

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FRA-71-0.00 (PIC)

(DARBY TOWNSHIP)
JACKSON TOWNSHIP
PLEASANT TOWNSHIP
FRANKLIN COUNTY
(PICKAWAY COUNTY)

PROJECT DESCRIPTION

THIS PROJECT WILL CONSIST OF WIDENING 4.98 MILES OF I-71 FROM THE FRANKLIN/PICKAWAY COUNTY LINE NORTH TO JUST SOUTH OF THE I-71 AND SR 665 INTERCHANGE. THE PROJECT INCLUDES ADDING A THIRD LANE TO THE MEDIAN SIDE IN BOTH DIRECTIONS, REPLACING TWIN SUPERSTRUCTURES OVER THE INDIANA & OHIO RAILWAY COMPANY RAILROAD TRACKS AND US 62, AND ASSOCIATED ROADWAY, SIGNING AND DRAINAGE IMPROVEMENTS. THE PROJECT ALSO INCLUDES RECONSTRUCTION OF ALL THE RAMPS AT THE US 62 INTERCHANGE. THE PROJECT DOES NOT INCLUDE 0.31 MILE OF PREVIOUSLY CONSTRUCTED IMPROVEMENTS AT THE BIG DARBY CREEK.

PROJECT EARTH DISTURBED AREA: 139 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 14 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 153 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

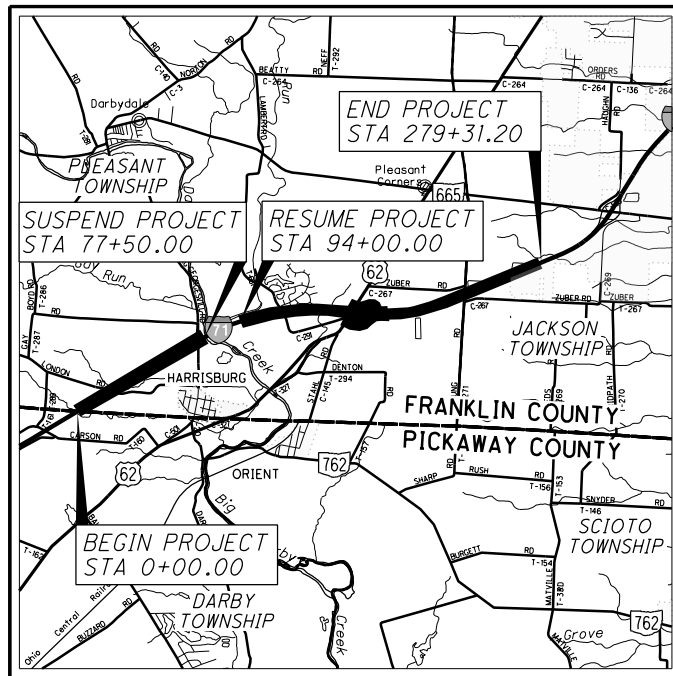
2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

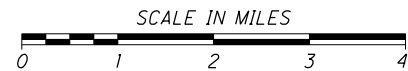
APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION



LOCATION MAP

LATITUDE: 39°49'30" LONGITUDE: 83°09'00"



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION AND DESIGN EXCEPTIONS

SEE SHEET 2

INDEX OF SHEETS:

TITLE SHEET	1	TRAFFIC CONTROL	1031-1100
SCHEMATIC PLAN	2-5	LIGHTING	1101-1107
TYPICAL SECTIONS	6-9	STRUCTURE (20' & OVER) FRA-71-0296	1108-1193
GENERAL NOTES	10-14	STRUCTURE (20' & OVER) FRA-71-0308	1194-1273
NOT USED	15	NOISE WALLS	1274-1300
MAINTENANCE OF TRAFFIC	16-383	RIGHT OF WAY PLAN	1301-1312
GENERAL SUMMARY	384-393	SOIL BORINGS	
NOT USED	394		
SUBSUMMARIES	395-408		
STORM WATER SITE PLAN	409-479		
PLAN AND PROFILE - I-71	480-647		
PLAN AND PROFILE - RAMP A	648-653		
PLAN AND PROFILE - RAMP B	654-659		
PLAN AND PROFILE - RAMP C	660-665		
PLAN AND PROFILE - RAMP D	666-670		
CROSS SECTIONS - I-71	671-856		
CROSS SECTIONS - RAMP A	857-870		
CROSS SECTIONS - RAMP B	871-882		
CROSS SECTIONS - RAMP C	883-893		
CROSS SECTIONS - RAMP D	894-902		
SUPERELEVATION TABLES	903-917		
INTERSECTION DETAIL	918-919		
INTERCHANGE DETAILS	920-926		
CULVERT DETAILS	927-942		
DRAINAGE DETAILS	943-1019		
MISCELLANEOUS DETAILS	1020-1030		
TRAFFIC CONTROL	1031-1100		

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS			
BP-1.1	7/28/00	DM-1.1	7/21/17	MGS-5.2	7/15/16	HL-10.11	4/17/20	MT-95.30	7/19/19	MT-100.00	1/15/16	TC-41.50	10/18/13	800-2019	4/17/20
BP-2.1	7/17/15	DM-1.2	1/18/13	MGS-5.3	7/15/16	HL-10.12	1/20/17	MT-95.40	1/17/20	MT-101.60	1/17/20	TC-42.10	10/18/13	807	4/17/20
BP-2.2	7/18/08	DM-4.1	7/20/18	MGS-6.1	1/19/18	HL-10.13	4/17/20	MT-95.45	1/17/20	MT-101.70	1/17/20	TC-42.20	10/18/13	808	1/18/19
BP-2.3	7/18/14	DM-4.2	7/20/12	MGS-6.2	7/19/19	HL-10.31	4/17/20	MT-95.70	1/17/20	MT-101.75	1/17/20	TC-51.11	1/15/16	813	10/19/18
BP-3.1	1/17/20	DM-4.3	1/15/16			HL-20.11	4/17/20	MT-95.71	1/17/20	MT-101.80	1/17/20	TC-52.10	10/18/13	821	4/20/12
BP-5.1	1/18/19	DM-4.4	1/15/16	RM-1.1	7/18/14	HL-20.21	1/19/18	MT-95.72	1/17/20	MT-101.90	7/21/17	TC-52.20	7/20/18	832	10/19/18
BP-6.1	7/19/13			RM-4.3	7/18/14	HL-30.11	4/17/20	MT-95.82	7/19/13	MT-102.10	1/17/20	TC-61.10	1/17/20	833	7/19/19
BP-9.1	1/18/19	F-2.1	7/20/18	RM-4.5	7/21/17	HL-30.21	4/17/20	MT-98.10	1/17/20	MT-102.20	4/19/19	TC-64.10	1/17/20	836	1/19/18
		F-3.1	7/19/13	RM-4.6	7/19/13	HL-30.22	4/17/20	MT-98.11	1/17/20	MT-102.30	10/16/15	TC-65.10	1/17/14	837	7/19/19
CB-2.1	7/20/18	F-3.3	7/19/13			HL-30.31	4/17/20	MT-98.20	4/19/19	MT-103.10	1/19/18	TC-65.11	7/21/17	846	4/17/15
CB-2.2	7/20/18	F-3.4	7/19/13	AS-1-15	7/17/15	HL-30.32	4/17/20	MT-98.21	1/17/20	MT-104.10	10/16/15	TC-71.10	1/19/18	848	1/20/17
CB-2.3	1/15/16			AS-2-15	1/18/19	HL-40.20	1/17/20	MT-98.22	1/17/20	MT-105.10	1/17/20	TC-72.20	7/20/18	878	1/17/20
CB-3.2	1/15/16	MGS-1.1	1/19/18	GSD-1-19	1/18/19	HL-50.21	4/17/20	MT-98.28	1/17/20			TC-73.20	1/17/20	899	1/17/20
CB-3.3	1/15/16	MGS-2.1	1/19/18	PCB-91	1/18/13	HL-60.11	7/21/17	MT-98.29	1/17/20	TC-12.30	1/19/18			905	4/17/20
CB-3.4	1/15/16	MGS-3.1	1/19/18	SBR-1-13	7/20/18	HL-60.12	4/17/20	MT-98.30	7/19/19	TC-21.20	7/20/18			908	10/20/17
I-2.2	7/19/19	MGS-3.2	1/18/13	SICD-1-96	7/18/14	HL-60.21	7/20/18	MT-99.20	4/19/19					913	4/21/17
		MGS-4.2	7/19/13	SICD-2-14	7/18/14	HL-60.31	1/17/20	MT-99.30	1/17/20	TC-41.20	10/18/13			921	4/20/12
MH-1.2	1/15/16	MGS-4.3	1/18/13	VPF-1-90	7/20/18			MT-99.60	7/15/16	TC-41.30	10/18/13			938	1/19/18

SPECIAL PROVISIONS

JORY PPM APRIL 2019
C&W Track Monitoring 01/18

UNDERGROUND UTILITIES



PLAN PREPARED BY:

Mead & Hunt
4700 LAKEHURST CT, STE 110
COLUMBUS, OH 43016
(614) 792-5900 PHONE

ENGINEERS SEAL:

STRUCTURES

SIGNED: Balasubramanyam V.
DATE: 4/9/2020

ENGINEERS SEAL:

ROADWAY

SIGNED: Daniel C. Barnhart
DATE: 4/9/2020

ENGINEERS SEAL:

MOT AND LIGHTING

SIGNED: Shawn M. McPherson
DATE: 4/9/2020

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

PAYMENT

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

ESTIMATED QUANTITIES

FOR THE ASPHALT OPTION, A WEDGE COURSE SHALL BE INSTALLED AT THE CONCLUSION OF PHASE 1 AND PHASE 2 TO PROVIDE A SMOOTH TRANSITION APPROACHING AND DEPARTING THE APPROACH SLABS/BRIDGE DECKS. THIS TRANSITION SHALL BE AT A MINIMUM OF 120:1. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
 144 CU. YD.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 962 M. GAL.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 10 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 300 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY-ROUTE-SECTION	DIRECTION
WZ-35645	FRA-71-0.00	NORTHBOUND
WZ-35645	FRA-71-0.00	SOUTHBOUND

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1). ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMTUCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT
 SLM 0.00 TO SLM 4.2570 MPH
 SLM 4.25 TO SLM 5.2965 MPH

ORIGINAL POSTED SPEED LIMIT	W/ POSITIVE PROT.		W/OUT POSITIVE PROT.	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN 4 EACH
 ASSUMING 4 SIGNS (WINTERIZATION)

ITEM 614, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 160 SIGN MNTH
 ASSUMING 2 DSL SIGN ASSEMBLIES FOR 2 MONTHS (PRE-PHASE 1, PARTS A & B)
 ASSUMING 7 DSL SIGN ASSEMBLIES FOR 4 MONTHS (PHASE 1)
 ASSUMING 8 DSL SIGN ASSEMBLIES FOR 4 MONTHS (PHASE 2)
 ASSUMING 12 DSL SIGN ASSEMBLIES FOR 8 MONTHS (PHASE 3)

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR

HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

(THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.)

THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 40 EACH

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AT THE LOCATIONS DETAILED IN THE PLANS.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

J:\20130212\ODOT\FRA\107201\mot\sheet\107201M5001.dgn 6/26/2020 8:42:58 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	615	615	615	615	615	616	646	808
		MAINTAINING TRAFFIC, AS PER PLAN	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	DETOUR SIGNING	WORK ZONE SPEED LIMIT SIGN	WORK ZONE INCREASED PENALTIES SIGN	REPLACEMENT SIGN	REPLACEMENT DRUM	WORK ZONE CROSSOVER LIGHTING SYSTEM	MAINTAINING TRAFFIC - MISC.: BRIDGE DECK AND PAVEMENT PATCHING	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN		WORK ZONE EDGE LINE, CLASS 1, 6", 807			ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	WATER	SPECIAL - AIR SPEED ZONE MARKING
		PLAN	ASSISTANCE	SIGNING	SIGN	SIGN	SIGN	SIGN	SIGN	SIGN	SIGN	SIGN	SIGN	SIGN	TRAFFIC, AS PER PLAN	TRAFFIC, CLASS A	TRAFFIC, CLASS A, AS PER PLAN	TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	MGAL	EACH	SNMT
16		LUMP																						
19					12	40	10	100														962		160
20													22											
21			1500																					
22				LUMP											LUMP									
23																		300	6844	2000	500		18	
46	PRE-PHASE 1												937		357	699								
47	PRE-PHASE 1												1444		4745	2871								
48	PRE-PHASE 1												1600		169	2035								
49	PRE-PHASE 1												1600			2055								
50	PRE-PHASE 1												1600			2009								
51	PRE-PHASE 1												765			958								
52	PRE-PHASE 1																							
53	PRE-PHASE 1																							
54	PRE-PHASE 1																							
55	PRE-PHASE 1												1400			1846								
56	PRE-PHASE 1												1600			2111								
57	PRE-PHASE 1												1439			1844								
58	PRE-PHASE 1												1308			1584								
59	PRE-PHASE 1												1328		152	1774								
60	PRE-PHASE 1												1832		34	2210								
61	PRE-PHASE 1												4512		6244	4639								
62	PRE-PHASE 1												4138		2770	4394								
63	PRE-PHASE 1												1600			2031								
64	PRE-PHASE 1												1600			2103								
65	PRE-PHASE 1												532			1471								
66	PRE-PHASE 1															1273								
112	PRE-PHASE 1								1															
113	PRE-PHASE 1								1															
114	PRE-PHASE 1								1															
SUB-TOTALS													29235 FT											
TOTALS CARRIED TO SHEET 392		LUMP	1,500	LUMP	12	40	10	100	3	\$180,000	22		5.54 MI		LUMP	14,471	37,907	300	6,844	2,000	500	962	18	160

