

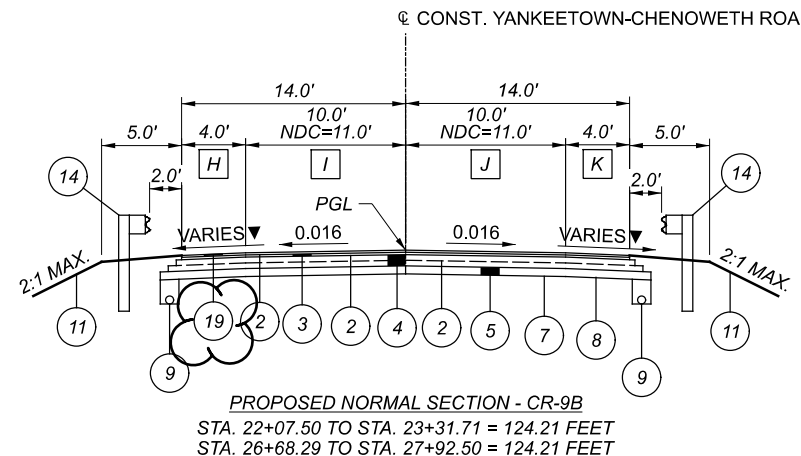
EXISTING LEGEND

- |  |                                    |
|--|------------------------------------|
| (A) EX. ASPHALT CONCRETE (THICKNESS AS SHOWN)  | (G) EX. GUARDRAIL                  |
| (B) EX. 9"± REINFORCED CONCRETE PAVEMENT       | (H) EX. UNDERDRAIN                 |
| (C) EX. AGGREGATE BASE (THICKNESS AS SHOWN)    | (I) EX. 2.25"± COMPACTED AGGREGATE |
| (D) EX. SUBBASE (THICKNESS AS SHOWN)           |                                    |
| (E) EX. 3"± WATERPROOFED AGGREGATE BASE COURSE |                                    |
| (F) EX. 6"± POROUS BASE COURSE                 |                                    |

PROPOSED LEGEND

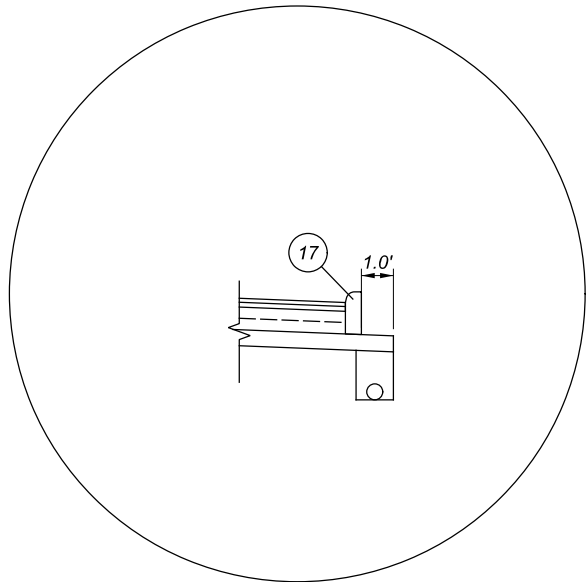
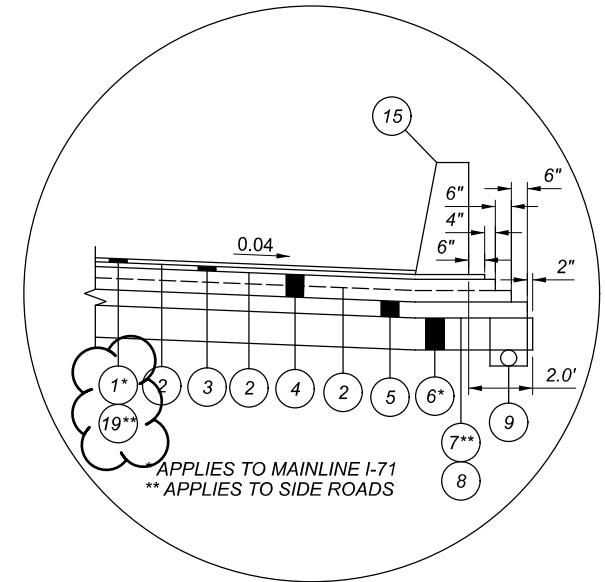
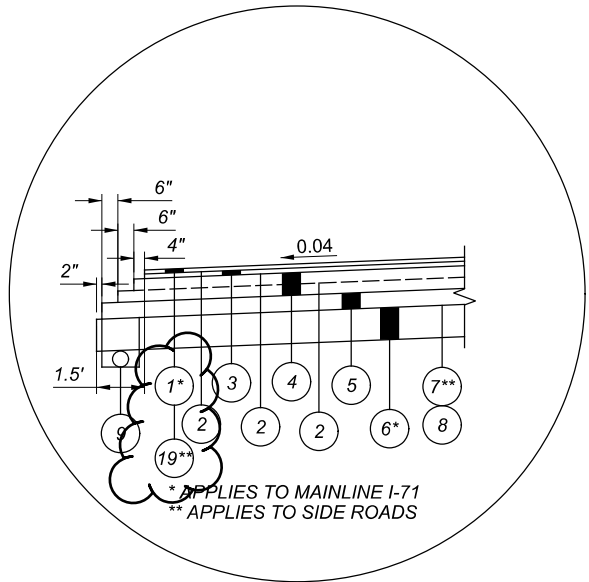
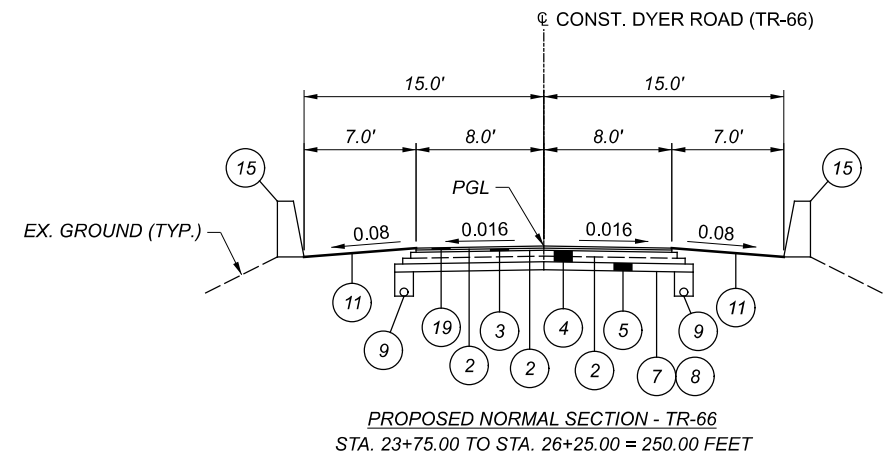
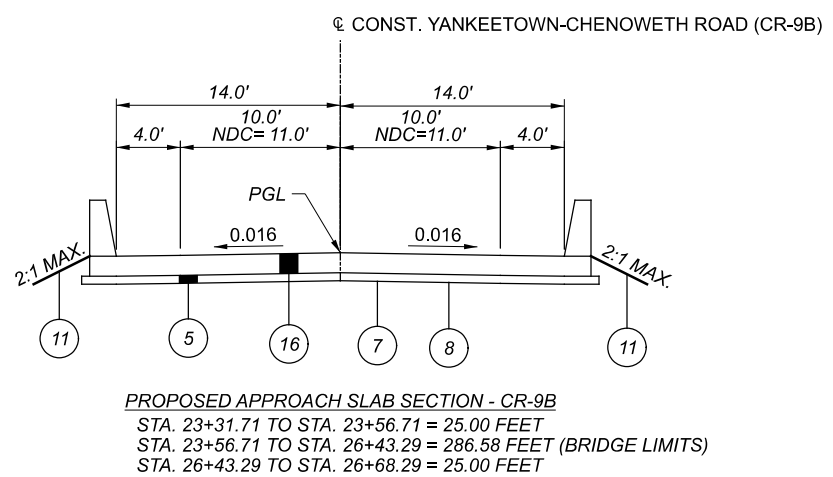
- |   |  |
|---|--|
| (1) ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447)                         | (7) ITEM 204 - SUBGRADE COMPACTION   |
| (2) ITEM 407 - NON-TRACKING TACK COAT (APPLICATION RATE PER TABLE 407.06-1)                       | (8) ITEM 204 - PROOF ROLLING   |
| (3) ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5MM, TYPE A (446)                   | (9) ITEM 605 - 6" BASE PIPE UNDERDRAINS                                    |
| (4) ITEM 302 - 8.5" ASPHALT CONCRETE BASE, PG 64-22 (449), AS PER PLAN (TWO LIFTS OF 4.5" AND 4") | (10) ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS                                |
| (5) ITEM 304 - 6" AGGREGATE BASE  | (11) ITEM 659 - SEEDING AND MULCHING                                       |
| (6) ITEM 206 - 12" CEMENT STABILIZED SUBGRADE   | (12) ITEM 452 - 13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA |

- |  |
|--|
| (13) ITEM 606 - CABLE BARRIER  |
| (14) ITEM 606 - GUARDRAIL, TYPE MGS  |
| (15) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D                     |
| (16) ITEM 526 - REINFORCED CONCRETE APPROACH SLAB (T=15")                  |
| (17) ITEM 609 - CURB, TYPE 4-C   |
| (18) ITEM 442 - ANTI-SEGREGATION EQUIPMENT (TRAVEL LANES ONLY)             |
| (19) ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449) |

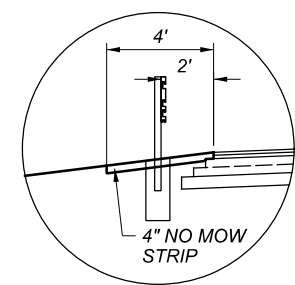


- H VARIES FROM 0.0' TO 4.0' FROM STA. 22+07.50 TO STA. 23+11.10  
 VARIES FROM 4.0' TO 0.0' FROM STA. 26+83.68 TO STA. 27+92.50
- I VARIES FROM 9.7' TO 10.0' FROM STA. 22+07.50 TO STA. 23+29.85
- J VARIES FROM 11.2' TO 10.0' FROM STA. 22+07.50 TO STA. 23+33.57
- K VARIES FROM 0.0' TO 4.0' FROM STA. 22+07.50 TO STA. 23+16.32  
 VARIES FROM 4.0' TO 2.0' FROM STA. 26+88.90 TO STA. 27+37.99

▼ TRANSITION SHOULDER CROSS SLOPE FROM EXISTING TO 0.016  
 AND FROM 0.016 TO EXISTING WITHIN FULL DEPTH PAVEMENT LIMITS.



