SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	16	17	19	29							01/S>2/40						
																		PAVEMENT (CONT.)	
				591									591	609	26000	591	FT	CURB, TYPE 6	
																		TRAFFIC CONTROL	
					47								47	621	00100	47	EACH	RPM	
					47								47	621	54000	47	EACH	RAISED PAVEMENT MARKER REMOVED	
			1										1	625	75401	1	EACH	LIGHT POLE REMOVED, AS PER PLAN	4
					3								3	626	00110	3	EACH	BARRIER REFLECTOR, TYPE 2, (ONE-WAY)	
					0.27								0.27	644	00200	0.27	MILE	LANE LINE, 4"	
					0.17								0.17	644	00300	0.17	MILE	CENTER LINE	
					110								110	644	00500	110	FT	STOP LINE	
					228								228	644	01500	228	FT	DOTTED LINE, 4"	
					91								91	644	01501	91	FT	DOTTED LINE, 4", AS PER PLAN	4
					2								2	644	01300	2	EACH	LANE ARROW	
					227								227	644	00400	227	FT	CHANNELIZING LINE, 8"	
																		RETAINING WALLS (RW1)	
						3							3	SPECIAL	20365000	3	EACH	SETTLEMENT PLATFORM	29
						LS							LS	503	41001	LS		COFFERDAMS AND EXCAVATION BRACING	
						444							444	512	10001	444	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN	29
						444							444	512	10101	444	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	29
						159							159	607	39900	159	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
						3,988							3,988	840	20001	3,988	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	3
						652							652	840	21000	652	CY	WALL EXCAVATION	
						336							336	840	22001	336	SY	FOUNDATION PREPARATION, AS PER PLAN	29
						323							323	840	25010	323	FT	6" DRAINAGE PIPE, PERFORATED	
						2.5							2.5	840	25020	2.5	FT	6" DRAINAGE PIPE, NON-PERFORATED	
						159							159	840	26000	159	FT	CONCRETE COPING	
						3,988							3,988	840	26050	3,988	SF	AESTHETIC SURFACE TREATMENT	
						5							5	840	27000	5	DAY	ON-SITE ASSISTANCE	
						LS							LS	867	00101	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	3
																		STRUCTURE REPAIR (HAM-SR264-10.42)	36
																		MAINTENANCE OF TRAFFIC	
		160											160	614	11110	160	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
8													8	614	12384	8	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
23													23	614	13310	23	EACH	BARRIER REFLECTOR, TYPE 1, (BI-DIRECTIONAL)	
23													23	614	13350	23	EACH	OBJECT MARKER, ONE WAY	
	0.27												0.27	614	20550	0.27	MILE	WORK ZONE LANE LINE, CLASS III, 4", 642 PAINT	
0.29													0.29	614	21200	0.29	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
	0.17												0.17	614	21550	0.17	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
0.69													0.69	614	22200	0.69	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
980													980	614	24400	980	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 740.06, TYPE I	
	319												319	614	24610	319	FT	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT	
44													44	614	26400	44	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
	110												110	614	26610	110	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
377													377	614	23010	377	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
	120												120	614	23690	120	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
255													255	615	25000	255	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
													LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
413													413	622	41100	413	FT	PORTABLE BARRIER, UNANCHORED	
798													798	622	41110	798	FT	PORTABLE BARRIER, ANCHORED	
																		INCIDENTALS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

CALCULATED LWB
CHECKED JDO

GENERAL SUMMARY

HAM-264-10.42

DESIGN SPECIFICATIONS:

THE STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

SEALING OF CONCRETE SURFACES (PERMANENT GRAFFITI PROTECTION):

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. PAYMENT FOR THE SEALING OF CONCRETE SURFACES (PERMANENT GRAFFITI PROTECTION) IS PROVIDED IN THE RETAINING WALL QUANTITY ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN

FOUNDATION BEARING RESISTANCE:

THE FOUNDATION BEARING RESISTANCE IS LISTED IN THE TABLE BELOW:

FOUNDATION BEARING RESISTANCE			
WALL NUMBER	WALL LIMITS		FACTORED BEARING RESISTANCE
	FROM STA.	TO STA.	
1	550+58	552+25	5000 PSF

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

THE FINISH COAT COLOR SHALL BE FEDERAL COLOR NO. 595A-26622, LIGHT NEUTRAL.

