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Ohio DOT
60-06634-6R_Columbus

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34" x 22"

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Printed: 12/9/2021 @ 1:46:18 PM
By: krjan

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SHEET NO.	LOCATION	STATION TO STATION	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622	622	630	630						
			WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT, WHITE	WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT, YELLOW	WORK ZONE LANE LINE, CLASS 1, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS 1, 12", 807 PAINT	WORK ZONE DOTTED LINE, CLASS 1, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1, 740.06, TYPE 1	WORK ZONE ARROW, CLASS 1, 740.06, TYPE 1	WORK ZONE PAVEMENT MARKING, MISC.: SHARROW	WORK ZONE PAVEMENT MARKING, MISC.:PAVEMENT TATTOO	WORK ZONE PAVEMENT MARKING, MISC.: LANE LINE, 5"	WORK ZONE PAVEMENT MARKING, MISC.:EDGE LINE, 5" (WHITE)	WORK ZONE PAVEMENT MARKING, MISC.:CENTER LINE, DOUBLE SOLID, 5"	WORK ZONE PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10"	WORK ZONE PAVEMENT MARKING, MISC.: STOP LINE, 20"	WORK ZONE PAVEMENT MARKING, MISC.: DOTTED LINE, 5"	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS 4	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	PORTABLE BARRIER, ANCHORED	SIGN, TEMPORARY OVERLAY	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL				
PHASE IB CONT. (ODOT)			EACH	EACH	EACH	EACH	EACH	FT/MI	FT/MI	FT/MI	FT	FT	FT	FT	FT	FT	FT/MI	FT/MI	FT	FT	FT	SY	SY	FT	FT	FT	SF	EACH						
150		546+50 LT						19				2194				251																		
		546+76 LT																																
		549+27 LT						1				37																						
		549+27 LT						4				159																						
		550+86 LT									361																							
PHASE IC - STEP 1 (ODOT)																																		
152	I-71 SB	209+54 LT							36	12															596									
		36+33 L/R																						1375										
		215+50 RT								60	20													3416	1000									
		218+89 RT										23	661		661	661																		
		225+50 LT																							2882									
		225+50 RT						1		63	21															1020								
		225+50 RT											1072																					
		225+50 RT										2			55																			
		225+50 RT										3			277																			
	TR-1	13+82 LT									10				394																			
PHASE IC - STEP 2 (ODOT)																																		
155	TR-1	45+57 LT							4	458		458																						
		205+00 RT									24																							
		205+00 RT							9			1050																						
		40+75 CL							14			263		101																				
		39+15 LT							16			316																						
		38+12 CL												213																				
		37+95 RT									747																							
		36+84 RT								39	13														636									
		35+99 LT							36	12	15	551													551									
		35+98 RT																																
	I-71 SB	206+61 RT							54	18																889								
		215+50 RT							6	2															78									
	TR-1	30+48 L/R							120	40	9	1000	1000	1000											2000									
		20+49 RT							57	19															918									
		20+49 CL										1258																						
		20+49 LT									4			453																				
		20+49 LT											573																					
		20+49 LT								33	11															543								
		15+96 LT									7			273																				
		15+28 LT							1	24	8															373								
		13+23 LT										532																						
	TR-2	110+16 L/R																								838								
	I-71 SB	230+81 LT							40	791																								
		231+40 LT							37			732																						
		232+94 LT							1	21	7															315								
PHASE ID (CITY)																																		
162	MOUND ST	14+07 RT TO 18+22 RT																																
		18+22 RT																																
		19+13 RT						1		18	6																							
		23+08 RT																																
		23+08 RT																																
		23+28 RT													1																			
		23+50 RT													1																			
		24+28 RT													1																			
		25+28 RT													1																			
		25+63 RT														30																		
		25+93 RT																							220									
		12+10 LT																																
		12+90 LT													1																			
		13+90 LT													1																			
		TOTALS CARRIED TO SHEET 77						5	567	189		217	6372	3388	6093	2158	464	101	5					30	295	415	491	32	220	8511	9189		57	1

CALCULATED
KWR
CHECKED
JML

MAINTENANCE OF TRAFFIC SUBSUMMARY

NO. 9
DESCRIPTION REVISID O.T.Y.S.
REV. BY KWR
DATE 12-09-2021

FRA - 71 - 14.36

73
1228

SHEET NO.	LOCATION	STATION TO STATION		PHASE 3D (ODOT)																														
		614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622	622	630	630	
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT, WHITE	WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT, YELLOW	WORK ZONE LANE LINE, CLASS 1, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS 1, 12", 807 PAINT	WORK ZONE DOTTED LINE, CLASS 1, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1, 740.06, TYPE 1	WORK ZONE ARROW, CLASS 1, 740.06, TYPE 1	WORK ZONE PAVEMENT MARKING, MISC.: SHARROW	WORK ZONE PAVEMENT MARKING, MISC.:PAVEMENT TATTOO	WORK ZONE PAVEMENT MARKING, MISC.: LANE LINE, 5"	WORK ZONE PAVEMENT MARKING, MISC.:EDGE LINE, 5" (WHITE)	WORK ZONE PAVEMENT MARKING, MISC.:CENTER LINE, DOUBLE SOLID, 5"	WORK ZONE PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10"	WORK ZONE PAVEMENT MARKING, MISC.: STOP LINE, 20"	WORK ZONE PAVEMENT MARKING, MISC.: DOTTED LINE, 5"	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS 4, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	PORTABLE BARRIER, ANCHORED	SIGN, TEMPORARY OVERLAY	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL					
		EACH	EACH	EACH	EACH	EACH	EACH	FT/MI	FT/MI	FT/MI	FT	FT	FT	EACH	EACH	EACH	FT/MI	FT/MI	FT/MI	FT	FT	FT	FT	FT	FT	FT	SY	SY	FT	FT	FT	SF	EACH	
260	I-71 SB	686+27 LT TO 205+24 RT	686+27 LT TO 206+00 RT				28	482			1116																							
		205+24 LT TO 206+00 LT	205+24 RT TO 206+00 RT				2	76			76																							
261		206+00 L/R TO 207+69 L/R	206+00 RT TO 209+45 RT				9				338																							
		206+00 RT TO 212+45 RT	206+00 LT TO 216+00 RT				17				645																							
		212+45 RT TO 216+00 RT	216+00 RT TO 226+50 RT				3	1000			355																							
262		216+00 RT TO 225+58 RT	216+00 RT TO 226+50 RT				8	1050			958																							
		225+58 RT TO 226+50 RT	226+50 RT TO 3009+00 CL				5				184																							
263	RAMP C3	226+50 RT TO 3015+37 LT	226+50 RT TO 3012+11 RT				11	1074			435																							
		3015+37 LT TO 3015+30 LT	3009+00 LT TO 3012+11 RT				8	637																										
		3015+30 LT TO 226+50 RT	3012+11 RT TO 230+90 RT	1	21	7																												
264	RAMP C3	3004+39 LT TO 3009+00 LT	3009+00 LT TO 3009+00 LT				6	461	461		440																							
TOTALS THIS SHEET		1	21	7			119	4143	1098	1313	3655																							
TOTALS CARRIED FROM SHEET 72		16	240	76			726	7285	3980	3788	6603																							
TOTALS CARRIED FROM SHEET 73		5	567	189	4		217	6372	3388	6093	2158	251	101	5			30	295	415	491	32	220			8511	9189	9			57	1			
TOTALS CARRIED FROM SHEET 74		6	321	109			668	3604	3493	1318	11060	2410	50	5				639	639	151	48	110	30		4248	4248		829						
TOTALS CARRIED FROM SHEET 75		1	327	109	9		845	9694	14191	1988	10446	1643	64	5	4	3	484	122	109	583		435			9	4391	963		45	1				
TOTALS CARRIED FROM SHEET 76		3	78	20			282	8221	4035		3857	63	134													1196	23		358	7				
TOTAL FEET								37319	30185	14500							514	417	1163															
TOTAL MILES								7.07	5.72	2.75							0.10	0.08	0.22															
TOTALS CARRIED TO GENERAL SUMMARY		32	1	1554	514	4	2857	7.07	5.72	2.75	37779	5399	349	15	4	6	0.10	0.08	0.22	1225	80	765	30	8511	22880	986	829	460	9					

NO.	DESCRIPTION	REV. BY	DATE
9	REVISED OTYS	KWR	12-09-2021
MAINTENANCE OF TRAFFIC SUBSUMMARY			
FRA - 71 - 14.36			
CALCULATED KWR CHECKED JML			

PHASE I SEQUENCE OF CONSTRUCTION

PHASE IA (SHEETS 137 - 143)

- 1) PLACE PORTABLE BARRIER AND SHIFT TRAFFIC AS NECESSARY FOR CONSTRUCTION OF PIERS 1-22 WHILE MAINTAINING AT LEAST ONE LANE OF TRAFFIC ON THE EXISTING ROADWAYS. PIER LOCATIONS PIER 1, PIER 2, PIER 3, PIER 5, PIER 6, PIER 7, PIER 8, AND PIER 19 MUST HAVE TRAFFIC SHIFTED OR LANES NARROWED PRIOR TO BEGINNING CONSTRUCTION.
- 2) DIVERT THE BIKE TRAIL TRAFFIC TO THE BIKE TRAIL DETOUR CONSTRUCTED IN PART 1 TO CONSTRUCT THE FOOTER FOR PIER 15.
- 3) CONSTRUCT THE WIDENED MEDIAN BARRIER FOR THE NEW SIGN TRUSS FOUNDATION ALONG I-70 BETWEEN HIGH ST. AND 3RD ST.

PHASE IB (SHEETS 144 - 150)

- 1) THE CONTRACTOR MAY BEGIN CONSTRUCTION OFFLINE OF I-71 SB AS SHOWN IN THE PLANS: FROM PIER 1 TO PIER 22 WHILE MAINTAINING AT LEAST 1 LANE OF TRAFFIC IN ALL DIRECTIONS DURING CONSTRUCTION AND AS NOTED IN THE ROAD CLOSURES (FOR HANGING GIRDERS) AND LANE RESTRICTIONS.

PHASE IC

STEP 1 (SHEETS 151 - 154)

- 1) CONSTRUCT TEMPORARY ROAD 1 (TR-1) FOR I-70 EB TO I-71 SB ALONG RAMP C3 AND I-71 SB WHILE MAINTAINING ALL LANES OF TRAFFIC ON THE EXISTING ROADWAYS.

STEP 2 (SHEETS 155 - 158)

- 1) MOVE I-70 EB TO I-71 SB TRAFFIC TO THE NEWLY CONSTRUCTED TR-1.
- 2) NARROW AND SHIFT THE RAMP FROM I-70 WB TO I-71 SB AND CONSTRUCT TEMPORARY ROAD 2 (TR-2) WHICH WILL BE USED AS A CONNECTION TO TR-1 IN THE NEXT PHASE.

PHASE ID (SHEETS 159 - 165)

NOTE: THIS PHASE MAY BEGIN EARLIER IN PHASE I.

- 1) PRIOR TO BEGINNING CONSTRUCTION OF THIS PART ALL UNDERGROUND UTILITIES SHALL BE INSTALLED, INCLUDING BUT NOT LIMITED TO: STORM AND SANITARY SEWERS, WATER LINES, UNDERGROUND ELECTRIC CONDUIT AND CONDUITS FOR LIGHTING AND TRAFFIC SIGNALS. THE CONTRACTOR SHALL UTILIZE ONE LANE, TWO-WAY OPERATIONS BY USE OF FLAGGERS/LEO OR TRAFFIC SHALL BE MAINTAINED ON DETOUR ROUTES DURING WORKING HOURS. DURING NON-WORKING HOURS, ALL TRENCHES AND EXCAVATIONS SHALL BE ADEQUATELY PROTECTED OR BACKFILLED AND ALL ROADWAYS REOPENED TO THE EXISTING TRAFFIC PATTERN.

- 2. INSTALL THE TEMPORARY SIGNAL AT THE INTERSECTION OF 2ND STREET AND MOUND STREET. INSTALL TEMPORARY INTERCONNECT TO THE TEMPORARY SIGNAL CABINET.

PHASE ID CONT. (SHEETS 159 - 165)

- 3) CONSTRUCT CIVIC CENTER DRIVE PRIOR TO BEGINNING ROADWAY WORK ON MOUND STREET SO THAT CIVIC CENTER DRIVE CAN REMAIN OPEN WHEN MOUND STREET IS CONVERTED TO ONE-WAY WESTBOUND BETWEEN CIVIC CENTER DRIVE AND FRONT STREET.
- 4) INSTALL TEMPORARY MARKINGS AND PORTABLE BARRIER TO CONVERT MOUND STREET TO A TWO LANE, ONE-WAY WESTBOUND TRAFFIC PATTERN FROM SECOND STREET TO FRONT STREET AND A ONE LANE, ONE-WAY WESTBOUND TRAFFIC PATTERN FROM CIVIC CENTER DRIVE TO SECOND STREET. BEGIN CONSTRUCTION OF THE NORTH SIDE OF MOUND STREET FROM MIRINOVA PLACE TO FRONT STREET. THE INTERSECTION OF MOUND STREET & MIRANOVA PLACE WILL BE COMPLETED IN PART WIDTHS (ONE HALF AT A TIME) IN TWO STEPS, UTILIZING FLAGGERS. THE INTERSECTION OF MOUND STREET & JEWETT STREET IS PERMITTED TO BE CLOSED FOR THE ENTIRE PHASE ONCE MOUND STREET IS CONVERTED TO ONE-WAY WESTBOUND. THE INTERSECTIONS OF MOUND STREET & 2ND STREET, AND MOUND STREET & LUDLOW STREET ARE PERMITTED TO BE CLOSED TO COMPLETE THE INTERSECTION CONSTRUCTION; HOWEVER THE CONTRACTOR IS ONLY PERMITTED TO CLOSE OR HAVE LANE RESTRICTIONS AT ONE INTERSECTION AT A TIME. DURING CONSTRUCTION OF AN INTERSECTION, ALL OTHER INTERSECTIONS SHALL BE FULLY OPEN TO TRAFFIC EXCEPT AT JEWETT STREET.
- 5) CONSTRUCT THE FOOTER AND A PORTION OF WALL E5 ALONG THE NEW RAMP D7 UP TO ABOUT THE FINISHED GRADE OF MOUND STREET. THE REST OF THE WALL WILL BE COMPLETED IN A LATER PHASE.
- 6) WORK ON PARCEL 44 (MARATHON GAS STATION) SHALL BE COMPLETED WITHIN 1 YEAR OF TEMPORARY TAKE.

9

CALCULATED
CHECKED

PHASE 1 - SEQUENCE OF CONSTRUCTION

FRA-71-14.36

134
1228

NO.	DESCRIPTION	REV. BY	DATE
9	REVISED SEQUENCE FOR WALL E5 CONST.	KWR	12-9-2021

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 34" x 22"

PHASE I SUMMARY

CONSTRUCTION CRITICAL TO NEXT PHASE

PERMANENT ROADWAY CONSTRUCTION
 MOUND STREET (N. SIDE FROM MIRANOVA PL. TO FRONT ST.)

TEMPORARY ROADWAY CONSTRUCTION
 - TR-1: TEMPORARY I-70 EB TO I-71 SB/RAMP C3
 - TR-2: TEMPORARY I-71 SB CONNECTION

UTILITY RELOCATION
 - UNDERGROUND UTILITIES ALONG MOUND STREET

PERMANENT BRIDGE CONSTRUCTION
 - I-71 SB BRIDGE (FRA-71-1503L) PIERS 1-22

PERMANENT WALL CONSTRUCTION
 - WALL E5 ALONG RAMP D7 (PARTIAL)



SPECIAL HAUL NOTIFICATIONS FOR PHASE RESTRICTIONS

I-70 EB TO I-71 SB
 LANE WIDTH: 12'
 AVAILABLE PAVEMENT WIDTH: 16'

I-71 SB MAINLINE (I-70 WB TO I-71 SB)
 LANE WIDTH: 12'
 AVAILABLE PAVEMENT WIDTH: 18'

SEE SHEET 61 FOR NOTIFICATION OF TRAFFIC RESTRICTIONS
 NOTE AND TABLE.

CONSTRUCTION AVAILABLE THIS PHASE

- I-71 SB RAMP (BRIDGE FRA-71-1503L)

DISINCENTIVE AMOUNTS FOR PHASE I ROAD CLOSURES AND LANE RESTRICTIONS

ACTIVITY	AFFECTED ROADWAY(S)	RESTRICTION TYPE	RESTRICTION TIME	DISINCENTIVE
W. MOUND STREET WATER LINE INSTALLATION	W. MOUND ST.	ROAD CLOSURE/ LANE RESTRICTIONS	1 CALENDAR DAY (WEEKEND ONLY)	\$2,000 PER DAY
W. MOUND STREET STORM SEWER INSTALLATION AND UTILITY EXPLORATION	W. MOUND ST. & SHORT STREET	ROAD CLOSURE	14 CONSECUTIVE CALENDAR DAYS	\$2,000 PER DAY
W. MOUND ST. & CIVIC CENTER DR. INTERSECTION CLOSURE	W. MOUND STREET & CIVIC CENTER DRIVE	ROAD CLOSURE	45 CONSECUTIVE CALENDAR DAYS	\$1,000 PER DAY
W. MOUND ST. & JEWETT ST. INTERSECTION CLOSURE	W. MOUND STREET & JEWETT STREET	ROAD CLOSURE	20 CONSECUTIVE CALENDAR DAYS	\$1,000 PER DAY
W. MOUND ST. & 2ND ST. INTERSECTION CLOSURE	W. MOUND STREET & 2ND STREET	ROAD CLOSURE	30 CONSECUTIVE CALENDAR DAYS	\$1,500 PER DAY
W. MOUND ST. & LUDLOW ST. INTERSECTION CLOSURE	W. MOUND STREET & LUDLOW STREET	ROAD CLOSURE	20 CONSECUTIVE CALENDAR DAYS	\$1,000 PER DAY

NOTE: SEE SHEET 70 FOR DISINCENTIVE AMOUNTS ASSOCIATED WITH ANY MAINLINE
 ROADWAY OR SYSTEM RAMP OVERNIGHT CLOSURE REQUIRED IN THIS PHASE.

