

**EXISTING ALIGNMENT DATA:**

<b>SPIRAL DATA</b> P.I. = STA. 28+82.66 Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' x = 149.99' y = 1.31' k = 75.00' p = 0.33' C = 150.00' Start = Sta. 27+82.66 End = Sta. 29+32.66 C.B. = N22°11'43"E	<b>CURVE DATA</b> P.I. = STA. 31+05.26 Δ = 09°57'05" LT Dc = 02°00'00" R = 2,864.79' Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' Lc = 394.17' Ts = 322.60' Es = 11.01' Emax = 0.021' /' T.S. = S.C. = 29+32.66 C.S. = 33+26.83 S.T. =	<b>CURVE DATA</b> P.I. = STA. 31+30.05 Δ = 07°53'00" LT Dc = 02°00'00" R = 2,864.79' Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' Lc = 394.17' Ts = 322.60' Es = 11.01' Emax = 0.021' /' T.S. = S.C. = 33+26.83 S.T. =	<b>SPIRAL DATA</b> P.I. = STA. 33+42.08 Ls = 31.76' Os = 00°34'05" LT = 16.51' ST = 15.25' x = 31.76' y = 0.16' k = 3.36' p = 0.00' C = 31.76' Start = Sta. 33+26.83 End = Sta. 33+58.59 C.B. = N13°01'00"E	<b>SPIRAL DATA</b> P.I. = STA. 59+70.25 Ls = 500.00' Os = 24°59'57" LT = 336.72' ST = 169.75' x = 474.92' y = 142.30' k = 248.42' p = 18.06' C = 495.78' Start = Sta. 58+00.50 End = Sta. 63+00.50 C.B. = S03°29'32"W	<b>SPIRAL DATA</b> P.I. = STA. 65+44.81 Ls = 118.24' Os = 00°55'55" LT = 78.83' ST = 39.41' x = 118.24' y = 0.64' k = 59.12' p = 0.16' C = 118.24' Start = Sta. 64+65.99 End = Sta. 65+84.23 C.B. = S12°07'21"W	<b>CURVE DATA</b> P.I. = STA. 1+72.79 Δ = 84°17'00" RT Dc = 37°59'58" R = 150.78' Ls = 136.44' L = 221.8' E = 52.57'
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**PROPOSED CENTERLINE OF CONSTRUCTION DATA:**

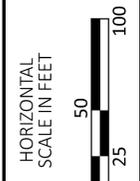
<b>SPIRAL DATA</b> P.I. = STA. 503+32.66 Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' x = 149.99' y = 1.31' k = 75.00' p = 0.33' C = 150.00' Start = Sta. 502+32.66 End = Sta. 503+82.66 C.B. = N22°11'43"E	<b>CURVE DATA</b> P.I. = STA. 505+55.26 Δ = 09°57'05" LT Dc = 02°00'00" R = 2,864.79' Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' Lc = 394.17' Ts = 322.60' Es = 11.01' Emax = 0.021' /' (NDC = 0.045) T.S. = S.C. = 503+82.66 C.S. = 507+76.83 S.T. =	<b>CURVE DATA</b> P.I. = STA. 505+80.05 Δ = 07°53'00" LT Dc = 02°00'00" R = 2,864.79' Ls = 150.00' Os = 01°30'00" LT = 100.00' ST = 50.00' Lc = 394.17' Ts = 322.60' Es = 11.01' Emax = 0.021' /' (NDC = 0.045) T.S. = S.C. = 503+82.66 C.S. = 507+76.83 S.T. =	<b>SPIRAL DATA</b> P.I. = STA. 507+92.08 Ls = 31.76' Os = 00°34'05" LT = 16.51' ST = 15.25' x = 31.76' y = 0.16' k = 3.36' p = 0.00' C = 31.76' Start = Sta. 507+76.82 End = Sta. 508+08.58 C.B. = N13°01'00"E	<b>SPIRAL DATA</b> P.I. = STA. 508+48.00 Ls = 118.24' Os = 00°55'55" LT = 78.83' ST = 39.41' x = 118.23' y = 1.28' k = 59.12' p = 0.16' C = 118.24' Start = Sta. 508+08.58 End = Sta. 509+26.82 C.B. = N12°07'21"E	<b>SPIRAL DATA</b> P.I. = STA. 514+29.03 Ls = 500.00' Os = 24°59'57" LT = 336.72' ST = 169.75' x = 490.56' y = 71.74' k = 248.42' p = 18.06' C = 495.78' Start = Sta. 510+92.31 End = Sta. 515+92.31 C.B. = N03°29'32"E
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**ALIGNMENT COMMENTS:**

THE PROPOSED CENTERLINE OF CONSTRUCTION IS AN ALIGNMENT WHICH COMBINES THE SURVEYED ALIGNMENTS OF STATE ROUTES 658 AND 541 INTO ONE SINGULAR ALIGNMENT WITH CONTINUOUS STATIONING. THIS STATIONING IS AS DETAILED ON THIS SCHEMATIC PLAN SHEET AND CAN BE FURTHER DEFINED BY USE OF THE FOLLOWING STATION EQUATIONS:

$\text{C CONSTRUCTION, S.R. 658/541 STA. 503+00.00} = \text{C SURVEY S.R. 658 STA. 28+50.00}$   
 $\text{C CONSTRUCTION, S.R. 658/541 STA. 510+00.00} = \text{C SURVEY S.R. 541 STA. 63+92.81}$

THE PROPOSED CENTERLINE OF CONSTRUCTION ALONG THE EASTWARD WING OF S.R. 541 AS SHOWN ON THIS SHEET IS A "BEST-FIT" ALIGNMENT ALONG S.R. 541 BEGINNING NEAR THE INTERSECTION OF S.R. 658 AND S.R. 541 WITH STATIONING BEGINNING AT STA. 0+00.00. THIS CENTERLINE OF CONSTRUCTION INTERSECTS "C CONSTRUCTION S.R. 658/541" AT STA. 508+08.58.