AESTHETIC SURFACE TREATMENT:

ALL MSE PANELS SHALL HAVE A "FRACTURED FIN" FINISH WITH A MINIMUM RELIEF OF 1.5". THE MANUFACTURER SHALL FABRICATE AND THE CONTRACTOR SHALL INSTALL THE PANELS SUCH THAT THE VERITCAL FINS AND VALLEYS IN THE FRACTURED FIN AESTHETIC TREATMENT ALIGN VERTICALLY ACROSS ADJACENT PANELS FROM THE BOTTOM OF THE WALL TO THE TOP.

ITEM 840 - FOUNDATION PREPARATION, AS PER PLAN:

PROVIDE GRANULAR MATERIAL TYPE C CONSISTING OF CRUSHED CARBONATE STONE MEETING FOR ALL WORK ASSOCIATED WITH ITEM 840 - FOUNDATION PREPARATION AFTER THE FOUNDATION HAS BEEN ACCEPTED, SPREAD, PLACE AND COMPACT 24 INCHES OF GRANULAR MATERIAL TYPE C ACCORDING TO THE REQUIREMENTS OF 204.07.

ITEM 840 - SELECT GRANULAR BACKFILL

PAYMENT FOR SELECT GRANULAR BACKFILL FOR THE MSE WALL IS PROVIDED IN THE ROADWAY QUANTITY, ITEM 203 - EMBANKMENT, AS PER PLAN

ITEM 867 - SELECT GRANULAR BACKFILL

PAYMENT FOR SELECT GRANULAR BACKFILL FOR THE TEMPORARY MSE WALL IS PROVIDED IN THE ROADWAY QUANTITY, ITEM 203 - EMBANKMENT, AS PER PLAN.

ITEM 840 - NATURAL SOIL

PAYMENT FOR NATURAL SOIL FOR THE MSE WALL IS PROVIDED IN THE ROADWAY QUANTITY, ITEM 203 - EMBANKMENT

MINIMUM SOIL REINFORCEMENT LENGTHS

BASED ON THE EXTERNAL STABILITY ANALYSIS OF THE MECHANICALLY STABILIZED EARTH WALLS, THE FOLLOWING MINIMUM LENGTHS ARE AS FOLLOWS:
STRAP LENGTH SHALL BE 70% OF THE WALL HEIGHT.
AT NO CASE SHALL THE MINIMUM SOIL REINFORCEMENT BE LESS THAN 8 FEET.
H= THE WALL HEIGHT AS DETERMINED ACCORDING TO THE SUPPLEMENTAL SPECIFICATION 840.04

ITEM SPECIAL - SETTLEMENT PLATFORM

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER. SETTLEMENT READINGS SHALL BE TAKEN WEEKL Y DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). IN ORDER TO CREATE THE GRAPH, USE THE SETTLEMENT PLATFORM SPREADSHEET LOCATED AT:
hftps://www.dot.state.oh.us/Divisions/Engineering/Geotechnical/geotechnical_documents/Blank_Settlement_Reading_Plots-English.xls
IN THE OGE WEBSITE PUBLICATIONS AND DOCUMENTS SECTION. PREPARE A SEPARATE GRAPH IN THE SPREADSHEET FOR EACH SETTLEMENT PLATFORM. PROVIDE THE SETTLEMENT PLATFORM DESIGNATION NUMBER, STATION, AND OFFSET ON EACH TAB IN THE SPREADSHEET. A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE ENGINEER AND THE DISTRICT GEOTECHNICAL ENGINEER AFTER EACH SETTLEMENT READING IS RECORDED.

