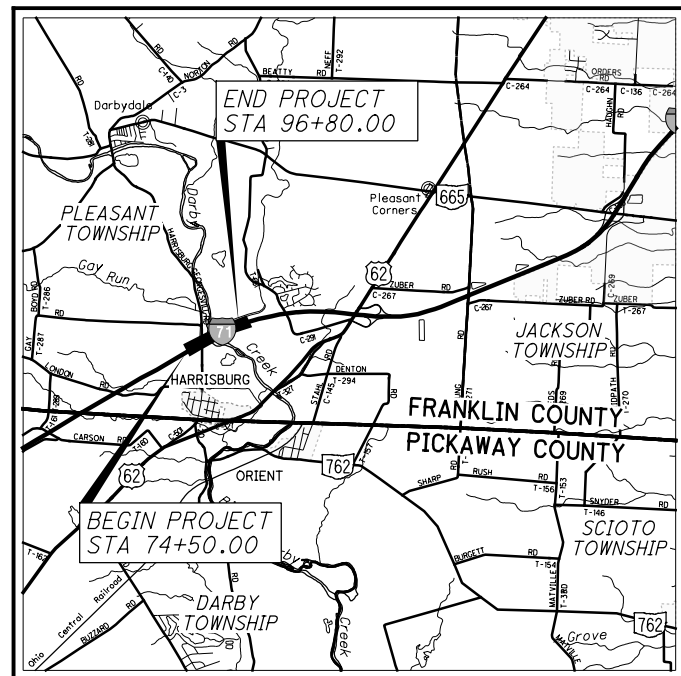


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FRA-71-1.53

**PLEASANT TOWNSHIP
FRANKLIN COUNTY**



LOCATION MAP

LATITUDE: 39°49'16" LONGITUDE: 83°10'11"



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

**DESIGN DESIGNATION AND
DESIGN EXCEPTIONS**

SEE SHEET 2

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PROJECT DESCRIPTION

THIS PROJECT WILL CONSIST OF ADDING A THIRD LANE TO THE MEDIAN SIDE IN BOTH DIRECTIONS OF I-71 FOR APPROXIMATELY 0.48 MILE, REPLACING TWIN SUPER-STRUCTURES OVER THE BIG DARBY CREEK AND ASSOCIATED ROADWAY, SIGNING AND DRAINAGE IMPROVEMENTS.

PROJECT EARTH DISTURBED AREA: 11.8 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 3.5 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 15.3 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.

2016 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.

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig
1-800-362-2764

(Non-members must be called directly)

OIL & GAS PRODUCERS
UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:

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

ENGINEERS SEAL:

STRUCTURES

SIGNED: *Balasubramanyam KV*
DATE: August 22, 2018

ENGINEERS SEAL:

ROADWAY

SIGNED: *Daniel C. Barnhart*
DATE: August 22, 2018

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-1.1	7/28/00	DM-1.2	1/18/13	MGS-6.1	1/19/18	MT-101.70	7/20/18	800-2016	10/19/18	WATERWAY PERMIT	
BP-2.1	7/17/15	DM-4.1	7/20/18	MGS-6.2	1/19/18	MT-101.75	7/15/16	806	3/2/15	CONDITIONS	
BP-2.2	7/18/08	DM-4.2	7/20/12			MT-101.90	7/21/17	808	7/20/18		
BP-2.3	7/18/14	DM-4.3	1/15/16	RM-1.1	7/18/14	MT-102.10	1/20/17	821	4/20/12		
BP-3.1	7/18/14	DM-4.4	1/15/16	RM-4.2	7/20/18	MT-102.20	7/18/14	832	1/17/14		
BP-5.1	7/20/18					MT-104.10	10/16/15	861	1/16/15		
BP-9.1	7/21/17	F-2.1	7/20/18	AS-1-15	7/17/15	MT-105.10	7/19/13	875	1/17/14		
		F-3.1	7/19/13	AS-2-15	1/19/18			878	4/21/17		
CB-2.1	7/20/18	F-3.3	7/19/13	GSD-1-96	7/19/02	TC-41.20	10/18/13	908	10/20/17		
CB-2.2	7/20/18	F-3.4	7/19/13	PCB-91	1/18/13	TC-41.30	10/18/13	921	4/20/12		
CB-3.3	1/15/16			SBR-1-13	7/20/18	TC-42.20	10/18/13				
		MGS-1.1	1/19/18	SICD-1-96	7/18/14	TC-52.10	10/18/13				
HW-2.1	7/20/18	MGS-2.1	1/19/18			TC-52.20	7/20/18				
HW-2.2	7/20/18	MGS-3.1	1/19/18	MT-95.30	7/21/17	TC-61.10	1/17/14				
		MGS-3.2	1/18/13	MT-95.40	1/20/17	TC-64.10	1/20/17				
MH-1.2	1/15/16	MGS-4.2	7/19/13	MT-95.50	7/21/17	TC-65.10	1/17/14				
		MGS-4.3	1/18/13	MT-99.20	7/20/18	TC-65.11	7/21/17				
DM-1.1	7/21/17	MGS-5.2	7/15/16	MT-99.30	1/19/18						