SEE PLAN AND PROFILE SHEET FOR LIMITS



THE CONTRACTOR SHALL PROVIDE A 4 INCH DEEP MOW STRIP WITH MATERIALS CONFORMING TO ITEM 608 - CONCRETE WALK, AS SHOWN IN THE DETAIL. THE MOW STRIP SHALL BE PLACED ON COMPACTED EARTH AND CONSTRUCTED USING CLASS QC1 CONCRETE WITH A CURING COMPOUND MEETING THE SPECIFICATIONS OF 705.07 OF THE CMS. THE MOW STRIP SHALL BE EITHER INTEGRAL TO THE SOCKETED CONCRETE FOUNDATION OR HAVE AN EXPANSION JOINT WITH MATERIALS MEETING THE REQUIREMENTS OF 705.03 OF THE CMS BETWEEN THE SOCKETED CONCRETE FOUNDATION AND THE CONCRETE MOW STRIP. THE MOW STRIP SHALL HAVE A TRANSVERSE JOINT EVERY 100 FEET. THE METHODS AND MATERIALS USED TO CONSTRUCT THE JOINTS SHALL CONFORM TO CMS 608.03(C).

MAD-71-4.56

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 2/9/2023 TIME: 10:23:17 AM USER: mcomett P3\_OHDOT\_Worksets\107630\400-Engineering\Roadway\Sheets\107630\_GY\203.dgn

\*FOR LEGEND, SEE SHEET P.3

TYPICAL SECTIONS

DESIGN AGENCY  
  
 E.L. ROBINSON ENGINEERING  
 1466 West 9th St, Suite 800  
 Cleveland, Ohio  
 950 Goodale Blvd, Suite 160  
 Grandview Heights, Ohio  
 DESIGNER  
 MLL  
 REVIEWER  
 MJC 04/26/22  
 PROJECT ID  
 107630  
 SHEET TOTAL  
 P.5 458

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 TWO ELEVEN FOOT LANES OF TRAFFIC IN EACH DIRECTION ON I-71 SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC.

2. A MINIMUM OF ONE EIGHT FOOT LANE OF TRAFFIC IN EACH DIRECTION ON TR 66 (DYER ROAD) SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT & THE COMPLETED PAVEMENT EXCEPT FOR THE DURATION OF PHASE 1 AND 2 WHILE WORK IS PERFORMED ON THE SOUTHBOUND DYER RD STRUCTURE. THE ROAD SHALL BE OPENED TO TRAFFIC OVER THE WINTER IN ORIGINAL CONFIGURATION. THE ROAD MAY BE CLOSED AGAIN FOR THE DURATION OF PHASE 3 WHILE WORK IS PERFORMED ON THE NORTHBOUND DYER RD STRUCTURE. DETOUR TRAFFIC AS SHOWN ON SHEETS P.17 & P.18.

3. A MINIMUM OF ONE ELEVEN FOOT LANE OF TRAFFIC IN EACH DIRECTION ON ALL SIDE ROADS OVER I-71 SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS P.17-P.18. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$2500 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. CR-9 MAY BE CLOSED CONCURRENTLY WITH OTHER SIDE ROAD CLOSURES.

4. NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

Table with 2 columns: Holiday/Event and Date. Includes New Year's, Memorial Day, Labor Day, Genreal/Regualr Election Day, Thanksgiving, Christmas.

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

Table with 2 columns: Day of Holiday or Special Event, Times All Lanes Must Be Open to Traffic. Lists days from Sunday to Saturday with corresponding times.

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

5. ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPENED AND AVAILABLE TO TRAFFIC IN THE WINTER PHASE CONFIGURATION DESCRIBED ON SHEET 17 BETWEEN OCTOBER 1 AND APRIL 1. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$6,000 PER CALENDAR DAY.

6. 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. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

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

NOTIFICATION TIME FRAME TABLE. Table with 3 columns: Item, Duration of Closure, Sign Display to Public. Rows for Ramp & Road Closures with durations >=2 weeks, >12 hours <2 weeks, and <=12 hours.

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 RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

7. LENGTH AND DURATION 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 THE MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

8. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

PRE-PHASE I WORK DETAILS EXISTING SHOULDERS THAT SHALL BE RECONSTRUCTED PRIOR TO SHIFTING TRAFFIC. THE EXISTING SHOULDERS SHALL BE REMOVED 9 INCHES DOWN TO THE EXISTING AGGREGATE AND REPAVED WITH CLASS A PAVEMENT FOR MAINTAINING TRAFFIC. THE CONTRACTOR SHALL CONSTRUCT 7.5 INCHES OF ITEM 302, ASPHALT CONCRETE BASE IN ONE LIFT AND 1.5 INCHES OF ITEM 441, TYPE 1 IN ANOTHER LIFT. THE CROSS SLOPE OF THE RECONSTRUCTED SHOULDER SHALL MATCH THE ADJACENT TRAVEL LANE. IN ADDITION TO THE SHOULDER RECONSTRUCTION, THE CONTRACTOR SHALL MILL 1 FOOT INTO THE ADJACENT TRAVEL LANE, TO A DEPTH OF 1.5 INCHES. THIS 1 FOOT WIDE SECTION SHALL THEN BE RESURFACED WITH 1.5 INCHES OF ITEM 441, TYPE 1. ALL COST ASSOCIATED WITH PLANING AND REPAVING OF EXISTING SHOULDERS, INCLUDING THE 1' WIDE SECTION OF THE ADJACENT LANE, SHALL BE INCIDENTAL TO ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN.

ITEM 618 - RUMBLE STRIPS (ASPHALT CONCRETE), AS PER PLAN

THE CONTRACTOR SHALL MILL 2 INCHES DEEP BY 2 FEET WIDE OF THE EXISTING ASPHALT SHOULDER IN ORDER TO REMOVE THE EXISTING RUMBLE STRIPS ALONG I.R. 71 AT THE FOLLOWING LOCATIONS:

NORTHBOUND: STA. 281+00 TO STA. 287+00 (INSIDE SHOULDER) = 600 FT.

THE CONTRACTOR SHALL THEN COAT ALL MILLED SURFACES (HORIZONTAL AND VERTICAL) WITH APPROVED AC LIQUID. NEXT THE CONTRACTOR SHALL PLACE 2 INCHES OF ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (446).

AN ESTIMATED QUANTITY OF 600 FEET HAS BEEN CARRIED TO THE GENERAL SUMMARY.

SPEED MEASUREMENT MARKINGS

THE CONTRACTOR SHALL PLACE A SERIES OF SPEED MEASUREMENT MARKINGS ON THE ROADWAY TO ESTABLISH AN AIR SPEED CHECK ZONE TO ASSIST IN THE ENFORCEMENT OF SPEED REGULATIONS WITHIN THE WORK ZONE. EACH SPEED MEASUREMENT MARKING SHALL CONSIST OF ONE WHITE TRANSVERSE 24-INCH LINE MEASURED IN THE DIRECTION OF TRAVEL AND 4 FEET IN LENGTH. THE MARKINGS SHALL BE PLACED AT ONE-QUARTER MILE INTERVALS FOR A MINIMUM OF 1 MILE ALONG THE ROADWAY, AT LOCATIONS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. SPEED MEASUREMENT MARKINGS SHOULD AVOID BEING LOCATED IN THE VICINITY OF A TAPER, SHIFT, CROSSOVER, ENTRANCE RAMP OR EXIT RAMP.

ON MULTILANE HIGHWAYS WITH SHOULDER WIDTHS OF AT LEAST 6 FEET, CENTER THE SPEED MEASUREMENT MARKING ENTIRELY ON THE SHOULDER. IF THE SHOULDER WIDTH IS BETWEEN 2 FEET AND 6 FEET, CENTER THE MARKING ON THE EDGE LINE. IF THE SHOULDER WIDTH IS LESS THAN 2 FEET, CENTER THE MARKING IN LANE IMMEDIATELY ADJACENT TO THE EDGE LINE. TO ASSURE VISIBILITY OF THE MARKINGS AND REDUCE PARALLAX ERRORS ON MULTI-LANE HIGHWAYS, FOR EACH DIRECTION UTILIZING AN AIR SPEED CHECK ZONE, A SET OF TWO MARKINGS (LEFT AND RIGHT SIDE) SHALL BE USED AT EACH ONE-QUARTER MILE INTERVAL.

ON TWO-LANE HIGHWAYS, ONE MARKING SHOULD BE USED AT EACH ONE-QUARTER MILE INTERVAL AND INSTALLED ACROSS THE CENTER LINE.

THE MARKINGS SHALL BE LAID OUT BY A REGISTERED SURVEYOR. MEASURE EACH SET OF MARKINGS SEPARATELY TO ELIMINATE RADIAL DISTANCE ERRORS. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT TRAFFIC ENGINEER AND ONE COPY IS TO BE SENT TO THE DISTRICT CONSTRUCTION ENGINEER.

PAYMENT WILL BE FOR EACH 24-INCH-WIDE BY 4 FEET LONG MARKING AND SHALL INCLUDE THE PAVEMENT MARKING MATERIAL USED AND THE SURVEYING WORK. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 614 SPEED MEASUREMENT MARKING, 642 TRAFFIC PAINT 15 EACH

AT THE DIRECTION OF THE ENGINEER, PLACE AREA PATROLLED BY AIRCRAFT (D12-H15A) BLACK-ON-FLUORESCENT ORANGE SIGNS IN THE ADVANCED WORK ZONE AREA BETWEEN THE FIRST AND SECOND SIGNS IN THE SERIES AND REPEATED AT EACH ENTRANCE RAMP WITHIN THE AIR SPEED CHECK ZONE. PAYMENT FOR AIR SPEED CHECK ZONE RELATED SIGNS IS INCLUDED IN THE LUMP SUM BID PRICE FOR MAINTAINING TRAFFIC.

