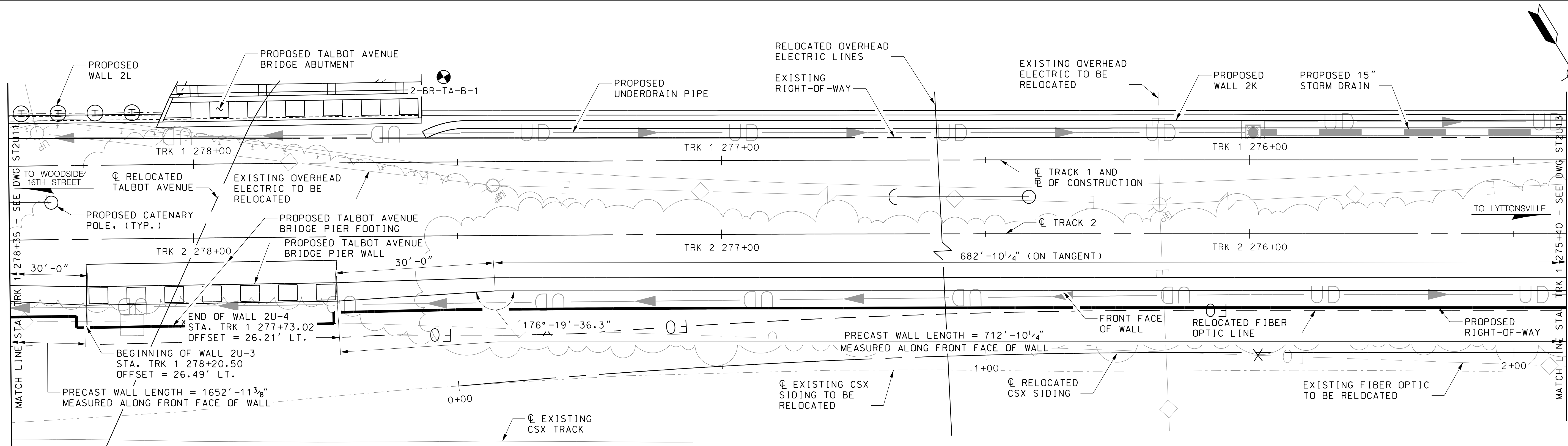
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:**
1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



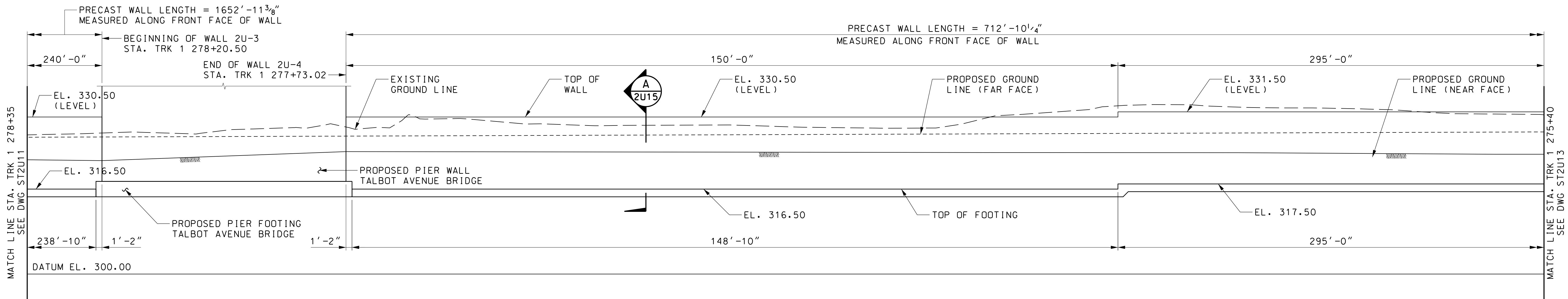
ELEVATION
SCALE: 1"= 10'-0"



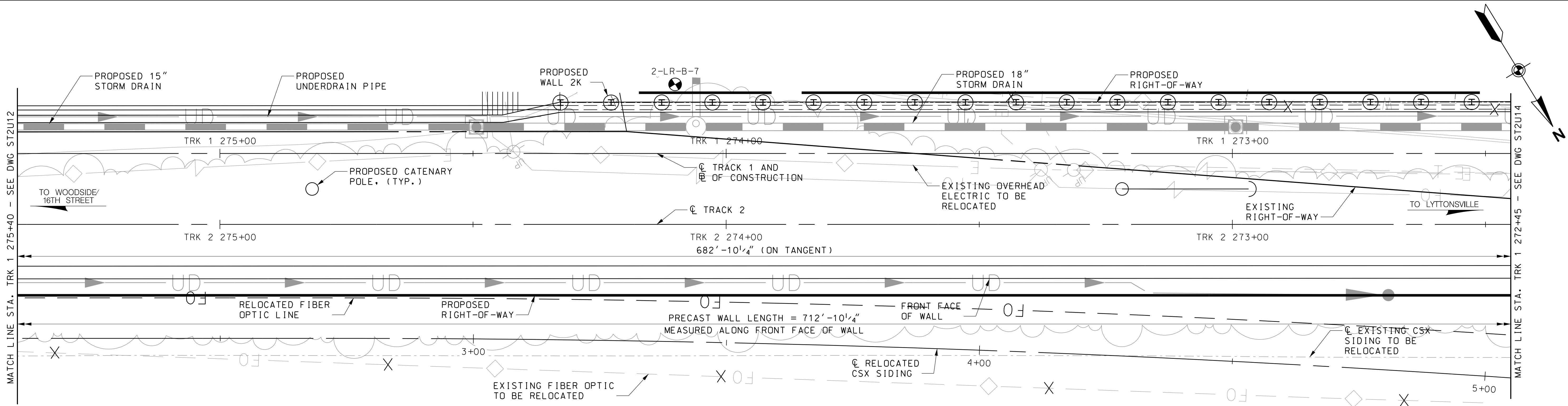
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:**
- 1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



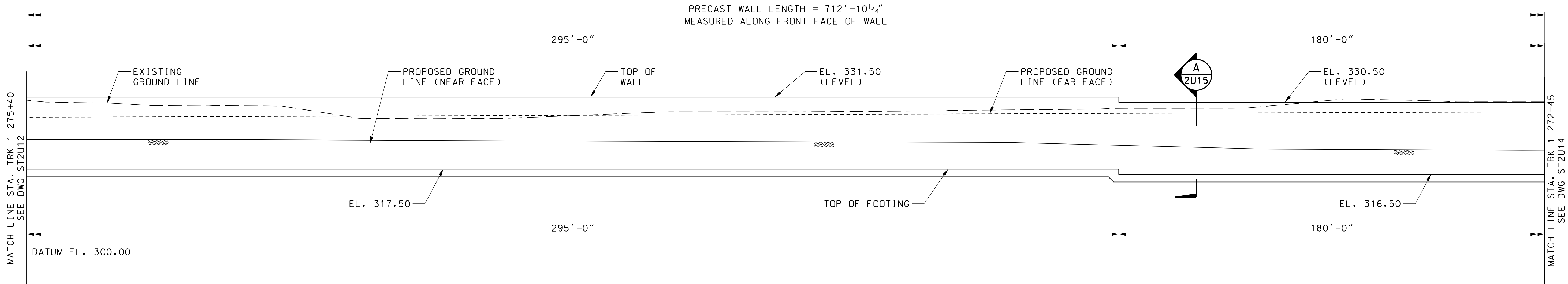
ELEVATION
SCALE: 1"= 10'-0"



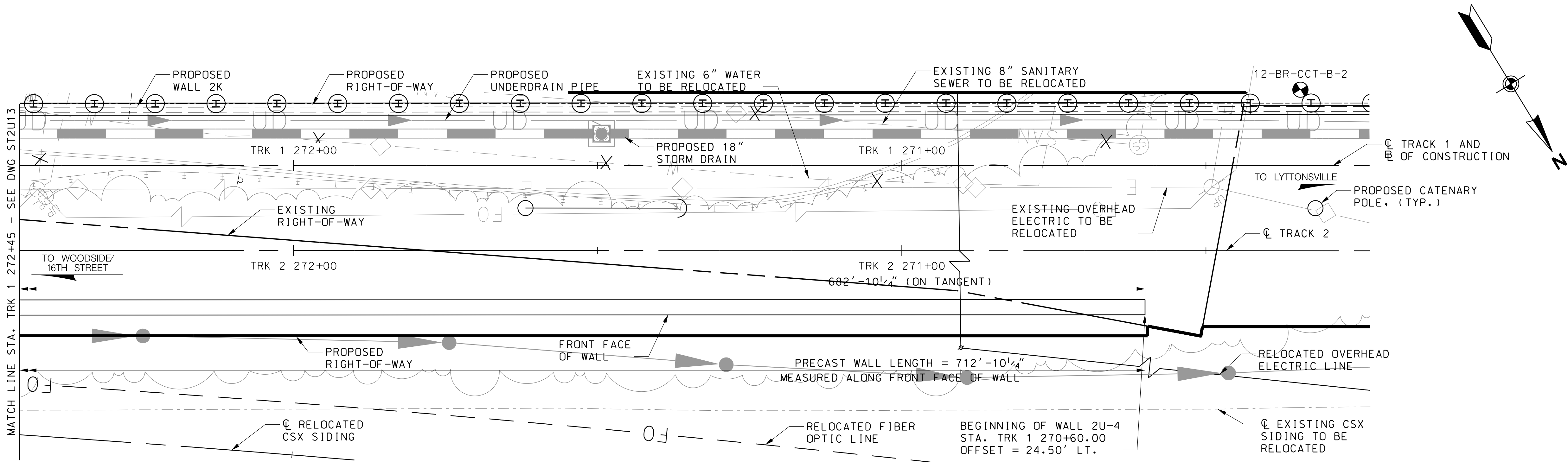
PLAN
SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

- NOTES:**
- 1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION
SCALE: 1"= 10'-0"



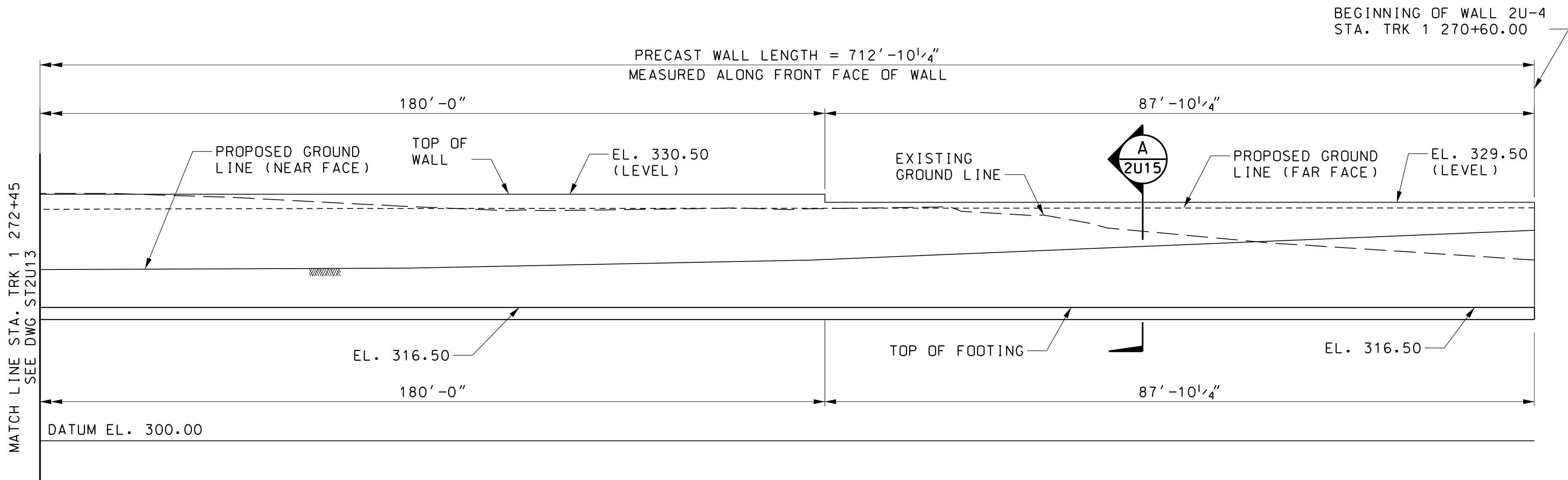
PLAN

SCALE: 1"= 10'-0"

** STATIONS INCREASE FROM RIGHT TO LEFT
OPPOSITE OF TRACK PLAN ORIENTATION

NOTES:

1. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
2. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.



ELEVATION

SCALE: 1"= 10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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DESIGN	AFM
DRAWN	AFM
CHECK	AR
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

CSX CORRIDOR CRASH WALL – 2U
GENERAL PLAN & ELEVATION – 14

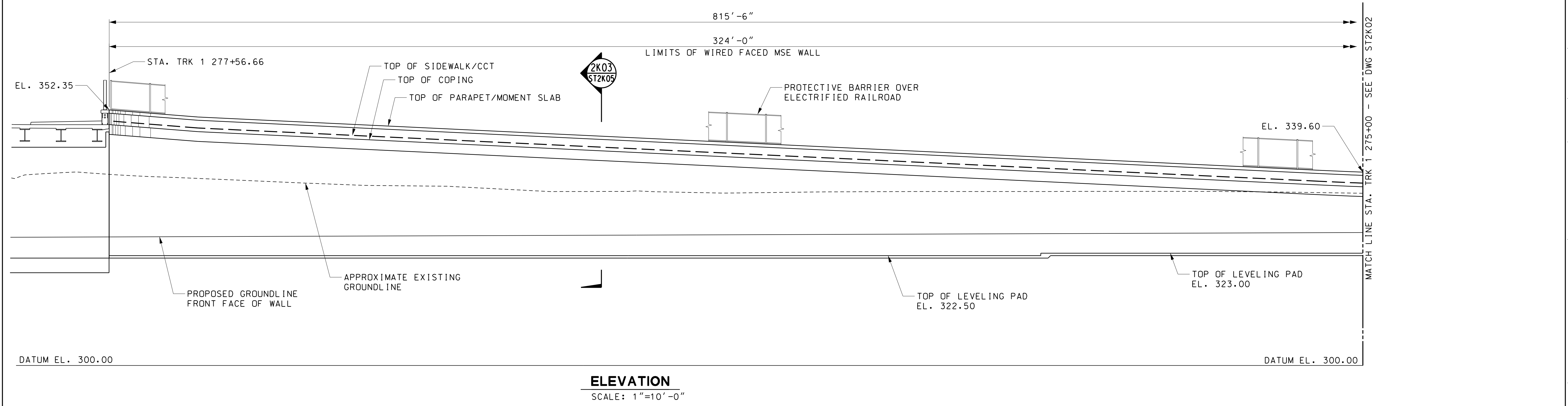
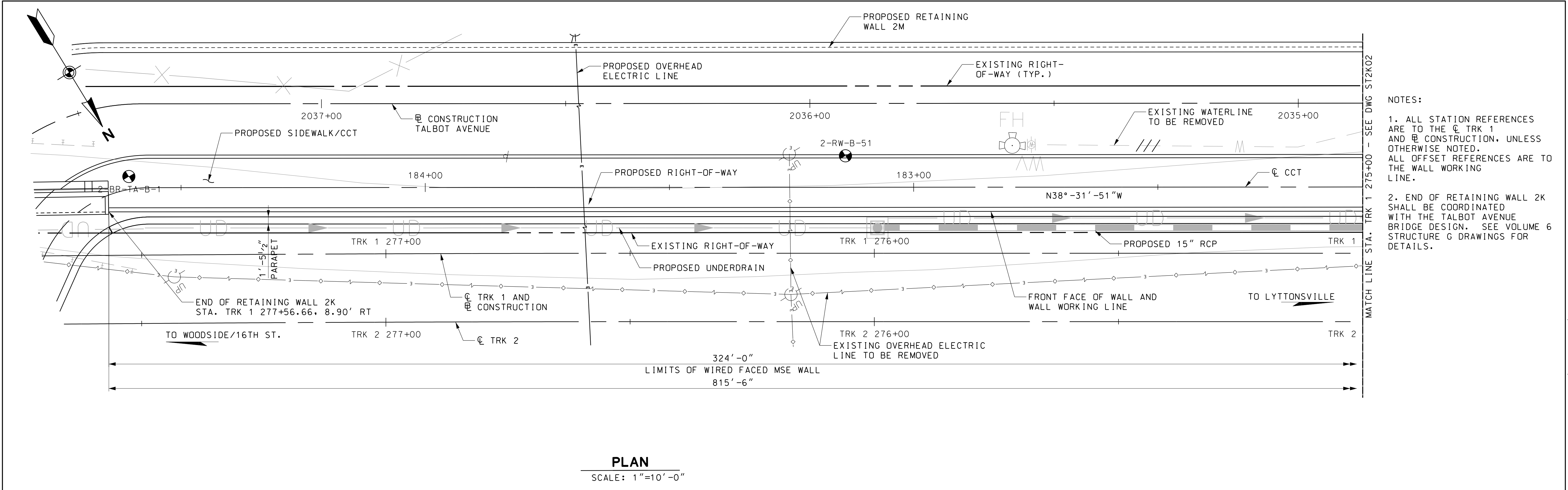
DATE: DECEMBER 2013

SCALE: 1"=10'-0"

CONTRACT NO. T-1042-0220
DRAWING NO. ST2U14
SHEET NO. 405 OF 828

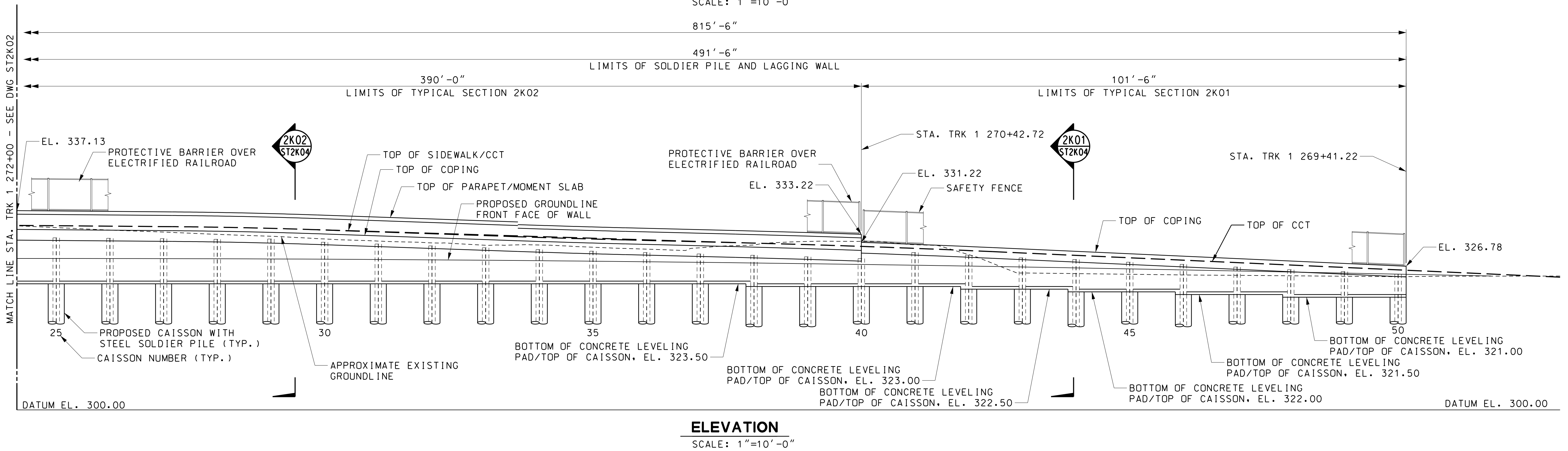
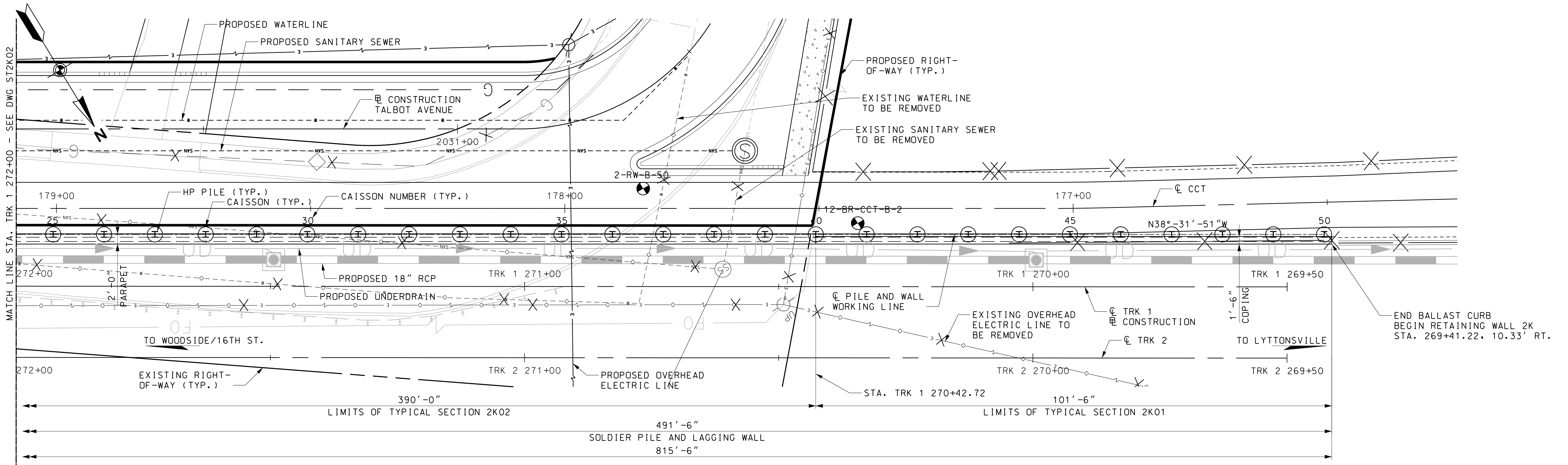
1. PRECAST CONCRETE WALL UNIT DETAILS TO BE DETERMINED BY MANUFACTURER.
2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.
3. WHERE EXCAVATION FOR THE PROPOSED WALL WILL OCCUR INSIDE THE LIVE LOAD INFLUENCE ZONE AS DEFINED IN THE CSX PUBLIC PROJECT MANUAL, THE CONTRACTOR SHALL PROVIDE SHORING OF THE EXISTING CSX EMBANKMENT.
4. CRASHWALL DESIGN SHALL BE IN ACCORDANCE WITH CSX TRANSPORTATION CRITERIA FOR OVERHEAD BRIDGES AND SUBJECT TO CSX REVIEW AND APPROVAL

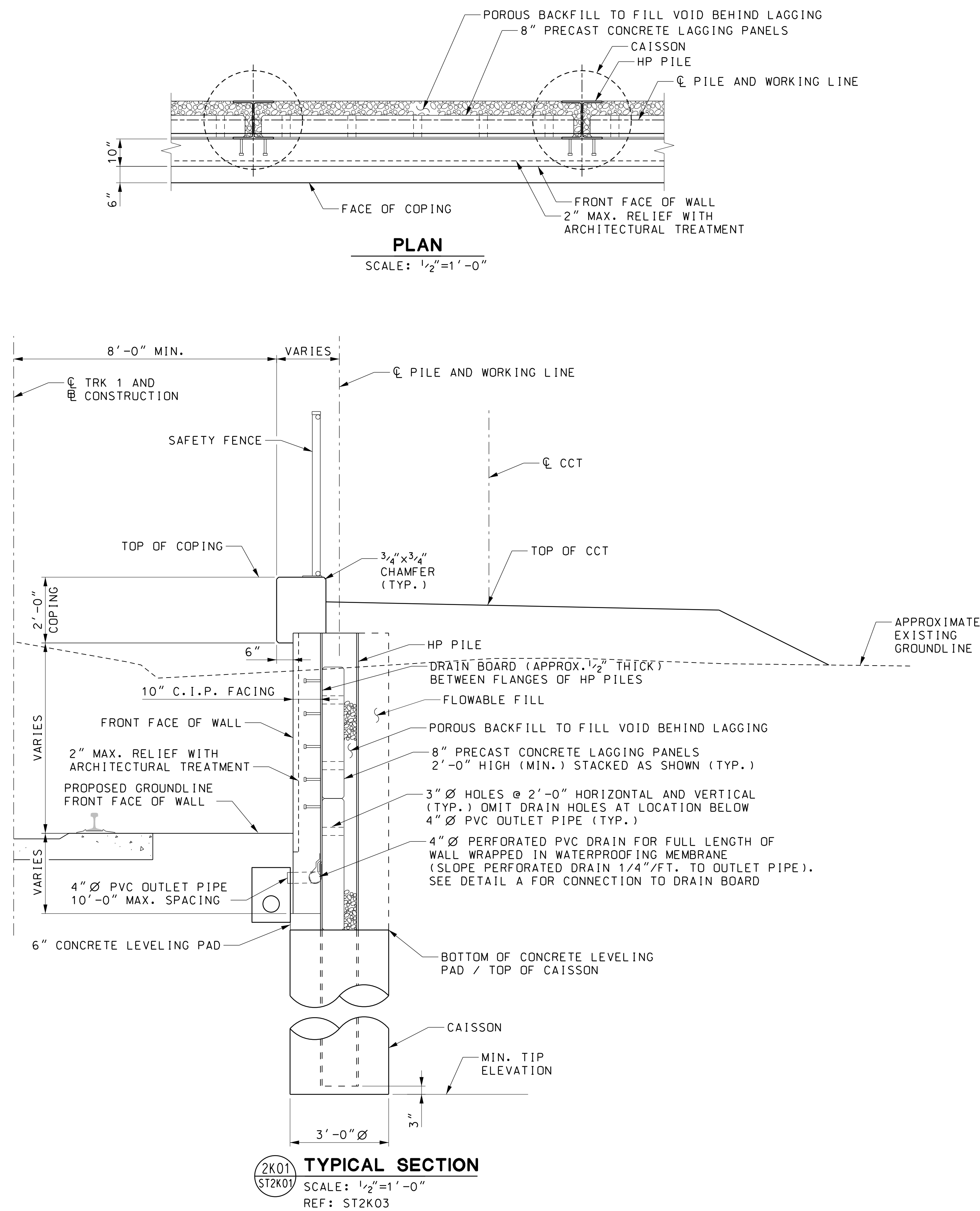
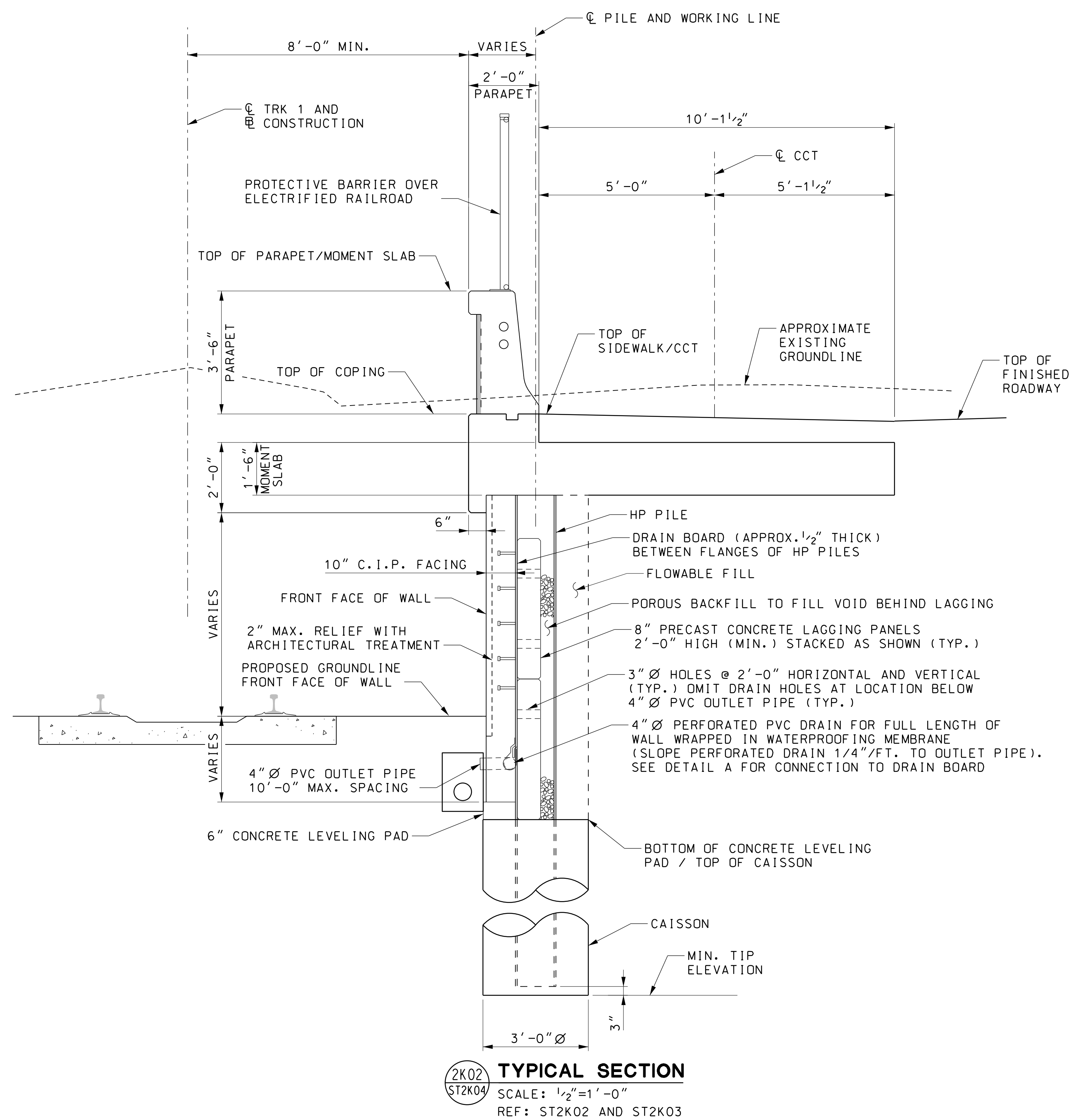


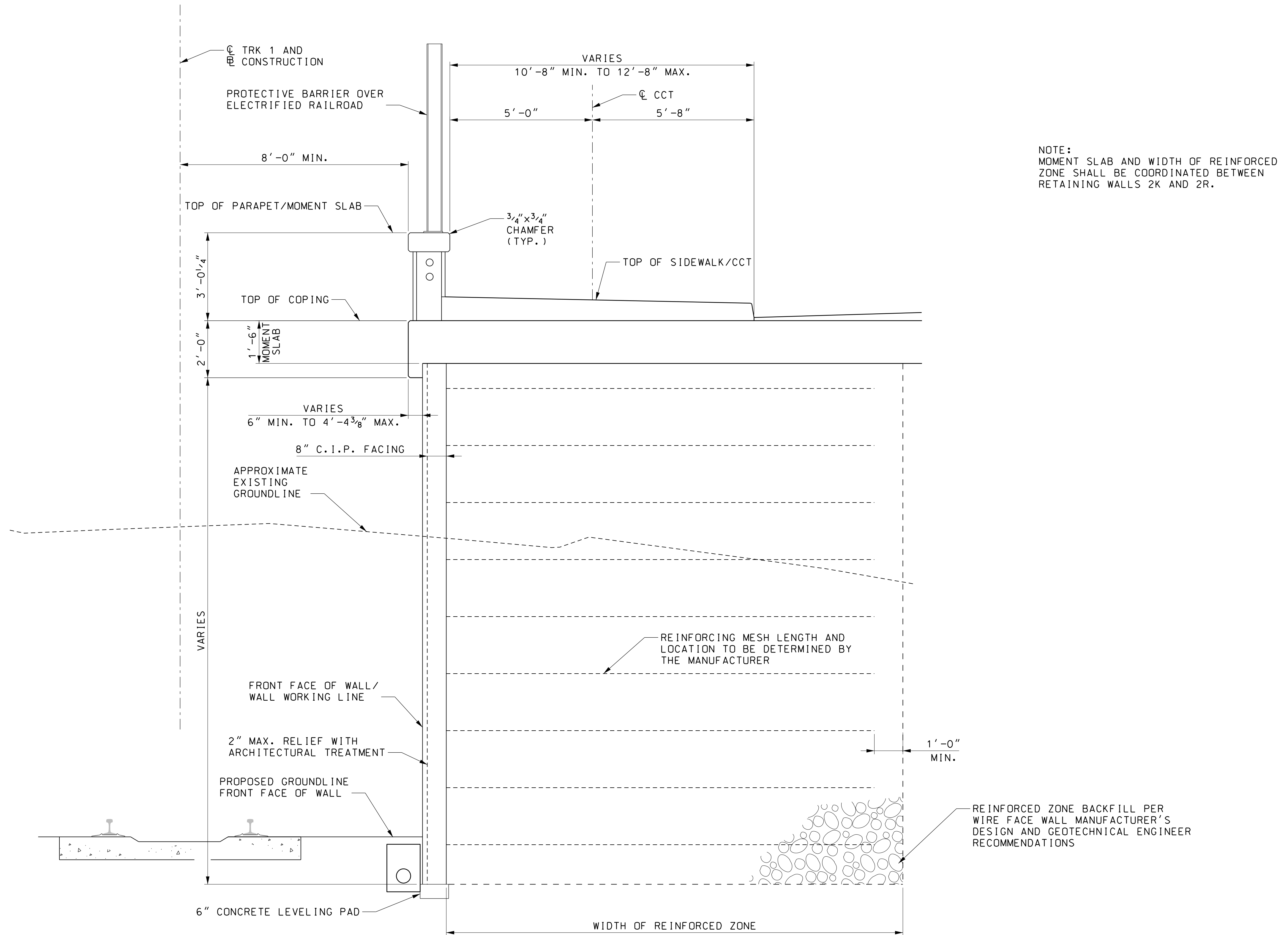


MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION MTA Maryland	Gannett Fleming WR&A	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	DESIGN AC	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				CHECK KPL		RETAINING WALL 2K GENERAL PLAN AND ELEVATION - 1 DATE: DECEMBER 2013 SCALE: 1"=10'-0"
APPR CES	SHEET NO. 407 OF 828					

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 02\Structures\K-Ret Walls CCT Ped Bridge-Talbot Ave\Sheet Files\1042pST2K01.dgn 12/6/2013

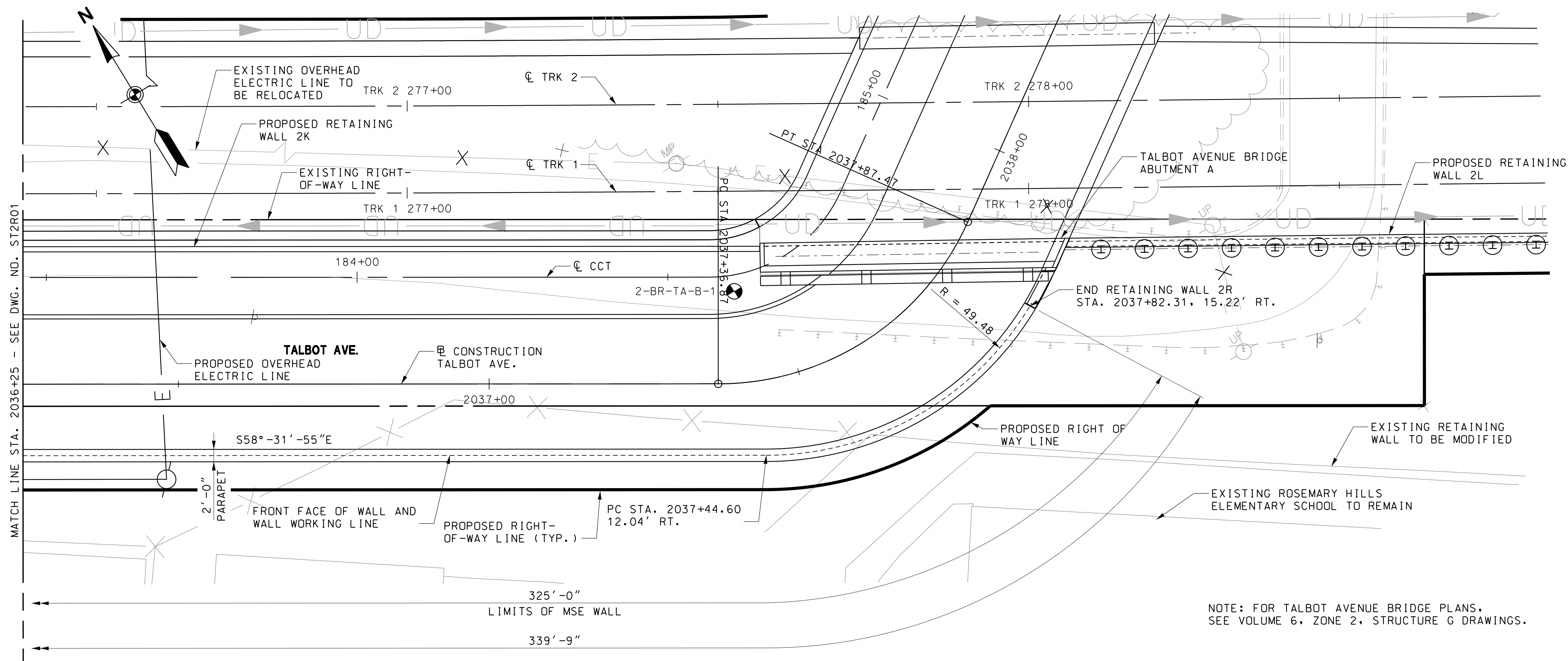






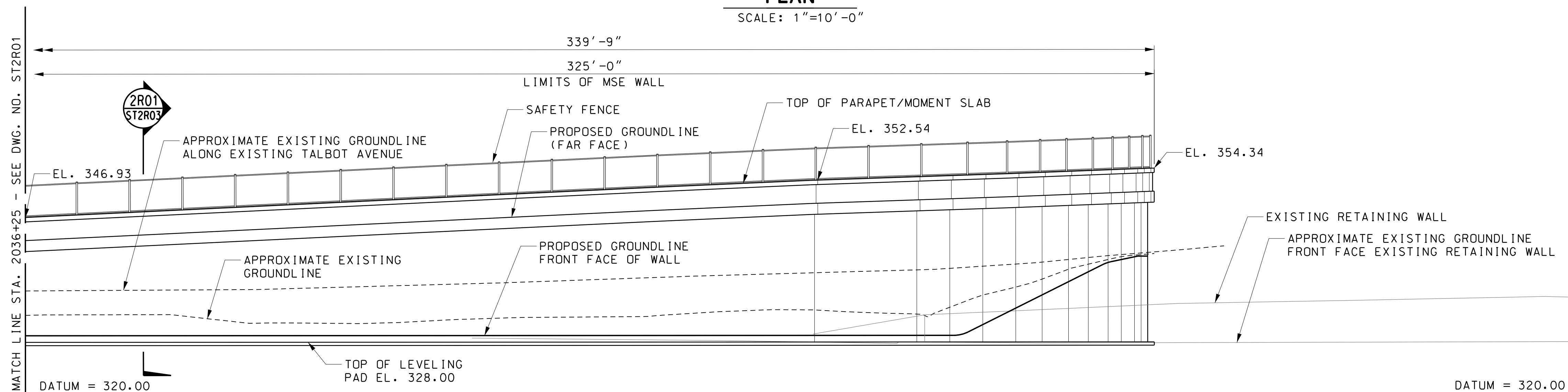
NOTE:
MOMENT SLAB AND WIDTH OF REINFORCED
ZONE SHALL BE COORDINATED BETWEEN
RETAINING WALLS 2K AND 2R.

TYPICAL SECTION
SCALE: 1/2"=1'-0"
REF: ST2K01 AND ST2K02



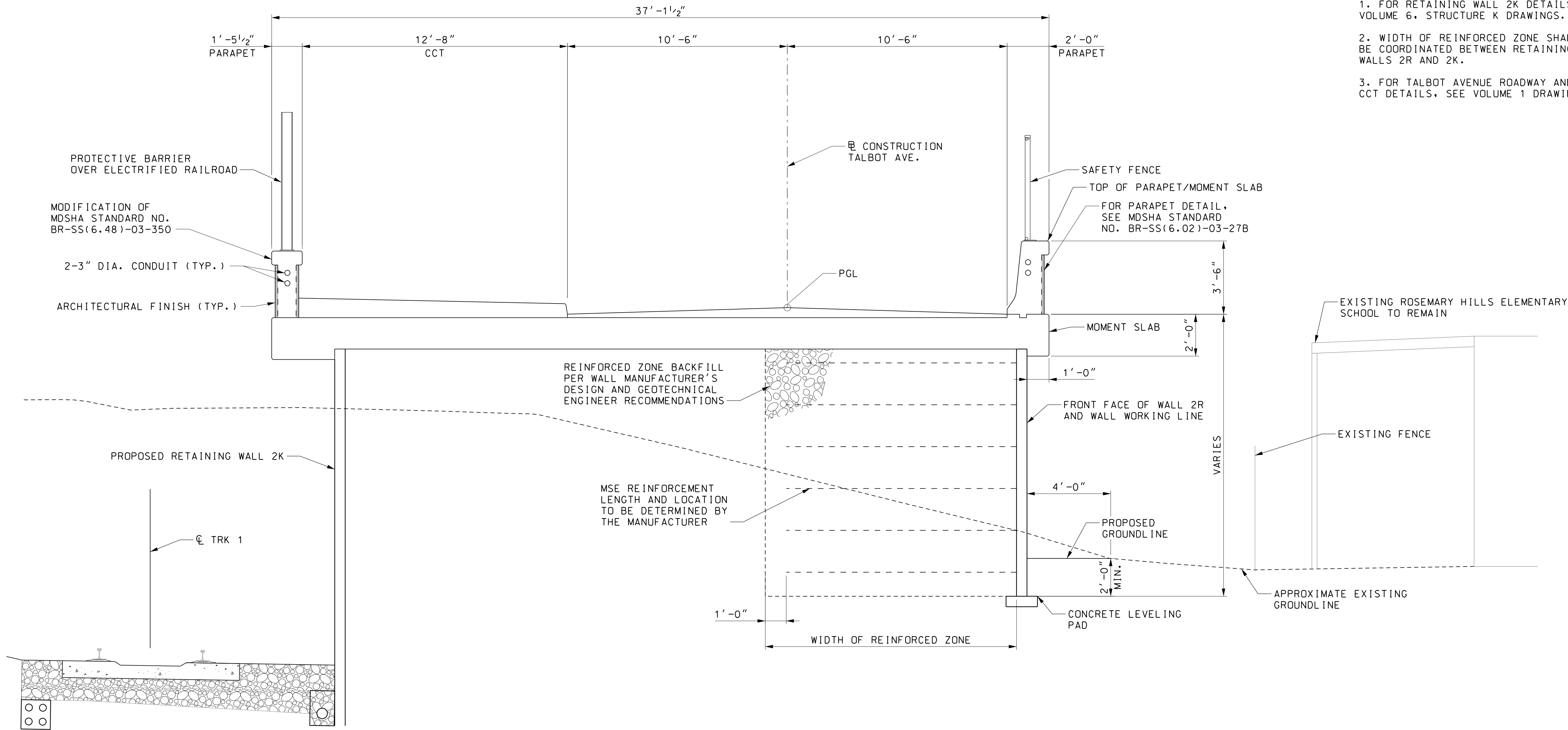
NOTE: FOR TALBOT AVENUE BRIDGE PLANS, SEE VOLUME 6, ZONE 2, STRUCTURE G DRAWINGS.

PLAN
SCALE: 1"=10'-0"



ELEVATION
SCALE: 1"=10'-0"

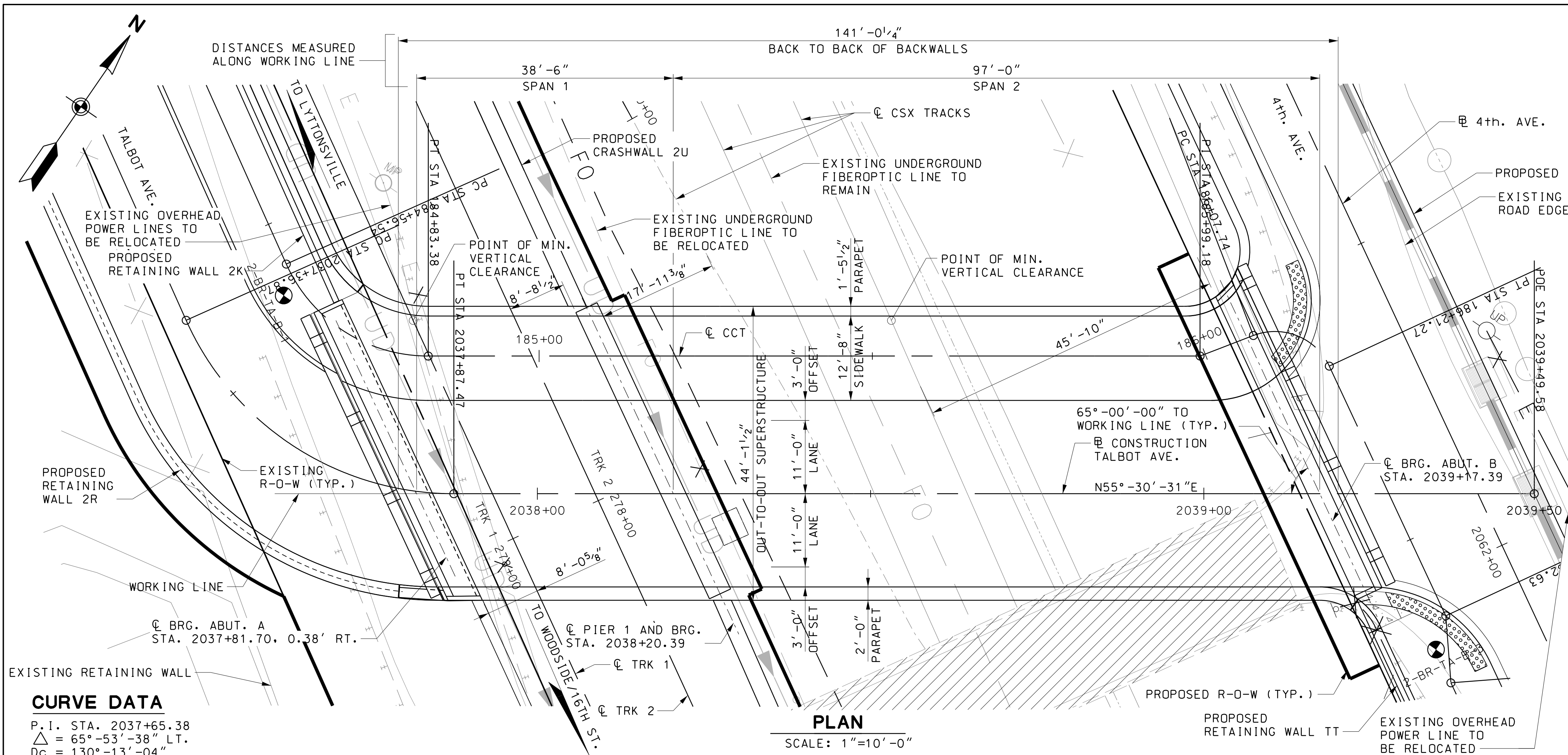
- NOTES:
1. FOR RETAINING WALL 2K DETAILS, SEE VOLUME 6, STRUCTURE K DRAWINGS.
 2. WIDTH OF REINFORCED ZONE SHALL BE COORDINATED BETWEEN RETAINING WALLS 2R AND 2K.
 3. FOR TALBOT AVENUE ROADWAY AND CCT DETAILS, SEE VOLUME 1 DRAWINGS.



RETAINING WALL 2R TYPICAL SECTION

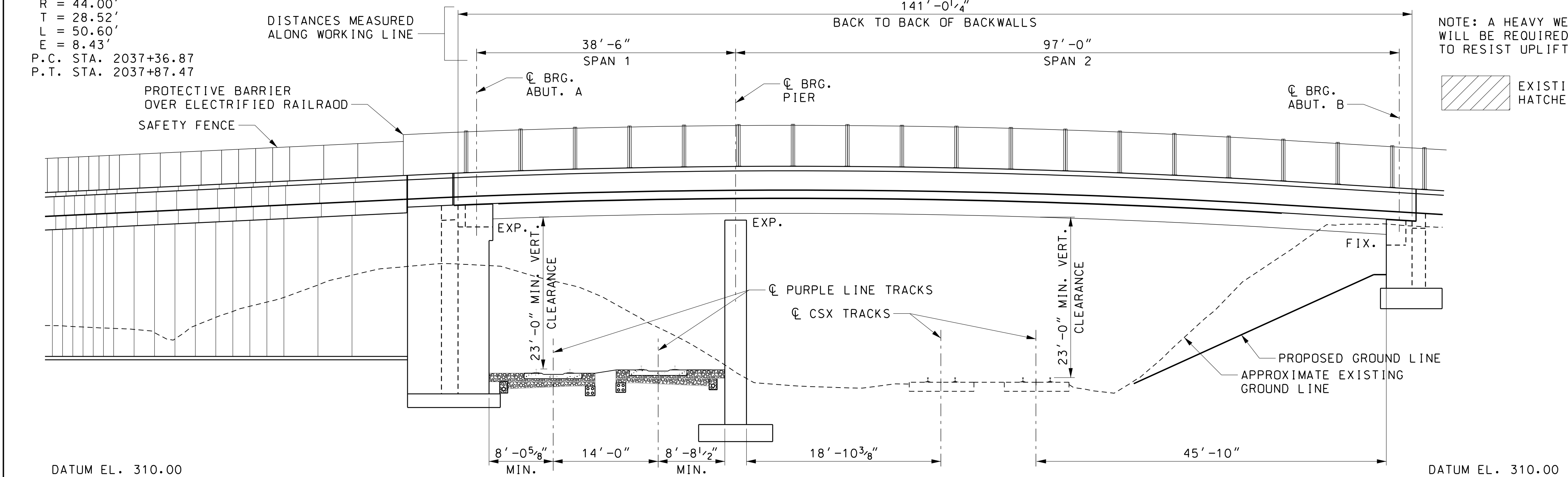
SCALE: 3/8" = 1'-0"

REF: ST2R01 AND ST2R02



CURVE DATA

P.I. STA. 2037+65.38
 $\Delta = 65^\circ - 53' - 38''$ LT.
 $D_c = 130^\circ - 13' - 04''$
 $R = 44.00'$
 $T = 28.52'$
 $L = 50.60'$
 $E = 8.43'$
P.C. STA. 2037+36.87
P.T. STA. 2037+87.47



GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

STRUCTURAL STEEL DESIGN: ALL STRUCTURAL STEEL SHALL CONFORM TO A 709 GRADE 50, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF AASHTO M 270 FOR PRIMARY LOAD CARRYING MEMBERS.

FINISHED PAINT COLOR: THE COLOR OF THE FINISH COAT SHALL CONFORM TO FEDERAL STANDARD NO. 595. SEE SPECIFICATIONS FOR COLOR AND AREAS TO BE PAINTED.

LOADING: HL-93 WITH PROVISIONS FOR FUTURE 2" WEARING SURFACE AND 15 LBS/FT FOR USE OF STEEL BRIDGE DECK FORMS WHICH REMAIN IN PLACE.

CONCRETE: ALL CONCRETE FOR ABUTMENT BACKWALLS AND PARAPETS AT ABUTMENTS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI) ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

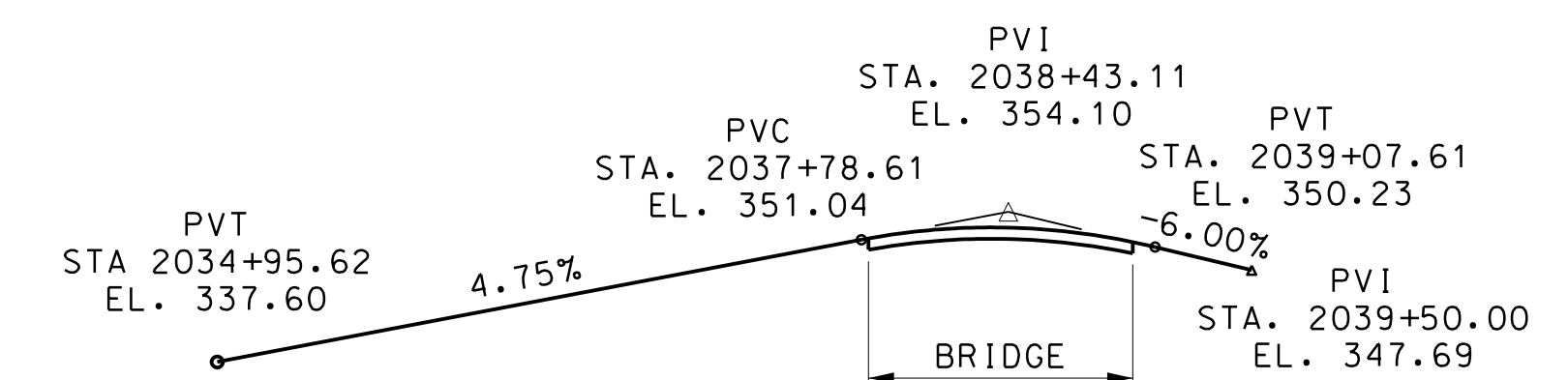
FOR TIES AND STIRRUPS: STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
 -ENTIRE SUPERSTRUCTURE (INCLUDING PARAPETS)
 -ABUTMENT BACKWALLS
 -CHECKWALLS
 -ALL BEARING SEAT PADS
 -ABUTMENT BRIDGE SEAT AREAS
 -END POSTS
 -PIER CAPS

KEYS: ALL KEYS ARE NOMINAL SIZE.

EXISTING STRUCTURE: EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY.



VERTICAL ALIGNMENT DATA

SCALE: NOT TO SCALE

MARYLAND DEPARTMENT OF TRANSPORTATION



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DESIGN
AC
KPL
CES
CHECK
DRAWN
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

TALBOT AVENUE BRIDGE
GENERAL PLAN AND ELEVATION

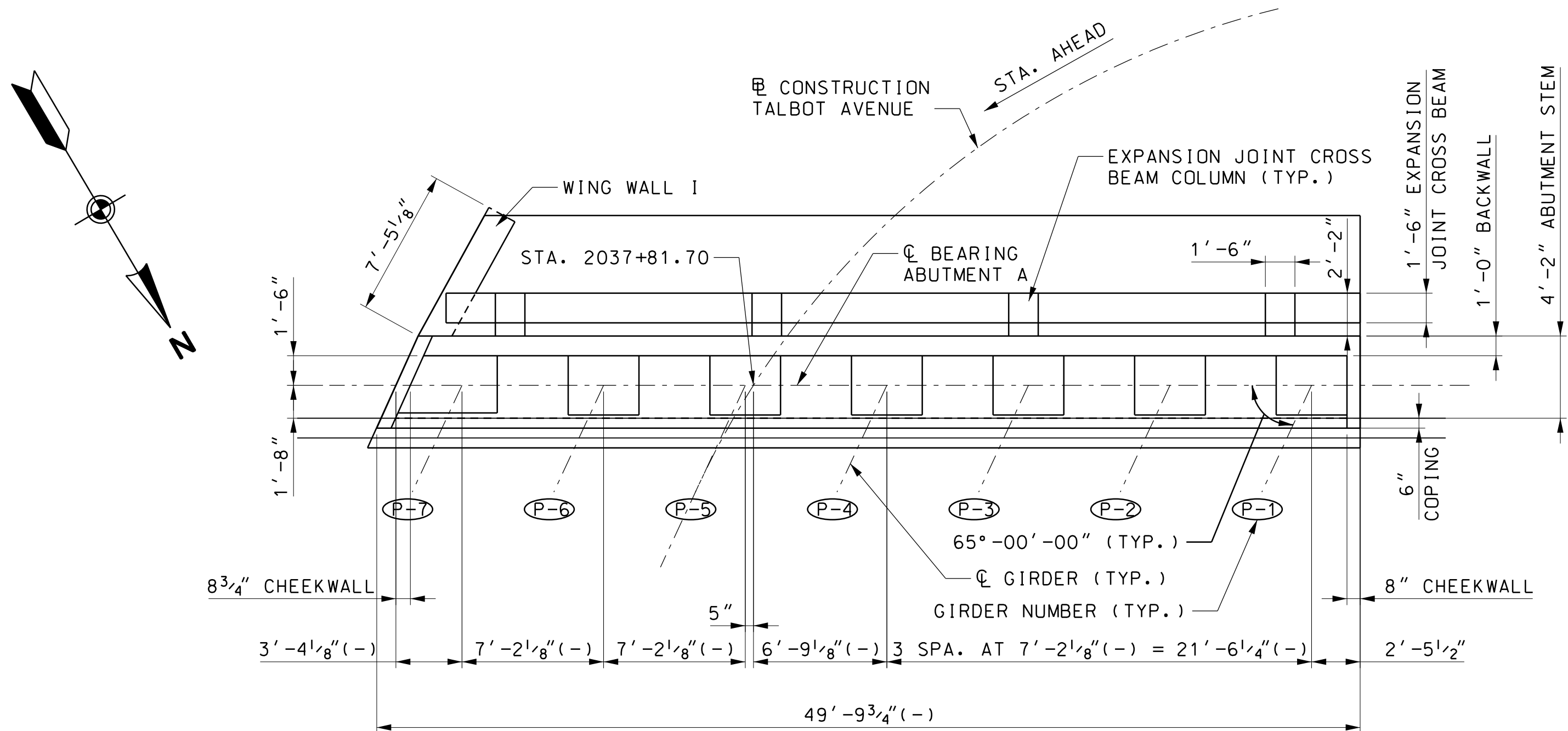
DATE: DECEMBER 2013

SCALE: AS SHOWN

CONTRACT NO.
T-1042-0220

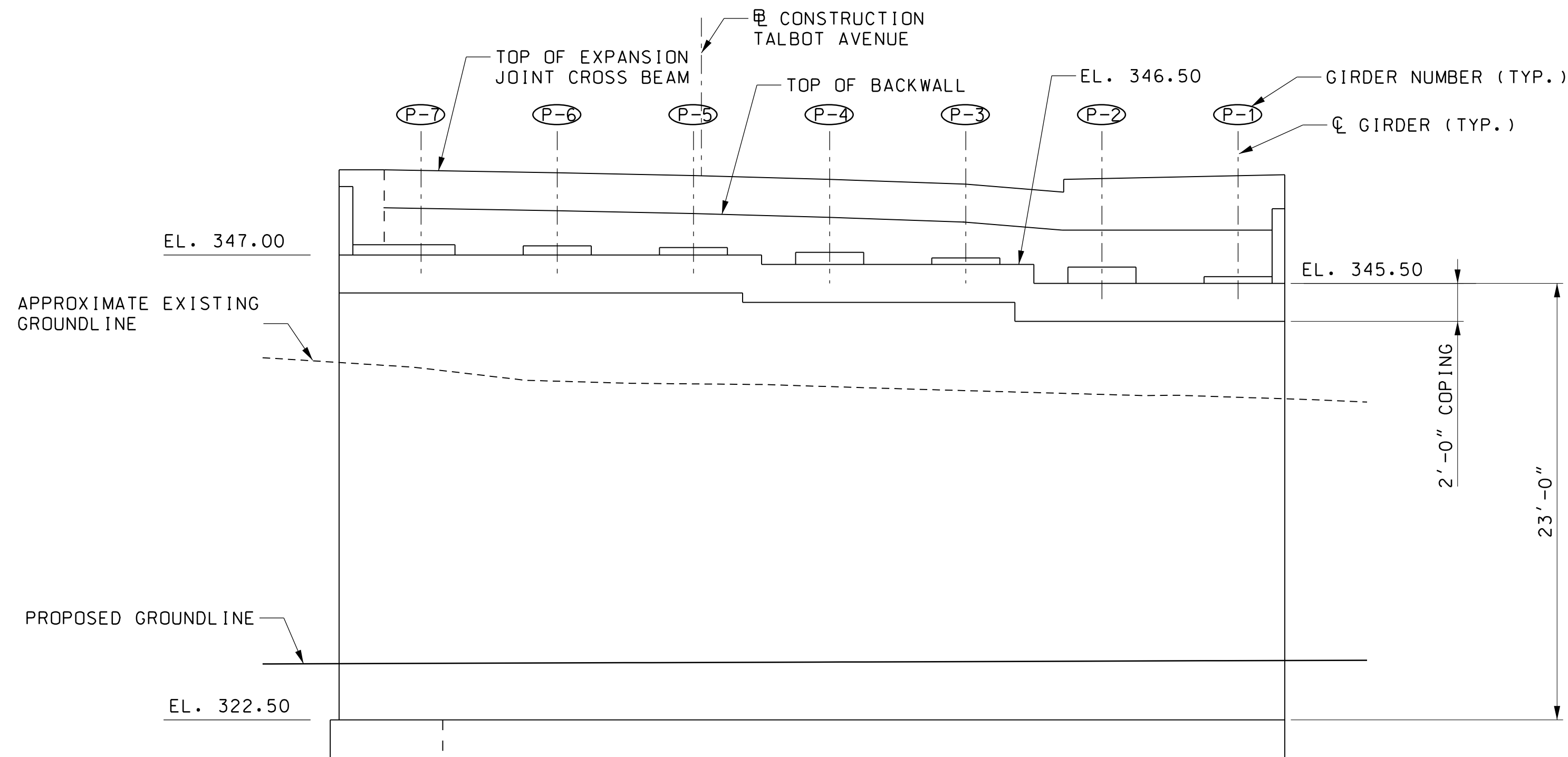
DRAWING NO.
ST2G01

SHEET NO.
415 OF 828



PLAN

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



ELEVATION

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

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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DESIGN	AC
DRAWN	KPL
CHECK	CES
APPR	

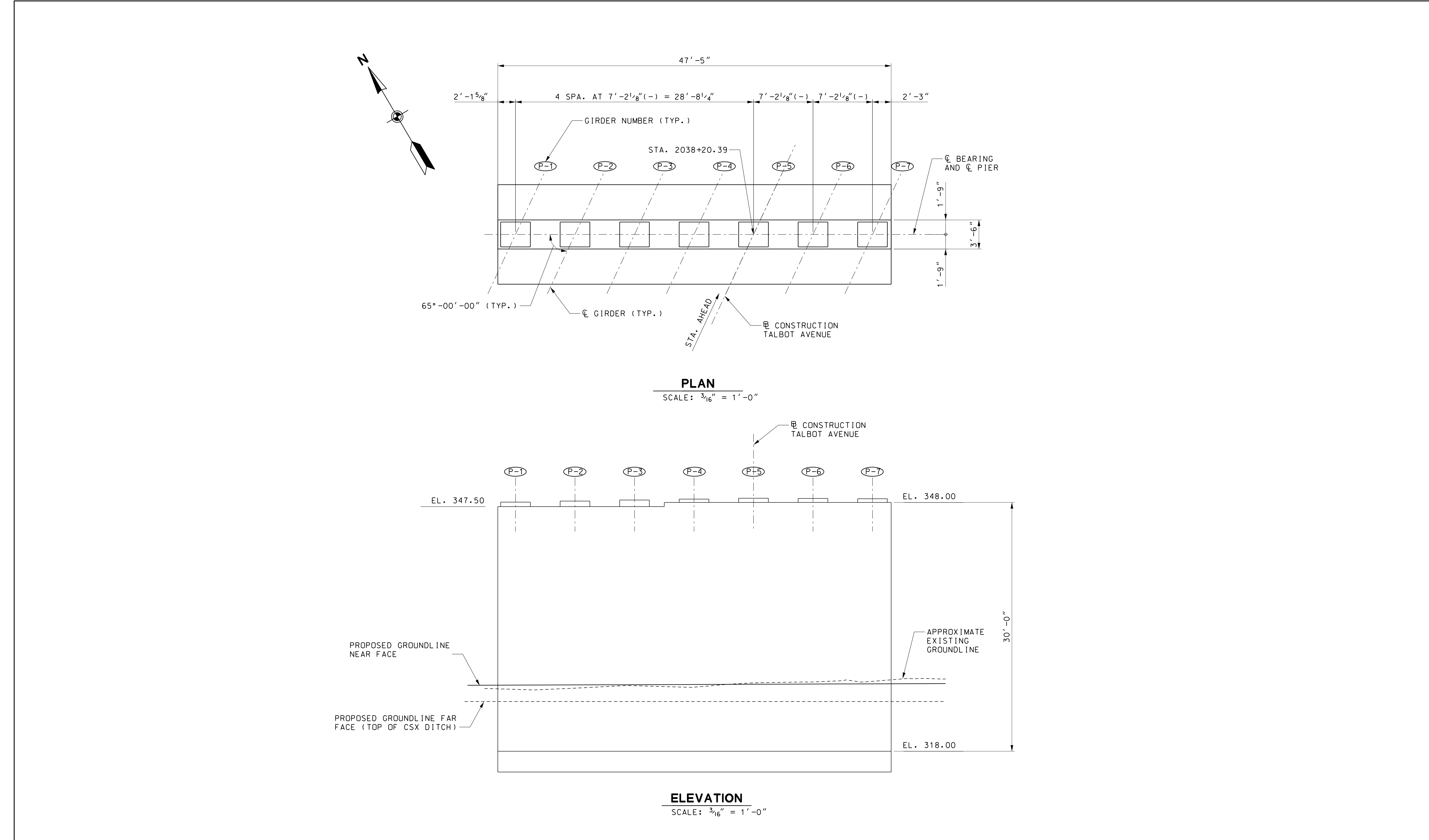
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

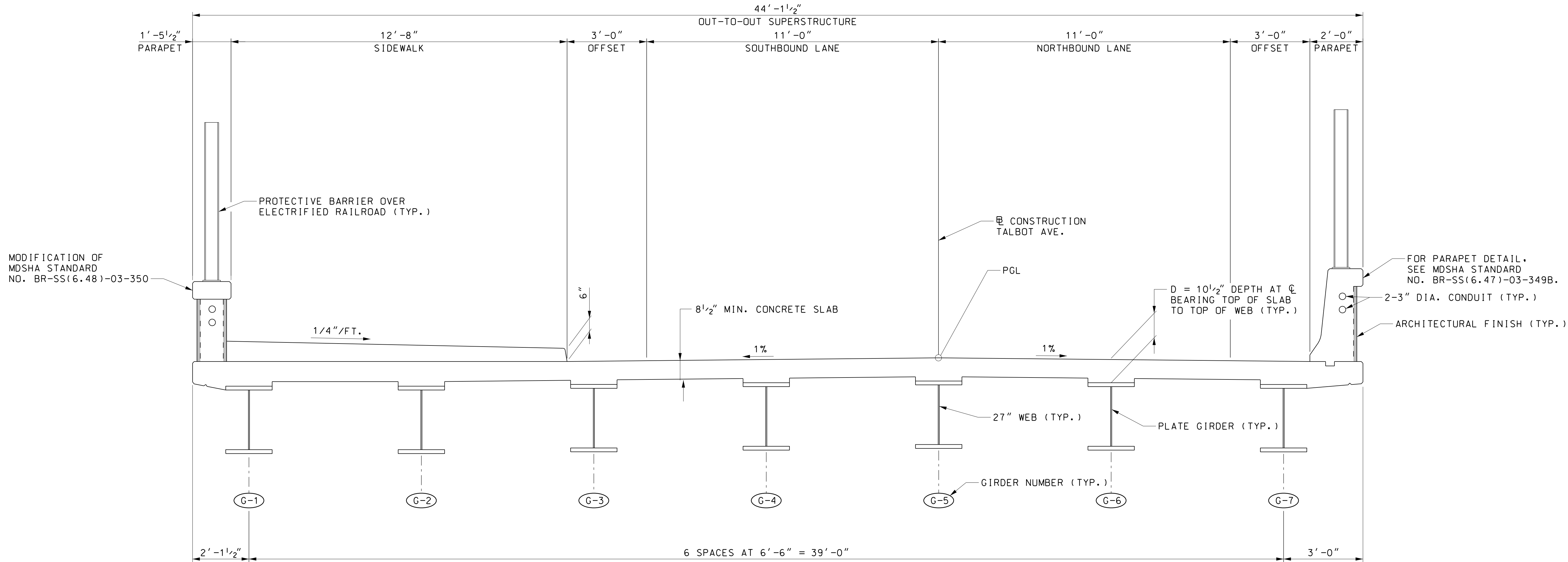
TALBOT AVENUE BRIDGE
ABUTMENT A – PLAN AND ELEVATION

DATE: DECEMBER 2013

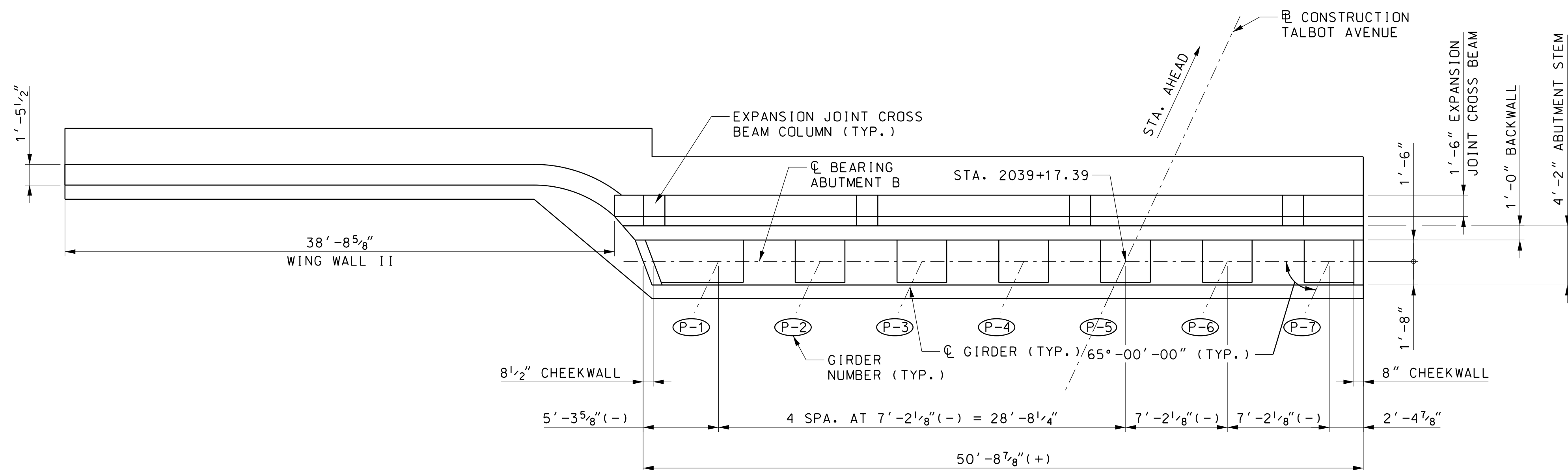
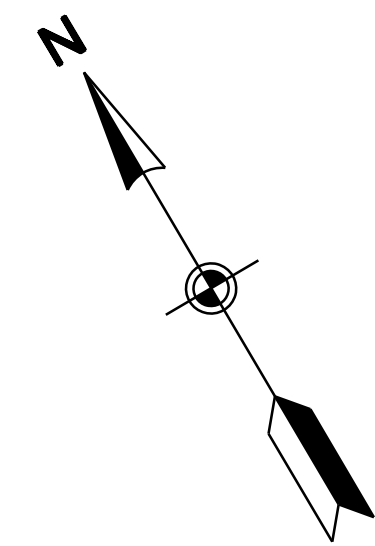
SCALE: 3/16" = 1'-0"

CONTRACT NO.	T-1042-0220
DRAWING NO.	ST2G02
SHEET NO.	416 OF 828



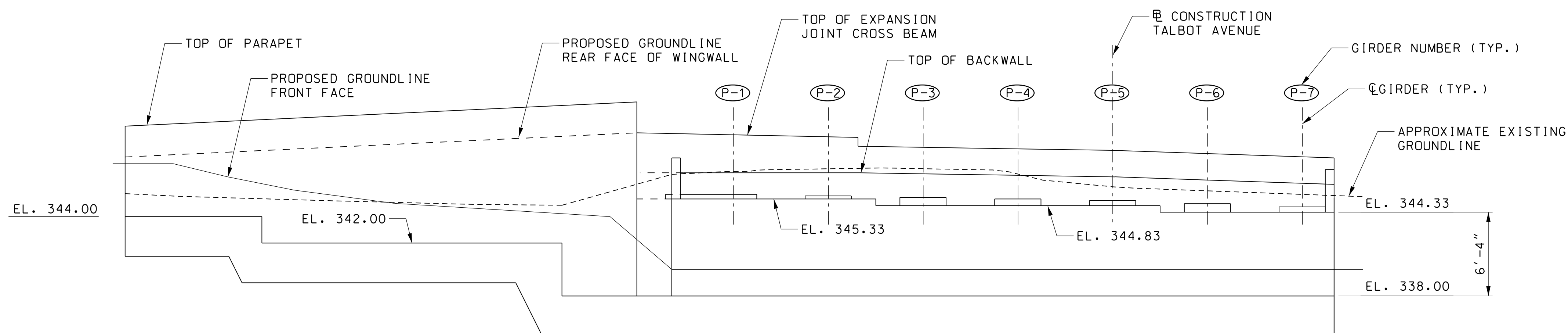


TYPICAL SECTION - SUPERSTRUCTURE
SCALE: 1/2"=1'-0"



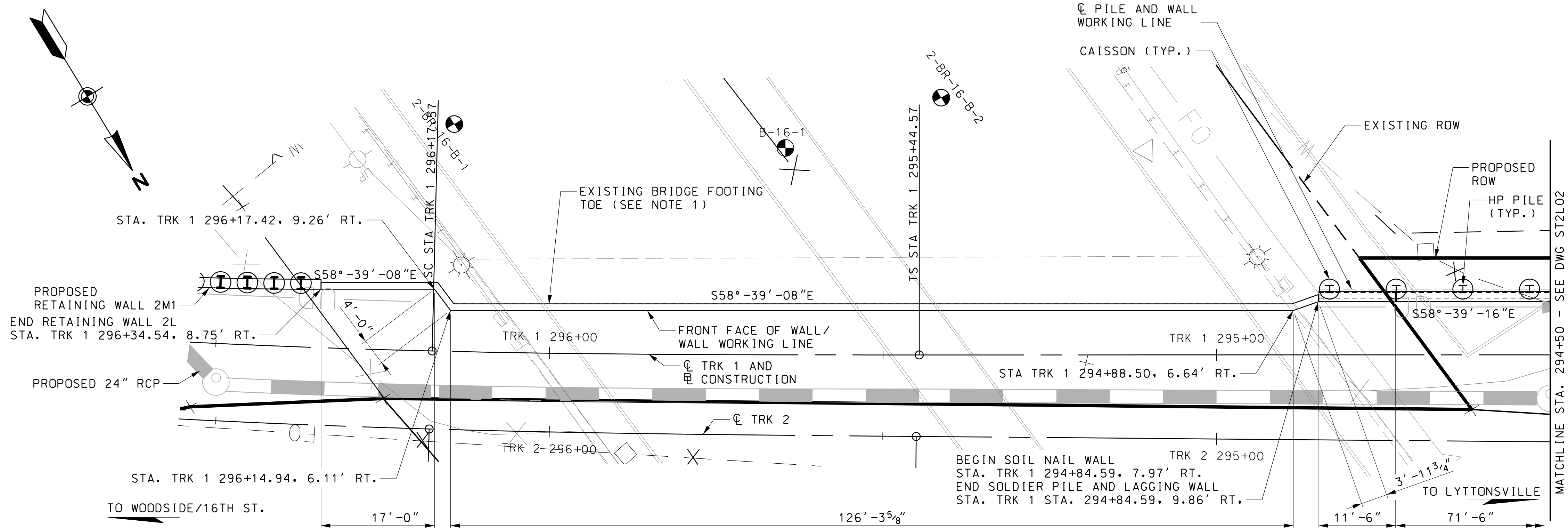
PLAN

SCALE: $\frac{3}{16}" = 1' - 0"$



ELEVATION

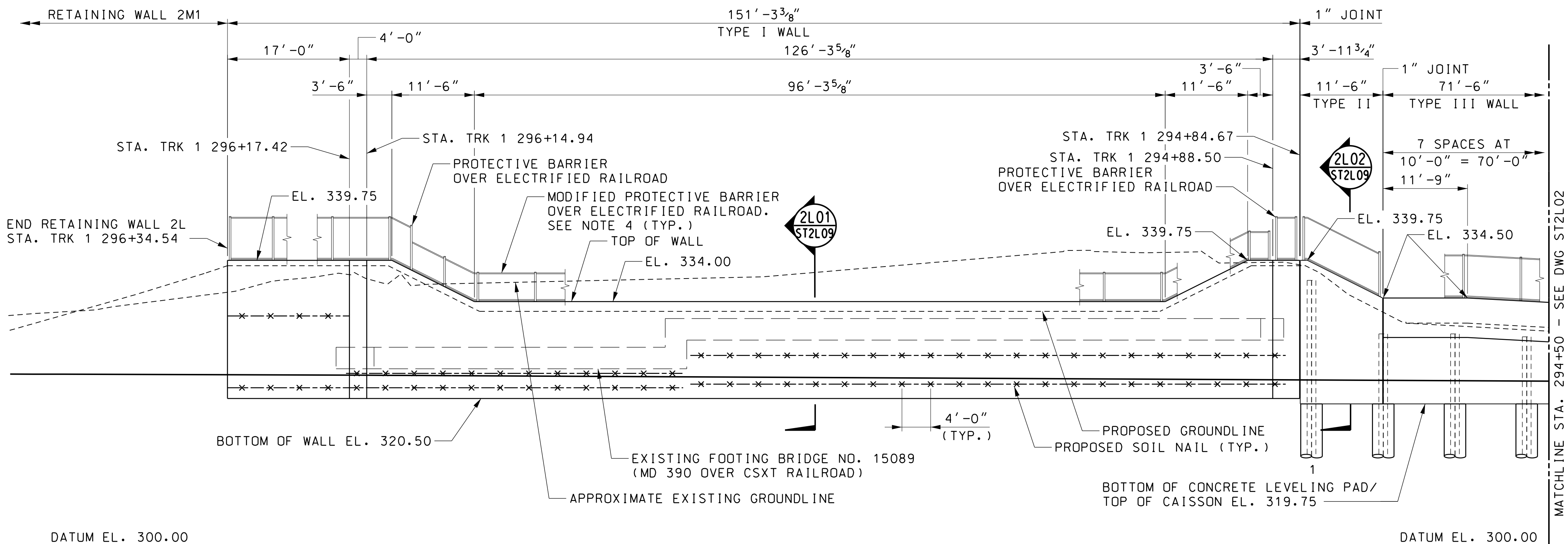
SCALE: $\frac{3}{16}" = 1' - 0"$



- NOTES:**
1. SURVEY OF EXISTING ABUTMENT FOOTING TOE CORNERS USED TO CREATE EXISTING BRIDGE FOOTING TOE LINE SHOWN ON PLANS. LOCATION OF EXISTING ABUTMENT FOOTING SHALL BE FIELD VERIFIED.
 2. FOR RETAINING WALL 2M1 DETAILS, SEE VOLUME 6, ZONE 2, STRUCTURE M DRAWINGS.
 3. DIMENSIONS SHOWN IN ELEVATION VIEW ARE ALONG THE FRONT FACE OF WALL/WALL WORKING LINE.
 4. PROTECTIVE BARRIER OVER ELECTRIFIED RAILROAD PLACED BELOW 16TH STREET BRIDGE SHALL BE MODIFIED TO PROVIDE ADEQUATE CLEARANCE TO BOTTOM OF BRIDGE GIRDERS. CONTRACTOR SHALL COORDINATE THE HEIGHT OF THE PROTECTIVE BARRIER WITH SHA.

PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



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DESIGN AC
KPL
JAG
CHECK
APPR

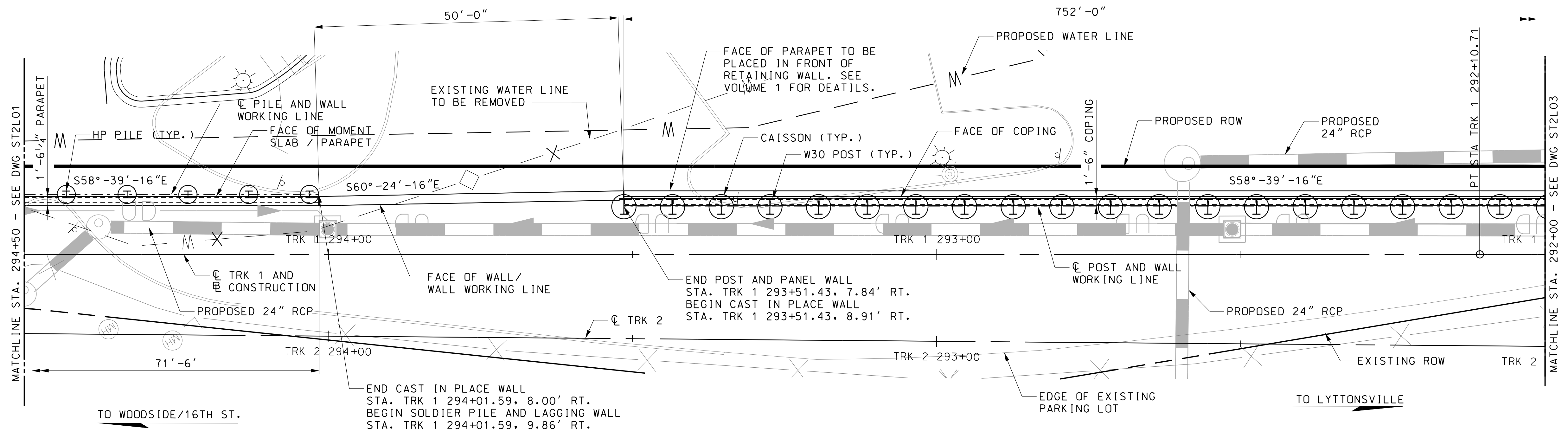
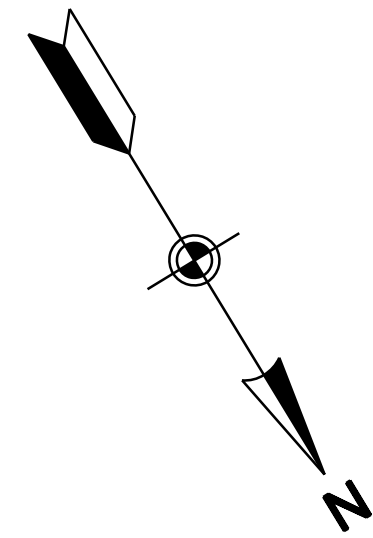
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL 2L
GENERAL PLAN AND ELEVATION - 1

DATE: DECEMBER 2013

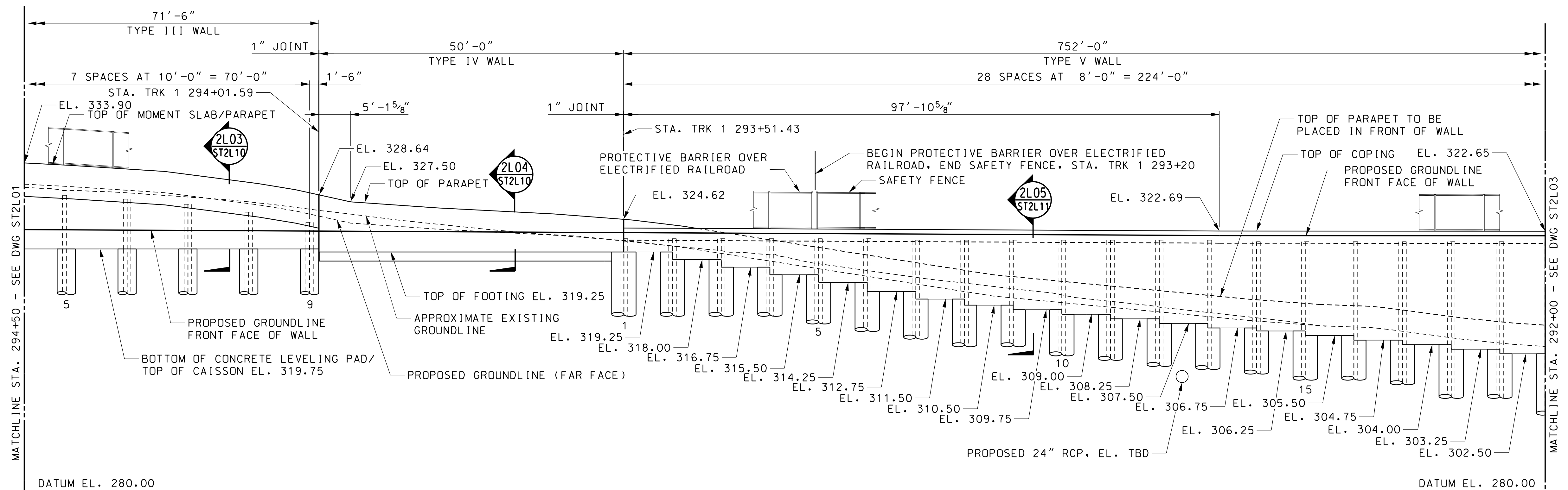
SCALE: 1"=10'-0"

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST2L01
SHEET NO.
420 OF 828



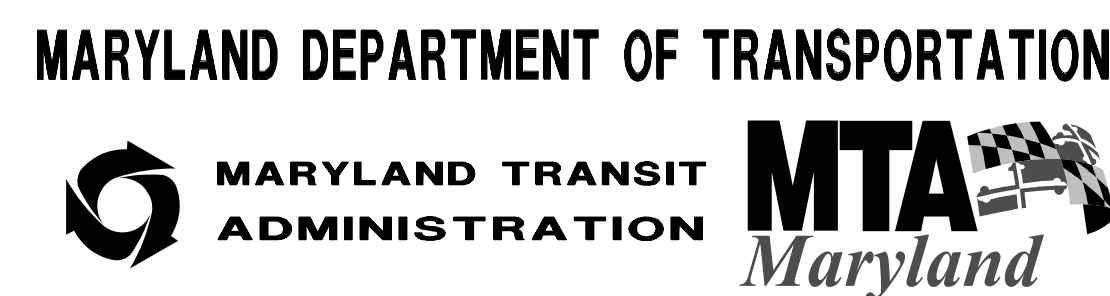
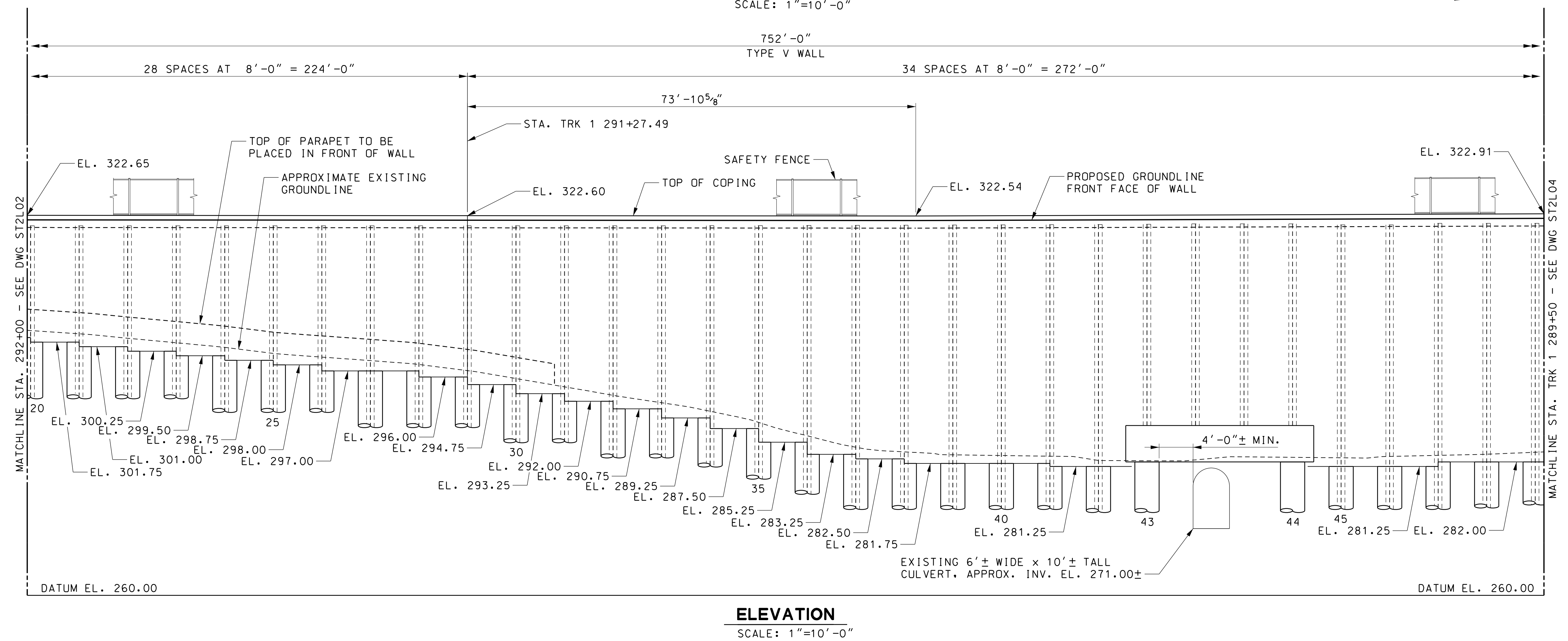
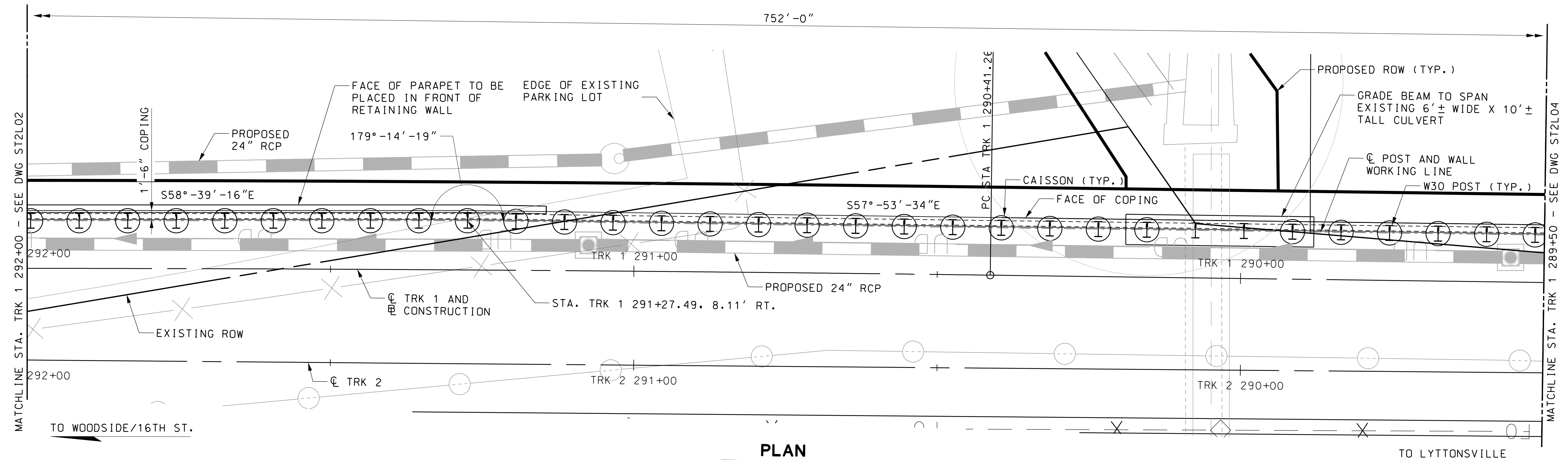
PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"



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License No.	Expiration Date
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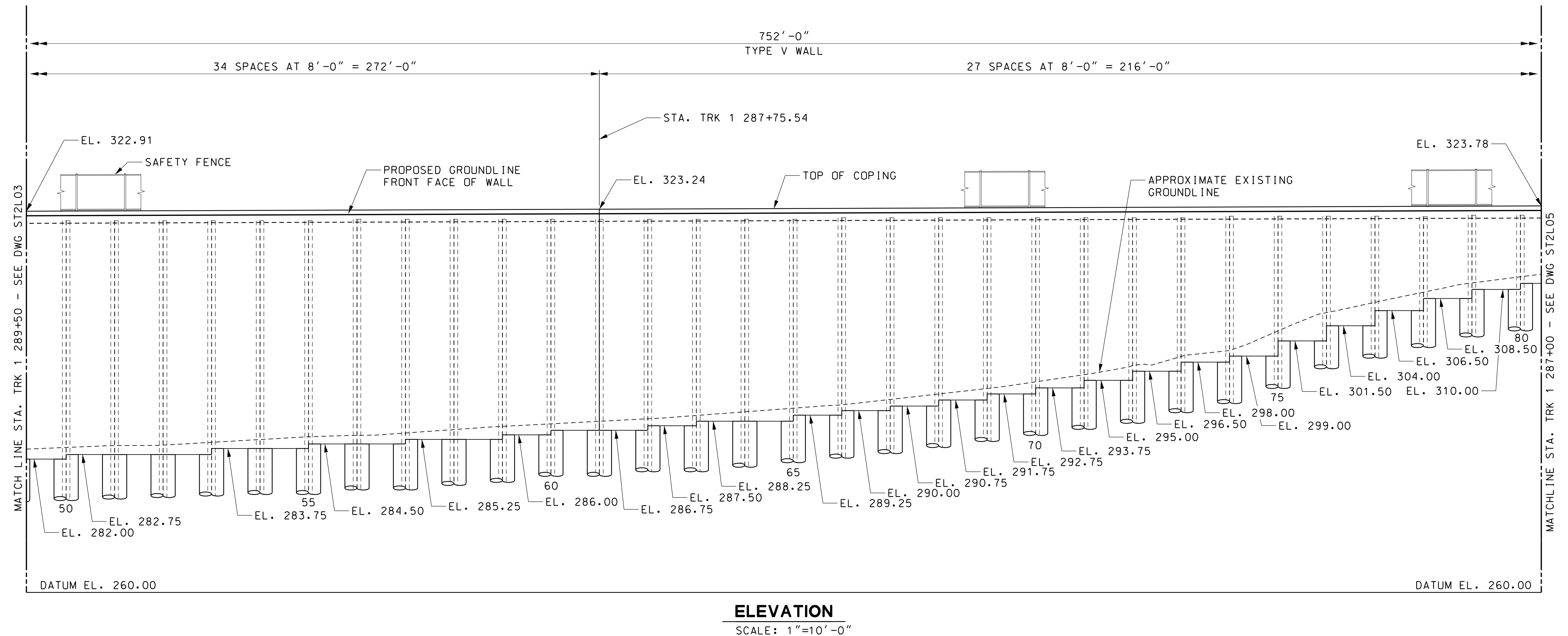
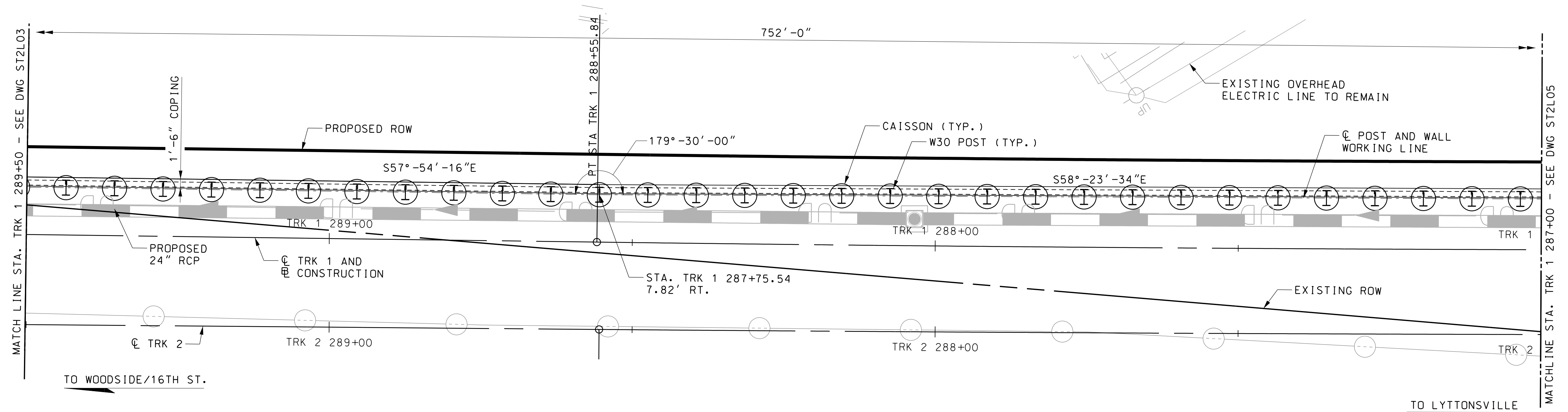
APPR	CHECK	DRAWN	DESIGN
	JAG	KPL	AC

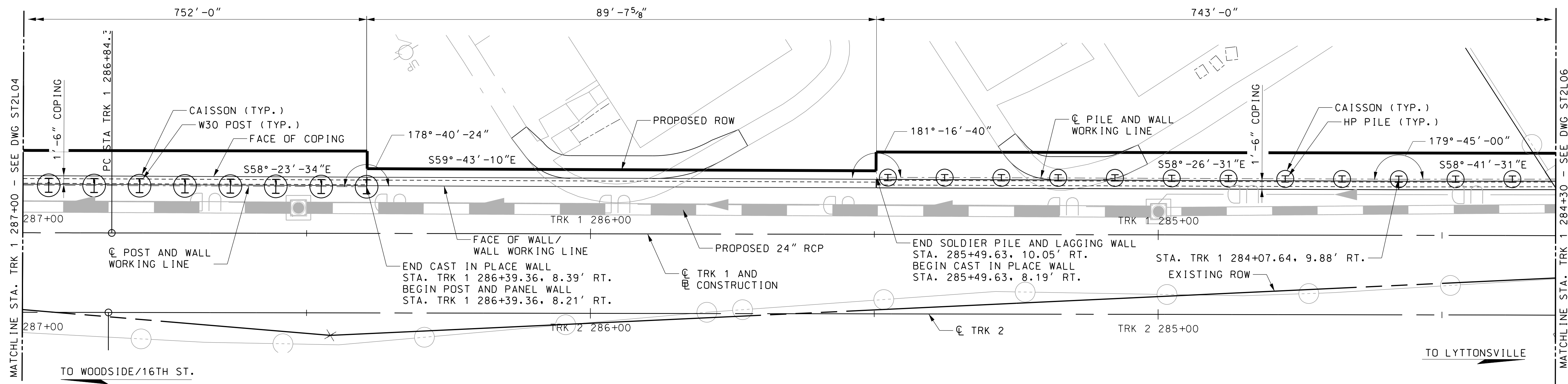
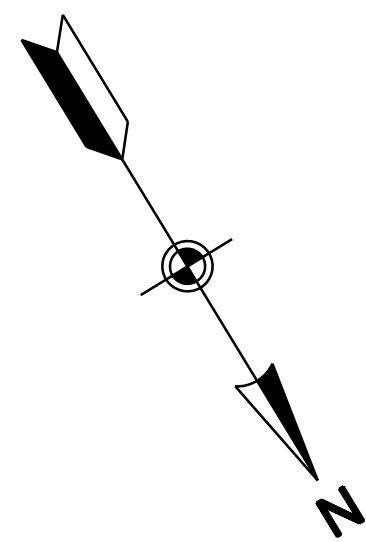
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL 2L
GENERAL PLAN AND ELEVATION – 3

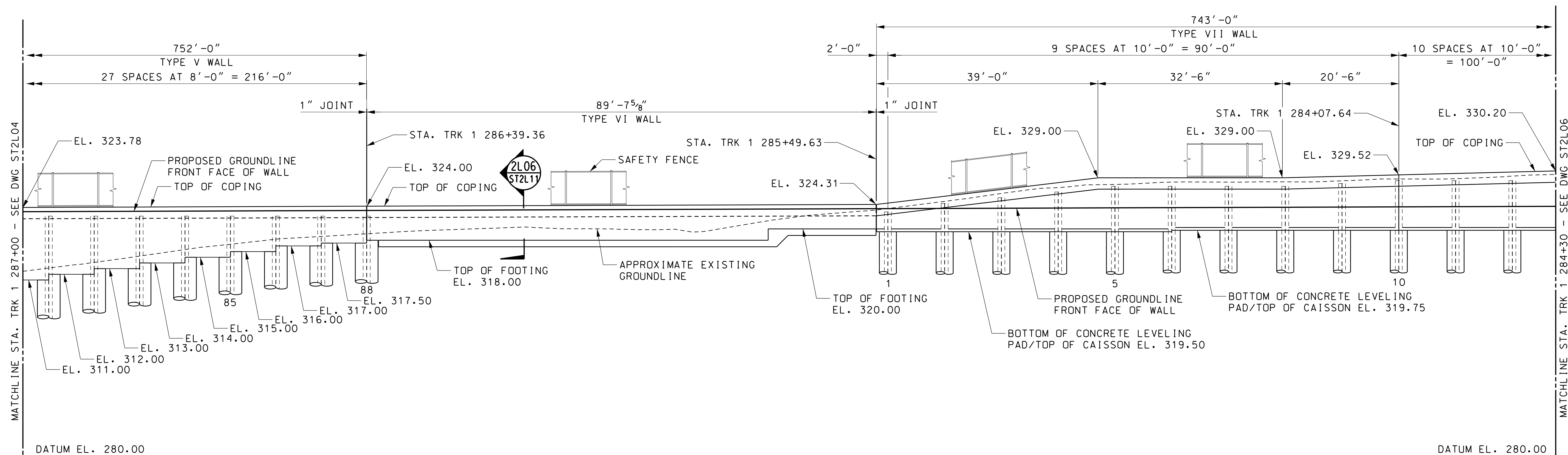
DATE: DECEMBER 2013 SCALE: 1" = 10' - 0"

CONTRACT NO.	T-1042-0220
DRAWING NO.	ST2L03
SHEET NO.	422 OF 828

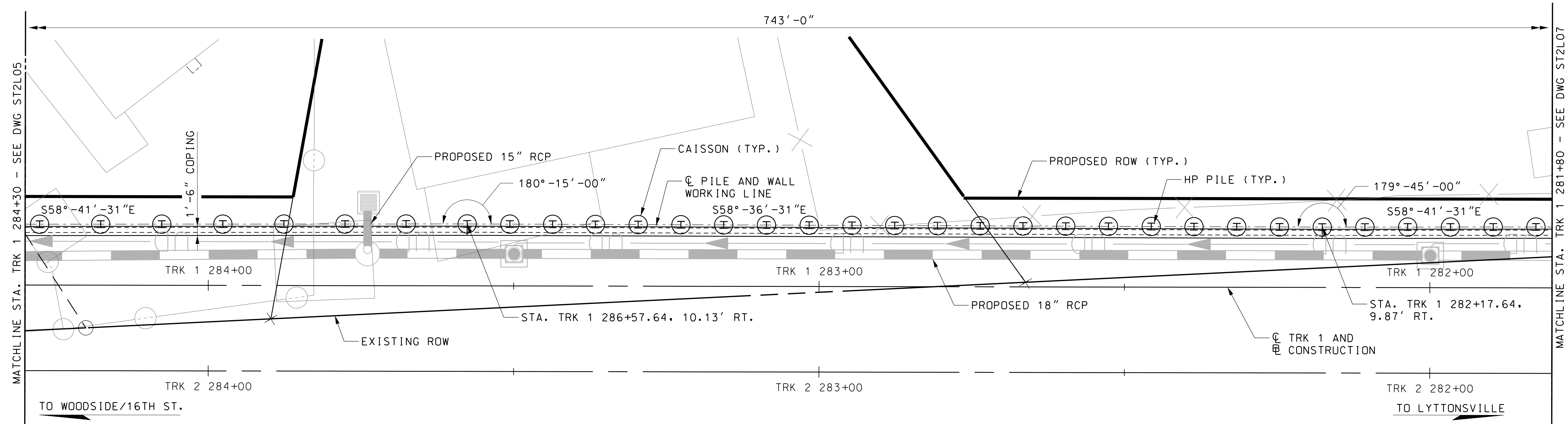
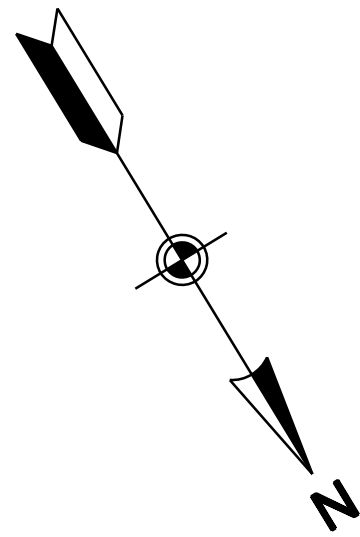




PLAN
SCALE: 1"=10'-0"

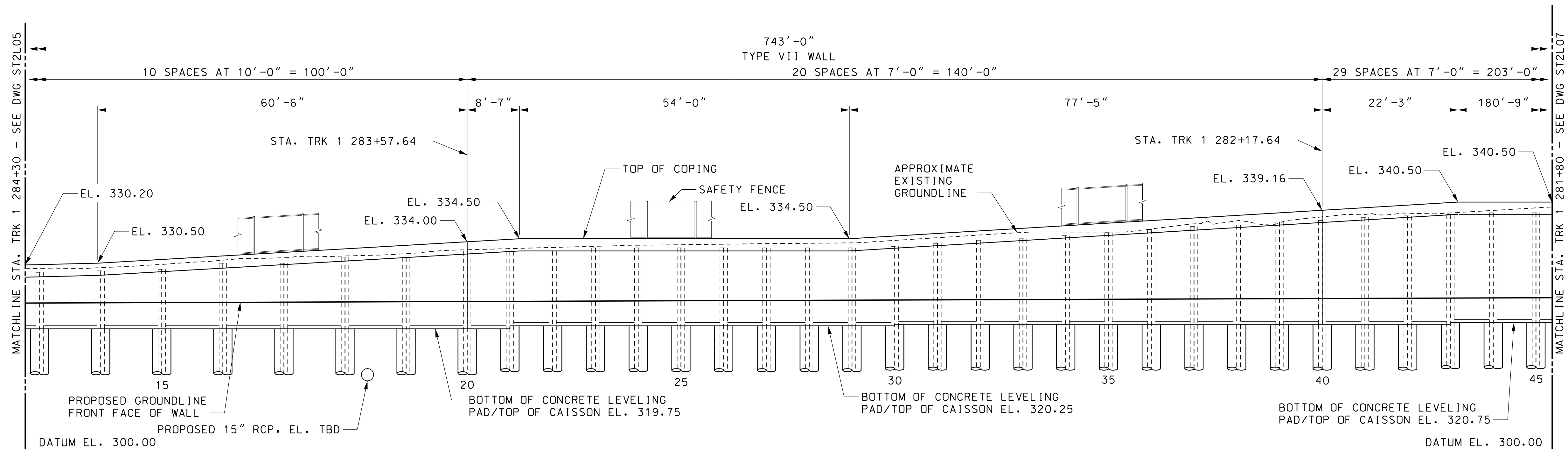


ELEVATION
SCALE: 1"=10'-0"



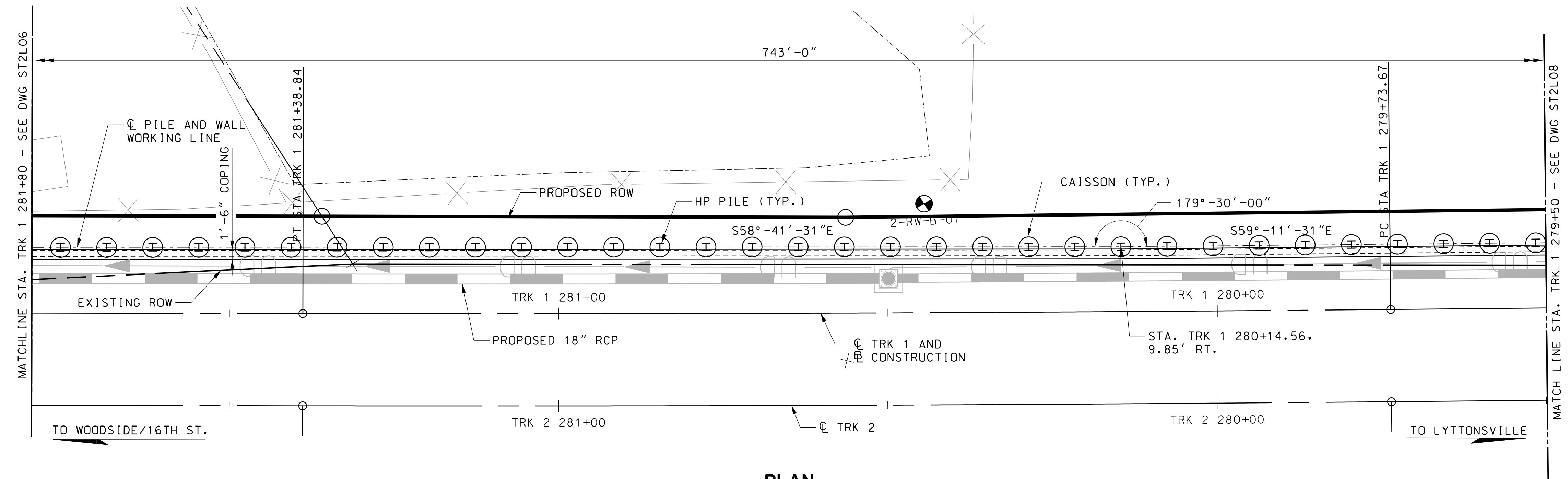
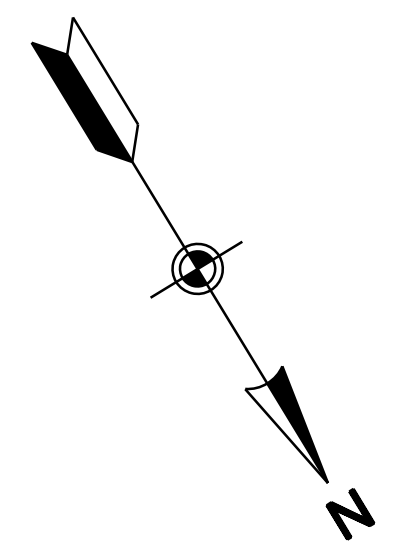
PLAN

SCALE: 1"=10'-0"



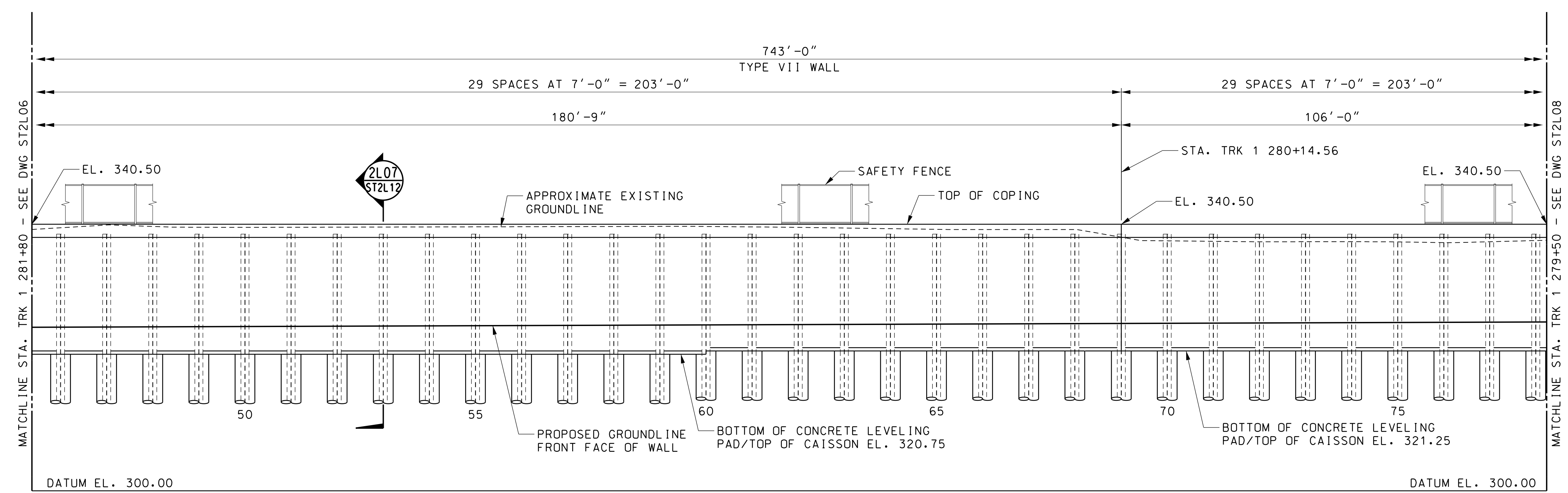
ELEVATION

SCALE: 1"=10'-0"



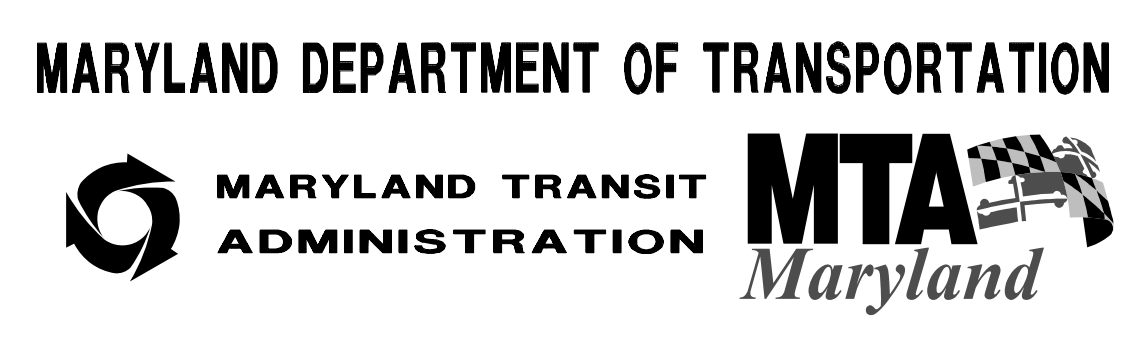
PLAN

SCALE: 1"=10'-0"



ELEVATION

SCALE: 1"=10'-0"



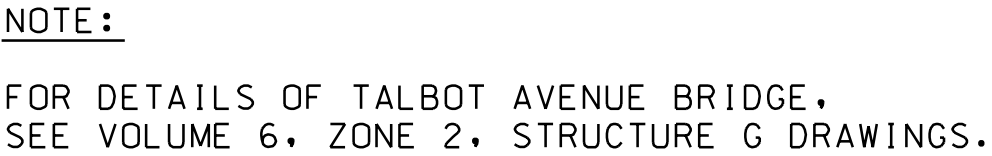
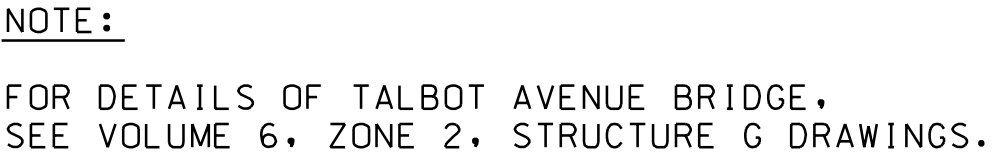
PROFESSIONAL CERTIFICATION
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License No. Expiration Date

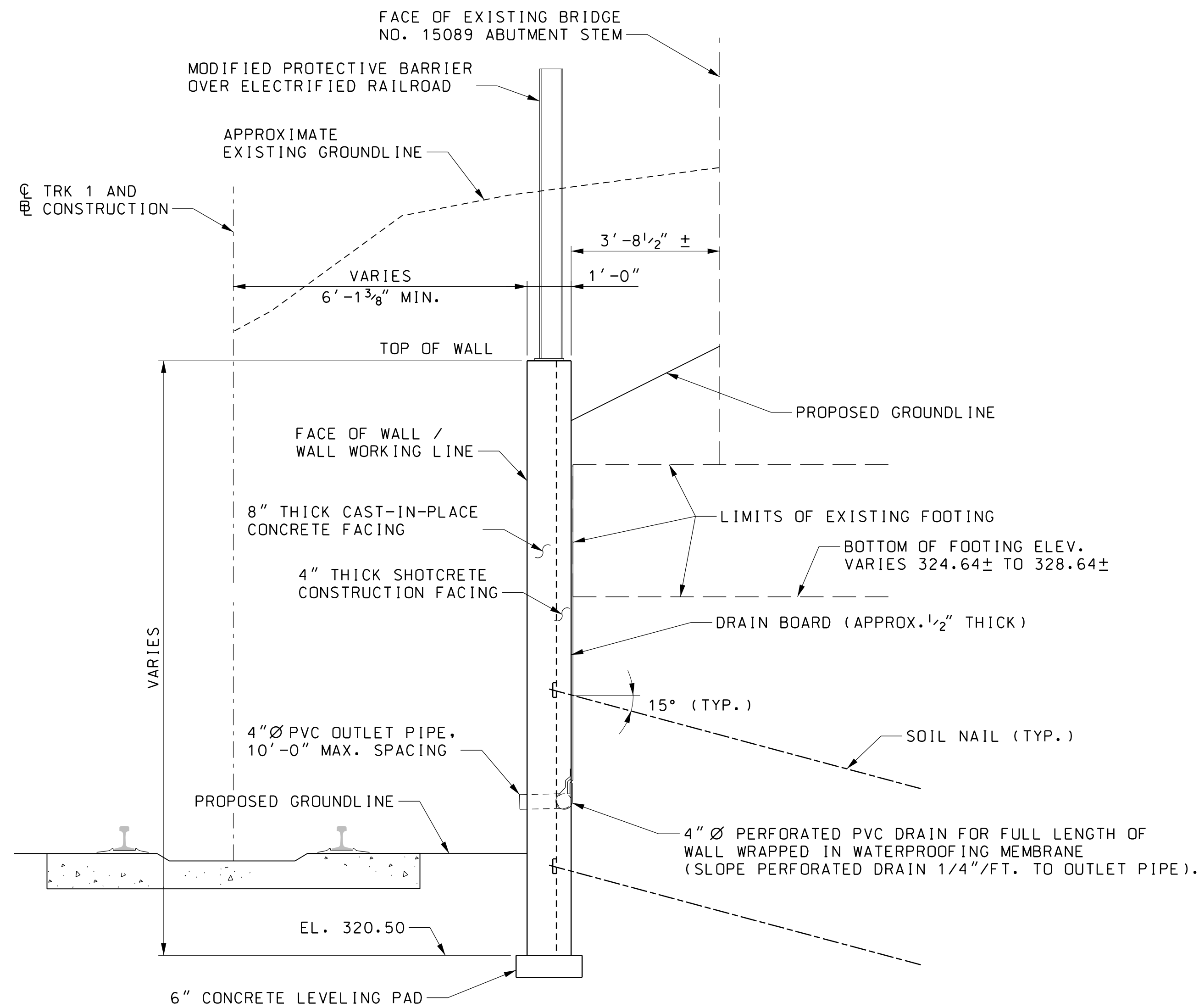
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DESIGN	AC
DRAWN	KPL
CHECK	JAG
APPR	

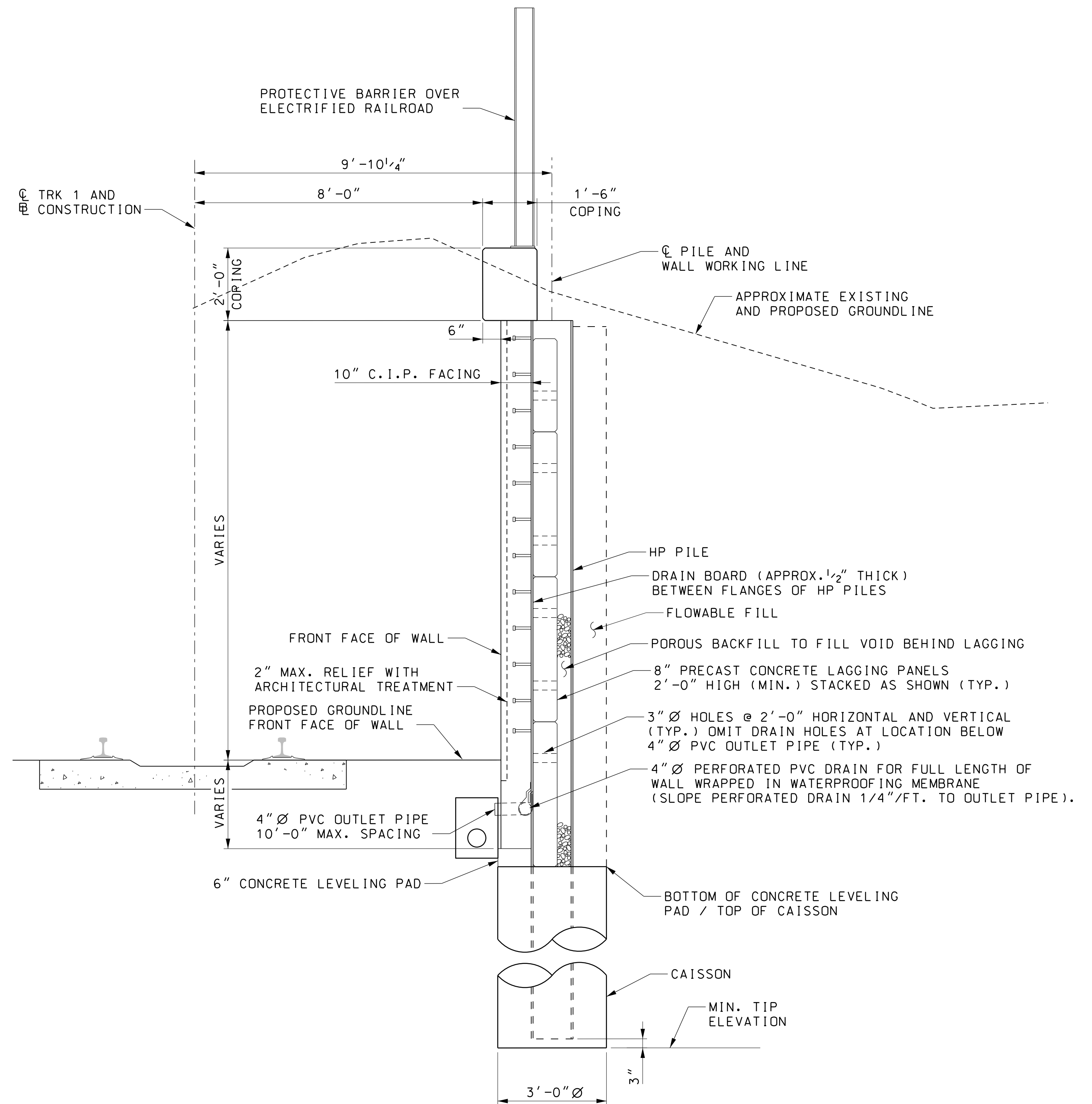
PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL RETAINING WALL 2L GENERAL PLAN AND ELEVATION - 7 DATE: DECEMBER 2013	CONTRACT NO. T-1042-0220
	DRAWING NO. ST2L07
	SHEET NO. 426 OF 828

SCALE: 1"=10'-0"

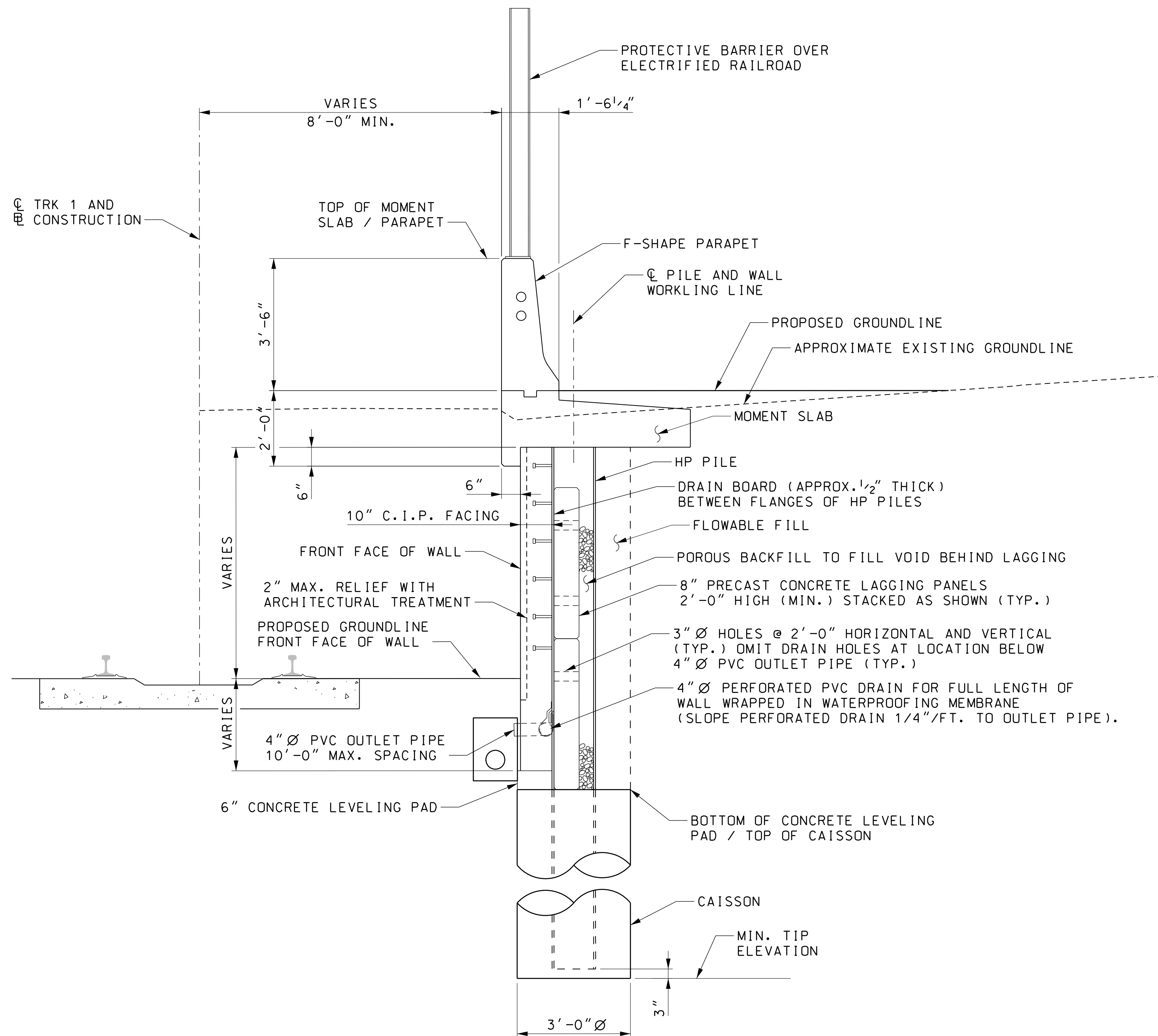




2L01
ST2L09
TYPICAL SECTION - TYPE I
SCALE: 1/2"=1'-0"
REF: ST2L01



2L02
ST2L09
TYPICAL SECTION - TYPE II
SCALE: 1/2"=1'-0"
REF: ST2L01

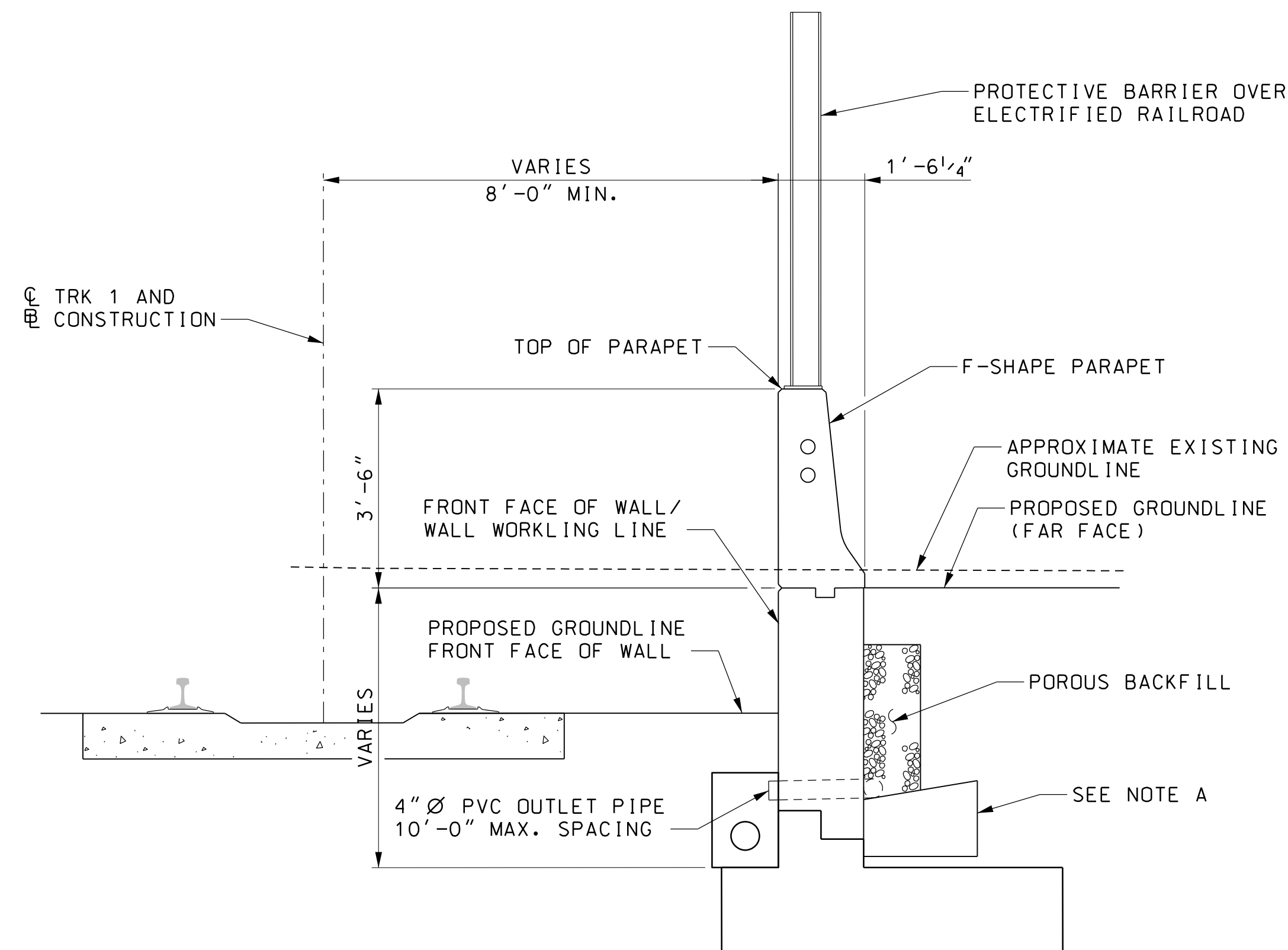


2L03
ST2L10

TYPICAL SECTION - TYPE III

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

REF: ST2L02



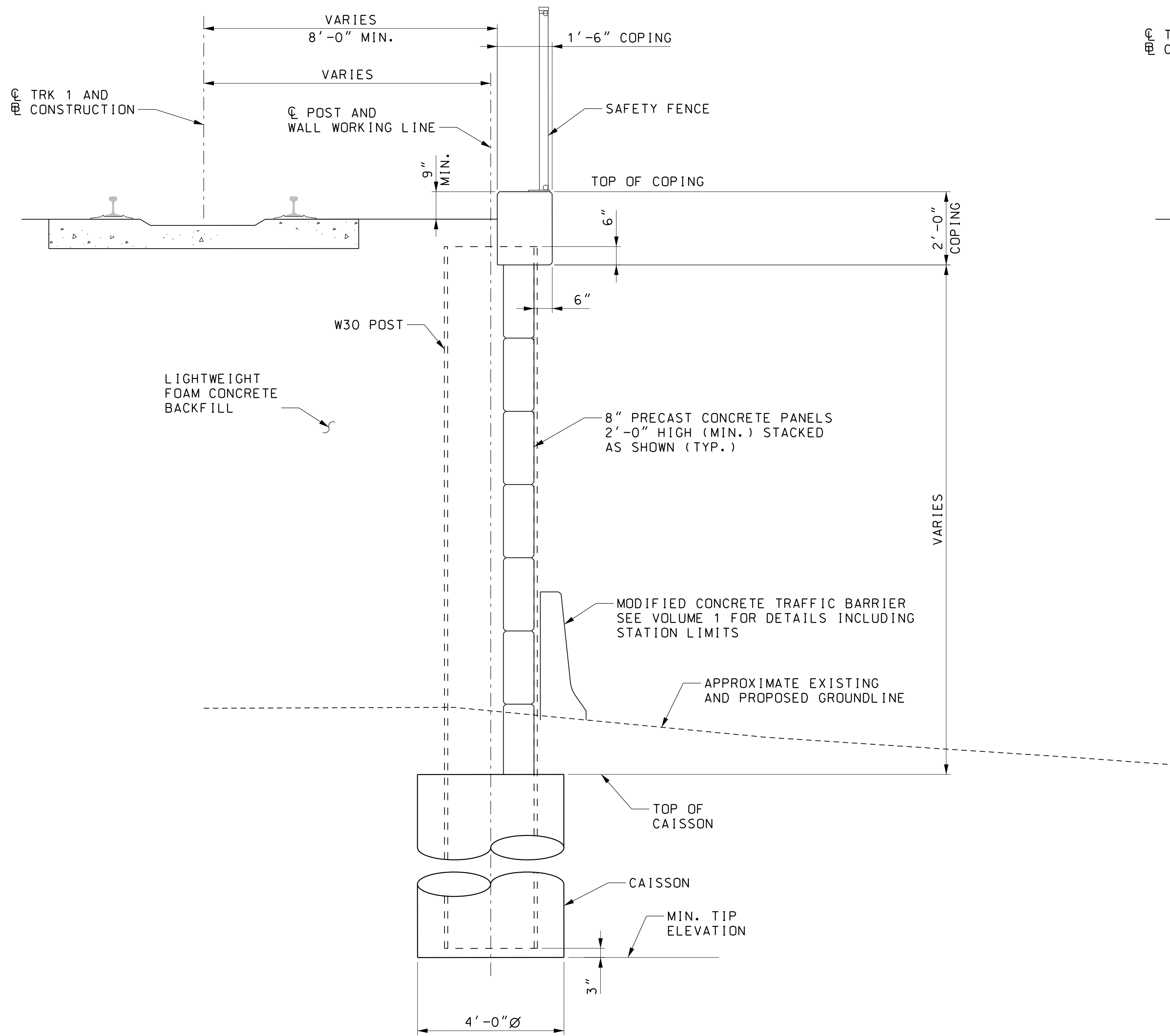
2L04
ST2L10

TYPICAL SECTION - TYPE IV

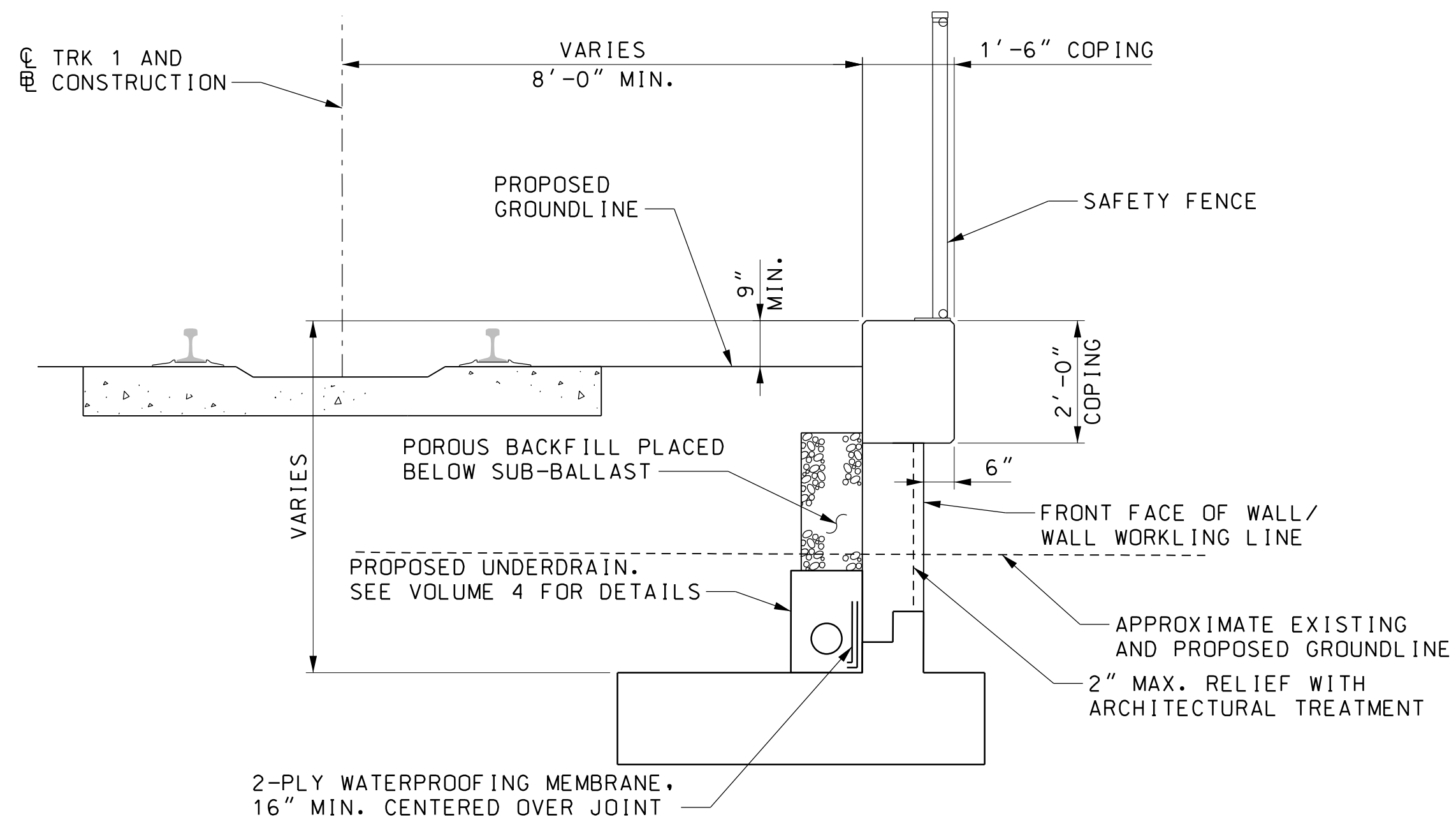
SCALE: 1/2"=1'-0"

REF: ST2L02

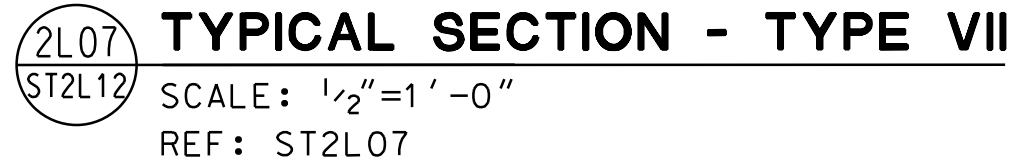
NOTE A:
FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.

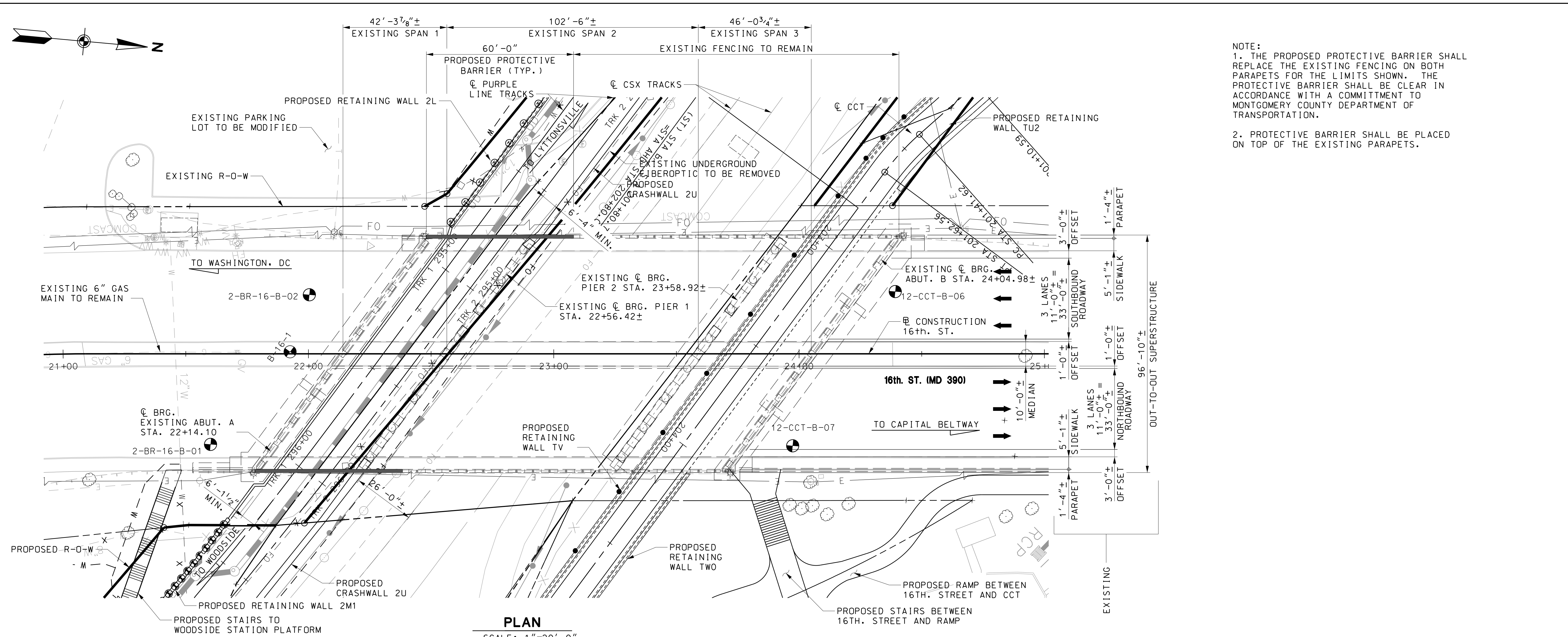


2L05
 ST2L11
TYPICAL SECTION - TYPE V
 SCALE: 1/2"=1'-0"
 REF: ST2L02



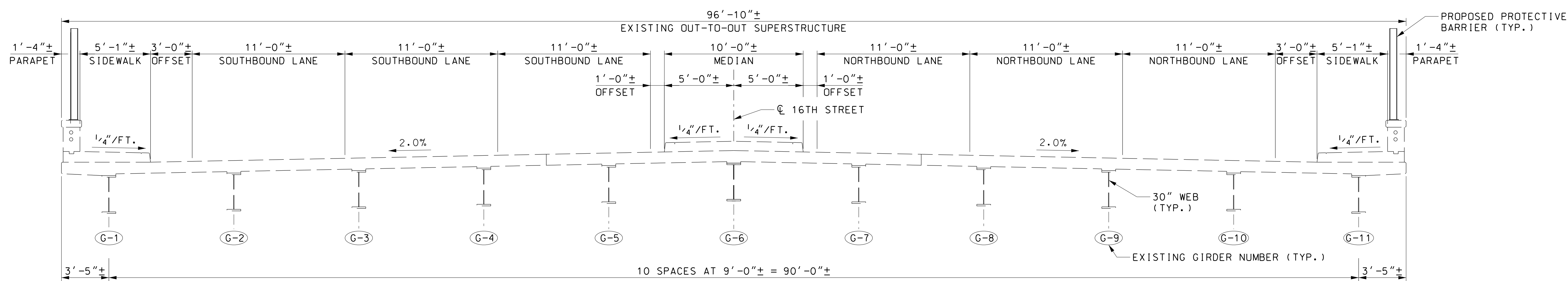
2L06
 ST2L11
TYPICAL SECTION - TYPE VI
 SCALE: 1/2"=1'-0"
 REF: ST2L05





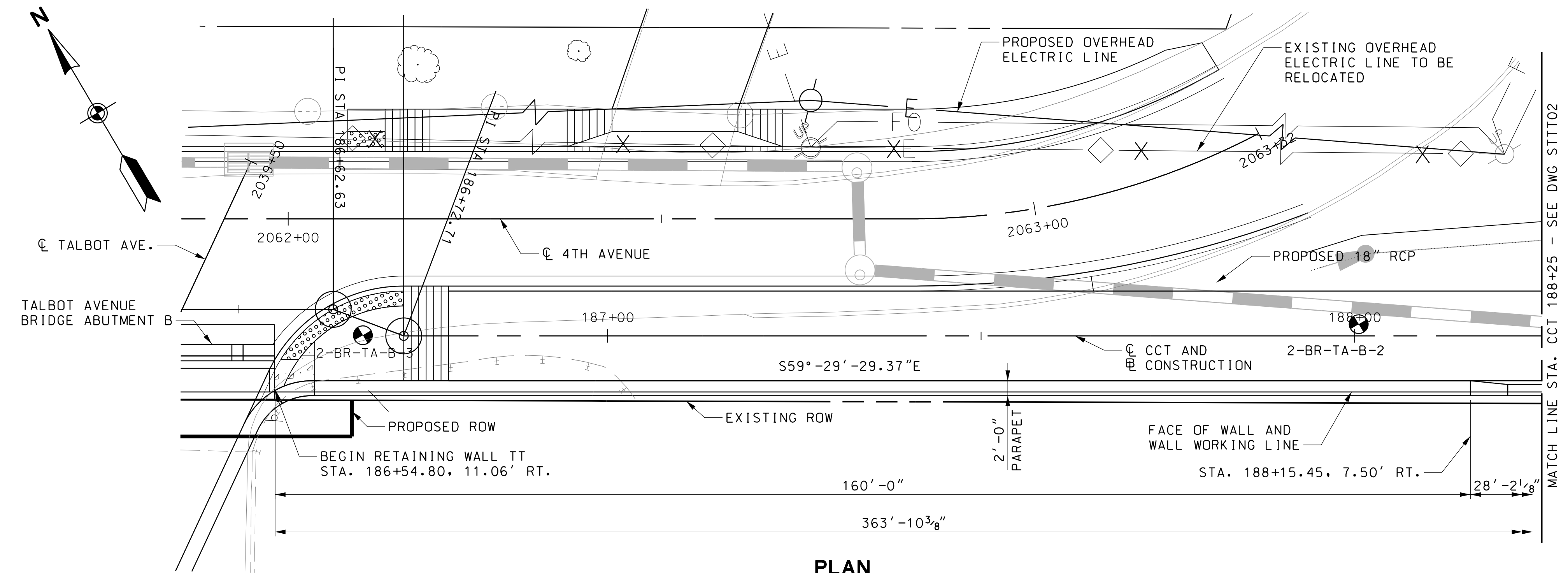
NOTE:
1. THE PROPOSED PROTECTIVE BARRIER SHALL REPLACE THE EXISTING FENCING ON BOTH PARAPETS FOR THE LIMITS SHOWN. THE PROTECTIVE BARRIER SHALL BE CLEAR IN ACCORDANCE WITH A COMMITMENT TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION.
2. PROTECTIVE BARRIER SHALL BE PLACED ON TOP OF THE EXISTING PARAPETS.

PLAN
SCALE: 1"=20'-0"

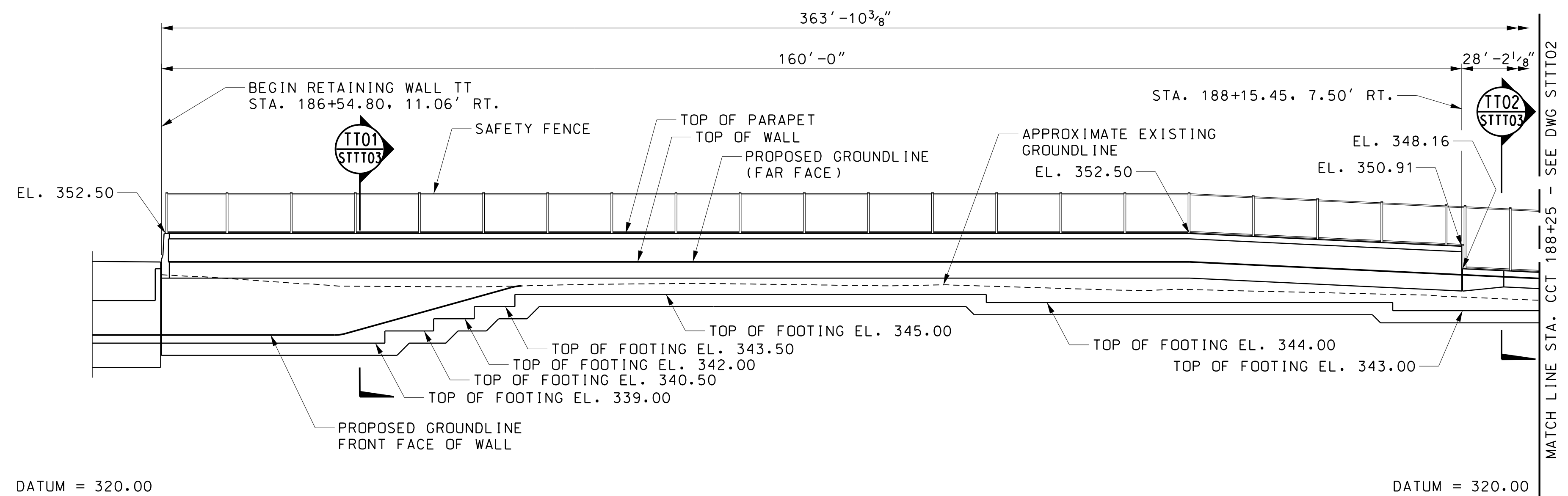


TYPICAL SECTION - PROPOSED PROTECTIVE BARRIER
SCALE: 1/4"=1'-0"

 MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION MTA Maryland	 Gannett Fleming WR&A	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	AC	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				AC		DRAWING NO. ST2E01
				JAG		SHEET NO. 432 OF 828
DATE: DECEMBER 2013				SCALE: AS NOTED	BRIDGE NO. 15089 ON MD390 PROTECTIVE BARRIER	

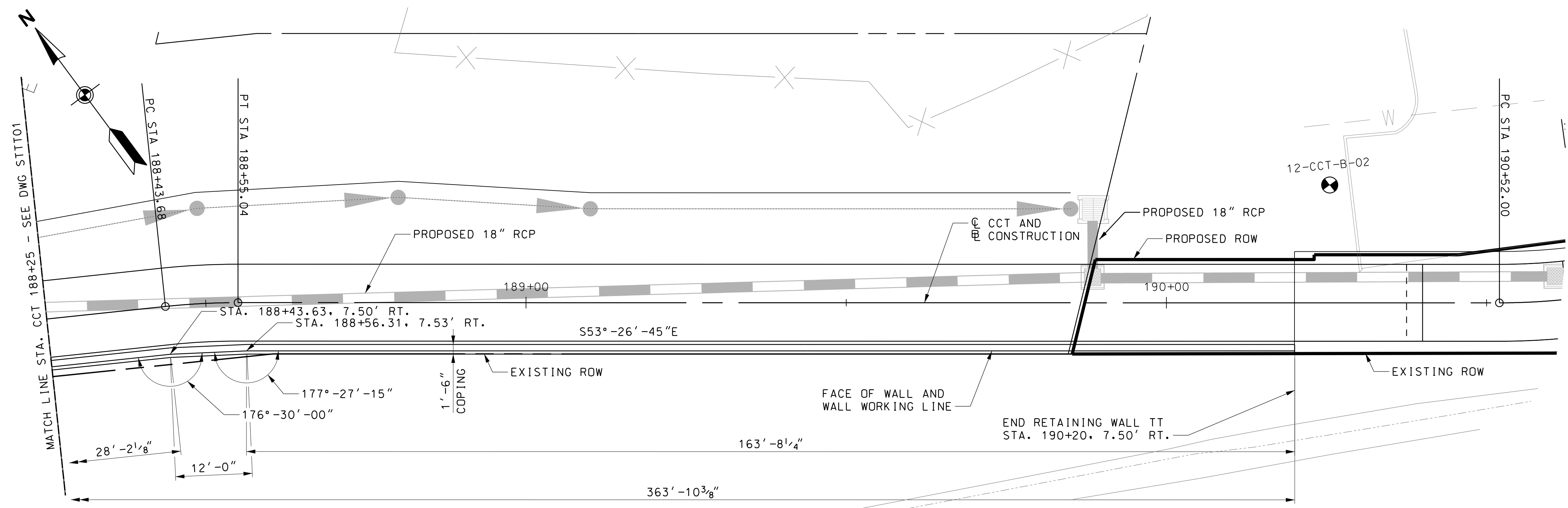


PLAN
SCALE: 1"=10'-0"



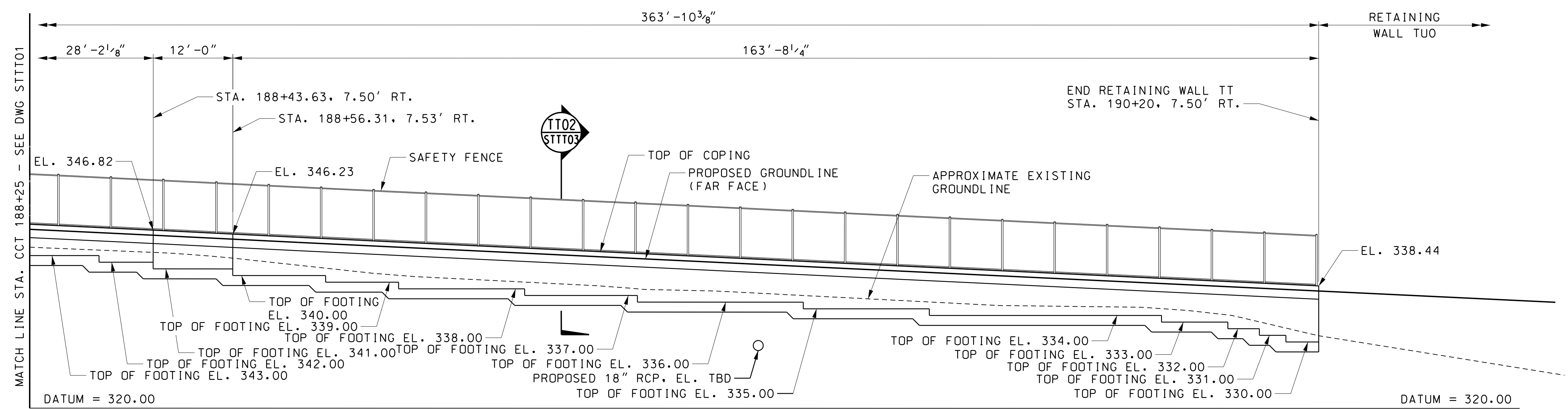
ELEVATION
SCALE: 1"=10'-0"

NOTE:
BEGINNING OF RETAINING WALL TT
SHALL BE COORDINATED WITH THE
TALBOT AVENUE BRIDGE DESIGN. SEE
VOLUME 6 STRUCTURE 2G DRAWINGS
FOR DETAILS.

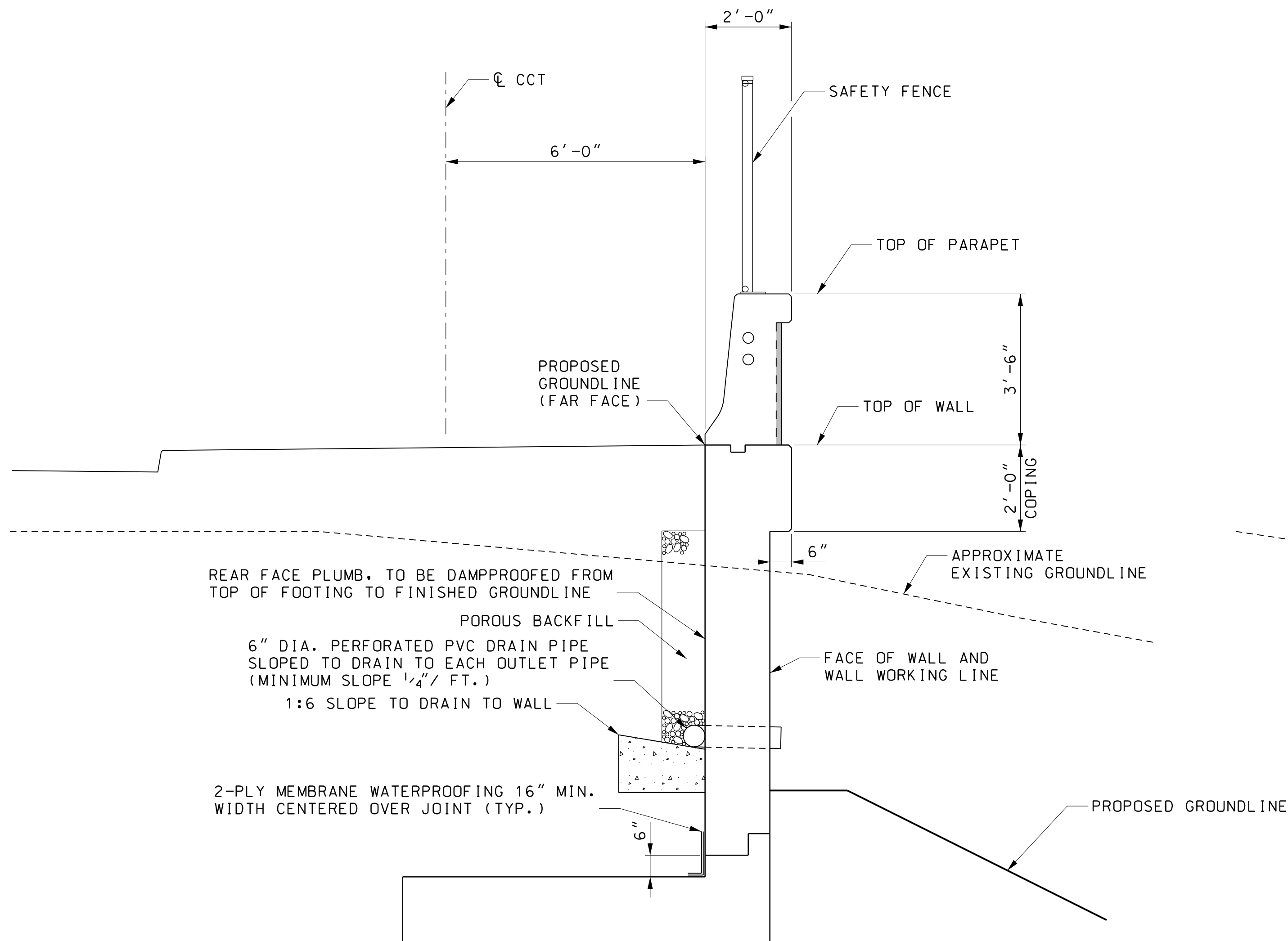


PLAN
SCALE: 1"=10'-0"

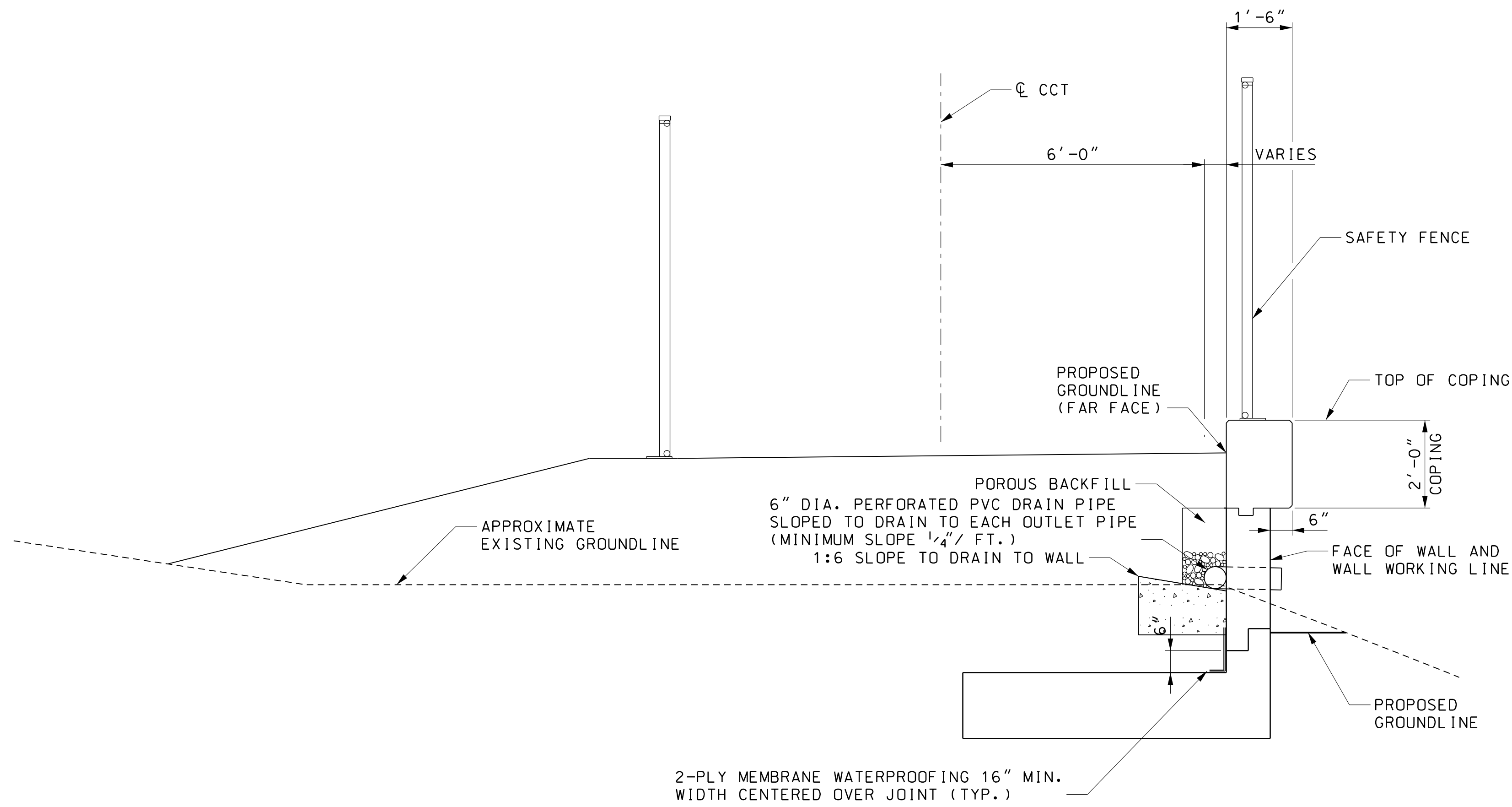
NOTE:
END OF RETAINING WALL TT SHALL BE
COORDINATED WITH RETAINING WALL
TUO. SEE VOLUME 6 STRUCTURE TUO
DRAINGS FOR DETAILS.