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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FEDERAL PROJECT NO. **E120 (525)**
PID NO. **93496**
CONSTRUCTION PROJECT NO. _____
RAILROAD INVOLVEMENT **NONE**
FRA-71-1.53
1/285

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

MEDIAN AND/OR CURBING ON APPROACH SLABS

WITHIN THE LIMITS OF THE APPROACH SLAB, TRANSITION THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE.

ODOT TRAFFIC COUNTING STATION

THE CONTRACTOR SHALL CONTACT DAVE GARDNER AT ODOT CENTRAL OFFICE FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION AT 614-752-5740 SO THAT ODOT CAN MAKE ARRANGEMENTS TO MOVE THE AFFECTED CABINET USED FOR TRAFFIC COUNT STATIONS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND RE-GALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 30 FEET TO THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06 HAVING JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 24" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION
50 FT.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY STATE FORCES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

ITEM 511 WING-WALLS OR HEAD-WALLS FOR 611 ITEMS

FOR ITEMS 706.05, 706.051, 706.052 AND 706.053 WITH A CAST-IN-PLACE WING-WALL OR HEAD-WALL A PRECAST ALTERNATIVE MAY BE FURNISHED PER 602.03. THE PRECAST ALTERNATIVE WILL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

FULL COMPENSATION FOR THE PRECAST WING-WALL OR HEAD-WALL IS THE NUMBER OF CUBIC YARDS OF ITEM 511, AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE B

FOR ITEM SPECIAL, PRESSURE RELIEF JOINT TYPE B, SEE STANDARD CONSTRUCTION DRAWING BP-2.4, DATED 7/19/13.

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GENERAL NOTES

FRA -71-1.53

TRAFFIC INCIDENT MANAGEMENT (TIM) DURING MOT (CONT.)

II. NUMBER AND TYPE OF VEHICLES INVOLVED, IF KNOWN

III. ESTIMATED EXTENT OF DAMAGE OR INJURY, IF KNOWN

IV. ESTIMATED NUMBER OF PATIENTS INVOLVED, IF KNOWN

V. ANY POTENTIAL HAZARDOUS CONDITIONS, IF KNOWN

VI. THE PLACARD NUMBER ON ANY HAZARDOUS MATERIALS PLACARD FROM A SAFE DISTANCE, IF APPLICABLE AND VISIBLE

B. FOLLOWING AN INCIDENT/CRASH:

I. INITIATE TRAFFIC MANAGEMENT/PROVIDE TEMPORARY TRAFFIC CONTROL AS INDICATED IN THE TIMP, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