THE DEPARTMENT WILL CONSIDER VIBRATING WIRE SETTLEMENT MONITORING PLATFORMS IN LIEU OF THE CONVENTIONAL SETTLEMENT PLATFORMS. THE CONTRACTOR SHOULD PROVIDE DETAILS OF THE PROPOSED VIBRATING WIRE SETTLEMENT PLATFORMS AS WELL AS DESIGN DRAWINGS OF THE PROPOSED PLATFORM AND CABLING LAYOUT TO THE ENGINEER AT LEAST 5 DAYS PRIOR TO CONSTRUCTION. THE DEPARTMENT WILL REQUIRE 10 WORKING DAYS FOR REVIEW AND APPROVAL. THE DESIGN DRAWINGS SHOULD ILLUSTRATE THE PROPOSED VIBRATING WIRE SETTLEMENT PLATFORM LOCATIONS WITH ALL EXISTING AND PROPOSED SITE FEATURES TO VERIFY THE PROPOSED CABLING WILL NOT CONFLICT WITH EXISTING FACILITIES, PROPOSED FACILITIES, OR UTILITIES. NO ADDITIONAL PAYMENT WILL BE PROVIDED IF THE CONTRACTOR ELECTS TO UTILIZE VIBRATING WIRE SETTLEMENT PLATFORMS.

MATERIALS: SOUND LUMBER SUCH AS 3/4" EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 2 1/2" STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLA TE (36" x 36" x 1/8") MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTION.

THE CONTRACTOR MAY UTILIZE VIBRATING WIRE SETTLEMENT MONITOR DEVICES IN LIEU OF THE SETTLEMENT PLA TFORMS A T NO ADDITIONAL COST TO THE PROJECT. THE CONTRACTOR MUST SUBMIT THE PROPOSED VIBRATING WIRE SETTLEMENT MONITORING EQUIPMENT AND METHODS TO THE DISTRICT GEOTECHNICAL ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS OR FIELD INSTALLATION.

CONSTRUCTION METHODS: THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. PLACE THE SETTLEMENT PLATFORMS AT THE BOTTOM OF THE GRANULAR MATERIAL, TYPE C USED IN THE ITEM 840 - FOUNDATION PREPARATION WORK. FIRMLY SECURE THE SETTLEMENT PLATFORM ON THE SS840 SUBGRADE BY DRIVING NO. 4 REINFORCING BAR STAKES WITH A 90 DEGREE BEND AT EACH CORNER OF THE SETTLEMENT PLATFORM. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. THE PIPE SHALL BE MARKED AT 1 FOOT INTERVALS WITH PROJECT ELEVATIONS TO FACILITATE MEASUREMENT OF THE DEPTH AND ELEVATION OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING

CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT THE CONTRACTOR'S EXPENSE.

1. *NEW SECTIONS OF PIPE SHALL BE ADDED TO THE TOP OF THE PIPE AS THE EMBANKMENT HEIGHT RISES. IN THIS CASE, THE INCREASE IN THE LENGTH OF THE RISER PIPE SHALL BE DETERMINED AND RECORDED AS WELL AS THE DATE IN WHICH THIS OPERATION WAS PERFORMED. DOCUMENT THE DATE OF PIPE INCREASE ON THE SETTLEMENT GRAPH.*

2. *THE RISER PIPE SHALL HAVE GUARD STAKES OR BE MARKED WITH HIGH-VISIBILITY FLAGS OR RIBBONS IN ORDER TO PROTECT IT FROM CONSTRUCTION EQUIPMENT. SETTLEMENT PLATFORMS MA Y BE PLACED BEYOND THE EDGE OF PAVEMENT BUT INSIDE THE BREAK OF THE SLOPE IN ORDER TO BE OUT OF THE WAY AS MUCH AS POSSIBLE.*

3. *IF THE PLATFORM OR PIPE IS DISTURBED OR DAMAGED, WORK SHALL BE STOPPED IN THAT LOCATION UNTIL THE CONTRACTOR RESTORES THE SETTLEMENT PLATFORM AND RISER PIPE TO THEIR PROPER CONDITION. DAMAGED SETTLEMENT PLATFORMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.*

