

ITEM 614 - MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING, TEMPORARY OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. TRUCK MOUNTED ATTENUATORS (TMA'S) SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.
6. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
7. A QUANTITY OF 500 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
8. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
9. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.
10. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.
11. TO ENSURE THAT WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DESPLACED BY WIND AND MOVING TRAFFIC, ALL WEIGHTED CHANNELIZERS UTILIZED ON INTERSTATES AND FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF MATERIAL MANAGEMENT'S QUALIFIED PRODUCTS LIST (QPL) WHICH UTILIZE A MINIMUM OF A 30 POUND BALLAST.

TIME LIMITATIONS AND DISINCENTIVES

INTERIM CONSTRUCTION DATES AND THE ASSOCIATED DISINCENTIVE VALUE FOR EACH MAJOR CONSTRUCTION PHASE AND TEMPORARY TRAFFIC PATTERNS ARE LISTED HEREIN.

MAINTAINING TRAFFIC (SB TRAFFIC CROSSOVER)
DURING PHASE 1A - STEP 2, I-680 SB TRAFFIC MAY BE CROSSED OVER ON TO THE EXISTING NB PAVEMENT AND ALL SB RAMPS CLOSED WITHIN THE LIMITS ESTABLISHED BY THIS PHASE. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$27,400 PER CALENDAR DAY FOR EACH DAY SB TRAFFIC REMAINS IN THE CROSSOVER CONDITION BEYOND OCTOBER 31, 2026.

MAINTAINING TRAFFIC (NB CLOSURE)
I-680 NB AND ALL NB RAMPS WITHIN THE LIMITS OF THE CLOSURE ESTABLISHED IN PHASES 1A - STEP 2 AND 1B - STEP 1 MAY BE CLOSED. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$20,000 PER CALENDAR DAY FOR EACH DAY I-680 NB AND THE ASSOCIATED RAMPS REMAIN CLOSED BEYOND 8/31/2027.

ROAD OR RAMP CLOSURE	CLOSURE PERMITTED DURING PHASE	CLOSURE DISINCENTIVE (\$ PER CALENDAR DAY) OUTSIDE OF PERMITTED PHASE
MARSHALL ST. TO I-680 NB (RAMP G)	PHASES 1A-1B	\$2,000
E. WOODLAND AVE. TO I-680 NB (RAMP N)	PHASES 1A-1B	\$5,000
U.S. 62/S.R. 7 TO I-680 NB (RAMP BY)	PHASES 1A-1B	\$3,000
SILLIMAN ST. TO I-680 SB (RAMP C)	PHASE 1A	\$400
S.R. 193 TO I-680 SB (RAMP C)	PHASE 1A	\$10,000
EDWARDS ST. TO I-680 SB (RAMP H)	PHASE 1A	\$1,000
I-680 SB TO U.S. 62 EB/S.R. 7 NB (RAMP BX)	PHASE 1A	\$3,000
I-680 SB RAMP TO EDWARDS ST. (RAMP F)	PHASE 1A	\$8,000
I-680 SB RAMP TO MARKET ST. (RAMP K)	PHASE 1A	\$5,000
I-680 NB TO U.S. 62/S.R. 7 (RAMP NB)	PHASE 2A	\$9,000
I-680 NB TO SOUTH AVE. (RAMP D)	PHASE 2A	\$7,000
SOUTH AVE. TO I-680 NB (RAMP B)	PHASE 2A	\$1,000
POWERSDALE AVE. TO I-680 NB (RAMP F)	PHASE 2A	\$200
I-680 SB TO SOUTH AVE (RAMP A)	PHASE 2B	\$8,000
SOUTH AVE. TO I-680 SB (RAMP C)	PHASE 2B	\$1,700
U.S. 62/S.R. 7 TO I-680 SB (RAMP SB)	PHASE 2B	\$24,000

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT PROJECT ENGINEER AND THE CITY OF YOUNGSTOWN EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

DURING MAINTENANCE OF TRAFFIC PHASE 1A THROUGH PHASE 2C, TRAFFIC SHALL BE PERMITTED TO REMAIN IN THE CONDITIONS PROPOSED BY THE DETOUR PLANS AND THE MAINTENANCE OF TRAFFIC PLANS DURING HOLIDAYS AND SPECIAL EVENTS. IF WORK IS PERFORMED DURING A HOLIDAY OR SPECIAL EVENT PERIOD, THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION VEHICLE TRAFFIC DOES NOT IMPEDE THE FLOW OF VEHICULAR TRAFFIC DURING THE HOLIDAY OR SPECIAL EVENT PERIODS AS LISTED BELOW:

NEW YEAR'S (OBSERVED)

MEMORIAL DAY

FOUTH OF JULY (OBSERVED)

GEN./REG. ELECTION DAY (NOV)

THANKSGIVING

CHRISTMAS (OBSERVED)

LABOR DAY

DURING ALL PRE-PHASE WORK AND PHASE 3 WORK, THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANED MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRI. THROUGH 6:00AM MON.
MONDAY	12:00N FRI. THROUGH 6:00AM TUE.
TUESDAY	12:00N MON. THROUGH 6:00AM WED.
TUESDAY (GEN./REG. ELECTION)	5:00AM TUE. THROUGH 12:00AM WED.
WEDNESDAY	12:00N TUE. THROUGH 6:00AM THUR.
THURSDAY	12:00N WED. THROUGH 6:00AM FRI.
THURSDAY (THANKSGIVING ONLY)	6:00AM WED. THROUGH 6:00AM MON.
FRIDAY	12:00N THUR. THROUGH 6:00AM MON.
SATURDAY	12:00N FRI. THROUGH 6:00AM MON.

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	≤ 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT (330-786-2208) RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

LANE CLOSURE/REDUCTION REQUIRED

LENGTH OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
<https://www.transportation.ohio.gov/working/data-tools/resources/permitted-lane-closure>

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$2,500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE.

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

DESIGN AGENCY



DESIGNER

KJF

REVIEWER

KWR 06/02/25

PROJECT ID

121474

SHEET

P.52

TOTAL

655

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GENERAL SUMMARY

MAH-680-4.58

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GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

MSN

REVIEWER

CMN 08/29/25

PROJECT ID
121474

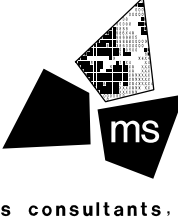
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REF NO.	SHEET NO.	STATION TO STATION				202	SPECIAL	202		202		202	202	202											
						PIPE REMOVED, 24" DIAMETER AND UNDER	FILL AND PLUG EXISTING CONDUIT	PIPE REMOVED, OVER 24" DIAMETER		CATCH BASIN REMOVED		INLET REMOVED	INLET ABANDONED, AS PER PLAN	MANHOLE REMOVED											
		I.R. 680				FT	FT	FT		EACH		EACH	EACH	EACH											
DR1	P.202	952+76.20	CL		17+74.80(RAMP C) RT	90						1													
DR2	P.202	955+01.19	CL		955+00.00 RT	96						1													
DR3	P.202	957+48.20	CL		957+00.00 RT	97						1													
DR4	P.204	960+73.27	RT		960+66.29 RT	39			1																
DR5	P.204	960+66.29			960+50.00 LT	121			1																
DR6	P.204	968+83.12	RT		968+40.00 RT	44			1																
DR7	P.204	968+83.30	CL		969+00.13 LT	20					1														
DR8	P.204	969+00.13	LT		968+69.00 LT	57								1											
DR9	P.204	969+92.29	LT		969+00.13 LT	92								1											
DR10	P.204	969+94.30	LT		969+92.29 LT	59			1																
DR11	P.204, P.206	971+25.44	LT		969+92.29 LT	133								1											
DR12	P.206	971+30.11	LT		971+25.44 LT	6					1														
DR13	P.206	971+29.29	LT		971+25.44 LT	31			1																
DR14	P.206	971+83.65	LT		971+29.29 LT	55			1																
DR15	P.206	975+02.95	LT		971+25.44 LT	377								1											
DR16	P.206	975+07.61	LT		975+02.95 LT	6						1													
DR17	P.206	981+41.49	LT		981+08.48 LT	32						1													
DR18	P.206	981+08.48	LT		981+07.00 RT		85						1												
DR19	P.206	981+50.00	RT		981+07.00 RT	43			1																
DR20	P.208	985+61.61	LT		985+60.94 RT	69						1													
DR21	P.208	985+60.94	RT		989+00.00 RT	337			1																
DR22	P.208	989+00.00	RT		989+00.00 LT	59			1																
DR23	P.208, P.210	989+00.00	LT		994+62.09 LT	562								1											
DR24	P.210	994+48.60	LT		994+62.09 LT	14						1													
DR25	P.210	994+49.75	RT		994+62.09 LT	60			1																
DR26	P.210	994+62.09	LT		997+14.36 LT	253								1											
DR27	P.210	996+14.70	RT		997+14.36 LT	108			1																
DR28	P.210	997+14.36	LT		999+49.01 LT			235						1											
DR29	P.210	999+54.19	LT		999+49.01 LT	6						1													
DR30	P.210	999+49.01	LT		1000+41.48 LT			93						1											
DR31	P.210	1000+38.16	LT		1000+41.48 LT	6						1													
DR32	P.210	1000+41.48	LT		1001+50.00 LT			138																	
DR33	P.210	1001+50.74	LT		1000+41.48 LT	110								1											
DR34	P.210	1001+56.94	LT		1001+50.74 LT	6						1													
DR35	P.210	1001+50.00	LT		1001+55.00 LT			5						1											
DR37	P.212	1004+86.50	RT		1004+82.42 RT	32																			
DR38	P.212	1007+39.37	LT		1007+10.91 LT	29						1													
DR39	P.212	1007+10.91	LT		1007+02.34 LT		91						1												
DR40	P.212	1010+51.54	RT		1010+46.82 LT	10								1											
DR41	P.212	1010+55.31	LT		1010+51.54 RT	10						1													
DR42	P.212, P.214	1015+50.00	RT		1010+51.54 RT	497								1											
DR43	P.214	1015+50.00	RT		1015+50.00 RT	57			1																
DR44	P.214	1015+74.79	LT		1015+50.00 RT	26						1													
DR45	P.214	1017+12.25	RT		1015+50.00 RT	162						1													
TOTALS CARRIED TO GENERAL SUMMARY						3811	176	471		13		16	2	13											

DRAINAGE REMOVAL SUBSUMMARY

DESIGN AGENCY



ms consultants, inc.

DESIGNER

REVIEWER

DNO 5/20/25

PROJECT ID

121474

SHEET

P.167

TOTAL

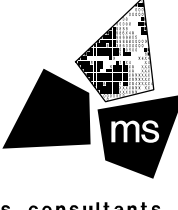
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REF NO.	SHEET NO.	STATION TO STATION						202	SPECIAL	202		202		202	202	202											
								PIPE REMOVED, 24" DIAMETER AND UNDER	FILL AND PLUG EXISTING CONDUIT	PIPE REMOVED, OVER 24" DIAMETER		CATCH BASIN REMOVED		INLET REMOVED	INLET ABANDONED, AS PER PLAN	MANHOLE REMOVED	MANHOLE ABANDONED, AS PER PLAN										
								FT	FT	FT		EACH		EACH	EACH	EACH	EACH										
		I.R. 680																									
DR46	P.214	1019+07.42	RT			1017+12.25	RT	197							1												
DR47	P.214	1019+27.27	LT			1019+07.42	RT	19						1													
DR48	P.214	1019+90.50	LT			1019+27.27	LT	87				1															
DR49	P.214	1020+99.06	RT			1019+07.42	RT	192								1											
DR50	P.214	1020+58.17	LT			1020+50.00	RT	10						1													
DR51	P.214	1020+70.71	LT			1021+00.00	LT	28				1															
DR52	P.214	1021+33.29	LT			1021+00.00	LT	34				1															
DR53	P.214	1021+00.00	LT			1020+99.06	RT	41								1											
DR54	P.214	1021+78.48	RT			1020+99.06	RT	88								1											
DR55	P.214	1022+70.84	LT			1021+78.48	RT	173				1															
DR56	P.216	1029+47.30	RT			1029+54.89	RT	12				1															
DR57	P.216	1030+69.10	RT			1029+54.89	RT	123				1															
DR58	P.216	1029+54.89	RT			1030+59.87	RT	124					1				1										
DR59	P.216	1030+84.67	RT			1031+06.48	RT	25				1															
DR60	P.216	1031+06.48	RT			1031+75.04	RT	72				1															
DR61	P.216	1031+51.43	LT			1031+99.75	LT	48					1														
DR62	P.216	1031+99.75	LT			1033+48.75	LT	149								1											
DR63	P.216	1033+02.06	LT			1033+48.75	LT	47					1														
DR64	P.216	1033+01.73	LT			1031+99.75	LT	106								1											
DR65	P.216	1033+50.00	RT			1033+48.75	LT	60				1															
DR66	P.216	1034+89.39	LT			1033+48.75	LT	140								1											
DR67	P.216	1034+91.05	LT			1034+89.39	LT	47				1															
DR68	P.216	1036+24.09	LT			1034+89.39	LT	135					1														
DR69	P.216, P.218	1039+36.09	LT			1036+24.09	LT	312					1														
DR70	P.218	1039+79.78	RT			1039+36.09	LT	70				1															
DR71	P.218	1043+56.79	RT			1043+50.73	RT	9				1															
DR72	P.218	1044+30.50	LT			1044+58.66	RT		51						1												
DR73	P.218	1044+58.66	RT			1044+58.81	RT	12				1															
DR74	P.218	1044+58.81	RT			1045+12.38	RT	51								1											
DR75	P.218	1046+81.28	LT			1047+30.41	LT		88						1												
DR76	P.218	1047+30.41	LT			1047+34.28	LT	5																			
DR77	P.220	1052+90.05	LT			1052+89.93	LT	93						1													
DR78	P.220	1056+79.37	RT			1052+90.05	LT	389						1													
DR79	P.222	1060+79.78	RT			1060+78.65	LT			62																	
DR80	P.222	1060+78.65	LT			1060+79.78	LT			69						1											
DR81	P.222	1060+91.74	RT			1060+78.65	LT	72				1															
DR82	P.222	1061+17.98	LT			1060+78.65	LT	39						1													
DR83	P.222	1062+71.12	LT			1061+17.98	LT	153						1													
DR84	P.222	1062+79.13	LT			1062+71.12	LT	55				1															
DR85	P.222	1063+77.35	RT			1062+71.12	LT	106						1													
DR86	P.222	1067+78.92	RT			1063+77.35	RT	402						1													
DR87	P.224	1073+52.07	RT			1073+52.57	LT	96						1													
DR88	P.224	1075+74.04	LT			1075+74.03	LT	16				1															
DR89	P.224	1076+66.01	RT			1076+60.79	LT	128						1													
DR90	P.224	1078+84.94	LT			1078+85.16	LT	16				1															
DR91	P.224	1080+79.81	RT			1080+79.78	LT			13						1											
DR92	P.224, P.226	1083+07.03	RT			1080+79.81	RT			228				1													
DR93	P.226	1083+29.24	RT			1083+07.03	RT	66				1															
DR94	P.226	1083+24.30	LT			1083+07.03	RT	73				1															
DR95	P.226	1084+79.68	RT			1083+07.03	RT			173				1													
TOTALS CARRIED TO GENERAL SUMMARY								4120	139	545		20		17	2	10	1										

DRAINAGE REMOVAL SUBSUMMARY

DESIGN AGENCY



ms consultants, inc.