PROPOSED ROADWAY DESCRIPTIONS

ROAD NAME	DESCRIPTION (DIRECTION OF STATIONING)
RAMP C3	I-70 EB TO I-71 SB
RAMP D6	2ND STREET TO I-71 SB
RAMP D7	W. MOUND STREET TO I-70 WB

TEMPORARY ROADWAY DESCRIPTIONS

PLAN VIEW LABEL	DESCRIPTION
TR-1	TEMP. I-70 EB TO I-71 SB
TR-2	TEMP. I-71 SB CONNECTION TO TR-1




PHASE 1 - SUMMARY & DISINCENTIVE CHART

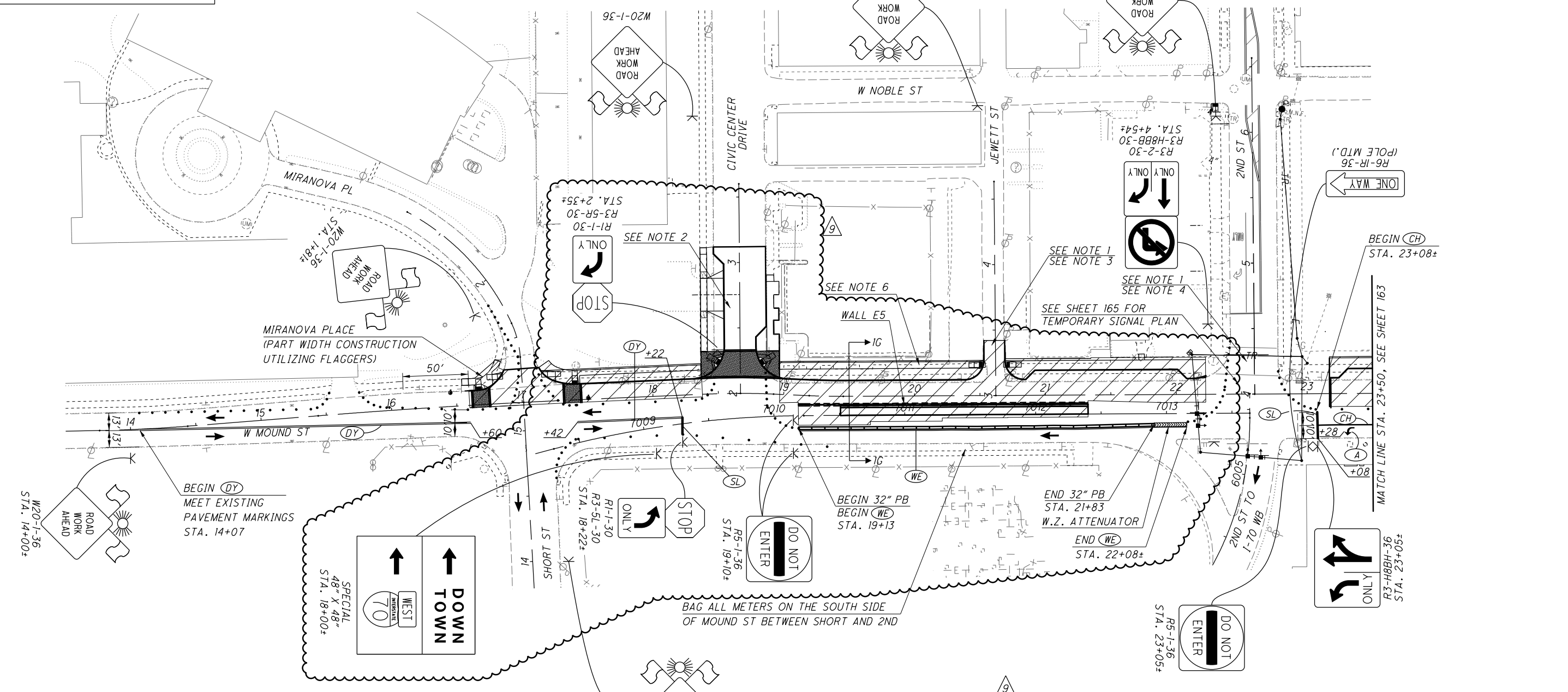
FRA-71-14.36

NO.	DESCRIPTION	REV. BY	DATE
9	ADDED WALL E5 WORK (PARTIAL)	KWR	12-9-2021

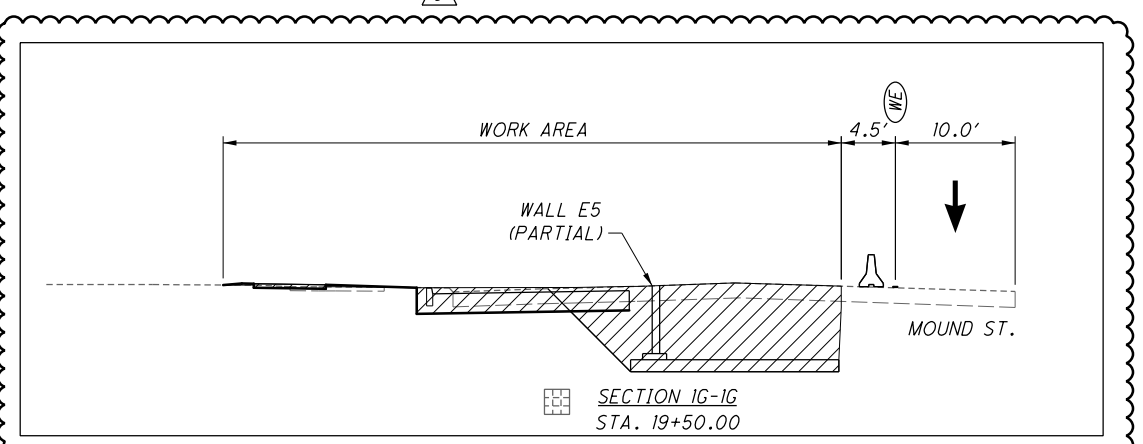
135
1228

SHEET LEGEND

-  WORK AREA
 -  TEMPORARY PAVEMENT PLACED DURING THIS PHASE
 -  TEMPORARY PAVEMENT PLACED PRIOR TO THIS PHASE
- FOR COMPLETE LEGEND AND DRUM SPACING CHART, SEE SHEET 78



- NOTES:**
1. CLOSE AND DETOUR ONE SIDE STREET (2ND STREET OR LUDLOW STREET) AT A TIME TO CONSTRUCT INTERSECTIONS.
 2. CIVIC CENTER DRIVE SHALL BE CONSTRUCTED PRIOR TO THE MOUND STREET CONSTRUCTION SO THAT IT CAN BE OPEN WHEN TRAFFIC IS ONE WAY WESTBOUND BETWEEN 2ND STREET AND CIVIC CENTER DRIVE. CLOSE AND DETOUR CIVIC CENTER DRIVE TO CONSTRUCT IT. FOR CIVIC CENTER DRIVE DETOUR DETAILS, SEE SHEET 160.
 3. BLOCK ACCESS TO/FROM JEWETT ST. USING TYPE 3 BARRICADES FOR THE ENTIRE PHASE.
 4. FOR 2ND STREET CLOSURE DETAILS, SEE SHEET 164.
 5. ALL PAVEMENT MARKINGS ARE EXISTING TO REMAIN OR PLACED IN A PREVIOUS PHASE UNLESS OTHERWISE NOTED.
 6. FOR DETAILS ON MAINTAINING PEDESTRIAN TRAFFIC, SEE SHEETS 79-80.



MAINTENANCE OF TRAFFIC - PHASE 1D
W. MOUND ST. - STA. 13+50 TO STA. 23+50
FRA-71-14.36
 162
 1228
 ms consultants, inc.

NO.	DESCRIPTION	REV. BY	DATE
9	MOUND ST 1-WAY WB	KWR	12-09-2021



CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC - PHASE 1D
W. MOUND ST. - SECOND STREET CLOSURE**

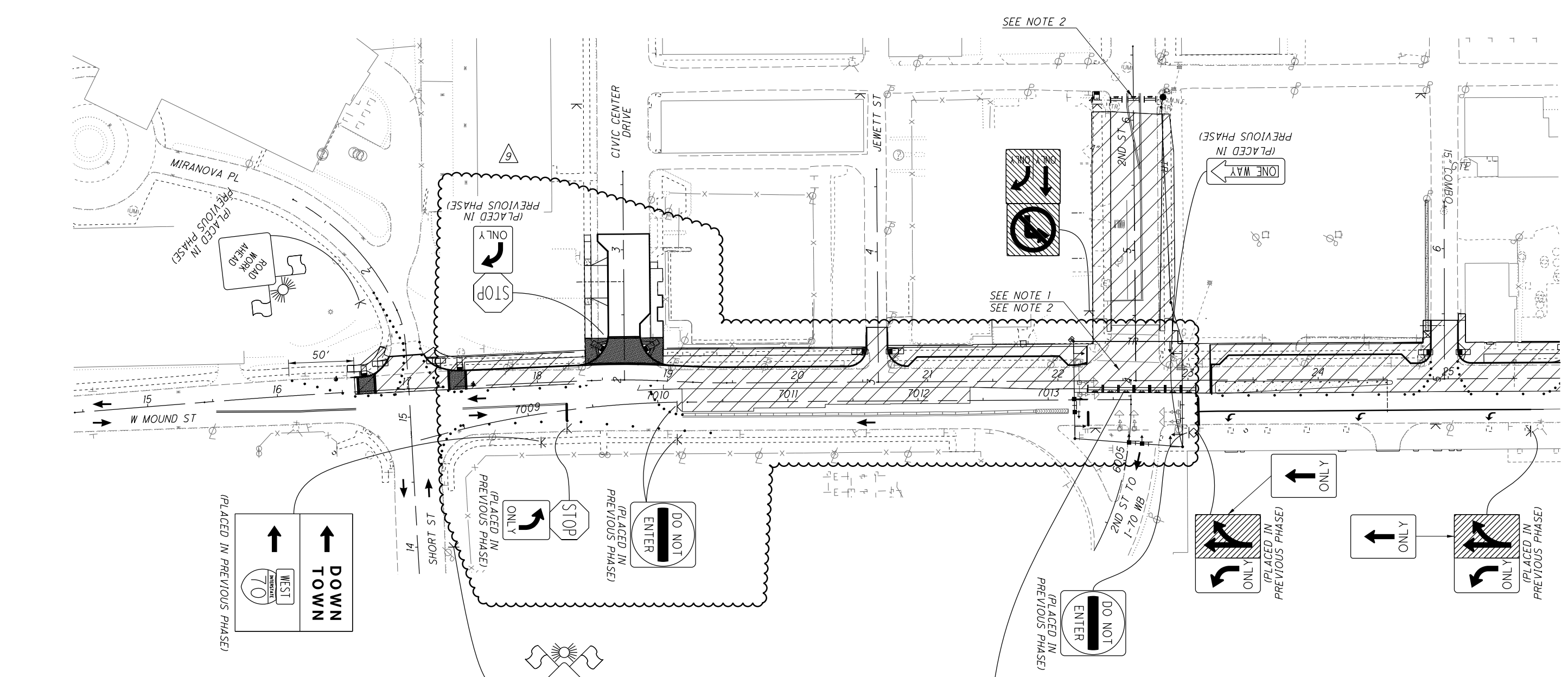
FRA-71-14.36

164
1228

SHEET LEGEND

- WORK AREA
- TEMPORARY PAVEMENT PLACED DURING THIS PHASE
- TEMPORARY PAVEMENT PLACED PRIOR TO THIS PHASE

FOR COMPLETE LEGEND AND DRUM SPACING CHART, SEE SHEET 78



NOTES:

- DURING THE CLOSURE OF 2ND STREET THE TEMPORARY SIGNAL SHALL BE MODIFIED SO THAT THE WESTBOUND MOUND STREET PHASE IS ALWAYS GREEN. COVER ALL OTHER SIGNAL HEADS. THE CONTRACTOR SHALL ALSO PUT "NO PEDESTRIAN CROSSING" SIGNS FOR THE EAST LEG OF THE INTERSECTION.
- FOR 2ND STREET DETOUR DETAILS, SEE SHEET 161.
- ALL PAVEMENT MARKINGS ARE EXISTING TO REMAIN OR PLACED IN A PREVIOUS PHASE UNLESS OTHERWISE NOTED.
- SEE SHEETS 162-163 FOR ADDITIONAL MOUND STREET MAINTENANCE OF TRAFFIC DETAILS.

R11-2-48

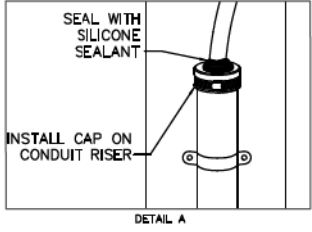
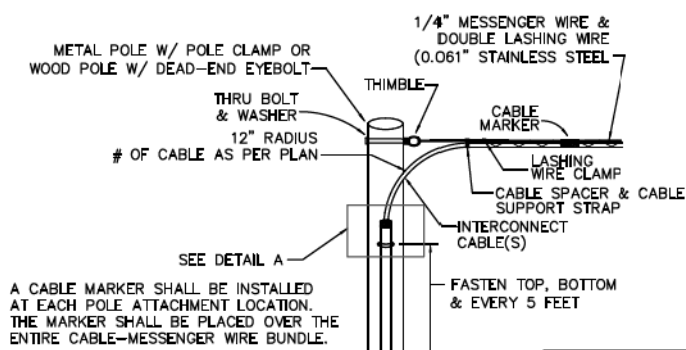
R5-1-36

R11-2-48

10' TYPE 3 SOLID BARRICADES (PLACED ACROSS ENTIRE ROADWAY)

SAFETY FLAGS (TYP.)

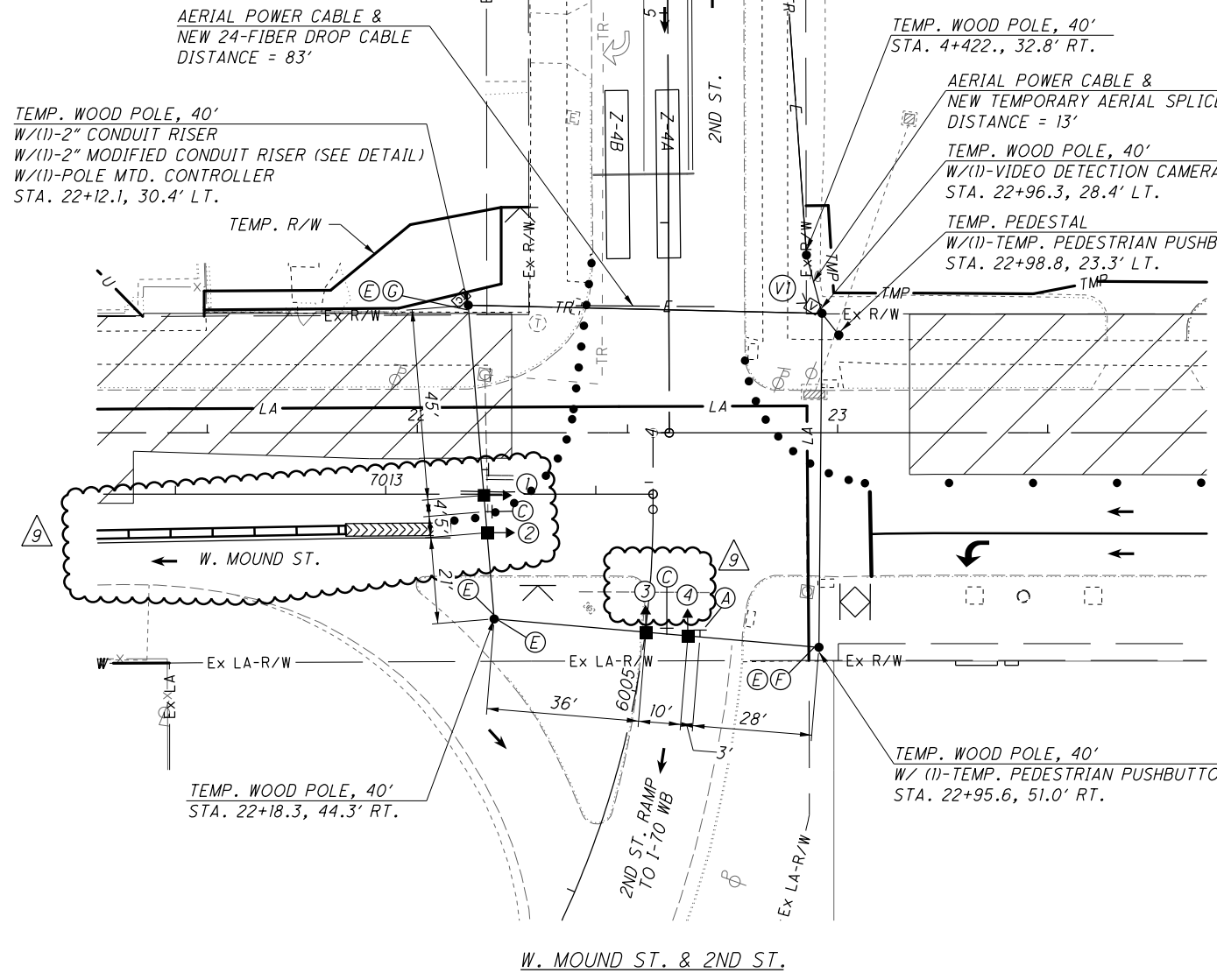
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 By: kryan
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 Model: Sheet
 34" x 22"
 Model: Sheet
 34" x 22"



ITEM 632 CONDUIT RISER (BY SIZE), 725.04, MODIFIED, AS PER PLAN
 NOT TO SCALE
 REVISED 11-9-2017

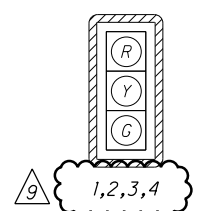
TIMING CHART

PHASE	2	4
MOVEMENT	WB	SB
MIN INITIAL	25	25
WALK	7	8
PED CLR	9	10
PASS / EXT	3.7	3.7
YELLOW	4.4	3.4
RED CLR	1	1.5
MAX GRN 1	60	60
MAX GRN 2	60	60
MAX GRN 3	60	60
PED RECALL	ON	OFF
VEH RECALL	MIN	OFF
MEMORY	ON	OFF

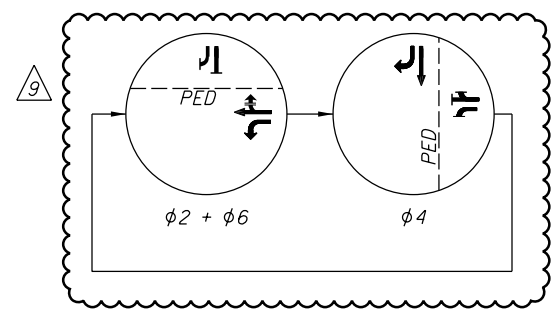


TEMPORARY OR RELOCATED SIGNAL HEADS

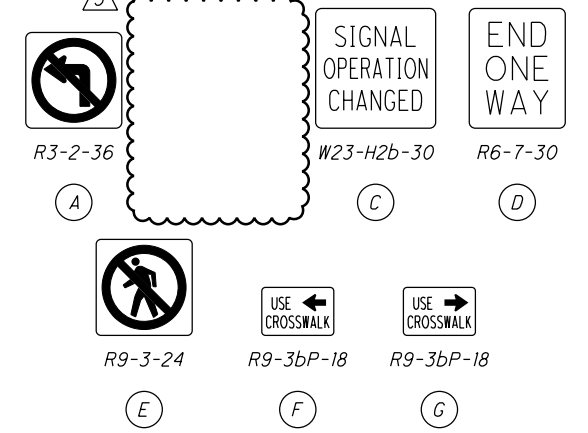
- 12" LENSES
- BACKPLATES
- TETHERED



TEMPORARY SIGNAL PHASING INT #0096



TEMPORARY SIGNING



DETECTION CHART

DETECTION ZONE (#)	CAMERA (#)	PHASE	DETECTION ZONE SIZE (W x L)	PRESENCE	DELAY DATA	
					DELAY (SEC.)	INHIBIT DELAY DURING GREEN (PHASE)
Z-4A	1	4	5.5' X 40'	X	3	4
Z-4B	1	4	5.5' X 40'	X	12	4

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY OR RELOCATED 3-SEC HEAD
- TEMPORARY OR RELOCATED 3/4-SEC HEAD W/ ARROWS
- TEMPORARY POLE MOUNTED TRAFFIC CONTROLLER CABINET
- TRAFFIC FLOW ARROW
- VIDEO DETECTOR




NOTES:
 1. FOR TEMPORARY SIGNAL NOTES SEE SHEET 64.