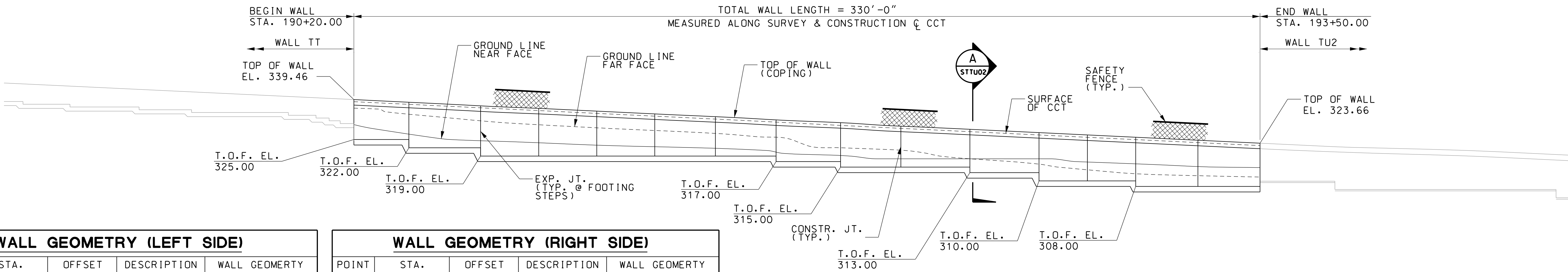
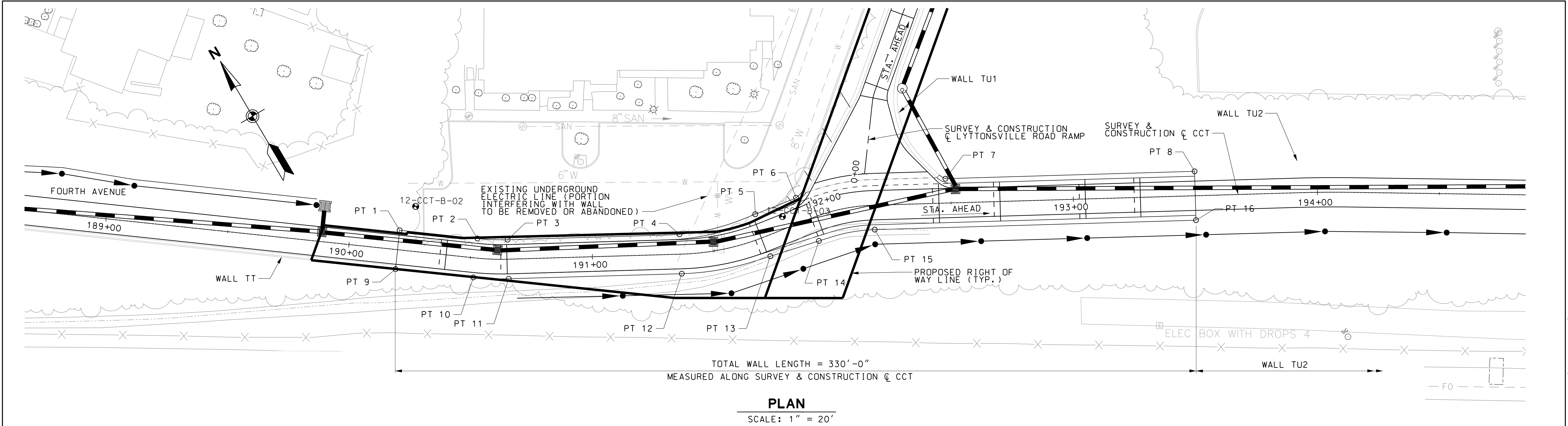
ELEVATION
SCALE: 1"=10'-0"



TT01
STTT01
TYPICAL SECTION
SCALE: 1/2"=1'-0"
REF: STTT01



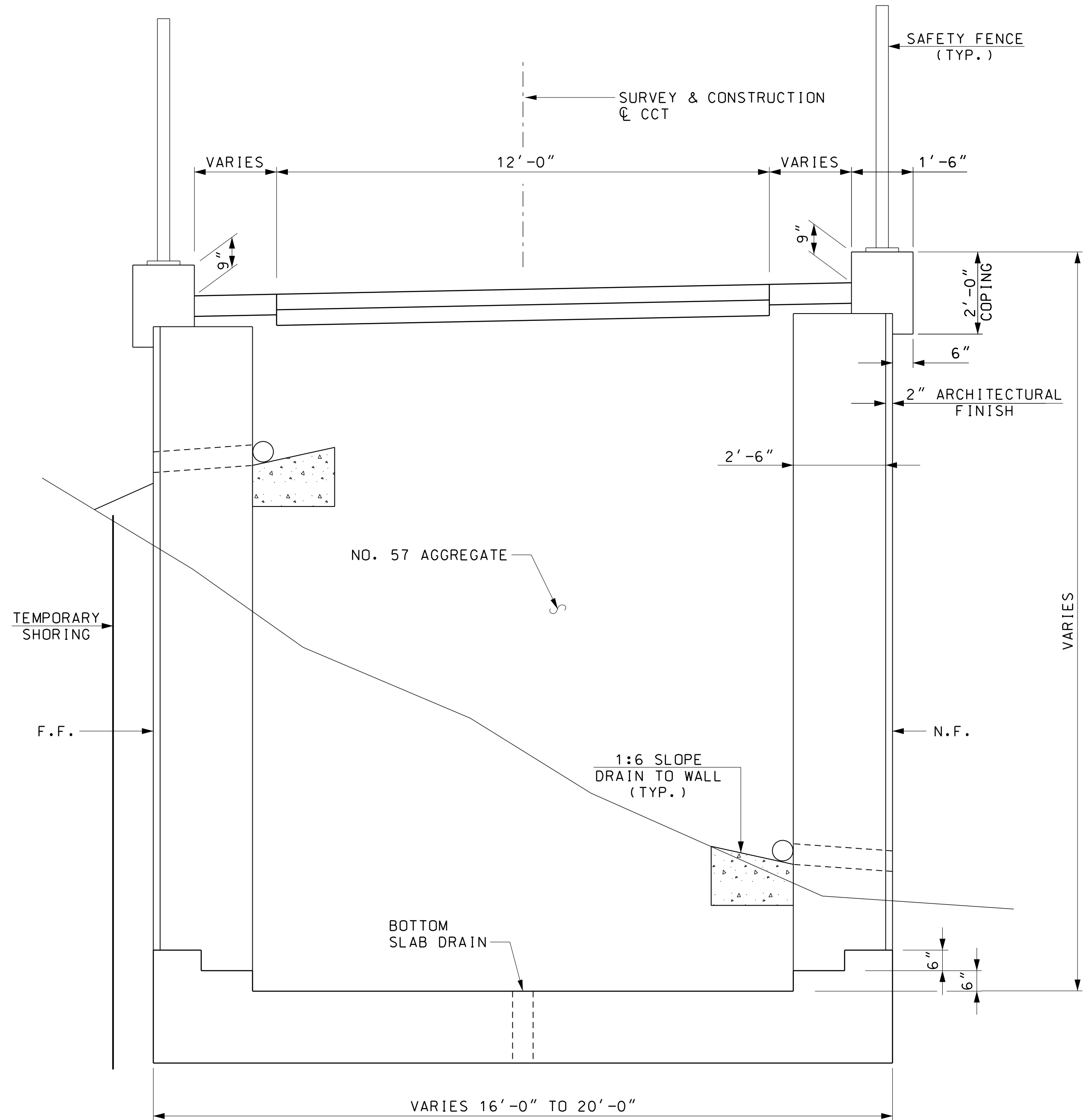
TT02
STTT02
TYPICAL SECTION
SCALE: 1/2"=1'-0"
REF: STTT01 AND STTT02



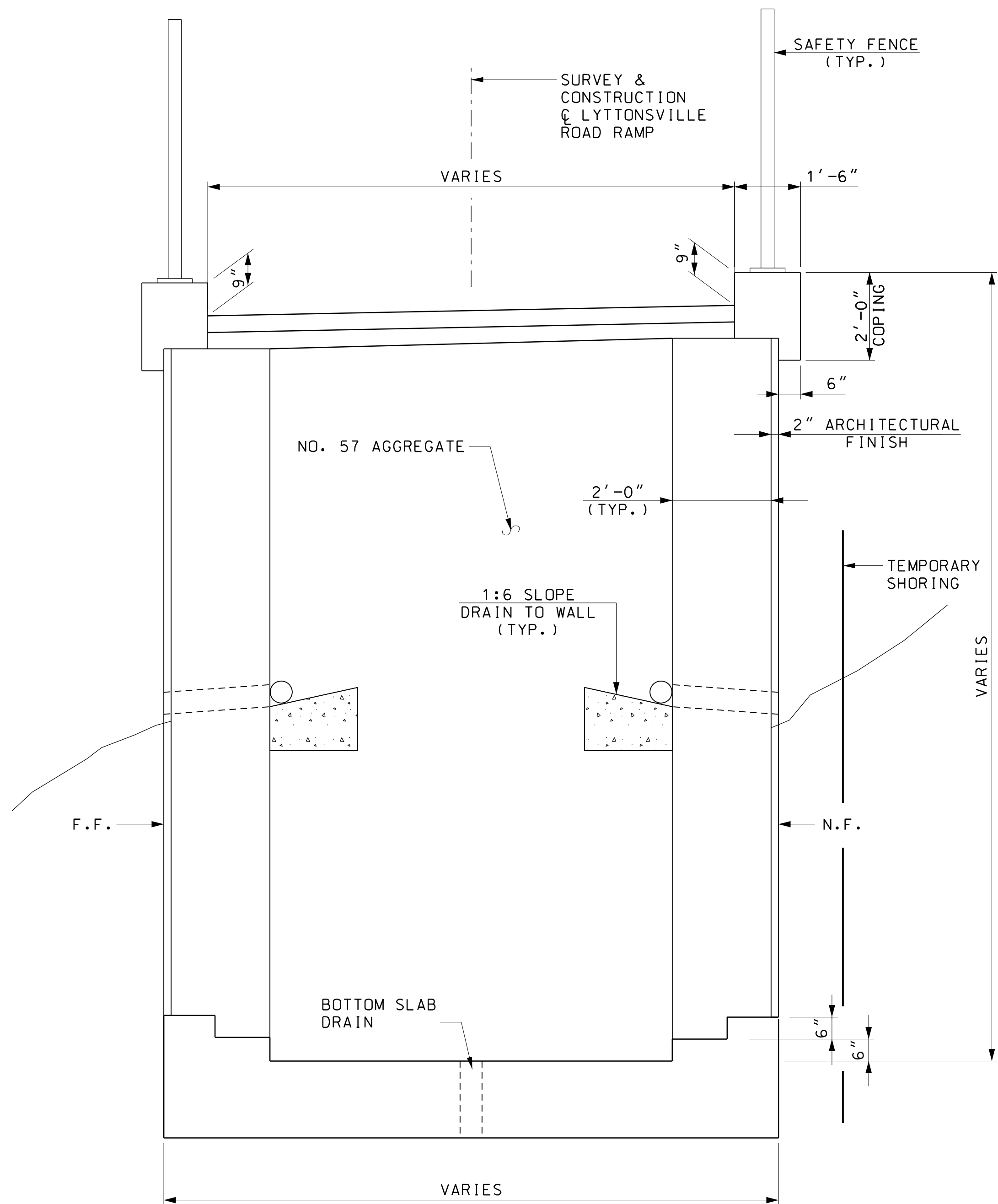
WALL GEOMETRY (LEFT SIDE)				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
1	190+20.00	8.00' LT	BEGIN WALL	BEARING = S53°26'11.12"E
2	190+52.00	8.00' LT	BEGIN CURVE	CURVE 1 R = 92.00' LT
3	190+65.50	8.00' LT	BEGIN TANGENT	BEARING = S61°10'11.09"E
4	191+30.53	8.00' LT	BEGIN CURVE	CURVE 2 R = 90.00' LT
5	191+64.81	9.81' LT	BEGIN TANGENT	BEARING = S81°10'11.09"E
6	191+88.95	10.00' LT	END TANGENT	--
7	192+47.97	10.00' LT	BEGIN TANGENT	BEARING = S61°10'11.09"E
8	193+50.00	10.00' LT	END WALL	--

WALL GEOMETRY (RIGHT SIDE)				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
9	190+20.00	8.00' RT	BEGIN WALL	BEARING = S53°26'11.12"E
10	190+52.00	8.00' RT	BEGIN CURVE	CURVE 1 R = 108.00' LT
11	190+65.50	8.00' RT	BEGIN TANGENT	BEARING = S61°10'11.09"E
12	191+36.39	8.00' RT	BEGIN CURVE	CURVE 2 R = 108.00' LT
13	191+63.97	8.00' RT	BEGIN TANGENT	BEARING = S76°58'20.23"E
14	191+97.70	10.00' LT	BEGIN CURVE	CURVE 3 R = 65.00 RT
15	192+18.39	10.00' LT	BEGIN TANGENT	BEARING = S61°10'11.09"E
16	193+50.00	10.00' LT	END WALL	--

NOTES:
1. OFFSETS & ELEVATIONS ARE GIVEN AT THE FRONT FACE OF WALL.



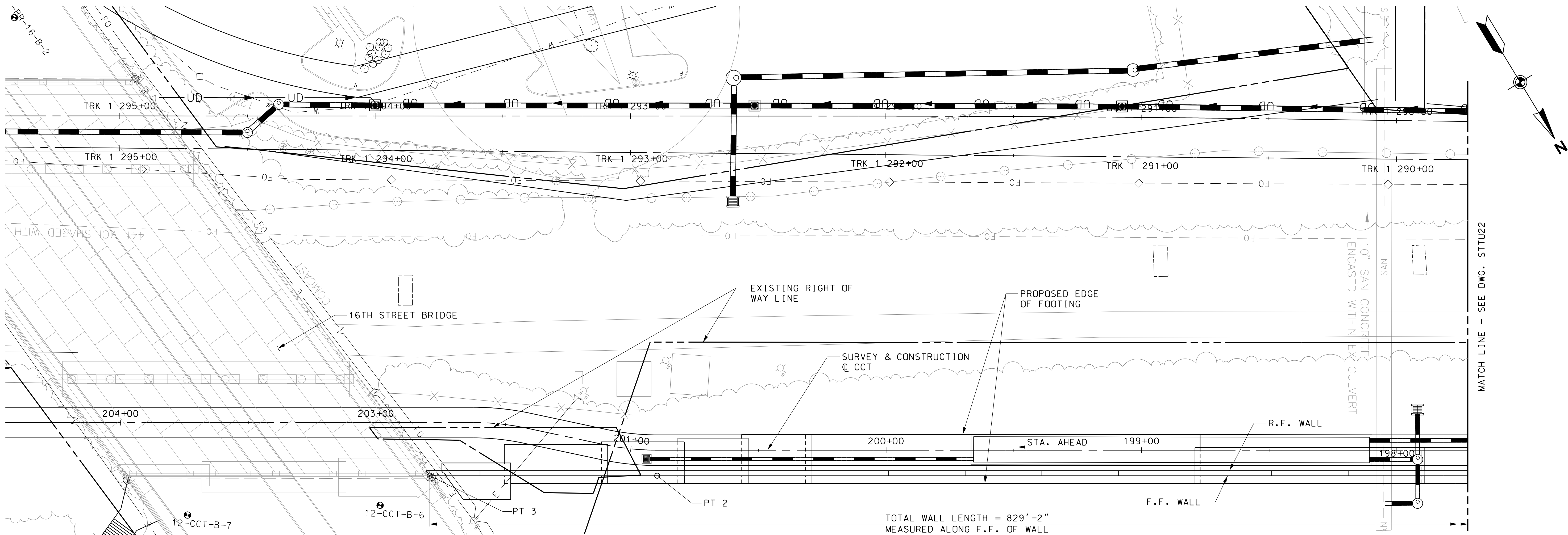
SECTION
SCALE: 1/2"=1'-0"



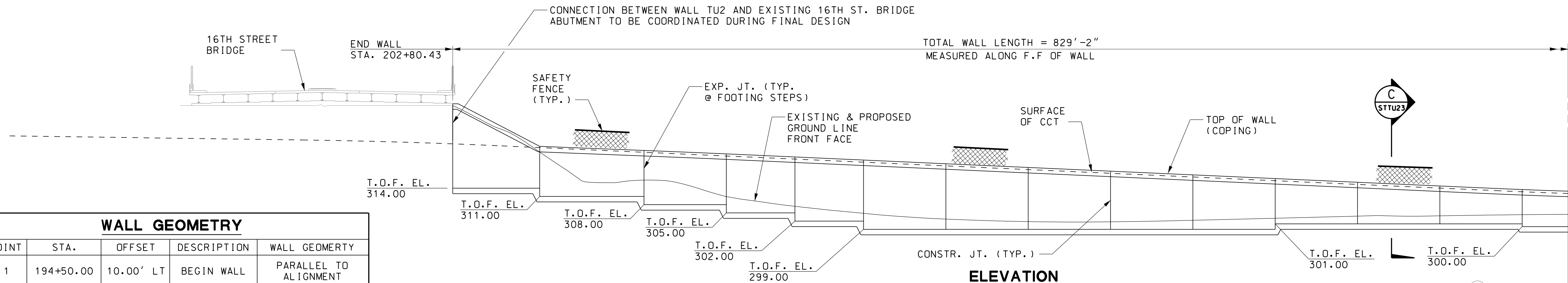
WALL GEOMETRY (LEFT SIDE)				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
1	-0+09.53	24.23' LT	BEGIN WALL	CURVE 1 R = 15.50' LT
2	-0+07.30	23.14' LT	BEGIN TANGENT	BEARING = N58°16'40.22"E
3	0+28.47	9.04' LT	BEGIN CURVE	CURVE 2 R = 48.50' LT
4	0+33.50	7.52' LT	BEGIN TANGENT	BEARING = N80°16'40.22"E
5	0+98.55	7.50' LT	BEGIN CURVE	CURVE 3 R = 82.50' LT
6	1+44.90	7.50' LT	BEGIN TANGENT	BEARING = N85°41'7.27"E
7	2+36.14	7.50' LT	END WALL	--

WALL GEOMETRY (RIGHT SIDE)				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
8	0+02.89	30.50' RT	BEGIN WALL	BEARING = N14°43'19.78"E
9	0+08.89	22.95' RT	BEGIN CURVE	CURVE 1 R = 35.00' RT
10	0+46.58	7.50' RT	BEGIN TANGENT	BEARING = N50°16'40.22"E
11	0+98.55	7.50' RT	BEGIN CURVE	CURVE 2 R = 67.50' RT
12	1+44.90	7.50' RT	BEGIN TANGENT	BEARING = N85°41'7.27"E
13	2+36.14	7.50' RT	END WALL	--

- NOTES:
- ELEVATIONS & OFFSETS ARE MEASURED TO THE FACE OF THE WALL.
 - NEGATIVE STATIONS, I.E. -0+05.00, ARE BACK STATION FROM STA. 0+00.00.



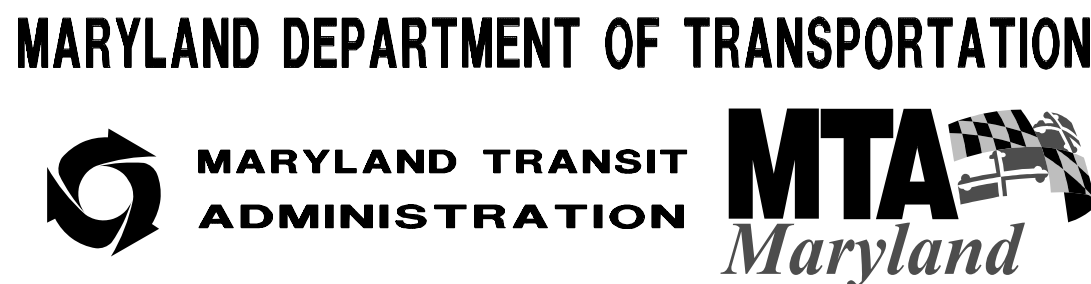
PLAN
SCALE: 1" = 20'



ELEVATION
SCALE: 1" = 20'

WALL GEOMETRY				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
1	194+50.00	10.00' LT	BEGIN WALL	PARALLEL TO ALIGNMENT
2	200+89.64	10.00' LT	END PARALLEL CONSTRUCTION	TANGENT BEARING: S58°40'11.09"E
3	202+80.45	20.82' LT	END WALL	--

NOTE: STATIONS & OFFSETS ARE MEASURED TO THE FRONT FACE OF THE WALL.



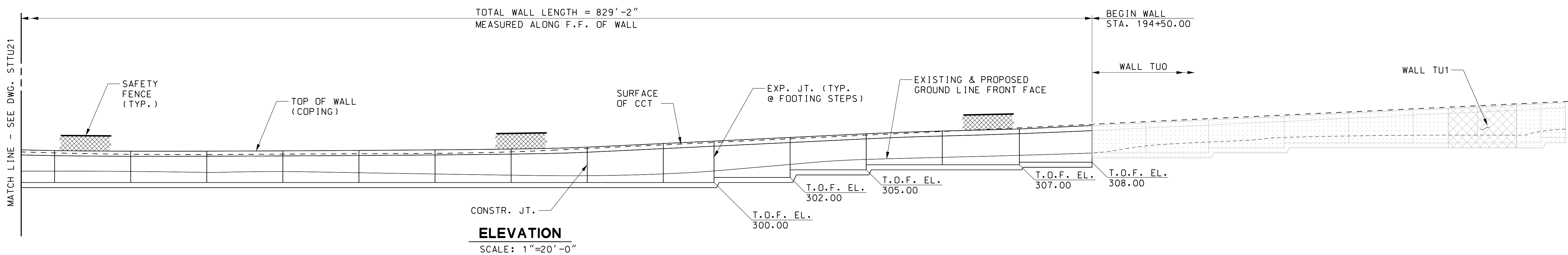
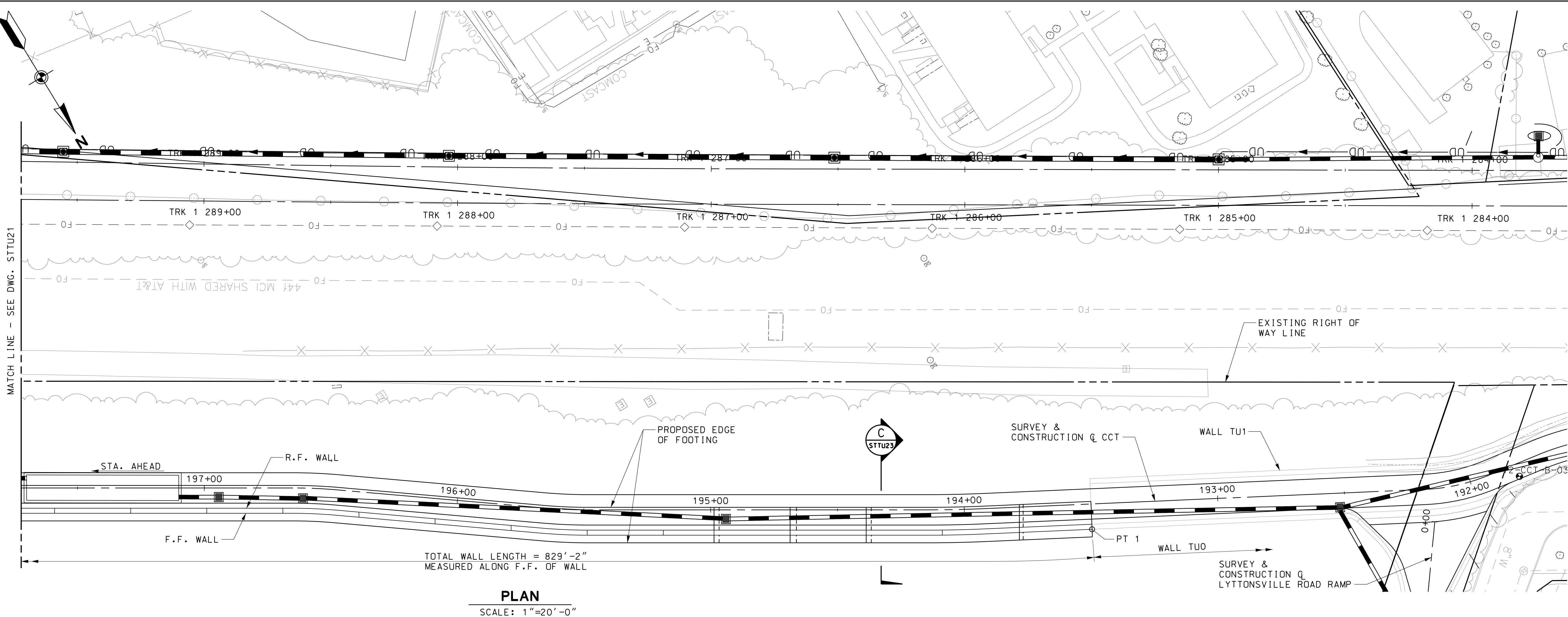
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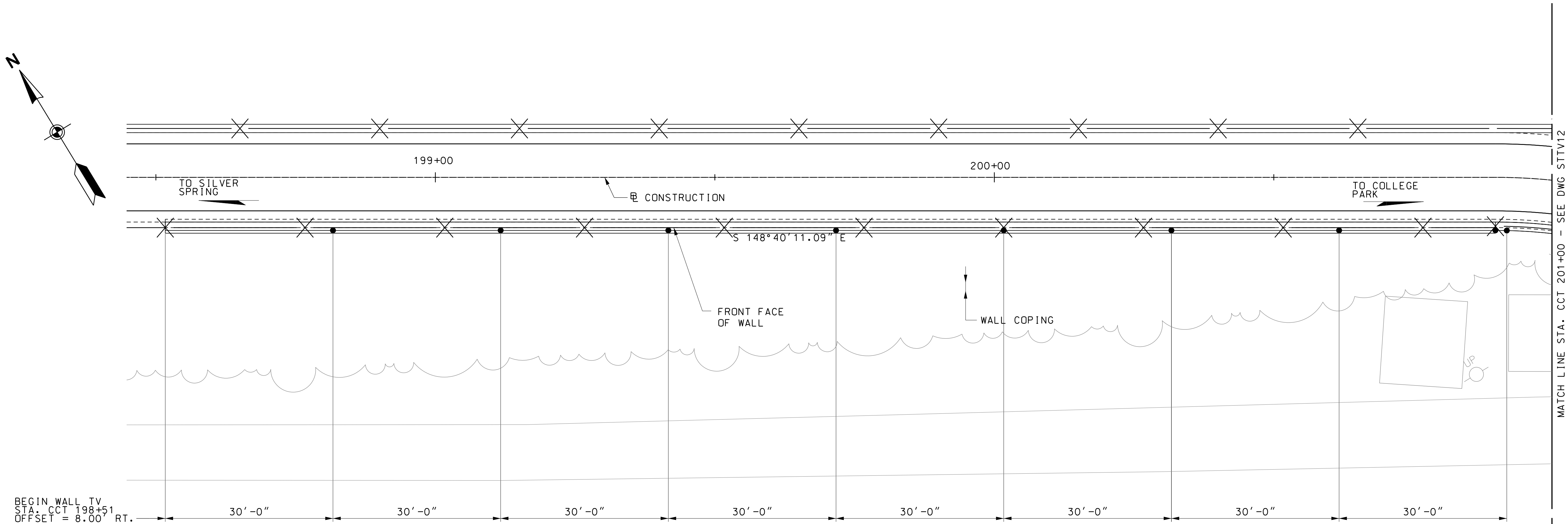
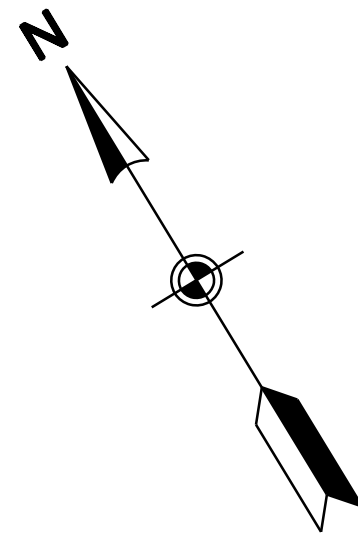
APPR	CHECK	DRAWN	DESIGN
			ESN
			CJP
			ESN

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
RETAINING WALL – TU2 GENERAL PLAN AND ELEVATION – 1	
DATE: DECEMBER 2013	SCALE: AS SHOWN

CONTRACT NO. T-1042-0220
DRAWING NO. STTU21
SHEET NO. 440 OF 828

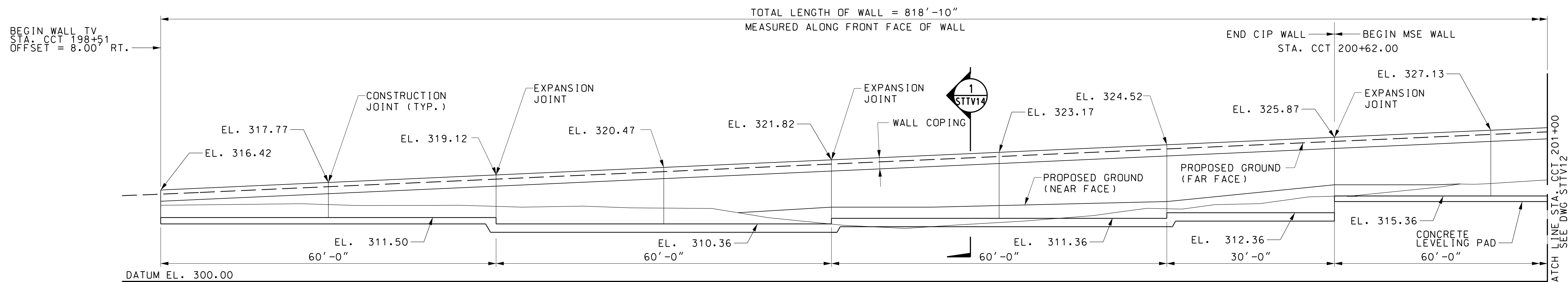






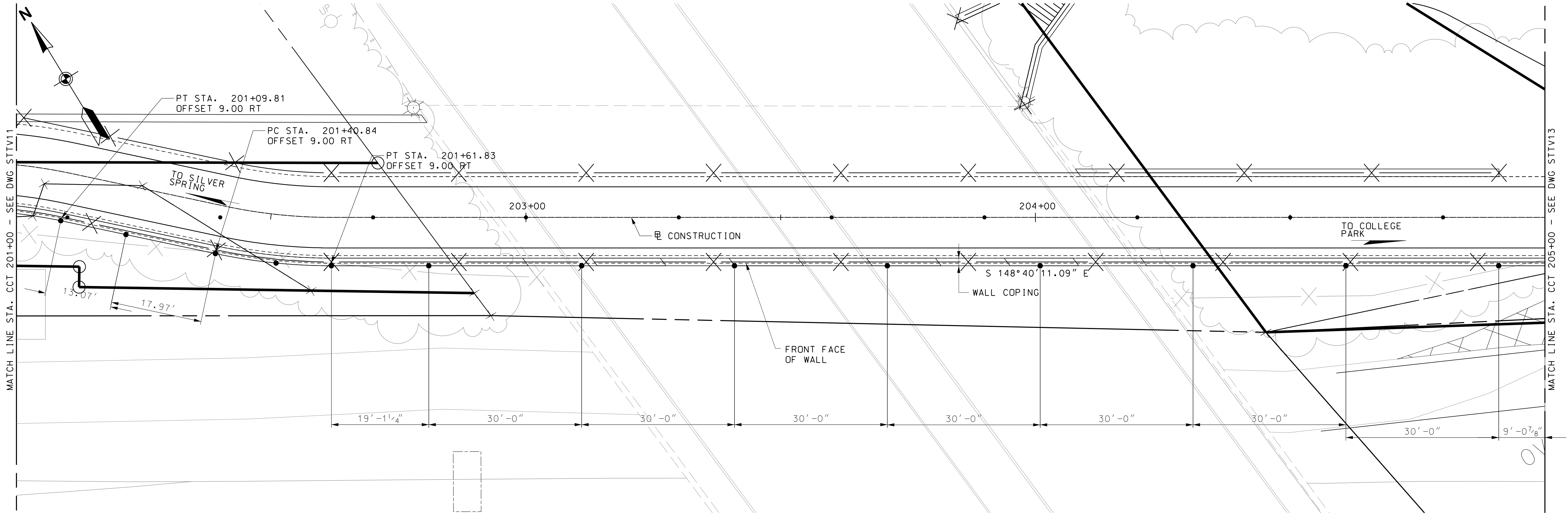
PLAN

SCALE: 1"=10'-0"



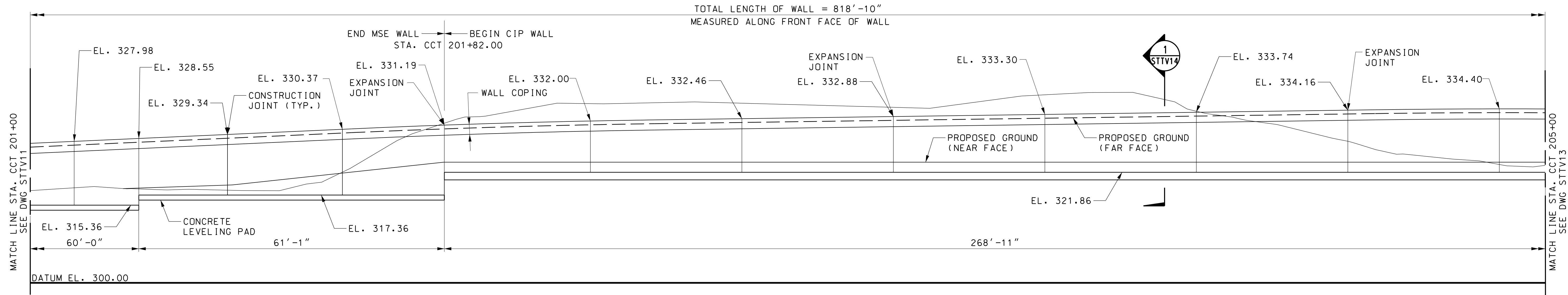
ELEVATION

SCALE: 1"=10'-0"



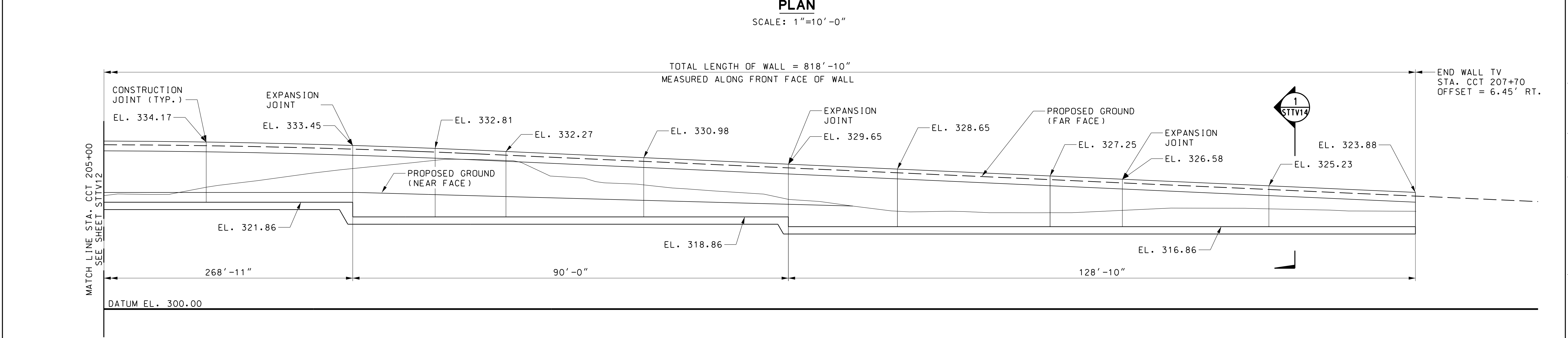
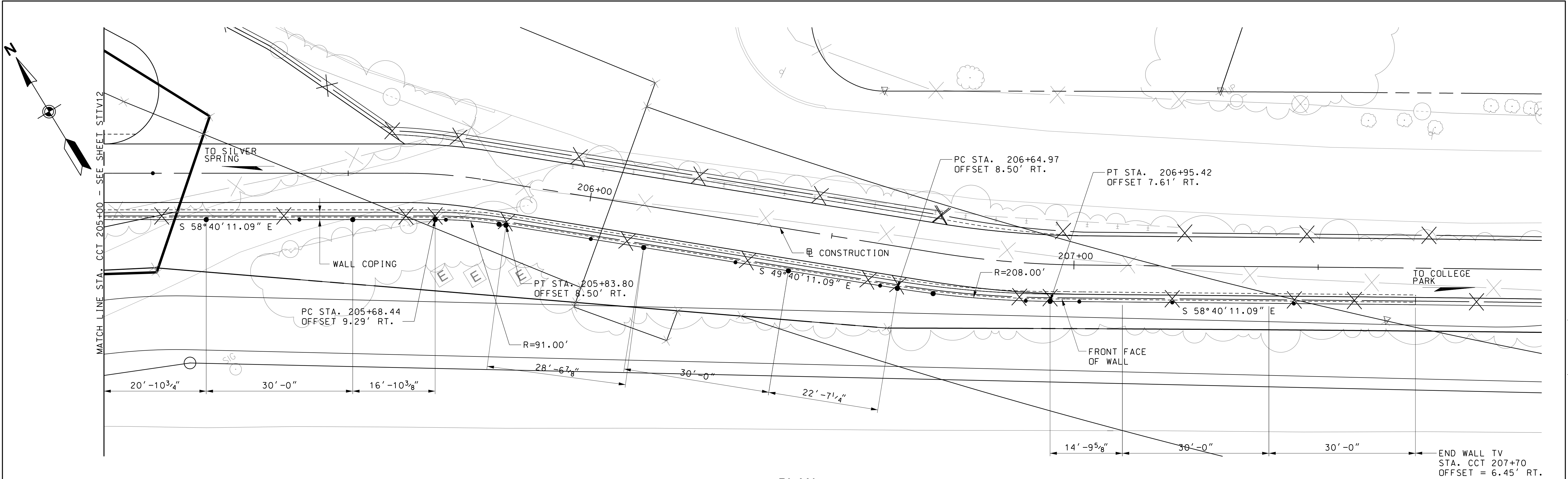
PLAN

SCALE: 1"=10'-0"




ELEVATION


SCALE: 1"=10'-0"



MARYLAND DEPARTMENT OF TRANSPORTATION



MARYLAND TRANSIT ADMINISTRATION





PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN
		JKJ	JTF
		JKJ	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL - TV
GENERAL PLAN AND ELEVATION - 3

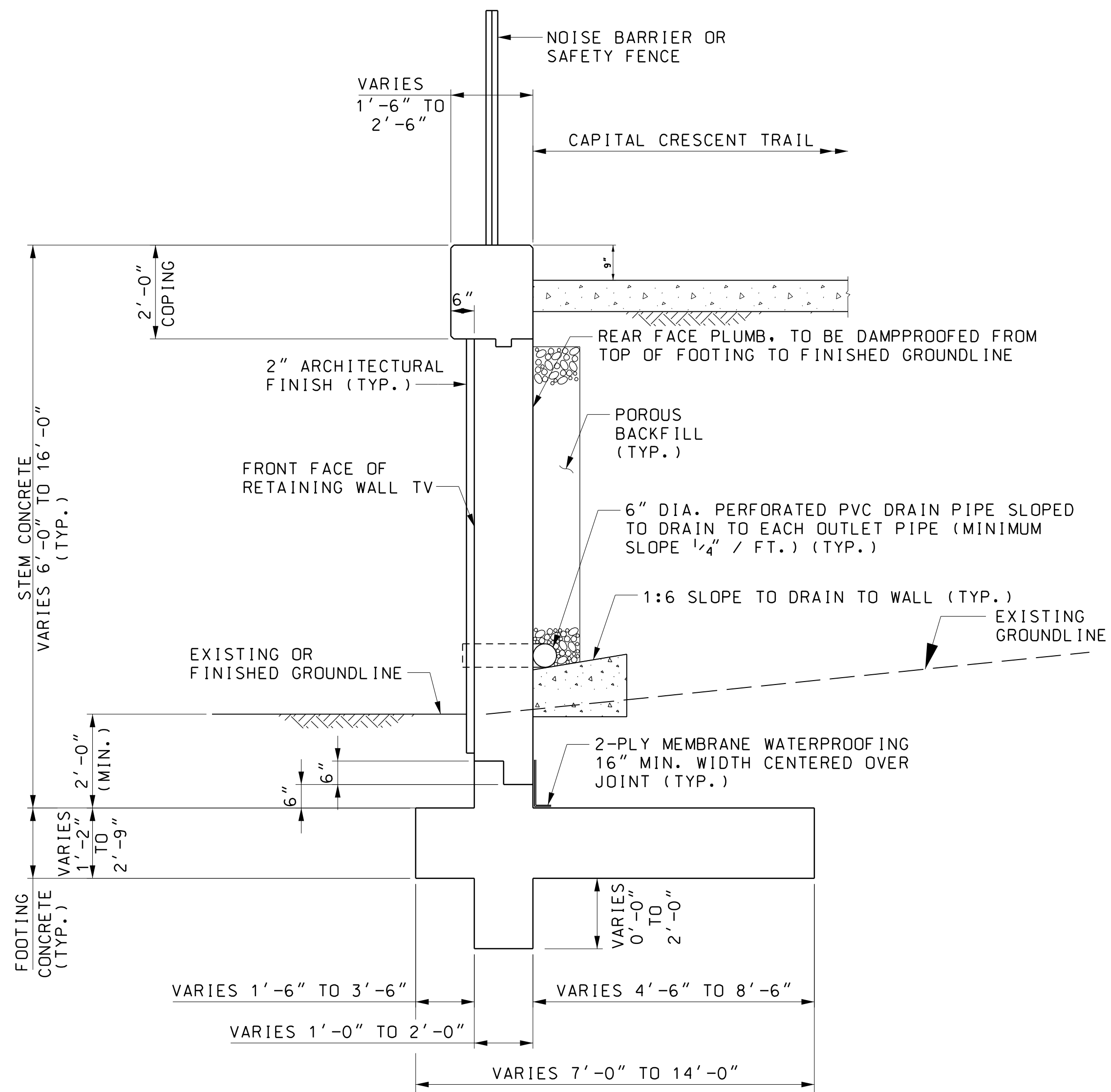
DATE: DECEMBER 2013 SCALE: 1" =10'-0"

CONTRACT NO.
T-1042-0220

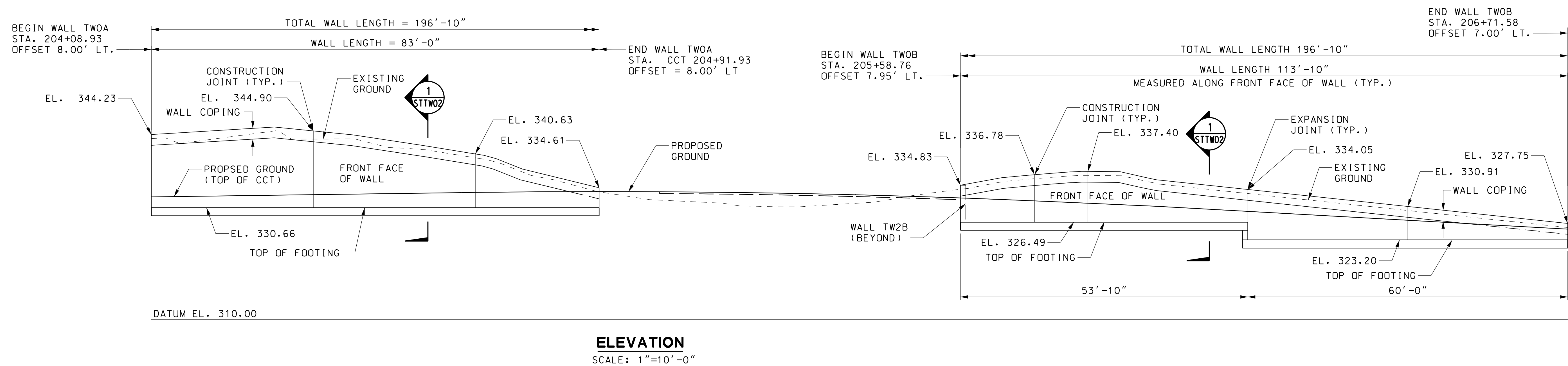
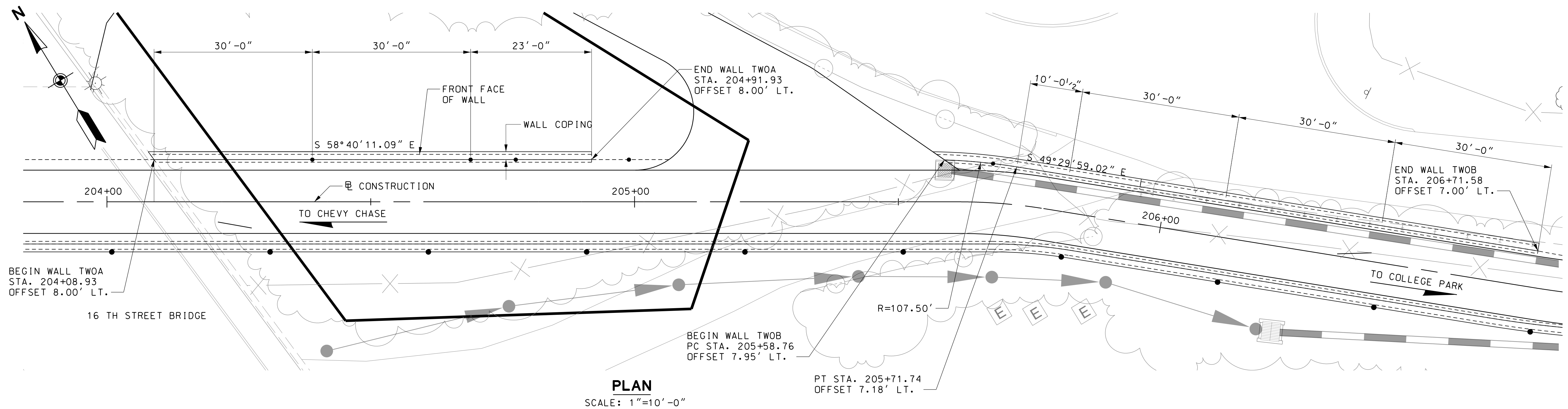
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STTV13

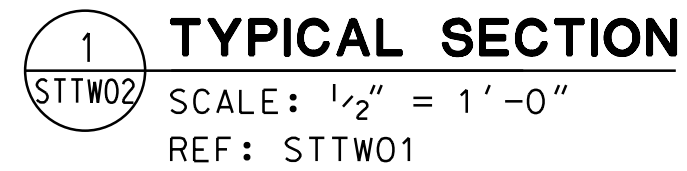
SHEET NO.
445 OF 828

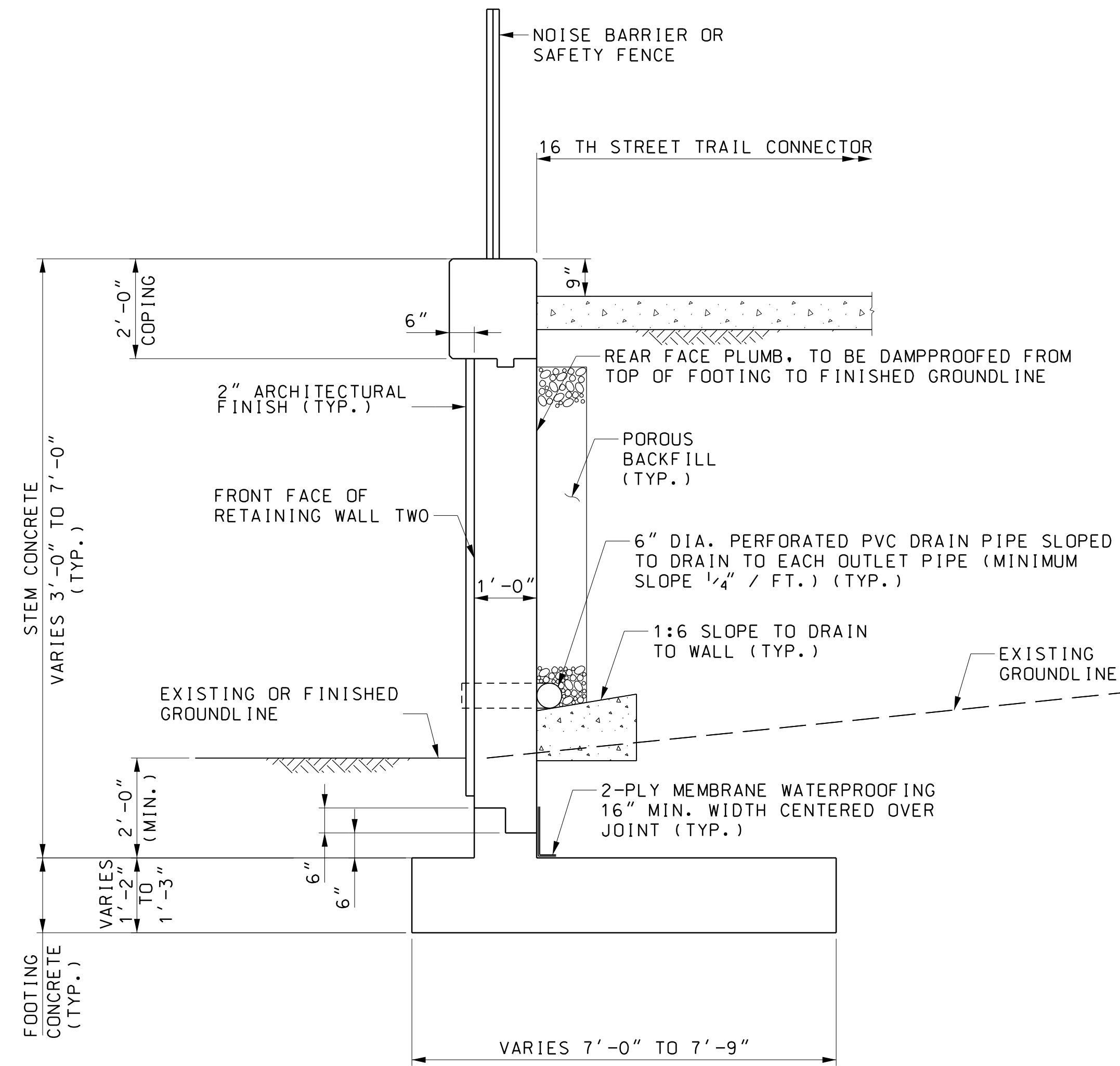
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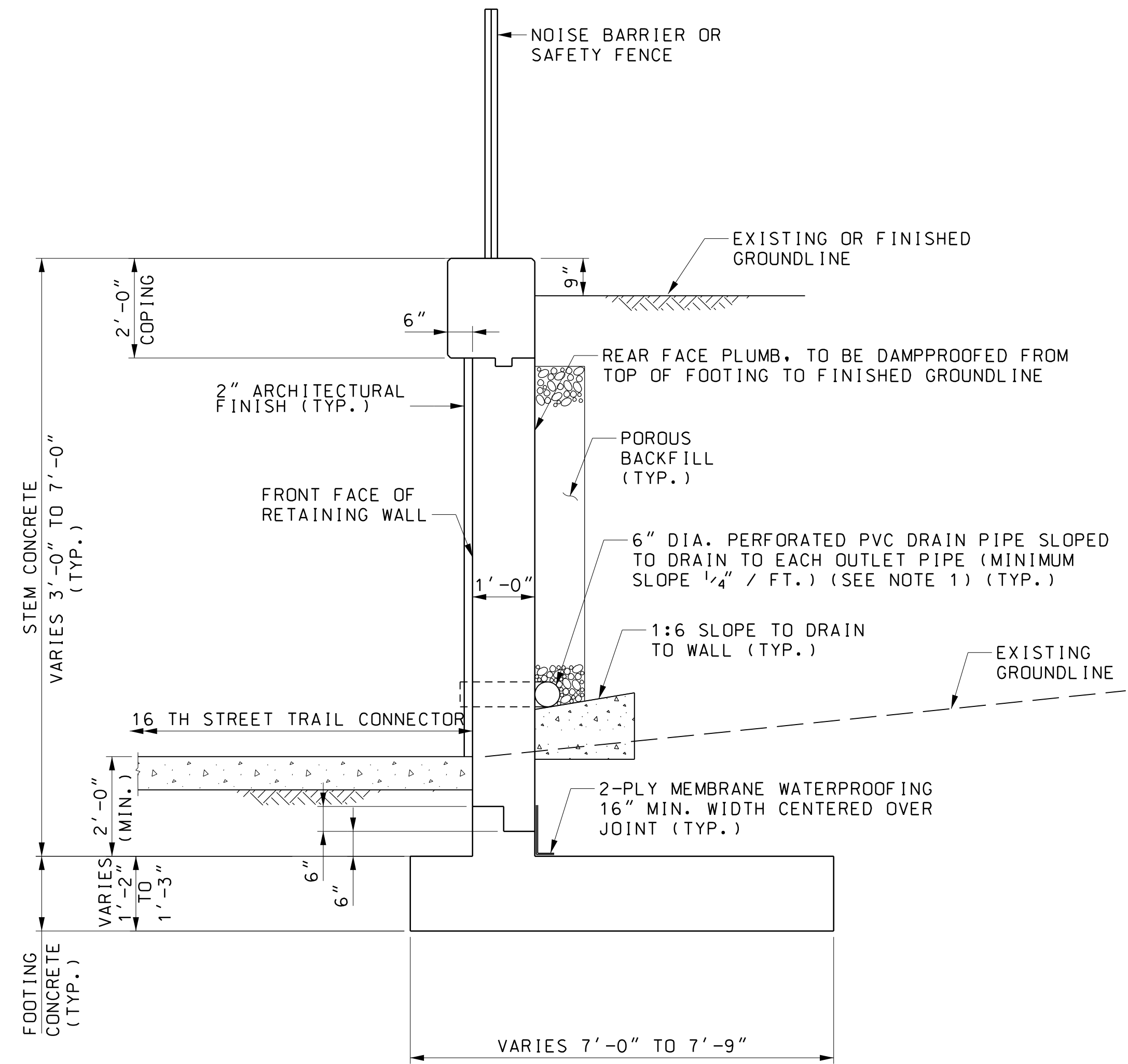
1
STTV14 **TYPICAL SECTION**
 SCALE: 1/2" = 1'-0"
 REF: STTV11, STTV12, STTV13



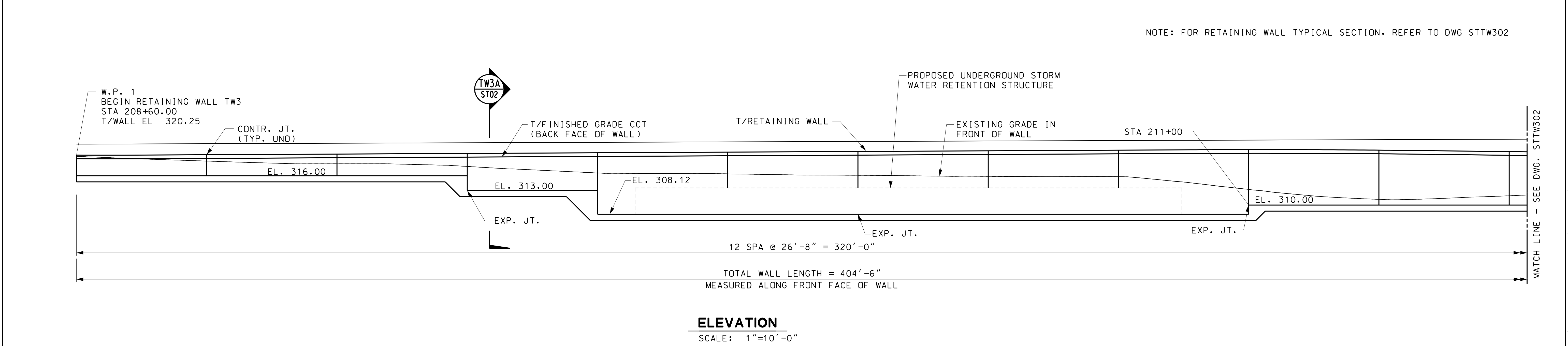
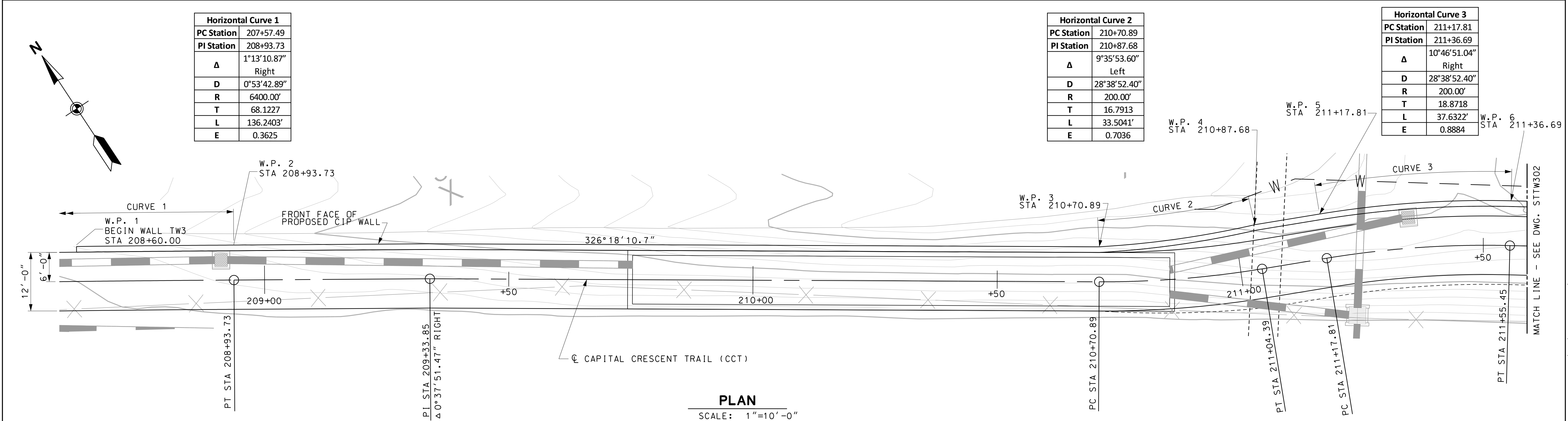




1 TYPICAL SECTION
 SCALE: 1/2" = 1'-0"
 REF: STTW21



2 TYPICAL SECTION
 SCALE: 1/2" = 1'-0"
 REF: STTW21



MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

MTA

Maryland

Gannett Fleming

WR&A

PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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APPR

CHECK

DRAWN

DESIGN

GMJ

CAM

VD

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL TW3
GENERAL PLAN AND ELEVATION

DATE: DECEMBER 2013 SCALE: AS SHOWN

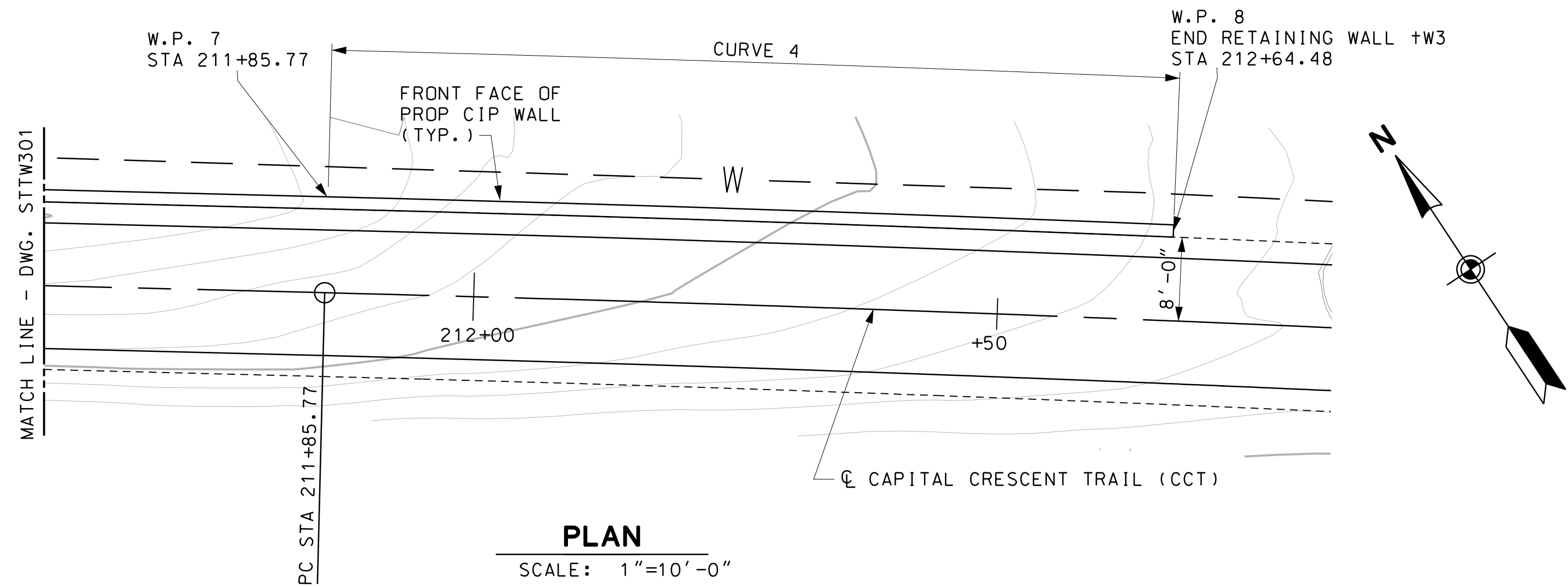
CONTRACT NO.
T-1042-0220

DRAWING NO.
STTW301

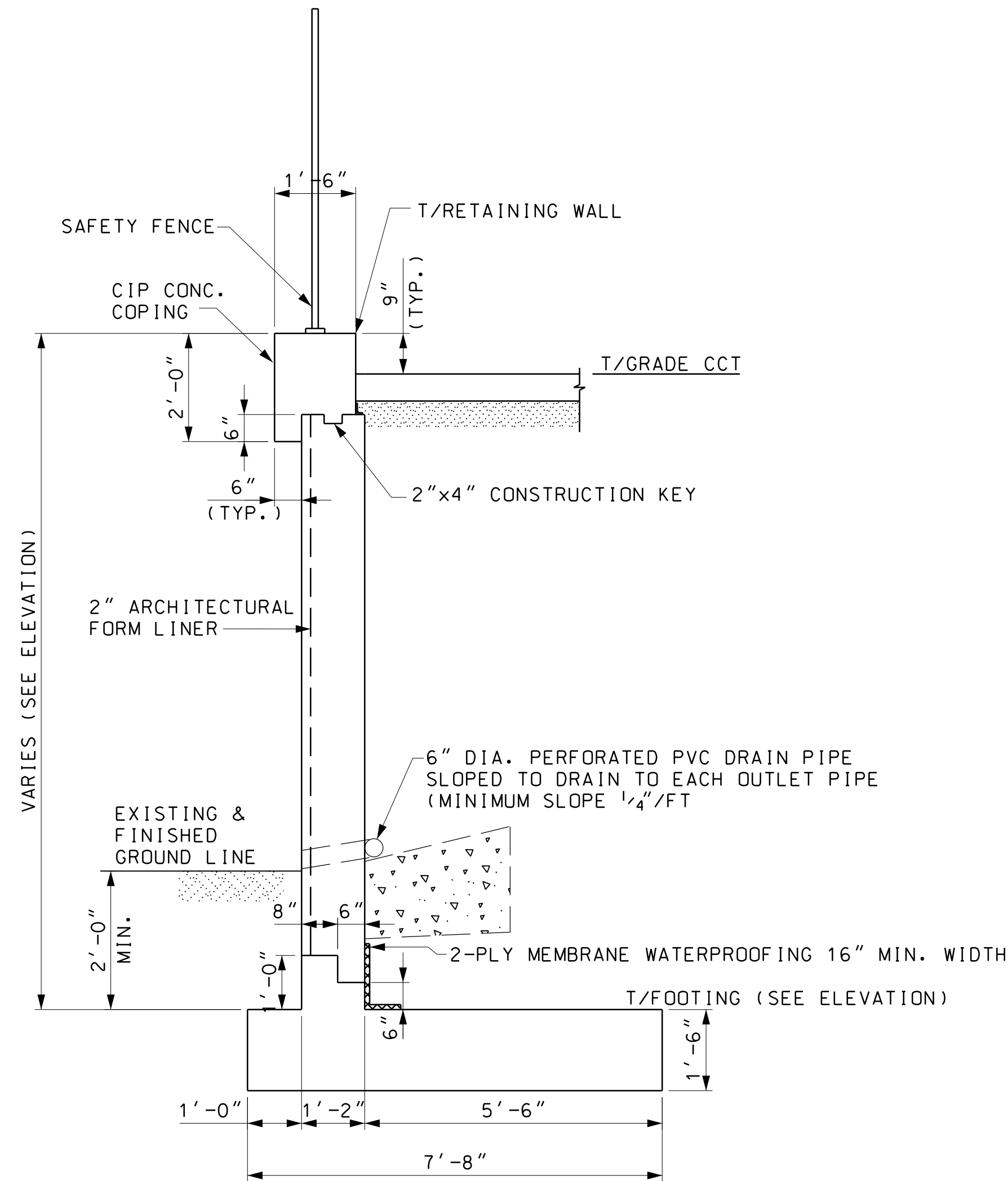
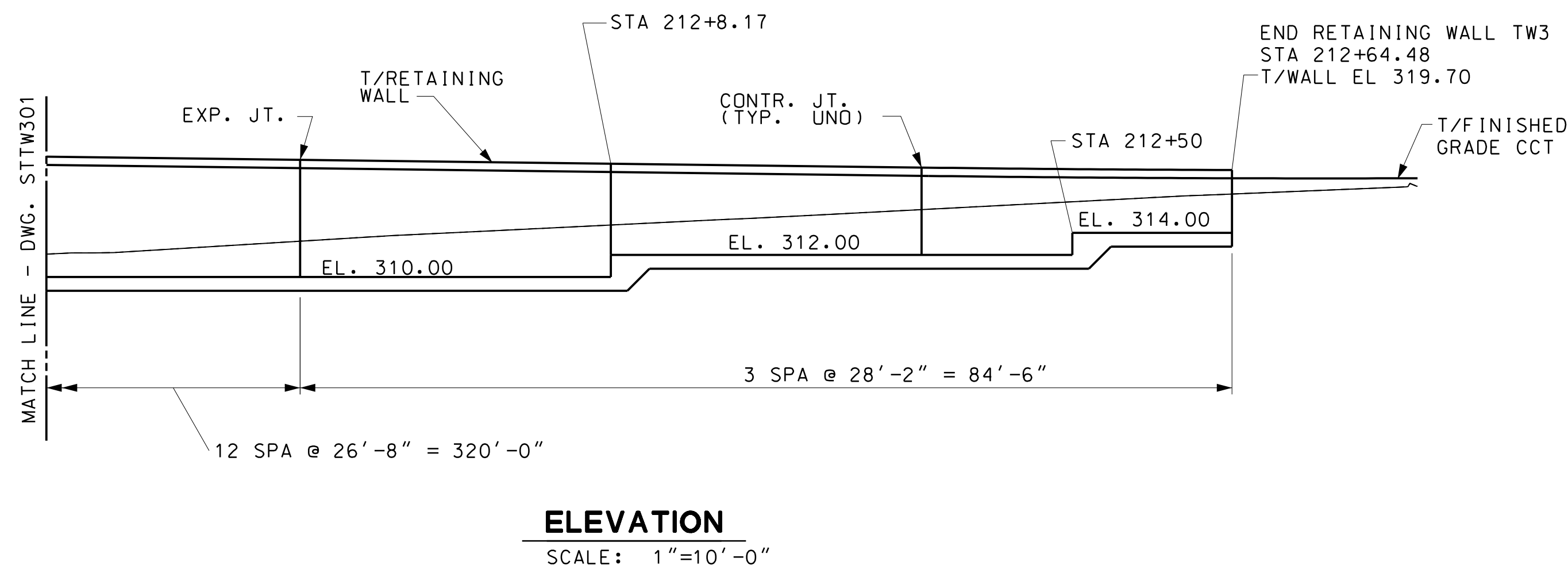
SHEET NO.
452 OF 828

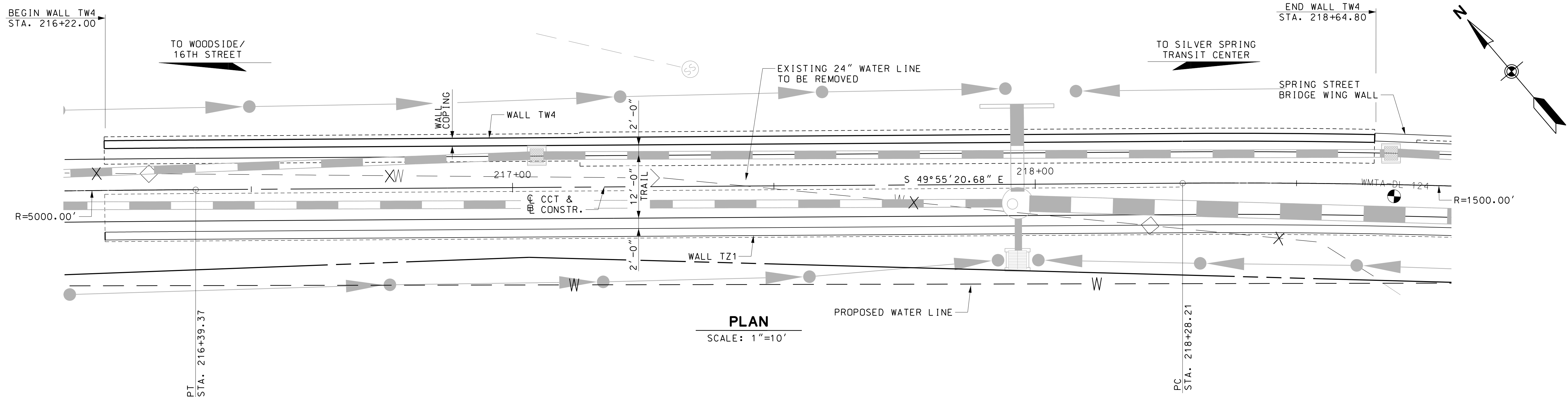
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\W-Ret Walls N Side CCT 16th St-Spring St\G\Sheet Files\1042pSttw30.dgn

12/3/2013



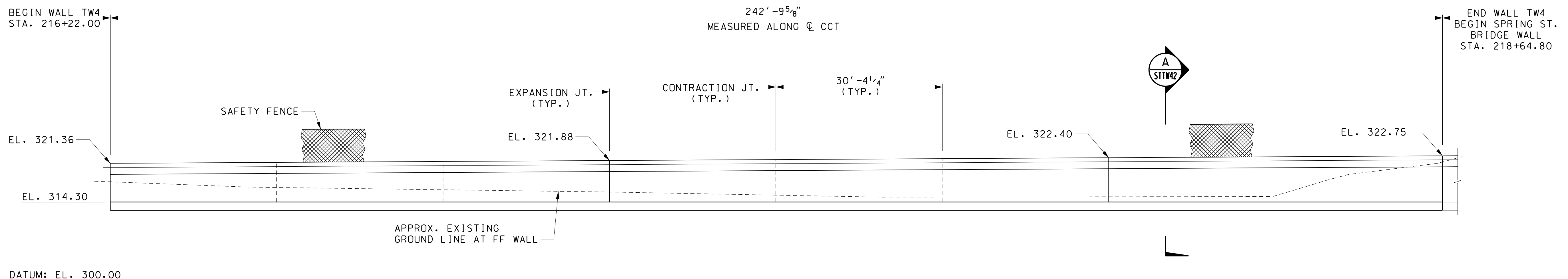
Horizontal Curve 4	
PC Station	211+85.77
PI Station	214+12.73
Δ	5°11'52.58"
D	1°08'45.30"
R	5000.00'
T	226.9586
L	453.6058'
E	5.1484

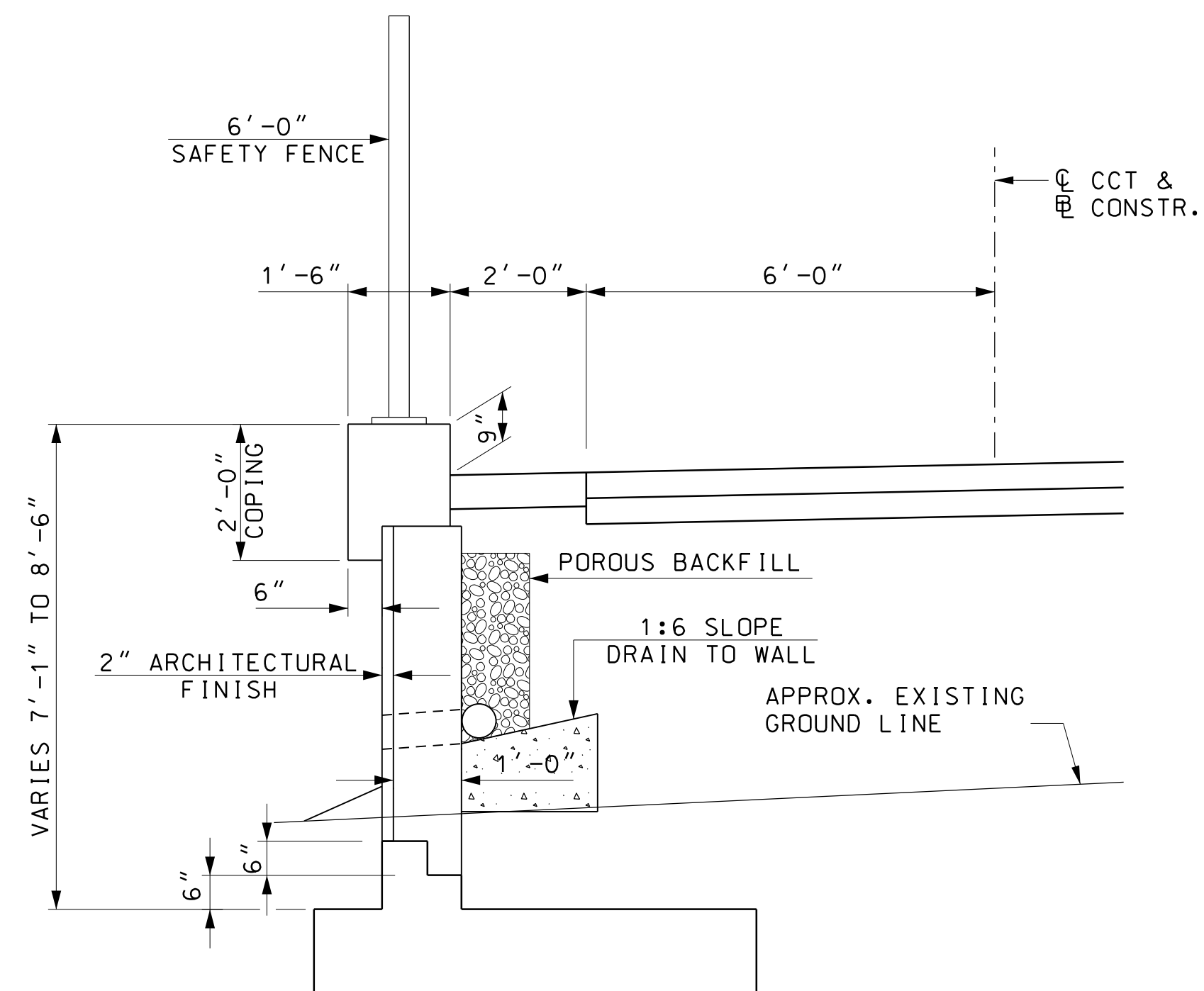




NOTES:

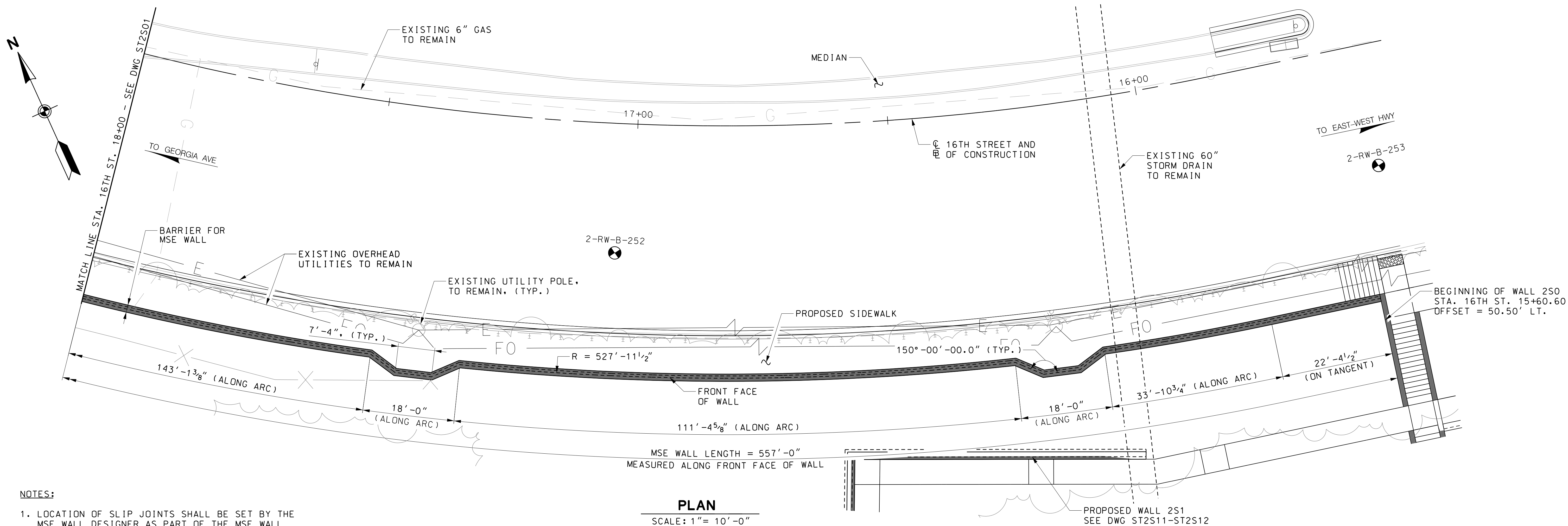
1. FOR RETAINING WALL SECTION, SEE DWG STTW42.
2. ARCHITECTURAL FINISH TO BE DETERMINED.
3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.





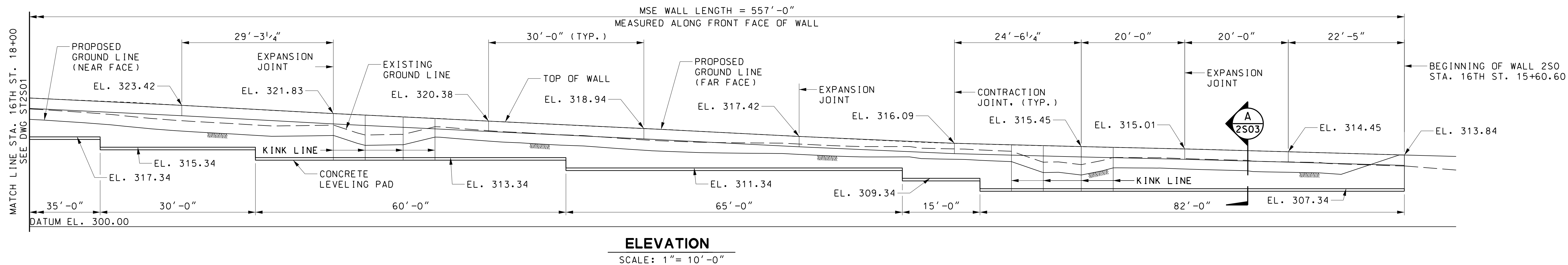
- NOTES:
1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
 2. REAR FACE OF WALL PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUND LINE.

A SECTION
SCALE: 1/2" = 1'-0"
REF: STTW41



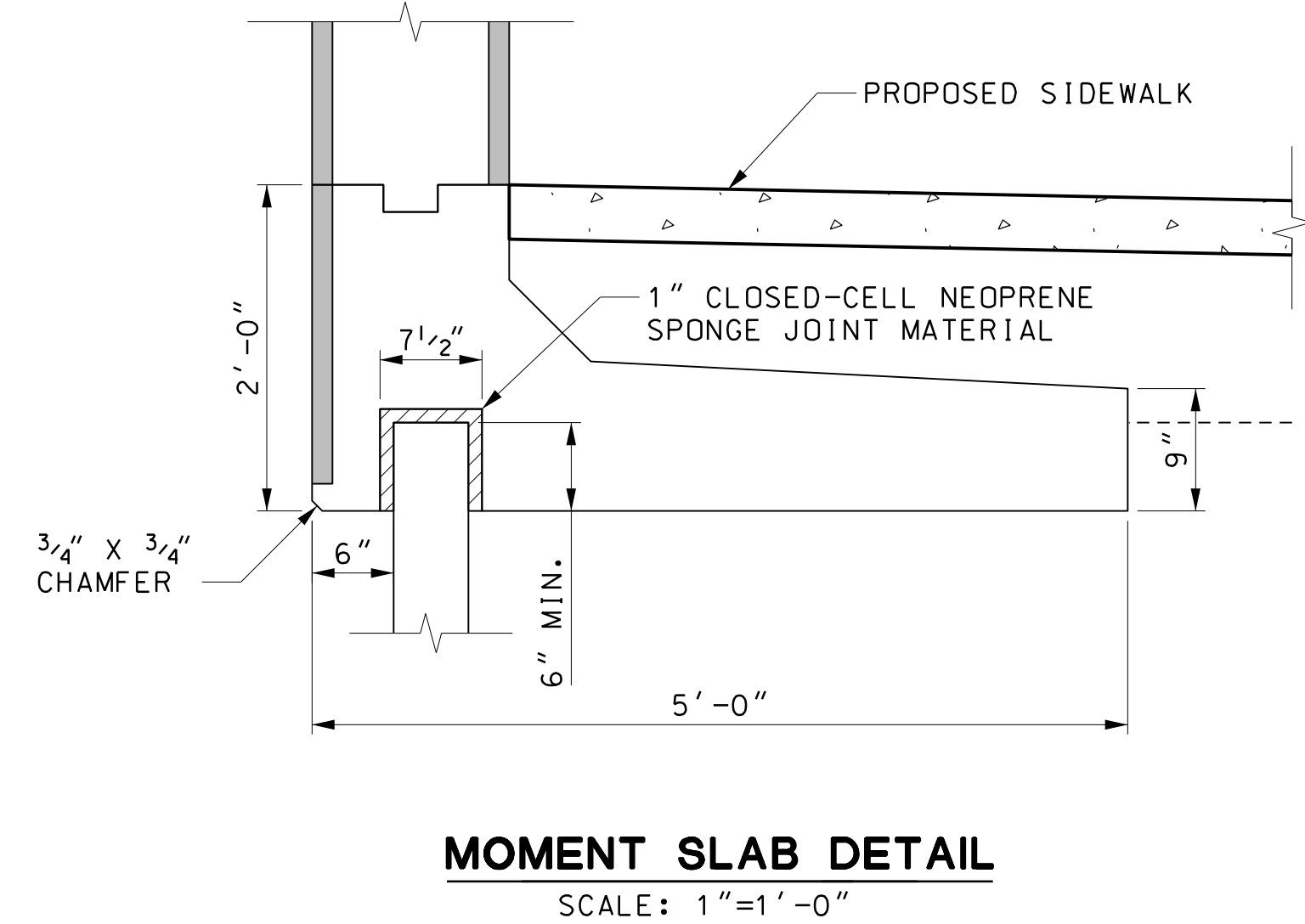
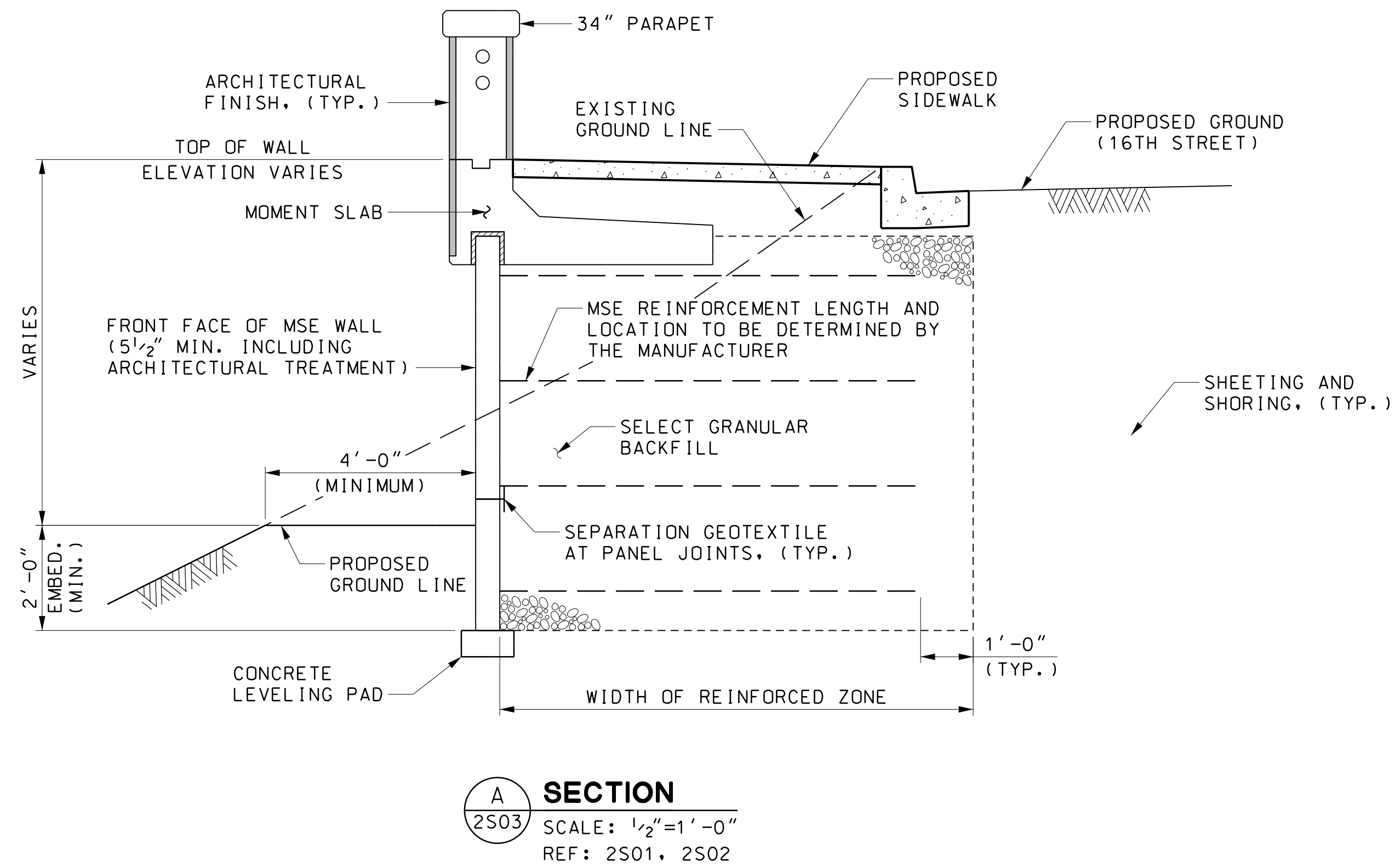
- NOTES:
1. LOCATION OF SLIP JOINTS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN.
 2. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 3. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

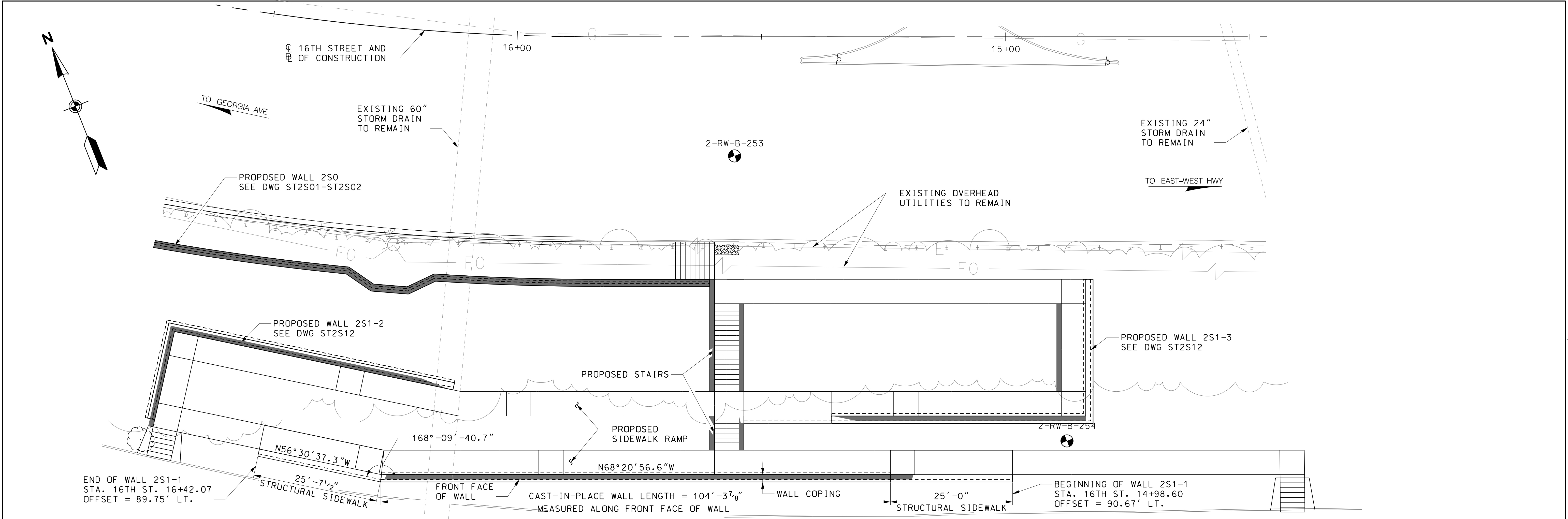
PLAN
SCALE: 1"= 10'-0"



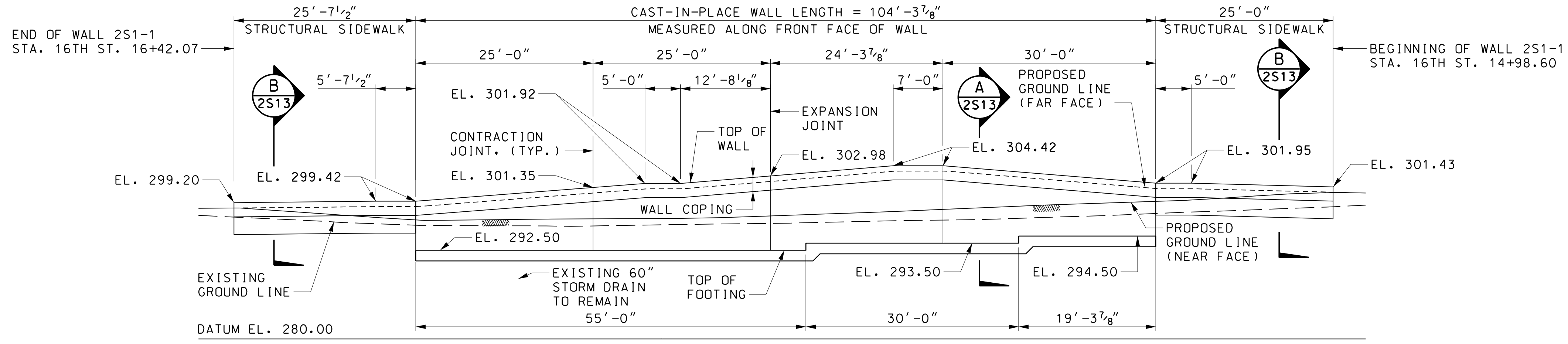
ELEVATION
SCALE: 1"= 10'-0"

- NOTES:
1. MSE WALL MANUFACTURER DESIGN CALCULATIONS FOR MSE WALLS SHALL INCLUDE CALCULATIONS FOR INTERNAL STABILITY AND COMPOUND STABILITY AS INDICATED IN THE PURPLE LINE DESIGN CRITERIA.
 2. NO. 57 STONE OR APPROVED SUBSTITUTE MUST BE USED WITHIN THE REINFORCED ZONE.
 3. STEPPING AND ELEVATIONS OF LEVELING PADS SHALL BE SET BY THE MSE WALL DESIGNER AS PART OF THE MSE WALL DESIGN. THE LOCATION AND STEPPING OF THE LEVELING PADS SHOWN IN THESE PLANS ARE SCHEMATIC ONLY.
 4. MATCH ARCHITECTURAL FINISH TO EXISTING ARCHITECTURAL FINISH OF 16TH STREET BRIDGE OVER CSX TRANSPORTATION.





PLAN
SCALE: 1"= 10'-0"

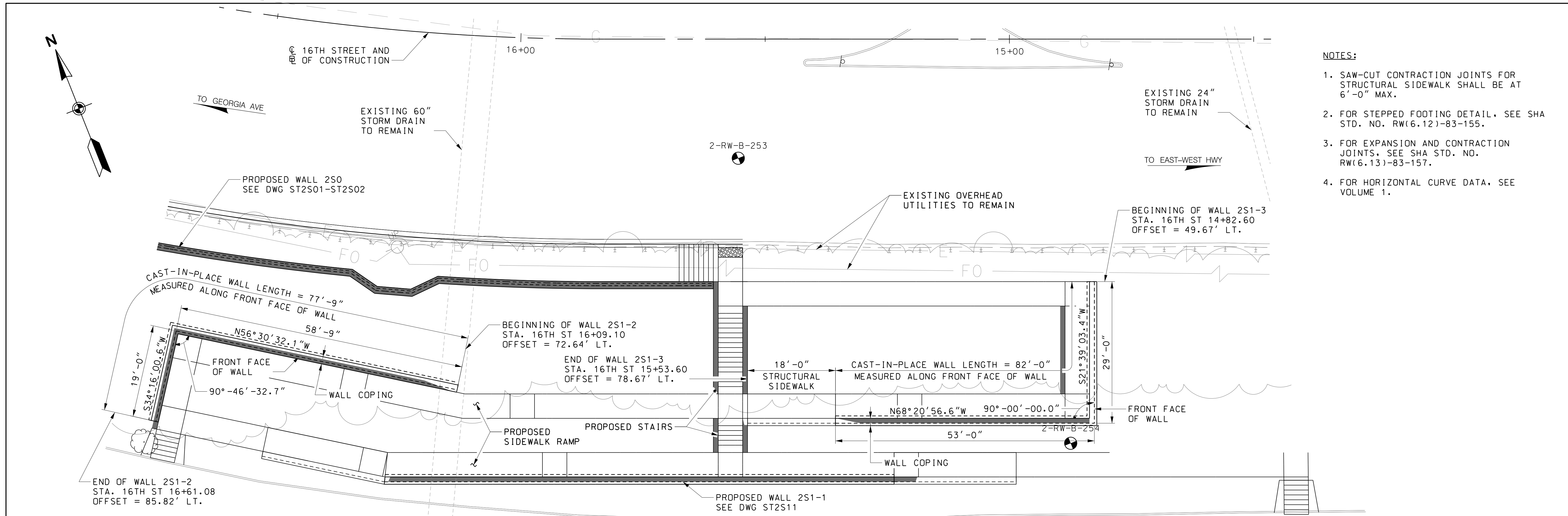


ELEVATION - WALL 2S1-1
SCALE: 1"= 10'-0"

- NOTES:**
- 1. SAW-CUT CONTRACTION JOINTS FOR STRUCTURAL SIDEWALK SHALL BE AT 6'-0" MAX.
 - 2. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 3. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 - 4. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div>MARYLAND TRANSIT ADMINISTRATION</div> <div>MTA Maryland</div>	<div>Gannett Fleming</div> <div>WR&A</div>	<div>STV</div> <div>STV Incorporated</div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	<div>APPR</div> <div>CHECK</div> <div>DRAWN</div> <div>DESIGN</div>	AFM	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div>	CONTRACT NO.
						AFM		T-1042-0220
						AR		DRAWING NO.
<div>RETAINING WALL - 2S1</div> <div>GENERAL PLAN & ELEVATION - 1</div> <div>DATE: DECEMBER 2013</div> <div>SCALE: 1"=10'-0"</div>							SHEET NO.	
							459 OF 828	

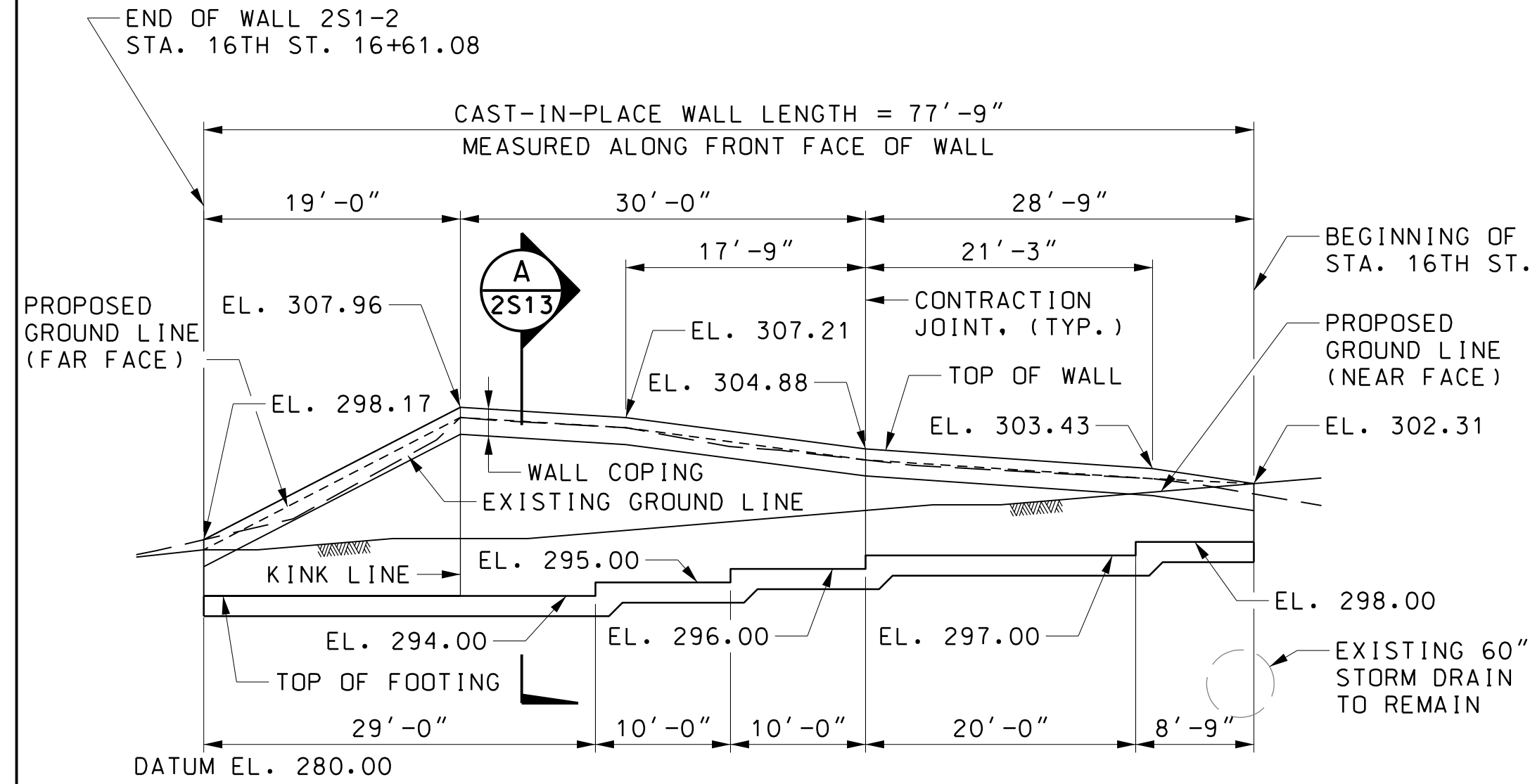
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 02\Structures\S-Ret Walls\16th St and Apt Ramp Connection\Sheet Files\1042pST2S11.dgn 12/6/2013



- NOTES:**
1. SAW-CUT CONTRACTION JOINTS FOR STRUCTURAL SIDEWALK SHALL BE AT 6'-0" MAX.
 2. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 3. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.
 4. FOR HORIZONTAL CURVE DATA, SEE VOLUME 1.

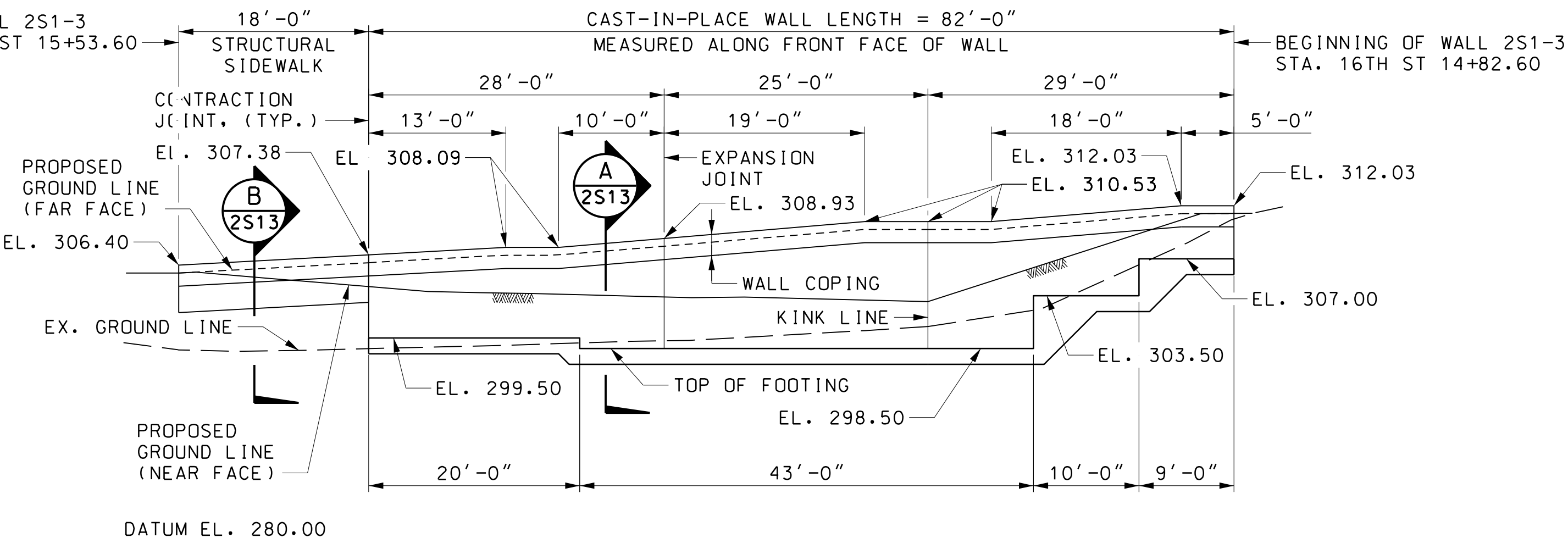
PLAN

SCALE: 1" = 10'-0"



ELEVATION - WALL 2S1-2

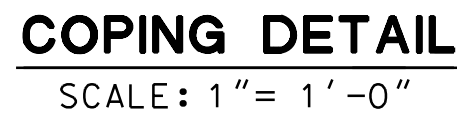
SCALE: 1" = 10'-0"

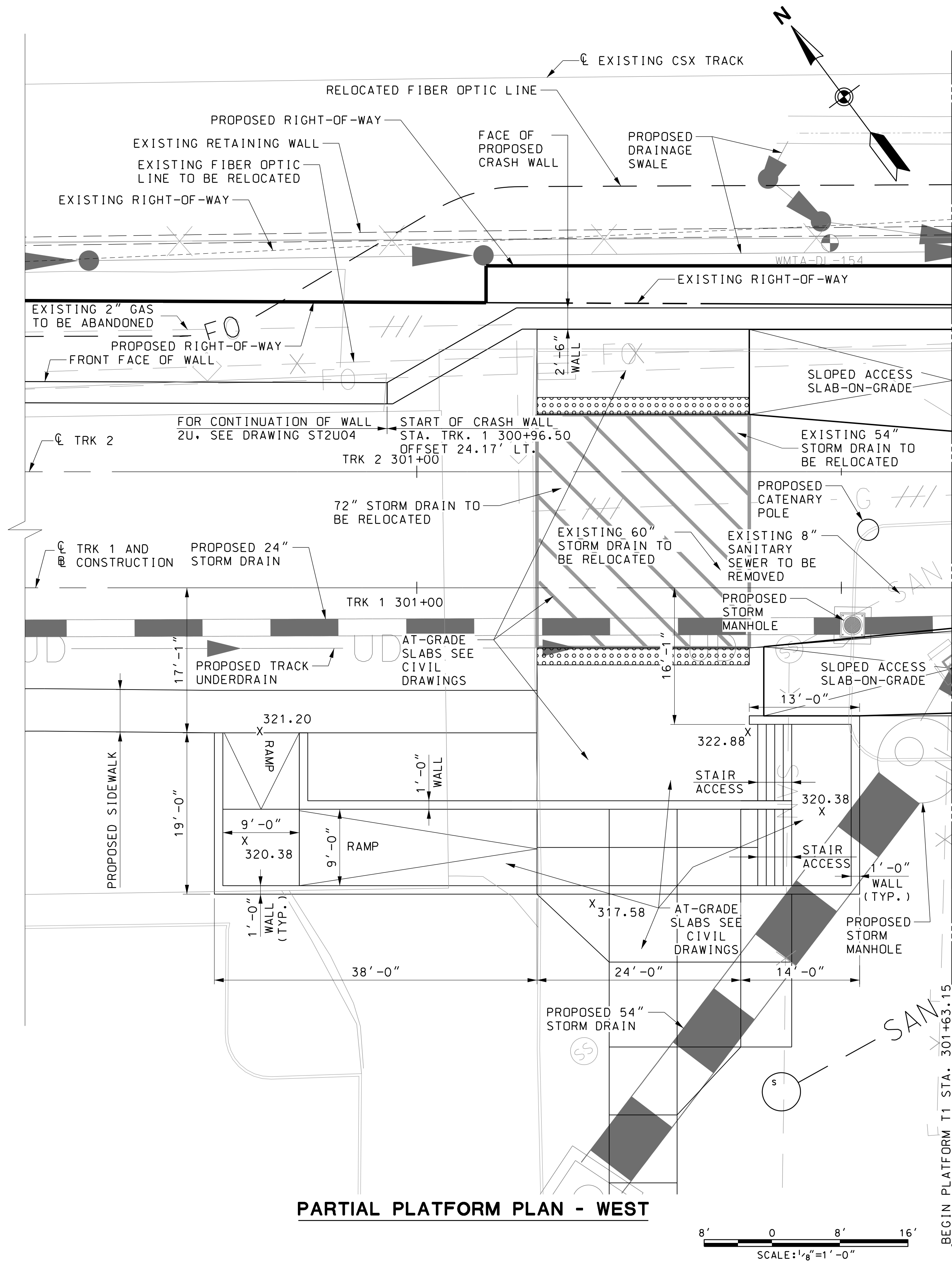


ELEVATION - WALL 2S1-3

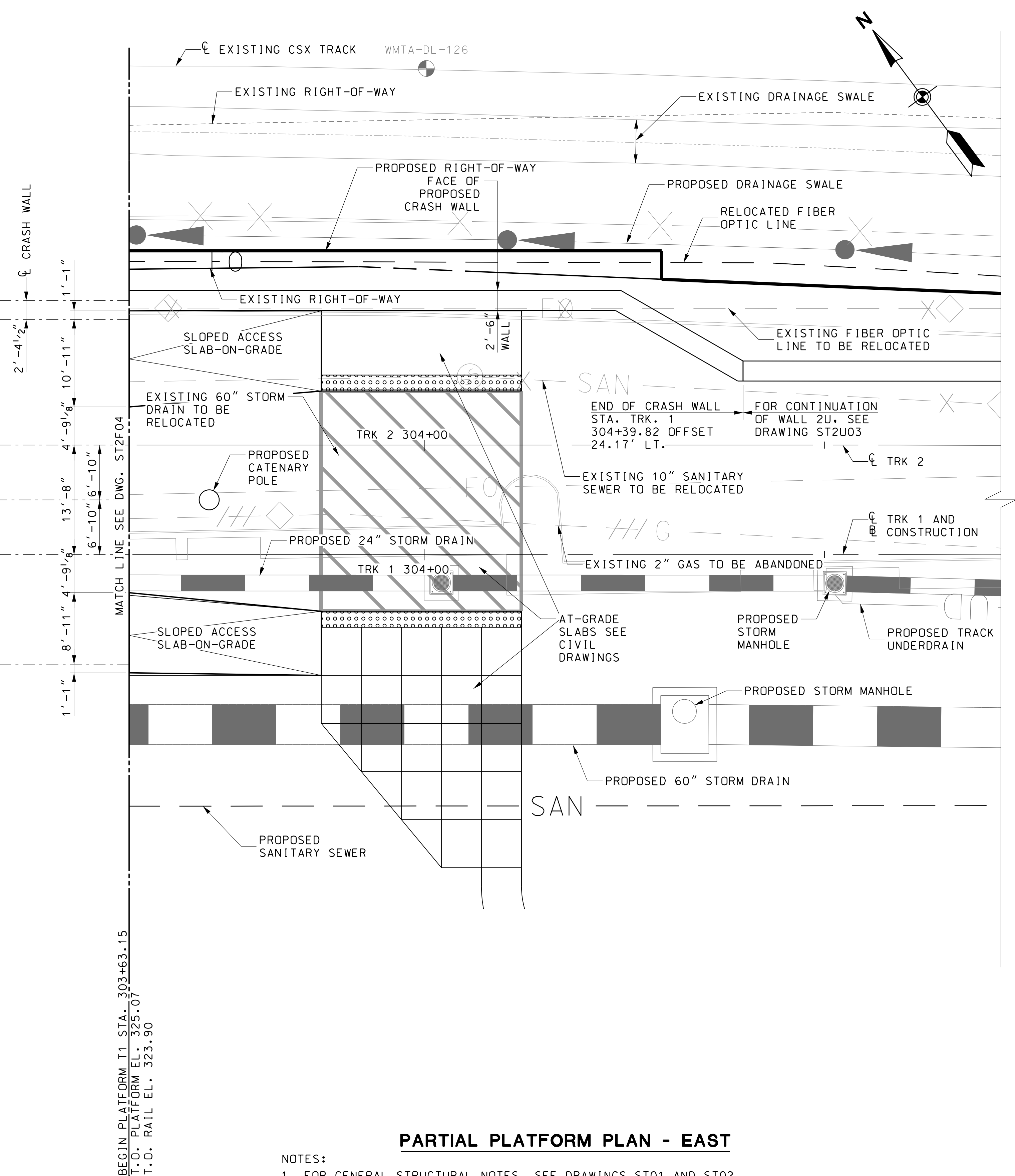
SCALE: 1" = 10'-0"

1. ARCHITECTURAL FINISH DETAILS TO BE DETERMINED.
2. FOR DRAINAGE DETAILS, SEE SHA STD. NO. RW(0.01)-80-100.



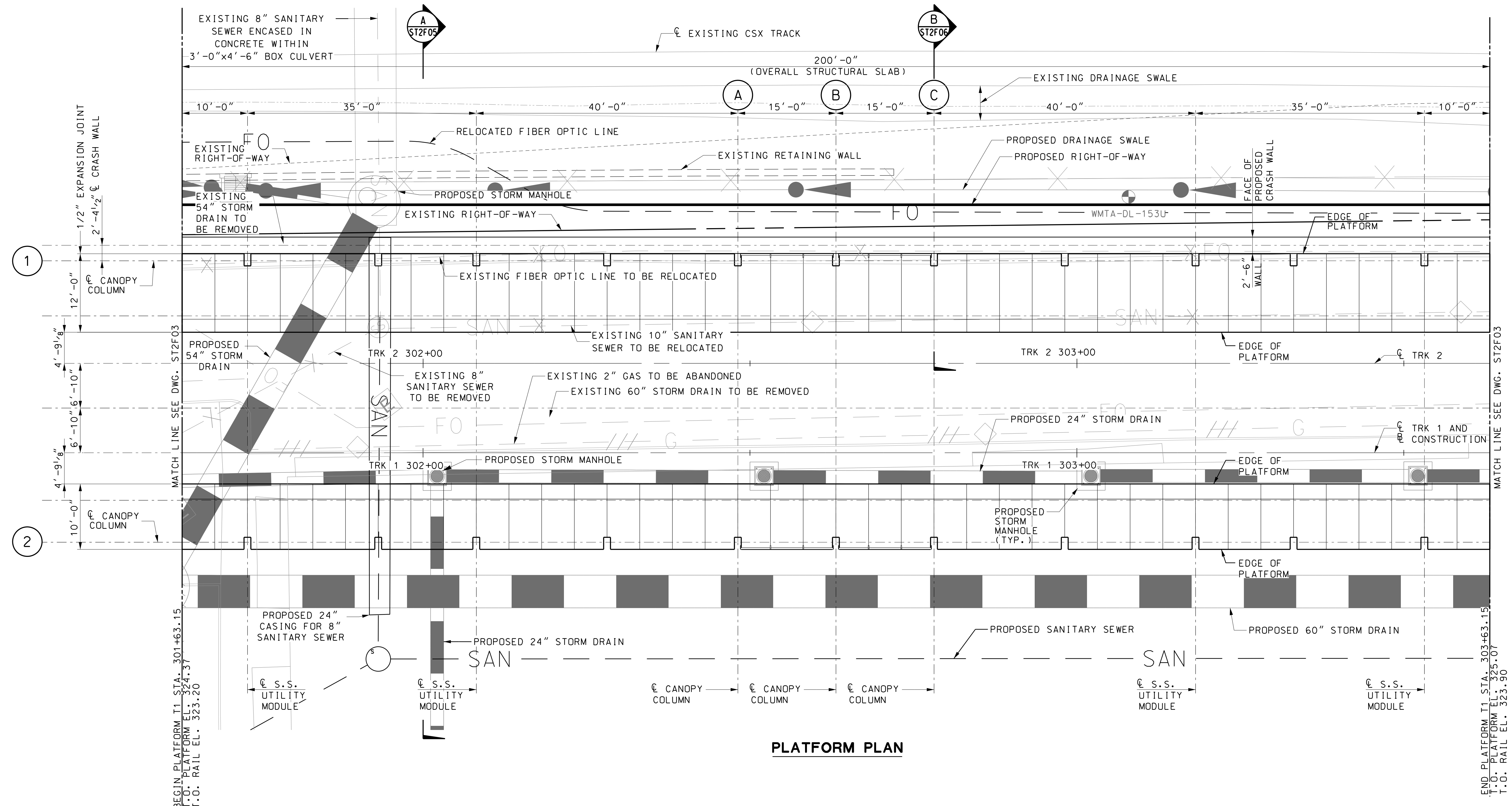


MATCH LINE SEE DWG. ST2F04
 BEGIN PLATFORM T1 STA. 301+63.15
 T.O. PLATFORM EL. 324.37
 T.O. RAIL EL. 323.20



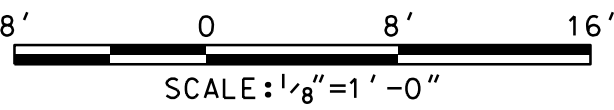
MATCH LINE SEE DWG. ST2F04
 BEGIN PLATFORM T1 STA. 303+63.15
 T.O. PLATFORM EL. 325.07
 T.O. RAIL EL. 323.90

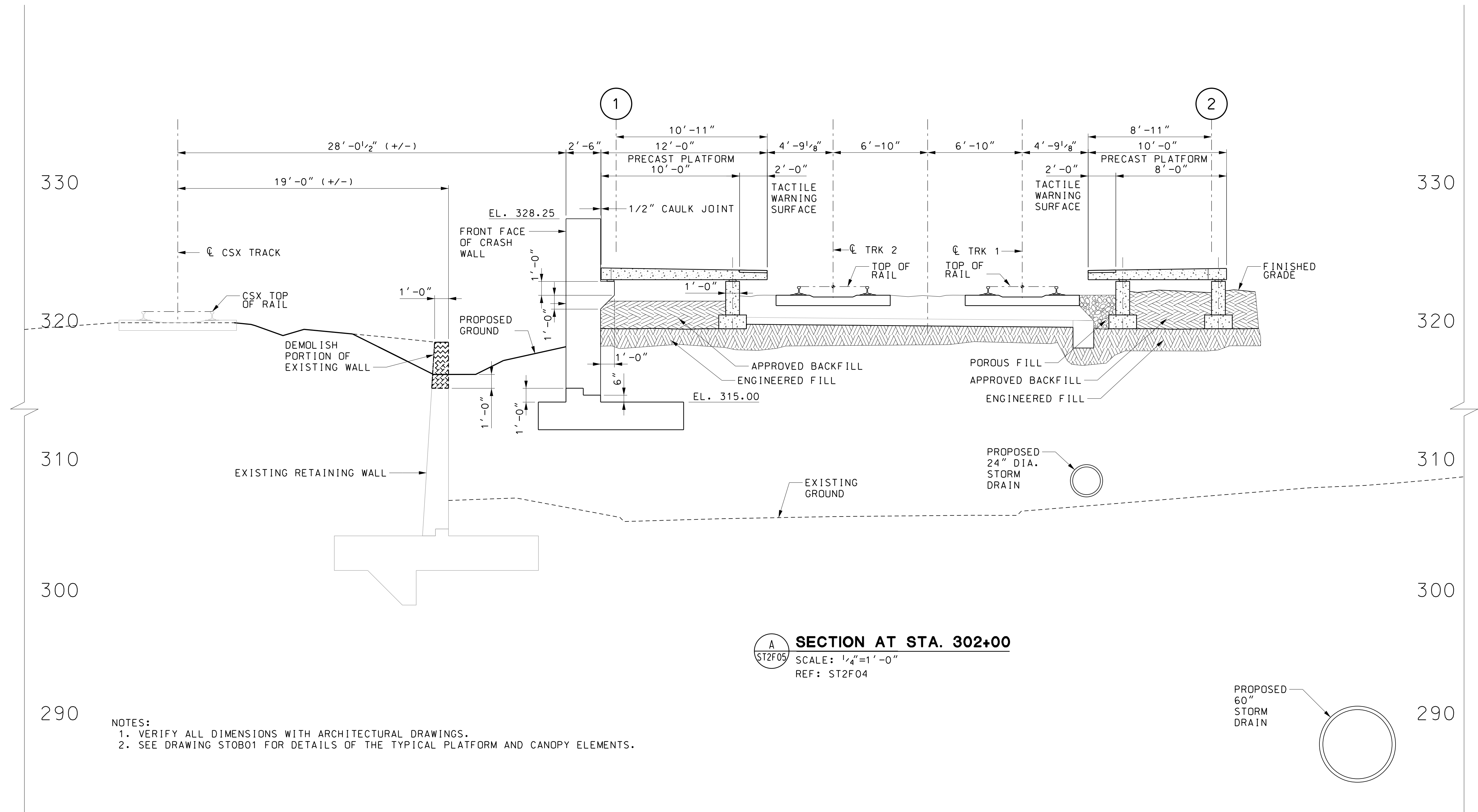
- NOTES:
1. FOR GENERAL STRUCTURAL NOTES, SEE DRAWINGS ST01 AND ST02.
 2. SEE DRAWING ST0B01 FOR DETAILS OF THE TYPICAL PLATFORM AND CANOPY LEVEL ELEMENTS.



PLATFORM PLAN

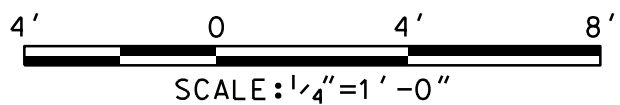
- NOTES:
- 1. FOR GENERAL STRUCTURAL NOTES, SEE DRAWINGS ST01 AND ST02.
 - 2. SEE DRAWING ST0B01 FOR DETAILS OF THE TYPICAL PLATFORM AND CANOPY LEVEL ELEMENTS.

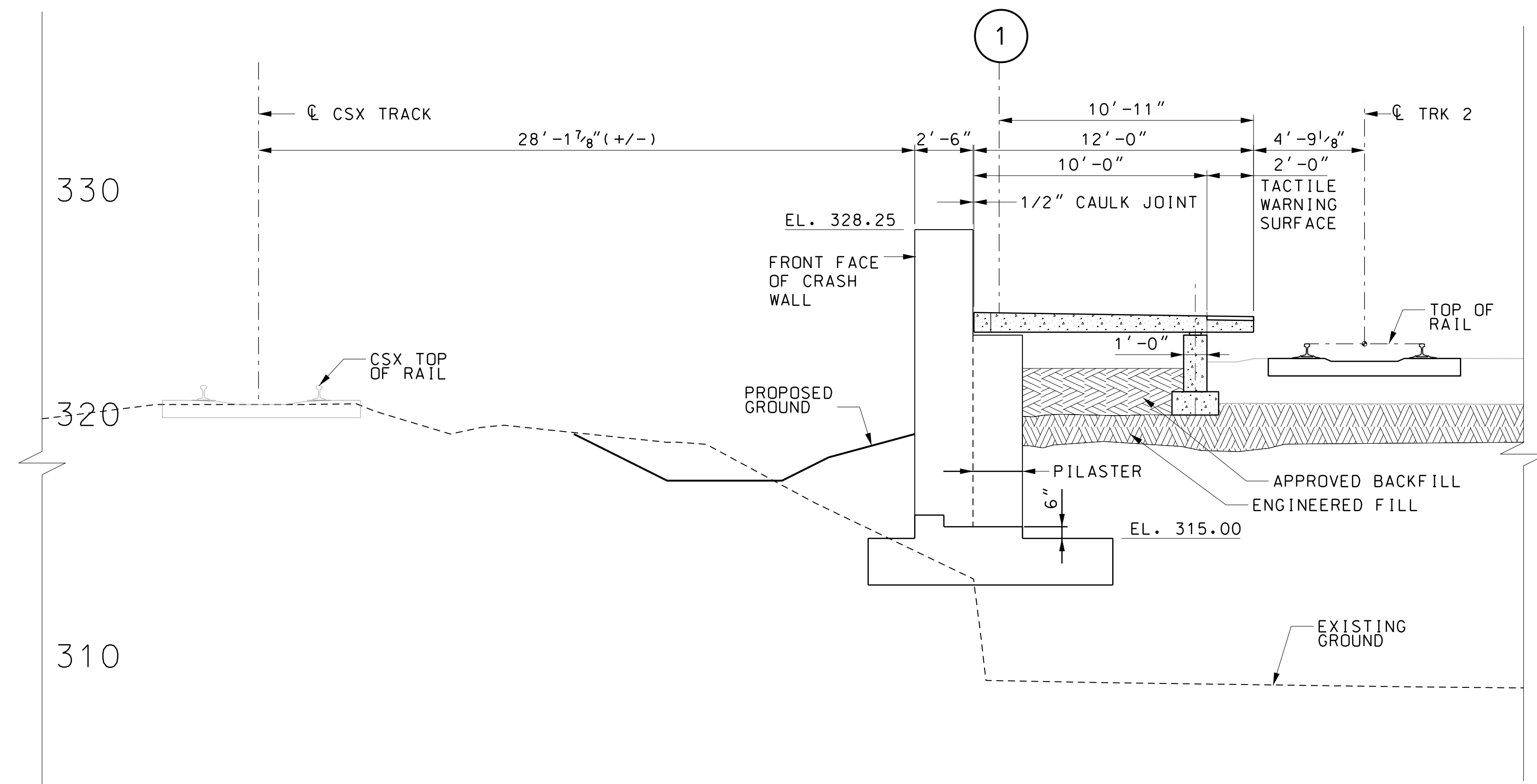




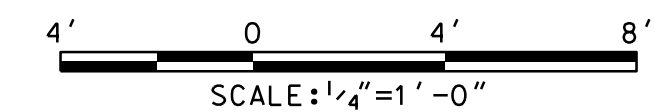
SECTION AT STA. 302+00
SCALE: 1/4"=1'-0"
REF: ST2F04

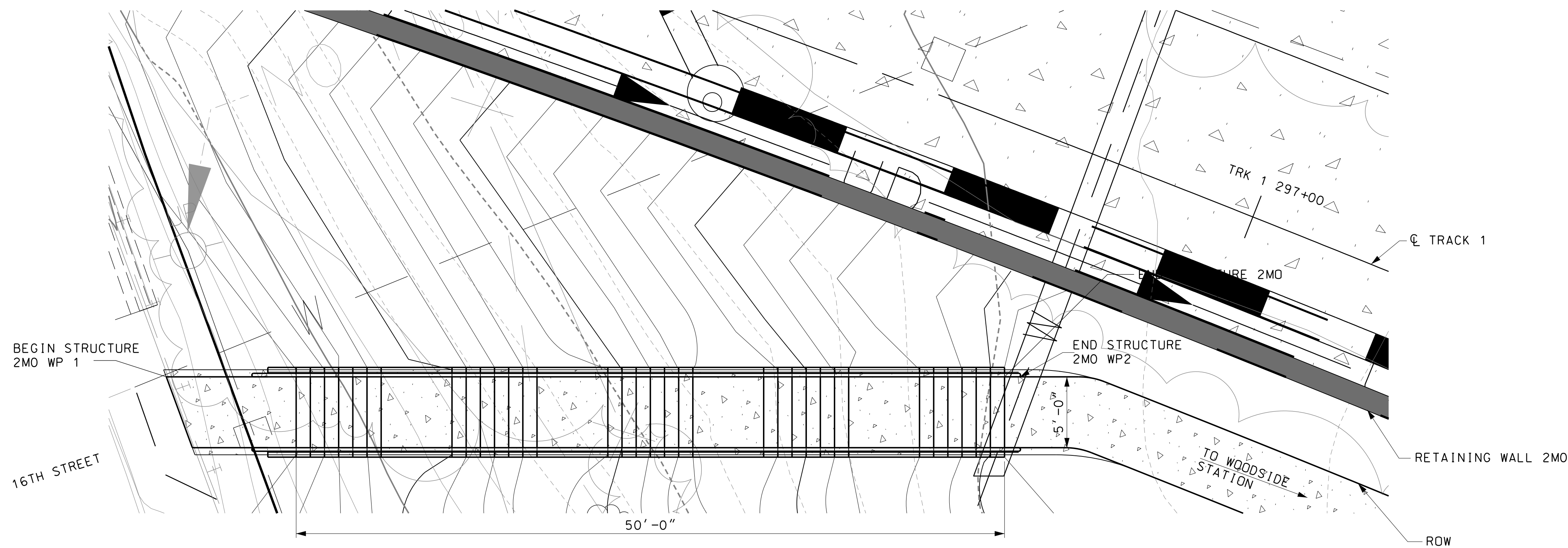
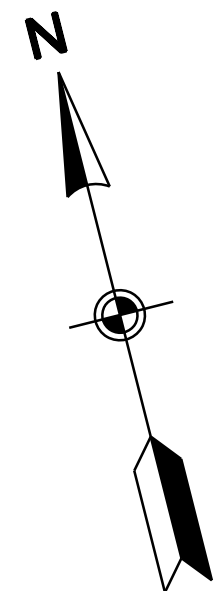
NOTES:
1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. SEE DRAWING STOB01 FOR DETAILS OF THE TYPICAL PLATFORM AND CANOPY ELEMENTS.





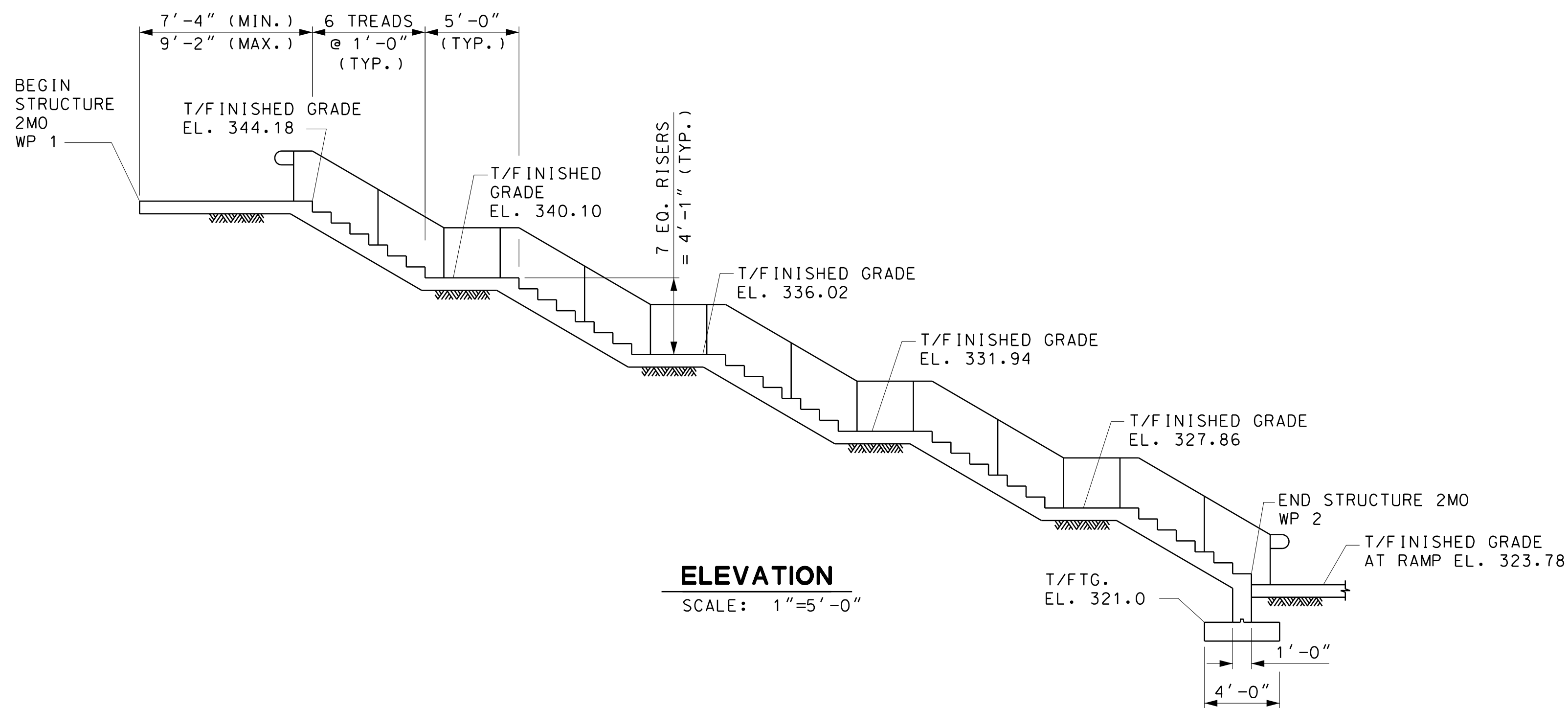
B
SECTION AT STATION CANOPY (STA. 302+78.14)
 SCALE: 1/4"=1'-0"
 REF: ST2F04





PLAN

SCALE: 1"=5'-0"

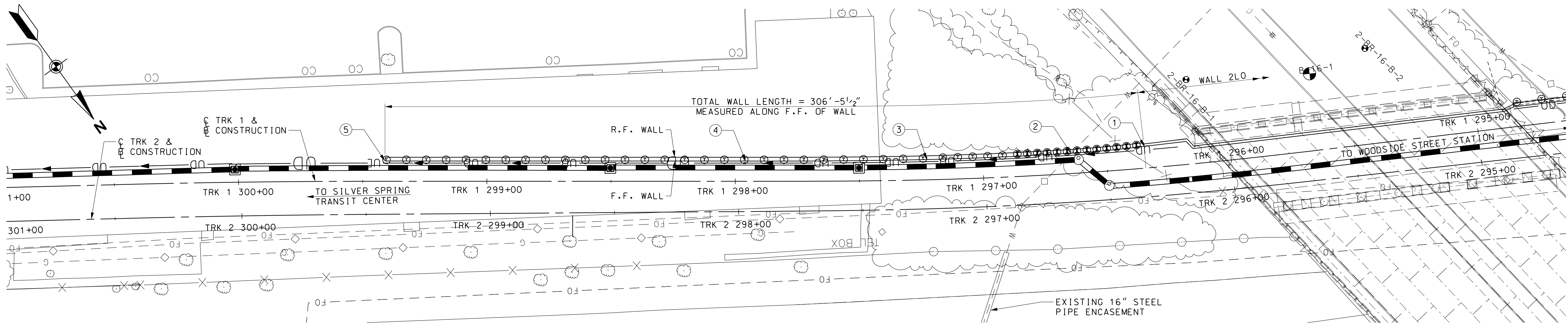


ELEVATION

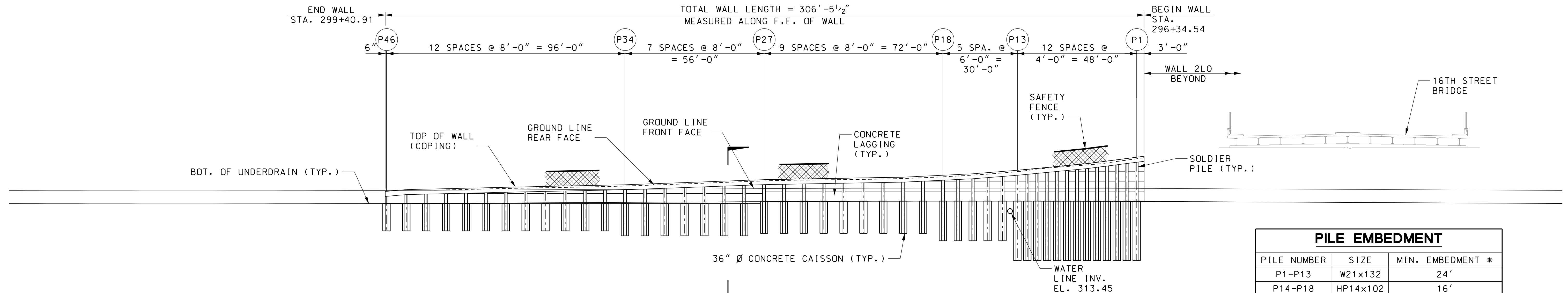
SCALE: 1"=5'-0"

DATUM EL. 315.0

PROPOSED 12" WATER LINE WITH 24" STEEL LINER INVERT EL 312.0



PLAN
SCALE: 1" = 20'-0"



ELEVATION
SCALE: 1" = 20'-0"

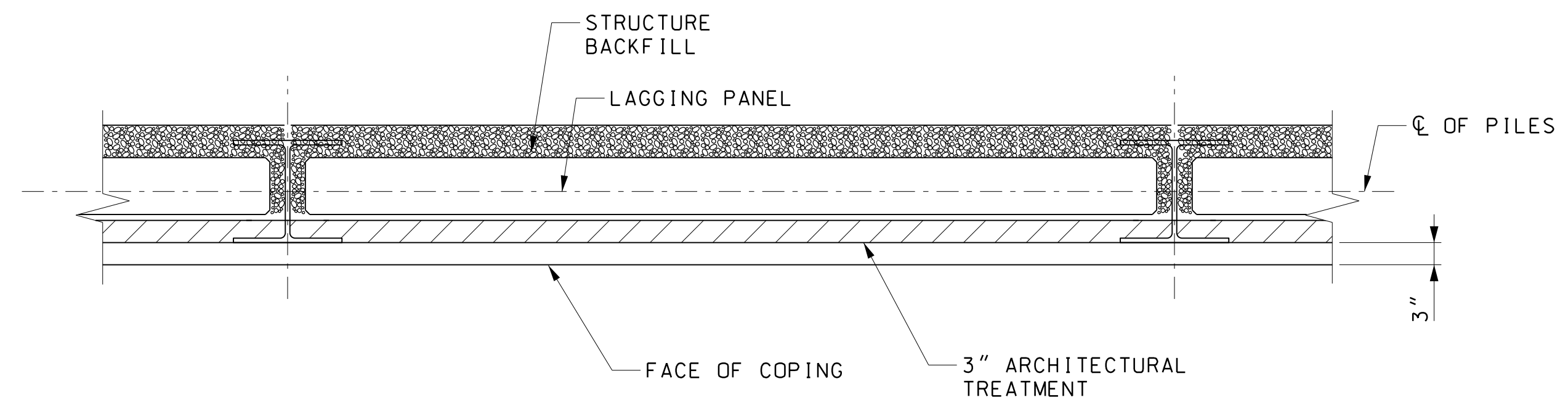
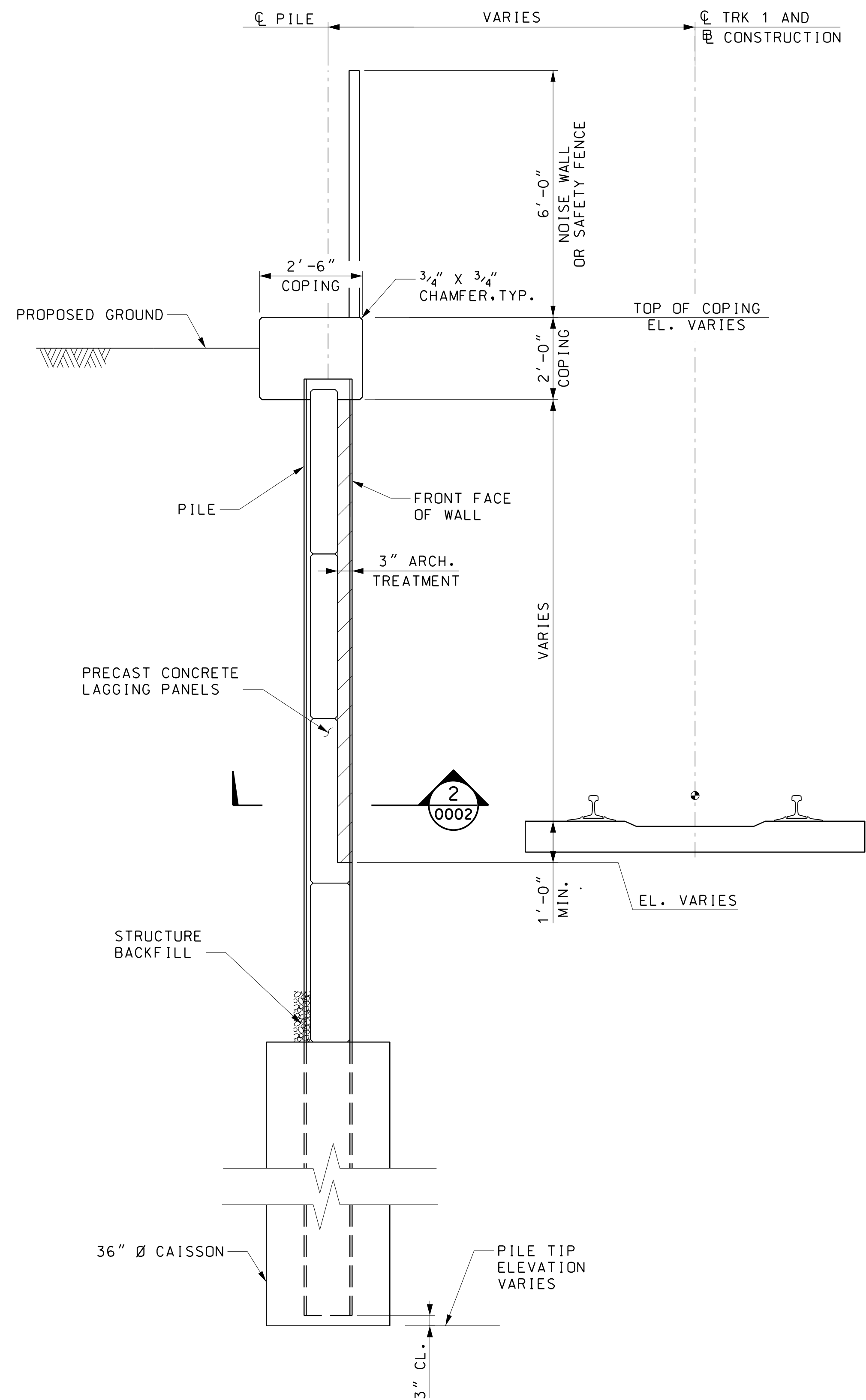
- NOTES:
- ALL STATION REFERENCES ARE TO THE \odot TRK 1 & \oplus CONSTRUCTION. OFFSETS ARE TO THE FRONT FACE OF THE WALL.
 - WALL 2M1 IS TO BE CONSTRUCTED TOP-DOWN.

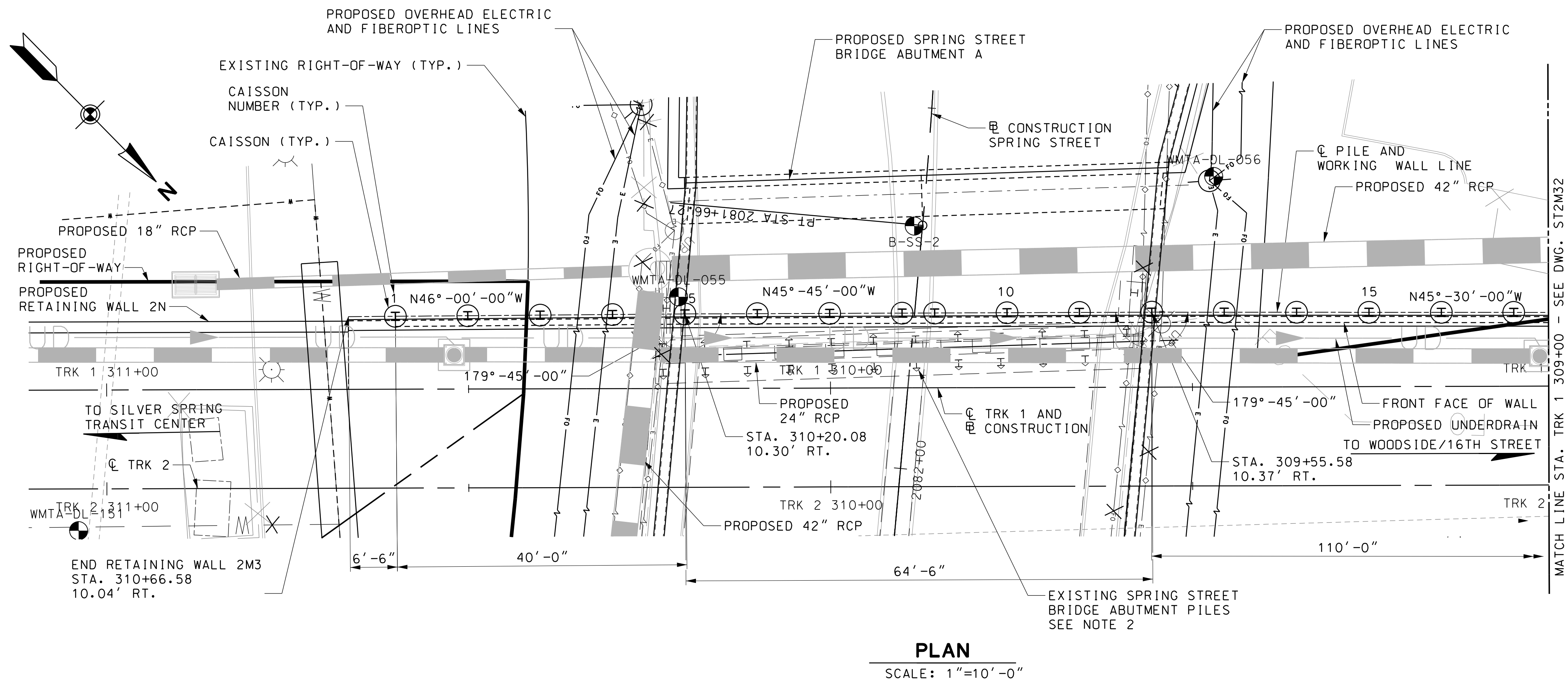
PILE EMBEDMENT		
PILE NUMBER	SIZE	MIN. EMBEDMENT *
P1-P13	W21x132	24'
P14-P18	HP14x102	16'
P19-P27	HP12x74	13'
P28-P34	HP12x74	13'
P35-P46	HP12x53	11'

* MEASURED FROM BOTTOM OF UNDERDRAIN.

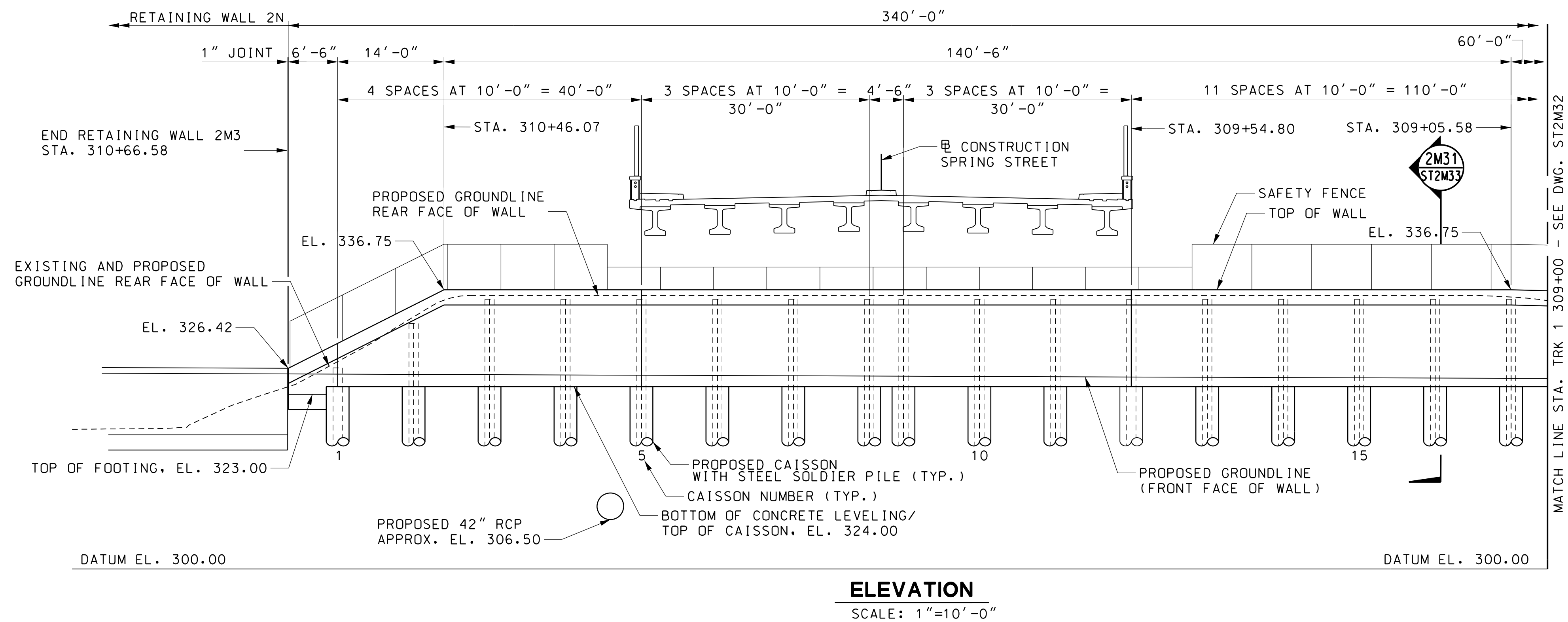
ELEVATION TABLE		
PILE	TOP OF WALL	TOP OF COPING
P1	333.62	335.62
P6	331.05	333.05
P13	328.36	330.36
P16	326.95	328.95
P20	325.59	327.59
P27	324.59	326.59
P34	322.54	324.54
P39	321.72	323.72
P45	320.60	322.60
P46	319.89	321.89

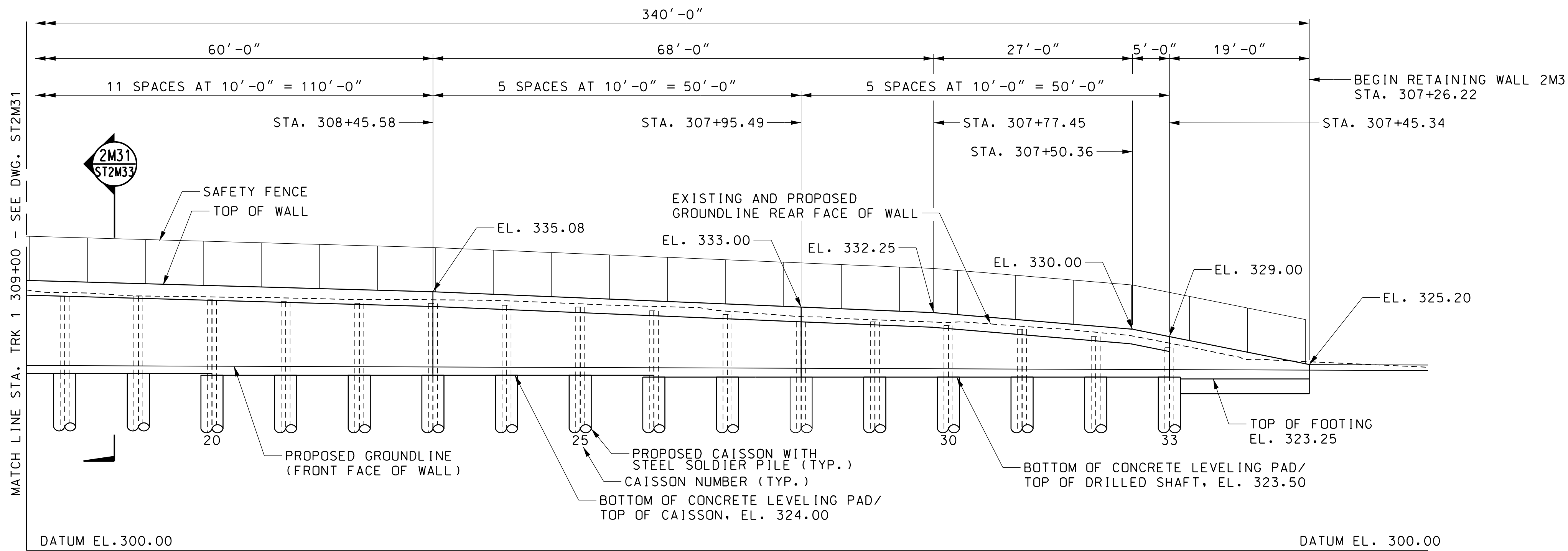
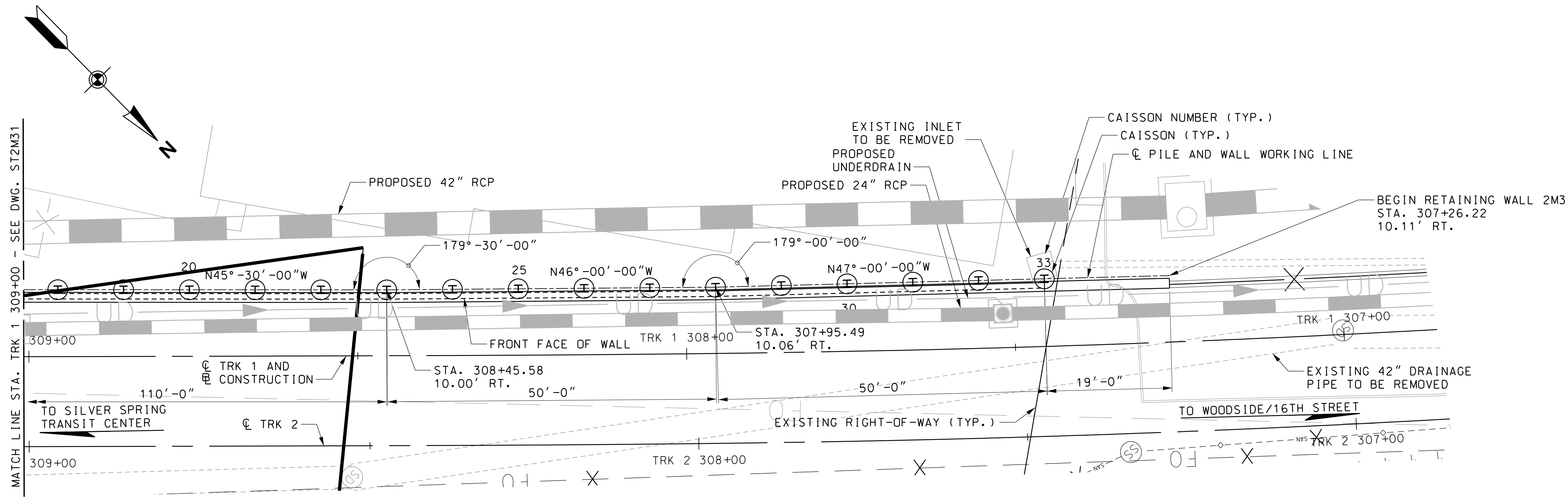
WALL GEOMETRY				
POINT	STA.	OFFSET	DESCRIPTION	WALL GEOMERTY
1	296+34.54	8.75' RT	BEGIN WALL	CURVE 1 R = 500' RT
2	296+64.34	8.17' RT	BEGIN CURVE	CURVE 2 R = 1491.83' RT
3	297+22.82	8.17' RT	BEGIN CURVE	CURVE 3 R = 2930.38' RT
4	297+95.82	8.17' RT	BEGIN TANGENT	BEARING = S51°50'44.69"E
5	299+40.91	8.17' RT	END WALL	-

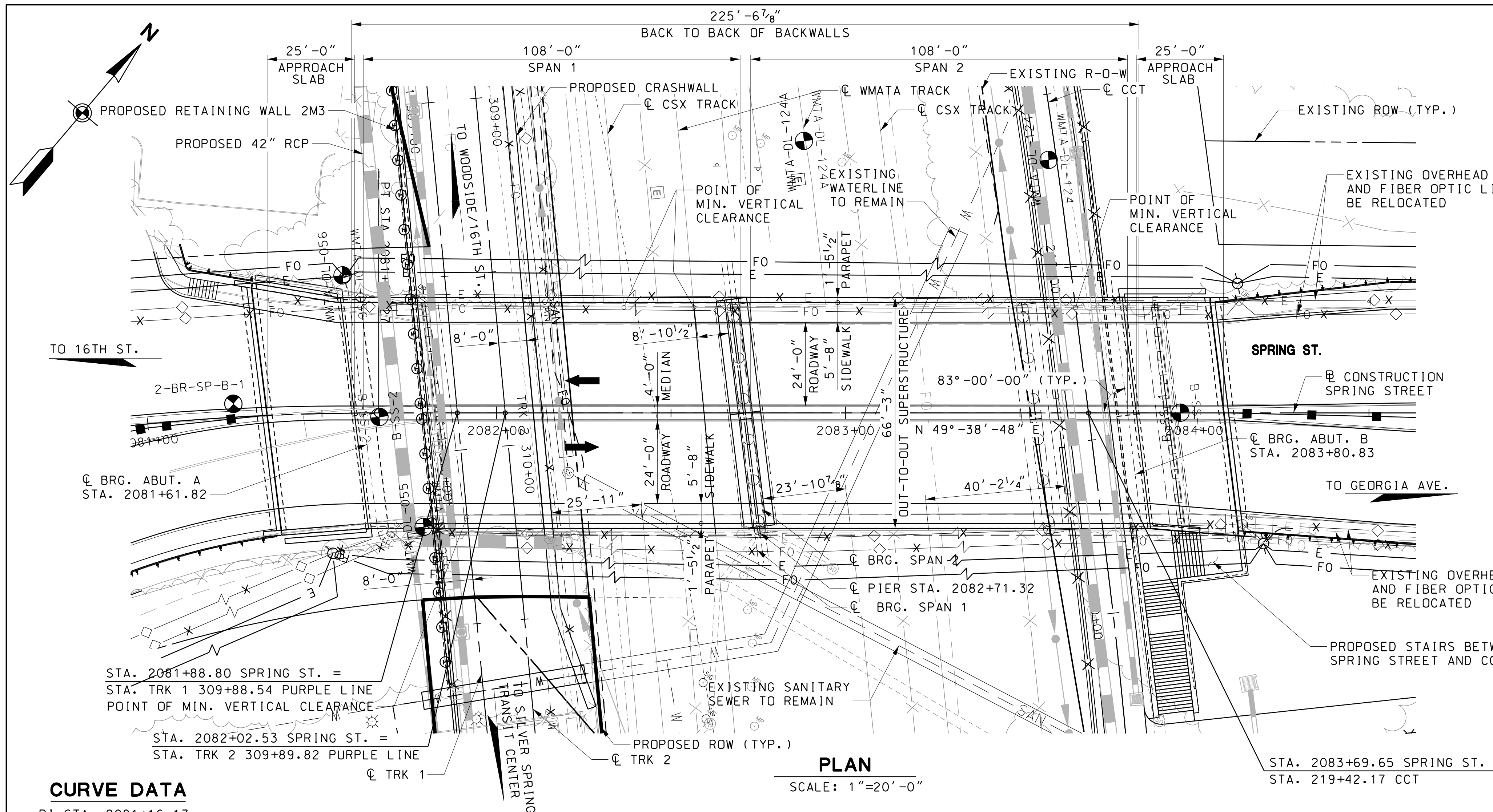




- NOTES:
1. ALL STATION REFERENCES ARE TO THE CL TRK 1 AND CONSTRUCTION, UNLESS OTHERWISE NOTED. ALL OFFSET REFERENCES ARE TO THE WALL WORKING LINE.
 2. EXISTING SPRING STREET BRIDGE ABUTMENT SHALL BE DEMOLISHED AND EXISTING PILES SHALL BE CUT OFF BELOW GRADE TO ALLOW FOR CONSTRUCTION OF RETAINING WALL 2M3.
 3. CONSTRUCTION OF RETAINING WALL 2M3 SHALL BE COORDINATED WITH SPRING STREET BRIDGE SEQUENCE OF CONSTRUCTION.
 4. CONSTRUCTION OF RETAINING WALL 2M3 SHALL BE COORDINATED WITH INSTALLATION OF THE PROPOSED 42" RCP.