DESIGNER

REVIEWER

DNO 5/20/25

PROJECT ID

121474

SHEET

P.168

TOTAL

655

REF NO.	SHEET NO.	STATION TO STATION					601	602	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611				
							ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	12" CONDUIT, TYPE B	12" CONDUIT, TYPE C, 706.02	12" CONDUIT, TYPE F, AS PER PLAN, 707.33	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	18" CONDUIT, TYPE F, AS PER PLAN, 707.33	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C	30" CONDUIT, TYPE B	CONDUIT, BORED OR JACKED, 30" TYPE B	CONDUIT, MISC.:33" TYPE C, 706.02	MANHOLE, NO. 3, AS PER PLAN, BOLTED DOWN	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 4	CATCH BASIN, NO. 8	CATCH BASIN, NO. 8A	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	MANHOLE, NO. 3
I.R. 680							CY	CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH					
D357	P.202	953+00.00	CL	TO	17+25.00(RAMP C)	RT					108													1					
D358	P.203	17+25.00(RAMP C)	RT	TO	17+25.00(RAMP C)	RT		0.27																					
D359	P.202	957+50.00	CL	TO	957+00.00	RT					99													1					
D360	P.202	957+00.00	RT		957+00.00	RT	1.33	0.27																					
D518	P.204	960+73.27	RT	TO	960+70.00	RT							24								1								
D361	P.204	960+70.00	RT	TO	960+30.39	CL					70										1								
D362	P.204	960+50.00	LT		960+50.00	LT	1.44	0.33																					
D363	P.204	962+00.00	LT	TO	960+30.39	CL					139												1						
D364	P.204	960+30.39	CL	TO	960+50.00	LT							66										1						
D560	P.204	961+25.01	LT	TO	960+62.79	LT					62													1					
D561	P.204	960+62.79	LT		960+62.79	LT		0.27																	1				
D365	P.204	968+80.00	RT		968+40.00	RT							41								1			1					
D367	P.206	974+00.00	CL		971+50.00	LT					250																		
D368	P.204, P.206	971+50.00	LT		969+95.00	LT					155							1											
D370	P.204	969+95.00	LT		968+85.02	CL					107							1											
D371	P.204	968+85.02	CL		968+69.00	LT							52											1					
D375	P.206	981+20.00	CL		981+07.00	RT					83												1						
D379	P.208	985+60.94	RT		989+00.00	RT						337									1								
D380	P.208	989+00.00	RT		992+00.00	RT					294										1								
D381	P.208, P.210	992+00.00	RT		994+49.80	RT					245							1											
D382	P.208	992+00.00	CL		992+00.00	RT					34												1						
D385	P.210	994+49.80	RT		996+50.00	RT									197						1								
D386	P.210	996+50.00	RT		996+52.22	RT									24			1											
D387	P.210	996+52.22	RT		998+50.00	RT									193			1											
D388	P.210	998+50.00	CL		998+50.00	RT					45												1						
D389	P.210	998+50.00	RT		1000+48.39	RT									194			1											
D390	P.210	1000+00.00	CL		1000+48.39	CL					49												1						
D391	P.210	1000+48.39	RT		1001+50.00	RT												1											
D392	P.210	1000+48.39	CL		1000+48.39	RT					52												1						
D393	P.210	1001+00.00	CL		1000+48.39	CL					52												1						
D394	P.210	1001+50.00	RT		1001+50.00	LT												137											
D395	P.210	1001+50.00	RT		1001+57.11	RT												5							1				
D395	P.210	1001+99.99	RT		1003+35+00	RT										130				1									
D396	P.210	1003+35.00	RT		1003+50.00	LT															1								
D397	P.210	1003+00.00	CL		1003+00.00	RT					45												1						
D398	P.210	1003+00.00	RT		1001+50.00	RT					146							1											
D501	P.212	1004+86.24	RT		1004+82.39	RT									31				1										
D502	P.212	1004+82.39	RT		1004+82.39	RT	1.67	0.33												1									
D401	P.212	1007+50.00	CL		1007+03.63	LT			49	4	46												1						
D402	P.212	1007+03.63	LT		1007+03.21	LT				6															1				
D406	P.212	1010+51.51	RT		1010+46.82	LT							10						1										
D407A	P.212	1012+00.00	RT		1010+51.54	RT										148			1										
D407	P.212	1013+44.99	RT		1012+00.00	RT										145			1										
D408	P.212	1013+49.98	CL		1013+44.99	RT					7												1						
D409	P.212	1014+49.98	RT		1013+44.99	RT										105			1										
D410	P.212	1014+52.39	RT		1014+49.98	RT										58						1							
D411	P.212, P.214	1015+50.00	RT		1014+52.39	RT						96										1							
D412	P.214	1015+50.00	RT		1015+50.00	RT			4																				
D413	P.212, P.214	1016+50.00	RT		1014+49.98	RT					200								1										
D414	P.214	1020+10.00	RT		1020+04.15	RT					30								1										
TOTALS CARRIED TO GENERAL SUMMARY							5	1.5	49	14	46	2140	495	198	65	31	1064	130	99	318	5	15	1	1	8	1	15	1	2

DRAINAGE SUBSUMMARY

DESIGN AGENCY



ms consultants, inc.

DESIGNER

REVIEWER

DNO 5/20/25

PROJECT ID

121474

SHEET

P.178

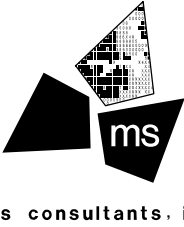
TOTAL

655

REF NO.	SHEET NO.	STATION TO STATION					601	602	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	
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DRAINAGE SUBSUMMARY

DESIGN AGENCY



ms consultants, inc.

DESIGNER

REVIEWER

DNO 5/20/25

PROJECT ID

121474

SHEET

P.179

TOTAL

655

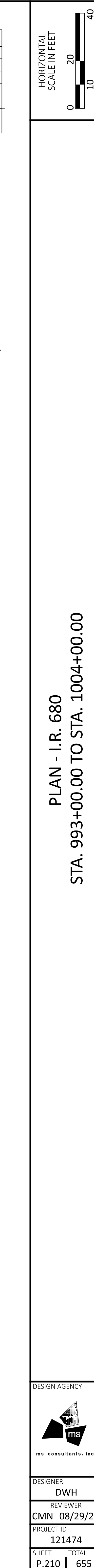
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pww\ohiodot-pw.bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSC\Consultants\Drainage\Sheet\121474_DS002.dgn

REF NO.	SHEET NO.	STATION TO STATION						601																	
								ROCK CHANNEL PROTECTION, TYPE A WITH FILTER					DITCH EROSION PROTECTION MAT, TYPE B		SEEDING AND EROSION CONTROL WITH TURE REINFORCING MAT, TYPE 1										
							CY						SY		SY										
		I.R. 680																							
E1	P.202	953+50.20	RT			955+50.00	RT								171										
E2	P.202	957+07.81	RT			955+50.00	RT								134										
E3	P.202	960+00.00	LT			957+21.63	LT								229										
E4	P.204	961+12.80	LT			960+00.00	LT								88										
E5	P.204	962+18.86	RT			960+76.57	RT					125													
E5A	P.204	968+32.34	CL			968+44.27	CL	142																	
E6	P.204	970+35.06	RT			968+85.65	RT					183													
E7	P.204	971+00.00	LT			970+10.70	LT					74													
E8	P.206	971+61.42	LT			971+00.00	LT					51													
E9	P.206	973+17.56	LT			978+65.71	LT							460											
E10	P.206	977+00.00	RT			979+46.62	RT					207													
E11	P.206	982+00.00	RT			981+55.64	RT					38													
		I.R. 680																							
E12	P.208	984+73.18	RT			985+55.31	RT					37													
E13	P.208	985+94.09	RT			985+69.27	RT					11													
E14	P.208	986+15.69	RT			988+92.50	RT					230													
E15	P.208	990+00.61	RT			993+00.00	RT					252													
E16	P.210	993+00.00	RT			994+44.04	RT					117													
E17	P.210	994+90.08	RT			997+15.64	RT					181													
E18	P.210	997+15.64	RT			1001+95.14	RT					626													
E19	P.210	1002+09.97	RT			1003+29.60	RT					100													
E20	P.210	1004+00.00	RT			1003+51.38	RT					38													
E21	P.212	1004+81.71	RT			1004+00.00	RT					67													
E22	P.212	1008+60.58	RT			1014+25.24	RT							458											
E23	P.212	1014+25.24	RT			1014+45.21	RT					17													
E24	P.212	1015+00.00	RT			1014+59.58	RT					33													
E25	P.214	1015+48.01	RT			1015+00.00	RT					39													
E26	P.214	1020+70.39	RT			1015+57.12	RT					427													
E27	P.214	1020+56.56	LT			1019+97.05	LT					50													
E28	P.214	1022+00.00	LT			1022+42.79	LT					36													
E29	P.214	1024+50.24	LT			1022+56.94	LT					157													
E30	P.216	1028+01.34	RT			1029+41.53	RT					66													
E31	P.216	1029+68.72	RT			1029+49.52	RT					10													
E32	P.216	1031+97.36	RT			1033+43.19	RT					125													
E33	P.216	1035+05.74	RT			1033+56.94	RT					125													
E34	P.216	1036+48.00	LT			1034+97.20	LT					127													
E35	P.216	1037+00.00	LT			1036+57.00	LT					36													
E36	P.218	1043+29.80	LT			1037+00.00	LT					553													
E37	P.218	1041+22.08	RT			1038+07.04	RT					250													
E38	P.218	1043+07.31	RT			1043+49.17	RT					33													
E39	P.218	1044+65.45	RT			1043+63.80	RT					79													
E40	P.218	1046+47.01	LT			1047+23.59	LT					37													
E41	P.218	1048+00.00	LT			1047+36.78	LT					30													
E42	P.220	1048+77.40	LT			1048+00.00	LT					36													
E43	P.220	1055+17.23	RT			1050+93.20	RT					356													
E44	P.220	1059+00.00	LT			1050+97.13(RAMP NB)	LT					708													
E45	P.220	1059+00.00	RT			1055+06.48(RAMP SB)	RT					326													
TOTALS CARRIED TO GENERAL SUMMARY								142					5993		1540										

EROSION CONTROL SUBSUMMARY

DESIGN AGENCY	
 ms consultants, inc.	
DESIGNER	
REVIEWER	
DNO 5/20/25	
PROJECT ID	
121474	
SHEET	TOTAL
P.193	655