2. THE CONTRACTOR IS TO PROVIDE TEMPORARY PEDESTRIAN CROSSINGS FOR THE NORTH AND EAST LEGS OF THE INTERSECTION USING TEMPORARY PUSHBUTTONS AND PEDESTRIAN SIGNAL HEADS.

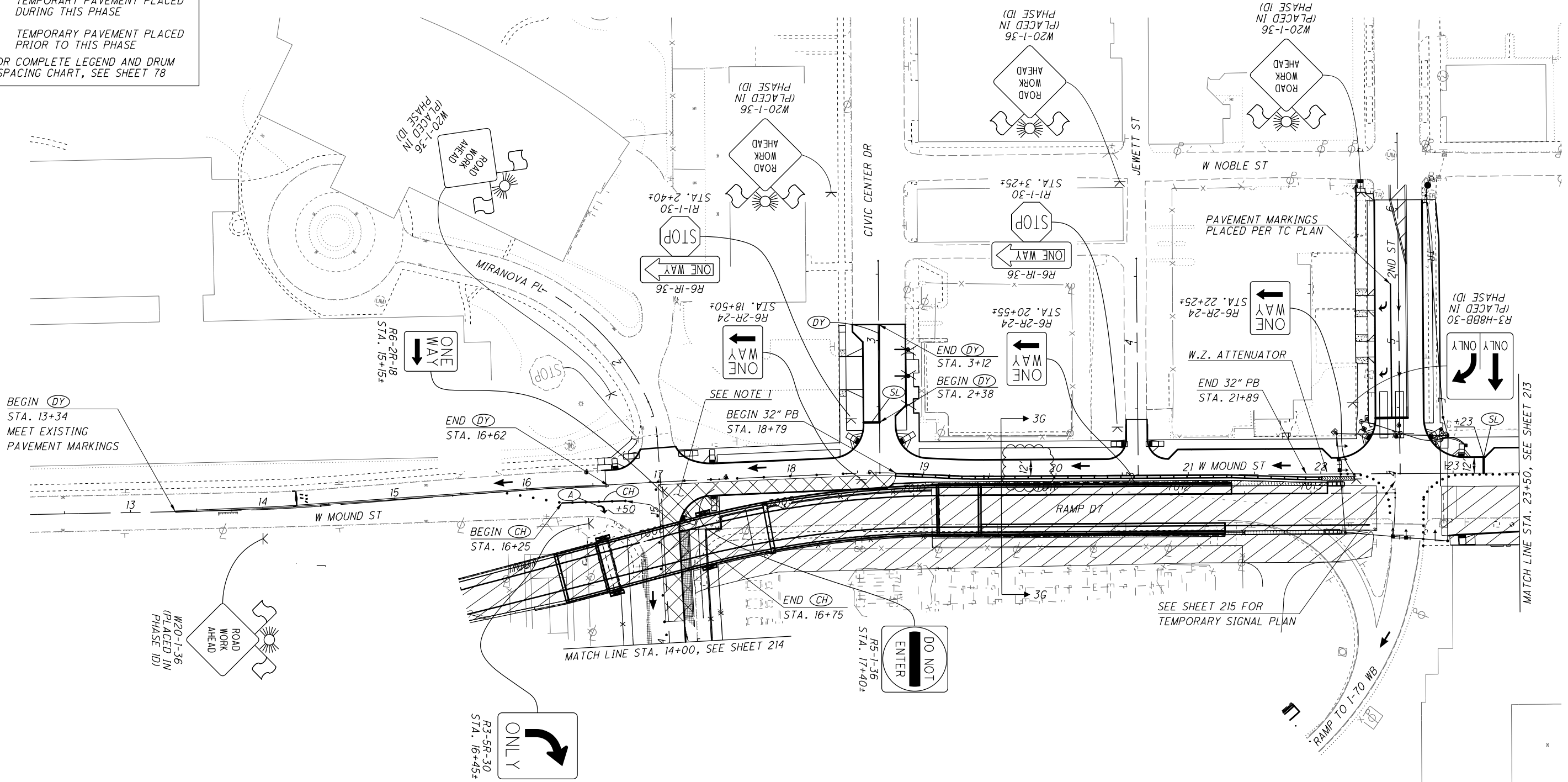
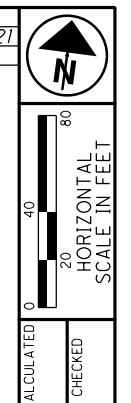
NO.	DESCRIPTION	REV. BY	DATE
9	MOUND ST 1-WAY WB	KWR	12-09-2021

MAINTENANCE OF TRAFFIC - PHASE 1D
 TEMPORARY SIGNAL PLAN - MOUND & 2ND
 FRA-71-14.36
 165
 1228
 ms consultants, inc.

SHEET LEGEND

-  WORK AREA
 -  TEMPORARY PAVEMENT PLACED DURING THIS PHASE
 -  TEMPORARY PAVEMENT PLACED PRIOR TO THIS PHASE
- FOR COMPLETE LEGEND AND DRUM SPACING CHART, SEE SHEET 78

NO.	DESCRIPTION	REV. BY	DATE
9	MOUND ST I-WAY WB	KWR	12-09-2021



BEGIN (DY)
STA. 13+34
MEET EXISTING
PAVEMENT MARKINGS

END (DY)
STA. 16+62

SEE NOTE 1
BEGIN 32" PB
STA. 18+79

BEGIN (CH)
STA. 16+25

END (CH)
STA. 16+75

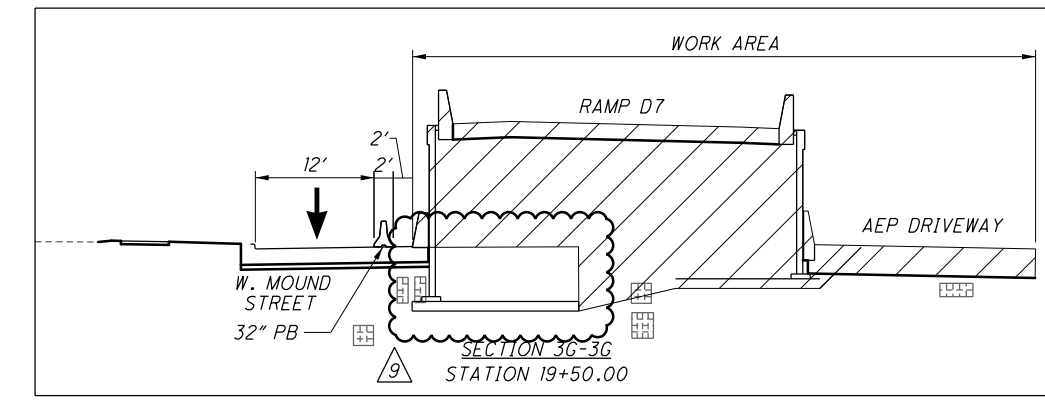
MATCH LINE STA. 14+00, SEE SHEET 214

SEE SHEET 215 FOR
TEMPORARY SIGNAL PLAN

MATCH LINE STA. 23+50, SEE SHEET 213

NOTES:




1. THIS SECTION CAN BE COMPLETED AS SOON AS THE NORTH SIDE OF MOUND ST IS COMPLETED AND TRAFFIC IS SHIFTED TO THE NORTH SIDE. CONSTRUCT SECTION OF MOUND STREET (BETWEEN STA. 16+99 AND STA. 18+79) AND SHORT STREET (BETWEEN STA. 14+16 AND 15+20) IN A MAXIMUM OF 7 CALENDAR DAYS AND OPEN MOUND ST. TO TWO-WAY TRAFFIC UP TO CIVIC CENTER DRIVE UPON COMPLETION.
2. CLOSE AND DETOUR NORTHBOUND SHORT STREET, SEE SHEET 211 FOR ADDITIONAL SIGNING.
3. ALL PAVEMENT MARKINGS ARE EXISTING TO REMAIN OR PLACED IN A PREVIOUS PHASE UNLESS OTHERWISE NOTED.



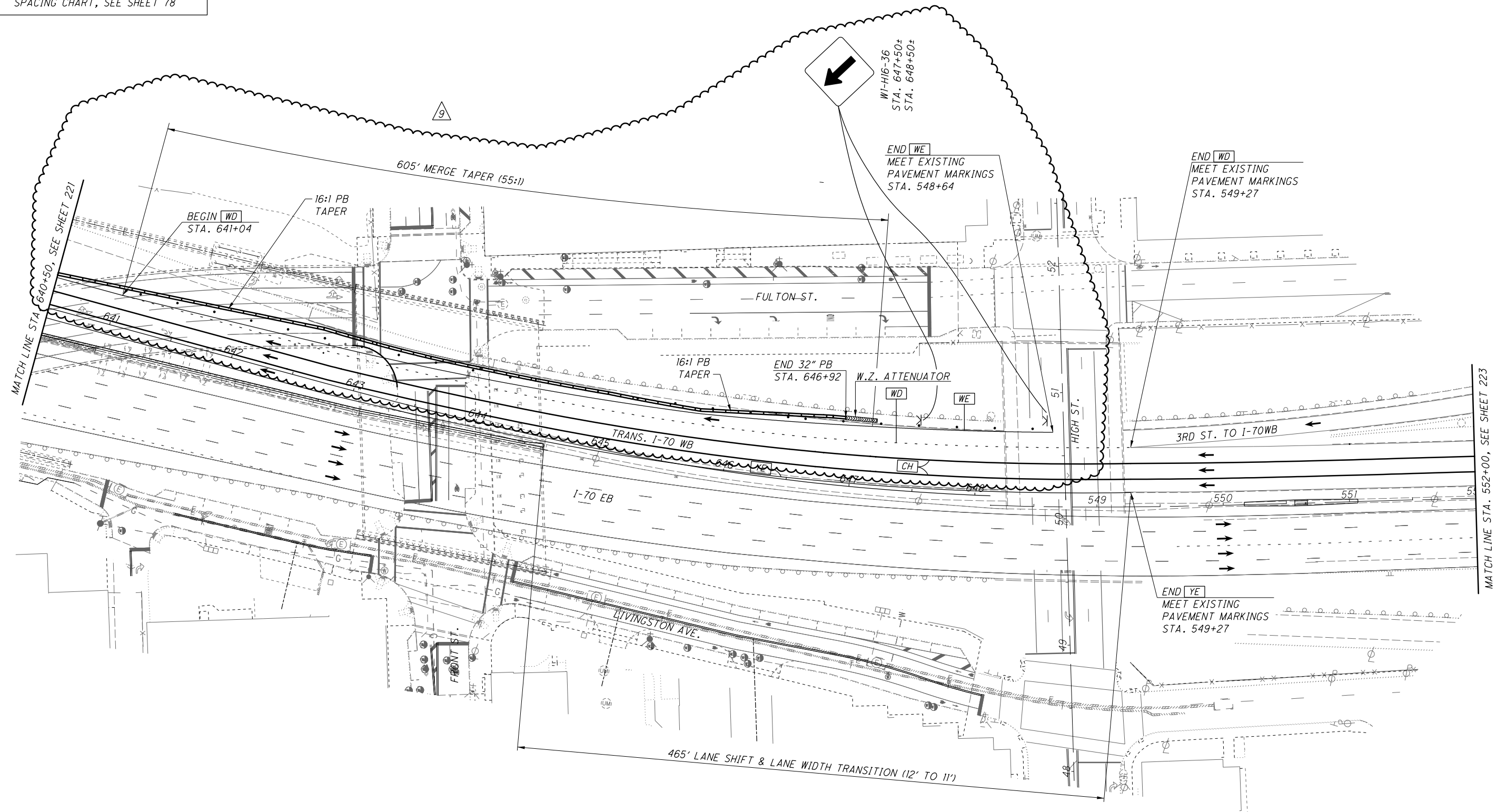
MAINTENANCE OF TRAFFIC - PHASE 2A
W. MOUND ST. - STA. 12+50 TO STA. 23+50

FRA-71-14.36

SHEET LEGEND

-  WORK AREA
-  TEMPORARY PAVEMENT PLACED DURING THIS PHASE
-  TEMPORARY PAVEMENT PLACED PRIOR TO THIS PHASE

FOR COMPLETE LEGEND AND DRUM SPACING CHART, SEE SHEET 78



NOTES:
1. ALL PAVEMENT MARKINGS ARE EXISTING TO REMAIN OR PLACED IN A PREVIOUS PHASE UNLESS OTHERWISE NOTED.

CALCULATED
CHECKED

0 40 80
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 2D
IR 70 WB - STA. 640+50 TO STA. 552+00

FRA-71-14.36

NO.	DESCRIPTION	REV. BY	DATE
9	EXTENDED 3RD ST MERGE	KWR	12-08-2021

222
1228

PHASE 3 SUMMARY

CONSTRUCTION CRITICAL TO NEXT PHASE

BRIDGE DEMOLITION

- I-71 SB RAMP BRIDGE OVER S.R. 315 NB/SB & I-71 NB RAMP TO I-70 WB

ROADWAY REMOVAL

- EXISTING I-71 SB RAMP (WEST OF EX. BRIDGE OVER S.R. 315 NB/SB)
- TEMPORARY ROAD 1
- TEMPORARY ROAD 2

PERMANENT BRIDGE CONSTRUCTION

- I-71 SOUTHBOUND BRIDGE (FRA-70-1503L) FORWARD ABUTMENT AND FINAL SPAN

PERMANENT ROADWAY CONSTRUCTION

- W. MOUND STREET TO I-71 SB (RAMP D6)
- I-70 EB TO I-71 SB (RAMP C3)
- I-71 SB (WEST TWO LANES)
- TRANSITIONAL I-71 SB

PERMANENT WALL CONSTRUCTION

- WALL W2 ALONG I-71 SB
- WALL W3 ALONG I-71 SB
- WALL W4 ALONG RAMP C3
- WALL W5 ALONG S.R. 315 SB
- WALL E2 ALONG I-70 WB
- WALL E3 ALONG I-70 WB
- WALL E4 ALONG RAMP D7
- WALL E5 ALONG RAMP D7
- WALL E6 ALONG I-70 WB
- WALL E7 ALONG RAMP D7
- WALL E10 ALONG I-71 SB
- WALL E9 ALONG I-70 WB/SHORT STREET



DISINCENTIVE AMOUNTS FOR PHASE 3 ROAD CLOSURES AND LANE RESTRICTIONS				
ACTIVITY	AFFECTED ROADWAY(S)	RESTRICTION TYPE	RESTRICTION TIME	DISINCENTIVE
W. MOUND ST. TO I-70 EB RAMP CLOSURE	W. MOUND ST. TO I-70 EB RAMP	ROAD CLOSURE	14 CONSECUTIVE CALENDAR DAYS	\$15,000 PER DAY
I-70 EB TO I-71 SB RAMP CLOSURE*	I-70 EB TO I-71 SB RAMP	ROAD CLOSURE	14 CONSECUTIVE CALENDAR DAYS	\$16,000 PER DAY



* SEE SHEET 65 FOR ADDITIONAL DETAILS

NOTE: SEE SHEET 70 FOR DISINCENTIVE AMOUNTS ASSOCIATED WITH ANY MAINLINE ROADWAY OR SYSTEM RAMP OVERNIGHT CLOSURE REQUIRED IN THIS PHASE.