RESURFACING TRANSITION AREAS

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

RESURFACING OF THE TRANSITION AREAS SHALL BE AS FOLLOWS:

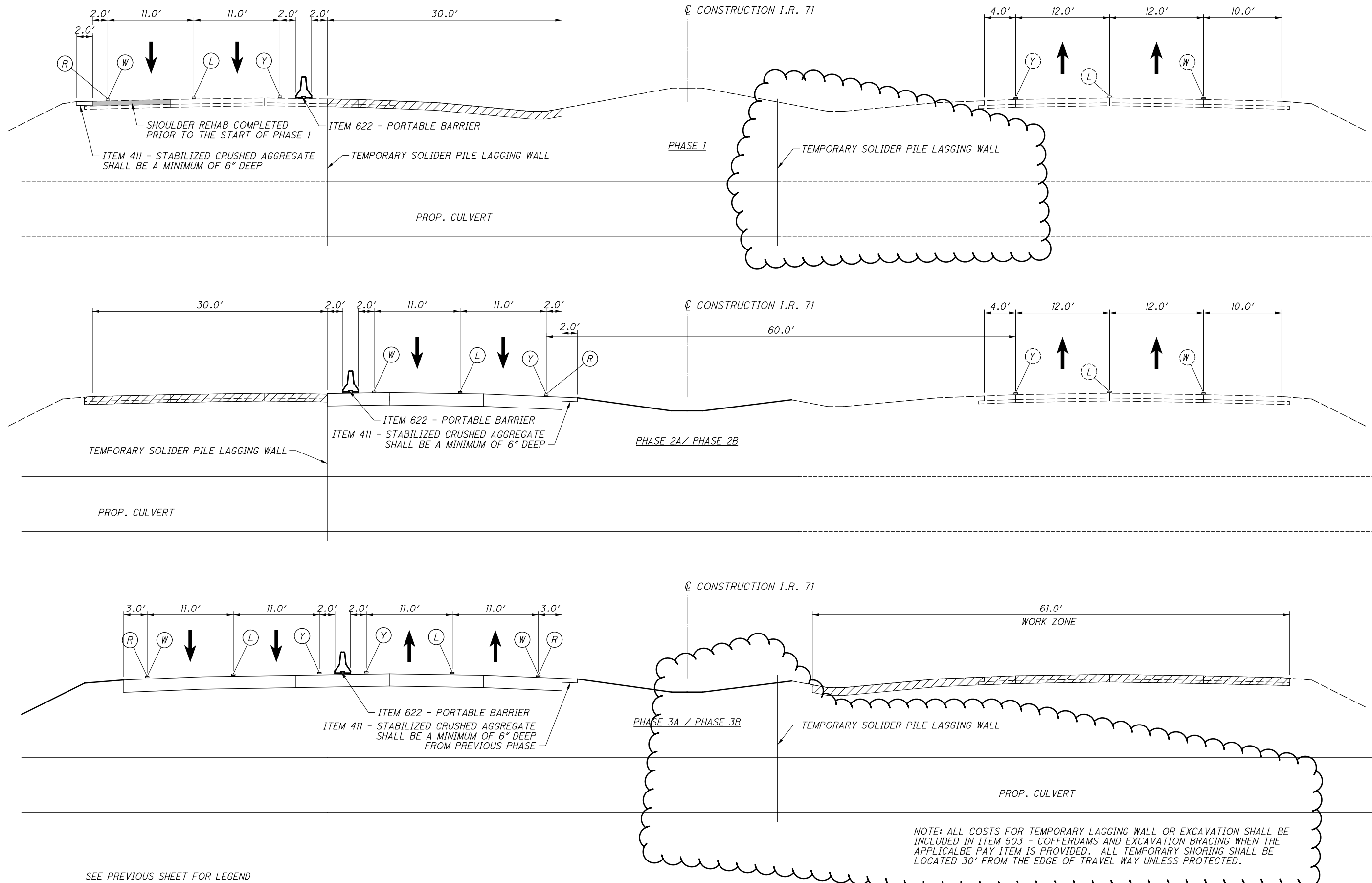
I.R.-71 NORTHBOUND: STA. 278+44 TO STA. 293+93

I.R.-71 SOUTHBOUND: STA. 275+65 TO STA. 293+93

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5") = 14,258 SY
ITEM 407 - NON-TRACKING TACK COAT = 855 GAL
ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, 446 = 594 CY
ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) = 1.28 MI
ITEM 621 - RPM, REMOVED = 28 EACH
ITEM 621 - RPM = 28 EACH
ITEM 807 - WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6" = 1.28 MI
ITEM 807 - WET REFLECTIVE TRAFFIC PAINT, LANE LINE, 6" = 0.64 MI
ITEM 850 - GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) = 1.92 MI

DESIGN AGENCY: E.L. ROBINSON ENGINEERING. DESIGNER: TDP. REVIEWER: MJC 04/26/22. PROJECT ID: 107630. SHEET TOTAL: P.9 | 458



SEE PREVIOUS SHEET FOR LEGEND

DESIGN AGENCY



**E.L. ROBINSON**  
 ENGINEERING  
 1468 West 9th St, Suite 800  
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 950 Goodale Blvd, Suite 180  
 Grandview Heights, Ohio 44131

DESIGNER

TDP

REVIEWER

MJC 04/26/22

PROJECT ID

107630

SHEET

P.16B

TOTAL

458





SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	9	65	66	68	206	214	240	241	06/MS/04	07/MS/03							
										LS	LS	503	11100	LS		<b>DRAINAGE</b>		
				5.7		18.7				17	7.4	602	20000	24.4	CY	COFFERDAMS AND EXCAVATION BRACING		
						68,428				39,732	18,696	605	11100	59,428	FT	6" SHALLOW PIPE UNDERDRAINS		
25						488				349	164	605	13300	513	FT	6" UNCLASSIFIED PIPE UNDERDRAINS		
						59,367				40,370	18,997	605	14000	59,367	FT	6" BASE PIPE UNDERDRAINS		
							2,643			1,798	845	611	00510	2,643	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		
25										17	8	611	00900	25	FT	6" CONDUIT, TYPE B		
25										17	8	611	01400	25	FT	6" CONDUIT, TYPE E		
50										34	16	611	01500	50	FT	6" CONDUIT, TYPE F		
				16						11	5	611	04600	16	FT	12" CONDUIT, TYPE C		
										294	137	611	05900	431	FT	15" CONDUIT, TYPE B		
										516	242	611	06100	758	FT	15" CONDUIT, TYPE C		
										11	5	611	06700	16	FT	15" CONDUIT, TYPE F		
										404	190	611	07400	594	FT	18" CONDUIT, TYPE B		
										284	133	611	07600	417	FT	18" CONDUIT, TYPE C		
										314	147	611	10400	461	FT	24" CONDUIT, TYPE B		
										451	212	611	10600	663	FT	24" CONDUIT, TYPE C		
										211	99	611	13400	310	FT	30" CONDUIT, TYPE B		
										219	70	611	54200	219	FT	97" X 151" CONDUIT, TYPE A, 706.04 OR STRUCTURAL PLATE CORRUGATED STEEL PIPE ARCH, 707.03 - 13'-5" X 8'-5"		
										210	67	611	96600	210	FT	CONDUIT, BORED OR JACKED, 36" TYPE A		
										1		611	98180	1	EACH	CATCH BASIN, NO. 3A		
										2		611	98300	2	EACH	CATCH BASIN, NO. 5		
										15	6	611	98410	21	EACH	CATCH BASIN, NO. 8		
										2		611	98470	2	EACH	CATCH BASIN, NO. 2-2B		
										1		611	98510	1	EACH	CATCH BASIN, NO. 2-3		
										3	1	611	99574	4	EACH	MANHOLE, NO. 3		
2							7			7	2	611	99710	9	EACH	PRECAST REINFORCED CONCRETE OUTLET		
										1		611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.:BLIND TAP	203	
																<b>PAVEMENT</b>		
	200									136	64	251	01021	200	SY	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN, 2.00"	8	
	800									544	256	251	01021	800	SY	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN, 3.00"	8	
	6,000									4,080	1,920	251	01021	6,000	SY	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN, 6.00"	8	
										9,696	4,562	254	01000	14,258	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")		
										30,212	14,217	302	56001	44,429	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN, PG64-22	7	
										22,025	10,364	304	20000	32,389	CY	AGGREGATE BASE		
										23,216	10,924	407	20000	34,140	GAL	NON-TRACKING TACK COAT		
										7,234	3,404	442	00100	10,638	CY	ANTI-SEGREGATION EQUIPMENT		
										5,599	2,634	442	10300	8,233	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)		
										6,089	2,864	442	10080	8,953	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (448)		
										24	10	442	22100	34	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)		
										270	126	605	24810	396	FT	CURB, TYPE 4A		
										408	192	618	40101	600	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	9	
										9	3.44	618	40600	12.44	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		
																<b>TRAFFIC CONTROL</b>		
										516	370	174	621	544	EACH	RPM		
										256	194	90	621	284	EACH	RAISED PAVEMENT MARKER REMOVED		
										3		625	32000	3	EACH	GROUND ROD		
										33	15	626	00102	48	EACH	BARRIER REFLECTOR, TYPE 1, (ONE-WAY)		
										145	67	626	00110	212	EACH	BARRIER REFLECTOR, TYPE 2, (ONE-WAY)		
										100	47	626	00118	147	EACH	BARRIER REFLECTOR, TYPE 6		
										87	27	630	02100	87	FT	GROUND MOUNTED SUPPORT, NO. 2 POST		
										40.5	12.5	630	03100	40.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST		
										30	9	630	04100	30	FT	GROUND MOUNTED SUPPORT, NO. 4 POST		
										42	13	630	07600	42	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12		

GENERAL SUMMARY

DESIGN AGENCY  
  
**E.L. ROBINSON**  
 ENGINEERING  
 1466 West 9th St, Suite 800  
 Cleveland, Ohio  
 950 Goodale Blvd, Suite 180  
 Grandview Heights, Ohio  
 DESIGNER  
**KRF**  
 REVIEWER  
**MJC 04/26/22**  
 PROJECT ID  
**107630**  
 SHEET TOTAL  
 P.55 | 458