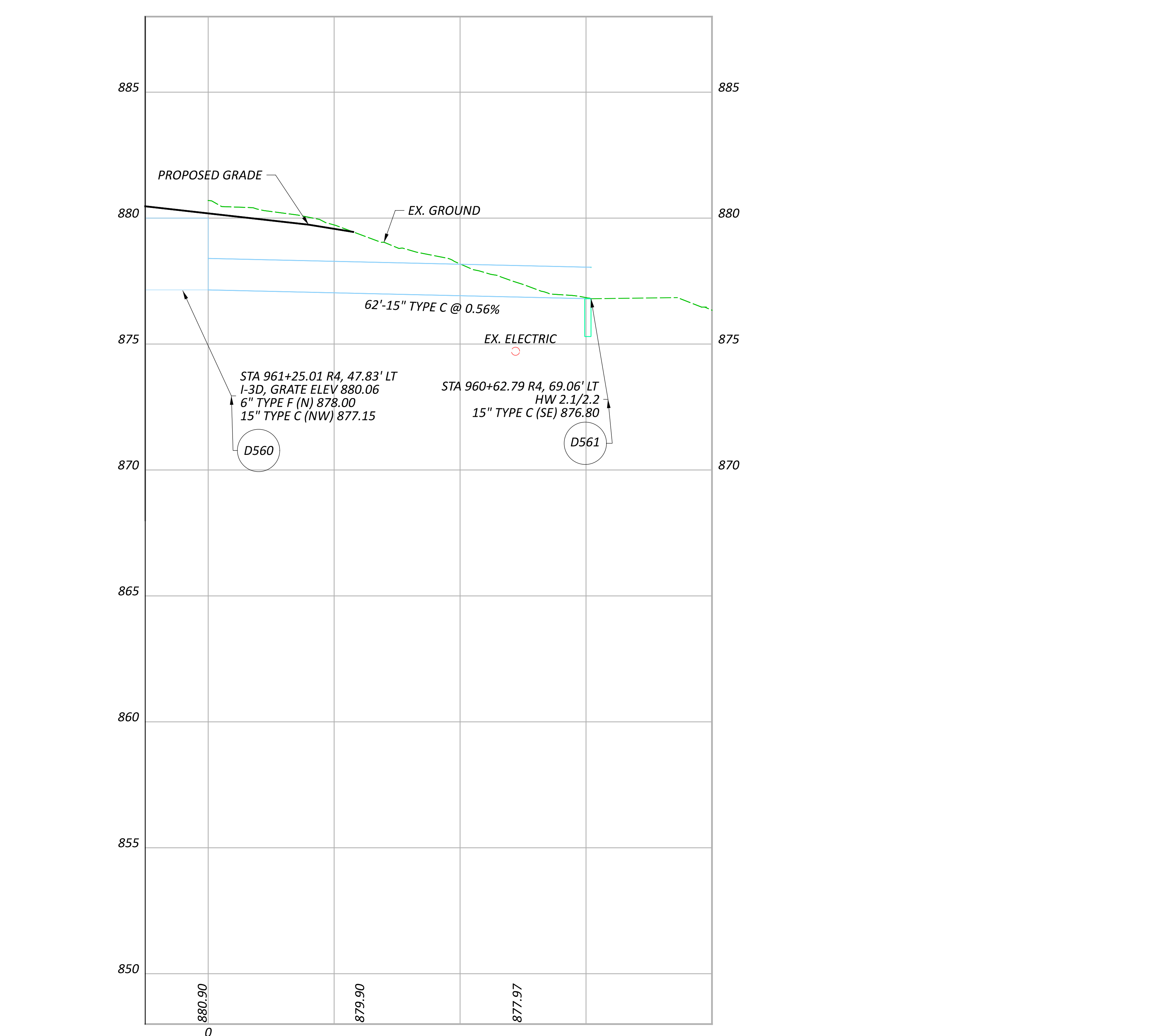
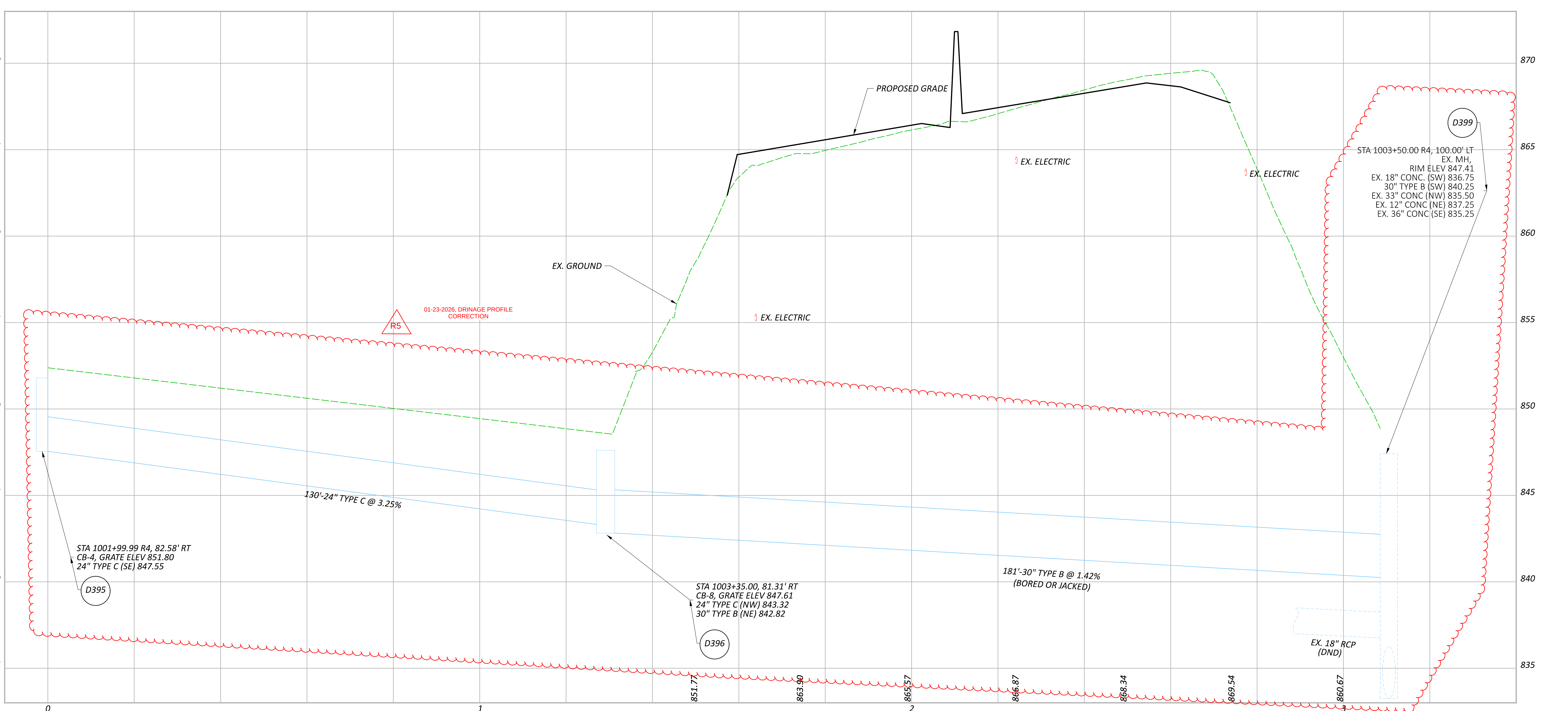
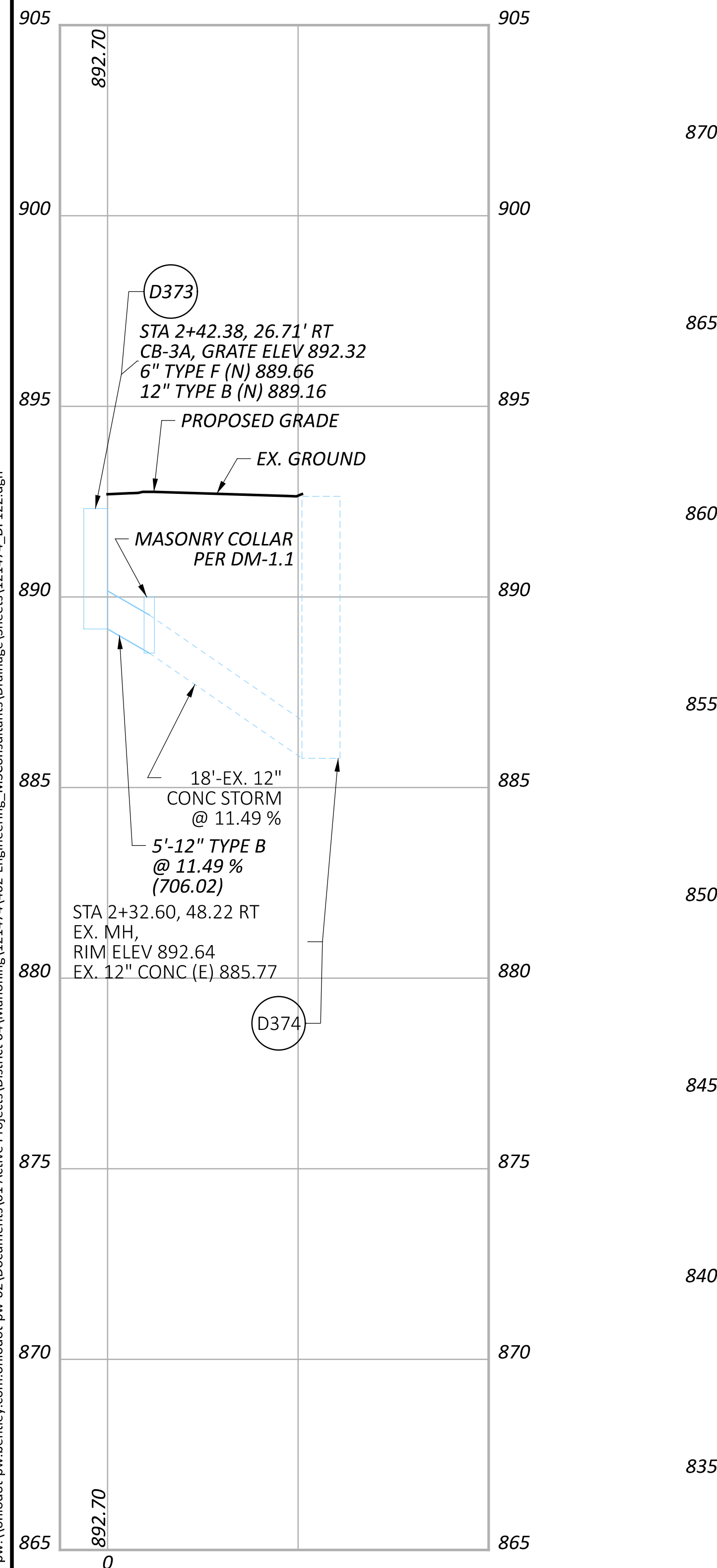
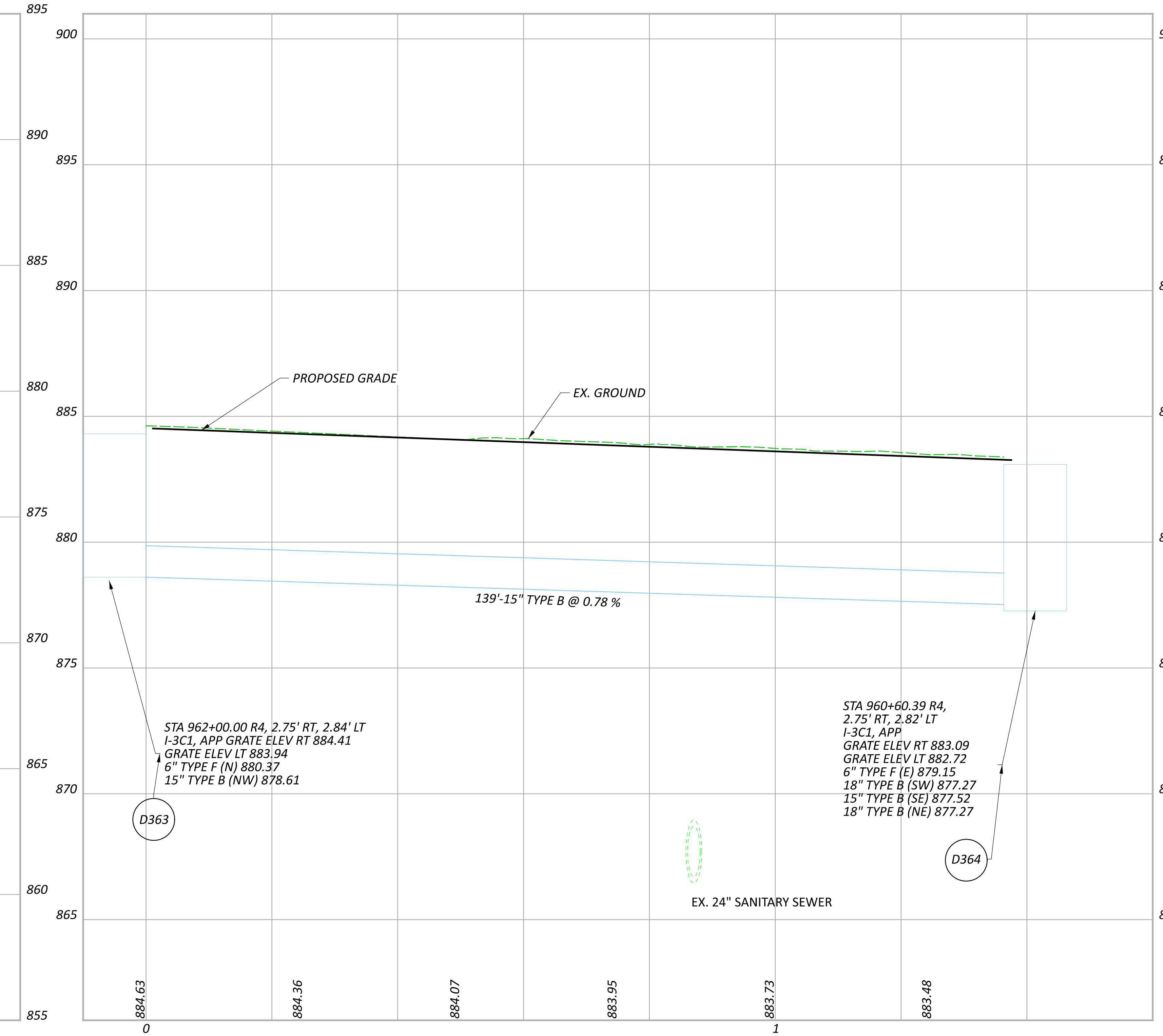
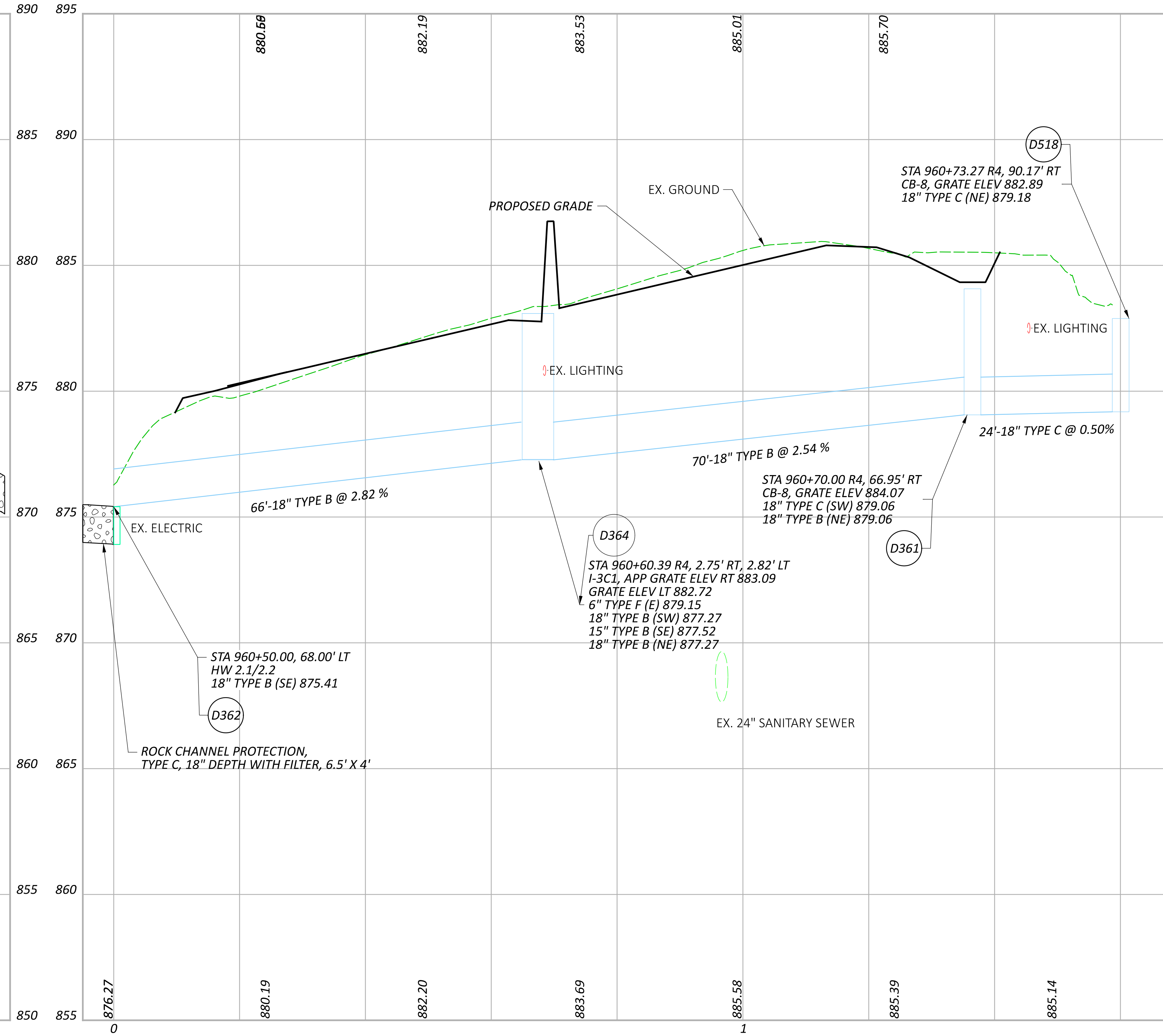
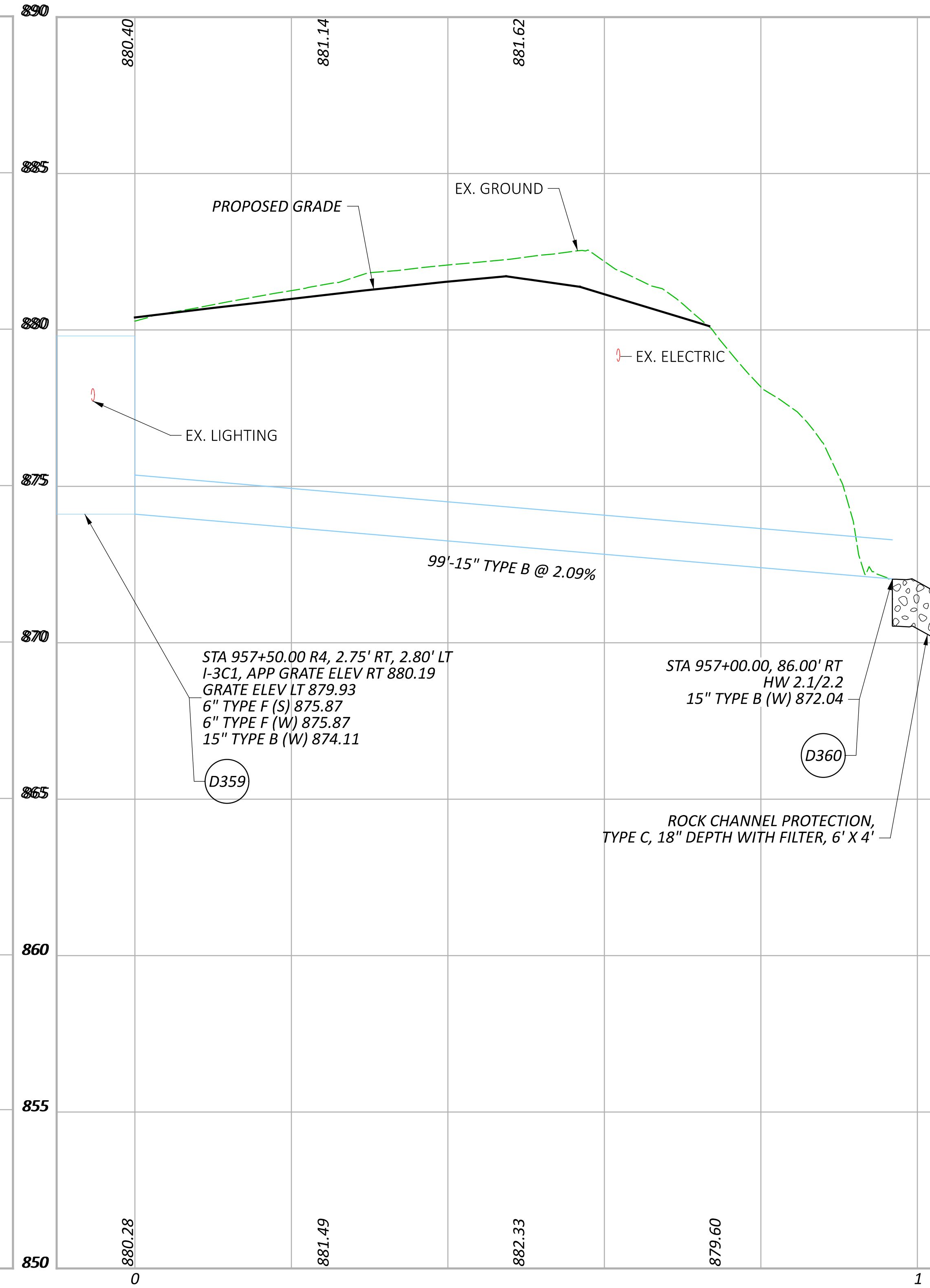
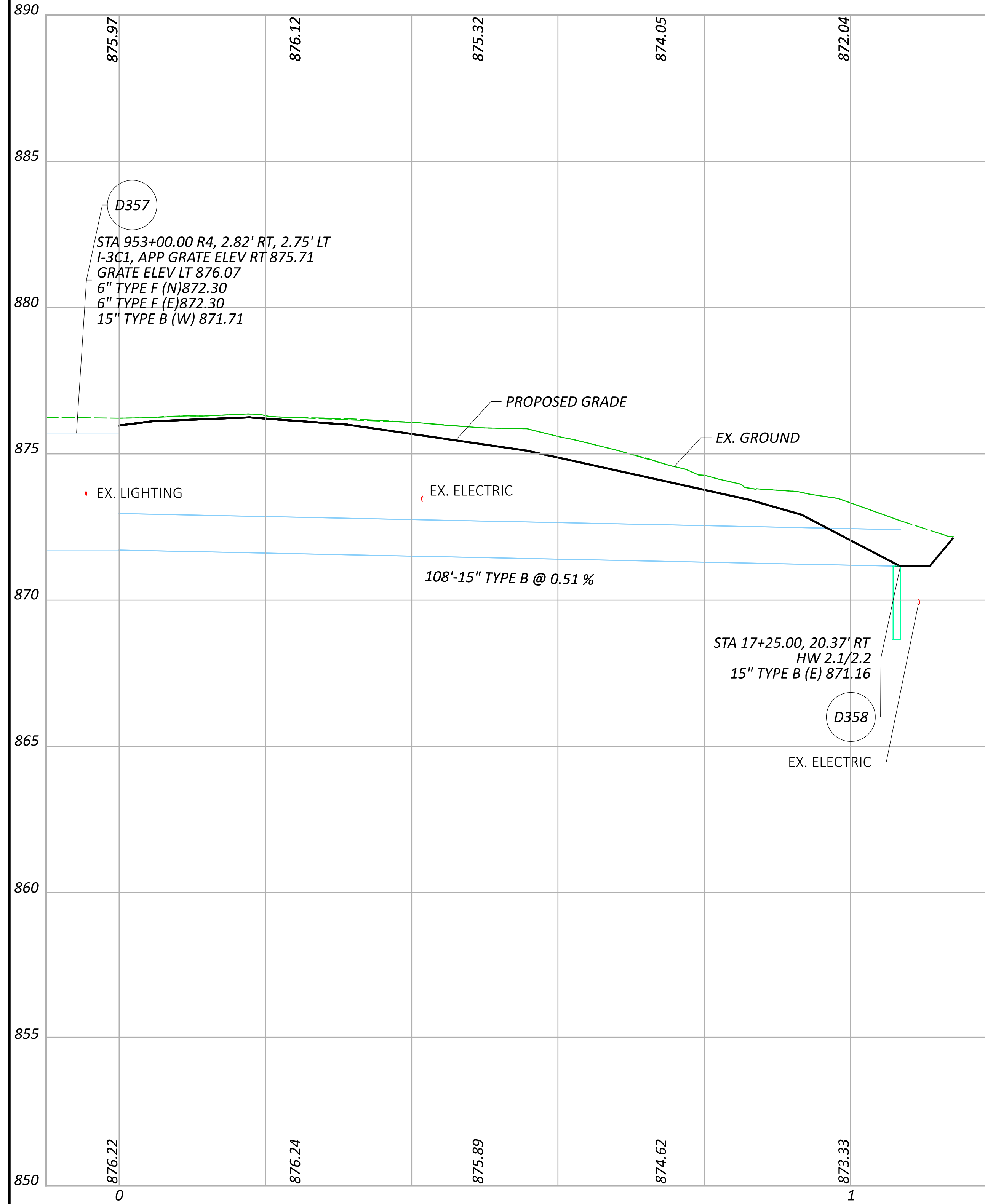
HORIZONTAL
SCALE IN FEET