PROPOSED ROADWAY DESCRIPTIONS	
ROAD NAME	DESCRIPTION (DIRECTION OF STATIONING)
RAMP C3	I-70 EB TO I-71 SB
RAMP D6	2ND STREET TO I-71 SB
RAMP D7	W. MOUND STREET TO I-70 WB

TEMPORARY ROADWAY DESCRIPTIONS	
PLAN VIEW LABEL	DESCRIPTION
TR-1	TEMP. I-70 EB TO I-71 SB
TR-2	TEMP. I-71 SB CONNECTION TO TR-1

CALCULATED
CHECKED




PHASE 3 - SUMMARY & DISINCENTIVE CHART

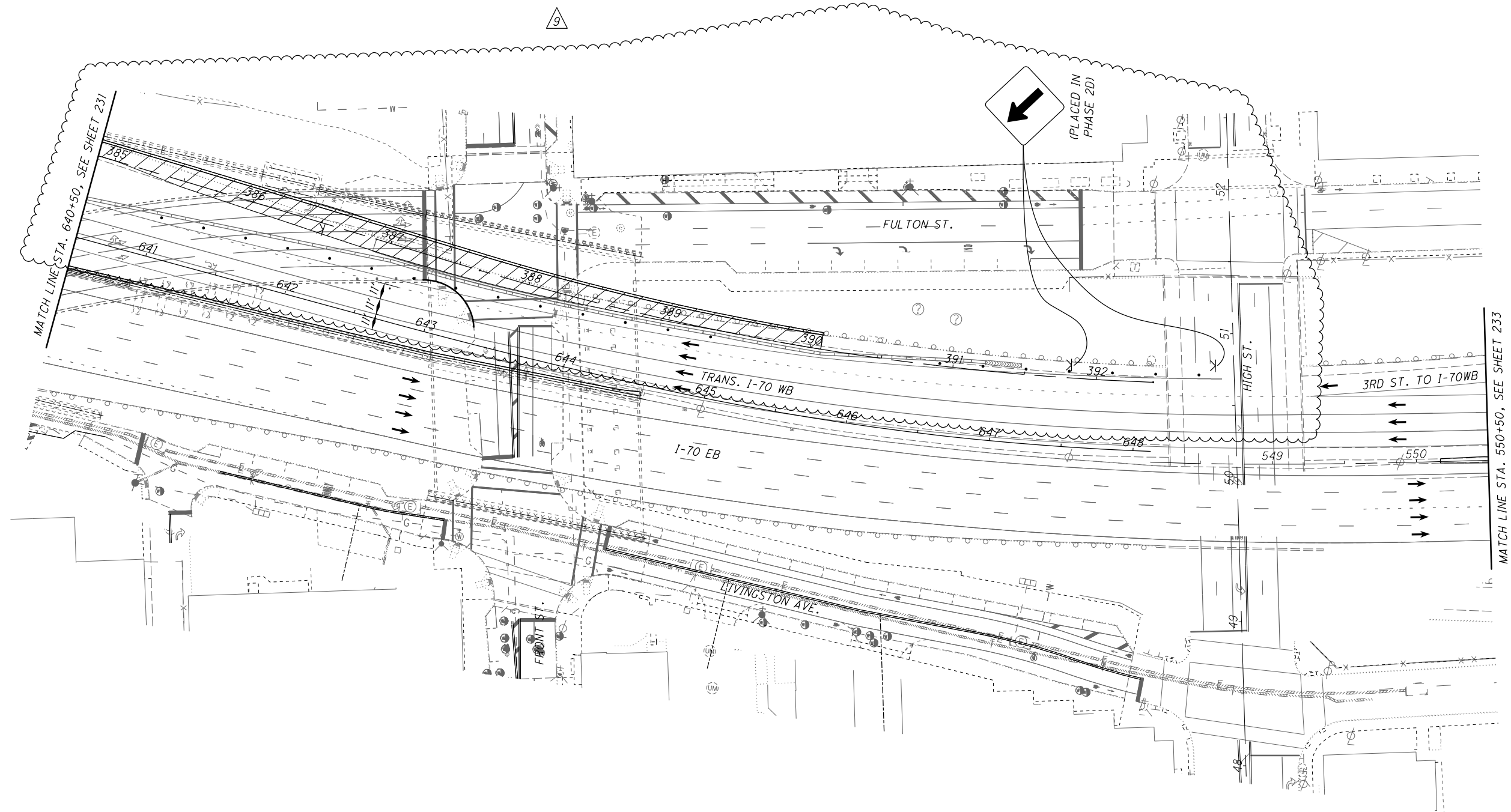
FRA-71-14.36

NO.	DESCRIPTION	REV. BY	DATE
2	ADDED WALLS E7 & E10	KWR	11-08-2021
9	REMOVED 2ND ST RAMP	KWR	12-07-2021

229
1228

SHEET LEGEND

-  WORK AREA
 -  TEMPORARY PAVEMENT PLACED DURING THIS PHASE
 -  TEMPORARY PAVEMENT PLACED PRIOR TO THIS PHASE
- FOR COMPLETE LEGEND AND DRUM SPACING CHART, SEE SHEET 78



NOTES:

1. ALL PAVEMENT MARKINGS ARE EXISTING TO REMAIN OR PLACED IN A PREVIOUS PHASE UNLESS OTHERWISE NOTED.

NO.	DESCRIPTION	REV. BY	DATE
9	EXTENDED 3RD ST MERGE	KWR	12-08-2021

34" x 22"

0.5"
1"

0 20 40 80
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - PHASE 3A
IR 70 WB - STA. 640+50 TO STA. 550+50

FRA-71-14.36

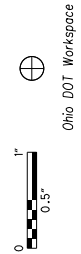
232
1228

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 34" x 22"

SHEET NUM.					PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
653	743	755	814	847	08/NHS/P V	08/NHS/P V	10/ENH/O T/COL	11/NHS/P V/COL						
TRAFFIC SIGNALS (CONT.)														
	1								633	67100	1	EACH	CABINET FOUNDATION	
	2								633	99000	2	EACH	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE	737
	1								633	99000	1	EACH	CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH	738
	2	1,337							804	32060	1,337	FT	DROP CABLE, 24 FIBER	
									804	34023	2	EACH	FIBER TERMINATION PANEL, 24 FIBER, AS PER PLAN	736
									804	37000	1	EACH	SPLICE ENCLOSURE, BUTT STYLE	
	1								809	69101	1	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	733
LANDSCAPING														
40								40	661	20020	40	EACH	DECIDUOUS SHRUB, 18" HEIGHT, (#3 CONTAINER) (RHUS AROMATICA 'GRO-LOW')	654
			40				40		661	20041	40	EACH	DECIDUOUS SHRUB, 2' HEIGHT, AS PER PLAN, RIBES ALPINUM 'GREEN MOUND'	824-824B
			95				95		661	30061	95	EACH	EVERGREEN SHRUB, 2' HEIGHT, AS PER PLAN, JUNIPERIS CHINENSIS 'SEA GREEN'	824-824B
			12				12		661	40081	12	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN, MALUS X'GOLDEN RAINDROPS'	824-824B
			8				8		661	40121	8	EACH	DECIDUOUS TREE, 3" CALIPER, AS PER PLAN, ACER RUBRUM 'FRANKSRED'	824-824B
			8				8		661	40141	8	EACH	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN, ACER XFREEMANII 'ARMSTRONG'	824-824B
			45				45		661	40141	45	EACH	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN, PLATANUS XACERFOLIA	824-824B
			4				4		661	50160	4	EACH	EVERGREEN TREE, 8' HEIGHT, THUJA OCCIDENTALIS 'EMERALD'	824-824B
			32				32		661	50170	32	EACH	EVERGREEN TREE, 10' HEIGHT, PICEA OMORIKA	824-824B
			1,575				788	787	661	99900	1,575	EACH	PLANTING, MISC.: BULB, NARCISSUS 'ICE FOLLIES'	824
			1,575				788	787	661	99900	1,575	EACH	PLANTING, MISC.: PERENNIAL, HEMEROCALLIS X'HAPPY RETURNS'	824
			23				23		SPECIAL	69098000	23	EACH	TREE GRATE, 4'X8'	824A-824B
			18				18		SPECIAL	69098700	18	CY	TURFGRASS SOIL MIX FURNISHED AND PLACED (12" DEPTH UPPER HORIZON)	824-826
			7				7		SPECIAL	69098700	7	CY	TURFGRASS BASE MIX FURNISHED AND PLACED (4 1/2" DEPTH LOWER HORIZON)	824-826
			622				622		SPECIAL	69098700	622	CY	TREE AND PLANTS SOIL MIX FURNISHED AND PLACED (24" DEPTH UPPER HORIZON)	824-826
			233				233		SPECIAL	69098700	233	CY	TREE AND PLANTS BASE MIX FURNISHED AND PLACED (9" DEPTH LOWER HORIZON)	824-826
			765				765		SPECIAL	69098700	765	CY	SAND-BASED STRUCTURAL SOIL FURNISHED AND PLACED (24" DEPTH UPPER HORIZON)	824-826
			287				287		SPECIAL	69098700	287	CY	SAND BASED STRUCTURAL SOIL BASE MIX FURNISHED AND PLACED (9" DEPTH LOWER HORIZON)	824 826
RETAINING WALLS (E4)														
			73				73		203	20000	73	CY	EMBANKMENT	
			246				246		203	35110	246	CY	GRANULAR MATERIAL, TYPE B	
			2				2		SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	844
			5,680				5,680		203	98100	5,680	SY	ROADWAY, MISC.: COLUMN SUPPORTED WALLS	848
			LUMP				LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
			1,800				1,800		504	11101	1,800	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	848
			14,932				14,932		509 / 3	10001	14,932	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
			93				93		511	53012	93	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
			348				348		512	10001	348	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	838
			703				703		512	10100	703	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
			56				56		516	13200	56	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
			518				518		516	13900	518	SF	2" PREFORMED EXPANSION JOINT FILLER	
			6,894				6,894		840	20001	6,894	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839, 843
			630				630		840	21000	630	CY	WALL EXCAVATION	
			3,908				3,908		840	23000	3,908	CY	SELECT GRANULAR BACKFILL	
			608				608		840	25010	608	FT	6" DRAINAGE PIPE, PERFORATED	
			315				315		840	26000	315	FT	CONCRETE COPING	
			6,264				6,264		840	26050	6,264	SF	AESTHETIC SURFACE TREATMENT	
			5				5		840	27000	5	DAY	ON-SITE ASSISTANCE	
			LUMP				LUMP		867	00101	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839

CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
275B
1228
ms consultants, inc.

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34" x 22"

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
857	864									08/NHS/P V.	4	EXT	TOTAL			
RETAINING WALLS (E5)																
438										438	203	20000	438	CY	EMBANKMENT	
24,388										24,388	509	10001	24,388	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
150										150	511	53012	150	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
449										449	512	10001	449	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	838
698										698	512	10100	698	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
875										875	516	13900	875	SF	2" PREFORMED EXPANSION JOINT FILLER	
179										179	607	39901	179	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	838
5,533										5,533	840	20001	5,533	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843
1,162										1,162	840	21000	1,162	CY	WALL EXCAVATION	
691										691	840	22000	691	SY	FOUNDATION PREPARATION	
2,164										2,164	840	23000	2,164	CY	SELECT GRANULAR BACKFILL	
997										997	840	25010	997	FT	6" DRAINAGE PIPE, PERFORATED	
438										438	840	26000	438	FT	CONCRETE COPING	
4,658										4,658	840	26050	4,658	SF	AESTHETIC SURFACE TREATMENT	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	
RETAINING WALLS (E7)																
9,684										9,684	SPECIAL	20302000	9,684	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS II	841
451										451	SPECIAL	20302000	451	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS III	841
436										436	203	20000	436	CY	EMBANKMENT	
935										935	203	35110	935	CY	GRANULAR MATERIAL TYPE B	
2										2	SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	841
4,687										4,687	203	98000	4,687	CY	ROADWAY, MISC.: EPS GEOFOAM FILL	840
LUMP										LUMP	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
31,202										31,202	509	10001	31,202	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
199										199	511	53012	199	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
132										132	511	53012	132	CY	CLASS QC2 CONCRETE, MISC.: LOAD DISTRIBUTION SLAB	838
5,058										5,058	511	71200	5,058	SF	CONCRETE, MISC.: PRECAST WALL PANELS	838
121										121	511	81100	121	FT	CONCRETE, MISC.: PRECAST FOOTING	838
2,080										2,080	512	10100	2,080	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
76										76	516	13200	76	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
857										857	516	13900	857	SF	2" PREFORMED EXPANSION JOINT FILLER	
363										363	607	39901	363	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	838
12,751										12,751	840	20001	12,751	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839, 843
4,995										4,995	840	21000	4,995	CY	WALL EXCAVATION	
1,485										1,485	840	22000	1,485	SY	FOUNDATION PREPARATION	
2,660										2,660	840	23000	2,660	CY	SELECT GRANULAR BACKFILL	
506										506	840	25010	506	FT	6" DRAINAGE PIPE, PERFORATED	
523										523	840	26000	523	FT	CONCRETE COPING	
16,763										16,763	840	26050	16,763	SF	AESTHETIC SURFACE TREATMENT	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	

CALCULATED
HRB
CHECKED
TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

NO.	DESCRIPTION	REV. BY	DATE
1	Removal of Item 203E35120	TAZ	11-05-2021
3	Remove Item 840E28000	TAZ	11-19-2021
3	Update Item 509 To A.P.P.	TAZ	11-19-2021
4	Update Funding Splits	TAZ	11-24-2021
6	Update 511E53012 Qty.	TAZ	12-03-2021
8	Update 840E20001 Qty.	TAZ	12-07-2021
9	Remove Item 503E11100	TAZ	12-10-2021

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SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
874	884									08/NHSP V.	ITEM	EXT	TOTAL			
RETAINING WALLS (E10)																
1,346										1,346	SPECIAL	20302000	1,346	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS II	841
122										122	SPECIAL	20302000	122	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS III	841
678										678	203	20000	678	CY	EMBANKMENT	
827										827	203	35110	827	CY	GRANULAR MATERIAL TYPE B	
RETAINING WALLS (W2)																
6,138										6,138	203	98000	6,138	CY	ROADWAY, MISC.: EPS GEOFOAM FILL	840
LUMP										LUMP	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
39,409										39,409	509	10001	39,409	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
247										247	511	53012	247	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
129										129	511	53012	129	CY	CLASS QC2 CONCRETE, MISC.: LOAD DISTRIBUTION SLAB	838
4,628										4,628	511	71200	4,628	SF	CONCRETE, MISC.: PRECAST WALL PANELS	838
152										152	511	81100	152	FT	CONCRETE, MISC.: PRECAST FOOTING	838
1,240										1,240	512	10100	1,240	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
5,717										5,717	840	20001	5,717	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839
4,104										4,104	840	21000	4,104	CY	WALL EXCAVATION	
885										885	840	22000	885	SY	FOUNDATION PREPARATION	
1,748										1,748	840	23000	1,748	CY	SELECT GRANULAR BACKFILL	
455										455	840	25010	455	FT	6" DRAINAGE PIPE, PERFORATED	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	
RETAINING WALLS (W2)																
2,649										2,649	203	20000	2,649	CY	EMBANKMENT	
LUMP										LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	838
87,095										87,095	509	10001	87,095	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
560										560	511	53012	560	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
1,627										1,627	512	10001	1,627	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	838
4,459										4,459	512	10100	4,459	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
216										216	516	13200	216	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
2,217										2,217	516	13900	2,217	SF	2" PREFORMED EXPANSION JOINT FILLER	
431										431	601	37500	431	FT	PAVED GUTTER, TYPE 1-2	
36,756										36,756	840	20001	36,756	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843
6,905										6,905	840	21000	6,905	CY	WALL EXCAVATION	
3,332										3,332	840	22000	3,332	SY	FOUNDATION PREPARATION	
27,781										27,781	840	23000	27,781	CY	SELECT GRANULAR BACKFILL	
924										924	840	23050	924	CY	NATURAL SOIL	
3,135										3,135	840	25010	3,135	FT	6" DRAINAGE PIPE, PERFORATED	
1,555										1,555	840	26000	1,555	FT	CONCRETE COPING	
33,647										33,647	840	26050	33,647	SF	AESTHETIC SURFACE TREATMENT	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	

NO.	DESCRIPTION	REV. BY	DATE
1	Removal of Item 203E35120	TAZ	11-05-2021
3	Remove Item 840E28000	TAZ	11-19-2021
3	Update Item 509 To A.P.P.	TAZ	11-19-2021
4	Update Funding Splits	TAZ	11-24-2021
6	Add Load Dist. Slab Qty.	TAZ	12-03-2021
8	Update 840E20001 Qty.	TAZ	12-07-2021
9	Update 840E22000 Qty.	TAZ	12-10-2021

GENERAL SUMMARY

FRA - 71 - 14.36

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
170	277	278	894	909A	279	280	281	286	281A	282	199E	08/NHS/P V							08/NHS/P V	
			3,578										3,578	203	20000	3,578	CY	EMBANKMENT		
			278										278	203	35110	278	CY	GRANULAR MATERIAL TYPE B		
			2										2	SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	844	
			1,912										1,912	203	98100	1,912	SY	ROADWAY, MISC.: COLUMN SUPPORTED WALLS	901	
			31,723										31,723	509	10001	31,723	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838	
			524										524	511	53012	524	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838	
			5,418										5,418	512	10100	5,418	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
			419										419	516	13200	419	SF	1/2" PREFORMED EXPANSION JOINT FILLER		
			1,962										1,962	516	13900	1,962	SF	2" PREFORMED EXPANSION JOINT FILLER		
			746										746	601	37500	746	FT	PAVED GUTTER, TYPE 1-2		
			47,388										47,388	840	20001	47,388	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843	
			12,124										12,124	840	21000	12,124	CY	WALL EXCAVATION		
			4,857										4,857	840	22000	4,857	SY	FOUNDATION PREPARATION		
			62,184										62,184	840	23000	62,184	CY	SELECT GRANULAR BACKFILL		
			9,690										9,690	840	23050	9,690	CY	NATURAL SOIL		
			4,033										4,033	840	25010	4,033	FT	6" DRAINAGE PIPE, PERFORATED		
			1,777										1,777	840	26000	1,777	FT	CONCRETE COPING		
			43,836										43,836	840	26050	43,836	SF	AESTHETIC SURFACE TREATMENT		
			5										5	840	27000	5	DAY	ON-SITE ASSISTANCE		
			1,393										1,393	203	20000	1,393	CY	EMBANKMENT		
			LUMP										LUMP	503	11100	LS	COFFERDAMS AND EXCAVATION BRACING			
			30,007										30,007	509	10001	30,007	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838	
			192										192	511	53012	192	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838	
			2,629										2,629	512	10100	2,629	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	838	
			196										196	516	13200	196	SF	1/2" PREFORMED EXPANSION JOINT FILLER		
			720										720	516	13900	720	SF	2" PREFORMED EXPANSION JOINT FILLER		
			392										392	601	37500	392	FT	PAVED GUTTER, TYPE 1-2		
			27,132										27,132	840	20001	27,132	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843	
			3,256										3,256	840	21000	3,256	CY	WALL EXCAVATION		
			1,835										1,835	840	22000	1,835	SY	FOUNDATION PREPARATION		
			18,250										18,250	840	23000	18,250	CY	SELECT GRANULAR BACKFILL		
			701										701	840	23050	701	CY	NATURAL SOIL		
			1,090										1,090	840	25010	1,090	FT	6" DRAINAGE PIPE, PERFORATED		
			25										25	840	25020	25	FT	6" DRAINAGE PIPE, NON-PERFORATED		
			871										871	840	26000	871	FT	CONCRETE COPING		
			25,394										25,394	840	26050	25,394	SF	AESTHETIC SURFACE TREATMENT		
			5										5	840	27000	5	DAY	ON-SITE ASSISTANCE		
			LUMP										LUMP	867	00101	LS	TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839		
			LUMP										LUMP	LUMP	202	11200	LS	PORTIONS OF STRUCTURE REMOVED		
													13,000	12,000	202	11501	25,000	EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	46
													64	64	202	22900	128	SY	APPROACH SLAB REMOVED	
													LUMP	LUMP	503	11100	LS	COFFERDAMS AND EXCAVATION BRACING		
													LUMP	LUMP	503	11101	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	47	
													2,983	2,982	512	10000	5,965	SY	SEALING OF CONCRETE SURFACES	
													LUMP	LUMP	867	00100	LS	TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL	199E	