SHEET NUM.							PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	14	239	240	241	246	247	06/IMS/04	07/IMS/03	09/IMS/10	08/IMS/11						
														<b>TRAFFIC CONTROL CONT.</b>		
			2				2				630	08600	2	EACH	SIGN POST REFLECTOR	
			2				2				630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
			61				42	19			630	80100	61	SF	SIGN, FLAT SHEET	
			90				62	28			630	80200	90	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
			2				2				630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
				3			3				630	84510	3	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
		13					9	4			630	84900	13	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
		10					7	3			630	86002	10	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
		2					2				630	86102	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
				0.23			0.16	0.07			642	00100	0.23	MILE	EDGE LINE, 4", TYPE 1	
				0.11			0.08	0.03			642	00300	0.11	MILE	CENTER LINE, TYPE 1	
				2			1.36	0.64			642	01312	2	EACH	LANE REDUCTION ARROW, TYPE 1	
	18.2						12.38	5.82			648	00104	18.2	MILE	EDGE LINE, 6"	
	18.2						12.38	5.82			648	00204	18.2	MILE	LANE LINE, 6"	
1.28				11.44			8.65	4.07			807	10010	12.72	MILE	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6"	
0.64				11.25			8.09	3.8			807	10110	11.89	MILE	WET REFLECTIVE TRAFFIC PAINT, LANE LINE, 6"	
				1.000			686	330			807	10410	4.000	FT	WET REFLECTIVE TRAFFIC PAINT, DOTTED LINE, 6"	
1.92				22.32			16.49	7.75			850	10010	24.24	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
				0.56			0.39	0.47			850	20010	0.56	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
															<b>STRUCTURE OVER 20 FOOT SPAN (MAD-71-0456L)</b>	
				LS			LS	LS			202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	247, 248
				230			73	157			202	22900	230	SY	APPROACH SLAB REMOVED	
				LS			LS	LS			503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
				153			48	105			503	21100	153	CY	UNCLASSIFIED EXCAVATION	
				462			147	315			504	11101	462	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	247
				LS			LS	LS			505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
				1,450			464	986			507	98500	1,450	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
				1,550			466	1,054			507	00550	1,550	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
				20			6	14			507	93300	20	EACH	STEEL POINTS OR SHOES	
				59,728			9,112	40,616			509	10000	59,728	LS	EPOXY COATED STEEL REINFORCEMENT	
				4,034			1,290	2,744			509	30020	4,034	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
				226			72	154			511	34446	226	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
				39			12	27			511	34451	39	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	277
				104			33	71			511	43512	104	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
				367			117	250			512	10100	367	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				20			6	14			512	33000	20	SY	TYPE 2 WATERPROOFING	
				8			2	6			515	15070	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF36-49 (LENGTH = 83'-4")	
				21			6	15			515	20000	21	EACH	INTERMEDIATE DIAPHRAGMS	
				119			38	81			516	13200	119	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
				119			38	81			516	13600	119	SF	1" PREFORMED EXPANSION JOINT FILLER	
				67			21	46			516	13900	67	SF	2" PREFORMED EXPANSION JOINT FILLER	
				132			42	90			516	14014	132	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
				16			5	11			516	44001	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (18"x10"x1.75" W/ LOAD PLATE ASSEMBLY)	262
				7			2	5			518	12301	7	EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN	272
				89			28	61			518	21200	89	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
				151			48	103			518	40000	151	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
				60			19	41			518	40011	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	255, 259
				2				2			523	20000	2	EACH	DYNAMIC LOAD TESTING	
				330			105	225			526	25001	330	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	277
				112			35	77			526	90010	112	FT	TYPE A INSTALLATION	
				197			63	134			601	32200	197	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
				47			15	32			846	00110	47	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
															<b>STRUCTURE OVER 20 FOOT SPAN (MAD-71-0456R)</b>	
				LS			LS	LS			202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	247
				232			74	158			202	22900	232	SY	APPROACH SLAB REMOVED	
				LS			LS	LS			503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
				153			48	105			503	21100	153	CY	UNCLASSIFIED EXCAVATION	

GENERAL SUMMARY

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PROJECT ID  
**107630**

SHEET TOTAL  
**P.56 458**

SHEET NUM.				PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
247	362			08/IMS/11	09/IMS/10	10/IMS/14						
<b>STRUCTURE OVER 20 FOOT SPAN (MAD-71-0456R) CONT.</b>												
LS				LS	LS		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
1,450				986	464		507	00500	1,450	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
1,550				1,054	496		507	00500	1,550	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
20				14	6		507	93300	20	EACH	STEEL POINTS OR SHOES	
50,008				40,100	10,908		509	10000	50,008	LB	EPOXY COATED STEEL REINFORCEMENT	
4,034				2,744	1,290		509	30020	4,034	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
226				154	72		511	34446	226	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
39				27	12		511	34451	39	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	277
104				71	33		511	43512	104	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
367				250	117		512	10100	367	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
11				8	3		512	33000	11	SY	TYPE 2 WATERPROOFING	
8				6	2		515	15070	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF36-49 (LENGTH = 83'-4")	
21				15	6		515	20000	21	EACH	INTERMEDIATE DIAPHRAGMS	
119				81	38		516	13200	119	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
119				81	38		516	13600	119	SF	1" PREFORMED EXPANSION JOINT FILLER	
67				46	21		516	13900	67	SF	2" PREFORMED EXPANSION JOINT FILLER	
132				90	42		516	14014	132	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
16				11	5		516	44001	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (18"x10"x1.75" W/ LOAD PLATE ASSEMBLY)	262
89				61	28		518	21200	89	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
151				103	48		518	40000	151	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
60				41	19		518	40011	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	257, 261
330				225	105		526	25001	330	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	277
112				77	35		526	90010	112	FT	TYPE A INSTALLATION	
197				134	63		601	32200	197	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
47				32	15		846	00110	47	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
<b>STRUCTURE OVER 20 FOOT SPAN (MAD-71-0470)</b>												
LS						LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	360, 363, 364, 374, 379
156							156	22900	156	SY	APPROACH SLAB REMOVED	
20							20	30010	20	CY	GRANULAR MATERIAL, TYPE B	
313							313	50000	313	SY	GEOTEXTILE FABRIC	
542							542	21101	542	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	360, 364, 372
81,888							81,888	10000	81,888	LB	EPOXY COATED STEEL REINFORCEMENT	
450							450	25000	450	LB	UNCOATED STEEL REINFORCEMENT	
10,345							10,345	30020	10,345	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
128							128	10001	128	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	360
2							2	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	371
27							27	34413	27	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN	365, 368
260							260	34446	260	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
101							101	34451	101	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	382
31							31	46210	31	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL INCLUDING FOOTING	
987							987	10100	987	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
20							20	33000	20	SY	TYPE 2 WATERPROOFING	
2,904							2,904	20000	2,904	EACH	WELDED STUD SHEAR CONNECTORS	
24							24	95030	24	EACH	STRUCTURAL STEEL, MISC.: 2" DIA. FILED DRILLED HOLES	374
11,700							11,700	00050	11,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
11,700							11,700	00056	11,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
11,600							11,600	00060	11,600	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
11,600							11,600	00066	11,600	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
19							19	00504	19	MNHR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
12							12	10000	12	EACH	FINAL INSPECTION REPAIR	
70							70	10010	70	FT	ARMORLESS PREFORMED JOINT SEAL	
20							20	13600	20	SF	1" PREFORMED EXPANSION JOINT FILLER	
380							380	13900	380	SF	2" PREFORMED EXPANSION JOINT FILLER	
64							64	14020	64	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
8							8	44101	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11" x 14" x 2.948") AND LOAD PLATE (12" x 15" x 1.5")	373
LS						LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	360

GENERAL SUMMARY

DESIGN AGENCY



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**MJC 04/26/22**

PROJECT ID  
**107630**

SHEET TOTAL  
**P.57 458**



SHEET NUM.								PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	10	11	12	13	14	23	313	06/IMS/04	07/IMS/03	08/IMS/11	09/IMS/10						
<b>STRUCTURE OVER 20 FOOT SPAN (MAD-71-0668R) CONT.</b>																	
							335			228	107	511	34446	335	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
							66			45	21	511	34451	66	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	353
							159			109	50	511	40513	159	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN	333
							140			96	44	511	43512	140	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
							134			92	42	511	46512	134	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
							1,090			742	348	512	10100	1,090	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
							20			14	6	512	33000	20	SY	TYPE 2 WATERPROOFING	
							222,000			150,960	71,040	513	10241	222,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2, AS PER PLAN	345
							6,120			4,162	1,958	513	20000	6,120	EACH	WELDED STUD SHEAR CONNECTORS	
							1,380			939	441	514	00061	1,380	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN	338
							1,380			939	441	514	00067	1,380	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	338
							114			78	36	516	10010	114	FT	ARMORLESS PREFORMED JOINT SEAL	
							100			68	32	516	13200	100	SF	½" PREFORMED EXPANSION JOINT FILLER	
							117			80	37	516	13600	117	SF	1" PREFORMED EXPANSION JOINT FILLER	
							45			31	14	516	13900	45	SF	2" PREFORMED EXPANSION JOINT FILLER	
							138			94	44	516	14014	138	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
							16			11	5	516	44100	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11.5"x17"x2.049" W/LOAD PLATE)	
							16			11	5	516	44101	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x14"x2.499" W/LOAD PLATE ASSEMBLY)	335
							117			80	37	518	21200	117	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
							164			112	52	518	40000	164	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
							50			34	16	518	40011	50	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	326, 330
							330			225	105	526	25011	330	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	353
							114			78	36	526	90031	114	FT	TYPE C INSTALLATION, AS PER PLAN	353
							283			193	90	601	32100	283	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
<b>MAINTENANCE OF TRAFFIC</b>																	
							1,238			842	396	411	10000	1,238	CY	STABILIZED CRUSHED AGGREGATE	
				750			510			240		614	11110	750	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			500				340			160		614	11630	500	FT	INCREASED BARRIER DELINEATION	
							275			88		SPECIAL	61412200	275	FT	WORK ZONE GUARDRAIL	13
					1	1	2					614	12380	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
							LS	LS				614	12420	LS		DETOUR SIGNING	
21							15	6				614	12484	21	EACH	WORK ZONE INCREASED PENALTIES SIGN	
							4	1				614	12500	5	EACH	REPLACEMENT SIGN	
		5					102	48				614	12600	150	EACH	REPLACEMENT DRUM	
	1						1					614	12756	1	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
		1,392				800	1,491	701				614	12801	2,192	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	11
			1,238				842	396				614	13310	1,238	EACH	BARRIER REFLECTOR, TYPE 1, (ONE WAY)	
							36	16				614	13312	52	EACH	BARRIER REFLECTOR, TYPE 2, (ONE WAY)	
		52					447	209				614	13350	656	EACH	OBJECT MARKER, ONE WAY	
			604				214	100				614	13360	314	EACH	OBJECT MARKER, TWO WAY	
			314				49	23				614	18601	72	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	11
							24.4	7.4				614	22056	24.4	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
							11.3	3.3				614	20056	11.3	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
							4,112	1,315				614	23110	4,112	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
							1,115	356				614	24102	1,115	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
15							11	4				614	32658	15	EACH	WORK ZONE SPEED MEASUREMENT MARKING, CLASS I, 642 PAINT	
							LS	LS				615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
							8,007	3,805				615	20000	11,802	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
							11,892	6,277				615	20001	19,617	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	9
	254						173	81				616	10000	254	MGAL	WATER	
							12.1	3.1				618	41000	12.1	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
							45,382	14,522				622	41011	45,382	FT	PORTABLE BARRIER, 50", AS PER PLAN	14
							607	194				622	41110	607	FT	PORTABLE BARRIER, ANCHORED	
							104	48				808	18700	152	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
					40		28	12				829	00100	40	SNMT	WORK ZONE EGRESS WARNING SYSTEM	
<b>INCIDENTALS</b>																	
LS							LS	LS	LS	LS		614	11000	LS		MAINTAINING TRAFFIC	
							LS	LS	LS	LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
							LS	LS	LS	LS		624	10000	LS		MOBILIZATION	
							878	25000						LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	