0 10 20

4







ESTIMATED QUANTITIES (02/IMS)									
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTRUCTURE	GENERAL	SHEET REF.
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					4/64
202	22900	423	SY	APPROACH SLAB REMOVED				423	
503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					5/64
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN					4/64
509	10000	625,057	LB	EPOXY COATED STEEL REINFORCEMENT	30,979		582,734	11,344	01-23-2026, QUANTITY REVISION
509	26000	6,664	LB	GALVANIZED STEEL REINFORCEMENT	6,664				
509	30020	37,159	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			37,159		
510	10001	651	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	651				4/64
511	34447	1,747	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			1,747		49/64
511	34450	509	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			509		
511	45712	268	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT	268				
511	53012	34	CY	CLASS QC2 CONCRETE, MISC.: MOMENT SLAB AND PARAPET WITH QC/QA	34				61/64
512	10001	194	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)		194			4/64
512	10100	6,240	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	526	2,534	3,180		
512	10601	100	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN				100	5/64
512	74000	194	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		194			
513	10201	13,450	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			13,450		5/64
513	20000	18,195	EACH	WELDED STUD SHEAR CONNECTORS			18,195		
514	00050	14,280	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			14,280		
514	00056	14,280	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			14,280		
514	00060	15,667	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			15,667		
514	00066	15,667	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			15,667		
514	00504	120	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			120		
514	10000	48	EACH	FINAL INSPECTION REPAIR			48		
516	11210	199	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			199		
516	13600	377	SF	1" PREFORMED EXPANSION JOINT FILLER			377		
516	13900	48	SF	2" PREFORMED EXPANSION JOINT FILLER	48				
516	44100	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (17" X 20" X 2.668")		12			
516	44200	48	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (17.5" X 20" X 3.273")		48			
516	44300	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (14" X 15" X 4.565")	24				
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					5/64
518	21200	103	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	103				
519	11101	100	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	100				5/64
526	30010	676	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				676	
526	90020	113	SY	TYPE B INSTALLATION				113	
SPECIAL	53000600	40	SF	STRUCTURES, REMOVAL OF ASBESTOS CONTAINING MATERIAL	40				5/64

ESTIMATED QUANTITIES
BRIDGE NO. MAH-00680-04.886
OVER PRICE ROAD & MILL CREEK

SFN
5006872

DESIGN AGENCY

ms consultants, inc.

DESIGNER
JSE

CHECKER
SJR

REVIEWER
WER 05/30/25

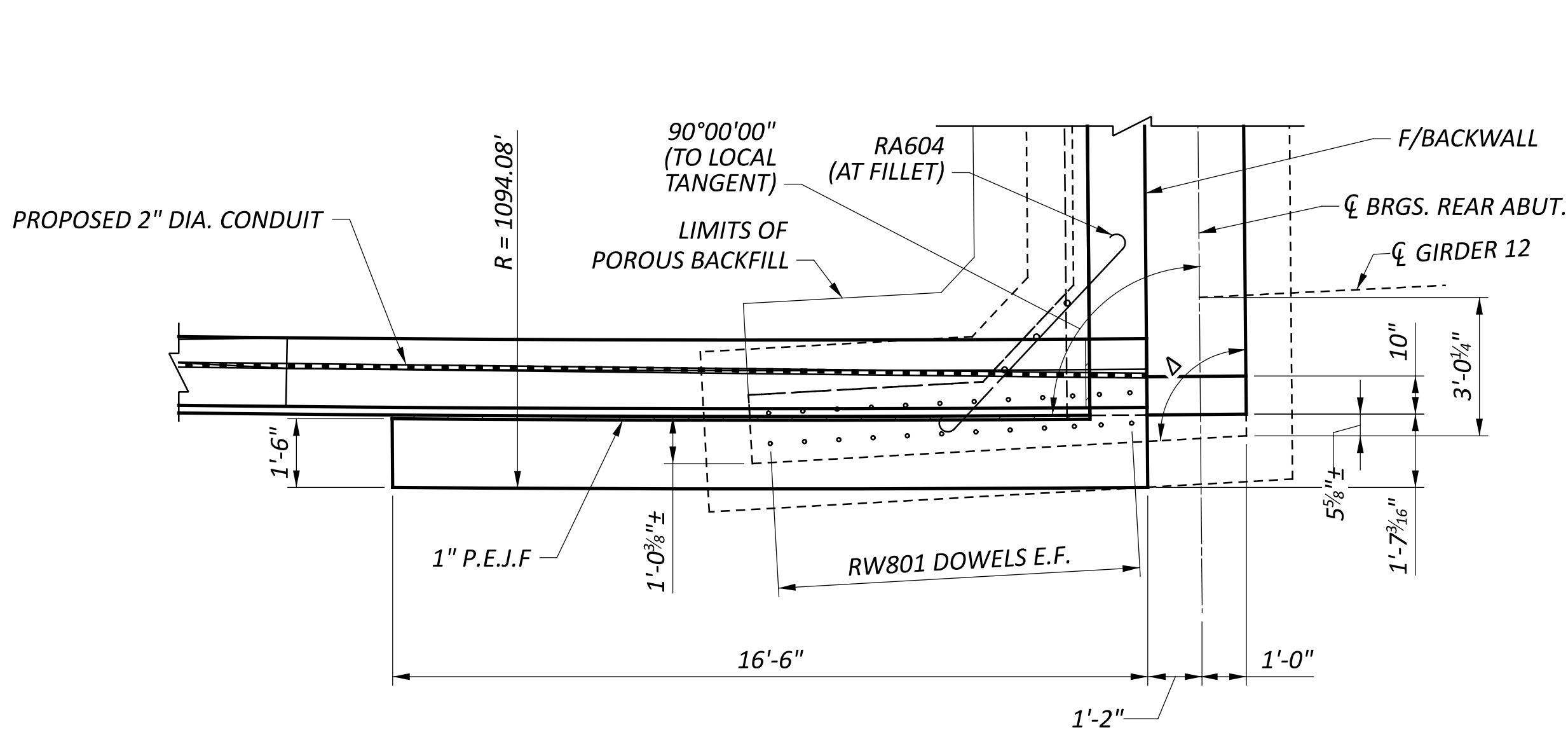
PROJECT ID
121474

SUBSET
6

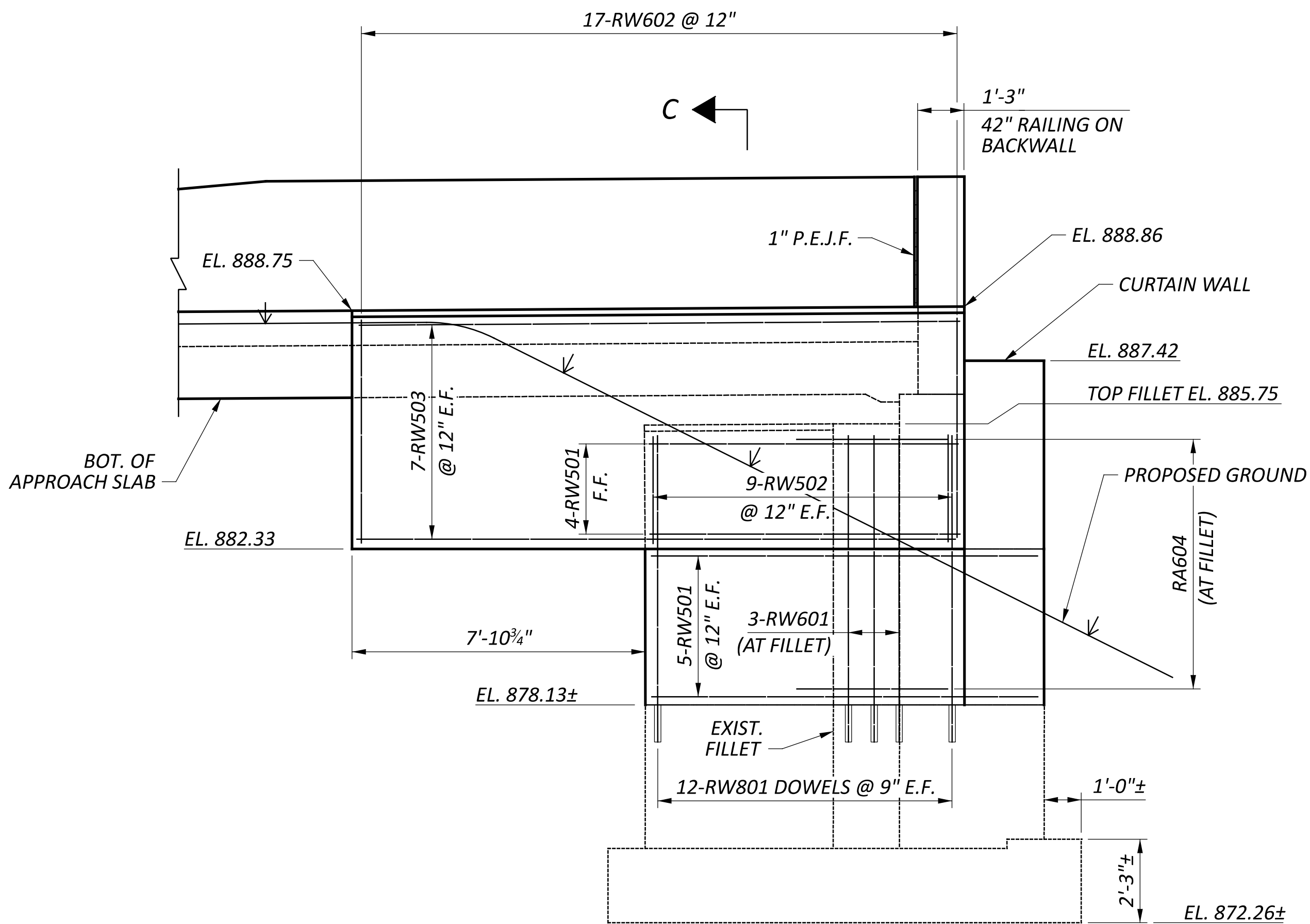
TOTAL
64

SHEET
P.491

TOTAL
655

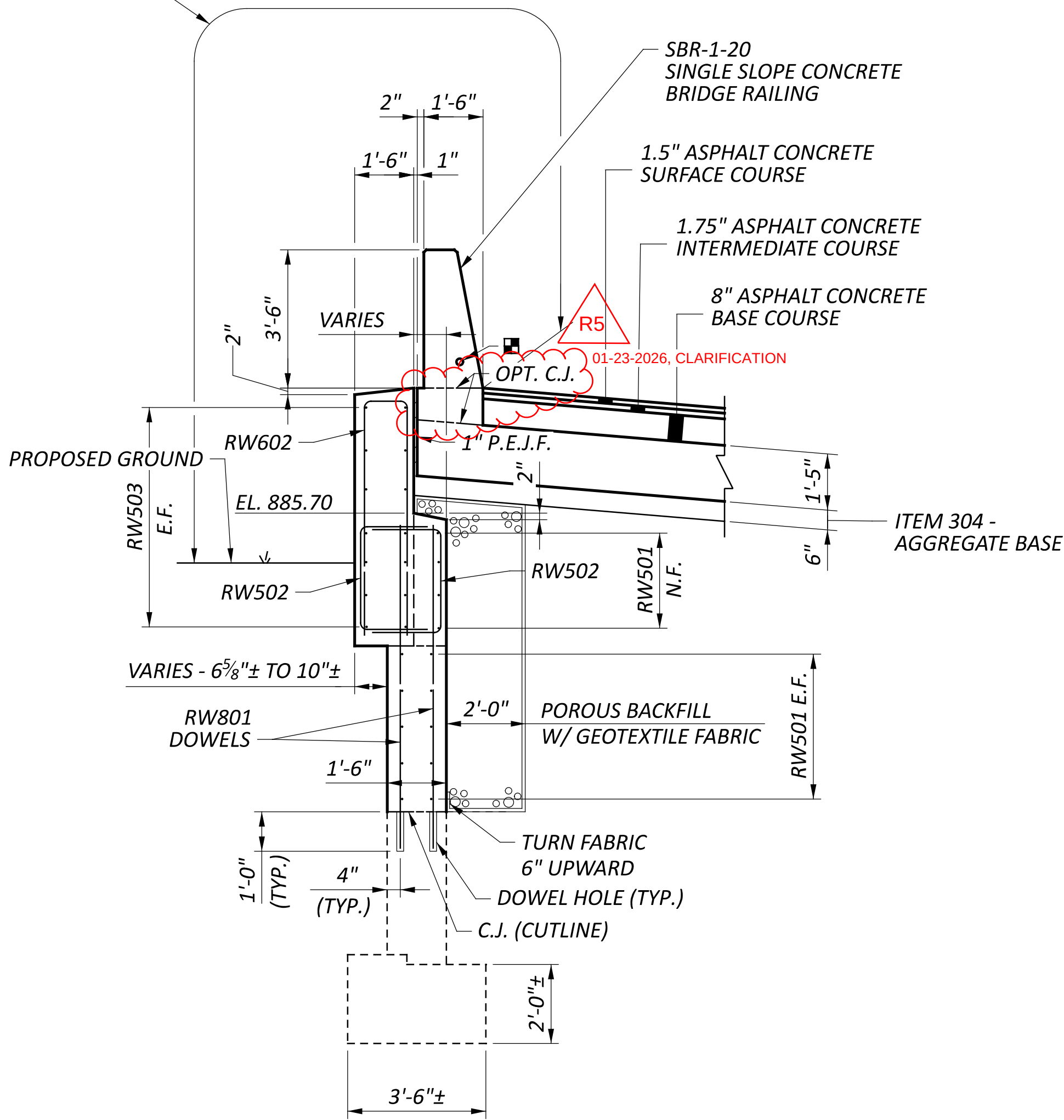


PLAN



ELEVATION

SEALING OF CONC.
SURFACES (EPOXY-
URETHANE)



SECTION C-C

LEGEND

- - PROPOSED 2" DIA. CONDUIT
- Δ - 92°43'21"