NO.	DESCRIPTION	REV.	BY	DATE
1	Removal of Item 203E3520	TAT		11-05-2021
1	Change 203E98100 Desc.	TAT		11-05-2021
3	Remove Duplicate Pay Qty	TAT		11-19-2021
3	Remove Multi-Sheet Ref	TAT		11-19-2021
3	Remove Item 840E28000	TAT		11-19-2021
3	Update Item 509 To A.P.P.	TAT		11-19-2021
3	Revise 202E1500 To 1501	TAT		11-19-2021
4	Update Item 503E1100	TAT		11-24-2021
6	Remove Item 503E1100	TAT		2-03-2021
9	Update 840E22000 Qty.	TAT		12-10-2021

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Ohio DOT Workspace
 70\71 West Interchange 6R
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 0.5'

34" x 22"

SHEET NUM.										PART.			ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
912	944							09/NHS/B	09/NHS/B	09/NHS/B	R	R							R
STRUCTURE REPAIR (FRA-70-1373L)																			
LUMP										LUMP				202	11203	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	911	
157										157				202	22900	157	SY	APPROACH SLAB REMOVED	
705										705				202	23501	705	SY	WEARING COURSE REMOVED, AS PER PLAN	911
3										3				202	98100	3	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE	917
8										8				407	20000	8	GAL	NON-TRACKING TACK COAT	
5										5				441	10000	5	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22	
LUMP										LUMP				503	11100	LS	COFFERDAMS AND EXCAVATION BRACING		
11,409										11,409				509	25000	11,409	LB	UNCOATED REINFORCING STEEL	
372										372				510	10000	372	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
48										48				511	21521	48	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	911
117										117				512	33010	117	SY	TYPE 3 WATERPROOFING	
987										987				513	10200	987	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF	
1,005										1,005				513	10240	1,005	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2	
4										4				518	12200	4	EACH	SCUPPERS, INCLUDING SUPPORTS	
32										32				SPECIAL	51912510	32	SY	PATCHING CONCRETE BRIDGE DECK	911
4										4				846	00110	4	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
STRUCTURE (FRA-71-1503L)																			
LUMP										LUMP	LUMP			202	11003	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	941	
LUMP										LUMP	LUMP			202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	941	
159										80	79			202	22900	159	SY	APPROACH SLAB REMOVED	
2,034										1,017	1,017			202	23500	2,034	SY	WEARING COURSE REMOVED	
21										11	10			202	98100	21	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE	946
LUMP										LUMP	LUMP			503	11101	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	942	
6,586										3,293	3,293			503	21101	6,586	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	942
LUMP										LUMP	LUMP			505	11100	LS	PILE DRIVING EQUIPMENT MOBILIZATION		
980										490	490			507	00100	980	FT	STEEL PILES HP10X42, FURNISHED	
935										468	467			507	00150	935	FT	STEEL PILES HP10X42, DRIVEN	
1,760										880	880			507	00200	1,760	FT	STEEL PILES HP12X53, FURNISHED	
1,680										840	840			507	00250	1,680	FT	STEEL PILES HP12X53, DRIVEN	
27										14	13			507	93300	27	EACH	STEEL POINTS OR SHOES	
3	9	6,013,479								3,006,740	3,006,739			509	10001	6,013,479	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	942
8,950										4,475	4,475			511	34447	8,950	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	942
1,506										753	753			511	34451	1,506	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	942, 1143
278										139	139			511	43512	278	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
9	9	11,573								5,787	5,786			511	45602	11,573	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA	
1,642										821	821			512	10001	1,642	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	942, 1143
22,021										11,011	11,010			512	10100	22,021	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
19										10	9			512	33000	19	SY	TYPE 2 WATERPROOFING	
13,156,600										6,578,300	6,578,300			513	10401	13,156,600	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN	942, 1035
84,927										42,464	42,463			513	20000	84,927	EACH	WELDED STUD SHEAR CONNECTORS	
154,349										77,175	77,174			514	00060	154,349	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
154,349										77,175	77,174			514	00066	154,349	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
118										59	59			516	10010	118	FT	ARMORLESS PREFORMED JOINT SEAL	
263										132	131			SPECIAL	51612400	263	FT	MODULAR EXPANSION JOINT	943
26										13	13			516	13600	26	SF	1" PREFORMED EXPANSION JOINT FILLER	
10										5	5			518	12200	10	EACH	SCUPPERS, INCLUDING SUPPORTS	
83										42	41			518	21200	83	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
46										23	23			518	40000	46	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
38										19	19			518	40010	38	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
229										115	114			518	51200	229	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS, 10"	
130										65	65			524	94804	130	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK	
1,340										670	670			524	94902	1,340	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK	
725										363	362			524	94904	725	FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK	
2,854										1,427	1,427			524	94906	2,854	FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK	
290										145	145			524	94994	290	FT	DRILLED SHAFTS, 90" DIAMETER, INTO BEDROCK	
633										317	316			524	94996	633	FT	DRILLED SHAFTS, 96" DIAMETER, ABOVE BEDROCK	

NO.	DESCRIPTION	REV.	BY	DATE
2	DOWEL PLY FROM INCLUDED	TAL		11-10-2021
3	Update Item & Qty	TAL		11-19-2021
4	Update Funding Splits	TAL		11-24-2021
8	Update 518E 0200 Qty.	TAL		12-07-2021
9	Update Item 509 & 511 Qty.	TAL		12-10-2021

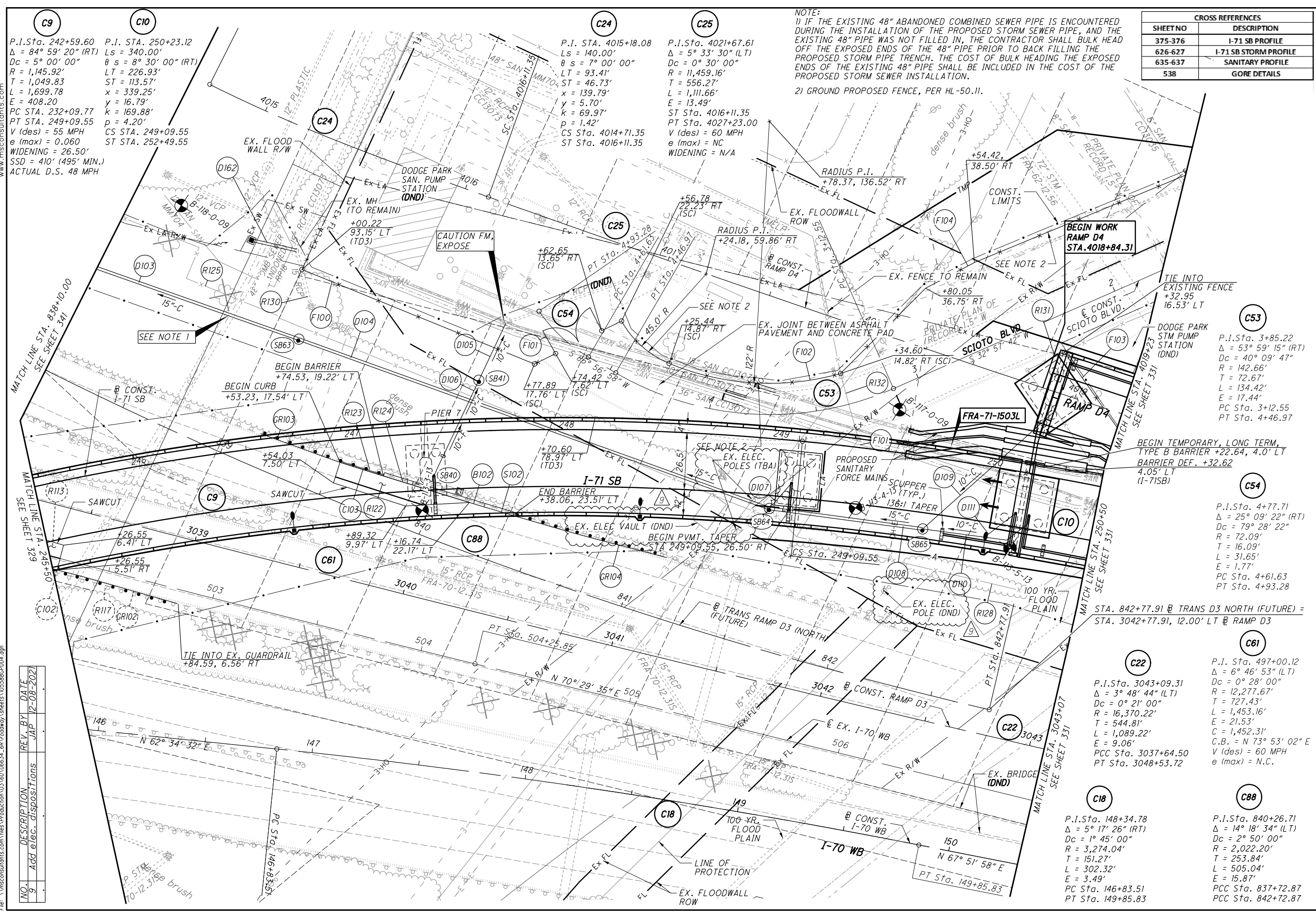
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SHEET NUM.									PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
59	65	66	67	68	69	71	77	944	08/NHS/P V	08/NHS/P V	09/NHS/B R	09/NHS/B R						
STRUCTURE (FRA-71-1503L) (CONT.)																		
								93			47	46	524	95100	93	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS	
								LUMP			LUMP	LUMP	524	95200	LS		DRILLED SHAFTS, MISC. SHAFT INSPECTION DEVICE	
								392			196	196	526	30010	392	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	
								116			58	58	526	90030	116	FT	TYPE C INSTALLATION	
								LUMP			LUMP	LUMP	SPECIAL	53000200	LS		STRUCTURES SOLDIER PILE RETAINING WALL	942
								465			233	232	607	39901	465	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	942
								570			285	285	SPECIAL	69098100	570	FT	COVERED WALKWAY SYSTEM	136 & 941
								148			74	74	869	00100	148	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS	
MAINTENANCE OF TRAFFIC																		
			2,208						1,104	1,104			614	11110	2,208	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
100									50	50			614	11111	100	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	59
									32	16			614	12380	32	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
									1	1			614	12381	1	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	69
								LUMP			LUMP	LUMP	614	12420	LS		DETOUR SIGNING	
								7	4	3			614	12484	7	EACH	WORK ZONE INCREASED PENALTIES SIGN	
	20								10	10			614	12500	20	EACH	REPLACEMENT SIGN	
	50								25	25			614	12600	50	EACH	REPLACEMENT DRUM	
									2,857	1,429	1,428		614	12801	2,857	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	68
									1,554	777	777		614	13310	1,554	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
									8	7			614	13312	15	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
									514	265	264		614	13350	529	EACH	OBJECT MARKER, ONE WAY	
									4	2	2		614	13360	4	EACH	OBJECT MARKER, TWO WAY	
100									50	50			614	18020	100	hour	MAINTAINING TRAFFIC, MISC.: LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR	59
					1,400				700	700			614	18030	1,400	FT	MAINTAINING TRAFFIC, MISC.: PORTABLE WATER FILLED BARRIER PROTECTED PEDESTRIAN WALKWAY	69
			53						27	26			614	18601	53	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	67
									2.75	1.38	1.37		614	20056	2.75	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
				1.38					0.69	0.69			614	20366	1.38	MILE	WORK ZONE LANE LINE, CLASS I, 6", 648	
				4.76					2.38	2.38			614	20410	4.76	MILE	WORK ZONE LANE LINE, CLASS II, 6"	
									7.07	3.54	3.53		614	22056	7.07	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (WHITE)	
									5.72	2.86	2.86		614	22056	5.72	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (YELLOW)	
									6.25	3.13	3.12		614	22336	6.25	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 648	
									37,779	18,890	18,889		614	23110	37,779	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
									18,906	9,453	9,453		614	23150	18,906	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 648	
									5,399	2,700	2,699		614	24102	5,399	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
									349	175	174		614	25400	349	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 740.06, TYPE I	
									15	8	7		614	30400	15	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
									0.22	0.11	0.11		614	98000	0.22	MILE	WORK ZONE PAVEMENT MARKING, MISC.: CENTER LINE, DOUBLE SOLID, 5"	68
									0.08	0.04	0.04		614	98000	0.08	MILE	WORK ZONE PAVEMENT MARKING, MISC.: EDGE LINE, 5" (WHITE)	68
									0.1	0.05	0.05		614	98000	0.1	MILE	WORK ZONE PAVEMENT MARKING, MISC.: LANE LINE, 5"	68
									1,225	613	612		614	98100	1,225	FT	WORK ZONE PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10"	68
									765	383	382		614	98100	765	FT	WORK ZONE PAVEMENT MARKING, MISC.: DOTTED LINE, 5"	68
									80	40	40		614	98100	80	FT	WORK ZONE PAVEMENT MARKING, MISC.: STOP LINE, 20"	68
									6	3	3		614	98200	6	EACH	WORK ZONE PAVEMENT MARKING, MISC.: PAVEMENT TATOO	68
									4	2	2		614	98200	4	EACH	WORK ZONE PAVEMENT MARKING, MISC.: SHARROW	68
									30	15	15		615	20000	30	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
									8,511	4,256	4,255		615	20001	8,511	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	71
									3	3			615	20001	6	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN, "A"	68
									50	50			615	25001	100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	71
									50	25	25		615	25001	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	71
									10	10			615	25001	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	71
					666				333	333			616	10000	666	MGAL	WATER	
									22,880	11,440	11,440		622	41100	22,880	FT	PORTABLE BARRIER, UNANCHORED	
									986	493	493		622	41101	986	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	69
									829	415	414		622	41110	829	FT	PORTABLE BARRIER, ANCHORED	
									460	230	230		630	80300	460	SF	SIGN, TEMPORARY OVERLAY	
									9	5	4		630	89894	9	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
									168	84	84		808	18700	168	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	

NO	DESCRIPTION	REV	BY	DATE
1	Revise See Sheet No.	1	TZ	11-19-2021
2	Update Funding SPI/TS	1	TZ	11-24-2021
3	Revise MOT QTYs	1	TZ	12-01-2021

CALCULATED
 HRB
 CHECKED
 TAZ
GENERAL SUMMARY
FRA-71-14.36
 275H
 1228
 ms consultants, inc.



NOTE:
 1) IF THE EXISTING 48" ABANDONED COMBINED SEWER PIPE IS ENCOUNTERED DURING THE INSTALLATION OF THE PROPOSED STORM SEWER PIPE, AND THE EXISTING 48" PIPE WAS NOT FILLED IN, THE CONTRACTOR SHALL BULK HEAD OFF THE EXPOSED ENDS OF THE 48" PIPE PRIOR TO BACK FILLING THE PROPOSED STORM PIPE TRENCH. THE COST OF BULK HEADING THE EXPOSED ENDS OF THE EXISTING 48" PIPE SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER INSTALLATION.
 2) GROUND PROPOSED FENCE, PER HL-50.11.

CROSS REFERENCES	
SHEET NO	DESCRIPTION
375-376	I-71 SB PROFILE
626-627	I-71 SB STORM PROFILE
635-637	SANITARY PROFILE
538	GORE DETAILS



CALCULATED
 CHECKED

PLAN - I-71 SOUTHBOUND
 STA. 245+50 TO STA. 250+50

FRA-71-14.36

330
 1228

C9
 P.I. Sta. 242+59.60
 $\Delta = 84^\circ 59' 20''$ (RT)
 $Dc = 5^\circ 00' 00''$
 $R = 1,145.92'$
 $T = 1,049.83$
 $L = 1,699.78$
 $E = 408.20$
 PC STA. 232+09.77
 PT STA. 249+09.55
 V (des) = 55 MPH
 e (max) = 0.060
 WIDENING = 26.50'
 SSD = 410' (495' MIN.)
 ACTUAL D.S. 48 MPH

C10
 P.I. STA. 250+23.12
 $Ls = 340.00'$
 $\theta s = 8^\circ 30' 00''$ (RT)
 $LT = 226.93'$
 $ST = 113.57'$
 $x = 339.25'$
 $y = 16.79'$
 $k = 169.88'$
 $p = 4.20'$
 CS STA. 249+09.55
 ST STA. 252+49.55

C24
 P.I. STA. 4015+18.08
 $Ls = 140.00'$
 $\theta s = 7^\circ 00' 00''$
 $LT = 93.41'$
 $ST = 46.73'$
 $x = 139.79'$
 $y = 5.70'$
 $k = 69.97'$
 $p = 1.42'$
 CS STA. 4014+71.35
 ST STA. 4016+11.35

C25
 P.I. Sta. 4021+67.61
 $\Delta = 5^\circ 33' 30''$ (LT)
 $Dc = 0^\circ 30' 00''$
 $R = 11,459.16'$
 $T = 556.27'$
 $L = 1,111.66'$
 $E = 13.49'$
 ST Sta. 4016+11.35
 PT Sta. 4027+23.00
 V (des) = 60 MPH
 e (max) = NC
 WIDENING = N/A

C53
 P.I. Sta. 3+85.22
 $\Delta = 53^\circ 59' 15''$ (RT)
 $Dc = 40^\circ 09' 47''$
 $R = 142.66'$
 $T = 72.67'$
 $L = 134.42'$
 $E = 17.44'$
 PC Sta. 3+12.55
 PT Sta. 4+46.97

C54
 P.I. Sta. 4+77.71
 $\Delta = 25^\circ 09' 22''$ (RT)
 $Dc = 79^\circ 28' 22''$
 $R = 72.09'$
 $T = 16.09'$
 $L = 31.65'$
 $E = 1.77'$
 PC Sta. 4+61.63
 PT Sta. 4+93.28

C22
 P.I. Sta. 3043+09.31
 $\Delta = 3^\circ 48' 44''$ (LT)
 $Dc = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 727.43'$
 $L = 1,453.16'$
 $E = 21.53'$
 $C = 1,452.31'$
 $C.B. = N 73^\circ 53' 02'' E$
 V (des) = 60 MPH
 e (max) = N.C.