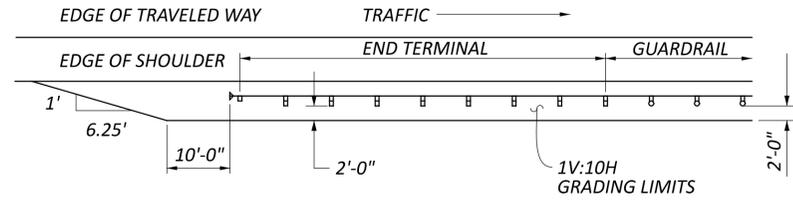


**SCHEMATIC PLAN (LOCATION 2)**  
**S.R. 658/541 STA. 500+25.00 TO STA. 512+75.00**

DESIGN AGENCY	
DESIGNER	
REVIEWER	TDF
TAG	10-31-24
PROJECT ID	96096
SHEET	P.2
TOTAL	72

**GRADING FOR MGS TYPE E ANCHOR ASSEMBLY**

THE GRADING LAYOUT SHOWN HERE SHALL BE USED WITH ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, AS DETAILED IN THIS PLAN.



**ITEM 611 - 72" CONDUIT, TYPE A, 706.02, AS PER PLAN (INSTALLATION ONLY)**

THE DISTRICT WILL FURNISH THE 72" REINFORCED CONCRETE PIPE AND TWO HEADWALLS AS REQUIRED BY THE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR PICKING UP, LOADING, HAULING TO THE PROJECT SITE, AND INSTALLING THE 72" PIPE AND TWO HEADWALLS. ALL RELATED ITEMS TO THE INSTALLATION OF THE PIPE AS PER CMS 611 SHALL BE INCLUDED IN THIS ITEM OF WORK. THE PIPE AND HEADWALLS SHALL BE PICKED UP BY THE CONTRACTOR FROM:

ODOT NORTH SALEM OUTPOST (LIBERTY TOWNSHIP)  
 HOURS: 7:00AM - 3:30PM (MONDAY - FRIDAY)  
 72450 OLD 21 RD.  
 KIMBOLTON, OH 43749

THE CONTRACTOR SHALL COORDINATE THE PICKUP WITH REBECCA STARLIN (PHONE: 740-323-5331) FOR A SCHEDULED DATE AND TIME OF PICK-UP.

PIPE AND HEADWALL INFO:  
 72" RCP CLASS 3 PIPE (FORTERRA), 11 - 8 FT SECTIONS @ 15,080 LB PER SECTION.  
 INLET HEADWALL WEIGHT: 13,315 LB  
 OUTLET HEADWALL WEIGHT: 15,755 LB

**CONDUIT END TREATMENT**

IMMEDIATELY AFTER THE PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS AS REQUIRED BY THE PLANS.

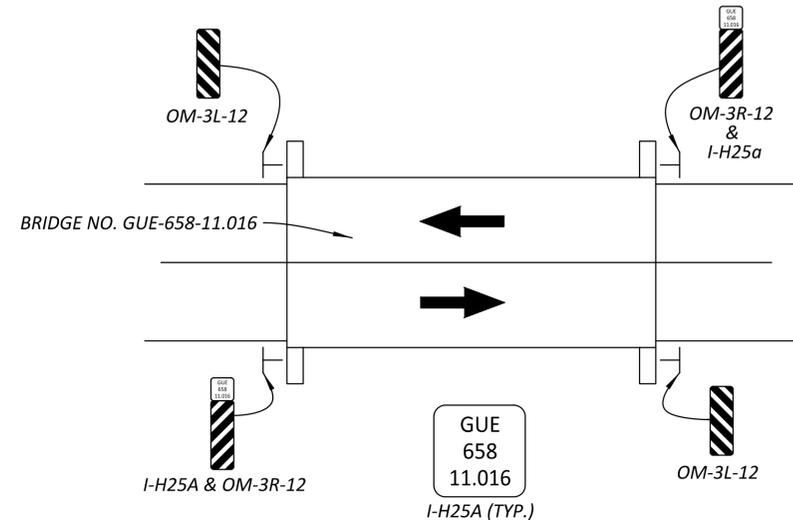
**ITEM 621 - RAISED PAVEMENT MARKER REMOVED**

WITHIN THE LIMITS OF THIS PROJECT THERE ARE 37 RAISED PAVEMENT MARKERS TO BE REMOVED. RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO PROPOSED WORK IS TO BEGIN. ALL RPMs REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN / ITEM 630 - SIGN, FLAT SHEET**

THE CONTRACTOR SHALL INSTALL OM-3L & OM-3R (36"x12") SIGNS AT ALL FOUR (4) WINGWALLS OF THE BRIDGE. ATOP THE OM-3R-12 SIGNS SHALL BE I-H25a BRIDGE IDENTIFICATION SIGNS, AS SHOWN BELOW. SIGNS SHALL BE INSTALLED 1'-0" BEHIND THE GUARDRAIL POST AND BRIDGE WINGWALL. THE BOTTOM OF THE GROUND MOUNTED SIGN SHALL BE 5'-0" ABOVE PAVEMENT.

THE CONTRACTOR SHALL PROVIDE TYPE S POSTS INCLUDING POST ANCHOR BASES AS DETAILED IN STANDARD CONSTRUCTION DRAWING TC-41.20.