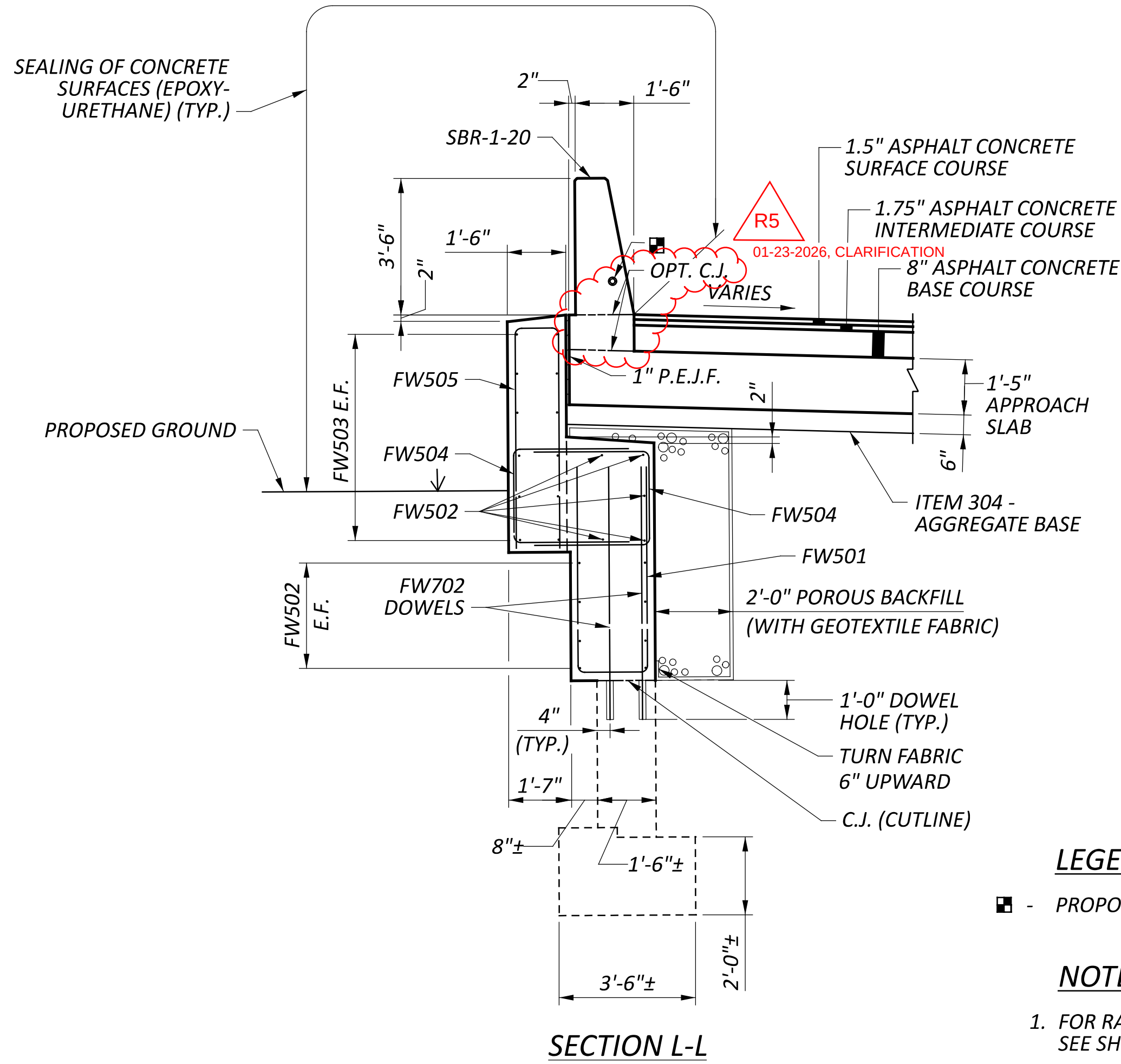
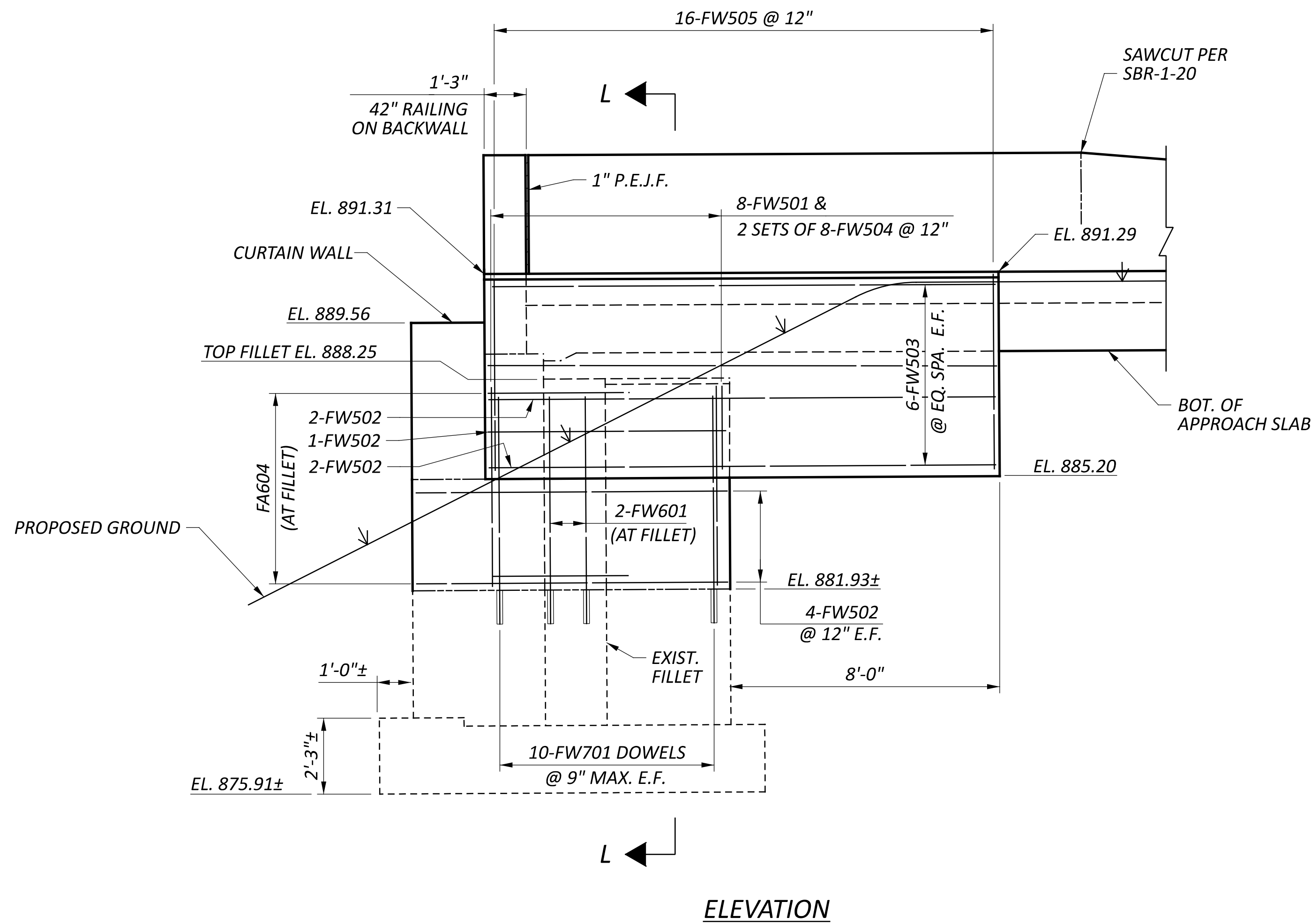
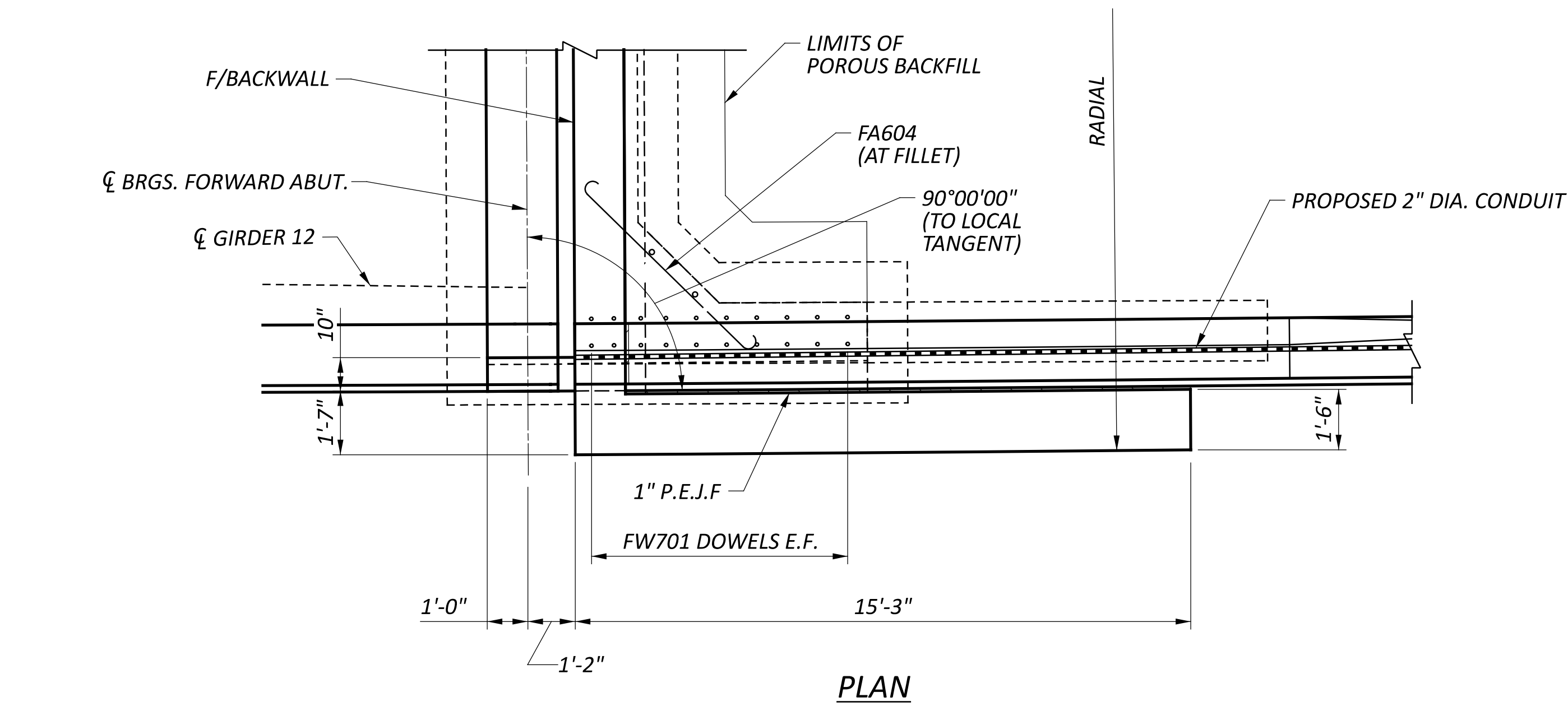
NOTES:

- FOR RAILING ON APPROACH SLAB DETAILS, SEE SHEET 59/64.
- FOR 42" RAILING ON BACKWALL, SEE DETAIL 1, SHEET 22/64.
- FOR CURTAIN WALL DETAILS, SEE SHEET 22/64.



1. FOR MOMENT SLAB PLAN, DETAILS, AND PARAPET DETAILS SEE SHEET 61/64.
2. FOR RAILING ON APPROACH SLAB DETAILS, SEE SHEET 58/64.
3. FOR 42" RAILING ON BACKWALL, SEE DETAIL 1, SHEET 22/64.
4. FOR CURTAIN WALL DETAIL, SEE SHEET 22/64.



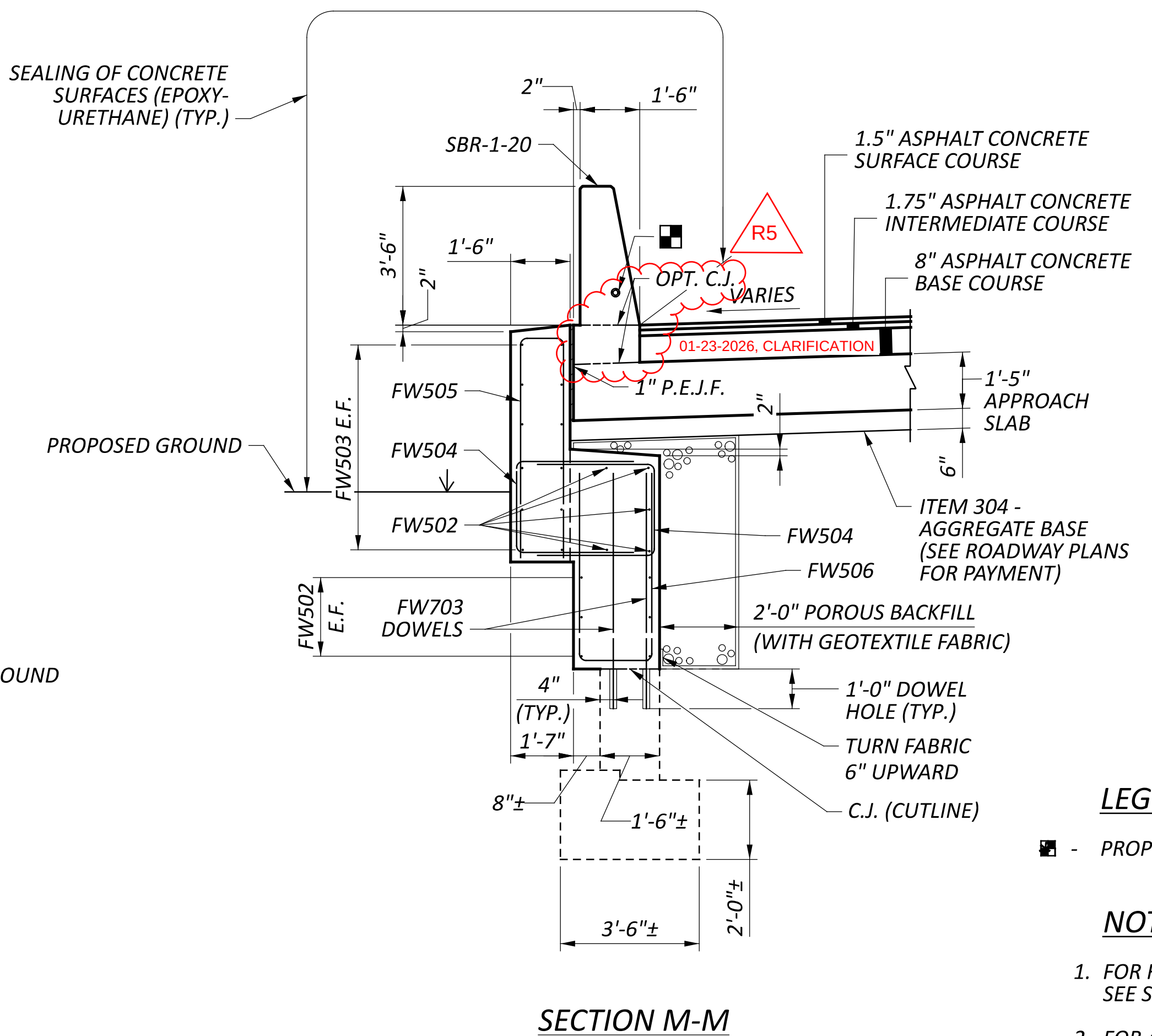
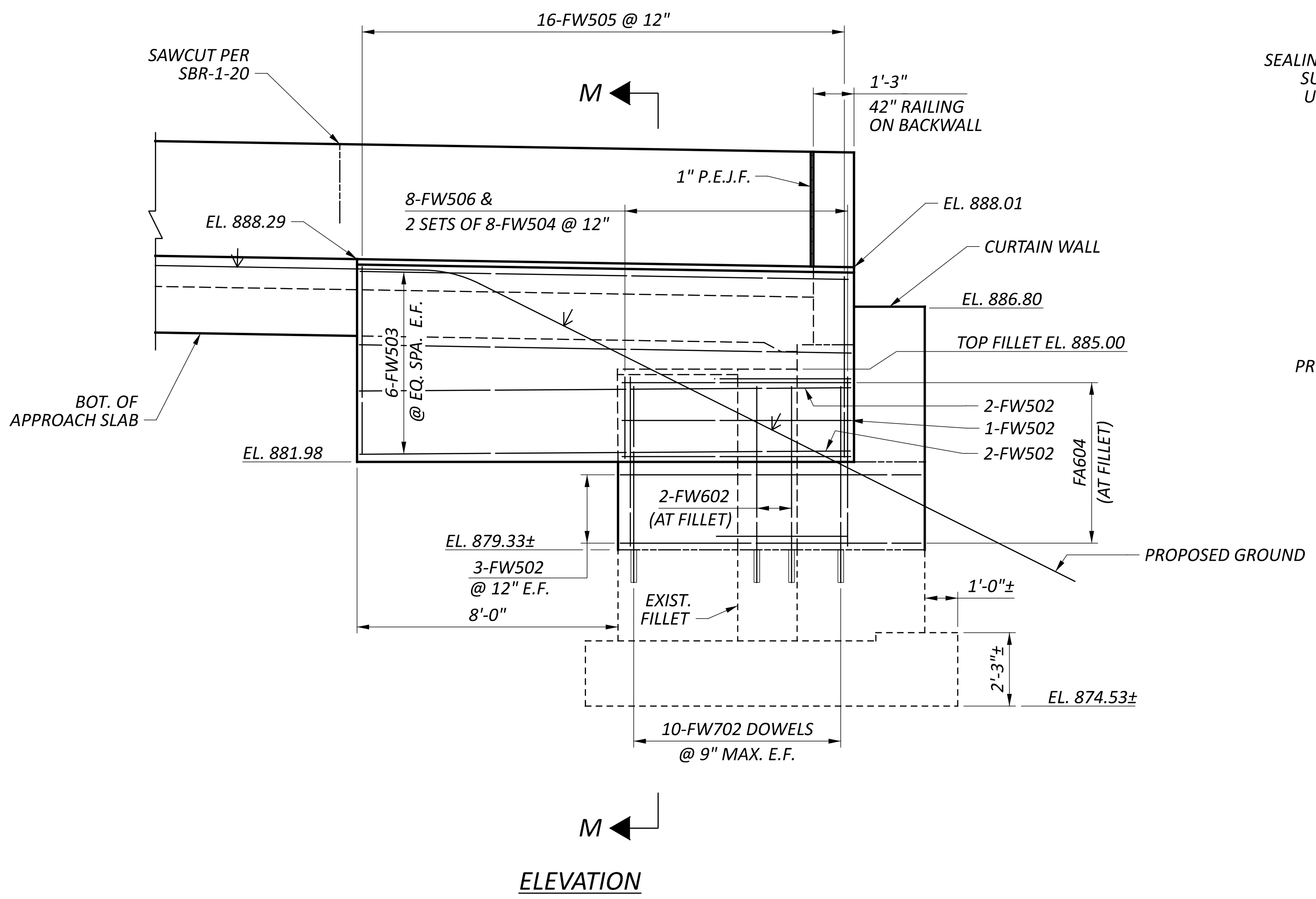
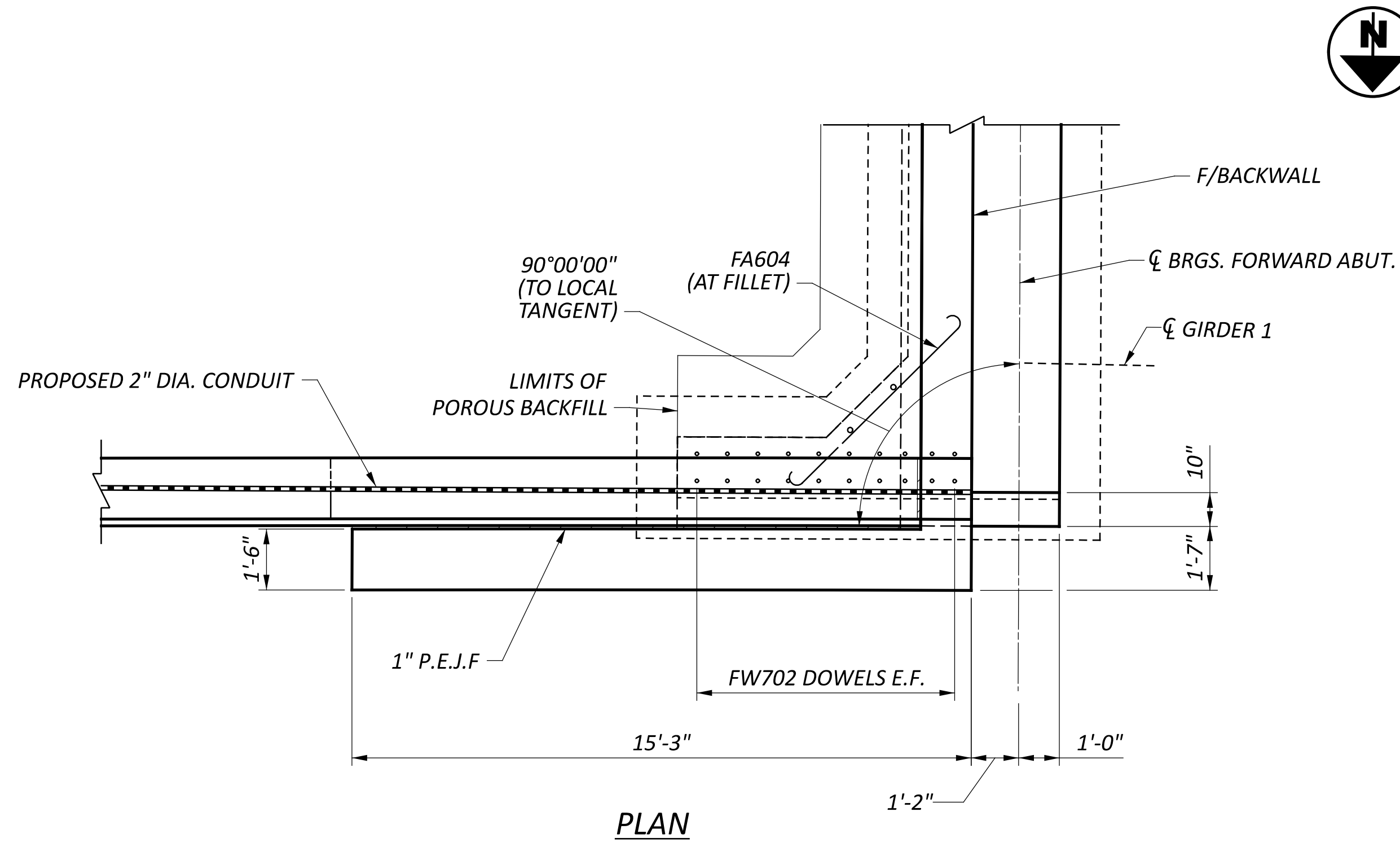