C18
 P.I. Sta. 148+34.78
 $\Delta = 5^\circ 17' 26''$ (RT)
 $Dc = 1^\circ 45' 00''$
 $R = 3,274.04'$
 $T = 151.27'$
 $L = 302.32'$
 $E = 3.49'$
 PC Sta. 146+83.51
 PT Sta. 149+85.83

C88
 P.I. Sta. 840+26.71
 $\Delta = 14^\circ 18' 34''$ (LT)
 $Dc = 2^\circ 50' 00''$
 $R = 2,022.20'$
 $T = 253.84'$
 $L = 505.04'$
 $E = 15.87'$
 PCC Sta. 837+72.87
 PCC Sta. 842+72.87

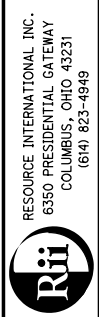
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CALCULATED BY: KSJ DATE: 03/04/2020
 CHECKED BY: MMS DATE: 03/04/2020

ESTIMATED QUANTITIES					AS PER PLAN REFERENCE SHEET
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	
203	20000	73	CU YD	EMBANKMENT	
203	35710	246	CU YD	GRANULAR MATERIAL, TYPE B	
203	65000	2	EACH	SPECIAL SETTLEMENT PLATFORM	
203	98100	5680	SQ YD	ROADWAY MISC.: COLUMN SUPPORTED WALLS*	
503	1101	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
504	1101	1800	SQ FT	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	848
509	10001	14932	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	839
511	53012	93	CU YD	CLASS CC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH GC/GA	
512	10001	348	SQ YD	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	838
512	10100	703	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	
516	13200	56	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER	
516	13900	518	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	
840	20001	6894	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839 & 843
840	21000	630	CU YD	WALL EXCAVATION	
840	23000	5908	CU YD	SELECT GRANULAR BACKFILL	
840	25010	608	FT	6" DRAINAGE PIPE, PERFORATED	
840	26000	315	FT	CONCRETE COPING	
840	26050	6264	SQ FT	AESTHETIC SURFACE TREATMENT	
840	27000	5	DAY	ON-SITE ASSISTANCE	
867	00101	LS	LS	TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN (WALL T1)	839

* - QUANTITY FOR COLUMN SUPPORTED WALLS INCLUDE GROUND IMPROVEMENT UP TO RAMP D7 STA. 7002+25.00

NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS	MMS	11/5/21
3	UPDATED ITEM 509 TO AS PER PLAN	MMS	11/18/21
3	REMOVED ITEM 840E28000 - SGB INSPECTION AND COMPACTION TESTING	MMS	11/18/21
4	UPDATED CSW QUANTITY	MMS	11/24/21
6	UPDATED EMBANKMENT QUANTITY	MMS	12/1/21
6	REMOVED GRANULAR EMBANKMENT	MMS	12/1/21
6	ADDED ITEM-504, STEEL SHEET PILE	MMS	12/1/21
9	REMOVED ITEM-840, FOUNDATION PREP.	MMS	12/9/21



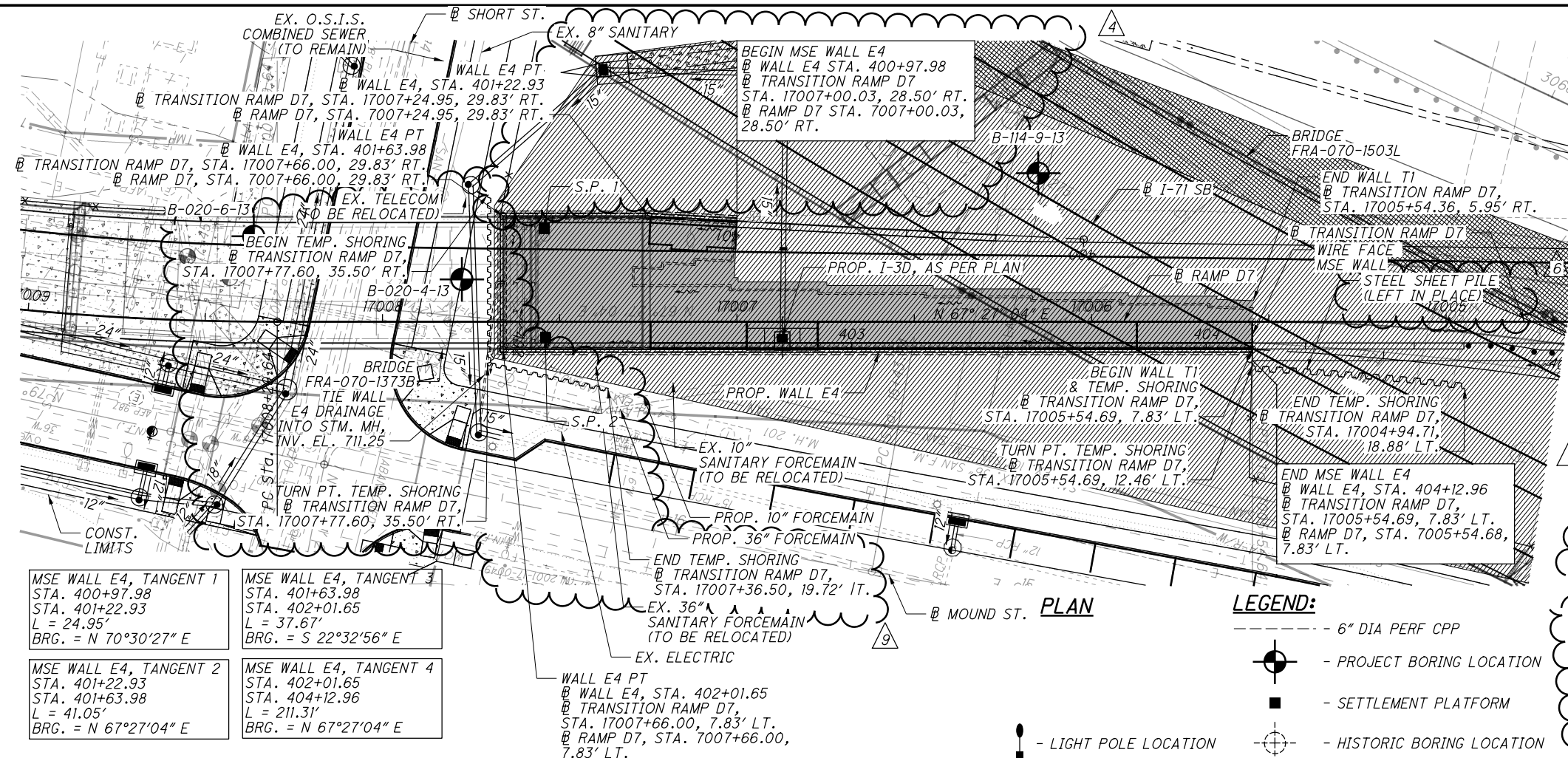
REVIEWED DATE: 6/23/2021
 NCK
 STRUCTURE FILE NUMBER

DESIGNED BY: KSJ
 CHECKED BY: MMS

ESTIMATED QUANTITIES
 RETAINING WALL E4
 I-70/I-71 WEST INTERCHANGE PROJECT

FRA-71-14.36
 PID No. 105588

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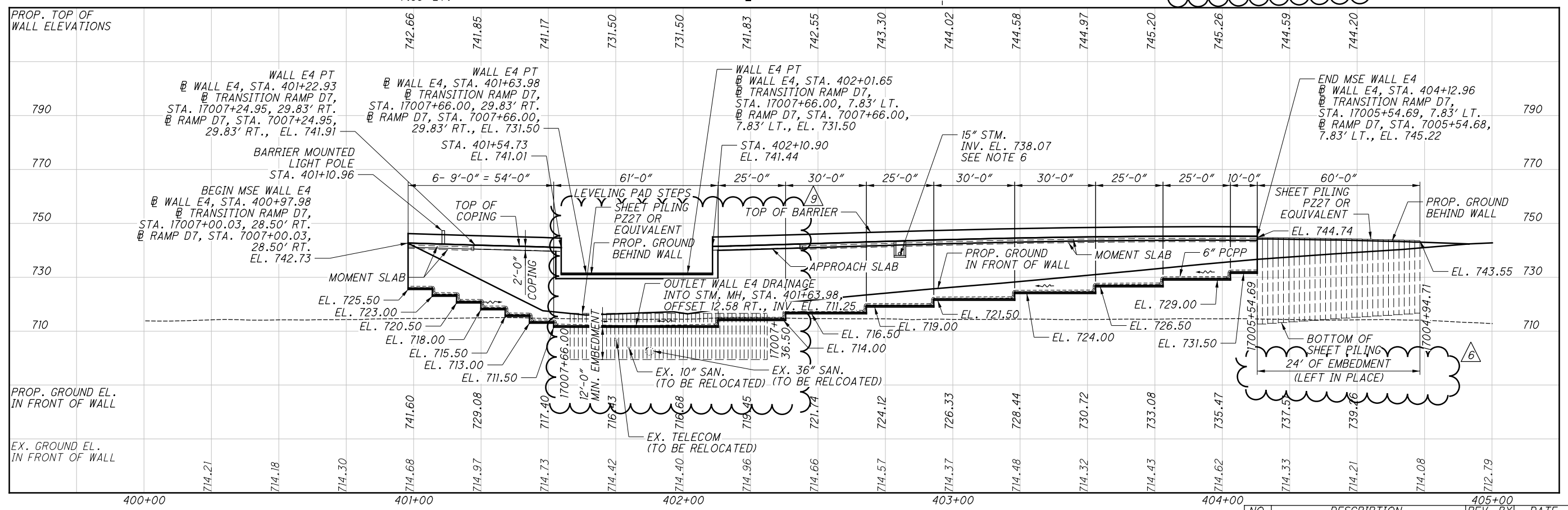


NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS (CSW)	MMS	11/5/21
4	UPDATED GROUND IMPROVEMENT AREA	MMS	11/24/21
4	UPDATED NOTE	MMS	11/24/21

- NOTES:**
- ITEM 504, STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN: THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT PRICE FOR STEEL SHEET PILING LEFT IN PLACE. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.
 - LEVELING PAD ELEVATIONS ARE GIVEN AT BOTTOM OF PADA.
 - ALL EXISTING UTILITIES TO BE REMOVED/RELOCATED UNLESS NOTED OTHERWISE.
 - STATIONING IS ALONG WALL E4.
 - STATIONS AND OFFSETS ARE GIVEN AT BACK FACE OF THE WALL.
 - TOP OF WALL ELEVATIONS ARE GIVEN AT TOP OF COPING.
 - SOIL REINFORCEMENT SHALL BE CONSTRUCTED SO AS TO AVOID INTERFERENCE WITH PROPOSED DRAINAGE STRUCTURES.
 - GROUND IMPROVEMENT SHALL BE IN THE FORM OF CSW COLUMNS AND DENSE GRADE AGGREGATE LOAD TRANSFER PLATFORM (LTP). THE BOTTOM 1'-0" OF THE LTP IS CONSIDERED A WORKING PLATFORM FOR ADDITIONAL INFORMATION, SEE NOTES FROM SHEET 842. FOR SECTION VIEWS, SEE SHEET 851.
 - FOR TEMPORARY WIRE MESH WALL T1 DETAIL, SEE SHEET 852.

MSE WALL E4, TANGENT 1 STA. 400+97.98 STA. 401+22.93 L = 24.95' BRG. = N 70°30'27" E	MSE WALL E4, TANGENT 3 STA. 401+63.98 STA. 402+01.65 L = 37.67' BRG. = S 22°32'56" E
MSE WALL E4, TANGENT 2 STA. 401+22.93 STA. 401+63.98 L = 41.05' BRG. = N 67°27'04" E	MSE WALL E4, TANGENT 4 STA. 402+01.65 STA. 404+12.96 L = 211.31' BRG. = N 67°27'04" E

- LEGEND:**
- 6" DIA PERF CPP
 - - PROJECT BORING LOCATION
 - - SETTLEMENT PLATFORM
 - - HISTORIC BORING LOCATION
 - [Hatched Box] = LIMIT OF GROUND IMPROVEMENT NEEDED OVER EXIST. I-70 EMBANKMENT: 1310 SQ. YD.
 - [Dotted Box] = LIMIT OF GROUND IMPROVEMENT NEEDED: 4,370 SQ. YD.
 - [Grey Box] = PLAN BOUNDARY FOR ITEMS INCLUDED WITH MSE WALL E4 FOR PAYMENT



ELEVATION ALONG BACK OF WALL

NO.	DESCRIPTION	REV. BY	DATE
6	UPDATED NOTE	MMS	12/1/21
6	UPDATED CALLOUT	MMS	12/1/21
9	ADDED TEMP. SHEET PILE	MMS	12/9/21

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CALCULATED BY: KSJ DATE: 03/04/2020
CHECKED BY: MMS DATE: 03/04/2020

ESTIMATED QUANTITIES					AS PER PLAN REFERENCE SHEET
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	
203	20000	438	CU YD	EMBANKMENT	
509	10001	24388	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	
511	53012	180	CU YD	CLASS CC2 CONCRETE, MISC. PARAPET INCLUDING SLEEPER SLAB WITH COXOA	838
512	10001	449	SQ YD	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	
512	10100	698	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	838
516	13900	875	SQ FT	2" PREFOEMED EXPANSION JOINT FILLER	
607	39901	179	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	838
840	20001	5533	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	
840	21000	1162	CU YD	WALL EXCAVATION	843
840	22000	691	SQ YD	FOUNDATION PREPARATION	
840	23000	2164	CU YD	SELECT GRANULAR BACKFILL	
840	25010	997	FT	6" DRAINAGE PIPE, PERFORATED	
840	26000	438	FT	CONCRETE COPING	
840	26050	4658	SQ FT	AESTHETIC SURFACE TREATMENT	
840	27000	5	DAY	ON-SITE ASSISTANCE	

NO.	DESCRIPTION	REV. BY	DATE
1	REMOVED ITEM 203 - GRANULAR MATERIAL, TYPE C QUANTITY	KSJ	11/5/21
3	UPDATED ITEM 509 TO AS PER PLAN	MMS	11/18/21
3	REMOVED ITEM 840E28000 - SGB INSPECTION AND COMPACTION TESTING	MMS	11/18/21
9	REMOVED ITEM 503E1101- COFFERDAM AND EXCAVATION BRACING, AS PER PLAN	MMS	12/10/21

ESTIMATED QUANTITIES
RETAINING WALL ES
I-70/I-71 WEST INTERCHANGE PROJECT

FRA - 71 - 14.36
PID No. 105588

1 / 8

857
1228

DESIGNED: KSJ
CHECKED: MMS

DRAWN: MMS
REVISED:

REVIEWED: NCK
DATE: 6/23/2021
STRUCTURE FILE NUMBER:

RESOURCE INTERNATIONAL, INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

CALCULATED BY: KSJ DATE: 03/04/2020
 CHECKED BY: MMS DATE: 03/04/2020

ESTIMATED QUANTITIES

AS PER PLAN
 REFERENCE
 SHEET

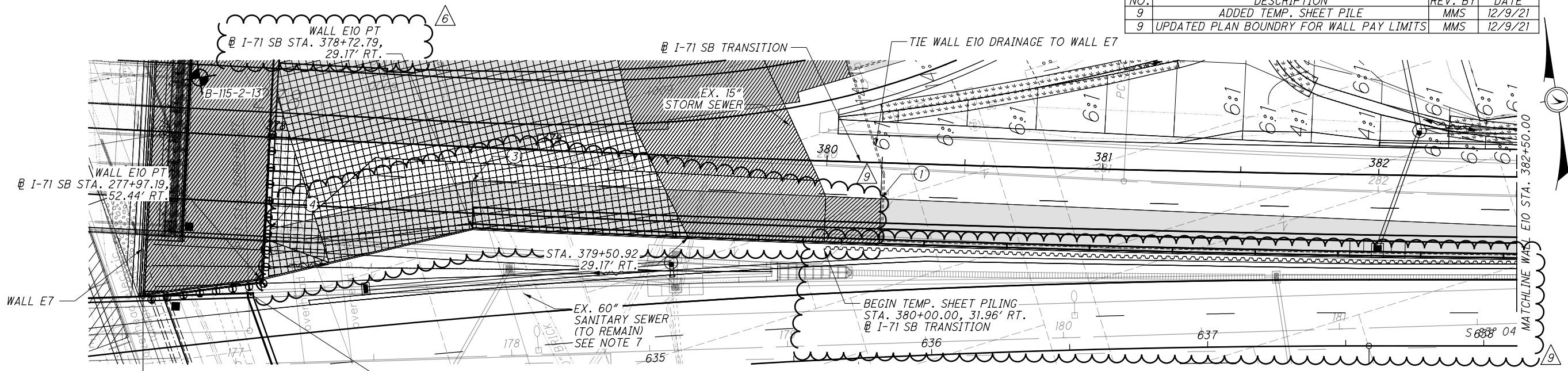
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	AS PER PLAN REFERENCE SHEET
203	02000	1346	CU YD	SPECIAL - ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS II	
203	02000	122	CU YD	SPECIAL - ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS III	
203	20000	678	CU YD	EMBANKMENT	
203	35110	827	CU YD	GRANULAR MATERIAL, TYPE B	
203	98000	6138	CU YD	ROADWAY MISC.: EPS GEOFOAM FILL	
503	11101	LS	LS	COFFERDAMS AND EXCAVATION, AS PER PLAN	838
509	10001	39409	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
511	53012	247	CU YD	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH OC OR	838
511	53012	129	CU YD	CLASS QC2 CONCRETE, MISC.: LOAD DISTRIBUTION SLAB	
511	71200	4628	SQ FT	CONCRETE MISC.: PRECAST WALL PANELS	838
511	81100	152	FT	CONCRETE MISC.: PRECAST FOOTING	
512	10100	1240	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	
840	20001	5717	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839
840	21000	1101	CU YD	WALL EXCAVATION	839
840	22000	885	SQ YD	FOUNDATION PREPARATION	
840	23000	1748	CU YD	SELECT GRANULAR BACKFILL	839
840	25010	455	FT	6" DRAINAGE PIPE, PERFORATED	
840	27000	5	DAY	ON-SITE ASSISTANCE	

NO.	DESCRIPTION	REV. BY	DATE
1	REMOVED ITEM 203 - GRANULAR MATERIAL, TYPE C QUANTITY	KSJ	11/5/21
3	UPDATED ITEM 509 TO AS PER PLAN	MMS	11/18/21
3	REMOVED ITEM 840E28000 - SGB INSPECTION AND COMPACTION TESTING	MMS	11/18/21
6	ADDED ITEM-511 LOAD DISTRIBUTION SLAB	MMS	12/1/21
8	UPDATED ITEM 840 - MSE WALL QUANTITY	MMS	12/7/21
9	UPDATED ITEM 840 - FOUNDATION PREP. QUANTITY	MMS	12/9/21



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NO.	DESCRIPTION	REV. BY	DATE
9	ADDED TEMP. SHEET PILE	MMS	12/9/21
9	UPDATED PLAN BOUNDARY FOR WALL PAY LIMITS	MMS	12/9/21



BEGIN MSE WALL E10 @ I-71 SB STA. 277+55.02, 59.15' RT.