**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREA:

LOCATION 1:  
 ITEM 659, SEEDING AND MULCHING, CLASS 2 ..... 681 SY  
 ITEM 659, COMMERCIAL FERTILIZER ..... 0.09 TON  
 ITEM 659, LIME ..... 0.14 ACRES  
 ITEM 659, WATER ..... 3.7 MGAL

LOCATION 2:  
 ITEM 659, SEEDING AND MULCHING, CLASS 2 (FROM SHEET 34/72) ..... 2,218 SY  
 ITEM 659, COMMERCIAL FERTILIZER ..... 0.30 TON  
 ITEM 659, LIME ..... 0.46 ACRES  
 ITEM 659, WATER ..... 6 MGAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN THE OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD AND MAPPING SERVICES WEBSITE. AN EMAIL CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO cody.gierhart@dot.ohio.gov, tina.cunningham@dot.ohio.gov, AND THE PROJECT ENGINEER AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATES NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 83, GEOID12A), AND THE METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:

POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION.

BELOW IS A LIST OF ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE:

- BARRIER (GUARDRAIL)
- SIGNS (WITH DESCRIPTION)
- BMP'S
- CULVERTS (INLET INVERT, OUTLET INVERT, TYPE, AND SIZE)
- STORM SEWER OUTLETS (OUTLET INVERT, TYPE, AND SIZE)
- CATCH BASINS, MANHOLES, AND INLETS
- UNDERDRAIN OUTLETS

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

IN ADDITION TO THE ABOVE REQUIREMENTS, THE LOCATIONS OF ALL PROPOSED GUARDRAIL INSTALLATIONS SHALL BE STAKED BY THE CONTRACTOR PRIOR TO INSTALLATION ON THIS PROJECT. THE CONTRACTOR IS REQUIRED TO STAKE EACH LOCATION TO INDICATE THE BEGINNING AND END OF THE PROPOSED GUARDRAIL RUN. THIS WILL ALSO INCLUDE INDICATING THE TYPE OF END TREATMENT TO BE INSTALLED AT EACH LOCATION. THE CONTRACTOR SHALL STAKE EACH LOCATION AT LEAST TWO (2) DAYS PRIOR TO INSTALLATION.

BEFORE GIVING THE CONTRACTOR FINAL APPROVAL TO INSTALL THE RUN OF GUARDRAIL, THE PROJECT ENGINEER MAY ADJUST THE LOCATION AS STAKED TO PROVIDE THE MAXIMUM PROTECTION FOR THE TRAVELING PUBLIC. NO GUARDRAIL WILL BE INSTALLED UNTIL THE PROJECT ENGINEER GIVES THE CONTRACTOR APPROVAL FOR EACH LOCATION.

PAYMENT FOR STAKING WILL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK AS DESCRIBED ABOVE AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN ..... LUMP SUM