CALCULATED	BER
	CHECKED
SMM	
MAINTENANCE OF TRAFFIC SUBSUMMARY (CONCRETE OPTION)	
FRA - 71 - 0.00	
28	
1312	

J:\20130212\ODOT\FRA\107201\mot\sheet\107201MS002.dgn 6/26/2020 8:43:00 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622	622						
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	WORK ZONE CROSSOVER LIGHTING SYSTEM	WORK ZONE RAISED PAVEMENT MARKER	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	OBJECT MARKER, TWO-WAY	WORK ZONE LANE LINE, CLASS I, 6", 807	WORK ZONE EDGE LINE, CLASS I, 6", 807	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED	GLARE SCREEN						
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	SY	SY	FT	FT	FT							
115	PRE-PHASE 1					81					460	530														
116	PRE-PHASE 1					171					1650	1125														
117	PRE-PHASE 1	1				191	60	8	28		63	4768	573		212			940						360		
118	PRE-PHASE 1					81	54	16	34		600	4000	200					900						800		
119	PRE-PHASE 1					200	15		5			3524	800					220						220		
120	PRE-PHASE 1					9					28	62														
121	PRE-PHASE 1					24					462															
122	PRE-PHASE 1					70					1600															
123	PRE-PHASE 1	1				20	14	4	19			1600						740								
124	PRE-PHASE 1					80	6	6	8			1289						100								
125	PHASE 1-3		4					14		14								700								
128	PHASE 1					87					532	566														
130	PHASE 1	1				98	45		15		200	1658	629			133		740								
132	PHASE 1					64	48	7	23		410	1600	390			553		800								
133	PHASE 1					120	48	7	23			1600	800			553		800								
134	PHASE 1					41	48		16		560	1600	240			553		800								
135	PHASE 1					7	48		16		800	1600				553		800								
136	PHASE 1					7	48		16		800	1600				553		800								
137	PHASE 1					7	48		16		800	1600				553		800								
138	PHASE 1					7	48		16		800	1600				553		800								
139	PHASE 1					7	48		16		800	1600				553		800								
140	PHASE 1					78	48		16		300	1600	500			500		800								
142	PHASE 1				1	78	3		1		310	1600	490			46		50								
144	PHASE 1	1			3	47	9	5	15		510	1600	290				110									
146	PHASE 1					106	48		16		100	1600	700			238		800								
148	PHASE 1					7	48		16		800	1600				553		800								
150	PHASE 1					7	48		16		800	1600				553		800								
151	PHASE 1					7	48		16		800	1600				553		800								
152	PHASE 1					7	54	2	20		800	1600				553		800								
153	PHASE 1					7	48		16		800	1600				553		800								
154	PHASE 1					7	48		16		800	1600				553		800								
156	PHASE 1					7	48		16		800	1600				553		800								
158	PHASE 1				2	5	57	10	29		800	1600				241		570	230							
160	PHASE 1				2	5		3	20		800	1647		420		282		550	250							
162	PHASE 1					7	48		16		800	1600				553		800								
164	PHASE 1					7	48		16		800	1600		368		553		800								
166	PHASE 1					7	48		16		800	1600		672		976	290	800								
168	PHASE 1					7	48		16		800	1600				2086		800								
169	PHASE 1					7	48		16		800	1600				661		800								
170	PHASE 1					7	48		16		800	1600				553		800								
171	PHASE 1					7	48		16		800	1600				553		800								
172	PHASE 1					7	48		16		800	1600				553		800								
173	PHASE 1					7	48		16		800	1600				553		800								
174	PHASE 1					7	48		16		800	1600				553		800								
175	PHASE 1					7	48		16		800	1600				553		800								
176	PHASE 1					7	48		16		800	1600				553		800								
177	PHASE 1					7	48		16		800	1600				553		800								
178	PHASE 1					78	36		12		300	1600	500			548		600								
180	PHASE 1					105						776	688			814										
204	PHASE 1			1																						
205	PHASE 1			1																						
SUB-TOTALS											24,953 FT	78,394 FT														
TOTALS CARRIED TO SHEET 392		4	4	2	8	2,014	1,759	68	684	14	4.73 MILE	14.85 MILE	9,083	1,460	212	20,350	290	30,220	480	1,380						

CALCULATED
 BER
 CHECKED
 SMM
MAINTENANCE OF TRAFFIC SUBSUMMARY (CONCRETE OPTION)
FRA - 71 - 0.00
 29
 1312

J:\2013\0212\ODOT\FRA\107201\mot\sheet\107201MS005.dgn 6/26/2020 8:43:02 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622						
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	DETOUR SIGNING	WORK ZONE RAISED PAVEMENT MARKER	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	WORK ZONE LANE LINE, CLASS I, 6", 807	WORK ZONE EDGE LINE, CLASS I, 6", 807	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	GLARE SCREEN					
		EACH		EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	SY	SY	FT	FT						
319	PRE-PHASE 3														30	65								
320	PRE-PHASE 3					33	11								1105	197	550							
321	PRE-PHASE 3	1				15	5								408	114	250							
322	PRE-PHASE 3		LUMP																					
332	PHASE 3				219				1696	1448														
333	PHASE 3	1		32	170	78	4	4	353	3200	1305		142				630	630						
334	PHASE 3			28		96	7	7	1500	3200	100						800	800						
335	PHASE 3			14		96	6	6	1600	3200							800	800						
336	PHASE 3			14		102	8	10	1600	3200							800	800						
337	PHASE 3			14		96	6	6	1600	3200							800	800						
338	PHASE 3			14		96			1600	3200							800	800						
339	PHASE 3			14		96			1600	3200							800	800						
340	PHASE 3			14		96			1600	3200							800	800						
341	PHASE 3			14		96			1600	3200							800	800						
342	PHASE 3			14		96	9	16	1600	3200							800	800						
343	PHASE 3			14		96	3	26	1600	3200							800	800						
344	PHASE 3			14		96	6	26	1600	3200							800	800						
345	PHASE 3			14		96			1600	3200							800	800						
346	PHASE 3			14		96			1600	3200							800	800						
347	PHASE 3			14		96	12	12	1600	3200							800	800						
348	PHASE 3			14		96	4	4	1600	3200							800	800						
349	PHASE 3			14		102	8	10	1600	3200							800	800						
350	PHASE 3			14		96			1600	3200							800	800						
351	PHASE 3			14		96	12	12	1600	3200							800	800						
352	PHASE 3			14		96	16	16	1600	3200							800	800						
353	PHASE 3			14		111	16	21	1600	3200		100					800	800						
354	PHASE 3			14		126	11	21	1600	3295		535					800	800						
355	PHASE 3			14		96			1600	3200							800	800						
356	PHASE 3			14		153		19	1600	3800							1750	800						
357	PHASE 3	1		14	18	144		16	1600	4800		250					1600	800						
358	PHASE 3	1		14	33	123		9	1600	3798		790		44			1220	800						
359	PHASE 3			14		96			1600	3200		305		112			800	800						
360	PHASE 3			14		96			1600	3200							800	800						
361	PHASE 3			14		96			1600	3200							800	800						
362	PHASE 3			14		96			1600	3200							800	800						
363	PHASE 3			14		96			1600	3200							800	800						
364	PHASE 3			14		96			1600	3200							800	800						
365	PHASE 3			14		96			1600	3200							800	800						
366	PHASE 3			14		96			1600	3200							800	800						
367	PHASE 3			14		96			1600	3200							800	800						
368	PHASE 3			52	64	96			891	3200	709						800	800						
369	PHASE 3				240	12				2768	1600						160	160						
370	PHASE 3				60						384													
374	PHASE 3					12		4		1208			14				160							
375	PHASE 3					54		18		1800							900							
376	PHASE 3		LUMP																					
SUB-TOTALS									55,544 FT	125,565 FT														
TOTALS CARRIED TO SHEET 392		4	LUMP	574	804	3,753	128	279	10.52 MILE	23.74 MILE	5,546	2,488	142	14	156	1,543	376	32,820	28,790					

CALCULATED
 BER
 CHECKED
 SMM
MAINTENANCE OF TRAFFIC SUBSUMMARY (CONCRETE OPTION)
FRA-71-0.00
 32
 1312

J:\20130212\ODOT\FRA\107201\mot\sheets\107201MS006.dgn 6/26/2020 8:43:03 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	622										
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	WORK ZONE RAISED PAVEMENT MARKER EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY) EACH	OBJECT MARKER, ONE-WAY EACH	WORK ZONE EDGE LINE, CLASS I, 6", 807 FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT FT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT FT	PORTABLE BARRIER, UNANCHORED FT										
377	PHASE 3A				36	12	1160	16		580											
378	PHASE 3A	1			39	13	1800			620											
379	PHASE 3A				12	4	1200			156											
380	PHASE 3A				48	16	1600			800											
381	PHASE 3A	1	58	39	18	6	1847	115	155	254											
382	PHASE 3A			15			305	305													
SUB-TOTALS							7,912 FT														
TOTALS CARRIED TO SHEET 392		2	58	54	153	51	1.50 MILE	420	16	155	2,410										

CALCULATED BER CHECKED SMM	MAINTENANCE OF TRAFFIC SUBSUMMARY (CONCRETE OPTION)
	FRA - 71 - 0:00

J:\20130212\ODOT\FRA\107201\mot\sheet\107201MS007.dgn 6/26/2020 8:43:04 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614		614				615	615	615	615	615	615	615	616	644	808	
		MAINTAINING TRAFFIC, AS PER PLAN	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	DETOUR SIGNING	WORK ZONE SPEED LIMIT SIGN	WORK ZONE INCREASED PENALTIES SIGN	REPLACEMENT SIGN	REPLACEMENT DRUM	WORK ZONE CROSSOVER LIGHTING SYSTEM	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN		WORK ZONE EDGE LINE, CLASS 1, 6", 807				ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	WATER	SPECIAL - AIR SPEED ZONE MARKING	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
			hour		EACH	EACH	EACH	EACH	EACH	CY	EACH	SNMT		FT				SY	SY	SY	SY	SY	SY	MGAL	EACH	SNMT	
16		LUMP																									
19					12	40	10	100		144														962		160	
20																											
21			1500																								
22				LUMP													LUMP										
23											\$180,000										300	6844	2000	500	18		
67	PRE-PHASE 1													757				165	560								
68	PRE-PHASE 1													2974				4348	3302								
69	PRE-PHASE 1													1600				342	2035								
70	PRE-PHASE 1													1600				465	2055								
71	PRE-PHASE 1													1600				449	2009								
72	PRE-PHASE 1													765				314	958								
73	PRE-PHASE 1																	146									
74	PRE-PHASE 1																	28									
75	PRE-PHASE 1																	302									
76	PRE-PHASE 1													1400				441	1846								
77	PRE-PHASE 1													1600				334	2111								
78	PRE-PHASE 1													1444				307	1845								
79	PRE-PHASE 1													1214				168	1483								
80	PRE-PHASE 1													1382				414	1842								
81	PRE-PHASE 1													1831				538	2210								
82	PRE-PHASE 1													4511				6264	4639								
83	PRE-PHASE 1													4138				3199	4394								
84	PRE-PHASE 1													1600				540	2031								
85	PRE-PHASE 1													1600				473	2103								
86	PRE-PHASE 1													532				192	1465								
112	PRE-PHASE 1									1																	
113	PRE-PHASE 1									1																	
114	PRE-PHASE 1									1																	
TOTALS CARRIED TO SHEET 392		LUMP	1,500	LUMP	12	40	10	100	3	144	\$180,000	22		30548 FT				LUMP	19,429	36,888	300	6,844	2,000	500	962	18	160

CALCULATED BER CHECKED SMM	MAINTENANCE OF TRAFFIC SUBSUMMARY (ASPHALT OPTION)
	FRA - 71 - 0.00
	34 1312

J:\20130212\ODOT\FRA\107201\mot\sheet\107201MS008.dgn 6/26/2020 8:43:05 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622	622						
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	WORK ZONE CROSSOVER LIGHTING SYSTEM	WORK ZONE RAISED PAVEMENT MARKER	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	OBJECT MARKER, TWO-WAY	WORK ZONE LANE LINE, CLASS I, 6", 807	WORK ZONE EDGE LINE, CLASS I, 6", 807	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED	GLARE SCREEN						
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	SY	SY	FT	FT	FT							
115	PRE-PHASE 1					81					460	530														
116	PRE-PHASE 1					171					1650	1125														
117	PRE-PHASE 1	1				191	60	8	28		63	4768	573		212			940						360		
118	PRE-PHASE 1					81	54	16	34		600	4000	200					900						800		
119	PRE-PHASE 1					200	15		5			3524	800					220						220		
120	PRE-PHASE 1					9						28	62													
121	PRE-PHASE 1					24						462														
122	PRE-PHASE 1					70						1600														
123	PRE-PHASE 1	1				20	14	4	19			1600						740								
124	PRE-PHASE 1					80	6	6	8			1289						100								
125	PHASE 1-3		4					14		14								700								
127	PHASE 1					15							94													
129	PHASE 1					120						1188	800													
131	PHASE 1	1				85	45	15	30		283	1658	546					730								
132	PHASE 1					64	48	7	23		410	1600	390					800								
133	PHASE 1					120	48	7	23			1600	800					800								
134	PHASE 1					41	54	9	27		560	1600	240					800								
135	PHASE 1					7	48	7	23		800	1600						800								
136	PHASE 1					7	48		16		800	1600						800								
137	PHASE 1					7	48		16		800	1600						800								
138	PHASE 1					7	48		16		800	1600						800								
139	PHASE 1					7	48		16		800	1600						800								
141	PHASE 1					86	48		16		238	1600	563					800								
143	PHASE 1				1	99	9		3		145	1600	655					50								
145	PHASE 1					41	18	6	12		562	1600	238													
147	PHASE 1	1				120	48		16			1600	800		385			760								
149	PHASE 1					32	48		16		620	1600	180					800								
150	PHASE 1					7	48	13	29		800	1600						800								
151	PHASE 1					7	48	4	20		800	1600						800								
152	PHASE 1					7	54	2	20		800	1600						800								
153	PHASE 1					7	48		16		800	1600						800								
155	PHASE 1					7	48	10	26		800	1600						800								
157	PHASE 1					7	48	16	32		800	1600						800								
159	PHASE 1				2	5	57	12	31		800	1600						570	230							
161	PHASE 1				2	5	60	4	24		800	1647		420				550	250							
163	PHASE 1					7	48		16		800	1600						800								
165	PHASE 1					7	48		16		800	1600		422				800								
167	PHASE 1					7	48		16		800	1600		618		444	286	800								
168	PHASE 1					7	48		16		800	1600				2046		800								
169	PHASE 1					7	48		16		800	1600				308		800								
170	PHASE 1					7	48		16		800	1600						800								
171	PHASE 1					7	48	4	20		800	1600						800								
172	PHASE 1					7	48	6	22		800	1600						800								
173	PHASE 1					7	48		16		800	1600						800								
174	PHASE 1					7	48		16		800	1600						800								
175	PHASE 1					7	48		16		800	1600						800								
176	PHASE 1					7	48		16		800	1600						800								
177	PHASE 1					7	48		16		800	1600						800								
179	PHASE 1					78	36		12		300	1600	500			133		600								
181	PHASE 1					138						1220	910			814										
204	PHASE 1			1																						
205	PHASE 1			1																						
SUB-TOTALS											24,581 FT	79,494 FT														
TOTALS CARRIED TO SHEET 392		4	4	2	5	2,144	1,840	156	775	14	4.66 MILE	15.06 MILE	10,006	1,460	212	4,130	286	30,060	480	1,380						