II. RECOMMEND ROADWAY REPAIR NEEDS.

III. PROVIDE REPAIR RESOURCES AND INITIATE REPAIRS, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

IV. ATTEND AND PARTICIPATE IN AN AFTER ACTION REVIEW (AAR).

ALL COSTS, UNLESS OTHERWISE SPECIFIED, RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614, MAINTAINING TRAFFIC. FAILURE TO PERFORM THE REQUIREMENTS OF THIS PLAN NOTE WILL RESULT IN A DAILY FINE OF 2% OF ITEM 614, MAINTAINING TRAFFIC AND MAY RESULT IN ONE OR MORE CONTRACTOR TIM CONTACTS BEING REMOVED FROM THE LIST OF OHIO TIM TRAINED INDIVIDUALS (AT THE SOLE DISCRETION OF THE OHIO TIM EXECUTIVE COMMITTEE). IN THE EVENT AN INDIVIDUAL IS REMOVED FROM THE OHIO TIM TRAINED LIST, THE INDIVIDUAL WILL BE REMOVED FROM CONTRACTOR TIM CONTACT RESPONSIBILITIES ON ALL PROJECTS.

ITEM 615, ROADS FOR MAINTAINING TRAFFIC

A LUMP SUM QUANTITY HAS BEEN PROVIDED PER SECTION 615 OF ODOT'S CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMS).

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY. PAYMENT FOR ALL COSTS ASSOCIATED WITH TEMPORARY EARTHWORK SHALL BE INCLUDED IN THE CONTRACTOR PRICE PER LUMP SUM FOR ITEM 615, ROADS FOR MAINTAINING TRAFFIC.

ASPHALT OPTION

EXCAVATION FOR MAINTAINING TRAFFIC 8330 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 680 CU. YD.

CONCRETE OPTION

EXCAVATION FOR MAINTAINING TRAFFIC 8750 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 645 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED IF DETERMINED BY THE GEOTECHNICAL EVALUATION THAT THE SOIL CONDITIONS ARE NOT

ITEM 615, ROADS FOR MAINTAINING TRAFFIC (CONT.)

ADEQUATE TO SUPPORT THE TEMPORARY ROAD AND SHALL BE USED AS DIRECTED BY THE ENGINEER:

ITEM 204, SUBGRADE COMPACTION	3830 SQ. YD.
ITEM 204, PROOF ROLLING	9 HOUR
ITEM 204, EXCAVATION OF SUBGRADE	950 CU. YD.
ITEM 204, GRANULAR MATERIAL TYPE B	950 CU. YD.

SEQUENCE OF CONSTRUCTION

PRE-PHASE 1A:

THE EXISTING OUTSIDE NORTHBOUND AND SOUTHBOUND SHOULDERS SHALL BE PLANED TO A DEPTH OF 9 INCHES AND RECONSTRUCTED PER ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN A. THE EXISTING PAVEMENT JOINTS UNDER THE NORTHBOUND AND SOUTHBOUND LANES SHALL BE REPAIRED PER ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, APP, TYPE 2 AS THEY ARE NEAR THE WHEEL PATH OF PHASE 1 TRAFFIC. PRE-PHASE 1A WORK SHALL BE COMPLETED BY UTILIZING OFF PEAK DAYTIME AND NIGHTTIME LANE CLOSURES PER ODOT SCD MT-95.30 AND MT-101.90 AND ONLY DURING THE ALLOWABLE HOURS AS SHOWN IN THE MAINTENANCE OF TRAFFIC (MOT) GENERAL NOTES.

PRE-PHASE 1B:

AT THE COMPLETION OF ALL PRE-PHASE 1A WORK, PLACE ALL SIGNS, PAVEMENT MARKINGS AND PORTABLE BARRIER AS SHOWN ON THE PRE-PHASE 1B PLANS. SHIFT TRAFFIC TO THE EXISTING OUTSIDE LANES AND THE NEWLY RECONSTRUCTED OUTSIDE SHOULDER. RECONSTRUCT THE MEDIAN SHOULDER PER ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN B AS SHOWN ON THE PRE-PHASE 1B PLANS.