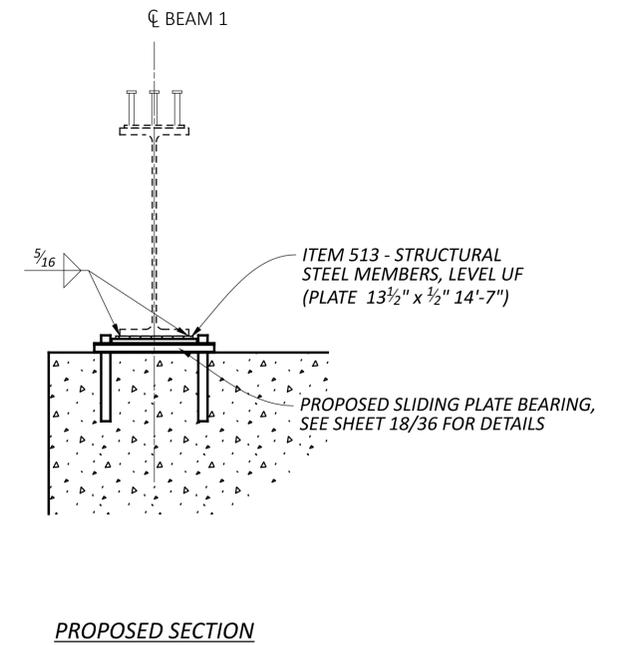
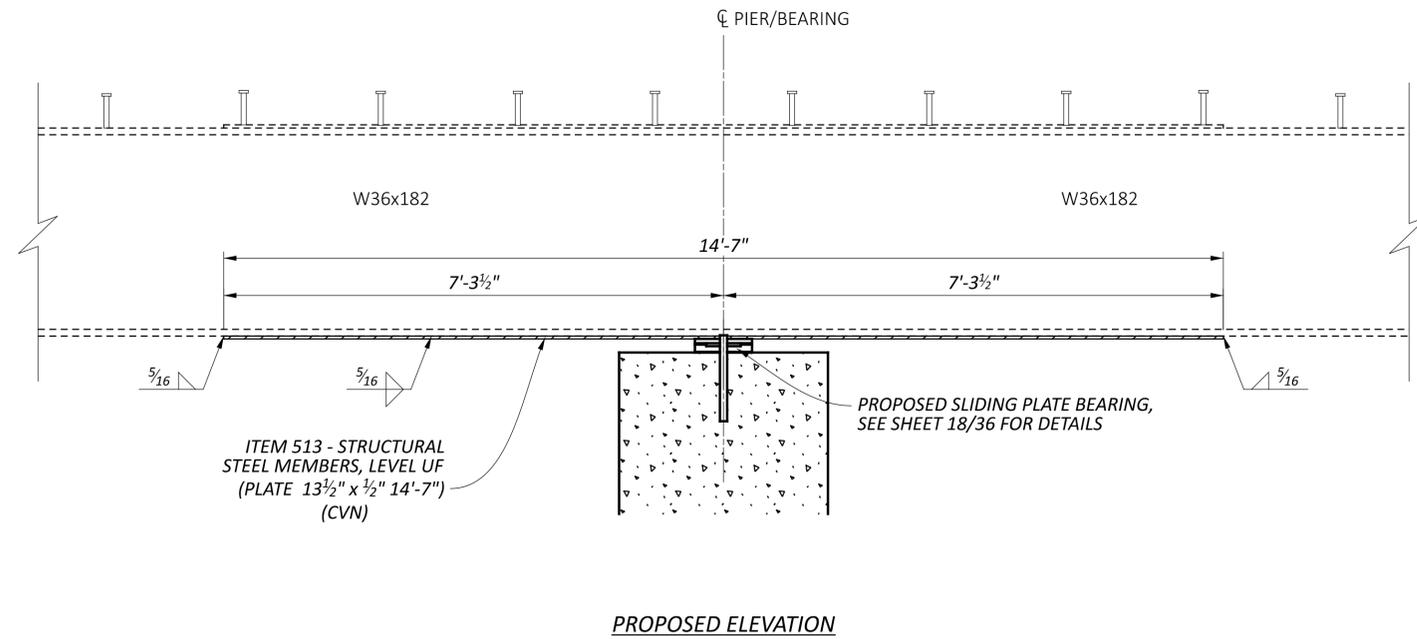
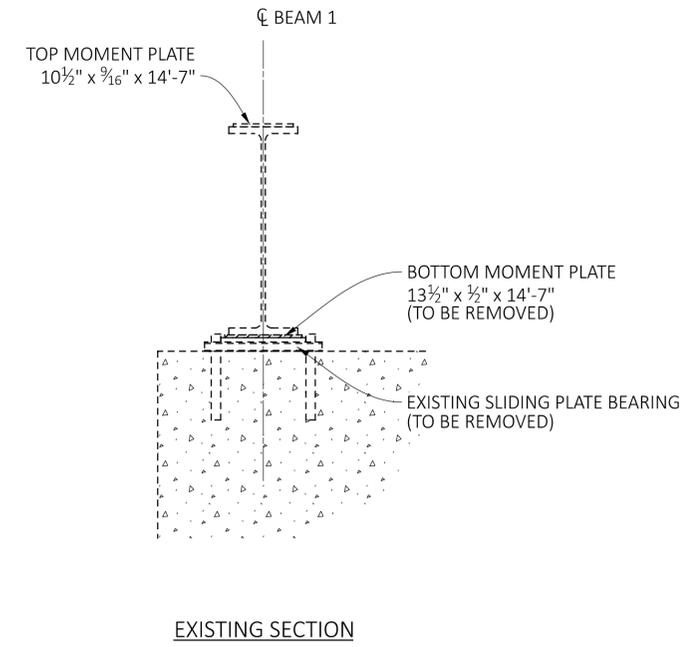
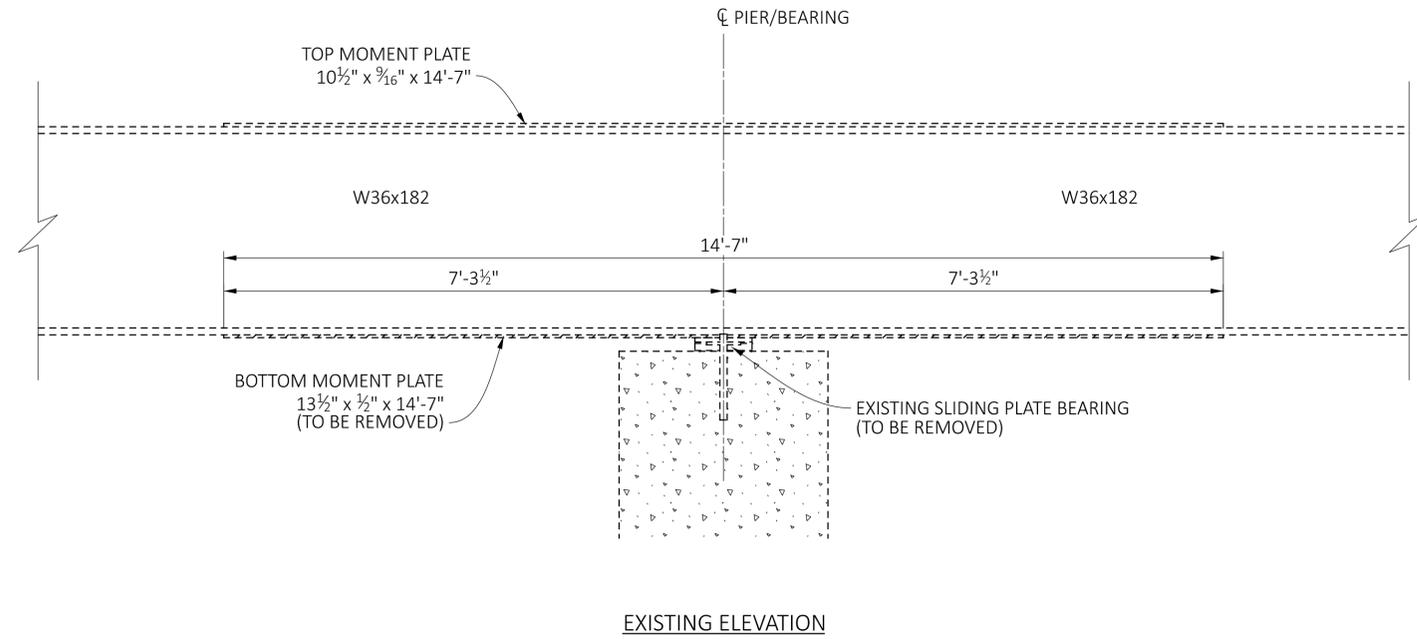
SURVEY CONTROL DATA (LOCATION 2)