DESIGN AGENCY



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MJC 04/26/22

PROJECT ID

107630

SHEET TOTAL

P.60 458

STATION	SIDE	LENGTH (L)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=L*W	PLANIMETER AREAS	202	204	204	206	206	206	206	302	304	407	442	861	442	442	
						PAVEMENT REMOVED	SUBGRADE COMPACTION	PROOF ROLLING	CEMENT	CEMENT STABILIZED SUBGRADE	CURING COAT	MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOIL	ASPHALT CONCRETE BASE, (449), AS PER PLAN	6" AGGREGATE BASE	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447)	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449)	ANTI-SEGREGATION EQUIPMENT	
		FT	FT	SQ FT	SQ FT	SQ YD	SQ YD	SQ YD	TON	SQ YD	SQ YD	LUMP	CU YD	CU YD	GALLON	CU YD	CU YD	CU YD	CU YD	CY
<b>IR-71</b>																				
293+93.00	296+93.55	LT/RT	301		33212			3891	101	3891	3891	LUMP	890	645	667	154	179			
296+93.55	297+43.55	LT/RT	50	112	5600			656	17	656	656		150	109	112	26	30			
297+43.55	297+68.55	LT/RT	25	112	2800			346	9	346	346			53						
298+52.89	298+77.89	LT/RT	25	112	2800			346	9	346	346			53						
298+77.89	305+52.00	LT	674	56	37750			4419	114	4419	4419		1012	732	758	175	204			
298+77.89	305+01.00	RT	623	56	34894			4085	106	4085	4085		935	677	701	162	188			
305+01.00	305+50.00	RT	49	56	2744			333	9	333	333		76	55	57	13	15			
305+50.00	335+78.53	RT	3029	56	169598			19854	514	19854	19854		4544	3290	3405	785	916			
305+52.00	306+01.00	LT	49	56	2744			333	9	333	333		76	55	57	13	15			
306+01.00	337+88.10	LT	3187	56	178478			20893	541	20893	20893		4782	3463	3584	826	964			
335+78.53	338+31.90	RT	253	56	14189			1661	43	1661	1661		380	275	285	66	77			
337+88.10	340+41.47	LT	253	56	14189			1661	43	1661	1661		380	275	285	66	77			
338+31.90	344+44.70	RT	613	56	34317			4017	104	4017	4017		920	666	689	159	185			
340+41.47	344+44.70	LT	403	56	22581			2643	68	2643	2643		605	438	453	105	122			
344+44.70	364+20.85	LT/RT	1976	112	221329			25910	670	25910	25910		5930	4294	4444	1025	1195			
364+20.85	408+88.59	LT/RT	4468	112	500387			58577	1516	58577	58577		13408	9708	10047	2317	2703			
408+88.59	409+13.59	LT/RT	25	112	2800			346	9	346	346			53						
410+84.59	411+09.59	LT/RT	25	112	2800			346	9	346	346			53						
411+09.59	444+85.00	LT/RT	3375	112	378046			44255	1145	44255	44255		10130	7334	7591	1750	2042			
292+93.00	297+43.55	LT/RT				24641														247
298+77.89	408+88.59	LT/RT				792767														7952
411+09.59	444+85.00	LT/RT				243030														2438
BARRIER AC INTERMEDIATE STEP		LT/RT				0														1
293+93	297+65	LT/RT				32118	3569													
298+56	389+41	LT/RT				792040	88004													
390+57	409+12	LT/RT				159604	17734													
410+86	444+85	LT/RT				273179	30353													
<b>CR-9B</b>																				
22+07.50	23+31.71	LT/RT	124			3099		725	725				85	64	63		17	14		
23+31.71	23+56.71	LT/RT	25	28	700			7	7											
26+43.29	26+68.29	LT/RT	25	28	700			7	7											
26+68.29	27+92.50	LT/RT	124			299		103					12	12	7		2	1		
<b>TR-66</b>																				
23+75.00	26+25.00	LT/RT	250	16	4000			74					113	86	81		22	19		
SUBTOTAL								195313												
TOTALS CARRIED TO GENERAL SUMMARY						139660	918		5035	194573	194573	LUMP	44429	32389	33285	7639	8953	34	10638	

PAVEMENT SUBSUMMARY

DESIGN AGENCY



**E.L. ROBINSON**  
ENGINEERING

1488 West 9th St, Suite 800  
Cleveland, Ohio 44115  
950 Goodale Blvd, Suite 180  
Grandview Heights, Ohio 44131

DESIGNER  
CJS

REVIEWER  
MJC 07/28/22

PROJECT ID  
107630

SHEET TOTAL  
P.68 458

SHEET NO.	STATION	203																		
		EXCAVATION	EMBANKMENT	EMBANKMENT, AS PER PLAN																
		FROM	TO	CY																
IR-71																				
187	439+00.00		406	1																
187	439+50.00		397	1																
188	440+00.00		406	2																
188	440+50.00		412	3																
188	441+00.00		414	2																
189	441+50.00		414	2																
189	442+00.00		418	1																
189	442+50.00		410	1																
190	443+00.00		394	1																
190	443+50.00		392	1																
190	444+00.00		392	2																
191	444+50.00		402	1																
191	444+85.00		144	0																
191	445+00.00		0	0																
192	445+50.00		0	0																
C.R. 9																				
193	21+50.00		0	0																
193	22+00.00		0	0																
194	22+07.50		5	0																
194	22+50.00		58	0																
195	23+00.00		77	0																
195	23+31.71 (BEGIN REAR APPROACH SLAB)		56	0																
	23+56.71 (END REAR APPROACH SLAB)		47	0																
	26+43.29 (BEGIN FORWARD APPROACH SLAB)		47	0																
196	26+68.29 (END FORWARD APPROACH SLAB)		58	0																
196	27+00.00		59	0																
196	27+50.00		89	0																
197	27+92.50		37	0																
197	28+00.00		0	0																
197	28+50.00		0	0																
DEDUCT FOR PAVEMENT REMOVED (EX. TRAVELED LANES)			-35040																	
DEDUCT FOR PAVEMENT REMOVED (EX. SHOULDERS)			-11842																	
TOTALS THIS SHEET			5535	21	0															
TOTALS FROM SHEET P. 69			18062	526	315															
TOTALS FROM SHEET P. 69			10209	2491	0															
TOTALS FROM SHEET P. 70			17182	932	0															
TOTALS FROM SHEET P. 71			5454	5417	339															
TOTALS FROM SHEET P. 72			18358	443	371															
TOTALS CARRIED TO GENERAL SUMMARY			27916	9830	1025															

EARTHWORK SUBSUMMARY

DESIGN AGENCY



**E.L. ROBINSON**  
ENGINEERING  
1468 West 9th St, Suite 800  
Cleveland, Ohio 44115  
950 Goodale Blvd, Suite 100  
Grandview Heights, Ohio 44131

DESIGNER: MLL  
REVIEWER: MJC 04/26/22  
PROJECT ID: 107630  
SHEET TOTAL: P.73 | 458

REF.	SHEET	STATION		SIDE	202	202	202		202	209	601	601	601	602	602	503	611
		FROM	TO		STRUCTURE REMOVED	HEADWALL REMOVED	PIPE REMOVED, OVER 24"	SPECIAL - FILL AND PLUG EXISTING CONDUIT	DITCH CLEANOUT	RIPRAP	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	97" X 151" CONDUIT, TYPE A, 706.04 OR CONDUIT, TYPE A, STRUCTURAL PLATE CORRUGATED STEEL PIPE ARCH, 707.03 - 13'-5" X 8'-5"	COFFERDAMS AND EXCAVATION BRACING	CONDUIT, BORED OR JACKED, 36" TYPE A	
					LS	EACH	FT		FT	FT	SY	CY	CY	CY	FT	LS	FT
	207	379+08	379+08	LT/RT	1	2						44		17.3	219	LS	
	208	393+50	393+50	LT/RT		2	20		184	100	8		1.7	1.4			210
TOTALS CARRIED TO GENERAL SUMMARY					1	4	20		184	200	8	44	8	19	219	LS	210