CALCULATED	BER	CHECKED	SMM
MAINTENANCE OF TRAFFIC SUBSUMMARY (ASPHALT OPTION)			
FRA - 71-0:00			
35			
1312			

J:\20130212\ODOT\FRA\107201\mot\sheets\107201MS009.dgn 6/26/2020 8:43:06 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	622	622							
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	DETOUR SIGNING	WORK ZONE RAISED PAVEMENT MARKER	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	WORK ZONE LANE LINE, CLASS 1, 6", 807	WORK ZONE EDGE LINE, CLASS 1, 6", 807	WORK ZONE CHANNELIZING LINE, CLASS 1, 12", 807	WORK ZONE DOTTED LINE, CLASS 1, 12", 642 PAINT	WORK ZONE STOP LINE, CLASS 1, 642 PAINT	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED							
		EACH	EACH		EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT							
207	PHASE 2					39					257												
209	PHASE 2					120				1514	800												
211	PHASE 2					120				1600	800												
213	PHASE 2	1				33	42	14	666	1658	163				710								
214	PHASE 2					7	48	16	800	1600					800								
215	PHASE 2					7	48	16	800	1600					800								
216	PHASE 2					7	48	16	800	1600					800								
217	PHASE 2					7	48	16	800	1600					800								
218	PHASE 2					7	48	16	800	1600					800								
219	PHASE 2					7	48	16	800	1600					800								
220	PHASE 2					7	48	16	800	1600					800								
221	PHASE 2					7	48	16	800	1600					800								
223	PHASE 2					47	42	18	528	1600	272				900								
225	PHASE 2				12	111	102	5	36	1600	800				800								
227	PHASE 2				2	5	114		38	800	1600				800								
229	PHASE 2	2				7	84		28	800	1600				1400								
231	PHASE 2					7	48		16	800	1600				800								
232	PHASE 2					7	48		16	800	1600				800								
233	PHASE 2					7	48		16	800	1600				800								
234	PHASE 2					7	48		16	800	1600				800								
235	PHASE 2					7	48		16	800	1600				800								
236	PHASE 2					7	48		16	800	1600				800								
237	PHASE 2					7	48		16	800	1600				800								
239	PHASE 2				2	5	60	6	22	800	1600				570	230							
241	PHASE 2				2	5	108	3	39	800	1600				1350	250							
242	PHASE 2	1				7	64		20	800	1600				1000								
244	PHASE 2	1				7	45		15	800	2852				730								
246	PHASE 2					7	48		16	800	2050			350	800								
248	PHASE 2					7	48		16	800	1600			430	800								
249	PHASE 2					7	48		16	800	1600				800								
250	PHASE 2					7	48		16	800	1600				800								
251	PHASE 2					7	48		16	800	1600				800								
252	PHASE 2					7	48		16	800	1600				800								
253	PHASE 2					7	48		16	800	1600				800								
254	PHASE 2					7	48		16	800	1600				800								
255	PHASE 2					7	48		16	800	1600				800								
256	PHASE 2					7	48		16	800	1600				800								
257	PHASE 2					7	48		16	800	1600				800								
259	PHASE 2					78	36		12	300	1600	500			600								
261	PHASE 2					63					234	417											
262	PHASE 2		1			39			13		1414				610								
263	PHASE 2					6			2		1564				460								
264	PHASE 2			LUMP																			
266	PHASE 2A										1396			25									
267	PHASE 2A										1654												
269	PHASE 2A					24					151			151									
271	PHASE 2A	1									1331			269									
272	PHASE 2A										200												
273	PHASE 2A																						
274	PHASE 2A						45		15						750								
275	PHASE 2A						48		16		350				800								
276	PHASE 2A			LUMP			27		9		430				430								
277	PHASE 2A			LUMP																			
SUB-TOTALS										27,094 FT	71,198 FT												
TOTALS CARRIED TO SHEET 392		6	1	LUMP	18	829	2,134	14	713	5.13 MILE	13.48 MILE	4,009	1,200	25	32,710	480							

CALCULATED BY CHECKED BY SMM

MAINTENANCE OF TRAFFIC SUBSUMMARY (ASPHALT OPTION)

FRA - 71-0.00

36
1312

J:\20130212\ODOT\FRA\107201\mot\sheet\107201MS011.dgn 6/26/2020 8:43:07 AM brieder

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	615	622	622						
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	DETOUR SIGNING	WORK ZONE RAISED PAVEMENT MARKER	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	WORK ZONE LANE LINE, CLASS I, 6", 807	WORK ZONE EDGE LINE, CLASS I, 6", 807	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	GLARE SCREEN						
		EACH		EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	SY	SY	FT	FT							
319	PRE-PHASE 3														30	65									
320	PRE-PHASE 3					33		11							1105	197	550								
321	PRE-PHASE 3	1				15		5							408	114	250								
322	PRE-PHASE 3		LUMP																						
332	PHASE 3				219				1696	1448															
333	PHASE 3	1			202	78	4	4	353	3200	1305		142					630	630						
334	PHASE 3				28	96	7	7	1500	3200	100							800	800						
335	PHASE 3				14	96	6	6	1600	3200								800	800						
336	PHASE 3				14	102	8	10	1600	3200								800	800						
337	PHASE 3				14	96	6	6	1600	3200								800	800						
338	PHASE 3				14	96			1600	3200								800	800						
339	PHASE 3				14	96			1600	3200								800	800						
340	PHASE 3				14	96			1600	3200								800	800						
341	PHASE 3				14	96			1600	3200								800	800						
342	PHASE 3				14	96	9	16	1600	3200								800	800						
343	PHASE 3			2	12	96	3	26	1600	3200								800	800						
344	PHASE 3			4	8	96	6	26	1600	3200								800	800						
345	PHASE 3				14	96			1600	3200								800	800						
346	PHASE 3				14	96			1600	3200								800	800						
347	PHASE 3				14	96	12	12	1600	3200								800	800						
348	PHASE 3				14	96	4	4	1600	3200								800	800						
349	PHASE 3				14	102	8	10	1600	3200								800	800						
350	PHASE 3				14	96			1600	3200								800	800						
351	PHASE 3				14	96	12	12	1600	3200								800	800						
352	PHASE 3				14	96	16	16	1600	3200								800	800						
353	PHASE 3			4	10	111	16	21	1600	3200			100					800	800						
354	PHASE 3			4	10	126	11	21	1600	3295			535					800	800						
355	PHASE 3				14	96			1600	3200								800	800						
356	PHASE 3				14	153		19	1600	3800								1750	800						
357	PHASE 3	1			32	144		16	1600	4800			250					1600	800						
358	PHASE 3	1			47	123		9	1600	3798			790		44			1220	800						
359	PHASE 3				14	96			1600	3200			305		112			800	800						
360	PHASE 3				14	96			1600	3200								800	800						
361	PHASE 3				14	96			1600	3200								800	800						
362	PHASE 3				14	96			1600	3200								800	800						
363	PHASE 3				14	96			1600	3200								800	800						
364	PHASE 3				14	96			1600	3200								800	800						
365	PHASE 3				14	96			1600	3200								800	800						
366	PHASE 3				14	96			1600	3200								800	800						
367	PHASE 3				14	96			1600	3200								800	800						
368	PHASE 3				116	96			891	3200	709							800	800						
369	PHASE 3				240	12				2768	1600							160	160						
370	PHASE 3				60						384														
374	PHASE 3					12		4		1208				14				160							
375	PHASE 3					54		18		1800								900							
376	PHASE 3		LUMP																						
SUB-TOTALS									55,544 FT	125,565 FT															
TOTALS CARRIED TO SHEET 392		4	LUMP	14	1,362	3,753	128	279	10.52 MILE	23.78 MILE	5,546	2,488	142	14	156	1,543	376	32,820	28,790						

CALCULATED
 BER
 CHECKED
 SMM
FRA - 71-0.00
MAINTENANCE OF TRAFFIC SUBSUMMARY (ASPHALT OPTION)
 38
 1312

SHEET NO.	PHASE	614	614	614	614	614	614	614	614	622											
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY) EACH	OBJECT MARKER, ONE-WAY EACH	WORK ZONE EDGE LINE, CLASS I, 6", 807 FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT FT	WORK ZONE CORE MARKING, CLASS II, 642 PAINT FT	PORTABLE BARRIER, UNANCHORED FT											
377	PHASE 3A			36	12	1160		16		580											
378	PHASE 3A	1		39	13	1800				620											
379	PHASE 3A			12	4	1200				156											
380	PHASE 3A			48	16	1600				800											
381	PHASE 3A	1	54	18	6	1847	115		155	254											
382	PHASE 3A		15			305	305														
SUB-TOTALS						7,912 FT															
TOTALS CARRIED TO SHEET 392		2	69	153	51	1.50 MILE	420	16	155	2,410											

X:\4037000\121957.16\107201\roadway\sheets\107201G003.dgn Sheet 6/29/2020 3:01:18 PM 1458s.js

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
12	13	400	401	402	928					01/IMS/PV	02/NHS/PV	03/IMS/BR	04/IMS/BR						
		50								50				611	08200	50	FT	18" CONDUIT, TYPE F, 707.05, TYPE C OR 707.21	
			205							205				611	08900	205	FT	21" CONDUIT, TYPE B	
			64							64				611	08900	64	FT	21" CONDUIT, TYPE B, 706.02	
			34							34				611	09100	34	FT	21" CONDUIT, TYPE C, 706.02	
			90							90				611	10200	90	FT	24" CONDUIT, TYPE A, 706.02, 707.01 ALUMINIZED, 707.21, 707.33 WITH WELDED BELL	
			100							100				611	10200	100	FT	24" CONDUIT, TYPE A 706.02 OR 30" CONDUIT, TYPE A, 707.01, 707.02, 707.04, 707.05, 707.07 OR 707.21	
			184							184				611	10400	184	FT	24" CONDUIT, TYPE B	
			119							119				611	10400	119	FT	24" CONDUIT, TYPE B, 706.02	
			8							8				611	10600	8	FT	24" CONDUIT, TYPE C, 706.02	
			999							999				611	10600	999	FT	24" CONDUIT, TYPE C	
50										50				611	10600	50	FT	24" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	
250										250				611	10601	250	FT	24" CONDUIT, TYPE C, AS PER PLAN	12
					26					26				611	13200	26	FT	30" CONDUIT, TYPE A, 706.02	
			113							113				611	13400	113	FT	30" CONDUIT, TYPE B	
			501							501				611	13600	501	FT	30" CONDUIT, TYPE C	
			34							34				611	13600	34	FT	30" CONDUIT, TYPE C, 706.02	
			40							40				611	14200	40	FT	30" CONDUIT, TYPE F, 707.05	
			245							245				611	16400	245	FT	36" CONDUIT, TYPE B, 706.02	
250										250				611	16601	250	FT	36" CONDUIT, TYPE C, AS PER PLAN	12
					32					32				611	20700	32	FT	48" CONDUIT, TYPE A, 706.02	
					24					24				611	20700	24	FT	48" CONDUIT, TYPE A, 707.07	
					24					24				611	26000	24	FT	72" CONDUIT, TYPE A, 707.07	
					232					232				611	52500	232	FT	24" X 38" CONDUIT, TYPE A, 706.04	
					227					227				611	52700	227	FT	29" X 45" CONDUIT, TYPE A, 706.04	
					304					304				611	95001	304	FT	10' X 5' CONDUIT, TYPE A, 706.05, AS PER PLAN	937
			192							192				611	96600	192	FT	CONDUIT, BORED OR JACKED, 18", TYPE B	12
			7							1	6			611	98180	7	EACH	CATCH BASIN, NO. 3A	
			7							7				611	98300	7	EACH	CATCH BASIN, NO. 5	
			11							11				611	98341	11	EACH	CATCH BASIN, NO. 5A	
			3							3				611	98370	3	EACH	CATCH BASIN, NO. 6	
			48							19	29			611	98410	48	EACH	CATCH BASIN, NO. 8	
			7		1					7	1			611	98434	8	EACH	CATCH BASIN, NO. 8A	
			4							4				611	98470	4	EACH	CATCH BASIN, NO. 2-2B	
			11							11				611	99110	11	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
				6						6				611	99574	6	EACH	MANHOLE, NO. 3	
	2			92						94				611	99710	94	EACH	PRECAST REINFORCED CONCRETE OUTLET	
					1					1				611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.:DETAIL AND CONSTRUCTION BLIND TAP	929
																		DRAINAGE ALTERNATE 1A	
					260					260				833	10000	260	FT	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 72" DIAMETER	930
																		DRAINAGE ALTERNATE 1B	
					260					260				837	10000	260	FT	LINER PIPE 66" ID 707.18, .19, .20, .24, .35, 748.06 (66" OD), SS938, 707.75	930
					260					260				837	21000	260	FT	BACKFILL FOR LINER PIPE	930
																		DRAINAGE ALTERNATE 2A	
					663					663				899	10000	663	FT	CURED-IN-PLACE PIPE LINER, 48" DIAMETER	931
																		DRAINAGE ALTERNATE 2B	
					663					663				837	10000	663	FT	LINER PIPE 42" ID 707.18, .19, .20, .35, .42, .43, 748.06 (42" OD), SS938, 707.75	931
					663					663				837	21000	663	FT	BACKFILL FOR LINER PIPE	931

GENERAL SUMMARY

FRA - 71 - 0:00

CALCULATED
DCB
CHECKED
DLW

386
1312

X:\4037000\121957.16\107201\roadway\sheet\107201\roadway.dgn Sheet 6/29/2020 5:32:28 PM 1458sj