POINT NAME	EXISTING STATION	PROPOSED STATION	OFFSET (FT.)	NORTHING	EASTING	ELEVATION (FT.)	TYPE
MN100	58+00.40	515+92.41	44.75 RT.	791810.879	2206638.135	773.082	CMON
MN101	58+00.41	515+92.40	30.099 RT.	791807.507	2206623.781	771.773	CMON
MN102	58+00.70	515+92.02	30.099 LT.	791793.437	2206565.346	770.341	CMON
MN103	58+00.70	515+92.02	40.028 LT.	791791.253	2206555.659	770.267	CMON
MN104	59+44.42	514+48.39	58.044 RT.	791658.784	2206669.34	768.667	CMON
MN105	61+69.49	512+23.32	59.035 RT.	791423.85	2206648.044	763.255	CMON
MN106	64+25.26	509+67.54	75.367 RT.	791168.157	2206612.62	769.036	CMON
MN107	64+55.92	509+36.89	78.8 RT.	791137.447	2206609.705	771.247	CMON
MN108	66+43.15	508+64.47	64.964 RT.	791068.641	2206583.466	770.537	CMON
MN109	32+88.87	507+38.87	68.376 RT.	790943.649	2206555.87	766.722	CMON
MN110	27+43.48	501+93.48	45.667 RT.	790428.408	2206352.065	777.799	IPID
MN111	27+27.42	501+77.42	0.23 RT.	790431.115	2206303.947	779.016	MAG
MN112	25+50.31	500+00.31	44.895 RT.	790250.346	2206276.761	785.568	CMON
MN113	25+50.31	500+00.31	24.982 RT.	790258.028	2206258.39	784.508	CMON
MN114	25+50.06	500+00.06	24.919 LT.	790277.199	2206212.318	787.275	IPIN
MN115	25+50.31	500+00.31	49.698 LT.	790286.987	2206189.553	789.823	CMON
		BEYOND ALIGNMENT LIMITS		789935.384	2206076.014	799.646	IPID
		BEYOND ALIGNMENT LIMITS		789642.064	2206027.016	799.475	IPID
		BEYOND ALIGNMENT LIMITS		789943.587	2205474.323	784.518	IPID
		BEYOND ALIGNMENT LIMITS		789946.714	2205491.843	788.384	IPIN
		BEYOND ALIGNMENT LIMITS		790043.361	2206176.441	797.568	IPIN
		BEYOND ALIGNMENT LIMITS		789934.734	2206105.974	799.566	RSPK
		BEYOND ALIGNMENT LIMITS		790047.457	2206147.95	795.431	RSPK
		BEYOND ALIGNMENT LIMITS		790073.748	2205807.653	799.028	IPIN
		BEYOND ALIGNMENT LIMITS		790394.088	2205926.325	790.551	IPID
MN202	28+08.81	502+58.81	335.16 LT.	790635.368	2206025.825	773.138	IPID
MN203	28+24.17	502+74.17	862.53 LT.	790851.674	2205544.632	758.743	AXLE
MN204	28+24.77	502+74.77	862.49 LT.	790852.158	2205544.88	758.99	IPIN
MN205	30+95.41	505+45.41	154.27 RT.	790726.867	2206582.986	758.373	IPIN
MN206	29+42.58	503+92.58	268.54 RT.	790534.09	2206635.992	763.923	IPIN
MN207	28+38.09	502+88.09	317.15 RT.	790412.017	2206639.404	766.022	IPID
CP10	28+10.20	502+60.20	40.12 LT.	790523.032	2206298.642	779.723	IPID
CP11	34+27.63	508+77.63	48.882 LT.	791106.254	2206473.237	767.257	IPID

DESIGN AGENCY



DESIGNER	TDF
REVIEWER	
TAG	10-31-24
PROJECT ID	96096
SHEET	P.8
TOTAL	72



STRUCTURAL STEEL MEMBERS, LEVEL UF				
DESCRIPTION	QUANTITY	SIZE	EST. LENGTH (FT)	WEIGHT (LBS)
PLATE (MOMENT PLATE)	1	13 1/2" x 1/2"	14'-7"	335
PLATE (BEARING STIFFENER)	48	5 1/2" x 3/4"	2'-10"	1908
			TOTAL	2243

NOTES:

- PAYMENT FOR EXISTING MOMENT PLATE REMOVAL TO BE INCLUDED IN ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE). FOR INFORMATION PURPOSES, THE QUANTITY OF REMOVAL IS 335 LBS.



WATSON BOWMAN ACME CORP.

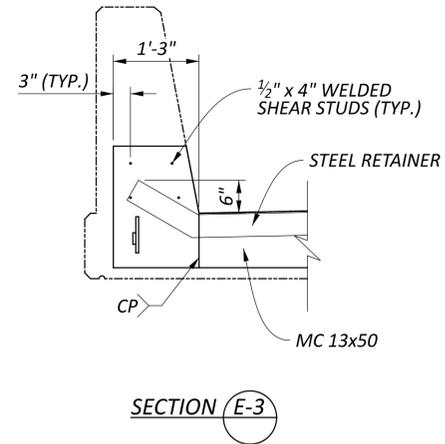
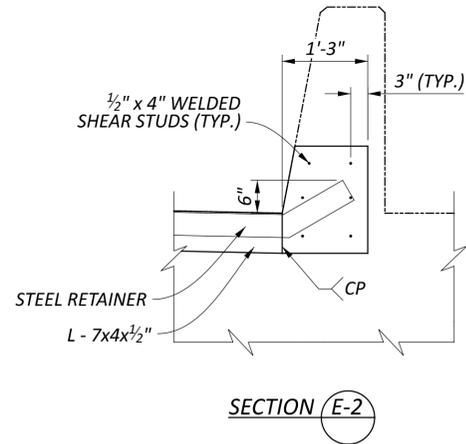


STEEL RETAINER

D-300 BOX SEAL

WATSON BOWMAN ACME CORP.  
 95 PINEVIEW DRIVE  
 AMHERST, NY 14228  
 PH # 1-800-677-4922  
 www.watsonbowmanacme.com