CULVERT SUBSUMMARY

DESIGN AGENCY



**E.L. ROBINSON**  
ENGINEERING

1466 West 9th St, Suite 800  
Cleveland, Ohio  
950 Goodale Blvd, Suite 160  
Grandview Heights, Ohio

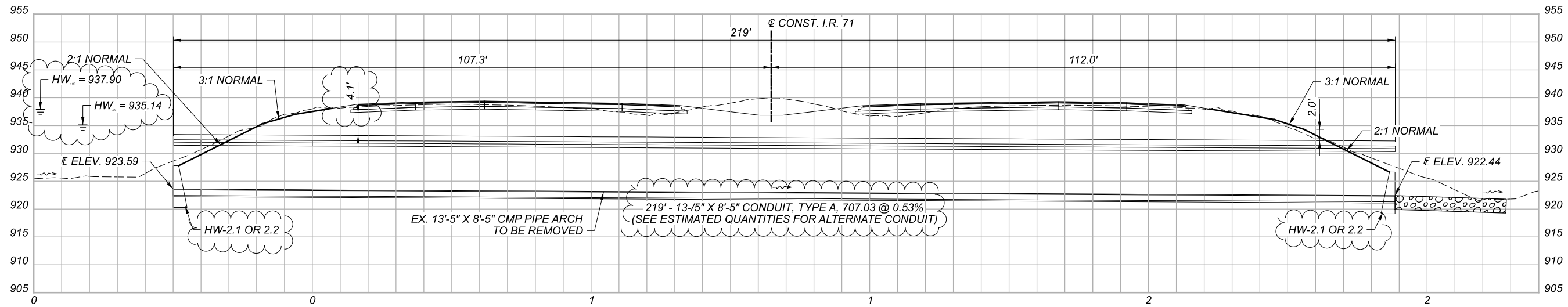
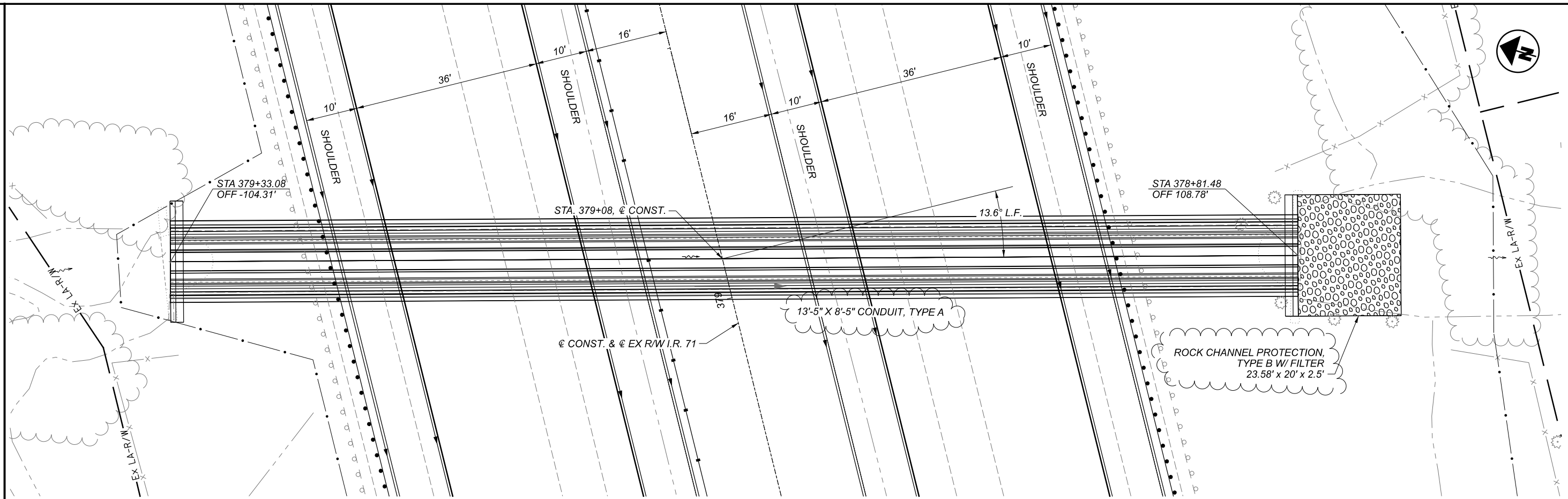
DESIGNER  
JOF

REVIEWER  
END 04/26/22

PROJECT ID  
107630

SHEET TOTAL  
P.206 458





EXISTING STRUCTURE	
TYPE:	13'-5" X 8'-5" CMP ARCH
LENGTH:	220' +/-
SKEW:	13° L.F.
WEARING SURFACE:	ASPHALT CONCRETE
YEAR BUILT:	
CONDITION:	GOOD
CFN:	

HYDRAULIC DESIGN DATA	
DRAINAGE AREA:	= 2131 AC
Q50	= 893 CFS
Q100	= 1064 CFS
HW50	= 935.14
HW100	= 937.90
V50	= 11.10 FPS
V100	= 12.50 FPS
ORDINARY	
HIGH WATER MARK	= 926.29 FT
SERVICE LIFE	= 75 YR
pH	= 7.2
ABRASION LEVEL	= 1
CFN	=

I.R. 71 STA. 379+08 - ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	1	LS	STRUCTURE REMOVED
202	2	EACH	HEADWALL REMOVED
209	100	FT	DITCH CLEANOUT
503		LS	COFFERDAMS AND EXCAVATION BRACING
601	44	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	17.3	CY	CONCRETE MASONRY
611	219	FT	CONDUIT, TYPE A, STRUCTURAL PLATE CORRUGATED STEEL PIPE ARCH, 707.03 - 13'-5" X 8'-5" OR 97" X 151" CONDUIT, TYPE A, 706.04

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY, SHEET 206

CULVERT DETAILS  
 I.R. 71 STA. 379+08

DESIGN AGENCY



E.L. ROBINSON ENGINEERING  
 1468 West 9th St., Suite 800  
 Cleveland, Ohio  
 950 Goodale Blvd., Suite 160  
 Grandview Heights, Ohio

DESIGNER: CTW  
 REVIEWER: ENB  
 PROJECT ID: 107630  
 SHEET: P.207  
 TOTAL: 458

SHEET NO.	REFERENCE NO.	LOCATION	STATION TO STATION	SIDE	618	621	621	621	642	642	642	644	807	807	807	807	850	850							
					RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	RPM (WHITE)	RPM (YELLOW)	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 4", TYPE 1 (WHITE)	CENTER LINE, TYPE 1	LANE REDUCTION ARROW, TYPE 1	REMOVAL OF PAVEMENT MARKING	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6" (WHITE)	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6" (YELLOW)	WET REFLECTIVE TRAFFIC PAINT, LANE LINE, 6"	WET REFLECTIVE TRAFFIC PAINT, DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)							
			TO		MILE	EACH	EACH	EACH	MILE	MILE	EACH	FT	MILE	MILE	MILE	FT	MILE	MILE							
223-235	ELY-1	I-71 SB	293+93	444+85	RT.									2.86				2.79	0.07						
223-235	ELW-1	I-71 SB	293+93	444+85	LT.								2.86					2.79	0.07						
223-235	LL-1	I-71 SB	293+93	444+85	LT.		128				128					2.86		2.79	0.07						
223-235	LL-2	I-71 SB	302+93	444+85	RT.		119								2.69			2.62	0.07						
223	DL-1	I-71 SB	293+93	302+93	RT.				12							900		0.170							
223-235	ELY-2	I-71 NB	293+93	444+85	LT.									2.86				2.79	0.07						
223-235	ELW-2	I-71 NB	293+93	444+85	RT.								2.86					2.79	0.07						
223-235	LL-3	I-71 NB	293+93	444+85	RT.		128				128					2.86		2.79	0.07						
223-235	LL-4	I-71 NB	294+93	444+85	LT.		127								2.84			2.77	0.07						
223	DL-2	I-71 NB	293+93	294+93	LT.				2							100		0.02							
223	ELW-3	YANKEE RD.	22+07	27+93	LT.					0.12															
223	ELW-4	YANKEE RD.	22+07	27+38	RT.					0.11															
223	CL-1	YANKEE RD.	22+07	27+38	CL						0.11														
223-235	RS-1	I-71 SB	293+93	444+85	RT.	2.79																			
223-235	RS-2	I-71 SB	293+93	444+85	LT.	2.79																			
223-235	RS-3	I-71 NB	293+93	444+85	LT.	2.79																			
223-235	RS-4	I-71 NB	293+93	444+85	RT.	2.79																			
223	LRA-1	I-71 SB	303+93		LT.							1													
224	LRA-2	I-71 SB	312+30.5		LT.							1													
SUBTOTAL							502	14					5.72	5.72											
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>						11.16	516	256	0.23	0.11	2	0	11.44	11.25	1000			22.32	0.56						

PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY

**2LMN**

DESIGNER

JJR

REVIEWER

ALL 07/20/22

PROJECT ID

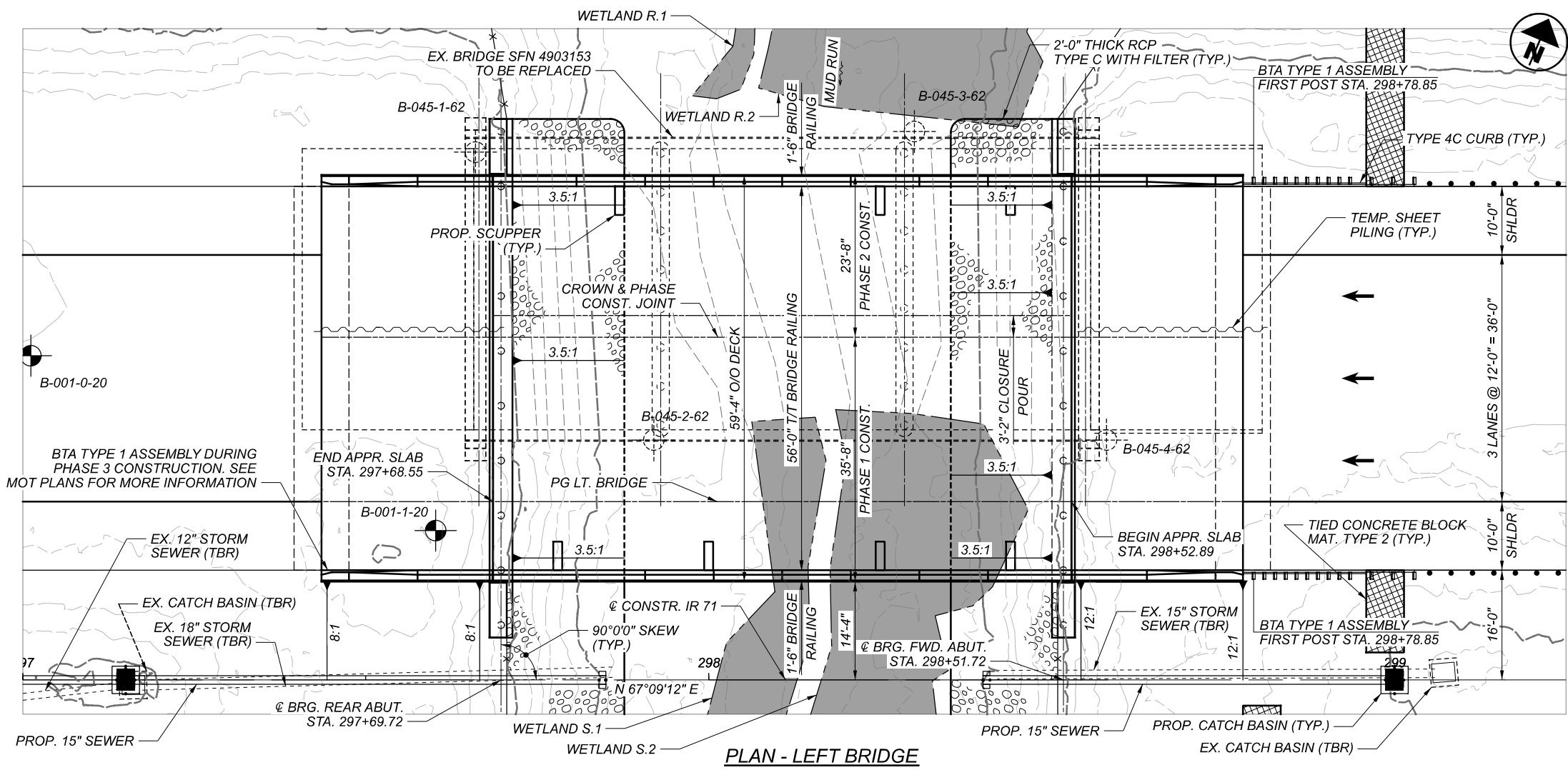
107630

SHEET TOTAL

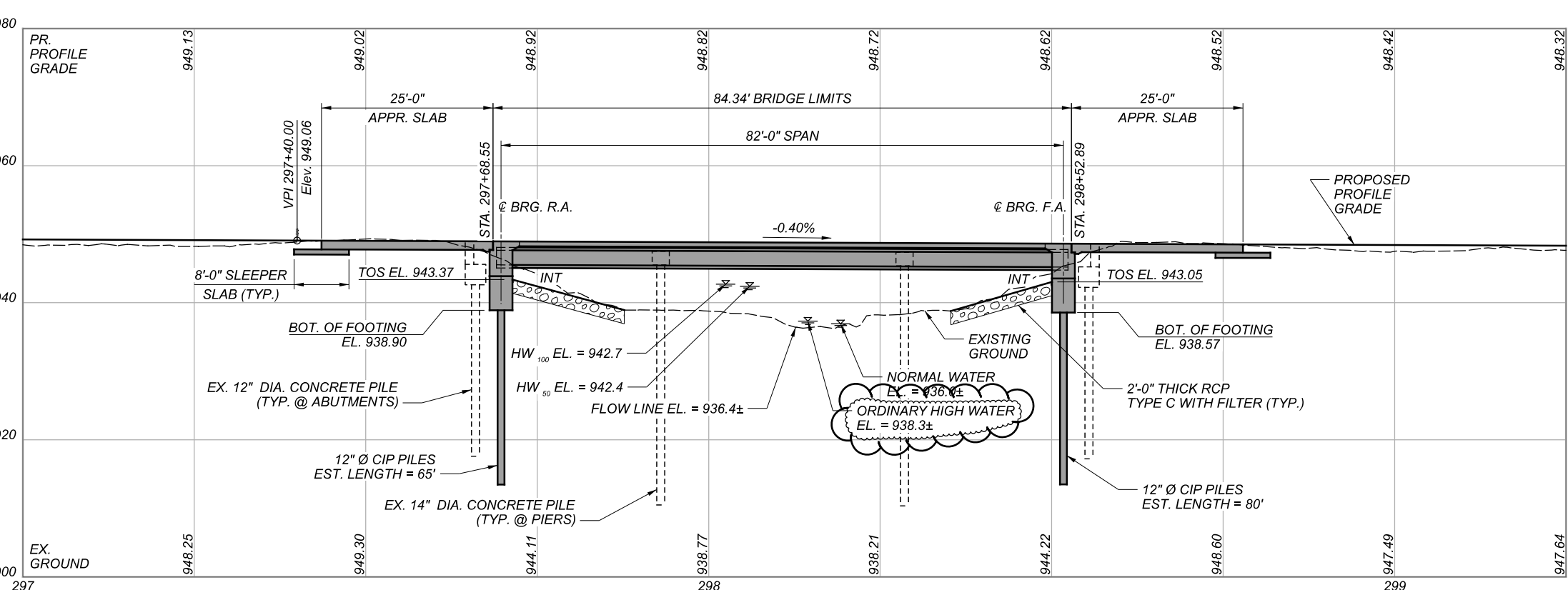
P. 241 458

MAD-71-4.56

MODEL: Sheet\_PAPER: 17x11 (in.) DATE: 2/23/2023 TIME: 12:46:24 PM USER: joleary  
 P3\_CHDOT\_Worksets\107630\400-Engineering\Structures\4903154\_Sheets\107630\_4903154\_SP001.dgn



PLAN - LEFT BRIDGE



PROFILE ALONG PROFILE GRADE IR 71 SOUTHBOUND

**BENCHMARK DATA**

BM #1 STA.	294+13.46	ELEV.	948.68	OFFSET	104.41'	RT.
BM #2 STA.	302+51.42	ELEV.	942.88	OFFSET	101.01'	RT.

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLAN SHEETS.

**NOTES**

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- A DATUM CORRECTION OF -0.70' WAS USED TO DETERMINE EXISTING ELEVATIONS.

**DESIGN TRAFFIC:**

2024 ADT =	51,000	2024 ADTT =	13,770
2044 ADT =	72,000	2044 ADTT =	19,440
DIRECTIONAL DISTRIBUTION = 0.52			

**LEGEND**

- PROJECT BORING LOCATION
- HISTORICAL BORING LOCATION
- TBR - TO BE REMOVED

**HYDRAULIC DATA**

DRAINAGE AREA =	4.94 SQ. MILES		
Q (50) =	1210 CFS	V (50) =	5.8 FT/S
Q (100) =	1440 CFS	V (100) =	6.5 FT/S
STRUCTURE CLEARS THE 50 YEAR DESIGN HW BY 1.98 FEET.			

**EXISTING STRUCTURE**

TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB ON CONCRETE CAPPED PILE STUB ABUTMENTS WITH CONCRETE CAPPED PILE PIERS

SPANS: 26'-6 1/4"± - 35'-6 1/4"± - 26'-4 3/4"± C/C BEARINGS

ROADWAY: 41'-0" T/T RAILING

LOADING: CF 2000 (57)

SKEW: 0°

WEARING SURFACE: 1 3/4" LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: 25'-0"± LONG, TYPE A INSTALLATION (AS-1-15 & AS-2-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

STRUCTURE FILE NUMBER: 4903153

DATE BUILT: 1964

REHAB: 2019-2020

DISPOSITION: TO BE REPLACED

**PROPOSED STRUCTURE**

TYPE: SINGLE SPAN CONCRETE PRESTRESSED I-BEAM BRIDGE WITH A COMPOSITE REINFORCED CONCRETE DECK SUPPORTED BY INTEGRAL ABUTMENTS ON FRICTION PILES

SPANS: 82'-0" C/C BEARING

ROADWAY: 56'-0" T/T BRIDGE RAILING

LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE

SKEW: 0°

WEARING SURFACE: 1" MONOLITHIC

APPROACH SLABS: 25'-0" LONG, TYPE A INSTALLATION (AS-1-15 & AS-2-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

DECK AREA: 5,003 SF

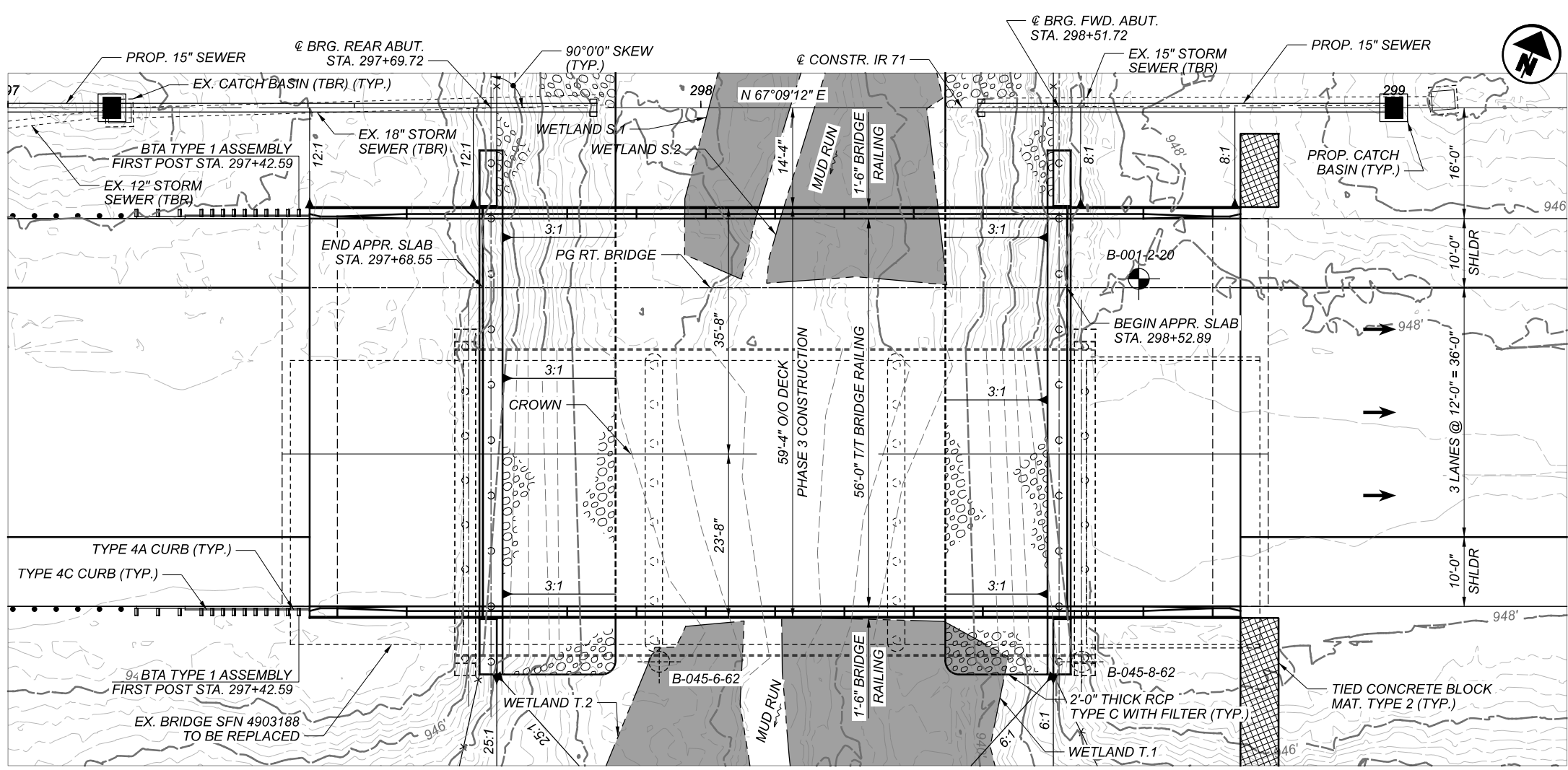
COORDINATES: LATITUDE 39° 44' 02.12" N  
 LONGITUDE 83° 21' 38.32" W