NOTES:

STATION	OFFSET
① 380+20.00	13.05' RT.
③ 378+72.02	12.38' RT.
④ 377+99.83	33.28' RT.

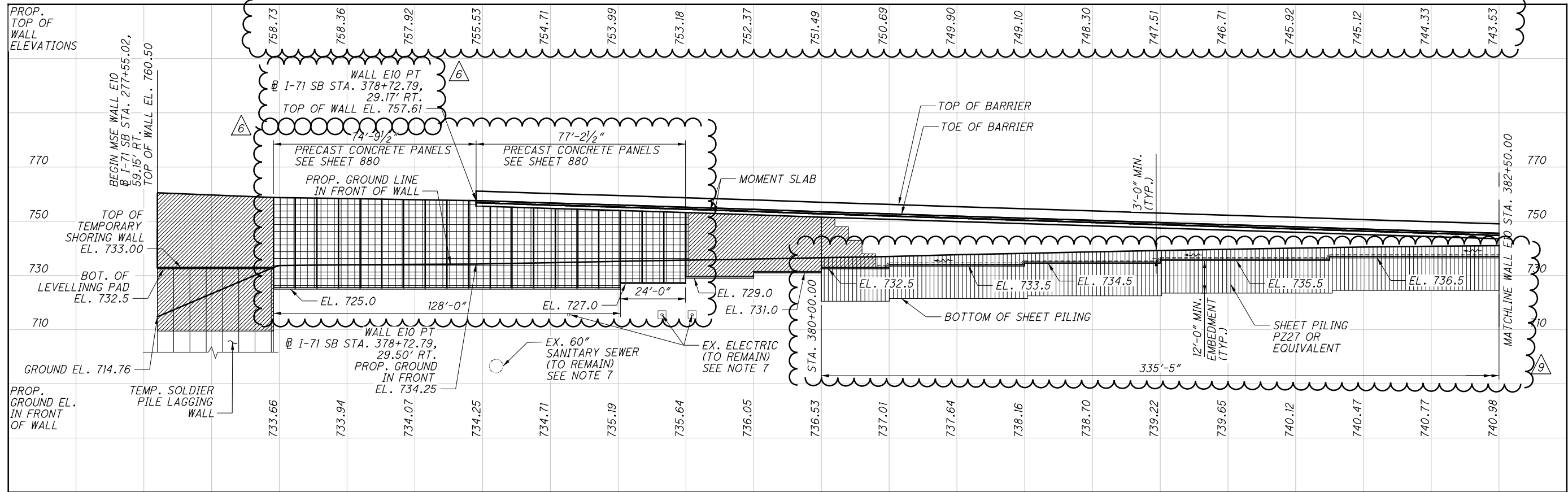
1. LEVELLING PAD ELEVATIONS ARE GIVEN AT BOTTOM OF PAD.
2. ALL EXISTING UTILITIES TO BE REMOVED/RELOCATED UNLESS NOTED OTHERWISE.
3. STATIONING IS ALONG @ I-71 SB TRANSITION.
4. STATIONS AND OFFSETS ARE GIVEN AT BACK FACE OF THE WALL.
5. TOP OF WALL ELEVATIONS ARE GIVEN AT TOP OF MSE WALL PANEL.
6. SOIL REINFORCEMENT SHALL BE CONSTRUCTED SO AS TO AVOID INTERFERENCE WITH EXISTING AND PROPOSED DRAINAGE STRUCTURES.
7. LEVELLING PAD SHALL BE CONSTRUCTED SO AS TO AVOID INTERFERENCE WITH EXISTING UTILITIES.

LEGEND:



- 6" DIA PERF CPP
- PROJECT BORING LOCATION
- SETTLEMENT PLATFORM
- HISTORIC BORING LOCATION

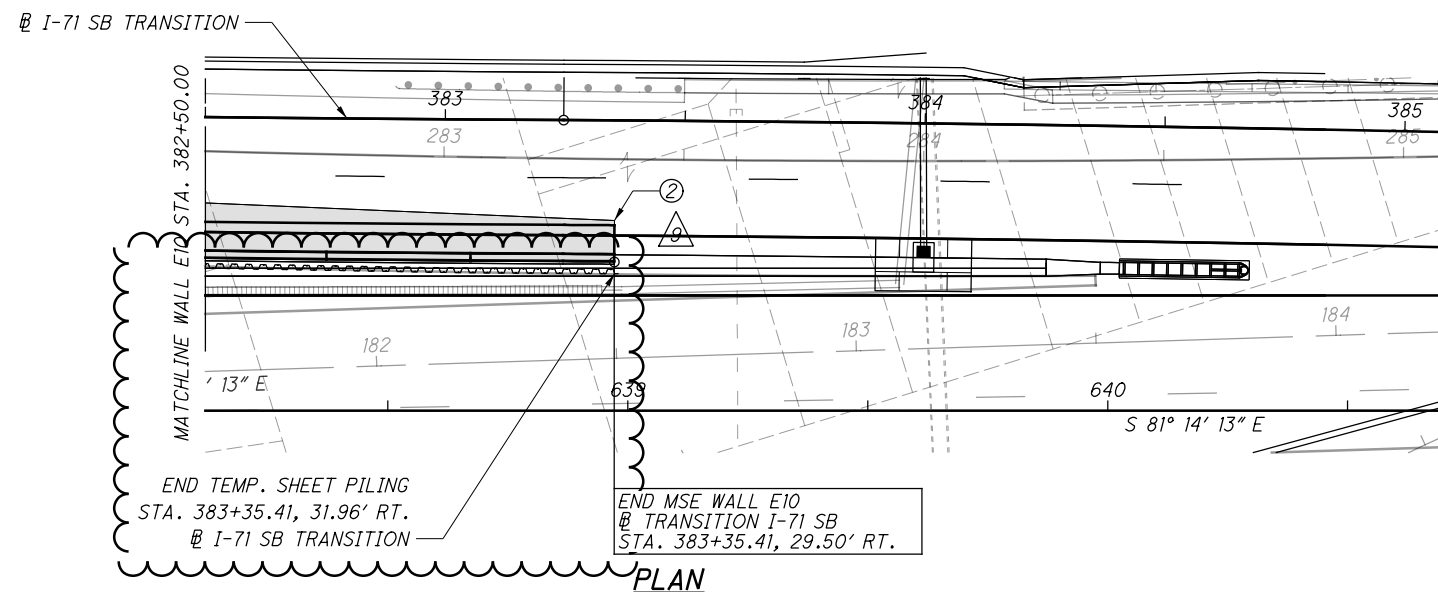
- = PLAN BOUNDARY FOR ITEMS INCLUDED WITH MSE WALL E10 FOR PAYMENT
- = LIMITS OF GEOFOAM BACKFILL
- = LIMITS OF CELLULAR CONCRETE FILL



ELEVATION ALONG FACE OF WALL

NO.	DESCRIPTION	REV. BY	DATE
6	MODIFIED PRECAST PANEL DETAIL	MMS	12/2/21
6	UPDATED WALL STATION OFFSETS	MMS	12/2/21
8	UPDATED TOP OF WALL ELEVATIONS	MMS	12/6/21

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	STATION	OFFSET
②	383+35.41	20.87' RT.

NOTES:

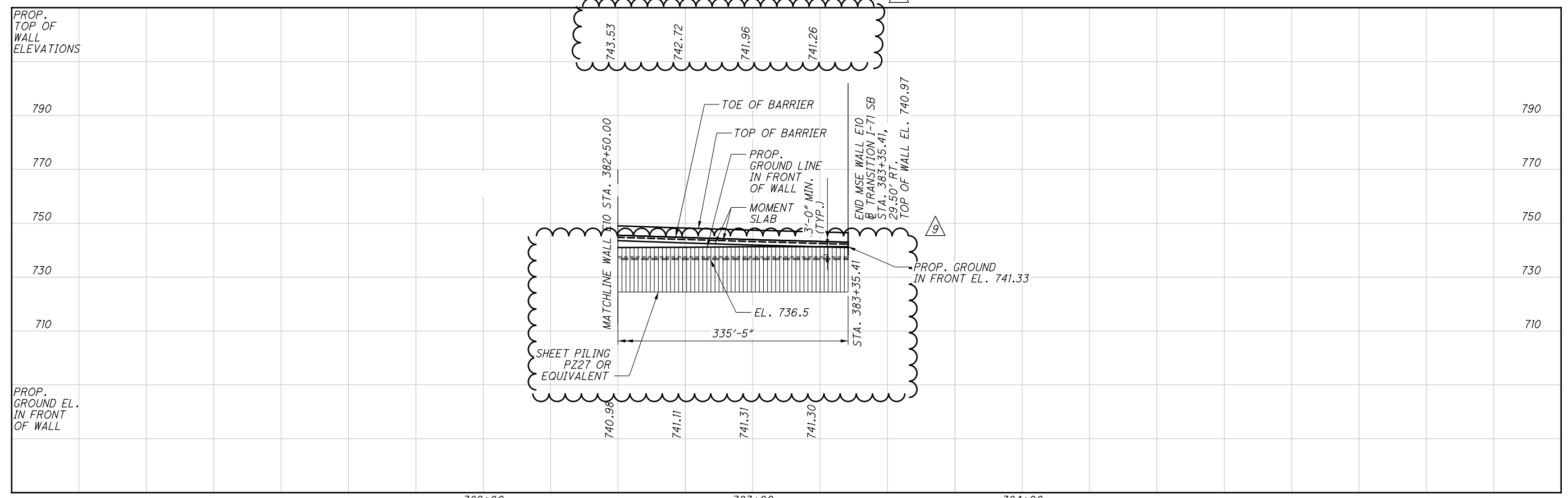
1. ALL EXISTING UTILITIES TO BE REMOVED/RELOCATED UNLESS NOTED OTHERWISE.
2. STATIONING IS ALONG I-71 SB TRANSITION.
3. STATIONS AND OFFSETS ARE GIVEN AT TOP OF THE WALL.

LEGEND:

- - - - - 6" DIA PERF CPP
- ⊙ - PROJECT BORING LOCATION
- - SETTLEMENT PLATFORM
- ⊕ - HISTORIC BORING LOCATION

■ = PLAN BOUNDARY FOR ITEMS INCLUDED WITH MSE WALL E10 FOR PAYMENT

HORIZONTAL SCALE IN FEET



ELEVATION ALONG FACE OF WALL

NO.	DESCRIPTION	REV. BY	DATE
8	UPDATED TOP OF WALL ELEVATIONS	MMS	12/6/21
9	ADDED TEMP. SHEET PILE	MMS	12/9/21

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

Rii

DATE: 6/23/2021
REVIEWED: NCK
DRAWN: MMS
DESIGNED: MMS
CHECKED: JGM

PLAN AND ELEVATION 2 OF 2

RETAINING WALL E10 (MAINLINE I-71 SB, I-70WB & SHORT ST.)
I-70/I-71 WEST INTERCHANGE PROJECT

FRA-71-14.36
PID No. 105588

3 / 10

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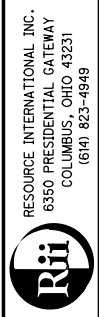
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CALCULATED BY: KSJ DATE: 03/04/2020
 CHECKED BY: MMS DATE: 03/04/2020

ESTIMATED QUANTITIES					AS PER PLAN REFERENCE SHEET
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	
203	20000	3578	CU YD	EMBANKMENT	
203	35110	278	CU YD	GRANULAR MATERIAL, TYPE B	
203	65000	2	EACH	SPECIAL SETTLEMENT PLATFORM	
203	98100	1912	SQ YD	ROADWAY, MISC: COLUMN SUPPORTED WALLS *	
509	10001	31723	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
511	83012	524	CU YD	CLASS 062 CONCRETE, MISC. PARAPET INCLUDING SLEEPER SLAB WITH SC/CA	
512	10100	5418	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	
516	13200	419	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER	
516	13900	1962	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	
601	37500	746	FT	PAVED GUTTER, TYPE 1-2	
840	20001	47388	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843
840	21008	9667	CU YD	WALL EXCAVATION	
840	22000	4857	SQ YD	FOUNDATION PREPARATION	
840	23000	49685	CU YD	SELECT GRANULAR BACKFILL	
840	23050	9690	CU YD	NATURAL SOIL	
840	25010	4033	FT	6" DRAINAGE PIPE, PERFORATED	
840	26000	1777	FT	CONCRETE COPING	
840	26050	43836	SQ FT	AESTHETIC SURFACE TREATMENT	
840	27000	5	DAY	ON-SITE ASSISTANCE	

* - QUANTITY FOR COLUMN SUPPORTED WALLS INCLUDES GROUND IMPROVEMENTS PERFORMED UNDER THIS SET OF PLANS. SEE SHEET 909K FOR LIMITS.

NO.	DESCRIPTION	REV. BY	DATE
1	REMOVED ITEM 203 - GRANULAR MATERIAL, TYPE C QUANTITY	KSJ	11/5/21
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS	KSJ	11/5/21
1	NOTE ADDED	KSJ	11/5/21
3	UPDATED ITEM 509 TO AS PER PLAN	MMS	11/18/21
3	REMOVED ITEM 840E28000 - SGB INSPECTION AND COMPACTION TESTING	MMS	11/18/21
6	REMOVED ITEM 503E11101 - COFFERDAMS AND EXCAVATION, AS PER PLAN	MMS	12/3/21
9	UPDATED ITEM 840 - FOUNDATION PREP. QUANTITY	MMS	12/9/21



DESIGNED: JGM
 CHECKED: MMS
 DRAWN: JGM
 REVISED:
 REVIEWED: NCK
 DATE: 6/23/2021
 STRUCTURE FILE NUMBER

ESTIMATED QUANTITIES
 RETAINING WALL W5
 I-70/I-71 WEST INTERCHANGE PROJECT

FRA - 71 - 14.36
 PID No. 105588
 1 / 16
 894
 1228

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231
 (614) 823-4949

PARTICIPATION		ESTIMATED QUANTITIES					CALC.	DATE	CHK'D	DATE		
09/NHS/BR	09/NHS/BR	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	DEA / ATM	GEN.	SHEET REF.
		202	11003	LUMP	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					1	20/276
		202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN					1	20/276
80	79	202	22900	159	SY	APPROACH SLAB REMOVED					159	
1017	1017	202	23500	2034	SY	WEARING COURSE REMOVED					2,034	
11	10	202	98100	21	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE					21	
		503	11101	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					1	21/276
3293	3293	503	21101	6586	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN		6,586				21/276
		505	11100	LUMP	LS	PILE DRIVING EQUIPMENT MOBILIZATION					1	
495	495	507	00100	990	FT	STEEL PILES HPI0X42, FURNISHED	990					
468	467	507	00150	935	FT	STEEL PILES HPI0X42, DRIVEN	935					
880	880	507	00200	1760	FT	STEEL PILES HPI2X53, FURNISHED	1,760					
840	840	507	00250	1680	FT	STEEL PILES HPI2X53, DRIVEN	1,680					
14	13	507	93300	27	EACH	STEEL POINTS OR SHOES	27					
3006740	3006739	509	10001	6013479	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	34,142	3,181,074	2,798,263			21/276
4475	4475	511	34447	8950	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK, AS PER PLAN			8,950			21/276
753	753	511	34451	1506	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK (PARAPET), AS PER PLAN			1,506			21/276, 222/276
139	139	511	43512	278	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	278					
5787	5786	511	45602	11573	CY	CLASS OC4 MASS CONCRETE, SUBSTRUCTURE WITH OC/OA		11,573				
821	821	512	10001	1642	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)		1,642				21/276
11011	11010	512	10100	22021	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	638	11,903	9,480			
10	9	512	33000	19	SY	TYPE 2 WATERPROOFING	19					
6578300	6578300	513	10401	13156600	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			13,156,600			21/276, 114/276
42464	42463	513	20000	84927	EACH	WELDED STUD SHEAR CONNECTORS			84,927			
77175	77174	514	00060	154349	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			154,349			
77175	77174	514	00066	154349	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			154,349			
59	59	516	10010	118	FT	ARMORLESS PREFORMED JOINT SEAL				118		
132	131	SPECIAL	12400	263	FT	SPECIAL - MODULAR EXPANSION JOINT	115	148				22/276
13	13	516	13600	26	SF	1" PREFORMED EXPANSION JOINT FILLER				26		
5	5	518	12200	10	EACH	SCUPPERS, INCLUDING SUPPORTS			10			
115	114	518	51200	229	FT	10" PIPE DOWNSPOUT, INCLUDING SPECIALS		229				
42	41	518	21200	83	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	83					
23	23	518	40000	46	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	46					
19	19	518	40010	38	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	38					
65	65	524	94804	130	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK		130				
670	670	524	94902	1340	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK		1340				
363	362	524	94904	725	FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK		725				
1427	1427	524	94906	2854	FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK		2854				
145	145	524	94994	290	FT	DRILLED SHAFTS, 90" DIAMETER, INTO BEDROCK		290				
317	316	524	94996	633	FT	DRILLED SHAFTS, 96" DIAMETER, ABOVE BEDROCK		633				
47	46	524	95100	93	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS		93				
		524	95200	LUMP	LS	DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE					1	
196	196	526	30010	392	SY	REINFORCED CONCRETE APPROACH SLABS WITH OC/OA (T=17")					392	
58	58	526	90030	116	FT	TYPE C INSTALLATION					116	
		SPECIAL	530E00200	LUMP	LS	STRUCTURE, MISC.: SOLDIER PILE RETAINING WALL					1	21/276
60	60	605	14000	120	FT	6" BASE PIPE UNDERDRAINS *	120					
233	232	607	39901	465	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN					465	21/276
285	285	SPECIAL	690E98100	570	LF	SPECIAL - COVERED WALKWAY SYSTEM					570	20/276
		SPECIAL	690E98400	LUMP	LS	SPECIAL - EMERGENCY ACTION PLAN COORDINATION					1	20/276
74	74	869	00100	148	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS	11	137				