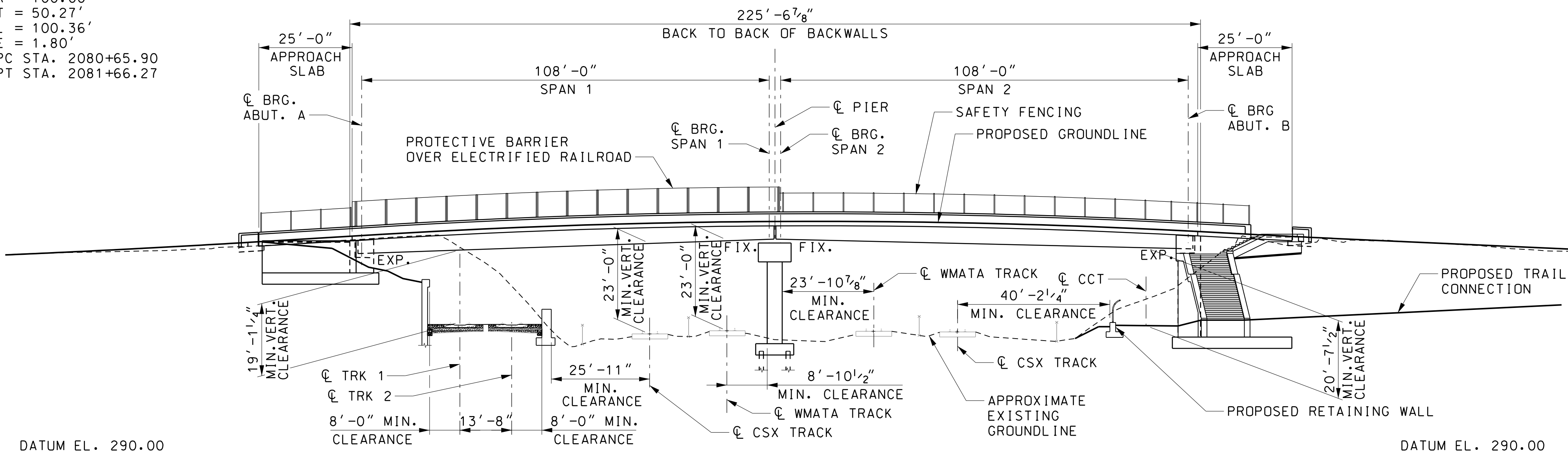






CURVE DATA

PI STA. 2081+16.17
 $\Delta = 8^{\circ}-12'-52.69''$ RT.
Dc= $8^{\circ}-11'-06.40''$
R = 700.00'
T = 50.27'
L = 100.36'
E = 1.80'
PC STA. 2080+65.90
PT STA. 2081+66.27



GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

STRUCTURAL STEEL DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

PRESTRESSED CONCRETE DESIGN: PRESTRESSED LOAD AND RESISTANCE FACTOR DESIGN METHOD. ALLOWABLE MAXIMUM CONCRETE TENSILE STRESS IN PRE-COMPRESSED TENSILE ZONE $= 3\sqrt{f'_c}$. THE PRECAST CONCRETE BEAMS ARE DESIGNED AS NON-COMPOSITE SIMPLE SPANS FOR ALL DEAD LOADS EXCEPT THE PARAPET AND FUTURE WEARING SURFACE. THE PRECAST BEAMS ARE DESIGNED AS COMPOSITE SIMPLE SPANS FOR LIVE LOAD AS WELL AS THE PARAPET AND FUTURE WEARING SURFACE DEAD LOADS.

LOADING: HL-93 WITH PROVISIONS FOR FUTURE 2" WEARING SURFACE AND 15 LBS/FT FOR USE OF STEEL BRIDGE DECK FORMS WHICH REMAIN IN PLACE.

CONCRETE: ALL CONCRETE FOR ABUTMENT BACKWALLS AND PARAPETS AT ABUTMENTS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:
-ENTIRE SUPERSTRUCTURE (INCLUDING PARAPETS)
-ABUTMENT BACKWALLS
-CHEEKWALLS
-ALL BEARING SEAT PADS
-ABUTMENT BRIDGE SEAT AREAS
-END POSTS
-PIER CAP

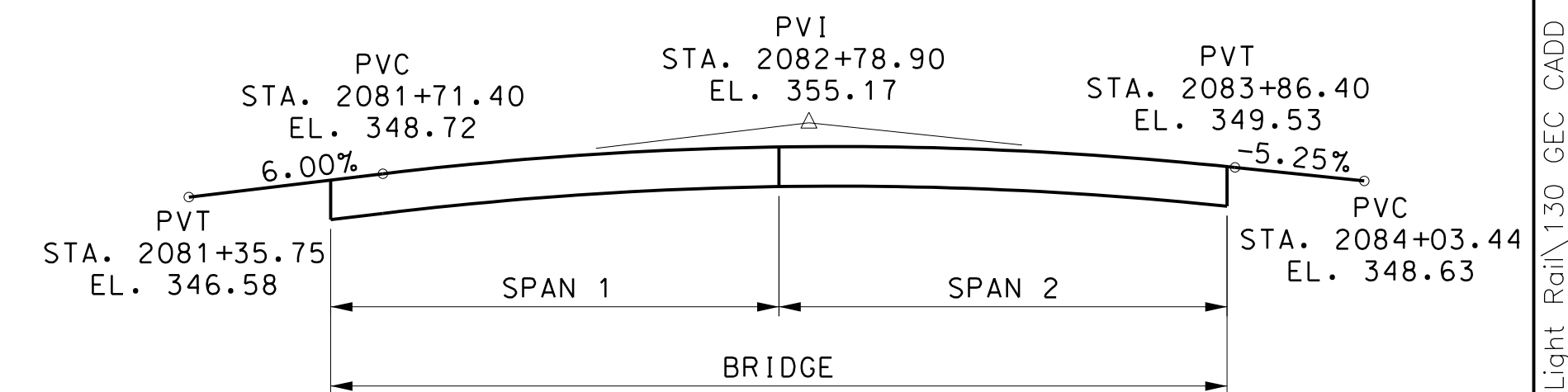
KEY: ALL KEYS ARE NOMINAL SIZE.

PRESTRESSED CONCRETE: THE MINIMUM COMPRESSIVE STRENGTH FOR PRESTRESSED CONCRETE AT THE AGE OF 28 DAYS SHALL BE $f'_c=10,000$ PSI. THE MINIMUM COMPRESSIVE STRENGTH AT THE TRANSFER OF PRESTRESS SHALL BE $f'_c=8,000$ PSI.

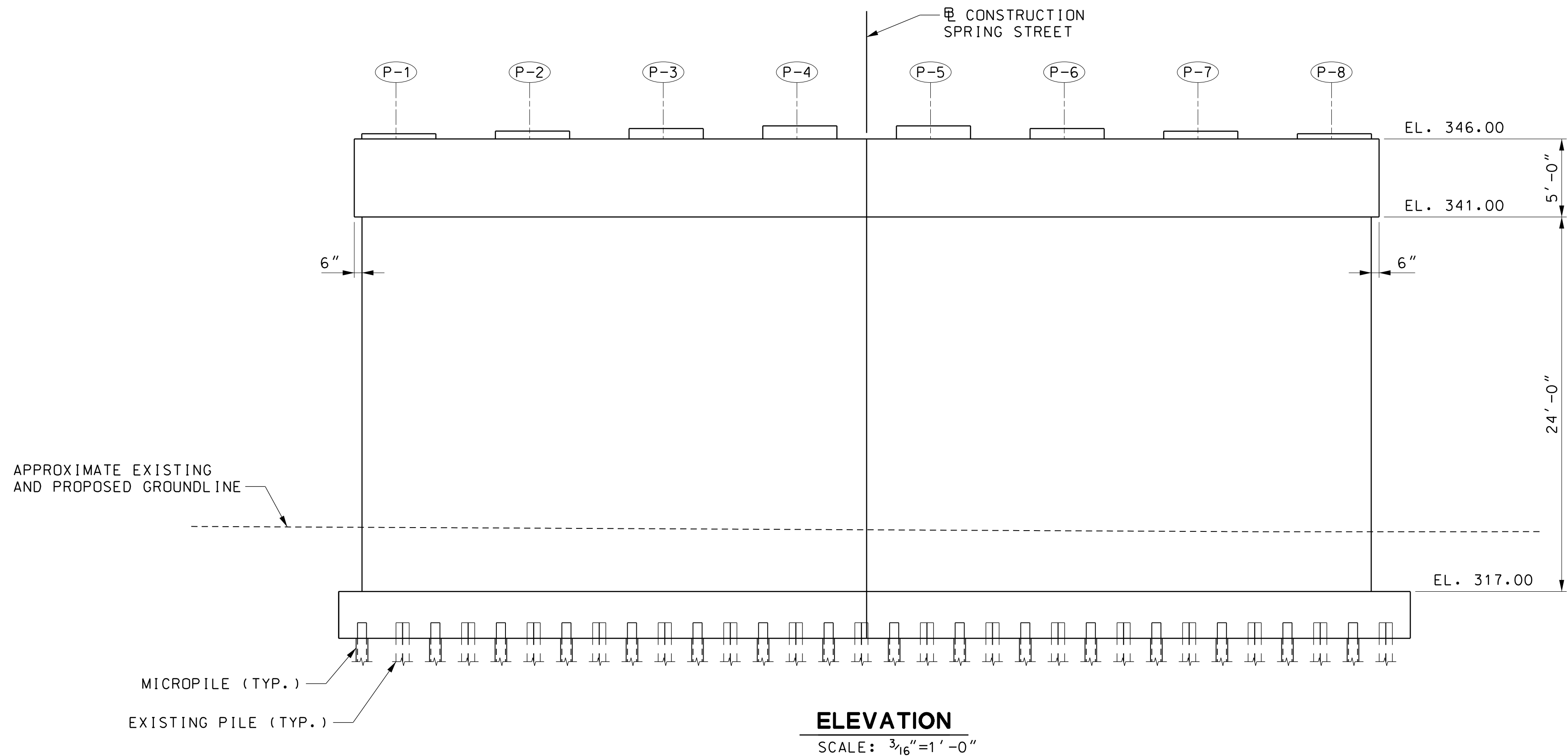
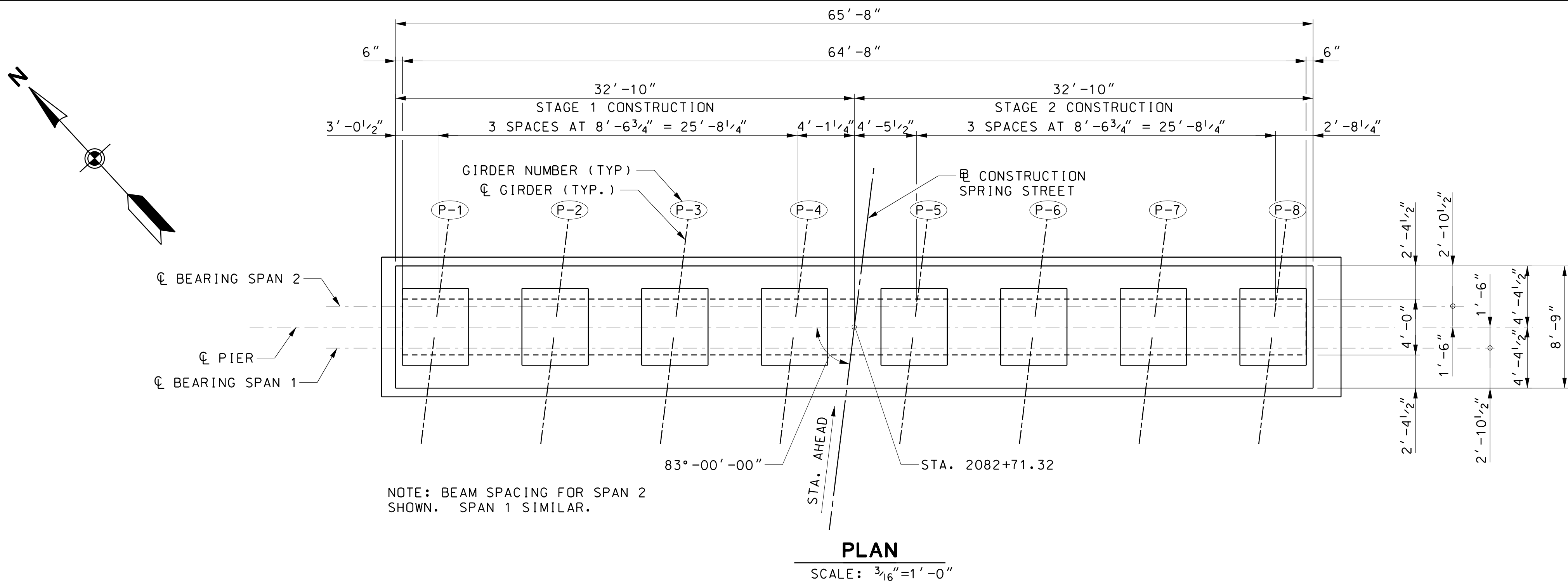
PRESTRESSED STRANDS: PRETENSIONING STEEL SHALL CONSIST OF 0.6" DIAMETER 7-WIRE BRIGHT LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF M 203, GRADE 270. EACH 0.6" STRAND SHALL BE TENSIONED TO 0.75 F_s .

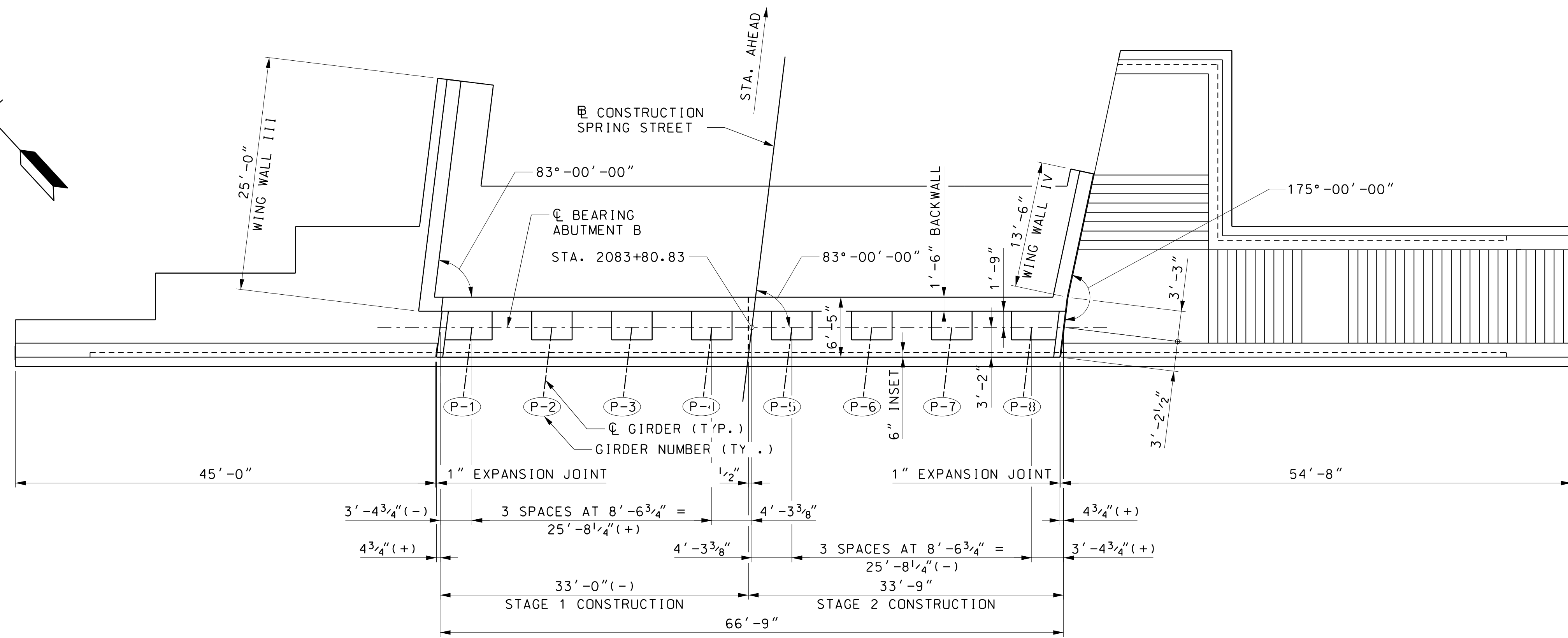
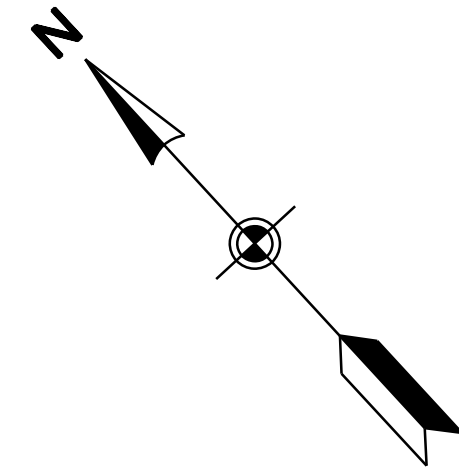
HANDLING PRESTRESSED UNITS: IN HANDLING, THE UNITS MUST BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AT MUST BE PICKED UP ONLY BY MEANS OF LIFTING DEVICES PROVIDED.

EXISTING STRUCTURE: EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY OR TO AN ELEVATION TBD NECESSARY FOR TRACK CONSTRUCTION



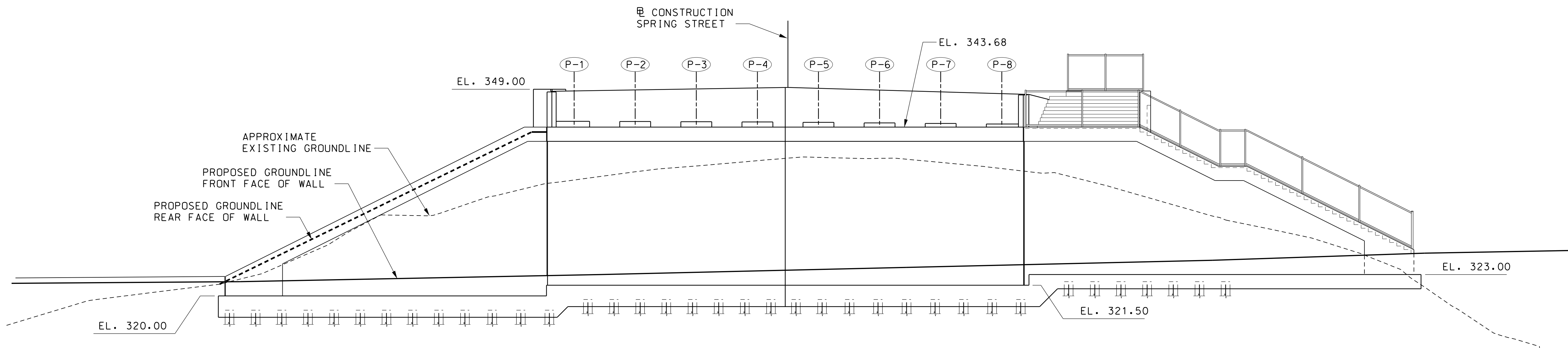






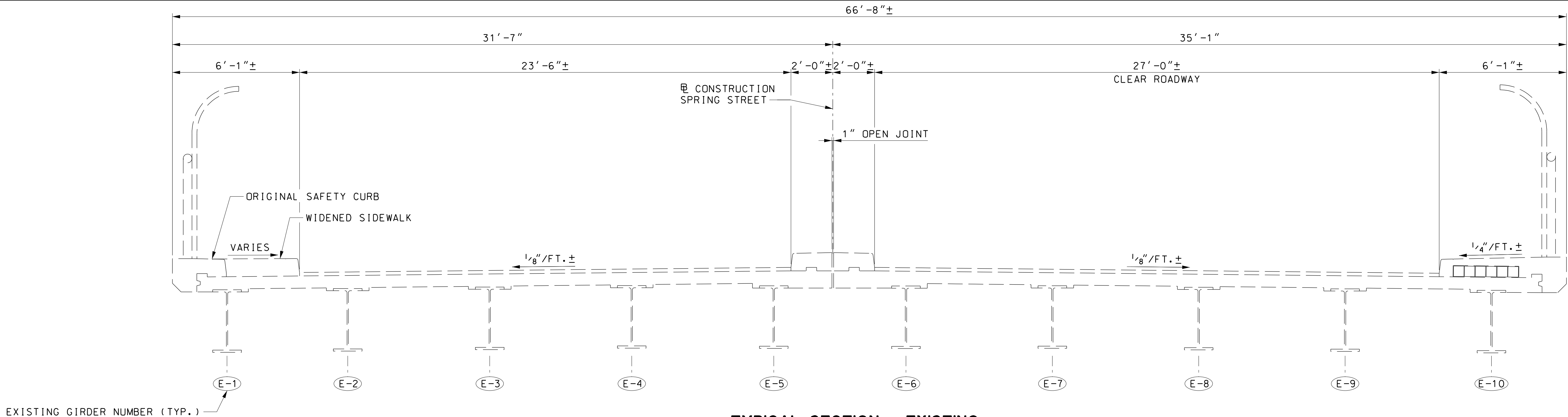
PLAN

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



ELEVATION

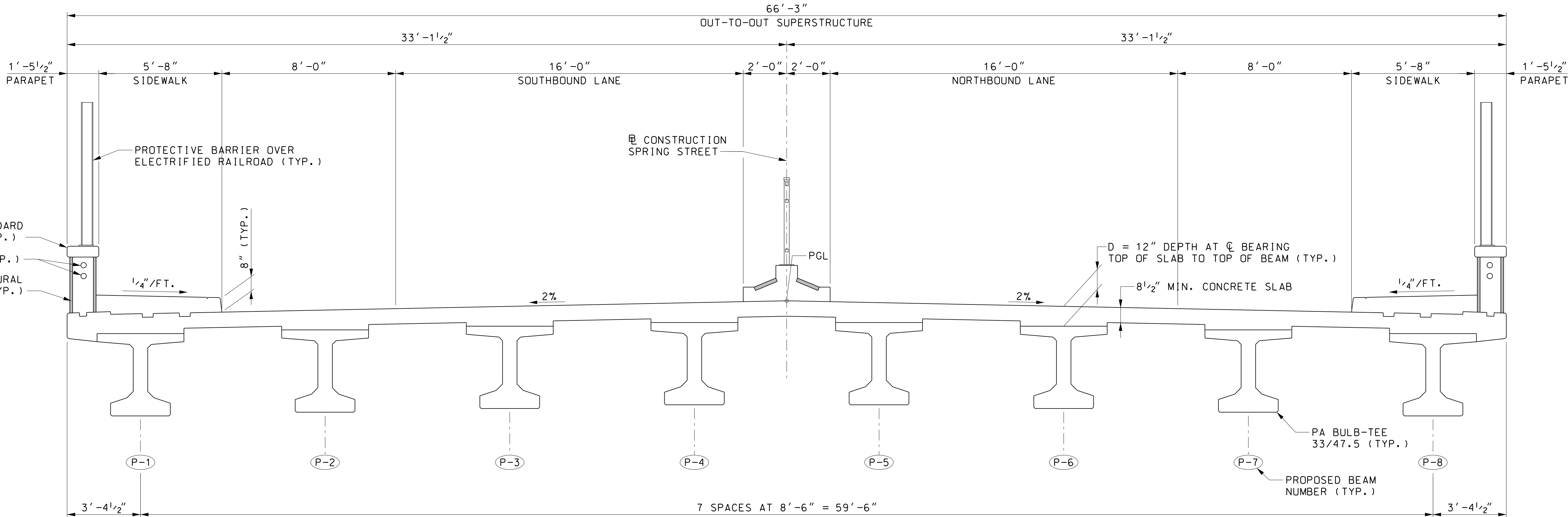
SCALE: 1/8"=1'-0"



EXISTING GIRDER NUMBER (TYP.)

TYPICAL SECTION - EXISTING

SCALE: 3/8"=1'-0"



MODIFICATION OF MSHA STANDARD NO. BR-SS(6.48)-03-350 (TYP.)

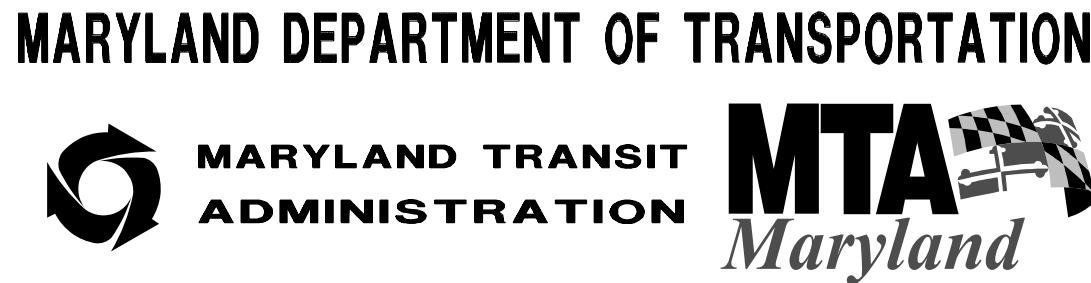
2-3" DIA. CONDUITS (TYP.)

ARCHITECTURAL FINISH (TYP.)

TYPICAL SECTION - PROPOSED

SCALE: 3/8"=1'-0"

NOTE:
PROTECTIVE BARRIER OVER ELECTRIFIED RAILROAD SHALL BE REPLACED BY TYPE I SAFETY FENCE IN SPAN 2.

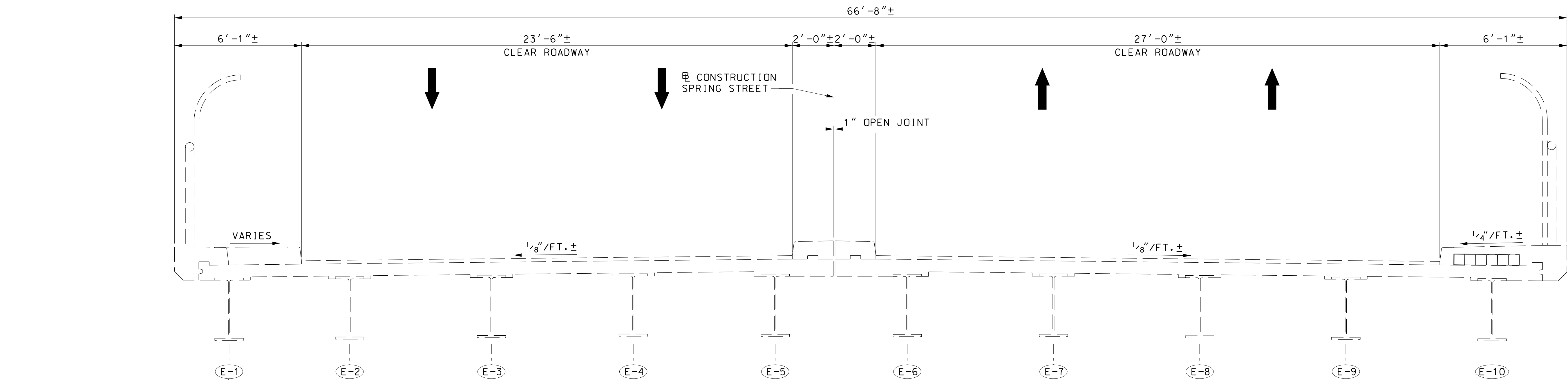


PROFESSIONAL CERTIFICATION
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License No. Expiration Date

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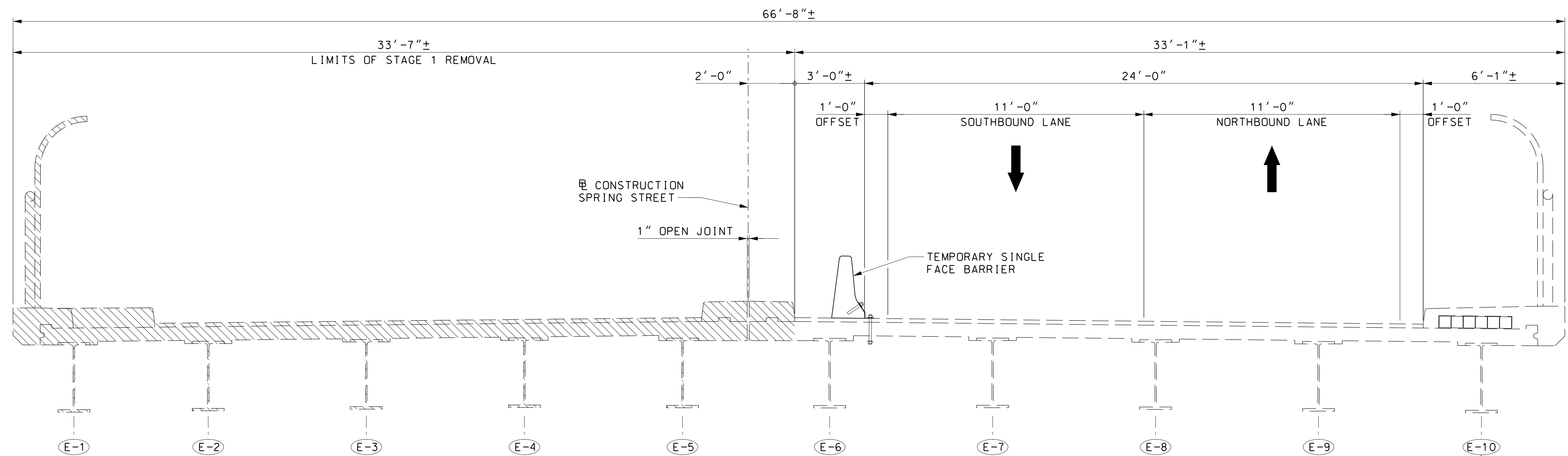
DESIGN	JPD	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL		CONTRACT NO. T-1042-0220
DRAWN	KPL			DRAWING NO. ST2D17
CHECK	CES	SPRING STREET BRIDGE SUPERSTRUCTURE TYPICAL SECTIONS		SHEET NO.
APPR				476 OF 828
		DATE: DECEMBER 2013		SCALE: 3/8"=1'-0"

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 02\Structures\Sheet Files\1042pST2d17.dgn 12/10/2013



EXISTING GIRDER NUMBER (TYP.)

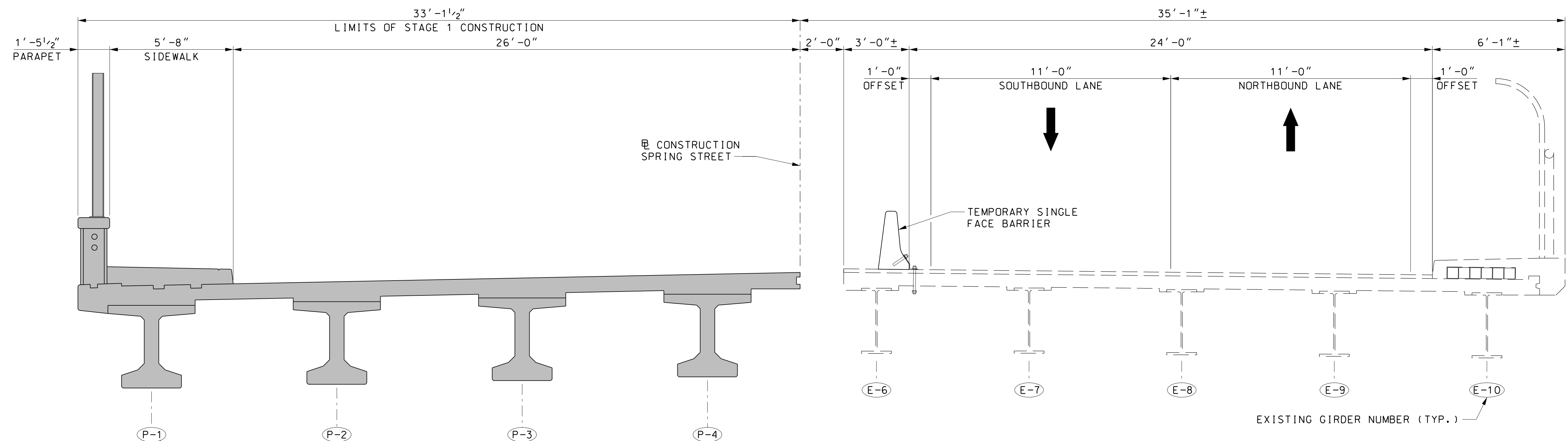
TYPICAL SECTION - EXISTING
SCALE: 3/8" = 1' - 0"



STAGE 1 - REMOVAL

SCALE: $\frac{3}{8}" = 1' - 0"$

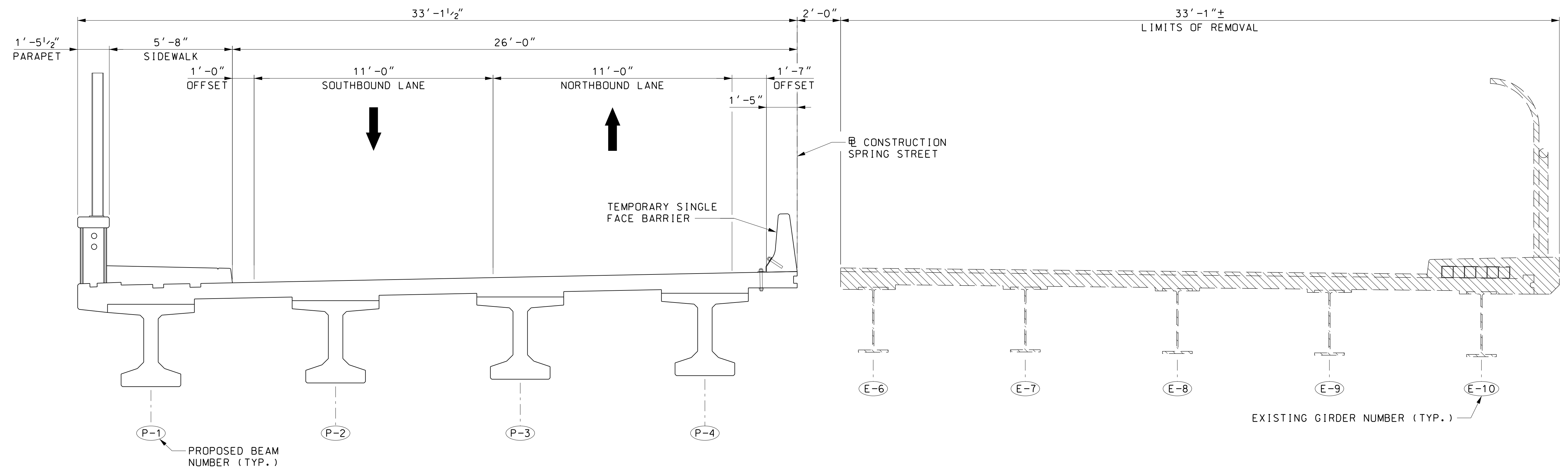
EXISTING GIRDER NUMBER (TYP.)



STAGE 1 - CONSTRUCTION

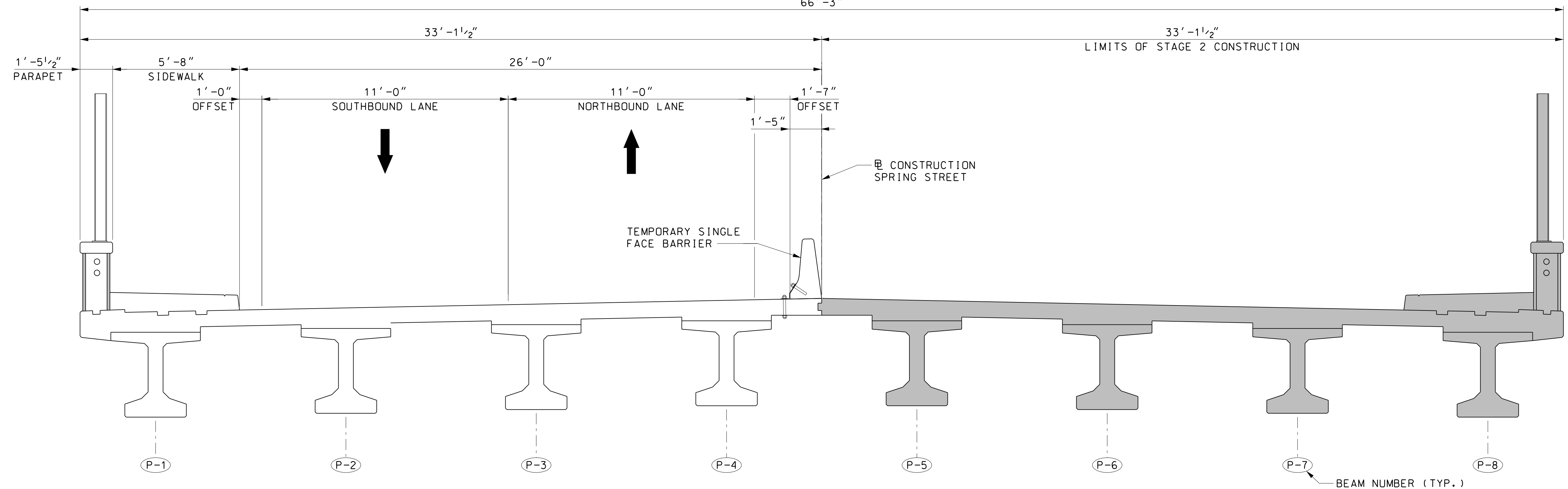
SCALE: $\frac{3}{8}" = 1' - 0"$

EXISTING GIRDER NUMBER (TYP.)



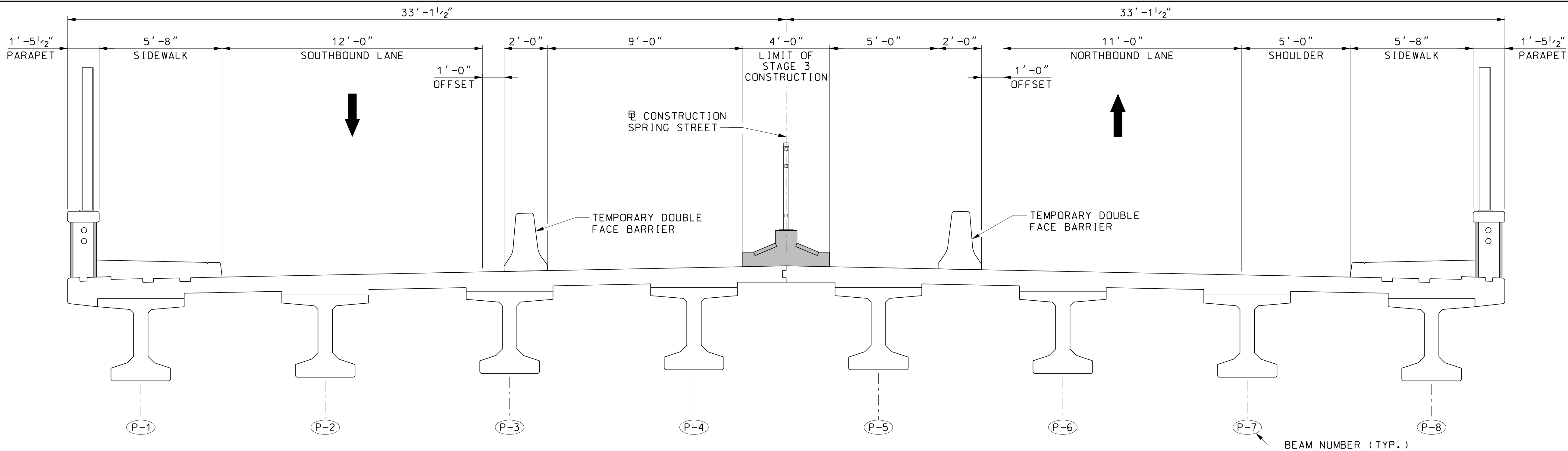
STAGE 2 - REMOVAL

SCALE: 3/8"=1'-0"
66'-3"



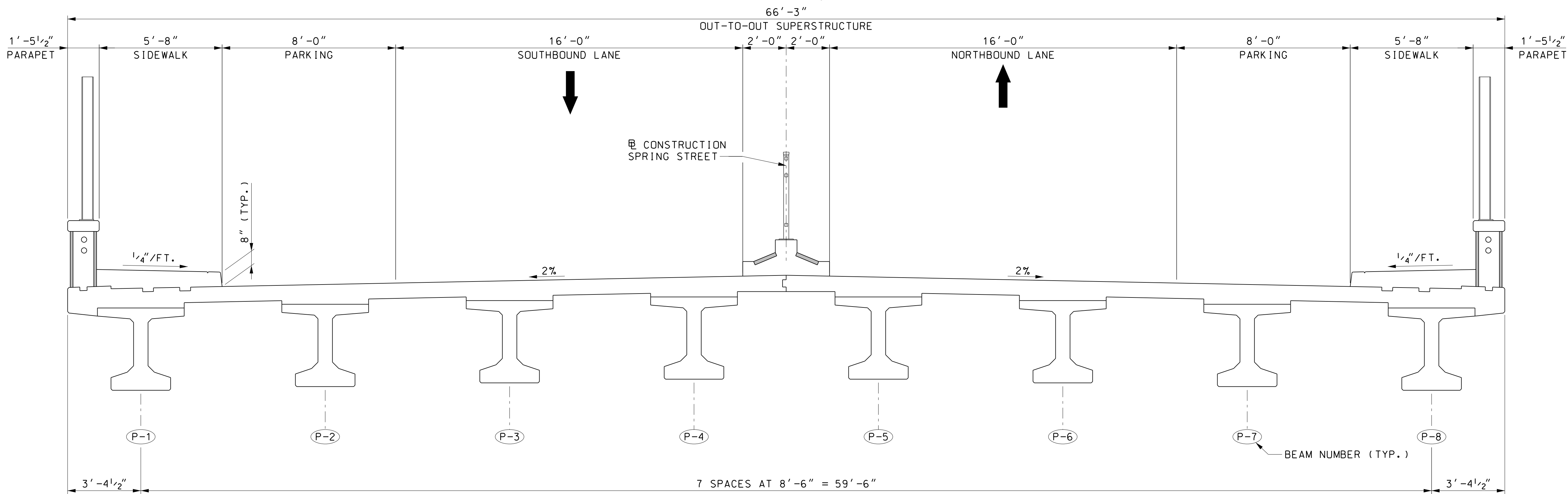
STAGE 2 - CONSTRUCTION

SCALE: 3/8"=1'-0"



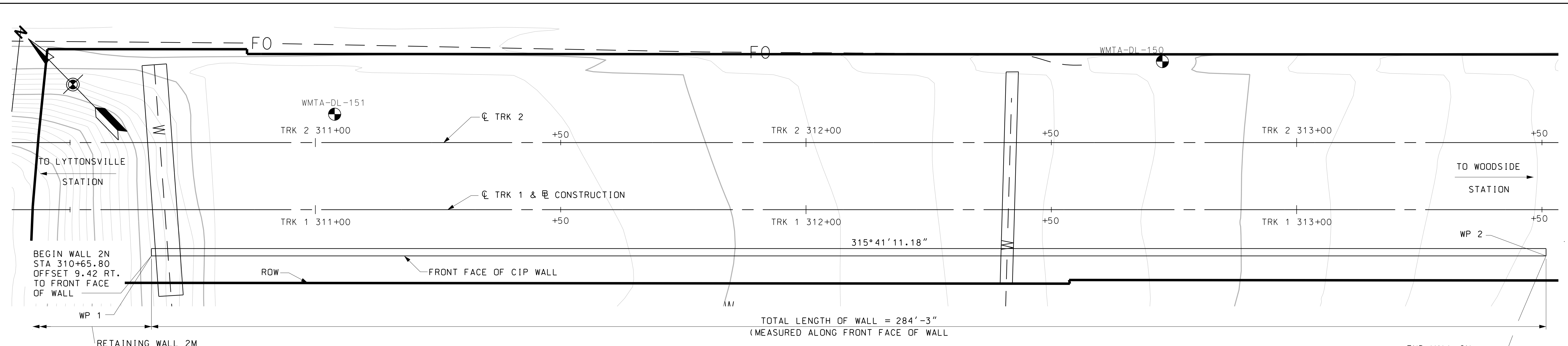
STAGE 3 - CONSTRUCTION

SCALE: 3/8" = 1' - 0"



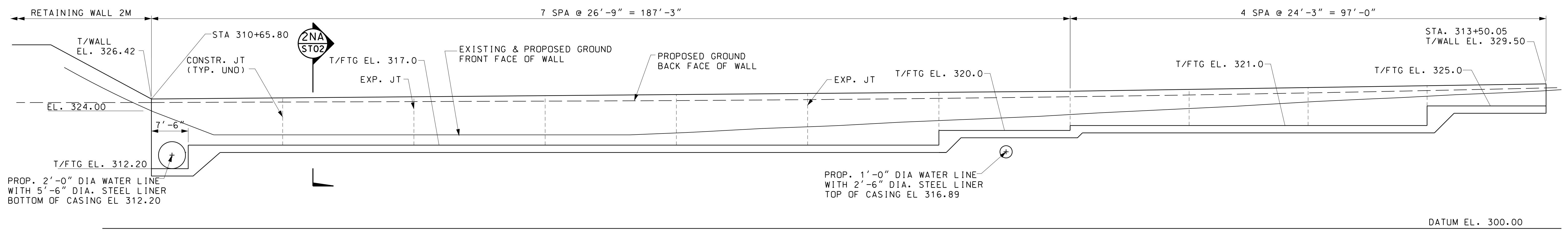
TYPICAL SECTION - FINAL

SCALE: 3/8" = 1' - 0"



PLAN
SCALE: 1"=10'-0"

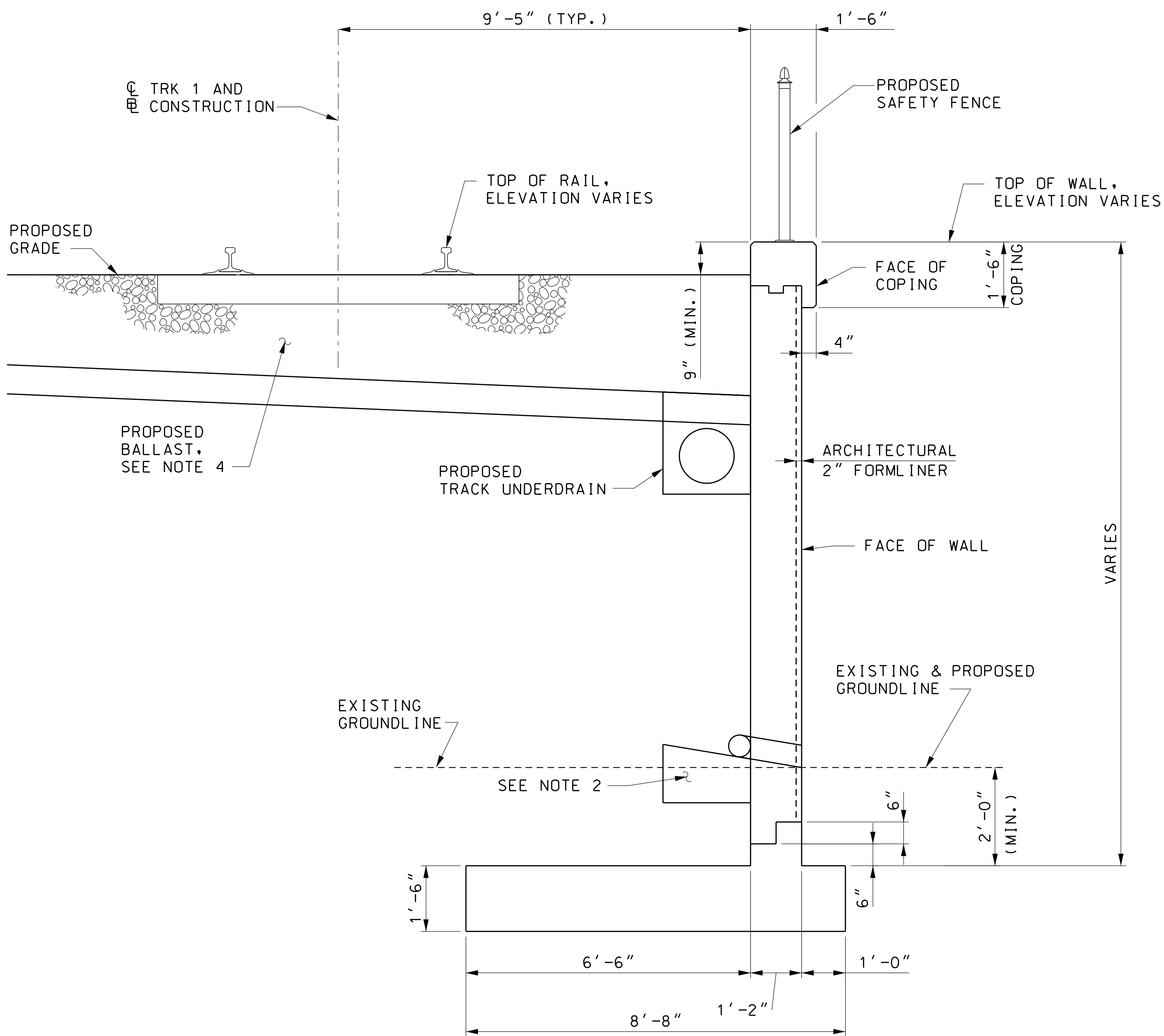
NOTE:
FOR RETAINING WALL TYPICAL SECTION
SEE DWG. ST2N02



ELEVATION
SCALE: 1"=10'-0"

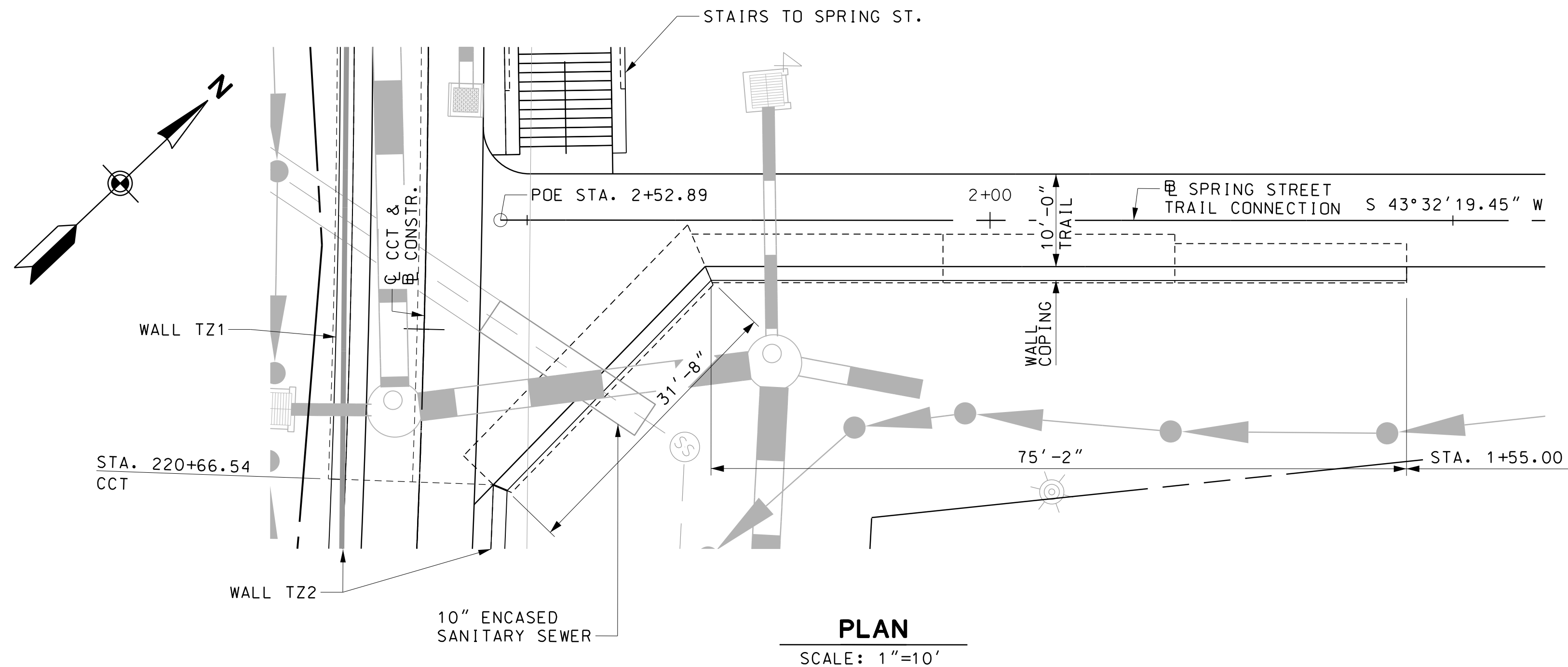
MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION MTA Maryland	Gannett Fleming WR&A		PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DESIGN	VD	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
					DRAWN	GMJ		DRAWING NO. ST2N01
					CHECK	CAM		SHEET NO. 481 OF 828
						RETAINING WALL - 2N GENERAL PLAN AND ELEVATION DATE: DECEMBER 2013 SCALE: AS SHOWN		

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 02\Structures\N-Ret Walls Spring St-SS1C West Abutment\Sheet Files\1042pST2N01.dgn 12/4/2013



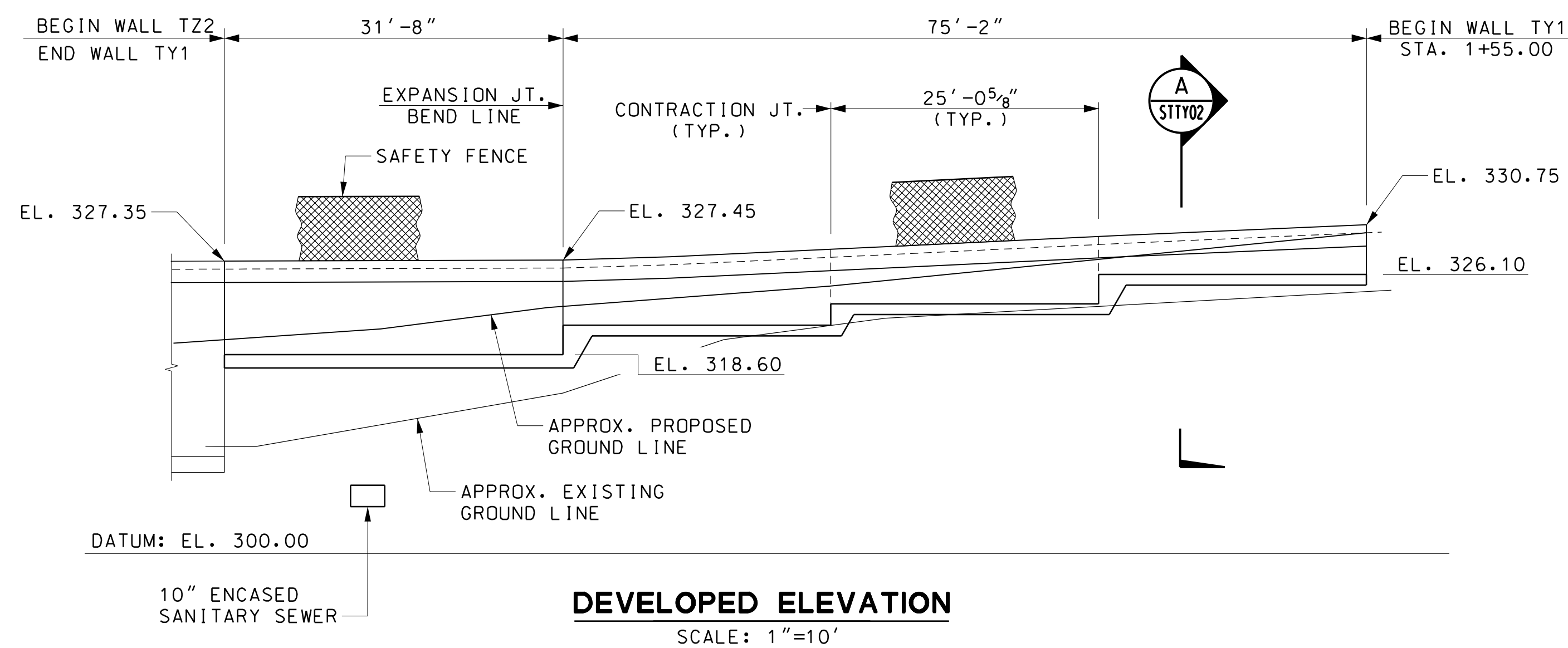
SECTION
SCALE: 1/2"=1'-0"
REF: ST2N01

- NOTES:
1. FOR RETAINING WALL PLAN AND ELEVATION, SEE DWG. ST2N01.
 2. FOR DRAINAGE DETAILS, SEE MD SHA STANDARD NO. RW(0.01)-80-100.
 3. FOR CONCRETE TIE AND BALLAST DETAILS, SEE VOLUME 01.
 4. DEPTH OF BALLAST AND SUBBALLAST TO BE DETERMINED BY THE TRACK ENGINEER.
 5. NOTE THAT THE REQUIRED SAFETY WALK DIMENSION CAN BE ACCOMMODATED WITHIN 9'-5" FROM THE CL OF TRACK TO THE FACE OF THE COPING.



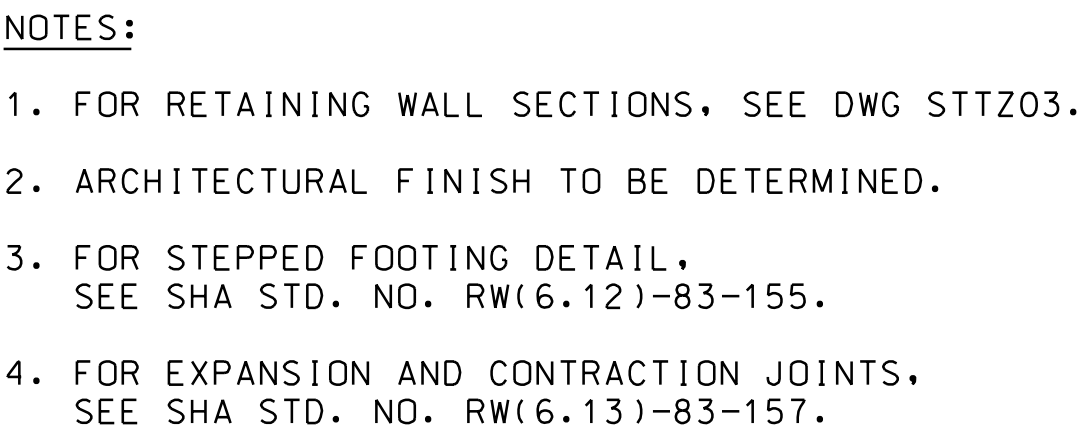
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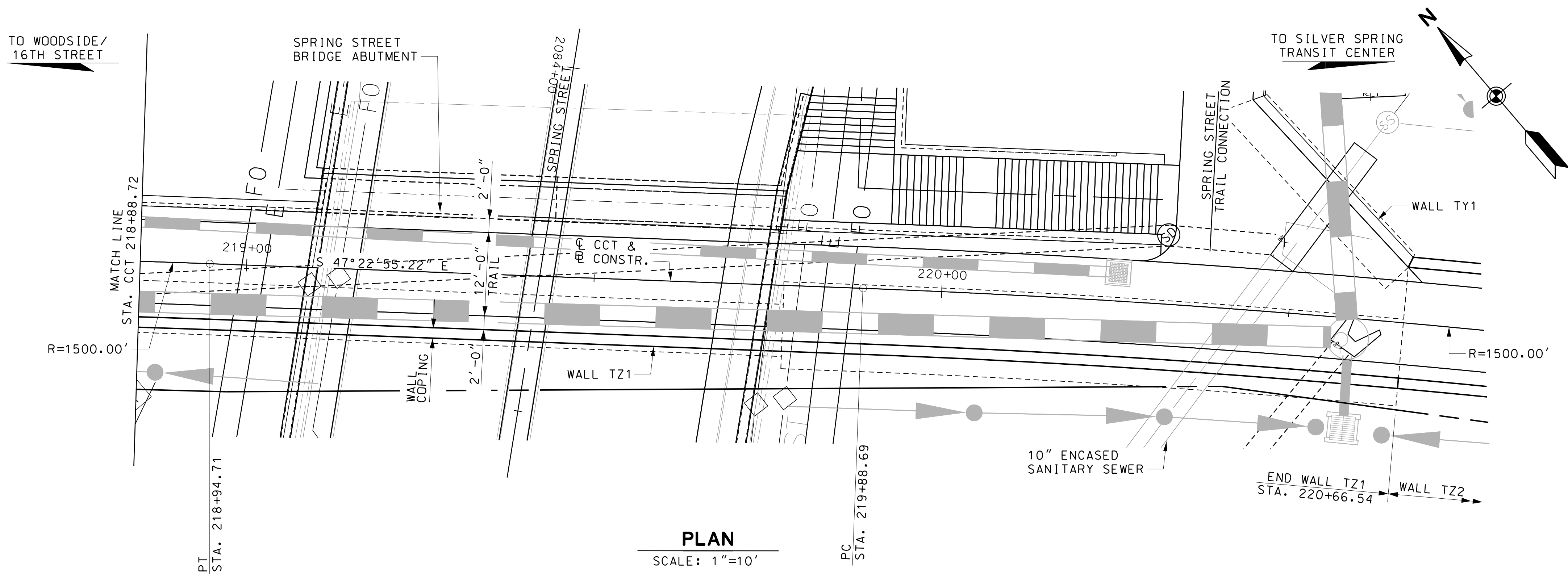
1. FOR RETAINING WALL SECTION, SEE DWG STTY02.
2. ARCHITECTURAL FINISH TO BE DETERMINED.
3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.





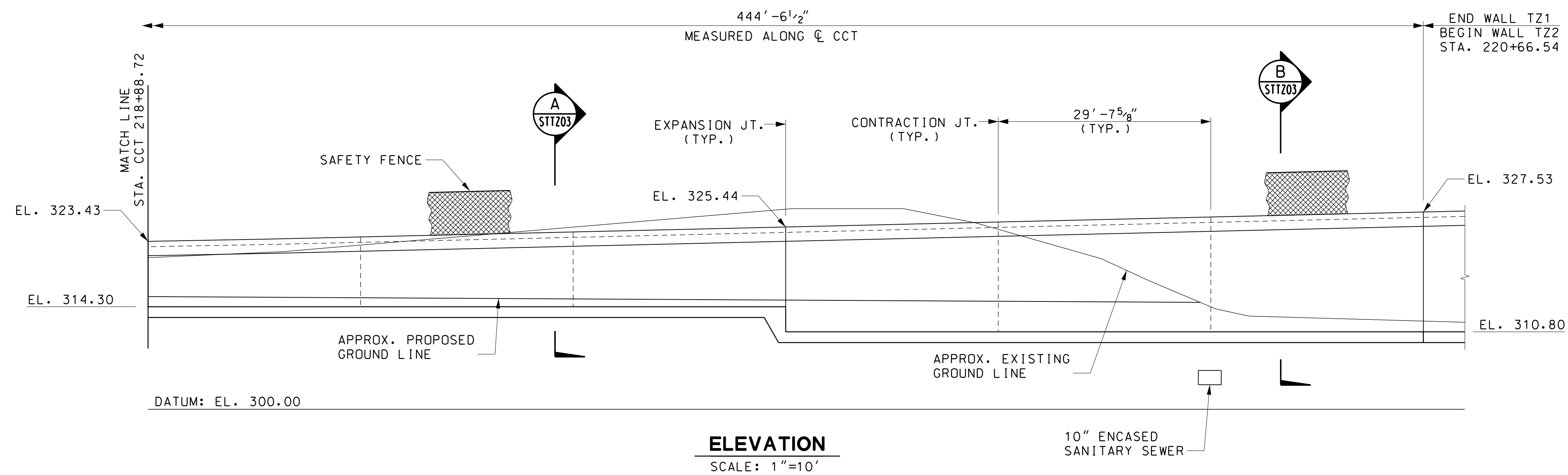
CONTRACT NO.	-1042-0220
DRAWING NO.	STTY02
SHEET NO.	34 OF 828





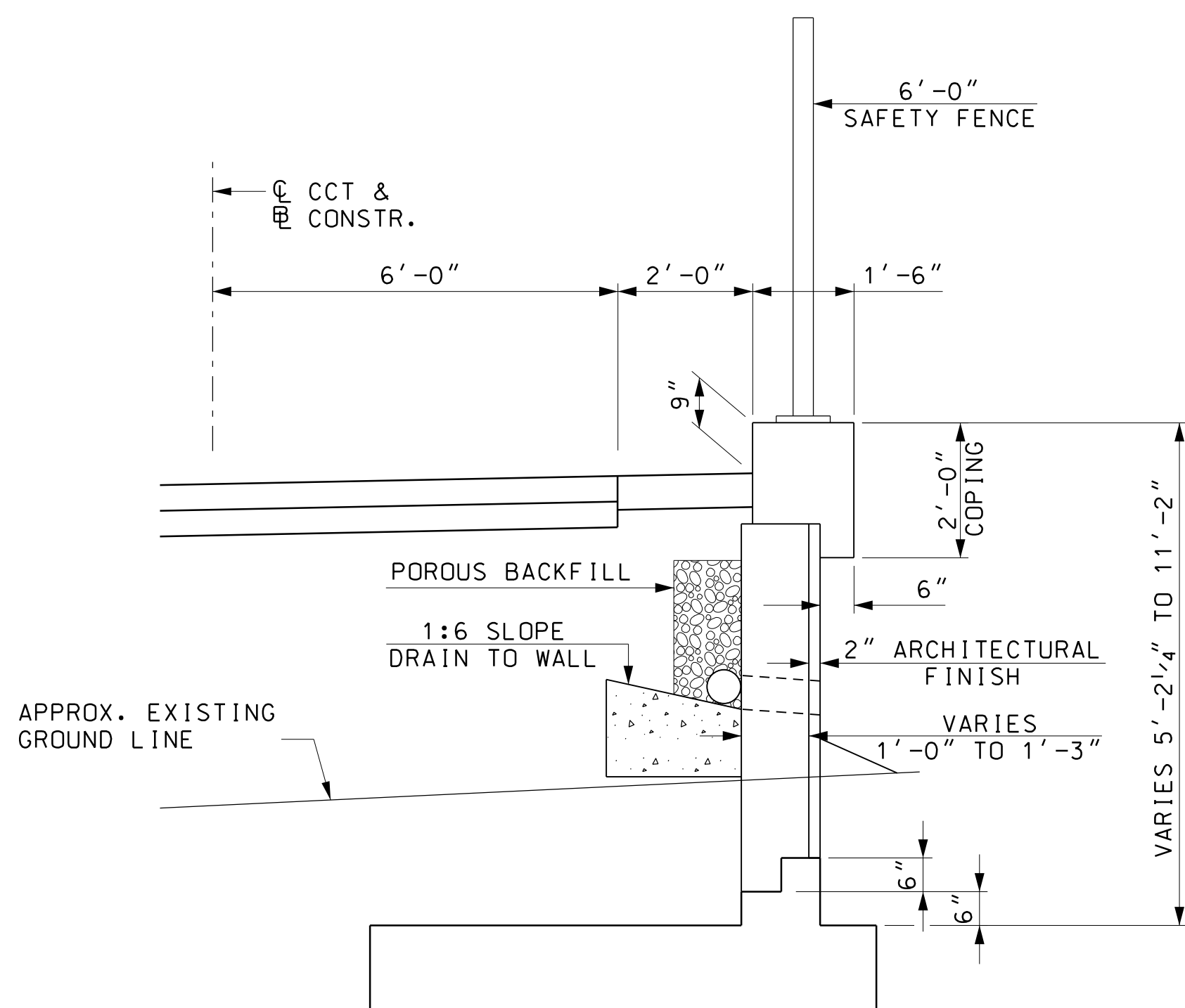
NOTES:

1. FOR RETAINING WALL SECTIONS, SEE DWG STTZ03.
2. ARCHITECTURAL FINISH TO BE DETERMINED.
3. FOR STEPPED FOOTING DETAIL,
SEE SHA STD. NO. RW(6.12)-83-155.
4. FOR EXPANSION AND CONTRACTION JOINTS,
SEE SHA STD. NO. RW(6.13)-83-157.

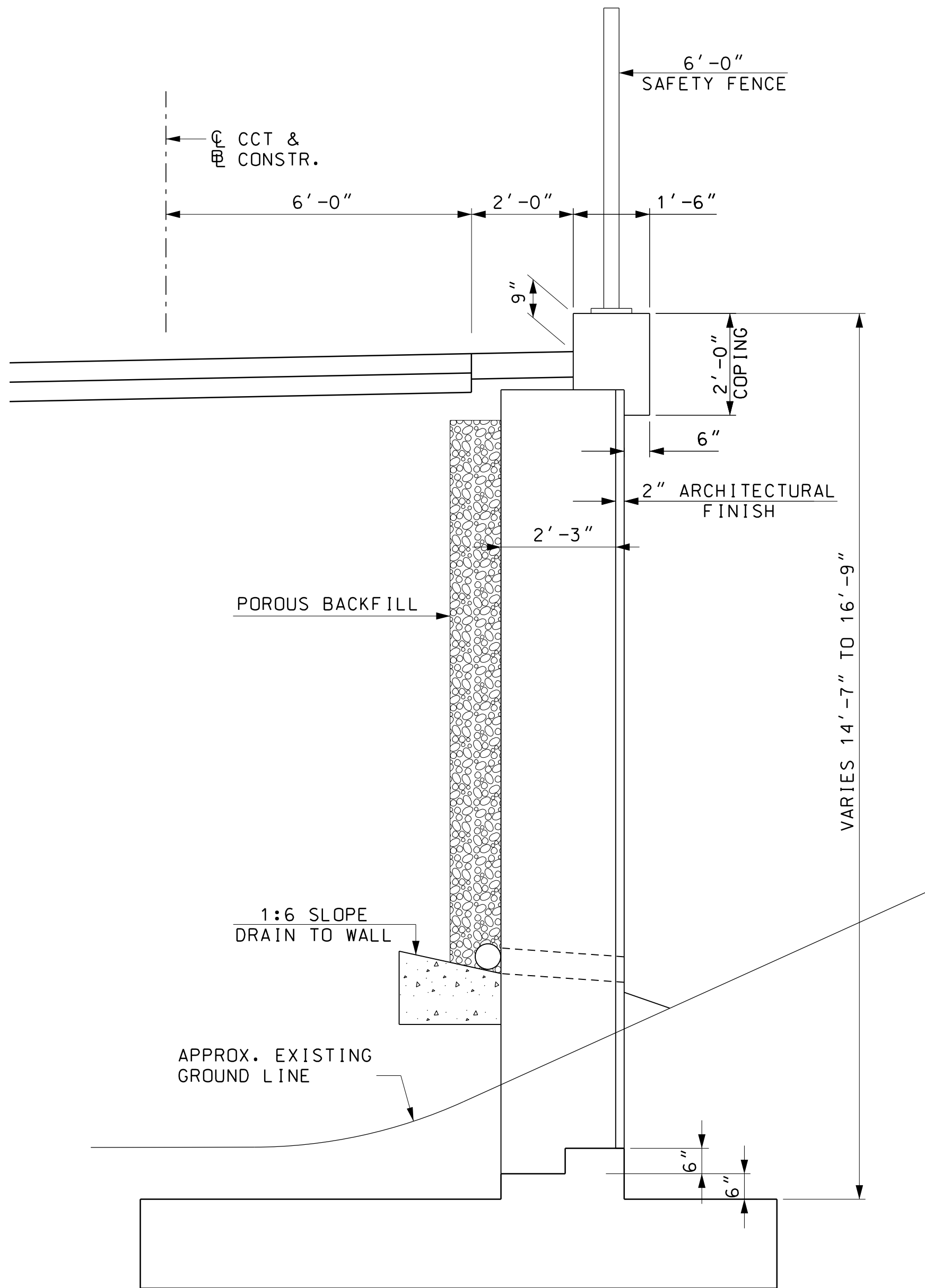


NOTES:

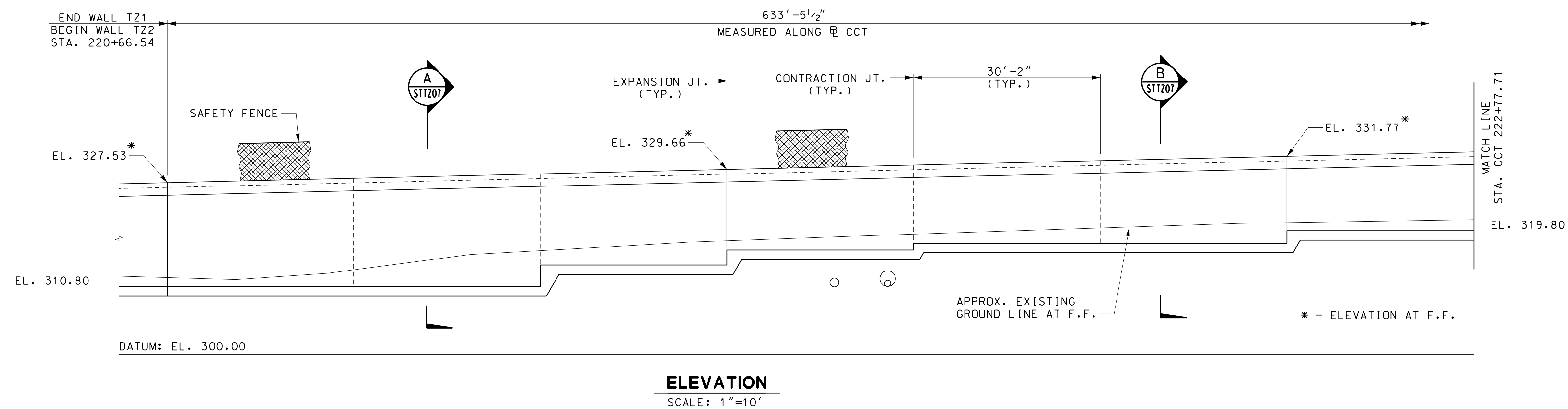
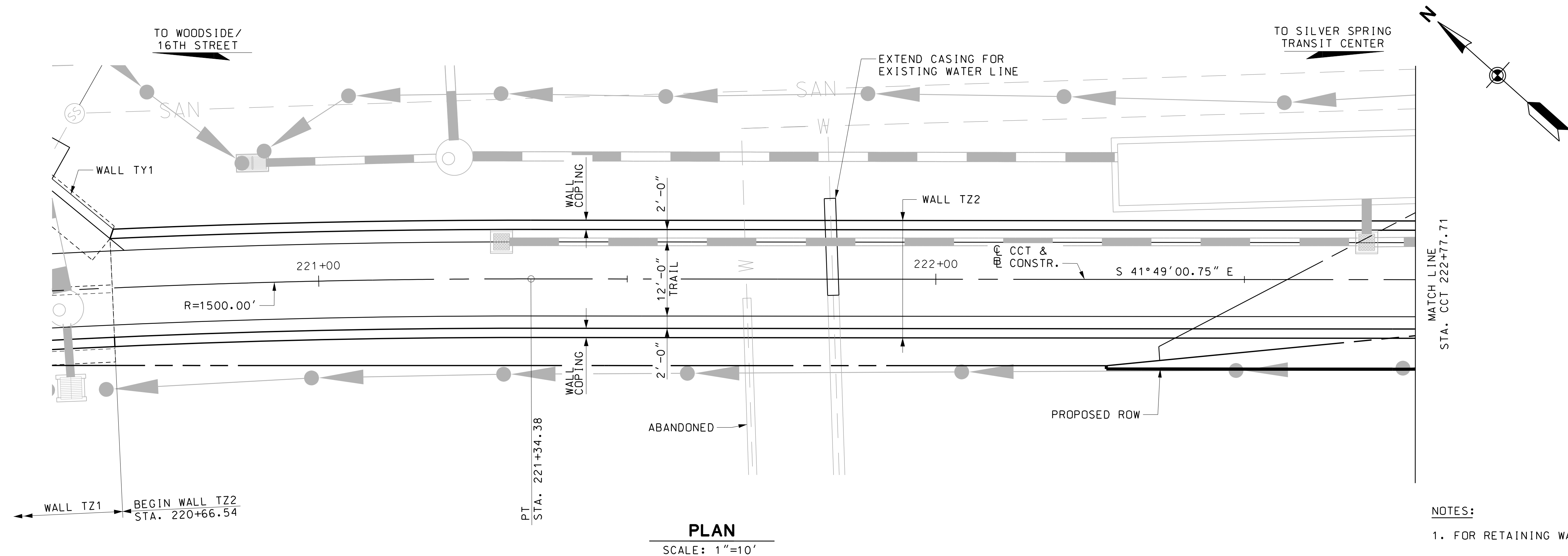
1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
2. REAR FACE OF WALL PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUND LINE.

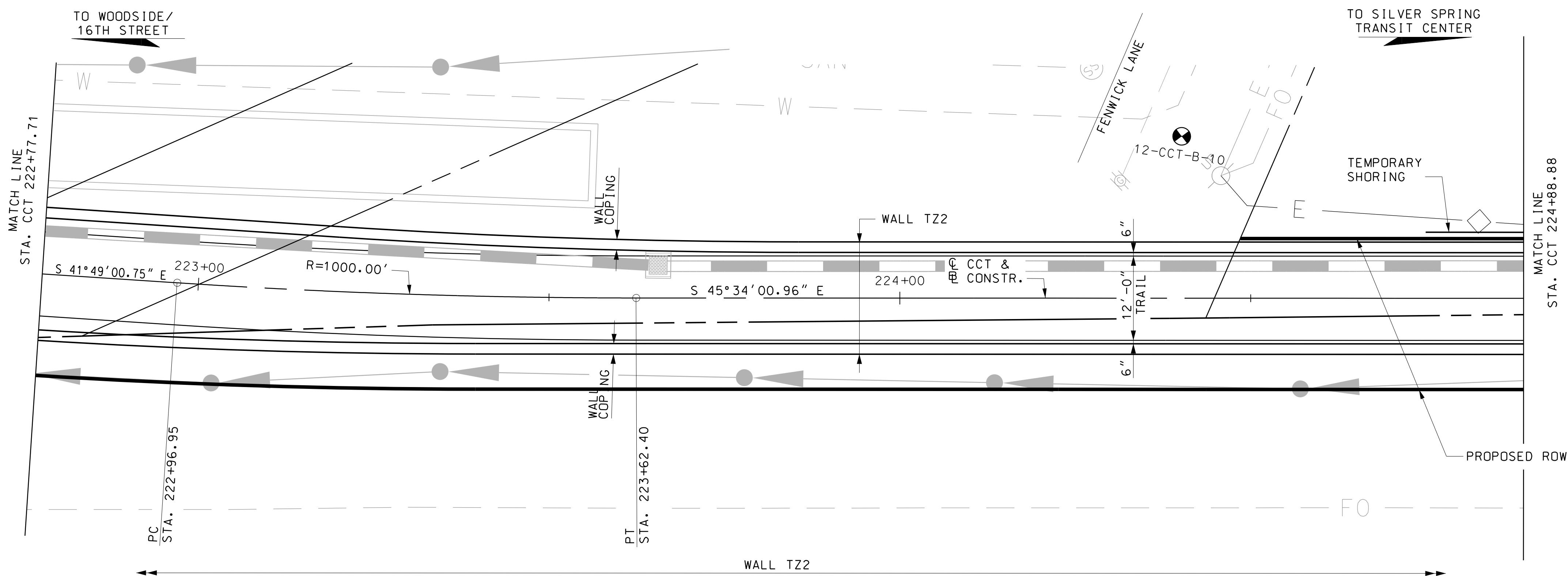


A SECTION
STTZ01 SCALE: 1/2" = 1'-0"
REF: STTZ01



B SECTION
STTZ02 SCALE: 1/2" = 1'-0"
REF: STTZ02

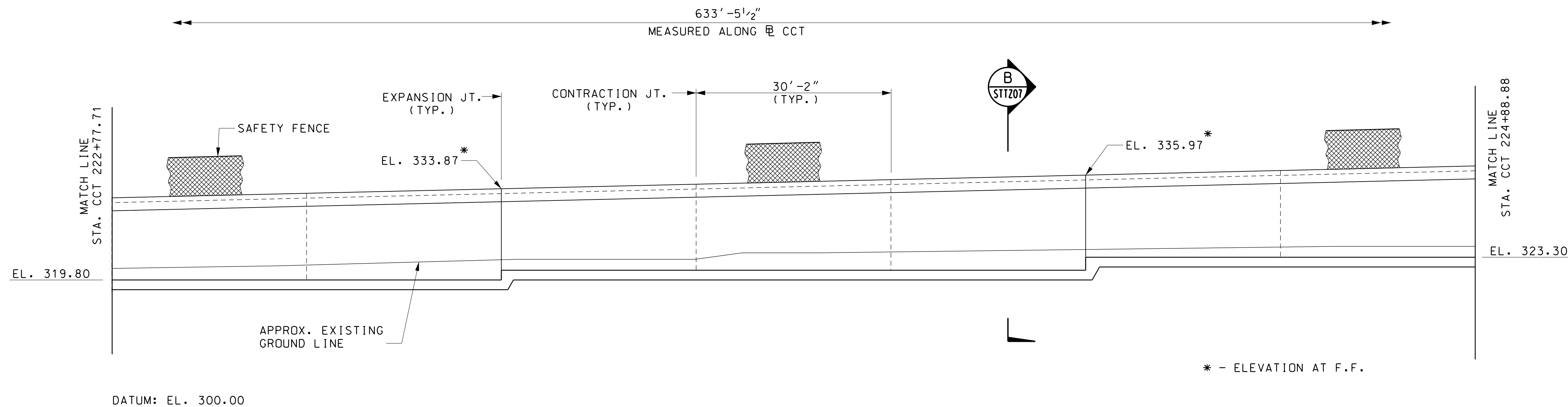




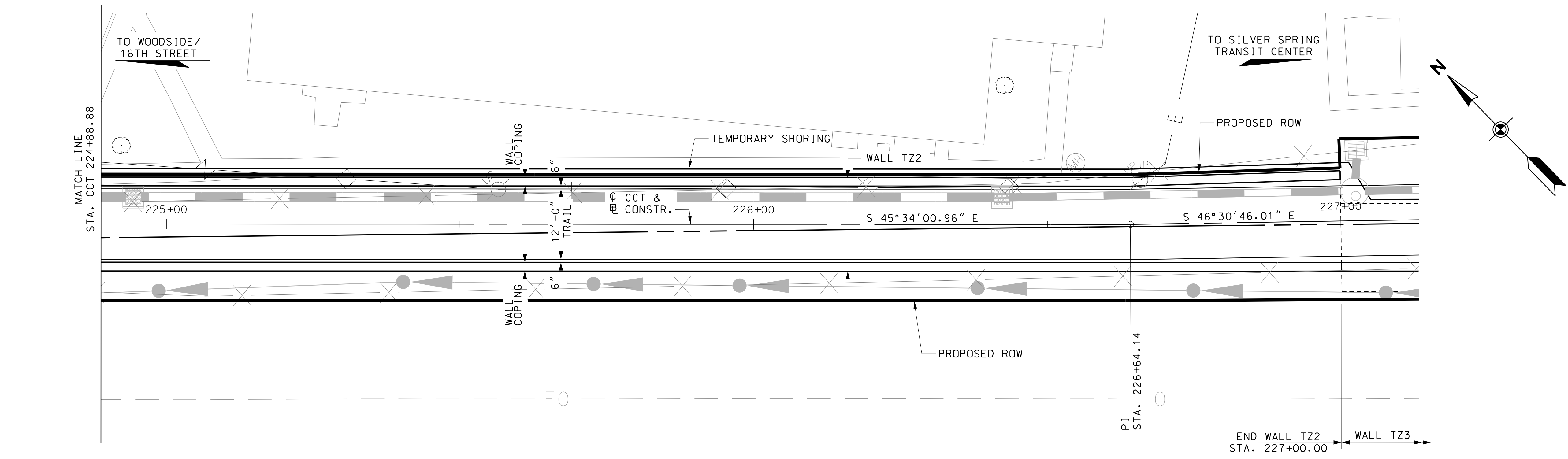
PLAN
SCALE: 1"=10'

NOTES:

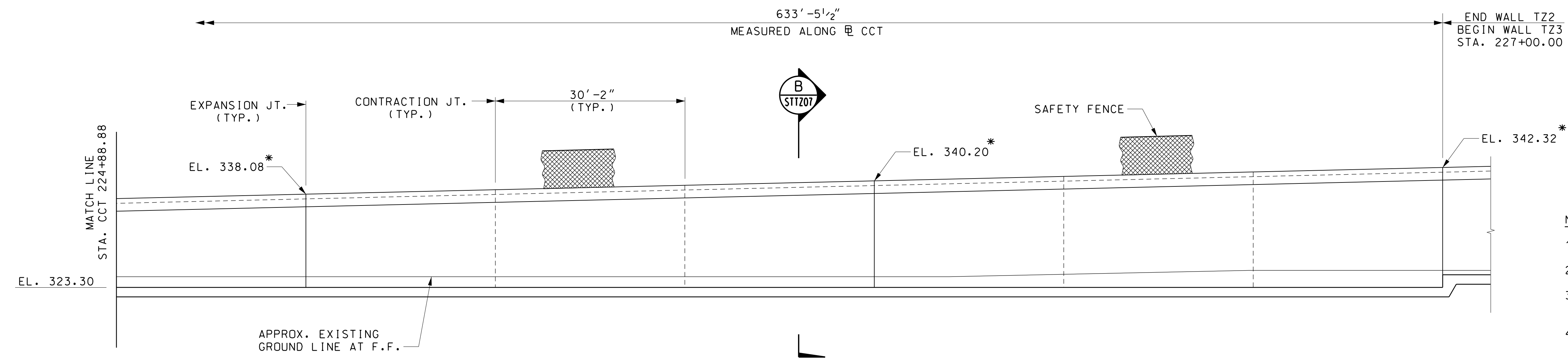
1. FOR RETAINING WALL SECTIONS, SEE DWG STTZ07.
2. ARCHITECTURAL FINISH TO BE DETERMINED.
3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.



ELEVATION
SCALE: 1"=10'



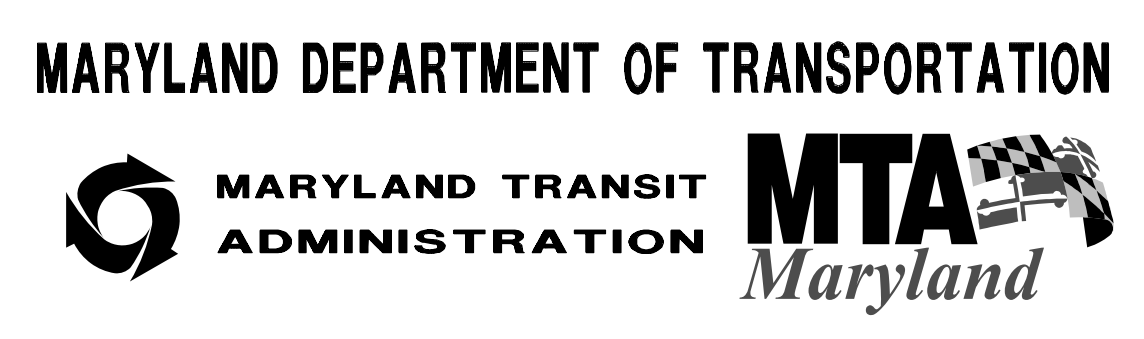
PLAN
SCALE: 1"=10'



- NOTES:**
- 1. FOR RETAINING WALL SECTIONS, SEE DWG STTZ07.
 - 2. ARCHITECTURAL FINISH TO BE DETERMINED.
 - 3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.

* - ELEVATION AT F.F.

ELEVATION
SCALE: 1"=10'



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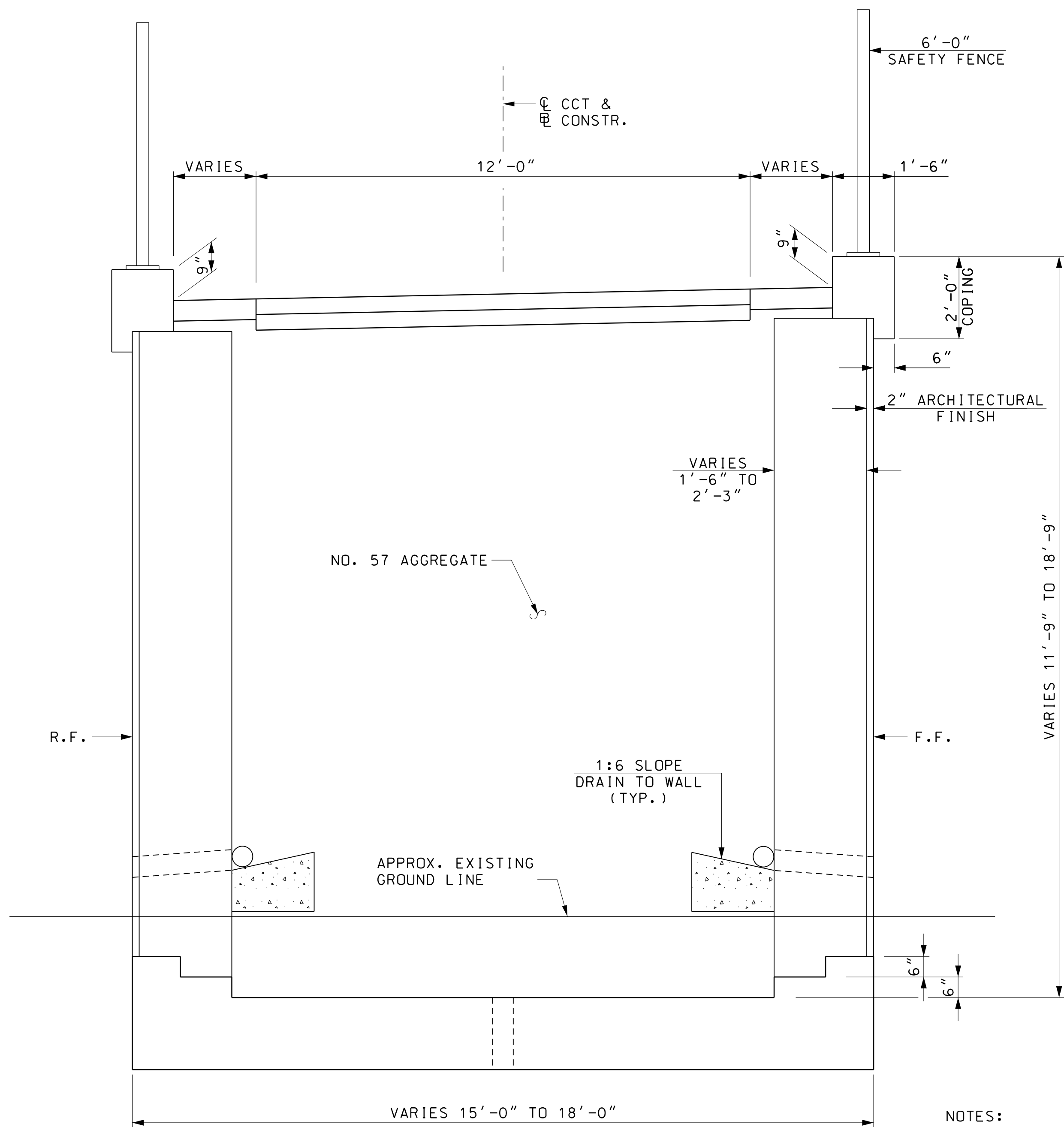
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APPR	CHECK	DRAWN	DESIGN
			KSC
			JSW
			WMG

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
RETAINING WALL TZ2 PLAN AND ELEVATION – SHEET 3 OF 3	
DATE: DECEMBER 2013	SCALE: AS SHOWN

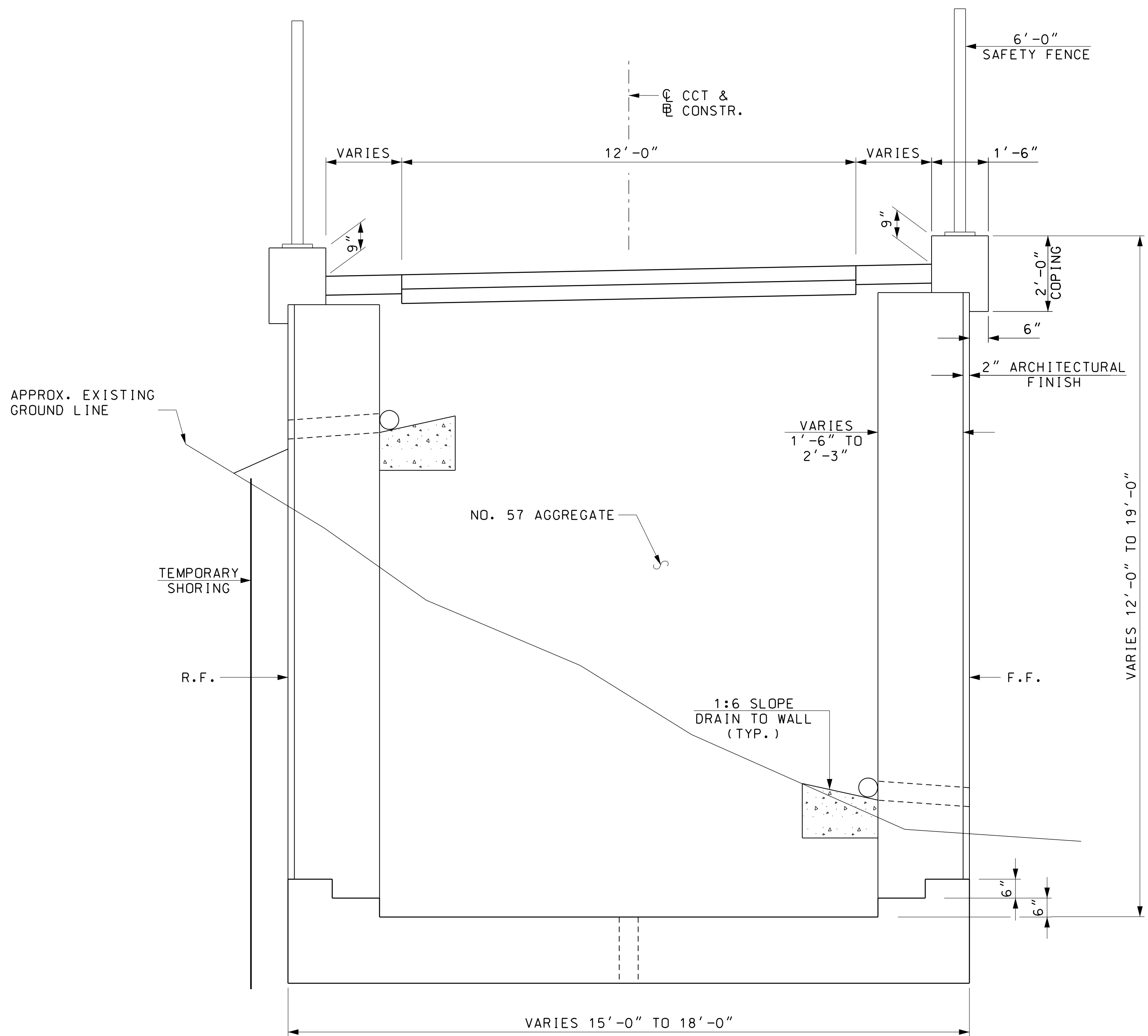
CONTRACT NO. T-1042-0220
DRAWING NO. STTZ06
SHEET NO. 490 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 12\Structures\Z-Ret Wall S Side CCT Spring St-SSTC Abut\Sheet Files\1042pSttz06.dgn 12/9/2013

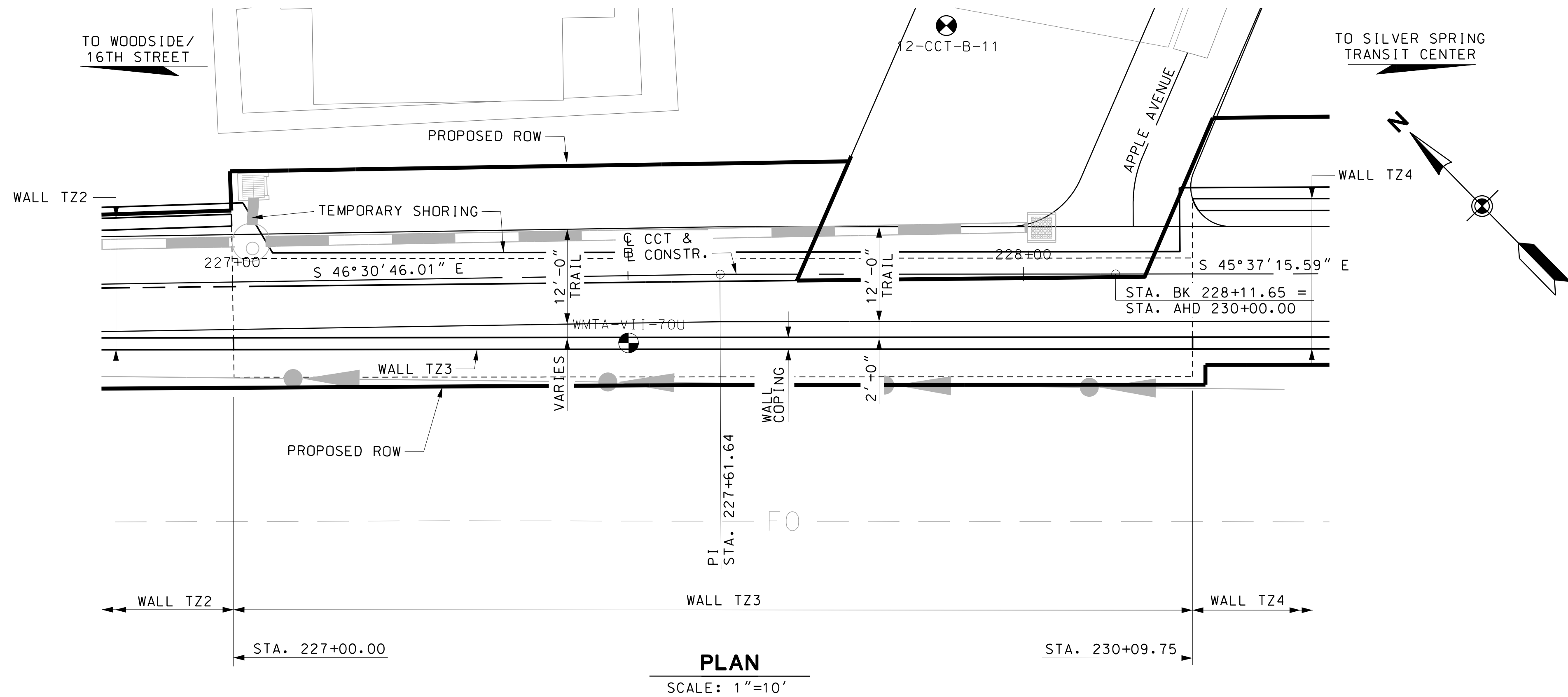


A SECTION
 SCALE: 1/2" = 1'-0"
 REF: STTZ04

- NOTES:
- FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
 - REAR FACE OF WALL PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUND LINE.

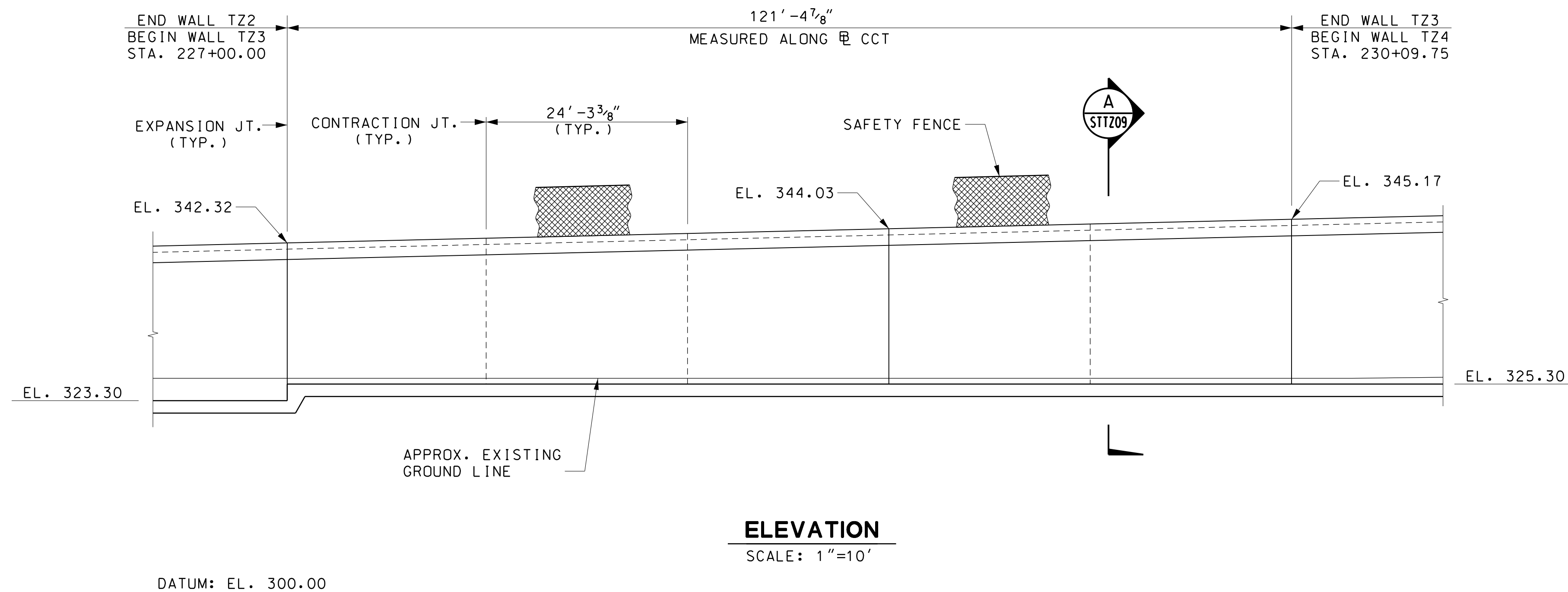


B SECTION
 SCALE: 1/2" = 1'-0"
 REF: STTZ06



PLAN

SCALE: 1"=10'



ELEVATION

SCALE: 1"=10'

DATUM: EL. 300.00

NOTES:

1. FOR RETAINING WALL SECTION, SEE DWG STTZ09.
2. ARCHITECTURAL FINISH TO BE DETERMINED.
3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.

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DESIGN KSC
DRAWN JSW
CHECK WMG
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

RETAINING WALL TZ3
PLAN AND ELEVATION

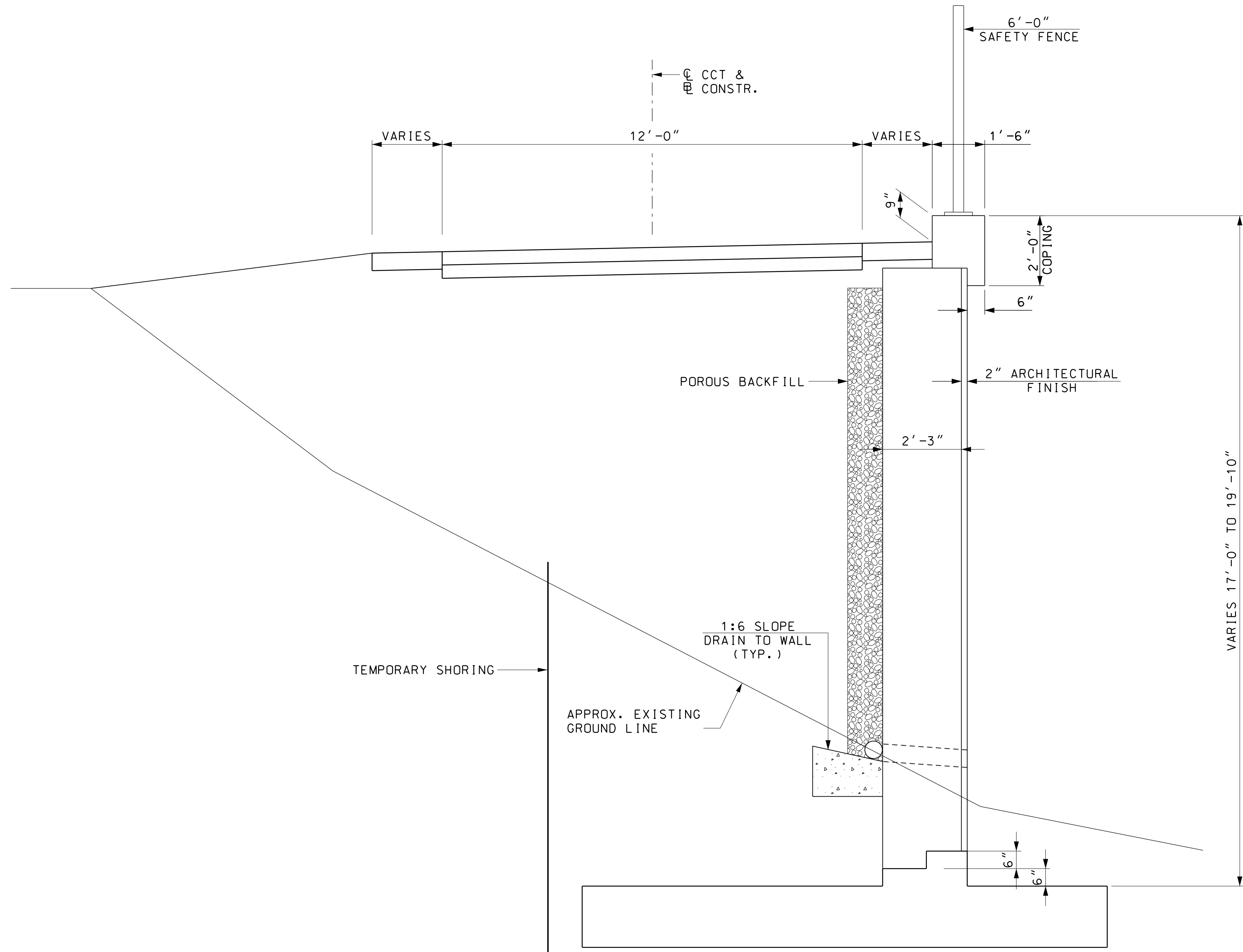
DATE: DECEMBER 2013

SCALE: AS SHOWN

CONTRACT NO.
T-1042-0220

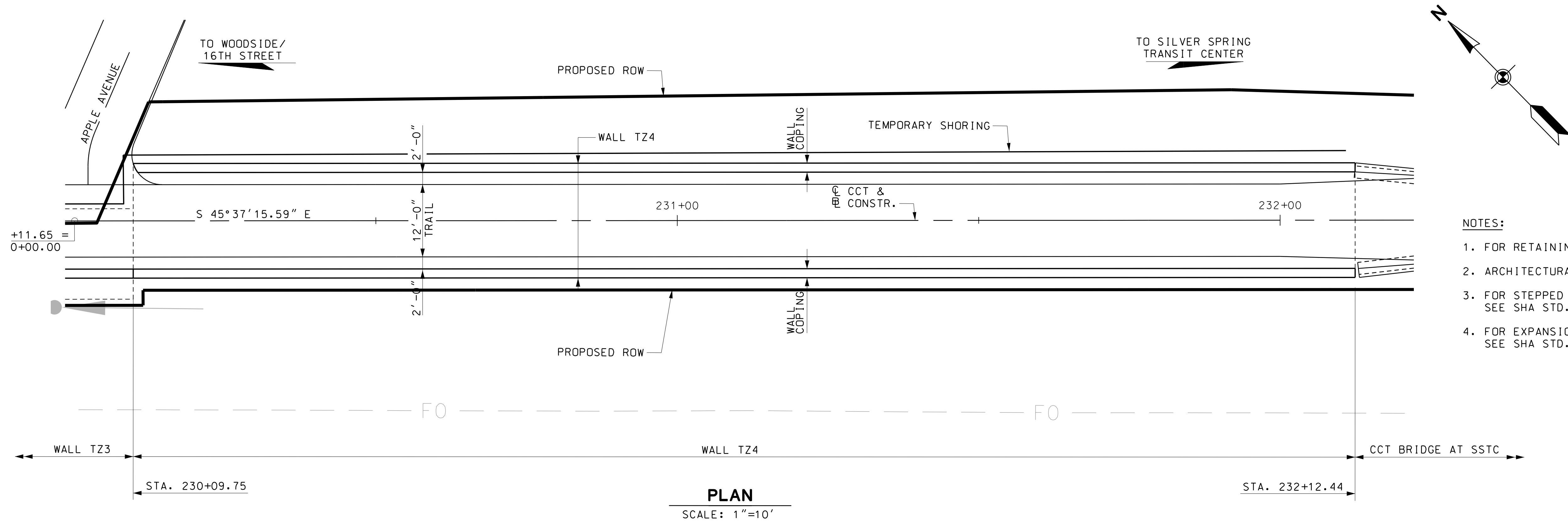
DRAWING NO.
STTZ08

SHEET NO.
492 OF 828

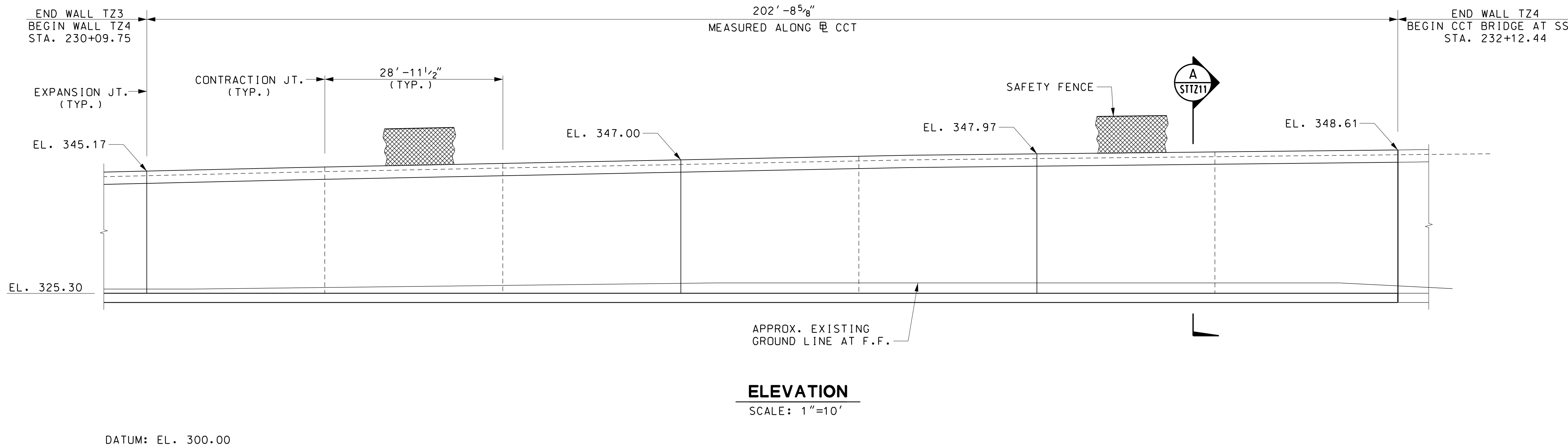


- NOTES:
- FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
 - REAR FACE OF WALL PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUND LINE.

A SECTION
SCALE: 1/2" = 1'-0"
REF: STTZ08

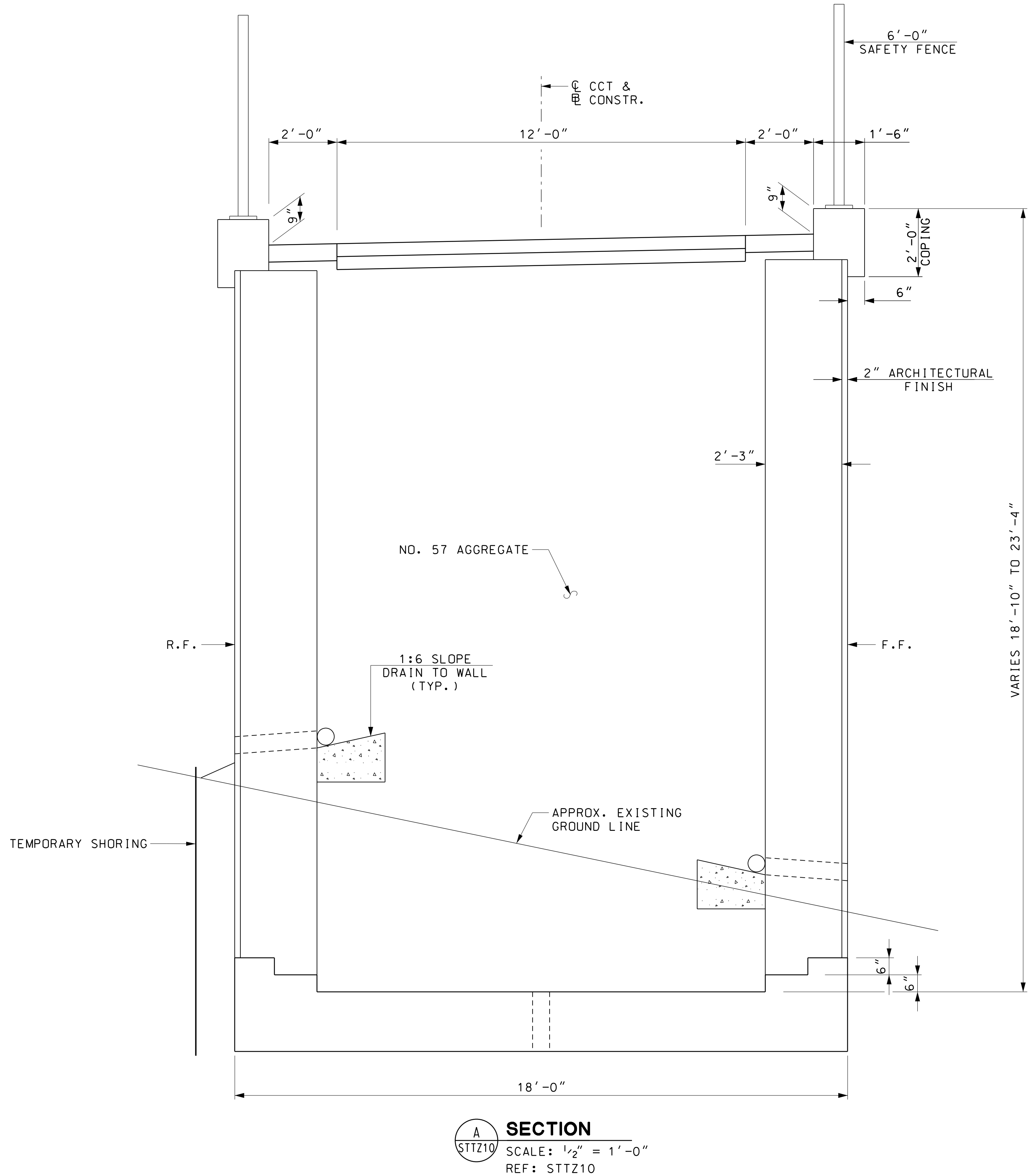


- NOTES:
- 1. FOR RETAINING WALL SECTIONS, SEE DWG STTZ11.
 - 2. ARCHITECTURAL FINISH TO BE DETERMINED.
 - 3. FOR STEPPED FOOTING DETAIL, SEE SHA STD. NO. RW(6.12)-83-155.
 - 4. FOR EXPANSION AND CONTRACTION JOINTS, SEE SHA STD. NO. RW(6.13)-83-157.

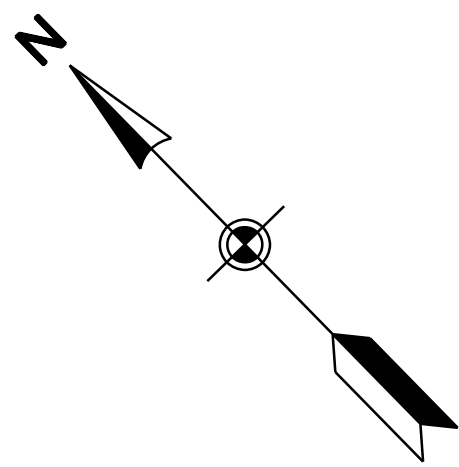


<div><div>MARYLAND DEPARTMENT OF TRANSPORTATION</div><div><div></div><div><div>MTA Maryland</div></div></div></div>	<div><div></div><div></div></div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	<div>DESIGN</div> <div>KSC</div>	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div>	CONTRACT NO.
				<div>CHECK</div> <div>WMG</div>		DRAWING NO.
<div>RETAINING WALL TZ4</div> <div>PLAN AND ELEVATION</div>					SHEET NO.	494 OF 828
<div>DATE: DECEMBER 2013</div> <div>SCALE: AS SHOWN</div>						

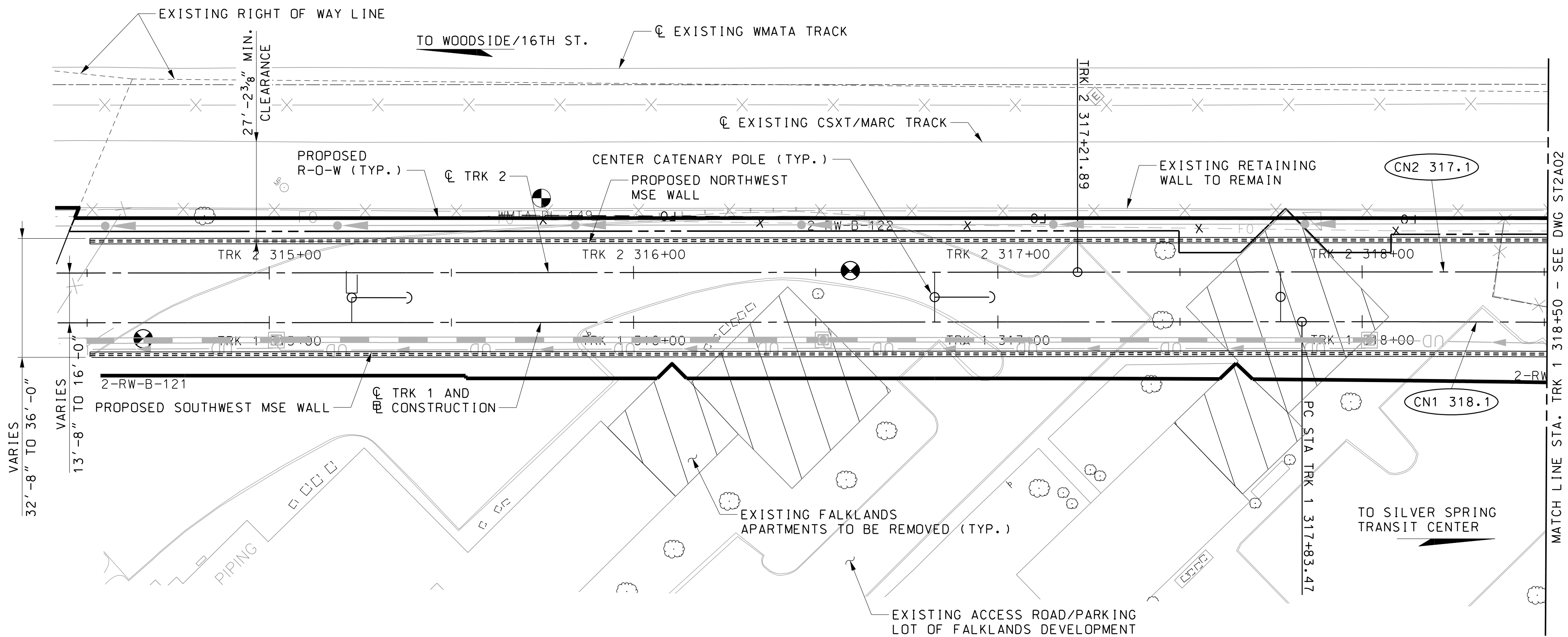
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 12\Structures\Z-Ret Wall S Side CCT Spring St-SSTC About\Sheet Files\1042pSttz10.dgn 12/9/2013



- NOTES:
1. FOR DRAINAGE DETAILS, SEE MD SHA STD. NO. RW(0.01)-80-100.
 2. REAR FACE OF WALL PLUMB, TO BE DAMPPROOFED FROM TOP OF FOOTING TO FINISHED GROUND LINE.

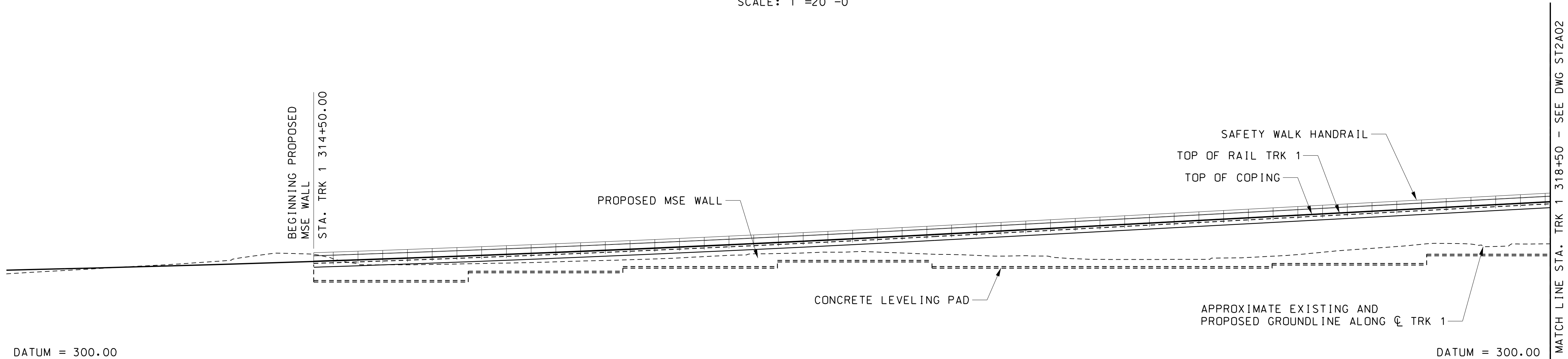


DIMENSIONS SHOWN
APPLY TO WING WALLS
WEST OF SSTC STRUCTURE



PLAN

SCALE: 1"=20'-0"



ELEVATION

SCALE: 1"=20'-0"

NOTE:

1. SEE DWG ST2A07 FOR ALL HORIZONTAL AND VERTICAL CURVE DATA.
2. SEE UTILITY COMPOSITE PLANS FOR DISPENSATION OF EXISTING UTILITIES AND PROPOSED UTILITIES.

MARYLAND DEPARTMENT OF TRANSPORTATION



MARYLAND TRANSIT
ADMINISTRATION



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APPR	CHECK	DRAWN	DESIGN
			AJF
			AJF
		CES	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

SILVER SPRING TRANSIT CENTER AERIAL
GENERAL PLAN & ELEVATION - 1

DATE: DECEMBER 2013

SCALE: 1"=20'-0"

CONTRACT NO.

T-1042-0220

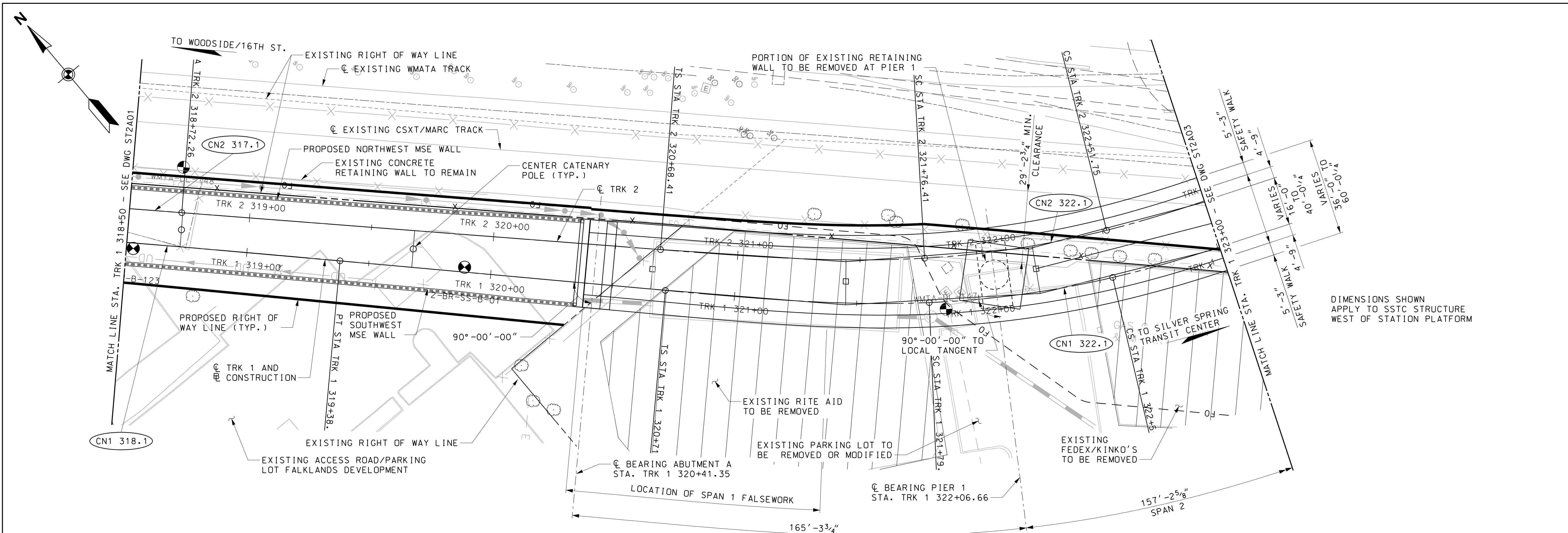
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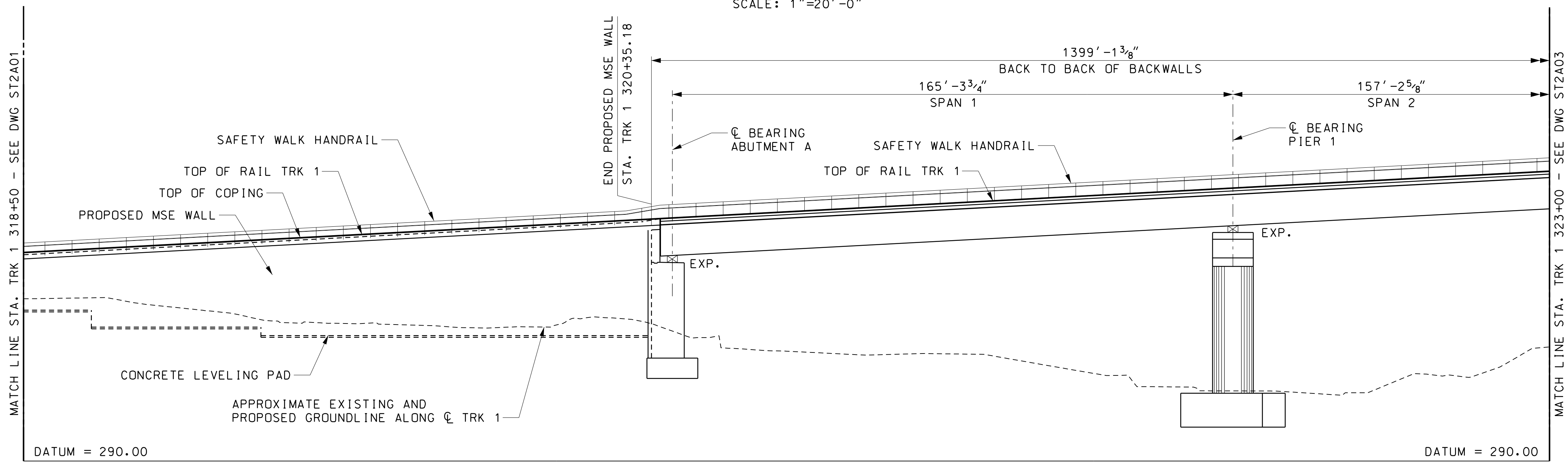
SHEET NO.

496 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 02\Structures\A-SSTC Aerial\WRA\Sheet Files\1042pST2A01.dgn 12/6/2013

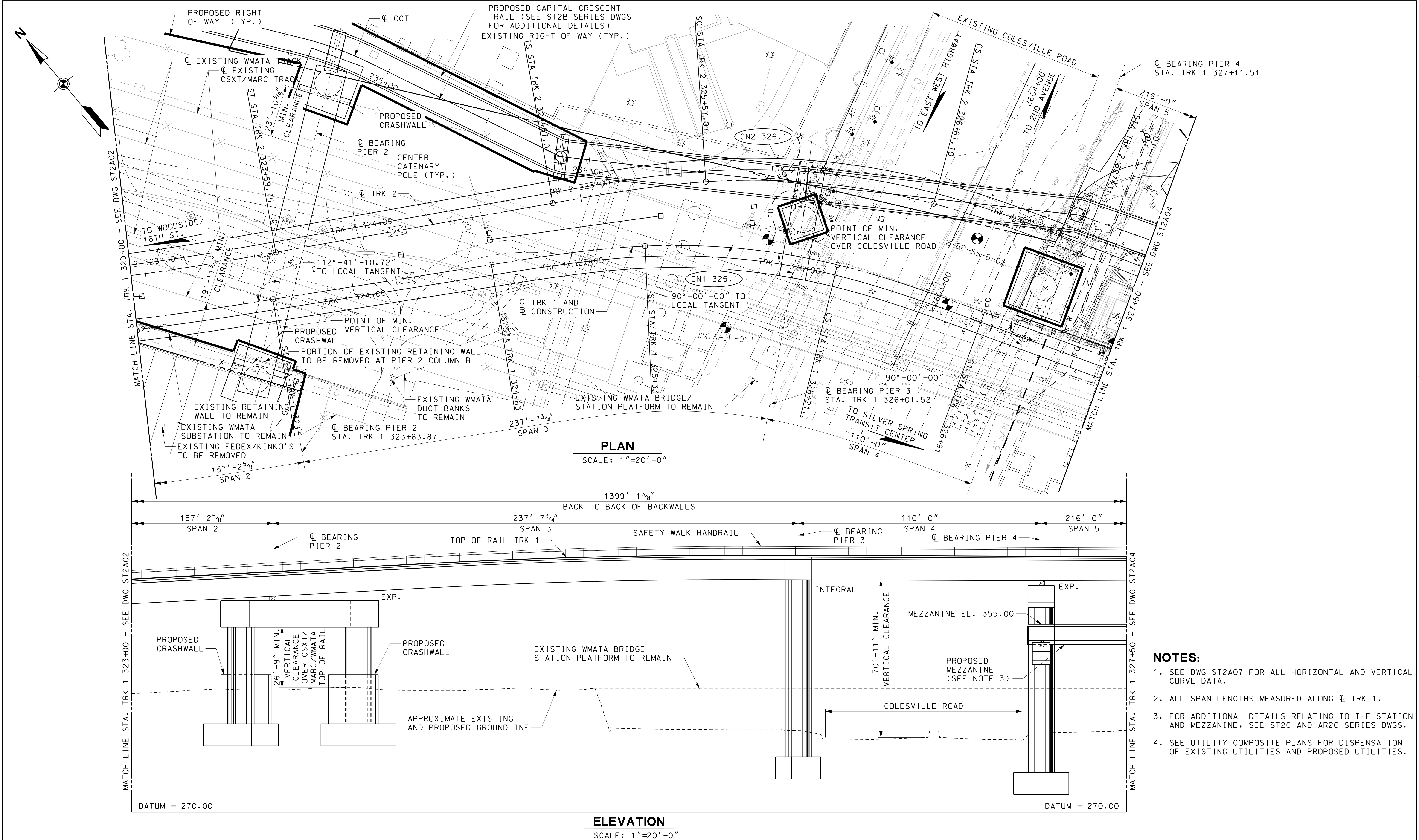


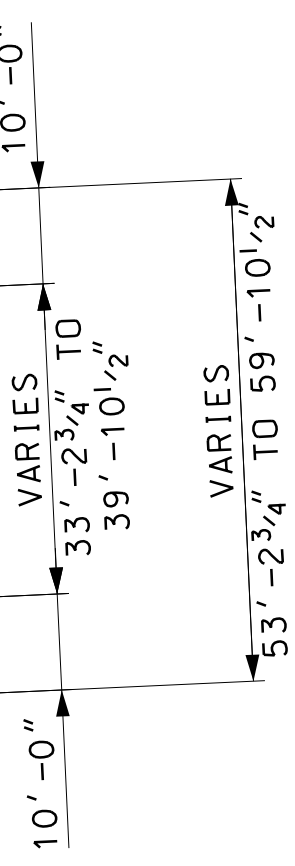
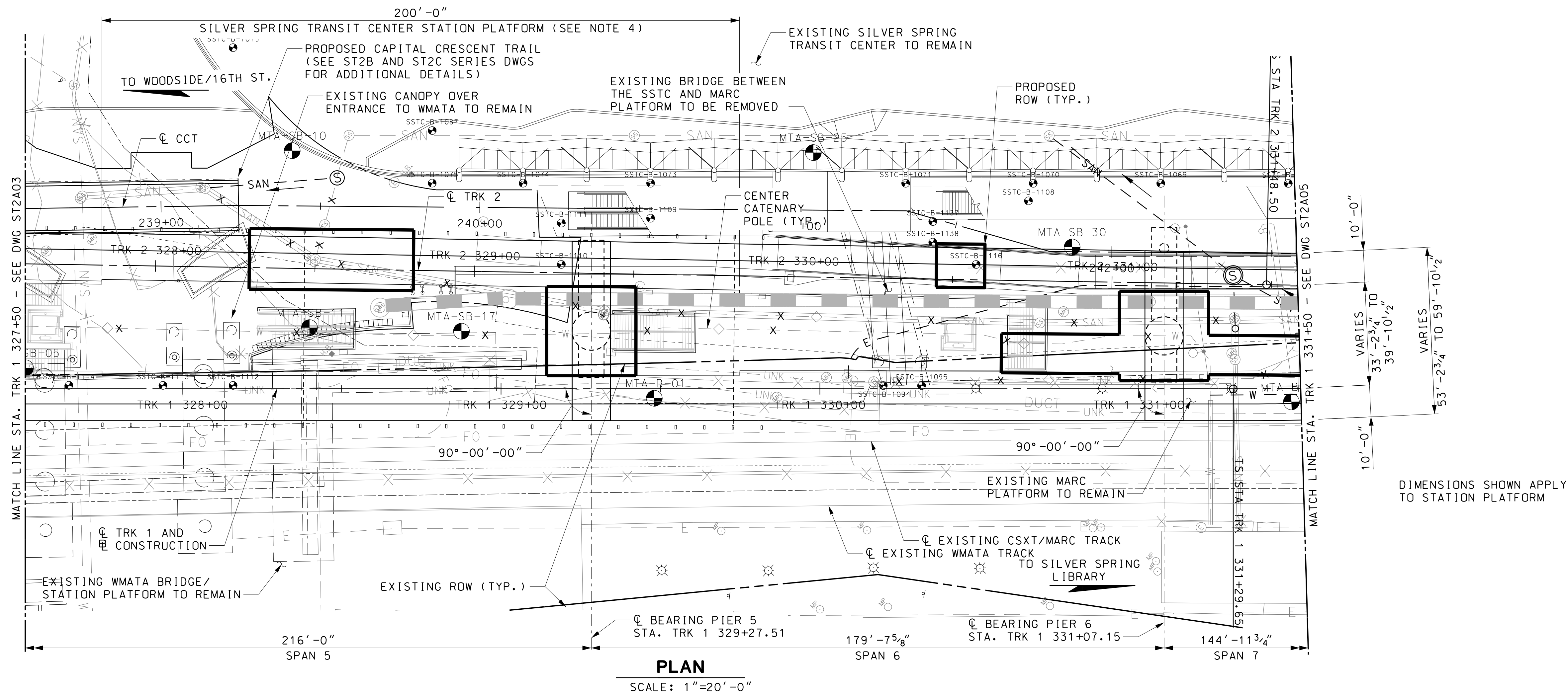
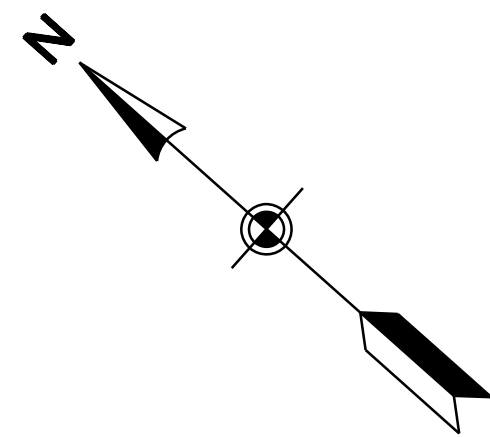
PLAN
SCALE: 1"=20'-0"



ELEVATION
SCALE: 1"=20'-0"

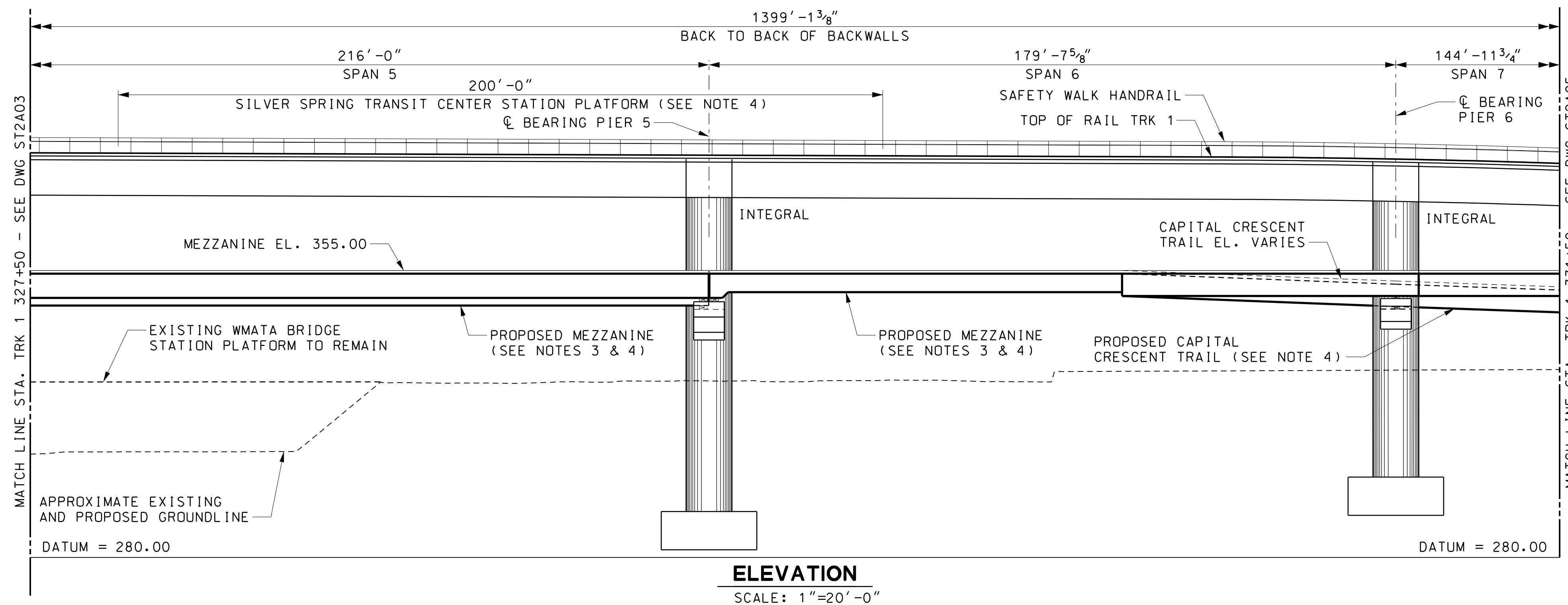
- NOTES:**
1. SEE DWG ST2A07 FOR ALL HORIZONTAL AND VERTICAL CURVE DATA.
 2. ALL SPAN LENGTHS MEASURED ALONG CL TRK 1.
 3. SEE UTILITY COMPOSITE PLANS FOR DISPENSATION OF EXISTING UTILITIES AND PROPOSED UTILITIES.





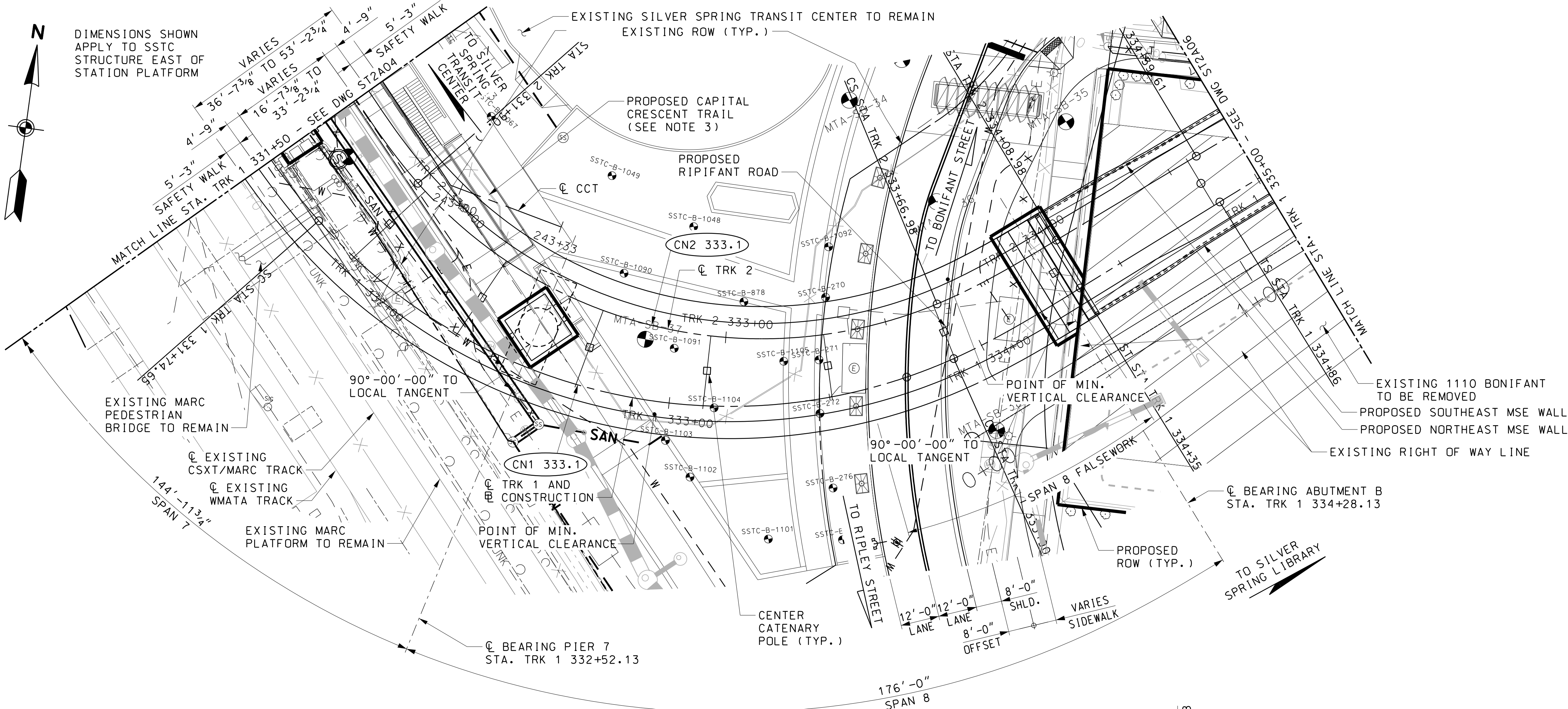
DIMENSIONS SHOWN APPLY TO STATION PLATFORM

PLAN
SCALE: 1"=20'-0"



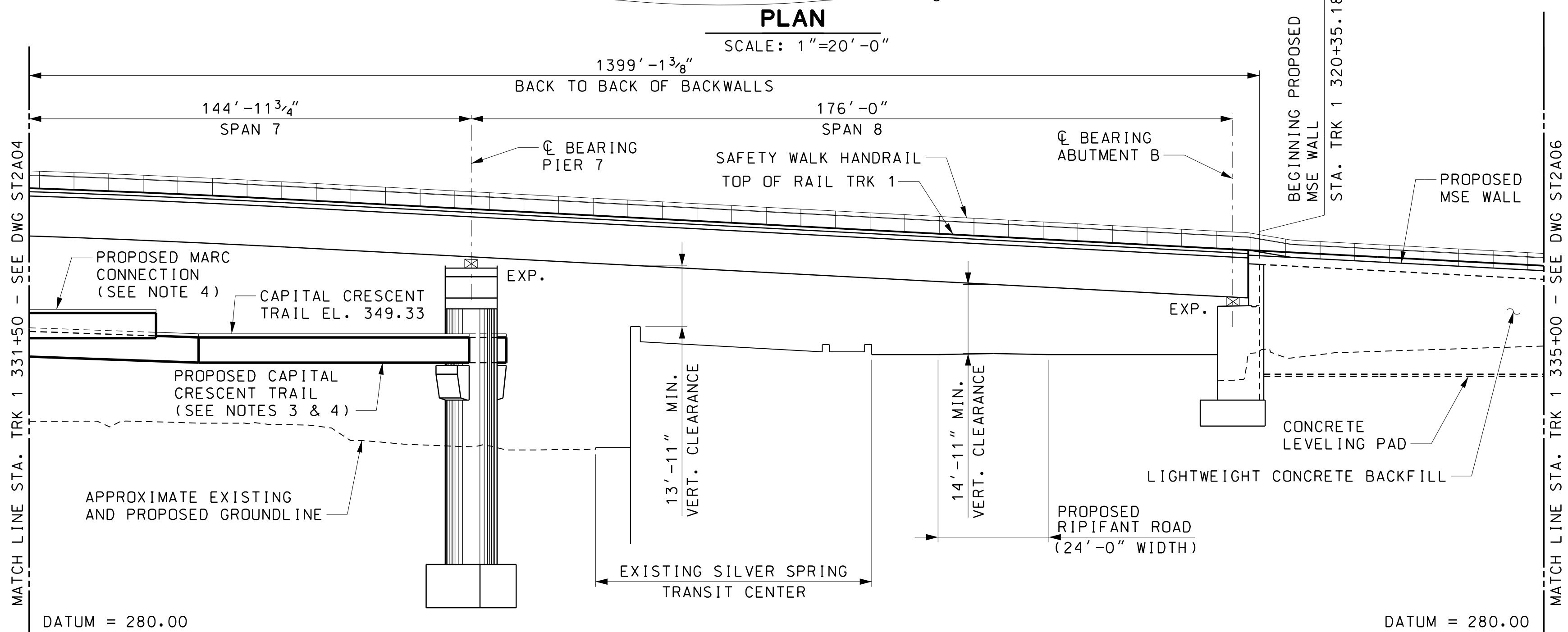
ELEVATION
SCALE: 1"=20'-0"

- NOTES:**
1. SEE DWG ST2A07 FOR ALL HORIZONTAL AND VERTICAL CURVE DATA.
 2. ALL SPAN LENGTHS MEASURED ALONG CL TRK 1.
 3. MEZZANINE COLUMNS NOT SHOWN FOR CLARITY.
 4. FOR ADDITIONAL DETAILS RELATING TO THE STATION, MEZZANINE, MARC CONNECTION AND CAPITAL CRESCENT TRAIL, SEE ST2C AND AR2C SERIES DWGS.
 5. SEE UTILITY COMPOSITE PLANS FOR DISPENSATION OF EXISTING UTILITIES AND PROPOSED UTILITIES.



PLAN

SCALE: 1"=20'-0"



ELEVATION

SCALE: 1"=20'-0"

NOTES:

1. SEE DWG ST2A07 FOR ALL HORIZONTAL AND VERTICAL CURVE DATA.
2. ALL SPAN LENGTHS MEASURED ALONG CL TRK 1.
3. CAPITAL CRESCENT TRAIL COLUMN NOT SHOWN FOR CLARITY.
4. FOR ADDITIONAL DETAILS RELATING TO THE MARC CONNECTION AND CAPITAL CRESCENT TRAIL, SEE ST2C AND AR2C SERIES DWGS.
5. SEE UTILITY COMPOSITE PLANS FOR DISPENSATION OF EXISTING UTILITIES AND PROPOSED UTILITIES.

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN	AJF
CHECK	AJF
DRAWN	CES
APPR	

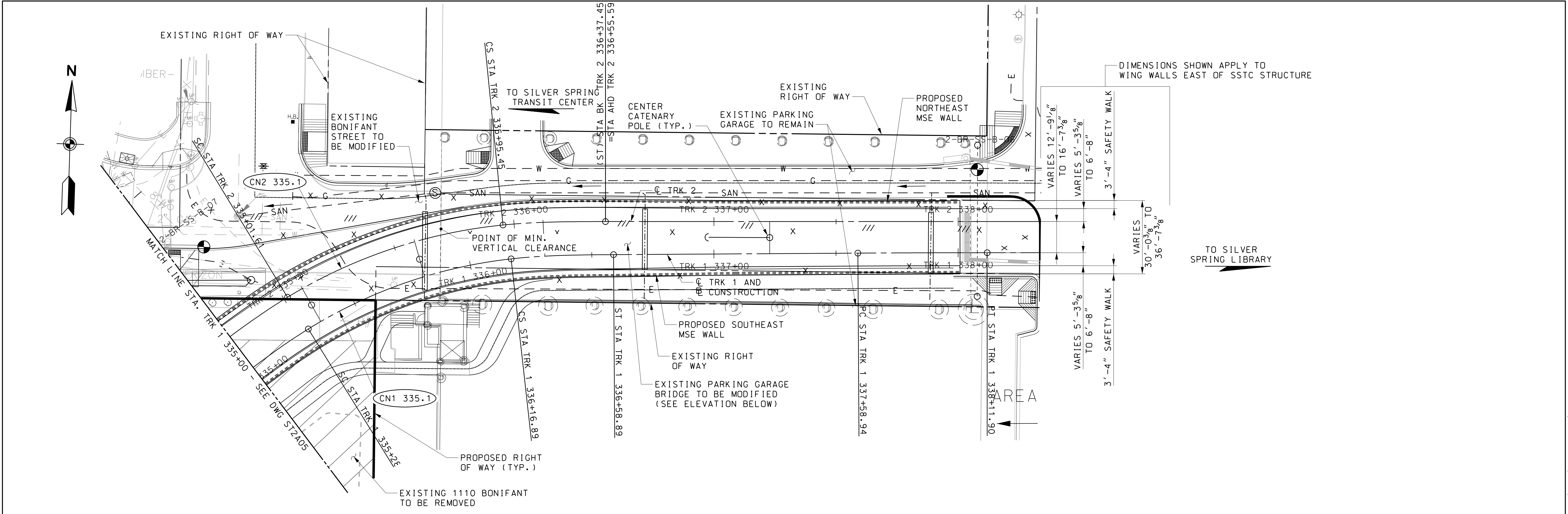
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

SILVER SPRING TRANSIT CENTER AERIAL
GENERAL PLAN & ELEVATION - 5

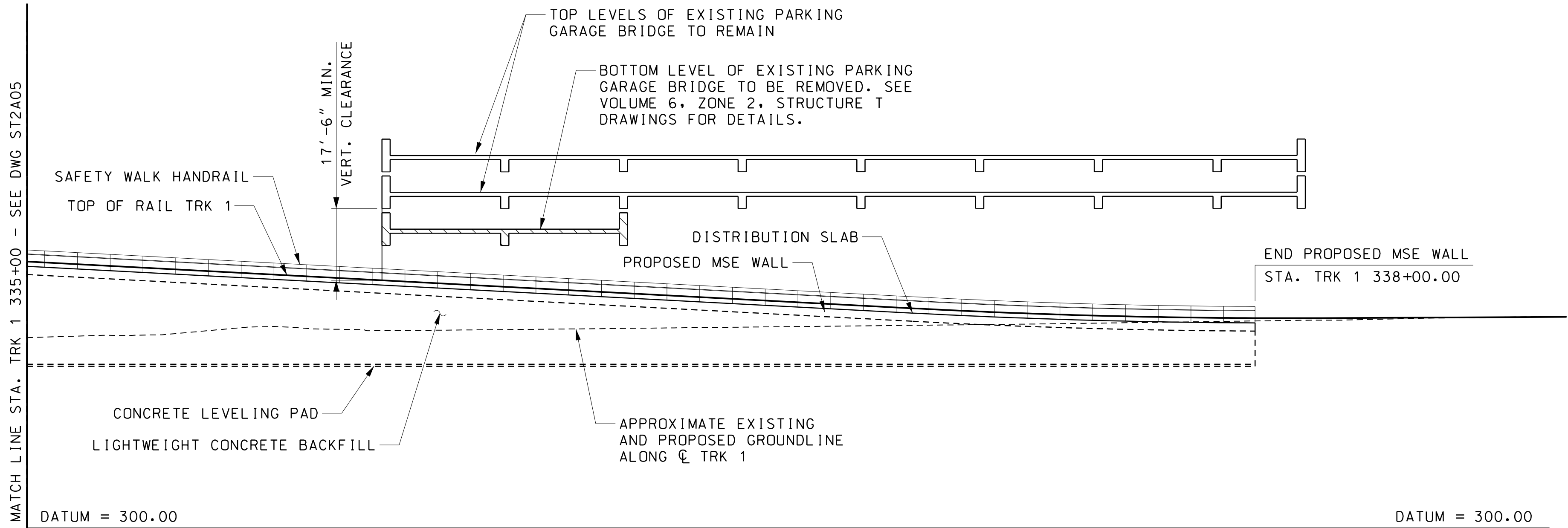
DATE: DECEMBER 2013

SCALE: 1"=20'-0"

CONTRACT NO.	T-1042-0220
DRAWING NO.	ST2A05
SHEET NO.	500 OF 828

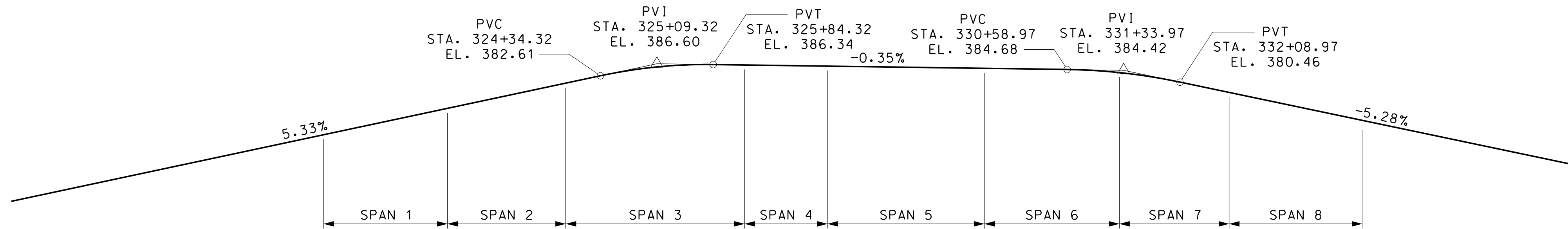


PLAN
SCALE: 1"=20'-0"



ELEVATION
SCALE: 1"=20'-0"

- NOTE:**
- SEE DWG ST2A07 FOR ALL HORIZONTAL AND VERTICAL CURVE DATA.
 - SEE UTILITY COMPOSITE PLANS FOR DISPENSATION OF EXISTING UTILITIES AND PROPOSED UTILITIES.



TRK 1 VERTICAL CURVE DETAIL
SCALE: NOT TO SCALE

CURVE DATA CN 1 318.1

SPIRAL IN LENGTH: N/A
P.I. STA. 318+60.83
 $\Delta = 0^\circ -50' -33.75''$
Dc = $0^\circ -32' -40.69''$
R = 10520.00'
T = 77.37'
L = 154.73'
E = 0.28'
P.C. STA. 317+83.47
P.T. STA. 319+38.19
S.E. = 0"
SPIRAL OUT LENGTH: N/A

CURVE DATA CN 1 322.1

SPIRAL IN LENGTH: 108.00'
P.I. STA. 322+17.53
 $\Delta = 10^\circ -43' -15.69''$
Dc = $14^\circ -08' -49.58''$
R = 405.00'
T = 38.00'
L = 75.78'
E = 1.78'
P.C. STA. 321+79.64
P.T. STA. 322+55.42
S.E. = 2.25"
SPIRAL OUT LENGTH: 108.00'

CURVE DATA CN 1 325.1

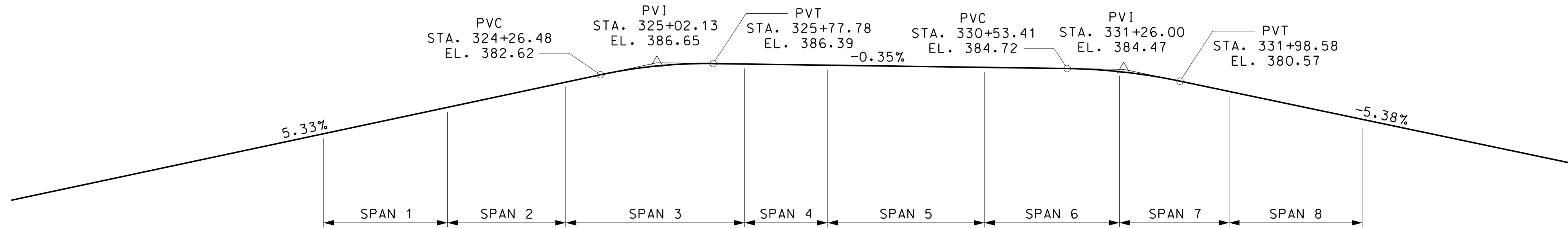
SPIRAL IN LENGTH: 70.00'
P.I. STA. 325+77.43
 $\Delta = 16^\circ -13' -08.05''$
Dc = $18^\circ -28' -57.03''$
R = 310.00'
T = 44.17'
L = 87.75'
E = 3.13'
P.C. STA. 325+33.55
P.T. STA. 326+21.31
S.E. = 1.5"
SPIRAL OUT LENGTH: 70.00'

CURVE DATA CN 1 333.1

SPIRAL IN LENGTH: 45.00'
P.I. STA. 332+82.55
 $\Delta = 72^\circ -43' -45.85''$
Dc = $33^\circ -42' -12.24''$
R = 170.00'
T = 125.17'
L = 215.79'
E = 41.11'
P.C. STA. 331+74.65
P.T. STA. 333+90.44
S.E. = 1"
SPIRAL OUT LENGTH: 45.00'

CURVE DATA CN 1 335.1

SPIRAL IN LENGTH: 42.00'
P.I. STA. 335+72.60
 $\Delta = 25^\circ -22' -44.61''$
Dc = $28^\circ -38' -52.40''$
R = 200.00'
T = 45.03'
L = 88.59'
E = 5.01'
P.C. STA. 335+28.31
P.T. STA. 336+16.89
S.E. = 1"
SPIRAL OUT LENGTH: 42.00'



TRK 2 VERTICAL CURVE DETAIL
SCALE: NOT TO SCALE

CURVE DATA CN 2 317.1

SPIRAL IN LENGTH: N/A
P.I. STA. 317+97.08
 $\Delta = 0^\circ -03' -58.57''$
Dc = $0^\circ -02' -38.67''$
R = 130000.00'
T = 75.18'
L = 150.36'
E = 0.02'
P.C. STA. 317+21.89
P.T. STA. 318+72.26
S.E. = 0"
SPIRAL OUT LENGTH: N/A

CURVE DATA CN 2 322.1

SPIRAL IN LENGTH: 108.00'
P.I. STA. 322+14.08
 $\Delta = 10^\circ -47' -29.86''$
Dc = $14^\circ -19' -26.20''$
R = 400.00'
T = 37.78'
L = 75.34'
E = 1.78'
P.C. STA. 321+76.41
P.T. STA. 322+51.75
S.E. = 2.25"
SPIRAL OUT LENGTH: 108.00'

CURVE DATA CN 2 326.1

SPIRAL IN LENGTH: 70.00'
P.I. STA. 326+09.09
 $\Delta = 18^\circ -37' -33.52''$
Dc = $17^\circ -54' -17.75''$
R = 320.00'
T = 52.48'
L = 104.03'
E = 4.27'
P.C. STA. 325+57.07
P.T. STA. 326+61.10
S.E. = 1.5"
SPIRAL OUT LENGTH: 70.00'

CURVE DATA CN 2 333.1

SPIRAL IN LENGTH: 42.00'
P.I. STA. 332+78.74
 $\Delta = 71^\circ -12' -24.32''$
Dc = $40^\circ -20' -56.91''$
R = 142.00'
T = 101.67'
L = 176.48'
E = 32.65'
P.C. STA. 331+90.50
P.T. STA. 333+66.98
S.E. = 1"
SPIRAL OUT LENGTH: 42.00'

CURVE DATA CN 2 335.1

SPIRAL IN LENGTH: 42.00'
P.I. STA. 335+48.53
 $\Delta = 25^\circ -36' -06.19''$
Dc = $27^\circ -17' -01.34''$
R = 210.00'
T = 47.71'
L = 93.84'
E = 5.35'
P.C. STA. 335+01.61
P.T. STA. 335+95.45
S.E. = 1"
SPIRAL OUT LENGTH: 42.00'

GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA PURPLE/RED LIGHT RAIL DESIGN CRITERIA

CONCRETE DESIGN: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

CREEP AND SHRINKAGE EFFECTS: CEB-FIP 1990 CODE

LOADING: PERMANENT LOADS: 150 PCF SUPERSTRUCTURE AND SUBSTRUCTURE CONCRETE. 490 PCF STRUCTURAL STEEL.