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
28	34	35	36	37	38	39				01/IMS/PV	02/NHS/PV	03/IMS/BR	04/IMS/BR						
	10									5	5			614	12500	10	EACH	REPLACEMENT SIGN	
	100									50	50			614	12600	100	EACH	REPLACEMENT DRUM	
	3	2								1	4			614	12756	5	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
		5	18	105	14					137	5			614	12800	142	EACH	WORK ZONE RAISED PAVEMENT MARKER	
		2,144	829	608	1,362	69				4,558	454			614	12801	5,012	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	21
	144									144				614	13000	144	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		1,840	2,134	51	3,753	153				5,328	2,603			614	13310	7,931	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
		156	14		128					255	43			614	13312	298	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
		775	713		279	51				1,708	110			614	13350	1,818	EACH	OBJECT MARKER, ONE WAY	
		14		17						31				614	13360	31	EACH	OBJECT MARKER, TWO WAY	
	180,000									180,000				614	18000	180,000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	22
	22									11	11			614	18601	22	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	20
		4.66	5.13		10.52					16.8	3.51			614	20056	20.31	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
	5.79	15.06	13.48		23.78	1.5				51.18	8.43			614	22056	59.61	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
		10,006	4,009		5,546					17,712	1,849			614	23110	19,561	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
		1,460	1,200		2,488	420				4,599	969			614	24208	5,568	FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	
					142					95	47			614	25210	142	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS II, 642 PAINT	
			25		14	16				45	10			614	26200	55	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
		212			156	155				419	104			614	28200	523	FT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	
	LS									LS	LS			615	10001	LS		ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN	22
	19,429	4,130			1,543					24,588	514			615	20000	25,102	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
	36,888	286			376					37,425	125			615	20001	37,550	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	22
	300									300				615	25001	300	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	23
	6,844									6,844				615	25001	6,844	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	23
	2,000									2,000				615	25001	2,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	23
	500									500				615	25001	500	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	23
	962									481	481			616	10000	962	MGAL	WATER	
		30,060	32,710		32,820	2,410				86,257	11,743			622	41100	98,000	FT	PORTABLE BARRIER, UNANCHORED	
		480	480							960				622	41110	960	FT	PORTABLE BARRIER, ANCHORED	
		1,380			28,790					20,573	9,597			622	80000	30,170	FT	GLARE SCREEN	
				11.65						11.65				644	00104	11.65	MILE	EDGE LINE, 6"	
				11.11						11.11				644	00204	11.11	MILE	LANE LINE, 6"	
				1,622						1,622				644	00404	1,622	FT	CHANNELIZING LINE, 12"	
				1,653						1,653				644	01520	1,653	FT	DOTTED LINE, 12"	
				1.69						1.69				646	10010	1.69	MILE	EDGE LINE, 6"	
				0.3						0.3				646	10110	0.3	MILE	LANE LINE, 6"	
				25						25				646	10400	25	FT	STOP LINE	
				226						226				646	20510	226	FT	DOTTED LINE, 12"	
	18									18				SPECIAL	64620710	18	EACH	AIR SPEED ZONE MARKING	23
	160									80	80			808	18700	160	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																		INCIDENTALS	
	LS	LS								LS	LS			108	10000	LS		CPM PROGRESS SCHEDULE	
										LS				614	11001	LS		MAINTAINING TRAFFIC, AS PER PLAN	16
										24				619	16021	24	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	13
										LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS				624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

FRA - 71 - 0:00

X:\4037000\121957.16\107201\roadway\sheets\107201GS006.dgn_Sheet 6/25/2020 6:54:06 PM 1458s.js

SHEET NO.	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611
	21" CONDUIT, TYPE B	21" CONDUIT, TYPE B, 706.02	21" CONDUIT, TYPE C, 706.02	CONDUIT, BORED OR JACKED, 18", TYPE C	24" CONDUIT, TYPE A 706.02, 707.01 ALUMINIZED, 707.21, 707.33 WITH WELDED BELL	24" CONDUIT, TYPE A 706.02 OR 30" CONDUIT, TYPE A, 707.01, 707.02, 707.04, 707.05, 707.07 OR 707.21	24" CONDUIT, TYPE B	24" CONDUIT, TYPE B, 706.02	24" CONDUIT, TYPE C	24" CONDUIT, TYPE C, 706.02	30" CONDUIT, TYPE B	30" CONDUIT, TYPE C	30" CONDUIT, TYPE C, 706.02	30" CONDUIT, TYPE F, 707.05	36" CONDUIT, TYPE B, 706.02	36" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 5	CATCH BASIN, NO. 5A	CATCH BASIN, NO. 6	CATCH BASIN, NO. 8	CATCH BASIN, NO. 8A	CATCH BASIN, NO. 2-2B	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1
	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
626																									
629																									
632																						2			
635																						2			
638																									
641	III																					1	1		
644																									
647																									
653																									7
659																									3
665					90																2				
670						100																			1
945																									
946																									
947																									
948																									
949																									
950																									
951																									
952																									
953																									
954																									
955																									
956																									
957																									
958																									
959																									
960																									
961																									
962																									
963																									
964																									
TOTALS FROM THIS SHEET	III	0	0	0	90	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	1	0	11
TOTALS FROM SHEET 397	94	64	34	192	0	0	184	119	999	8	113	501	34	40	245	0	0	7	7	11	1	43	6	4	0
TOTALS CARRIED TO GENERAL SUMMARY	205	64	34	192	90	100	184	119	999	8	113	501	34	40	245	0	0	7	7	11	3	48	7	4	11

ROADWAY SUBSUMMARY	CALCULATED
	DCB CHECKED SJS
FRA - 71 - 0:00	(401 / 1312)



CALCULATED
ANN
CHECKED
SJS

**PLAN AND PROFILE - RAMP A
STA 174+00 TO STA 179+00**

FRA-71-0.00

650
1312

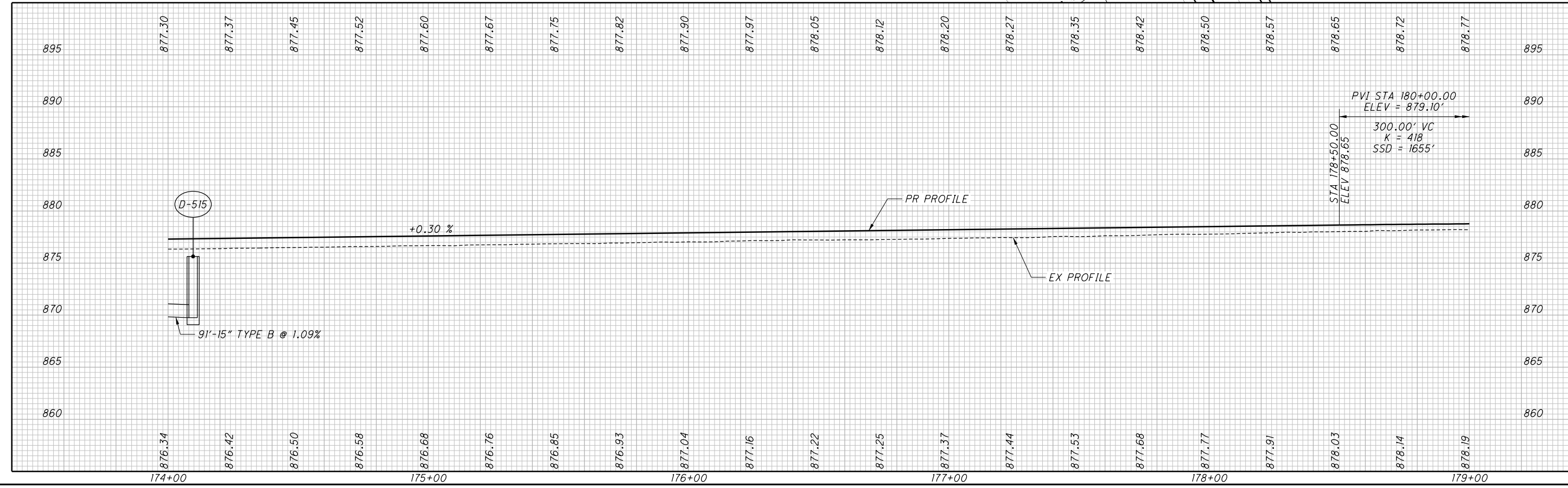
ROCK CHANNEL PROTECTION,
TYPE C w/FILTER

*REINFORCED
END ANCHORAGE

CURVE DATA RAMP A
P.I. STA 174+81.18
 $\Delta = 82^\circ 23' 17''$ (RT)
 $D_c = 18^\circ 58' 20''$
 $R = 302.00'$
 $T = 264.32'$
 $L = 434.25'$
 $E = 99.34'$
 $C = 397.80'$
C.B. = S $75^\circ 58' 45''$ E
 $e_{max} = -0.075$

CURVE DATA RAMP C
P.I. STA 191+75.52
 $\Delta = 158^\circ 59' 12''$ (LT)
 $D_c = 22^\circ 08' 37''$
 $R = 258.75'$
 $T = 1,395.16'$
 $L = 717.98'$
 $E = 1,160.20'$
 $C = 508.82'$
C.B. = N $37^\circ 40' 48''$ W
 $e_{max} = 0.078$

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
2-5	REFERENCES AND BENCHMARKS
653	ESTIMATED QUANTITIES
961	UNDERDRAIN QUANTITIES



X:\4037000\121957.16\107201\roadway\sheets\107201GP503.dgn Sheet 6/25/2020 7:08:13 PM 1458sjs

ROCK CHANNEL PROTECTION,
TYPE C w/FILTER

*1 24" CONDUIT, TYPE A 706.02, 707.01 ALUMINIZED,
707.21, 707.33 WITH WELDED BELL

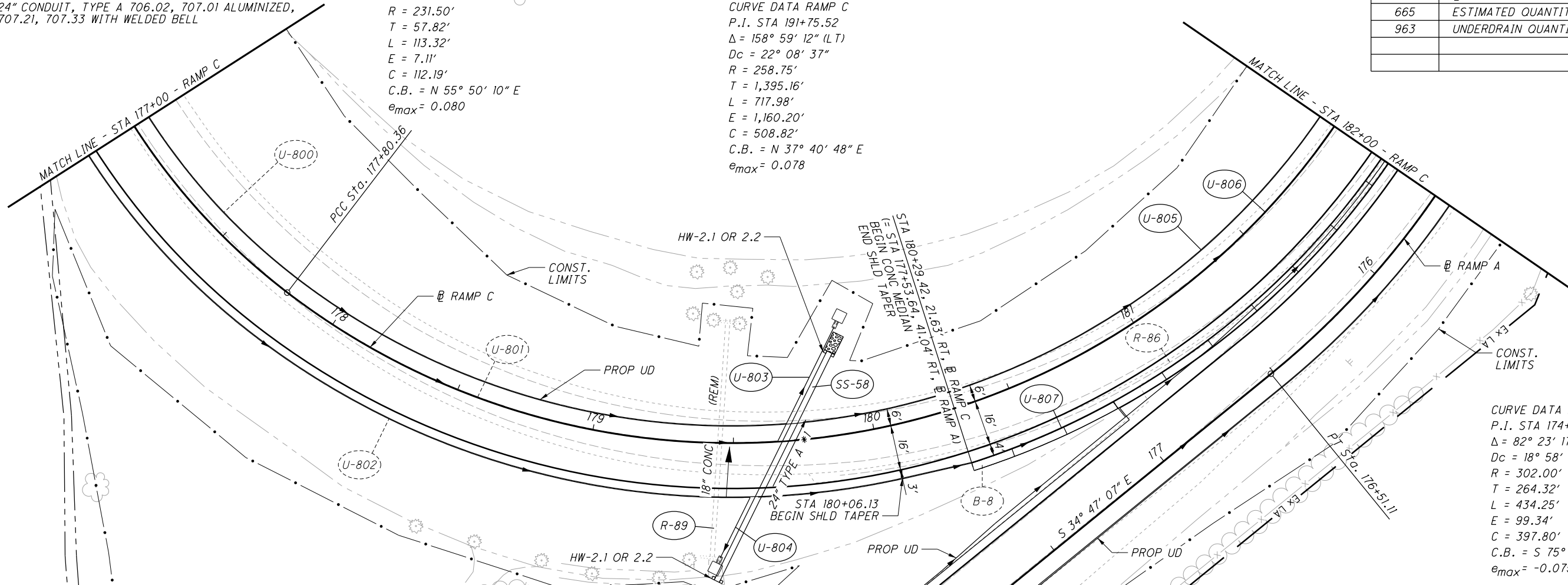
CURVE DATA RAMP C
P.I. STA 177+24.87
 $\Delta = 28^\circ 02' 45''$ (LT)
 $D_c = 24^\circ 45' 00''$
 $R = 231.50'$
 $T = 57.82'$
 $L = 113.32'$
 $E = 7.11'$
 $C = 112.19'$
C.B. = N $55^\circ 50' 10''$ E
 $e_{max} = 0.080$

CURVE DATA RAMP C
P.I. STA 191+75.52
 $\Delta = 158^\circ 59' 12''$ (LT)
 $D_c = 22^\circ 08' 37''$
 $R = 258.75'$
 $T = 1,395.16'$
 $L = 717.98'$
 $E = 1,160.20'$
 $C = 508.82'$
C.B. = N $37^\circ 40' 48''$ E
 $e_{max} = 0.078$

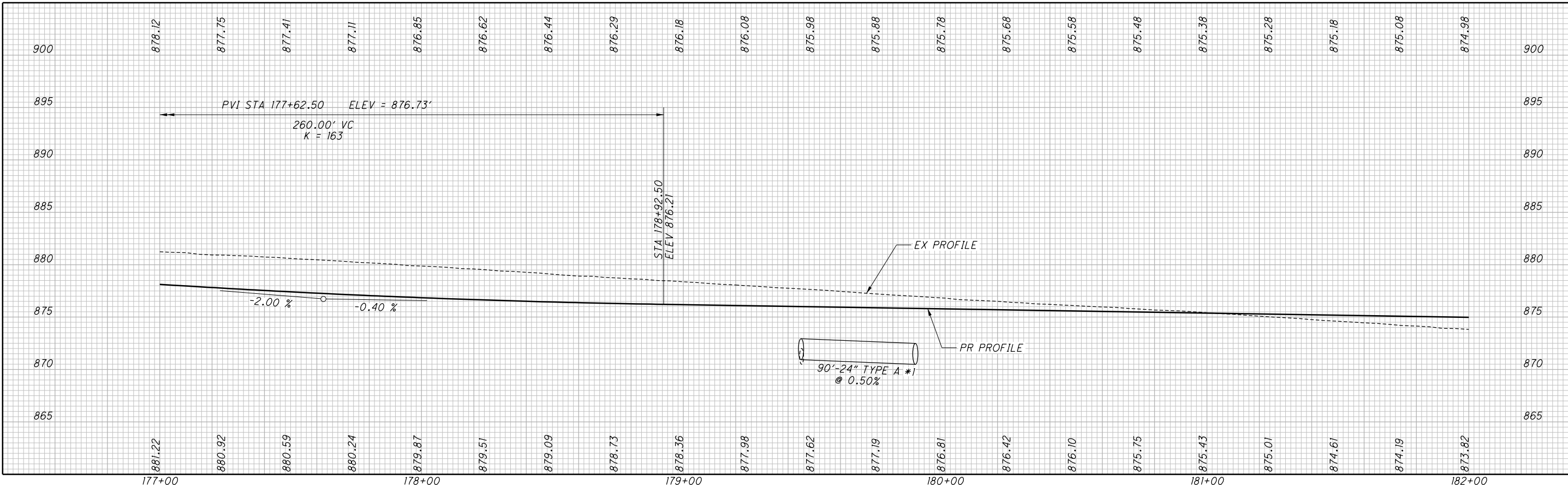
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
2-5	☐ REFERENCES AND BENCHMARKS
665	ESTIMATED QUANTITIES
963	UNDERDRAIN QUANTITIES