LEGEND

■ - PROPOSED 2" DIA. CONDUIT

NOTES:

- FOR RAILING ON APPROACH SLAB DETAILS, SEE SHEET 59/64.
- FOR 42" RAILING ON BACKWALL, SEE DETAIL 1, SHEET 22/64.
- FOR CURTAIN WALL DETAILS, SEE SHEET 22/64.



LEGEND

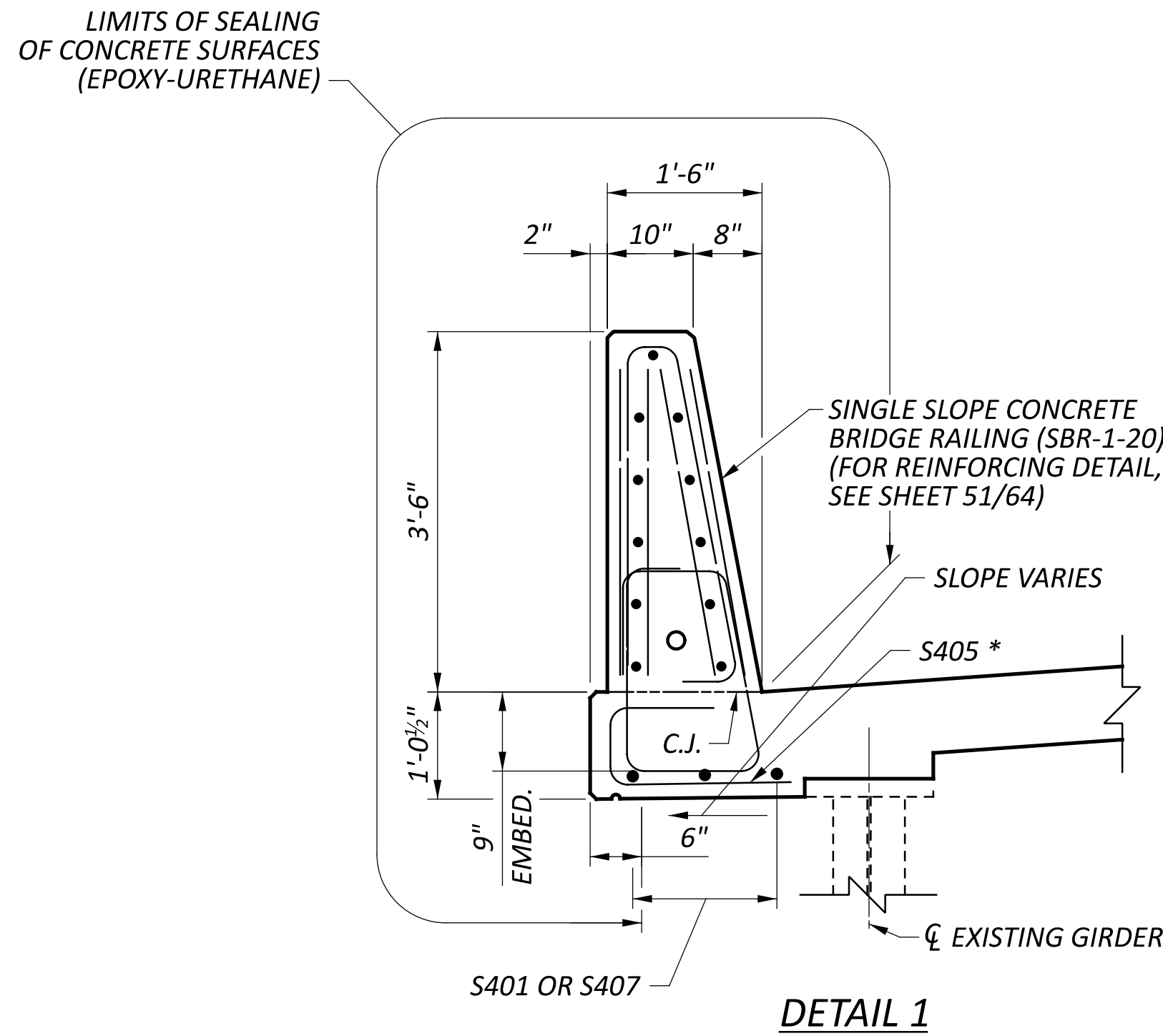
■ - PROPOSED 2" DIA. CONDUIT

NOTES:

- FOR RAILING ON APPROACH SLAB DETAILS, SEE SHEET 58/64.
- FOR 42" RAILING ON BACKWALL, SEE DETAIL 1, SHEET 22/64.
- FOR CURTAIN WALL DETAILS, SEE SHEET 22/64.

FORWARD ABUTMENT LEFT WINGWALL PLAN AND ELEVATION
BRIDGE NO. MAH-00680-04.886
OVER PRICE ROAD & MILL CREEK

SFN	
5006872	
DESIGN AGENCY	
ms consultants, inc.	
DESIGNER	CHECKER
JSE	LAW
REVIEWER	
WER 05/30/25	
PROJECT ID	
121474	
SUBSET	TOTAL
24	64
SHEET	TOTAL
P.509	655



TRANSVERSE SECTION
(LEFT BRIDGE)



(1) - DENOTES GIRDER NUMBER

* - DUE TO THE VARIABLE OVERHANG, THE CONTRACTOR SHALL TRIM THE GLASS FIBER REINFORCED POLYMER (GFRP) S405 BARS TO CLEAR THE EDGE OF EXISTING GIRDER FLANGE BY 2"

1. DECK SLAB CONCRETE QUANTITY

THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A VARIABLE HAUNCH THICKNESS AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.

2. FOR DECK PLAN, SEE SHEET 42/64.
3. FOR ADDITIONAL LEFT RAILING DETAILS, SEE SHEET 51/64.
4. FOR ADDITIONAL RIGHT MEDIAN RAILING DETAILS, SEE SHEET 52/64.

DECK LAYOUT TABLE (OVERHANGS)																									
OFFSETS FROM CENTERLINE OF EXTERIOR BEAM TO EDGE OF DECK SLAB (MEASURED PERPENDICULAR TO C BEAM)																									
	SPAN 1					SPAN 2				SPAN 3				SPAN 4				SPAN 5				SPAN 6			
	R.A.	0.25 L	0.50 L	0.75 L	PIER 1	0.25 L	0.50 L	0.75 L	PIER 2	0.25 L	0.50 L	0.75 L	PIER 3	0.25 L	0.50 L	0.75 L	PIER 4	0.25 L	0.50 L	0.75 L	PIER 5	0.25 L	0.50 L	0.75 L	F.A.
BEAM 1	4'-0"	3'-4 1/2"	3'-2"	3'-4 1/2"	3'-4 1/4"	3'-2"	2'-8 1/2"	2'-10 7/8"	3'-3 1/4"	3'-1 7/8"	2'-8 1/2"	2'-10 3/4"	3'-3 1/8"	3'-2 1/8"	2'-9 1/4"	2'-11 3/8"	3'-4 3/4"	3'-4 5/8"	3'-1 7/8"	3'-3 1/8"	3'-7 1/2"	3'-8 1/2"	3'-7 5/8"	3'-8 7/8"	4'-0 1/4"
BEAM 6	2'-7 3/4"	3'-3 1/2"	3'-6 1/8"	3'-3 5/8"	3'-3 1/2"	3'-6 1/4"	3'-11 7/8"	3'-9 1/2"	3'-4 1/2"	3'-6 3/8"	4'-0"	3'-9 5/8"	3'-4 1/2"	3'-6"	3'-11 1/8"	3'-8 5/8"	3'-3 1/8"	3'-3 1/2"	3'-7"	3'-5 1/8"	3'-0 3/8"	2'-11 1/2"	3'-0 1/2"	2'-11 1/8"	2'-7 3/4"



(1) - DENOTES GIRDER NUMBER

* - DUE TO THE VARIABLE OVERHANG, THE CONTRACTOR SHALL TRIM THE GLASS FIBER REINFORCED POLYMER (GFRP) S405 BARS TO CLEAR THE EDGE OF EXISTING GIRDER FLANGE BY 2".

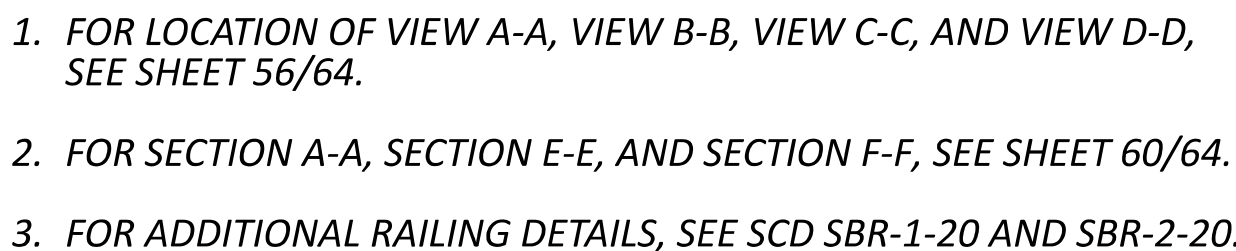
1. DECK SLAB CONCRETE QUANTITY

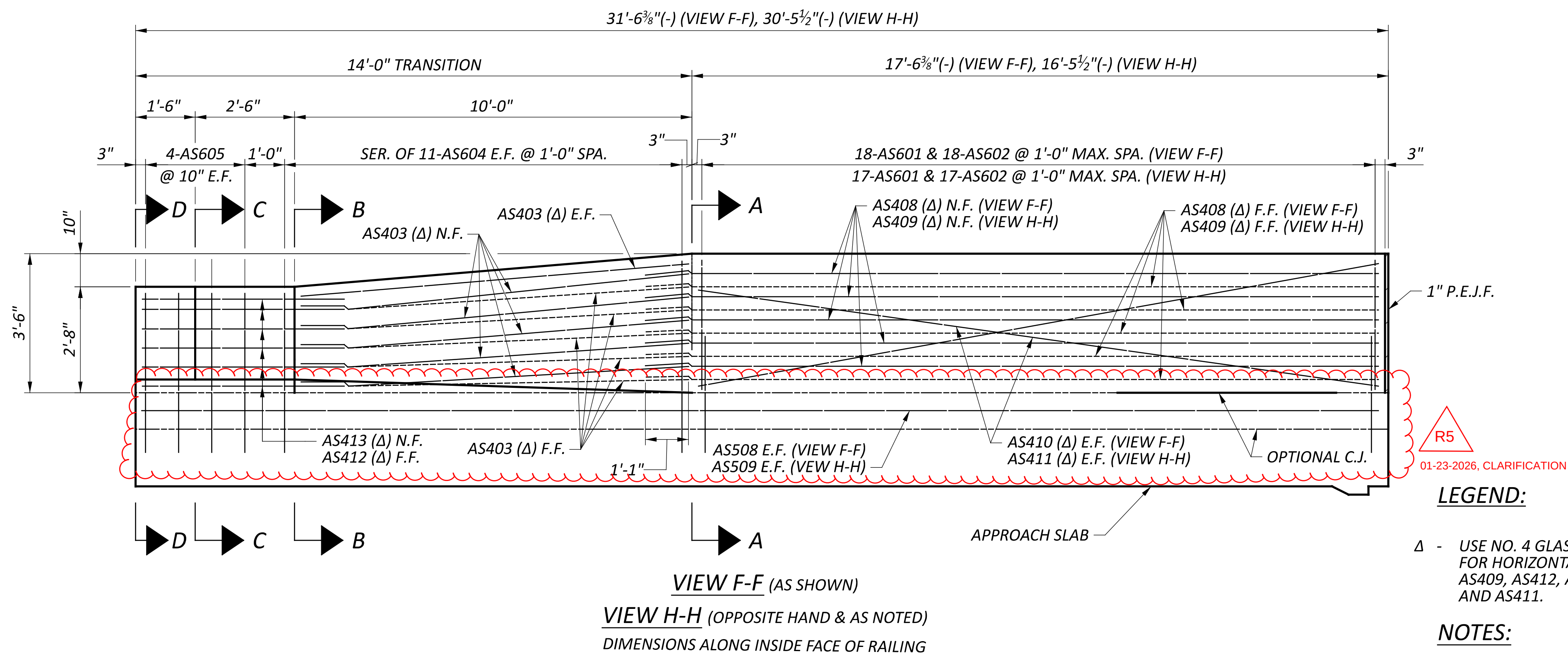
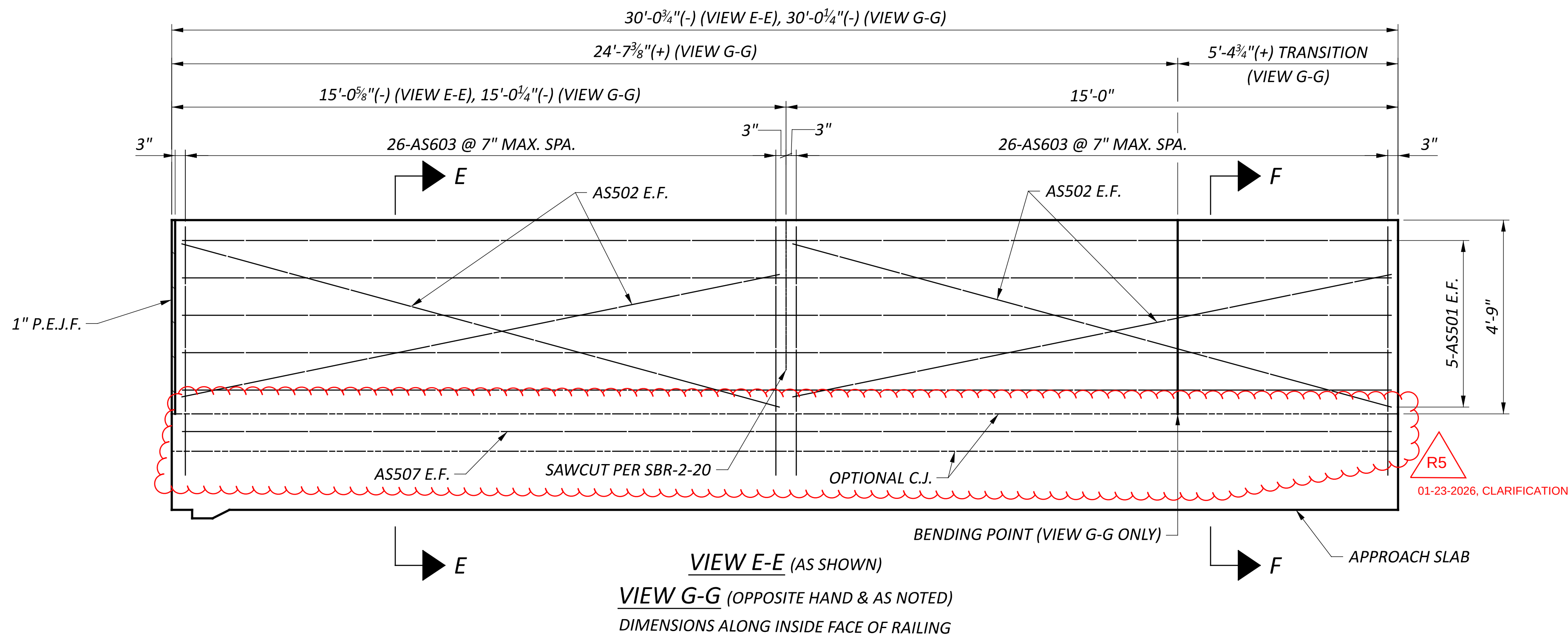
THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A VARIABLE HAUNCH THICKNESS AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