LIVE LOADS: ALL LRT VEHICLES SPECIFIED IN SECTION 9.2.2.2 OF THE MTA PURPLE/RED LIGHT RAIL DESIGN CRITERIA, INCLUDING LRV, CRANE CAR, WORK TRAIN, AND LOCOMOTIVE. 150 PSF PEDESTRIAN LOAD ON THE PLATFORM AND MEZZANINE.

WIND LOADS: IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AERIAL STRUCTURE AND CCT BRIDGE), AND IN ACCORDANCE WITH ASCE 7 (MEZZANINE AND CANOPY).

THERMAL FORCES:

CONCRETE: 30°F RISE, 40°F FALL, 0.0000060 PER °F

STEEL: 60°F RISE, 60°F FALL, 0.0000065 PER °F

RAIL: 45°F RISE, 105°F FALL, 0.0000065 PER °F.

CONCRETE: ALL CAST-IN-PLACE CONCRETE FOR ABUTMENT BACKWALLS, SAFETY WALKS, AND STATION PLATFORM SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER CAST-IN-PLACE CONCRETE, EXCEPT THAT WHICH IS USED AS CLOSURE POURS FOR PRESTRESSED CONCRETE, SHALL BE MIX NO. 3 (3,500 PSI).

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER. MINIMUM COVER FOR ANY BAR IN SEGMENTAL CONCRETE SHALL BE 1½" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP RIDING SURFACE AND AT THE OUTSIDE FACE OF WEBS, WHICH SHALL HAVE 2" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:

-ENTIRE SUPERSTRUCTURE

-ABUTMENT BACKWALLS

-CHEEKWALLS

-ALL BEARING SEAT PADS

-ABUTMENT BRIDGE SEAT AREAS

-PIER BRIDGE SEAT AREAS BENEATH EXPANSION JOINTS

-INTEGRAL PIER CAPS

KEYS: ALL KEYS ARE NOMINAL SIZE.

PRESTRESSED CONCRETE: ALLOWABLE STRESSES AT THE SERVICE LIMIT STATE:

MAXIMUM COMPRESSION:

-POST-TENSIONING AND PERMANENT LOADS: 0.45f'c

-PERMANENT AND TRANSIENT LOADS: 0.60f'c

MAXIMUM TENSION:

-LONGITUDINAL THROUGH JOINTS: NO TENSION (AT MATCH CAST JOINTS)

-TRANSVERSE: 0.0948√f'c

-OTHER AREAS: 0.19√f'c

-PRINCIPAL STRESS AT NEUTRAL AXIS IN WEB: 0.110√f'c

ALLOWABLE STRESSES DURING CONSTRUCTION:

-MAXIMUM COMPRESSION: 0.5f'c

-MAXIMUM TENSION: 0.190√f'c.

PRESTRESSED CONCRETE PARAMETERS:

-MINIMUM AGE OF THE SEGMENTS AT THE TIME OF ERECTION: 28 DAYS

-MINIMUM CONCRETE STRENGTH FOR LIFTING THE SEGMENTS: 2,500 PSI

-MINIMUM CONCRETE STRENGTH FOR STRESSING THE TRANSVERSE PT: 4,000 PSI

-MINIMUM CONCRETE STRENGTH FOR THE CLOSURE POUR PRIOR TO STRESSING: 2,500 PSI

-MINIMUM CONCRETE STRENGTH AT THE TRANSFER OF PRESTRESS: 6,500 PSI

-MINIMUM CONCRETE STRENGTH AT THE AGE OF 28 DAYS: 6,500 PSI

PRESTRESSING STRANDS: PRETENSIONING STEEL SHALL CONSIST OF 0.6" DIAMETER 7-WIRE BRIGHT LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF ASTM A416, GRADE 270.

STRAND PARAMETERS:

-APPARENT MODULUS: 28,500 KSI

-MAXIMUM YIELD STRENGTH: 243 KSI (90% ULTIMATE)

-MAXIMUM JACKING STRESS: 216 KSI (80% ULTIMATE)

-MAXIMUM ANCHOR STRESS AFTER ANCHOR SET: 189 KSI (70% ULTIMATE)

-MAXIMUM STRESS AFTER ANCHOR SET: 199.8 KSI (74% ULTIMATE)

-ANCHOR SET: 0.375"

-FRICTION COEFFICIENT: 0.25 PER RADIAN

-WOBBLE COEFFICIENT: 0.0002 PER FOOT

PRESTRESSING BARS: PRETENSIONING STEEL BARS SHALL CONFORM TO ASTM A722, GRADE 150.

BAR PARAMETERS:

-APPARENT MODULUS: 30,000 KSI

-MAXIMUM JACKING STRESS: 108 KSI (72% ULTIMATE)

-MAXIMUM ANCHOR STRESS: 105 KSI (70% ULTIMATE)

-MAXIMUM STRESS AFTER ANCHOR SET: 105 KSI (70% ULTIMATE)

-ANCHOR SET: 0.063"

-FRICTION COEFFICIENT: 0.30 PER RADIAN

-WOBBLE COEFFICIENT: 0.0002 PER FOOT



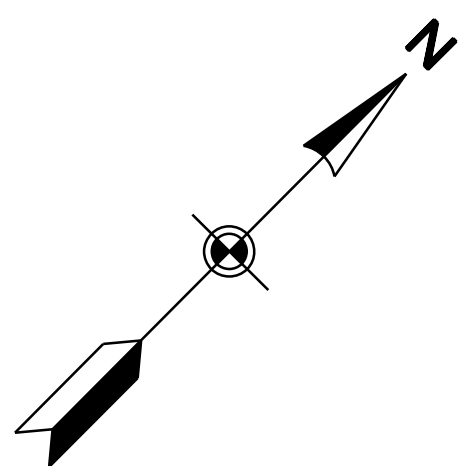
PROFESSIONAL CERTIFICATION

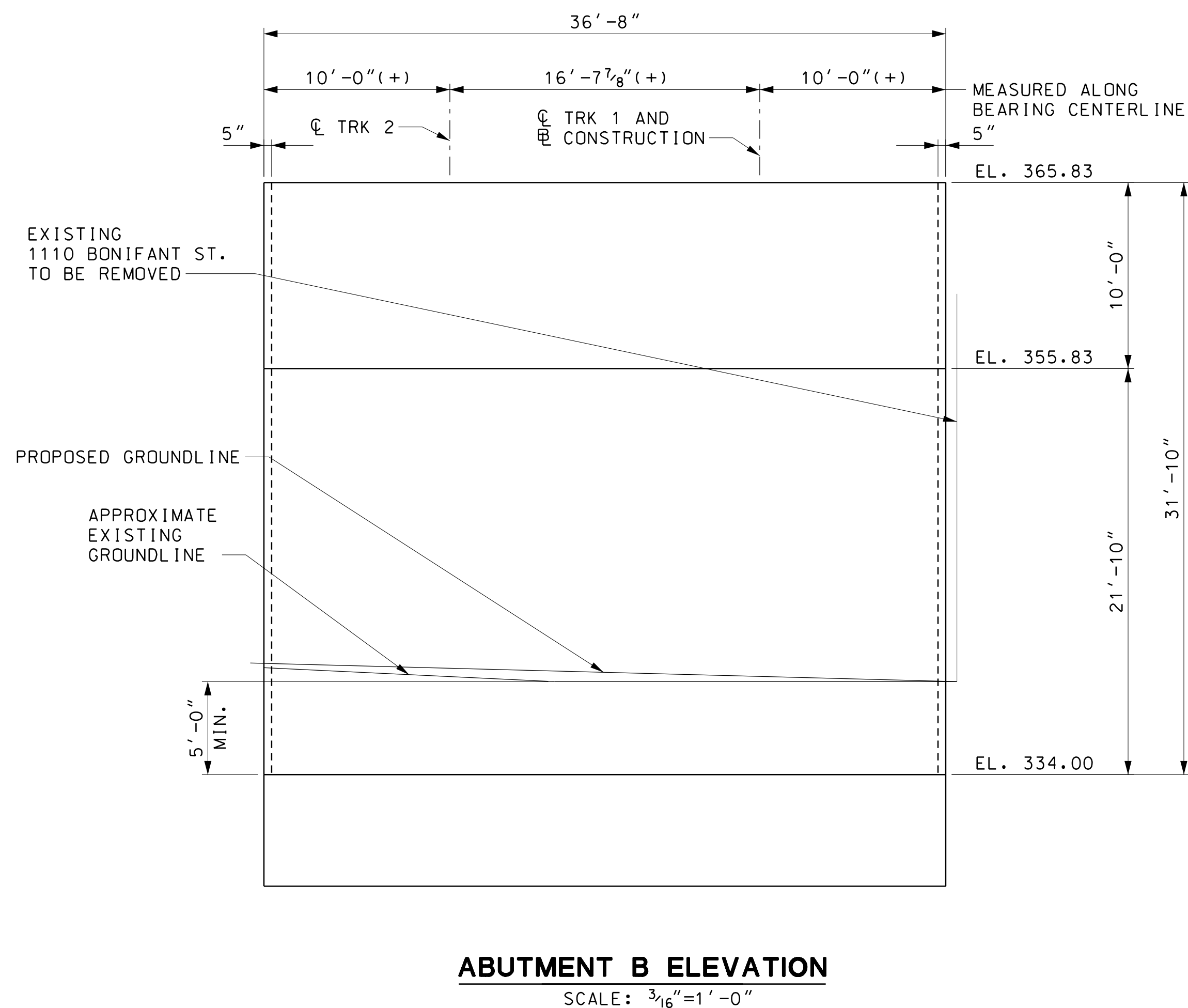
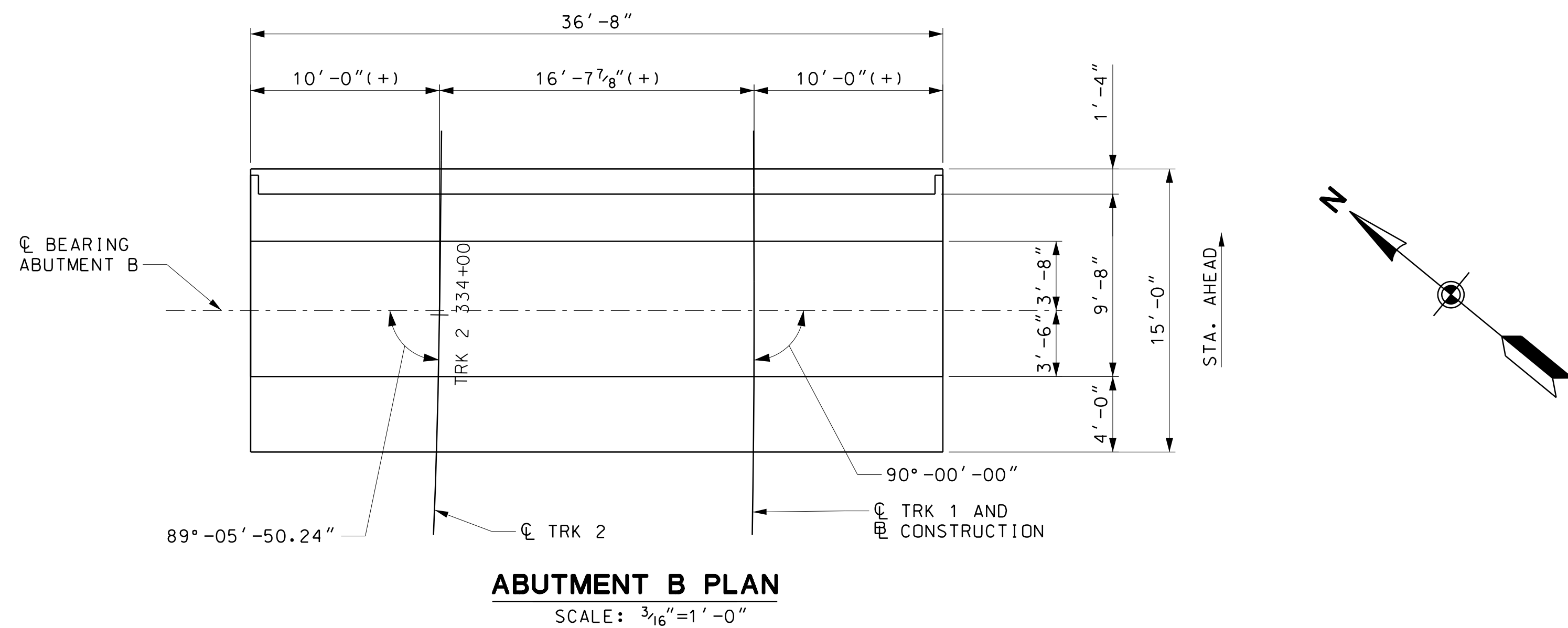
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

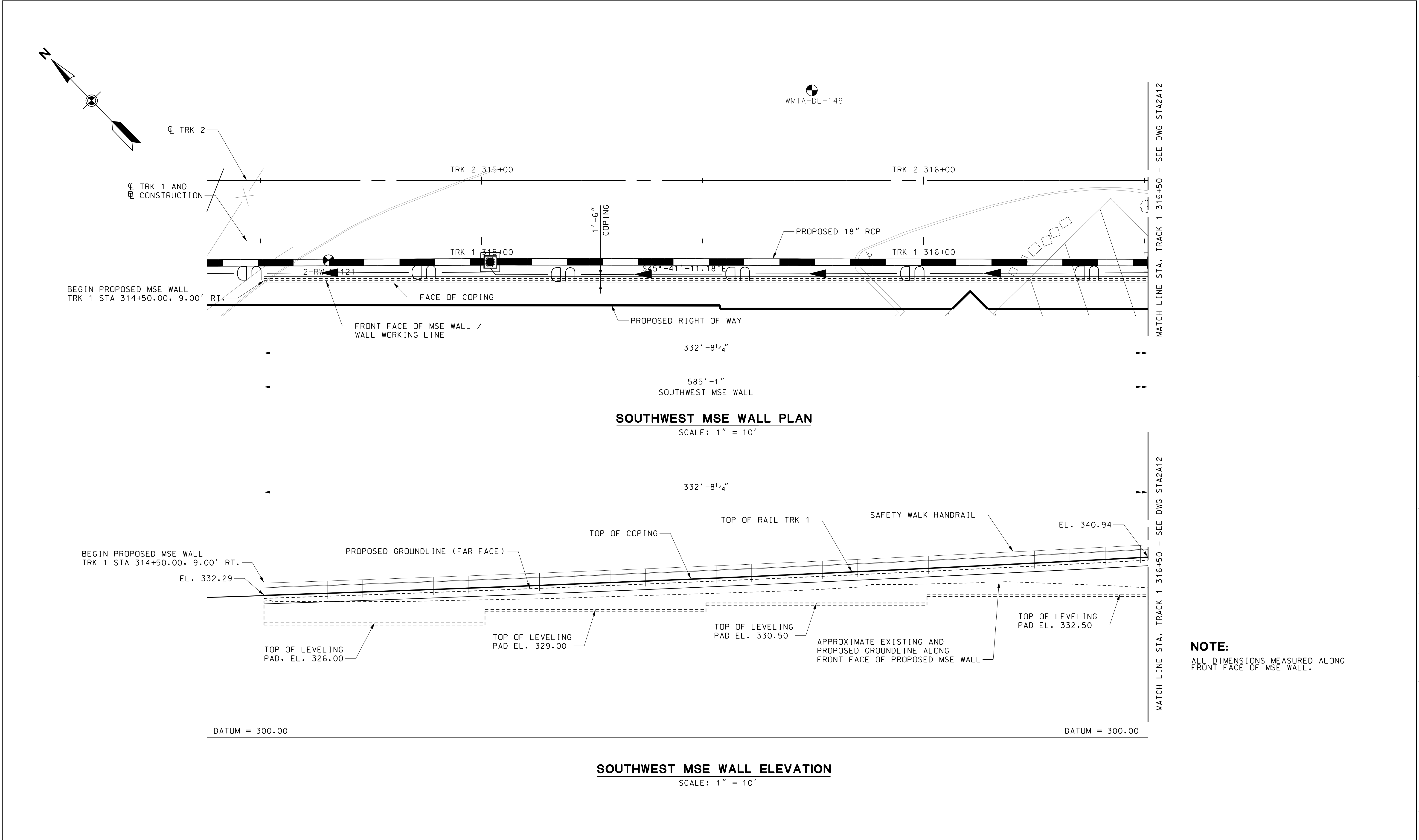
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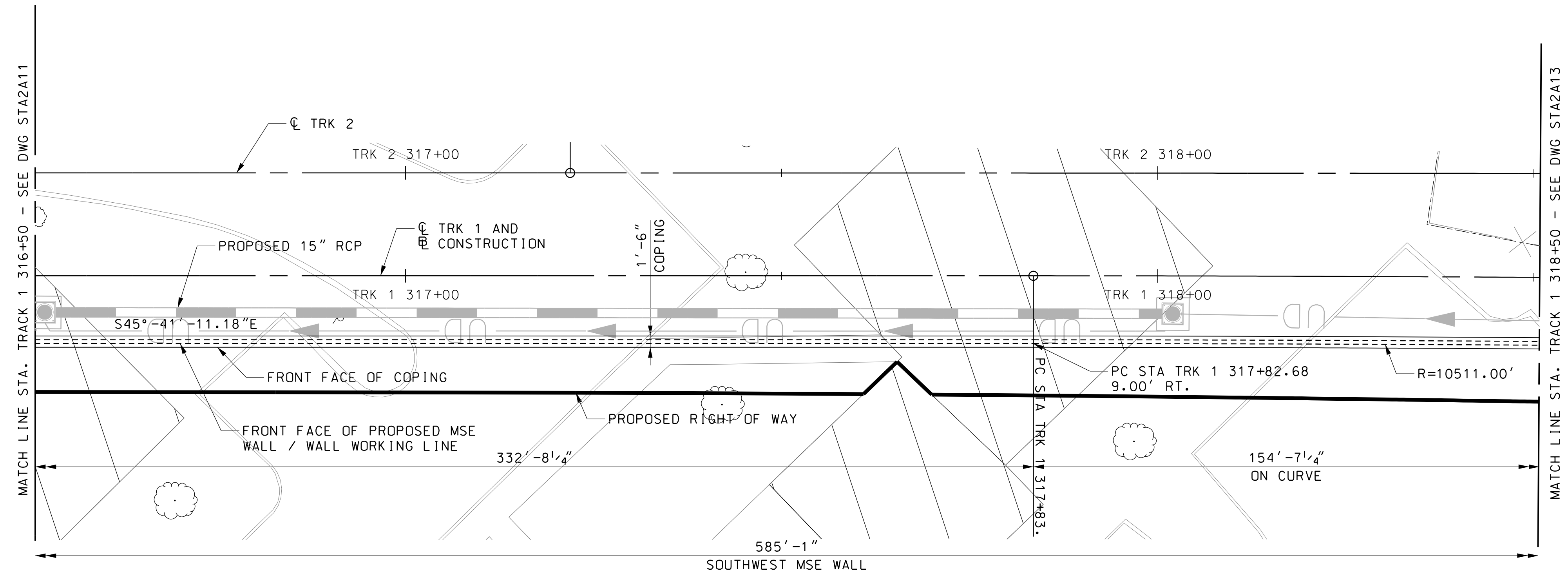
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DESIGN	AJF	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
DRAWN	AJF		DRAWING NO. ST2A08
CHECK	CES		SHEET NO.
APPR		SILVER SPRING TRANSIT CENTER AERIAL GENERAL NOTES	503 OF 828
		DATE: DECEMBER 2013	SCALE: NONE

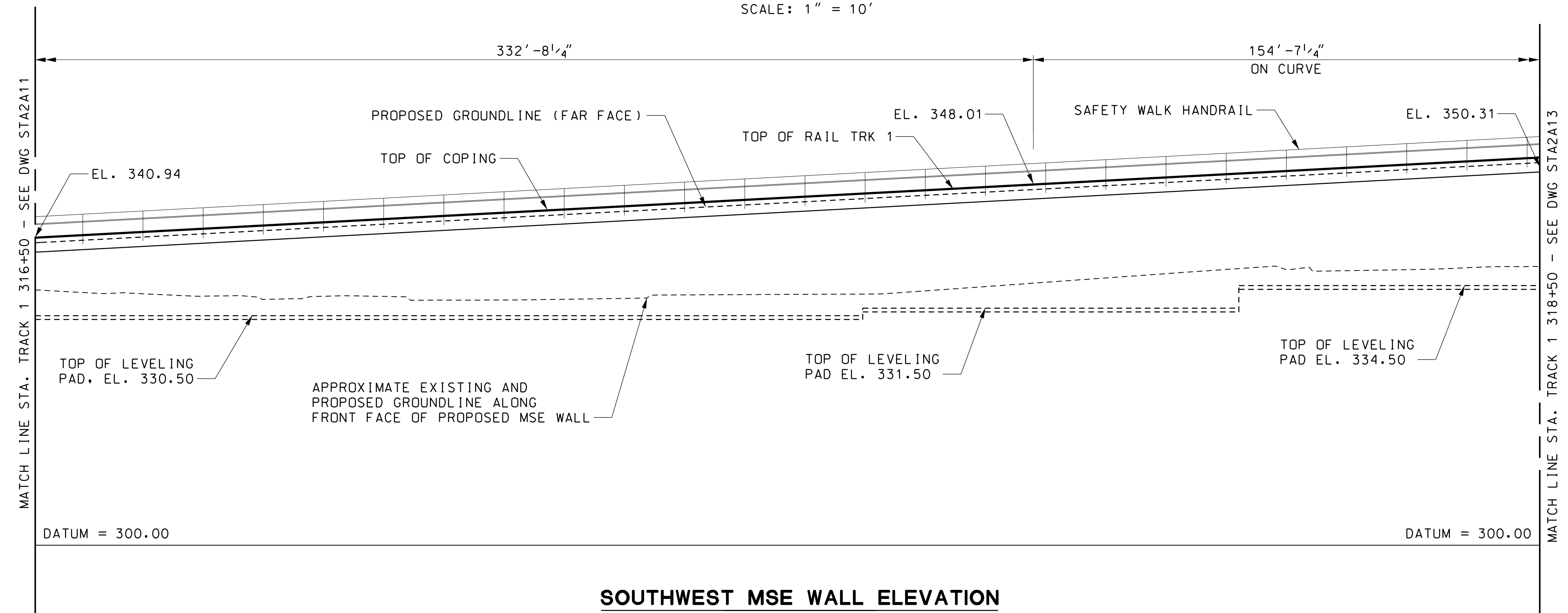






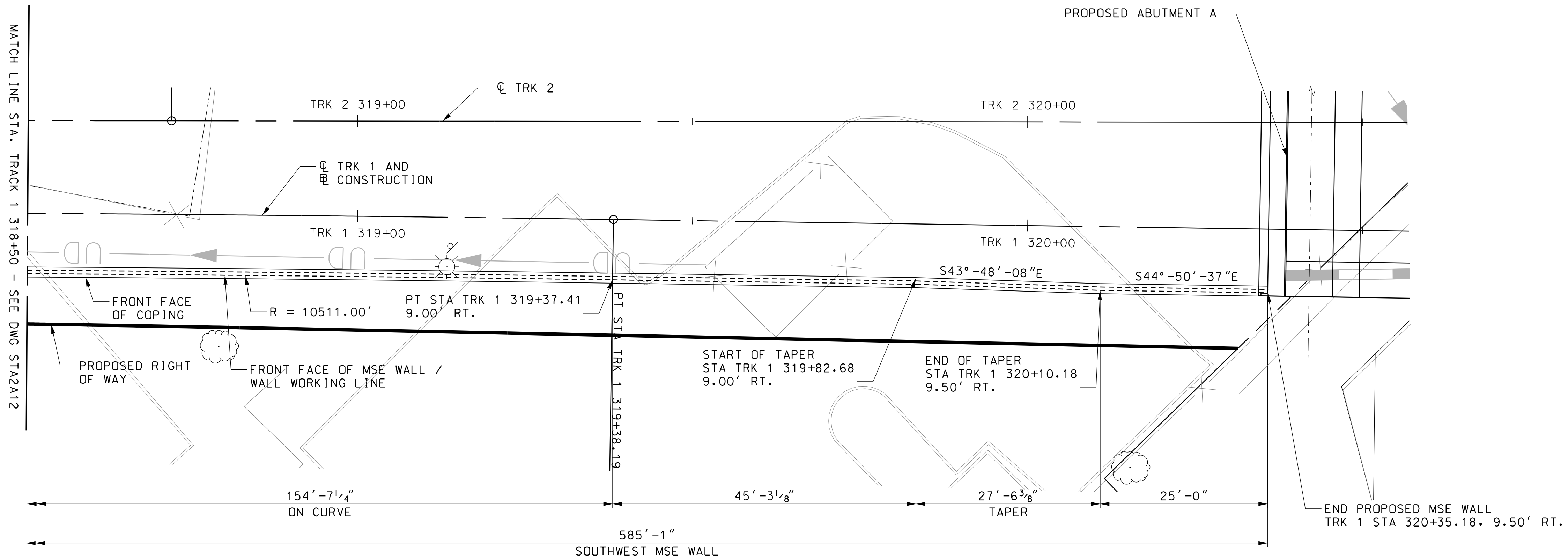
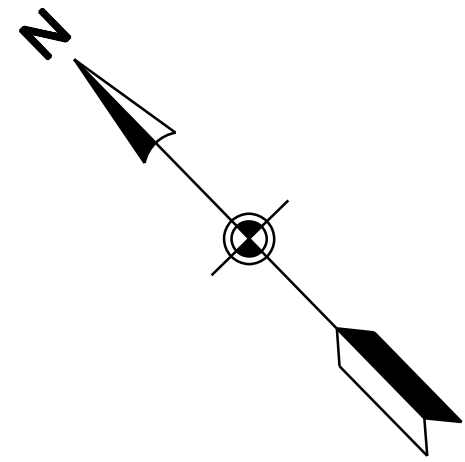


SCALE: 1" = 10'

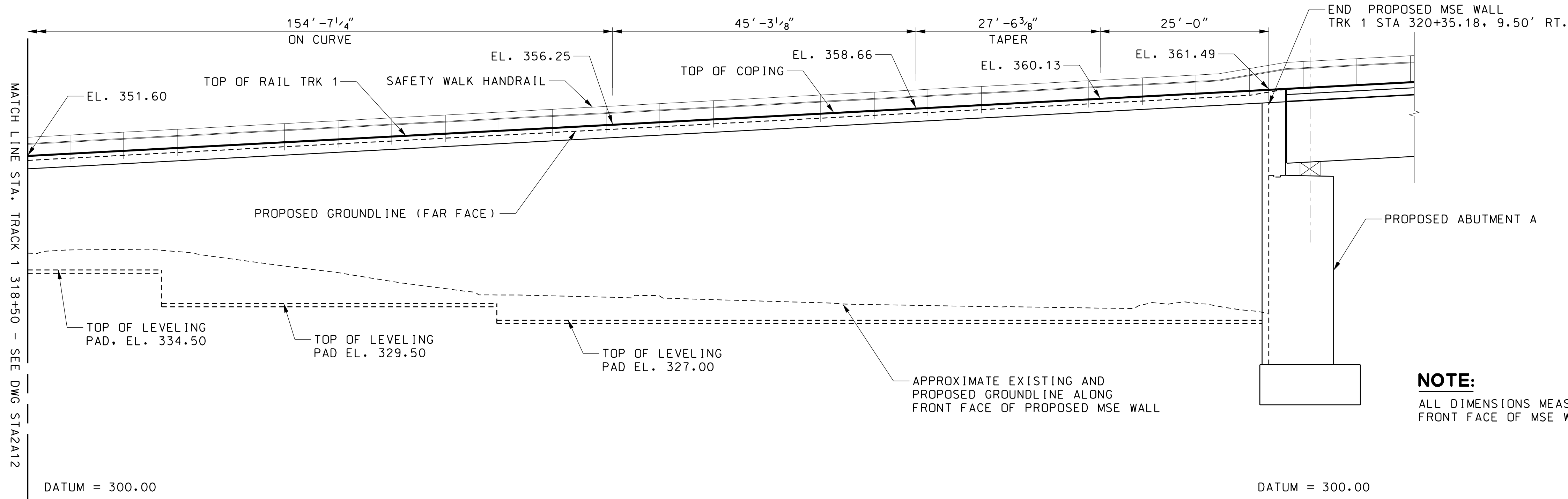


SCALE: 1" = 10'

ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.

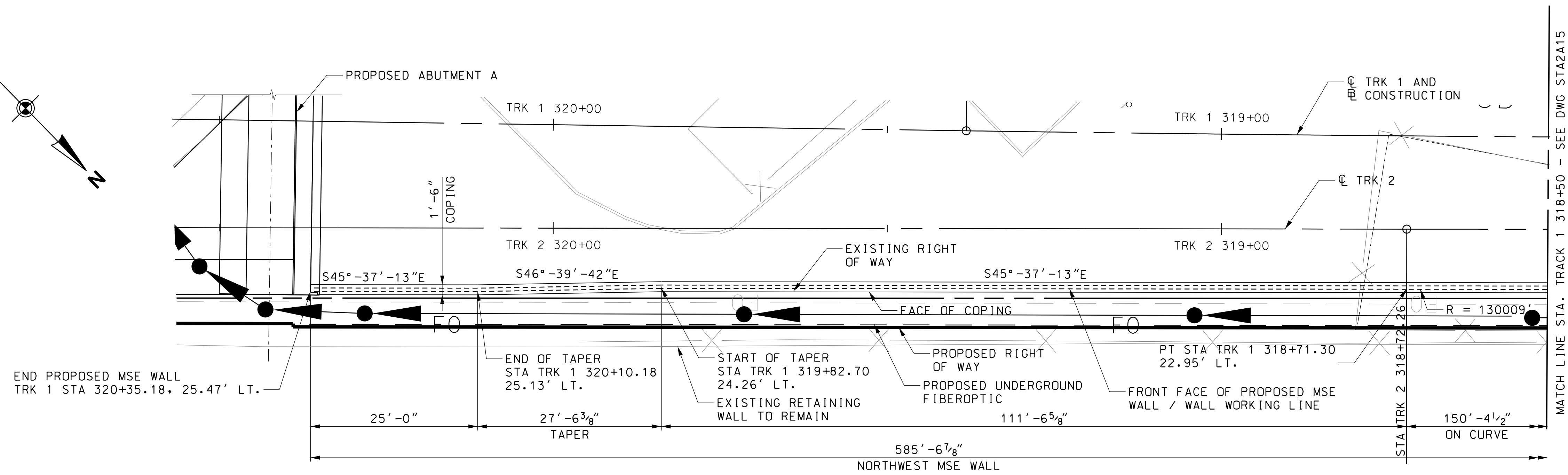
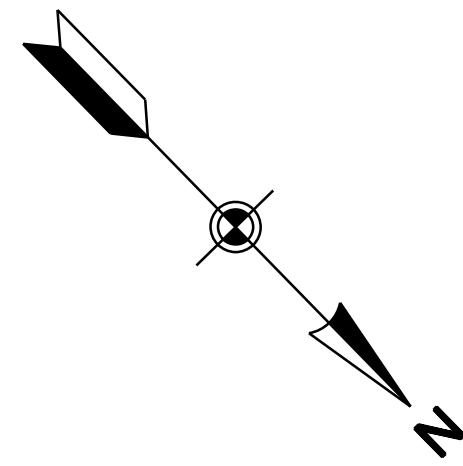


SOUTHWEST MSE WALL PLAN
SCALE: 1" = 10'



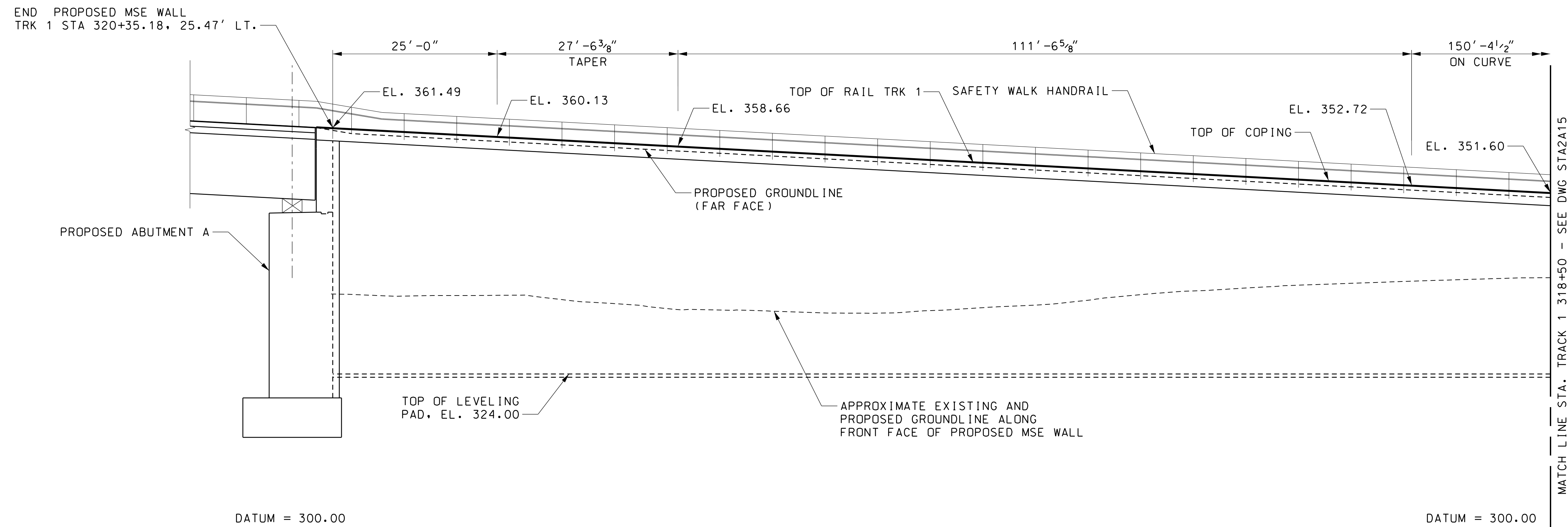
SOUTHWEST MSE WALL ELEVATION
SCALE: 1" = 10'

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL



NORTHWEST MSE WALL PLAN

SCALE: 1" = 10'



NORTHWEST MSE WALL ELEVATION

SCALE: 1" = 10'

NOTE:

ALL DIMENSIONS MEASURED ALONG FRONT FACE OF MSE WALL

MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR CHECK DRAWN DESIGN

AJF

AJF

CES

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

SILVER SPRING TRANSIT CENTER AERIAL
NORTHWEST MSE WALL PLAN & ELEVATION - 1

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

CONTRACT NO.

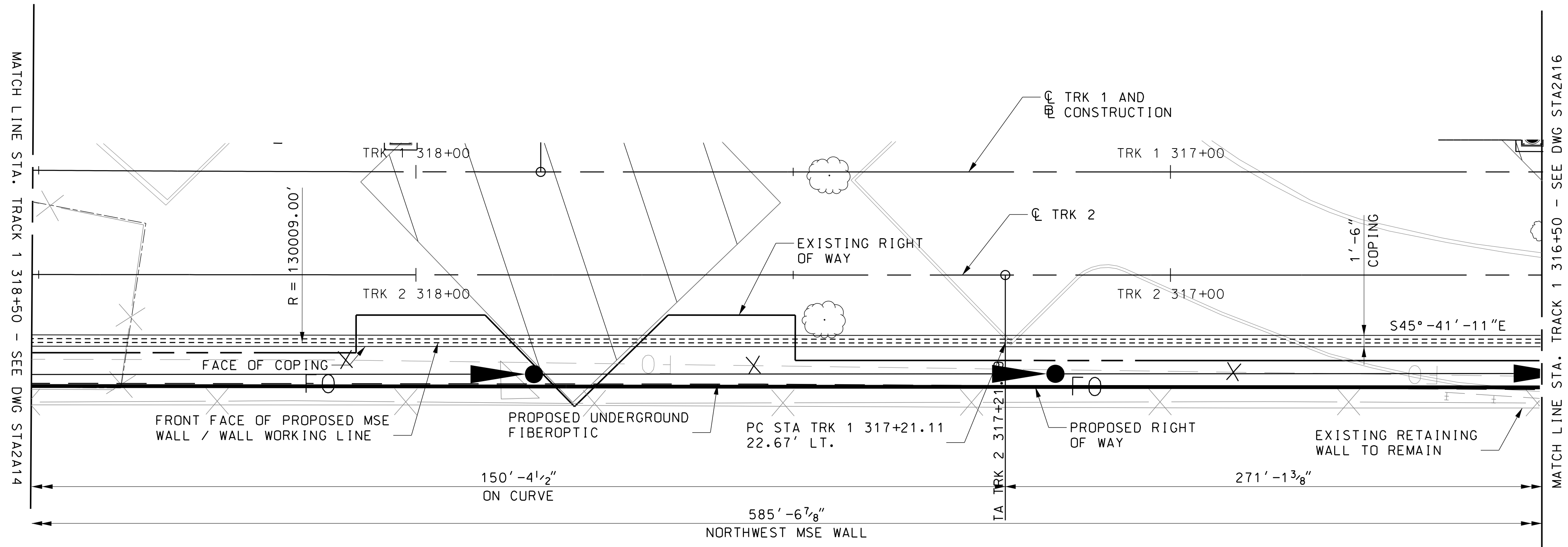
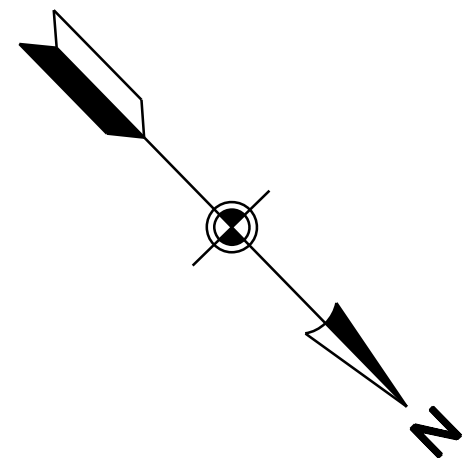
T-1042-0220

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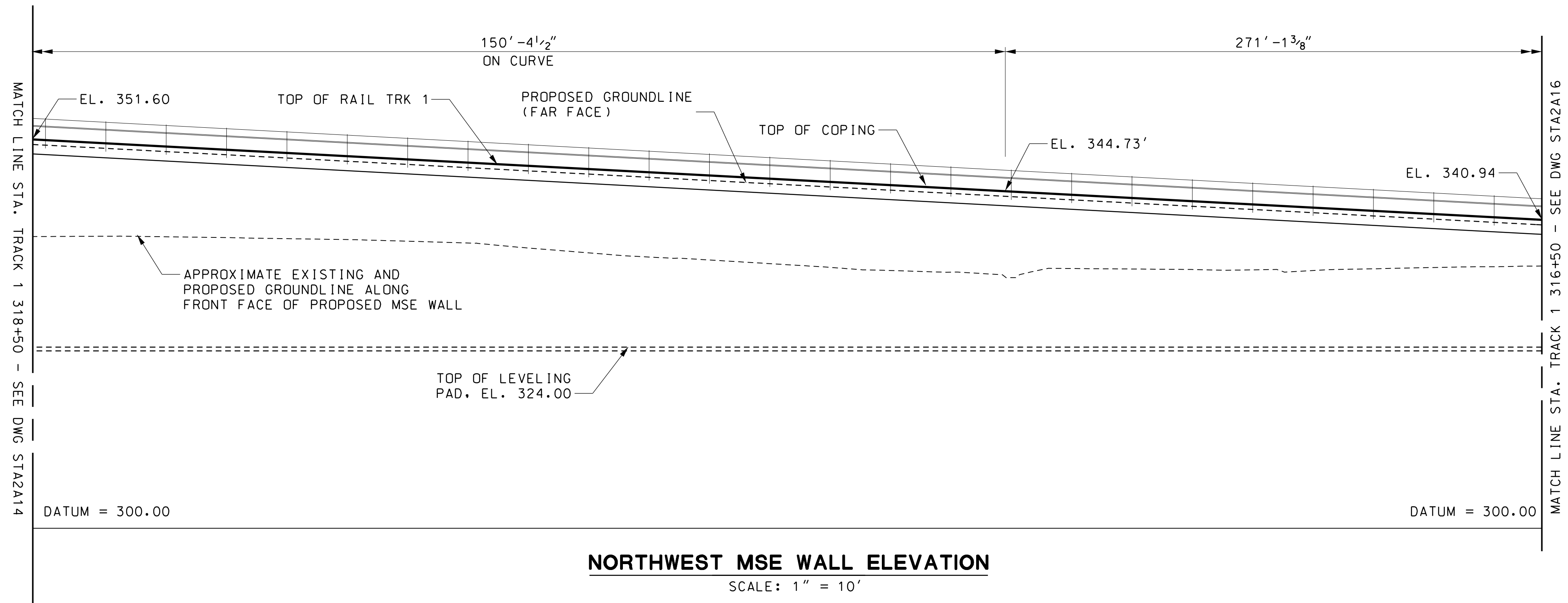
ST2A14

SHEET NO.

509 OF 828

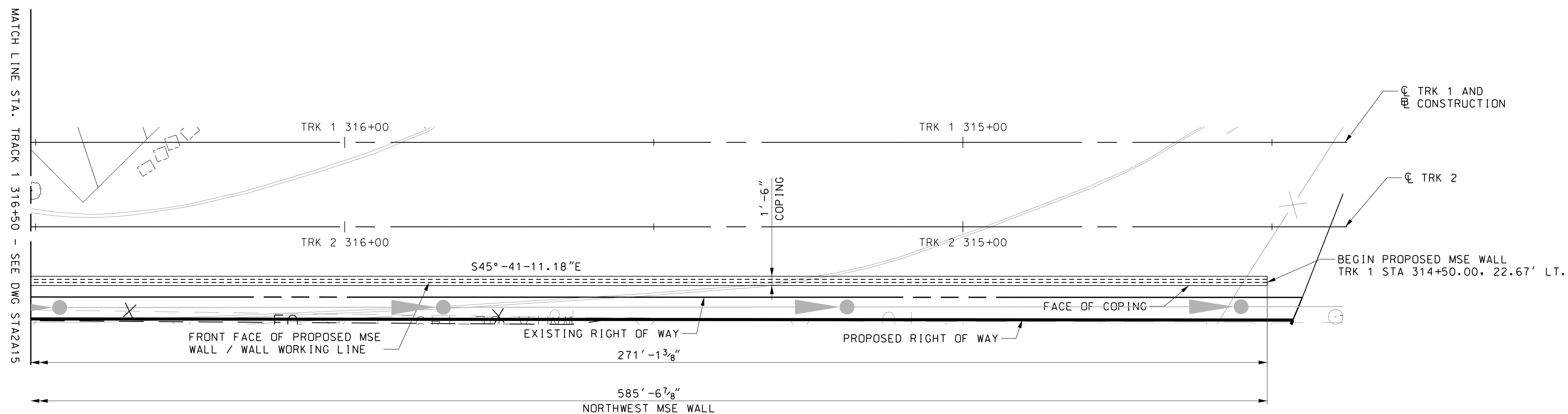
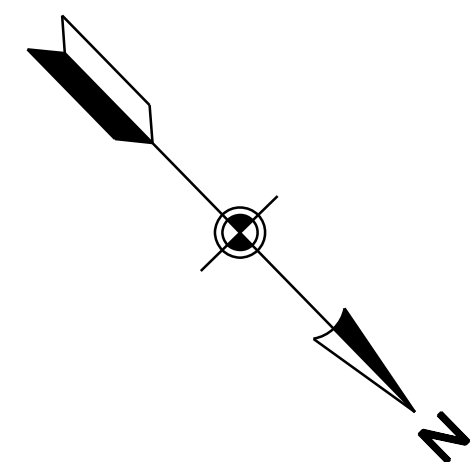


NORTHWEST MSE WALL PLAN
SCALE: 1" = 10'

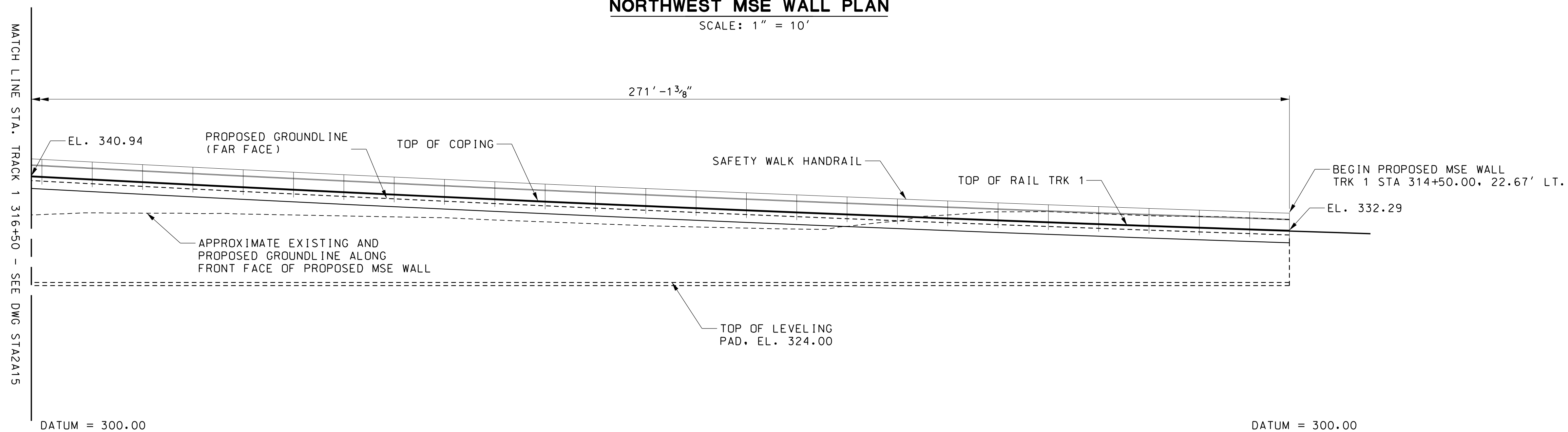


NORTHWEST MSE WALL ELEVATION
SCALE: 1" = 10'

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL

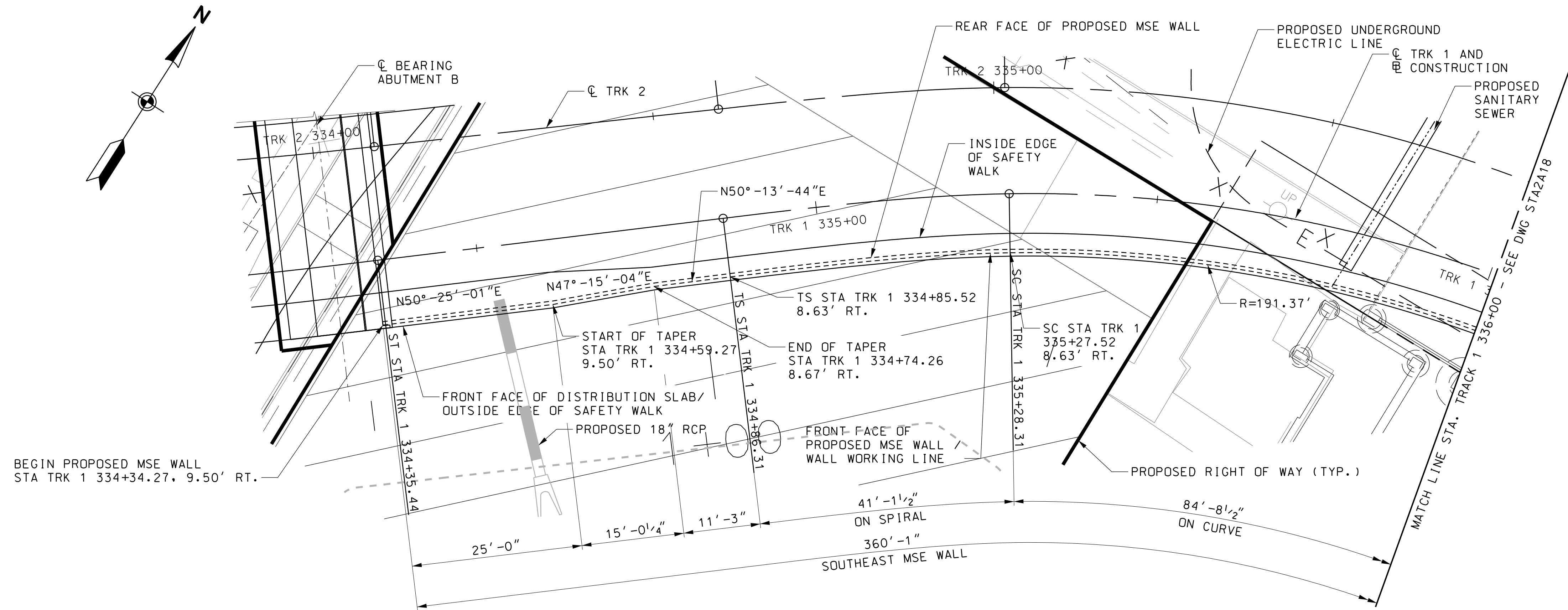


NORTHWEST MSE WALL PLAN
SCALE: 1" = 10'

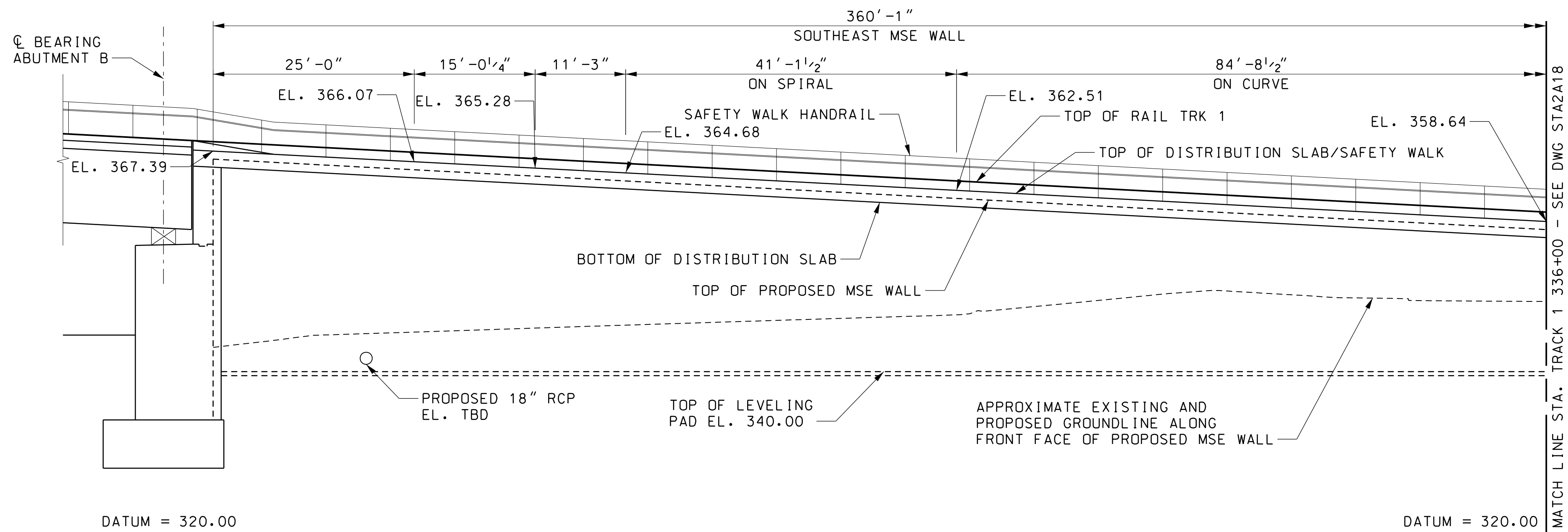


NORTHWEST MSE WALL ELEVATION
SCALE: 1" = 10'

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.

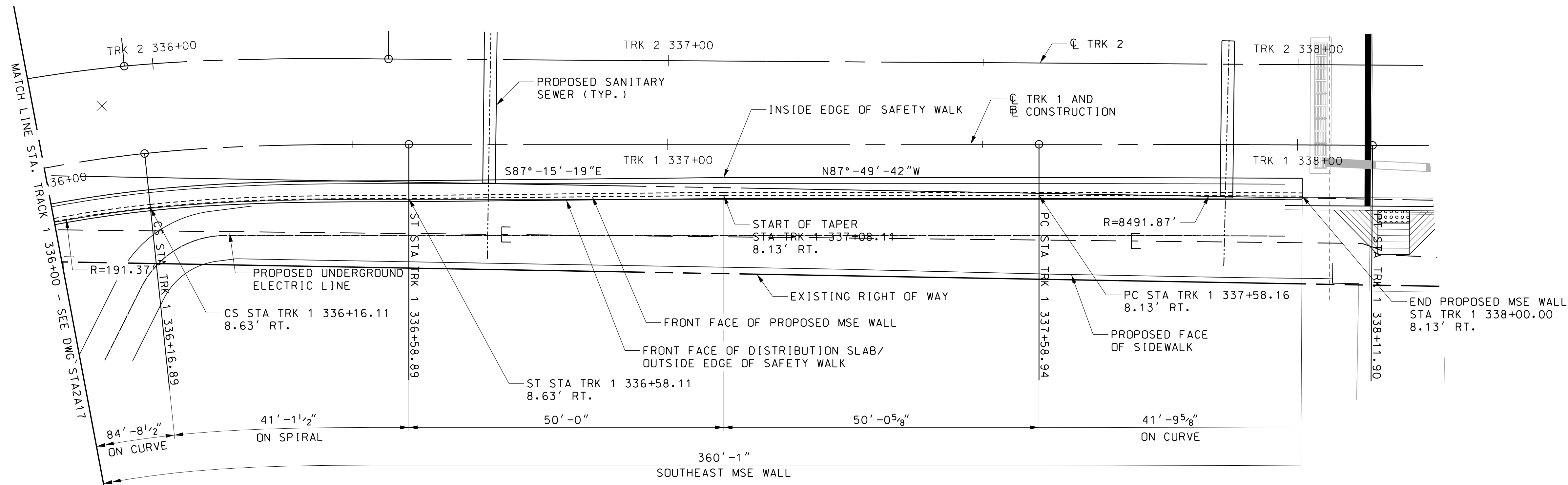
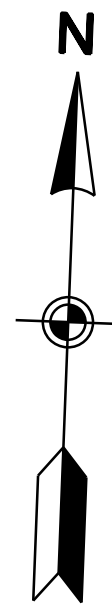


SOUTHEAST MSE WALL PLAN
SCALE: 1" = 10'-0"

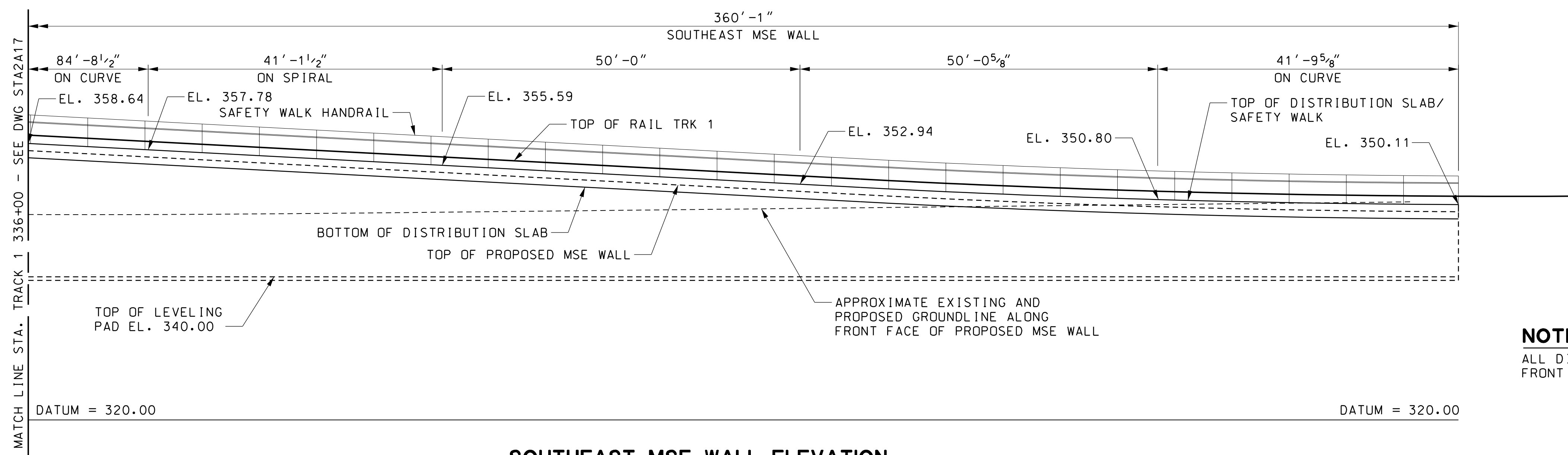


SOUTHEAST MSE WALL ELEVATION
SCALE: 1" = 10'-0"

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.



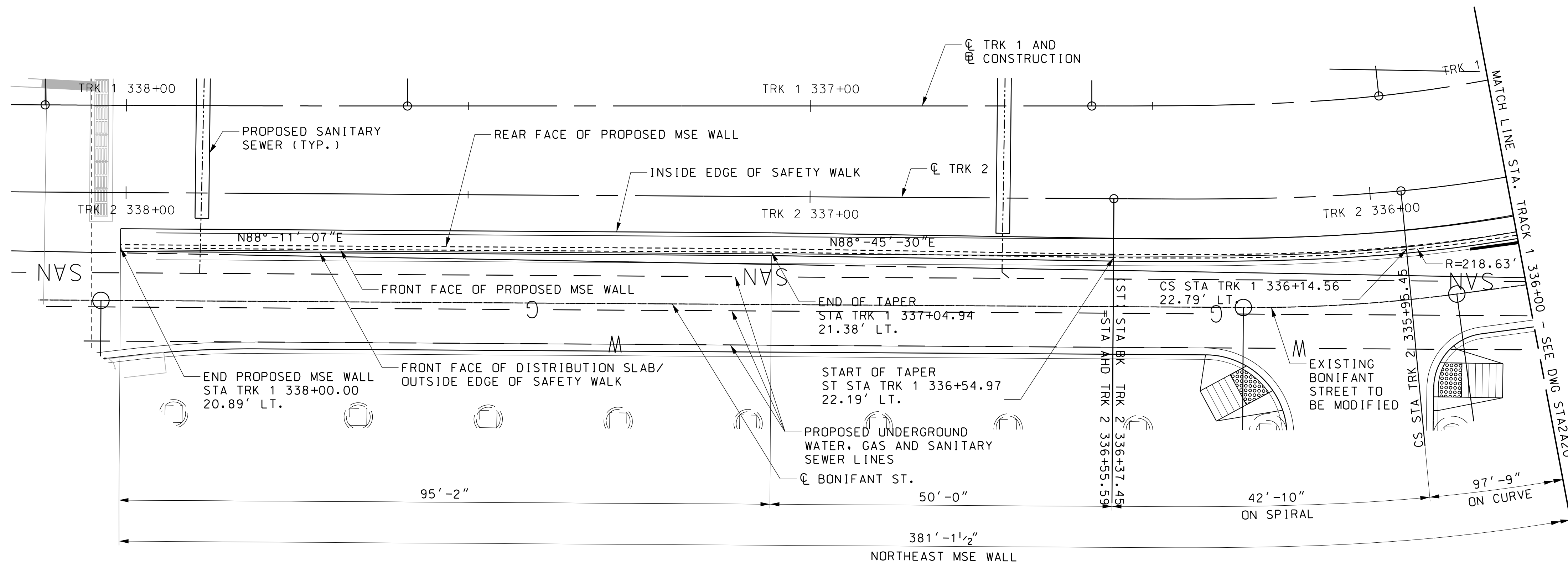
SOUTHEAST MSE WALL PLAN
SCALE: 1" = 10'-0"



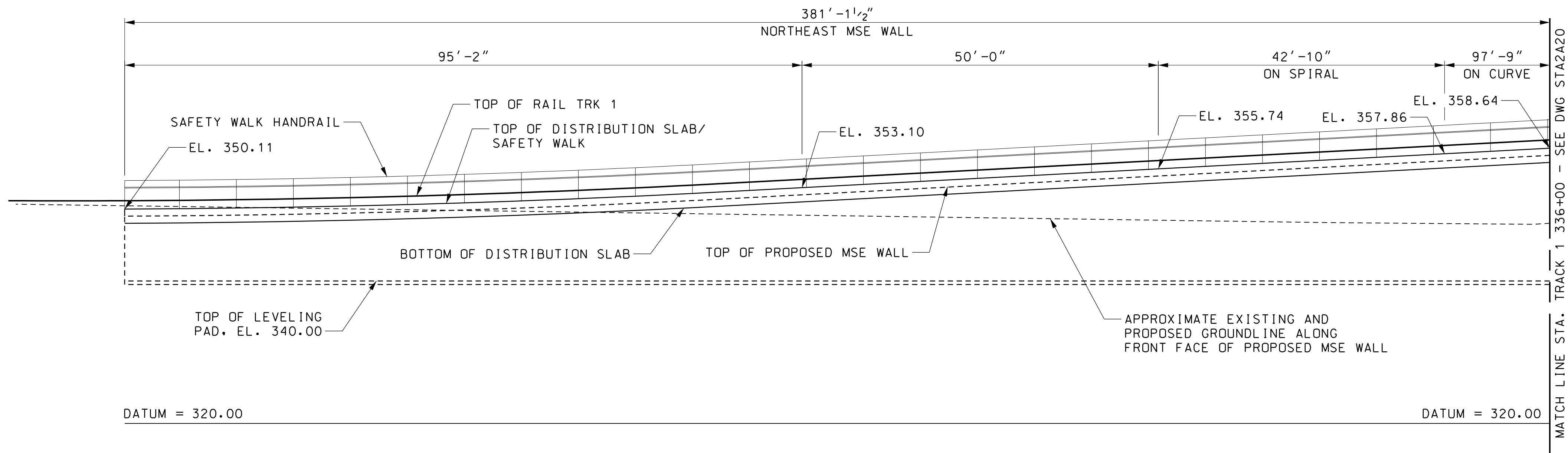
SOUTHEAST MSE WALL ELEVATION
SCALE: 1" = 10'-0"

NOTE:

ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.

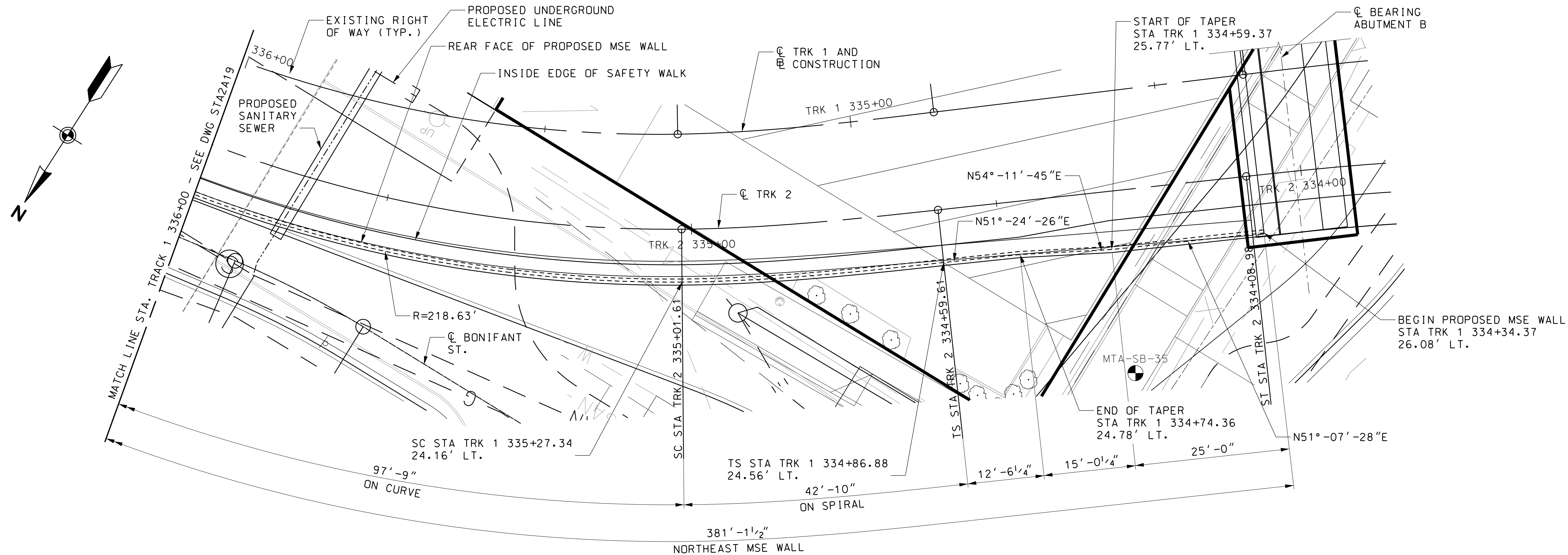


NORTHEAST MSE WALL PLAN
SCALE: 1" = 10'-0"

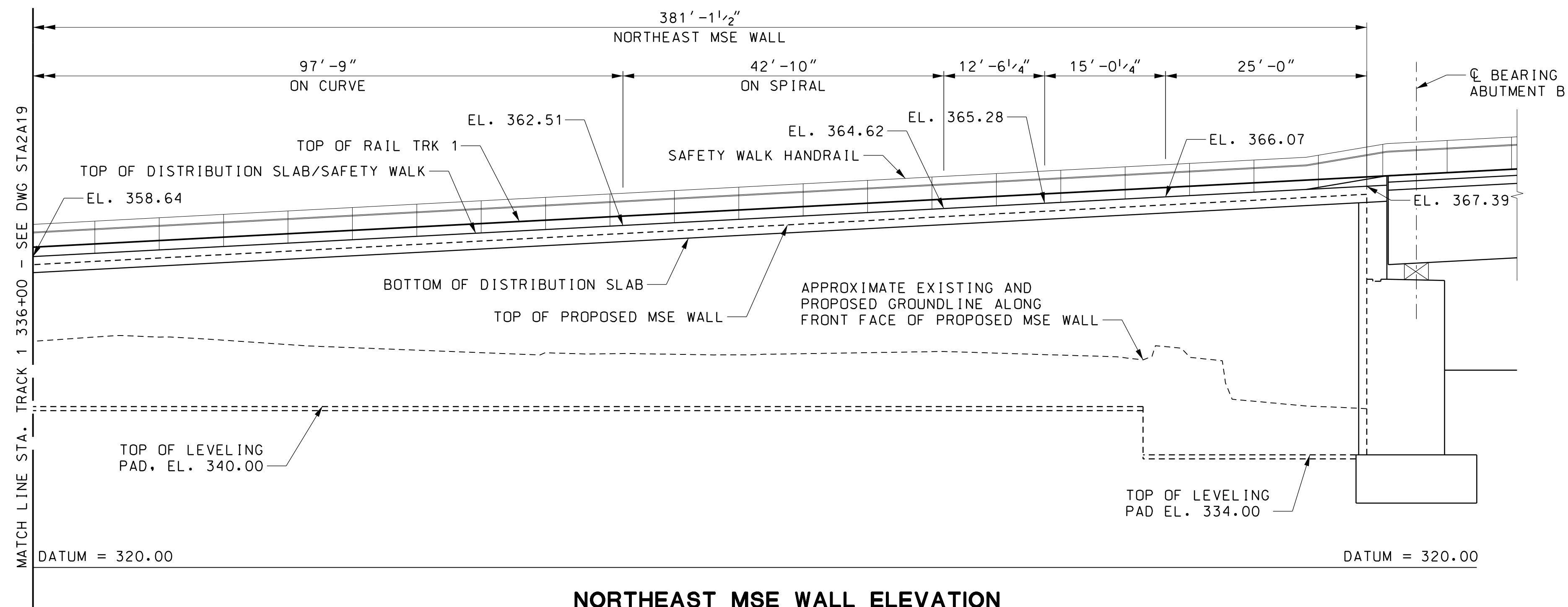


NORTHEAST MSE WALL ELEVATION
SCALE: 1" = 10'-0"

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.

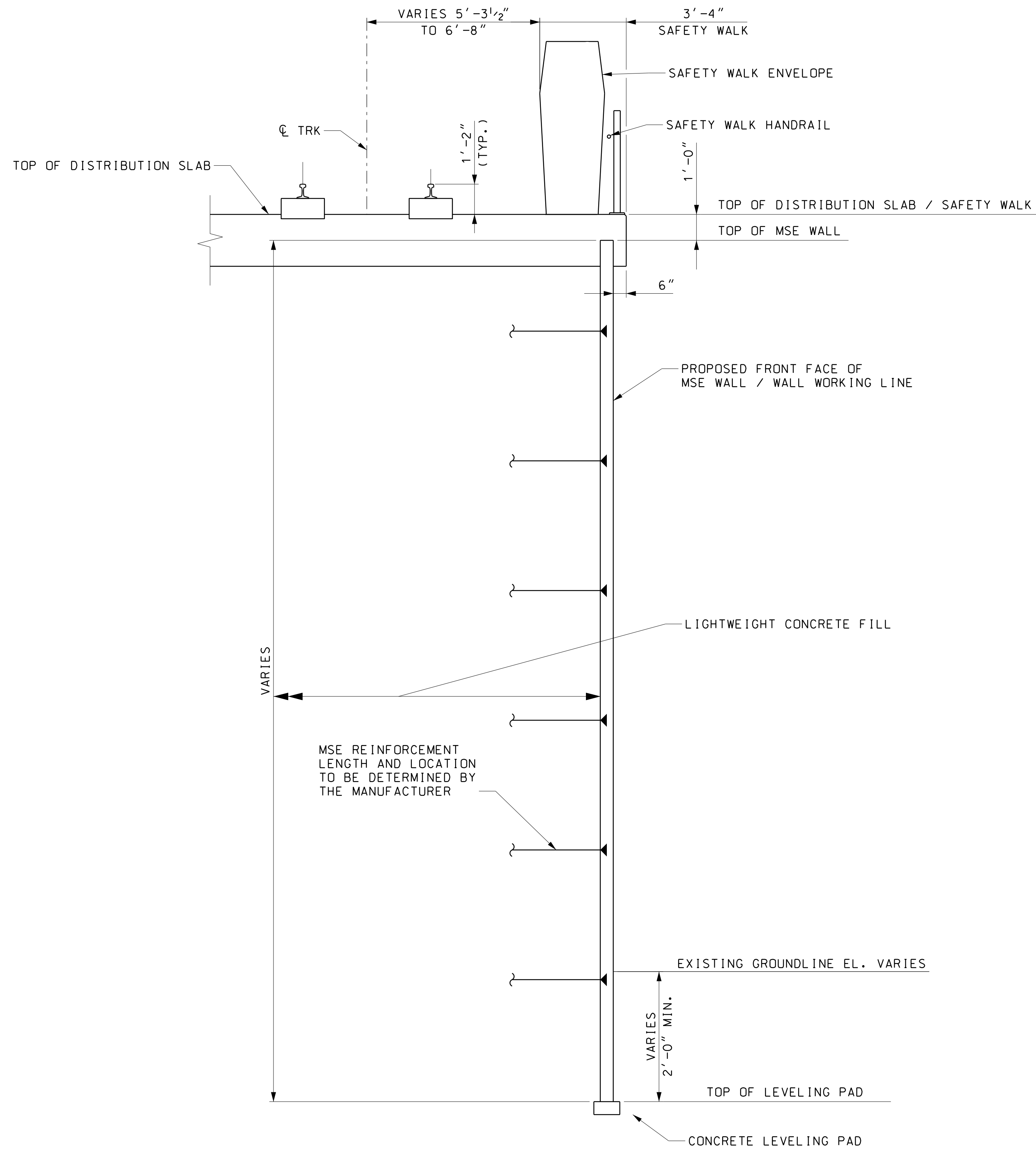


NORTHEAST MSE WALL PLAN
SCALE: 1" = 10'-0"

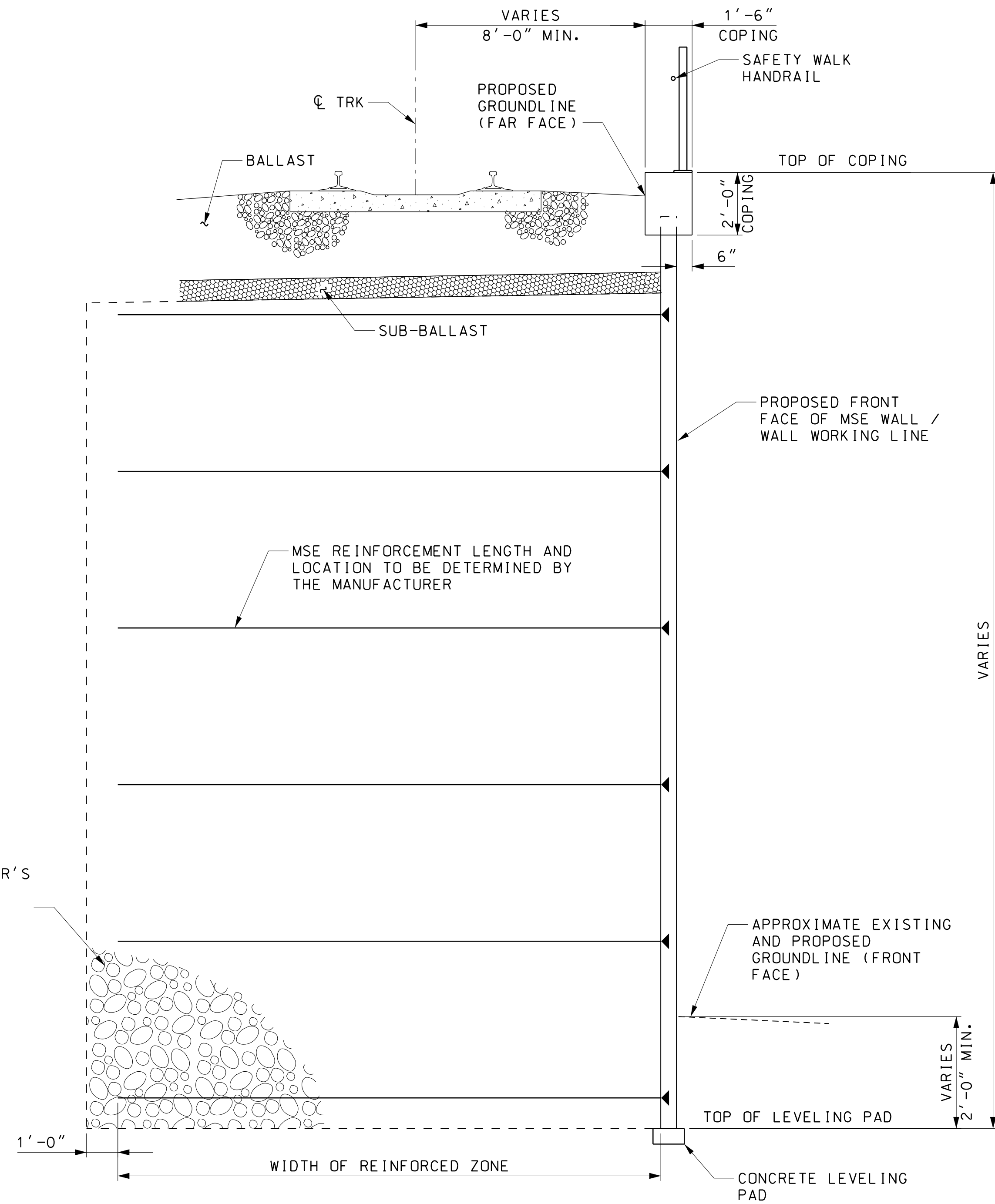


NORTHEAST MSE WALL ELEVATION

NOTE:
ALL DIMENSIONS MEASURED ALONG
FRONT FACE OF MSE WALL.

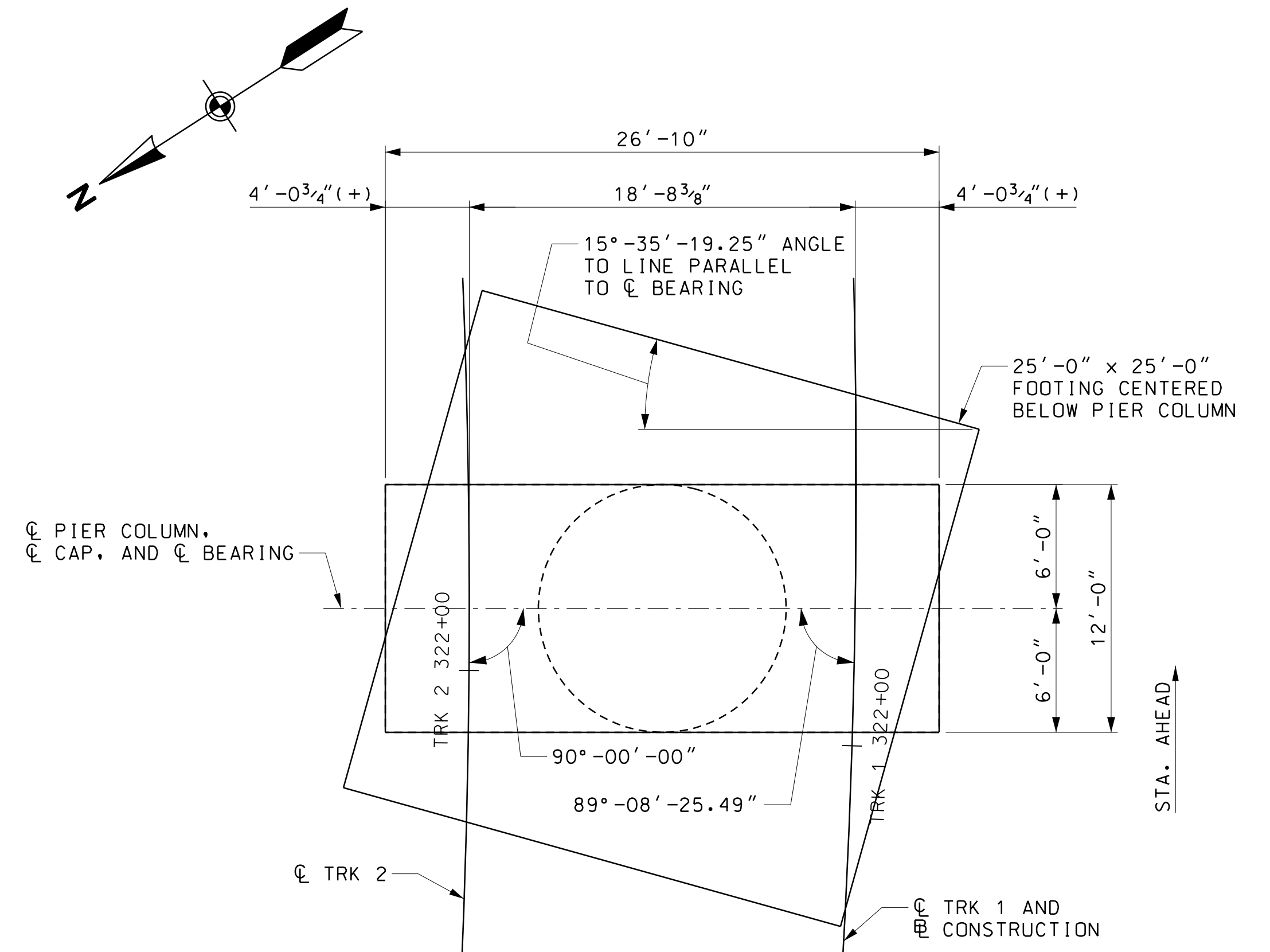
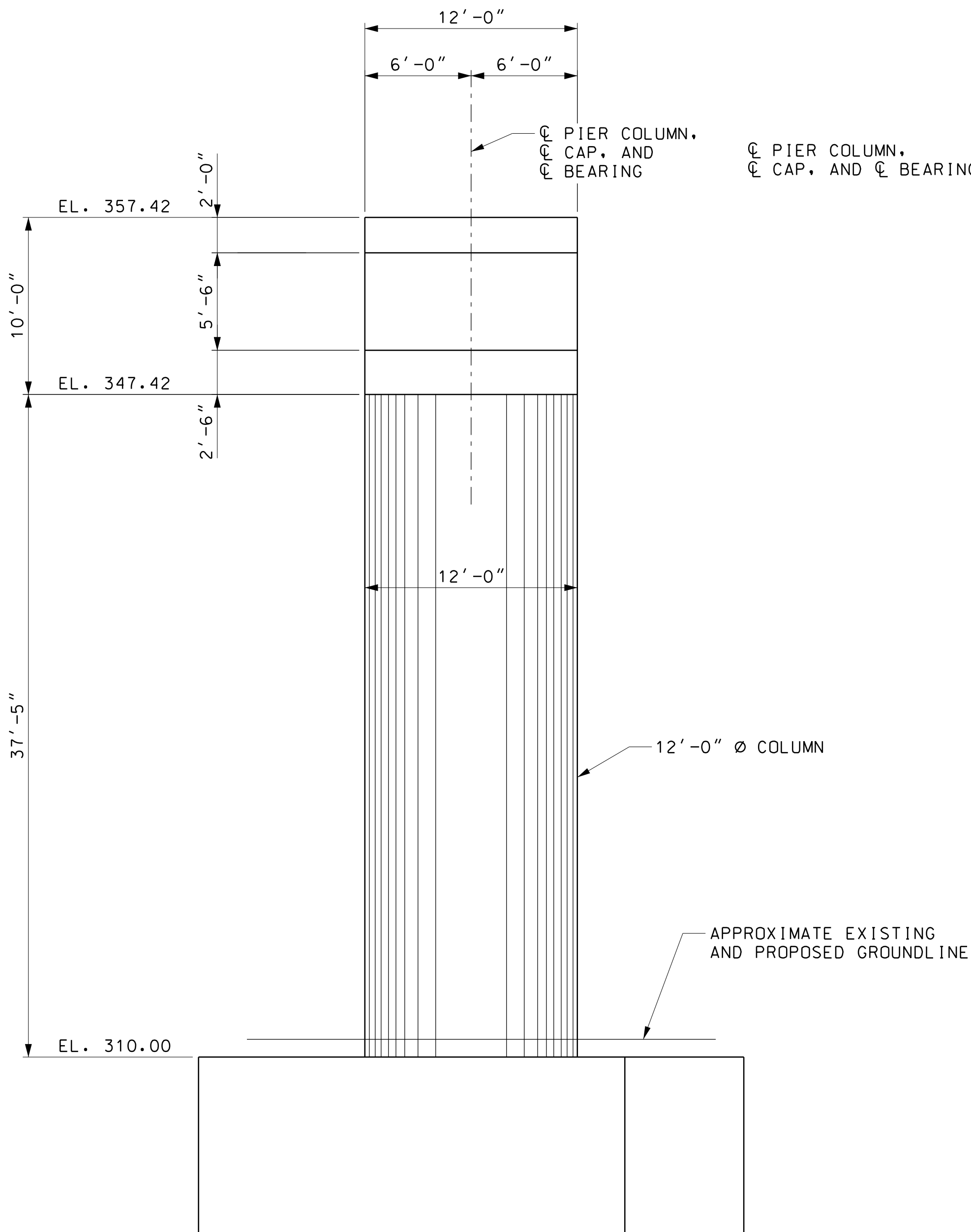
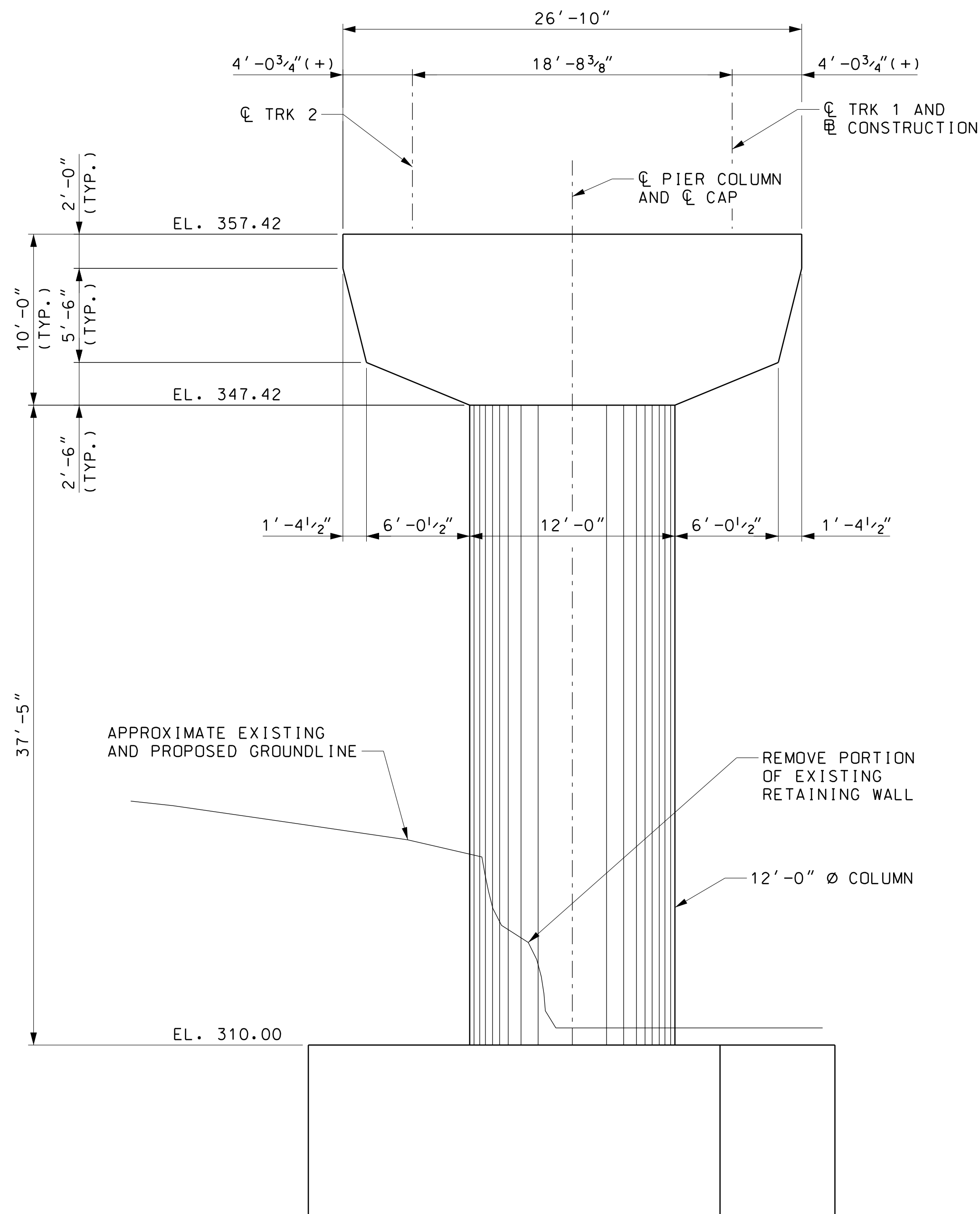


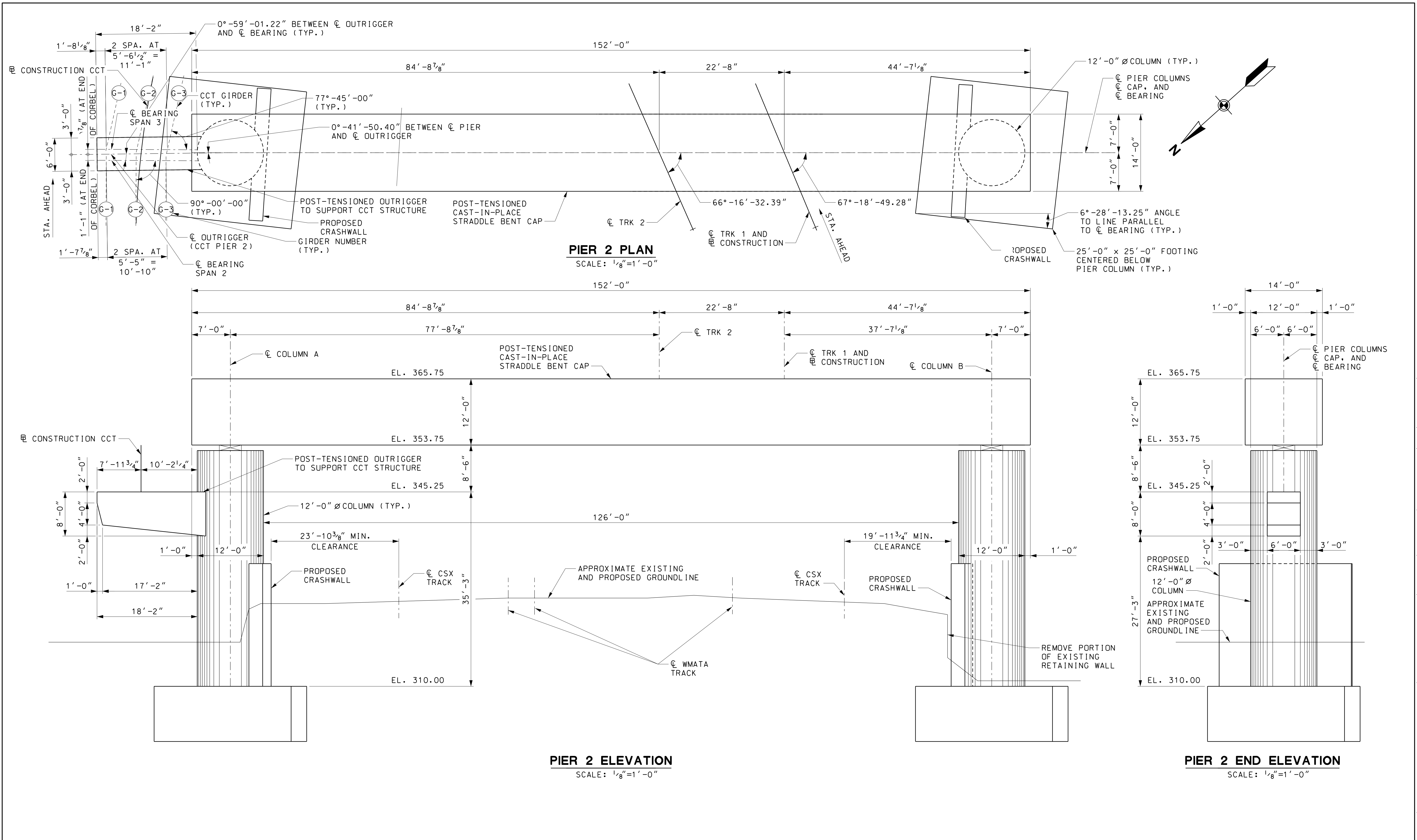
NORTHEAST AND SOUTHEAST MSE WALL TYPICAL SECTION
SCALE: 3/8"=1'-0"

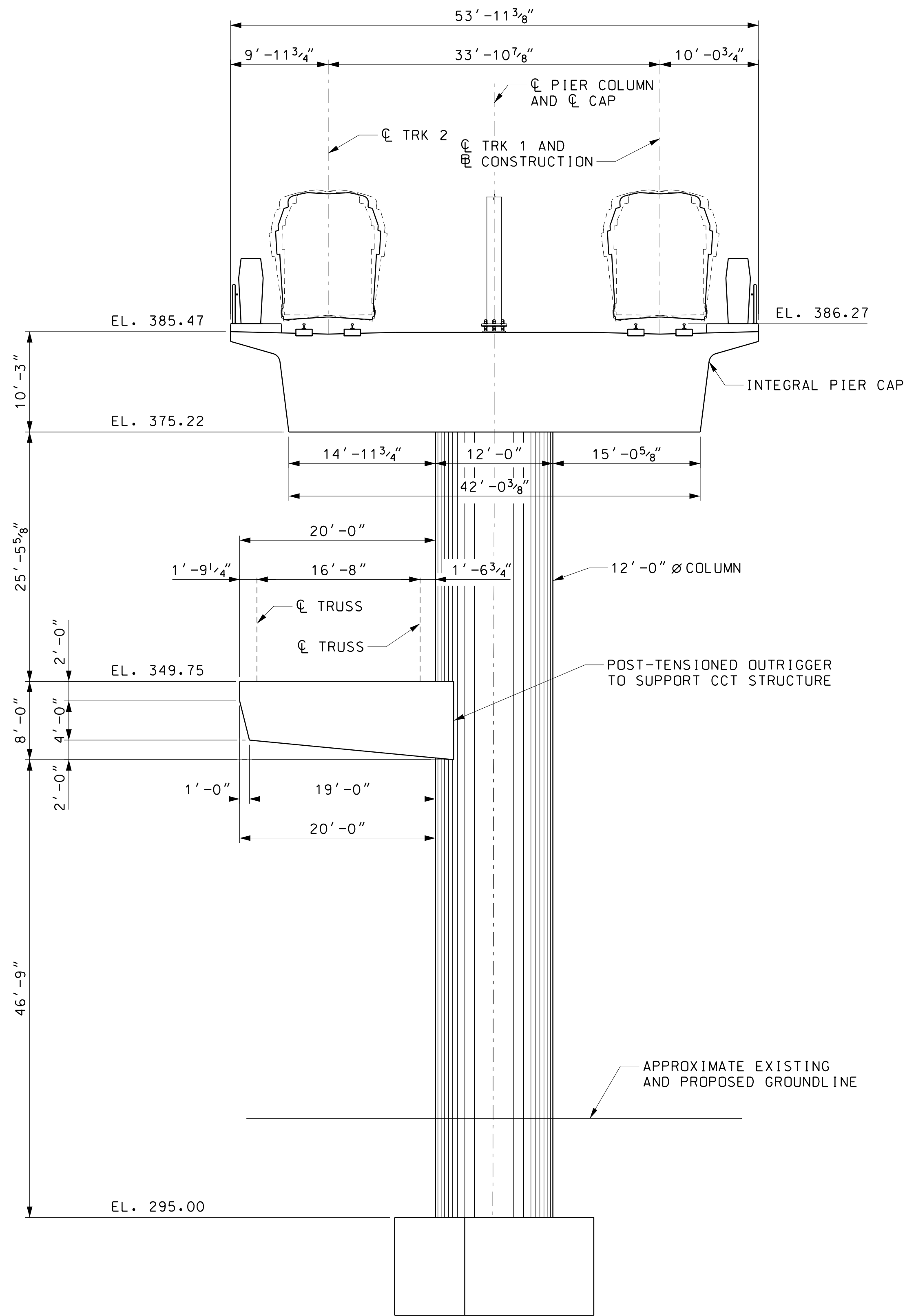


NORTHWEST AND SOUTHWEST MSE WALL TYPICAL SECTION
SCALE: 3/8"=1'-0"

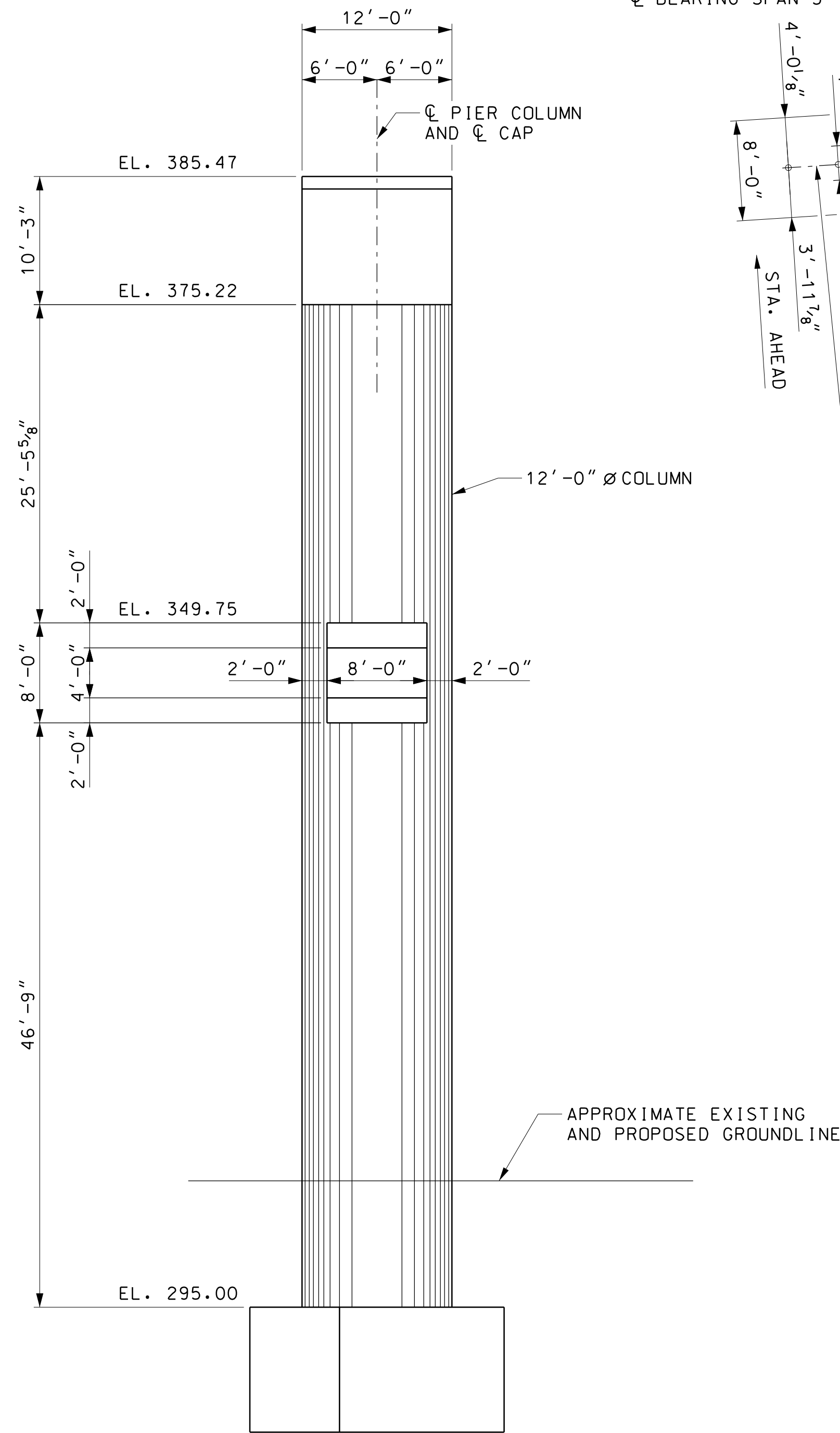
NOTE:
SEE DWGS ST2A11 TO ST2A20 FOR PLAN AND ELEVATION VIEWS OF EACH MSE WALL.



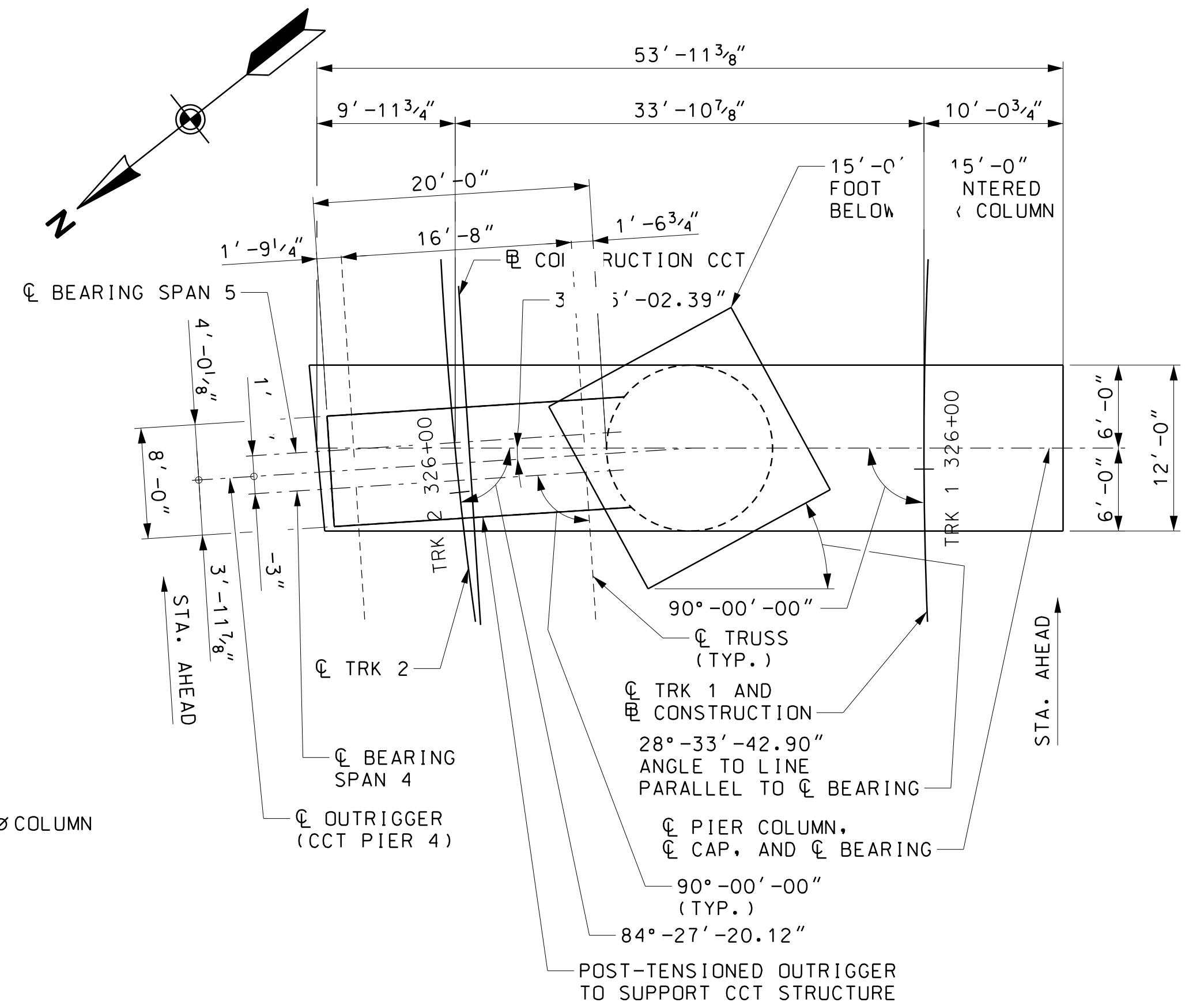




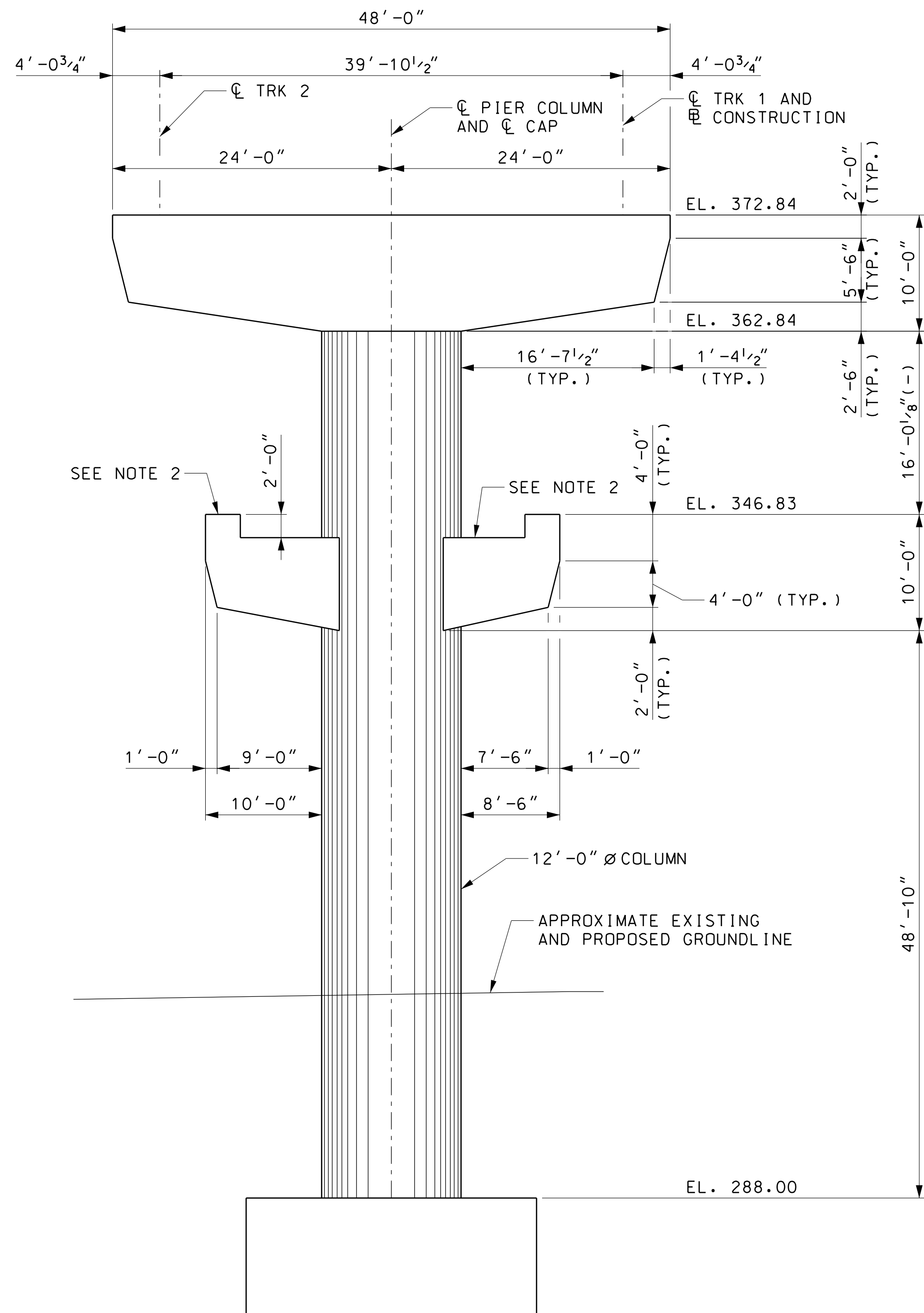
PIER 3 ELEVATION
SCALE: 1/8"=1'-0"



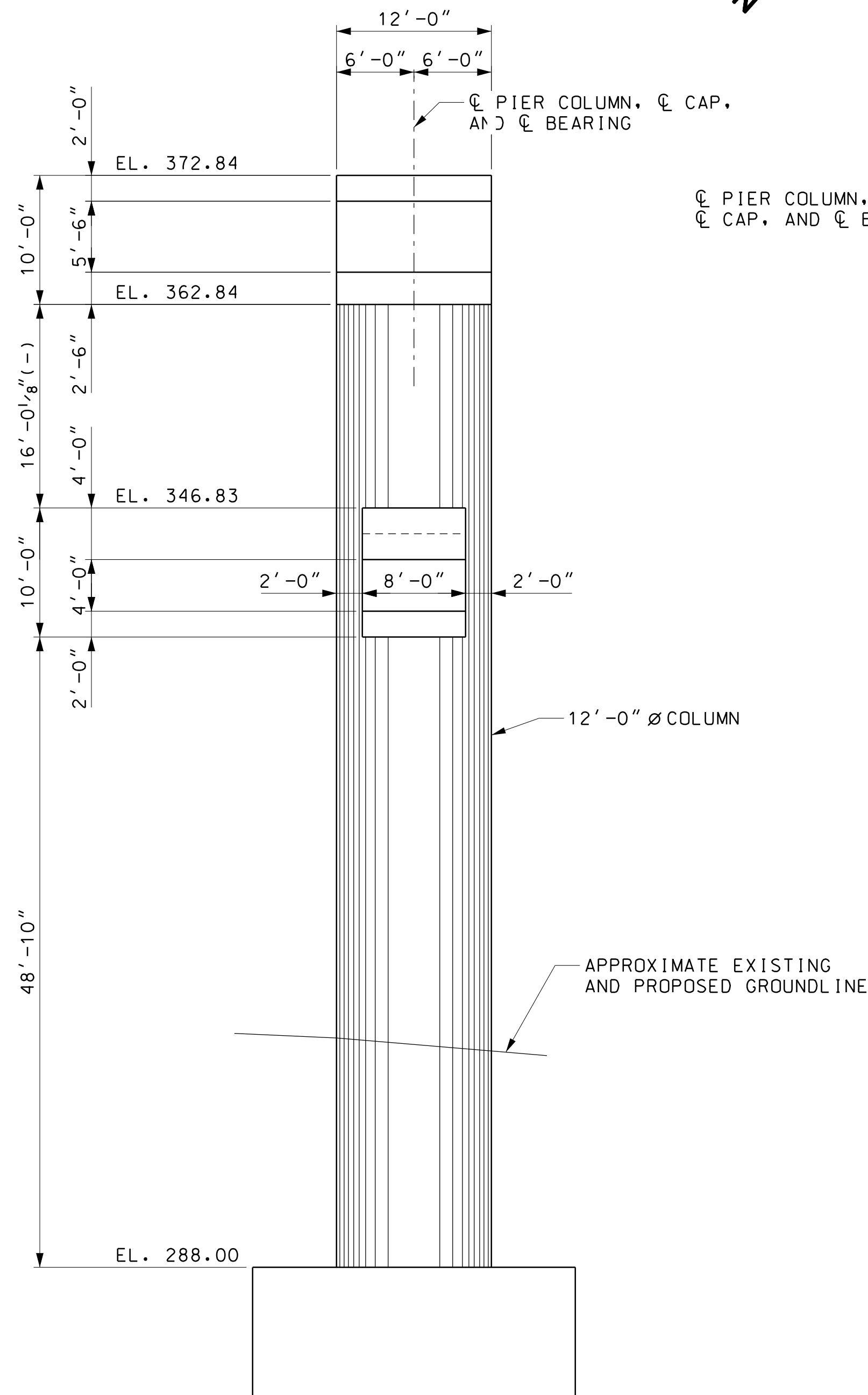
PIER 3 END ELEVATION
SCALE: 1/8"=1'-0"



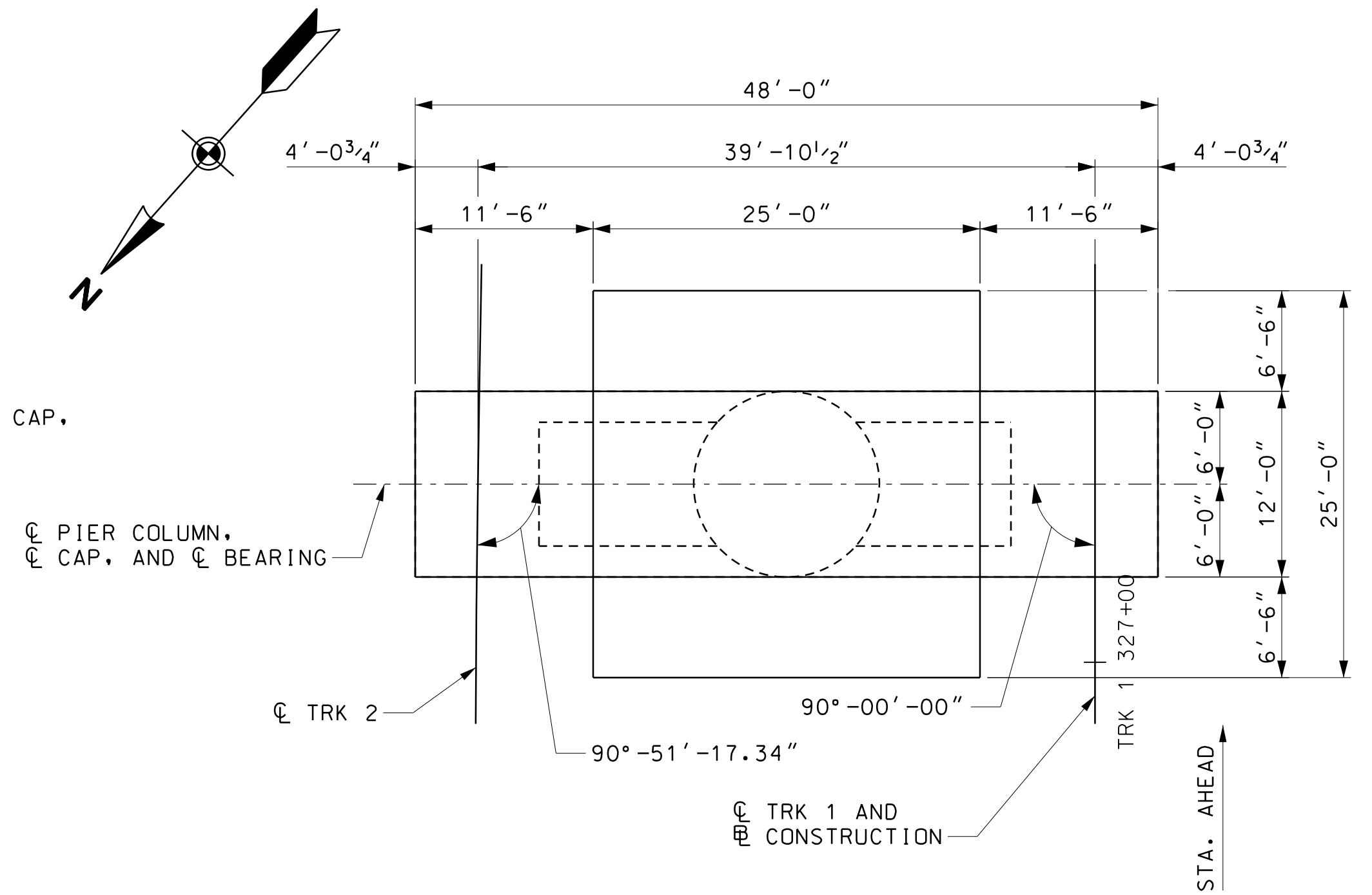
PIER 3 PLAN
SCALE: 1/8"=1'-0"



PIER 4 ELEVATION
SCALE: 1/8"=1'-0"



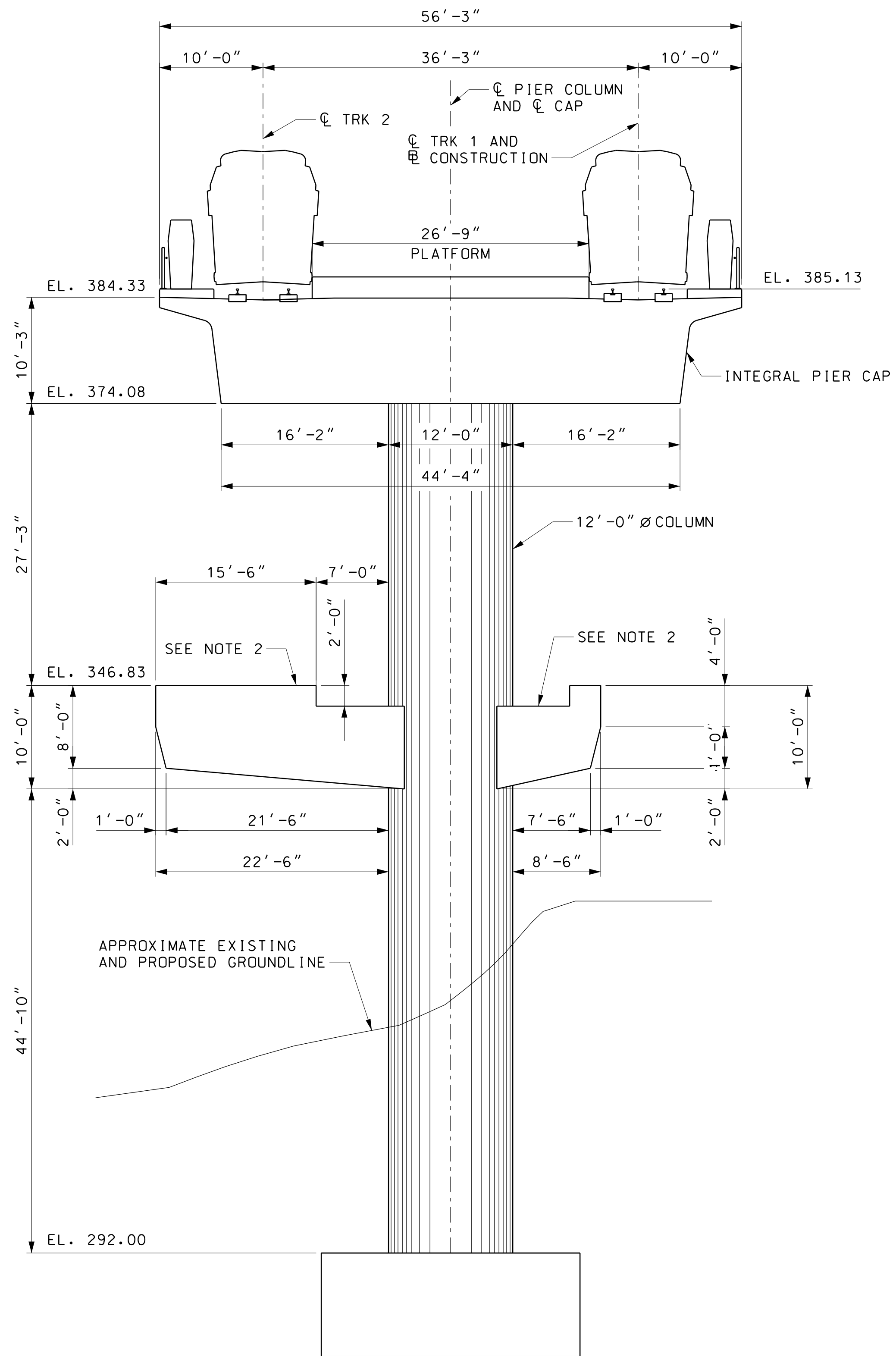
PIER 4 END ELEVATION
SCALE: 1/8"=1'-0"



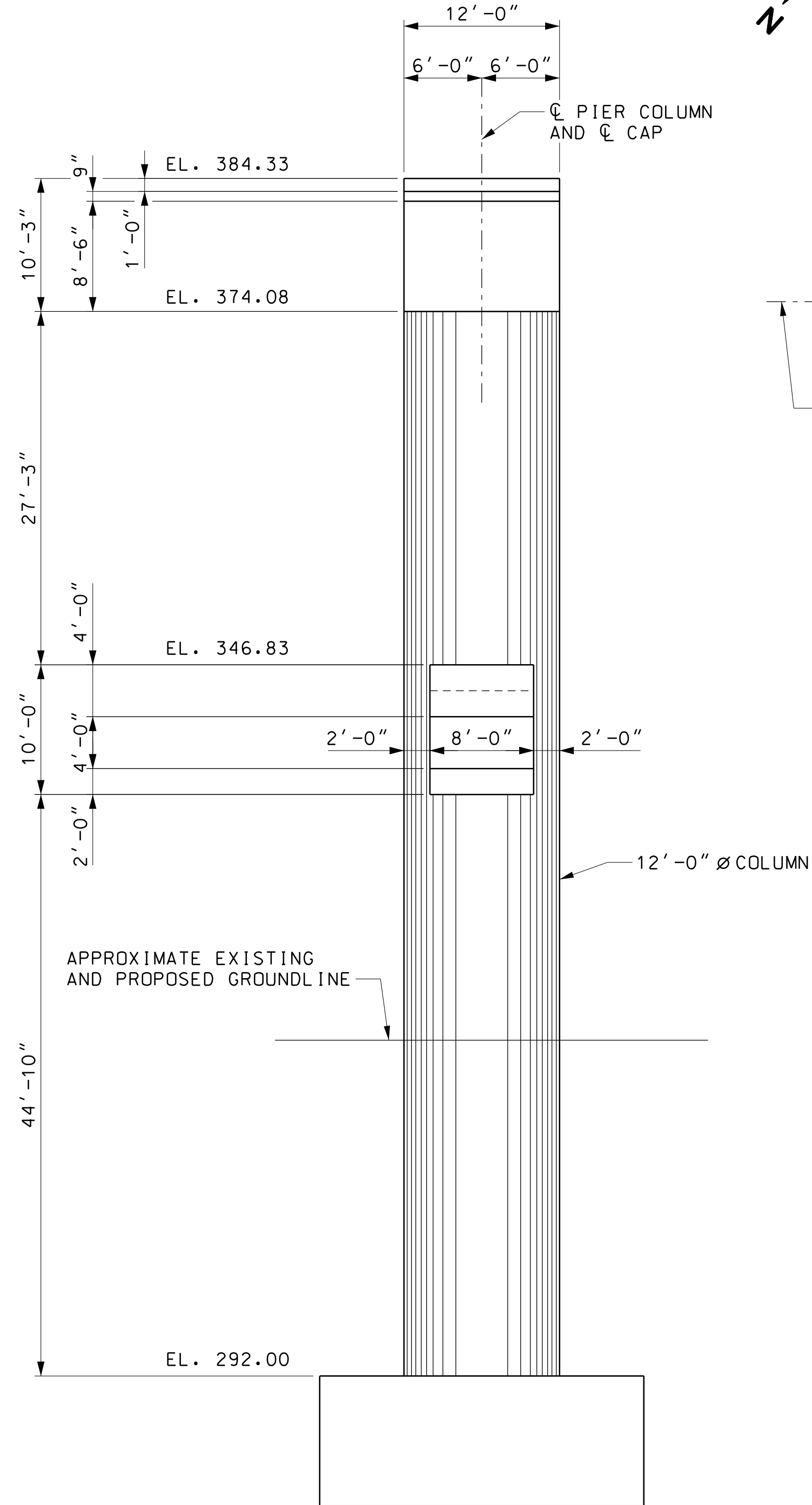
PIER 4 PLAN
SCALE: 1/8"=1'-0"

NOTES:

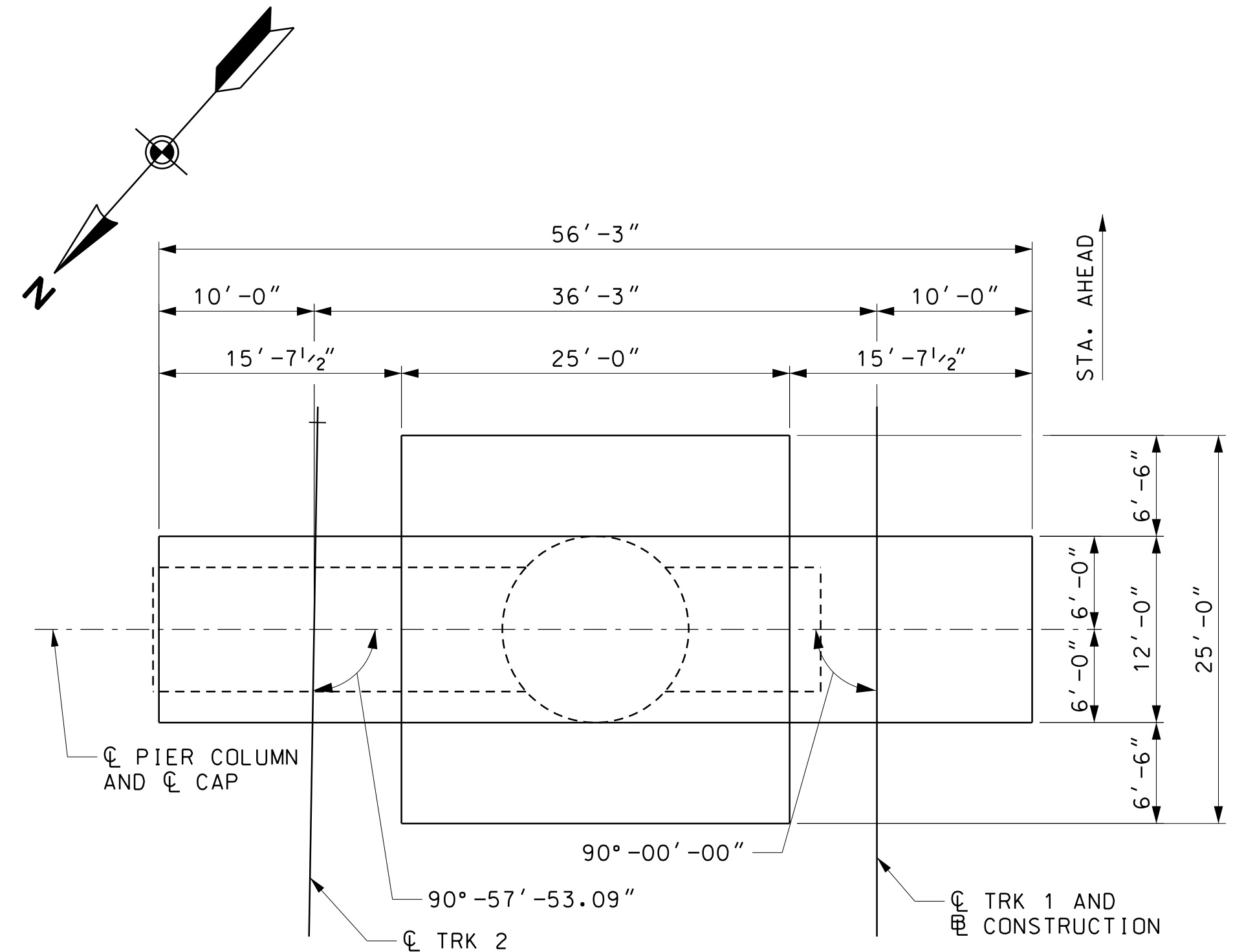
- FOR ADDITIONAL DETAILS RELATING TO THE CAPITAL CRESCENT TRAIL, SEE DWGS ST2B02 AND ST2B03.
- CORBEL TO SUPPORT STEEL FRAMED MEZZANINE STRUCTURE. REFER TO ST2C DRAWINGS FOR MEZZANINE FRAMING.



PIER 5 ELEVATION
SCALE: 1/8"=1'-0"



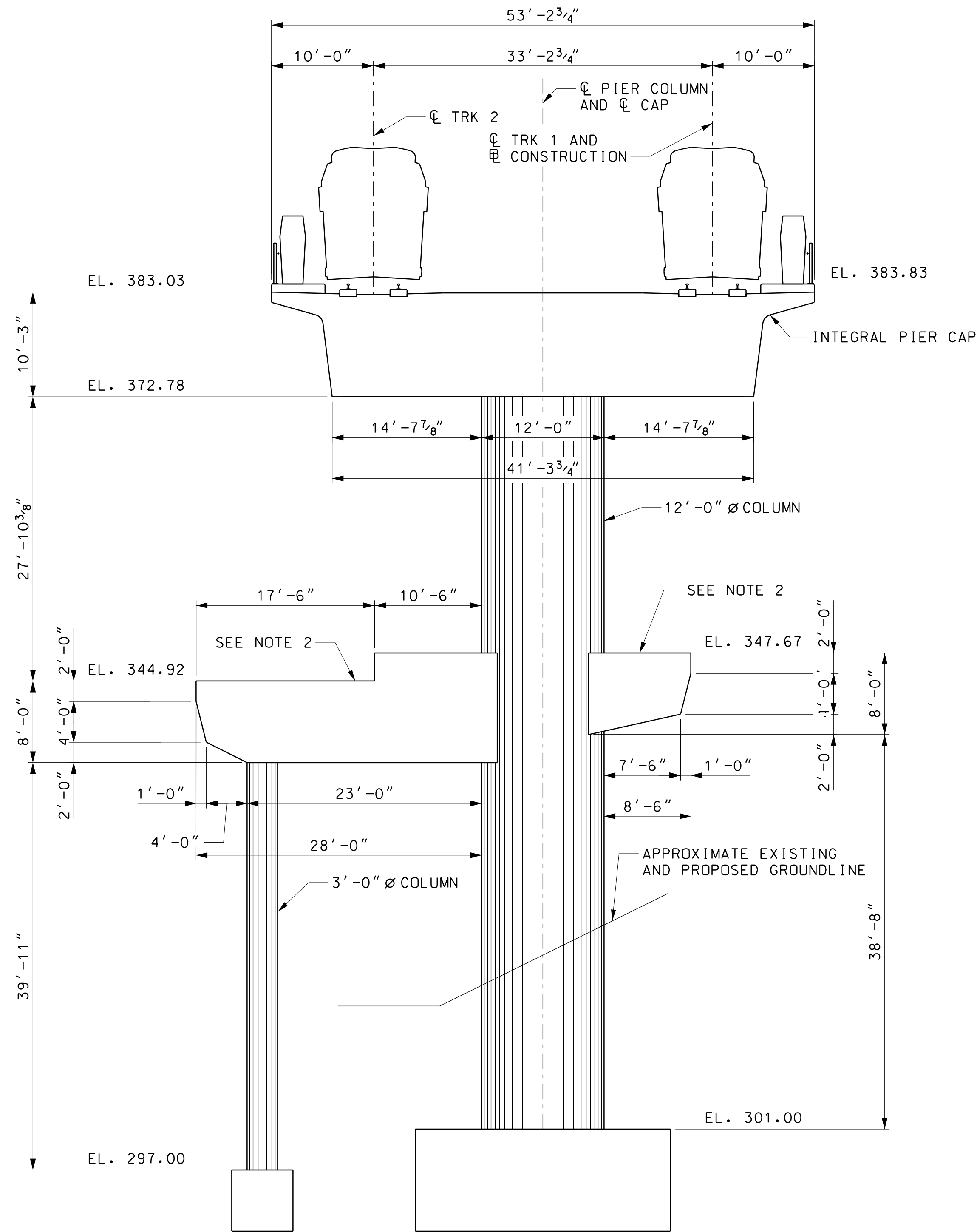
PIER 5 END ELEVATION
SCALE: 1/8"=1'-0"



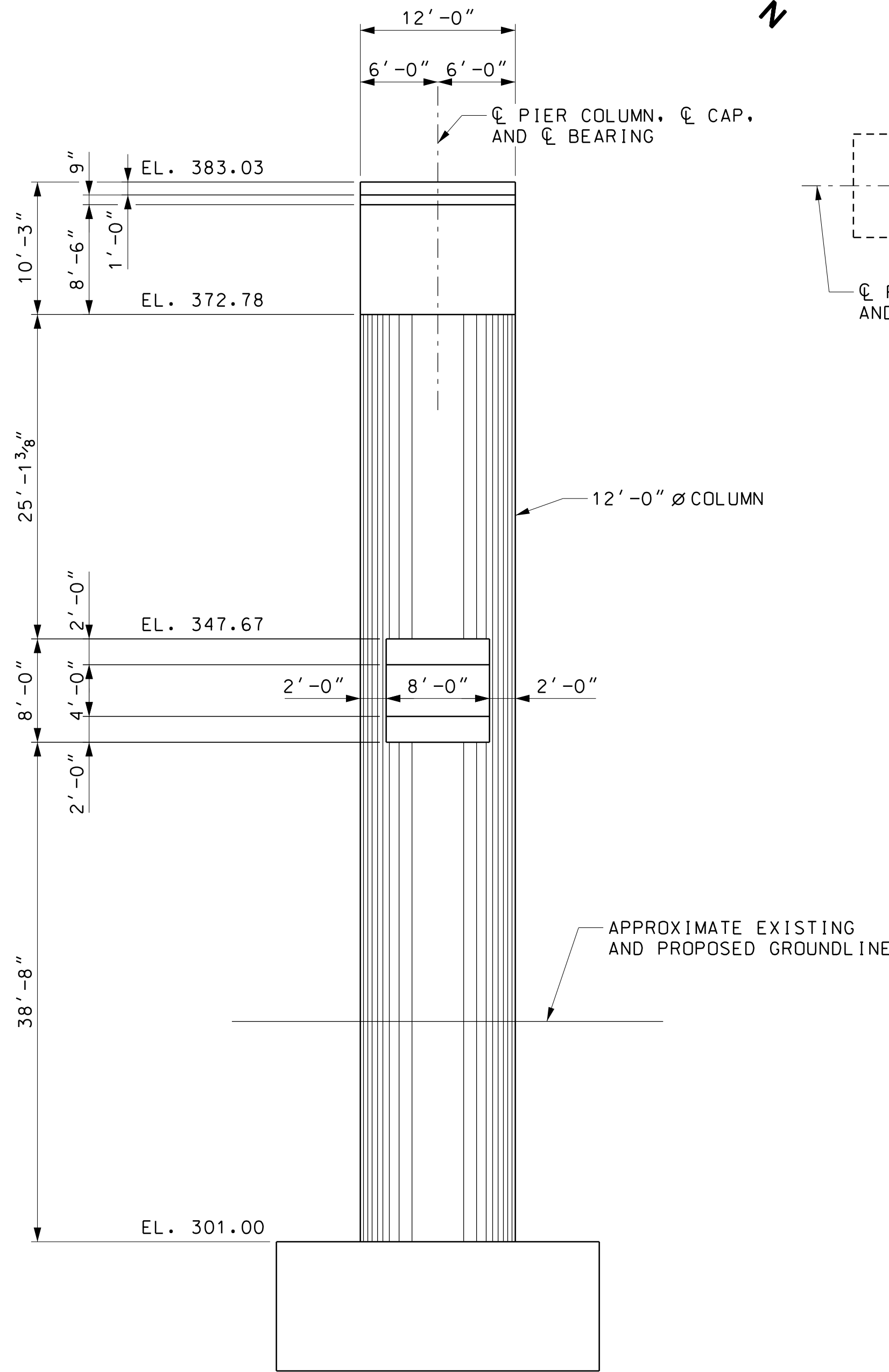
PIER 5 PLAN
SCALE: 1/8"=1'-0"

NOTES:

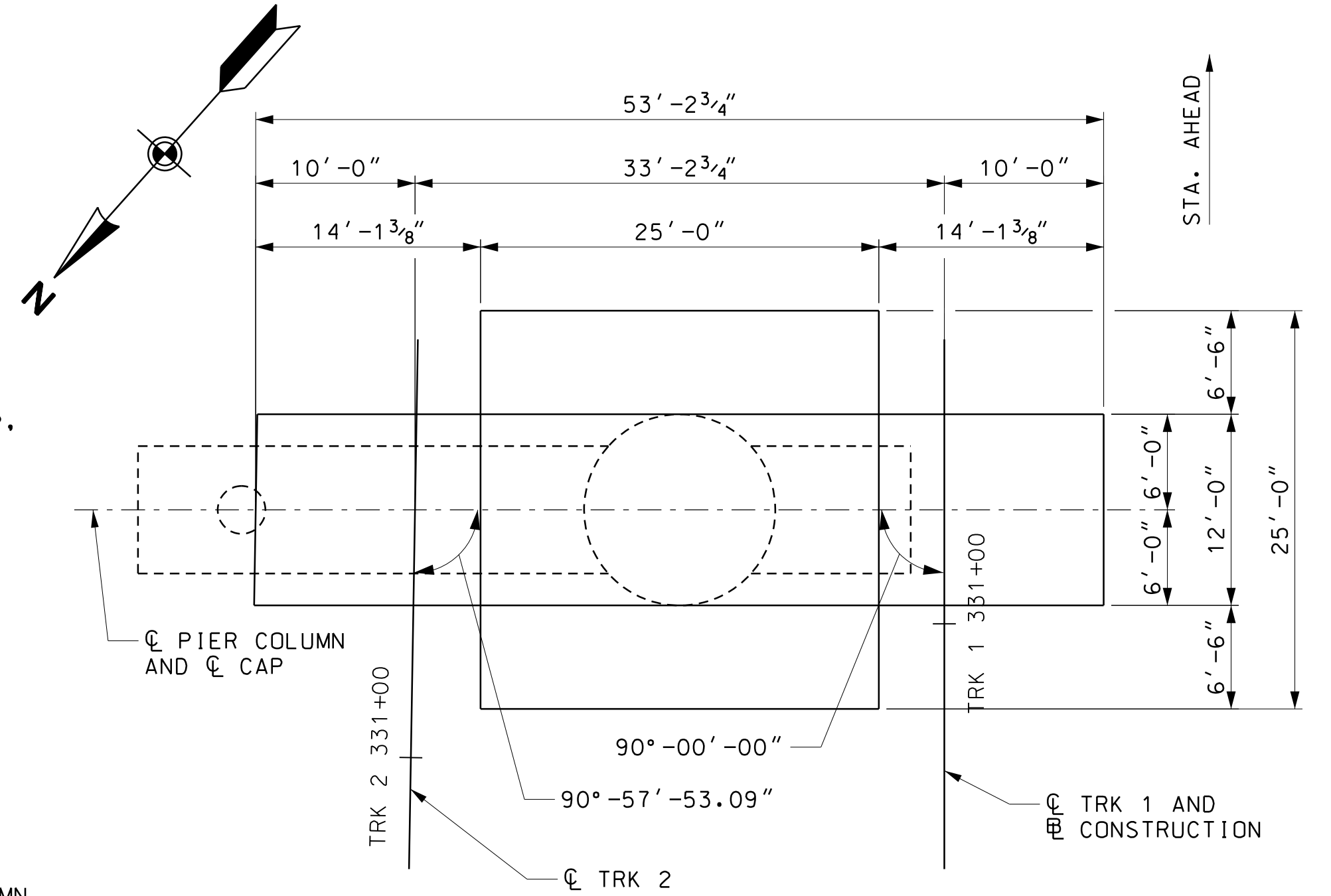
- FOR ADDITIONAL DETAILS RELATING TO THE PLATFORM AND CAPITAL CRESCENT TRAIL, SEE ST2C AND AR2C SERIES DWGS.
- CORBEL TO SUPPORT STEEL FRAMED MEZZANINE STRUCTURE. REFER TO ST2C DRAWINGS FOR MEZZANINE FRAMING.



PIER 6 ELEVATION
SCALE: 1/8"=1'-0"



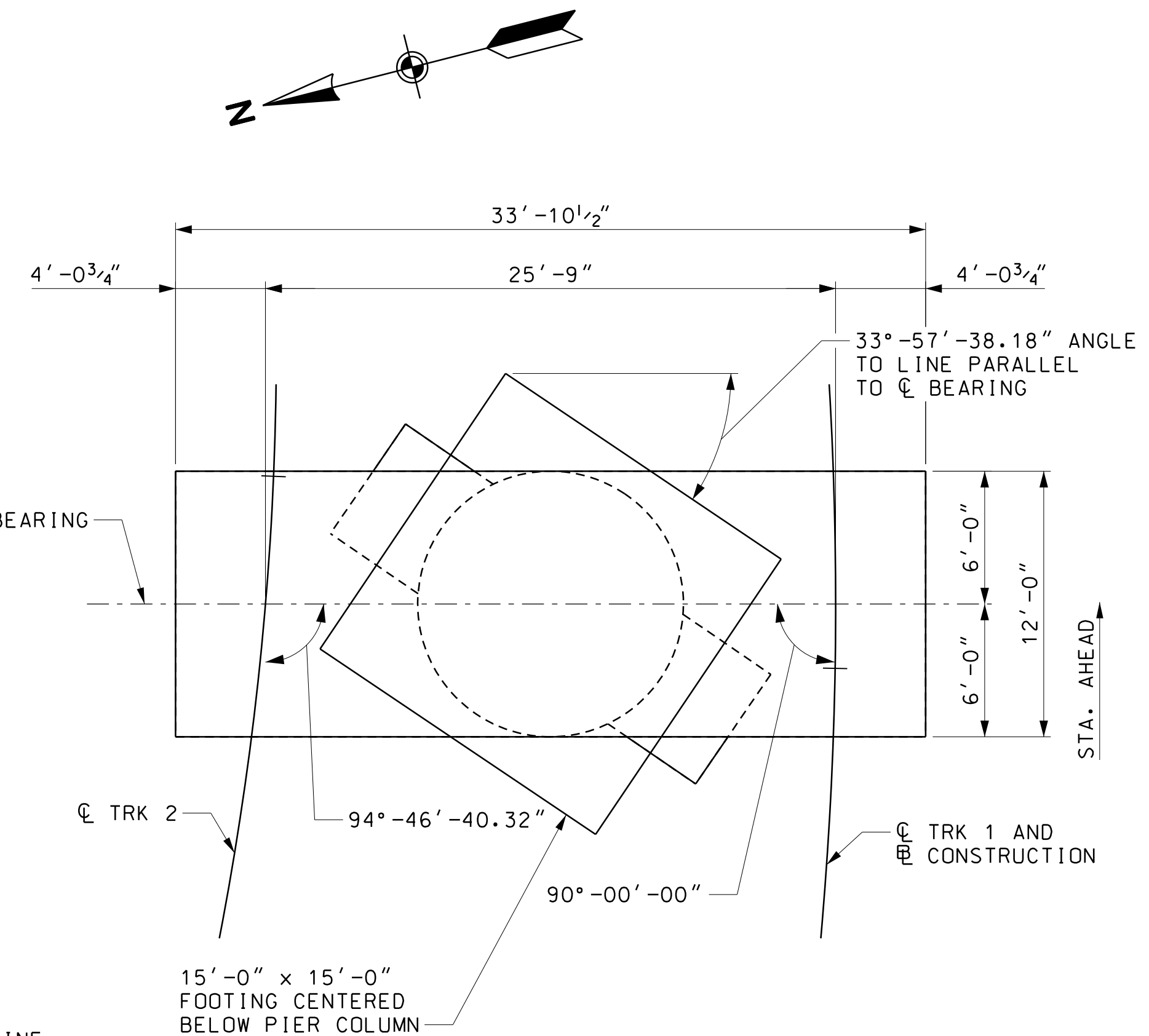
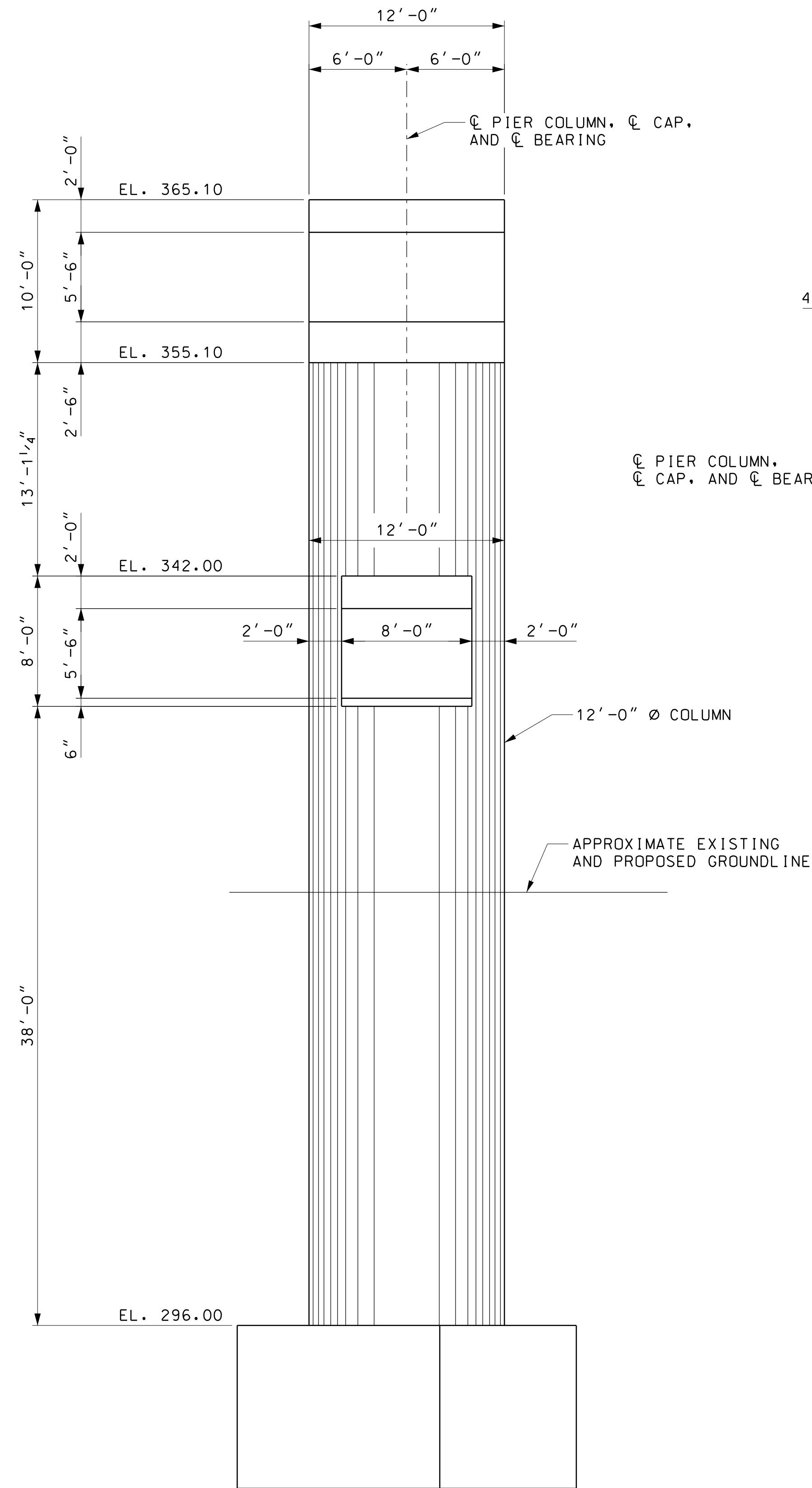
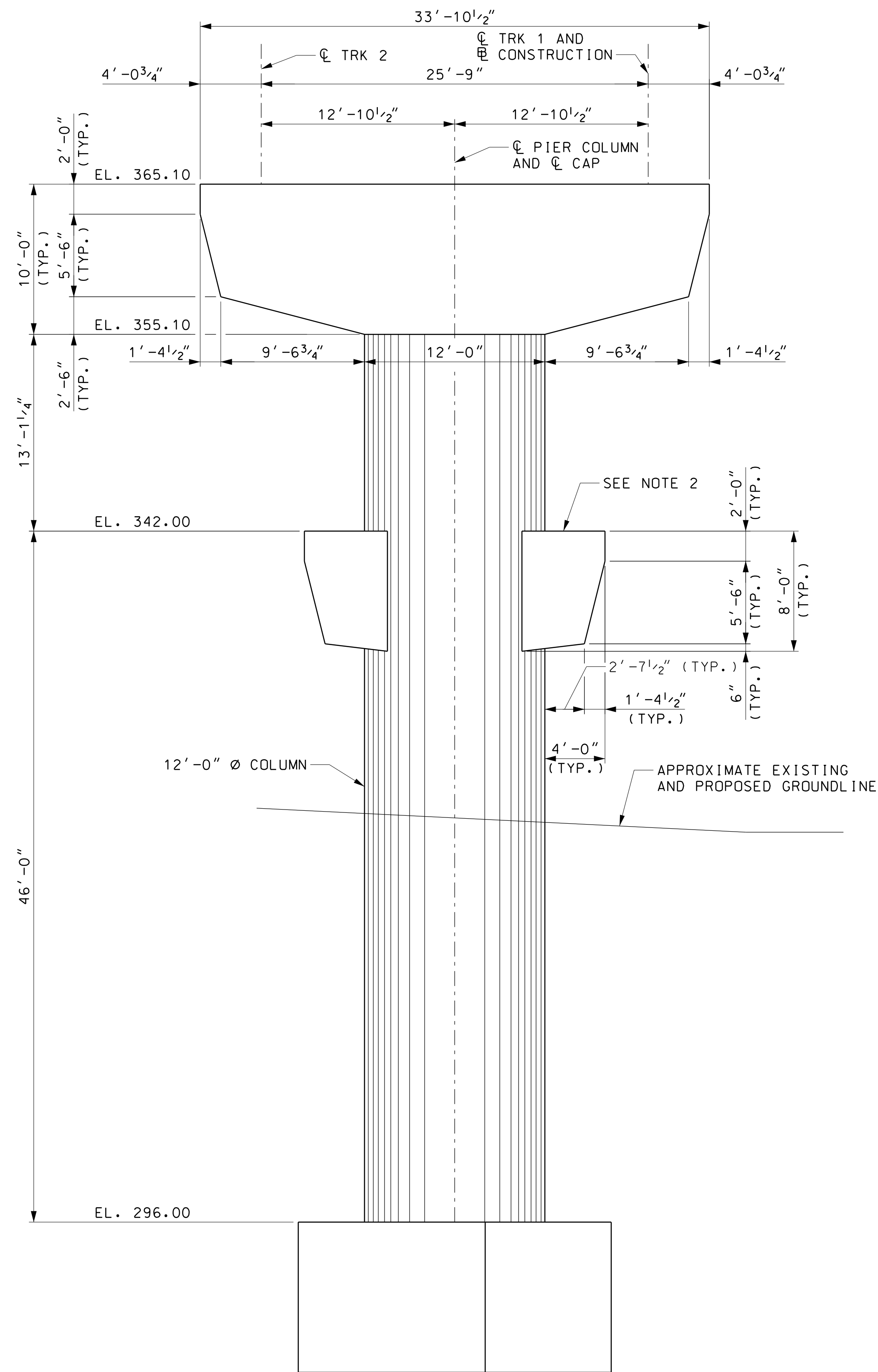
PIER 6 END ELEVATION
SCALE: 1/8"=1'-0"



PIER 6 PLAN
SCALE: 1/8"=1'-0"

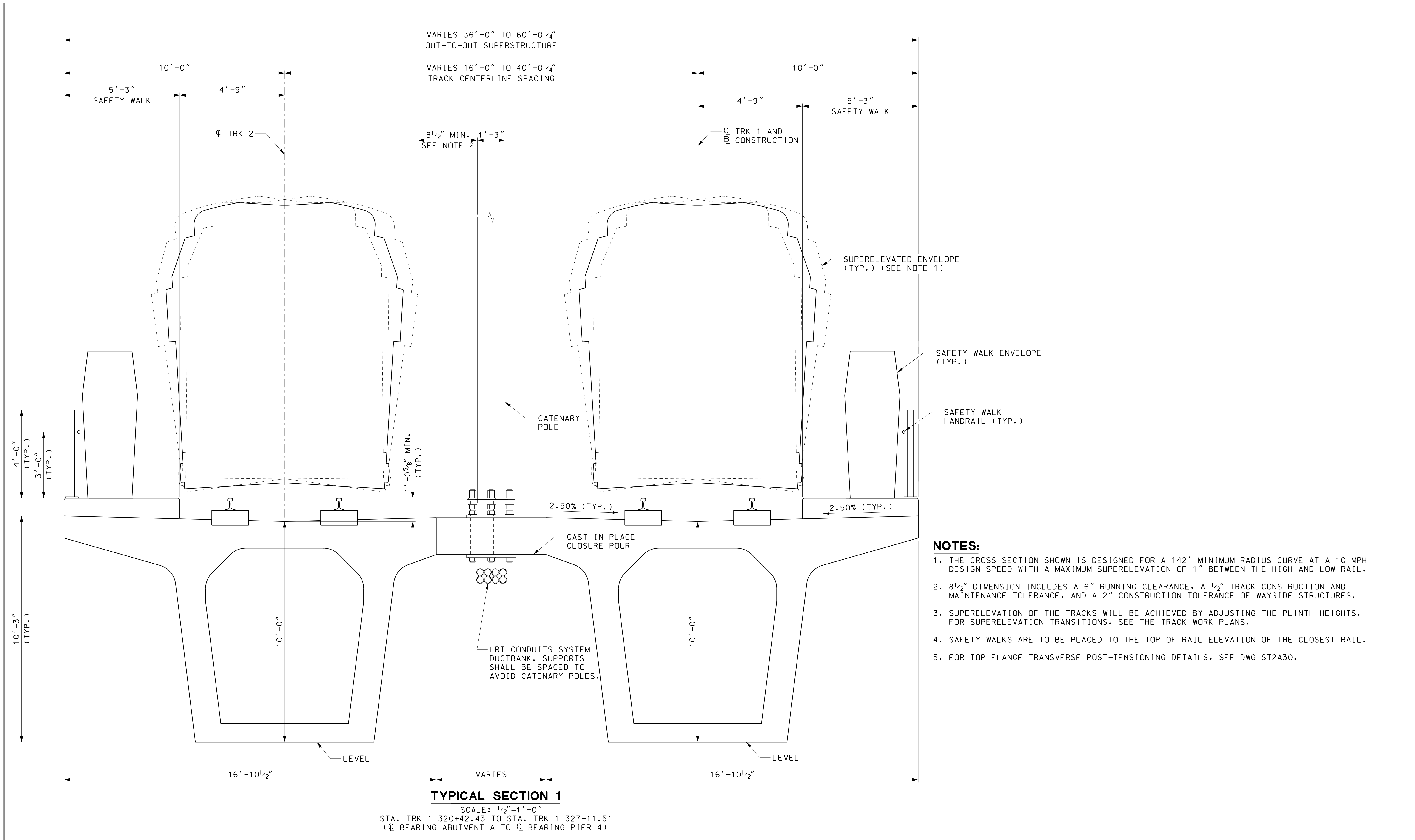
NOTES:

- FOR ADDITIONAL DETAILS RELATING TO THE PLATFORM AND CAPITAL CRESCENT TRAIL, SEE ST2C AND AR2C SERIES DWGS.
- CORBEL TO SUPPORT STEEL FRAMED MEZZANINE STRUCTURE. REFER TO ST2C DRAWINGS FOR MEZZANINE FRAMING.

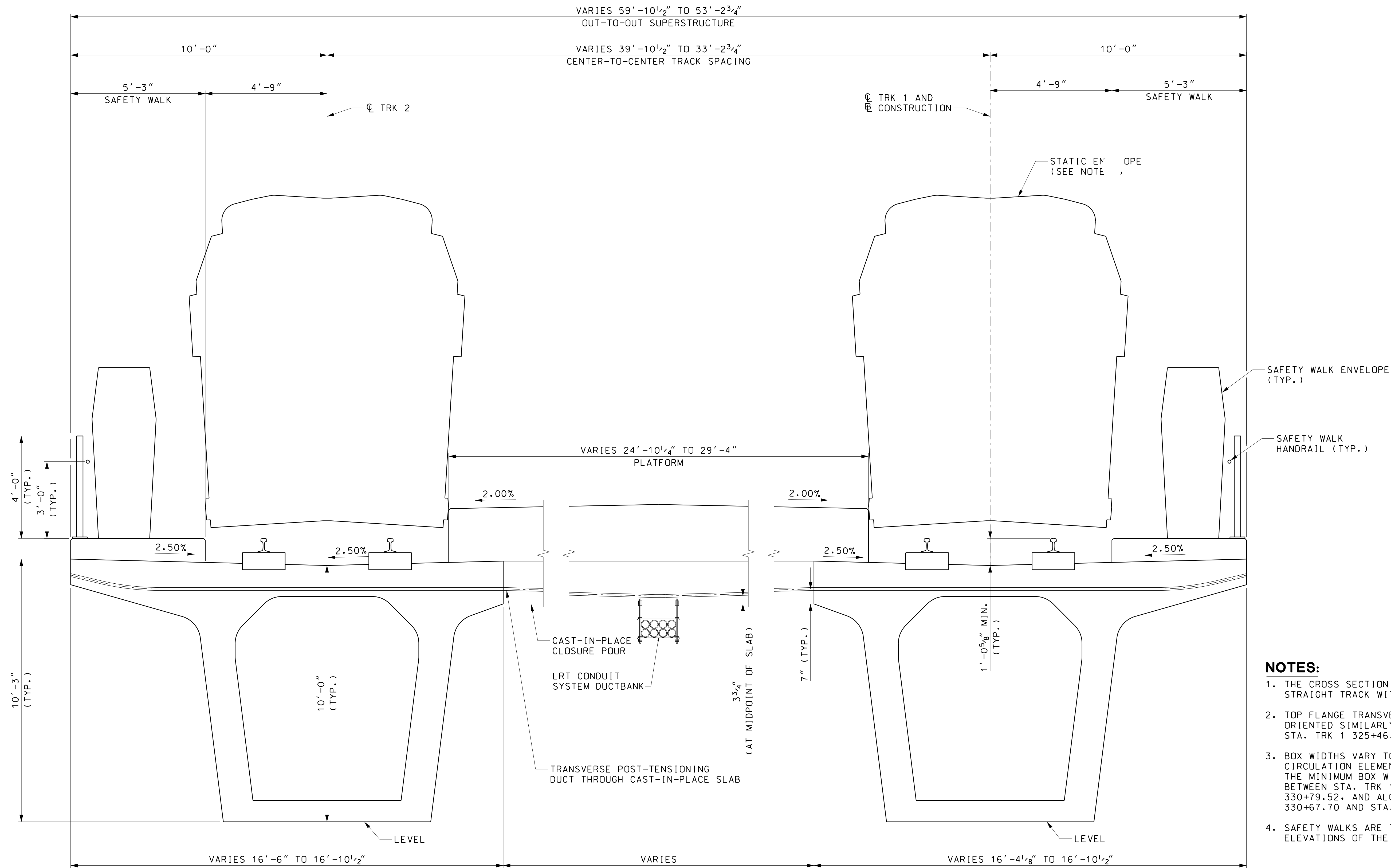


NOTES:

1. FOR ADDITIONAL DETAILS RELATING TO THE MARC CONNECTION AND CAPITAL CRESCENT TRAIL, SEE ST2C AND AR2C SERIES DWGS.
2. CORBEL TO SUPPORT STEEL FRAMED MEZZANINE STRUCTURE. REFER TO ST2C DRAWINGS FOR MEZZANINE FRAMING.