PHASE 1:

AT THE COMPLETION OF ALL PRE-PHASE 1B WORK, PLACE ALL SIGNS, PAVEMENT MARKINGS AND PORTABLE BARRIER AS SHOWN ON THE PHASE 1 MOT PLANS. SHIFT TRAFFIC TO THE EXISTING OUTSIDE LANES, THE OUTSIDE PORTION OF THE FRA-71-0153 BRIDGES AND THE NEWLY RECONSTRUCTED OUTSIDE SHOULDER. CONSTRUCT THE INSIDE PORTION OF THE NORTHBOUND AND SOUTHBOUND ROADWAY ALONG WITH THE INSIDE PORTION OF THE FRA-71-0153 BRIDGES AS SHOWN ON THE PHASE 1 MOT PLANS. CONSTRUCT THE WORK ZONE PAVEMENT PER ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN B ALONG THE INSIDE NORTHBOUND AND SOUTHBOUND LANES FOR USE DURING PHASE 2 CONSTRUCTION. DO NOT PLACE THE 1/2 INCH ITEM 806 ASPHALT CONCRETE SURFACE COURSE AT THIS TIME.

WINTERIZATION:

AT THE COMPLETION OF ALL PHASE 1 WORK, THE PROJECT SHALL ENTER A WINTERIZATION PHASE. ALL WORK ZONE SIGNS, PAVEMENT MARKINGS AND PORTABLE BARRIER AS SHOWN ON THE PHASE 1 MOT PLANS SHALL REMAIN IN PLACE AND TRAFFIC SHALL REMAIN AS IT WAS DURING PHASE 1 CONSTRUCTION.

PHASE 2:

AT THE COMPLETION OF THE WINTERIZATION PHASE, PLACE ALL SIGNS, PAVEMENT MARKINGS AND PORTABLE BARRIER AS SHOWN ON THE PHASE 2 MOT PLANS. SHIFT TRAFFIC TO THE INSIDE ONTO THE NEWLY CONSTRUCTED ROADWAY, SHOULDERS, THE FRA-71-0153 BRIDGES AND THE WORK ZONE PAVEMENT CONSTRUCTED DURING PRE-PHASE 1B AND PHASE 1. CONSTRUCT THE OUTSIDE PORTION OF THE NORTHBOUND AND SOUTHBOUND ROADWAY ALONG WITH THE OUTSIDE PORTION OF THE FRA-71-0153 BRIDGES AS SHOWN ON THE PHASE 2 MOT PLANS. DO NOT PLACE THE 1/2 INCH ITEM 806 ASPHALT CONCRETE SURFACE COURSE AT THIS TIME.

PHASE 3 (ASPHALT OPTION ONLY):

AT THE COMPLETION OF ALL PHASE 2 WORK, THE CONTRACTOR SHALL REMOVE THE WORK ZONE PAVEMENT WITHIN THE PROJECT LIMITS AND PERFORM THE REQUIRED GRADING. THE CONTRACTOR SHALL PLACE THE 1/2 INCH ITEM 806 ASPHALT CONCRETE SURFACE COURSE ON THE I-71 ROADWAY. THIS WORK SHALL BE COMPLETED BY UTILIZING OFF PEAK DAYTIME AND NIGHTTIME LANE CLOSURES PER ODOT SCD MT-95.30 AND ONLY DURING THE ALLOWABLE HOURS AS SHOWN IN THE MOT GENERAL NOTES.

SEQUENCE OF CONSTRUCTION (CONT.)

PHASE 3 (CONCRETE OPTION ONLY):

AT THE COMPLETION OF ALL PHASE 2 WORK, THE CONTRACTOR SHALL REMOVE THE WORK ZONE PAVEMENT WITHIN THE PROJECT LIMITS AND PERFORM THE REQUIRED GRADING. THIS WORK SHALL BE COMPLETED BY UTILIZING OFF PEAK DAYTIME AND NIGHTTIME LANE CLOSURES PER ODOT SCD MT-95.30 AND ONLY DURING THE ALLOWABLE HOURS AS SHOWN IN THE MOT GENERAL NOTES. THE CONTRACTOR SHALL PLACE ALL SIGNS, PAVEMENT MARKINGS, PORTABLE BARRIER AND DRUMS AS SHOWN ON THE PHASE 3 MOT PLANS. CONSTRUCT THE REQUIRED GUARDRAIL IN THE MEDIAN AS SHOWN ON THE CONSTRUCTION DRAWINGS.