4. *PRIOR TO PAVING, THE RISER PIPE SHALL BE CUT OFF 2 FEET BELOW THE TOP OF THE FINISHED SURFACE OF THE SUBGRADE OR THE FINISHED GROUND SURFACE, WHICHEVER I APPLICABLE.*

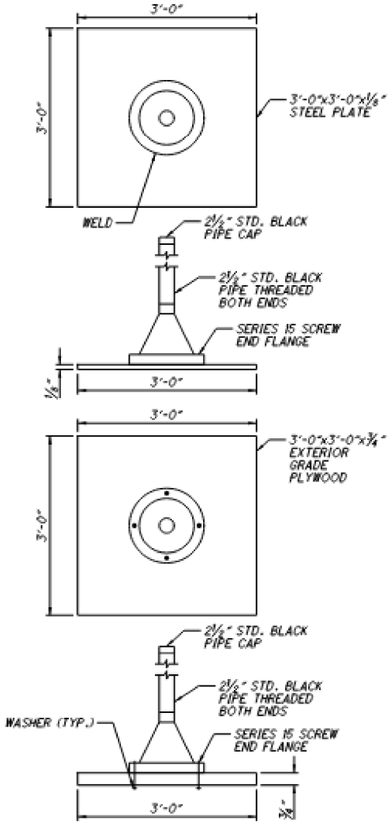
WAITING PERIOD: THE WAITING PERIOD SHALL NOT BE CONSIDERED TO BEGIN UNTIL ALL FILL LOADING HAS BEEN PLACED TO THE DESIGN SUBGRADE LEVEL FOR BRIDGE APPROACHES OR FINAL EMBANKMENT LEVEL IN AREAS BEYOND THE BRIDGE APPROACH. THE ANTICIPATED WAITING PERIOD IS SUMMARIZED BELOW FOR EACH SETTLEMENT PLATFORM. INCLUDE SPECIFIC ACTIVITIES IN THE CONSTRUCTION SCHEDULE FOR THE SETTLEMENT WAITING PERIOD.

WAITING PERIOD = 30 DAYS

NO CONSTRUCTION ABOVE THE TOP SOIL REINFORCEMENT LAYER (INCLUDING WALL COPING OR CONCRETE RAILING AND MOMENT SLAB ABOVE THE WALLS) OR PAVING SUPPORTED BY EMBANKMENT BEHIND THE WALL SHALL BEGIN UNTIL SETTLEMENT WAITING PERIOD HAS BEEN TERMINATED BY THE ENGINEER.

ITEM SPECIAL - SETTLEMENT PLATFORM (CONT.)

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.
BASIS OF PAYMENT: PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR ITEM SPECIAL - SETTLEMENT PLATFORM WHICH IS COMPENSATION FOR CONSTRUCTING, MAINTAINING, AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.



SETTLEMENT PLATFORM DETAILS

ESTIMATED MSE WALL QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
203	68000	3	EA	SPECIAL - SETTLEMENT PLATFORM
512	10001	444	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN
512	10101	444	SY	SEALING OF CONCRETE SURFACES (EPOXY-URTHANE), AS PER PLAN
607	39900	159	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC
840	20000	3988	SF	MECHANICALLY STABILIZED EARTH WALL
840	21000	652	CY	WALL EXCAVATION
840	22001	336	SY	FOUNDATION PREPARATION, AS PER PLAN
840	25010	323	FT	6" DRAINAGE PIPE, PERFORATED
840	25020	2.5	FT	6" DRAINAGE PIPE, NON-PERFORATED
840	26000	159	FT	CONCRETE COPING
840	26050	3988	SF	AESTHETIC SURFACE TREATMENT
840	27000	5	DAYS	ON-SITE ASSISTANCE
867	00100	LUMP		TEMPORARY WIRE FACED MECHANICALLY STABILIZED

DESIGN AGENCY: OHIO DEPT. OF TRANSPORTATION DISTRICT 8
REVIEWED JAS | DATE 10/20/23 | STRUCTURE FILE NUMBER N/A
DRAWN AWS | REVISED AWS
DESIGNED AWS | CHECKED JAS

MSE WALL NOTES

HAM-SR264-10.42
PID No. 25349