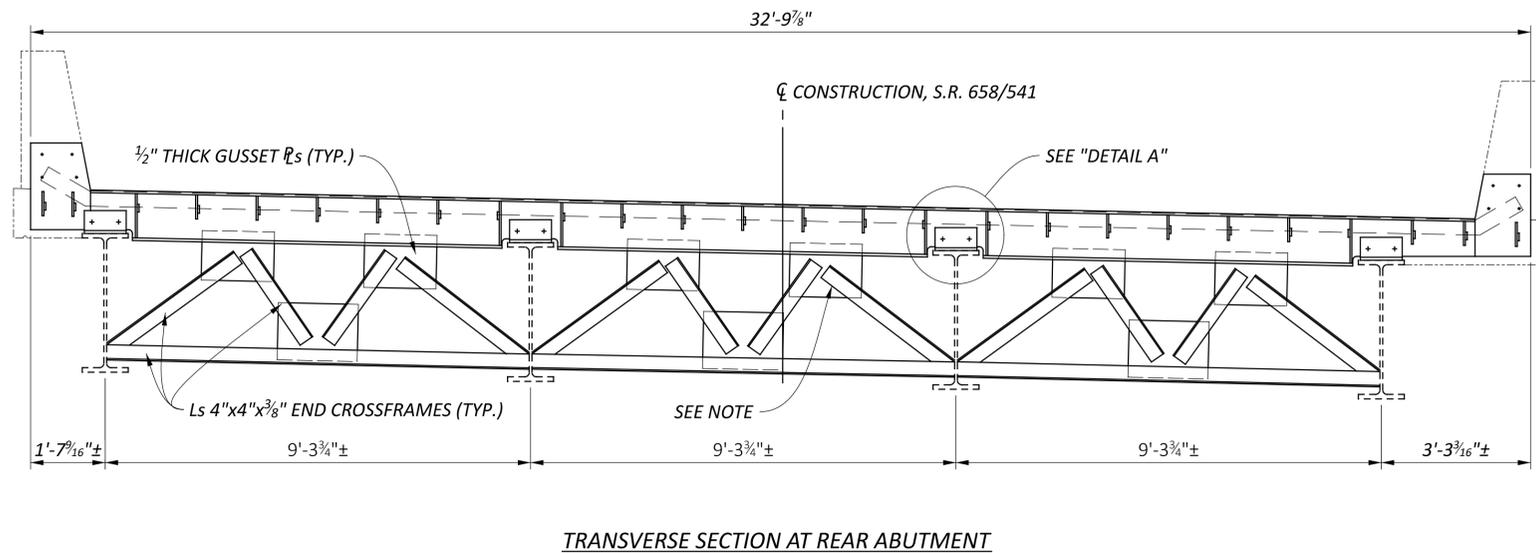
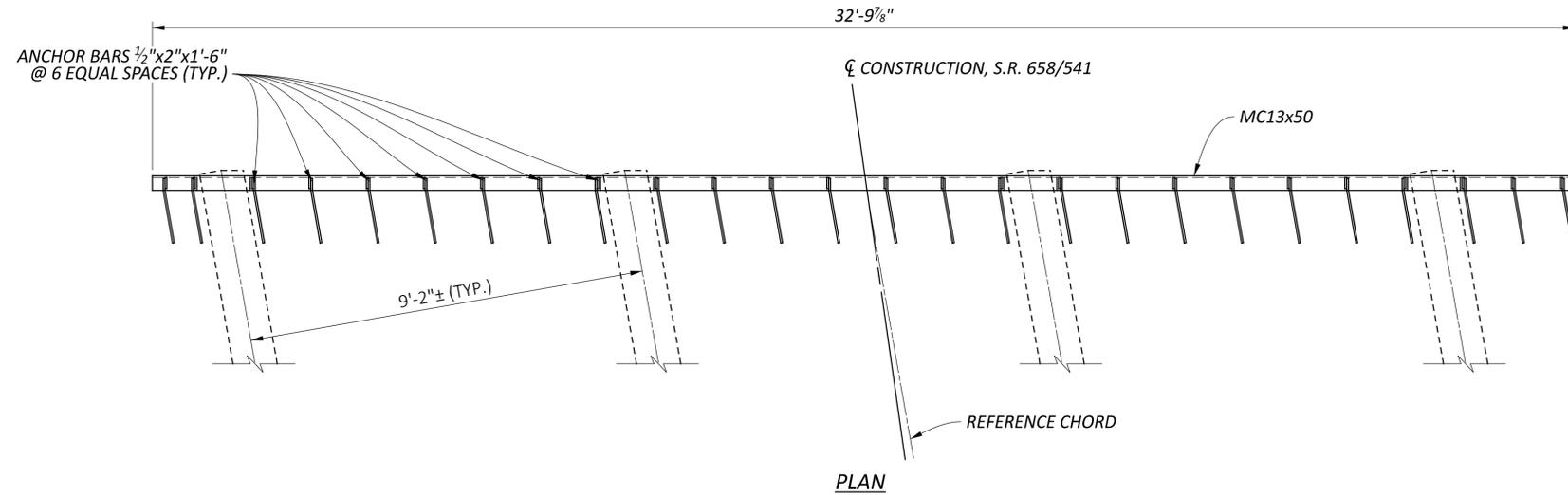
NOTE: THE CONTRACTOR MAY USE THE ABOVE BOX SEAL AND RETAINERS OR AN APPROVED EQUAL.