CALCULATED
ANN
CHECKED
SJS

0 20 40
HORIZONTAL
SCALE IN FEET



CURVE DATA RAMP A
P.I. STA 174+81.18
 $\Delta = 82^\circ 23' 17''$ (RT)
 $D_c = 18^\circ 58' 20''$
 $R = 302.00'$
 $T = 264.32'$
 $L = 434.25'$
 $E = 99.34'$
 $C = 397.80'$
C.B. = S $75^\circ 58' 45''$ E
 $e_{max} = -0.075$



PLAN AND PROFILE - RAMP C
STA 177+00 TO STA 182+00

FRA-71-0.00

661
1312

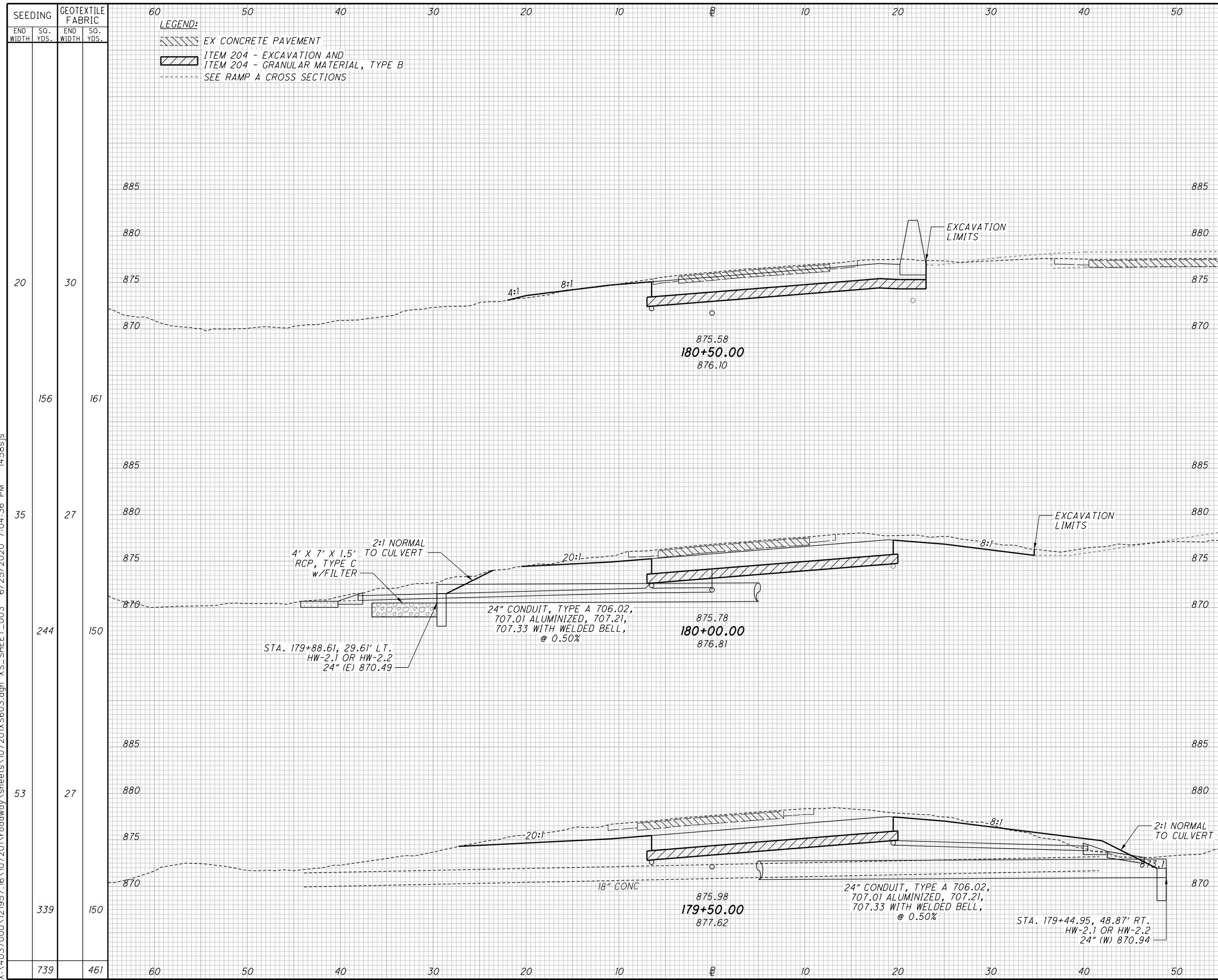
x:\4037000\121957.16\107201\roadway\sheets\107201GP602.dgn Sheet 6/26/2020 9:11:33 AM 1458sjs

X:\4037000\121957.16\107201\roadway\sheets\107201G0600.dgn Sheet 6/25/2020 6:58:13 PM 1458sjjs

REF. NO.	SHEET NO.	STATION		SIDE	202	202	202	202	601	602	611							
		FROM	TO		HEADWALL REMOVED EACH	GUTTER REMOVED SY	PIPE REMOVED, 24" AND UNDER FT	CATCH BASIN REMOVED EACH	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER CY	CONCRETE MASONRY CY	24" CONDUIT, TYPE A, 706.02, 707.01 ALUMINIZED, 707.21, 707.33 WITH WELDED BELL FT							
R-89	661	179+43	179+48	LT/RT	2	39	86											
R-90	662	183+46		LT/RT			57	2										
SS-58	661	179+49	179+89	LT/RT					1.56	0.92	90							
TOTALS CARRIED TO SHEETS 399-402					2	39	143	2	1.56	0.92	90							

ESTIMATED QUANTITIES	FRA - 71 - 0:00						
<table border="1" style="font-size: small;"> <tr> <td>CALCULATED</td> <td>DCB</td> </tr> <tr> <td>CHECKED</td> <td>SJS</td> </tr> </table>	CALCULATED	DCB	CHECKED	SJS	<table border="1" style="font-size: small;"> <tr> <td>665</td> </tr> <tr> <td>1312</td> </tr> </table>	665	1312
CALCULATED	DCB						
CHECKED	SJS						
665							
1312							

X:\4037000\121957.16\107201\roadway\sheets\107201\X5603.dgn XS_SHEET_003 6/25/2020 7:04:36 PM 1458s.js



LEGEND:
 EX CONCRETE PAVEMENT
 ITEM 204 - EXCAVATION AND
 ITEM 204 - GRANULAR MATERIAL, TYPE B
 SEE RAMP A CROSS SECTIONS

SEEDING		GEOTEXTILE FABRIC		ITEM 203				ITEM 204				CALCULATED DCB	CHECKED SJS
END WIDTH	SO. YDS.	END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL		
20		30		45	1			30	30				
156		161				104	1			53	53		
35		27		67	0			27	27				
244		150				144	8			50	50		
53		27		88	9			27	27				
339		150				182	26			50	50		
739		461				430	35			153	153		

**CROSS SECTIONS - RAMP C
 STA 179+50 TO STA 180+50**

FRA - 71 - 0.00

885
1312

x:\4037000\121957.16\107201\drainage\sheets\107201DS002.dgn_Sheet 6/25/2020 6:21:20 PM 1458sjjs

REF. NO.	SHEET NO.	STATION		SIDE	601	601	602	602	611	611	611	611	611	611	611	611	670	833	836	836	837	837	837	899	
		FROM	TO		ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	MASONRY, MISC.:PATCHING EXISTING CONCRETE CONDUIT W/ PORTLAND CEMENT MORTAR	30" CONDUIT, TYPE A, 706.02	48" CONDUIT, TYPE A, 706.02	48" CONDUIT, TYPE A, 707.07	72" CONDUIT, TYPE A, 707.07	24" X 38" CONDUIT, TYPE A, 706.04	29" X 45" CONDUIT, TYPE A, 706.04	10' X 5' CONDUIT, TYPE A, 706.05, AS PER PLAN	CATCH BASIN, NO. 8A	DRAINAGE STRUCTURE, MISC.:DETAIL AND CONSTRUCTION BLIND TAP	DITCH EROSION PROTECTION MAT, TYPE A	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 72" DIAMETER (ALTERNATE 1A)	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3	LINER PIPE 42" ID 707.18, .19, .20, .35, .42, .43, 748.06(42" OD), S5938, 707.75 (ALTERNATE 2B)	LINER PIPE 66" ID 707.18, .19, .20, .24, .35, 748.06(66" OD), S5938, 707.75 (ALTERNATE 1B)	BACKFILL FOR LINER PIPE (ALTERNATE 1B AND 2B)	CURED-IN-PLACE PIPE LINER, 48" DIAMETER (ALTERNATE 2A)
					CY	CY	CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	SY	FT	SY	SY	FT	FT	FT	FT	
929		12+33	13+61	LT&RT		2.9	1.0								227						155.8				
930		27+48	28+28	LT&RT			34.6				24					25.8	260	48.3				260	260		
931		54+16	57+67	LT&RT			18.2			24						71.2					663		663	663	
933		147+96	147+94	LT&RT	14.8		18.2	202		32															
934		166+51	166+51	LT&RT		2.8	1.1	260	26																
935		189+43	189+43	LT&RT		3.3	0.9							232											
937		224+40	226+45	LT&RT		27.0									304						47.6				
TOTALS CARRIED TO GENERAL SUMMARY					14.8	36	74	462	26	32	24	24	232	227	304	1	1	97	260	48.3	203.4	663	260	923	663

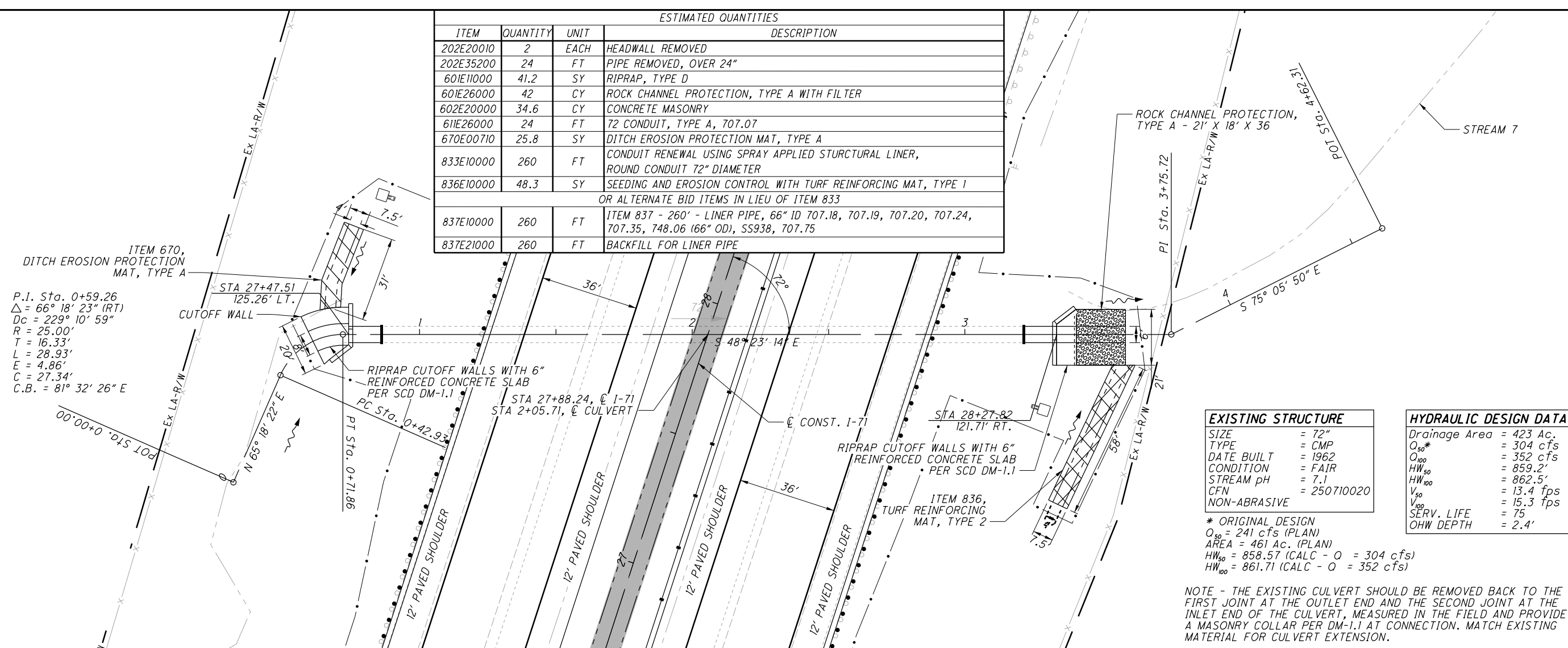
CALCULATED MAH CHECKED CTW	CULVERT SUBSUMMARY
FRA - 71 - 0:00	
928 1312	

X:\4037000\121957.16\107201\drainage\sheets\107201DC003.dgn Sheet 6/25/2020 6:00:55 PM 1458sjjs

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202E20010	2	EACH	HEADWALL REMOVED
202E35200	24	FT	PIPE REMOVED, OVER 24"
601E11000	41.2	SY	RIPRAP, TYPE D
601E26000	42	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER
602E20000	34.6	CY	CONCRETE MASONRY
611E26000	24	FT	72 CONDUIT, TYPE A, 707.07
670E00710	25.8	SY	DITCH EROSION PROTECTION MAT, TYPE A
833E10000	260	FT	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 72" DIAMETER
836E10000	48.3	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1 OR ALTERNATE BID ITEMS IN LIEU OF ITEM 833
837E10000	260	FT	ITEM 837 - 260' - LINER PIPE, 66" ID 707.18, 707.19, 707.20, 707.24, 707.35, 748.06 (66" OD), SS938, 707.75
837E21000	260	FT	BACKFILL FOR LINER PIPE

ITEM 670, DITCH EROSION PROTECTION MAT, TYPE A

P.I. Sta. 0+59.26
 $\Delta = 66^\circ 18' 23''$ (RT)
 $D_c = 229' 10' 59''$
 $R = 25.00'$
 $T = 16.33'$
 $L = 28.93'$
 $E = 4.86'$
 $C = 27.34'$
 $C.B. = 81^\circ 32' 26''$ E