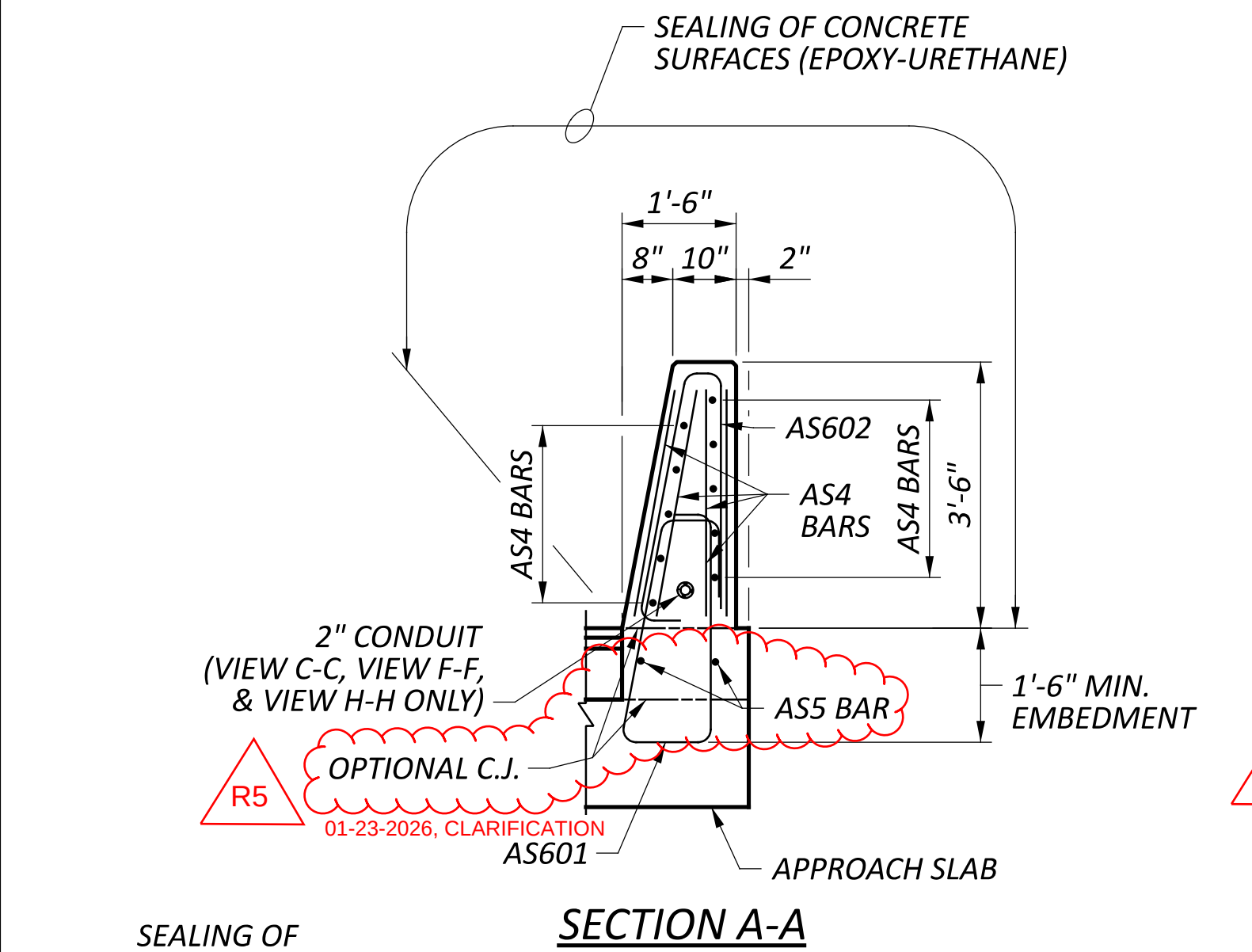
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.

2. FOR DECK PLAN, SEE SHEET 42/64.
3. FOR ADDITIONAL RIGHT RAILING DETAILS, SEE SHEET 53/64.
4. FOR ADDITIONAL LEFT MEDIAN RAILING DETAILS, SEE SHEET 54/64.

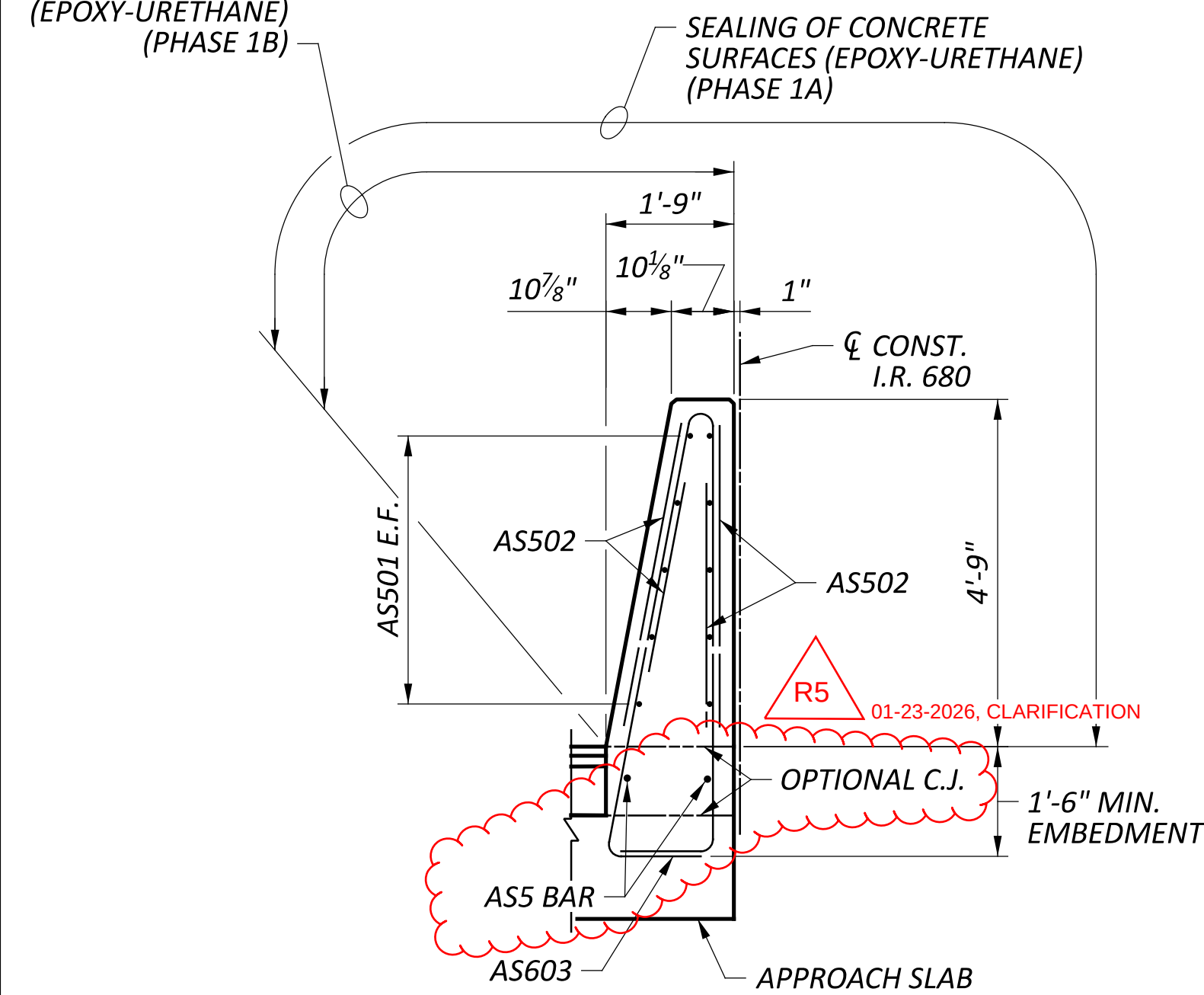
DECK LAYOUT TABLE (OVERHANGS)																									
OFFSETS FROM CENTERLINE OF EXTERIOR BEAM TO EDGE OF DECK SLAB (MEASURED PERPENDICULAR TO C BEAM)																									
	SPAN 1					SPAN 2				SPAN 3				SPAN 4				SPAN 5				SPAN 6			
	R.A.	0.25 L	0.50 L	0.75 L	PIER 1	0.25 L	0.50 L	0.75 L	PIER 2	0.25 L	0.50 L	0.75 L	PIER 3	0.25 L	0.50 L	0.75 L	PIER 4	0.25 L	0.50 L	0.75 L	PIER 5	0.25 L	0.50 L	0.75 L	F.A.
BEAM 7	2'-11"	2'-3 1⁄8"	2'-0 1⁄2"	2'-3 1⁄8"	2'-2 7⁄8"	2'-0 1⁄2"	1'-6 3⁄4"	1'-9 1⁄4"	2'-2"	2'-0 3⁄8"	1'-6 5⁄8"	1'-9 3⁄8"	2'-2"	2'-0 3⁄4"	1'-7 1⁄2"	1'-10"	2'-3 3⁄8"	2'-3 1⁄4"	1'-11 5⁄8"	2'-1 5⁄8"	2'-6 1⁄8"	2'-7 1⁄8"	2'-6 1⁄4"	2'-7 5⁄8"	2'-11"
BEAM 12	2'-6 5⁄8"	3'-2 7⁄8"	3'-5 5⁄8"	3'-2 7⁄8"	3'-2 3⁄4"	3'-5 5⁄8"	3'-11 5⁄8"	3'-9"	3'-3 3⁄4"	3'-5 3⁄8"	3'-11 5⁄8"	3'-9 7⁄8"	3'-3 3⁄4"	3'-5 3⁄8"	3'-10 7⁄8"	3'-8 1⁄4"	3'-2 3⁄8"	3'-2 3⁄4"	3'-6 1⁄2"	3'-4 3⁄8"	2'-11 5⁄8"	2'-10 3⁄4"	2'-11 3⁄4"	2'-10 1⁄4"	2'-6 7⁄8"