- NOTES:**
1. THE CROSS SECTION SHOWN IS DESIGNED FOR A 142' MINIMUM RADIUS CURVE AT A 10 MPH DESIGN SPEED WITH A MAXIMUM SUPERELEVATION OF 1" BETWEEN THE HIGH AND LOW RAIL.
 2. 8 1/2" DIMENSION INCLUDES A 6" RUNNING CLEARANCE, A 1/2" TRACK CONSTRUCTION AND MAINTENANCE TOLERANCE, AND A 2" CONSTRUCTION TOLERANCE OF WAYSIDE STRUCTURES.
 3. SUPERELEVATION OF THE TRACKS WILL BE ACHIEVED BY ADJUSTING THE PLINTH HEIGHTS. FOR SUPERELEVATION TRANSITIONS, SEE THE TRACK WORK PLANS.
 4. SAFETY WALKS ARE TO BE PLACED TO THE TOP OF RAIL ELEVATION OF THE CLOSEST RAIL.
 5. FOR TOP FLANGE TRANSVERSE POST-TENSIONING DETAILS, SEE DWG ST2A30.

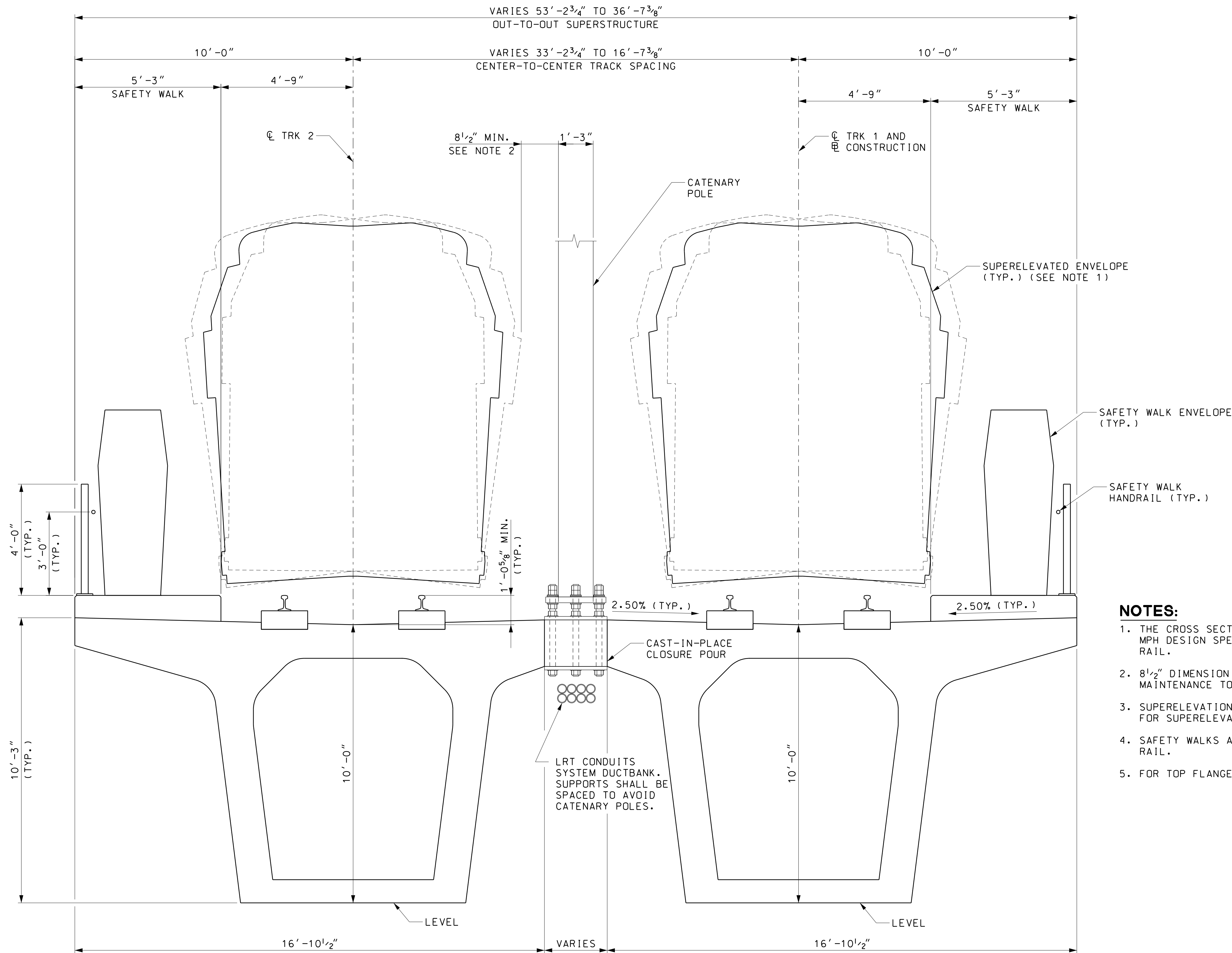


TYPICAL SECTION 2

SCALE: 1/2"=1'-0"
STA. TRK 1 327+11.51 TO STA. TRK 1 331+07.15
(CL BEARING PIER 4 TO CL BEARING PIER 6)

NOTES:

1. THE CROSS SECTION SHOWN IS DESIGNED FOR A STRAIGHT TRACK WITH NO SUPERELEVATION.
2. TOP FLANGE TRANSVERSE POST-TENSIONING SHALL BE ORIENTED SIMILARLY IN THE PART OF SPAN 3 EAST OF STA. TRK 1 325+46.75 AND IN SPAN 7.
3. BOX WIDTHS VARY TO ACCOMMODATE THE VERTICAL CIRCULATION ELEMENTS OF THE STATION PLATFORM. THE MINIMUM BOX WIDTHS ARE REQUIRED ALONG TRK 1 BETWEEN STA. TRK 1 330+59.02 AND STA. TRK 1 330+79.52, AND ALONG TRK 2 BETWEEN STA. TRK 2 330+67.70 AND STA. TRK 2 330+88.20.
4. SAFETY WALKS ARE TO PLACED TO THE TOP OF RAIL ELEVATIONS OF THE CLOSEST RAIL.

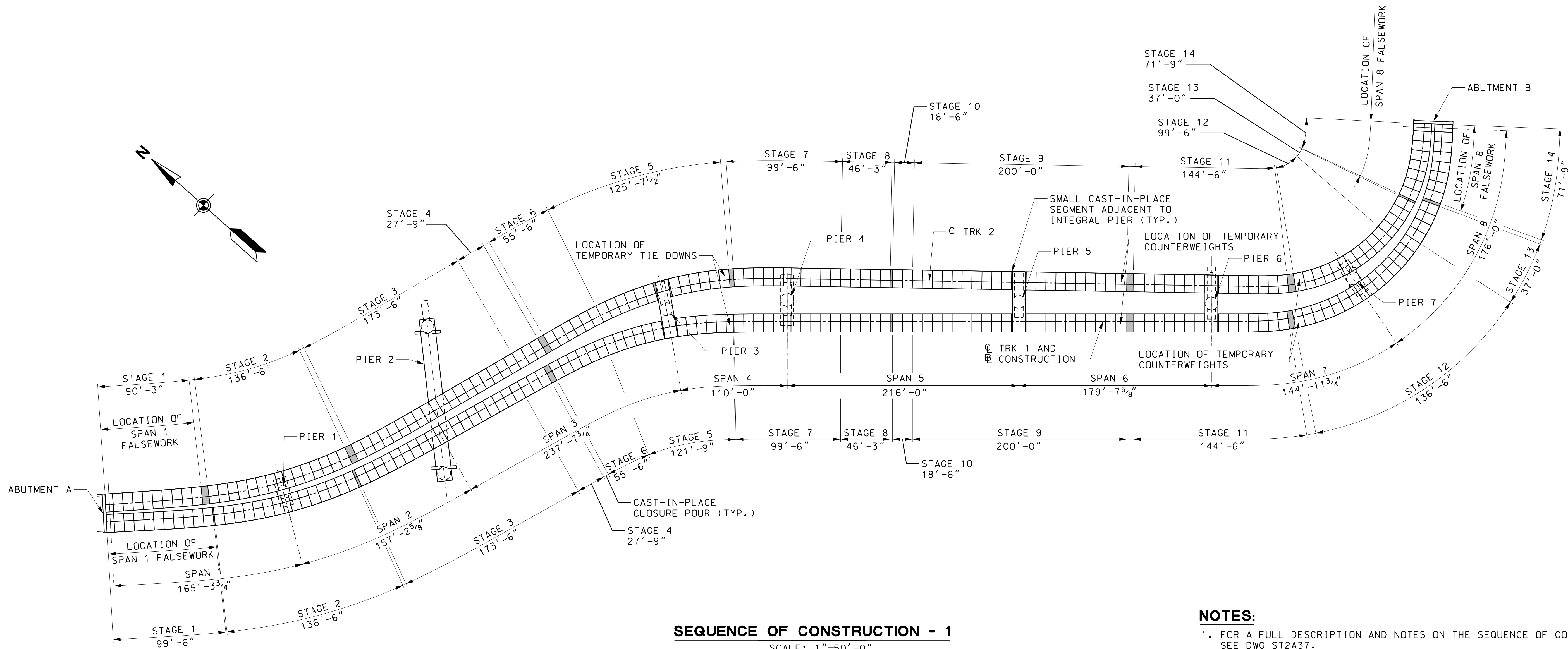


NOTES:

1. THE CROSS SECTION SHOWN IS DESIGNED FOR A 142' MINIMUM RADIUS CURVE AT A 10 MPH DESIGN SPEED WITH A MAXIMUM SUPERELEVATION OF 1" BETWEEN THE HIGH AND LOW RAIL.
2. 8 1/2" DIMENSION INCLUDES A 6" RUNNING CLEARANCE, A 1/2" TRACK CONSTRUCTION AND MAINTENANCE TOLERANCE, AND A 2" CONSTRUCTION TOLERANCE OF WAYSIDE STRUCTURES.
3. SUPERELEVATION OF THE TRACKS WILL BE ACHIEVED BY ADJUSTING THE PLINTH HEIGHTS. FOR SUPERELEVATION TRANSITIONS, SEE THE TRACK WORK PLANS.
4. SAFETY WALKS ARE TO BE PLACED TO THE TOP OF RAIL ELEVATION OF THE CLOSEST RAIL.
5. FOR TOP FLANGE TRANSVERSE POST-TENSIONING DETAILS, SEE DWG ST2A30.

TYPICAL SECTION 3

SCALE: 1/2"=1'-0"
STA. TRK 1 331+07.15 TO STA. TRK 1 334+27.05
(CL BEARING PIER 6 TO CL BEARING ABUTMENT B)



SEQUENCE OF CONSTRUCTION - 1
SCALE: 1"=50'-0"

- NOTES:**
- 1. FOR A FULL DESCRIPTION AND NOTES ON THE SEQUENCE OF CONSTRUCTION, SEE DWG ST2A37.
 - 2. ALL PRECAST SEGMENTS ARE 9'-3" LONG MEASURED ALONG THE SEGMENT CENTERLINE, WITH THE FOLLOWING EXCEPTIONS:
 - SEGMENT 6U3E (6'-6" LONG)
 - SEGMENT 10U5E (10'-9" LONG)
 - SEGMENT 7D6E (10'-9" LONG)
 - SEGMENT 10U5W (10'-9" LONG)
 - SEGMENT 7D6W (10'-9" LONG)
 - IN ADDITION, THE ABUTMENT AND NON-INTEGRAL PIER SEGMENTS ARE 7'-0" LONG MEASURED ALONG THE SEGMENT CENTERLINE.
 - 3. ALL CLOSURE POUR SEGMENTS BETWEEN CANTILEVERS ARE A MINIMUM OF 8 1/2" AND A MAXIMUM OF 6'-9". ALL CAST-IN-PLACE SEGMENTS ADJACENT TO INTEGRAL PIER CAPS ARE A MINIMUM OF 9" LONG.

SEQUENCE OF CONSTRUCTION NOTES:

1. ERECT STAGE 1 SEGMENTS ON FALSEWORK.
2. SET THE OVERHEAD GANTRY TO REST ON ABUTMENT A, PIER 1, AND PIER 2. ERECT STAGE 2 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 1 OUTWARD. WHEN ALL THE SEGMENTS LABELED STAGE 2 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 1 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 1.
3. SET THE OVERHEAD GANTRY TO REST ON PIER 1, PIER 2, AND PIER 3. ERECT STAGE 3 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 2 OUTWARD. WHEN ALL THE SEGMENTS LABELED STAGE 3 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 2 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 1.
4. ERECT STAGE 4 SEGMENTS WITH AN OVERHEAD GANTRY AND POST-TENSION THEM TO THE PREVIOUSLY ERECTED SEGMENTS IN SPAN 3.
5. SET THE OVERHEAD GANTRY TO REST ON PIER 2, PIER 3, AND PIER 4. ERECT STAGE 5 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 3 OUTWARD. PRIOR TO ERECTION OF THE STAGE 6 SEGMENTS, INSTALL TIE DOWNS FROM THE ‘UP’ END OF THE PIER 3 CANTILEVER CONNECTING INTO MICROPILES INSTALLED IN THE MEDIAN OF COLESVILLE ROAD.
6. ERECT STAGE 6 SEGMENTS WITH AN OVERHEAD GANTRY AND POST-TENSION THEM TO THE PREVIOUSLY ERECTED SEGMENTS IN SPAN 3. DURING ERECTION OF THESE SEGMENTS, TENSION THE TIE DOWNS TO HELP BALANCE THE UNBALANCED CANTILEVER. WHEN ALL THE SEGMENTS LABELED STAGE 6 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 3 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 3. SLACKEN APPROXIMATELY 50% OF THE TIE DOWNS.
7. SET THE OVERHEAD GANTRY TO REST ON PIER 3, PIER 4, AND PIER 5. ERECT STAGE 7 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 4 OUTWARD. WHEN ALL THE SEGMENTS LABELED STAGE 7 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 4 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 4.
8. ERECT STAGE 8 SEGMENTS WITH AN OVERHEAD GANTRY AND POST-TENSION THEM TO THE PREVIOUSLY ERECTED SEGMENTS IN SPAN 5.
9. SET THE OVERHEAD GANTRY TO REST ON PIER 4, PIER 5, AND PIER 6. ERECT STAGE 9 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 5 OUTWARD.
10. ERECT STAGE 10 SEGMENTS WITH AN OVERHEAD GANTRY AND POST-TENSION THEM TO THE PREVIOUSLY ERECTED SEGMENTS IN SPAN 5. DURING ERECTION OF THESE SEGMENTS, PLACE COUNTERWEIGHTS ON THE ‘UP’ END OF THE PIER 5 CANTILEVER TO HELP BALANCE THE UNBALANCED CANTILEVER (SEE NOTE 3). WHEN ALL THE SEGMENTS LABELED STAGE 10 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 5 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 5. REMOVE TEMPORARY COUNTERWEIGHTS AFTER CONTINUITY TENDONS ARE POST-TENSIONED.
11. SET THE OVERHEAD GANTRY TO REST ON PIER 5, PIER 6, AND PIER 7. ERECT STAGE 11 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 6 OUTWARD. WHEN ALL THE SEGMENTS LABELED STAGE 11 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 6 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 6.
12. SET THE OVERHEAD GANTRY TO REST ON PIER 6, PIER 7, AND ABUTMENT B. ERECT STAGE 12 SEGMENTS USING THE BALANCED CANTILEVER METHOD WITH AN OVERHEAD GANTRY, CONSTRUCTING FROM PIER 7 OUTWARD. WHEN ALL THE SEGMENTS LABELED STAGE 12 ARE IN PLACE AND POST-TENSIONED, PLACE COUNTERWEIGHTS ON THE ‘DOWN’ END OF THE PIER 7 CANTILEVER TO CONTROL DEFLECTION IN SPAN 8 (SEE NOTE 3). CONNECT THE TWO CANTILEVERS IN SPAN 7 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 7. REMOVE TEMPORARY COUNTERWEIGHTS AFTER CONTINUITY TENDONS ARE POST-TENSIONED.
13. ERECT STAGE 13 SEGMENTS WITH AN OVERHEAD GANTRY AND POST-TENSION THEM TO THE PREVIOUSLY ERECTED SEGMENTS IN SPAN 8.
14. ERECT STAGE 14 SEGMENTS ON FALSEWORK. WHEN ALL THE SEGMENTS LABELED STAGE 14 ARE IN PLACE AND POST-TENSIONED, CONNECT THE TWO CANTILEVERS IN SPAN 8 WITH C.I.P. CLOSURE POUR. POST-TENSION THE CONTINUITY TENDONS IN SPAN 8.
15. WALK THE OVERHEAD GANTRY BACK TO ABUTMENT A FOR DISASSEMBLY.
16. SLACKEN AND REMOVE THE TIE DOWNS FROM THE ‘UP’ END OF THE PIER 3 CANTILEVER TO THE MEDIAN OF COLESVILLE ROAD. REMOVE THE COUNTERWEIGHTS PLACED ON THE ‘UP’ END OF THE PIER 5 CANTILEVER AND THE ‘DOWN’ END OF THE PIER 7 CANTILEVER.
17. THE TRK 1 AND TRK 2 SEGMENTS SHALL BE CONSTRUCTED SIMULTANEOUSLY IN ORDER TO REDUCE ECCENTRIC LOADS ACTING ON SUBSTRUCTURE. HOWEVER, IF NEEDED, TRK 1 CAN BE CONSTRUCTED A MAXIMUM OF 2 SEGMENTS UPSTATION AND 2 SEGMENTS DOWNSTATION AHEAD OF TRK 2 OR VICE VERSA.
18. POUR DECK SLAB AND POST-TENSION THE TRANSVERSE TENDONS IN THE DECK SLAB AND TOP FLANGES OF THE BOXES.

NOTES:

1. ERECTION OF ALL SEGMENTS ARE TO BE COMPLETED USING AN ARTICULATED (HINGED) OVERHEAD GANTRY.
2. TIE DOWNS ARE REQUIRED TO MAINTAIN STRUCTURE STABILITY DURING ERECTION OF STAGE 6.
3. 75-KIP COUNTERWEIGHTS ARE REQUIRED FOR EACH UNBALANCED SEGMENT ERECTED DURING STAGE 10. FOR A TOTAL COUNTERWEIGHT OF 150 KIPS PER TRACK. 30-KIP COUNTERWEIGHTS ARE REQUIRED FOR EACH TRACK DURING STAGE 12.
4. EACH STAGE OF THE STRUCTURE HAS BEEN DESIGNED FOR CONSTRUCTION LOADS IN ACCORDANCE WITH AASHTO LRFD SECTION 5.14.2.3.2.
5. PRESTRESSED CONCRETE DESIGN DURING CONSTRUCTION:

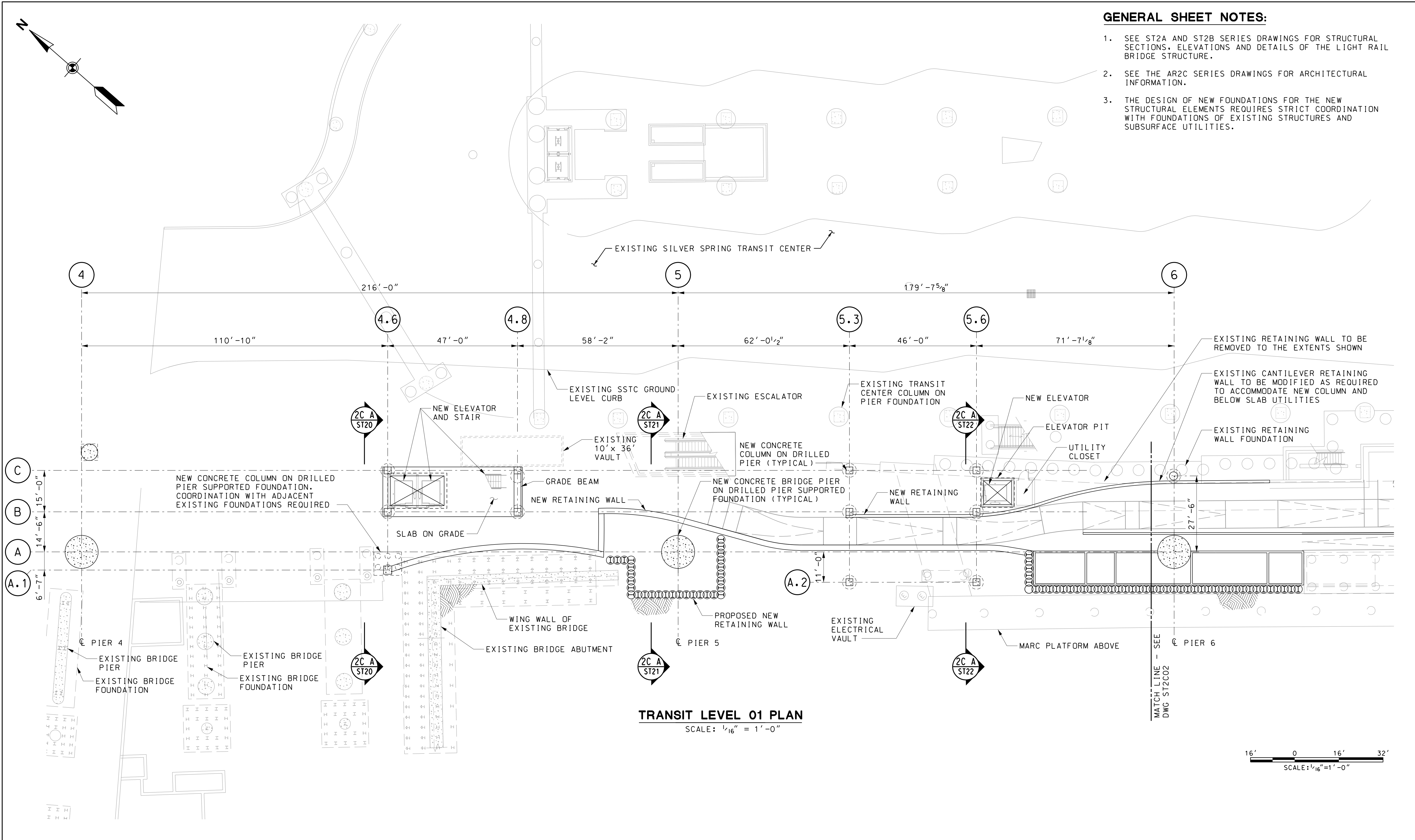
LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD, USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012. MAXIMUM ALLOWABLE COMPRESSIVE STRESS DURING CONSTRUCTION OF 0.5f’c. MAXIMUM ALLOWABLE TENSILE STRESS DURING CONSTRUCTION OF 0.190 f’c.

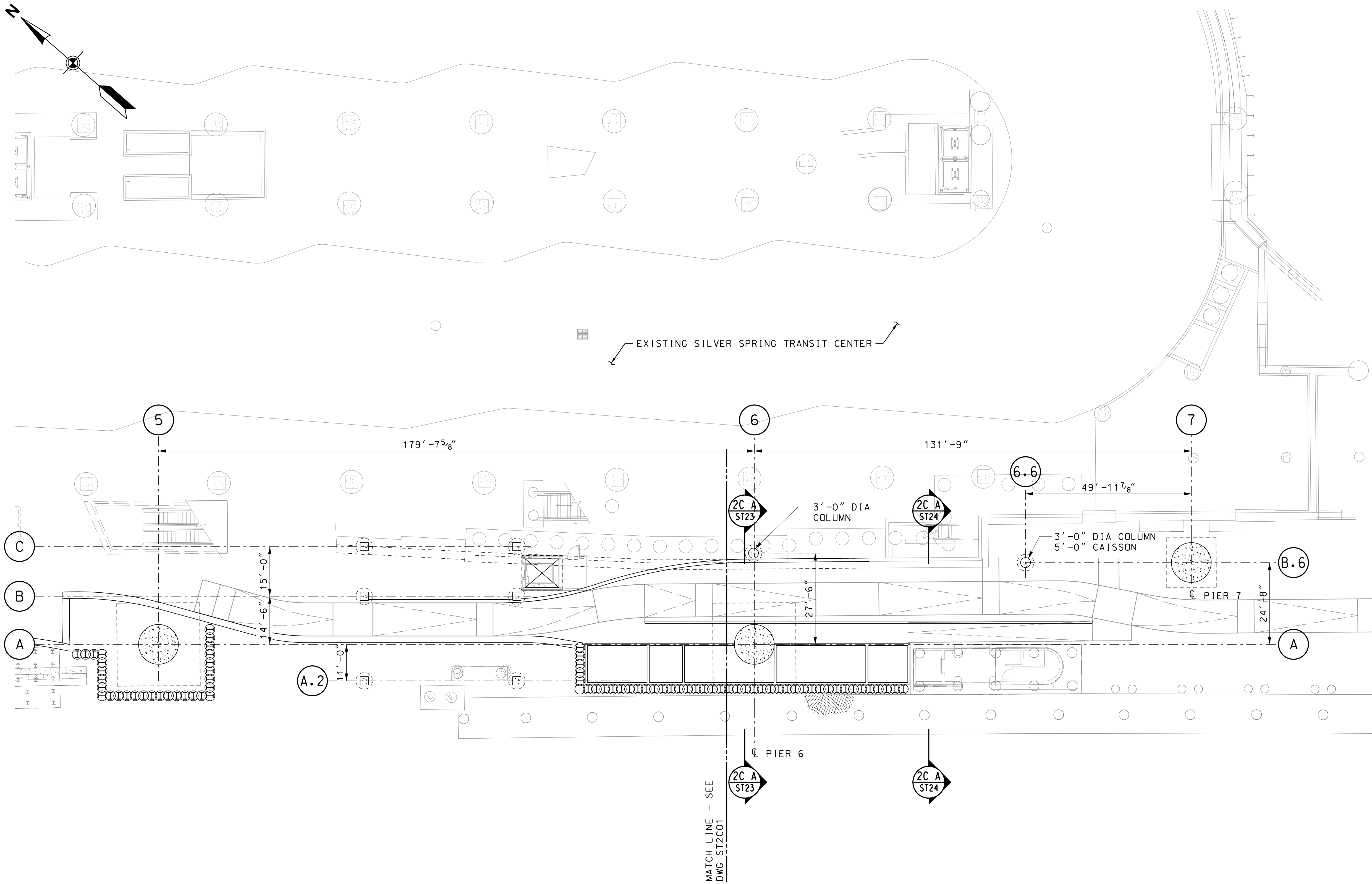
SEQUENCE OF CONSTRUCTION - 2

SCALE: NOT TO SCALE

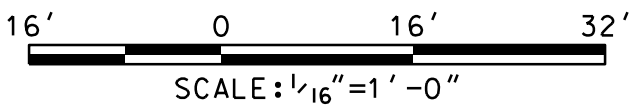
<div><div><div>MARYLAND DEPARTMENT OF TRANSPORTATION</div><div><div><div><div></div></div><div>MARYLAND TRANSIT ADMINISTRATION</div></div><div><div>MTA</div><div>Maryland</div></div></div></div></div>	<div><div><div><div></div></div><div>Gannett Fleming</div></div><div><div><div></div></div><div>WR&A</div></div></div>
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pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 02\Structures\A-SSTC Aerial\WRA\Sheet Files\1042pST2A37.dgn12/6/2013



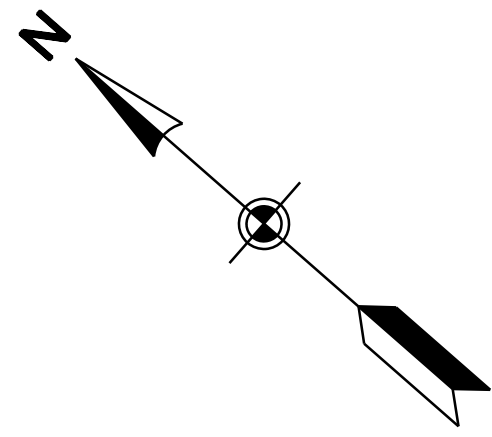


TRANSIT LEVEL 01 PLAN
SCALE: 1/16" = 1' - 0"

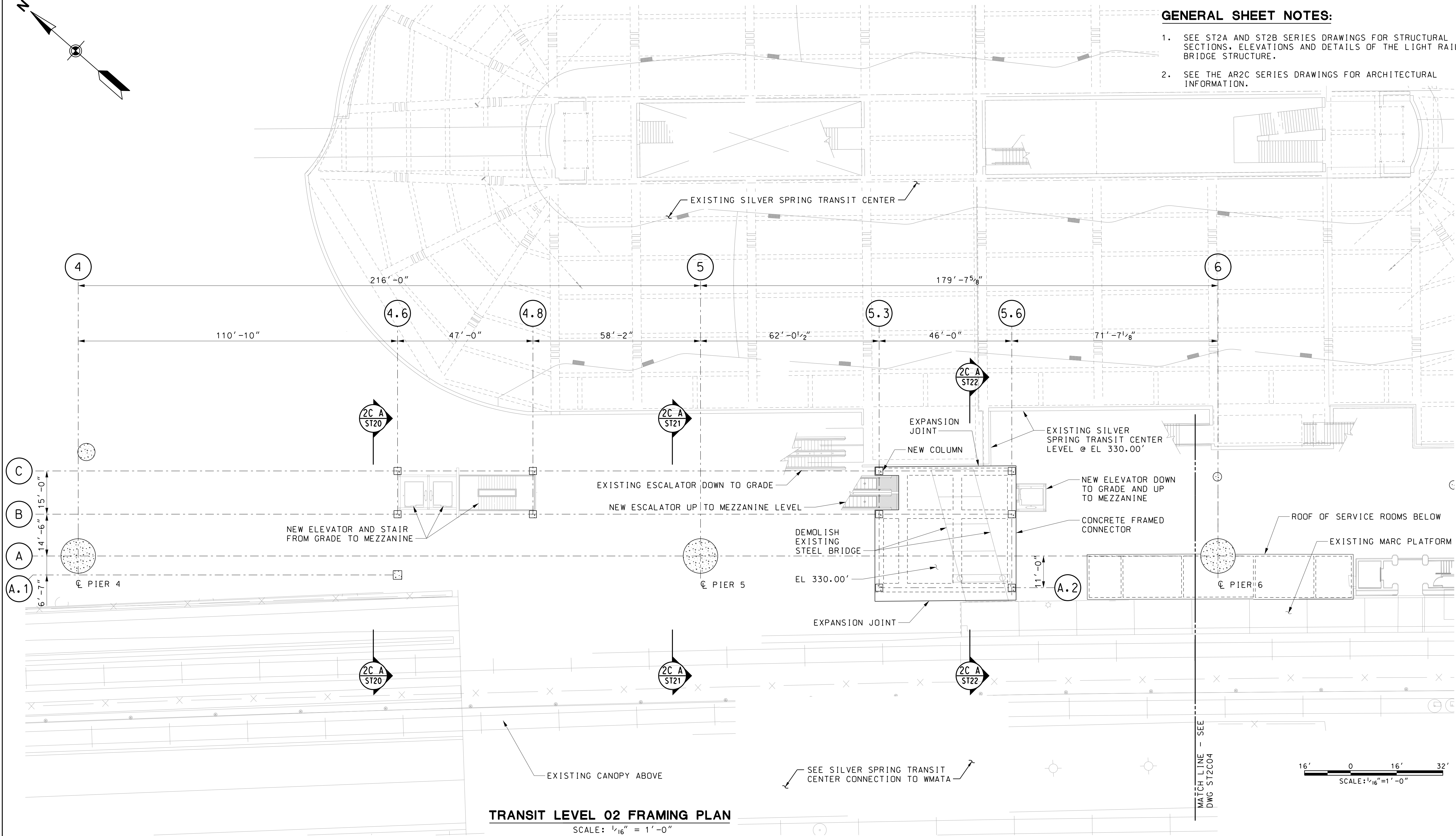


GENERAL SHEET NOTES:

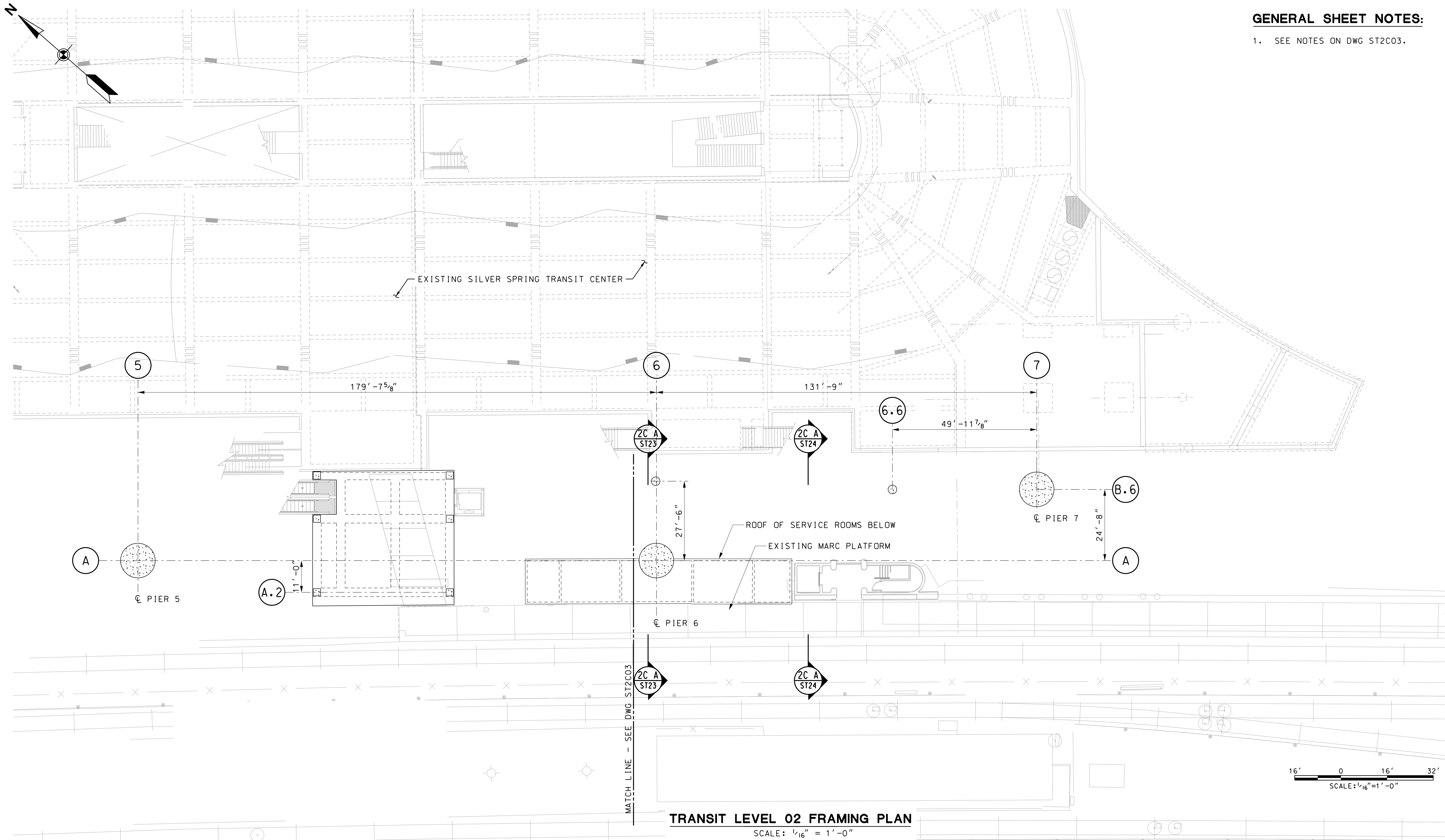
- SEE NOTES ON DWG ST2C01.



- GENERAL SHEET NOTES:**
- SEE ST2A AND ST2B SERIES DRAWINGS FOR STRUCTURAL SECTIONS, ELEVATIONS AND DETAILS OF THE LIGHT RAIL BRIDGE STRUCTURE.
 - SEE THE AR2C SERIES DRAWINGS FOR ARCHITECTURAL INFORMATION.



TRANSIT LEVEL 02 FRAMING PLAN
SCALE: 1/16" = 1'-0"



GENERAL SHEET NOTES:

1. SEE NOTES ON DWG ST2C03.

TRANSIT LEVEL 02 FRAMING PLAN

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

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

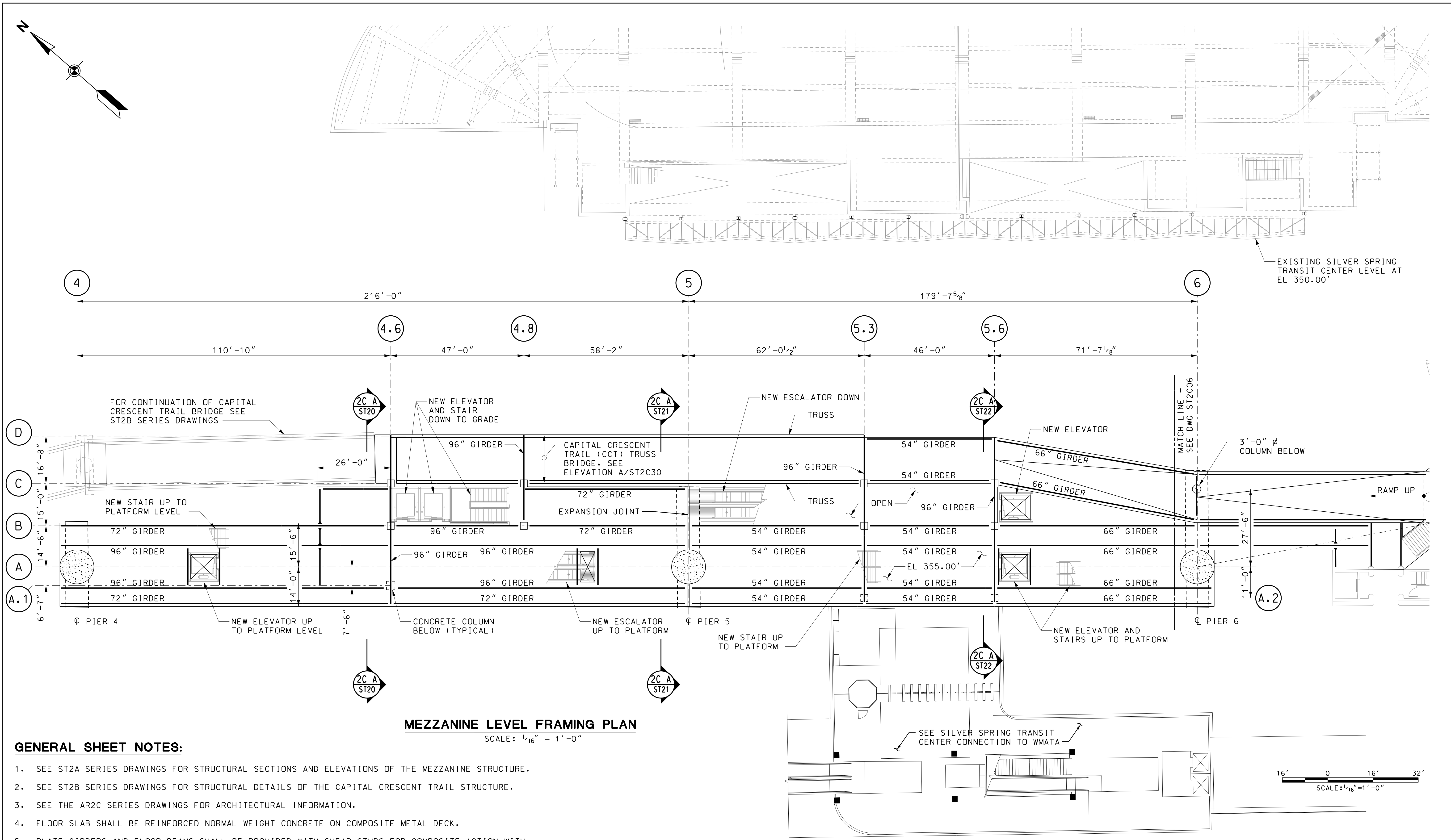
DESIGN: PSO
SLJ
RBG
CHECK: APPR:

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

SILVER SPRING TRANSIT CENTER STATION
TRANSIT LEVEL 02 FRAMING PLAN (2 OF 2)
DATE: DECEMBER 2013 SCALE: AS SHOWN

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST2C04
SHEET NO.
532 OF 828

c:\pwworking\mtopw\wra-stacy_jackman\dms91303\1042pST2c04.dgn 12/10/2013

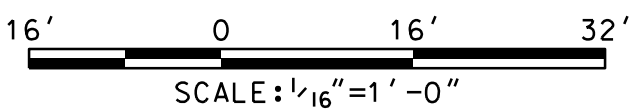


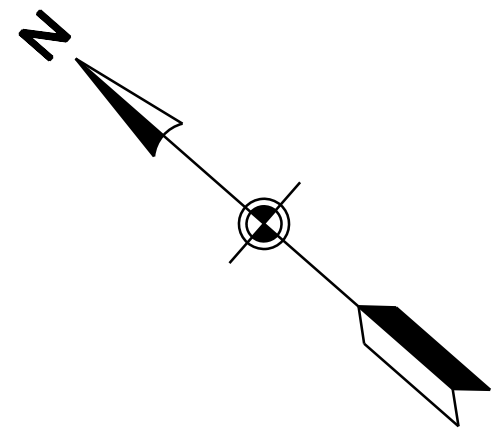
GENERAL SHEET NOTES:

1. SEE ST2A SERIES DRAWINGS FOR STRUCTURAL SECTIONS AND ELEVATIONS OF THE MEZZANINE STRUCTURE.
2. SEE ST2B SERIES DRAWINGS FOR STRUCTURAL DETAILS OF THE CAPITAL CRESCENT TRAIL STRUCTURE.
3. SEE THE AR2C SERIES DRAWINGS FOR ARCHITECTURAL INFORMATION.
4. FLOOR SLAB SHALL BE REINFORCED NORMAL WEIGHT CONCRETE ON COMPOSITE METAL DECK.
5. PLATE GIRDERS AND FLOOR BEAMS SHALL BE PROVIDED WITH SHEAR STUDS FOR COMPOSITE ACTION WITH SLAB AND DIAPHRAGM INTEGRITY.

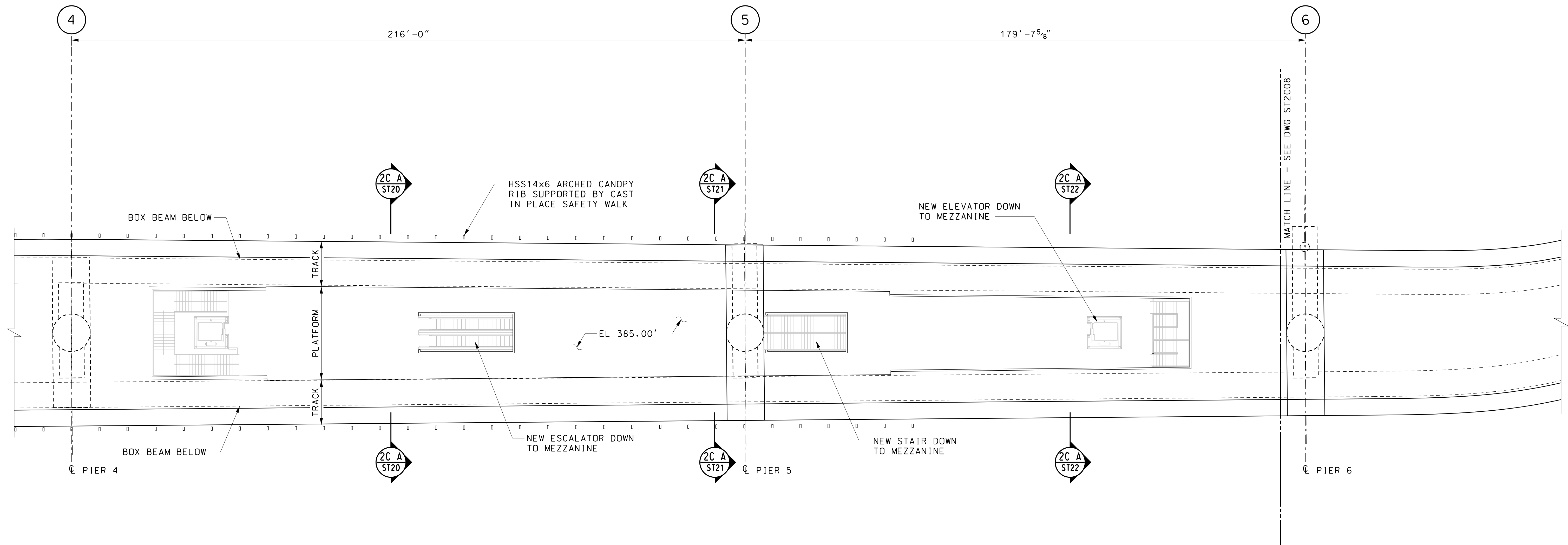
<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div>MARYLAND TRANSIT ADMINISTRATION</div> <div>MTA Maryland</div>	<div>Gannett Fleming</div> <div>WR&A</div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</div>	DESIGN	PSO	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				CHECK	SLJ		DRAWING NO. ST2C05
				APPR	RBG		SHEET NO. 533 OF 828
SILVER SPRING TRANSIT CENTER STATION MEZZANINE LEVEL FRAMING PLAN (1 OF 2) DATE: DECEMBER 2013						SCALE: 1/16" = 1'-0"	

1. SEE NOTES ON DWG ST2C05.

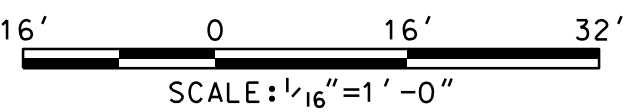


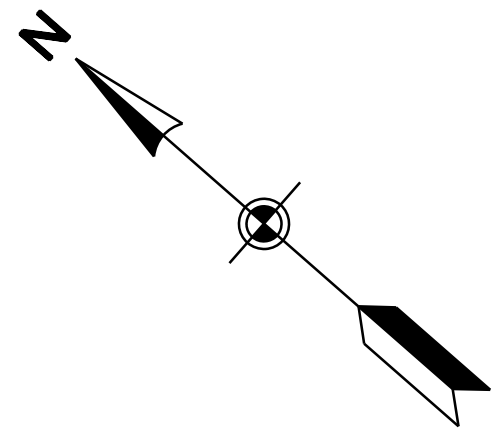


- GENERAL SHEET NOTES:**
- SEE ST2A AND ST2B SERIES DRAWINGS FOR STRUCTURAL SECTIONS, ELEVATIONS AND DETAILS OF THE LIGHT RAIL BRIDGE STRUCTURE.
 - SEE THE AR2C DRAWINGS FOR ARCHITECTURAL INFORMATION.



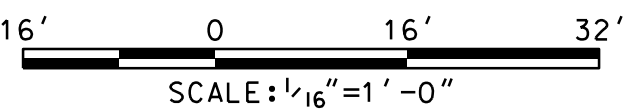
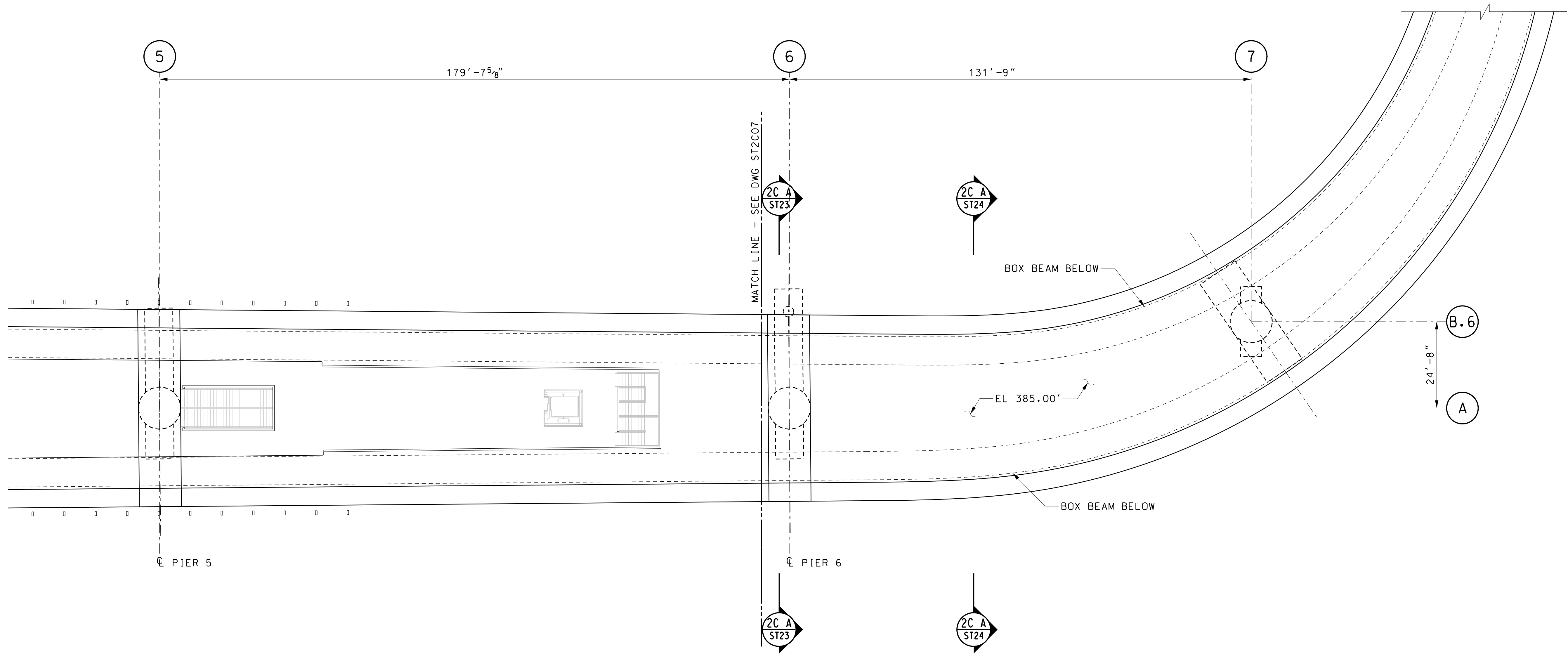
PLATFORM FRAMING PLAN
SCALE: 1/16" = 1'-0"



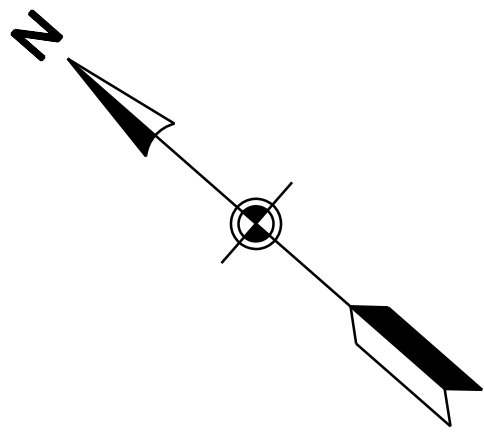


GENERAL SHEET NOTES:

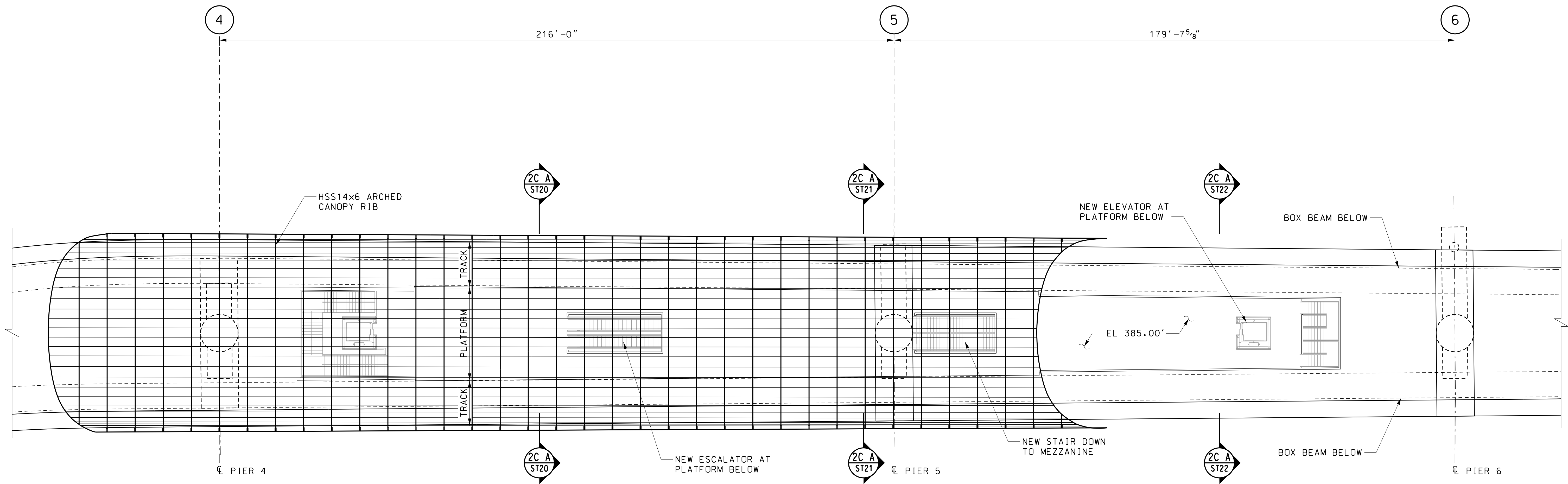
1. SEE NOTES ON DWG ST2C07.



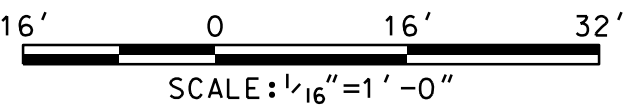
PLATFORM LEVEL FRAMING PLAN
SCALE: 1/16" = 1' - 0"

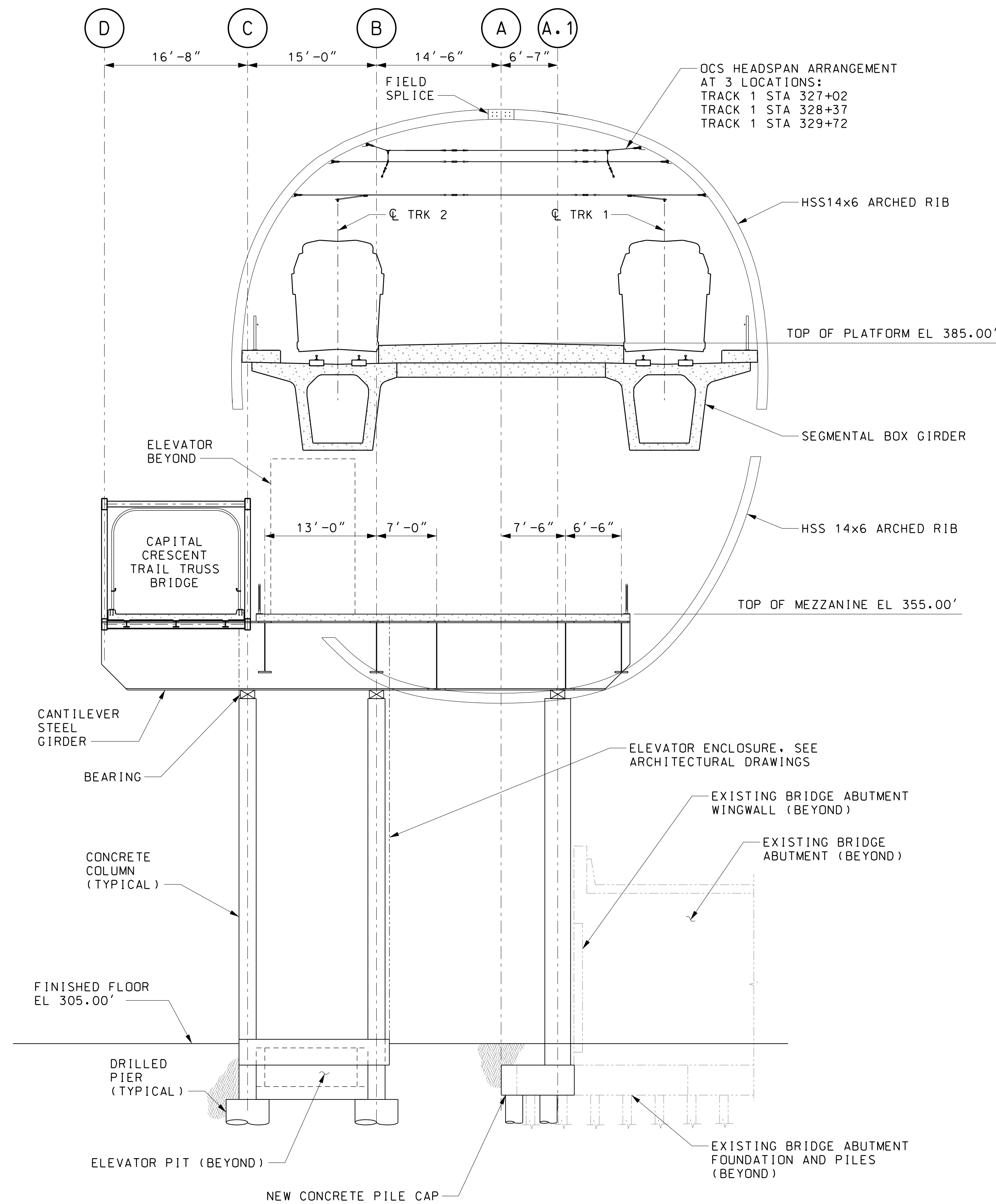


- GENERAL SHEET NOTES:**
- SEE ST2A AND ST2B SERIES DRAWINGS FOR STRUCTURAL SECTIONS, ELEVATIONS AND DETAILS OF THE LIGHT RAIL BRIDGE STRUCTURE.
 - SEE THE AR2C DRAWINGS FOR ARCHITECTURAL INFORMATION, INCLUDING PROPOSED CANOPY SCHEMES.

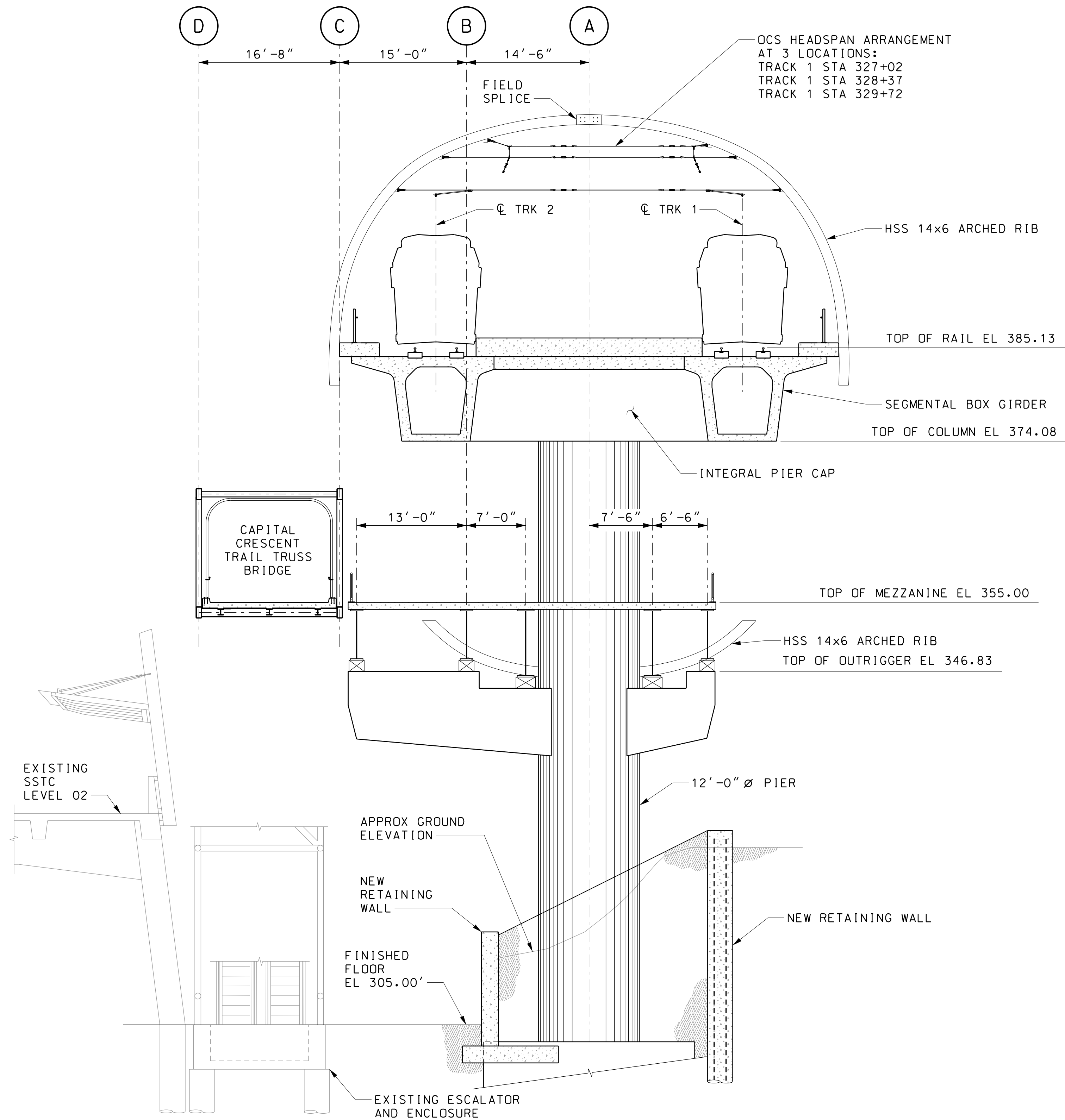


CANOPY LEVEL FRAMING PLAN
SCALE: 1/16" = 1'-0"

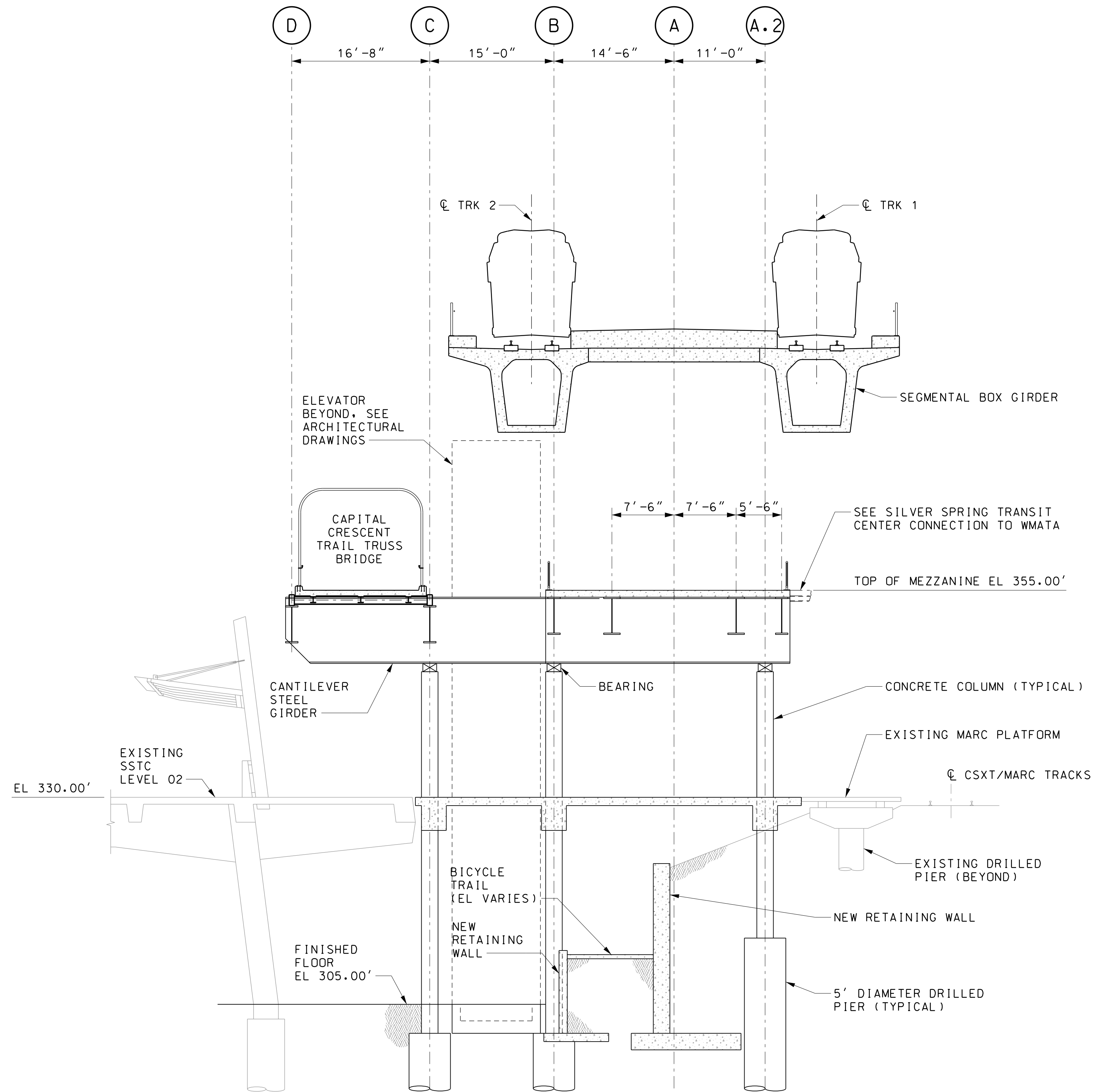




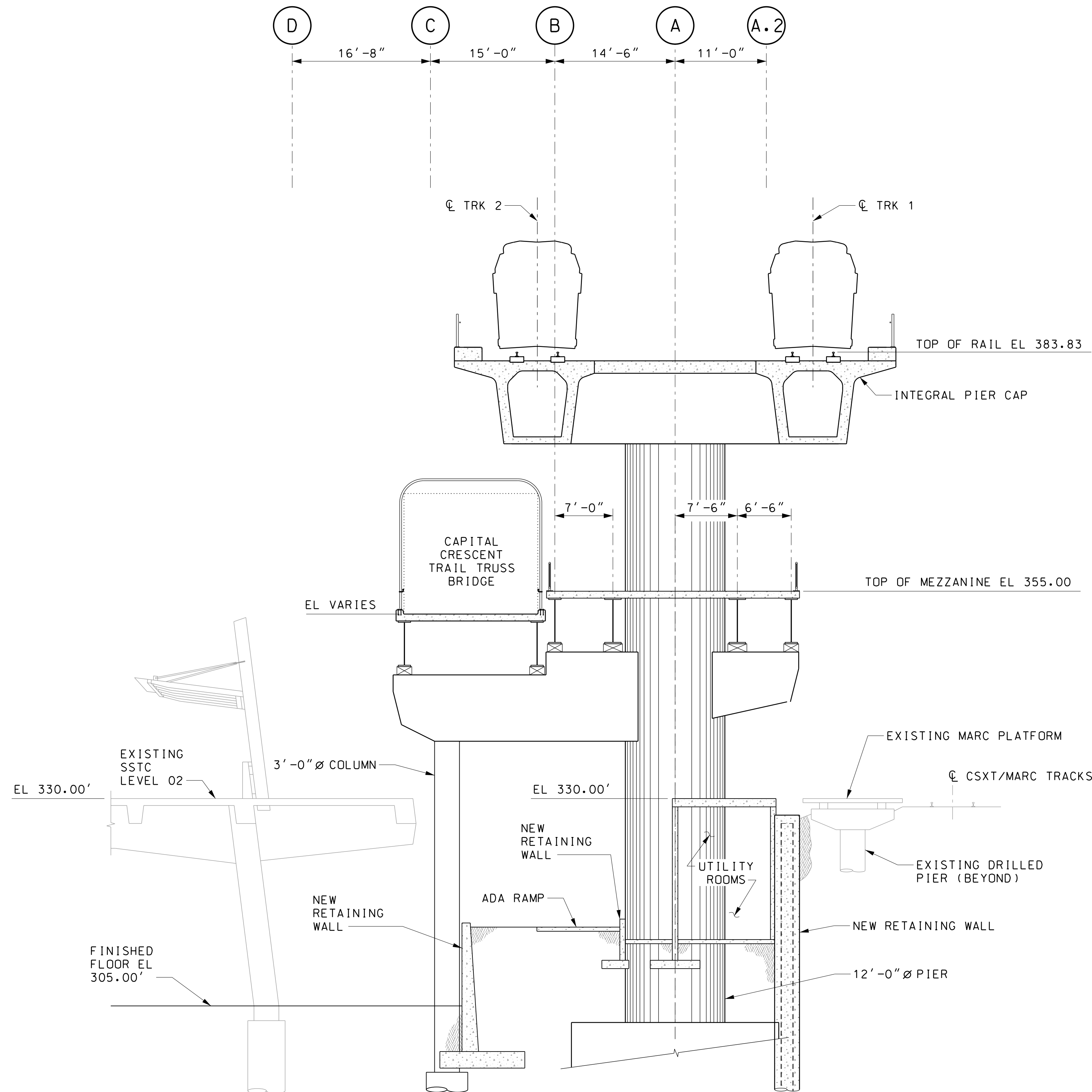
SECTION NEAR COLUMN 4.6
 SCALE: 1/8"=1'-0"
 REF: ST2C01, ST2C03, ST2C05, ST2C07, ST2C09



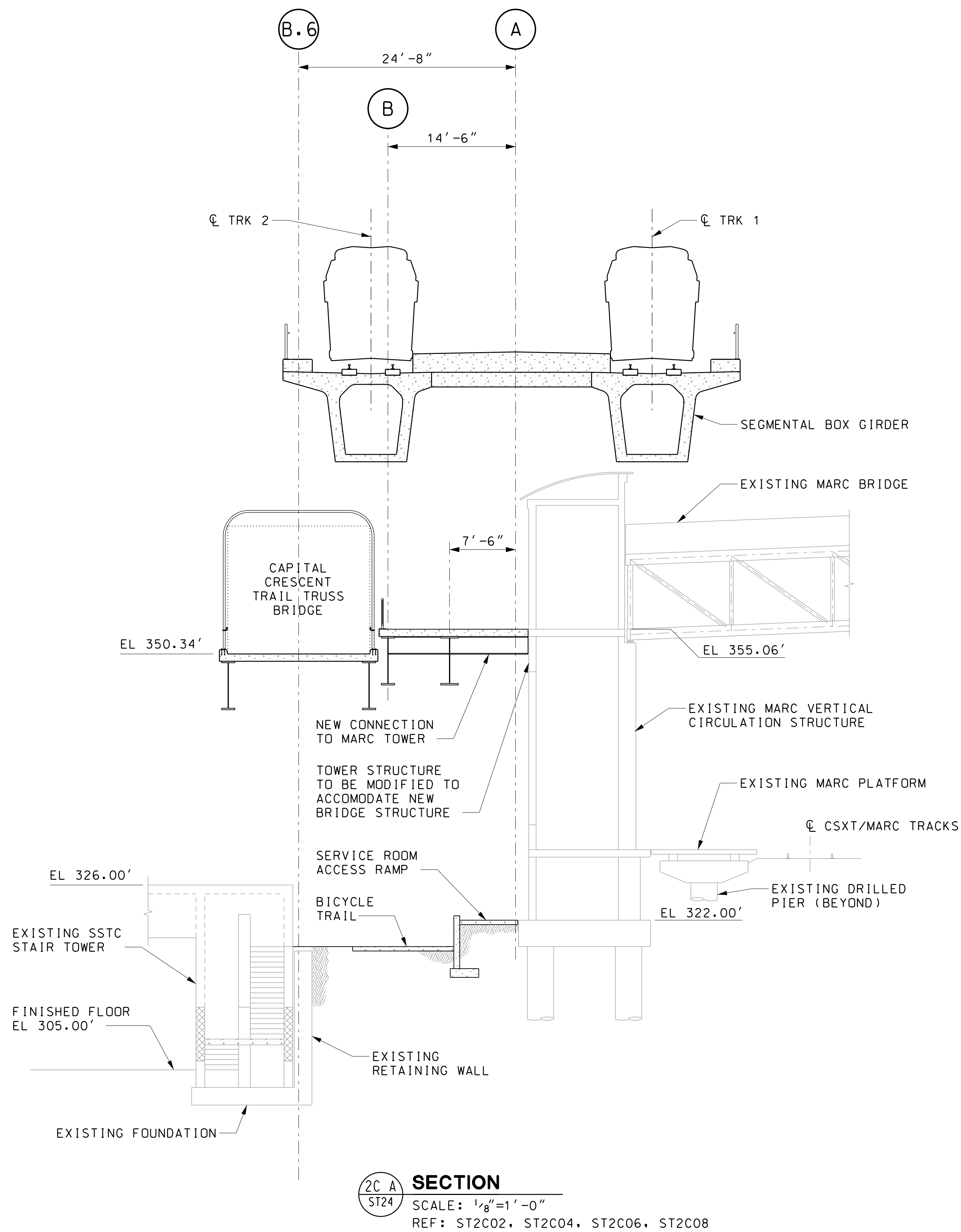
2C A SECTION NEAR PIER 5
 ST21 SCALE: 1/8"=1'-0"
 REF: ST2C01, ST2C03, ST2C05, ST2C07, ST2C09

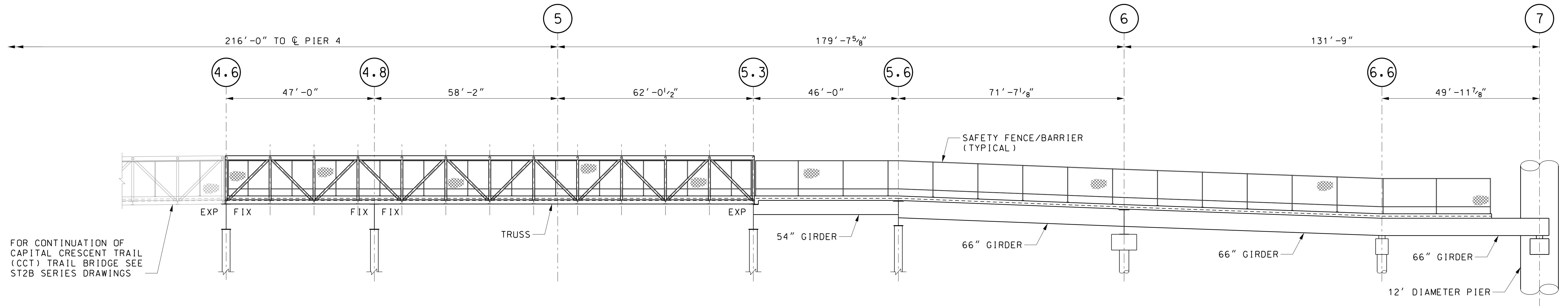


2C A SECTION NEAR COLUMN 5.6
ST22 SCALE: 1/8"=1'-0"
REF: ST2C01, ST2C03, ST2C05, ST2C07, ST2C09

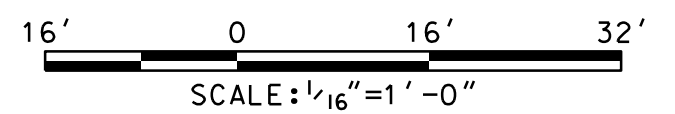


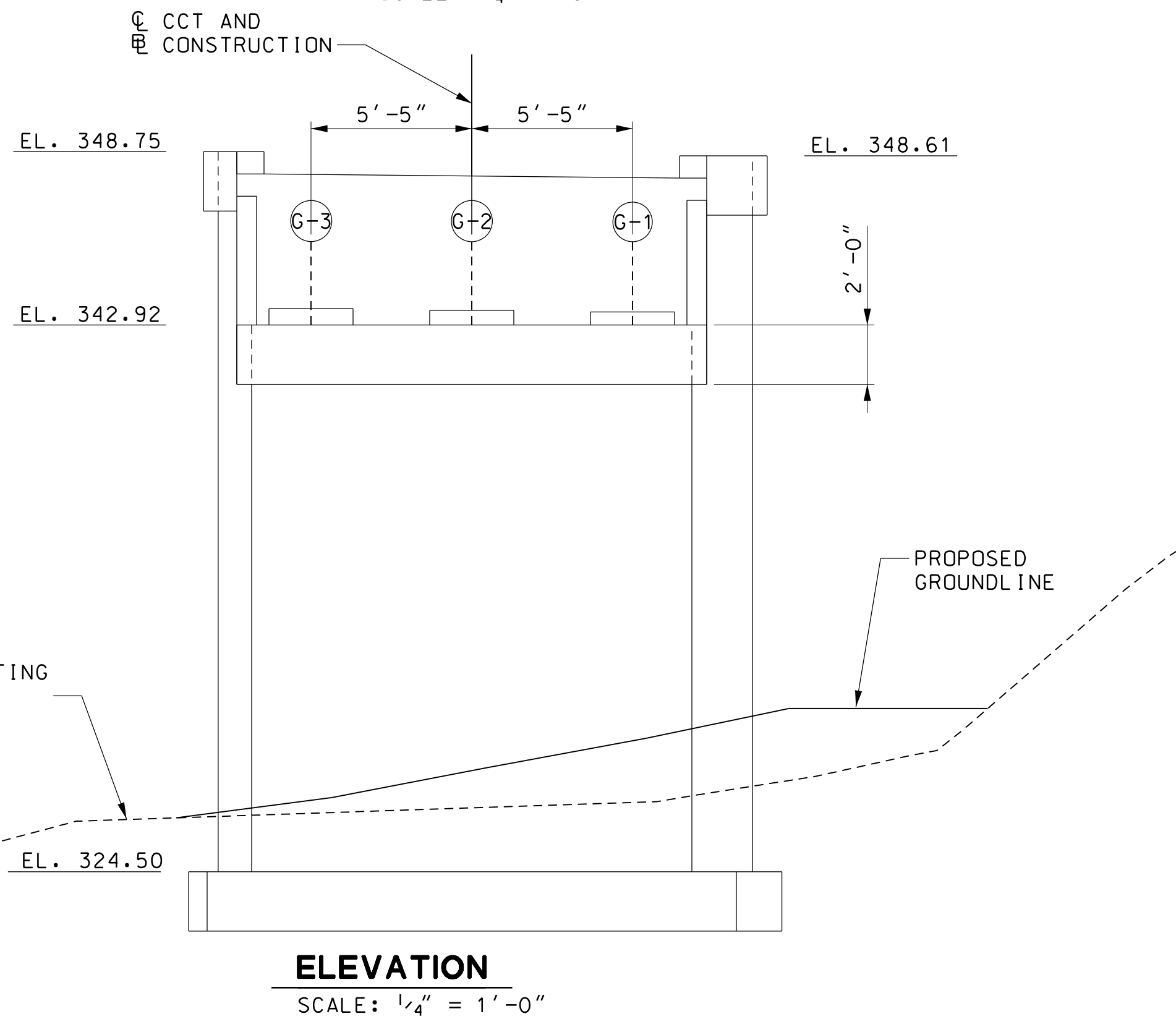
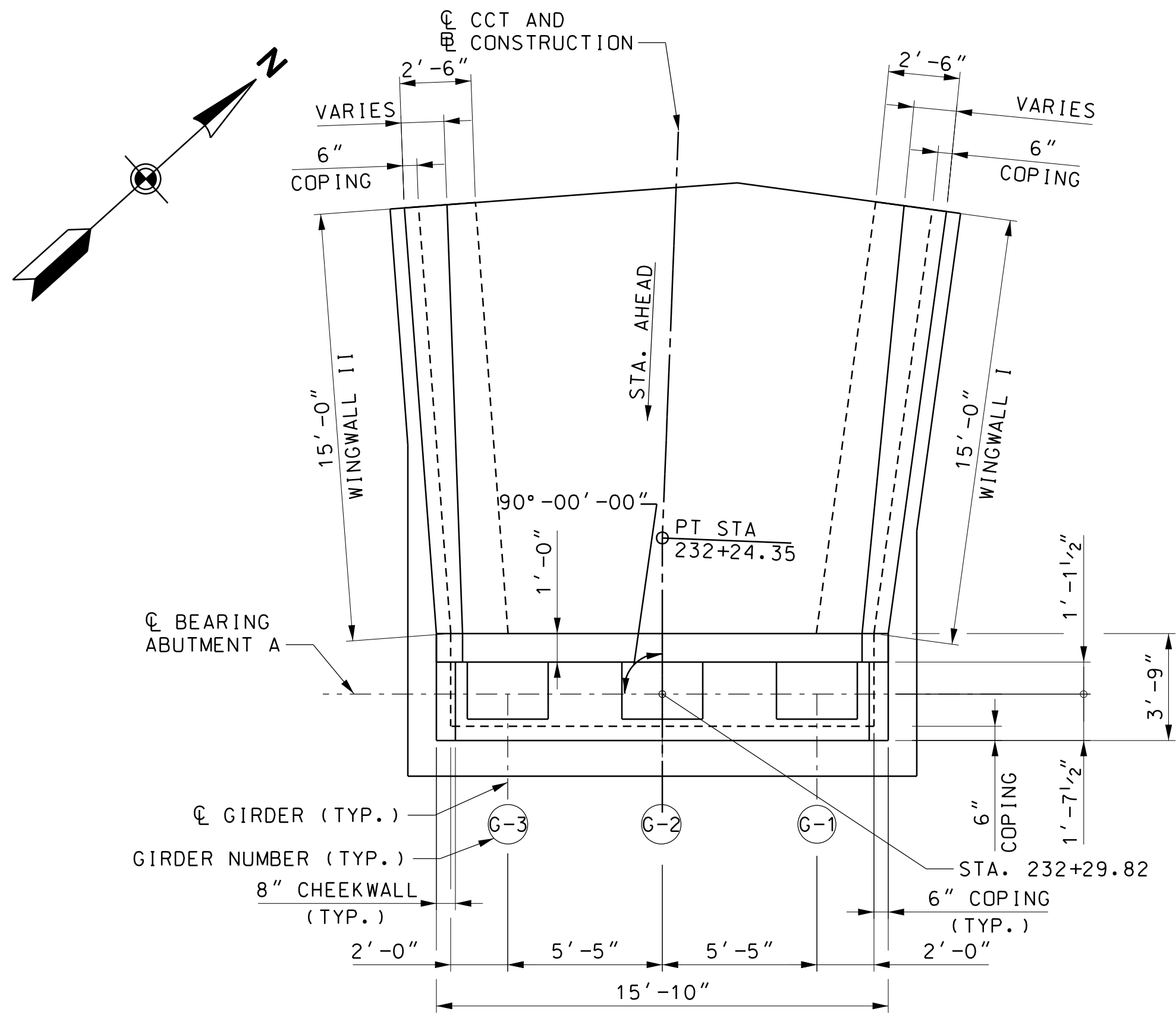
SECTION NEAR PIER 6
 SCALE: 1/8" = 1'-0"
 REF: ST2C02, ST2C04, ST2C06, ST2C08

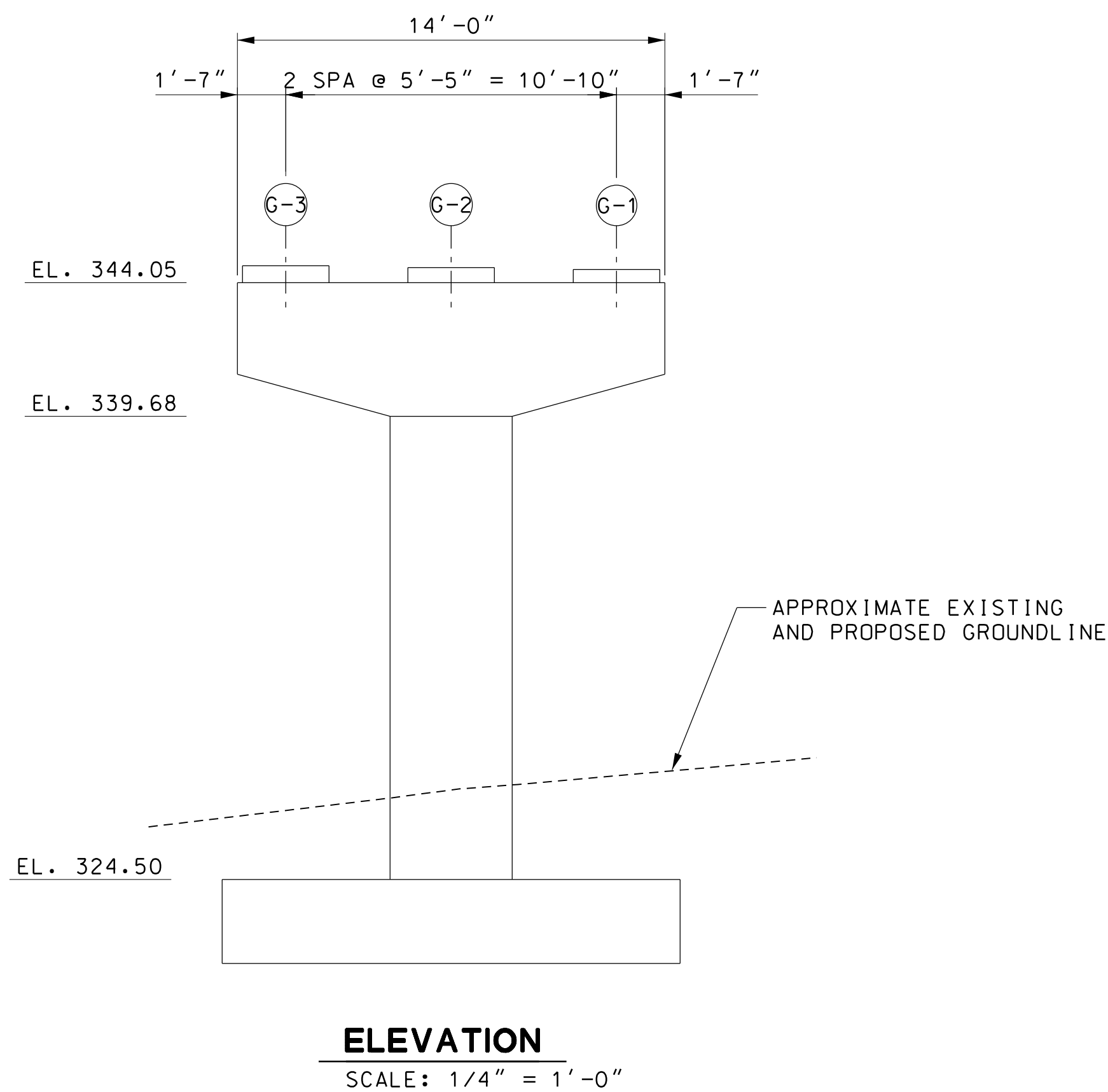
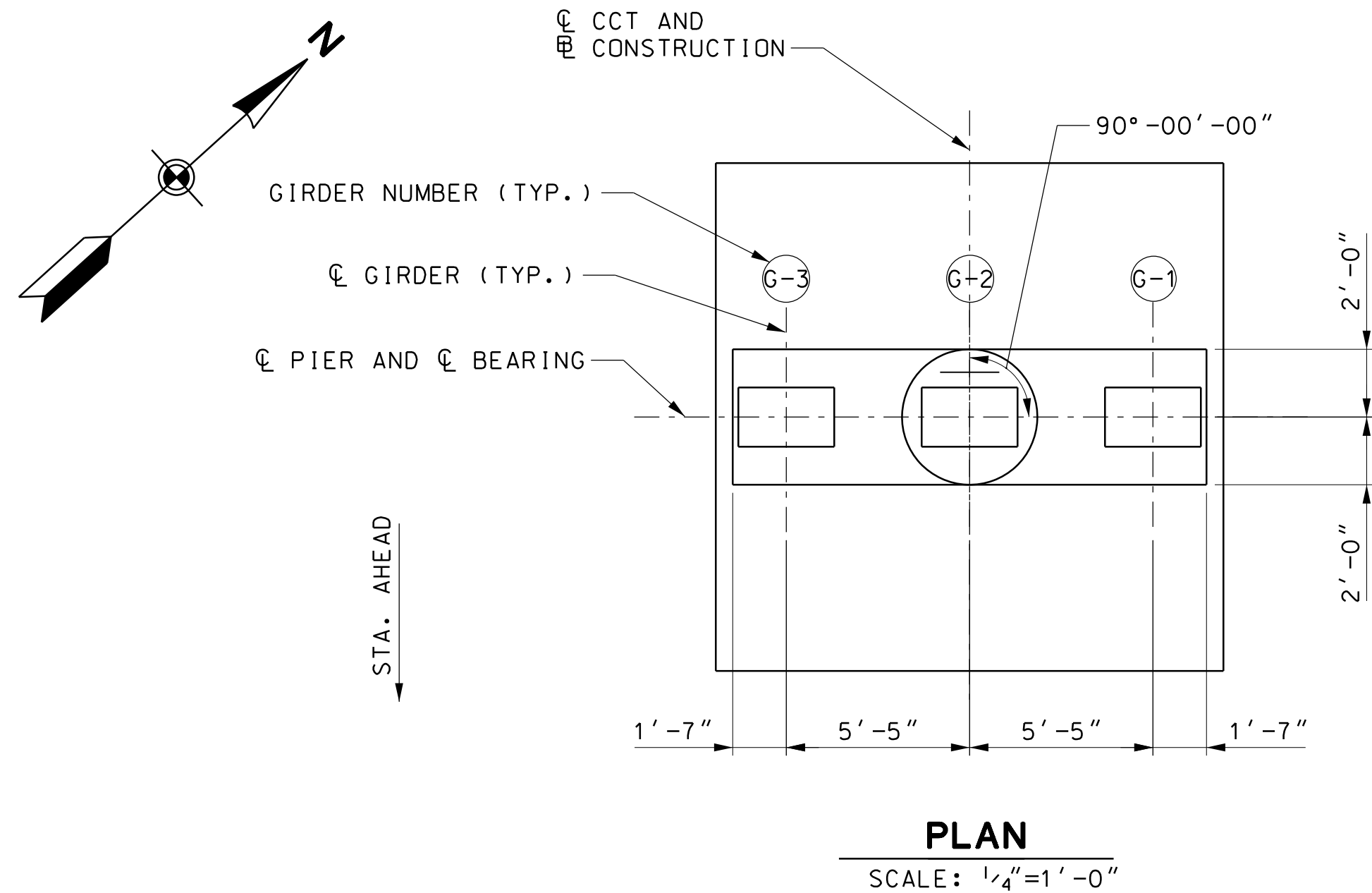


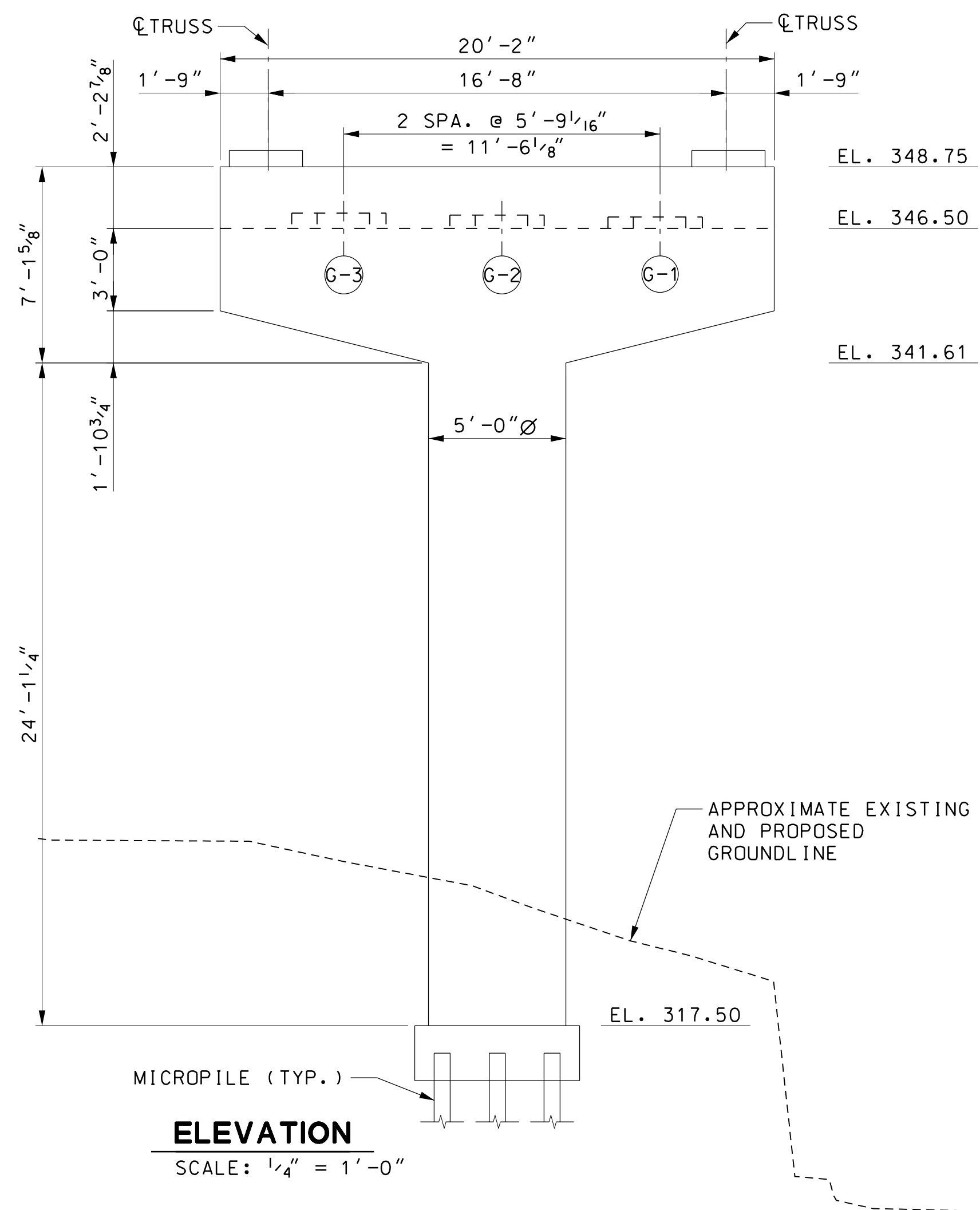
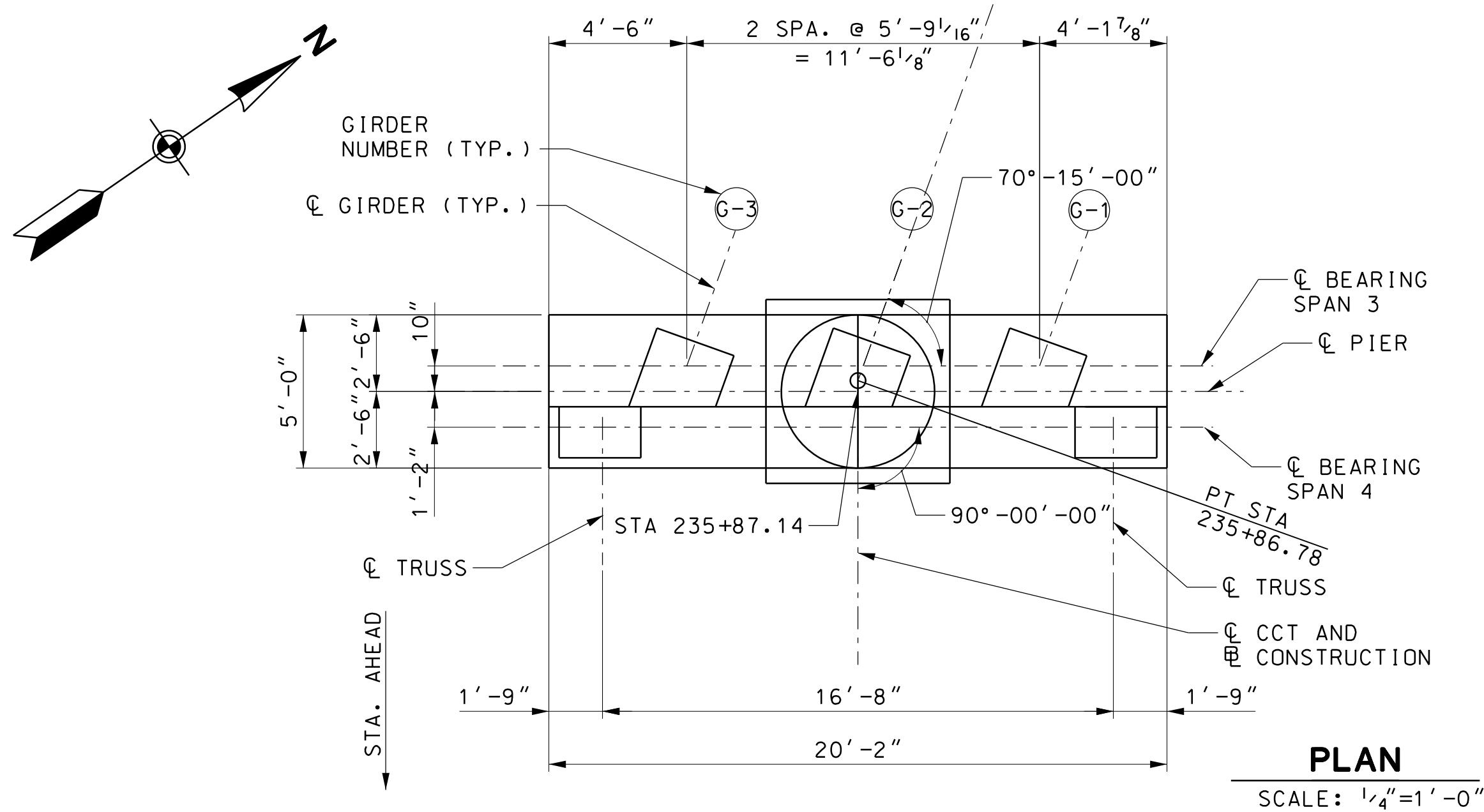


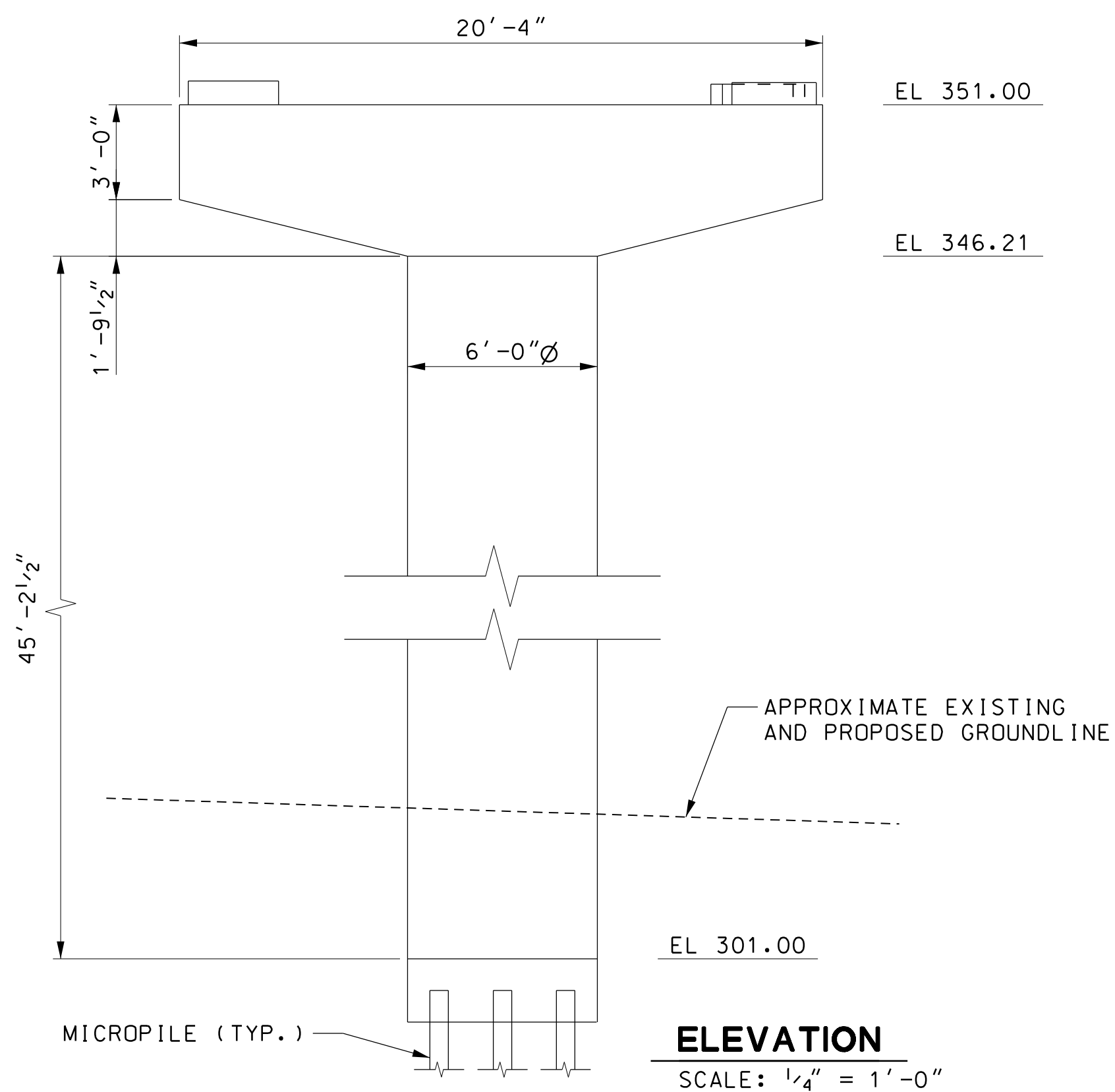
CCT TRUSS BRIDGE ELEVATION
SCALE: 1/16" = 1'-0"
REF: ST2C05

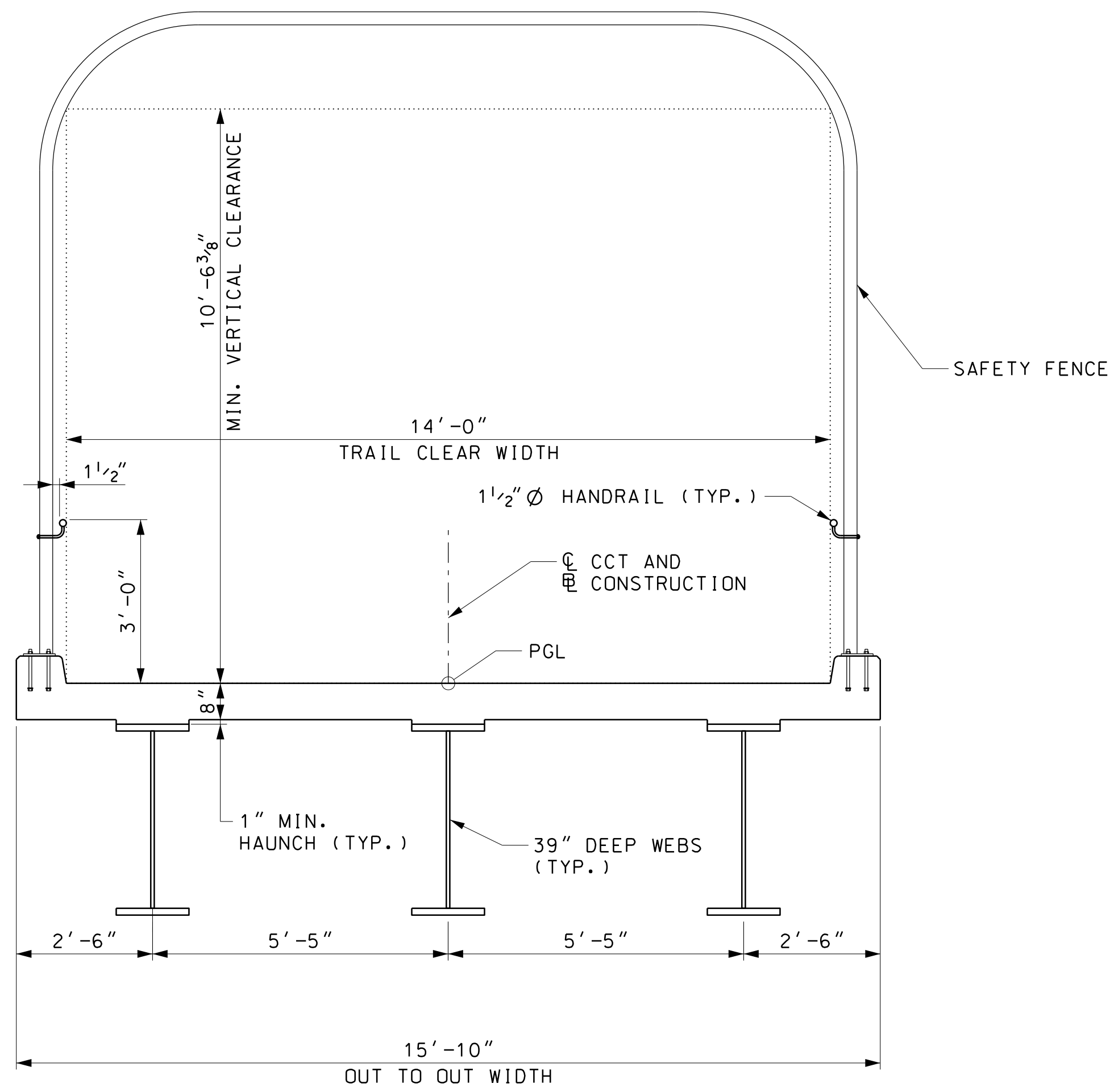






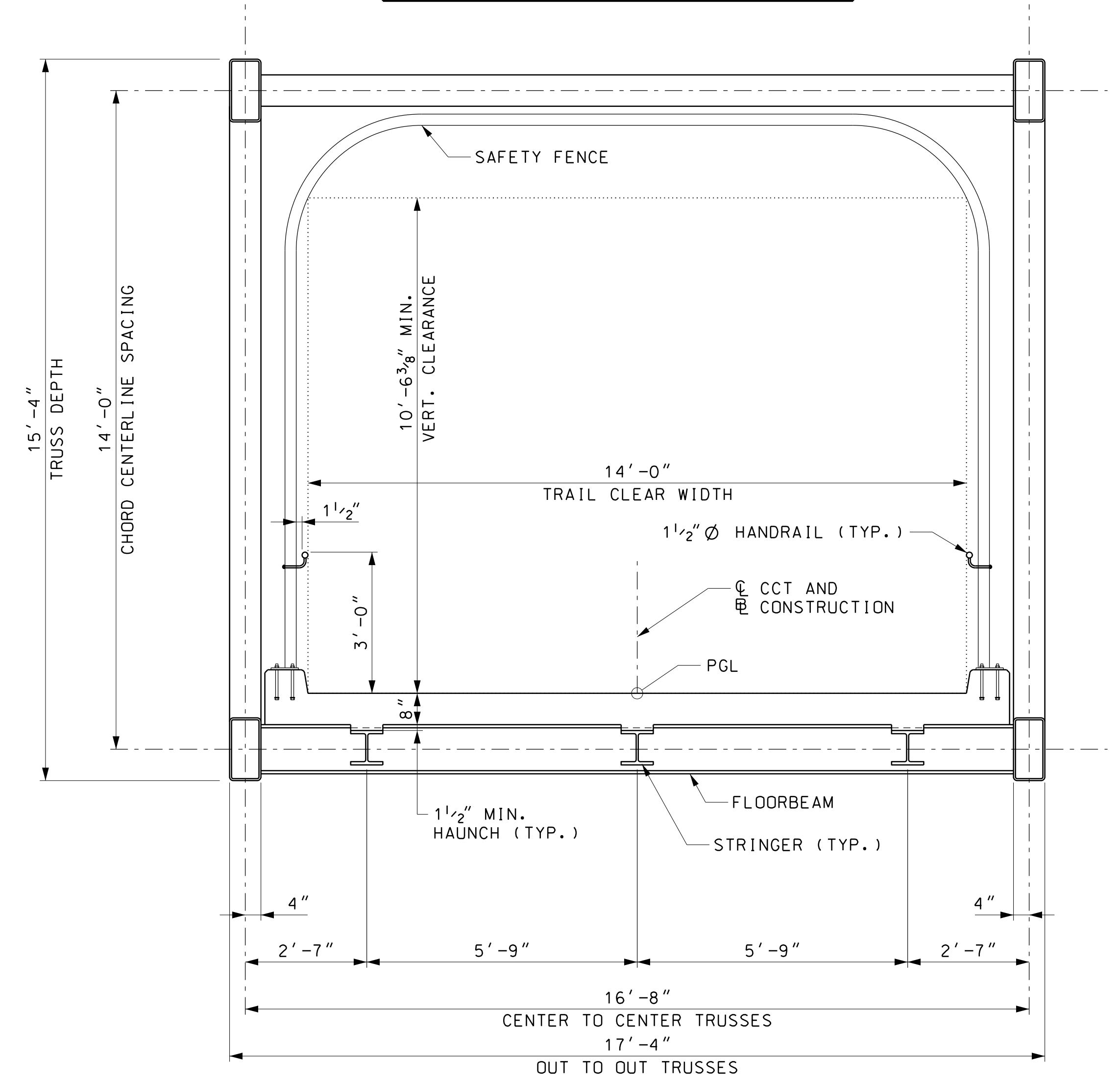




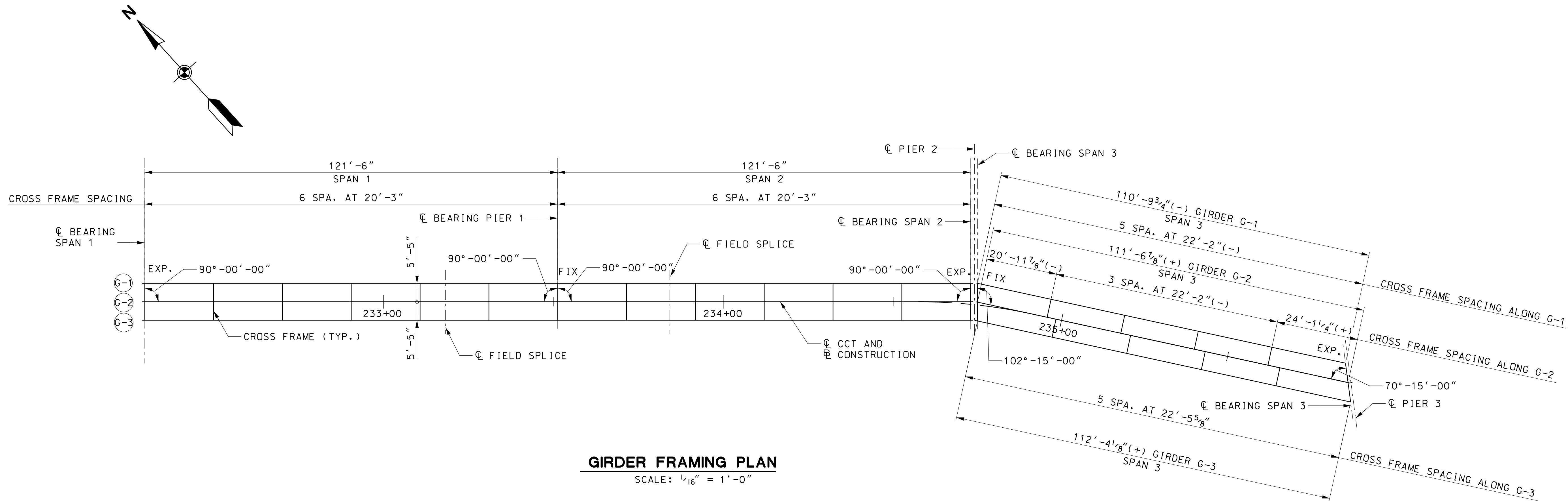


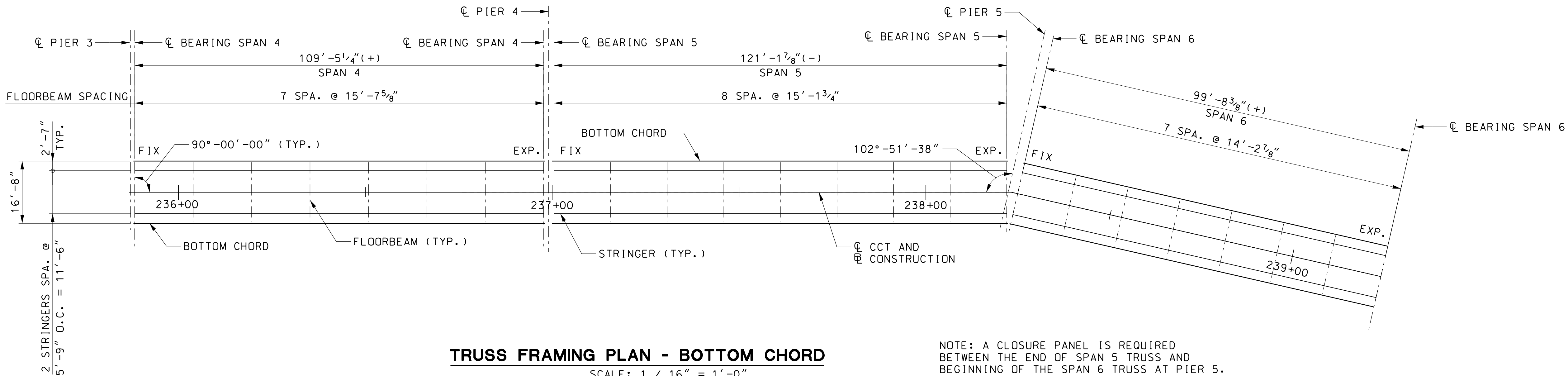
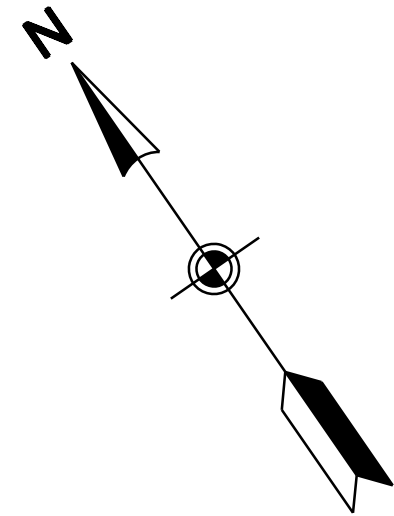
TYPICAL SECTION - SPANS 1-3
SCALE: 1/2"=1'-0"

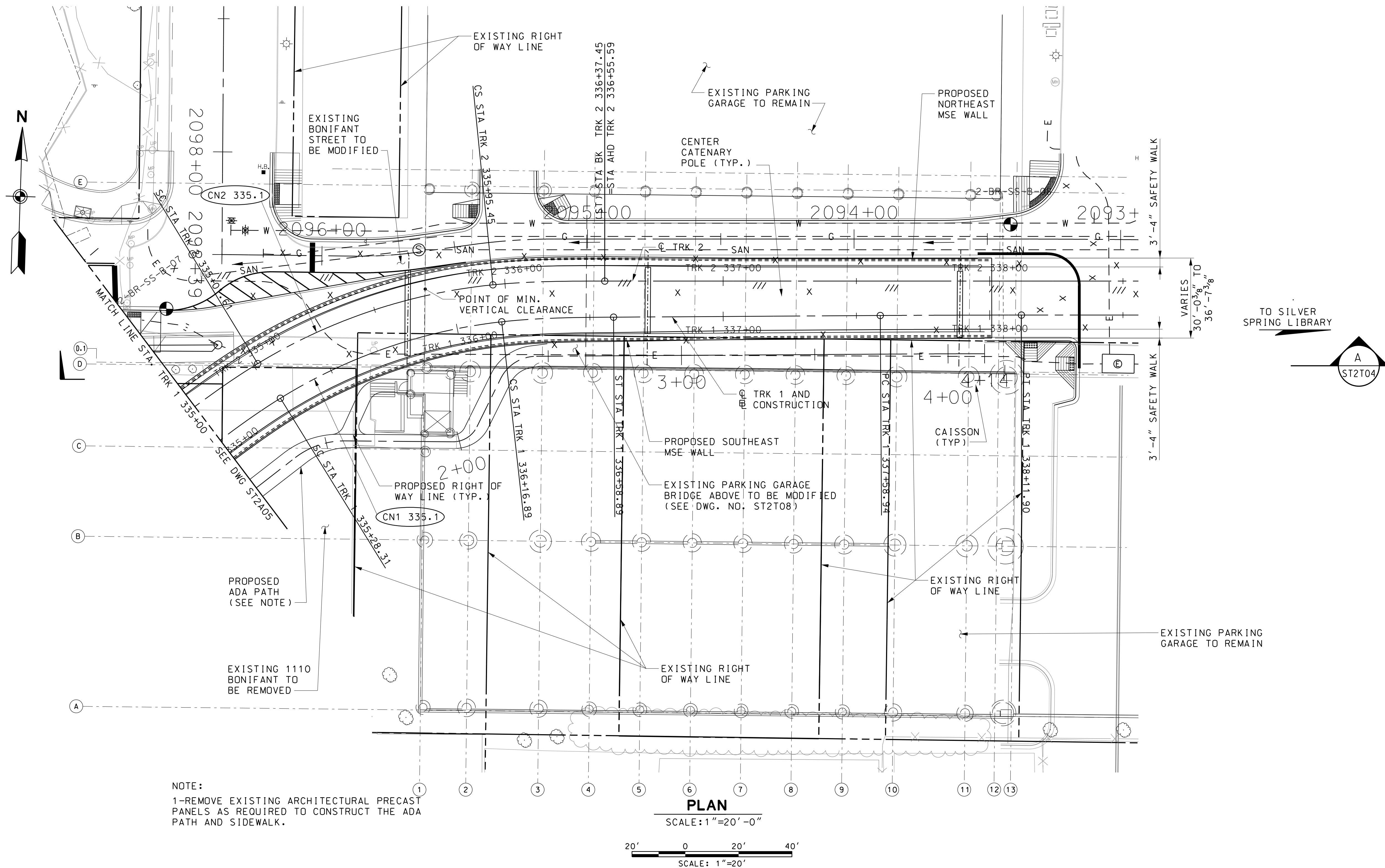
TRUSS MEMBER SCHEDULE	
TOP CHORD	HSS 16x8x5/8
BOTTOM CHORD	HSS 16x8x5/8
DIAGONALS	HSS 8x8x3/8
VERTICALS	HSS 8x8x1/2
WIND BRACING	HSS 8x8x1/2
DIAGONAL BRACING	HSS 5x5x3/8
FLOORBEAMS	W12x87
STRINGERS	W8x58

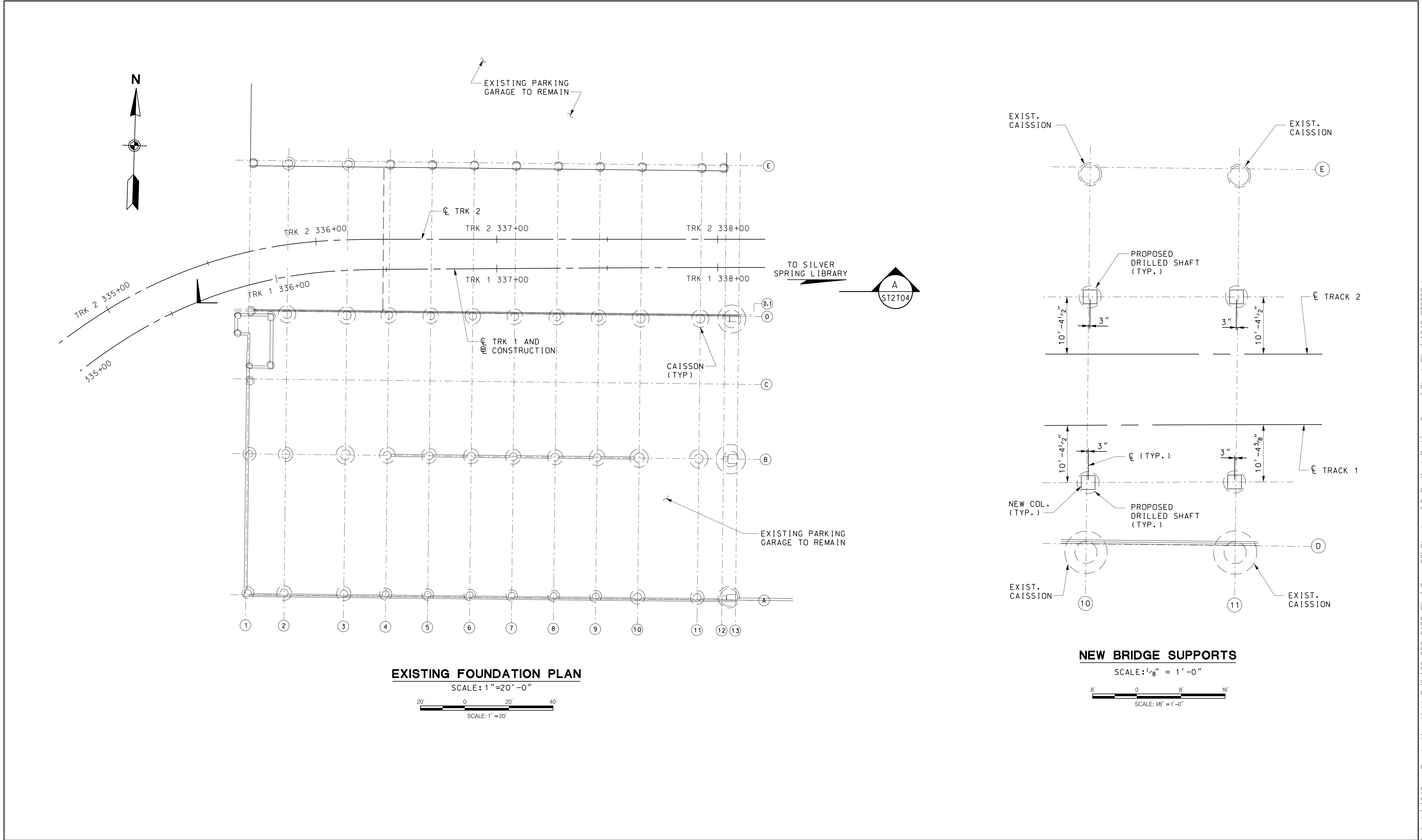


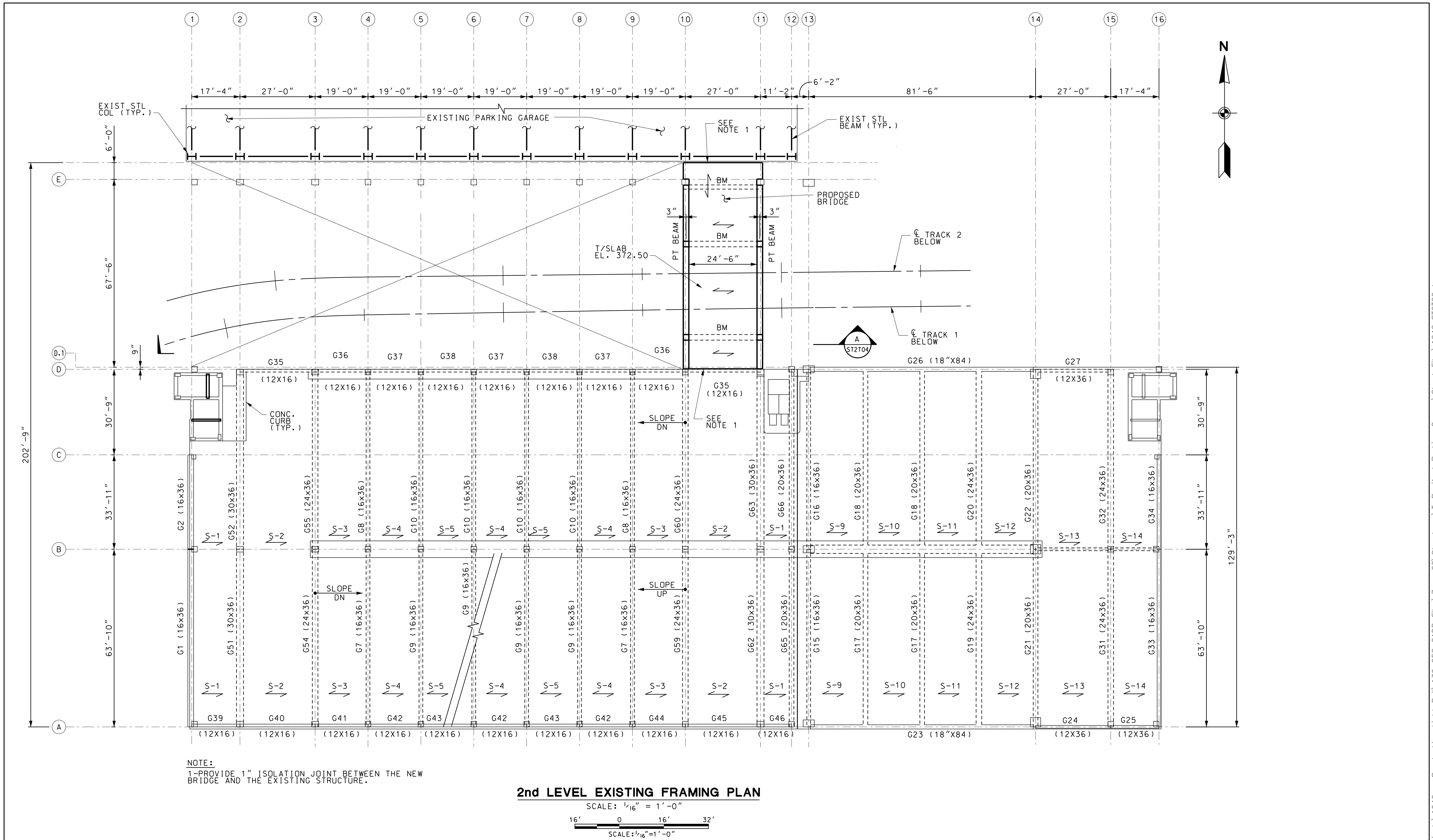
TYPICAL SECTION - SPANS 4-6
SCALE: 1/2"=1'-0"

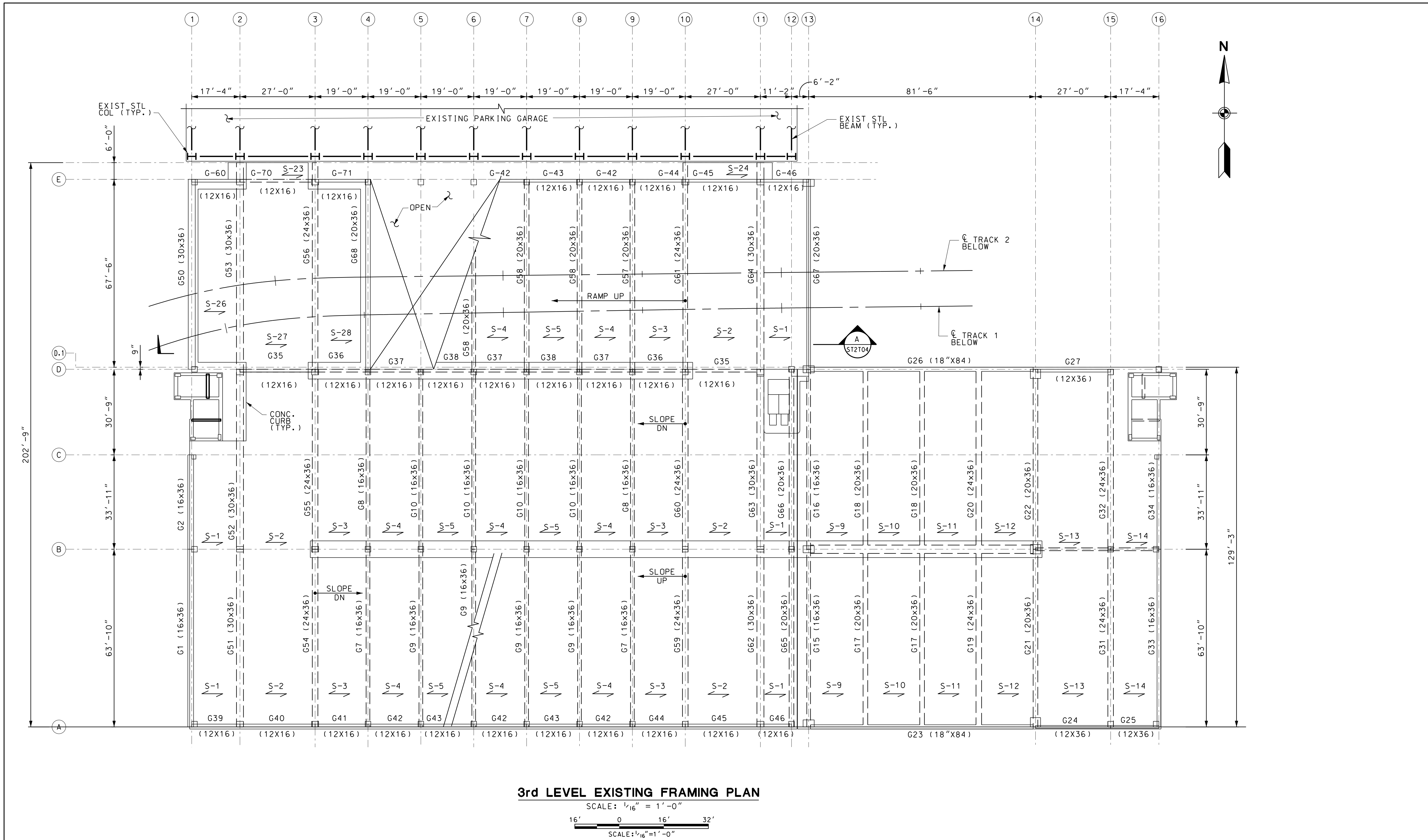












KEY NOTES:

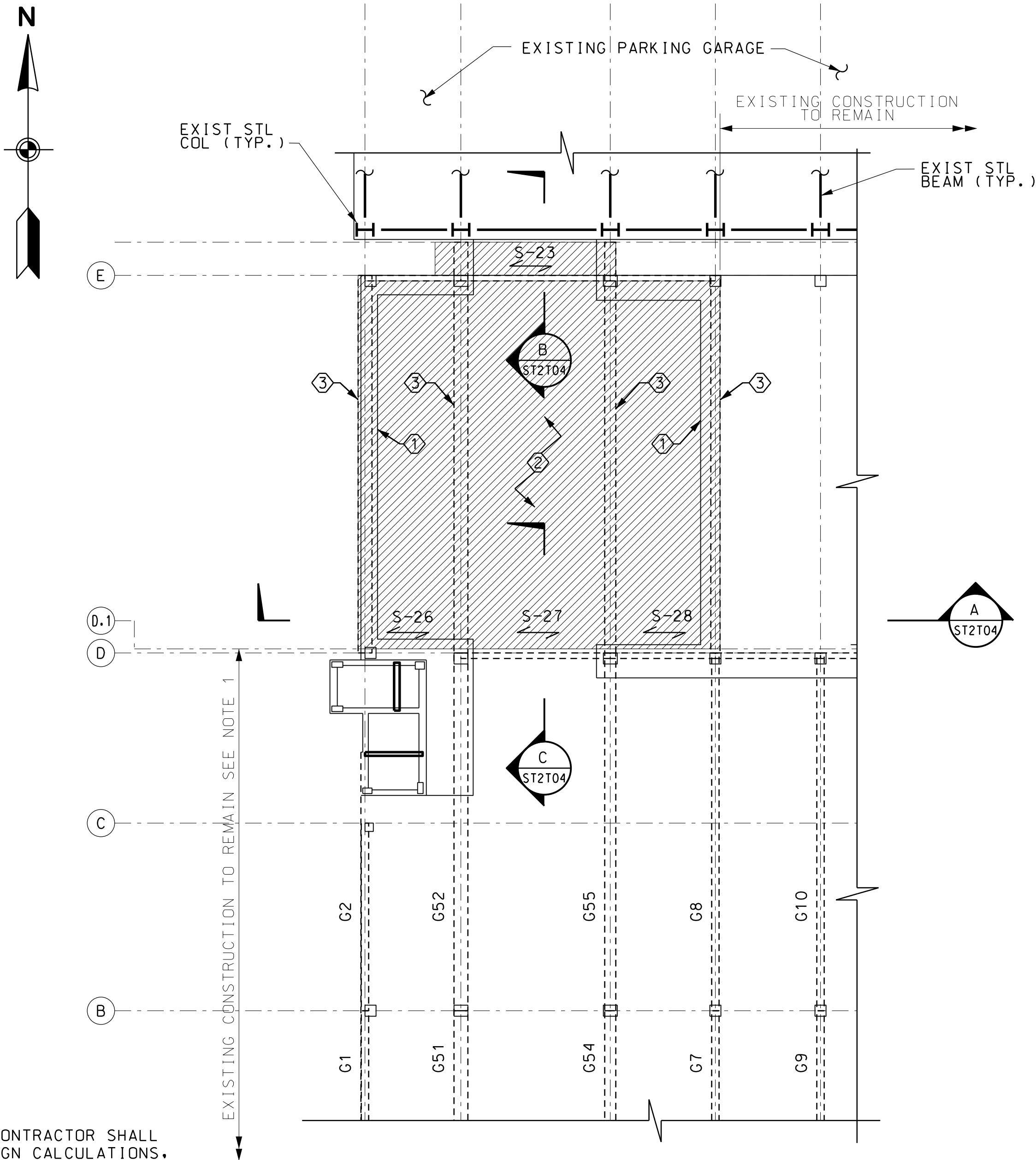
- ① DEMOLISH AND REMOVE EXISTING RAISED CONCRETE CURB DESIGNATED FOR REMOVAL BY SHADING.
- ② DEMOLISH AND REMOVE ALL EXISTING CONCRETE SLAB DESIGNATED FOR REMOVAL BY SHADING.
- ③ DETENSION POST-TENSIONED SLABS AFTER TEMPORARY SHORING IS INSTALLED (SEE NOTE 1), SAW CUT AT FACE OF COLUMNS ON GRID LINES D.1 AND E AND REMOVE ALL EXISTING GIRDERS AND SLABS DESIGNATED FOR REMOVAL BY SHADING. PATCH FACES OF COLUMNS AT GRID LINE E AS SHOWN IN REPAIR DETAILS 1 & 2 /ST2T07.

LEGEND

AREA TO BE DEMOLISHED

GENERAL REPAIR NOTES:

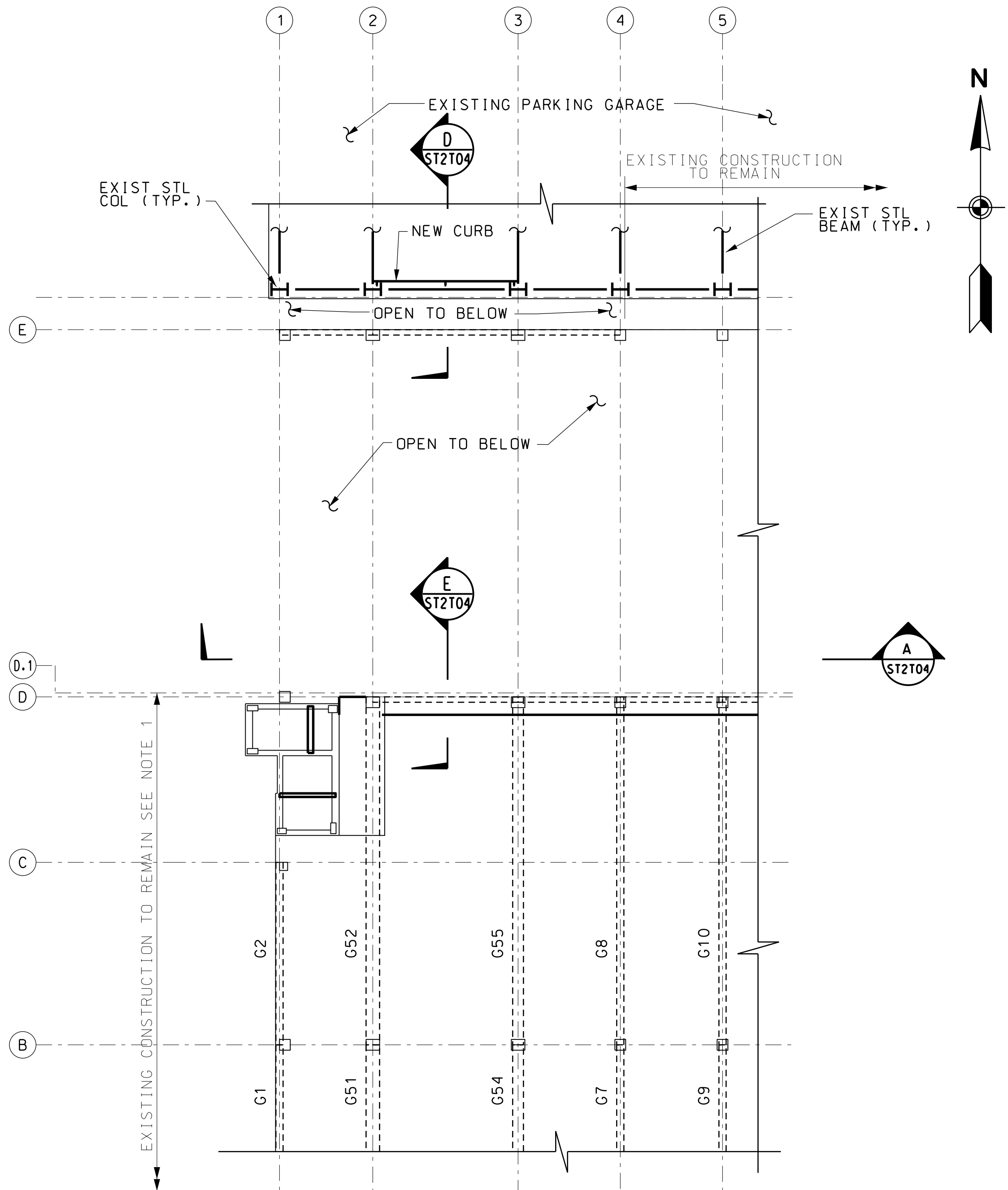
1. PRIOR TO COMMENCEMENT OF THE DEMOLITION WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD, DRAWINGS AND DESIGN CALCULATIONS, FOR SHORING AND TEMPORARY BRACING, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND, VERIFYING SUPPORT OF SLABS AND BEAMS FOR THE PERIOD DURING THE DEMOLITION UNTIL THE GIRDERS FROM GRID LINES 2 THROUGH 4 AND FROM GRID LINES A THROUGH D ARE STRENGTHENED.
2. INCREASE THE SHEAR CAPACITY OF BEAMS G52, G55 AND G8 AT THEIR ENDS LOCATED ON GRID LINE 'B' BY WIDENING THEM.
3. INCREASE THE POSITIVE MOMENT CAPACITY OF BEAMS G52, G55 AND G8 USING EXTERNAL POST-TENSIONING.
4. INCREASE THE NEGATIVE MOMENT CAPACITY OF BEAMS G51/G52, G54/G55 AND G7/G8 AT GRID LINE 'B' USING EXTERNAL POST-TENSIONING.
5. FOR ADDITIONAL INFORMATION SEE DWG NO. ST2T02.
6. DURING CONSTRUCTION OF THE PARKING GARAGE, PART OF THE 2ND AND 3RD FLOOR WILL BE CLOSED. ALSO PART OF BONIFANT STREET WILL BE CLOSED DURING THE DEMOLITION PROCESS.



3RD LEVEL DEMOLITION PLAN

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

16' 0 16' 32'
SCALE: 1/16"=1'-0"

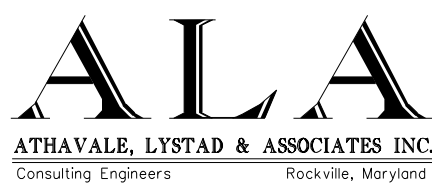


3RD LEVEL NEW WORK PLAN

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

16' 0 16' 32'
SCALE: 1/16"=1'-0"

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN
BT
JE
RG
CHECK
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

BONIFANT PARKING GARAGE
3RD LEVEL DEMOLITION AND NEW WORK PLANS

DATE: DECEMBER 2013

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

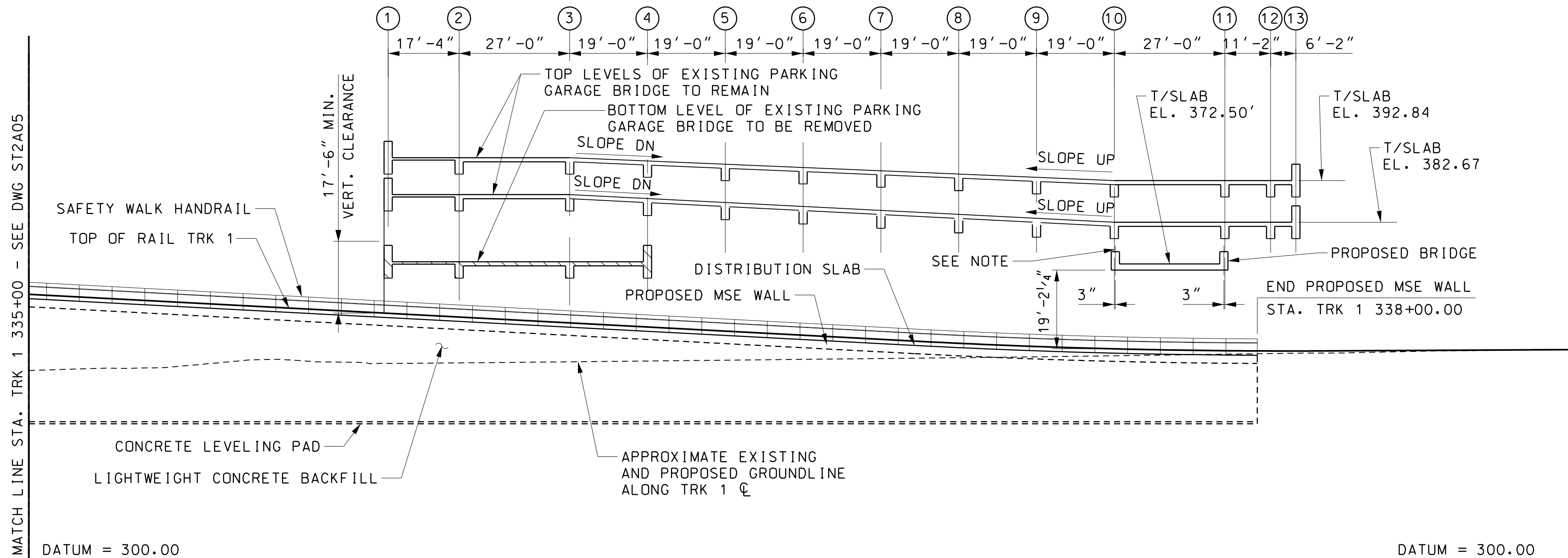
CONTRACT NO.
T-1042-0220

DRAWING NO.
ST2T03

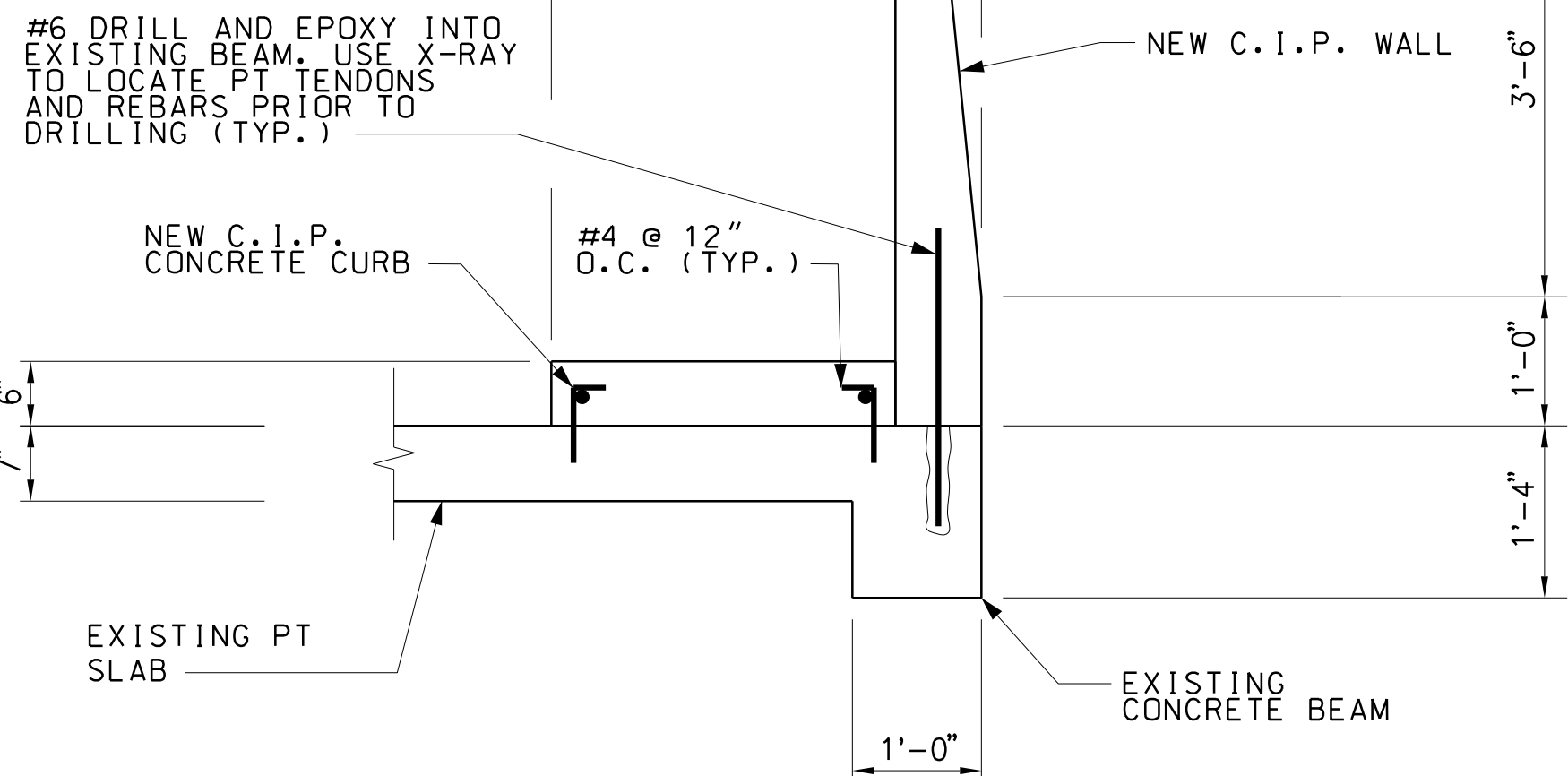
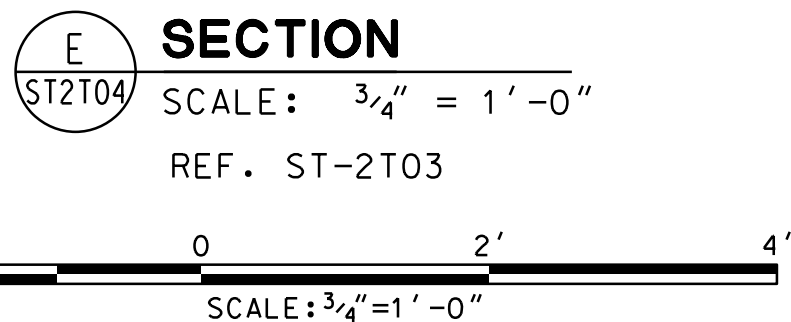
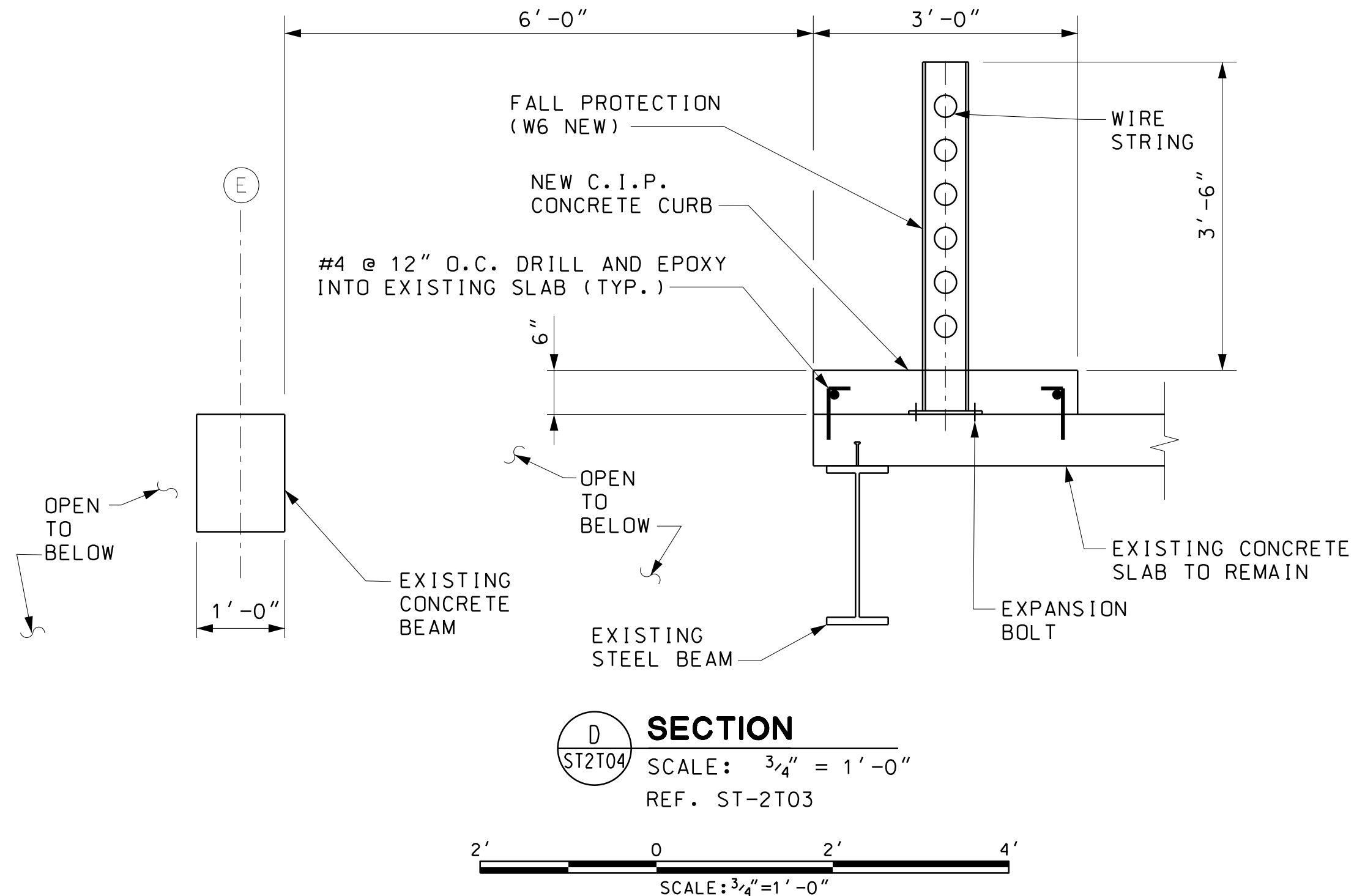
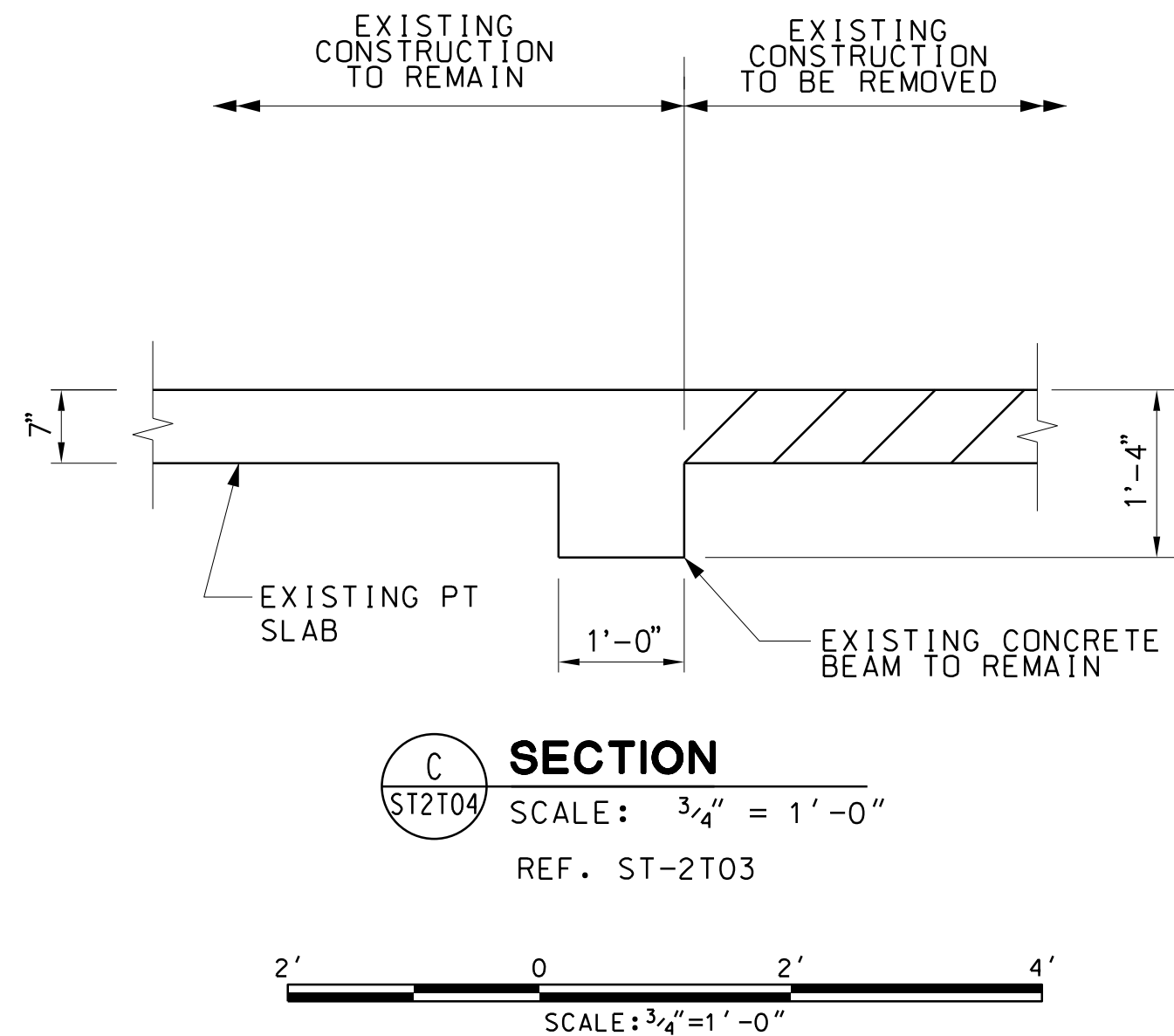
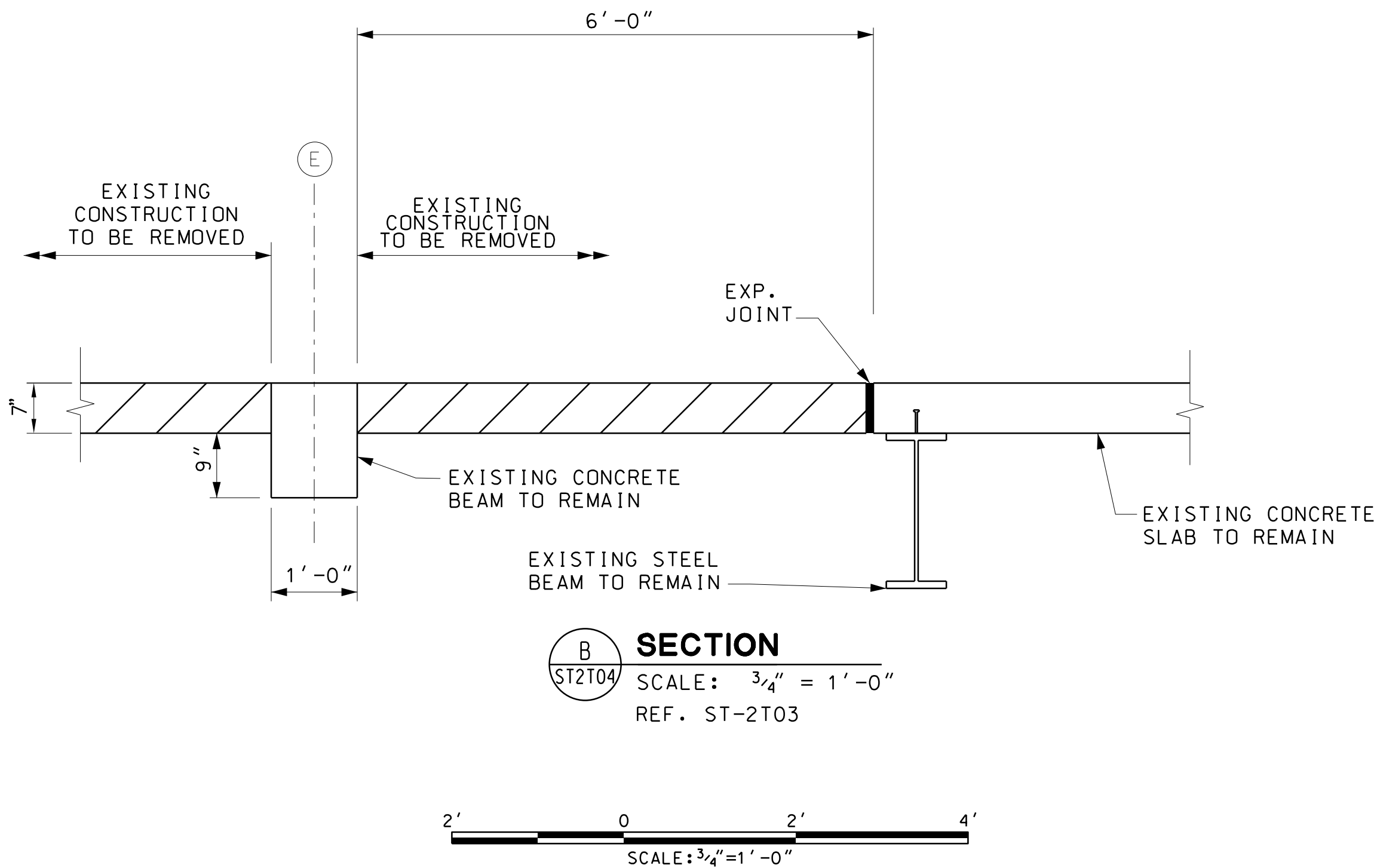
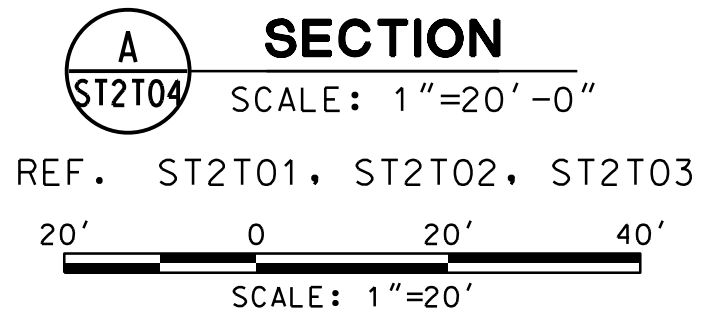
SHEET NO.
557 OF 828

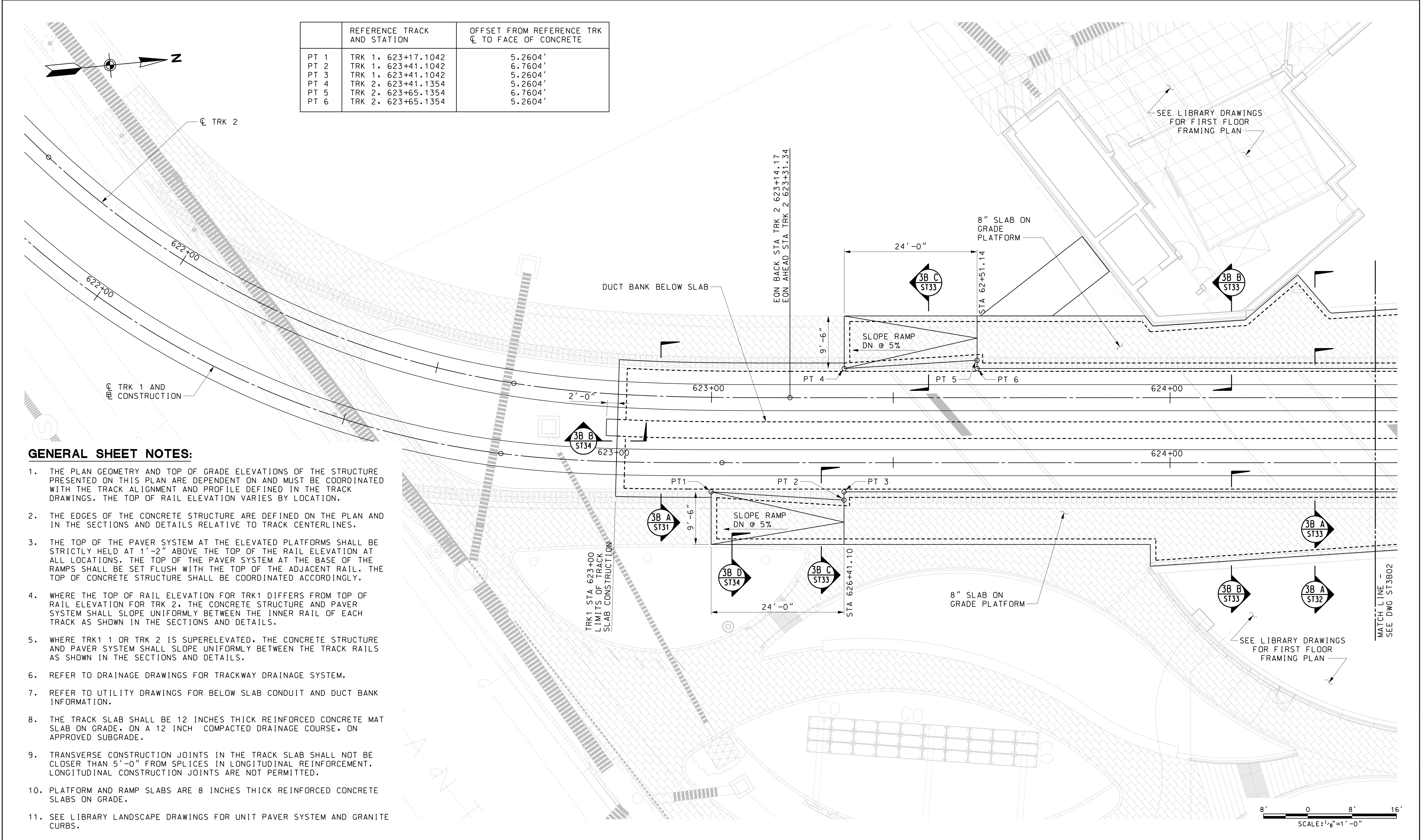
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 02\Structures\T-Bonifant Parking Garage\Sheet Files\1042pST2T03.dgn 12/11/2013

MATCH LINE STA. TRK 1 335+00 - SEE DWG ST2A05



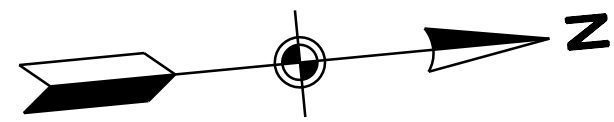
NOTE:
PROVIDE GALVANIZED WOVEN WIRE MESH ON TOP OF CONCRETE BEAM/PARAPET UP TO UNDERSIDE OF EXISTING BEAMS AT GRIDS 10 & 11.