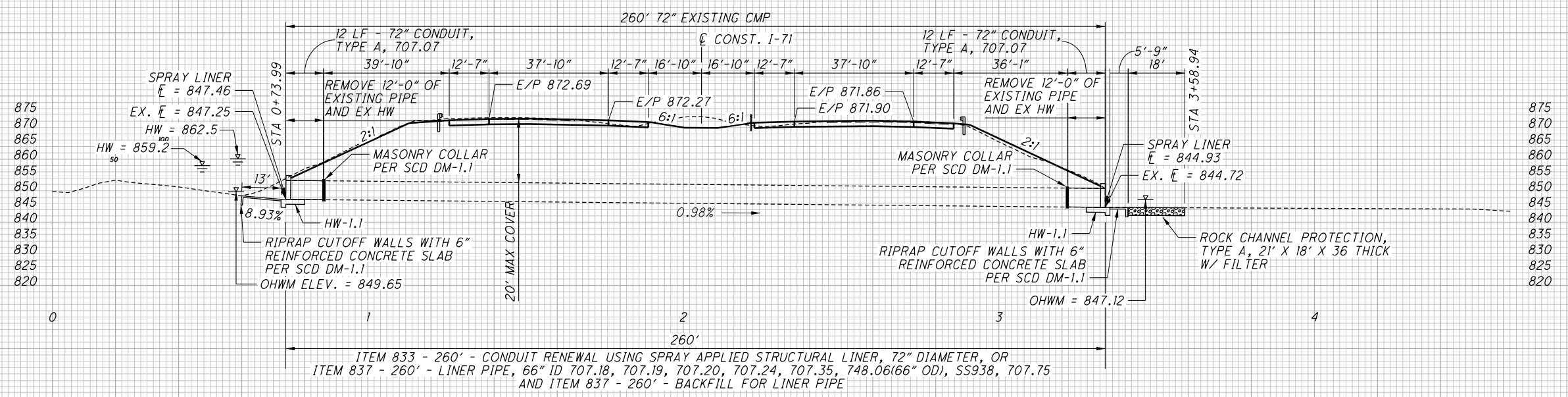


EXISTING STRUCTURE	
SIZE	= 72"
TYPE	= CMP
DATE BUILT	= 1962
CONDITION	= FAIR
STREAM pH	= 7.1
CFN	= 250710020
NON-ABRASIVE	

HYDRAULIC DESIGN DATA	
Drainage Area	= 423 Ac.
Q_{50}^*	= 304 cfs
Q_{100}	= 352 cfs
HW_{50}	= 859.2'
HW_{100}	= 862.5'
V_{50}	= 13.4 fps
V_{100}	= 15.3 fps
SERV. LIFE	= 75
OHW DEPTH	= 2.4'

* ORIGINAL DESIGN
 $Q_{50} = 241$ cfs (PLAN)
 AREA = 461 Ac. (PLAN)
 $HW_{50} = 858.57$ (CALC - $Q = 304$ cfs)
 $HW_{100} = 861.71$ (CALC - $Q = 352$ cfs)

NOTE - THE EXISTING CULVERT SHOULD BE REMOVED BACK TO THE FIRST JOINT AT THE OUTLET END AND THE SECOND JOINT AT THE INLET END OF THE CULVERT, MEASURED IN THE FIELD AND PROVIDE A MASONRY COLLAR PER DM-1.1 AT CONNECTION. MATCH EXISTING MATERIAL FOR CULVERT EXTENSION.



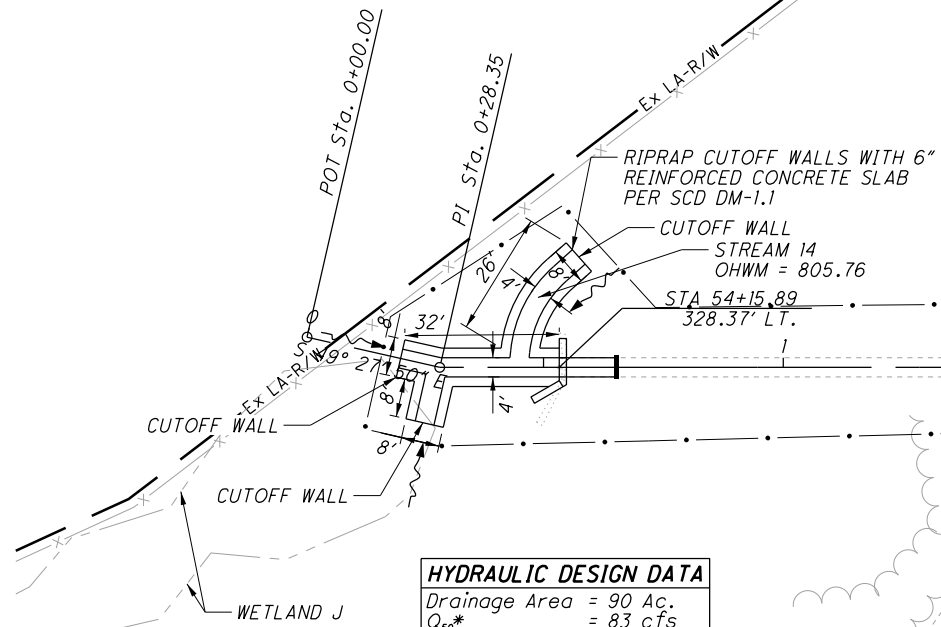
CULVERT DETAIL
 STA. 27+88.24

FRA - 71 - 0.00

930
 1312

NOTE - THE EXISTING CULVERT SHOULD BE REMOVED BACK TO THE FIRST JOINT AT THE OUTLET END AND THE SECOND JOINT AT THE INLET END OF THE CULVERT, MEASURED IN THE FIELD AND PROVIDE A MASONRY COLLAR PER DM-1.1 AT CONNECTION. MATCH EXISTING MATERIAL FOR CULVERT EXTENSION.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202E20010	2	EACH	HEADWALL REMOVED
202E35200	24	FT	PIPE REMOVED, OVER 24"
601E11000	65.9	SY	RIPRAP, TYPE D
601E32000	23	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER
602E20000	18.2	CY	CONCRETE MASONRY
611E20700	24	FT	48" CONDUIT, TYPE A, 707.07
670E00710	71.2	SY	DITCH EROSION PROTECTION MAT, TYPE A
899E10000	663	FT	CURED IN PLACE PIPE LINER, 48" DIAMETER
OR ALTERNATE BID ITEMS IN LIEU OF ITEM 841:			
837E10000	663	FT	ITEM 837 - 663' LINER PIPE, 42" ID 707.18, 707.19, 707.20, 707.35, 707.42, 707.43, 748.06(42" OD), SS938, 707.75
837E21000	663	FT	BACKFILL FOR LINER PIPE



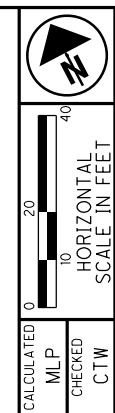
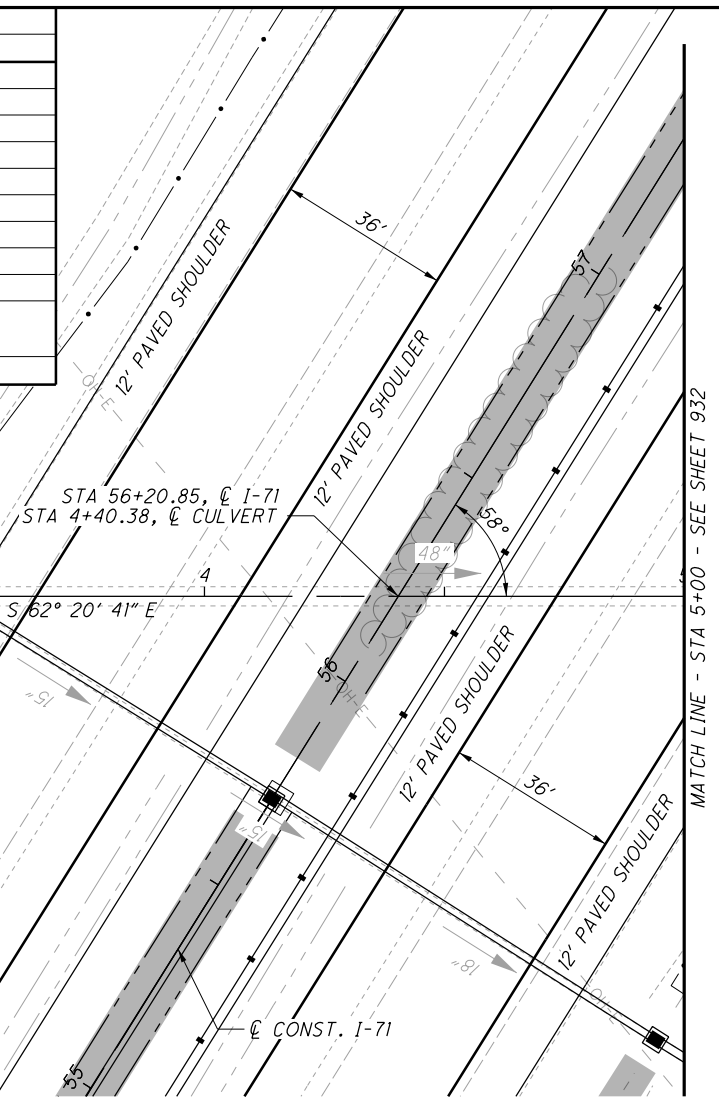
HYDRAULIC DESIGN DATA

Drainage Area = 90 Ac.
 Q_{50}^* = 83 cfs
 Q_{100} = 95 cfs
 HW_{50} = 810.9'
 HW_{100} = 811.8'
 V_{50} = 16.7 fps
 V_{100} = 17.7 fps
 SERV. LIFE = 75
 OHW DEPTH = 0.8'

* ORIGINAL DESIGN
 Q_{50} = 100 cfs (PLAN)
 AREA = 83 Ac. (PLAN)
 HW_{50} = 809.6 (CALC - 83 cfs)
 HW_{100} = 810.3 (CALC - 95 cfs)

EXISTING STRUCTURE

SIZE	= 48"
TYPE	= CMP
DATE BUILT	= 1962
CONDITION	= POOR
STREAM pH	= 7.6
CFN	= 250710035
NON-ABRASIVE	



CULVERT DETAIL
STA. 56+20.85

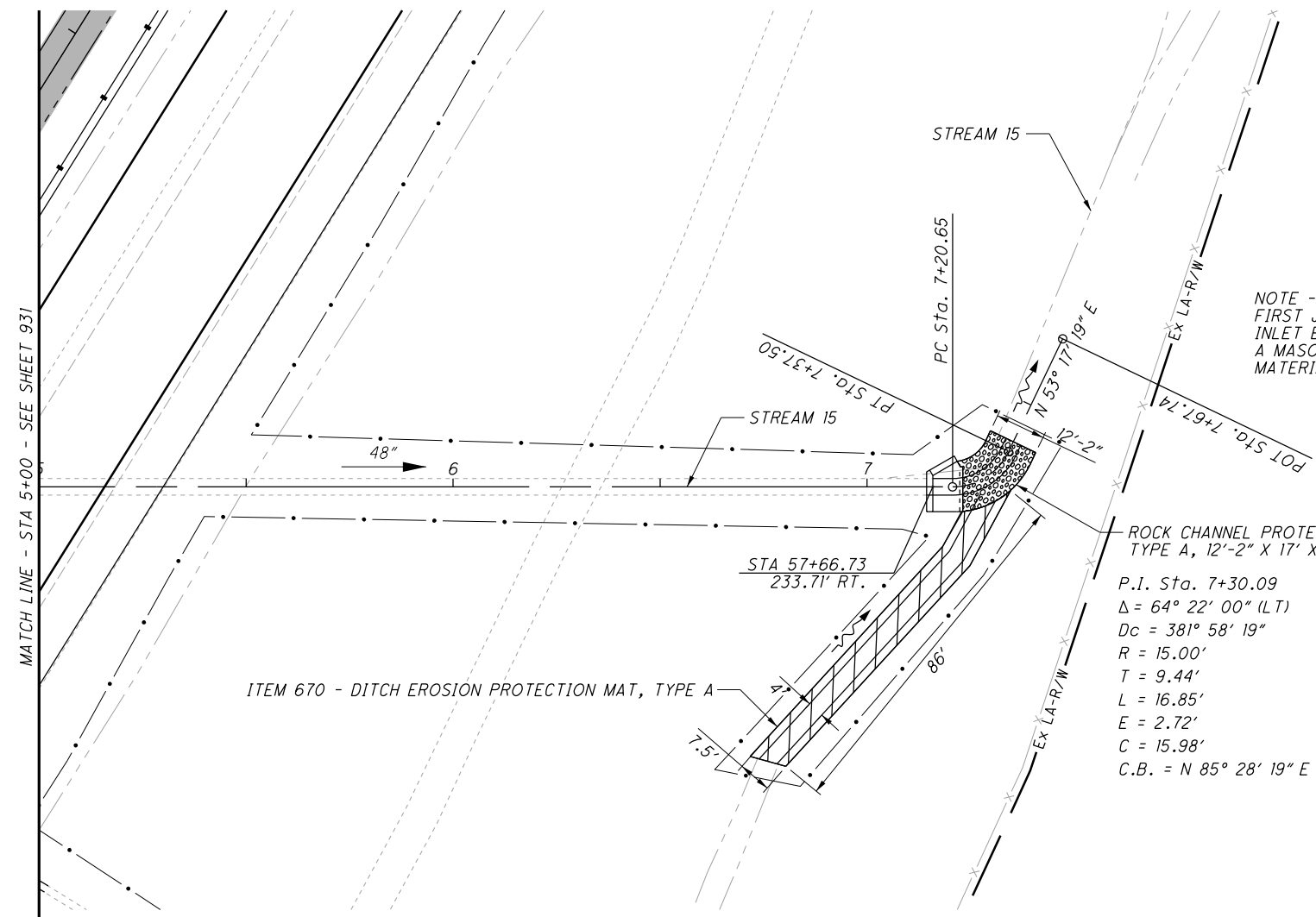


663' - ITEM 899- CURED IN PLACE PIPE LINER, 48" DIAMETER OR
 ITEM 837 - 663' LINER PIPE, 42" ID 707.18, 707.19, 707.20,
 707.35, 707.42, 707.43, 748.06(42" OD), SS938, 707.75
 AND ITEM 837 - 663' - BACKFILL FOR LINER PIPE

FRA -71-0.00

931
 1312

X:\4037000\121957.16\107201\drainage\sheets\107201DC004.dgn Sheet 6/25/2020 6:09:38 PM 1458sjs