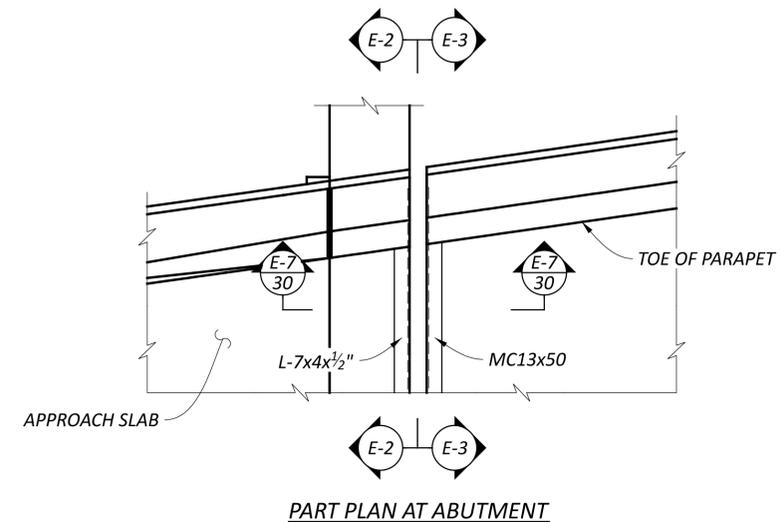
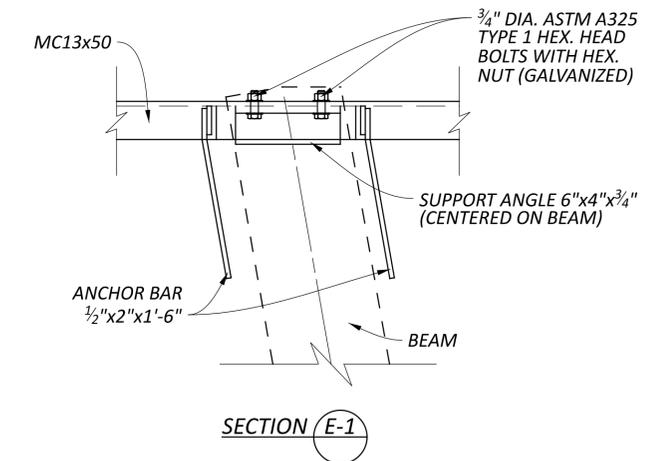
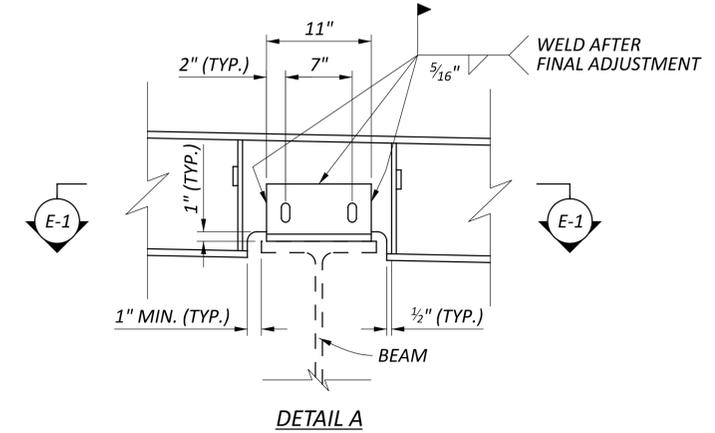
STRUCTURAL STEEL MEMBERS, LEVEL UF

DESCRIPTION	QUANTITY	SIZE	EST. LENGTH (FT)	WEIGHT (LBS)
END CROSSFRAMES	3	L's 4x4x3/8	9'-3"	272
END CROSSFRAMES	6	L's 4x4x3/8	3'-5"	201
END CROSSFRAMES	6	L's 4x4x3/8	2'-4"	137
1/2" BOTTOM GUSSET PL	3	1/2 x (1'-3") x (1'-9")		134
REAR ABUTMENT			TOTAL	744

FINAL QUANTITIES FOR STRUCTURAL STEEL SHALL BE DETERMINED BY SHOP DRAWINGS.



NOTE: FOR WELDING DETAILS AND DETAILS NOT SHOWN HERE, SEE STANDARD DRAWINGS GSD-1-19 & EXJ-4-87.



SFN 3006395

DESIGN AGENCY



DESIGNER	CHECKER
TDF	TAG
REVIEWER	
ELJ 12-03-24	
PROJECT ID	
96096	
SUBSET	TOTAL
28	36
SHEET	
TOTAL	
P.64	72

WATSON BOWMAN ACME CORP.