GENERAL SHEET NOTES:

1. THE PLAN GEOMETRY AND TOP OF GRADE ELEVATIONS OF THE STRUCTURE PRESENTED ON THIS PLAN ARE DEPENDENT ON AND MUST BE COORDINATED WITH THE TRACK ALIGNMENT AND PROFILE DEFINED IN THE TRACK DRAWINGS. THE TOP OF RAIL ELEVATION VARIES BY LOCATION.
2. THE EDGES OF THE CONCRETE STRUCTURE ARE DEFINED ON THE PLAN AND IN THE SECTIONS AND DETAILS RELATIVE TO TRACK CENTERLINES.
3. THE TOP OF THE PAVER SYSTEM AT THE ELEVATED PLATFORMS SHALL BE STRICTLY HELD AT 1'-2" ABOVE THE TOP OF THE RAIL ELEVATION AT ALL LOCATIONS. THE TOP OF THE PAVER SYSTEM AT THE BASE OF THE RAMPS SHALL BE SET FLUSH WITH THE TOP OF THE ADJACENT RAIL. THE TOP OF CONCRETE STRUCTURE SHALL BE COORDINATED ACCORDINGLY.
4. WHERE THE TOP OF RAIL ELEVATION FOR TRK1 DIFFERS FROM TOP OF RAIL ELEVATION FOR TRK 2, THE CONCRETE STRUCTURE AND PAVER SYSTEM SHALL SLOPE UNIFORMLY BETWEEN THE INNER RAIL OF EACH TRACK AS SHOWN IN THE SECTIONS AND DETAILS.
5. WHERE TRK1 1 OR TRK 2 IS SUPERELEVATED, THE CONCRETE STRUCTURE AND PAVER SYSTEM SHALL SLOPE UNIFORMLY BETWEEN THE TRACK RAILS AS SHOWN IN THE SECTIONS AND DETAILS.
6. REFER TO DRAINAGE DRAWINGS FOR TRACKWAY DRAINAGE SYSTEM.
7. REFER TO UTILITY DRAWINGS FOR BELOW SLAB CONDUIT AND DUCT BANK INFORMATION.
8. THE TRACK SLAB SHALL BE 12 INCHES THICK REINFORCED CONCRETE MAT SLAB ON GRADE, ON A 12 INCH COMPACTED DRAINAGE COURSE, ON APPROVED SUBGRADE.
9. TRANSVERSE CONSTRUCTION JOINTS IN THE TRACK SLAB SHALL NOT BE CLOSER THAN 5'-0" FROM SPLICES IN LONGITUDINAL REINFORCEMENT. LONGITUDINAL CONSTRUCTION JOINTS ARE NOT PERMITTED.
10. PLATFORM AND RAMP SLABS ARE 8 INCHES THICK REINFORCED CONCRETE SLABS ON GRADE.
11. SEE LIBRARY LANDSCAPE DRAWINGS FOR UNIT PAVER SYSTEM AND GRANITE CURBS.



	REFERENCE TRACK AND STATION	OFFSET FROM REFERENCE TRK CL TO FACE OF CONCRETE
PT 7	TRK 1, 625+41.1042	6.7604'
PT 8	TRK 1, 625+41.1042	5.2604'
PT 9	TRK 1, 625+65.1042	5.2604'
PT 10	TRK 2, 625+46.6719	5.2604'
PT 11	TRK 2, 625+65.1360	5.4250'
PT 12	TRK 2, 625+77.7188	5.4250'

SEE LIBRARY DRAWINGS
FOR FIRST FLOOR
FRAMING PLAN

8" SLAB ON
GRADE PLATFORM

DUCT BANK BELOW SLAB

STA 625+38.40

3B A
ST34

SLOPE RAMP
DN @ 5%

3B C
ST34

CONCRETE STAIR
WITH STONE TREADS

LIMIT OF TRACK SLAB
CONSTRUCTION TRK 2
STA 625+82

625+00

PT 10

PT 11

PT 12

626+00

CL TRK 2

625+00

PT 8

PT 7

PT 9

SLOPE RAMP
DN @ 5%

3B A
ST31

STA 625+41.10

3B C
ST33

3B D
ST34

24'-0"

MATCH LINE -
SEE DWG ST3B01

8" SLAB ON
GRADE PLATFORM

SEE LIBRARY DRAWINGS
FOR FIRST FLOOR
FRAMING PLAN

CL TRK 1 AND
BASELINE

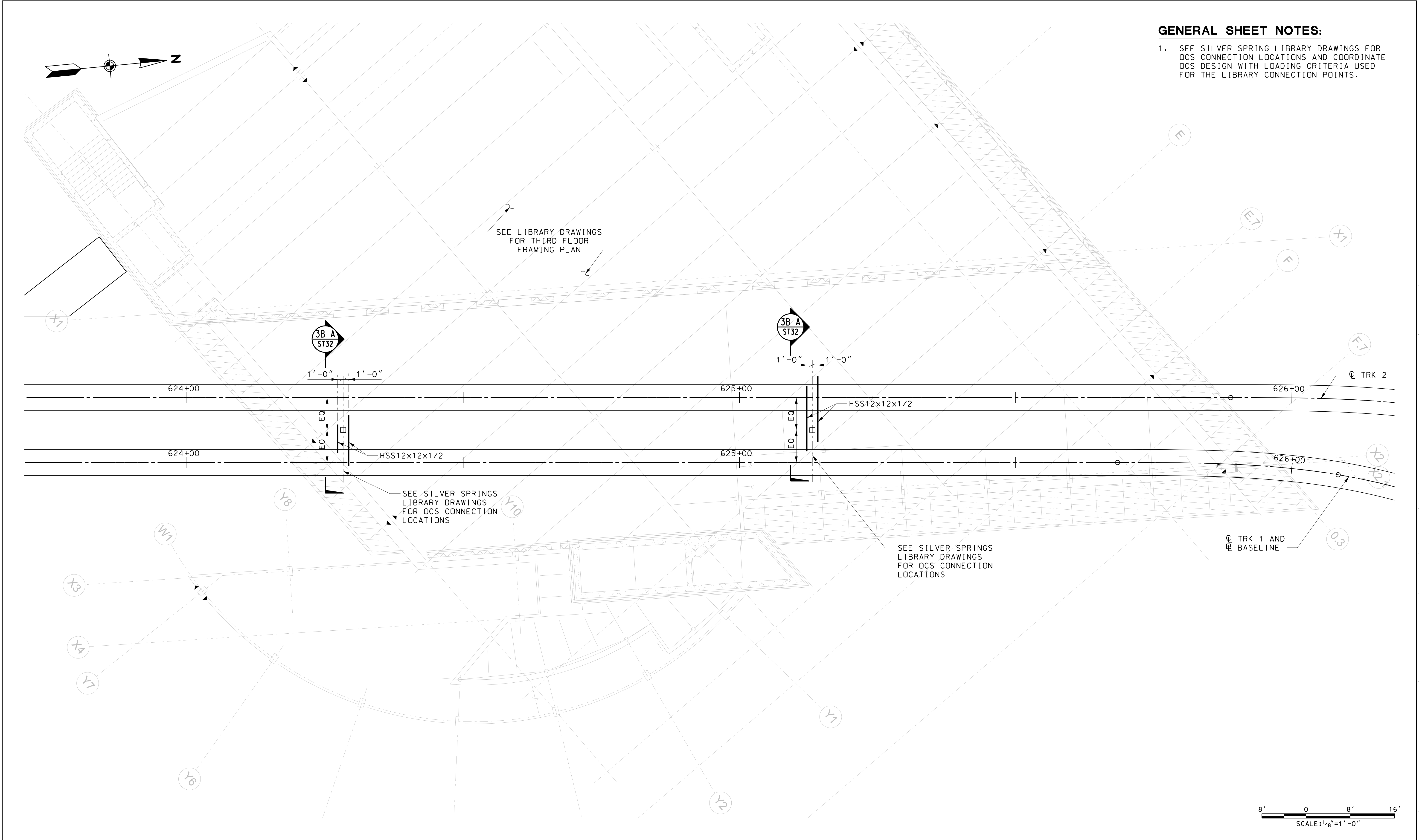
8' 0 8' 16'
SCALE: 1/8"=1'-0"

GENERAL SHEET NOTES:

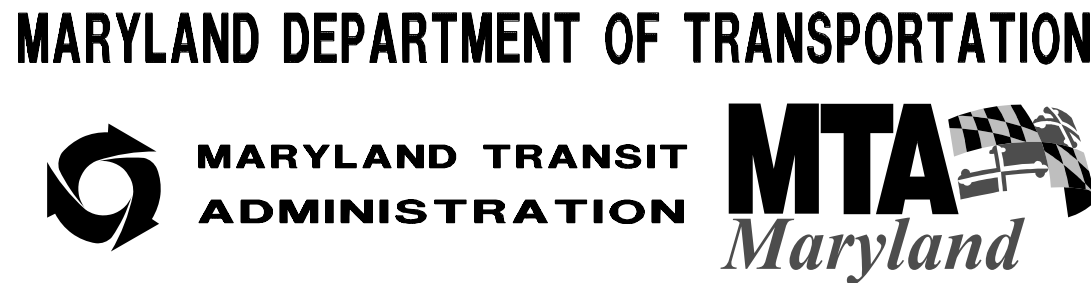
1. THE PLAN GEOMETRY AND TOP OF GRADE ELEVATIONS OF THE STRUCTURE PRESENTED ON THIS PLAN ARE DEPENDENT ON AND MUST BE COORDINATED WITH THE TRACK ALIGNMENT AND PROFILE DEFINED IN THE TRACK DRAWINGS. THE TOP OF RAIL ELEVATION VARIES BY LOCATION.
2. THE EDGES OF THE CONCRETE STRUCTURE ARE DEFINED ON THE PLAN AND IN THE SECTIONS AND DETAILS RELATIVE TO TRACK CENTERLINES.
3. THE TOP OF THE PAVER SYSTEM AT THE ELEVATED PLATFORMS SHALL BE STRICTLY HELD AT 1'-2" ABOVE THE TOP OF THE RAIL ELEVATION AT ALL LOCATIONS. THE TOP OF THE PAVER SYSTEM AT THE BASE OF THE RAMPS SHALL BE SET FLUSH WITH THE TOP OF THE ADJACENT RAIL. THE TOP OF CONCRETE STRUCTURE SHALL BE COORDINATED ACCORDINGLY.
4. WHERE THE TOP OF RAIL ELEVATION FOR TRK1 DIFFERS FROM TOP OF RAIL ELEVATION FOR TRK 2, THE CONCRETE STRUCTURE AND PAVER SYSTEM SHALL SLOPE UNIFORMLY BETWEEN THE INNER RAIL OF EACH TRACK AS SHOWN IN THE SECTIONS AND DETAILS.

GENERAL SHEET NOTES (continued):

5. WHERE TRK1 1 OR TRK 2 IS SUPERELEVATED, THE CONCRETE STRUCTURE AND PAVER SYSTEM SHALL SLOPE UNIFORMLY BETWEEN THE TRACK RAILS AS SHOWN IN THE SECTIONS AND DETAILS.
6. REFER TO DRAINAGE DRAWINGS FOR TRACKWAY DRAINAGE SYSTEM.
7. REFER TO UTILITY DRAWINGS FOR BELOW SLAB CONDUIT AND DUCT BANK INFORMATION.
8. THE TRACK SLAB SHALL BE 12 INCHES THICK REINFORCED CONCRETE MAT SLAB ON GRADE, ON A 12 INCH COMPACTED DRAINAGE COURSE, ON APPROVED SUBGRADE.
9. TRANSVERSE CONSTRUCTION JOINTS IN THE TRACK SLAB SHALL NOT BE CLOSER THAN 5'-0" FROM SPLICES IN LONGITUDINAL REINFORCEMENT. LONGITUDINAL CONSTRUCTION JOINTS ARE NOT PERMITTED.
10. PLATFORM AND RAMP SLABS ARE 8 INCHES THICK REINFORCED CONCRETE SLABS ON GRADE.
11. SEE LIBRARY LANDSCAPE DRAWINGS FOR UNIT PAVER SYSTEM AND GRANITE CURBS.



- GENERAL SHEET NOTES:**
- SEE SILVER SPRING LIBRARY DRAWINGS FOR OCS CONNECTION LOCATIONS AND COORDINATE OCS DESIGN WITH LOADING CRITERIA USED FOR THE LIBRARY CONNECTION POINTS.



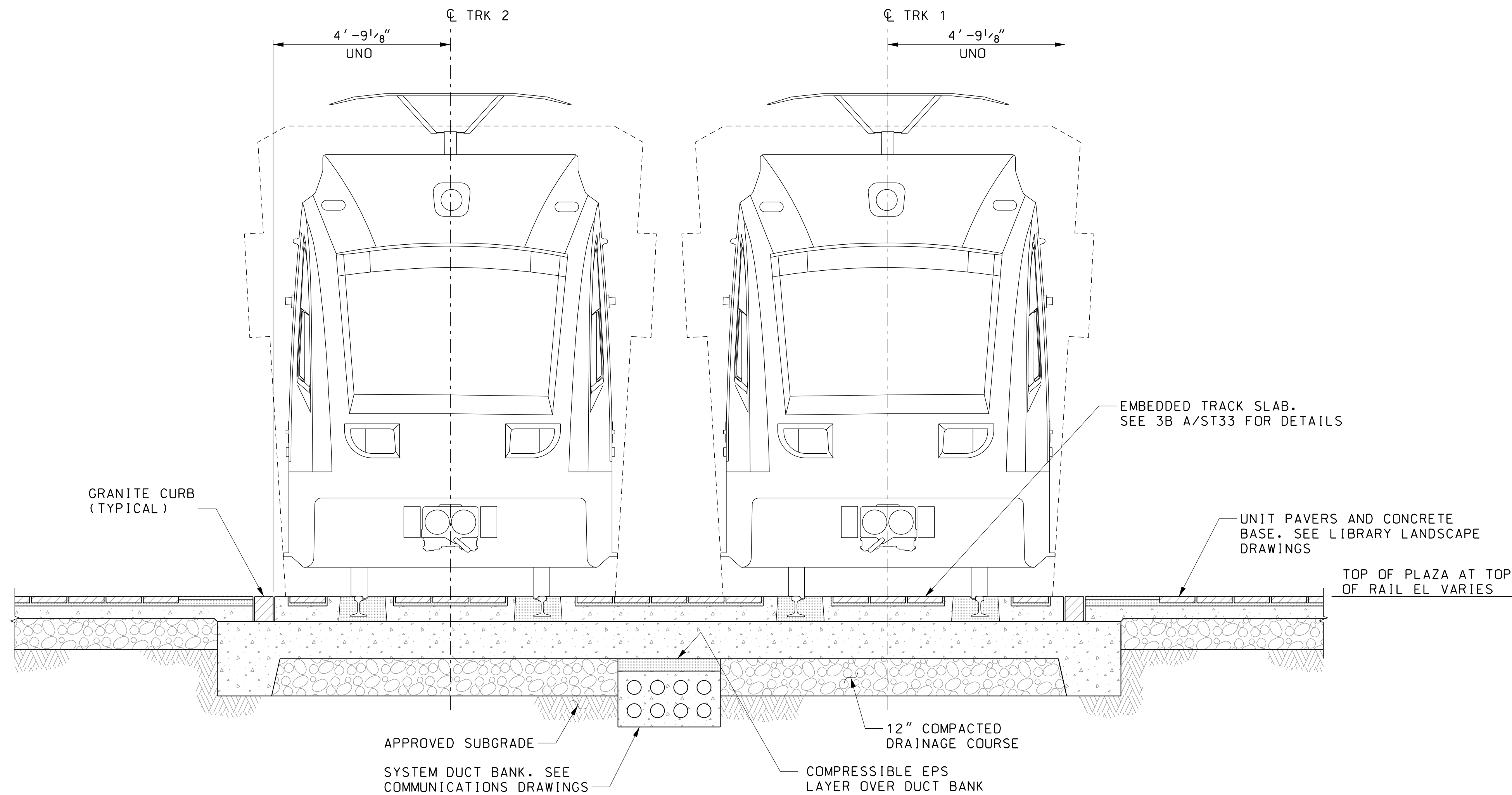
PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

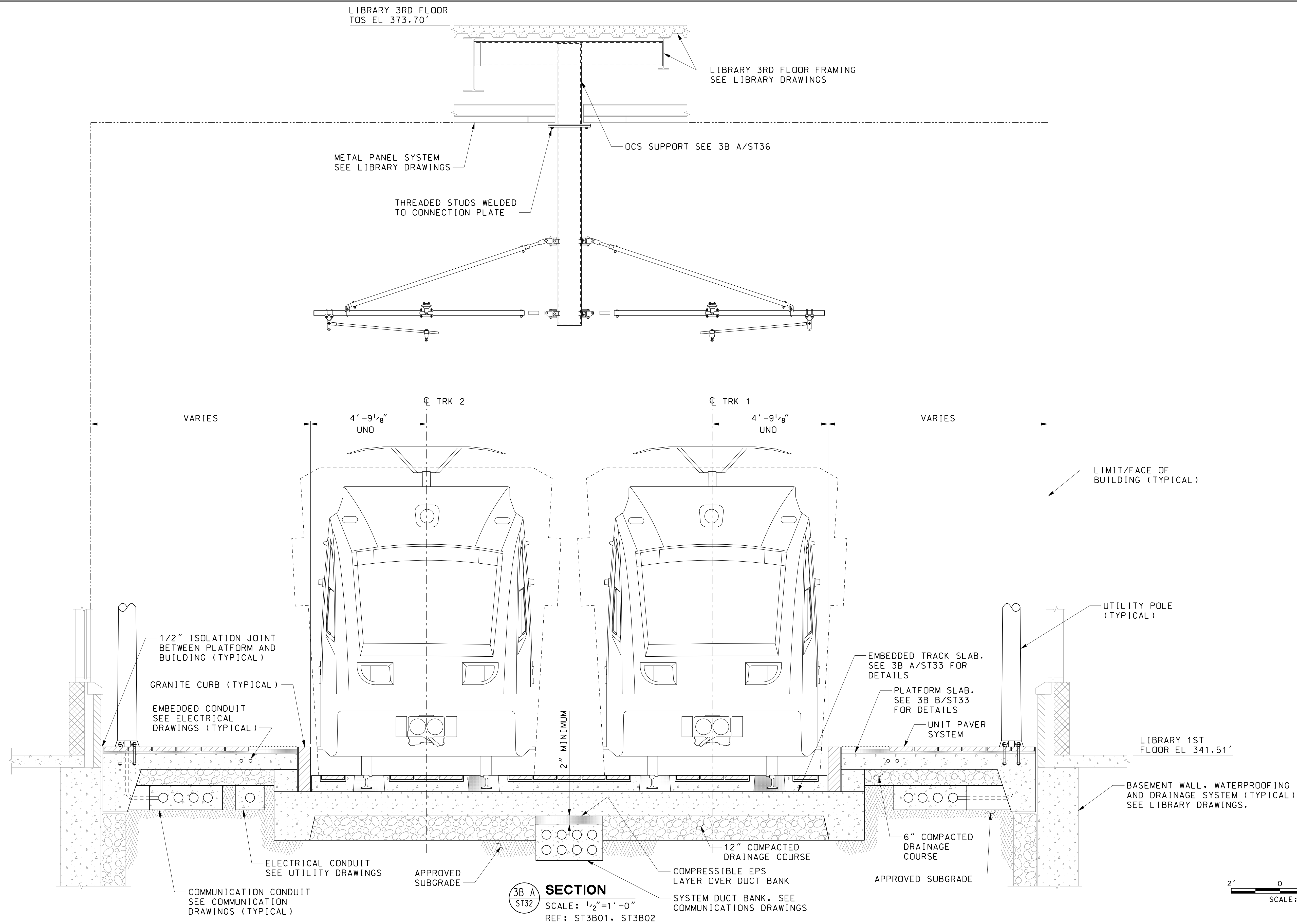
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

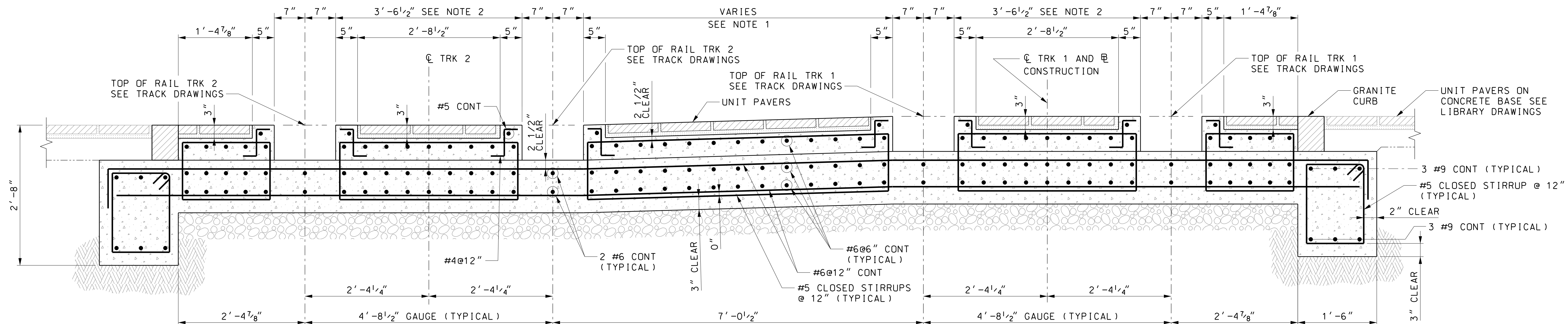
APPR CHECK DRAWN DESIGN	PSO	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
	SLJ		DRAWING NO. ST3B03
	RBG	SILVER SPRING LIBRARY STATION THIRD FLOOR PLAN	SHEET NO. 561 OF 828
	DATE: DECEMBER 2013		SCALE: AS SHOWN



SECTION
 3B A
 ST31
 SCALE: 1/2"=1'-0"
 REF: ST3B01, ST3B02

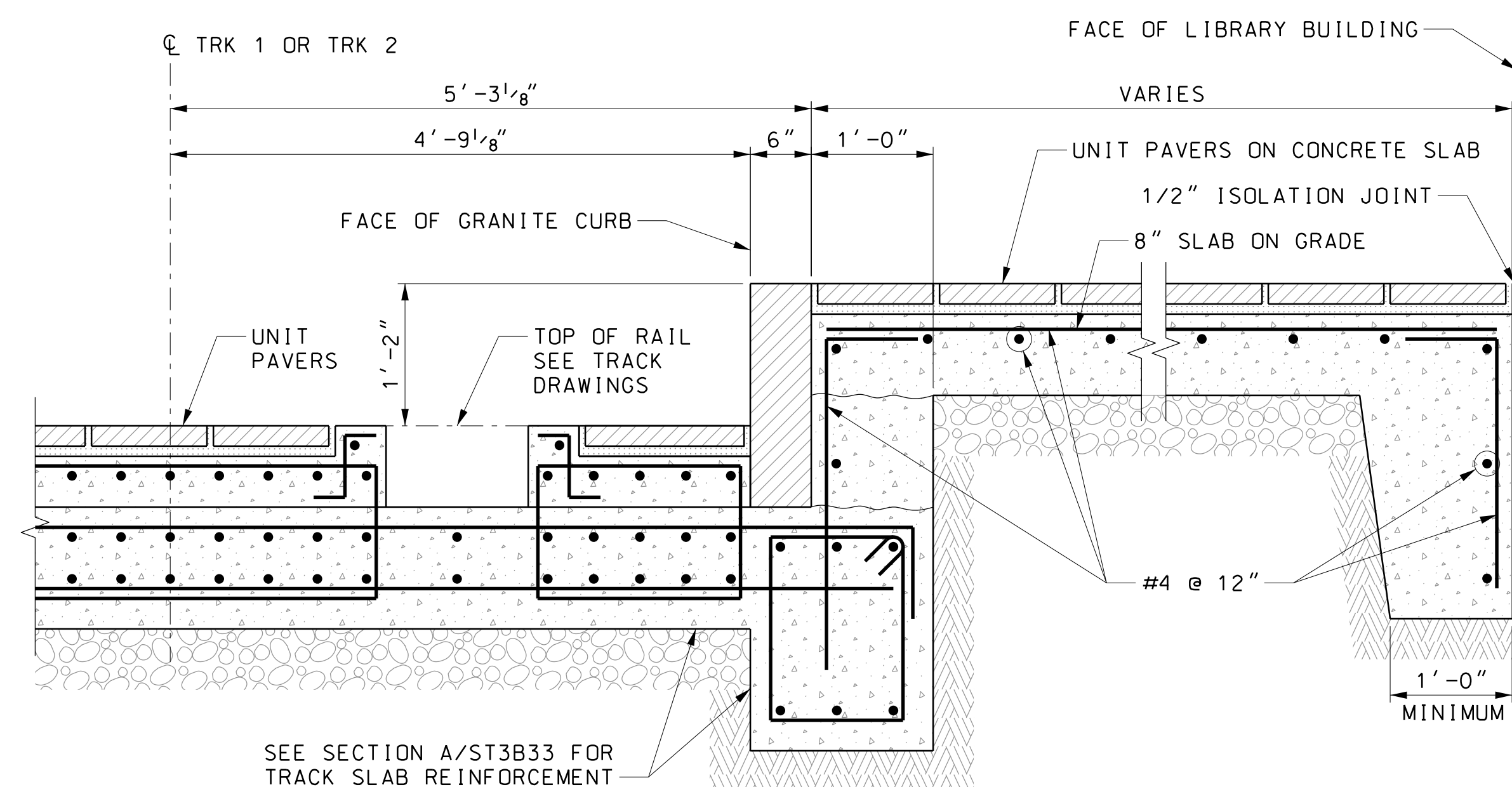
2' 0 2' 4'
 SCALE: 1/2"=1'-0"



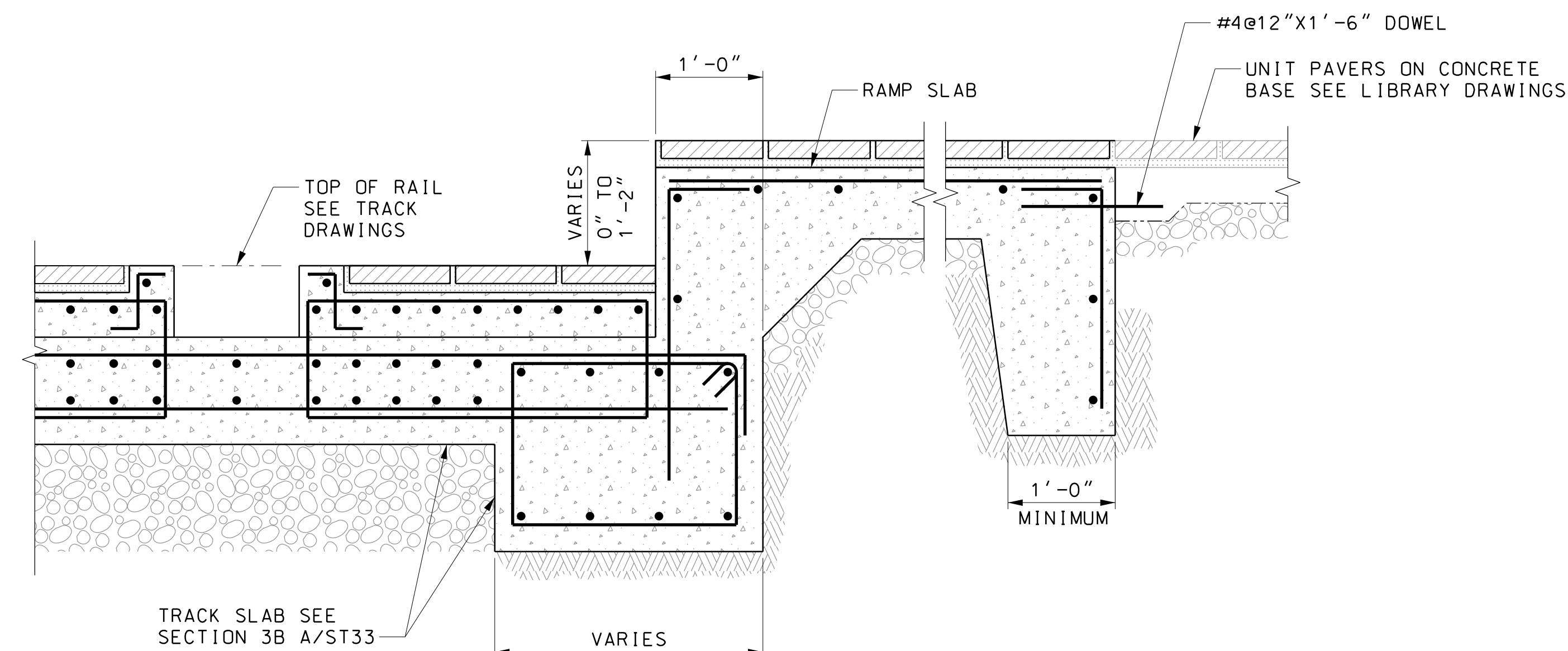


SECTION
 3B A
 ST33
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02

- GENERAL SHEET NOTES:**
- WHERE THE TOP OF RAIL ELEVATION FOR TRK1 DIFFERS FROM TOP OF RAIL ELEVATION FOR TRK 2, THE BASE SLAB, TOPPING SLAB AND PAVER SYSTEM SHALL SLOPE UNIFORMLY WITHIN THE EXTENTS INDICATED.
 - WHERE TRK1 1 OR TRK 2 IS SUPERELEVATED, THE BASE SLAB, TOPPING SLAB AND PAVER SYSTEM SHALL SLOPE UNIFORMLY WITHIN THE EXTENTS INDICATED

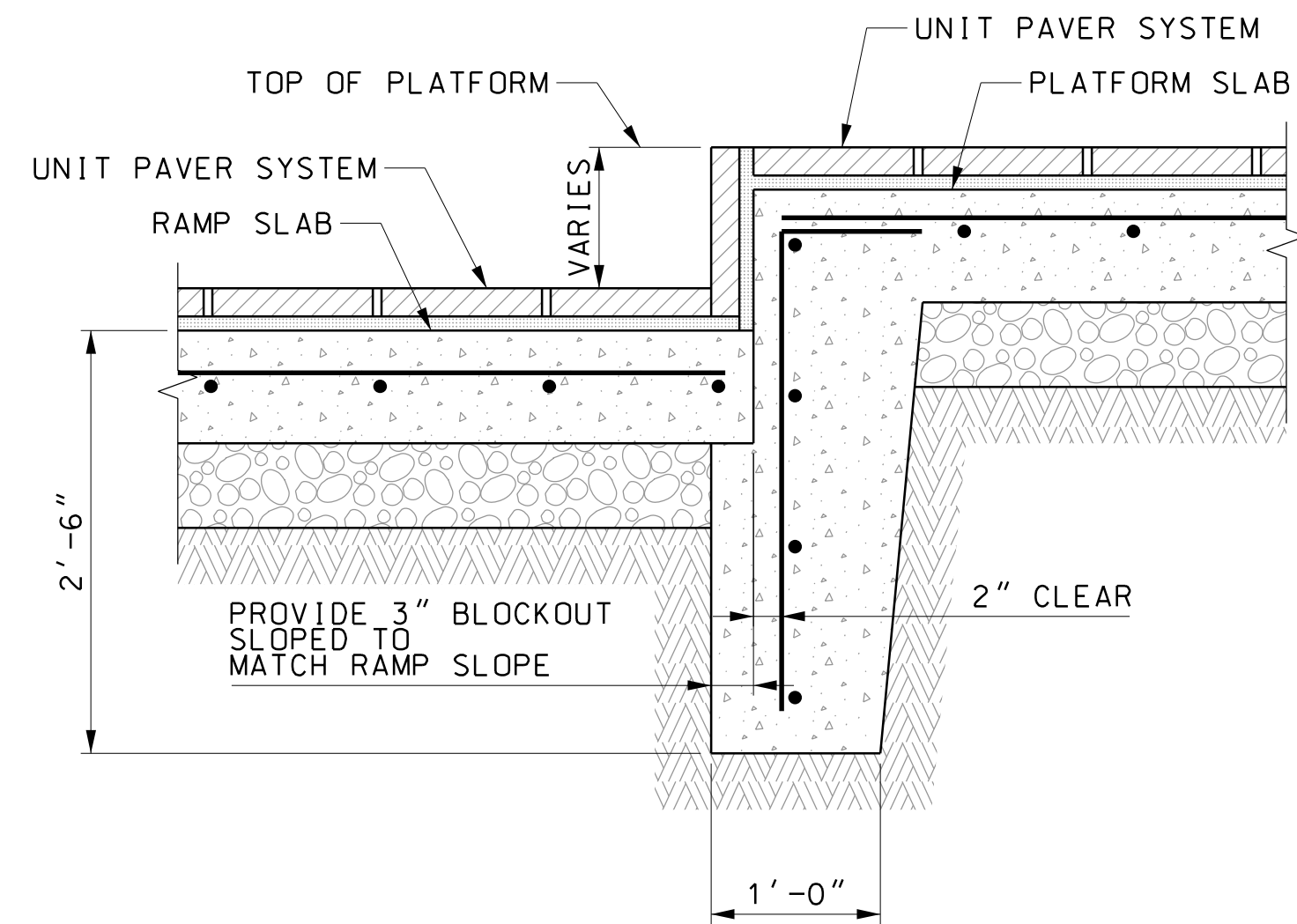


SECTION
 3B B
 ST33
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02

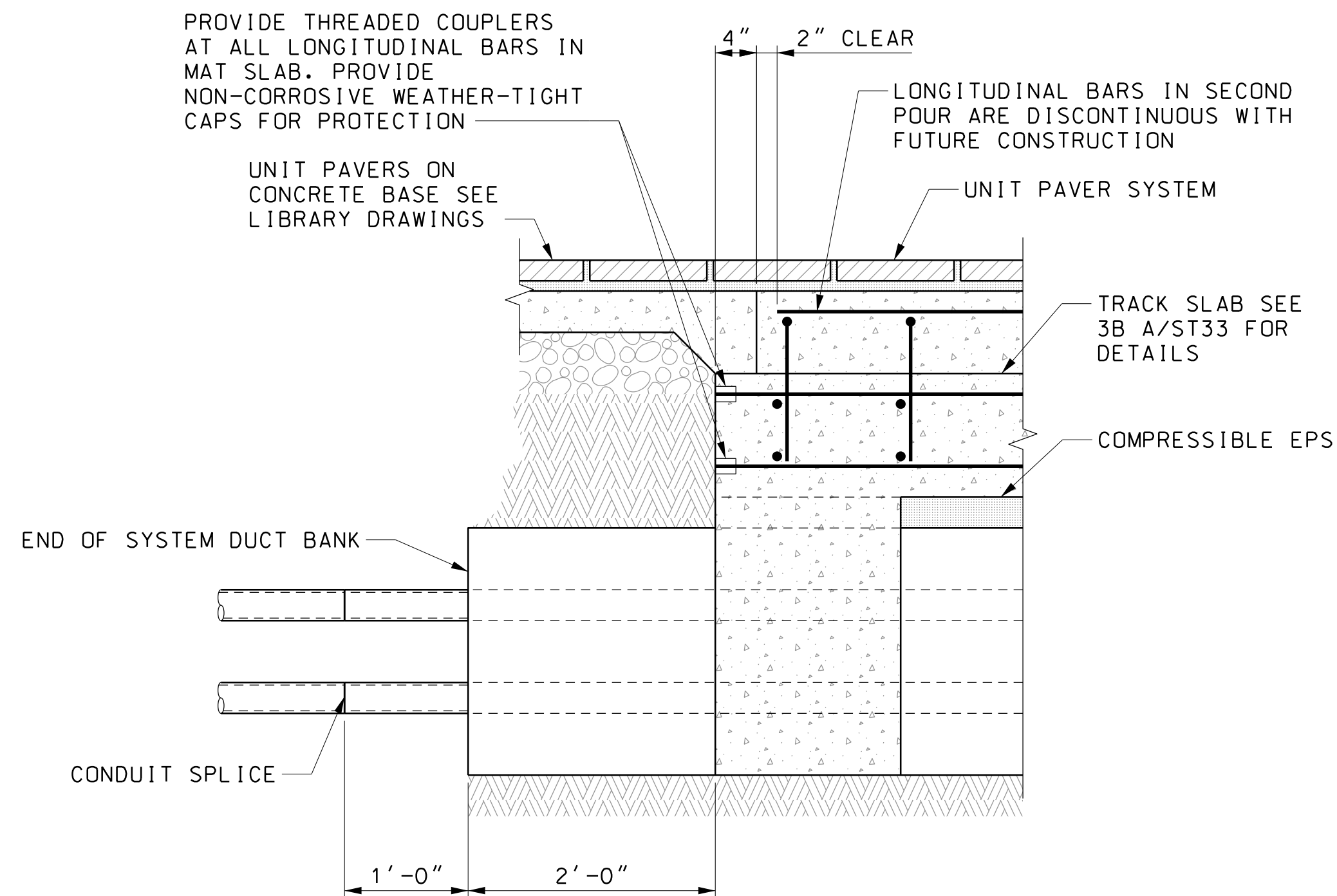


SECTION
 3B C
 ST33
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02

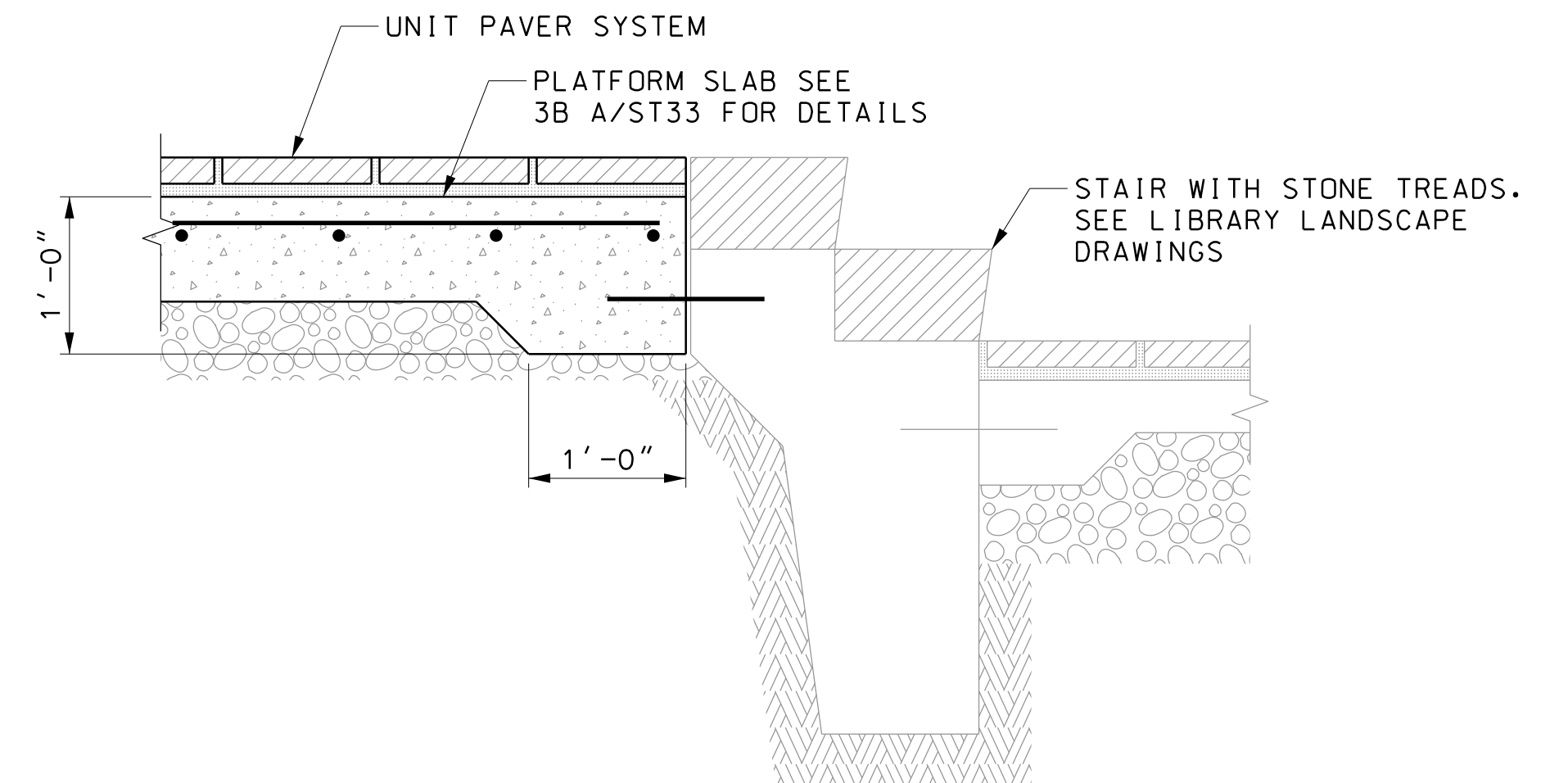




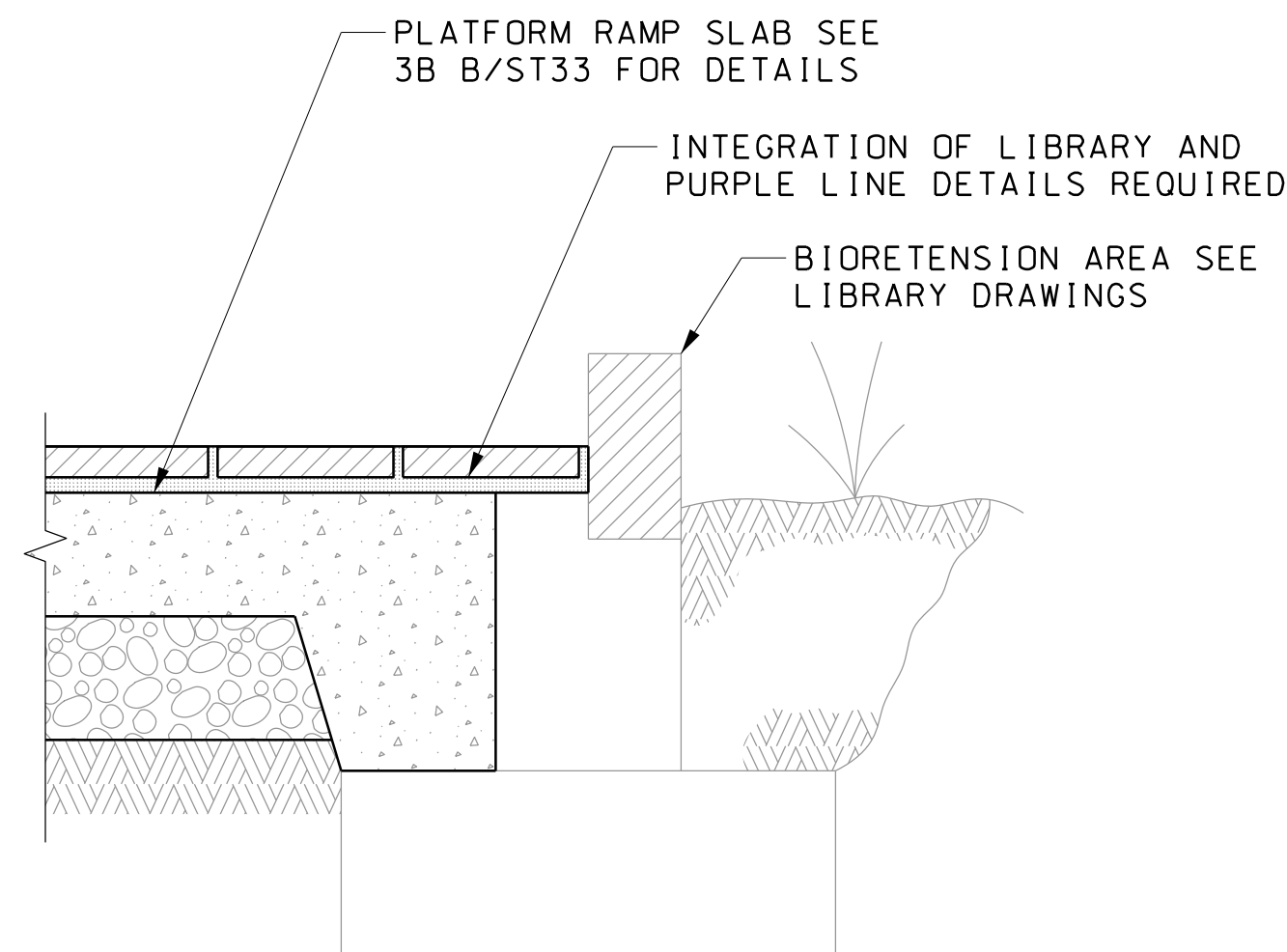
SECTION
 3B A
 ST34
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02



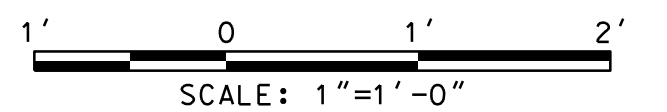
SECTION
 3B B
 ST34
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02



SECTION
 3B C
 ST34
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02

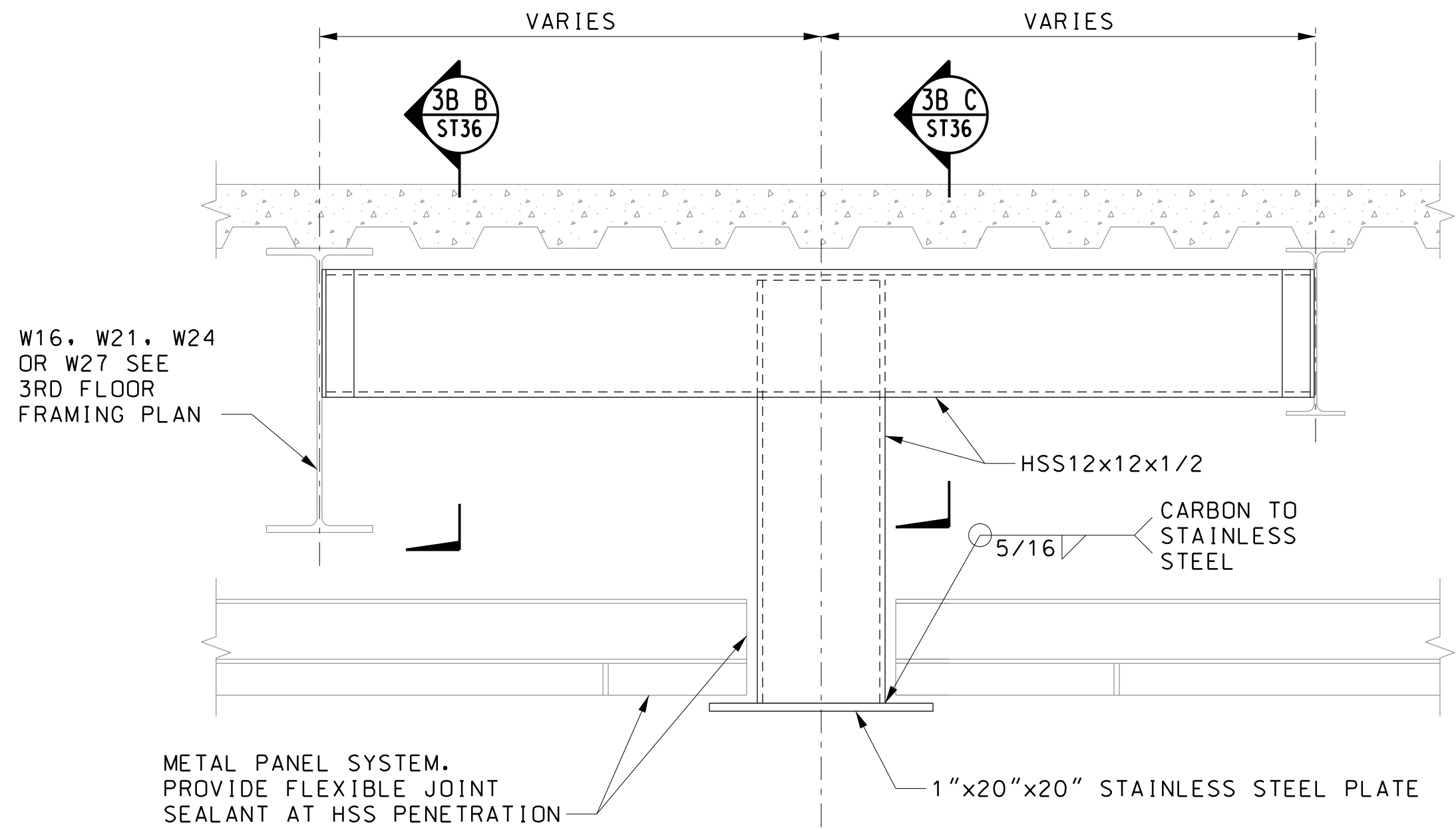


SECTION
 3B D
 ST34
 SCALE: 1" = 1'-0"
 REF: ST3B01, ST3B02

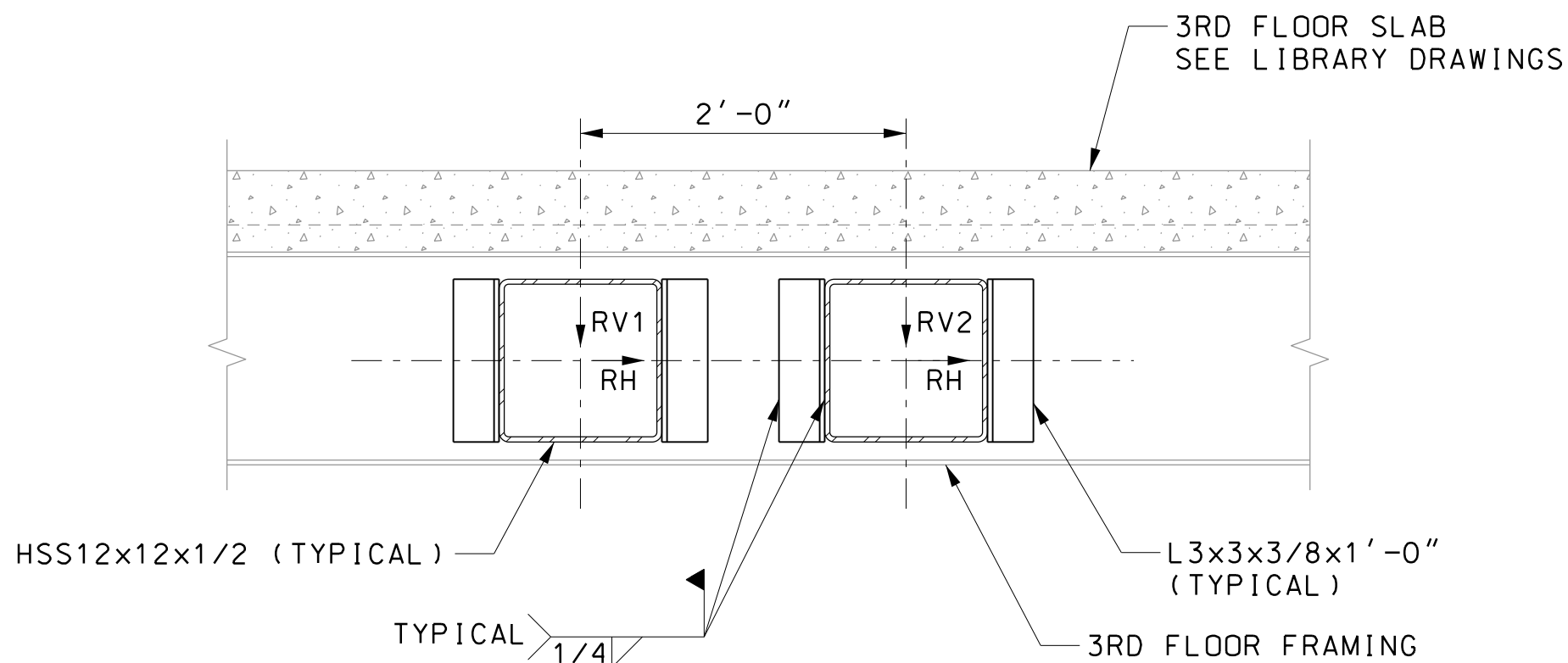


GENERAL SHEET NOTES:

1. THE LOAD TABLE PROVIDES THE MAXIMUM REACTIONS FROM THE OCS SYSTEM IMPOSED ON THE LIBRARY FRAMING. TWO LOAD CASES ARE PRESENTED
2. ALL LOADS ARE ULTIMATE LOADS AND SHOULD BE EVALUATED BY THE LIBRARY DESIGNER AS AN APPLIED WIND LOAD IN COMBINATION WITH OTHER DESIGN LOADS.
3. THE MAXIMUM ANTICIPATED LATERAL DEFLECTION OF THE DROP TUBE AT THE METAL PANEL CEILING SYSTEM PENETRATION IS 1/4". PROVIDE A WEATHER TIGHT SEALANT TO ACCOMMODATE THIS ANTICIPATED MOVEMENT.

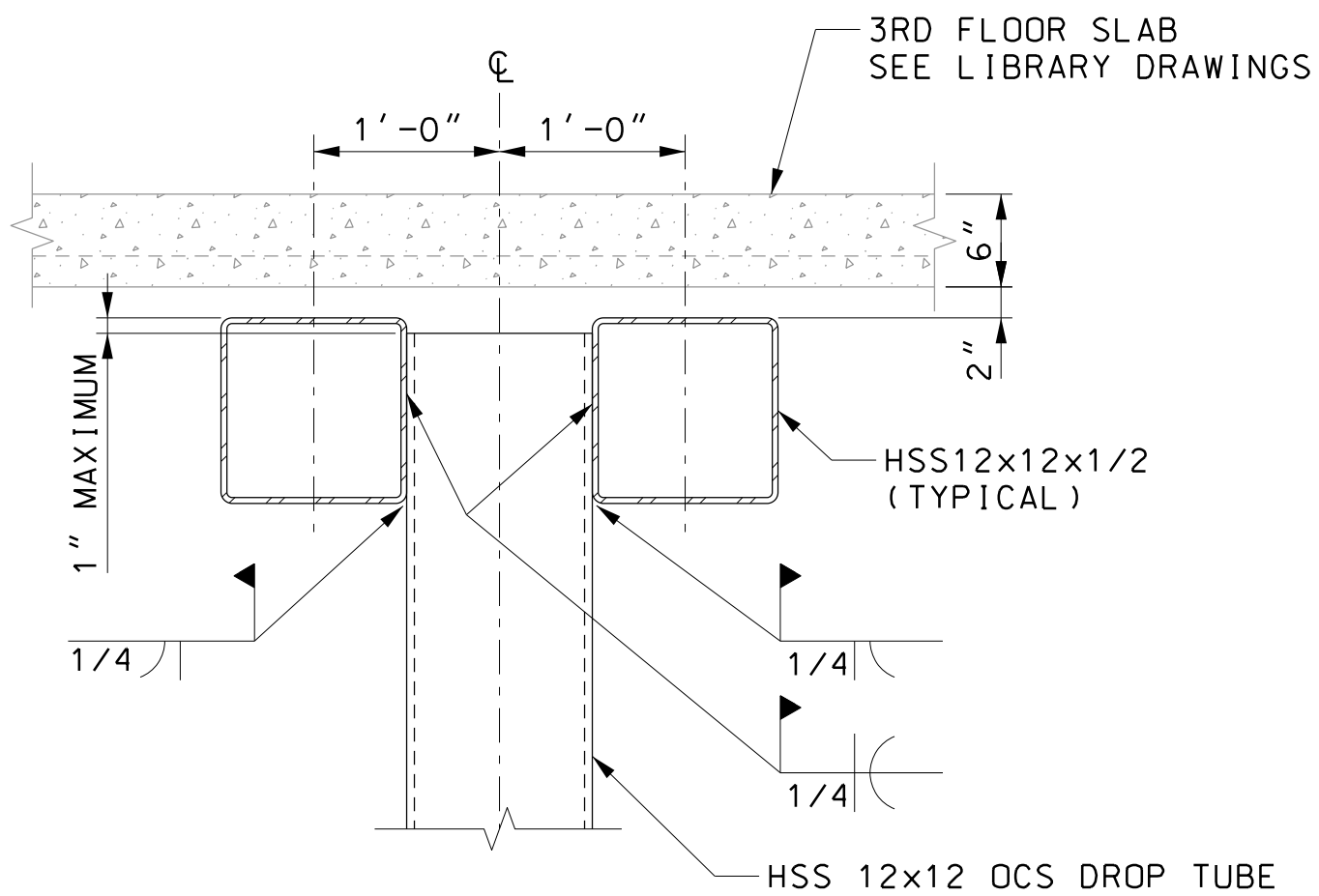


3B A SECTION
SCALE: 1" = 1'-0"
REF: ST3B32

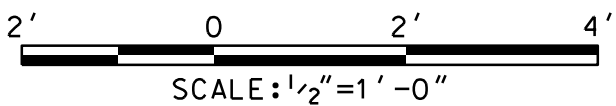


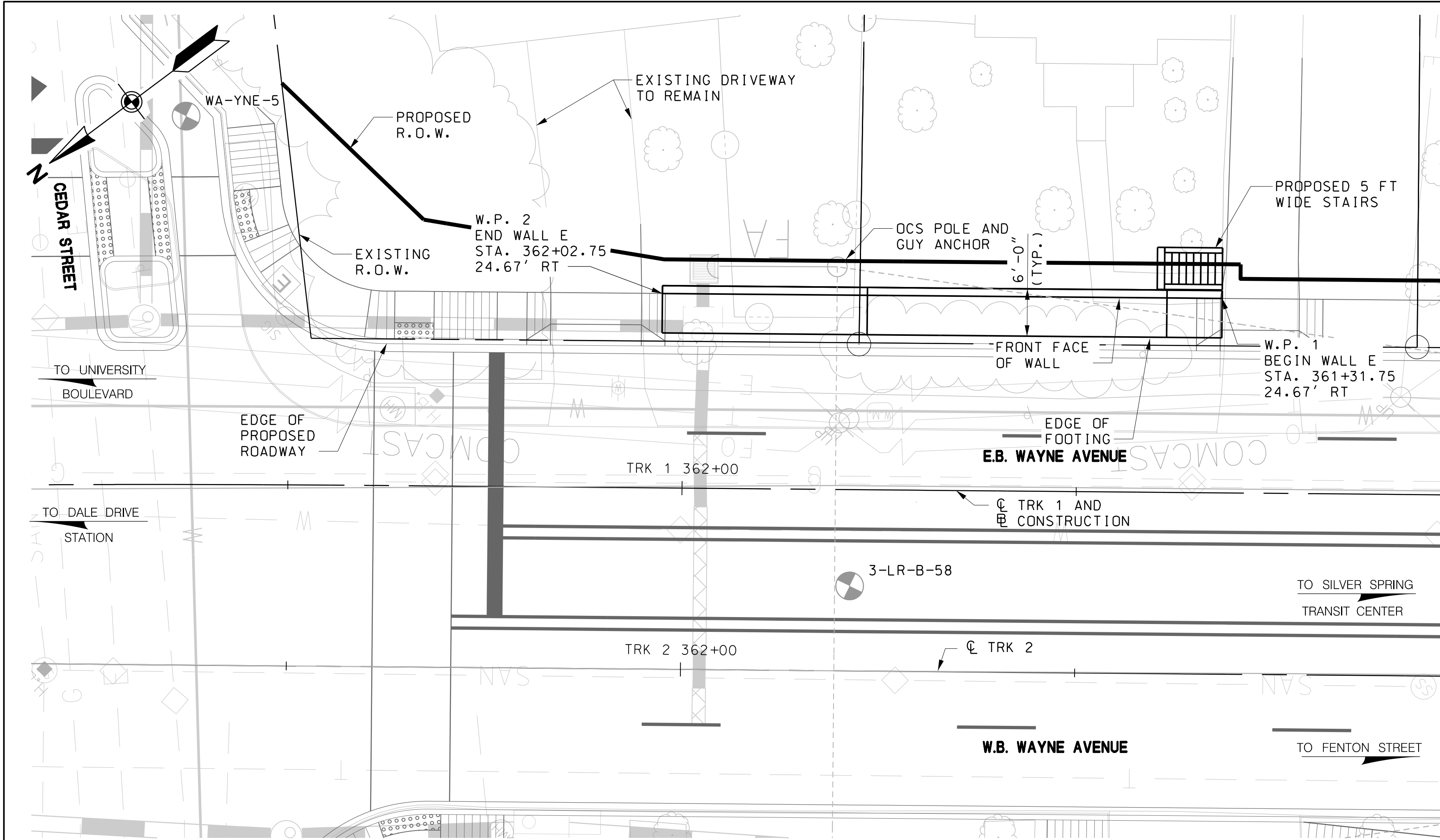
LOAD TABLE			
LOAD CASE	RV1	RV2	RH
LC1	+12.0k	-10.0k	+0.5k
LC2	-10.0k	+12.0k	-0.5k

3B B SECTION
SCALE: 1" = 1'-0"
REF: ST3B36



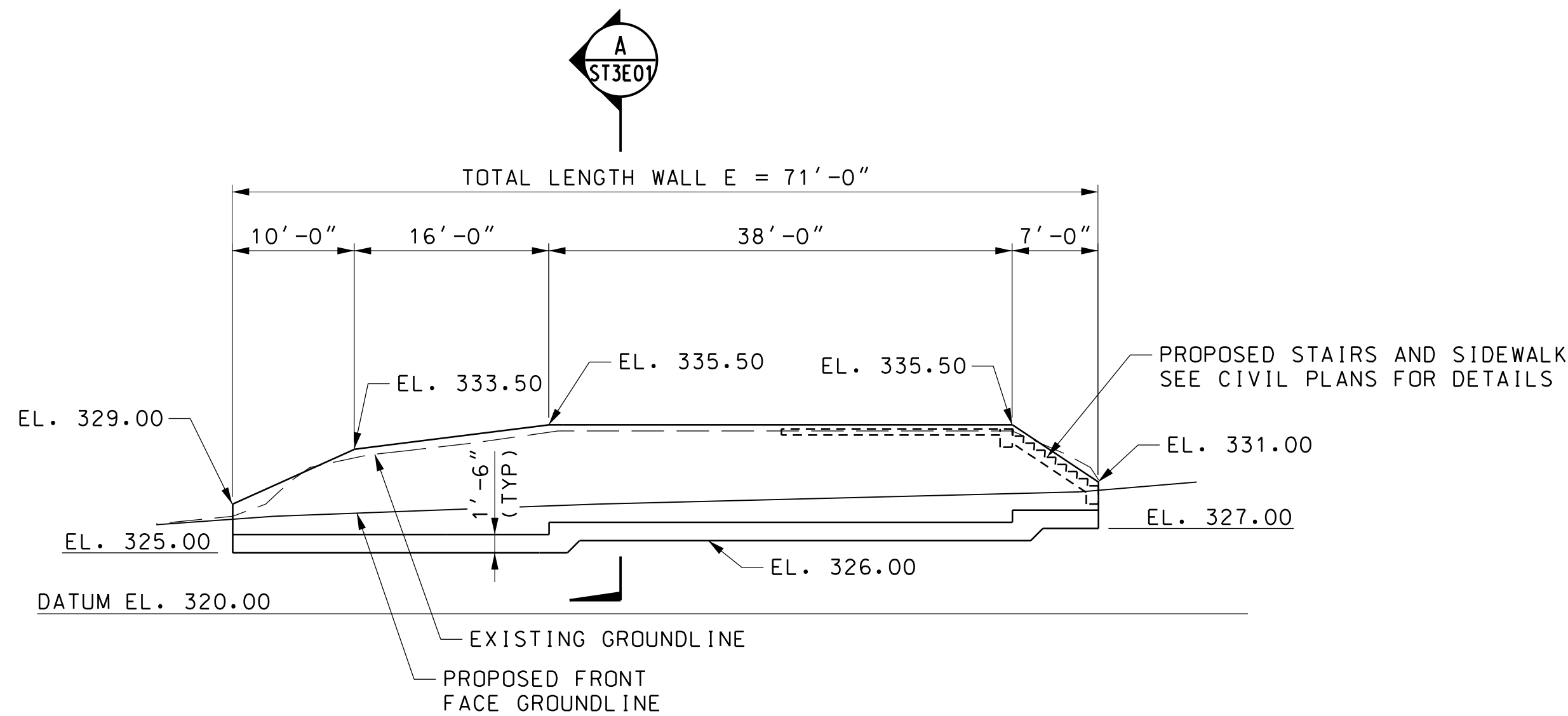
3B C SECTION
SCALE: 1" = 1'-0"
REF: ST3B36





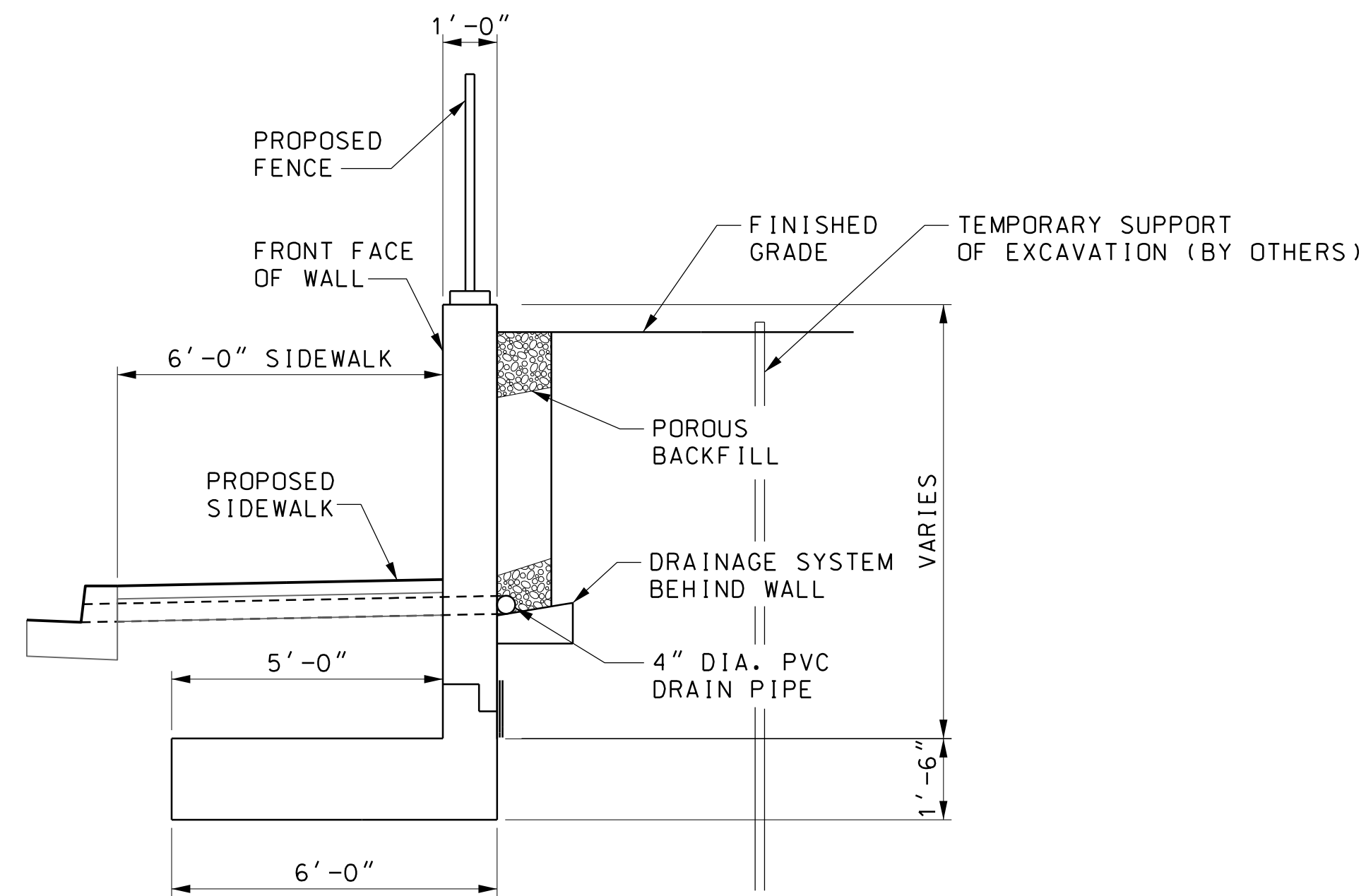
PLAN

SCALE: 1" = 10'-0"



ELEVATION WALL E

SCALE: 1" = 10'-0"



TYPICAL SECTION

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

GENERAL NOTES

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-MTA RED/PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

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REINFORCING REINFORCING STEEL SHALL CONFORM TO ASTM A615, STEEL: GRADE 60. ALL SPLICES NOT SHOWN, SHALL BE LAPPED AS PER MD SHA STANDARD BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH EXCEPTION OF BARS ON THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER. IF THE FRONT FACE OF A RETAINING WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, EPOXY COATED REINFORCEMENT SHALL BE USED IN THE FRONT FACE OF THE STEM. ALL REINFORCEMENT IN INTEGRAL ROADWAY BARRIERS SHALL BE EPOXY COATED.

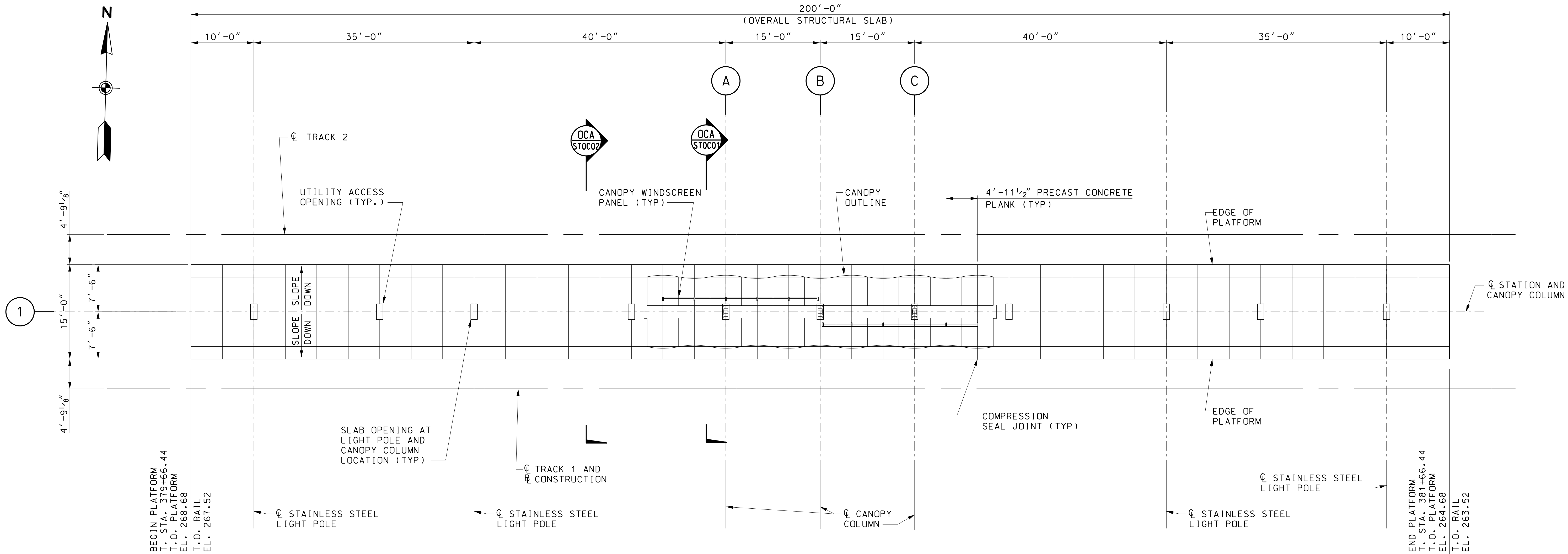
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

KEYS: ALL KEYS ARE NOMINAL SIZE.

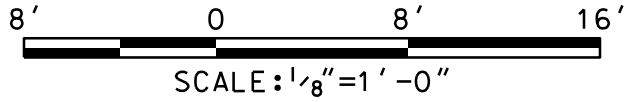
CHAMFERS: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, UNLESS NOTED OTHERWISE.

LOADING: ALL APPLICABLE SURCHARGE LOADS SHALL BE PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.

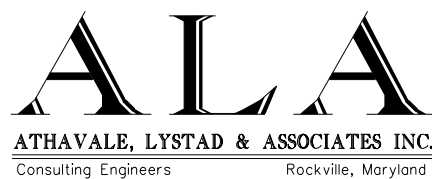
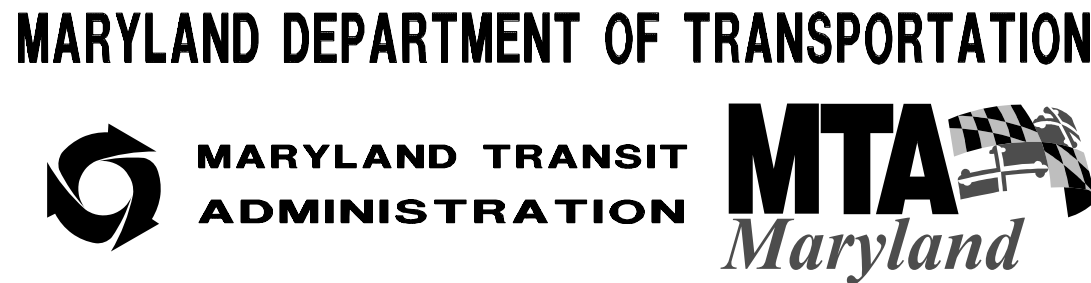
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PLATFORM PLAN
SCALE: 1/8" = 1'-0"



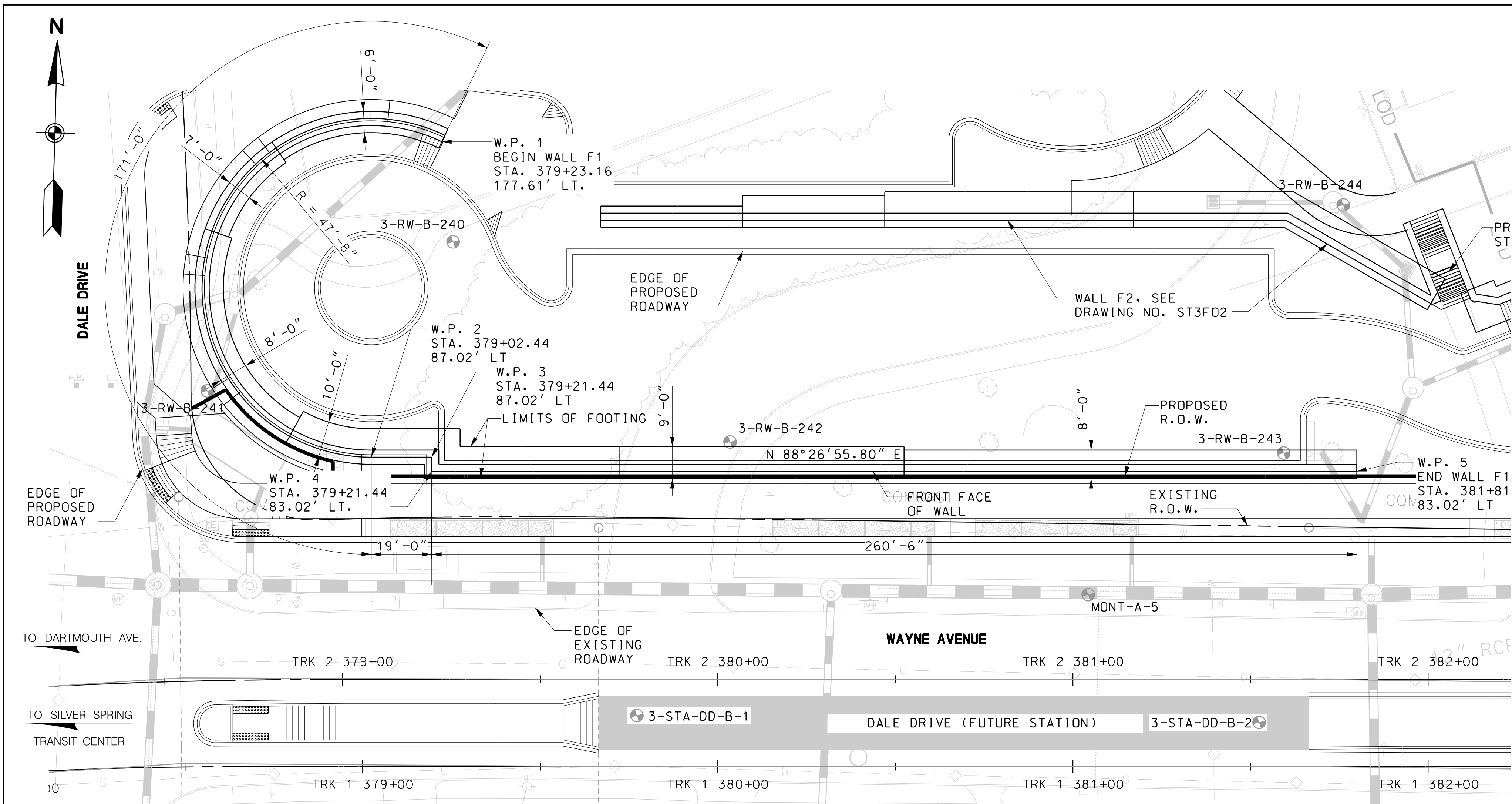
NOTE:
FOR NOTES, SEE DWG. NO. ST0A01 IN VOLUME 7.



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
License No. Expiration Date

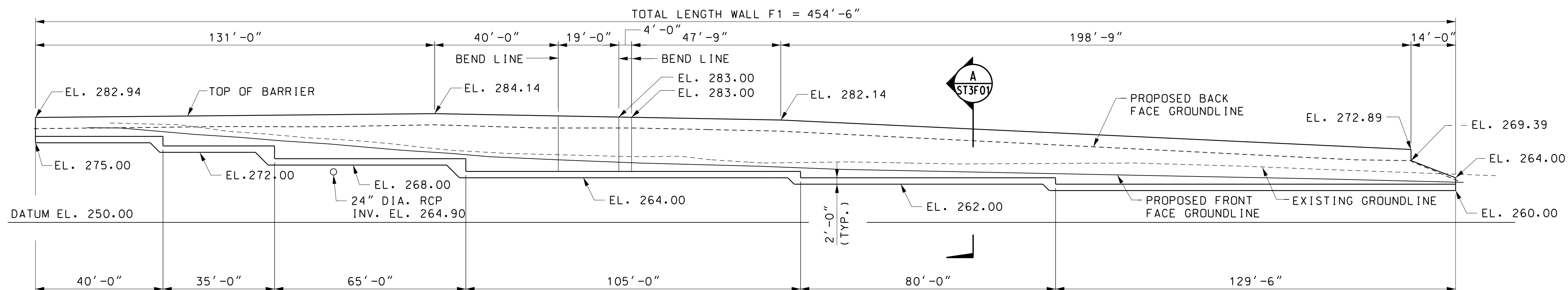
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN	BT	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				JE		DRAWING NO. ST3D11
				RG	DALE DRIVE STATION PLATFORM PLAN	SHEET NO. 568 OF 828
				DATE: DECEMBER 2013		SCALE: 1/8" = 1'-0"



PLAN

SCALE: 1" = 20'-0"



DEVELOPED ELEVATION WALL F1

SCALE: 1" = 20'-0"

NOTES:

1. ALL DIMENSIONS GIVEN AT FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.

GENERAL NOTES

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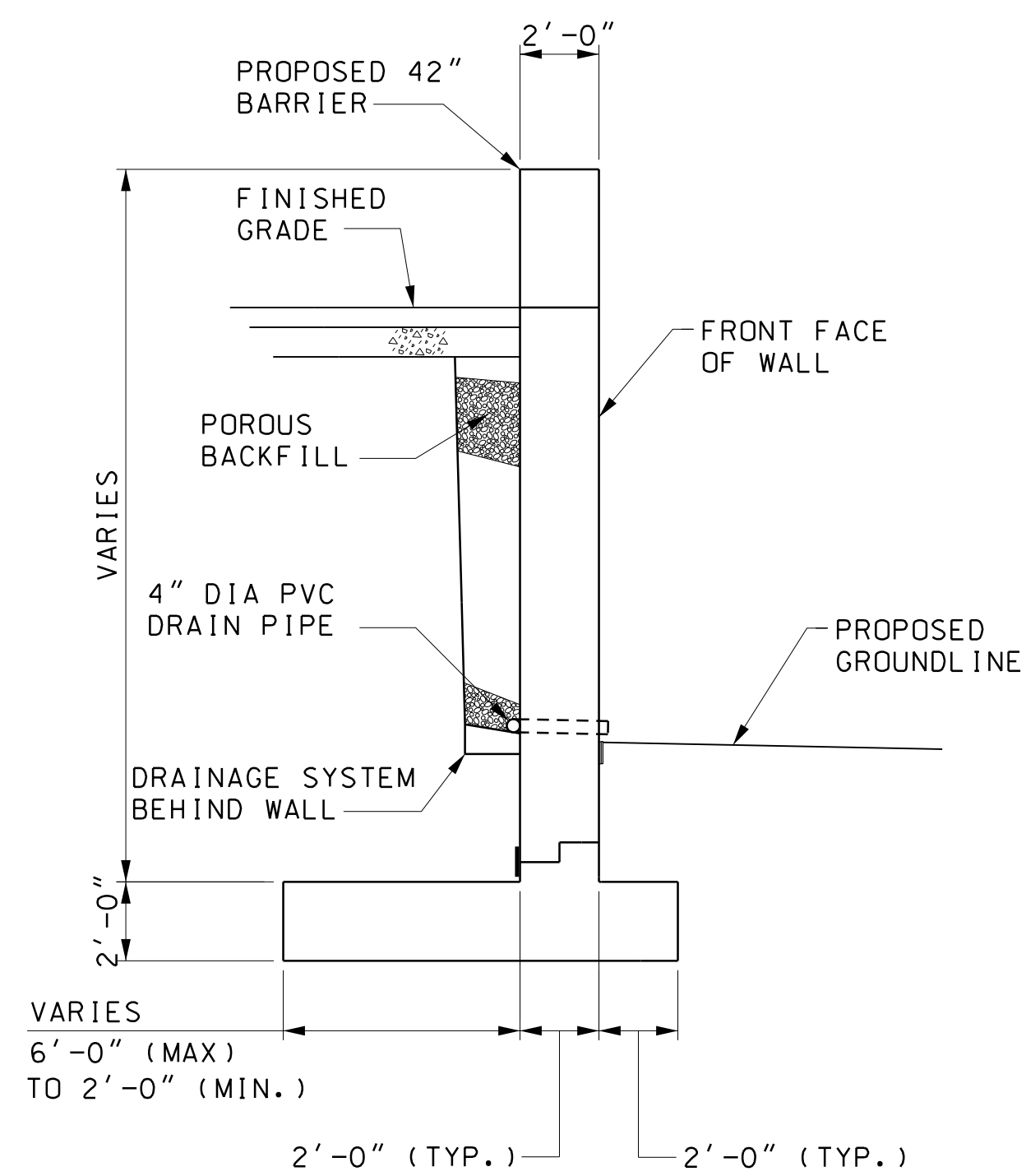
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

KEYS: ALL KEYS ARE NOMINAL SIZE.

CHAMFERS: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, UNLESS NOTED OTHERWISE.

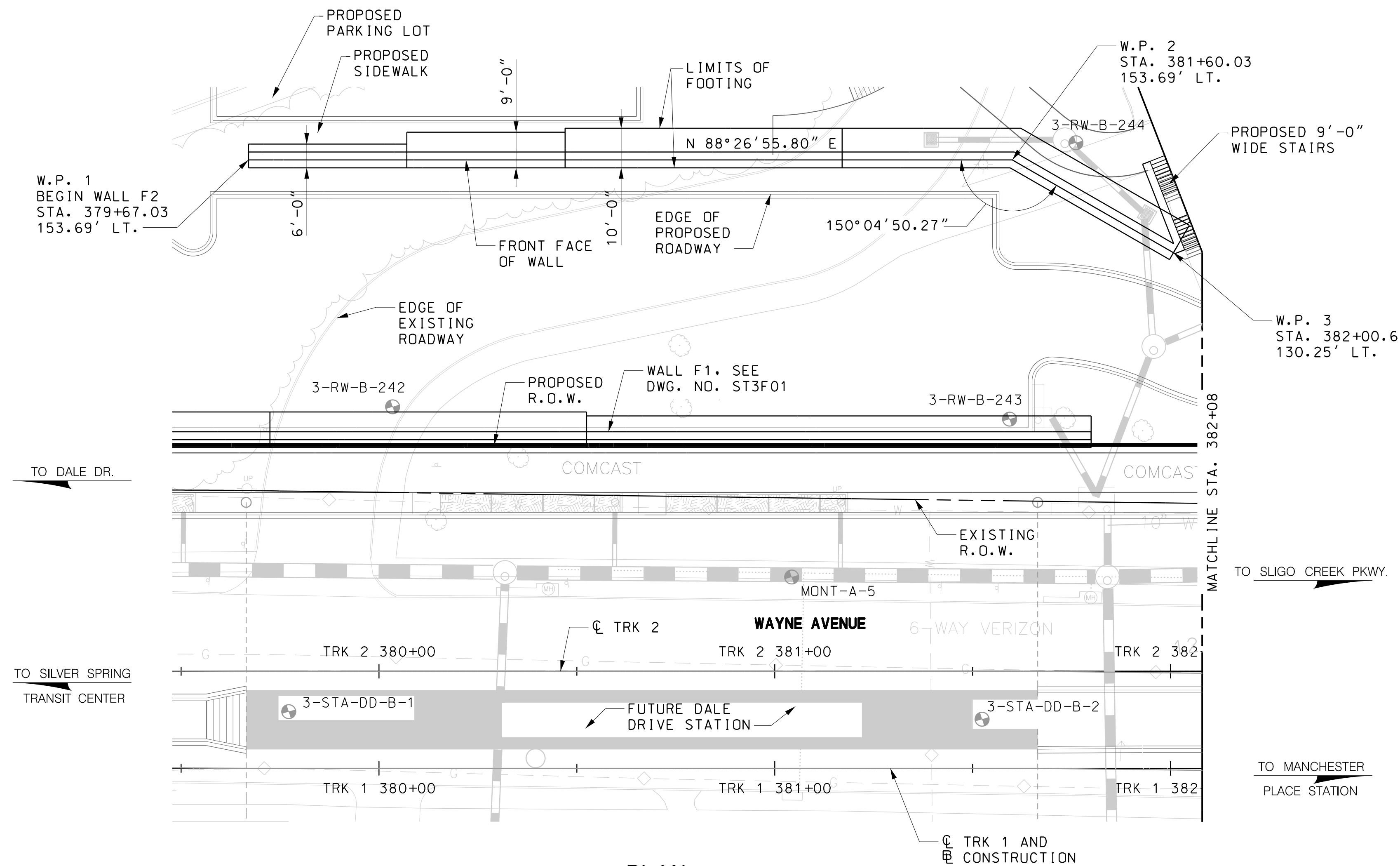
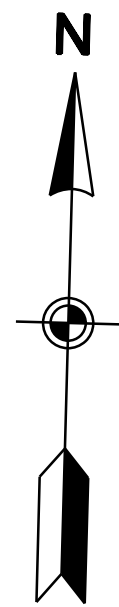
LOADING: ALL APPLICABLE SURCHARGE LOADS SHALL BE PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.

EXISTING ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF STRUCTURES: THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE (+/-) MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.



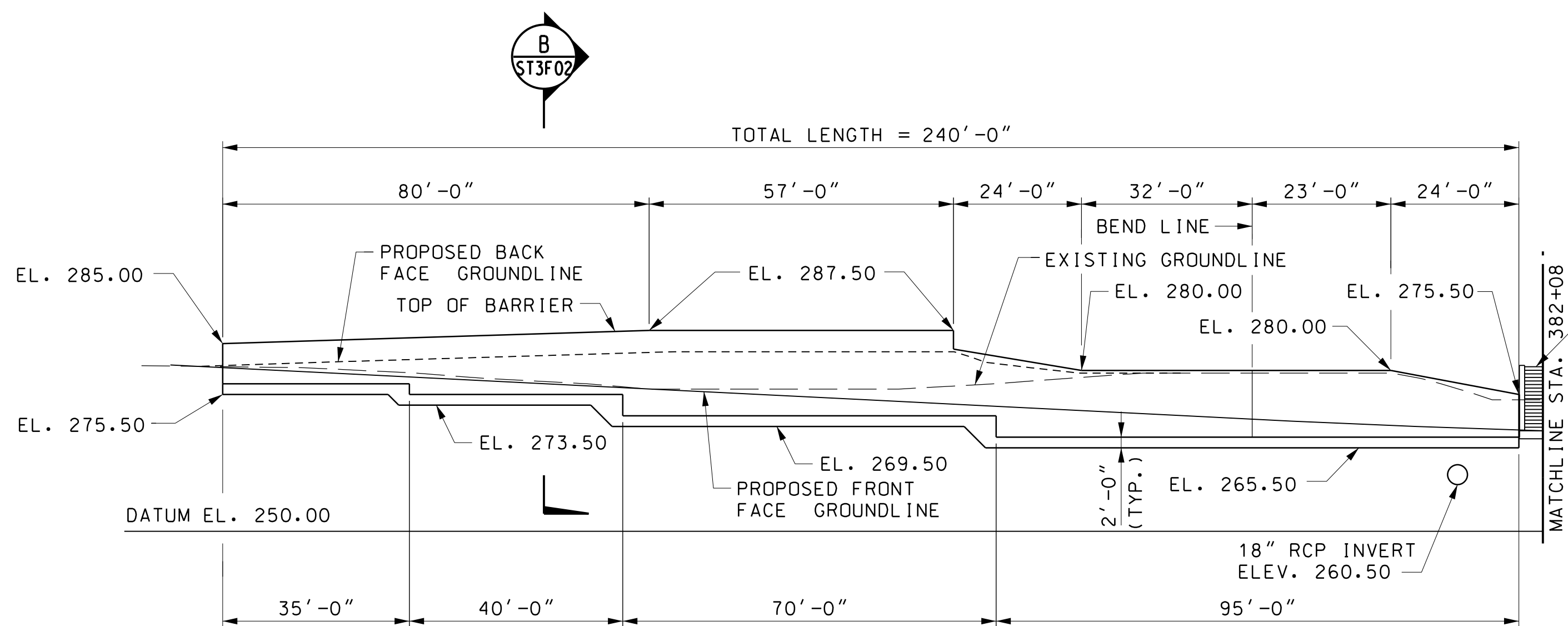
TYPICAL SECTION

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



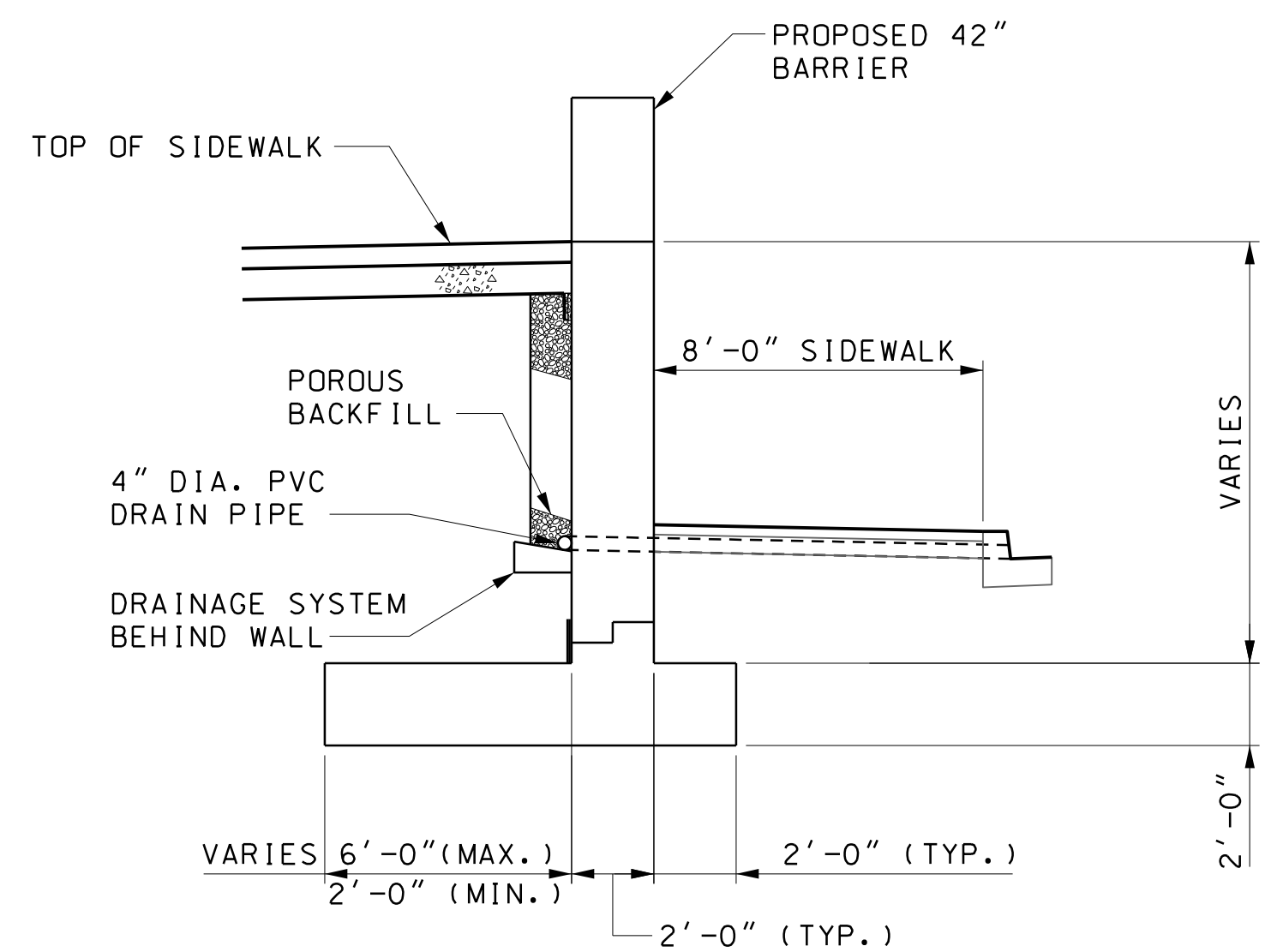
PLAN

SCALE: 1" = 20'-0"



DEVELOPED ELEVATION - WALL F2

SCALE: 1" = 20'-0"



TYPICAL SECTION

SCALE: 1/4" = 1'-0"
REF: ST3F02

NOTES:

1. ALL DIMENSIONS GIVEN AT FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
3. FOR GENERAL NOTES, SEE DRAWING NO. ST3F01.

MARYLAND DEPARTMENT OF TRANSPORTATION



JACOBS

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

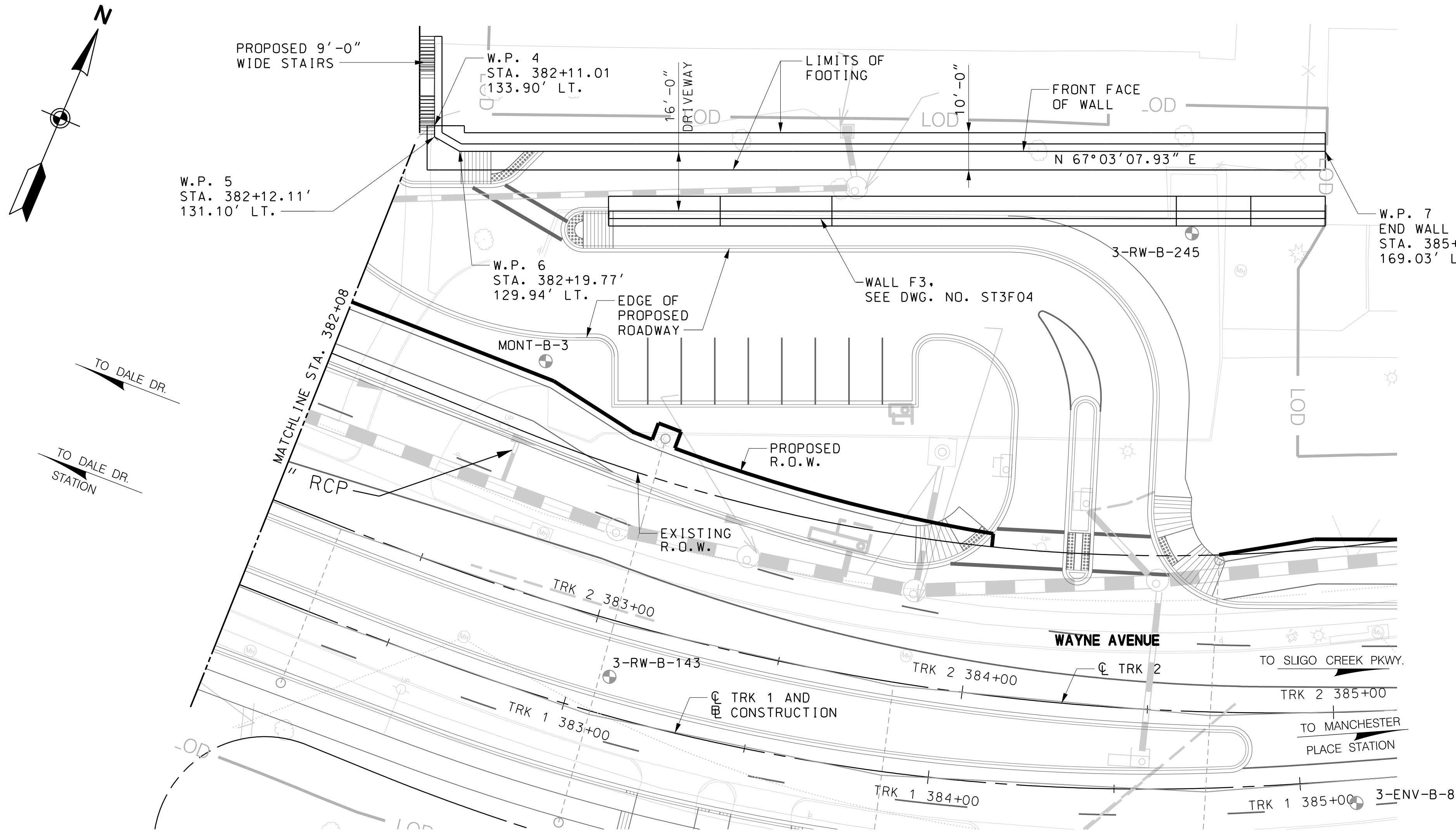
License No. Expiration Date

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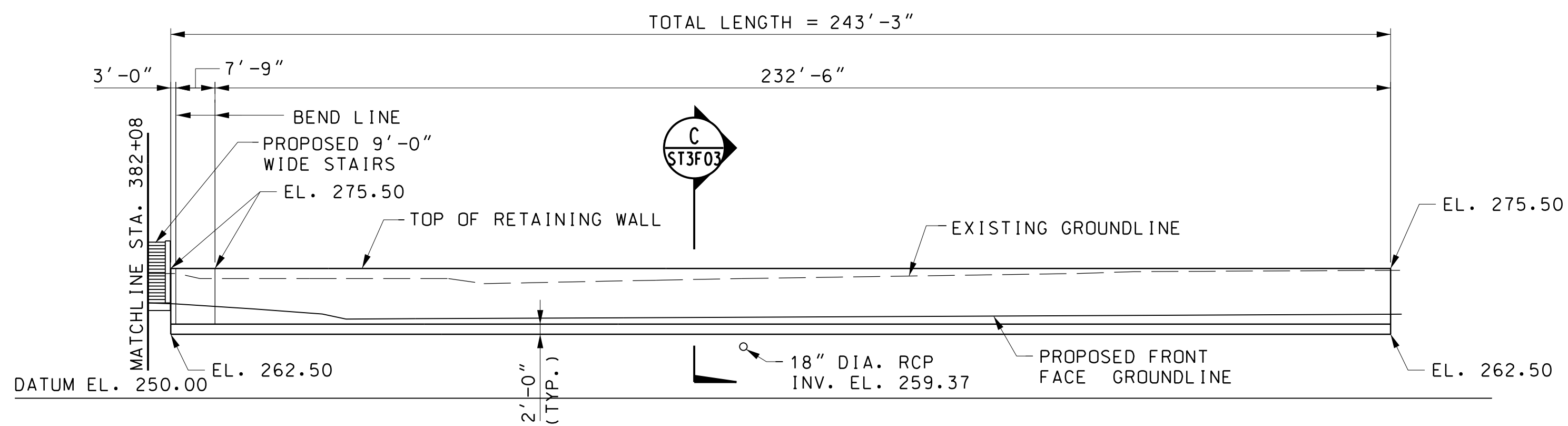
APPR	CHECK	DRAWN	DESIGN
			DKN
			SLH
			DJL

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
SILVER SPRING INTERNATIONAL MIDDLE SCHOOL RETAINING WALL F2-1	
DATE: DECEMBER 2013	SCALE: 1" = 20'-0"

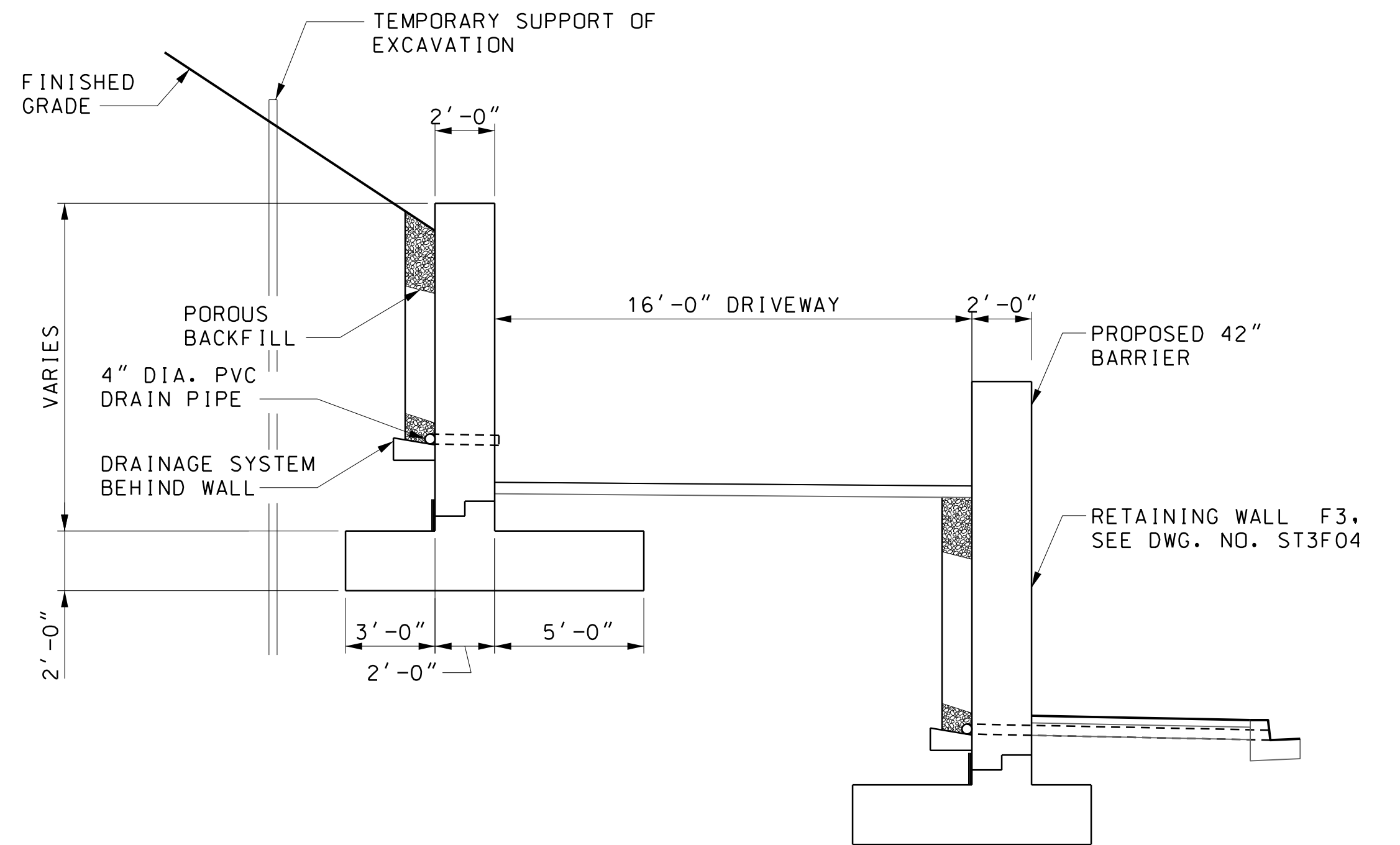
CONTRACT NO. T-1042-0220
DRAWING NO. ST3F02
SHEET NO. 570 OF 828



PLAN
SCALE: 1" = 20'-0"

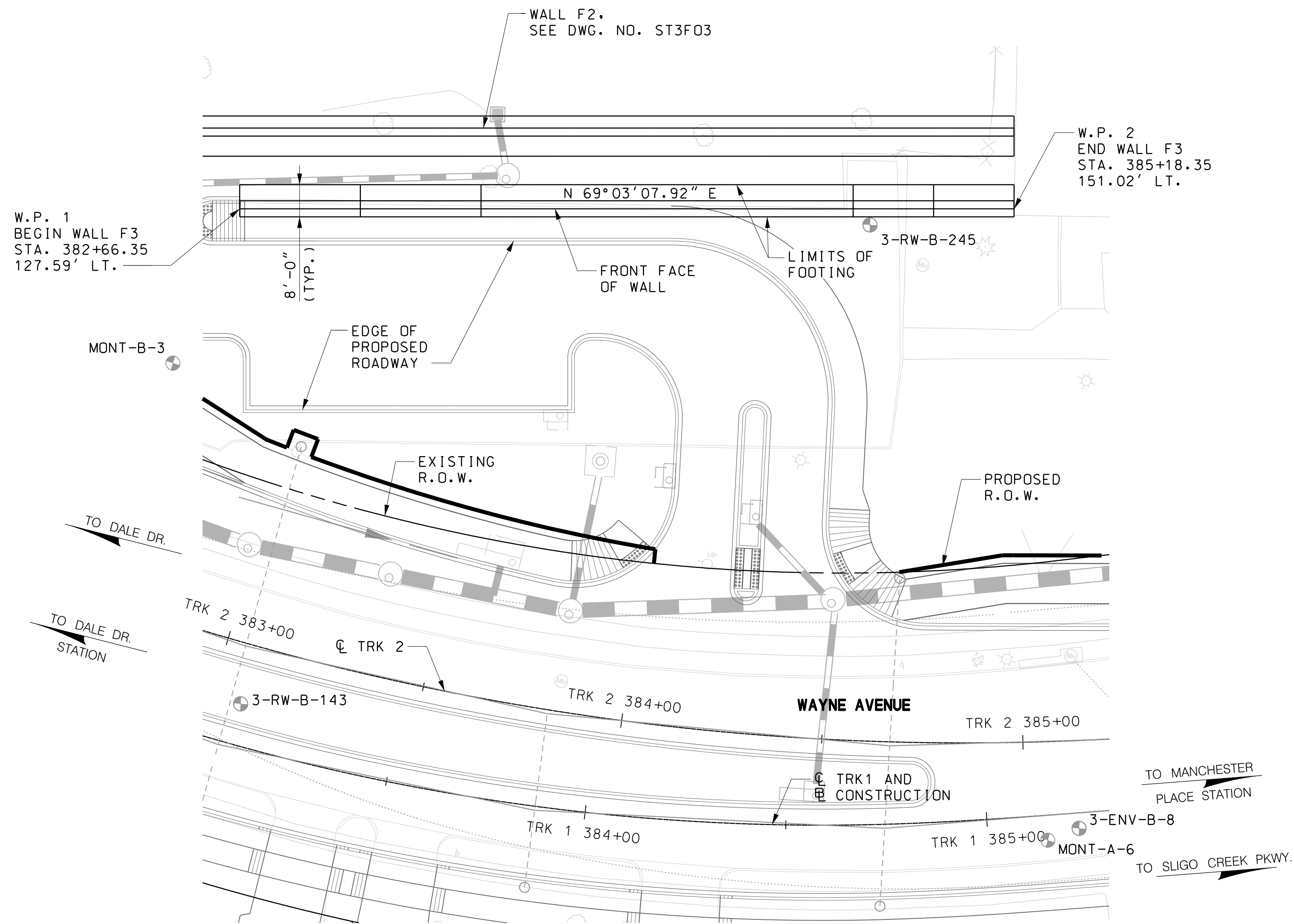
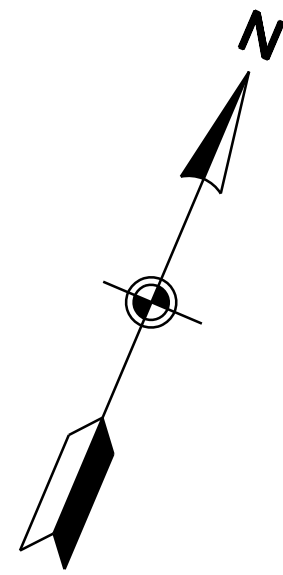


DEVELOPED ELEVATION - WALL F2
SCALE: 1" = 20'-0"



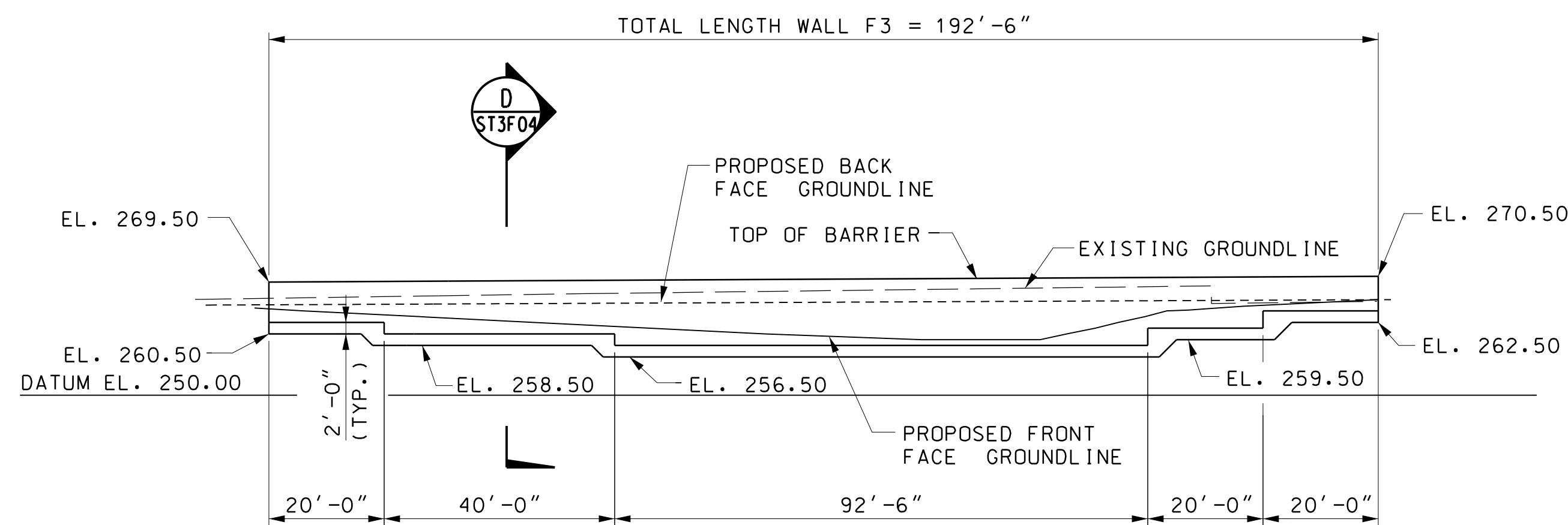
SECTION
SCALE: 1/4" = 1'-0'
REF: ST3F03

- NOTES:**
1. ALL DIMENSIONS GIVEN AT FRONT FACE OF WALL.
 2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
 3. FOR GENERAL NOTES, SEE DRAWING NO. ST3F01.



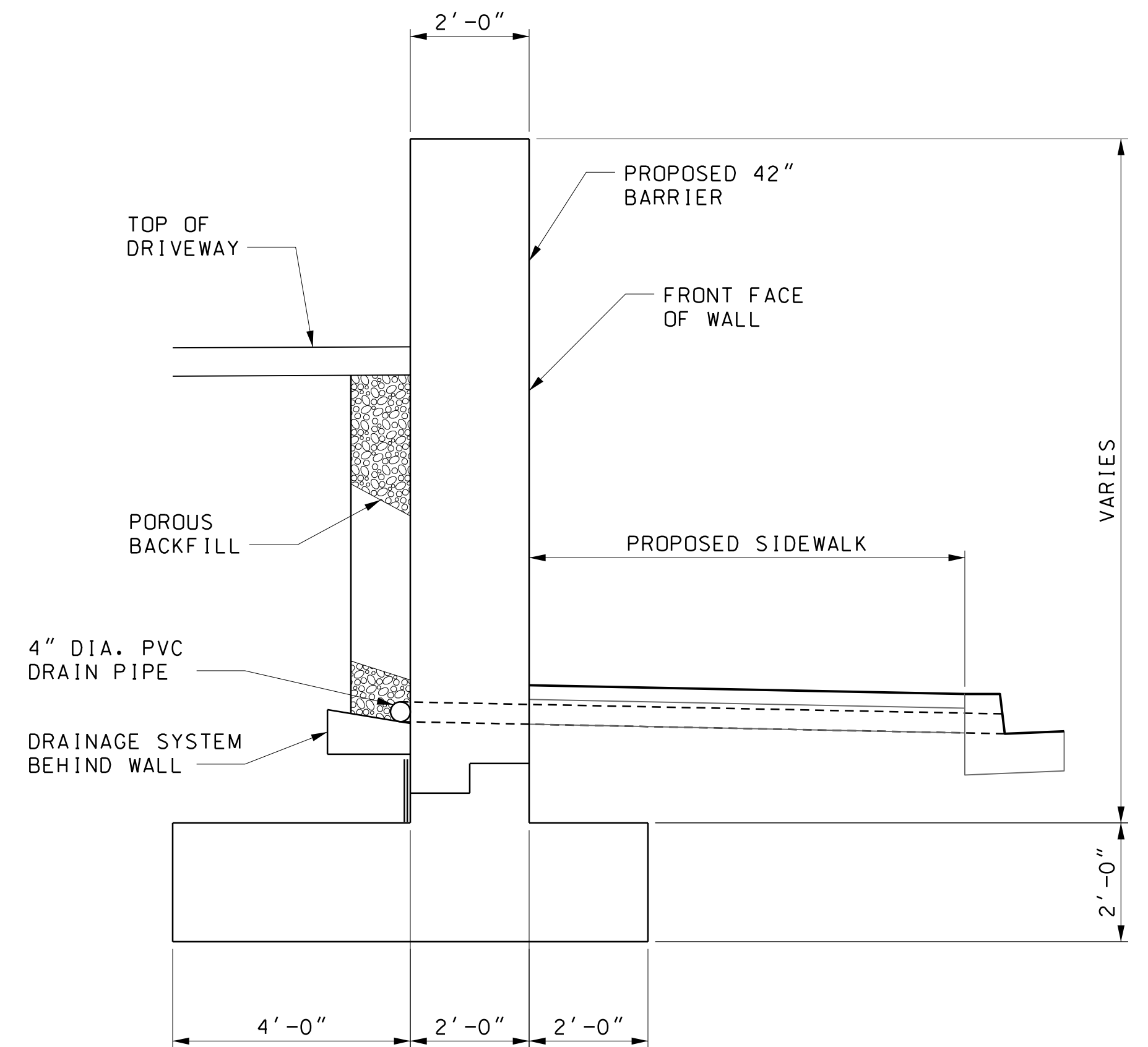
PLAN

SCALE: 1" = 20'-0"



ELEVATION WALL F3

SCALE: 1" = 20'-0"



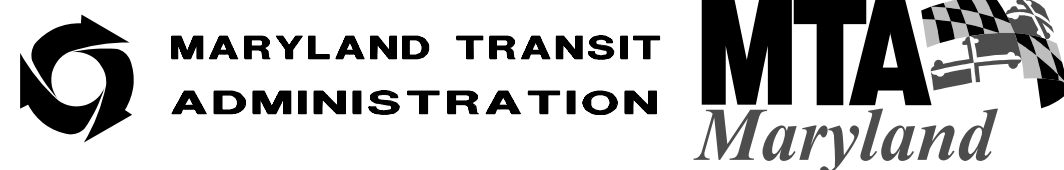
TYPICAL SECTION

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

NOTES:

1. ALL DIMENSIONS GIVEN AT FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
3. FOR GENERAL NOTES, SEE DRAWING NO. ST3F01.

MARYLAND DEPARTMENT OF TRANSPORTATION



JACOBS

PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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DESIGN
DKN
SLH
DJK
CHECK
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

SILVER SPRING INTERNATIONAL MIDDLE SCHOOL
RETAINING WALL F3

DATE: DECEMBER 2013

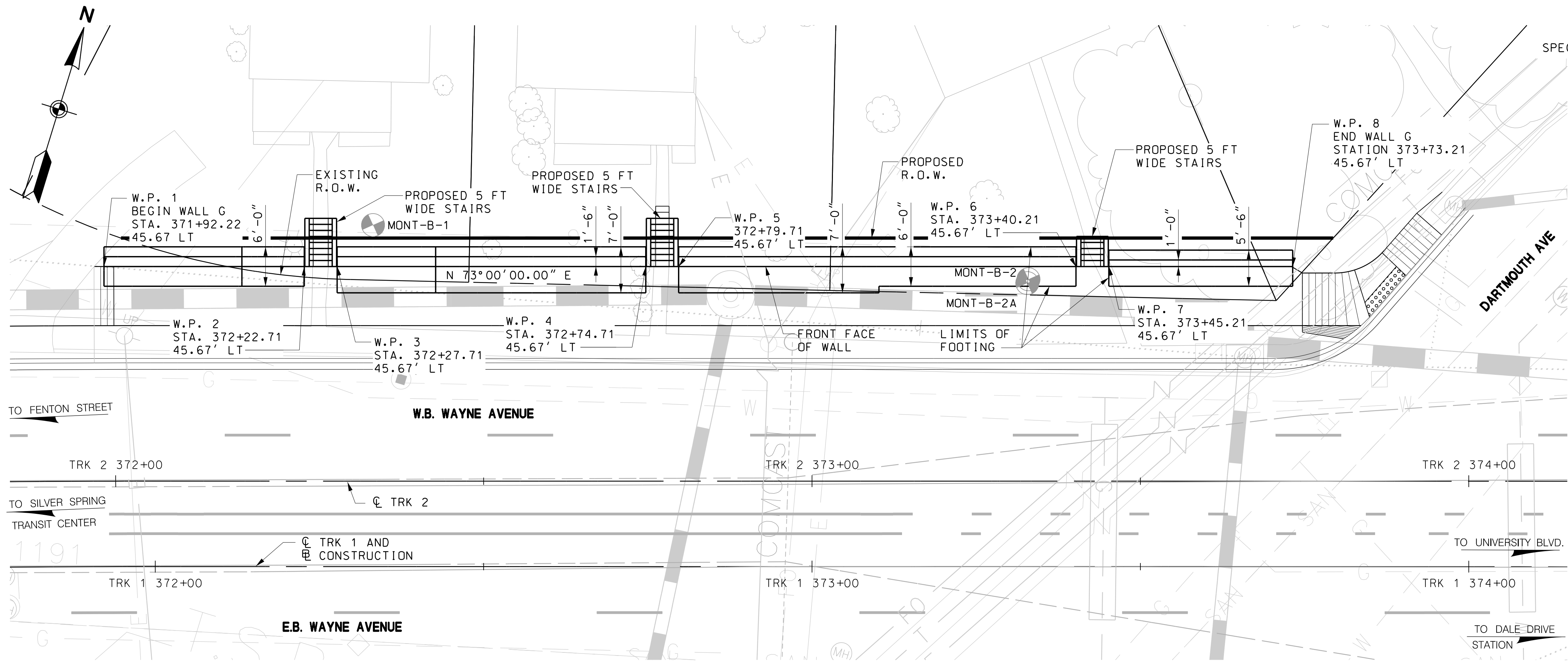
SCALE: 1" = 20'-0"

CONTRACT NO.
T-1042-0220

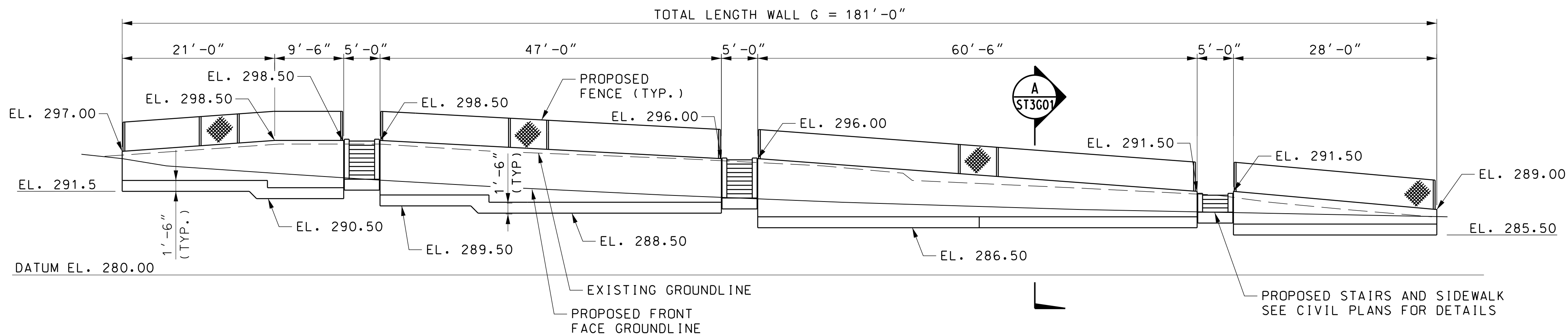
DRAWING NO.
ST3F04

SHEET NO.
572 OF 828

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 03\Structures\F-Ret wall in school parking lot\Sheet Files\1042pST3f03.dgn 12/9/2013



PLAN
SCALE: 1" = 10'-0"



ELEVATION WALL G
SCALE: 1" = 10'-0"

GENERAL NOTES

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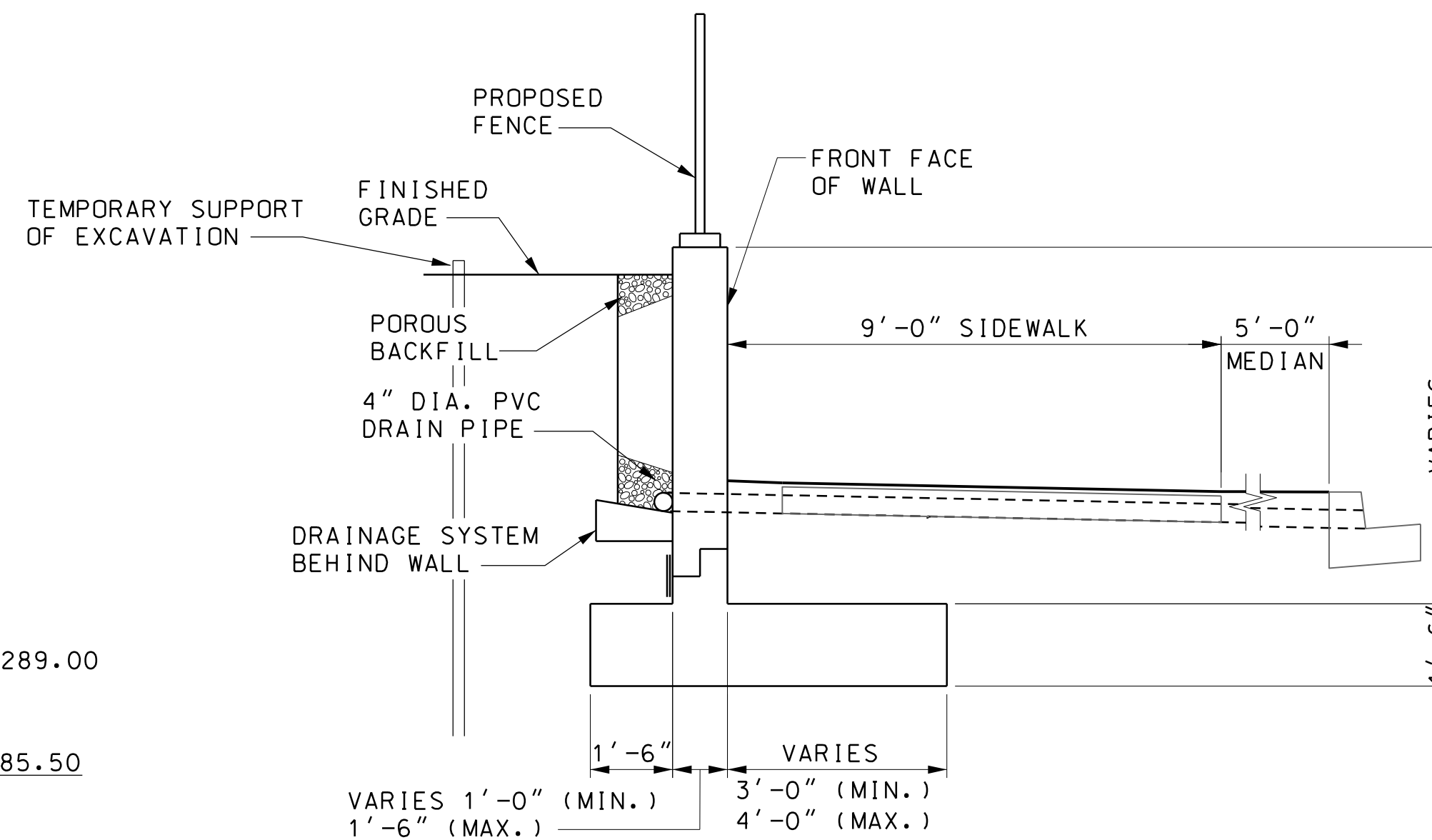
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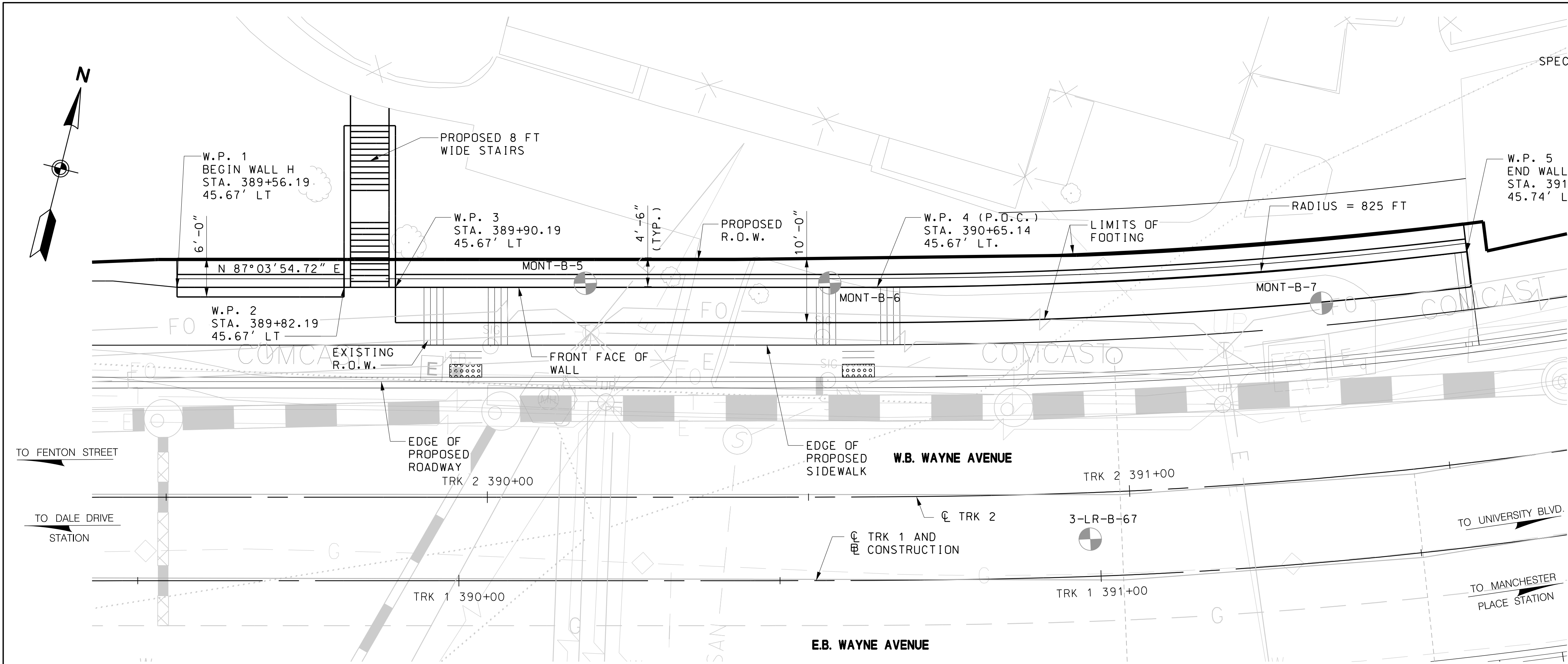
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TYPICAL SECTION
SCALE: 1/4" = 1'-0"

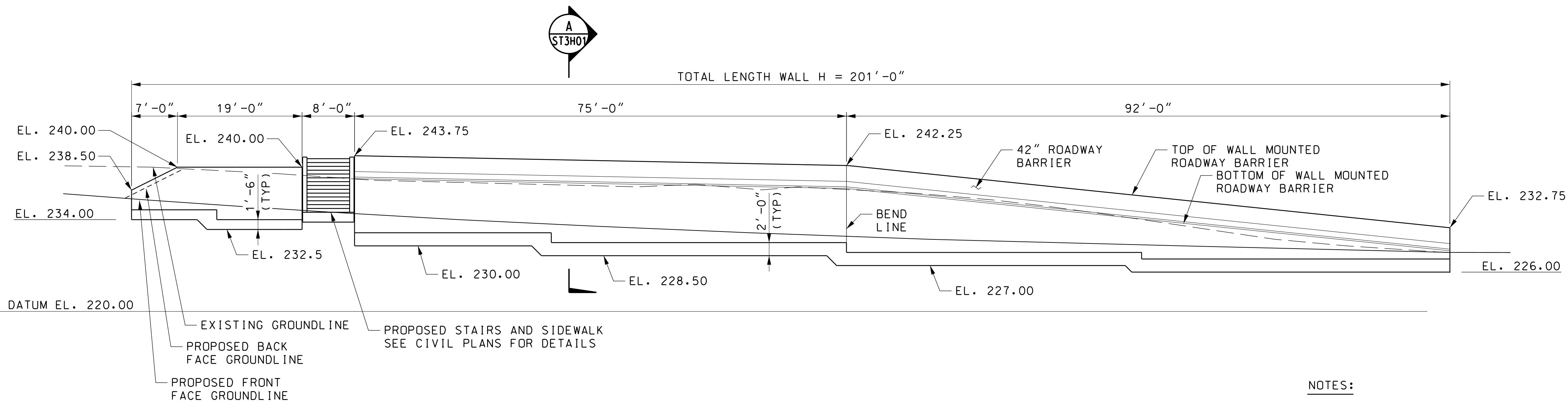
NOTES:

- ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
- FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.



PLAN

SCALE: 1" = 10'-0"



DEVELOPED ELEVATION WALL H

SCALE: 1" = 10'-0"

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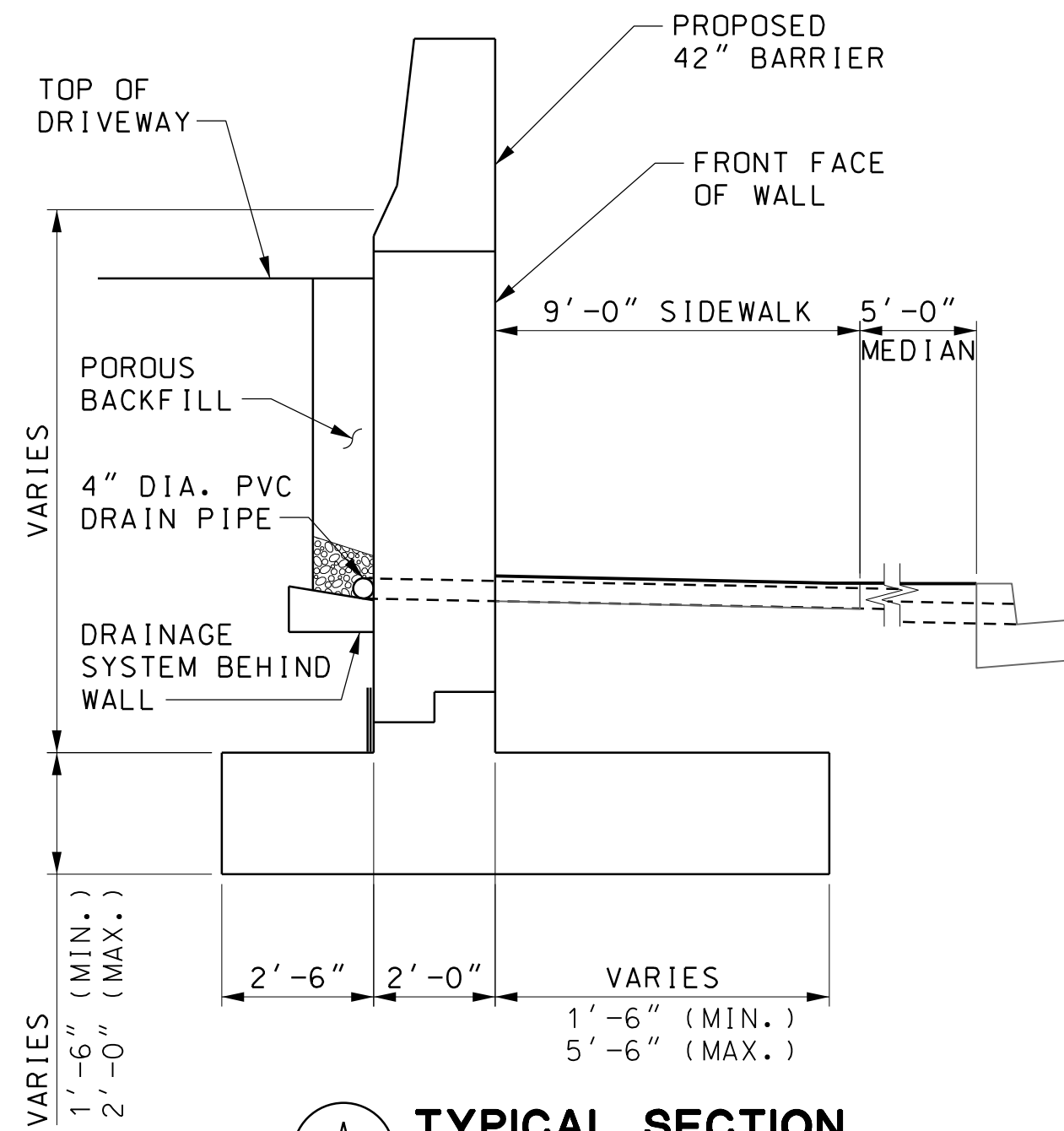
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TYPICAL SECTION

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

NOTES:

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MARYLAND DEPARTMENT OF TRANSPORTATION



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APPR CHECK DRAWN DESIGN
DKN
SLH
DJL

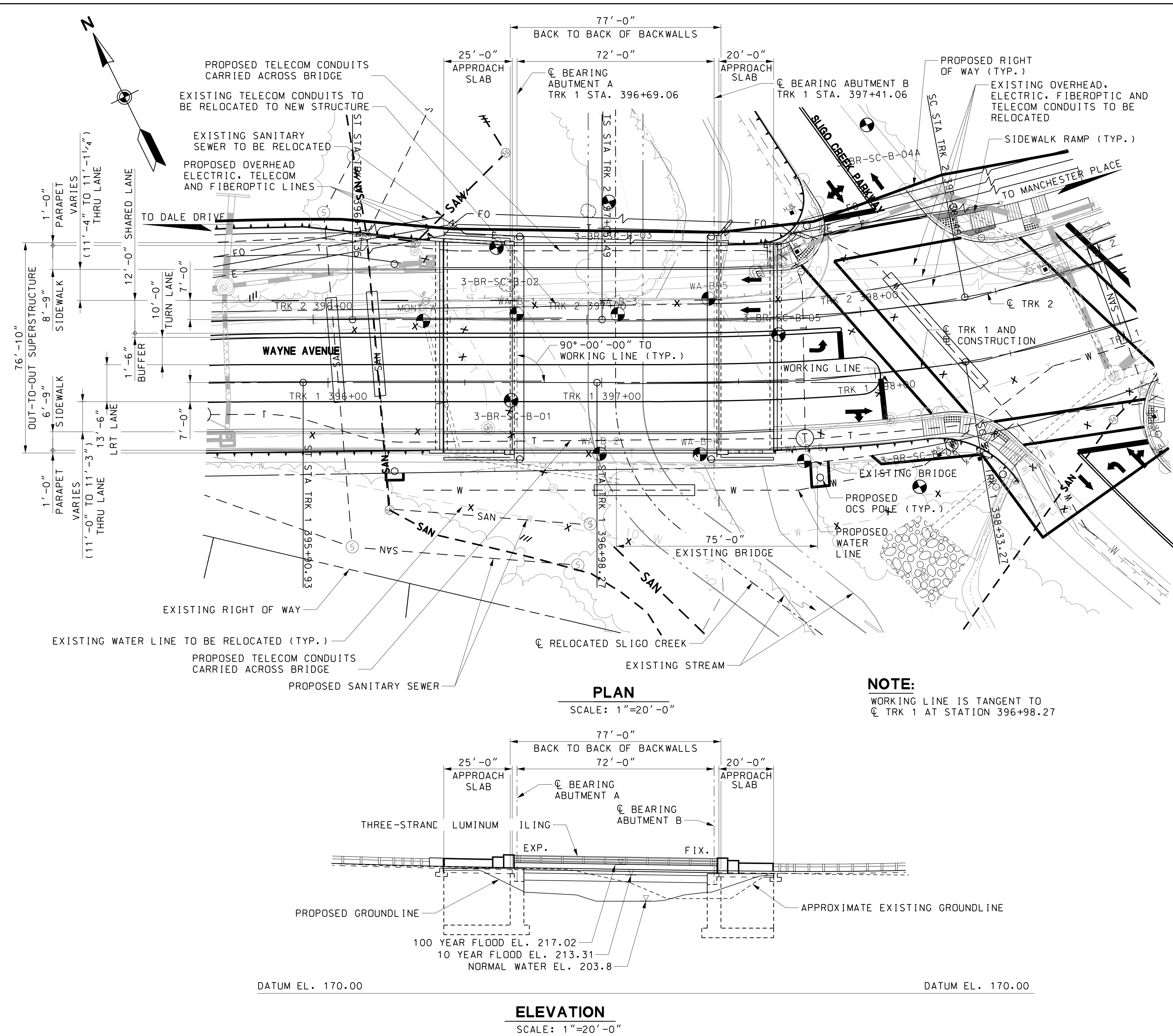
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

WAYNE AVENUE RETAINING WALL H
STA TRK 1 389+56.19 TO 391+63.01

DATE: DECEMBER 2013

SCALE: 1" = 10'-0"

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST3H01
SHEET NO.
574 OF 828



GENERAL NOTES:

SPECIFICATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SIXTH EDITION DATED 2012, INCLUDING ALL INTERIM SPECIFICATIONS

MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA

LOAD AND RESISTANCE FACTOR (LRFD) DESIGN

REINFORCING STEEL DESIGN: $F_y = 60,000$ PSI.

PRESTRESSED CONCRETE DESIGN: PRESTRESSED LOAD AND RESISTANCE FACTOR DESIGN METHOD. ALLOWABLE MAXIMUM CONCRETE TENSILE STRESS IN PRE-COMPRESSED TENSILE ZONE = $3/F_c$. THE PRECAST CONCRETE BEAMS ARE DESIGNED AS NONCOMPOSITE SIMPLE SPANS FOR ALL DEAD LOADS EXCEPT THE PARAPET AND FUTURE WEARING SURFACE. THE PRECAST BEAMS ARE DESIGNED AS COMPOSITE SIMPLE SPANS FOR LIVE LOAD AS WELL AS THE PARAPET AND FUTURE WEARING SURFACE DEAD LOADS.

LOADING: HL-93 WITH PROVISIONS FOR FUTURE 2" WEARING SURFACE.

LRT VEHICLE USING THE AW4 WEIGHT AND ALL WORK VEHICLES PER MTA DESIGN CRITERIA.

CONCRETE: ALL CONCRETE FOR ABUTMENT BACKWALLS AND PARAPETS AT ABUTMENTS AND ENTIRE SUPERSTRUCTURE SHALL BE MIX NO. 6 (4,500 PSI). ALL OTHER STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

REINFORCING STEEL: REINFORCING STEEL FOR ABUTMENT BACKWALLS, CHEEKWALLS, BEARING SEAT PADS, BRIDGE SEAT AREAS, END POSTS AND ENTIRE SUPERSTRUCTURE SHALL BE CRR (CORROSION RESISTANT REINFORCEMENT). CRR STEELS SHALL CONFORM TO ONE OF THE TWO TYPES (ASTM A1035 OR STAINLESS STEEL). THE MINIMUM YIELD STRENGTH SHALL BE: 100 KSI FOR ASTM A1035 AND 60 KSI FOR STAINLESS STEEL.

REINFORCING STEEL FOR SUBSTRUCTURE NOT INCLUDING ABUTMENT BACKWALLS, CHEEKWALLS, BEARING SEAT PADS, BRIDGE SEAT AREAS AND END POSTS SHALL CONFORM TO A 615, GRADE 60.

ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

KEYS: ALL KEYS ARE NOMINAL SIZE.

PRESTRESSED CONCRETE: THE MINIMUM COMPRESSIVE STRENGTH FOR PRESTRESSED CONCRETE AT THE AGE OF 28 DAYS SHALL BE $f'_c=10,000$ PSI. THE MINIMUM COMPRESSIVE STRENGTH AT THE TRANSFER OF PRESTRESS SHALL BE $f'_c=8,000$ PSI

PRESTRESSED STRANDS: PRETENSIONING STEEL SHALL CONSIST OF 0.6" DIAMETER 7-WIRE BRIGHT LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF M 203, GRADE 270. EACH 0.6" STRAND SHALL BE PRETENSIONED TO 0.75 F's.

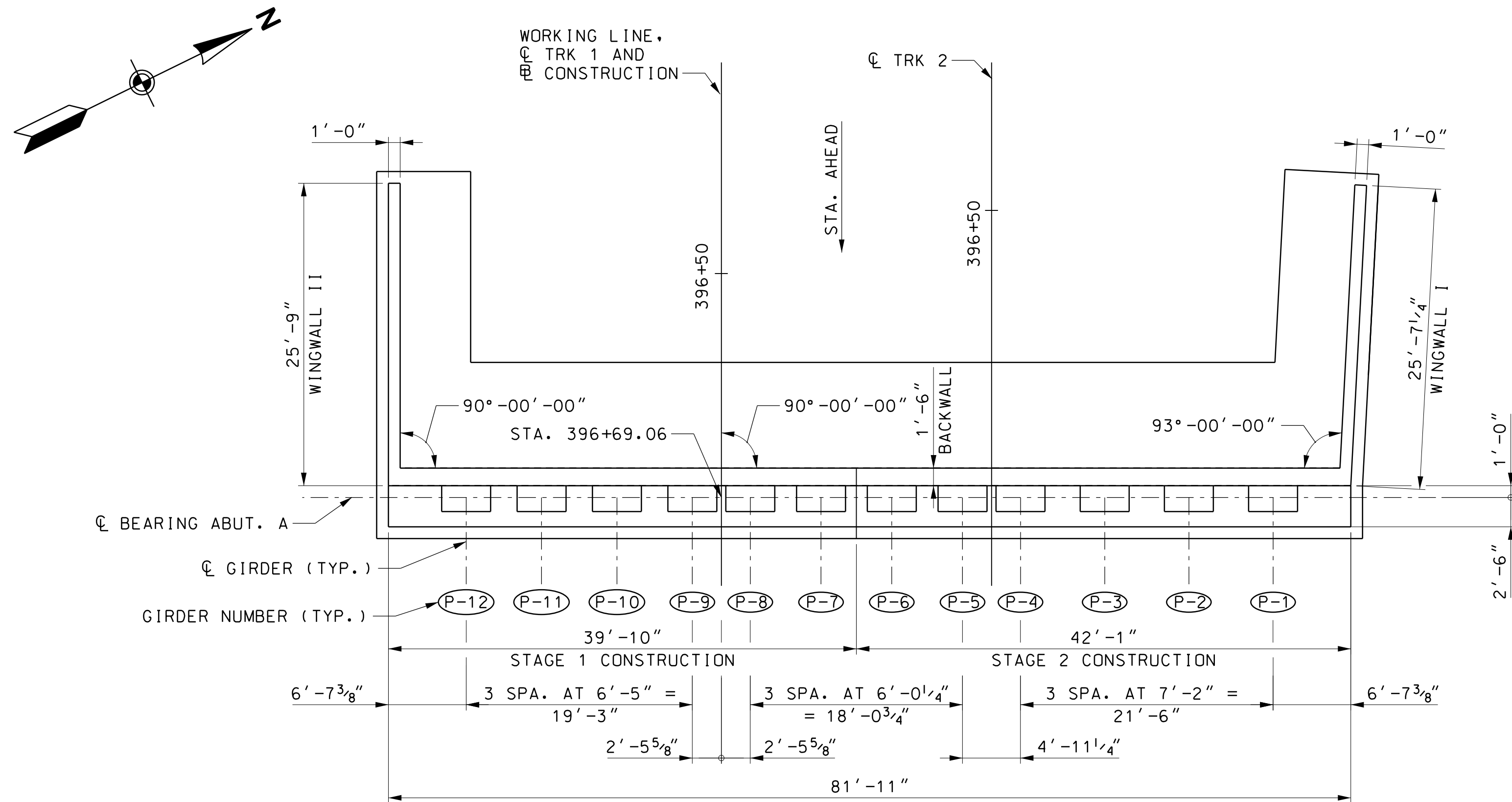
HANDLING PRESTRESSED UNITS: IN HANDLING, THE UNITS MUST BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND MUST BE PICKED UP ONLY BY MEANS OF LIFTING DEVICES PROVIDED.

TRACK: EMBEDDED TRACK WILL BE UTILIZED.

EXISTING STRUCTURE: EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY. SEE DWG ST3A07 FOR EXISTING BRIDGE TYPICAL SECTION.

VERTICAL ALIGNMENT DATA
SCALE: NOT TO SCALE
NOTE: ONLY VERTICAL ALIGNMENT DATA FOR TRK 1 SHOWN.

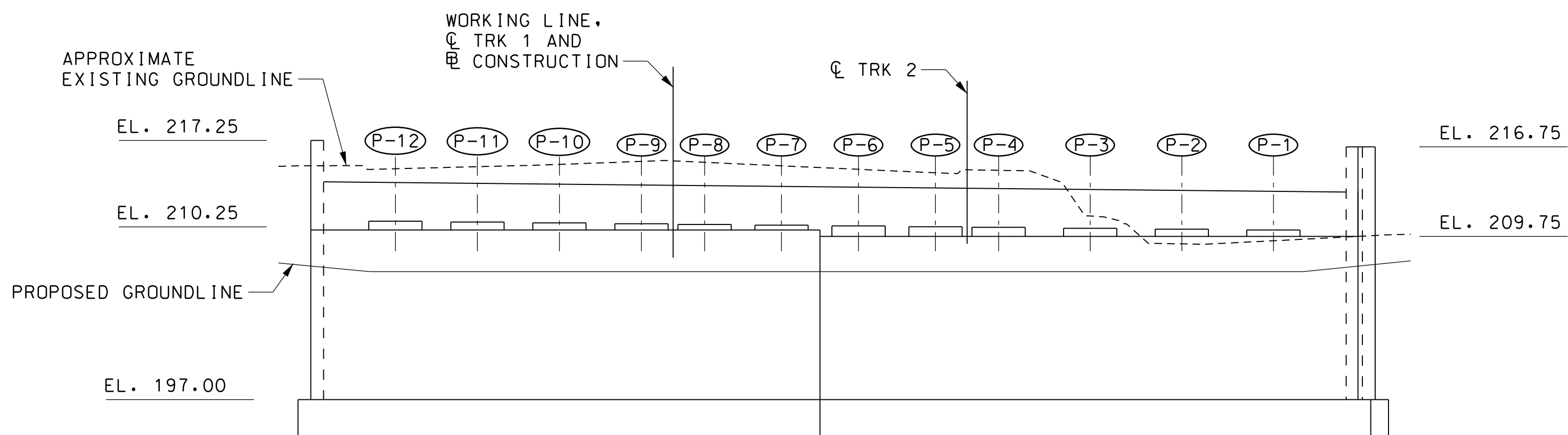
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 03\Structures\A-Wayne Ave Hwy Bridge and Ret Walls\Sheet Files\1042pst3a01.dgn 12/6/2013



NOTE: OCS POLES MOUNTED TO TOP OF ABUTMENT BEAM SEAT NOT SHOWN FOR CLARITY. SEE VOLUME 9 FOR ADDITIONAL DETAILS.

PLAN

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



ELEVATION

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

MARYLAND DEPARTMENT OF TRANSPORTATION



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

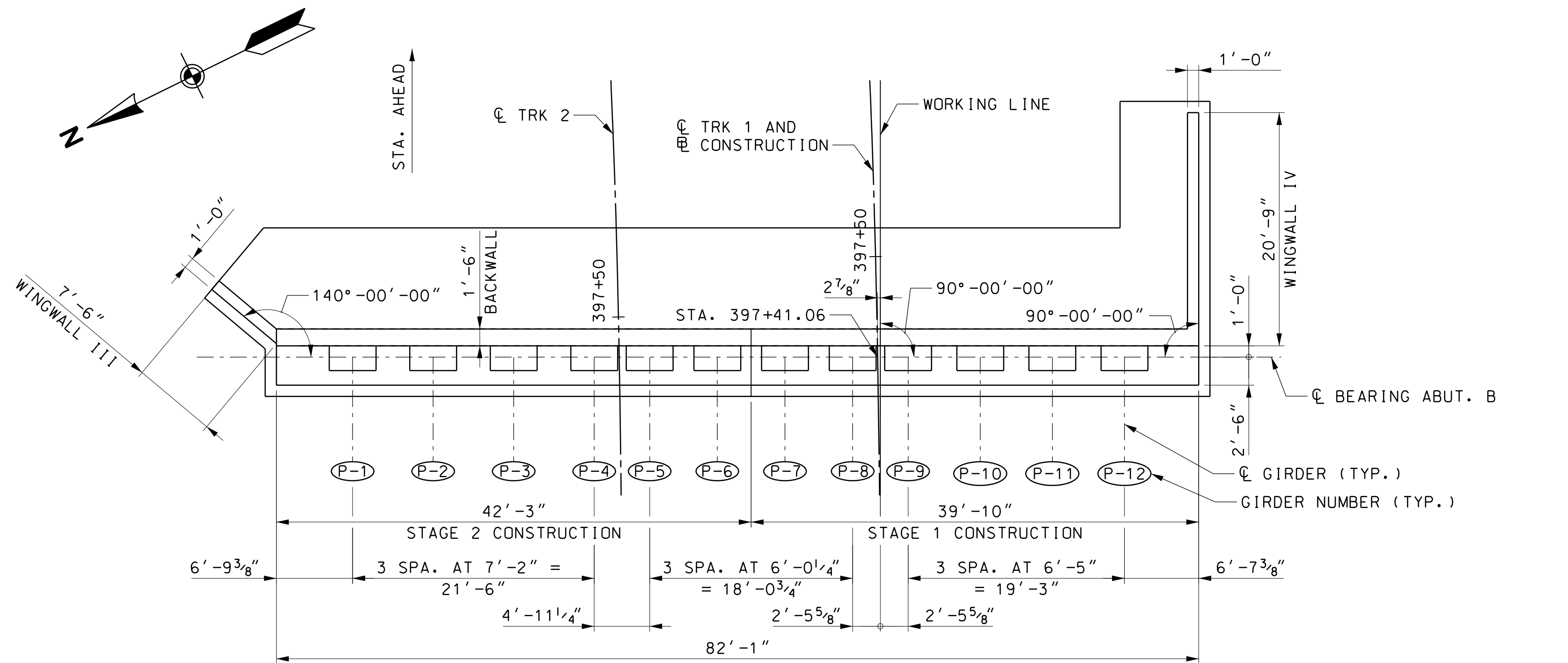
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

APPR	CHECK	DRAWN	DESIGN	ADD	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				SC		DRAWING NO. ST3A02
				CES	WAYNE AVENUE BRIDGE OVER SLIGO CREEK ABUTMENT A – PLAN AND ELEVATION	SHEET NO. 576 OF 828

DATE: DECEMBER 2013

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

576 OF 828



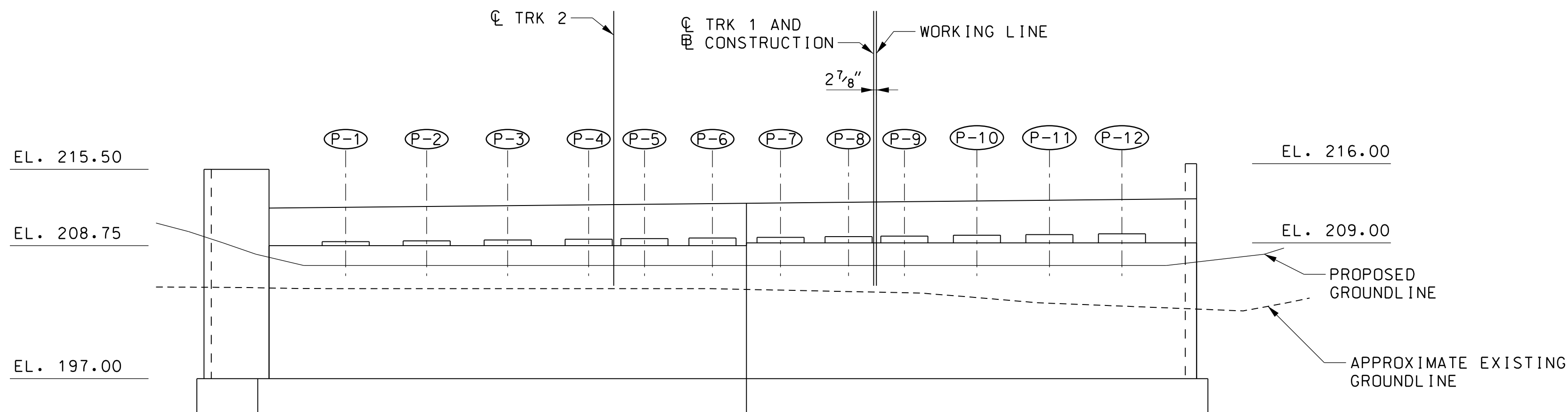
NOTES:

1. END OF WINGWALL III SHALL TIE INTO EXISTING RETAINING WALL.

2. OCS POLES MOUNTED TO TOP OF ABUTMENT BEAM SEAT NOT SHOWN FOR CLARITY. SEE VOLUME 9 FOR ADDITIONAL DETAILS.

PLAN

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



ELEVATION

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

MARYLAND DEPARTMENT OF TRANSPORTATION



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License No. Expiration Date

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APPR	CHECK	DRAWN	DESIGN

ADD

SC

CES

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

WAYNE AVENUE BRIDGE OVER SLIGO CREEK
ABUTMENT B – PLAN AND ELEVATION

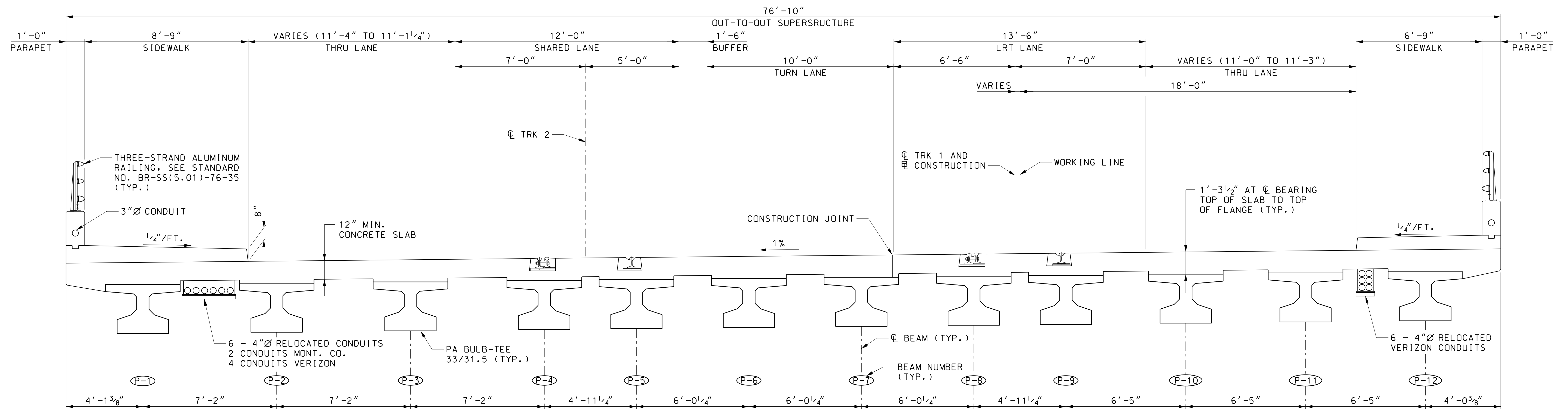
DATE: DECEMBER 2013

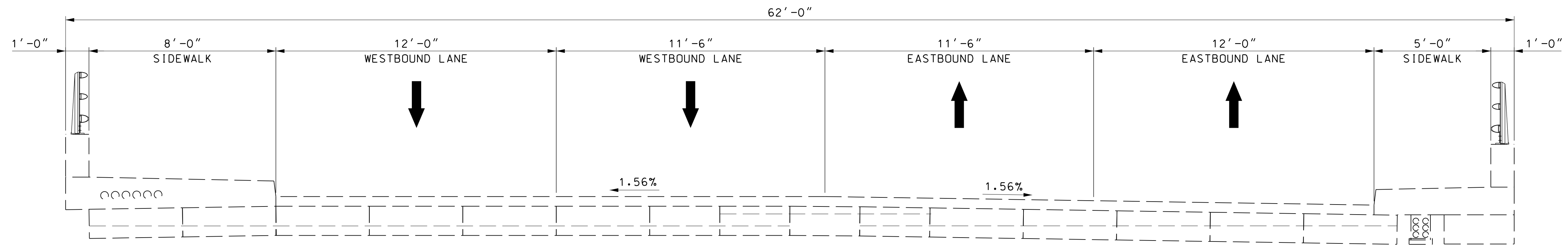
SCALE: 1/8" = 1'-0"

CONTRACT NO.
T-1042-0220

DRAWING NO.
ST3A04

SHEET NO.
577 OF 828

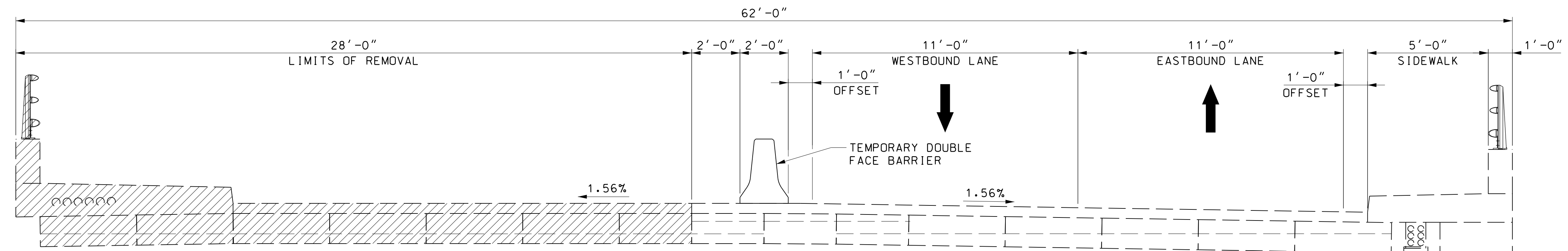




TYPICAL SECTION - EXISTING

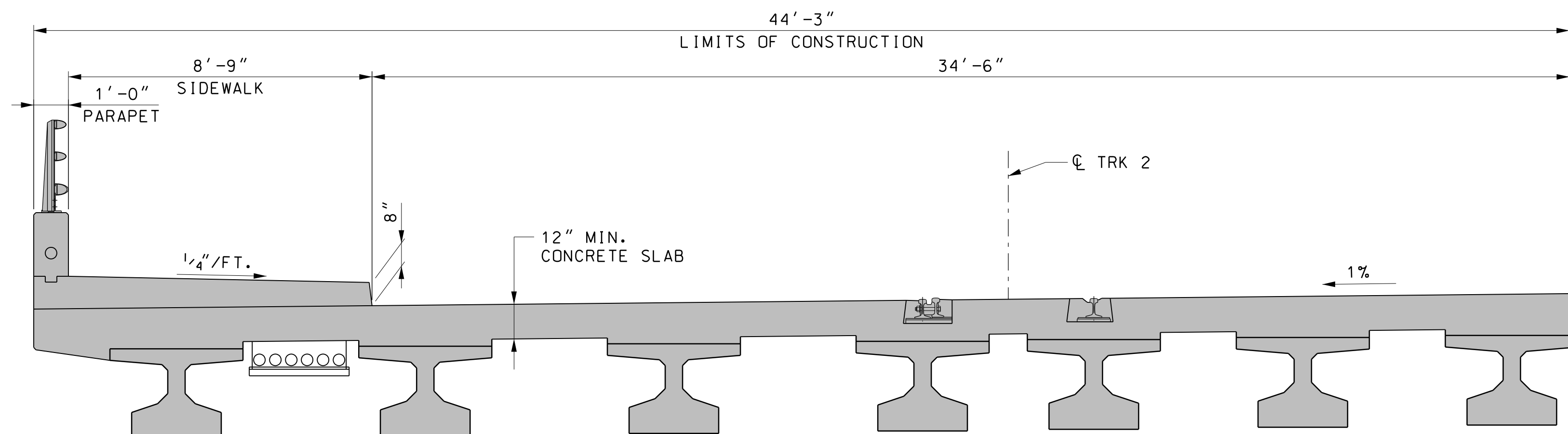
SCALE: $\frac{3}{8}'' = 1' - 0''$

NOTE:
TEMPORARY BARRIER SHALL BE ANCHORED
TO THE DECK IN ACCORDANCE WITH MSHA
STANDARD M(5.09)-83-143. CONTRACTOR
SHALL AVOID DAMAGING EXISTING STEEL
TIE RODS AND PRESTRESSING STEEL.