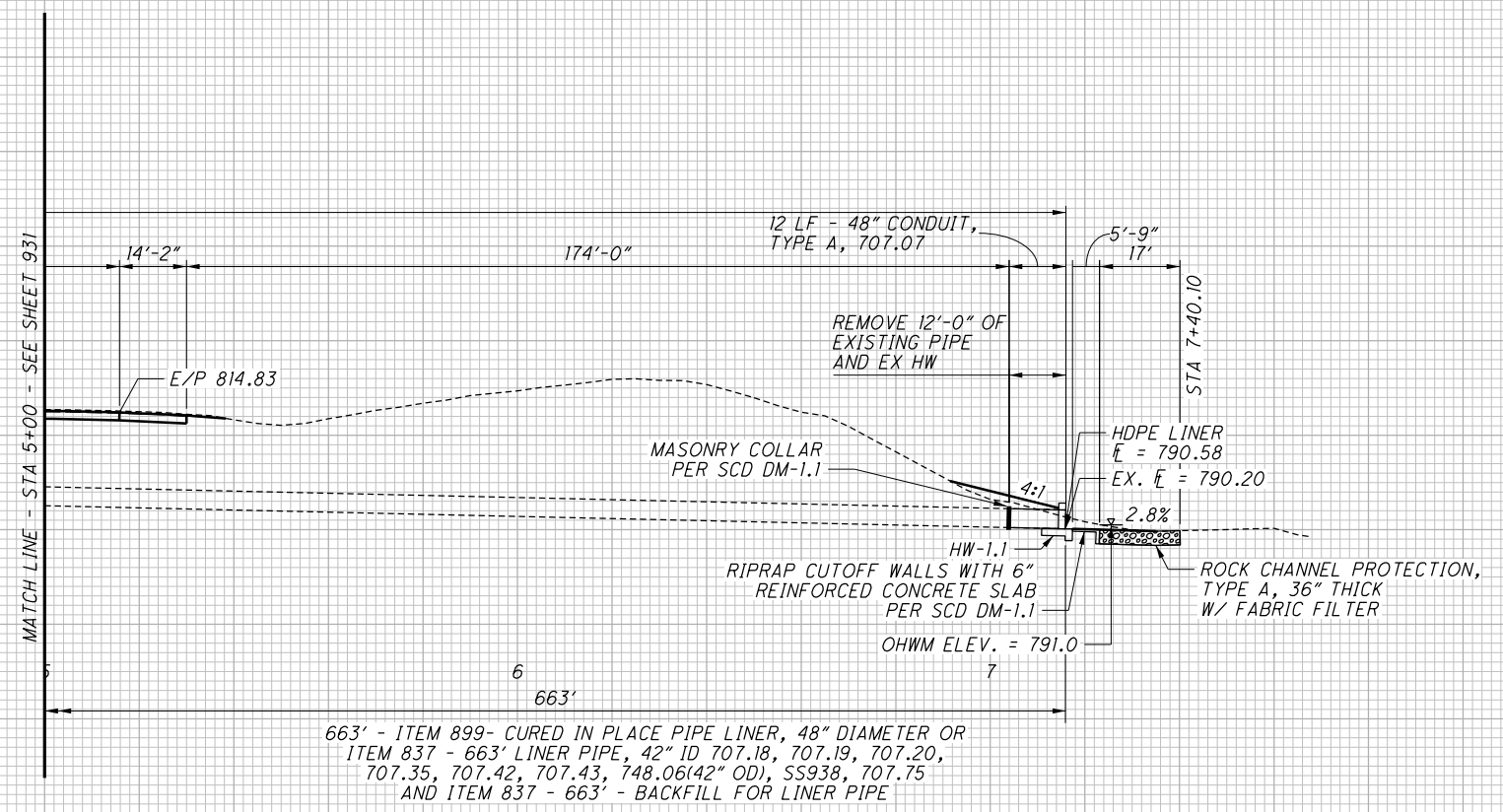
NOTE - THE EXISTING CULVERT SHOULD BE REMOVED BACK TO THE FIRST JOINT AT THE OUTLET END AND THE SECOND JOINT AT THE INLET END OF THE CULVERT, MEASURED IN THE FIELD AND PROVIDE A MASONRY COLLAR PER DM-1.1 AT CONNECTION. MATCH EXISTING MATERIAL FOR CULVERT EXTENSION.

NOTE: FOR QUANTITIES, SEE PREVIOUS SHEET.

CALCULATED
MLP
CHECKED
CTW

0 20 40
HORIZONTAL SCALE IN FEET

CULVERT DETAIL
STA. 56+20.85



FRA -71-0.00

x:\4037000\121957.16\1072011\Traffic\Sheets\S001.dgn Sheet 6/25/2020 5:04:35 PM 14585js

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	LENGTH	621	621	621	642	642	642	642	644	644	644				646	646	646	646			
			DELINEATOR, POST GROUND MOUNTED, TYPE C	RPM (WHITE/RED)			RPM (YELLOW/RED)	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	LANE LINE, 6", TYPE 1	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6" (WHITE)	REMOVAL OF PAVEMENT MARKING	SPECIAL - AIR SPEED ZONE MARKING	STOP LINE	TRANSVERSE/DIAGONAL LINES	DOTTED LINE, 6" (WHITE)	WRONG WAY ARROW								
			FROM	TO			EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH			FT	FT	FT	EACH				
1036	EW-1	I-71	826+26.00	840+28.99	LT					0.27																
1036	EW-2	I-71	813+77.00	840+28.99	RT					0.50																
1036	EY-1	I-71	826+26.00	840+28.99	LT							0.27														
1036	EY-2	I-71	813+77.00	840+28.99	RT							0.50														
1036	LL-1	I-71	826+26.00	840+28.99	LT			13				0.27														
1036	LL-2	I-71	813+77.00	840+28.99	RT			23				0.50														
1036	- 1037	DL-1	0+00.00	1+50.00	RT								150													
1036	- 1051	EW-1	0+00.00	74+50.00	LT				1.41																	
1036	- 1051	EW-2	0+00.00	74+50.00	RT				1.41																	
1036	- 1092	EY-1	0+00.00	290+01.00	LT					5.49																
1036	- 1092	EY-2	0+00.00	289+72.00	RT					5.49																
1036	- 1051	LL-1	0+00.00	74+50.00	LT			63			1.41															
1036	- 1051	LL-2	0+00.00	74+50.00	RT			63			1.41															
1037	- 1092	LL-3	1+50.00	289+72.00	RT			241			5.46															
1036	- 1038	DL-2	0+00.00	10+50.00	LT								1050													
1038	- 1092	LL-4	10+50.00	290+01.00	LT			234			5.29															
1055	- 1093	EW-3	I-71 - RAMP C	94+00.00	176+27.38	LT/BL			1.56																	
1055	- 1096	EW-4	I-71 - RAMP D	94+00.00	168+88.47	RT			1.42																	
1055	- 1092	LL-5	I-71	94+00.00	290+01.00	LT		164			3.71															
1055	- 1092	LL-6	I-71	94+00.00	289+72.00	RT		163			3.71															
1067	- 1070	DL-3	I-71	155+77.84	168+28.00	LT								1250												
1069	DL-4	I-71	161+00.00	165+79.00	RT									479												
1069	- 1070	CH-1	I-71	165+79.00	168+89.00	RT		9			310															
1069	- 1070	CH-2	RAMP D	165+79.00	168+88.47	RT		9			309															
1070	- 1072	CH-3	RAMP C	168+28.00	176+27.38	LT		21			799															
1070	- 1072	CH-4	I-71	168+28.00	176+34.00	LT						806														
1070	- 1072	EW-5	I-71	168+89.00	178+48.94	RT				0.18																
1072	- 1073	EW-6	I-71	176+34.00	184+59.19	LT				0.16																
1072	- 1092	EW-7	RAMP B - I-71	178+27.46	289+72.00	RT				2.11																
1073	- 1095	EW-8	RAMP A - I-71	184+68.33	290+01.00	BL/LT				1.99																
1072	- 1073	CH-5	I-71	178+48.94	183+50.00	RT						501														
1072	- 1073	CH-6	RAMP B - I-71	178+27.46	183+50.00	LT						523														
1073	- 1074	CH-7	RAMP A	184+68.33	188+64.84	RT		11			397															
1073	- 1074	CH-8	I-71	184+59.19	188+64.84	LT		11			406															
1073	1075	DL-5	I-71	183+50.00	196+00.00	RT							1250													
1074	- 1075	DL-6	I-71	188+64.84	194+00.00	LT							535													
			NB STRUCTURES (DEDUCT FOR EPOXY MARKINGS)																		225					
			SB STRUCTURES (DEDUCT FOR EPOXY MARKINGS)																			214	227			
1036	- 1052	ASZ-1	0+00.00	79+20.00	RT											1										
1078	- 1092	ASZ-2	210+30.00	289+50.00	RT											1										
			MARKINGS REMOVED NB																7,956							
			MARKINGS REMOVED NB																4,163							
			MARKINGS REMOVED SB																4,209							
			MARKINGS REMOVED SB																4,279							
1036	1092		0+00	279+31.20	LT/RT		142																			
TOTALS CARRIED TO SHEET 1032								142	1039		11.02	11.76	21.75	4051	4048	20,607	2					666				

CALCULATED
EGD
CHECKED
DLW

SUBSUMMARY - TRAFFIC CONTROL

FRA - 71-0:00

1031
1312

X:\4037000\121957.16\107201\traffic\sheets\107201T\S002.dgn_Sheet 6/25/2020 5:18:43 PM 1458sjjs

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	LENGTH	620	621	621	642	642	642	644	644	SPECIAL				646	646	646	646		
			DELINEATOR, POST GROUND MOUNTED, TYPE C	RPM (WHITE/RED)			RPM (YELLOW/RED)	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	LANE LINE, 6", TYPE 1	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6" (WHITE)	REMOVAL OF PAVEMENT MARKING	AIR SPEED ZONE MARKING	STOP LINE	TRANSVERSE/DIAGONAL LINE	DOTTED LINE, 6" (WHITE)	WRONG WAY ARROW						
			FROM	TO			EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	FT	FT	FT	EACH				
1073	- 1093	EW-8	RAMP A	164+74.62	184+68.33	LT/BL	2068.95	23			0.39													
1073	- 1093	EY-6	RAMP A	164+75.00	184+68.33	RT	1995.39			26	0.38													
	1093	TR-1	RAMP A	164+75.00	165+99.60	RT																		
	1093	SL-1	RAMP A	164+75.00		RT/LT	36.00											36	64					
	1093	WW-1	RAMP A	165+05.00		RT															1			
	1093	WW-2	RAMP A	167+50.00		RT															1			
1072	- 1096	EW-7	RAMP B	159+63.32	178+27.46	BL	1906.53	20			0.36													
1072	- 1096	EY-5	RAMP B	160+01.81	178+27.46	RT	1825.65			24	0.35													
1072	1093	EW-3	RAMP C	176+27.38	193+36.00	BL	1730.75	25			0.33													
1072	1095	EY-4	RAMP C	176+27.38	192+75.00	RT	1684.47				0.32													
	1096	SL-2	RAMP D	186+25.00		LT	25.00											25						
1070	1096	EW-4	RAMP D	168+88.47	186+45.22	BL	1826.65	27			0.35													
1070	1096	EY-3	RAMP D	168+88.47	186+25.00	LT	1790.81			23	0.34													
	1096	WW-4	RAMP D	183+60.00		LT															1			
	1096	TR-2	RAMP D	185+77.80	186+25.00	LT													64					
	1096	WW-3	RAMP D	185+95.00		LT															1			
TOTALS FROM THIS SHEET							95		95	1.43	1.38								61	128		4		
TOTALS FROM SHEET 1031							142	1039		11.02	11.76	21.75	4051	4048	20,607	2						666		
TOTALS CARRIED TO GENERAL SUMMARY							237		1,134	25.59		21.75	4051	4048	20,607	2				61	128	666	4	

SUBSUMMARY - TRAFFIC CONTROL
 FRA - 71 - 0:00
 1032
 1312

CALCULATED
 EGD
 CHECKED
 DLW

AIR SPEED ZONE MARKING

AIR SPEED ZONE MARKINGS SHALL BE WHITE AND 24 INCHES WIDE MEASURED IN THE DIRECTION OF TRAVEL AND 4 FEET IN LENGTH. ON TWO-LANE ROADWAYS WITH PAVED SHOULDERS LESS THAN 4 FEET IN WIDTH, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED WITH 2 FEET ON EACH SIDE OF THE CENTER LINE OR EDGE LINE MARKINGS. WHEN PAVED SHOULDERS OF SUFFICIENT WIDTH ARE AVAILABLE, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED ON THE SHOULDERS.

PLACE THE MARKINGS AT 0.25 MILE INTERVALS OVER A 1.5 MILE LENGTH OF ROADWAY.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A REGISTERED SURVEYOR. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT TRAFFIC ENGINEER AND ONE COPY IS TO BE SENT TO THE DISTRICT CONSTRUCTION ENGINEER.

MATERIALS, EQUIPMENT AND APPLICATION SHALL BE ACCORDING TO THE TYPE OF PAVEMENT MARKING MATERIAL USED.

PAYMENT SHALL BE ACCORDING TO THE PAVEMENT MARKING MATERIAL USED AND SHALL INCLUDE THE SURVEYING WORK. THE FOURTEEN MARKINGS PLACED IN EACH 1.5 MILE OF ROADWAY SHALL EQUAL ONE ZONE. ONE ZONE SHALL BE MEASURED AS 1 EACH FOR AIR SPEED ZONE MARKING.