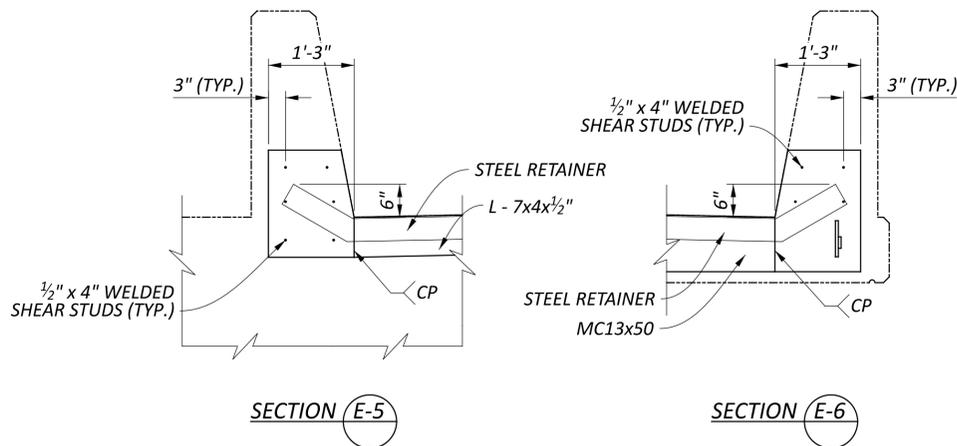


STEEL RETAINER

D-300 BOX SEAL

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 95 PINEVIEW DRIVE  
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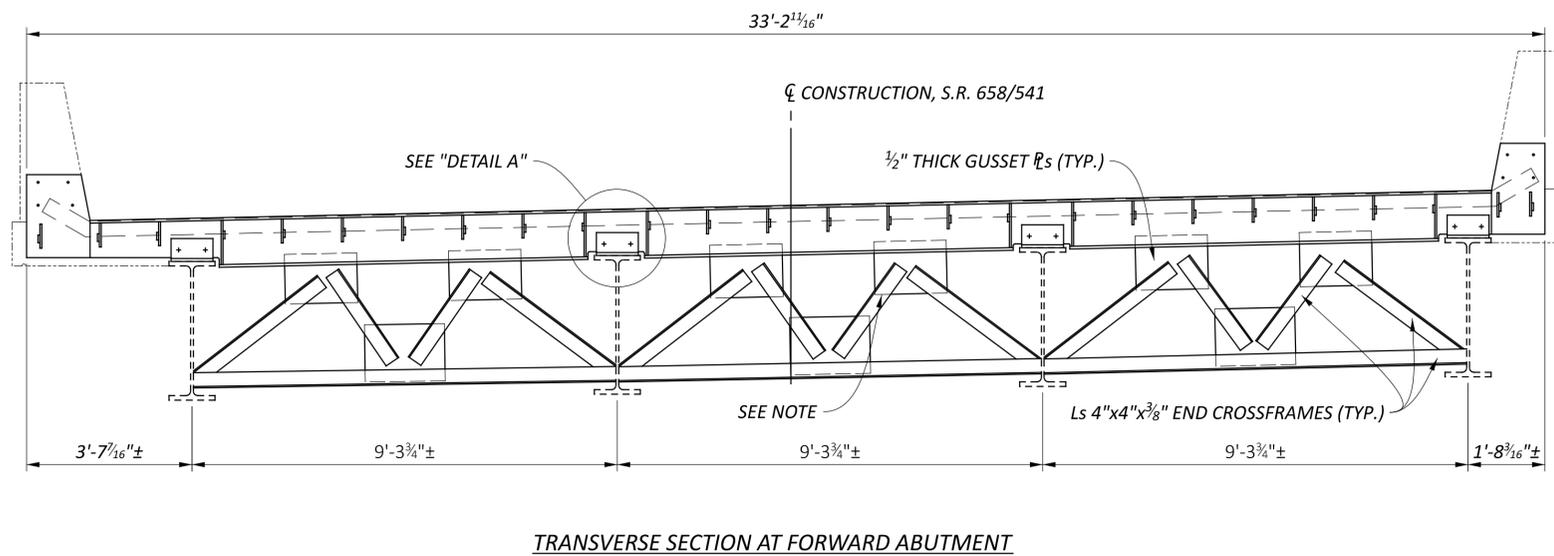
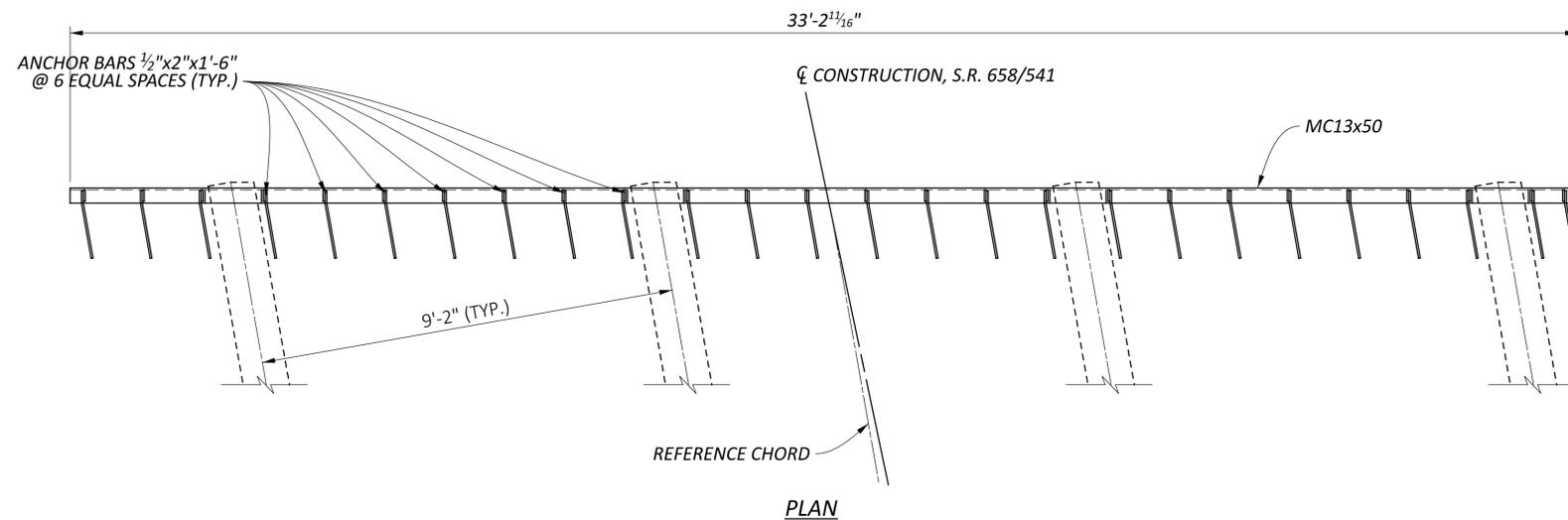
NOTE: THE CONTRACTOR MAY USE THE ABOVE BOX SEAL AND RETAINERS OR AN APPROVED EQUAL.



STRUCTURAL STEEL MEMBERS, LEVEL UF

DESCRIPTION	QUANTITY	SIZE	EST. LENGTH (FT)	WEIGHT (LBS)
END CROSSFRAMES	3	L's 4x4x3/8	9'-3"	272
END CROSSFRAMES	6	L's 4x4x3/8	3'-5"	201
END CROSSFRAMES	6	L's 4x4x3/8	2'-4"	137
1/2" BOTTOM GUSSET PL	3	1/2" x (1'-3") x (1'-9")		134
FORWARD ABUTMENT			TOTAL	744

FINAL QUANTITIES FOR STRUCTURAL STEEL SHALL BE DETERMINED BY SHOP DRAWINGS.



NOTE: FOR WELDING DETAILS AND DETAILS NOT SHOWN HERE, SEE STANDARD DRAWINGS GSD-1-19 & EXJ-4-87.