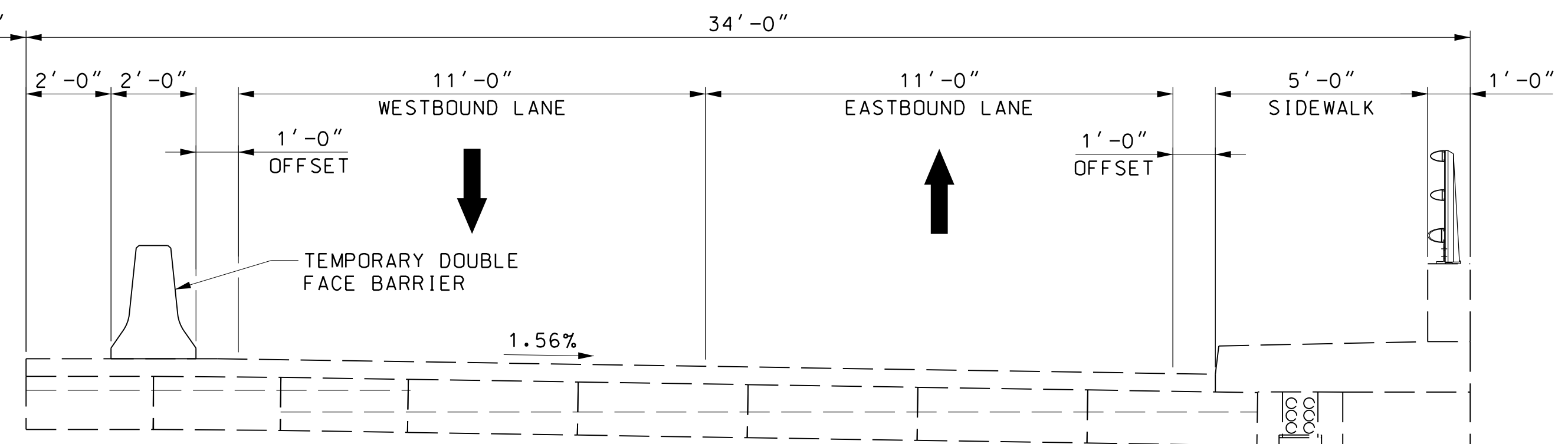
STAGE I - REMOVAL

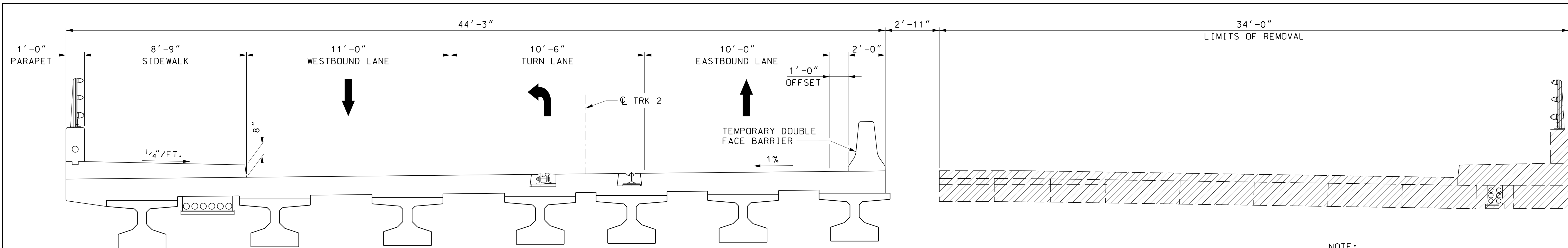
SCALE: $\frac{3}{8}'' = 1' - 0''$



STAGE I - CONSTRUCTION

SCALE: $\frac{3}{8}'' = 1' - 0''$

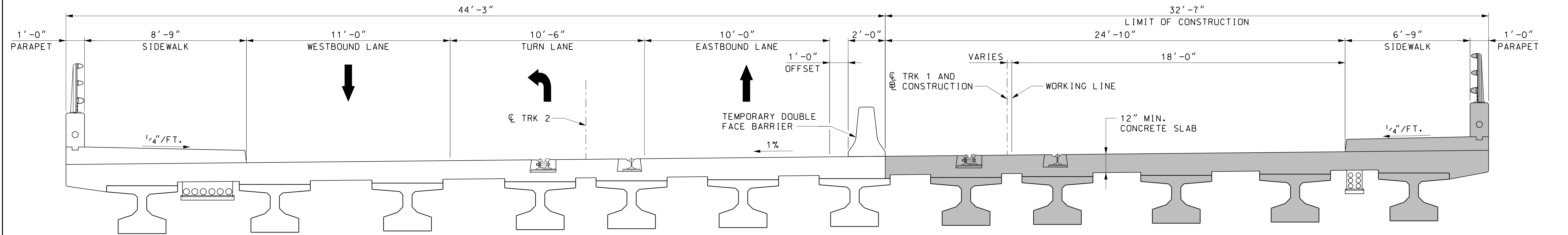




STAGE II - REMOVAL

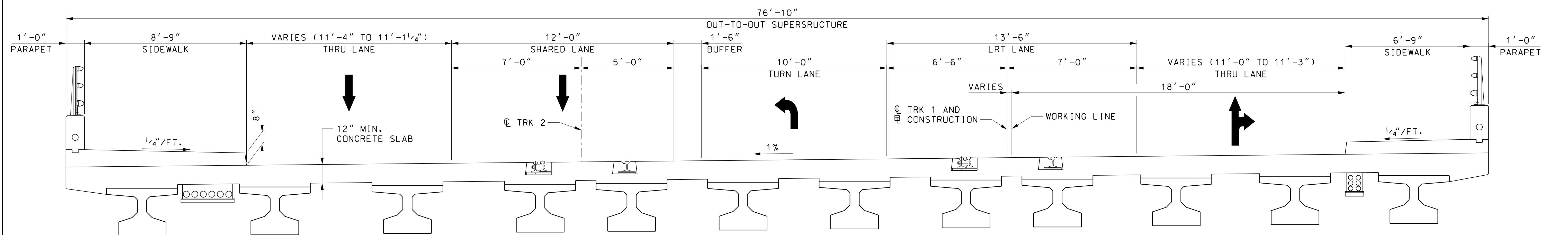
SCALE: 3/8"=1'-0"

NOTE:
TEMPORARY BARRIER SHALL BE ANCHORED
TO THE DECK IN ACCORDANCE WITH MSHA
STANDARD M(5.09)-83-143. CONTRACTOR
SHALL AVOID DAMAGING EXISTING STEEL
TIE RODS AND PRESTRESSING STEEL.



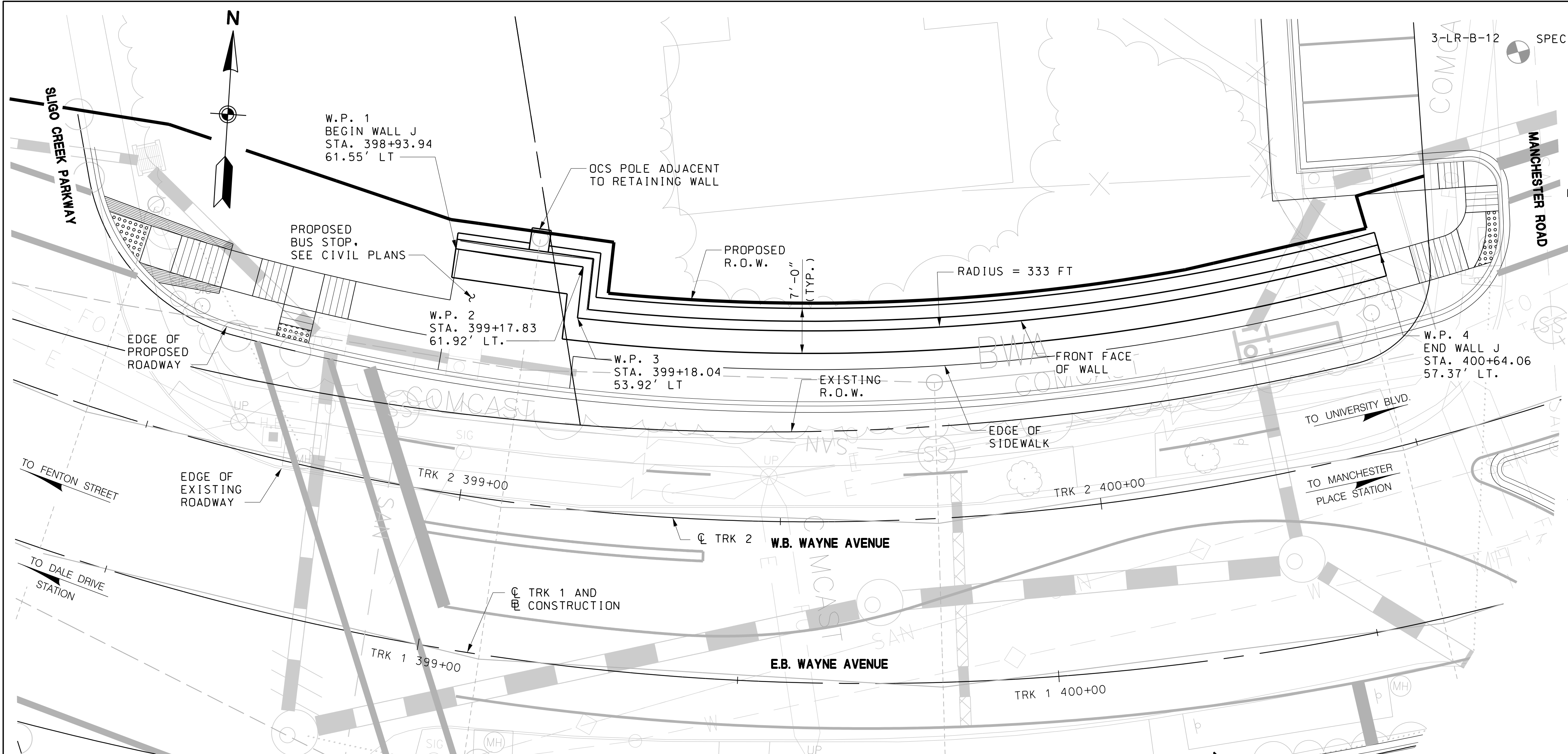
STAGE II - CONSTRUCTION

SCALE: 3/8"=1'-0"



TYPICAL SECTION - PROPOSED

SCALE: 3/8"=1'-0"



GENERAL NOTES

SPECIFICATIONS: -ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
-AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2010, INCLUDING ALL INTERIM SPECIFICATIONS.
-MTA RED/PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

CONCRETE: ALL STRUCTURE CONCRETE FOR CAST-IN-PLACE WALL SHALL BE MIX NO. 3 (3.5 KSI), EXCEPT IF THE FRONT FACE OF THE WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, MIX NO. 6 (4.5 KSI) CONCRETE SHALL BE USED.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL SPLICES NOT SHOWN, SHALL BE LAPPED AS PER MD SHA STANDARD BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH EXCEPTION OF BARS ON THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER. IF THE FRONT FACE OF A RETAINING WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, EPOXY COATED REINFORCEMENT SHALL BE USED IN THE FRONT FACE OF THE STEM. ALL REINFORCEMENT IN INTEGRAL ROADWAY BARRIERS SHALL BE EPOXY COATED.

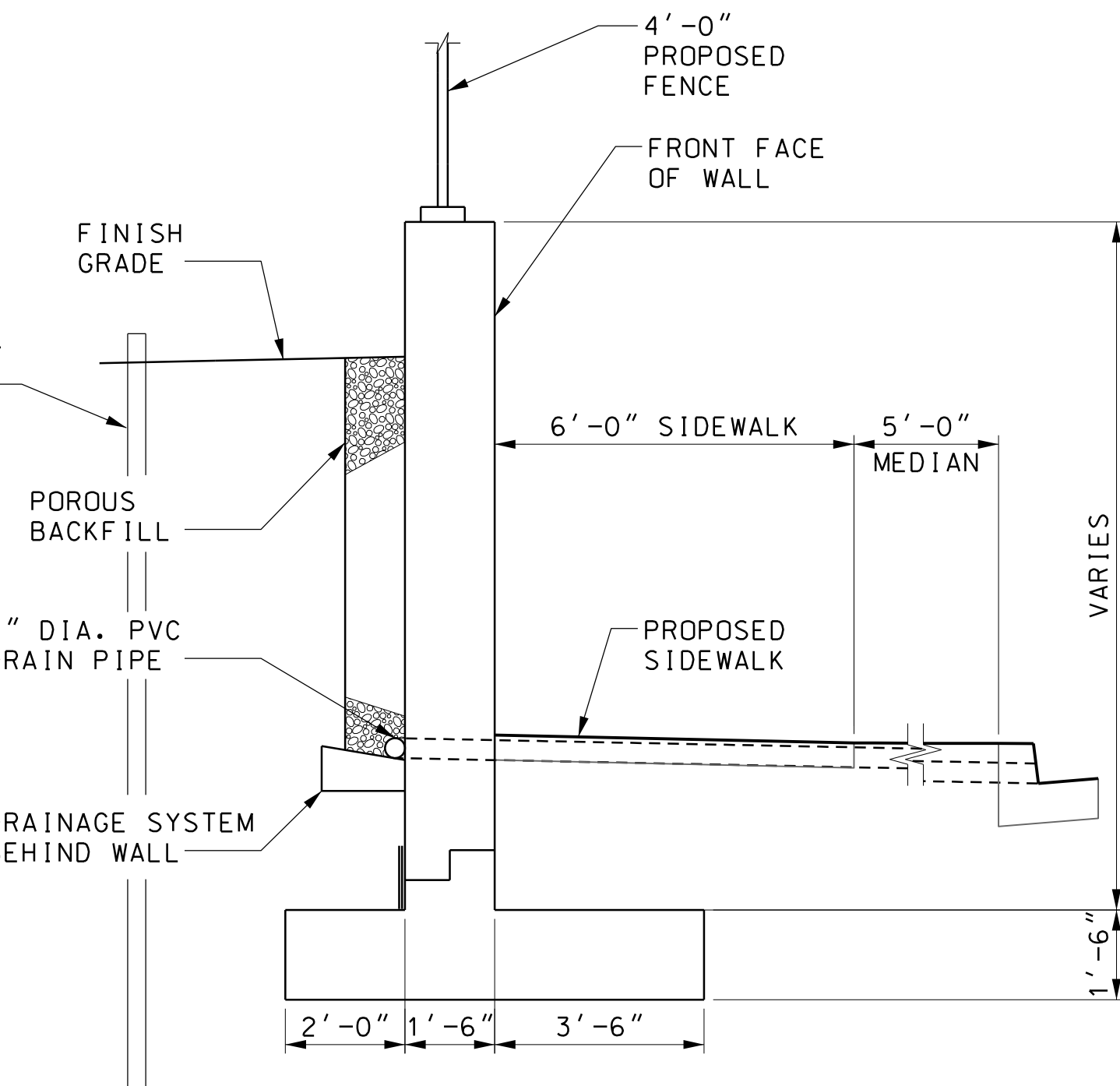
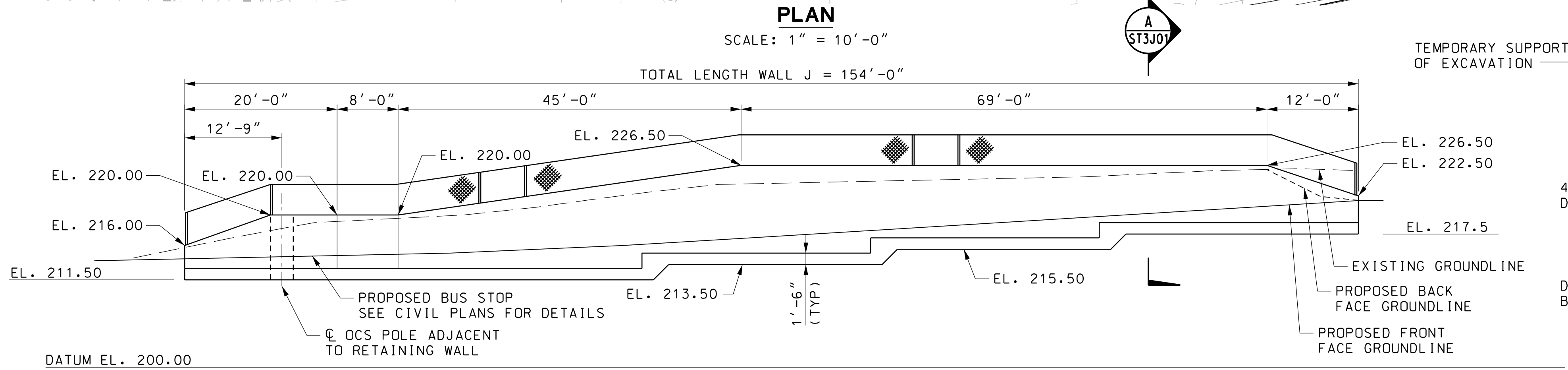
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

KEYS: ALL KEYS ARE NOMINAL SIZE.

CHAMFERS: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, UNLESS NOTED OTHERWISE.

LOADING: ALL APPLICABLE SURCHARGE LOADS SHALL BE PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.

EXISTING STRUCTURES: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE (+/-) MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.

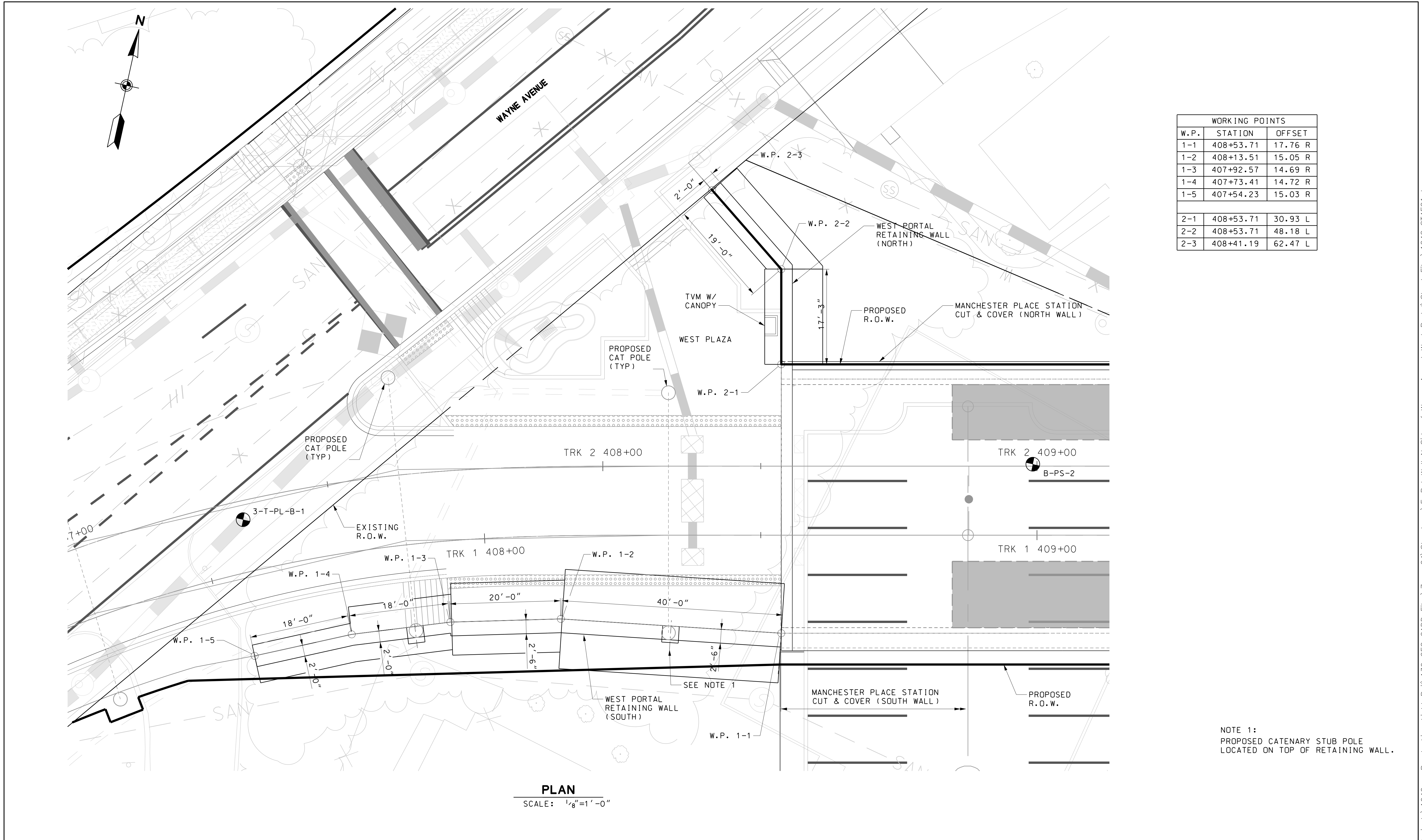


DEVELOPED ELEVATION WALL J
SCALE: 1" = 10'-0"

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

- NOTES:**
- ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
 - FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 03\Structures\J-Ret Wall on S Side of Wayne Ave\Sheet Files\1042pST3J01.dgn 12/10/2013



WORKING POINTS		
W.P.	STATION	OFFSET
1-1	408+53.71	17.76 R
1-2	408+13.51	15.05 R
1-3	407+92.57	14.69 R
1-4	407+73.41	14.72 R
1-5	407+54.23	15.03 R
2-1	408+53.71	30.93 L
2-2	408+53.71	48.18 L
2-3	408+41.19	62.47 L

NOTE 1:
PROPOSED CATENARY STUB POLE
LOCATED ON TOP OF RETAINING WALL.

MD

MARYLAND DEPARTMENT OF TRANSPORTATION

MTA

MARYLAND TRANSIT ADMINISTRATION

Maryland

Gannett Fleming

WR&A

JACOBS

PROFESSIONAL CERTIFICATION

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License No. Expiration Date

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APPR

CHECK

DRAWN

DESIGN

TJ

MC

DJL

PRELIMINARY ENGINEERING

PURPLE LINE LIGHT RAIL

MANCHESTER PLACE STATION

WEST PORTAL RETAINING WALLS – PLAN

DATE: DECEMBER 2013

SCALE: AS SHOWN

CONTRACT NO.

T-1042-0220

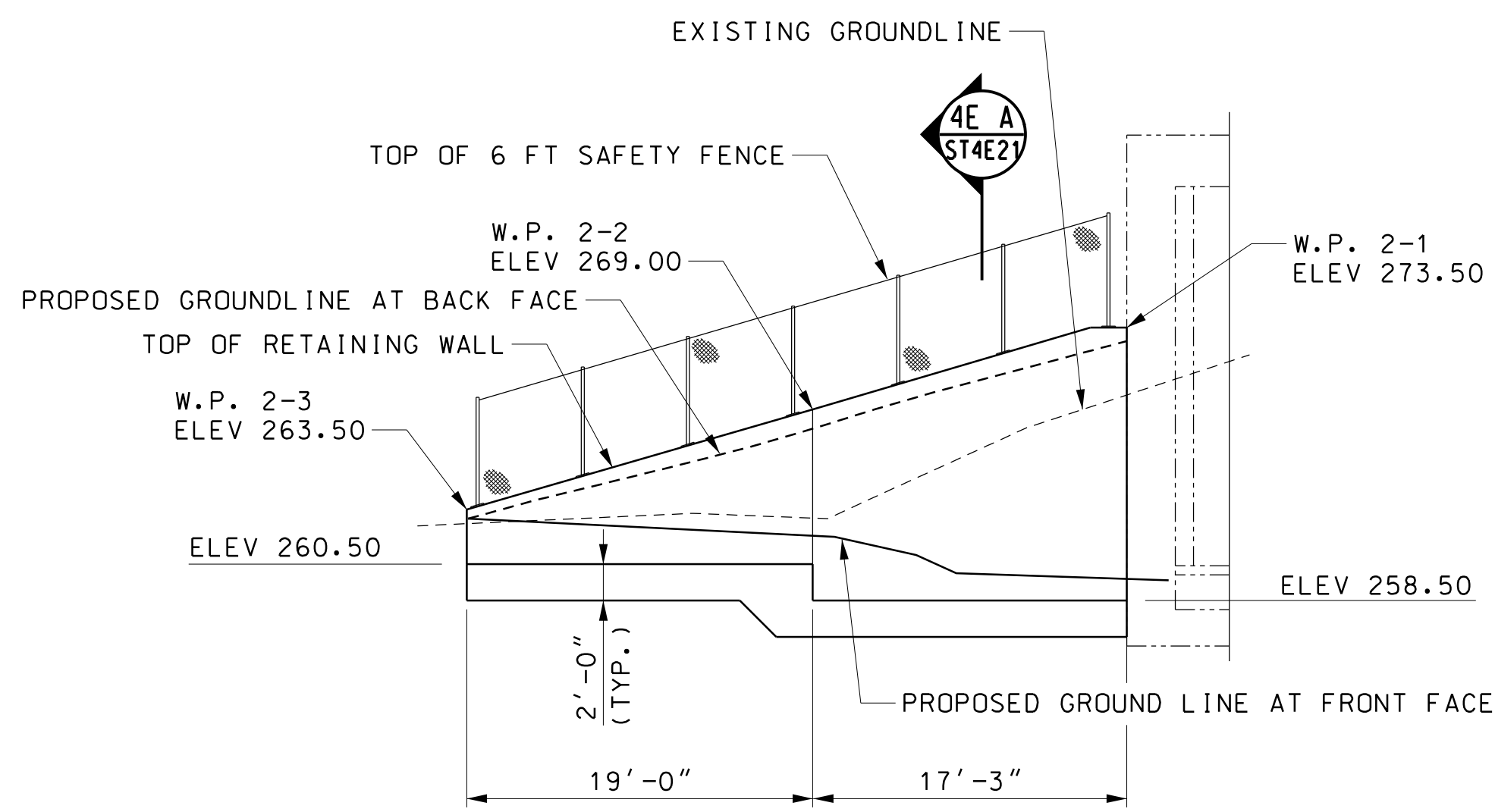
DRAWING NO.

ST4E11

SHEET NO.

582 OF 828

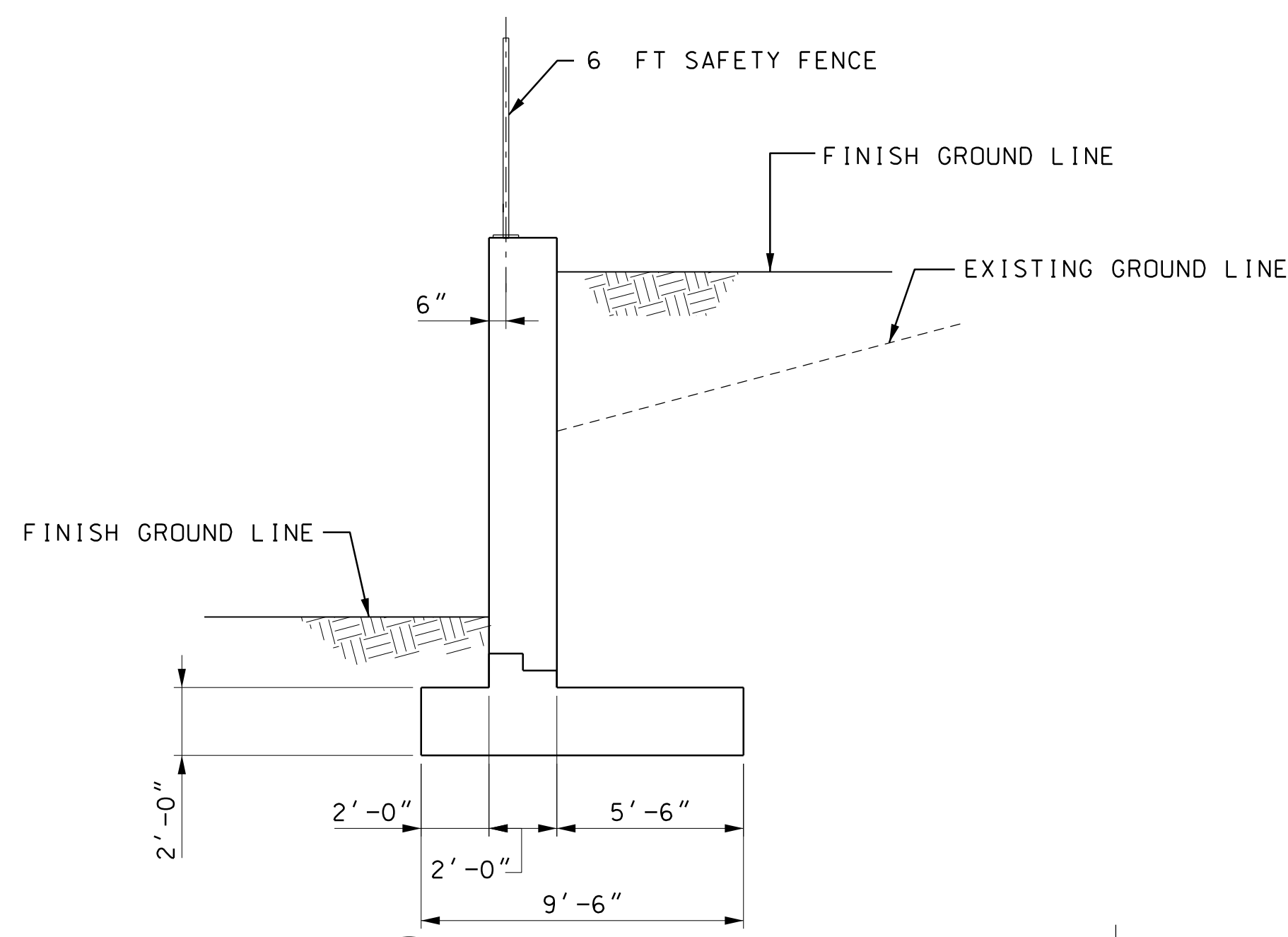
pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 04\Structures\E-Ret Wall N Side of Wayne Ave at West Portal\Sheet Files\1042pSt4E01.dgn 12/10/2013



DATUM ELEV 240.00

NORTH WALL ELEVATION

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



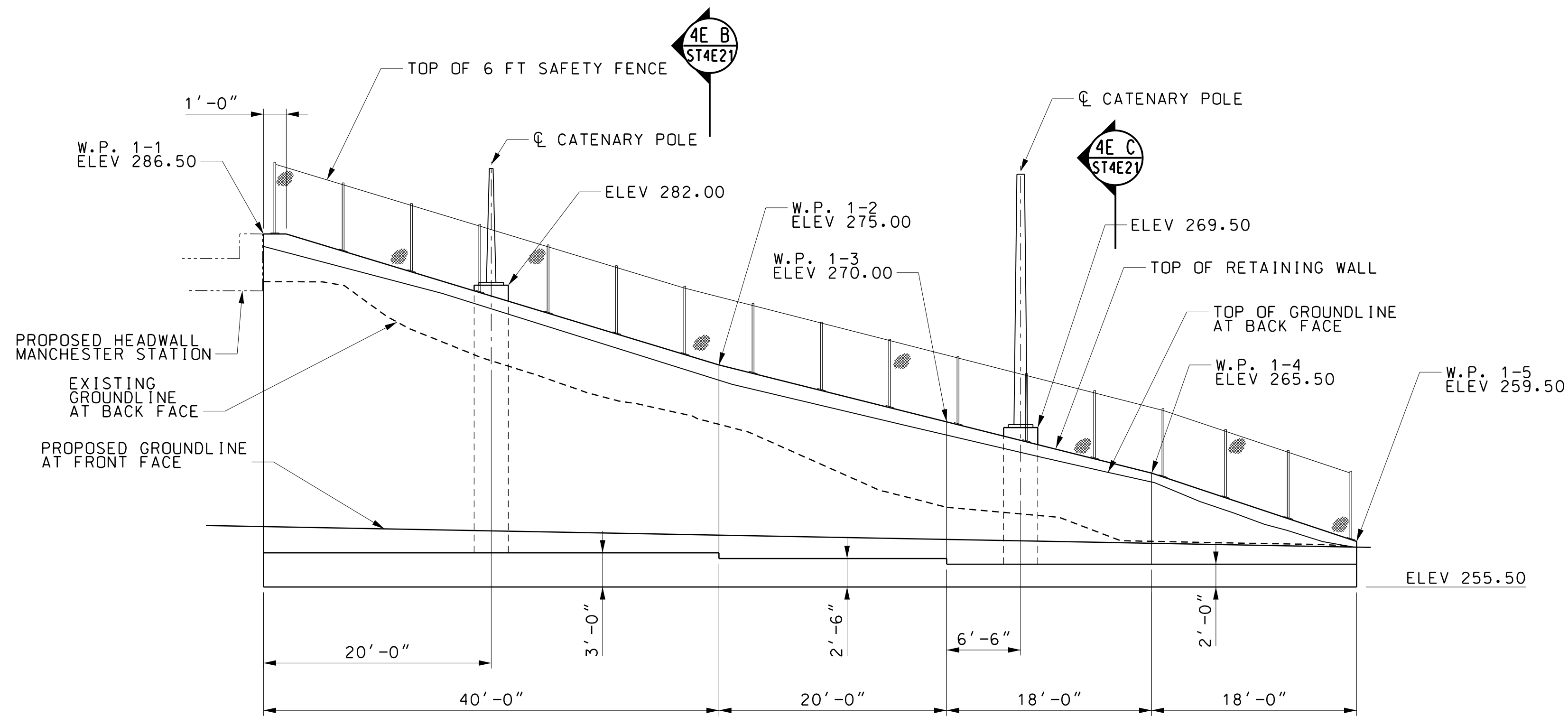
4E A
ST4E21

SECTION

SCALE: 1/4"=1'-0"
REF: ST4E21

NOTE:

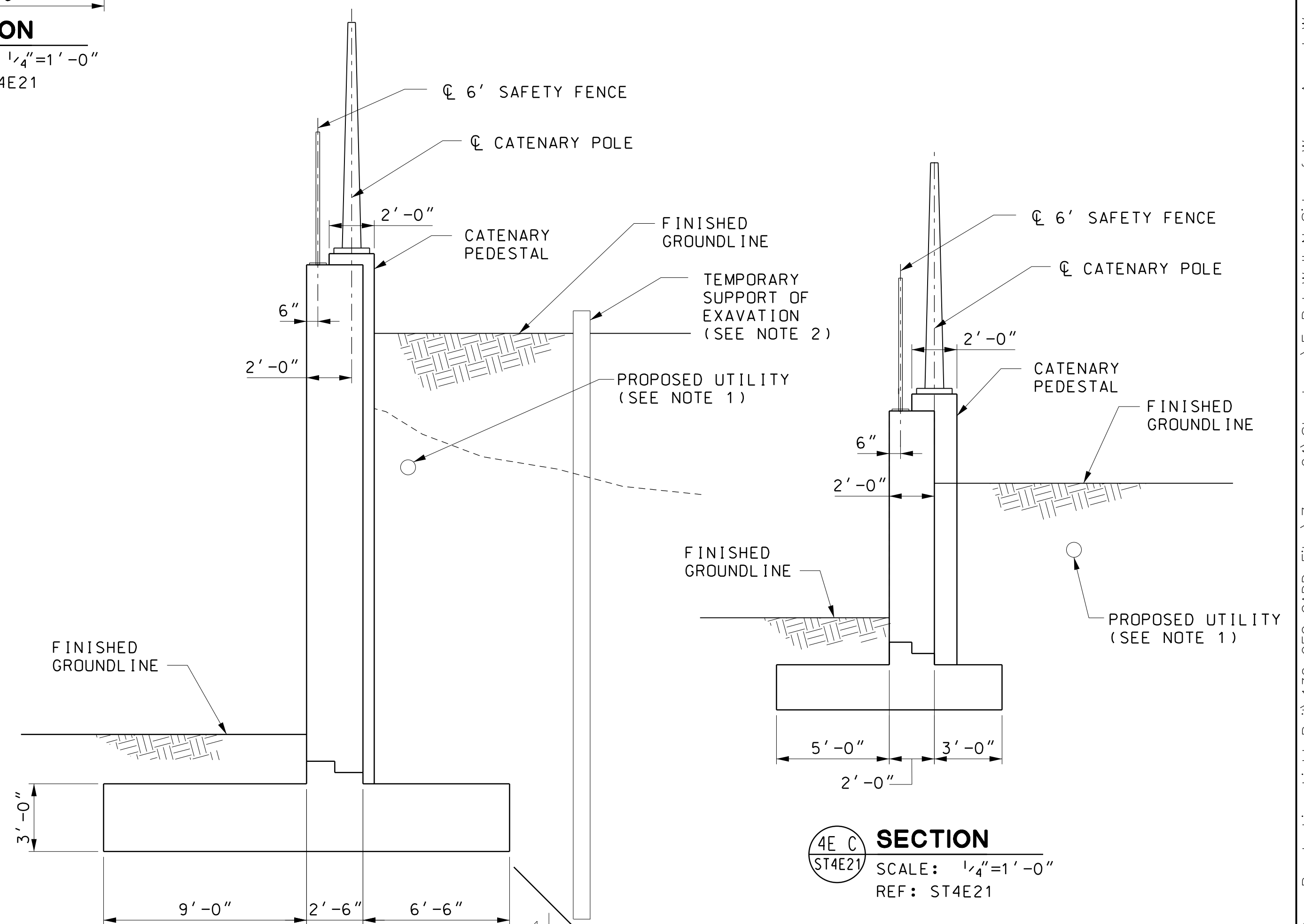
1. LOCATION AND ELEVATION ARE APPROXIMATE
2. SUPPORT OF EXCAVATION MAY INCORPORATE THE UTILITY EXCAVATION



DATUM ELEV 240.00

SOUTH WALL ELEVATION

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



4E B
ST4E21

SECTION

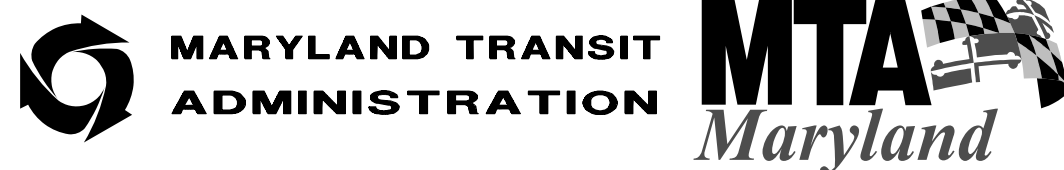
SCALE: 1/4"=1'-0"
REF: ST4E21

4E C
ST4E21

SECTION

SCALE: 1/4"=1'-0"
REF: ST4E21

MARYLAND DEPARTMENT OF TRANSPORTATION



JACOBS

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DESIGN TJ
MC
DYL
CHECK
APPR

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

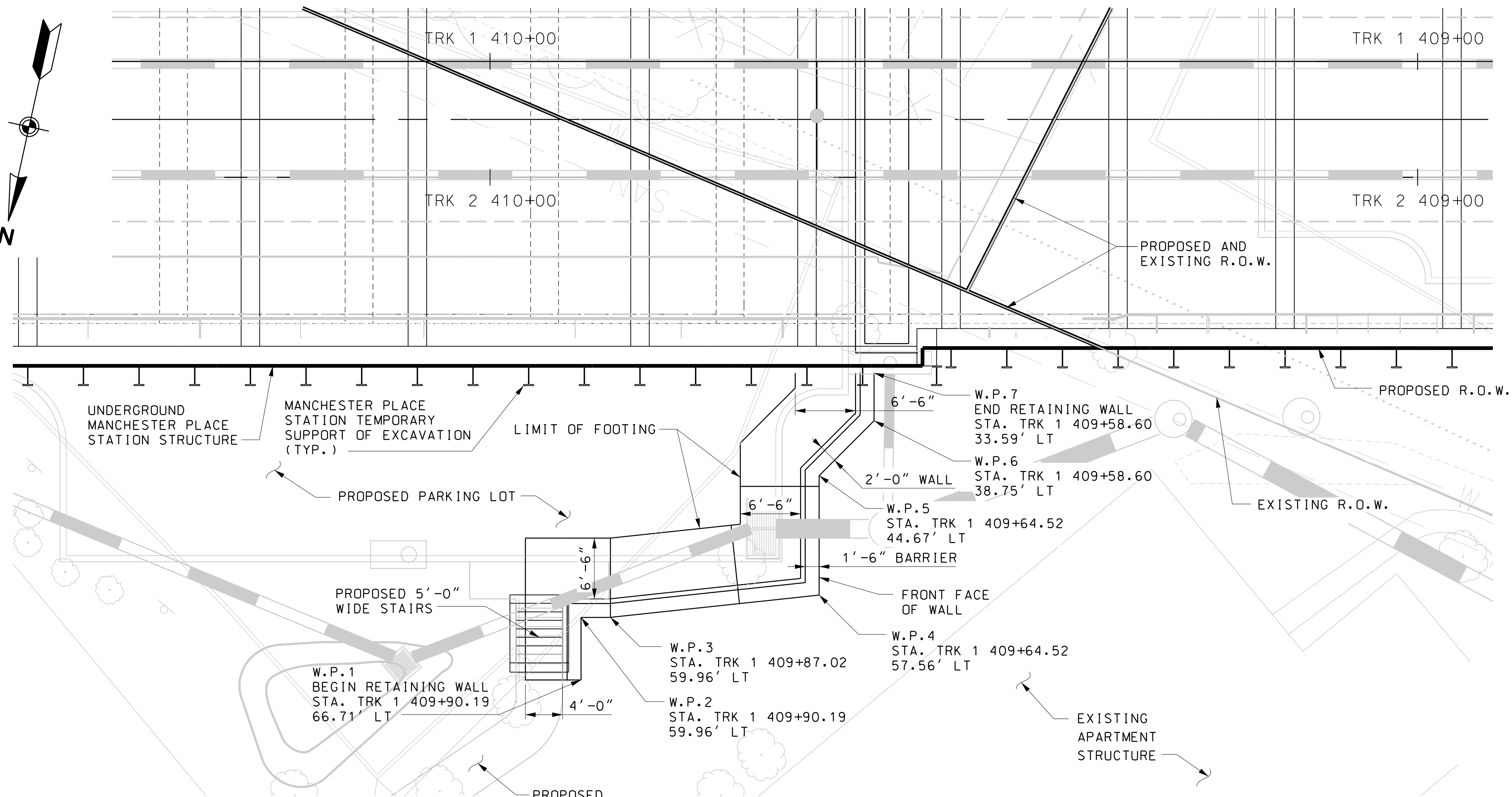
MANCHESTER PLACE STATION
WEST PORTAL WALLS – ELEVATIONS & SECTIONS

DATE: DECEMBER 2013 SCALE: AS SHOWN

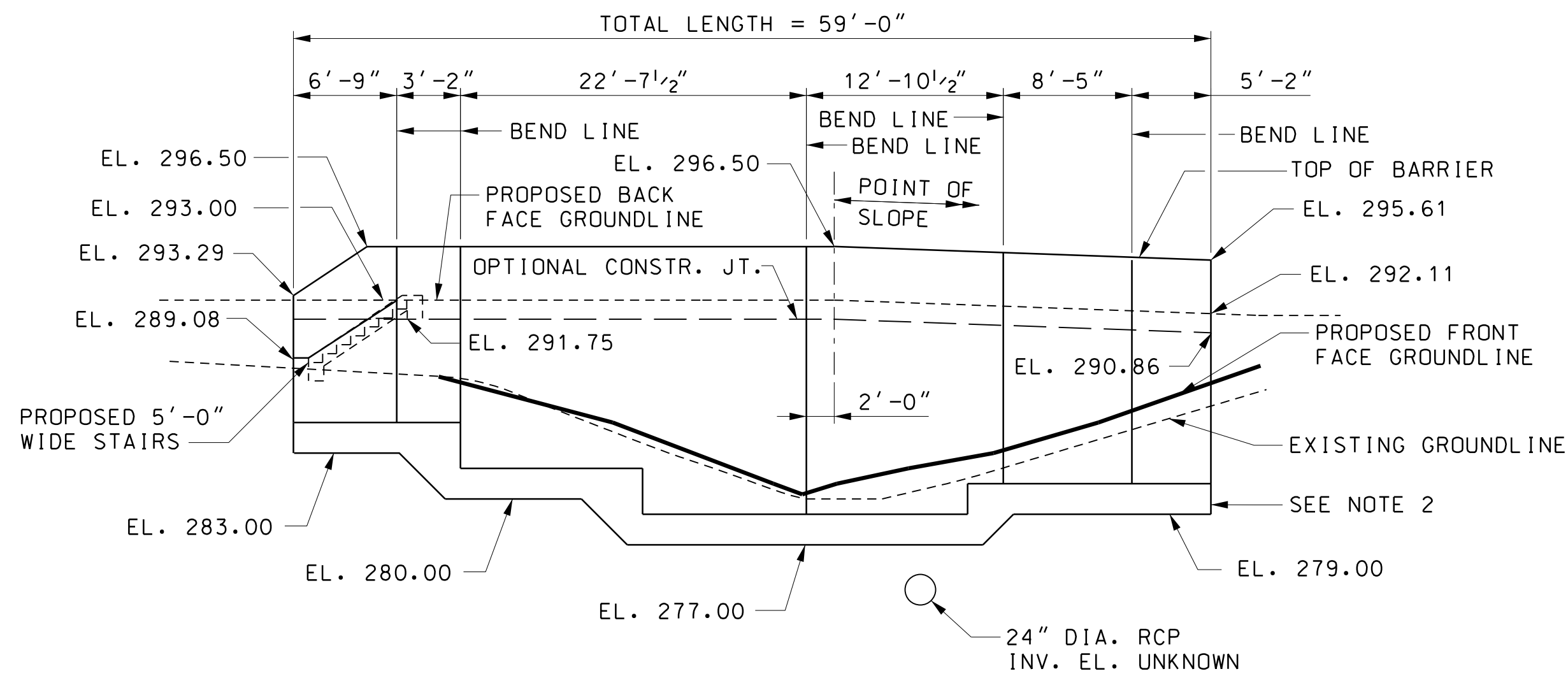
CONTRACT NO.
T-1042-0220

DRAWING NO.
ST4E21

SHEET NO.
583 OF 828



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



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

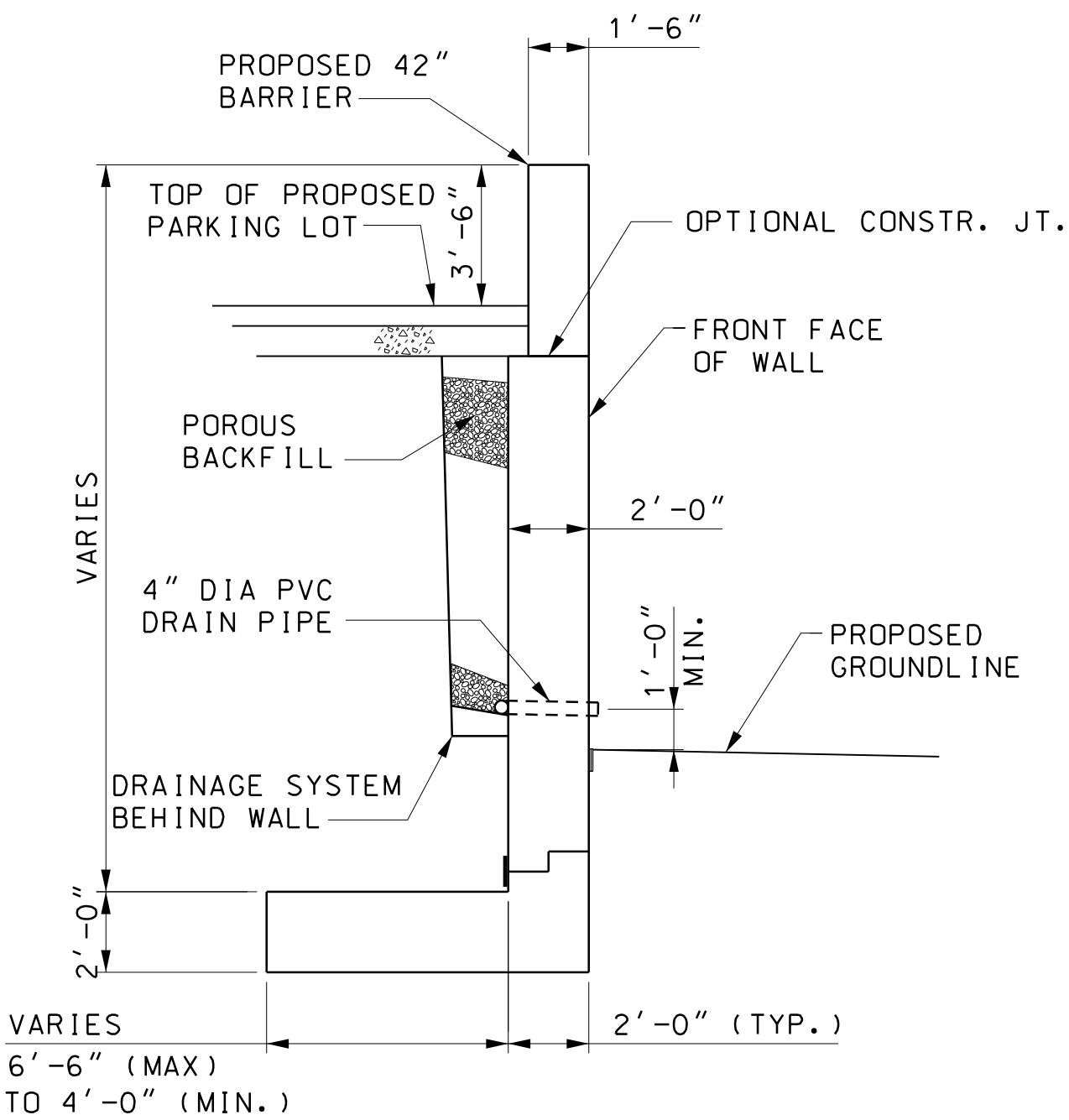
- NOTES:
1. ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
 2. COORDINATE FOOTING AND END OF RETAINING WALL 4K WITH THE SUPPORT OF EXCAVATION OF MANCHESTER PLACE STATION. VERIFY THAT THERE IS NO CONFLICT WITH ANY PILES LEFT IN PLACE.

GENERAL NOTES

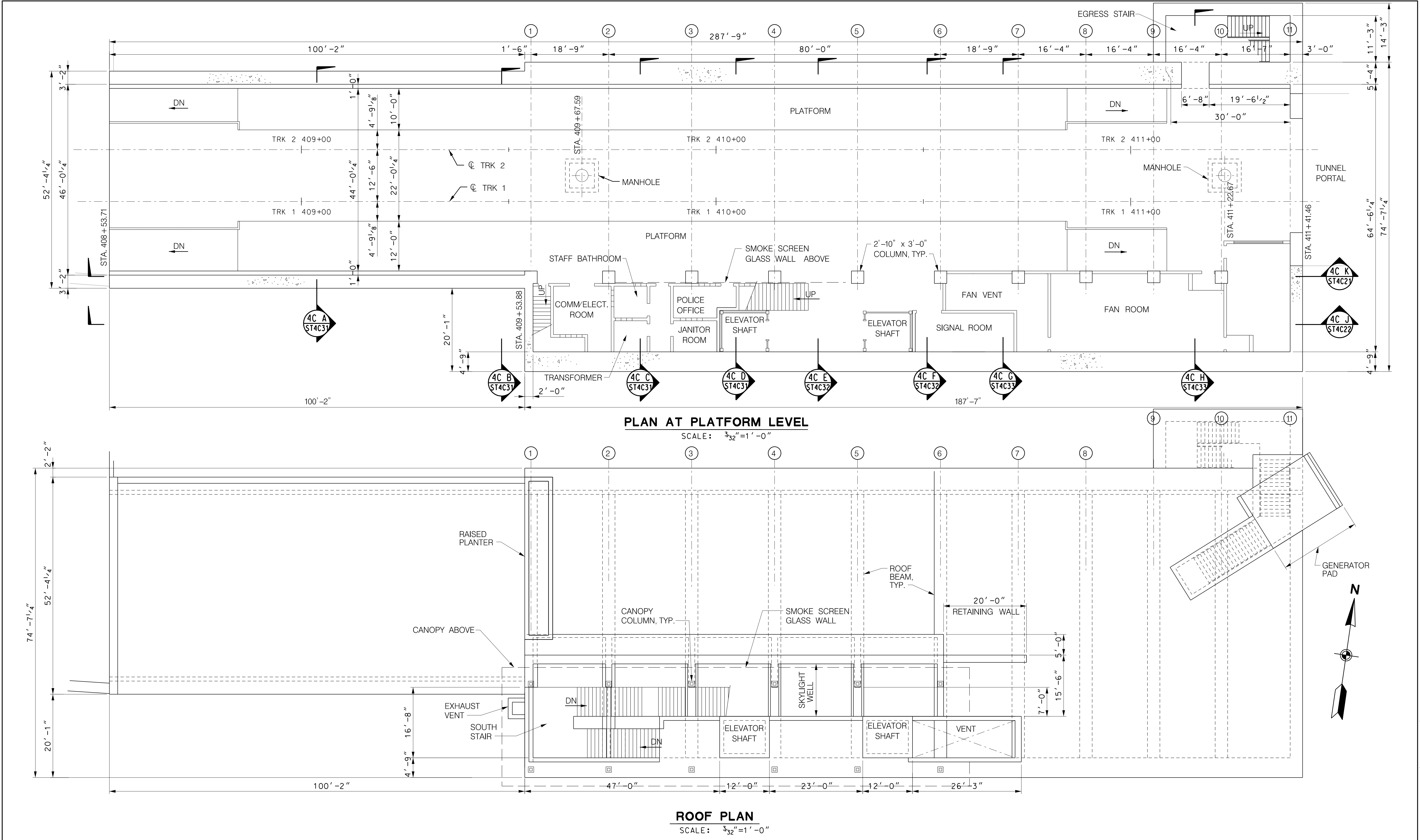
- ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
 - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2010, INCLUDING ALL INTERIM SPECIFICATIONS.
 - MTA RED/PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.
- CONCRETE: ALL STRUCTURE CONCRETE FOR CAST-IN-PLACE WALL SHALL BE MIX NO. 3 (3.5 KSI), EXCEPT IF THE FRONT FACE OF THE WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, MIX NO. 6 (4.5 KSI) CONCRETE SHALL BE USED.
- REINFORCING REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL STEEL: SPLICES NOT SHOWN, SHALL BE LAPPED AS PER MD SHA STANDARD BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH EXCEPTION OF BARS ON THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER. IF THE FRONT FACE OF A RETAINING WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, EPOXY COATED REINFORCEMENT SHALL BE USED IN THE FRONT FACE OF THE STEM. ALL REINFORCEMENT IN INTEGRAL ROADWAY BARRIERS SHALL BE EPOXY COATED.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

- KEYS: ALL KEYS ARE NOMINAL SIZE.
- CHAMFERS: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, UNLESS NOTED OTHERWISE.
- LOADING: ALL APPLICABLE SURCHARGE LOADS SHALL BE PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.
- EXISTING ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF STRUCTURES: THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE (+/-) MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.



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

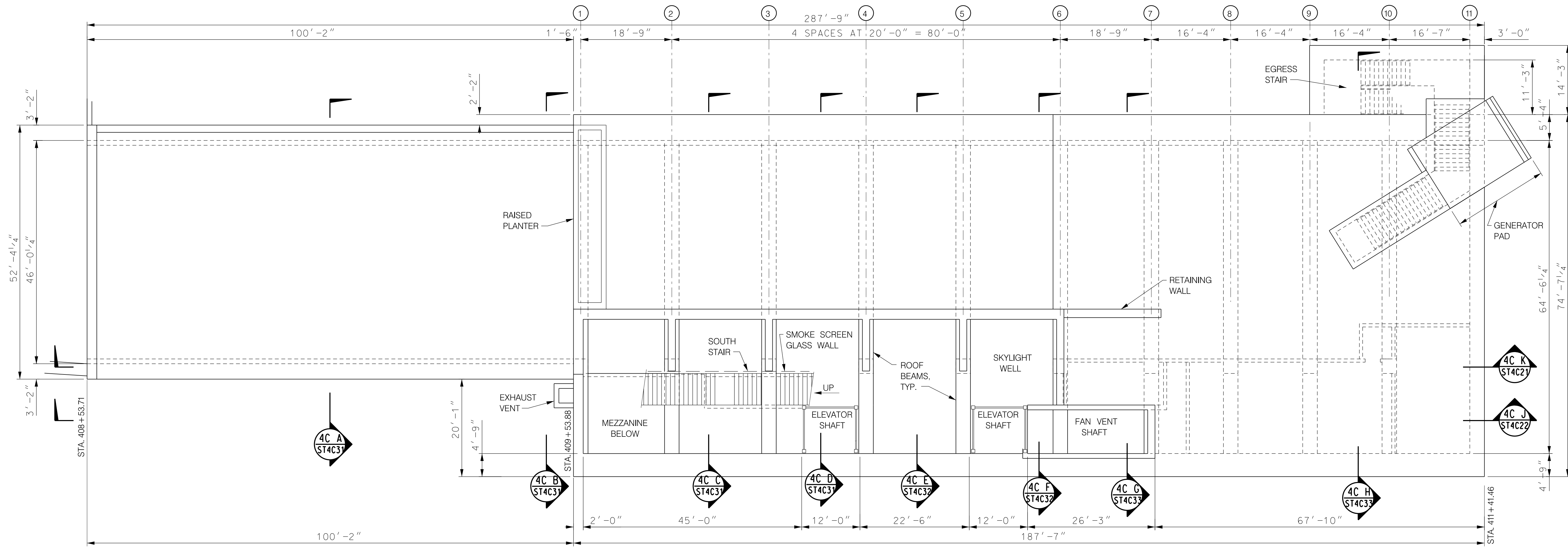


<div><div>MARYLAND DEPARTMENT OF TRANSPORTATION</div><div><div></div><div>MTA Maryland</div></div></div>	<div><div></div><div>WR&A</div></div>	<div><div>JACOBS</div></div>	PROFESSIONAL CERTIFICATION	<p><i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i></p>	<div><div>APPR</div><div>CHECK</div><div>DRAWN</div><div>DESIGN</div></div>	GMS	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
			SEM			DRAWING NO. ST4C11		
			LM			MANCHESTER PLACE STATION STRUCTURAL PLANS – SHEET 1 OF 2	SHEET NO. 585 OF 828	

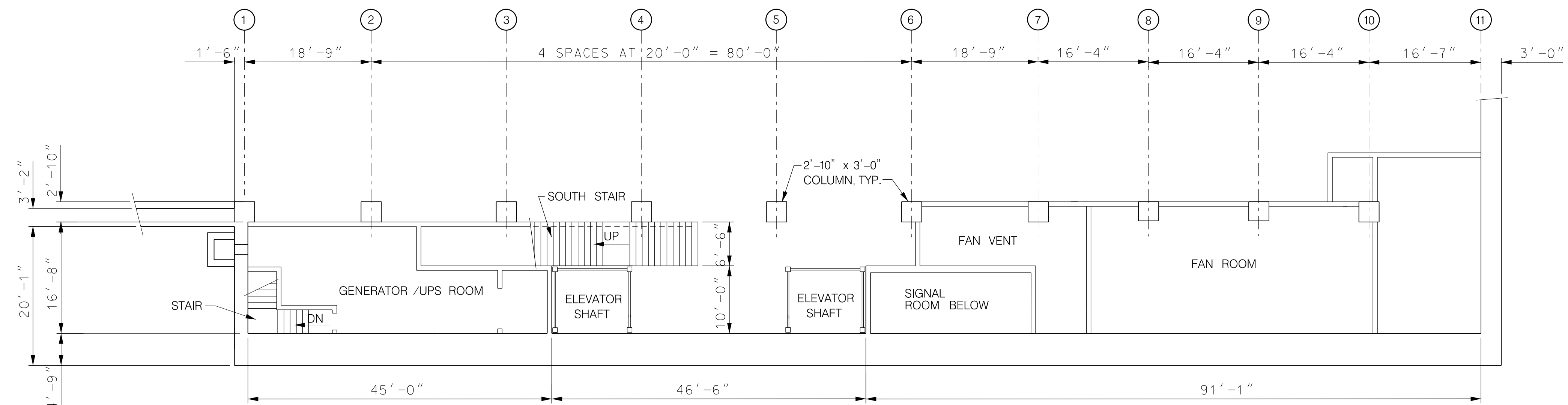
DATE: DECEMBER 2013

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

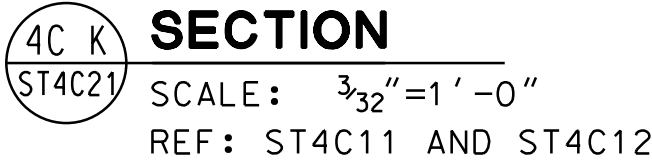
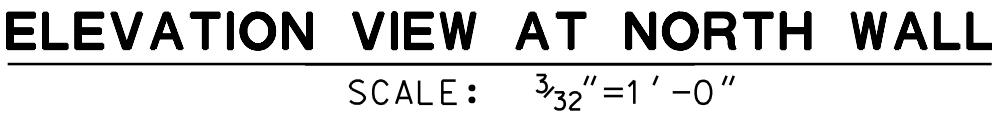
c:\pwworking\mtapw\je-meghan powell\dms90764\1042pST4c36.dgn 12/10/2013



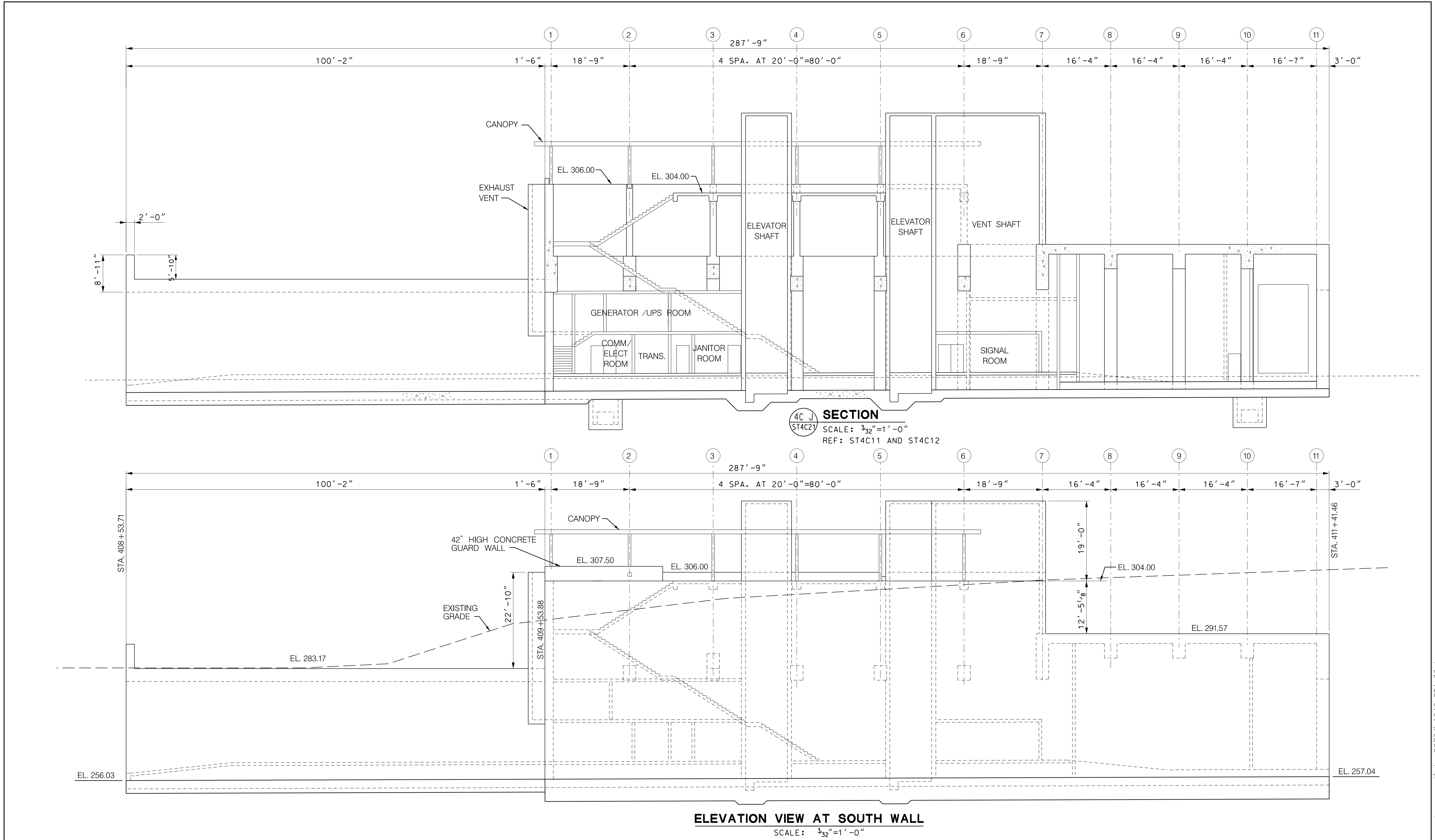
PLAN AT ROOF BEAMS
SCALE: 3/32"=1'-0"

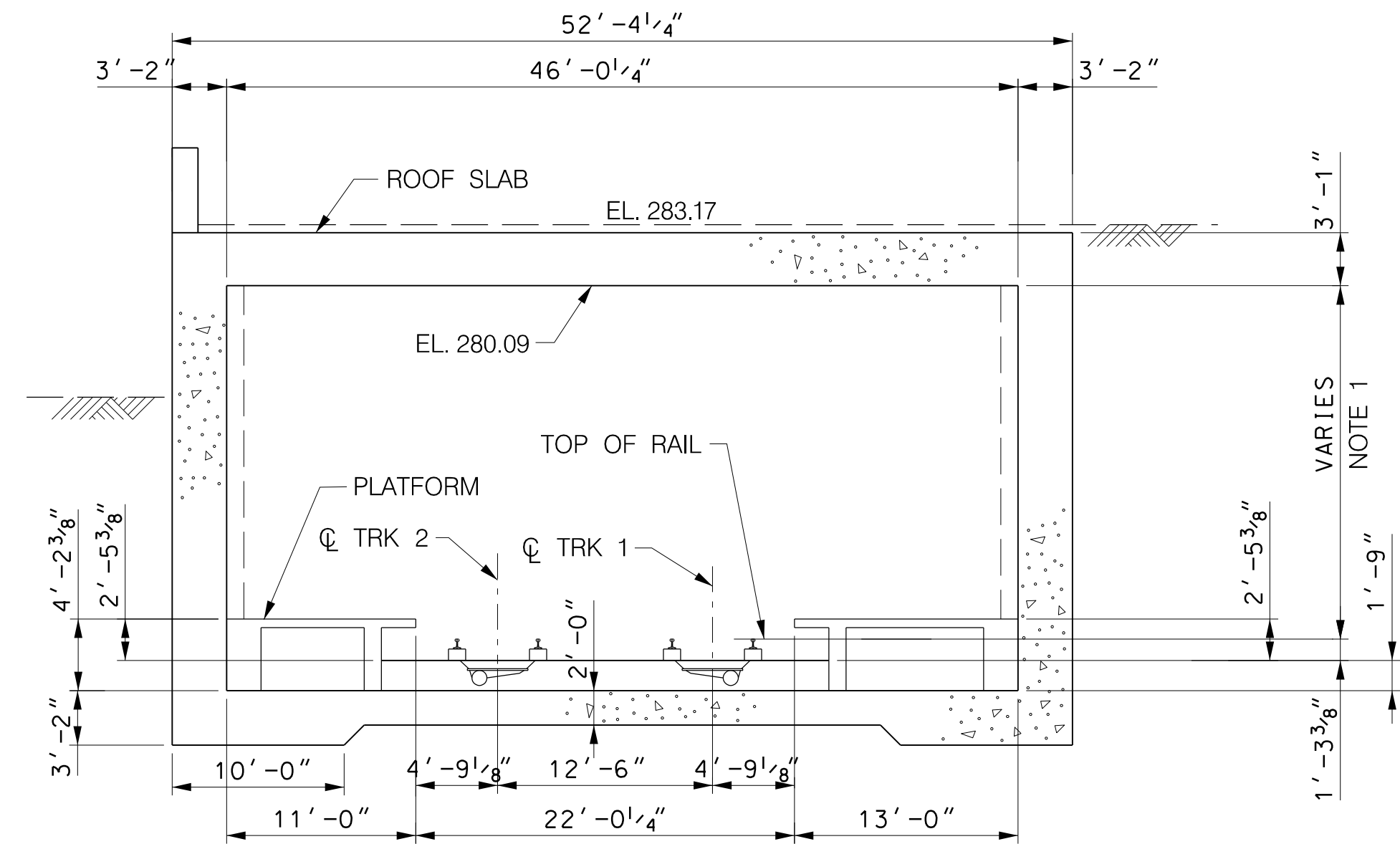


PLAN AT MEZZANINE LEVEL
SCALE: 3/32"=1'-0"

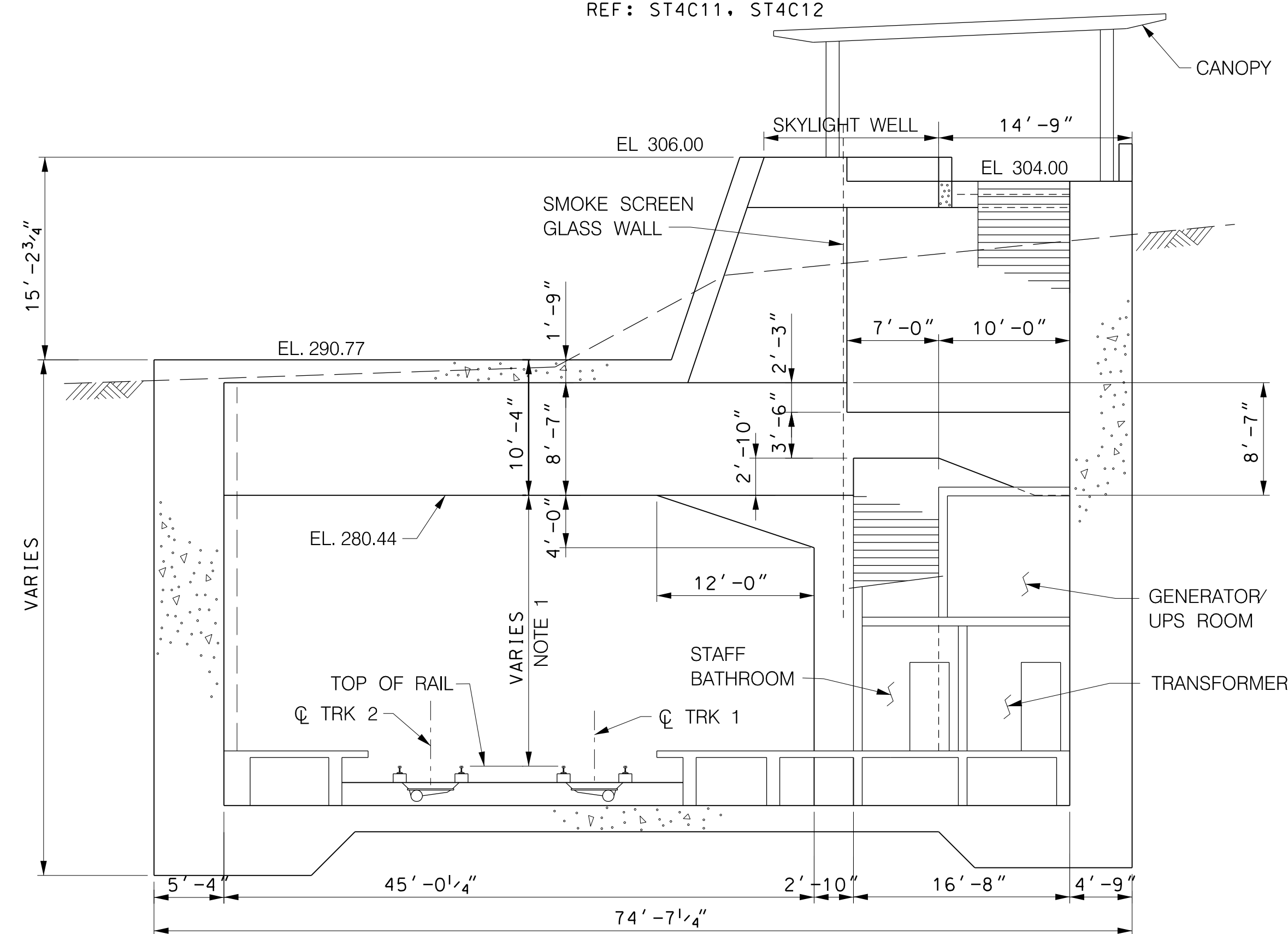


NOTE 1:
CEILING ELEVATION SET AT 20'-8"
ABOVE TOP OF RAIL AT STATIONS
409+56.88, 410+55.63, AND 411+41.46

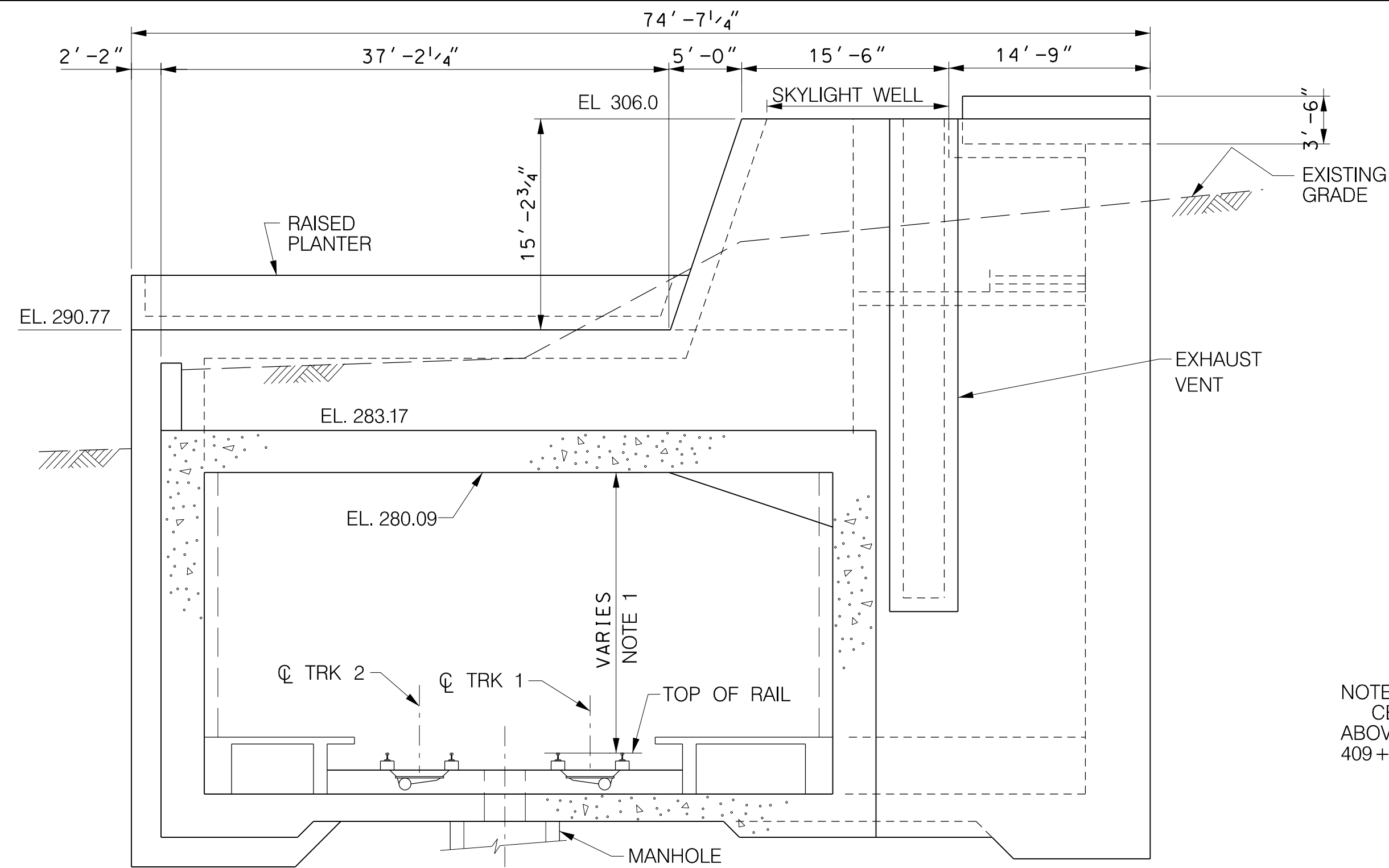




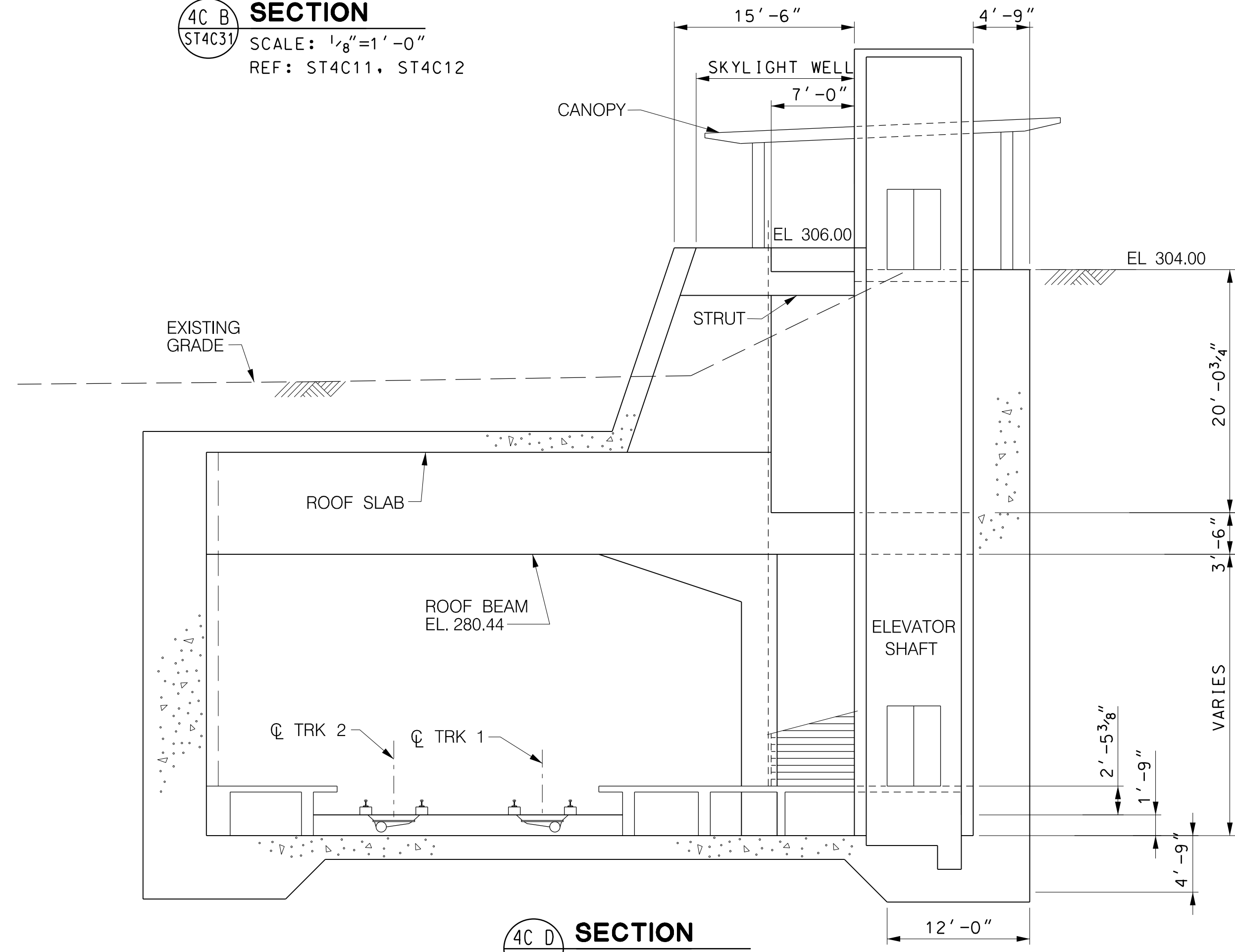
SECTION 4C A
ST4C31
SCALE: 1/8"=1'-0"
REF: ST4C11, ST4C12



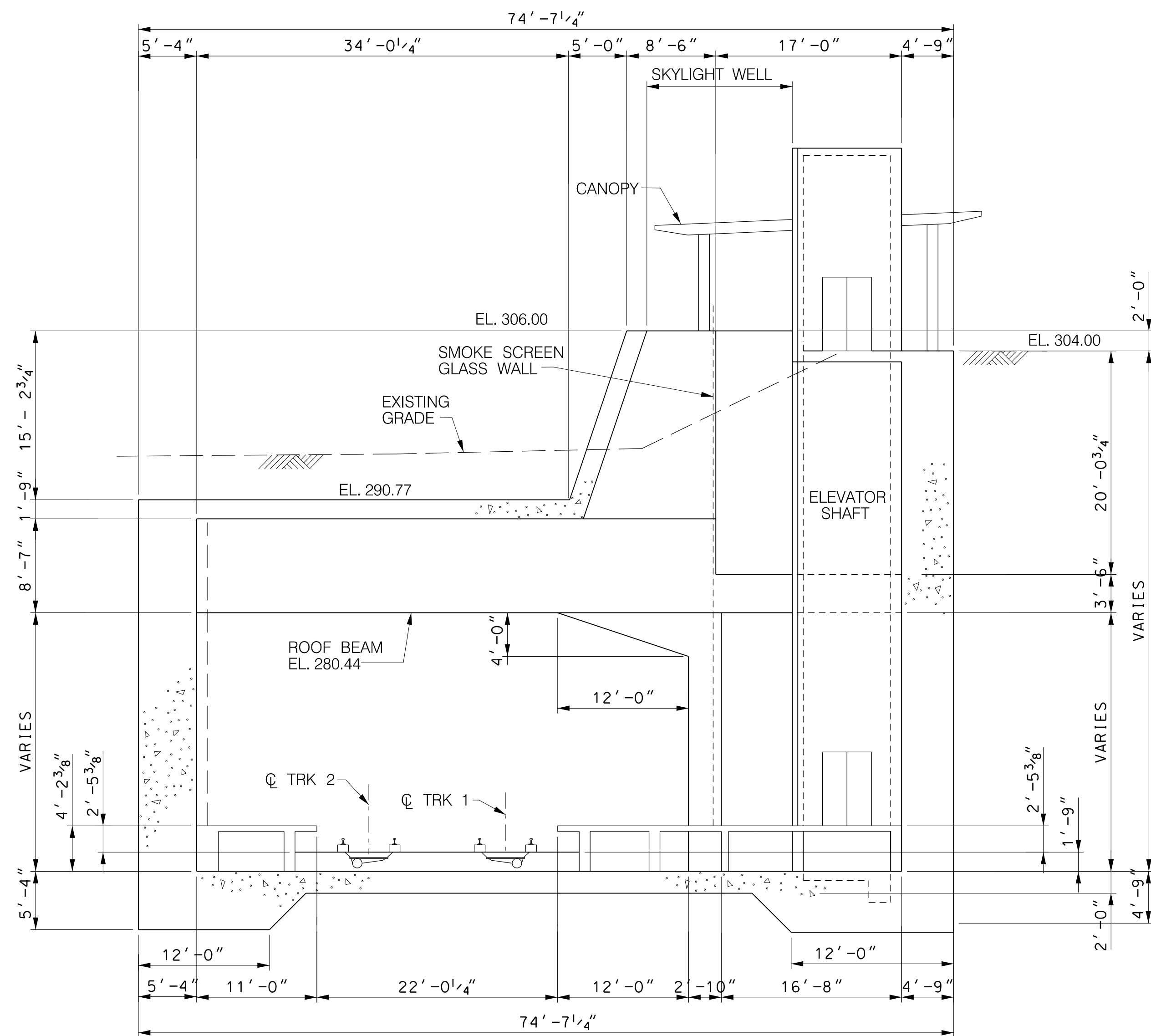
SECTION 4C C
ST4C31
SCALE: 1/8"=1'-0"
REF: ST4C11, ST4C12



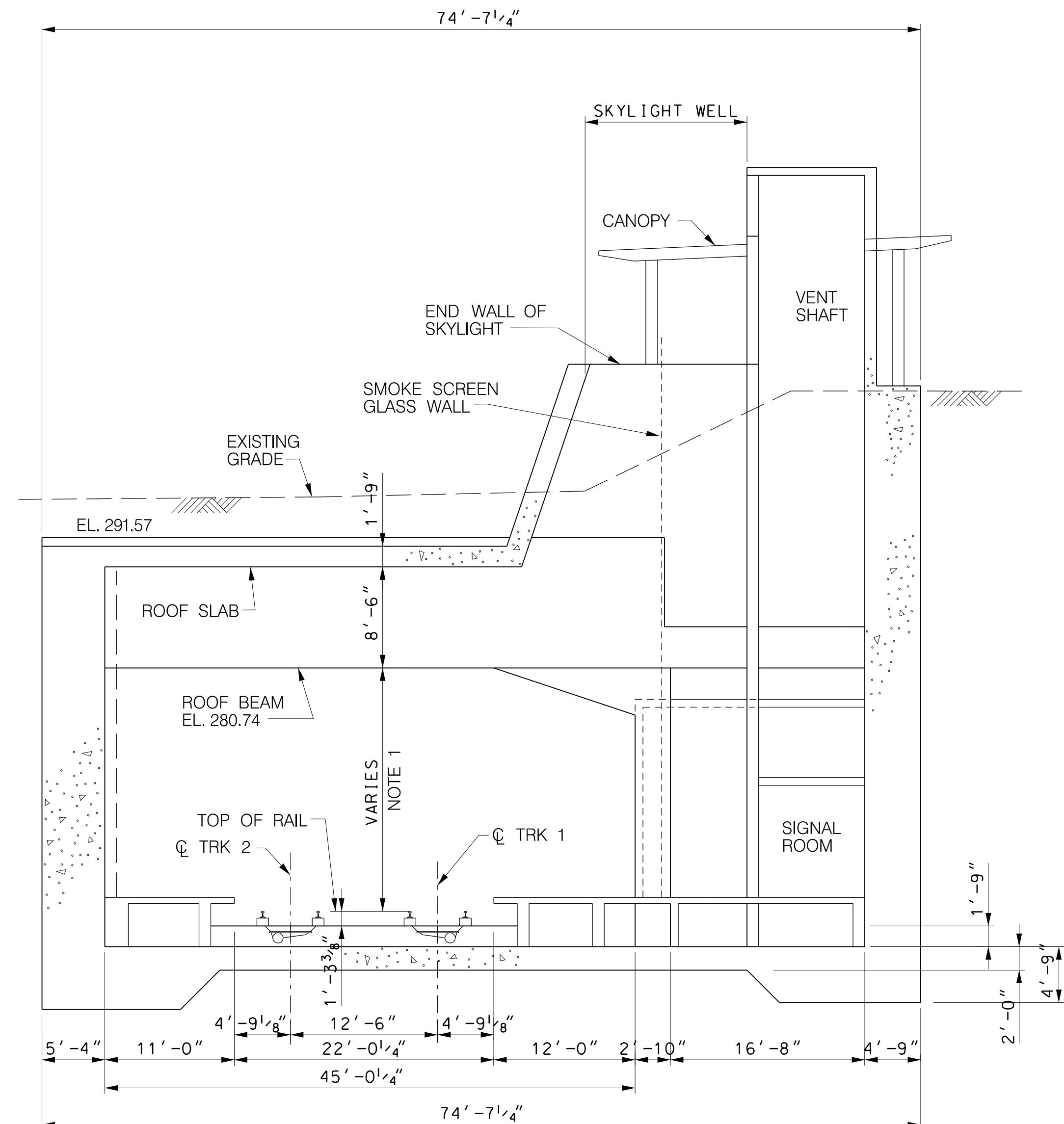
SECTION 4C B
ST4C31
SCALE: 1/8"=1'-0"
REF: ST4C11, ST4C12



SECTION 4C D
ST4C31
SCALE: 1/8"=1'-0"
REF: ST4C11, ST4C12

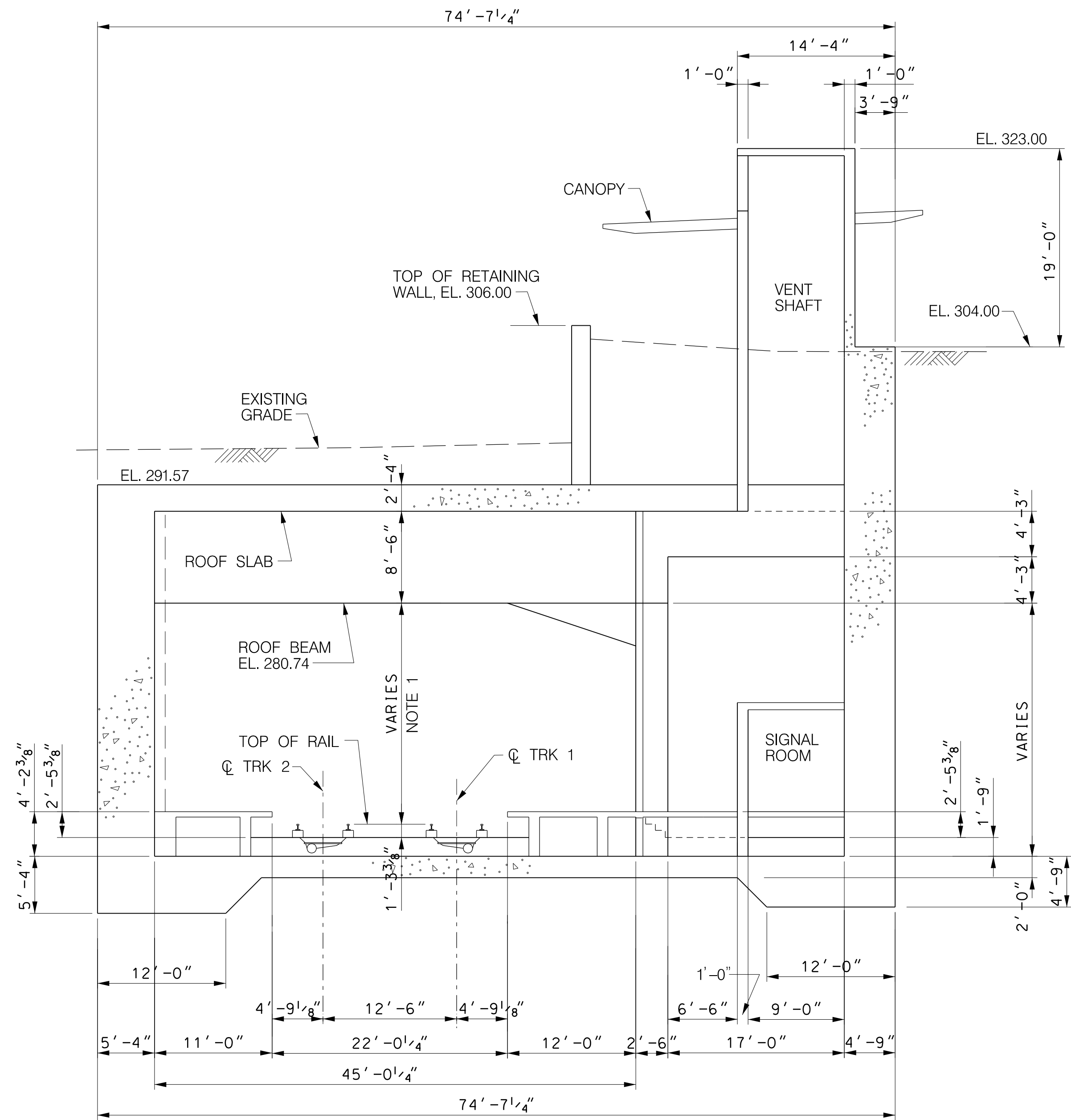


SECTION
 4C E
 ST4C32
 SCALE: 1/8" = 1'-0"
 REF: ST4C11, ST4C12



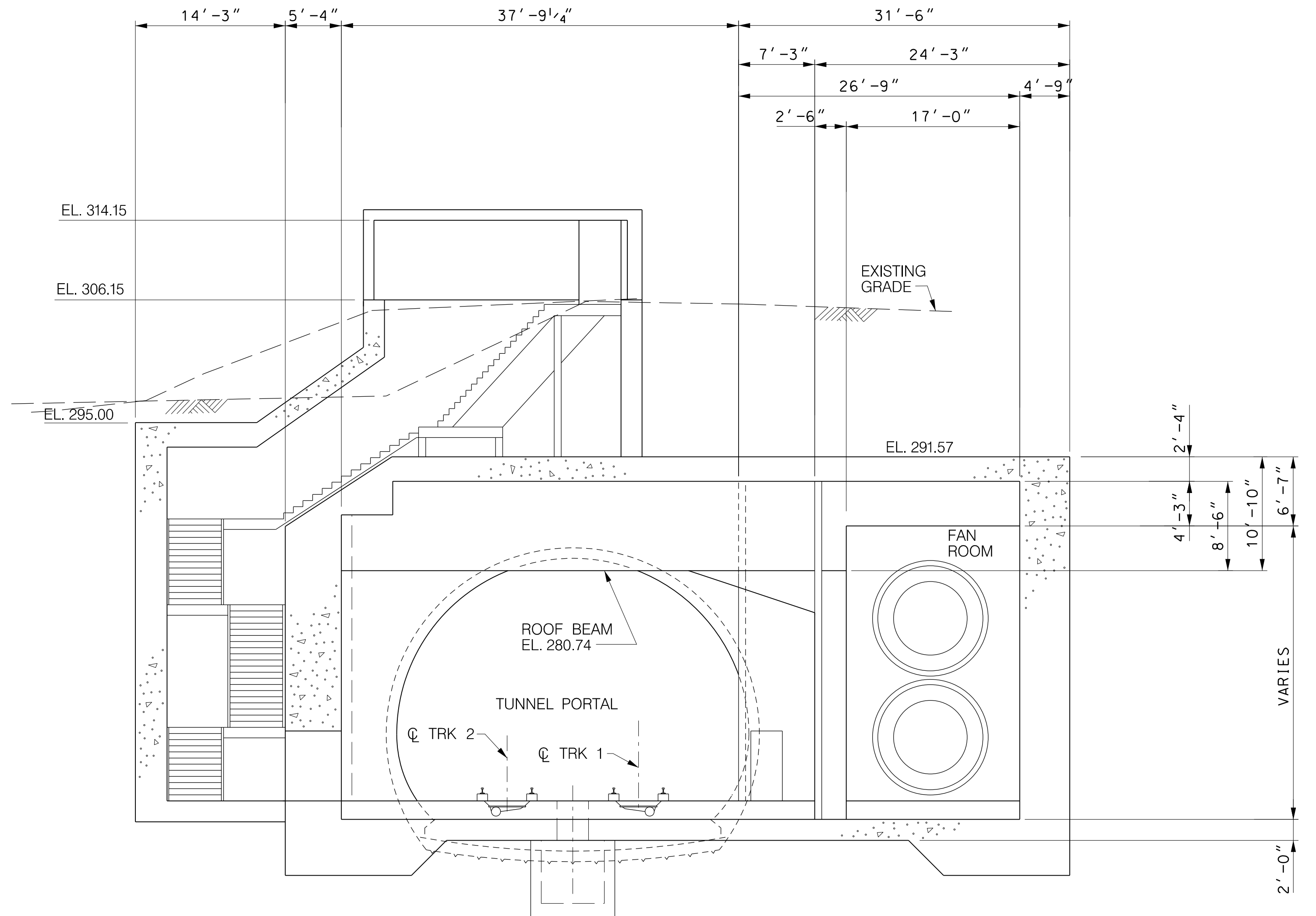
SECTION
 4C F
 ST4C32
 SCALE: 1/8" = 1'-0"
 REF: ST4C11, ST4C12

NOTES:
 1. CEILING ELEVATION SET AT 20'-8"
 ABOVE TOP OF RAIL AT STATIONS
 411+41.46, 410+55.63 AND 409+56.88.

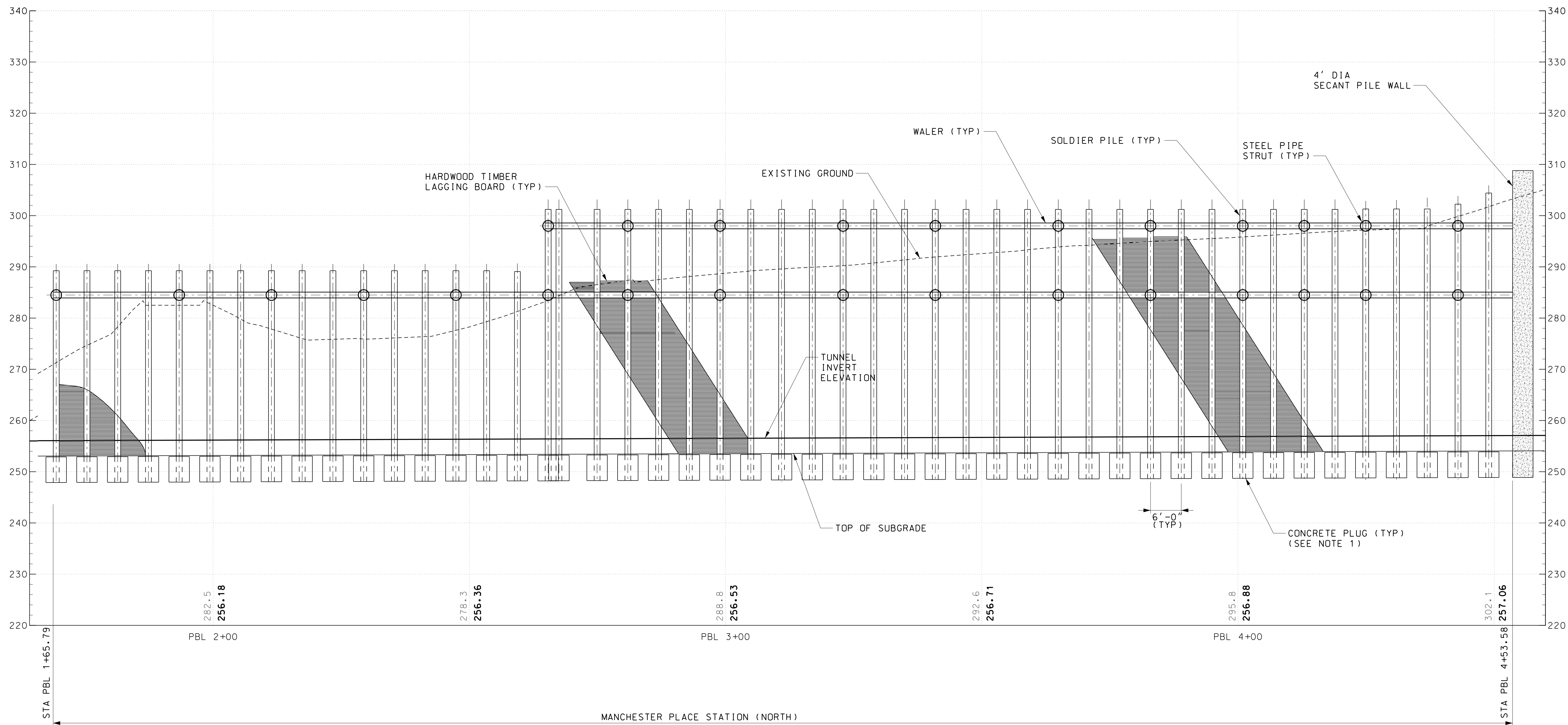


SECTION
 SCALE: 1/8" = 1'-0"
 REF: ST4C11, ST4C12

NOTE 1:
 CEILING ELEVATION SET AT 20'-8"
 ABOVE TOP OF RAIL AT STATIONS
 411 + 41.46, 410 + 55.63 AND 409 + 56.88.



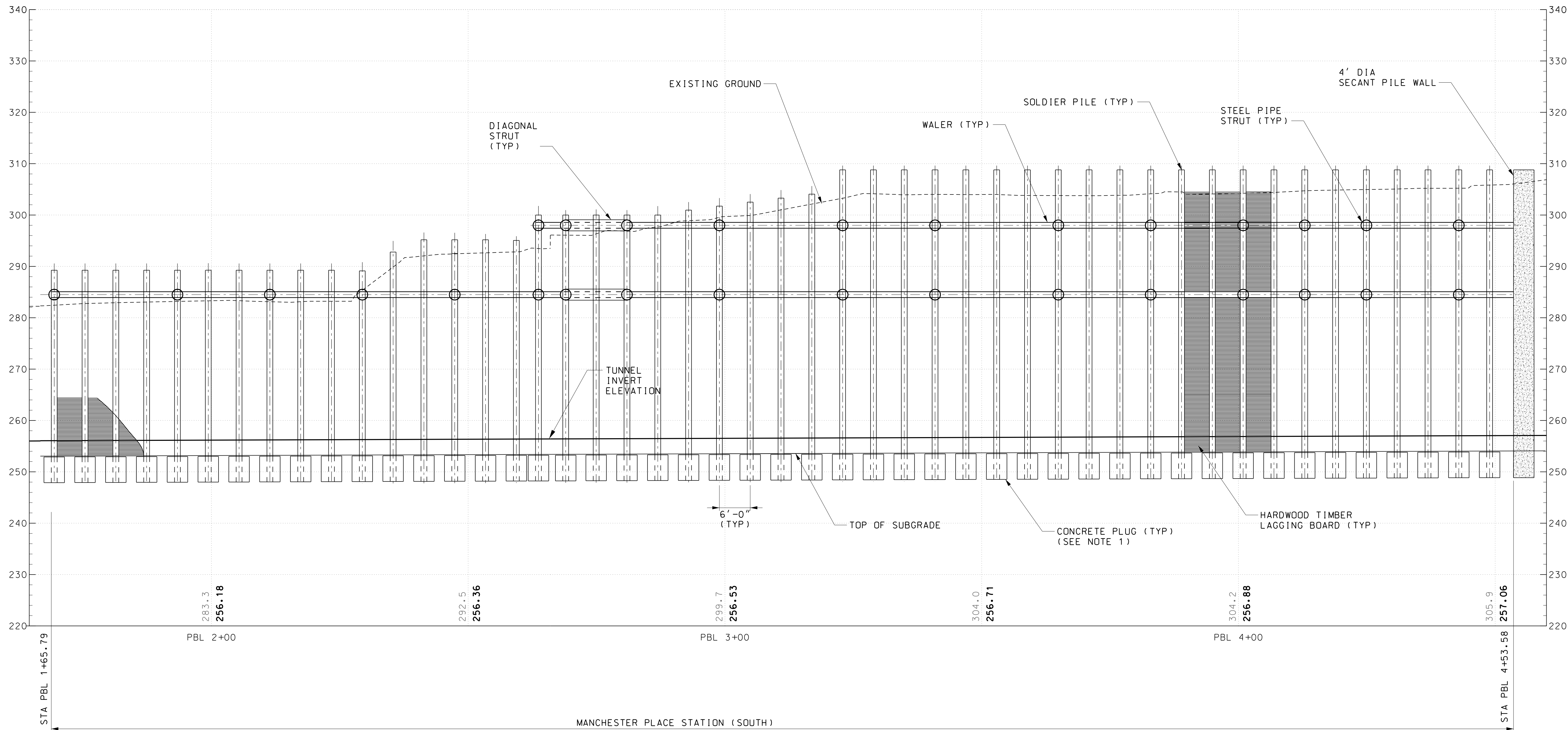
SECTION
 SCALE: 1/8" = 1'-0"
 REF: ST4C11, ST4C12



NOTE:

1. THE EMBEDMENT SHALL BE 5 FT MIN IN COMPETENT ROCK OTHERWISE, 10 FT MIN BELOW TOP OF SUBGRADE.

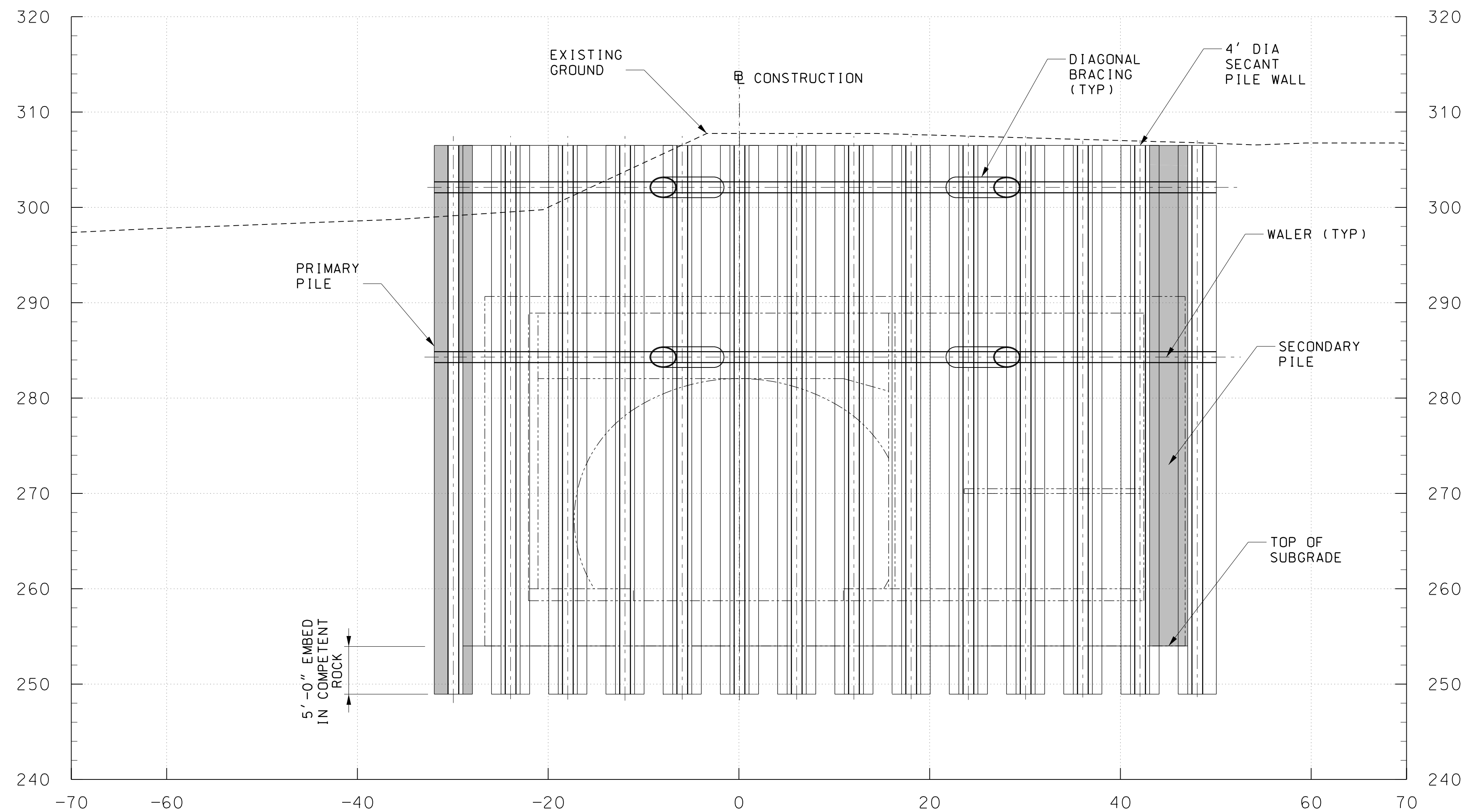
ELEVATION
SCALE: 1"=10'-0"
REF: ST4C41



NOTE:

1. THE EMBEDMENT SHALL BE 5 FT MIN IN COMPETENT ROCK OTHERWISE, 10 FT MIN BELOW TOP OF SUBGRADE.

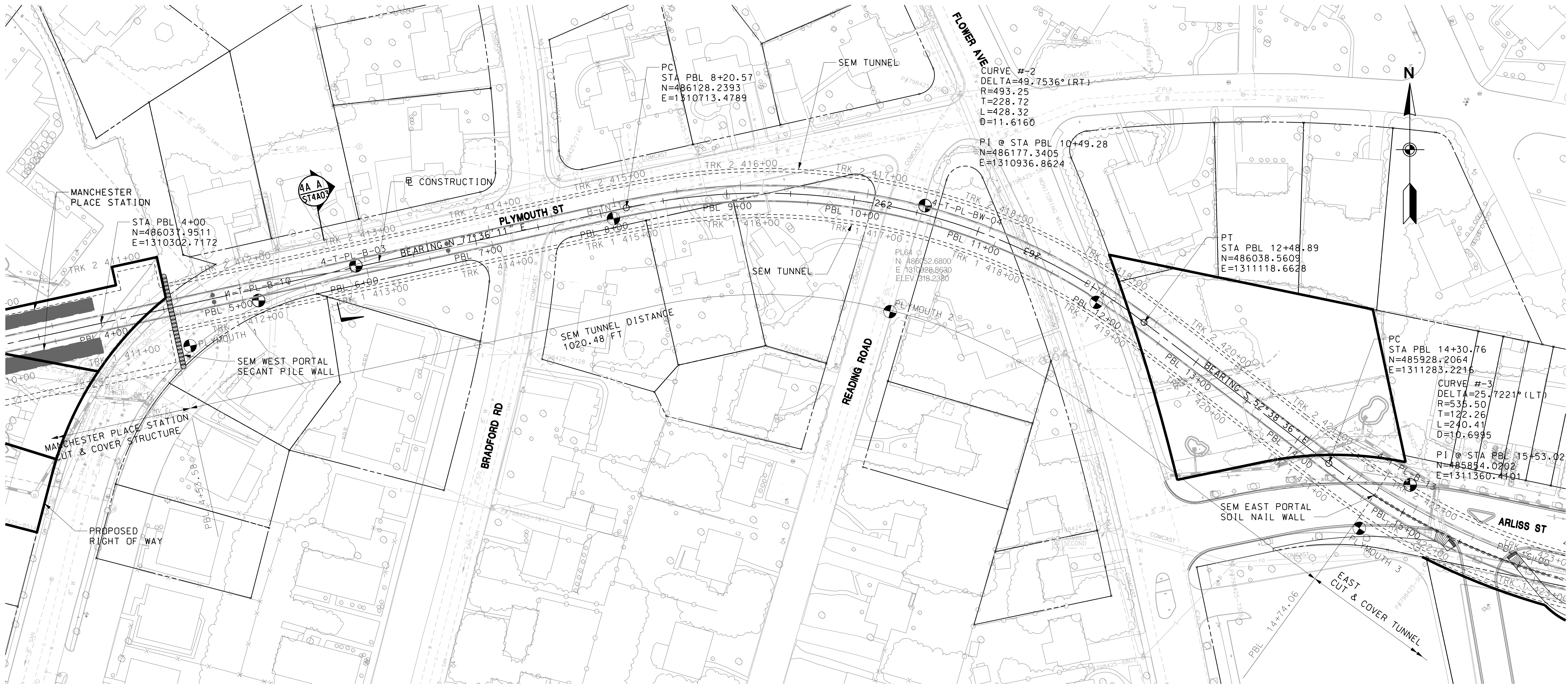
ELEVATION
SCALE: 1"=10'-0"
REF: ST4C41



NOTE:

1. PRIMARY PILES SHALL BE EMBEDDED AT LEAST 5 FT IN COMPETENT ROCK AND SECONDARY PILES CAN BE STOPPED AT TOP OF SUBGRADE.

ELEVATION
SCALE: $\frac{1}{8}''=1'-0''$
REF: ST4C41



PLAN

SCALE: 1"=40' -0"

GENERAL NOTES

SPECIFICATIONS:

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
- INTERNATIONAL CODE COUNCIL, INTERNATIONAL BUILDING CODE.

DESIGN LOADS:

- MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

CONCRETE DESIGN:

TUNNEL CONCRETE LINING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.

REINFORCING STEEL:

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. MINIMUM CLEAR COVER OVER REINFORCEMENT SHALL BE 2 INCHES.

MARYLAND DEPARTMENT OF TRANSPORTATION



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DESIGN	TJ
DRAWN	MC
CHECK	RJC
APPR	

PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

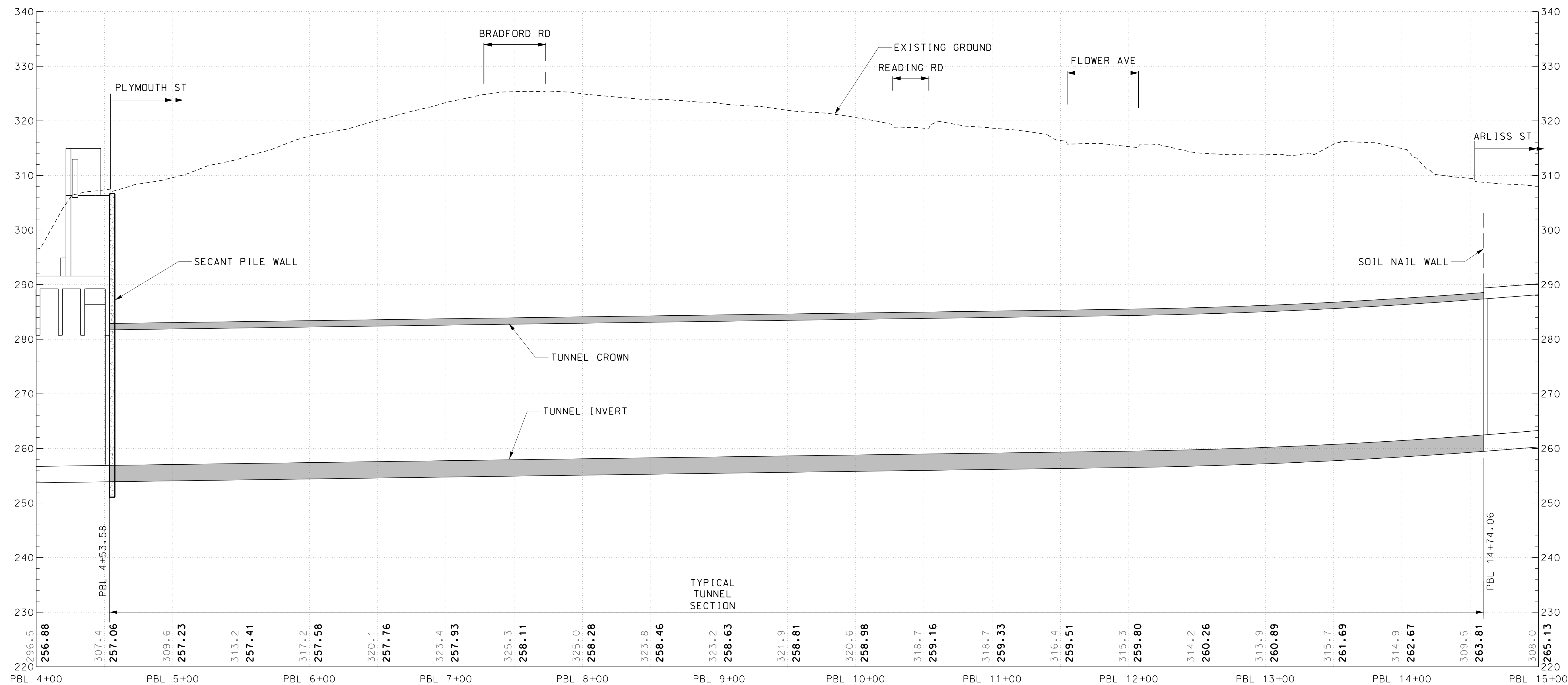
PLYMOUTH TUNNEL
SEM TUNNEL PLAN

DATE: DECEMBER 2013

SCALE: AS SHOWN

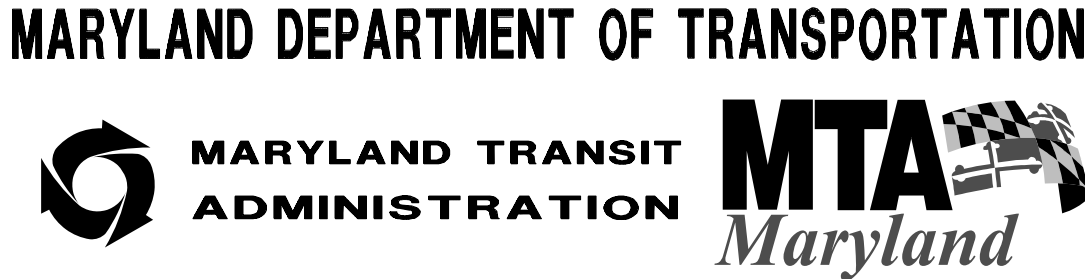
CONTRACT NO.	T-1042-0220
DRAWING NO.	ST4A01
SHEET NO.	596 OF 828

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NOTES:
1. ELEVATIONS OF EXISTING UTILITIES ARE UNKNOWN.
2. PROPOSED UTILITIES NOT SHOWN AS PROPOSED ELEVATIONS ARE UNKNOWN AT THIS TIME. REFER TO PLAN SHEETS FOR PROPOSED UTILITY INFORMATION.

PROFILE
SCALE: 1" = 40' - 0"



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License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESIGN TJ
CHECK DRAWN MC
APPR RJC

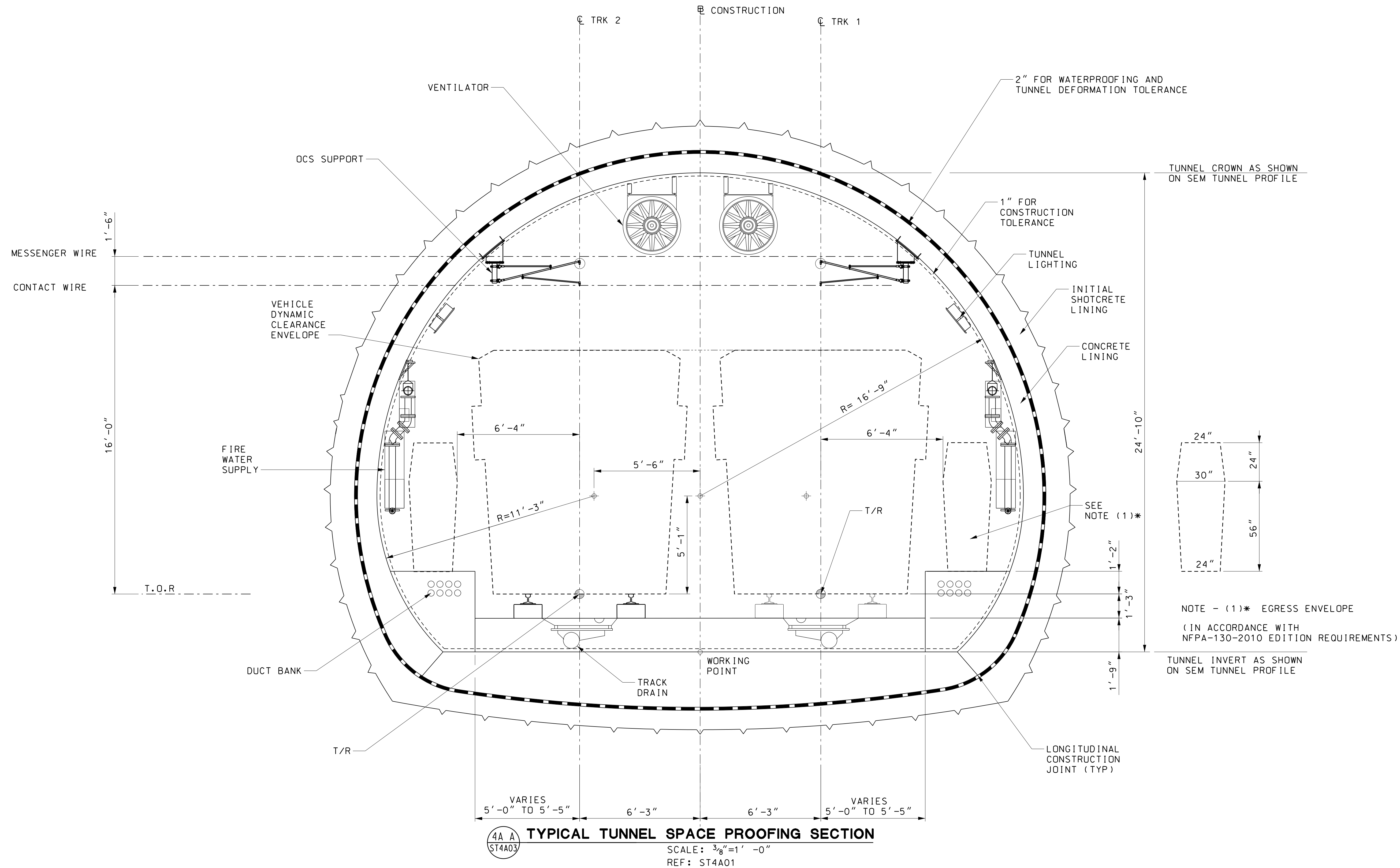
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

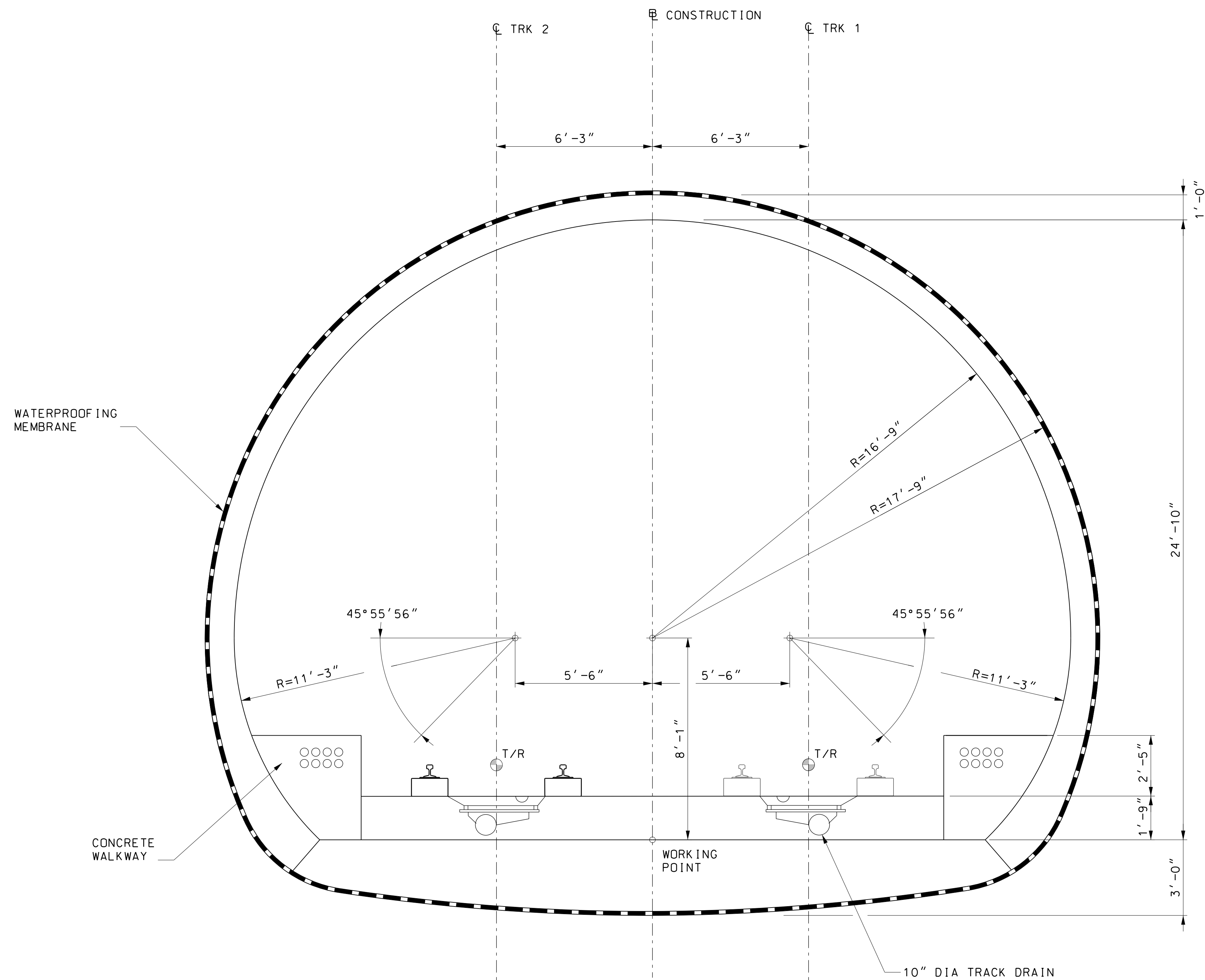
PLYMOUTH TUNNEL
SEM TUNNEL PROFILE

DATE: DECEMBER 2013 SCALE: AS SHOWN

CONTRACT NO.
T-1042-0220
DRAWING NO.
ST4A02
SHEET NO.
597 OF 828

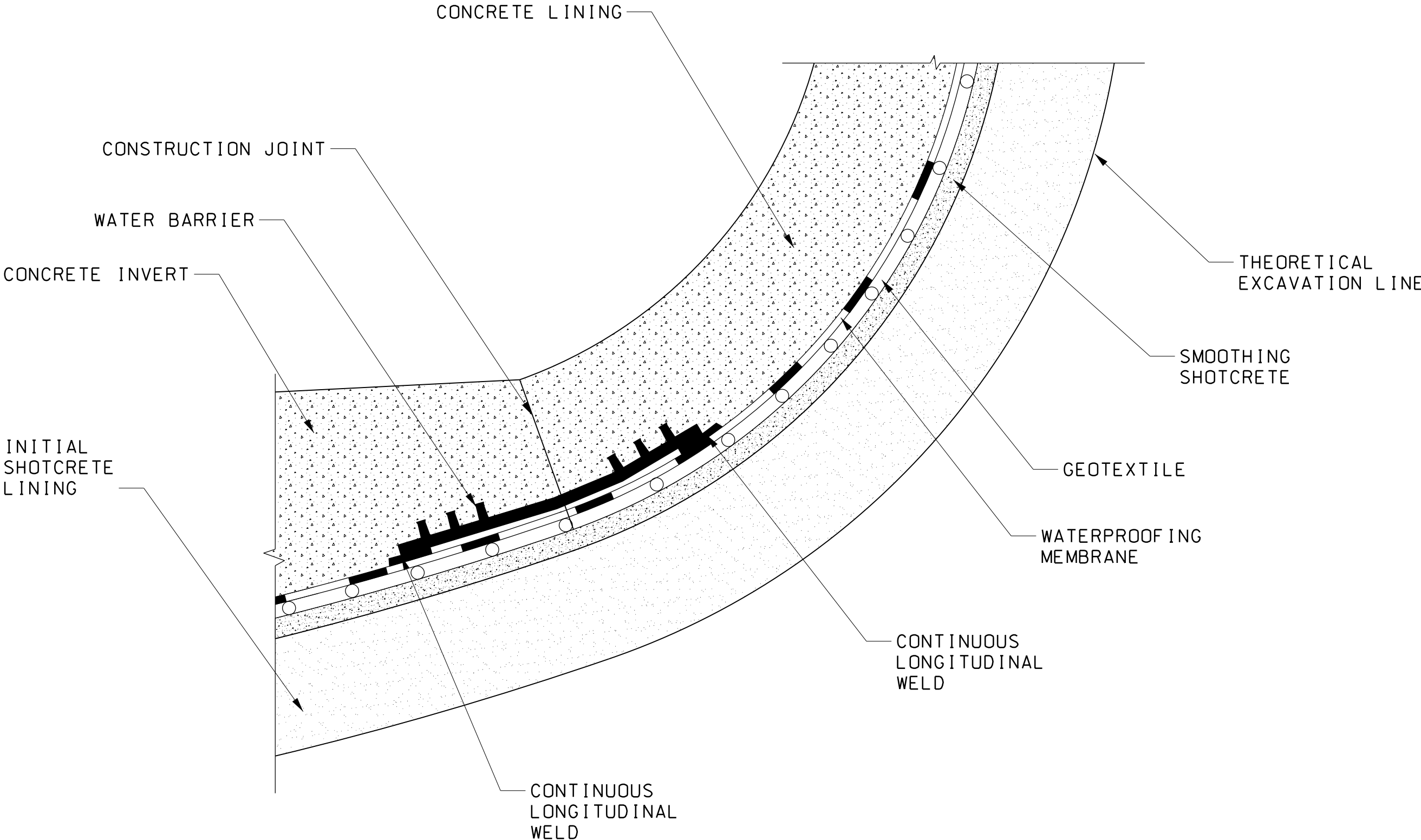
c:\pwworking\mtpow\je-meghan powell\dms90702\1042pST4A01.dgn 12/10/2013



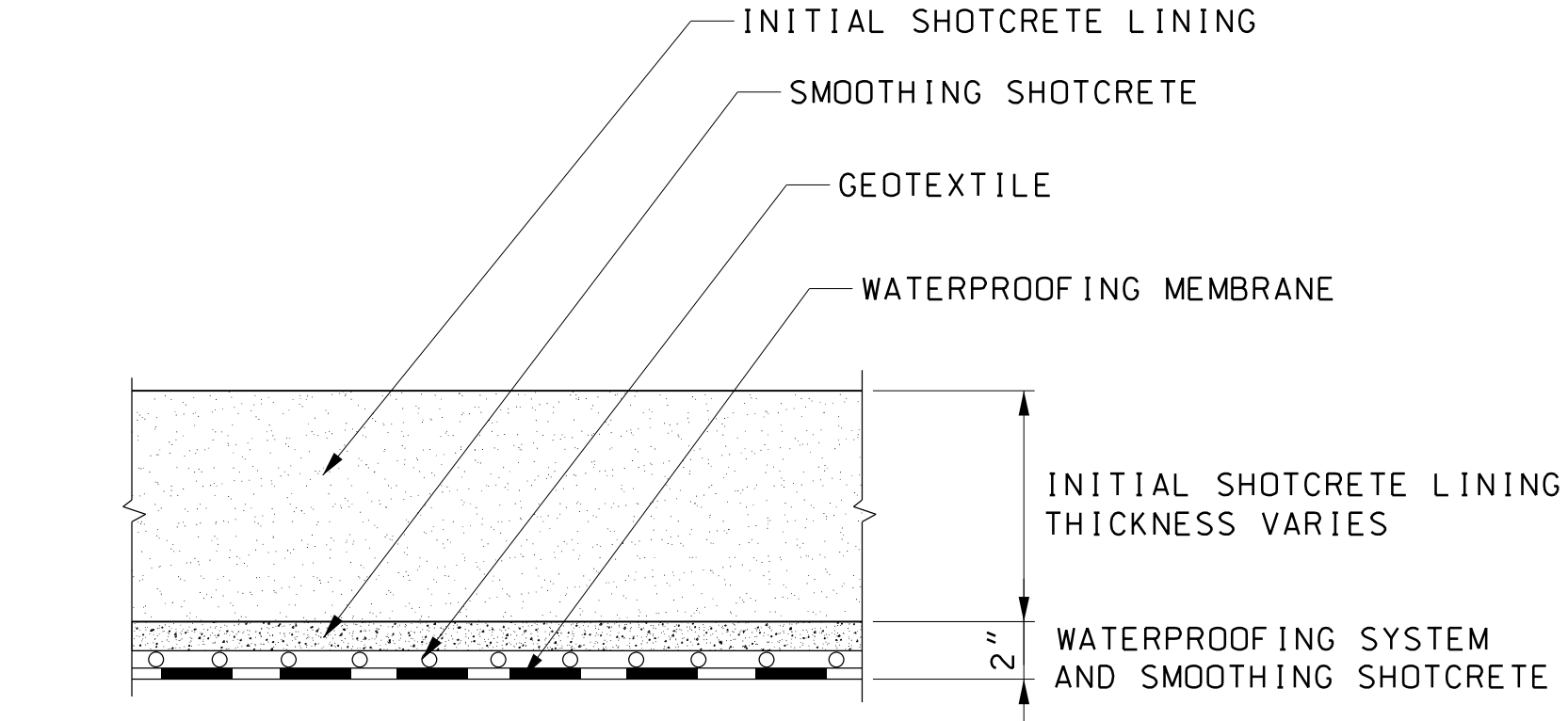


TYPICAL TUNNEL SECTION

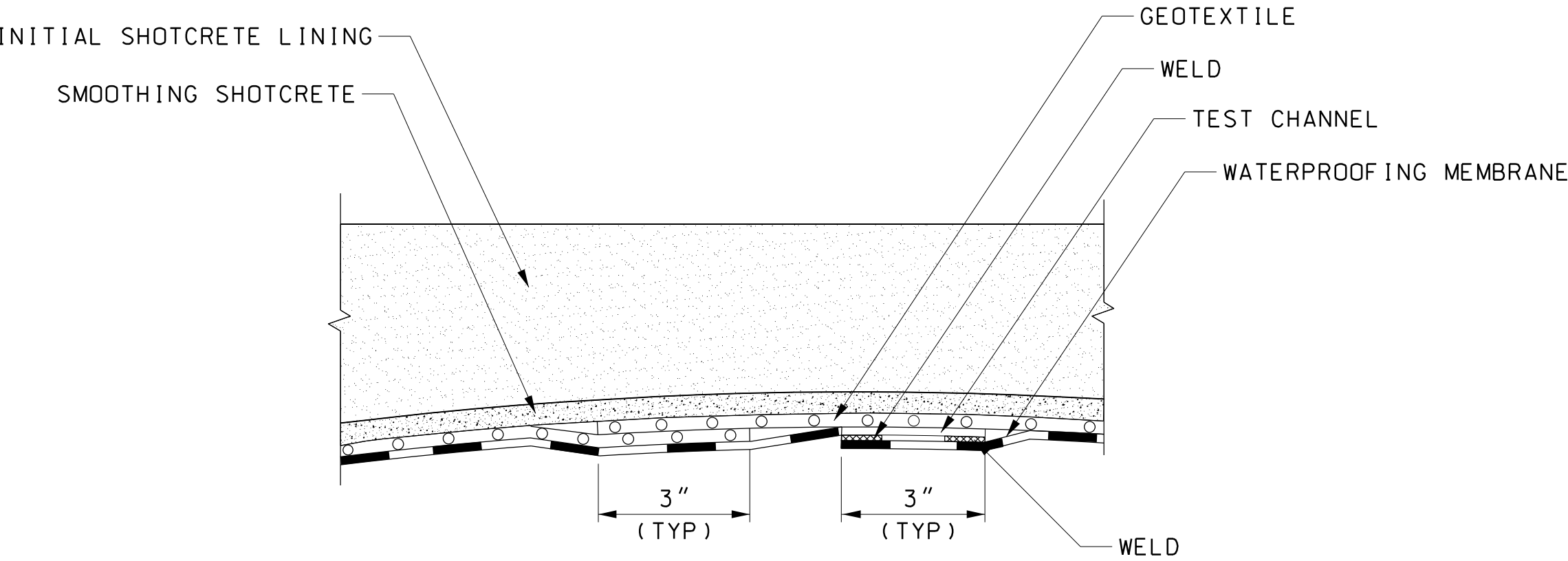
SCALE: $\frac{3}{8}" = 1' - 0"$



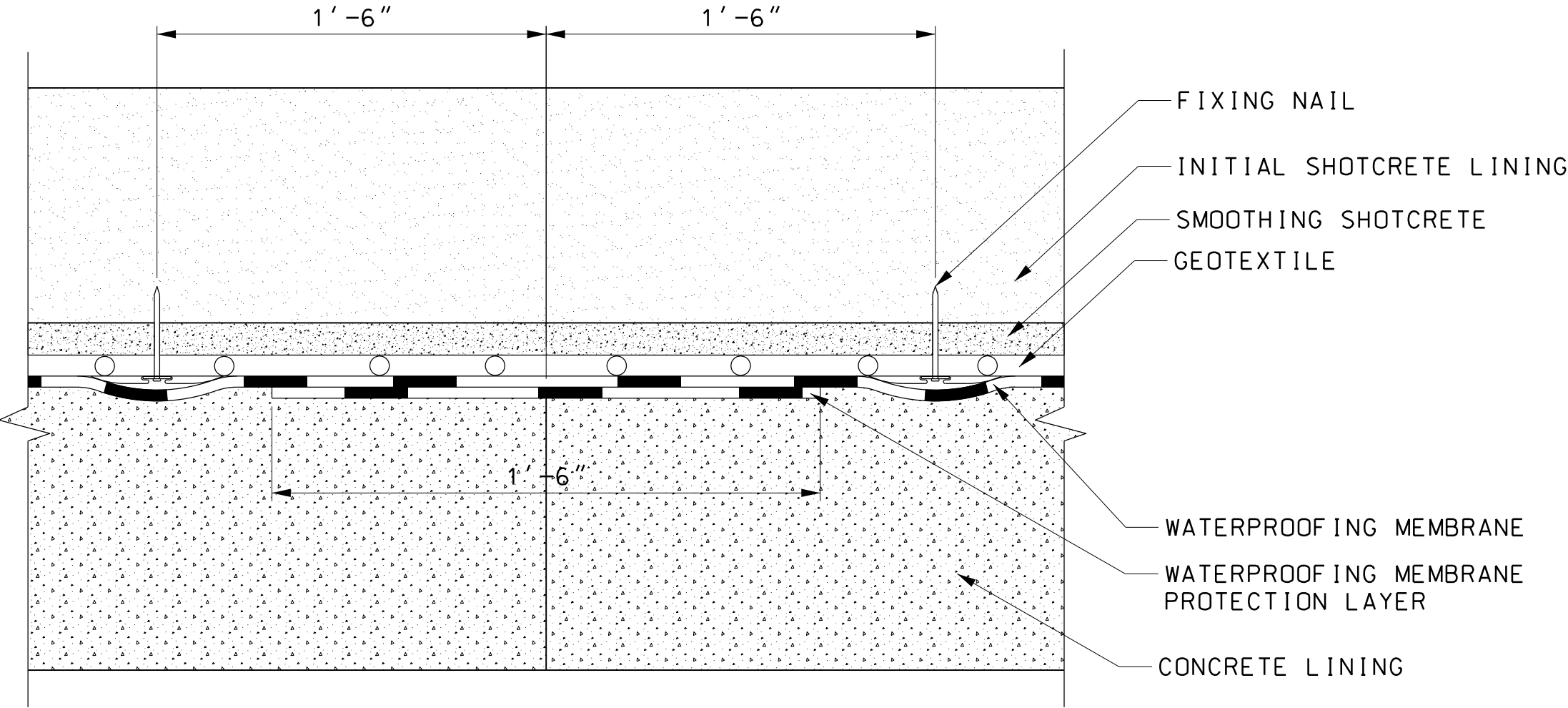
LONGITUDINAL CONSTRUCTION JOINT
SCALE: NTS



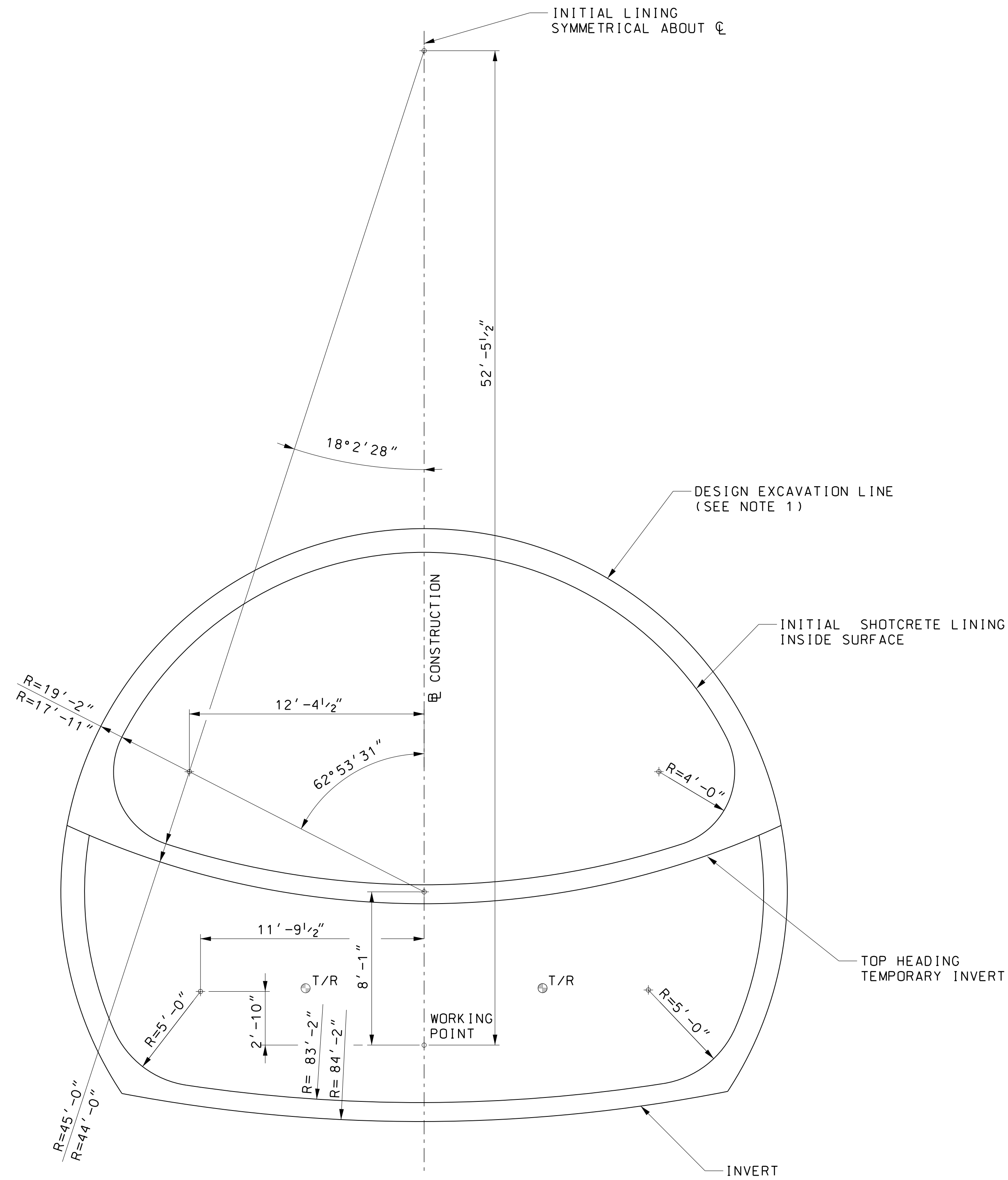
WATERPROOFING SYSTEM AND SMOOTHING SHOTCRETE DETAIL
SCALE: NTS



DETAIL OF MEMBRANE WELD
SCALE: NTS

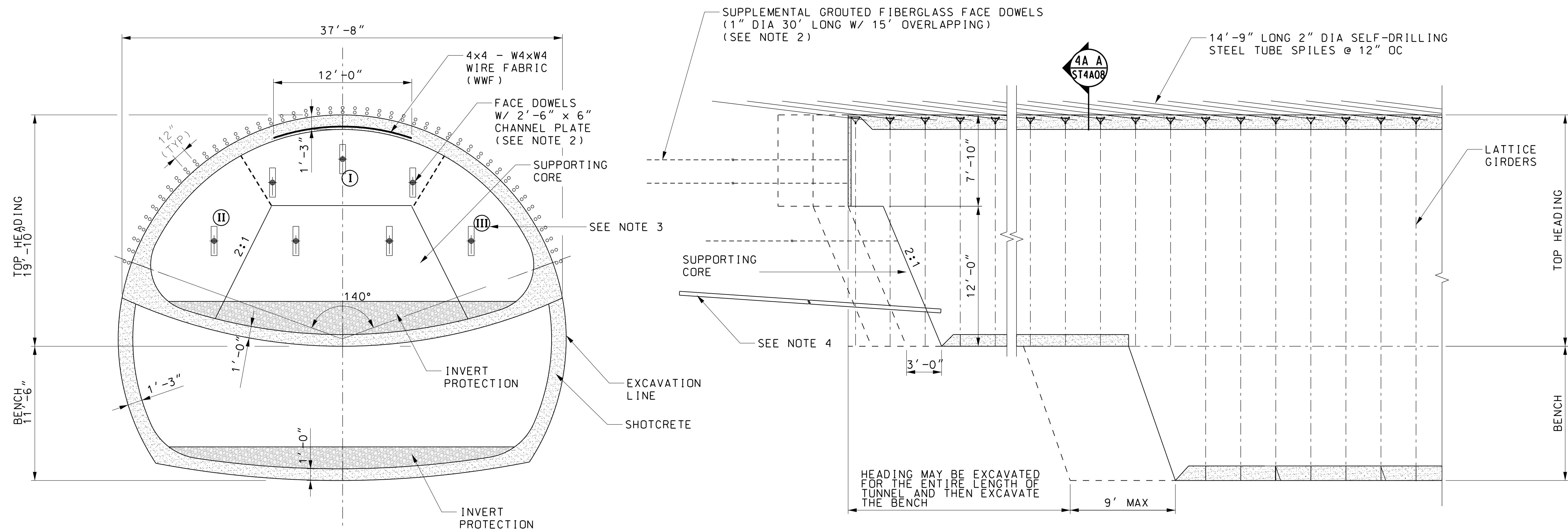


WATERPROOFING AT THE CONSTRUCTION JOINT
SCALE: NTS



- NOTES:
1. DOES NOT INCLUDE DEFORMATION AND CONSTRUCTION TOLERANCES

GEOMETRY OF EXCAVATION AND INITIAL GROUND SUPPORT
SCALE: 1/4"=1' - 0"

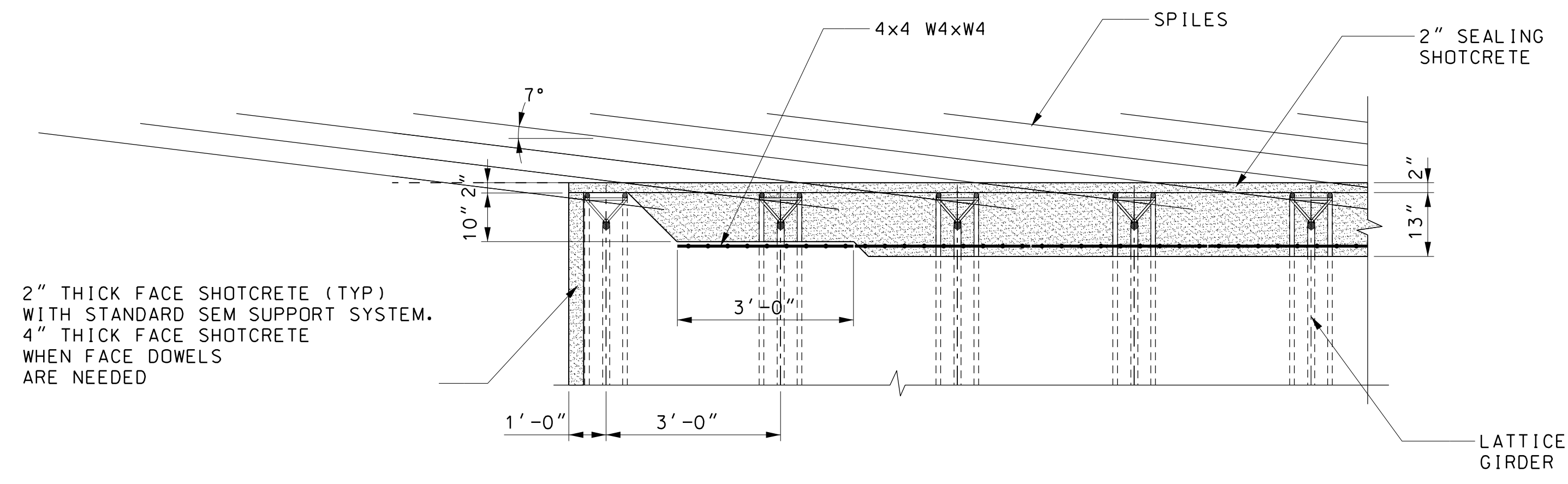


SECTION
 SCALE: 3/16"=1'-0"
 REF: ST4A08

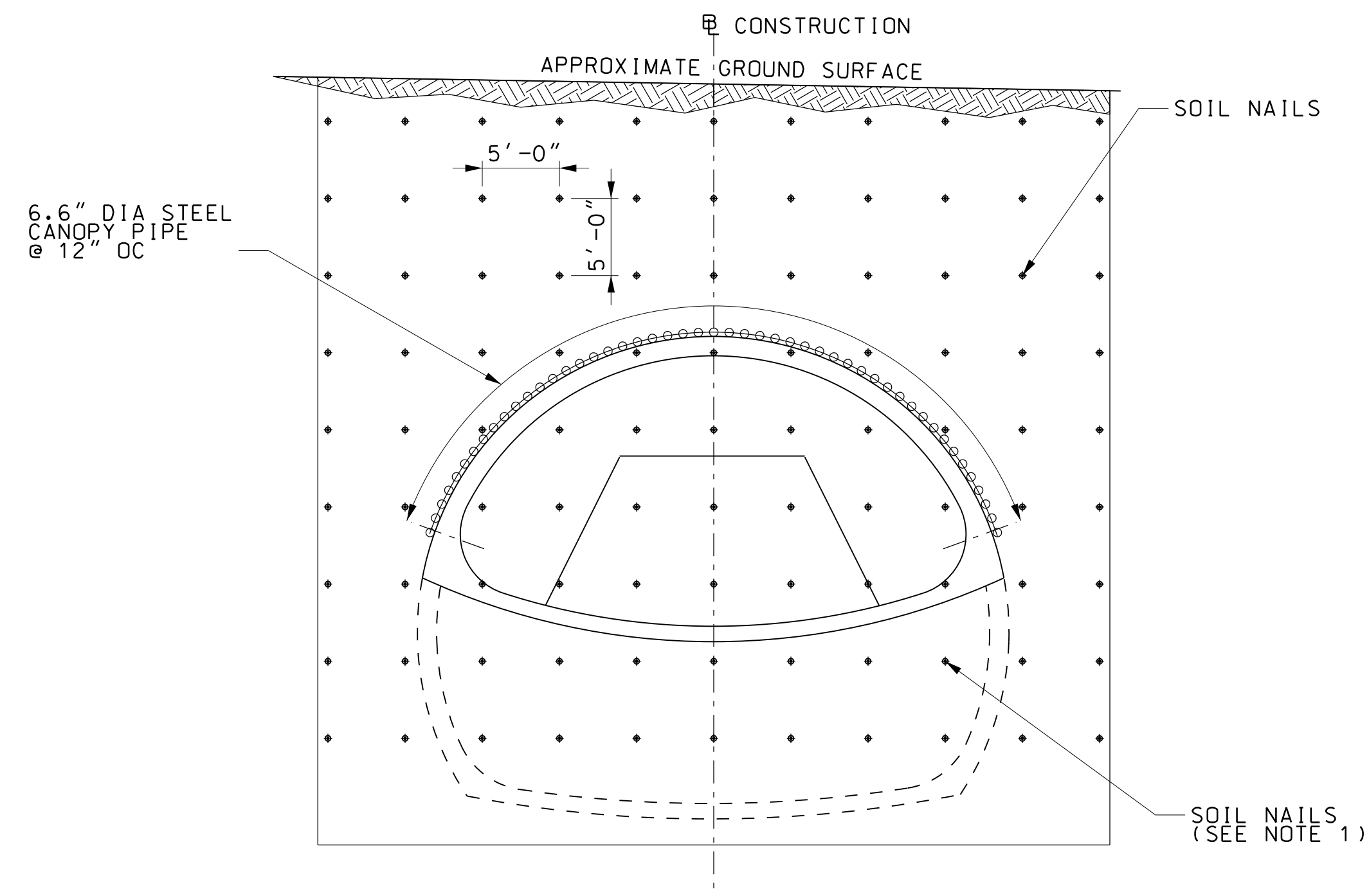
EXCAVATION SEQUENCE
 SCALE: 3/16"=1'-0"

- EXCAVATION SEQUENCE TOP HEADING
 (W/ STANDARD SEM SUPPORT SYSTEM SEE NOTE 1):
1. EXCAVATE ONE ROUND (3 FT) AROUND SUPPORTING CORE
 2. APPLY 2" FIBER REINFORCED SHOTCRETE (FRS) INCLUDING FACE
 3. INSTALL LATTICE GIRDER
 4. INSTALL SPILES
 5. EXCAVATE ONE ROUND OF SUPPORTING CORE (3 FT)
 6. APPLY 10" FRS INCLUDING TEMPORARY INVERT
 7. INSTALL WWF IN CROWN
 8. APPLY REMAINING FRS
 9. PROTECT TEMPORARY INVERT
- EXCAVATION SEQUENCE BENCH:
1. EXCAVATE ONE ROUND
 2. APPLY FRS
 3. PROTECT INVERT

- NOTES:
1. THE STANDARD SEM SUPPORT SYSTEM CONSISTS OF STEEL TUBE SPILES, INITIAL LINING (LATTICE GIRDERS AND SHOTCRETE) AND SUPPORTING CORE AT THE FACE
 2. SUPPLEMENTAL SUPPORT CONSISTING OF FACE DOWELS AND CHANNEL PLATES TO BE INSTALLED AS NEEDED AT EACH FIFTH ROUND OF EXCAVATION. ACTUAL NUMBER AND LOCATION SHALL BE DETERMINED BY THE CONTRACTOR.
 3. IF NECESSARY, THE CONTRACTOR SHALL LIMIT THE DIMENSIONS OF THE UNSUPPORTED GROUND BY SUBDIVIDING THE TOP HEADING EXCAVATION INTO SEPARATE DRIFTS AND SUPPORTING EACH DRIFT BEFORE EXCAVATING AND SUPPORTING THE ADJACENT ONE.
 4. INSTALL FACE DRAINS, AS NEEDED TO RELIEVE LOCAL GROUNDWATER PRESSURES AND/OR TO CHANNEL SEEPAGE.
 5. DESIGN BASED ON THE FOLLOWING SHOTCRETE COMPRESSIVE STRENGTH: 1,500 PSI AT 24 HOURS AND 5,000 PSI AT 28 DAYS.