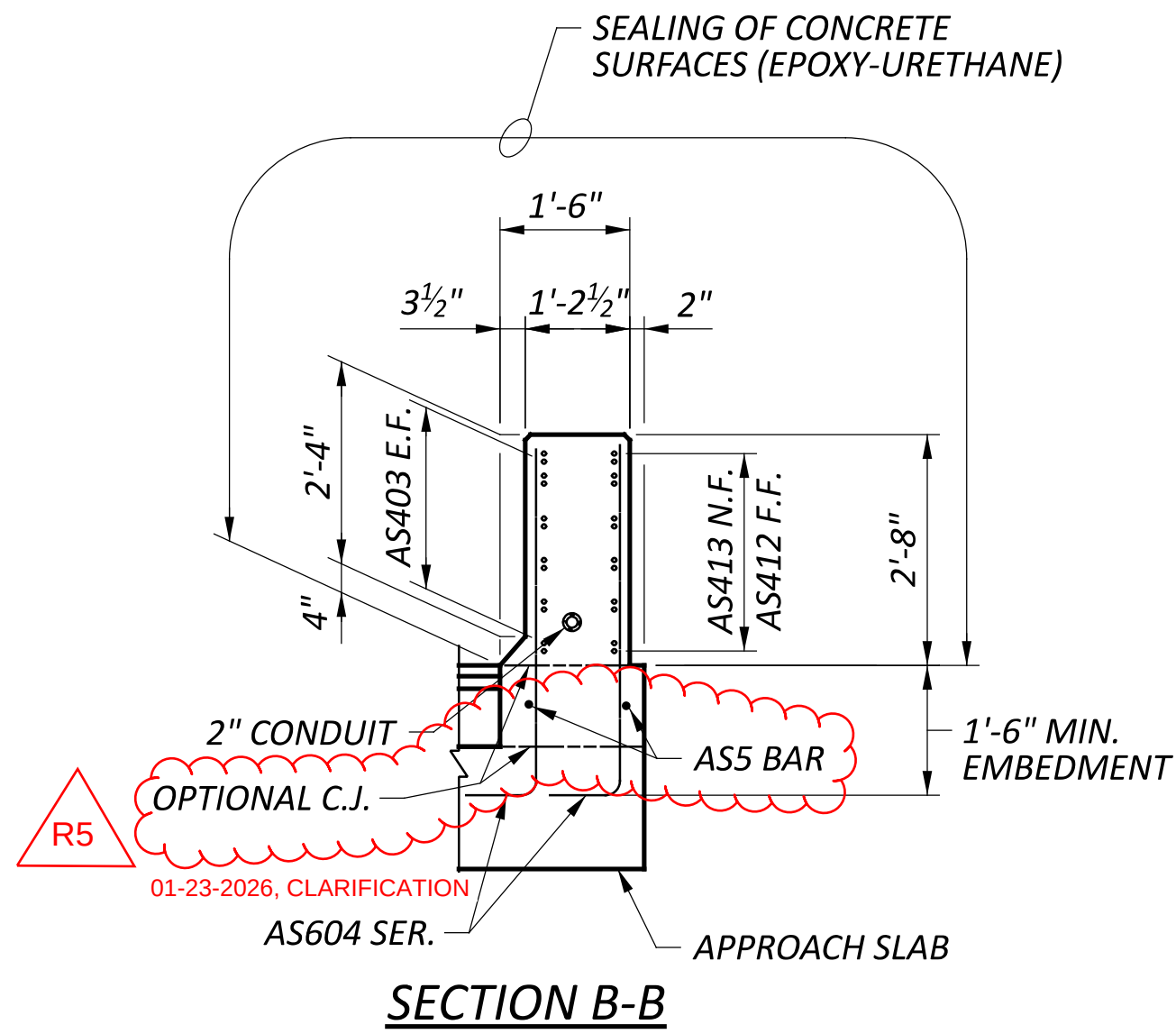




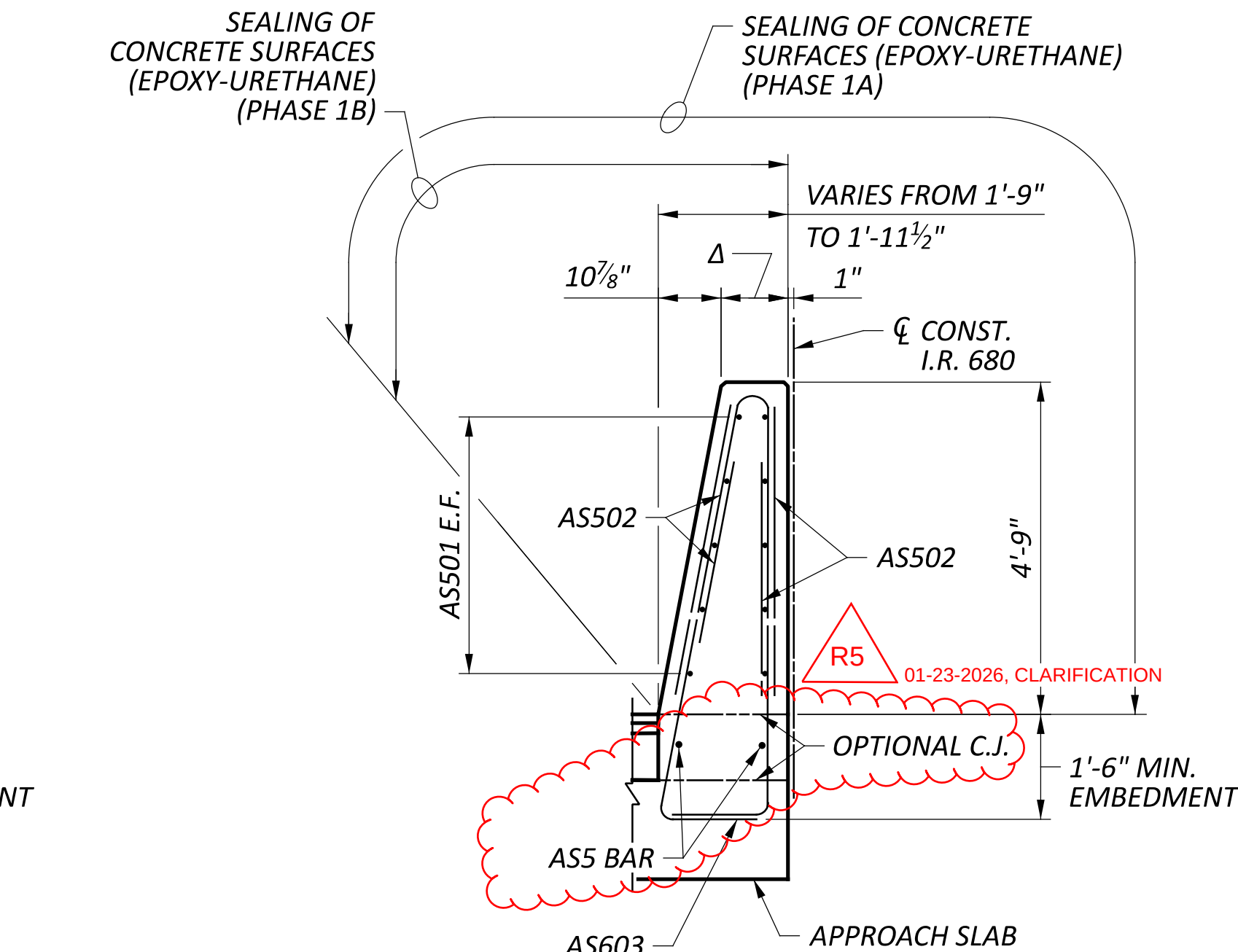
SECTION A-A



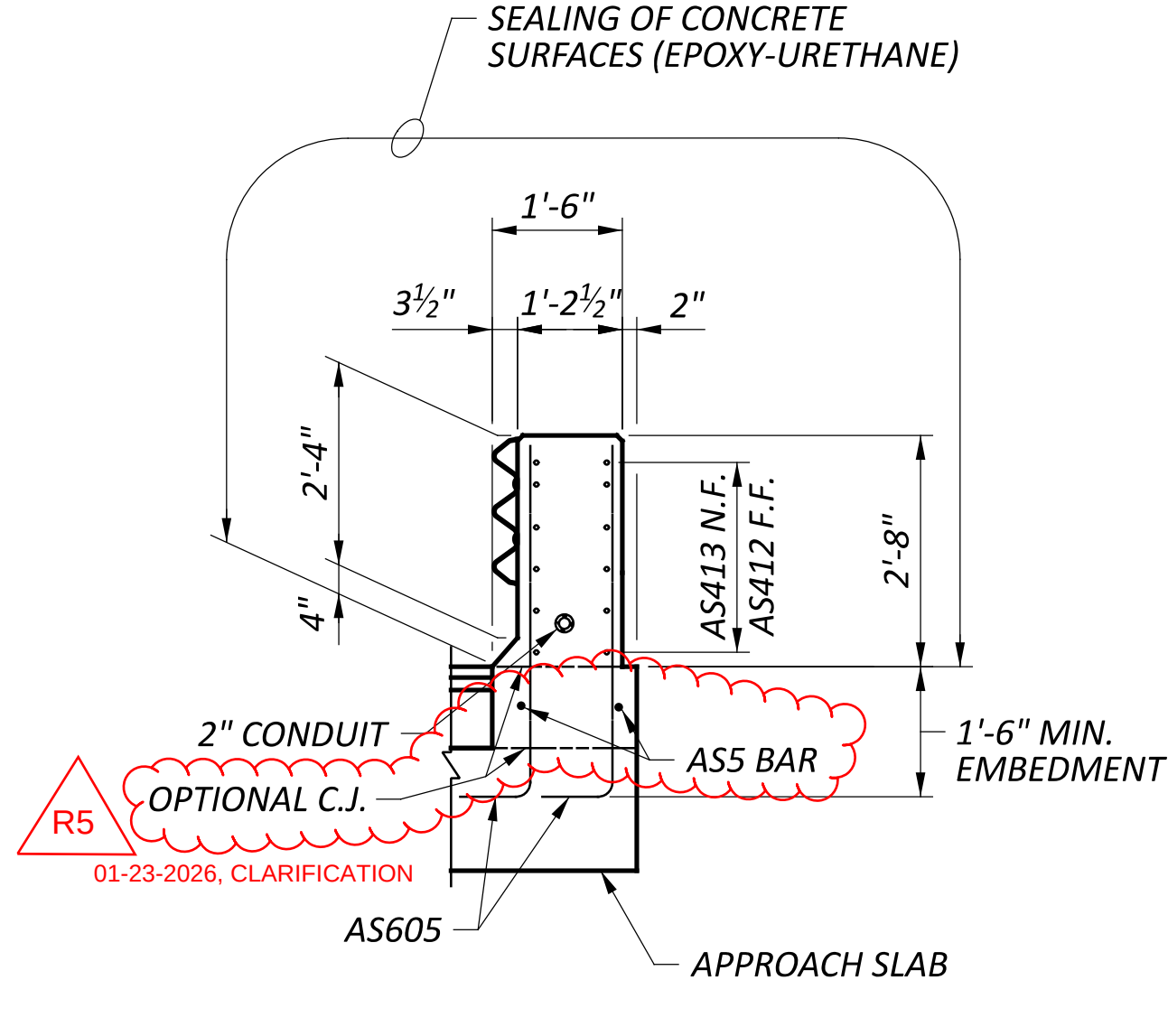
SECTION E-E



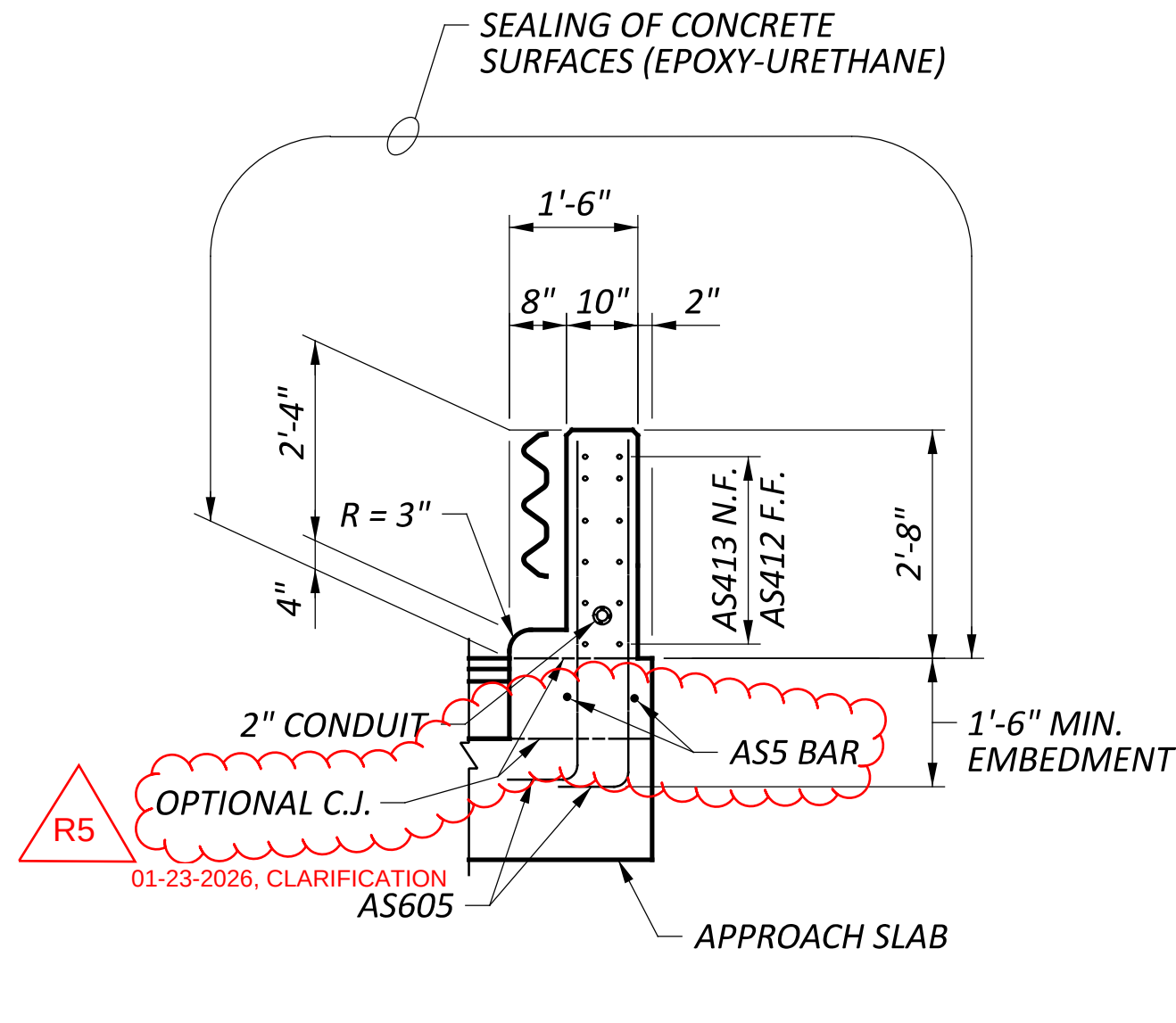
SECTION B-B



SECTION F-F



SECTION C-C



SECTION D-D

LEGEND

Δ - VARIES FROM 10 7/8" TO 1'-0 5/8"

NOTES:

- FOR LOCATION OF SECTION A-A, SECTION E-E, AND SECTION F-F, SEE SHEETS 58/64 AND 59/64.
- FOR LOCATION OF SECTION B-B, SECTION C-C, AND SECTION D-D, SEE SHEET 59/64.
- FOR ADDITIONAL RAILING DETAILS, SEE SCD SBR-1-20 AND SBR-2-20.

APPROACH SLAB SECTIONS
BRIDGE NO. MAH-00680-04.886
OVER PRICE ROAD & MILL CREEK

SFN	
5006872	
DESIGN AGENCY	
	
DESIGNER	CHECKER
JSE	SJR
REVIEWER	
WER 05/30/25	
PROJECT ID	
121474	
SUBSET	TOTAL
60	64
SHEET	TOTAL
P.546	655

MARK	MATERIAL TYPE	NUMBER			LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS						
		REAR	FORWARD	TOTAL				A	B	C	D	E	R	INC.
APPROACH SLAB RAILING BARS (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)														
AS401	GFRP	10		10	6'-1"	61	STR							
AS402	GFRP	10		10	21'-6"	215	STR							
AS403	GFRP	16	12	28	10'-0"	280	STR							
AS404	GFRP	4		4	11'-11"	48	STR							
AS405	GFRP		10	10	29'-1"	291	STR							
AS406	GFRP		4	4	14'-5"	58	STR							
AS407	GFRP		4	4	15'-0"	60	STR							
AS408	GFRP	10		10	17'-1"	171	STR							
AS409	GFRP		10	10	16'-0"	160	STR							
AS410	GFRP	4		4	17'-5"	70	STR							
AS411	GFRP		4	4	16'-4"	65	STR							
AS412	GFRP	6	6	12	6'-4"	76	25	2'-6"	2'-5"	1'-5"	2"	5"		
AS413	GFRP	6	6	12	5'-1"	61	STR							
					TOTAL =	1,616								

MARK	MATERIAL TYPE	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
		REAR	FORWARD	TOTAL				A	B	C	D	E	R	INC.
APPROACH SLAB RAILING BARS (EPOXY COATED STEEL REINFORCEMENT - ECSR)														
AS501	ECSR	10		10	29'-6"	308	STR							
AS502	ECSR	12	22	34	29'-7"	1,049	STR							
AS503	ECSR	4		4	29'-10"	124	STR							
AS504	ECSR	4	8	12	29'-11"	374	STR							
AS505	ECSR	2		2	28'-1"	59	STR							
AS506	ECSR		2	2	29'-2"	61	STR							
AS507	ECSR	2	2	4	29'-8"	124	STR							
AS508	ECSR	2		2	31'-2"	65	STR							
AS509	ECSR		2	2	30'-1"	63	STR							
AS601	ECSR	48	48	96	10'-2"	1,466	37	2'-1"	10"	1'-5"	1'-0"	7"		
AS602	ECSR	48	48	96	7'-0"	1,009	23	6"	3'-3"	3'-3"				
AS603	ECSR	104	104	208	15'-8"	4,895	35	2'-1"	1'-0"	8"	4'-7"			
AS604	ECSR	SER. OF 2 11	SER. OF 2 11	SER. OF 4 11	5'-5" TO 6'-3"	387	1	1'-0"	4'-7" TO 5'-5"					0'-2"
AS605	ECSR	8	8	16	5'-5"	130	1	1'-0"	4'-7"					
					TOTAL =	10,114								

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MARK	MATERIAL TYPE	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
						A	B	C	D	E	INC.
LIGHT POLE PILASTER BARS (EPOXY COATED STEEL REINFORCEMENT - ECSR)											
SL501	ECSR	8	2'-9"	23	2	7"	1'-10"	7"			
SL502	ECSR	8	8'-5"	70	9	7"	3'-2"	2'-4"	3'-2"		
SL503	ECSR	12	7'-5"	93	21	1'-4"	1'-10"	6"	1'-10"		
SL504	ECSR	8	3'-2"	26	STR						
			TOTAL =	212							

MARK	MATERIAL TYPE	NUMBER	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC.
MOMENT SLAB & RAILING BARS (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)												
MS401	GFRP	10	30'-0"	300	STR							
MS402	GFRP	10	22'-2"	222	STR							
MS403	GFRP	4	15'-1"	60	STR							
MS404	GFRP	4	16'-5"	66	STR							
MS405	GFRP	16	10'-0"	160	STR							
MS406	GFRP	6	6'-4"	38	STR							
MS407	GFRP	6	5'-1"	31	STR							
			TOTAL =	877								

MARK	MATERIAL TYPE	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC.
MOMENT SLAB & RAILING BARS (EPOXY COATED STEEL REINFORCEMENT - ECSR)												
MS501	ECSR	134	7'-4"	1,025	STR							
MS502	ECSR	16	31'-2"	520	STR							
MS503	ECSR	16	32'-3"	538	STR							
MS601	ECSR	54	9'-4"	757	37	1'-9"	10"	1'-5"	1'-0"	7"		
MS602	ECSR	54	7'-0"	568	23	6"	3'-3"	3'-3"				
	ECSR	2	5'-1"				4'-3"					
MS603	ECSR	SER. OF	TO	182	1	1'-0"	TO					0'-1"
		11	5'-11"				5'-1"					
MS604	ECSR	8	5'-1"	61	1	1'-0"	4'-3"					
			TOTAL =	3,651								

MARK	MATERIAL TYPE	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
						A	B	C	D	E	INC.
DECK HAUNCH BARS (EPOXY COATED STEEL REINFORCEMENT - ECSR)											
SH501	ECSR	4	30'-0"	125	STR						
SH502	ECSR	2	23'-7"	49	STR						
SH503	ECSR	2	24'-0"	50	STR						
SH504	ECSR	54	3'-6"	197	6	1'-2"	7"	10"			
SH505	ECSR	54	3'-4"	188	6	1'-2"	6"	10"			
SH506	ECSR	31	4'-0"	129	6	1'-2"	10"	10"			
SH507	ECSR	31	3'-8"	119	6	1'-2"	8"	10"			
SH508	ECSR	31	3'-4"	108	6	1'-2"	6"	10"			
SH509	ECSR	16	3'-2"	53	6	1'-2"	5"	10"			
			TOTAL =	1,018							

NOTES:

1. FOR BAR TYPES, SEE SHEET 62/64.
2. TYPE 'STR' INDICATES A STRAIGHT BAR.
3. BAR SIZE: THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, AN S601 IS A #6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
4. ALL REINFORCEMENT SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.