PHASE 4:

AT THE COMPLETION OF ALL PHASE 3 WORK, THE CONTRACTOR SHALL PLACE ALL FINAL PAVEMENT MARKINGS AND SIGNS AS SHOWN ON THE CONSTRUCTION DRAWINGS. COMPLETE ANY FINAL GRADING AND SEEDING AND MULCHING REQUIRED.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

FRA - 71 - 1.53

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REF. NO.	SHEET NO.	STATION		SIDE	254	411	614	614	614	614	614	614	614	614	615	615	622	622		614	614
		FROM	TO		PAVEMENT PLANING, ASPHALT CONCRETE (9" THICK)	STABILIZED CRUSHED AGGREGATE	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	OBJECT MARKER, ONE-WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN B	PORTABLE BARRIER, 32"	PORTABLE BARRIER, 32", BRIDGE MOUNTED		WORK ZONE LANE LINE, CLASS III, 642 PAINT
		SY	CY	EACH	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	FT	SY	SY	FT	FT		MILE	MILE	
PHASE 1 (continued)																					
CH-2	33-35	64+55	74+05	LT				49					950								
LL-2	31-33	54+40	64+55	RT				10			0.19										
PB-1	34-41	69+50	101+50	LT			1		195		65					3200					
PB-2	34-41	69+90	102+00	RT			1		198		66					3210					
		69+30	76+35	RT							16	16									
LL-3	35-40	74+05	97+30	RT				21			0.44										
		76+35	77+16	RT					9		3										
		77+16	81+38	RT						10	10										
		81+38	84+98	RT					27		9										
		84+98	90+92	RT						13	13										
LL-4	35-40	74+05	97+30	LT				21			0.44										
		73+90	77+26	LT						8	8										
		77+26	78+10	LT					9		3										
		78+10	81+45	LT						8	8										
		81+45	85+01	LT					27		9										
		85+01	88+25	LT						8	8										
	38-40	88+91	101+00	RT												2130					
	38-40	88+97	101+00	LT												2643					
		88+91	101+00	RT		45															
		99+95	101+00	LT		4															
CH-3	40-43	97+30	106+85	LT				49					955								
CH-4	40-43	97+30	106+70	RT				48					940								
LL-5	42-44	106+85	117+05	LT				10			0.19										
LL-6	42-44	106+70	119+40	RT				12			0.24										
PHASE 2																					
CH-1	47-50	63+70	76+45	RT				65					1275								
CH-2	47-50	64+45	76+45	LT				61					1200								
EW-1	48-55	66+74	104+00	RT				188				0.71									
EY-1	48-55	66+74	104+00	RT				188				0.71									
EW-2	48-55	67+47	105+07	LT				189				0.71									
EY-2	48-55	67+47	105+07	LT				189				0.71									
PB-1	48-54	70+60	97+80	RT			1		168		56					2340	380				
PB-2	49-50	71+50	76+10	RT			1		33		11					460					
PB-3	49-54	73+50	100+80	LT			1		168		56					2350	380				
PB-4	52-50	88+40	99+60	RT			1	1	72		24					1120					
LL-1	50-53	76+45	94+80	LT				17			0.35										
LL-2	50-53	76+45	94+80	LT				17			0.35										
CH-3	53-56	94+80	107+00	RT				62					1220								
CH-4	47-50	94+80	108+10	LT				68					1330								
		76+10	77+56	RT							4	4									
		77+56	81+35	LT/RT							9	9									
		81+35	85+07	RT					27		9	9									
		76+85	81+10	LT/RT							10	10									
		81+35	85+07	LT					27		9	9									
		85+05	88+50	LT							8	8									
TOTALS FROM NEXT SHEET					0	0	0	0	74	0	0	0	1.65	1.65	0	0	0	0	0	1.65	1.65
TOTALS FROM PREVIOUS SHEET					12,759	281	4	0	2,518	360	0	120	0.24	9.47	10,680	12,759	8,188	5,690	0		
TOTALS CARRIED TO GENERAL SUMMARY					12,759	330	10	1	3,856	1,320	94	534	4.09	13.96	18,550	12,759	12,961	18,370	760		