STRUCTURE FILE NUMBER: 4903154 (LEFT)

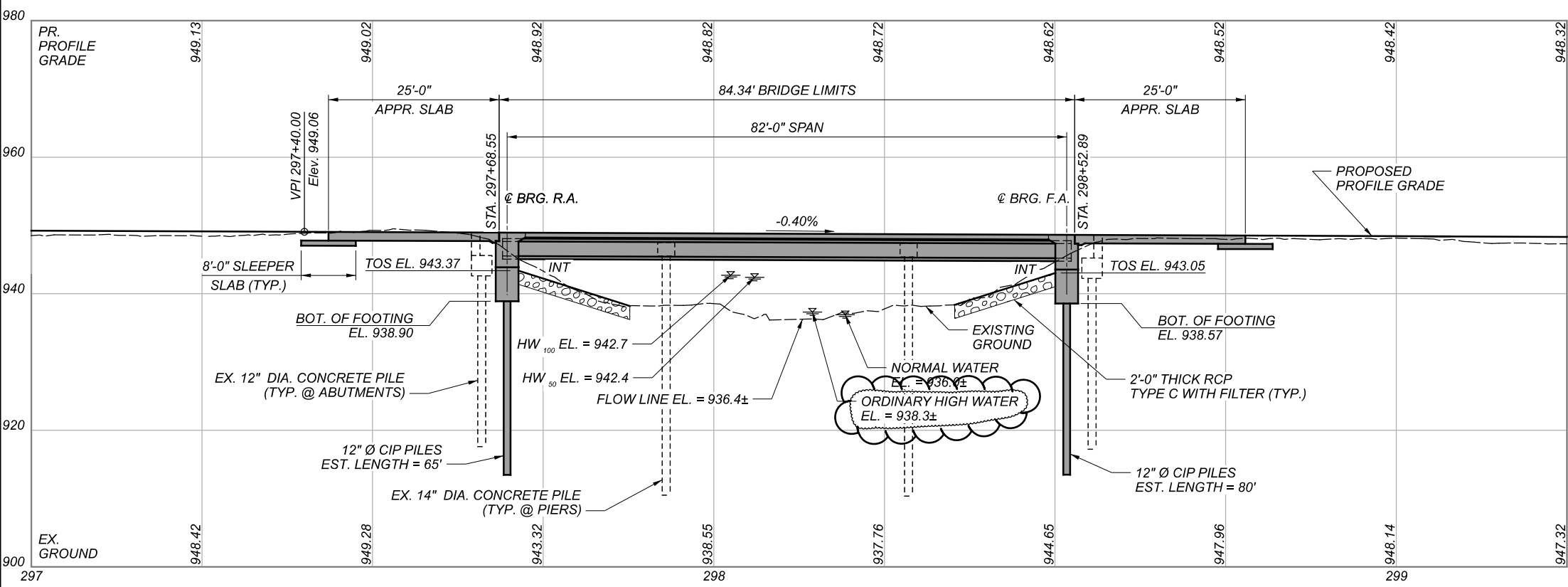


SITE PLAN - LEFT BRIDGE  
 BRIDGE NO. MAD-00071-04.560L&R  
 IR 71 OVER MUD RUN

SFN	4903154
SFN	4903189
DESIGN AGENCY	<b>EL. ROBINSON ENGINEERING</b>
DESIGNER	JOL
REVIEWER	JOL
DFT	03/23/22
PROJECT ID	107630
SUBSET	TOTAL
1	40
SHEET	TOTAL
P.242	458



PLAN - RIGHT BRIDGE



PROFILE ALONG PROFILE GRADE IR 71 NORTHBOUND

**BENCHMARK DATA**

BM #1 STA.	294+13.46	ELEV.	948.68	OFFSET	104.41'
BM #2 STA.	302+51.42	ELEV.	942.88	OFFSET	101.01'

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLAN SHEETS.

**NOTES**

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- A DATUM CORRECTION OF -0.70' WAS USED TO DETERMINE EXISTING ELEVATIONS.

**DESIGN TRAFFIC:**

2024 ADT =	51,000	2024 ADTT =	13,770
2044 ADT =	72,000	2044 ADTT =	19,440
DIRECTIONAL DISTRIBUTION = 0.52			

**LEGEND**

- PROJECT BORING LOCATION
- HISTORICAL BORING LOCATION
- TBR - TO BE REMOVED

**HYDRAULIC DATA**

DRAINAGE AREA = 4.94 SQ. MILES			
Q (50) =	1210 CFS	V (50) =	5.8 FT/S
Q (100) =	1440 CFS	V (100) =	6.5 FT/S
STRUCTURE CLEARS THE 50 YEAR DESIGN HW BY 1.98 FEET.			

**EXISTING STRUCTURE**

TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB ON CONCRETE CAPPED PILE STUB ABUTMENTS WITH CONCRETE CAPPED PILE PIERS

SPANS: 26'-6 1/4"± - 35'-6 1/4"± - 26'-4 3/4"± C/C BEARINGS

ROADWAY: 41'-0" T/T RAILING

LOADING: CF 2000 (57)

SKEW: 0°

WEARING SURFACE: 1 3/4" LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: 25'-0"± LONG, TYPE A INSTALLATION (AS-1-15 & AS-2-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

STRUCTURE FILE NUMBER: 4903188

DATE BUILT: 1964

REHAB: 2019-2020

DISPOSITION: TO BE REPLACED

**PROPOSED STRUCTURE**

TYPE: SINGLE SPAN CONCRETE PRESTRESSED I-BEAM BRIDGE WITH A COMPOSITE REINFORCED CONCRETE DECK SUPPORTED BY INTEGRAL ABUTMENTS ON FRICTION PILES

SPANS: 82'-0" C/C BEARING

ROADWAY: 56'-0" T/T BRIDGE RAILING

LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE

SKEW: 0°

WEARING SURFACE: 1" MONOLITHIC

APPROACH SLABS: 25'-0" LONG, TYPE A INSTALLATION (AS-1-15 & AS-2-15)

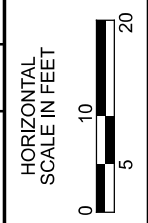
ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

DECK AREA: 5,003 SF

COORDINATES: LATITUDE 39° 44' 01.64" N  
 LONGITUDE 83° 21' 38.06" W

STRUCTURE FILE NUMBER: 4903189 (RIGHT)



SITE PLAN - RIGHT BRIDGE  
 BRIDGE NO. MAD-00071-04.560L&R  
 IR 71 OVER MUD RUN

SFN	4903154
SFN	4903189
DESIGN AGENCY	
DESIGNER/CHECKER	FIB JOL
REVIEWER	DFT 03/23/22
PROJECT ID	107630
SUBSET	TOTAL
2	40
SHEET	TOTAL
P.243	458



MAD-71-4.56

MODEL: Sheet PAPER: 17x11 (in.) DATE: 2/9/2023 TIME: 8:12:45 AM USER: CJackman  
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DESIGN: GTB		DATE: 2/6/2022		ESTIMATED QUANTITIES					SFN: 4903218	
CHECK: RG		DATE: 2/8/2022								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.	
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	2, 5, 6, 16, 21	
202	22900	156	SY	APPROACH SLAB REMOVED				156		
204	30010	20	CY	GRANULAR MATERIAL, TYPE B				20		
204	50000	313	SY	GEOTEXTILE FABRIC				313		
503	21101	542	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	427	115			2, 6, 14	
509	10000	81,888	LB	EPOXY COATED REINFORCING STEEL	7,908		73,980			
509	25000	450	LB	UNCOATED REINFORCING STEEL	450					
509	30020	10,345	FT	NO.4 GFRP DEFORMED BARS			10,345			
510	10001	128	EACH	DOWEL HOLES WITH NONSHRINK, NONMETTALIC GROUT, AS PER PLAN	128				2	
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				13	
511	34413	27	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN			27		730	
511	34446	260	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			260			
511	34451	101	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			101		24	
511	46210	31	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL INCLUDING FOOTING	31					
512	10100	987	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	88	211	688			
512	33000	20	SY	TYPE 2 WATERPROOFING	20					
513	20000	2,904	EACH	WELDED STUD SHEAR CONNECTORS			2,904			
513	95030	24	EACH	STRUCTURAL STEEL, MISC.: 2" DIA. FIELD DRILLED HOLES			24		16	
514	00050	11,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			11,700		16	
514	00056	11,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			11,700			
514	00060	11,600	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			11,600			
514	00066	11,600	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			11,600			
514	00504	19	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			19			
514	10000	12	EACH	FINAL INSPECTION REPAIR			12			
516	10010	70	LF	ARMORLESS PREFORMED JOINT SEAL	70					
516	13600	20	SF	1" PREFORMED EXPANSION JOINT FILLER	20					
516	13900	380	SF	2" PREFORMED EXPANSION JOINT FILLER	380					
516	14020	64	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	64					
516	44101	8	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (11" X 14" X 2.948") AND LOAD PLATE (12" X 15" X 1.5") (NEOPRENE), AS PER PLAN	8				15	
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP	2	
518	21201	20	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	20				3	
518	40000	65	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	65					
518	40011	48	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	48				13	
519	00100	1,248	SF	SPECIAL - COMPOSITE FIBER WRAP SYSTEM (SEE PROPOSAL NOTE)		1,248			14	
526	25010	175	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				175	14	
526	90031	66	FT	TYPE C INSTALLATION, AS PER PLAN				66	24	
601	20001	100	SY	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN				100	3	
607	39900	570	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			570			
625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM				1		
840	23000	227	CY	SELECT GRANULAR BACKFILL				227		
843	50000	28	SF	PATCHING CONCRETE SURFACES WITH TROWELABLE MORTAR		28				
863	00100	971	SY	GEOGRID, TYPE P1				971		

ESTIMATED QUANTITIES  
 BRIDGE NO. MAD-00071-04.700  
 C.R. 9B (YANKEETOWN-CHENOWETH ROAD) OVER I.R. 71

SFN	4903218
DESIGN AGENCY	BG
DESIGNER	RG
CHECKER	CCJ
REVIEWER	
PROJECT ID	107630
SUBSET	4
TOTAL	26
SHEET	362
TOTAL	458