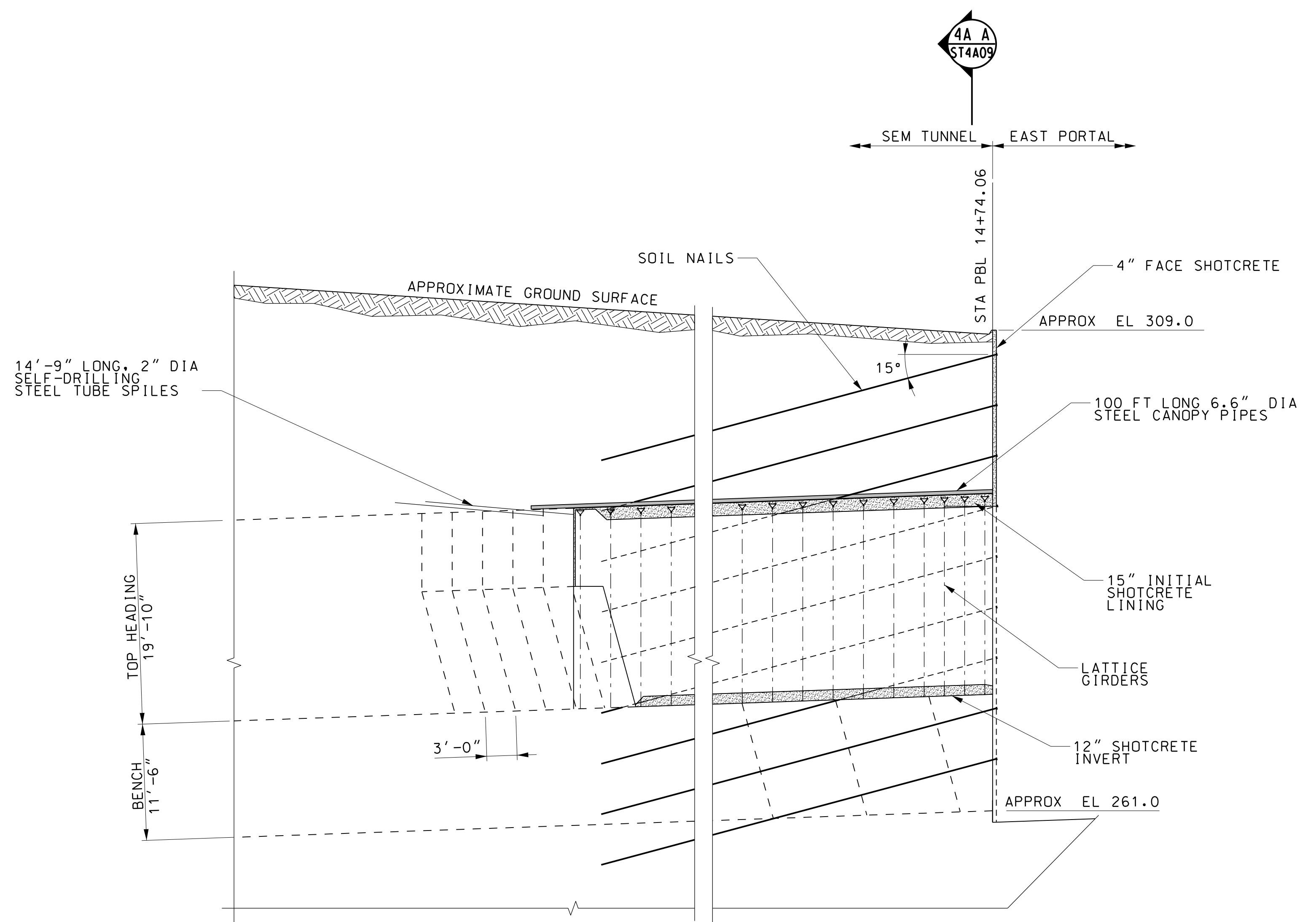


TYPICAL CROWN DETAIL
 SCALE: NTS

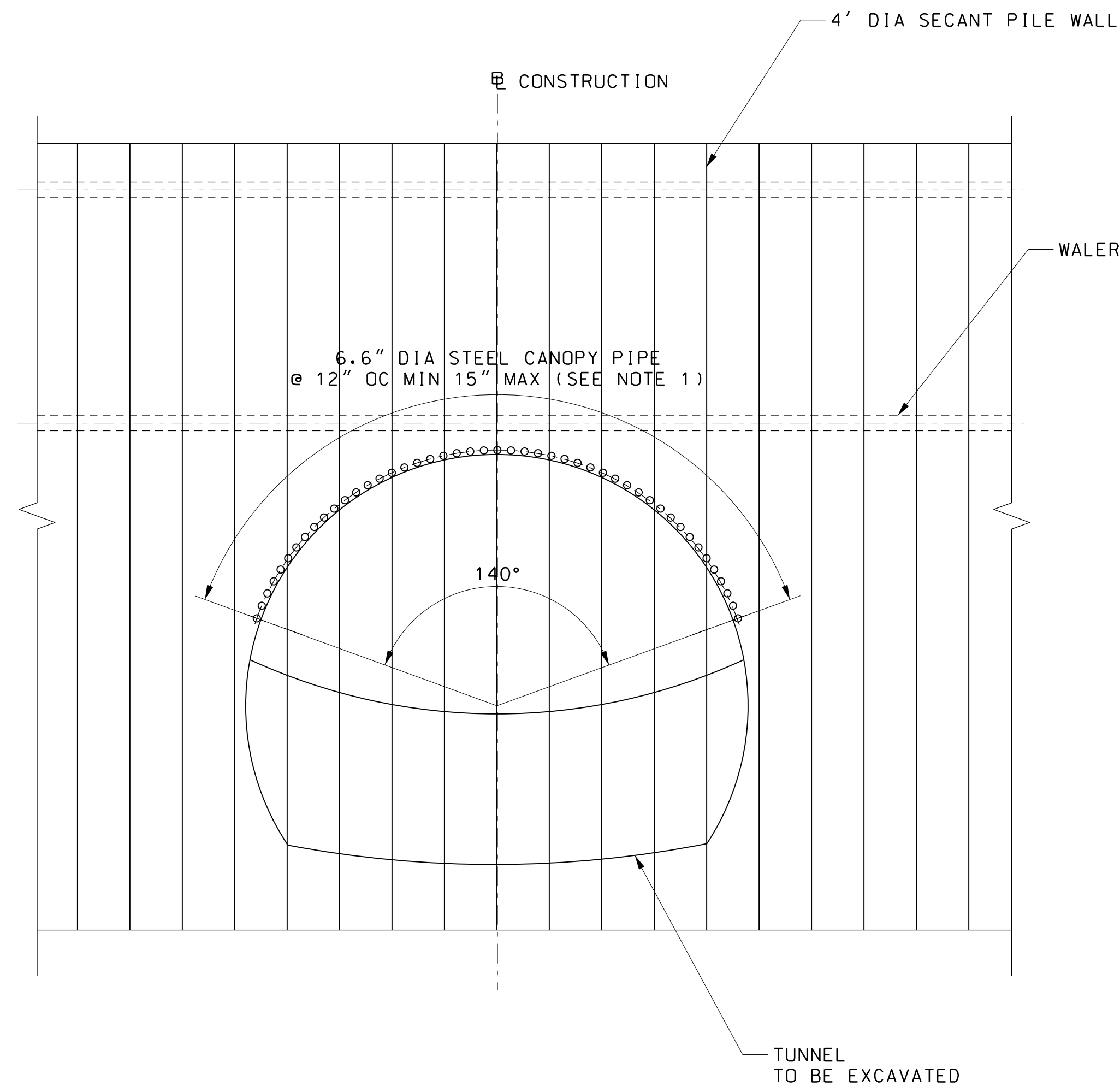


SECTION
 4A A
 ST4A09
 SCALE: 1/8"=1'-0"
 REF: ST4A09

- NOTES:
1. SOIL NAILS IN THE TUNNEL SHALL BE FIBERGLASS DOWELS.
 2. THE FIRST THREE EXCAVATION ROUNDS SHALL BE 2' WITHOUT SUPPORTING CORE



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



4A A
ST4A10

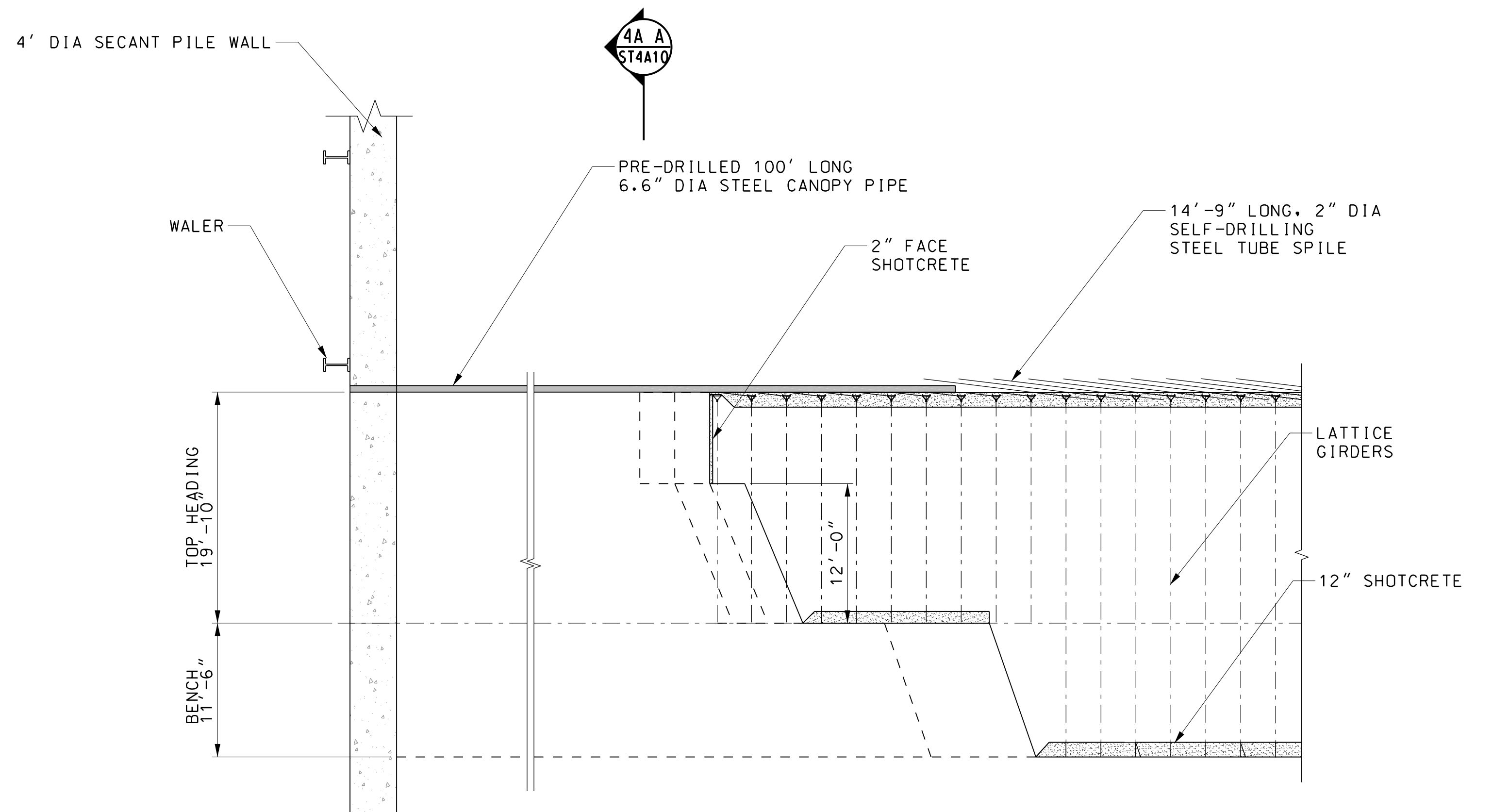
SECTION

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

REF: ST4A10

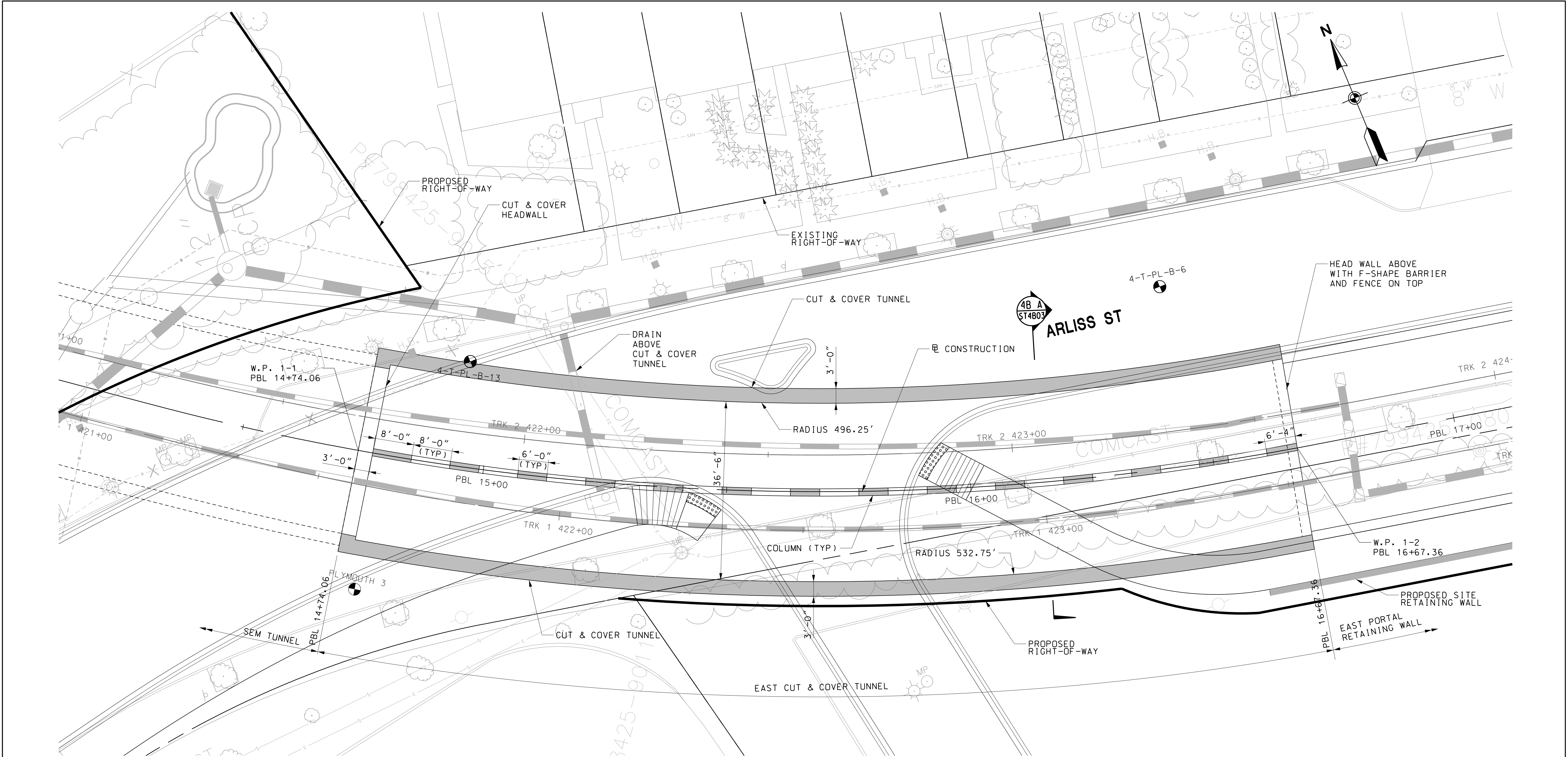
NOTE

- ADJUST SPACING OF STEEL CANOPY PIPES AS NEEDED TO AVOID CONFLICT WITH SECANT PILE STEEL COLUMN REINFORCEMENT.



EXCAVATION SEQUENCE

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



GENERAL NOTES

SPECIFICATIONS:
-ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
-INTERNATIONAL CODE COUNCIL, INTERNATIONAL BUILDING CODE.

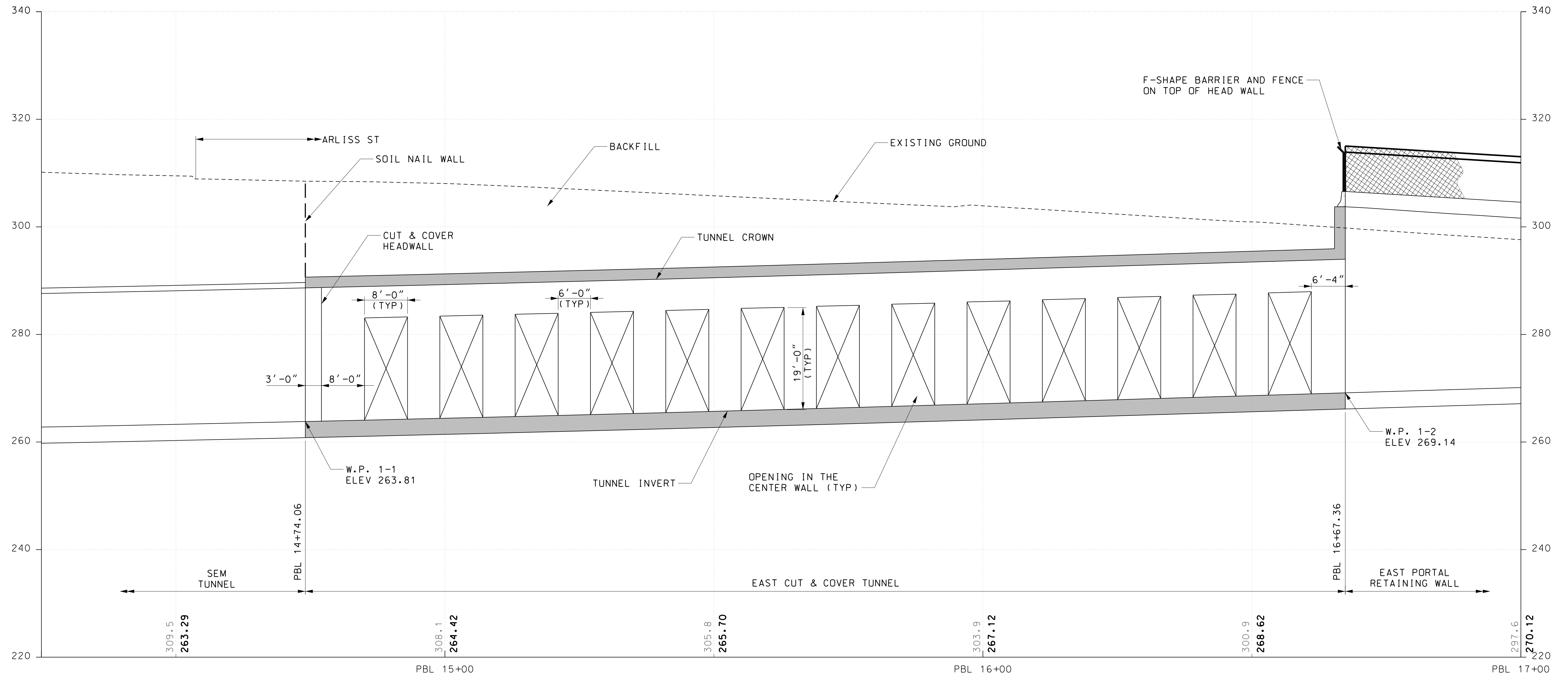
DESIGN LOADS:
MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

CONCRETE DESIGN:
EAST CUT & COVER TUNNEL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.

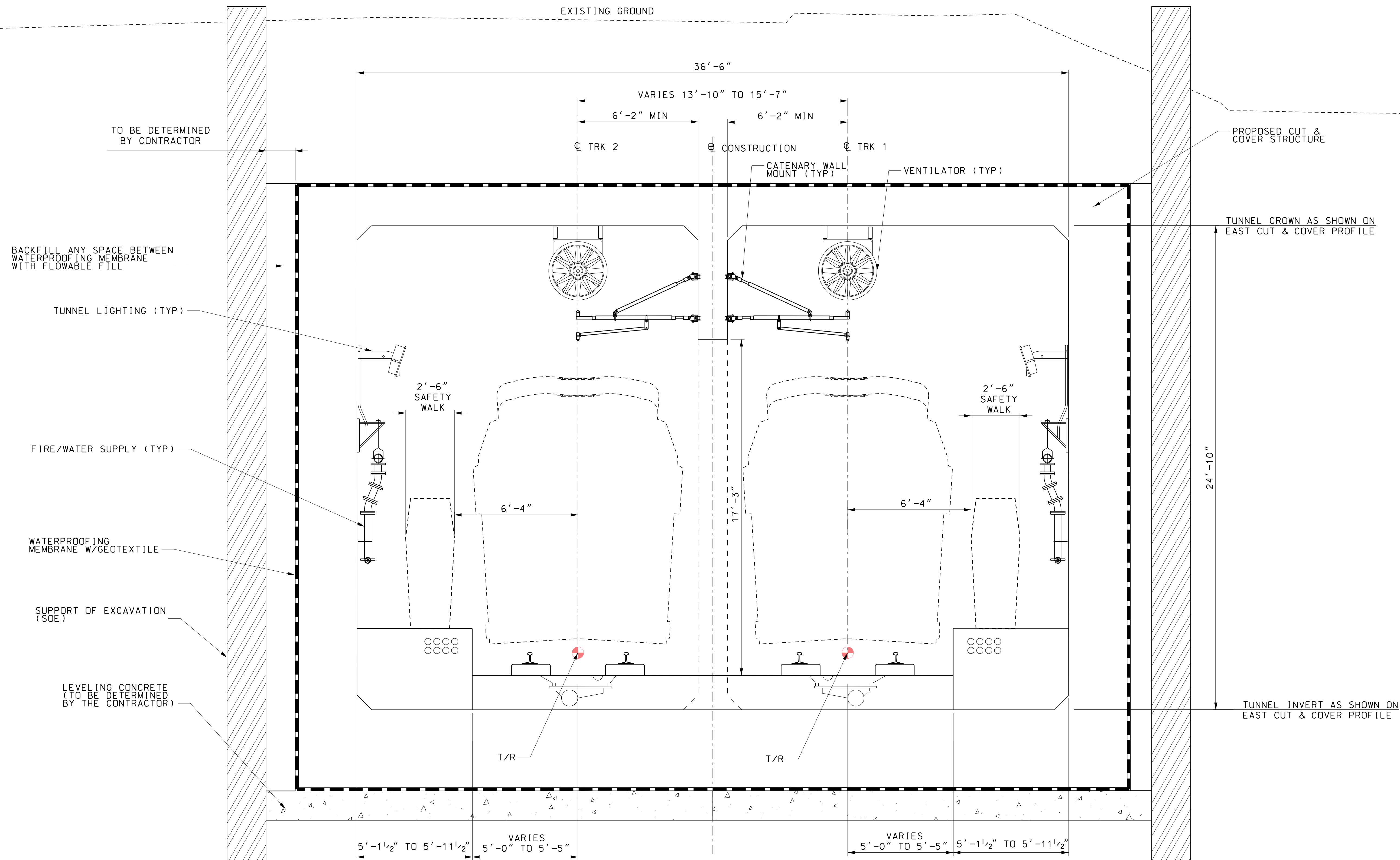
REINFORCING STEEL:
REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
MINIMUM CLEAR COVER OVER REINFORCEMENT SHALL BE 2 INCHES.

PLAN

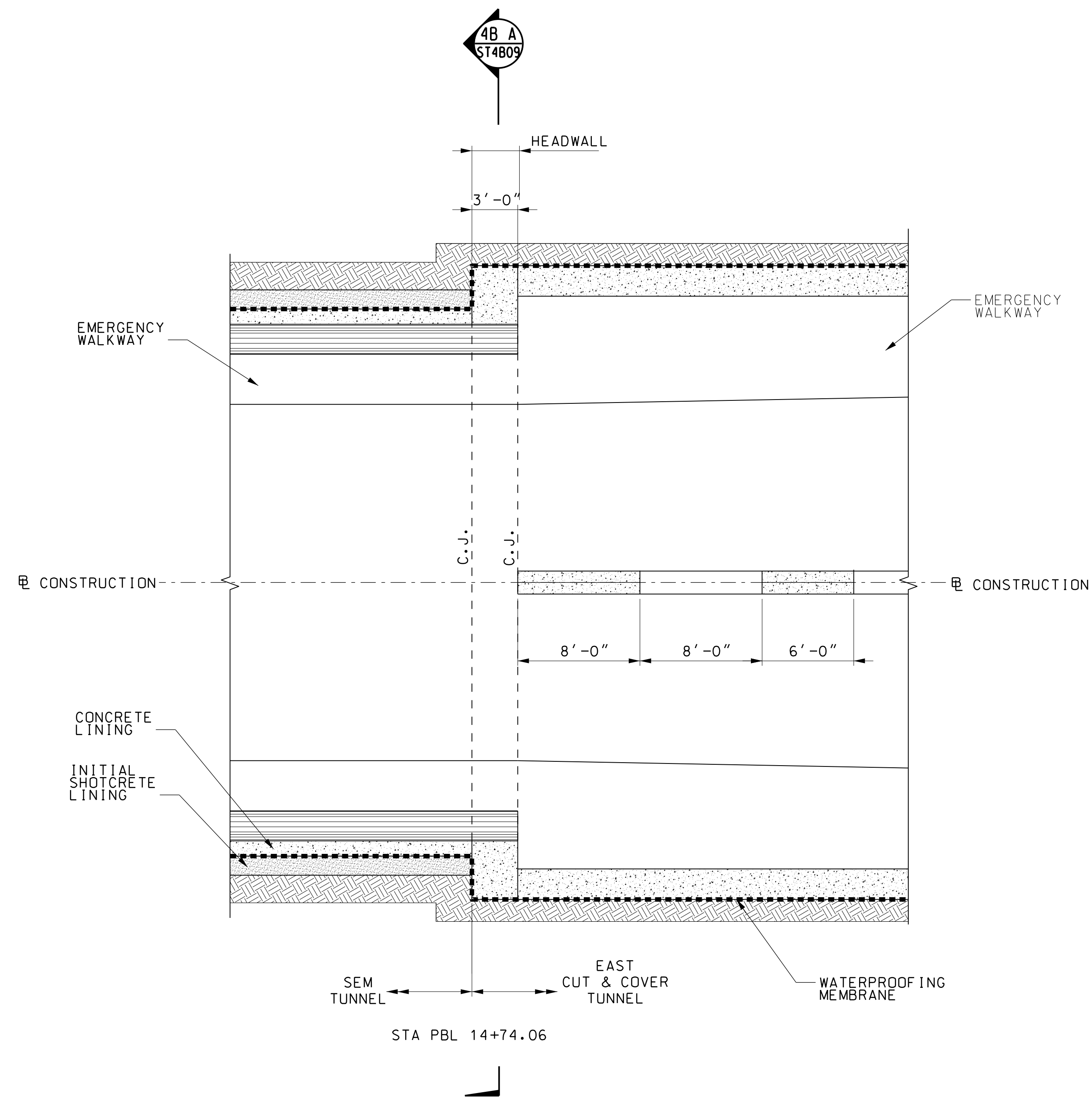
SCALE: 1"=10'-0"



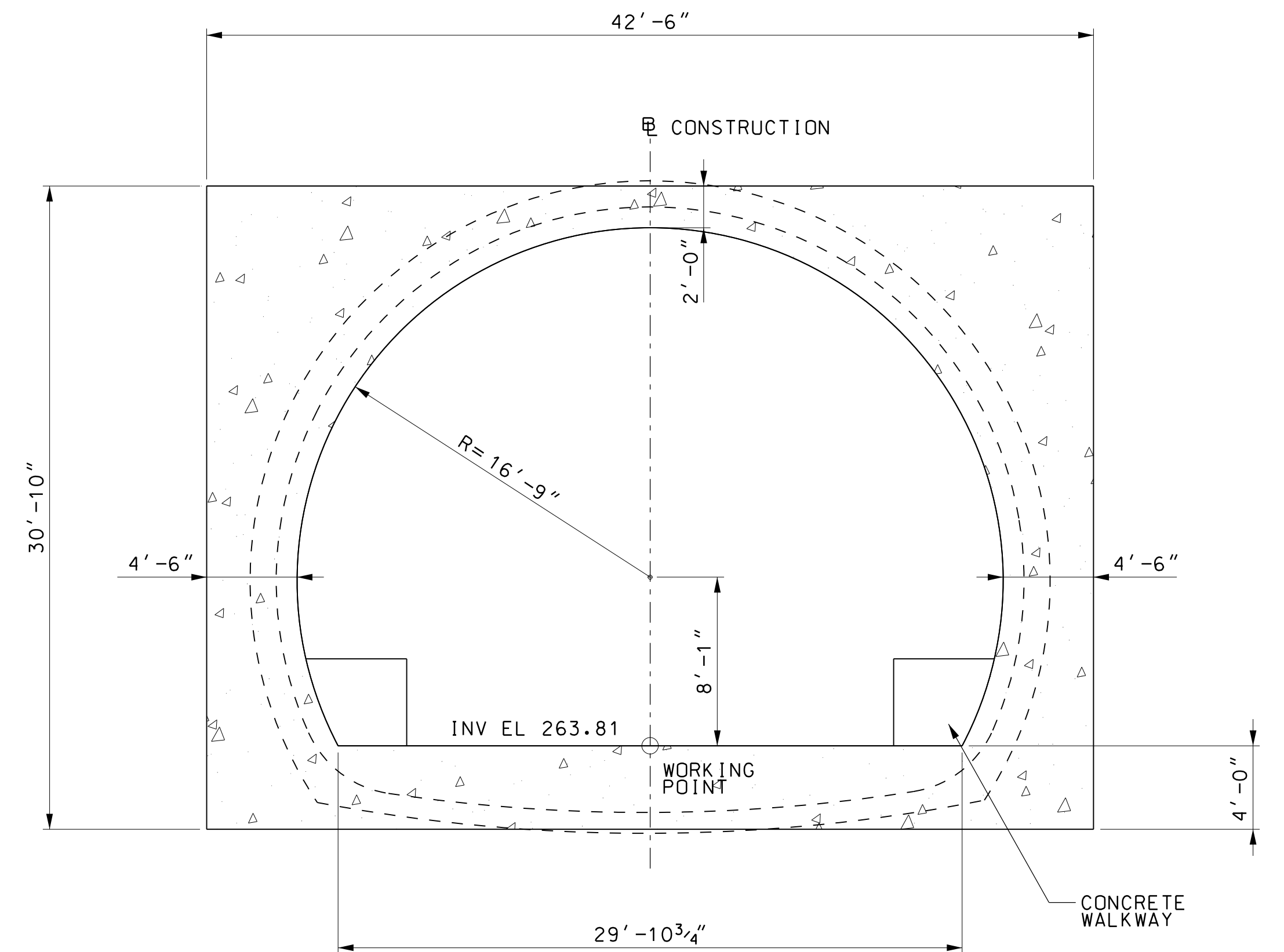
PROFILE
SCALE: 1"=10'-0"



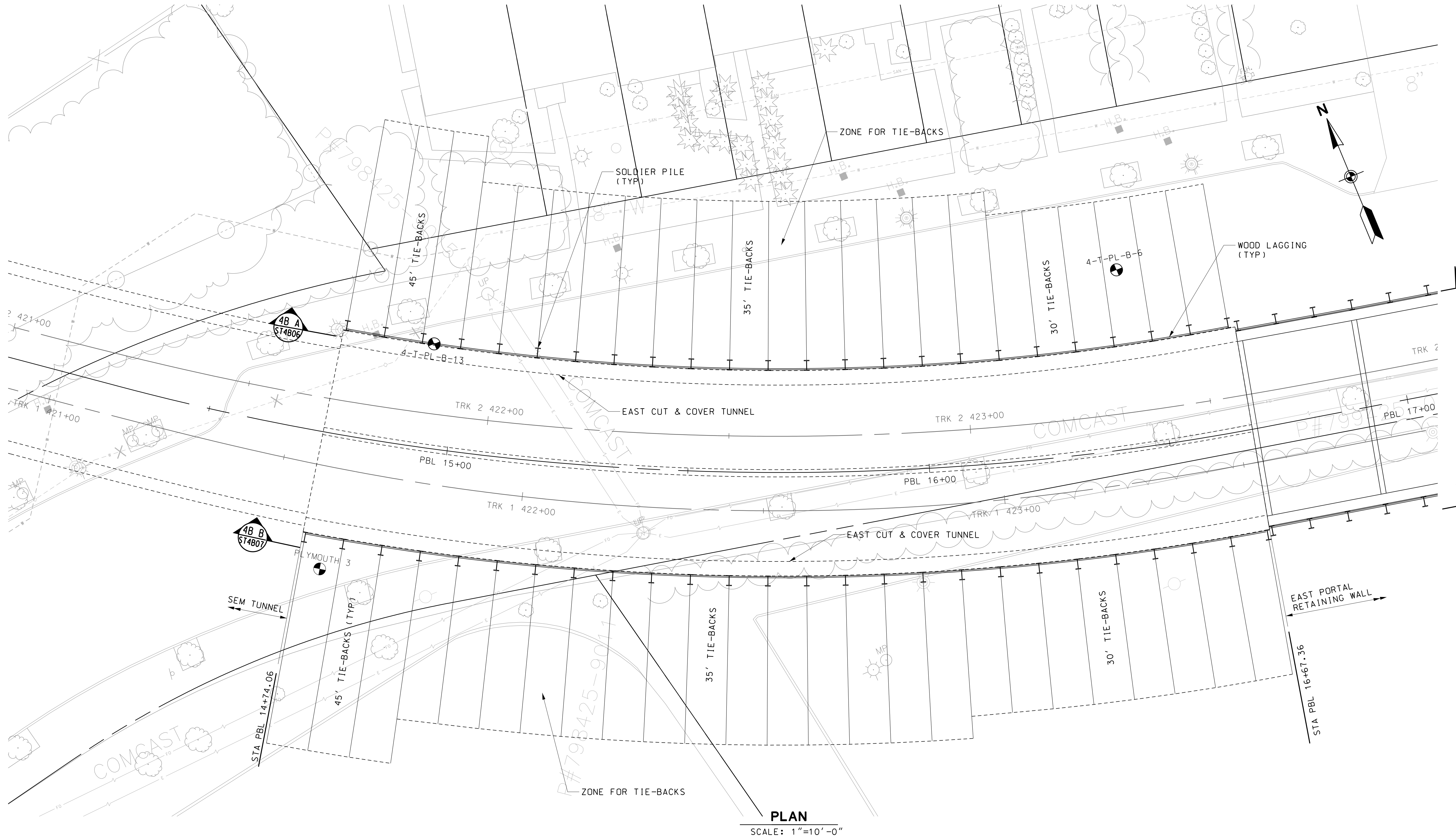
4B A EAST CUT & COVER TUNNEL SPACE PROOFING SECTION
 SCALE: 3/8"=1' -0"
 REF: ST4B01

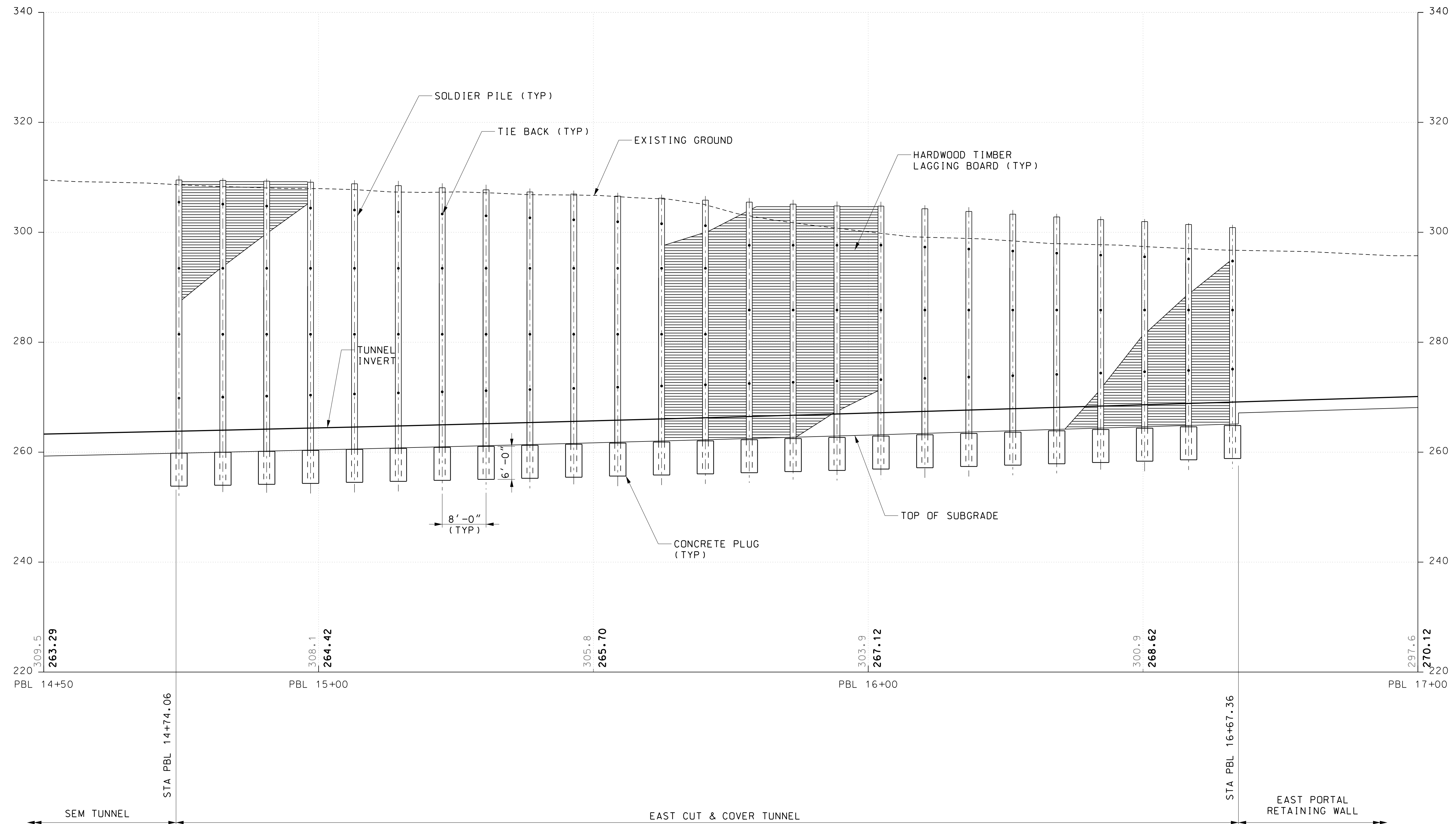


PLAN
SCALE: $\frac{3}{16}''=1'-0''$

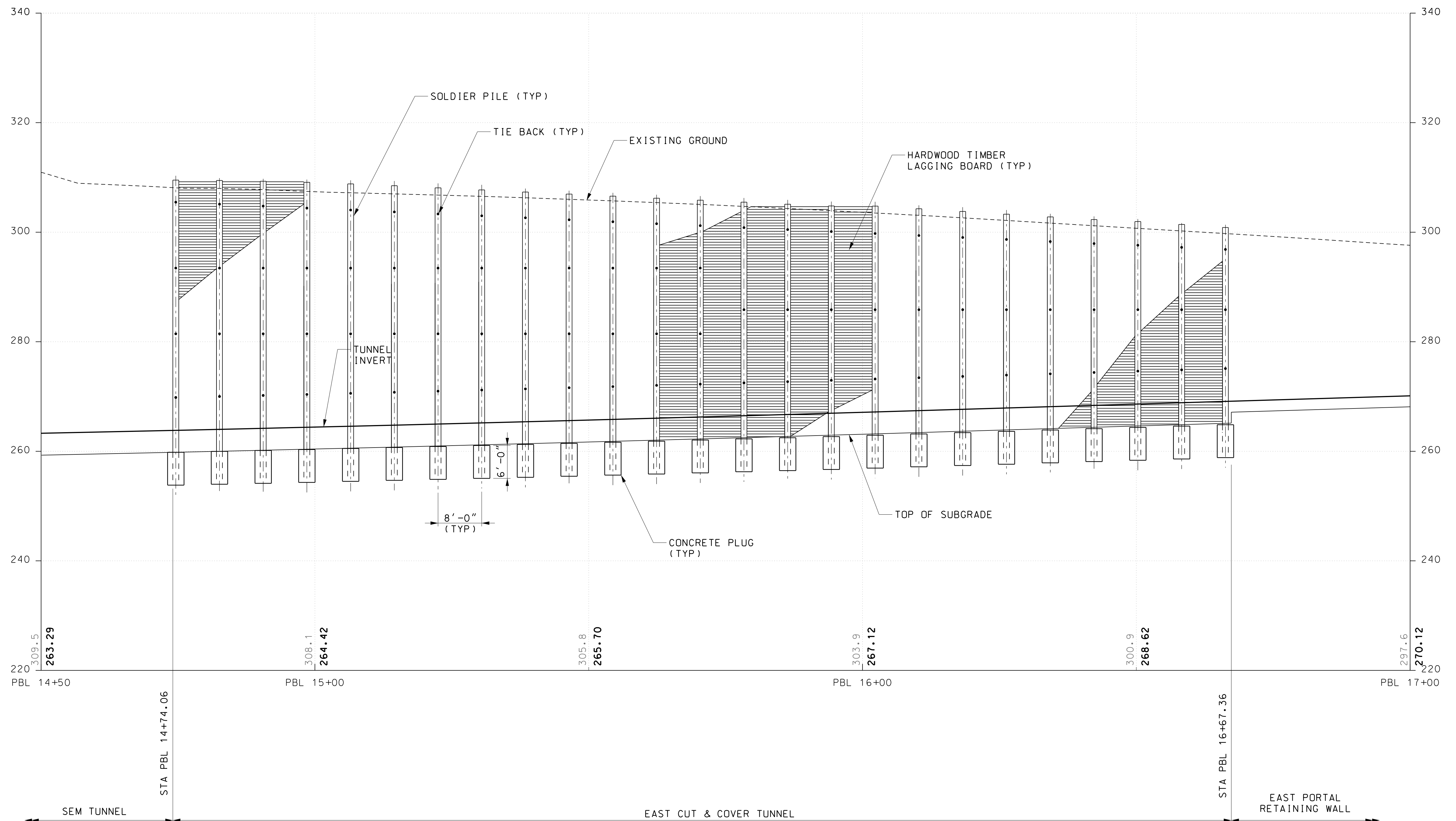


SECTION
SCALE: $\frac{3}{16}''=1'-0''$
REF: ST4B09

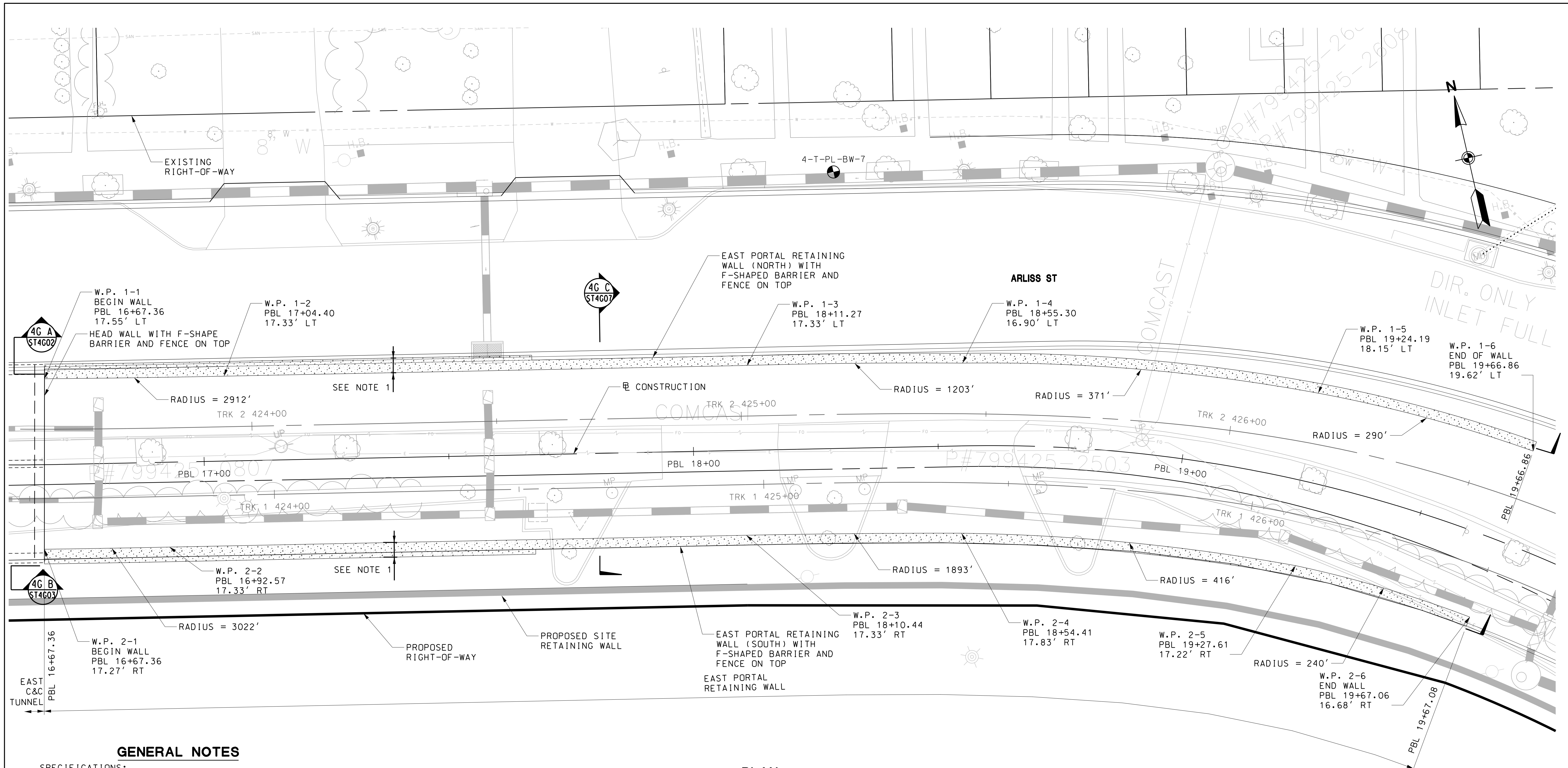




4B A
ST4B06
ELEVATION
SCALE: 1"=10'-0"
REF: ST4B05



ELEVATION
SCALE: 1"=10'-0"
REF: ST4B05



GENERAL NOTES

SPECIFICATIONS:
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-INTERNATIONAL CODE COUNCIL, INTERNATIONAL BUILDING CODE.

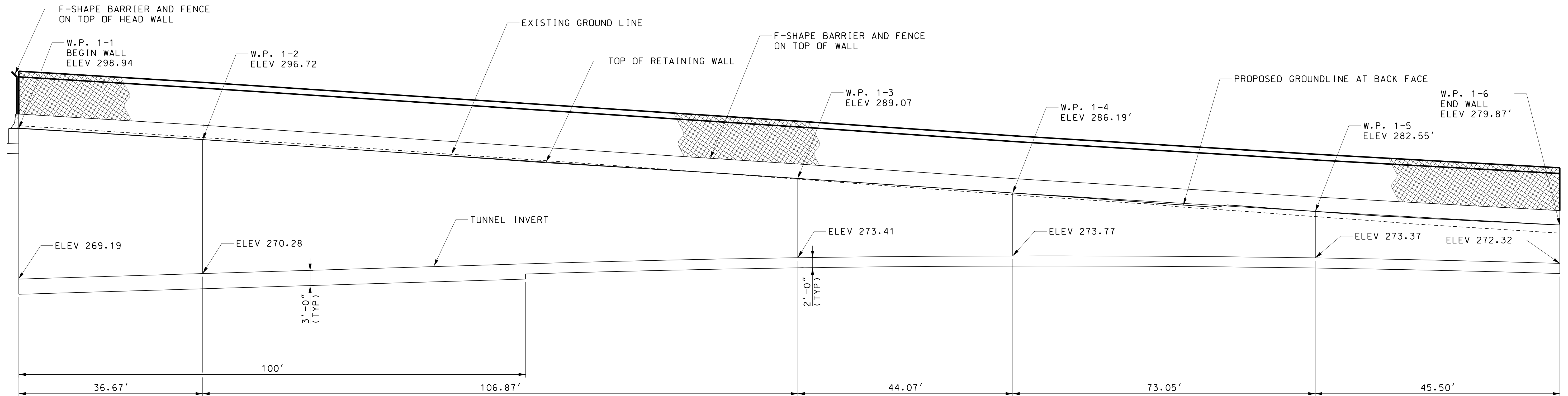
DESIGN LOADS:
MTA RED AND PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

CONCRETE DESIGN:
EAST PORTAL RETAINING WALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.

REINFORCING STEEL:
REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
MINIMUM CLEAR COVER OVER REINFORCEMENT SHALL BE 2 INCHES.

PLAN
SCALE: 1"=10'-0"

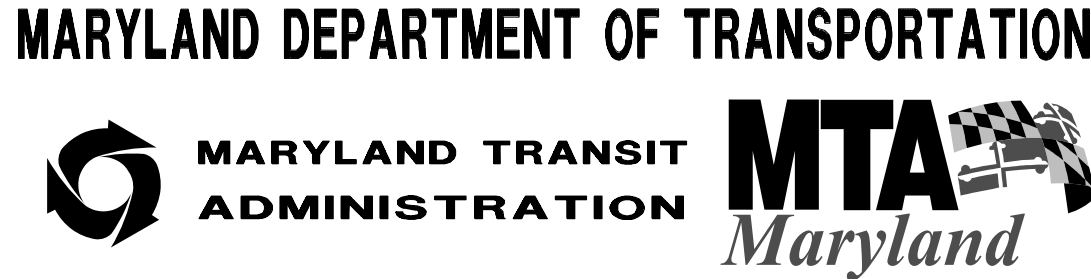
NOTE 1: REFER TO ST4G07 FOR WALL THICKNESS.



DATUM ELEV. 220

NOTE: TRACK DRAIN NOT SHOWN FOR CLARITY.

ELEVATION - NORTH WALL
SCALE: 1"=10'-0"
REF: ST4G01

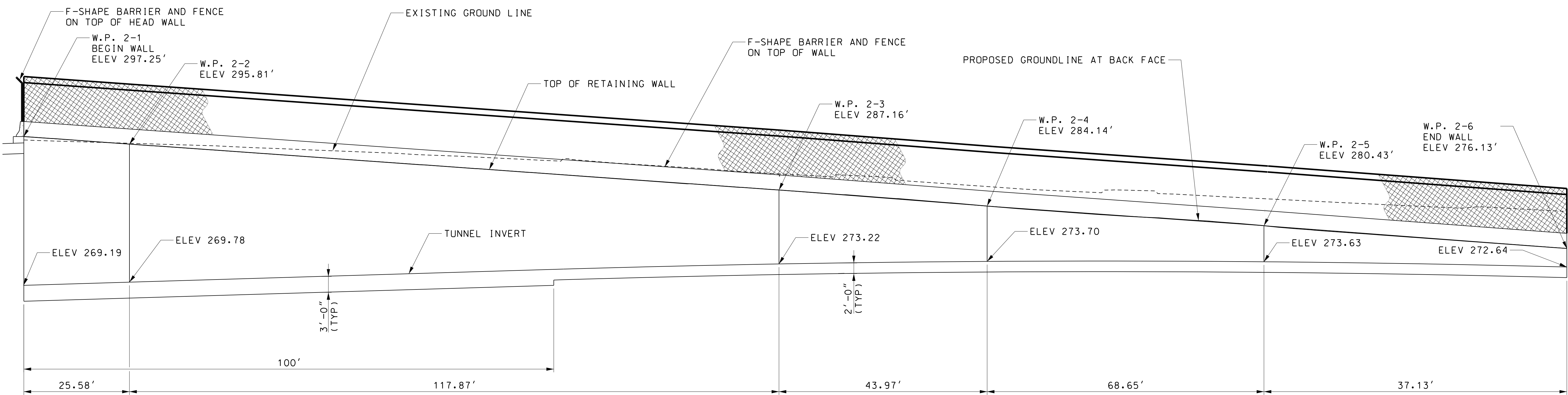


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License No. Expiration Date

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DESIGN	TJ	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL PLYMOUTH TUNNEL EAST PORTAL RETAINING WALL PROFILE (NORTH) DATE: DECEMBER 2013 SCALE: AS SHOWN
DRAWN	MC	
CHECK	RJC	

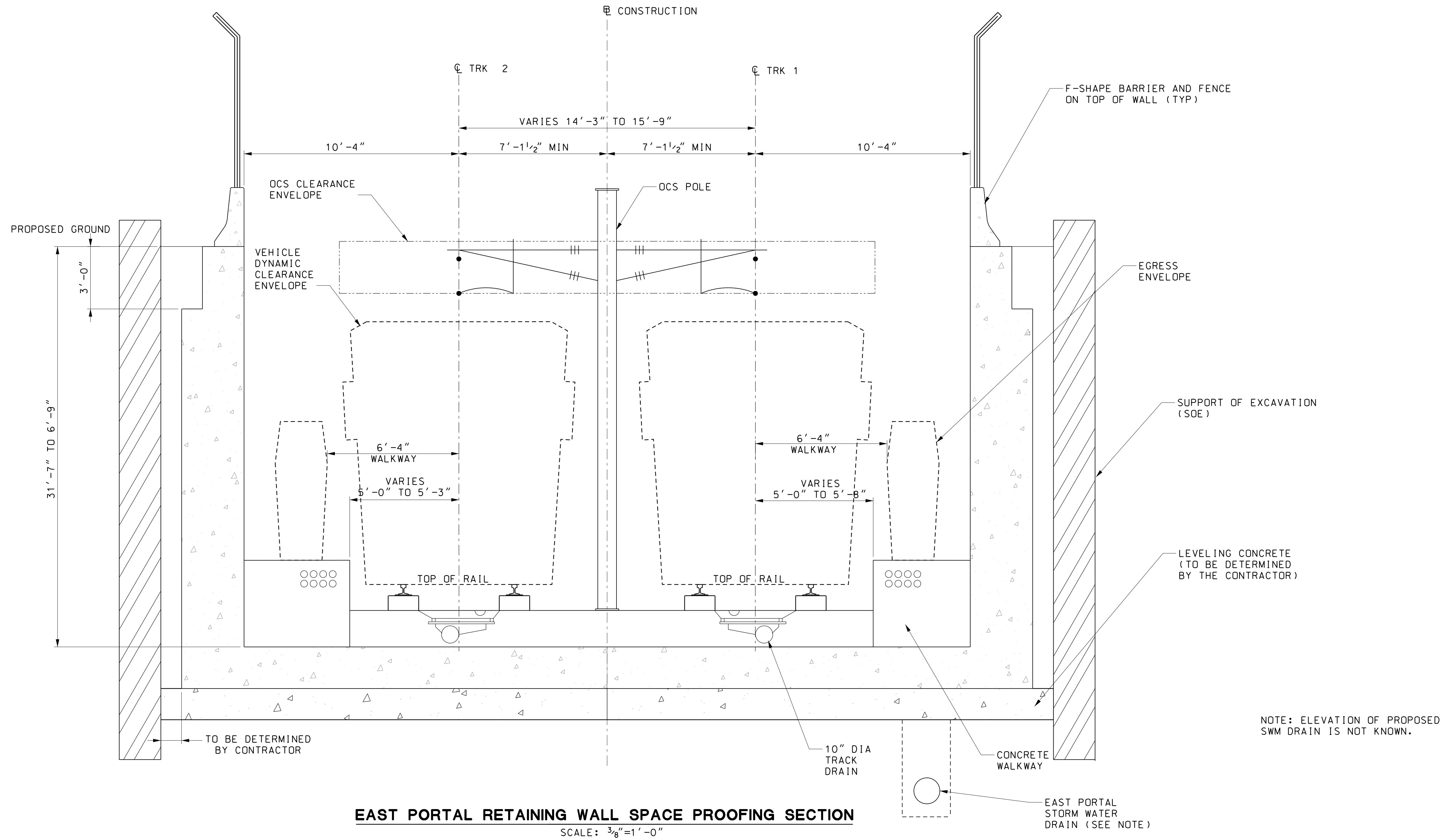
CONTRACT NO.	T-1042-0220
DRAWING NO.	ST4G02
SHEET NO.	614 OF 828

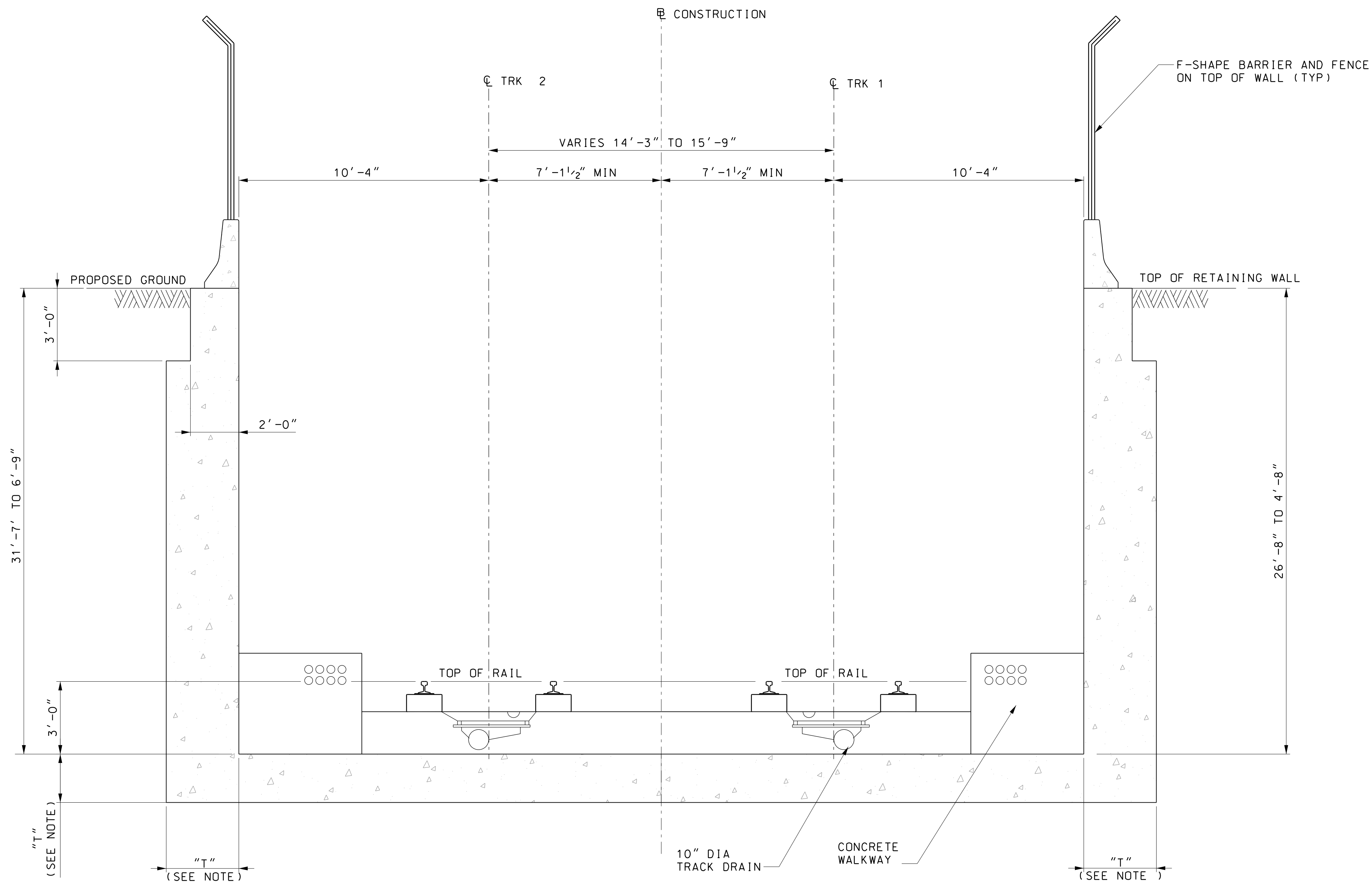


DATUM ELEV. 220

ELEVATION - SOUTH WALL
SCALE: 1"=10'-0"
REF: ST4G01

NOTE: TRACK DRAIN NOT SHOWN FOR CLARITY.





NOTE

FOR NORTH WALL & INVERT SLAB

T= 3'-0" FROM STA PBL 16+67.36 TO STA PBL 17+67.36
T= 2'-0" FROM STA PBL 17+67.36 TO STA PBL 19+66.86

FOR SOUTH WALL & INVERT SLAB

T= 3'-0" FROM STA PBL 16+67.36 TO STA PBL 17+67.36
T= 2'-0" FROM STA PBL 17+67.36 TO STA PBL 19+67.08

4G C
ST4G07

SECTION

SCALE: 3/8"=1' -0"
REF: ST4G01

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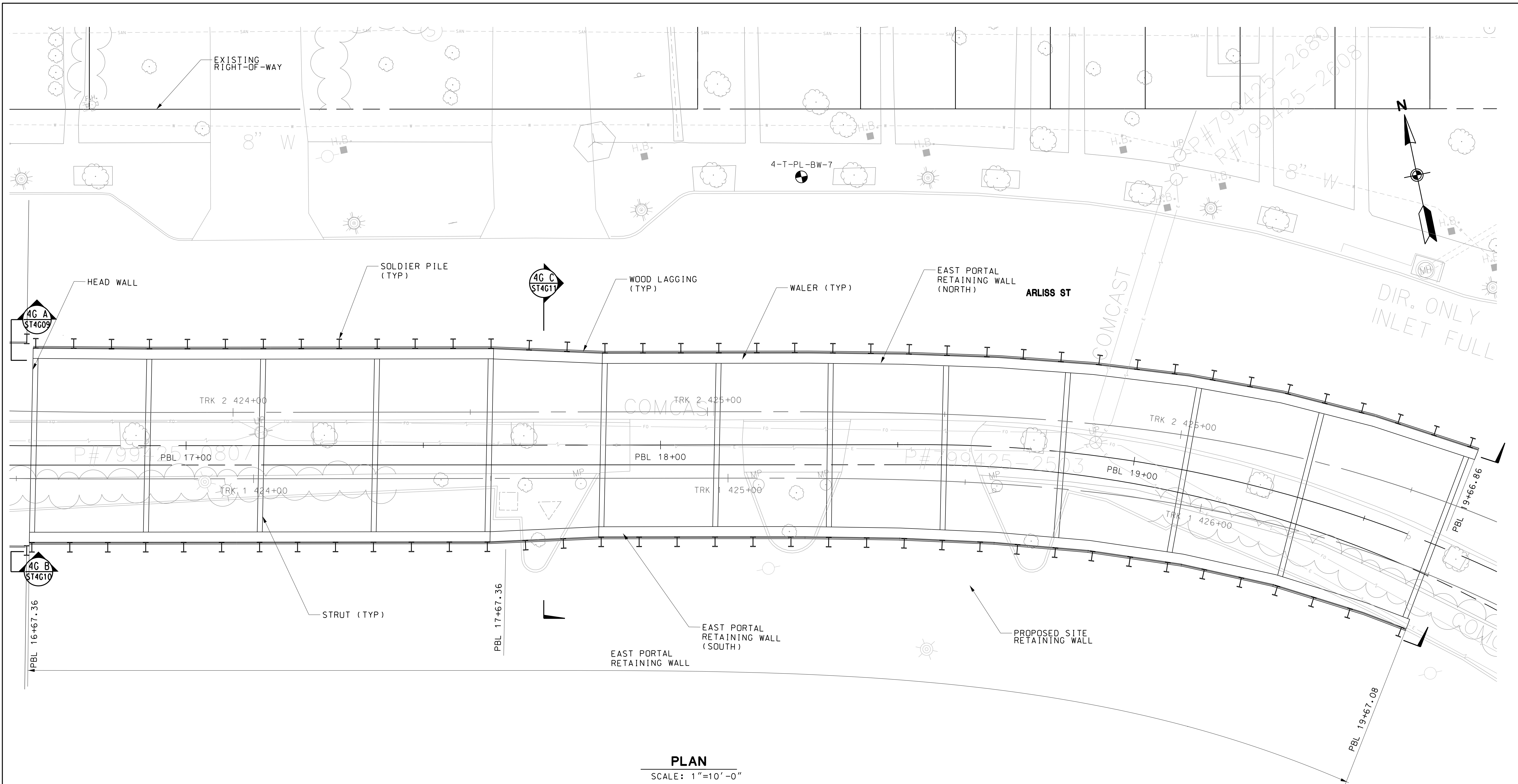
DESIGN	TJ
DRAWN	MC
CHECK	RJC
APPR	

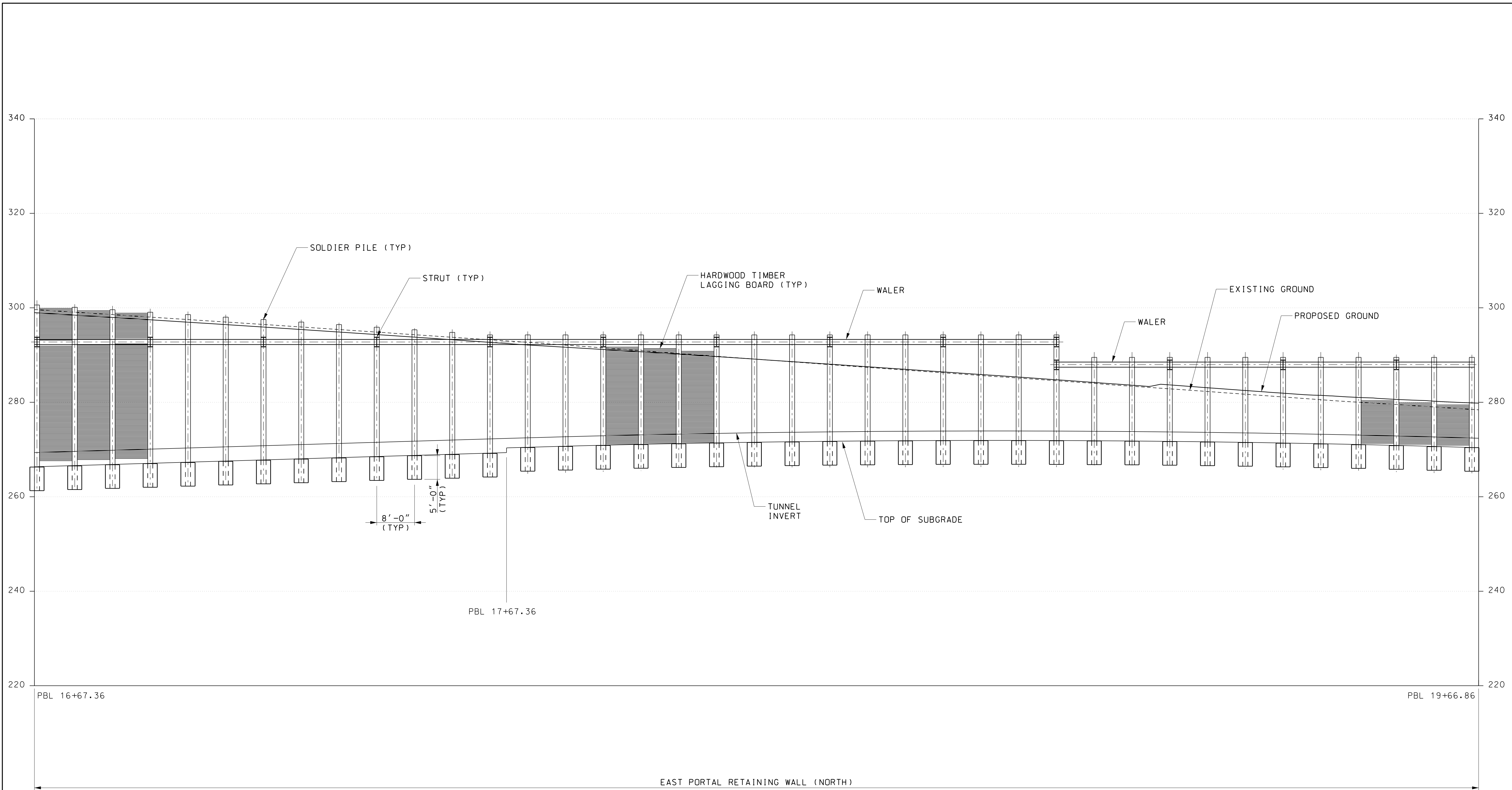
PRELIMINARY ENGINEERING
PURPLE LINE LIGHT RAIL

PLYMOUTH TUNNEL
EAST PORTAL RETAINING WALL SECTION
DATE: DECEMBER 2013 SCALE: AS SHOWN






CONTRACT NO.	T-1042-0220
DRAWING NO.	ST4G07
SHEET NO.	617 OF 828

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12/10/2013

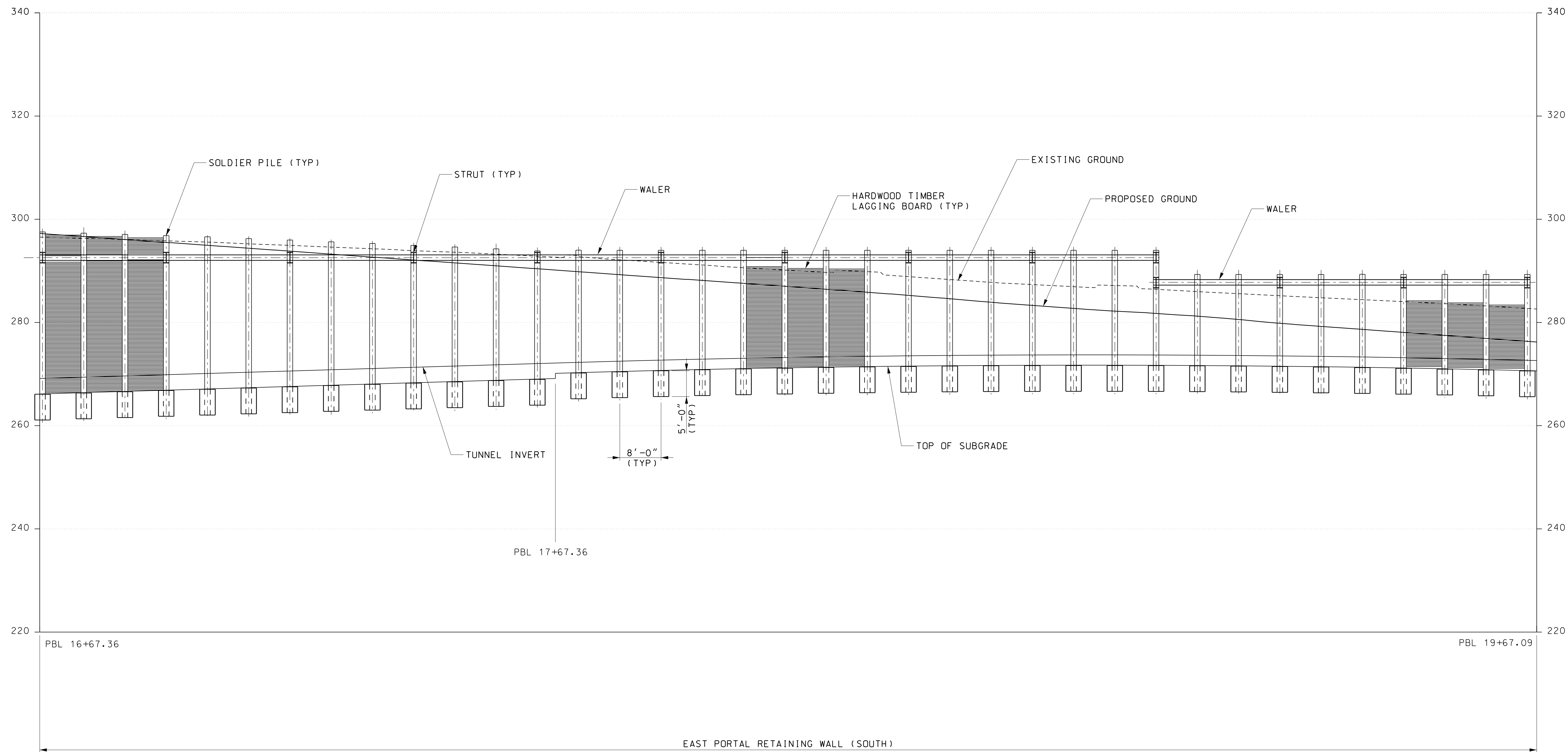




ELEVATION
SCALE: 1"=10'-0"
REF: ST4G08

<div>MARYLAND DEPARTMENT OF TRANSPORTATION</div> <div><div> MARYLAND TRANSIT ADMINISTRATION</div><div></div></div>	<div></div> <div></div>	<div></div>	<div>PROFESSIONAL CERTIFICATION</div> <div>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</div> <div>License No. Expiration Date</div>	<div><i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i></div>	<div>APPR</div> <div>CHECK</div> <div>DRAWN</div> <div>DESIGN</div>	<div>TJ</div> <div>MC</div> <div>RJC</div>	<div>PRELIMINARY ENGINEERING</div> <div>PURPLE LINE LIGHT RAIL</div>	<div>CONTRACT NO.</div> <div>T-1042-0220</div>
					<div>EAST PORTAL EXCAVATION ELEVATION (NORTH)</div> <div>DATE: DECEMBER 2013</div> <div>SCALE: AS SHOWN</div>	<div>DRAWING NO.</div> <div>ST4G09</div>	<div>SHEET NO.</div> <div>619 OF 828</div>	

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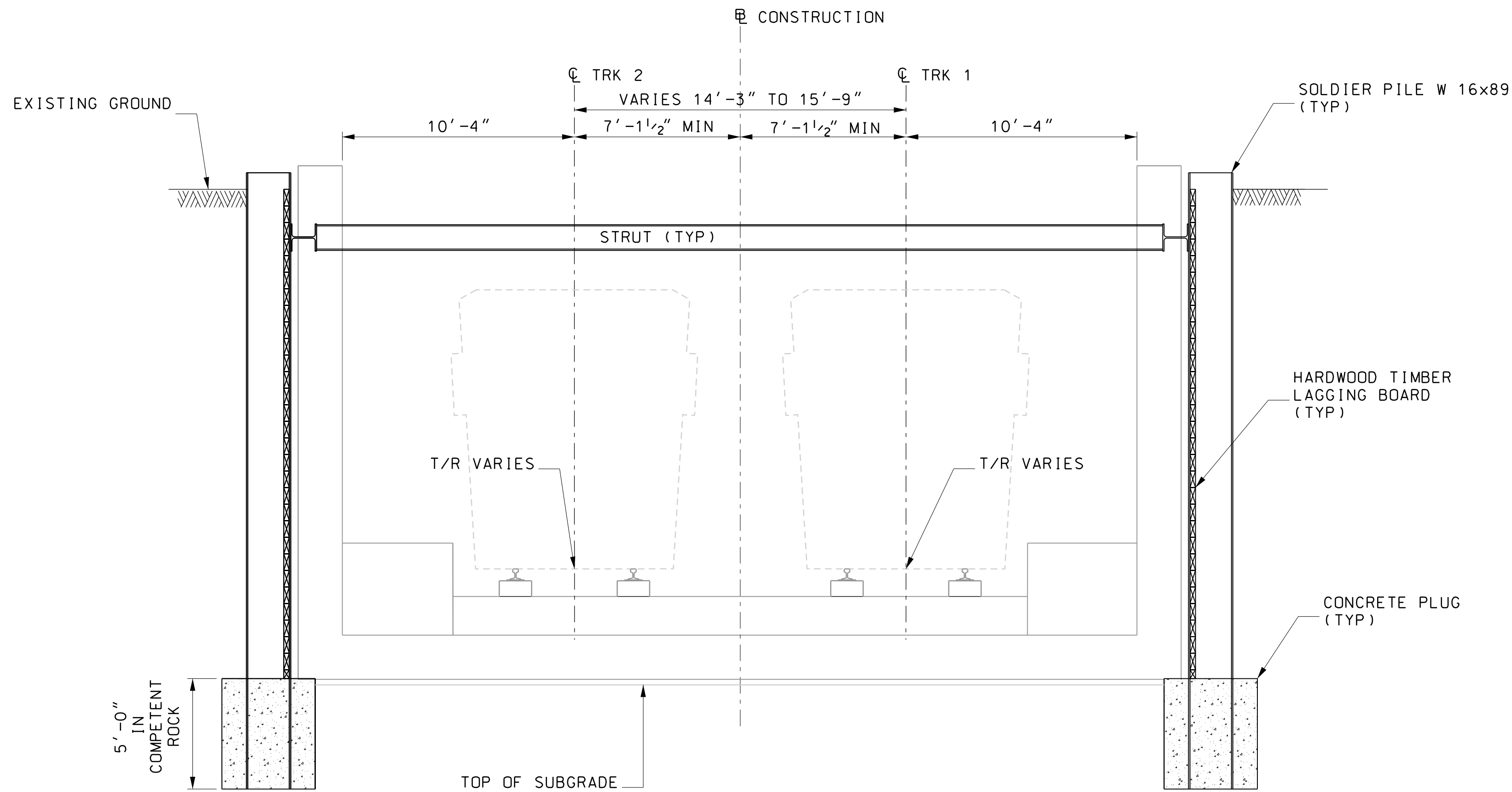


4G B
ST4G10

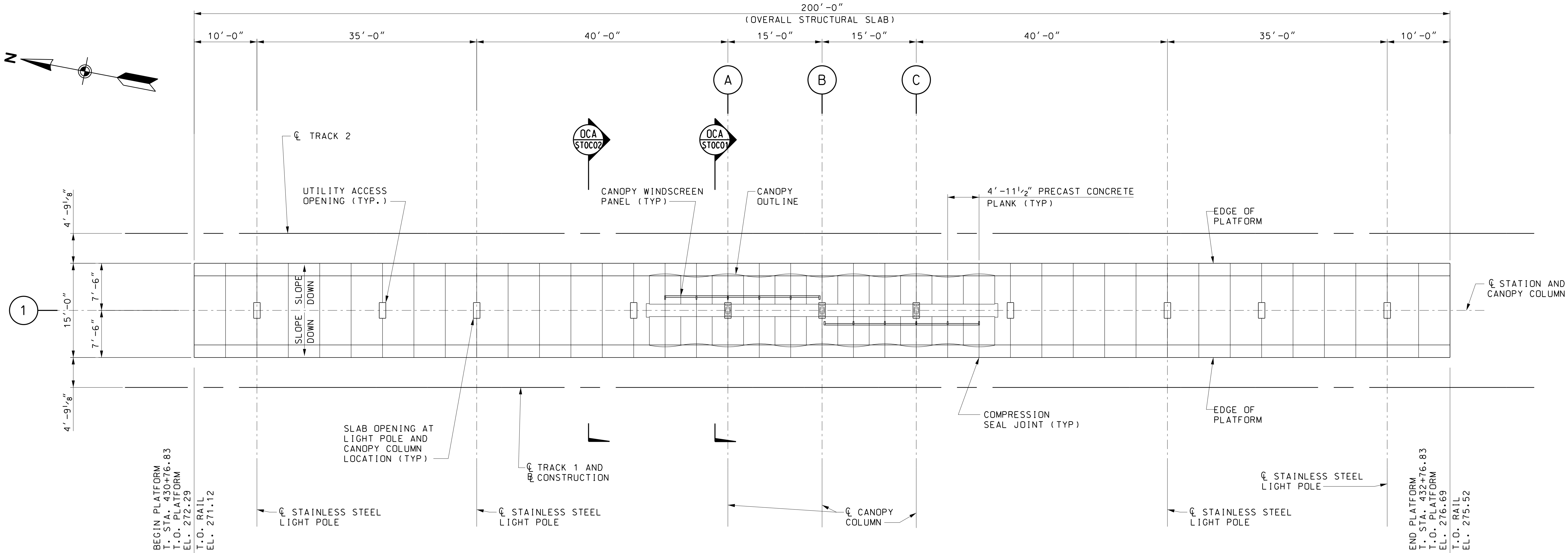
ELEVATION

SCALE: 1"=10'-0"

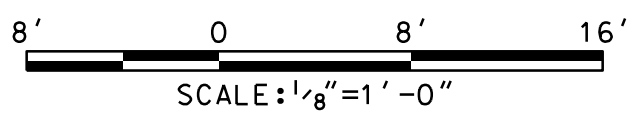
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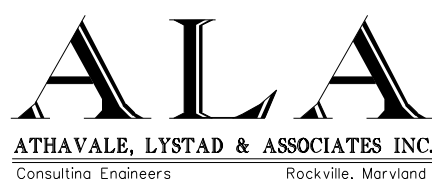
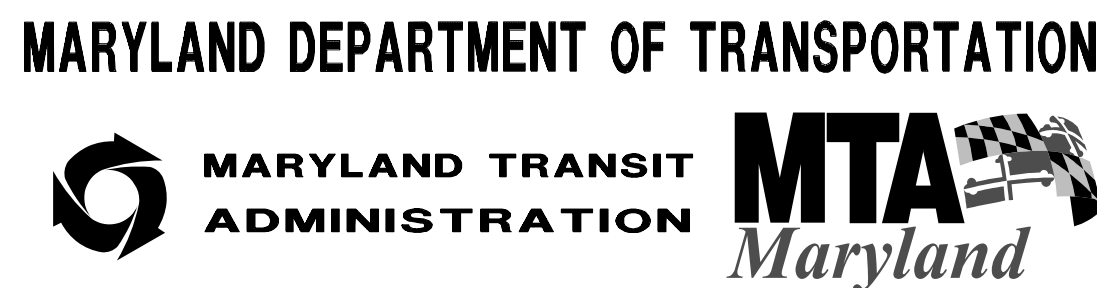
4G C
ST4G11 SECTION
SCALE: 1/4"=1'-0"
REF: ST4G08



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



NOTE:
FOR NOTES, SEE DWG. NO. STOA01 IN VOLUME 7.



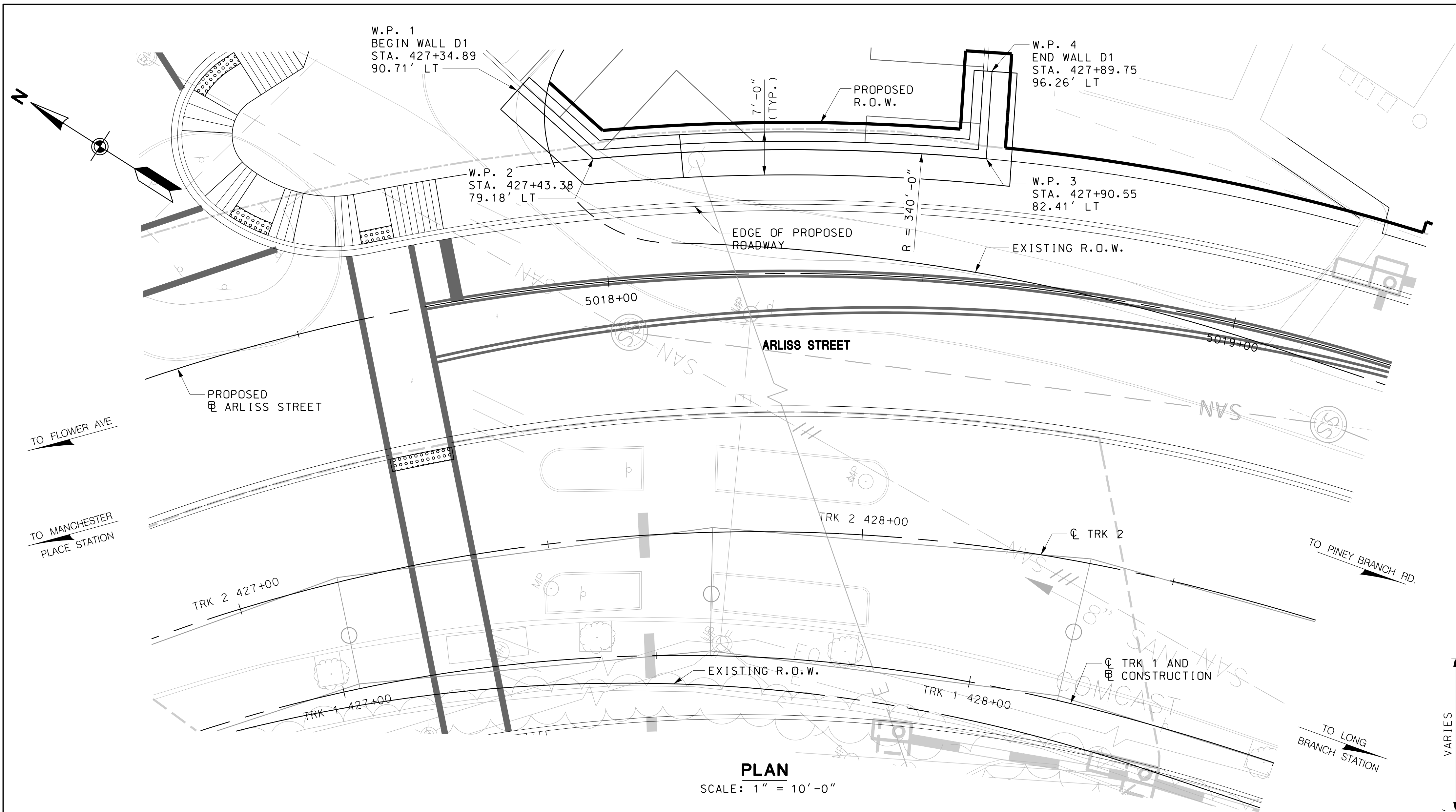
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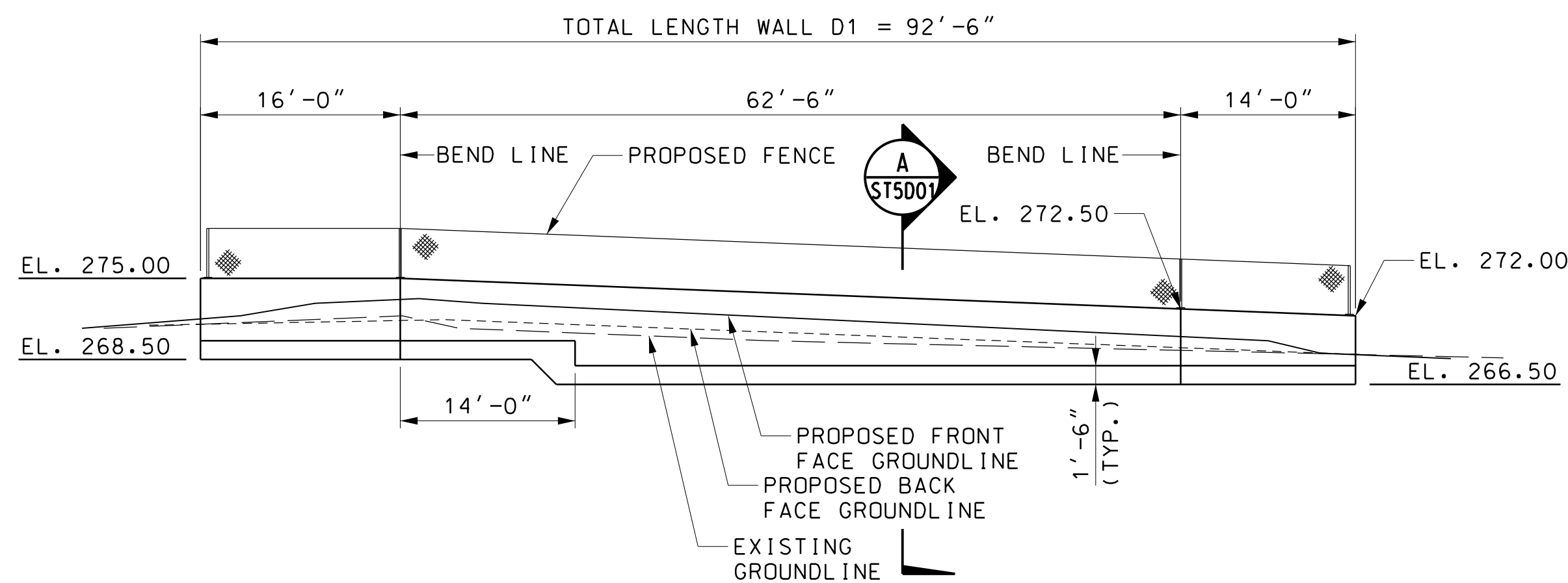
APPR	CHECK	DRAWN	DESIGN
			BT
			JE
			RG

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	
LONG BRANCH STATION PLATFORM PLAN	
DATE: DECEMBER 2013	SCALE: 1/8"=1'-0"

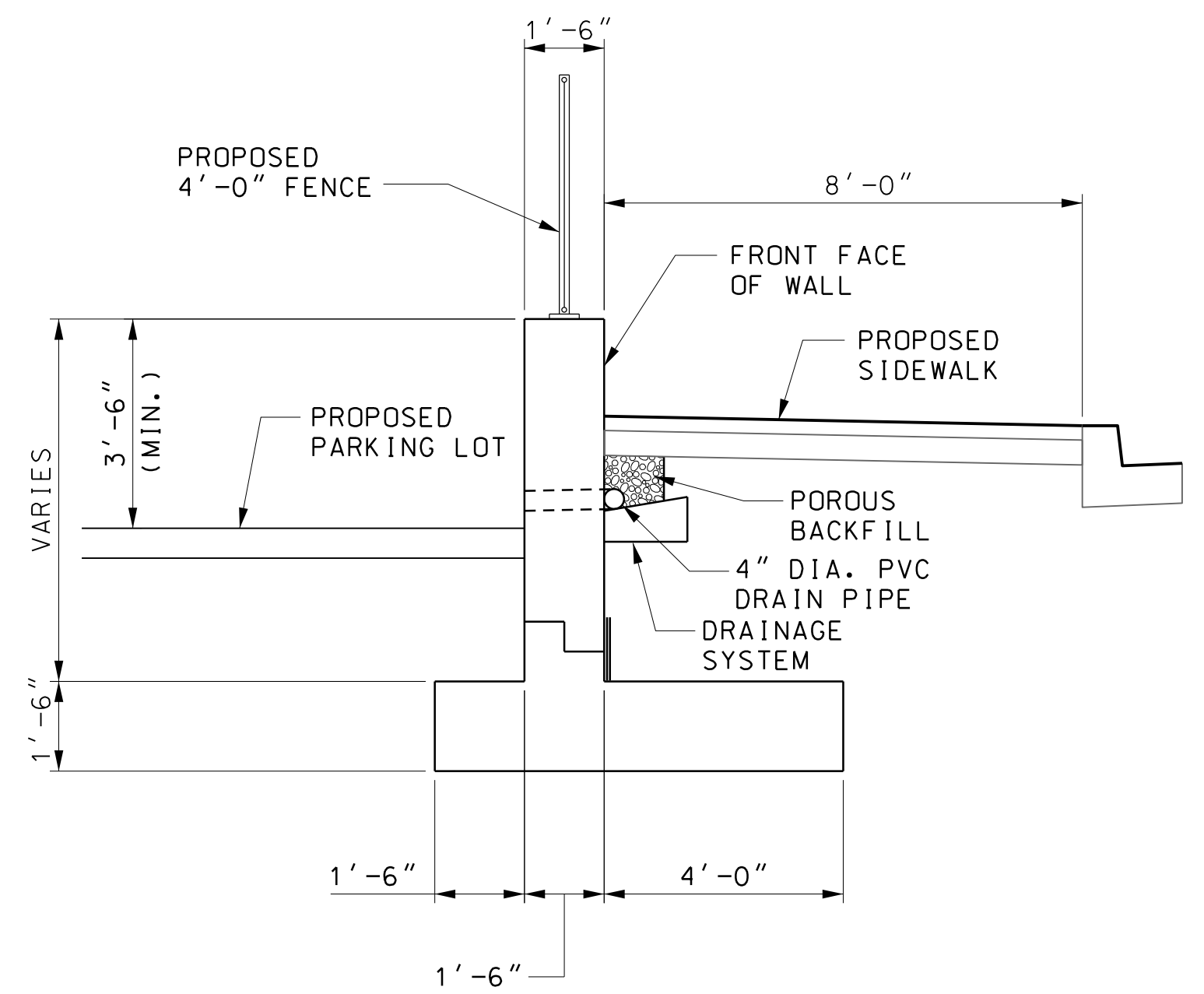
CONTRACT NO. T-1042-0220
DRAWING NO. ST5A11
SHEET NO. 622 OF 828



PLAN
SCALE: 1" = 10'-0"



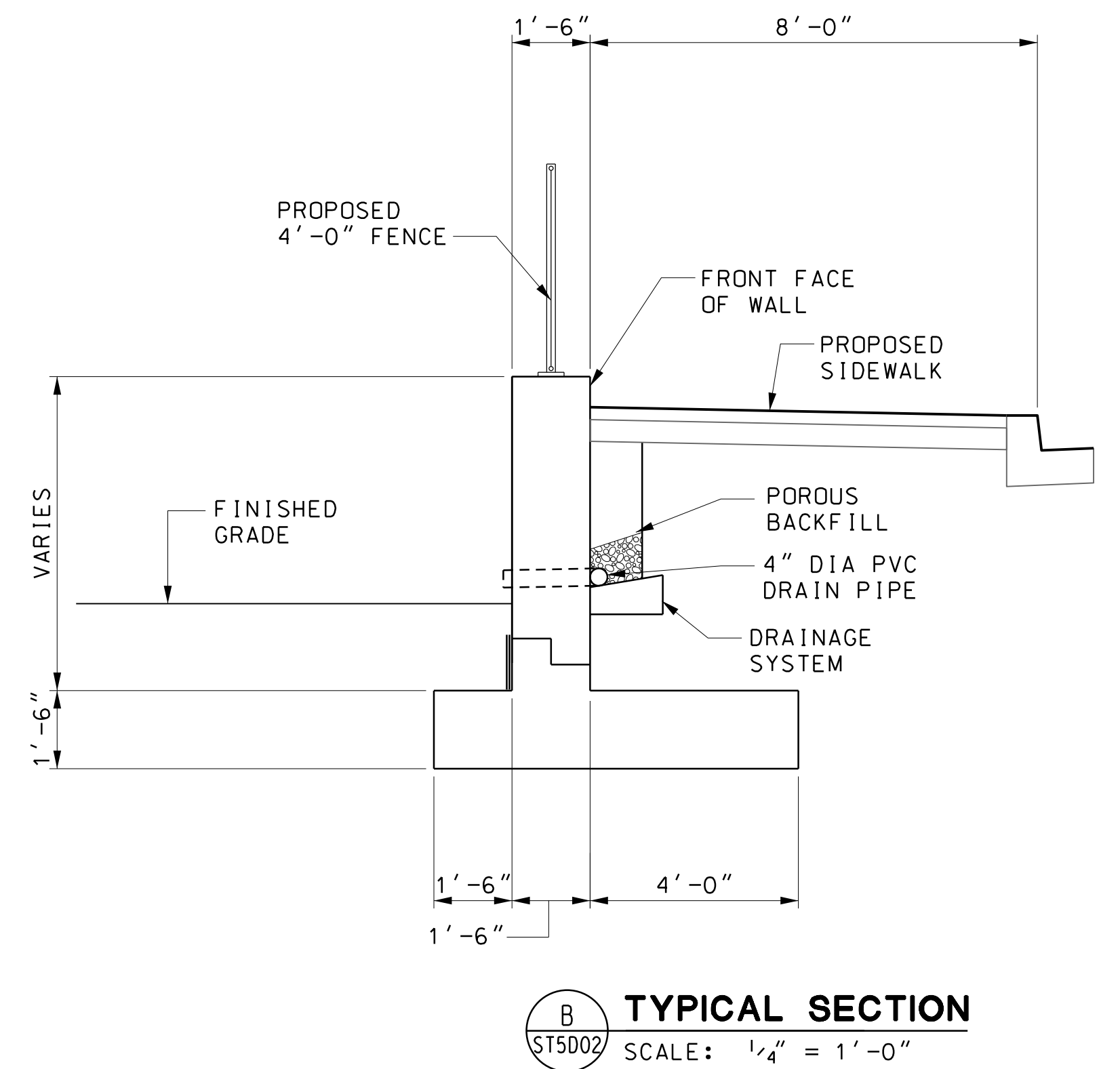
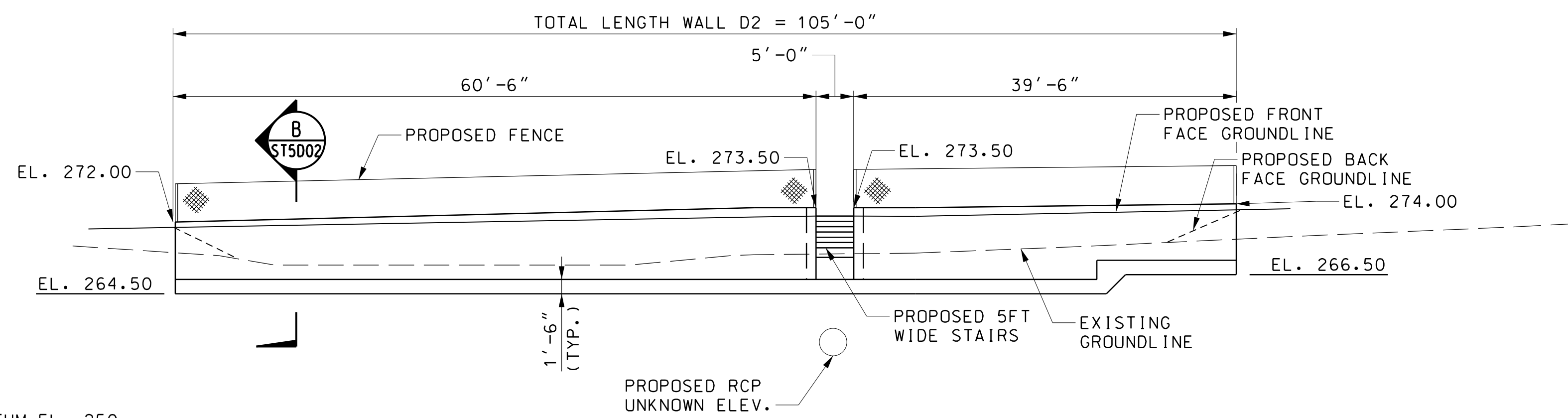
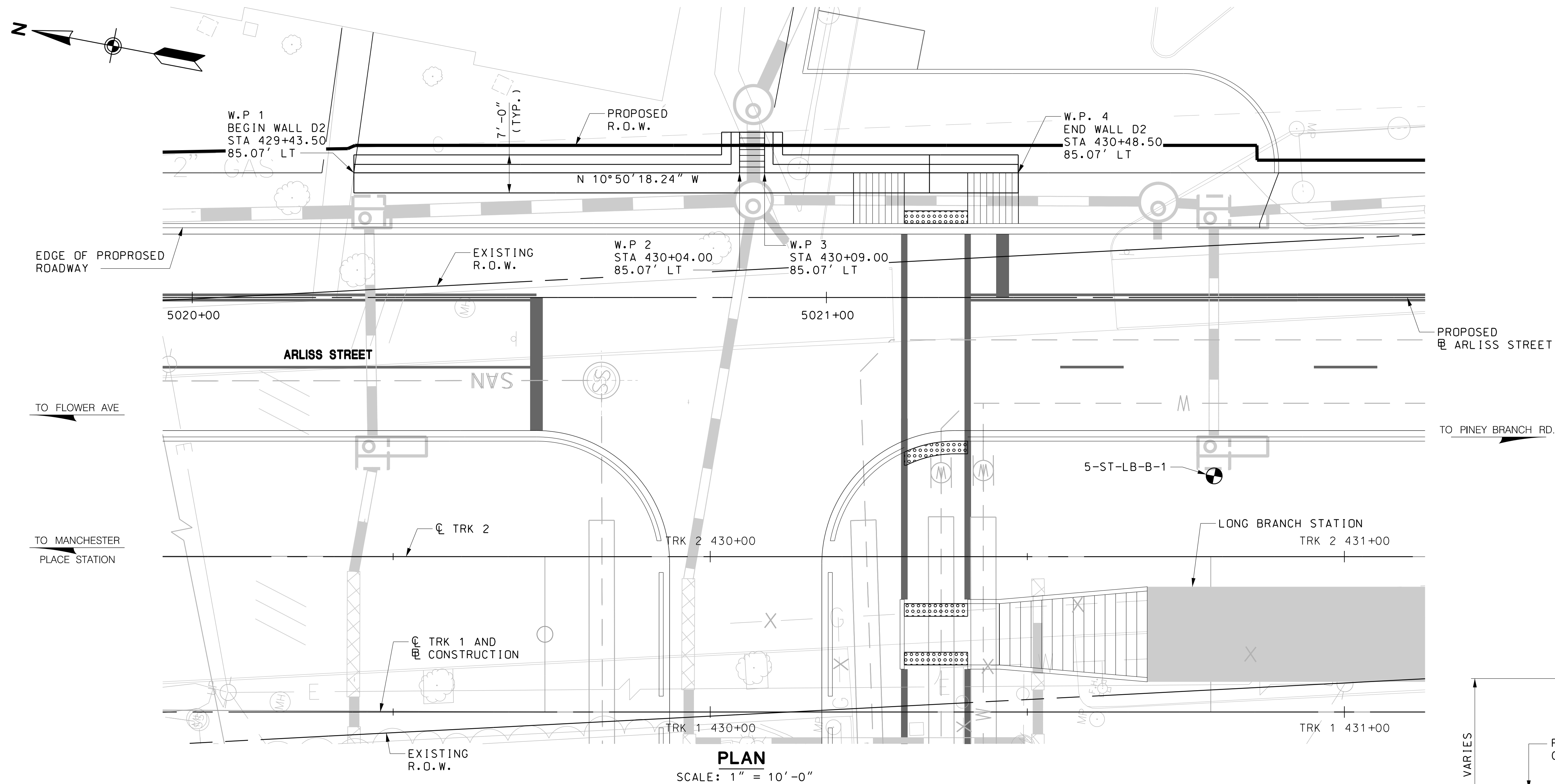
DEVELOPED ELEVATION WALL D1
SCALE: 1" = 10'-0"



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

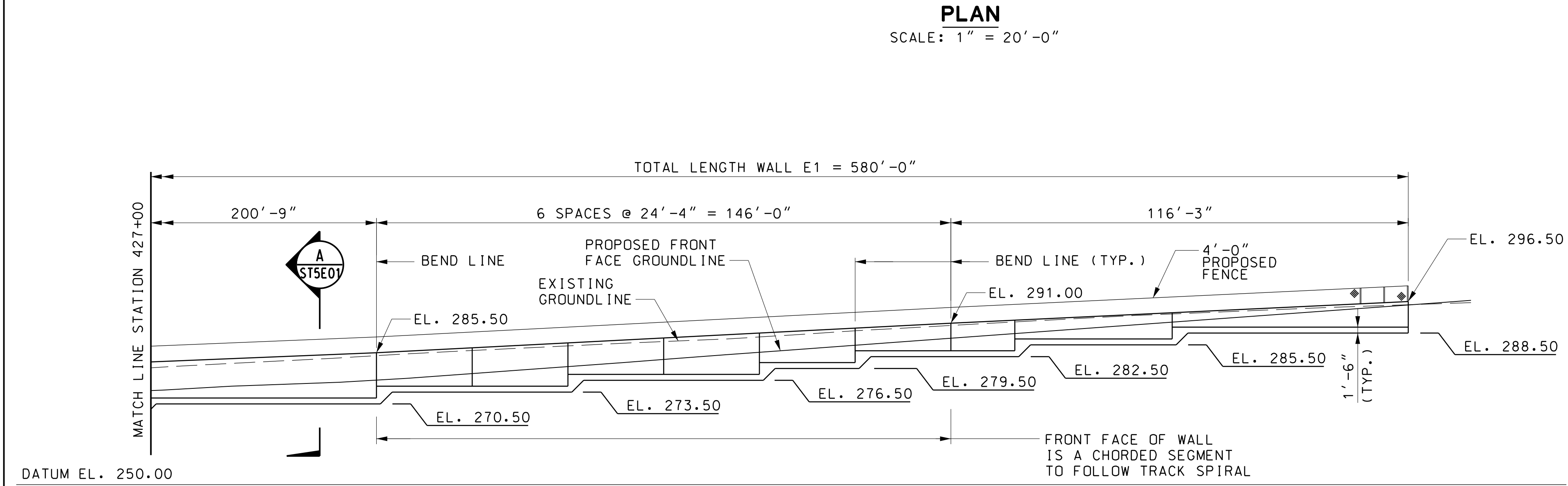
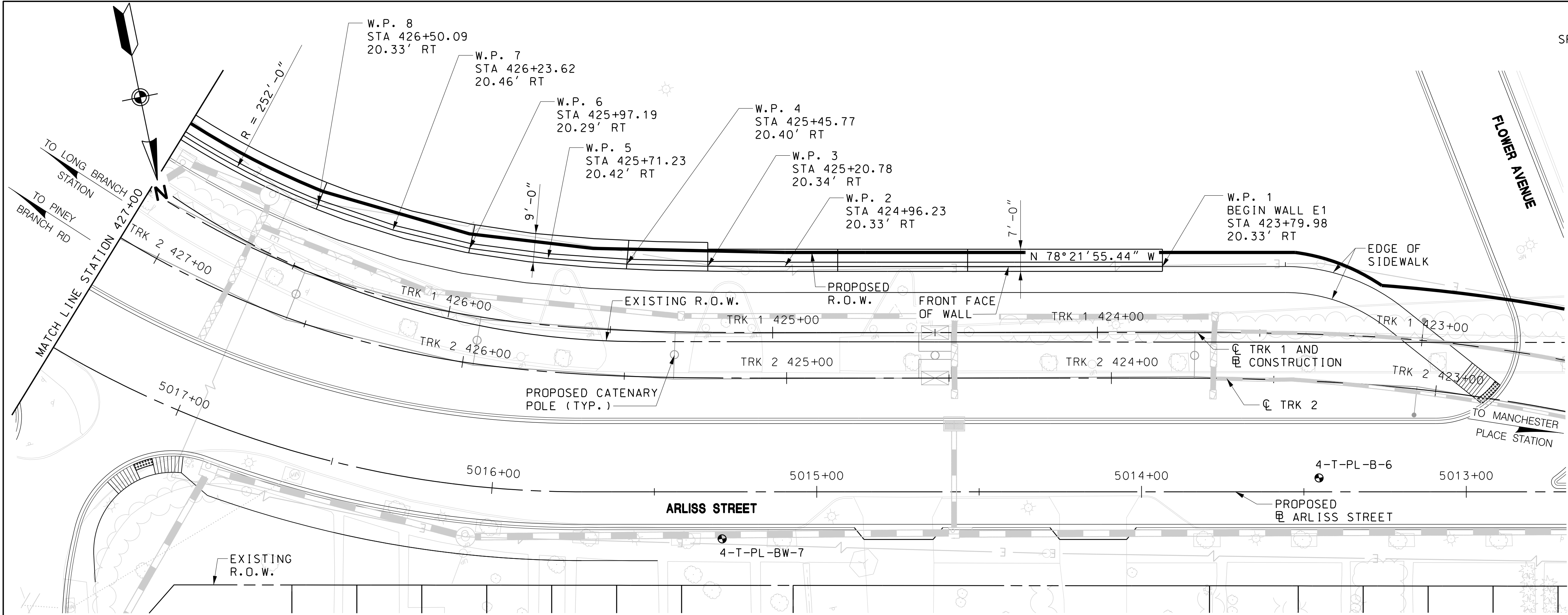
NOTES:

1. ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.



NOTES:

1. ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
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GENERAL NOTES

SPECIFICATIONS: -ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MTA CONTRACT SPECIFICATION BOOK.
-AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2010, INCLUDING ALL INTERIM SPECIFICATIONS.
-MTA RED/PURPLE LINE LIGHT RAIL TRANSIT DESIGN CRITERIA.

CONCRETE: ALL STRUCTURE CONCRETE FOR CAST-IN-PLACE WALL SHALL BE MIX NO. 3 (3.5 KSI), EXCEPT IF THE FRONT FACE OF THE WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, MIX NO. 6 (4.5 KSI) CONCRETE SHALL BE USED.

REINFORCING REINFORCING STEEL SHALL CONFORM TO ASTM A615, STEEL: GRADE 60. ALL SPLICES NOT SHOWN, SHALL BE LAPPED AS PER MD SHA STANDARD BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH EXCEPTION OF BARS ON THE BOTTOM AND SIDES OF ALL FOOTINGS, WHICH SHALL HAVE 3" MINIMUM COVER. IF THE FRONT FACE OF A RETAINING WALL IS WITHIN 5 FT OF A SHOULDER OR LANE, EPOXY COATED REINFORCEMENT SHALL BE USED IN THE FRONT FACE OF THE STEM. ALL REINFORCEMENT IN INTEGRAL ROADWAY BARRIERS SHALL BE EPOXY COATED.

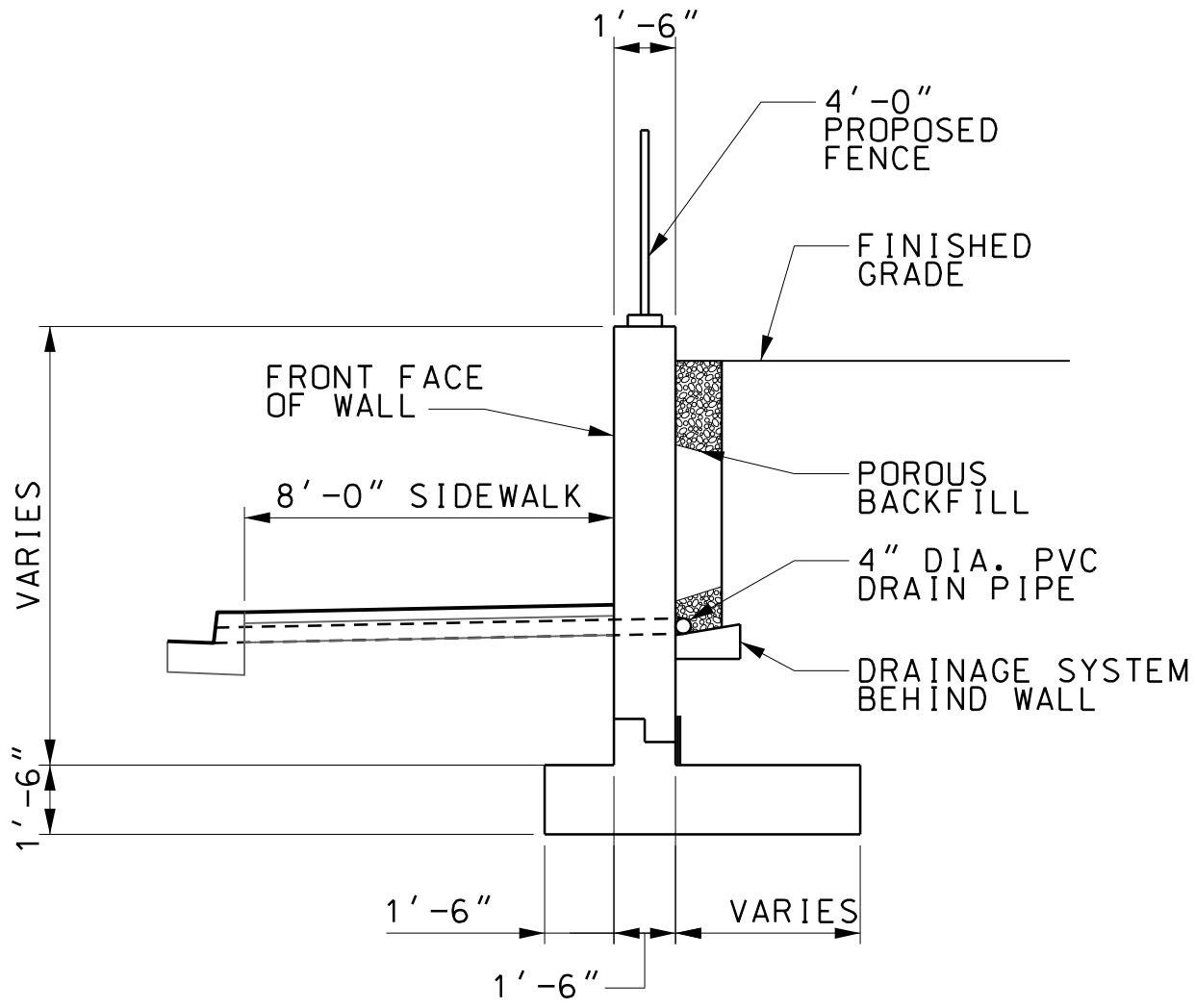
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

KEYS: ALL KEYS ARE NOMINAL SIZE.

CHAMFERS: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, UNLESS NOTED OTHERWISE.

LOADING: ALL APPLICABLE SURCHARGE LOADS SHALL BE PER MTA AND AASHTO LRFD AS SPECIFIED ABOVE.

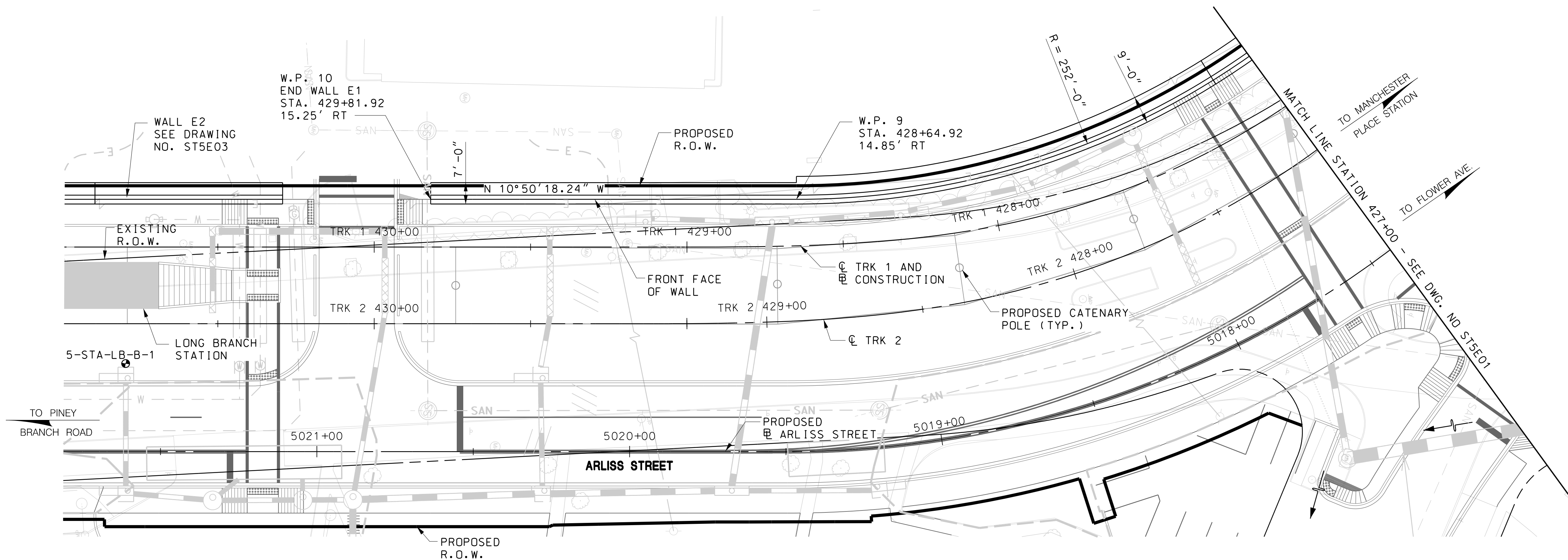
EXISTING ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR STRUCTURES: LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE (+/-) MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.



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2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.

<p>MARYLAND DEPARTMENT OF TRANSPORTATION</p> <p>MARYLAND TRANSIT ADMINISTRATION</p> <p>MTA Maryland</p>	<p>Gannett Fleming</p> <p>WR&A</p>	<p>JACOBS</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</p> <p>License No. Expiration Date</p>	<p>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</p>	<p>DKN</p> <p>EML</p> <p>DJL</p>	<p>PRELIMINARY ENGINEERING</p> <p>PURPLE LINE LIGHT RAIL</p> <p>ARLISS STREET RETAINING WALL E1</p> <p>STA TRK 1 423+79.98 TO 427+00</p> <p>DATE: DECEMBER 2013</p> <p>SCALE: 1" = 20'-0"</p>	<p>CONTRACT NO.</p> <p>T-1042-0220</p> <p>DRAWING NO.</p> <p>ST5E01</p> <p>SHEET NO.</p> <p>625 OF 828</p>
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47'-4" TO WALL E2

117'-0"

200'-9"

TOTAL LENGTH WALL E1 = 580'-0"

BEND LINE

EL. 274.50

EL. 275.50

EL. 270.50

DATUM EL. 250.00

9'-1" (TYP.)

EXISTING GROUNDLINE

PROPOSED FRONT FACE GROUNDLINE

MATCH LINE STATION 427+00

SEE DWG. ST5E01

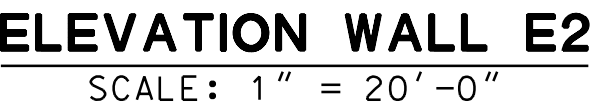
NOTES:




1. ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
3. FOR TYPICAL SECTION SEE DWG. NO. ST5E01.
4. FOR GENERAL NOTES, SEE DWG. NO. ST5E01.



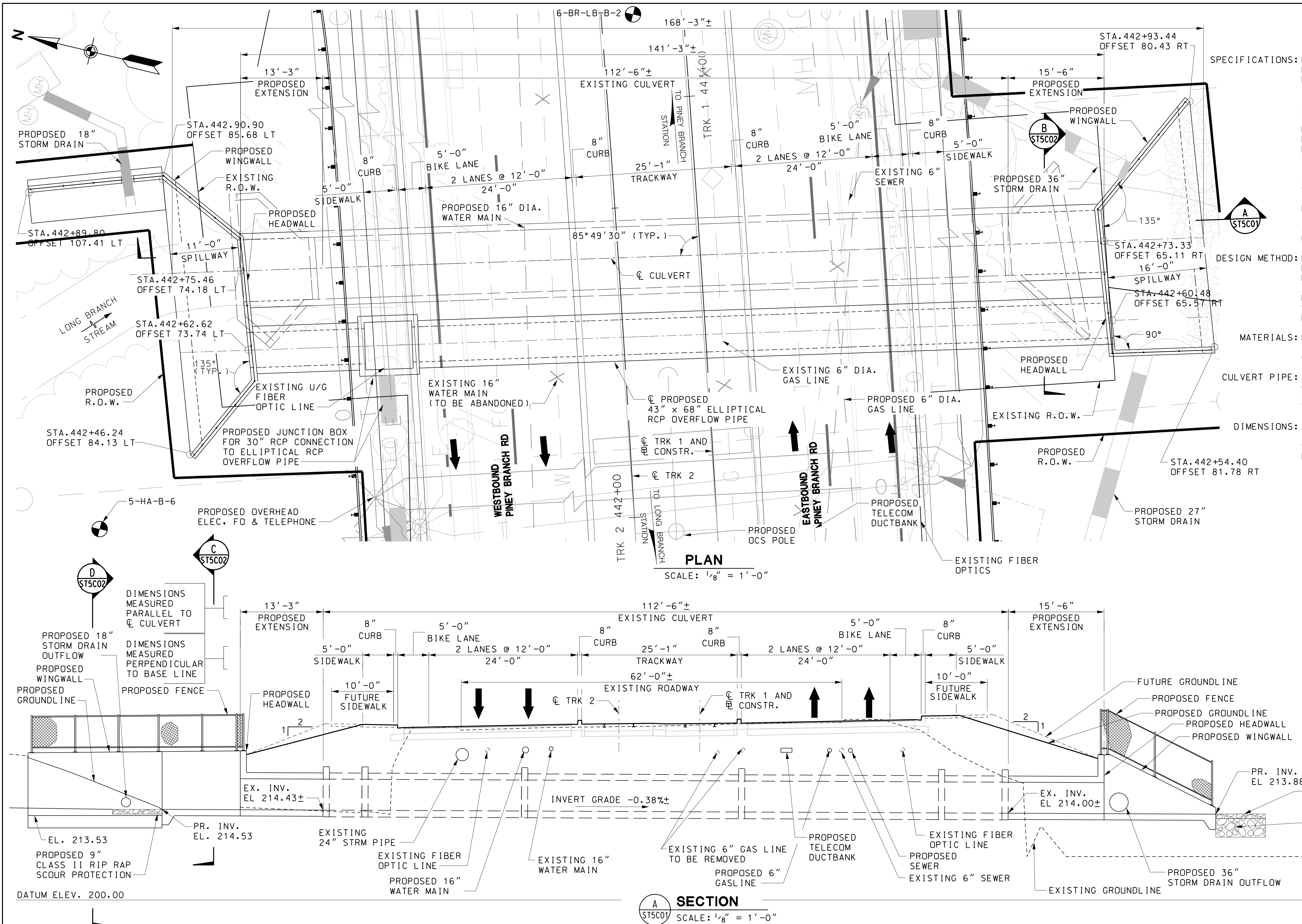
NOTES:

1. ALL DIMENSIONS GIVEN TO FRONT FACE OF WALL.
2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
3. FOR GENERAL NOTES, SEE DRAWING NO. ST5E01.



			PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. _____ Expiration Date _____	<i>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	DKN	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
					EML		DRAWING NO. ST5E03
					DJL		SHEET NO. 627 OF 828
				DATE: DECEMBER 2013	ARLISS STREET RETAINING WALL E2 STA TRK 1 430 + 29.26 TO 432 + 89.26 SCALE: 1" = 20'-0"		

pw:\\00 - Current Projects\\1042 - Purple Line Light Rail\\130 GEC CADD Files\\Zone 05\\Structures\\E-Ret Wall S Side of Arliss St\\Sheet Files\\1042pST5e03.dgn
12/10/2013



GENERAL NOTES

SPECIFICATIONS: MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, JANUARY 2008, INCLUDING REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.

MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT "POLICY AND PROCEDURES MANUAL" - VOLUMES I AND II.

ASHTO LRFD SPECIFICATIONS FOR HIGHWAY BRIDGES, 5TH EDITION.

MTA RED/PURPLE LINE LIGHT RAIL DESIGN CRITERIA

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY, MANUAL FOR RAILWAY ENGINEERING.

DESIGN METHOD: NEW STRUCTURES: LOAD RESISTANCE FACTOR DESIGN METHOD WITH SERVICEABILITY CHECKS FOR FATIGUE, CRACK CONTROL AND DEFLECTIONS.

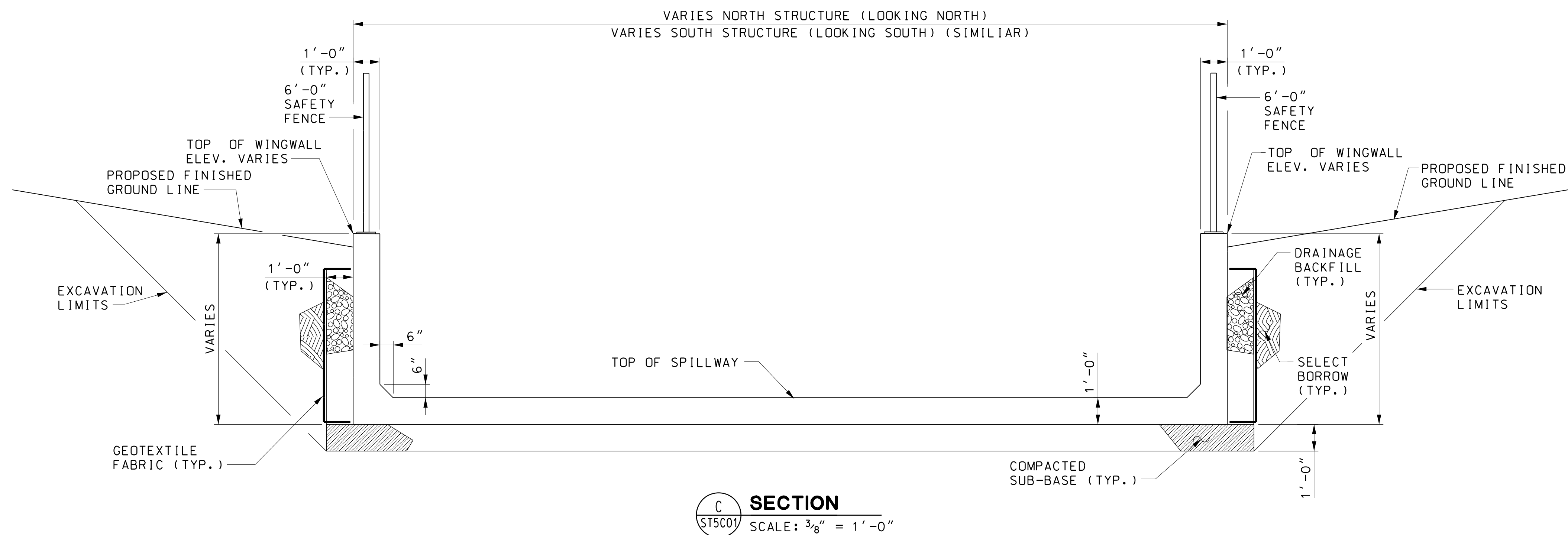
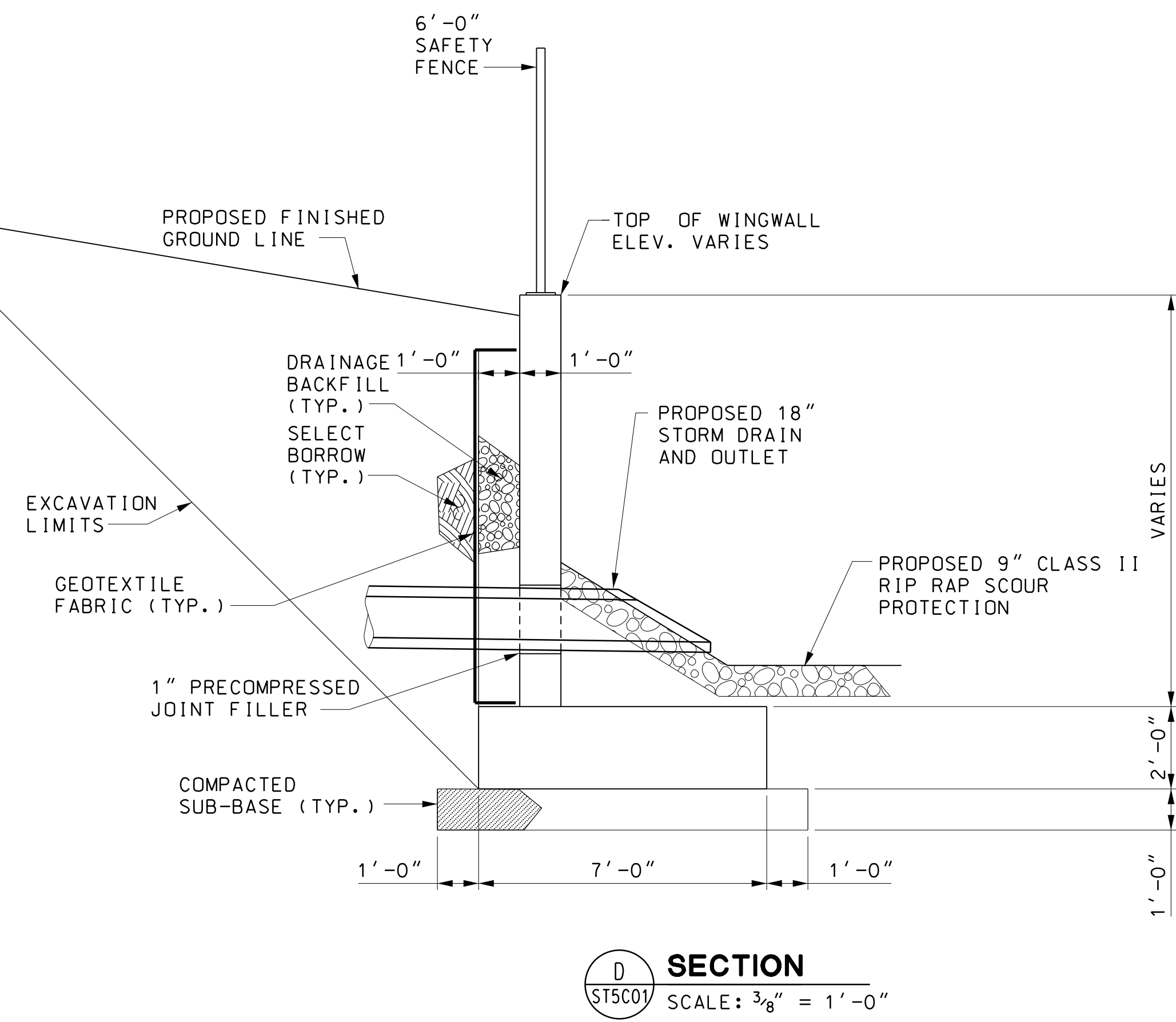
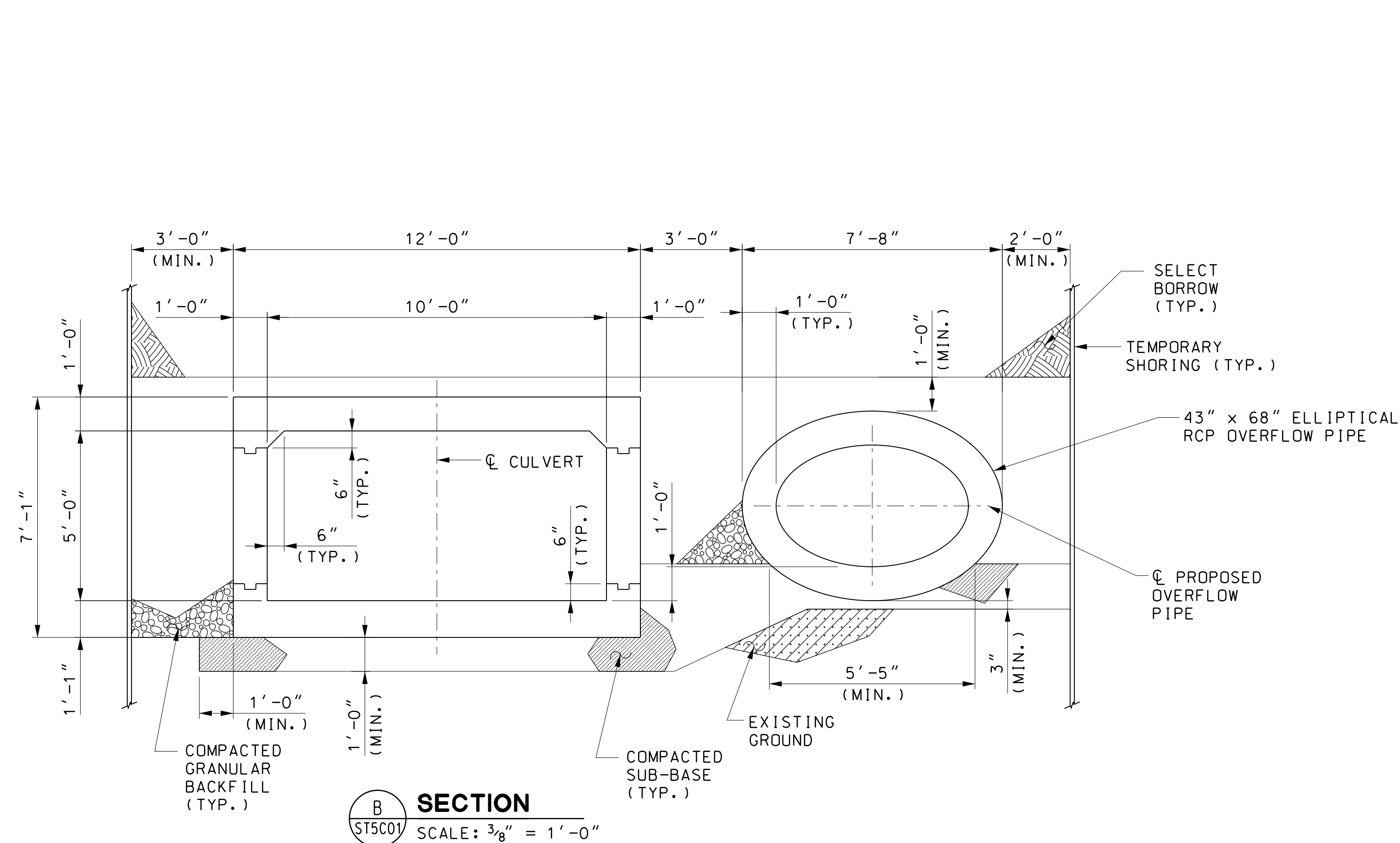
EXISTING REINFORCED CONCRETE CULVERT: ALLOWABLE STRENGTH DESIGN WITH SERVICEABILITY CHECKS FOR FATIGUE, CRACK CONTROL AND DEFLECTIONS.

MATERIALS: REINFORCING STEEL: ASTM A615, GRADE 60

CONCRETE: $f'c = 3,500$ (MIX No. 3).

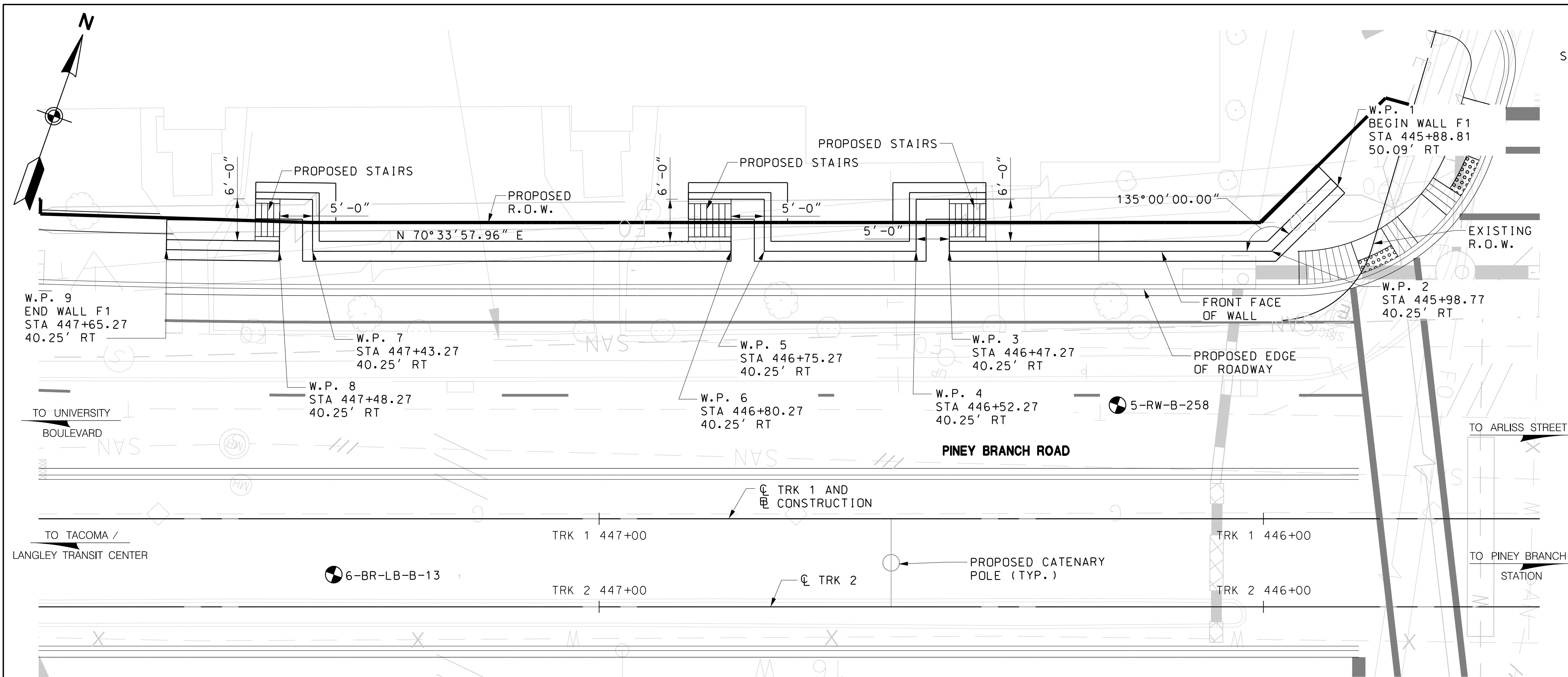
CULVERT PIPE: 43" x 68" ELLIPTICAL PIPE SHALL BE REINFORCED CONCRETE PIPE AS PER ASTM C507 CLASS HE III. ALL PIPE CONNECTIONS SHALL BE GASKETED WITH RUBBER OR RESILIENT TYPE MATERIAL.

DIMENSIONS: ALL DIMENSIONS GIVEN ARE FOR THE STRUCTURE AT THE NORMAL TEMPERATURE EQUAL TO 60°F. ALL STATIONS ARE INDICATED ALONG THE TRACK 1 BASELINE OF CONSTRUCTION.



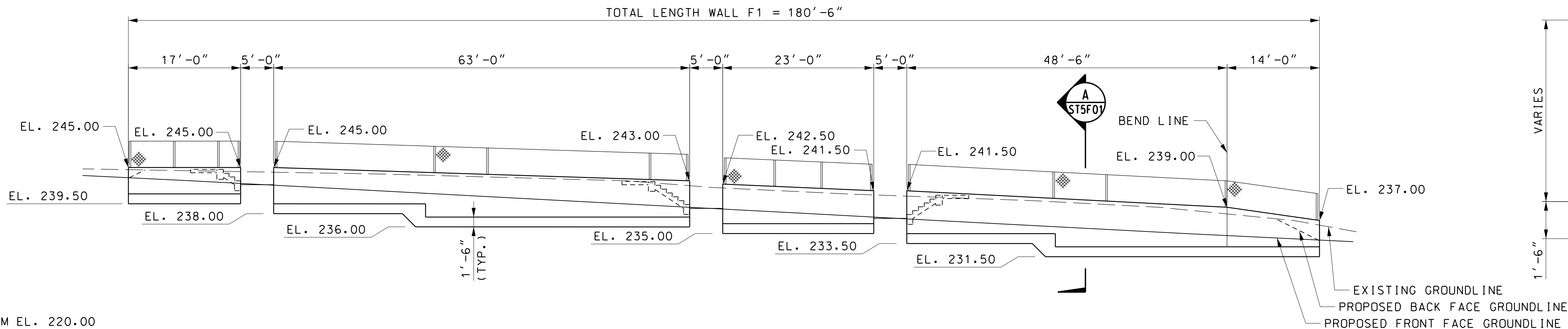
NOTES

1. FOR GENERAL NOTES SEE DWG. NO. ST5C01.



PLAN

SCALE: 1" = 10'-0"



DEVELOPED ELEVATION WALL F1

SCALE: 1" = 10'-0"

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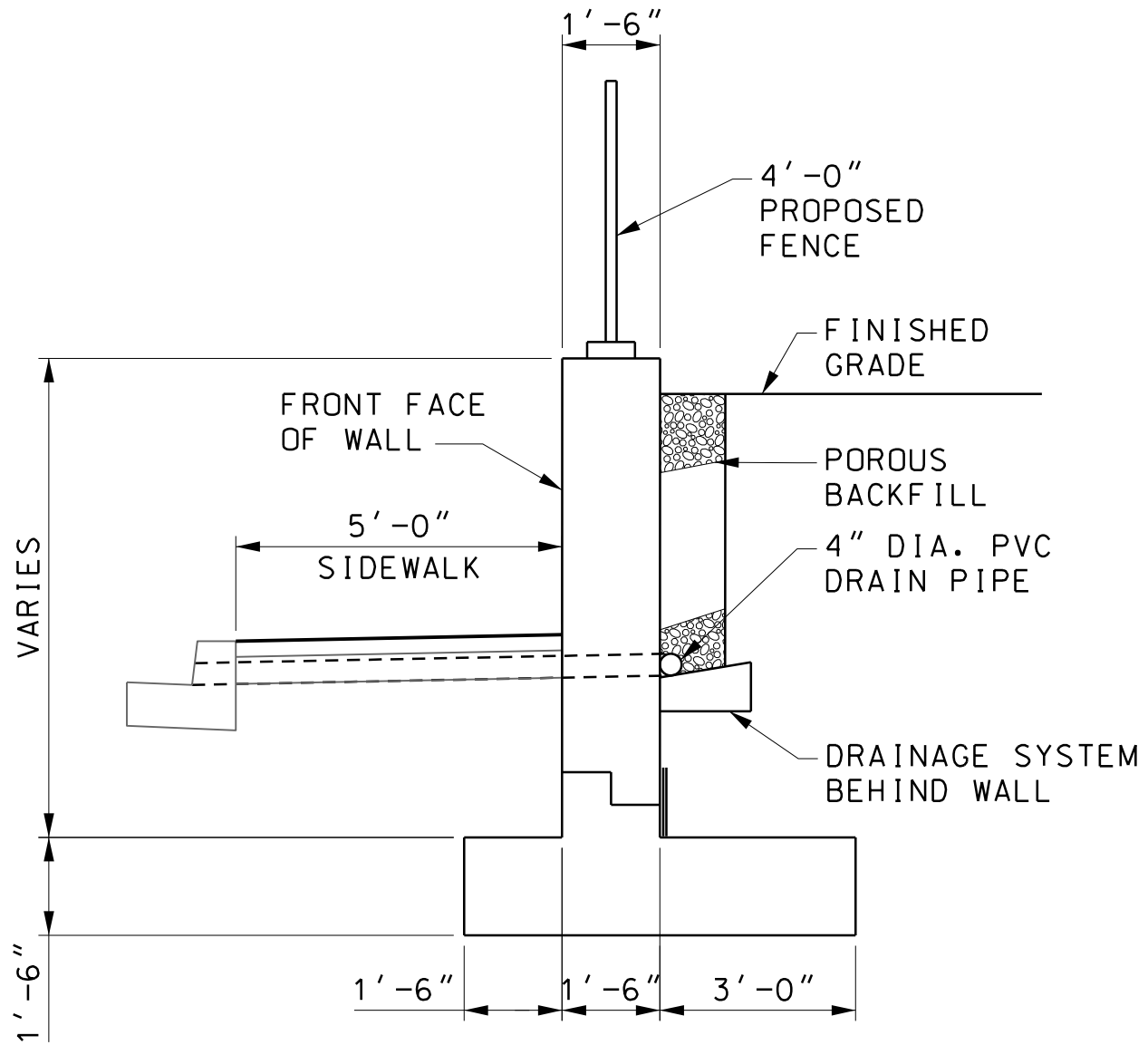
ONLY GRADE 60 CAN BE USED ON THIS PROJECT

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TYPICAL SECTION

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

NOTES:

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- FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.

MARYLAND DEPARTMENT OF TRANSPORTATION

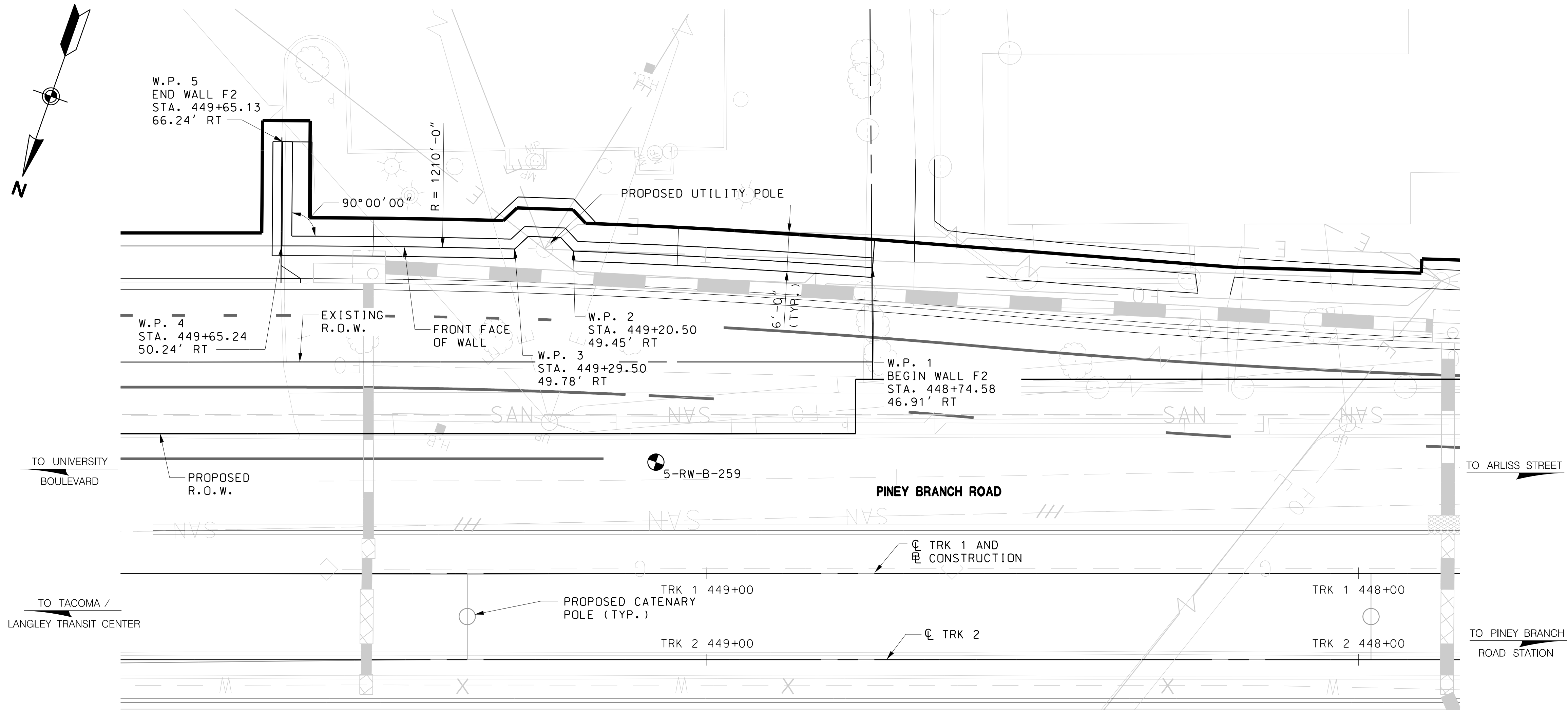


JACOBS

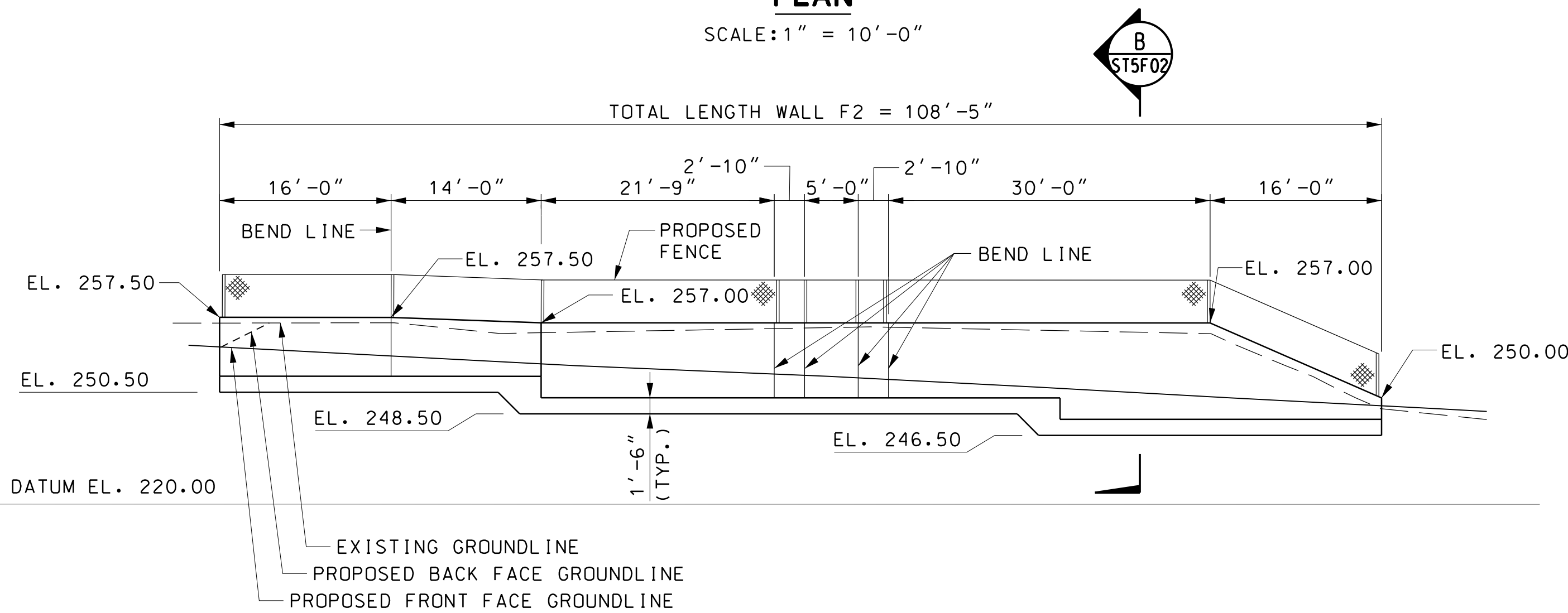
PROFESSIONAL CERTIFICATION
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License No. Expiration Date

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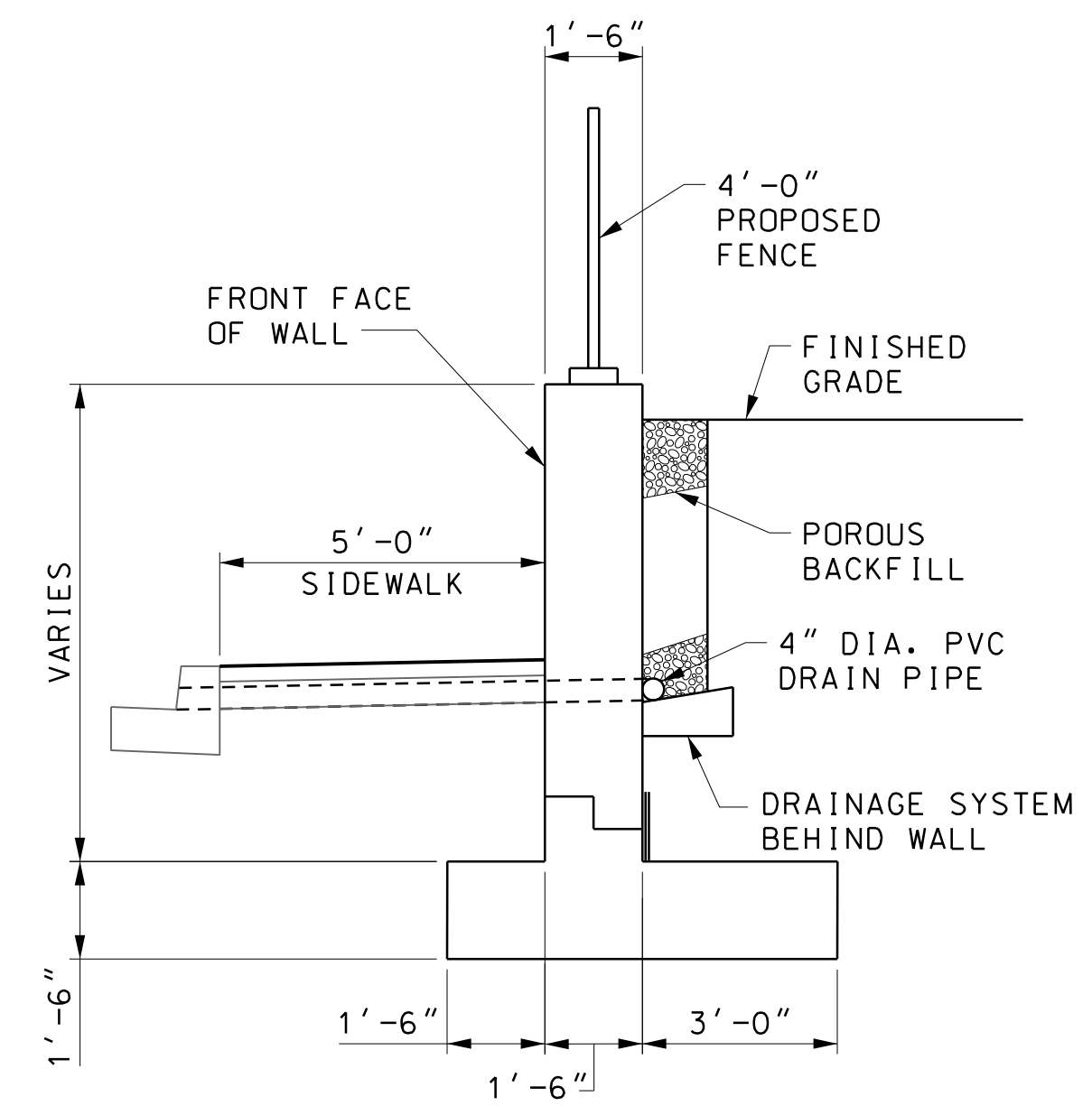
APPR	CHECK	DRAWN	DESIGN	DKN	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	CONTRACT NO. T-1042-0220
				SLH		DRAWING NO. ST5F01
				DJL	PINEY BRANCH ROAD RETAINING WALL F1 STA TRK 1 445+88.81 TO 447+65.27 DATE: DECEMBER 2013	SHEET NO. 630 OF 828



PLAN
SCALE: 1" = 10'-0"



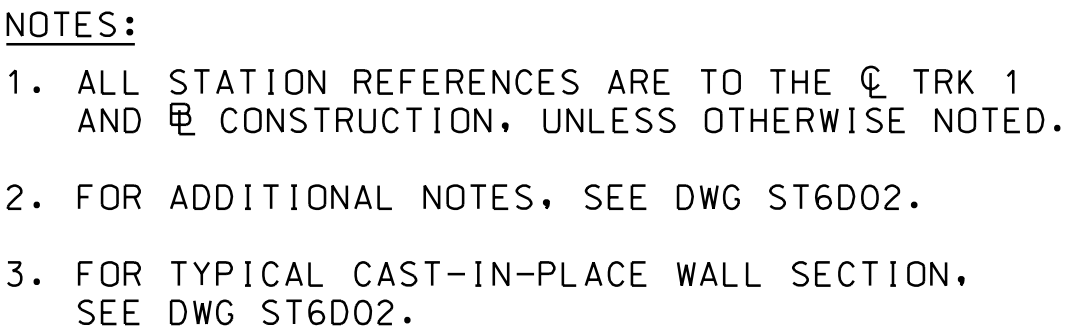
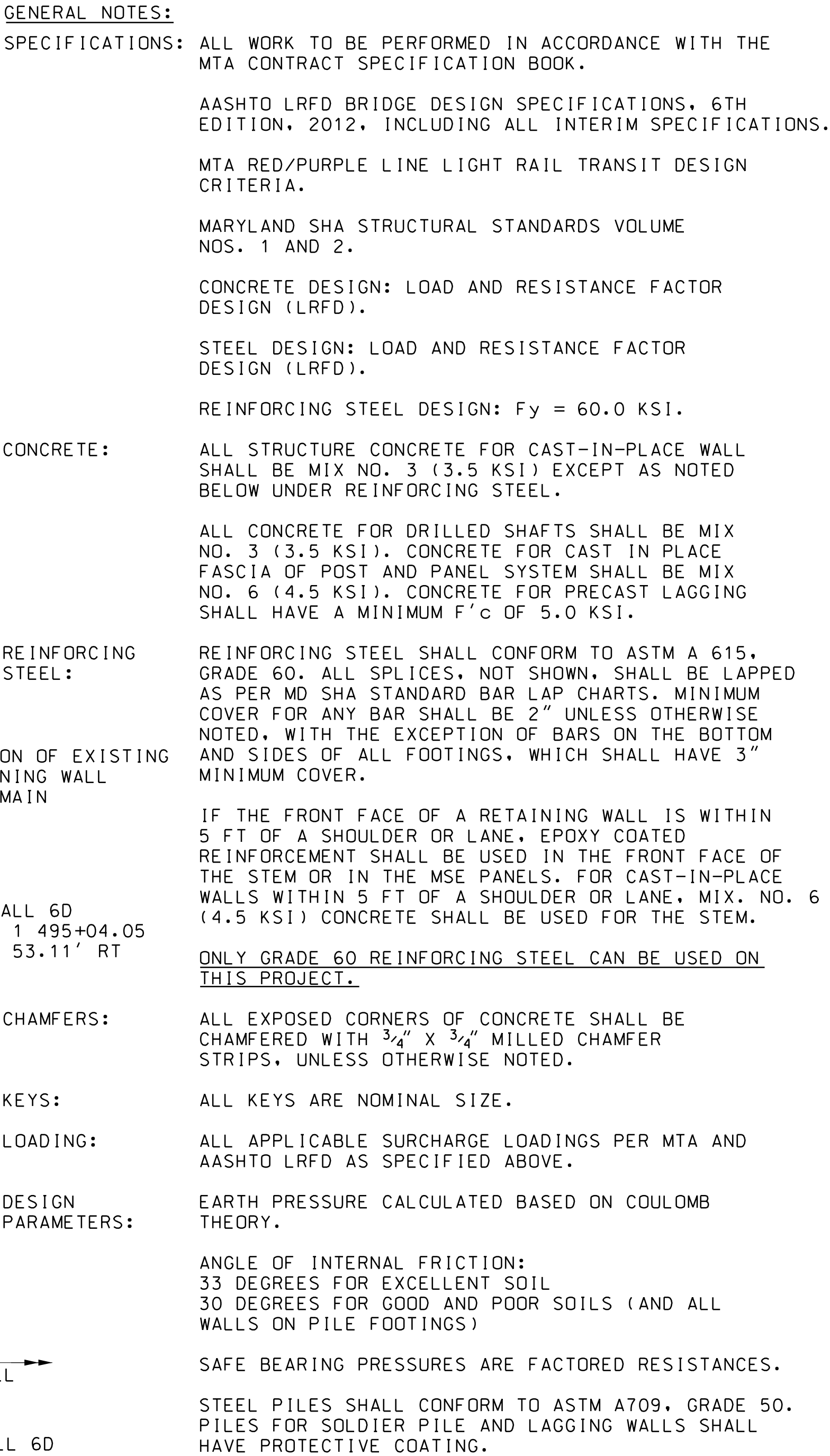
DEVELOPED ELEVATION WALL F2
SCALE: 1" = 10'-0"



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

- NOTES:
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 2. FOR BASELINE DATA, REFER TO VOLUME 1 DRAWINGS.
 3. FOR GENERAL NOTES SEE DRAWING NO. ST5F01.

pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 CEC CADD Files\Zone 05\Structures\F-Ret Wall S Side of Piney Branch Rd\Sheet Files\1042pST5F02.dgn 12/5/2013



pw:\00 - Current Projects\1042 - Purple Line Light Rail\130 GEC CADD Files\Zone 06-East\Structures\0--Ret Wall Univ Blvd at MD 650\Sheet Files\1042p5t6d001.dgn
2/6/2013



REF : ST6D01