MAINTENANCE OF TRAFFIC SUBSUMMARY (ASPHALT)

FRA-71-1.53

CALCULATED
ANN
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EGD

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SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	9	17	113	114	115	118	202	284	CALC	01/MS/P/V	02/NHS/PV	03/IMS/BR	04/NHS/BR						
ROADWAY																			
LS											LS			201	11000	LS	CLEARING AND GRUBBING		
									9,899	6,236	3,663			202	23001	9,899	SY	PAVEMENT REMOVED, AS PER PLAN	9
									5,827	3,671	2,156			202	23010	5,827	SY	PAVEMENT REMOVED, ASPHALT	
			167							167				202	30700	167	FT	CONCRETE BARRIER REMOVED	
			403							150	253			202	35100	403	FT	PIPE REMOVED, 24" AND UNDER	
			2,728							2,182	546			202	38000	2,728	FT	GUARDRAIL REMOVED	
			6							2	4			202	58100	6	EACH	CATCH BASIN REMOVED	
			498							427	71			202	75000	498	FT	FENCE REMOVED	
					10,696					6,738	3,958			203	10000	10,696	CY	EXCAVATION	
					3,610					2,274	1,336			203	20000	3,610	CY	EMBANKMENT	
1,245		3,830								3,299	1,776			204	10000	5,075	SY	SUBGRADE COMPACTION	
415		950								887	478			204	13000	1,365	CY	EXCAVATION OF SUBGRADE	
415		950								887	478			204	30010	1,365	CY	GRANULAR MATERIAL, TYPE B	
1		9								7	3			204	45000	10	HR	PROOF ROLLING	
1,245										810	435			204	50000	1,245	SY	GEOTEXTILE FABRIC	
										43	27	16		206	10500	43	TON	CEMENT	
										1,426	898	528		206	11000	1,426	SY	CURING COAT	
										1,426	898	528		206	15010	1,426	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
			2,362.5							2,250	112.5			606	15050	2,362.5	FT	GUARDRAIL, TYPE MGS	
			687.5								687.5			606	15550	687.5	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
			1							1				606	26050	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B	7
			3							1	2			606	26550	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			2							2				606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			2								2			606	35006	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, BARRIER DESIGN	
			2							2				606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
			2								2			606	60012	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	7
				282						282				607	15100	282	FT	FENCE, TYPE 47RA	
								4		4				623	40500	4	EACH	REFERENCE MONUMENT	
										LS	LS			878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
										698	440	258		206	10500	698	TON	ROADWAY OPTION A - ASPHALT CEMENT	
										23,480	14,792	8,688		206	11000	23,480	SY	CURING COAT	
										23,480	14,792	8,688		206	15010	23,480	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
										681	429	252		206	10500	681	TON	ROADWAY OPTION B - CONCRETE CEMENT	
										22,889	14,420	8,469		206	11000	22,889	SY	CURING COAT	
										22,889	14,420	8,469		206	15010	22,889	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
																		EROSION CONTROL	
	3.6		52.2							55.0	0.8			601	21050	55.8	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
			272.8							272.8				601	21060	272.8	SY	TIED CONCRETE BLOCK MAT, TYPE 2	
			1,151							771	380			601	32000	1,151	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
			2.6							2.6				601	32200	2.6	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
2										1	1			659	00100	2	EACH	SOIL ANALYSIS TEST	
2,111										1,689	422			659	00300	2,111	CY	TOPSOIL	
					19,020					15,216	3,804			659	10000	19,020	SY	SEEDING AND MULCHING	
951										761	190			659	14000	951	SY	REPAIR SEEDING AND MULCHING	
951										761	190			659	15000	951	SY	INTER-SEEDING	
2.65										2.12	0.53			659	20000	2.65	TON	COMMERCIAL FERTILIZER	
3.93										3.14	0.79			659	31000	3.93	ACRE	LIME	
106										85	21			659	35000	106	MGAL	WATER	
43										34	9			659	40000	43	MSF	MOWING	
							1,460			1,168	292			659	98000	1,460	SY	SEEDING, MISC.:NATIVE SEED MIX	202
				1,434						72	1,362			670	00700	1,434	SY	DITCH EROSION PROTECTION	
						LS				LS				832	15001	LS		STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN	118