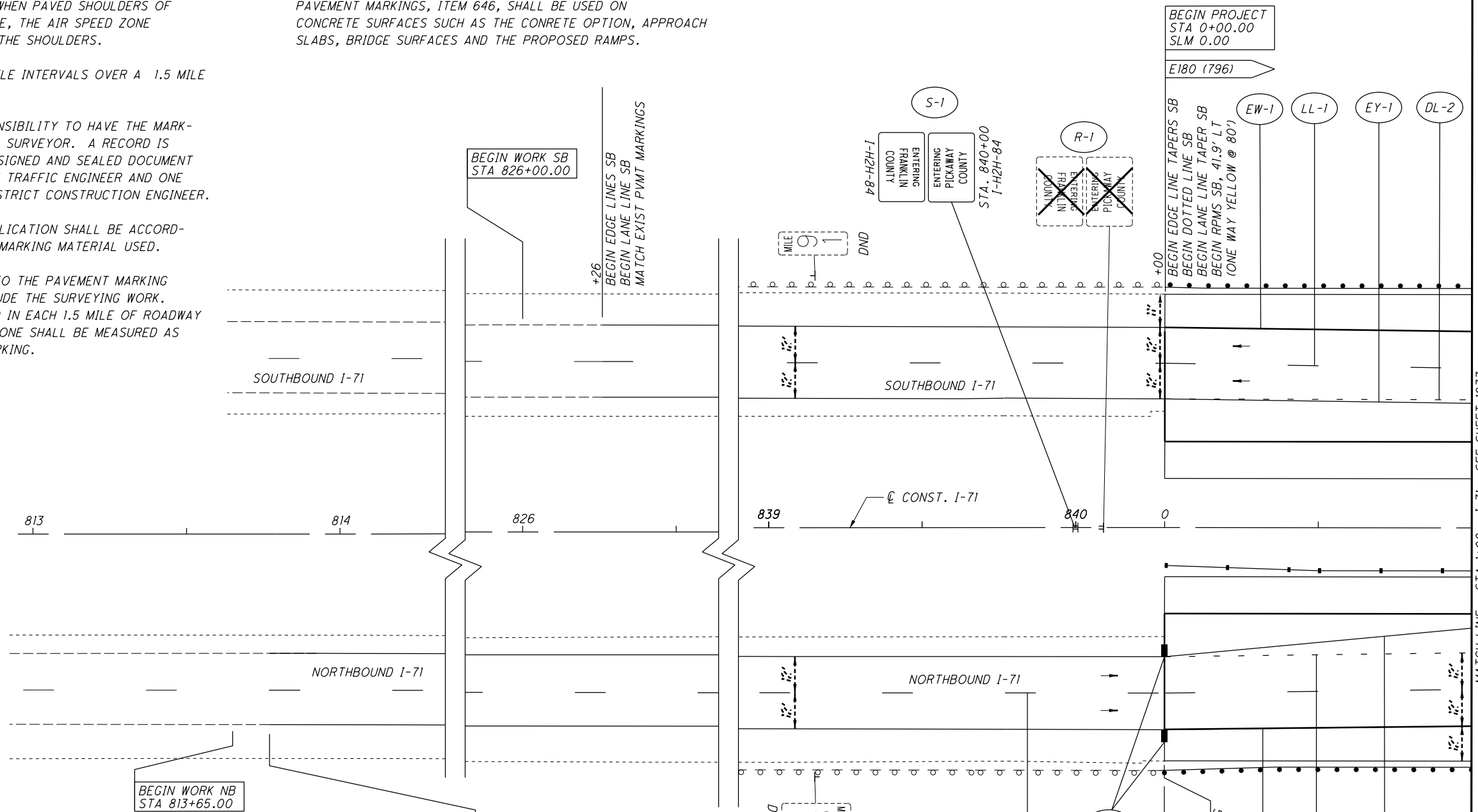
NOTES

1.A. LONG PAVEMENT MARKINGS AS DEFINED BY CMS 641.08 SHALL BE TRAFFIC PAINT, ITEM 642.

1.B. AUXILIARY PAVEMENT MARKINGS AS DEFINED BY CMS 641.08 SHALL BE THERMOPLASTIC, ITEM 644, EXCEPT EPOXY PAVEMENT MARKINGS, ITEM 646, SHALL BE USED ON CONCRETE SURFACES SUCH AS THE CONCRETE OPTION, APPROACH SLABS, BRIDGE SURFACES AND THE PROPOSED RAMPS.

2. INSTALL RAISED PAVEMENT MARKERS (RPM'S) PER SCD'S TC-65.10 AND TC-65.11.

3. MATCH EXISTING PAVEMENT MARKINGS AT STATION 813+26 SB AND STATION 813+77 NB.



LEGEND

(EW-1)	EDGE LINE, 6" (WHITE)	(SL-1)	STOP LINE	EXISTING SIGN
(EY-1)	EDGE LINE, 6" (YELLOW)	(TR-1)	TRANSVERSE/DIAGONAL LINE	EXISTING SIGN TO BE REMOVED
(LL-1)	LANE LINE, 6"	(ASZ-1)	AIR SPEED ZONE MARKING	PROPOSED SIGN
(CH-1)	CHANNELIZING LINE, 12"	(WW-1)	WRONG WAY ARROW	DND - DO NOT DISTURB
(DL-1)	DOTTED LINE, 6" (WHITE)			
	PROPOSED	EXISTING		
	+	+	ONE POST SIGN, GROUND MOUNTED	
	≡	≡	TWO POST SIGN, GROUND MOUNTED	
	≡≡	≡≡	THREE POST SIGN, GROUND MOUNTED	
	H	H	SINGLE POST SIGN, BACK TO BACK, GROUND MOUNTED	

NOTE
PAVEMENT MARKINGS SHALL BEGIN AT STATION 813+77 NB AND STATION 826+26 SB. THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS AT THE STATIONS NOTED. THE EXISTING PAVEMENT MARKINGS SHALL BE REMOVED FROM STATION 813+77 TO STATION 0+00 NB AND STATION 826+26 TO 0+00 SB.

CALCULATED
DLW
CHECKED
EGD

0 20 40
10
HORIZONTAL
SCALE IN FEET

TRAFFIC CONTROL PLAN - I-71
STA 837+00 TO STA 1+00

FRA-71-0:00

1036
1312

X:\4037000\121957.16\107201\traffic\sheets\107201TP001.dgn Sheet 6/26/2020 9:27:18 AM 1458sjs

x:\4037000\121957.16\107201\structures\Wall_001\sheets\107201WS001.dgn Sheet 6/25/2020 5:38:18 PM 1458sjjs

REF NO.	SHEET NO.	STATION TO STATION		605	SPECIAL	SPECIAL													
				AGGREGATE DRAINS, AS PER PLAN	NOISE BARRIER (REFLECTIVE)	NOISE BARRIER (REFLECTIVE) SAFE AND SOUND													
				FT	SF	SF													
WALL-1	4	10+16.00	TO	14+08.00															
WALL-1	4-5	14+08.00	TO	18+88.00		5292													
WALL-1	5-6	18+88.00	TO	21+52.00		6456													
WALL-1	6-7	21+52.00	TO	25+12.00		3540													
WALL-1	7	25+12.00	TO	29+44.00		4860													
						5844													
WALL-2	21	50+00.00	TO	50+88.00	88		1176												
WALL-2	21	50+88.00	TO	51+60.00	72		996												
WALL-2	21	51+60.00	TO	52+32.00	72		1020												
WALL-2	21	52+32.00	TO	53+04.00	72		1020												
WALL-2	21	53+04.00	TO	53+76.00	72						1044								
WALL-2	21	53+76.00	TO	54+64.00	88						1056								
TOTALS CARRIED TO GENERAL SUMMARY					464		30204				2100								

FRA -71-0.00	CALCULATED ANN
	CHECKED LYH
	NOISE BARRIER SUBSUMMARY

PANEL NOTES:

THE ALIGNMENT OF THE HORIZONTAL JOINTS WHEN THE TOP OF WALL ELEVATIONS ARE STEPPING UP OR DOWN FROM BAY TO BAY IS NOT REQUIRED. HOWEVER, WHEN THE TOP OF WALL ELEVATIONS ARE THE SAME FROM BAY TO BAY, THE ALIGNMENT OF THE HORIZONTAL JOINTS IS REQUIRED.

PROVIDE 3/4" BACKER ROD (NOT 1/2") SPECIFIED BY ASTM D5249 TYPE 1 OR 3.

NOISE BARRIER POSTS WITH KRYTON KRYSTOL INTERNAL MEMBRANE (KIM)

POSTS FROM BAY 1 TO BAY 41 OF WALL 1 SHALL BE CONSTRUCTED USING CONCRETE WITH A WATERPROOFING ADMIXTURE, KRYTON KRYSTOL INTERNAL MEMBRANE (KIM), AS FURNISHED BY KRYTON, 761 BETA DRIVE (UNIT W), CLEVELAND, OH, TELEPHONE NO. 216-475-8112. MODIFICATIONS OF THE MIX DESIGN, DOSAGE OF ADMIXTURE, APPLICATION INSTRUCTIONS AND CURE METHOD SHALL BE AS RECOMMENDED BY KRYTON.

ITEM 606 SPECIAL NOISE BARRIER (REFLECTIVE), SAFE AND SOUND

PANELS IN BAYS 15 - 23 OF WALL #2 SHALL BE MANUFACTURED AND DELIVERED TO THE PROJECT SITE BY SPS. THE CONTRACTOR IS DIRECTED TO CONTACT JOE GALLO OF SPS AT 216-905-5941 TO COORDINATE PROJECT SCHEDULES INCLUDING, BUT NOT LIMITED TO, MANUFACTURE AND DELIVERY OF NOISE BARRIER PANELS. SPS SHALL PROVIDE THE NOISE BARRIER PANEL AT THE SAME COST AS THE ITEM 606 NOISE BARRIER (REFLECTIVE). THE PROVIDED NOISE BARRIER PANELS SHALL MATCH DETAILS IN NBS-1-09. THE PANELS SHALL MATCH COLOR AND STYLE OF THE CONCRETE PANELS IN THE REMAINDER OF THE WALL SECTION.

INSTALLATION OF THESE PANELS WILL BE PERFORMED BY THE PRIME CONTRACTOR.

PAYMENT FOR THIS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT ITEM 606 SPECIAL NOISE BARRIER (REFLECTIVE), SAFE AND SOUND UNLESS OTHERWISE NOTED, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

AESTHETIC NOTES:

1. SEE STANDARDS DRAWING NBS-1-09 FOR ADDITIONAL DETAILS.

2. FOR THE COLOR AND TEXTURE ON ROADWAY SIDE OF THE WALLS USE ARCHITECTURAL POLYMER FORM LINER OR ENGINEER-APPROVED EQUAL-ASHLAR TEXTURE, 905 SMALL AGED ASHLAR. USE DRYSTACK PATTERN TEXTURE ON RESIDENTIAL SIDE.

RESIDENTIAL SIDE:

WALL 1 & 2- FED. COLOR NO. 36373

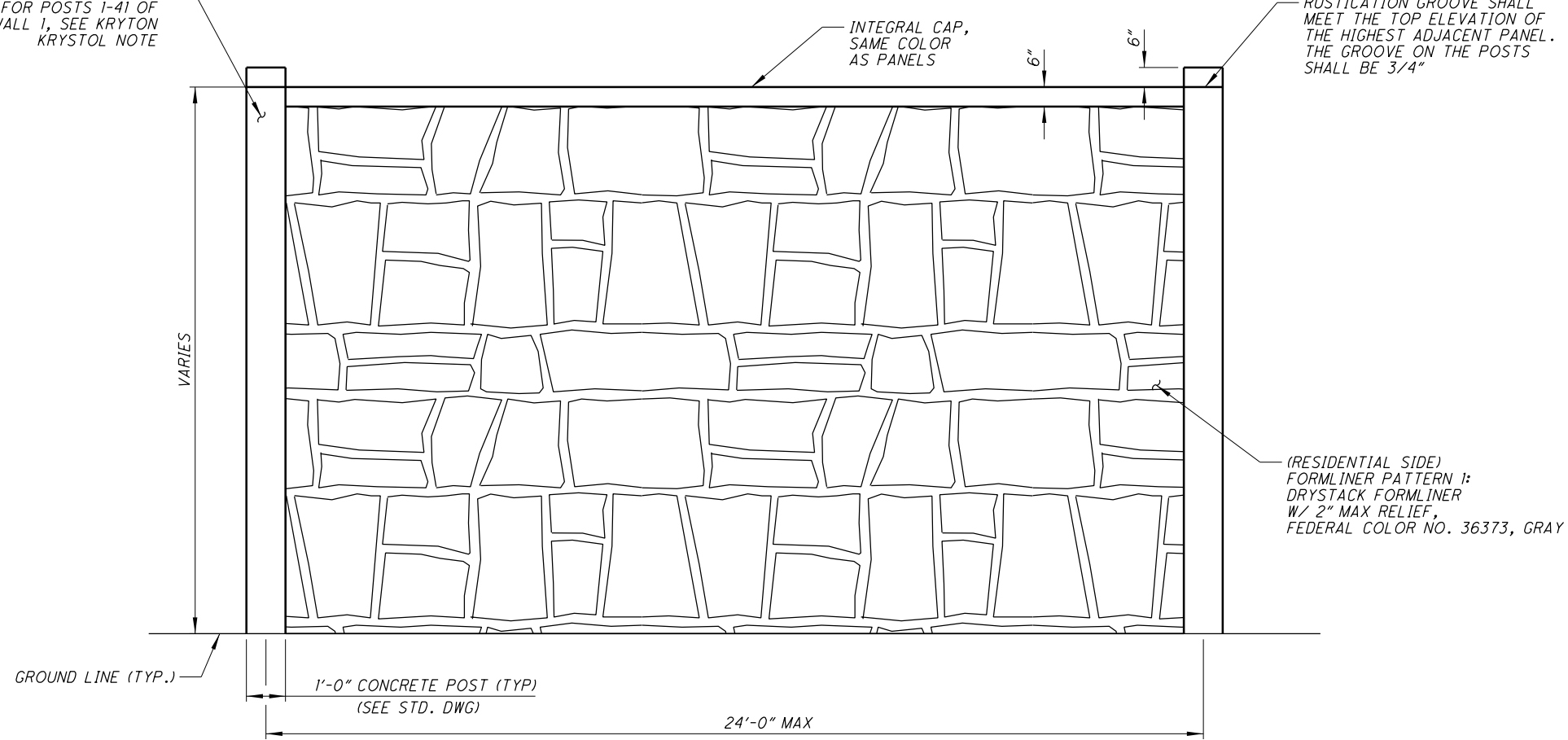
ROADWAY SIDE:

WALL 1 & 2- FED. COLOR NO. 34227

3. AESTHETIC TREATMENTS SHALL BE CONSIDERED INCIDENTAL AND INCLUDED WITH ITEM 606 - SPECIAL, NOISE BARRIER QUANTITIES.

4. USE THE ARCHITECTURAL POLYMERS DRYSTACK STONE PATTERN 9050 OR ENGINEERED APPROVED EQUAL.

SEAL POSTS 42-82 OF WALL 1 AND ALL POSTS OF WALL 2 WITH NON-EPOXY SEALER PER ITEM 512 (NO COLOR) FOR POSTS 1-41 OF WALL 1, SEE KRYTON KRYSTOL NOTE



NOISE WALL ELEVATION
(RESIDENTIAL SIDE)

X:\4037000\121957.16\107201\structures\Wall_001\sheets\10720IND001.dgn_Sheet 6/25/2020 5:32:58 PM 1458sjs