LEGEND:

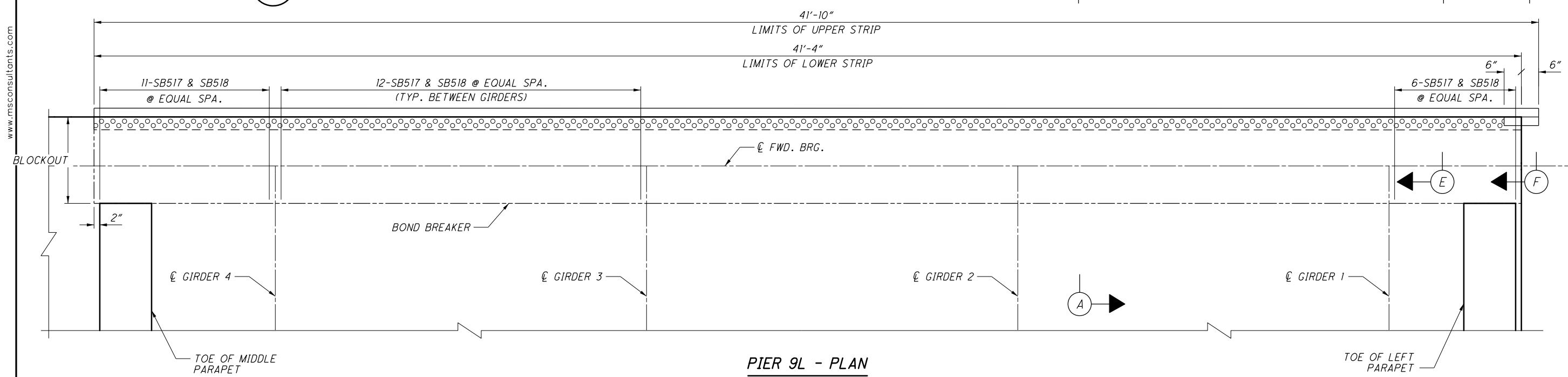
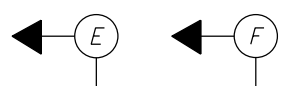
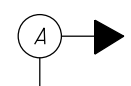
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3	UPDATED ITEM NO. AND QUANTITY	DBL	11/18/21
4	PARTICIPATION CODE	DEA	11/23/21
9	UPDATED ITEM 509 AND 511 QUANTITIES	DBL	12/09/21

* QUANTITY CARRIED TO ROADWAY GENERAL SUMMARY

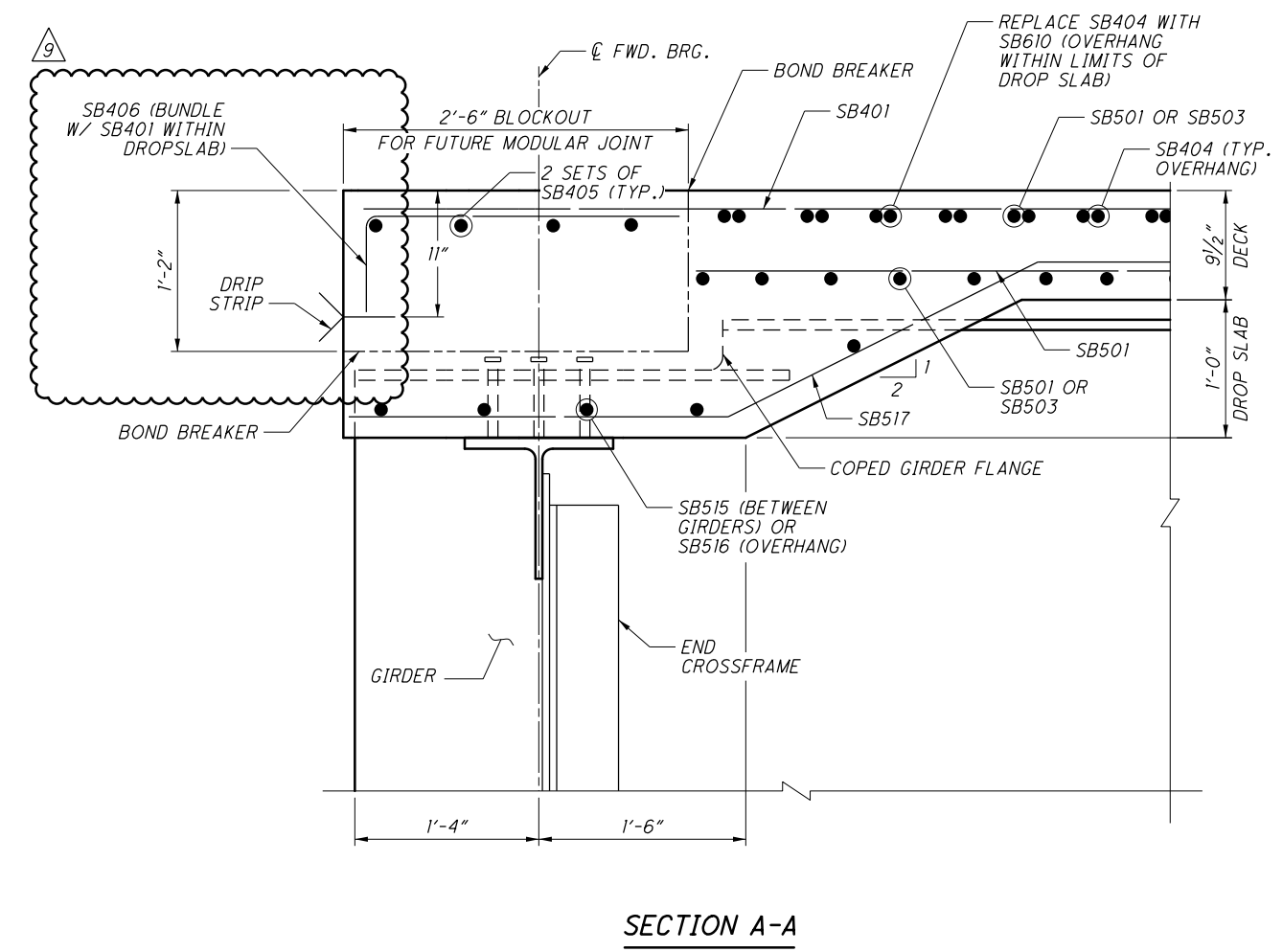
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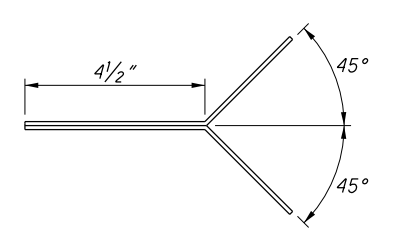
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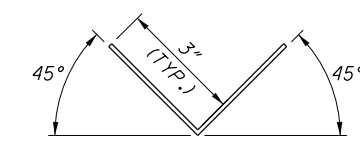
PIER 9L - PLAN



SECTION A-A



SECTION E-E



SECTION F-F

NOTES:

1. FOR ADDITIONAL DRIP STRIP NOTES AND DETAILS, SEE STD. DWG. DS-1-92.
2. FOR GIRDER COPING DETAILS, SEE SHEET 156/276.
3. FOR END CROSSFRAME DETAILS, SEE SHEET 159/276.
4. PAYMENT FOR DRIP STRIP IS INCIDENTAL TO THE COST OF ITEM 511 - CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK, AS PER PLAN

NO.	DESCRIPTION	REV. BY	DATE
9	UPDATED BAR CALLOUT	DBL	12/09/21

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DATE
20-APR
2510025

REVIEWED
GLG
STRUCTURE FILE NUMBER
2510025

DRAWN
PES
REVISED

DESIGNED
FBW
CHECKED
PEG

EXPANSION JOINT DETAILS (3 OF 9)
BRIDGE NO. FRA-71-1503L
I-75 OVER SCIOTO RIVER

FRA-71-14.36
PID No. 105588

235/276

1156
1228

ms consultants, inc.



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34" x 22"



MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS				INC.
	TOTAL					A	B	C	D	
DECK SLAB BARS										
SB401	4,488		30'-0"	89,940	ST					2'-4 3/4"
SB402	79		20'-2"	1,064	ST					
SB403	6,954		9'-0"	41,807	16	8'-6"				
SB404	3,477		3'-8"	8,516	37	1'-6"	6"	1'-6"	6"	2'-5 5/8"
SB405	8		2'-6"	115	ST					
SB406	47		2'-11"	92	1	9"	2'-3"			
S401	12		6'-6"	52	ST					
SB501	19,473		30'-0"	609,310	ST					
SB502	79		3'-2"	261	ST					
	2		3'-2"							
SB503	SER. OF	TO		347	ST					
	11		27'-1"							
	2		4'-10"							
SB504	SER. OF	TO		138	ST					
	6		17'-2"							
SB505	310		22'-2"	7,167	ST					
SB506	120		17'-0"	2,128	ST					
SB507	774		13'-6"	10,898	ST					
SB508	698		10'-0"	7,280	ST					
SB509	118		5'-5"	667	ST					
SB510	304		26'-1"	8,270	ST					
SB511	332		19'-2"	6,637	ST					
SB512	400		16'-3"	6,780	ST					
SB513	678		8'-1"	5,716	ST					
SB514	2,974		7'-4"	22,747	ST					
SB515	60		10'-1"	631	ST					
SB516	25		3'-2"	83	ST					
SB517	178		8'-3"	1,532	37	2'-7"	2'-3"	3'-2"	1'-1"	
SB518	178		4'-0"	743	7	1'-6"	1'-3"	1'-0"	7"	
S501	40		5'-3"	219	1	2'-4"	3'-0"			
S502	40		3'-0"	125	1	9"	2'-4"			
SB601	1,979		30'-0"	89,174	ST					
SB602	78		9'-2"	1,074	ST					
SB603	78		17'-4"	2,031	ST					
SB604	78		12'-4"	1,445	ST					
SB605	78		25'-6"	2,987	ST					
SB606	78		26'-6"	3,105	ST					
SB608	3,113		3'-5"	15,975	1	1'-1"	2'-6"			
SB609	3,113		3'-5"	15,975	28	1'-8"	1'-0"			
SB610	28		3'-8"	154	37	1'-6"	6"	1'-5"	6"	
S601	16		2'-8"	64	2	8"	1'-8"	8"		
S602	24		7'-0"	252	ST					
S603	36		9'-9"	527	ST					
S701	32		4'-5"	289	ST					
TOTAL				966,317						

NO.	DESCRIPTION	REV. BY	DATE
9	UPDATED BAR QUANTITIES	DBL	12/09/21

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS			
	TOTAL					A	B	C	D
RAILING BARS									
RB501	416		30'-0"	13,017	ST				
RB502	4		16'-6"	69	ST				
RB503	4		9'-10"	41	ST				
RB504	2		6'-3"	13	ST				
RB505	176		14'-6"	2,662	ST				
RB506	334		7'-0"	2,439	ST				
RB507	2		11'-1"	23	ST				
RB508	2		11'-7"	24	ST				
RB509	56		10'-6"	613	ST				
RB510	2		6'-6"	14	ST				
RB511	3,113		7'-5"	24,081	23	11"	3'-3"	3'-0"	
RB512	6		3'-7"	22	ST				
RB513	6		13'-11"	87	ST				
RB516	SER. OF	TO		13	ST				
	4		3'-6"						
	1		3'-10"						
RB517	SER. OF	TO		328	28	3'-2"	TO		
	46		9'-10"				4"		
							3'-4"		
RB518	12		3'-3"	41	ST				
RB519	28		7'-6"	219	23	11"	3'-3"	3'-3"	
R501	56		8'-0"	467	21	1'-4"	2'-0"	6"	2'-1"
R503	40		3'-11"	163	2		2'-0"	2'-2"	
R504	16		3'-3"	54	ST				
R505	16		2'-10"	47	2	5"	2'-3"	5"	
R506	16		8'-5"	140	9	3'-2"	7"	2'-3"	3'-2"
RB601	1		6'-3"	9	ST				
RB602	88		14'-6"	1,917	ST				
RB603	175		7'-0"	1,840	ST				
RB604	1		11'-1"	17	ST				
RB605	1		11'-7"	17	ST				
RB606	28		10'-6"	442	ST				
RB607	1		6'-6"	10	ST				
RB608	1		3'-7"	5	ST				
RB609	1		13'-11"	21	ST				
RB610	2		3'-3"	10	ST				
TOTAL				48,865					

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS			
	TOTAL					A	B	C	D
LONG-TERM TEMPORARY BARRIER BARS									
RB508	42		11'-7"	507	ST				
RB514	186		9'-6"	1,843	ST				
RB515	432		3'-9"	1,690	34	0"	1'-8"	1'-0"	3'-2"
RB610	31		9'-6"	442	ST				
RB611	7		11'-7"	122	ST				
TOTAL				4,604					

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEET 264/276



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MARK	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
					A	B	C	D
DECK SLAB BARS								
SC401	3,934	30'-0"	78,837	ST				
SC402	97	20'-1"	1,301	ST				
SC403	4	7'-1"	19	ST				
SC404	3	26'-7"	53	ST				
SC405	6,278	9'-0"	37,743	16	8'-6"			
SC406	3,142	5'-8"	11,894	37	1'-6"	6"	1'-6"	6"
SC501	16,742	30'-0"	523,857	ST				
SC502	2,622	21'-8"	89,253	ST				
SC503	2	26'-1"	54	ST				
SC504	4	25'-0"	104	ST				
SC505	576	12'-8"	7,610	ST				
SC506	1,484	7'-8"	11,867	ST				
SC507	242	8'-8"	2,188	ST				
SC508	484	10'-8"	5,385	ST				
SC509	484	14'-8"	7,404	ST				
SC510	484	16'-8"	8,414	ST				
SC514	61	10'-1"	642	ST				
SC515	22	3'-2"	73	ST				
SC516	156	8'-3"	1,342	37	2'-7"	2'-3"	3'-2"	1'-1"
SC517	156	4'-0"	651	7	1'-6"	1'-3"	1'-0"	7"
S501	32	5'-3"	175	1	2'-4"	3'-0"		
S502	32	3'-0"	100	1	9"	2'-4"		
SC601	1,705	30'-0"	76,827	ST				
SC602	78	16'-4"	1,914	ST				
SC603	81	9'-4"	1,136	ST				
SC604	86	17'-6"	2,261	ST				
SC605	91	23'-10"	3,258	ST				
SC606	91	21'-3"	2,904	ST				
SC607	2,763	3'-5"	14,179	1	1'-1"	2'-6"		
SC608	2,763	3'-5"	14,179	28	1'-8"	1'-0"		
SC609	34	5'-8"	289	37	1'-6"	6"	1'-6"	6"
S601	22	2'-8"	88	2	8"	1'-8"	8"	
S701	32	4'-5"	289	ST				
TOTAL			876,290					

MARK	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
					A	B	C	D
RAILING BARS								
RC501	372	30'-0"	11,640	ST				
RC502	4	9'-2"	38	ST				
RC503	4	8'-8"	36	ST				
RC504	130	14'-6"	1,966	ST				
RC505	308	7'-0"	2,249	ST				
RC506	2	7'-7"	16	ST				
RC507	2	12'-6"	26	ST				
RC508	72	11'-6"	864	ST				
RC509	2,763	7'-5"	21,373	23	11"	3'-3"	3'-0"	
R501	32	8'-0"	267	21	1'-4"	2'-0"	6"	2'-1"
R503	32	6'-1"	203	2	2'-2"	2'-0"	2'-2"	
R504	8	3'-3"	27	ST				
R505	8	2'-10"	24	2	5"	2'-3"	5"	
R506	8	9'-0"	75	9	7"	3'-2"	2'-10"	3'-2"
R507	8	12'-7"	105	21	5'-10"	2'-0"	6"	2'-2"
R508	14	2'-7"	38	2	5"	2'-0"	5"	
R509	14	8'-9"	128	9	7"	3'-2"	2'-7"	3'-2"
R510	8	25'-6"	213	ST				
R511	8	14'-6"	121	ST				
R512	12	1'-6"	19	ST				
R513	70	7'-5"	541	23	11"	3'-3"	3'-0"	
RC601	65	14'-6"	1,416	ST				
RC602	154	7'-0"	1,619	ST				
RC603	1	7'-7"	11	ST				
RC604	1	12'-6"	19	ST				
RC605	36	11'-6"	622	ST				
R601	4	14'-6"	87	ST				
R602	2	1'-6"	5	ST				
TOTAL			43,748					

MARK	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
					A	B	C	D
APPROACH SLAB RAILING BARS								
R603	70	3'-2"	333	1	1'-0"	2'-4"		
R604	70	3'-3"	342	28	1'-7"	1'-0"		
TOTAL			675					

NO.	DESCRIPTION	REV. BY	DATE
9	UPDATED BAR QUANTITIES	DBL	12/09/21

NOTES:

- FOR ADDITIONAL NOTES, SEE SHEET 264/276
- APPROACH SLAB RAILING BARS SHOWN FOR INFORMATION ONLY. APPROACH SLAB REINFORCING IS INCIDENTAL TO ITEM 526 - REINFORCED CONCRETE APPROACH SLAB WITH QC/OA (T=17").