GENERAL SUMMARY

FRA - 71 - 1.53

108
285

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SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	11	113	114	118	189	190	CALC	01/MS/P/V	02/NHS/PV	03/IMS/BR	04/NHS/BR						
			LS							LS				SPECIAL	69070000	LS		ENVIRONMENTAL , SECTION 4F, IDENTIFIED SECTION 4(F) PROPERTIES	11
		LS								LS				SPECIAL	69070000	LS		ENVIRONMENTAL STREAM SURVEY	10
								120,709		78,461	42,248			832	30000	120,709	EACH	EROSION CONTROL	
				1.35						1.34	0.01			602	20000	1.35	CY	CONCRETE MASONRY	
				19,179						12,466	6,713			605	11000	19,179	FT	6" CONSTRUCTION UNDERDRAINS	
				5,221						4,177	1,044			605	11100	5,221	FT	6" SHALLOW PIPE UNDERDRAINS	
				1,620						1,296	324			605	11101	1,620	FT	6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN	174
	50			934						787	197			605	13300	984	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
				6,970						4,879	2,091			605	14000	6,970	FT	6" BASE PIPE UNDERDRAINS	
	50				1,086					810	326			611	00510	1,136	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
					45					28	17			611	04600	45	FT	12" CONDUIT, TYPE C, 706.02	
					111					89	22			611	05900	111	FT	15" CONDUIT, TYPE B	
					940					772	168			611	06100	940	FT	15" CONDUIT, TYPE C	
					29					18	11			611	06100	29	FT	15" CONDUIT, TYPE C, 706.02	
					139					104	35			611	06700	139	FT	15" CONDUIT, TYPE F	
50										50				611	10600	50	FT	24" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	
					249					198	51			611	96600	249	FT	CONDUIT, BORED OR JACKED	
					1						1			611	98150	1	EACH	CATCH BASIN, NO. 3	
					5					4	1			611	98180	5	EACH	CATCH BASIN, NO. 3A	
					10					7	3			611	98410	10	EACH	CATCH BASIN, NO. 8	
					10					10				611	98634	10	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
					3					2	1			611	99574	3	EACH	MANHOLE, NO. 3	
	2				26					28				611	99710	28	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																		PAVEMENT	
									1,483	935	548			254	01000	1,483	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
									389	245	144			302	46000	389	CY	ASPHALT CONCRETE BASE, PG64-22	
									228	144	84			304	20000	228	CY	AGGREGATE BASE	
									201	127	74			407	20000	201	GAL	NON-TRACKING TACK COAT	
									209	132	77			442	00100	209	CY	ANTI-SEGREGATION EQUIPMENT	
									59	37	22			442	10100	59	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
				252						252				609	24510	252	FT	CURB, TYPE 4-C	
									150	95	55			806	00101	150	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, AS PER PLAN	9
																		PAVEMENT OPTION A - ASPHALT	
									6,627	4,175	2,452			302	46000	6,627	CY	ASPHALT CONCRETE BASE, PG64-22	
									3,854	2,428	1,426			304	20000	3,854	CY	AGGREGATE BASE	
									2,466	1,554	912			407	20000	2,466	GAL	NON-TRACKING TACK COAT	
									1,924	1,212	712			442	00100	1,924	CY	ANTI-SEGREGATION EQUIPMENT	
									1,036	653	383			442	10100	1,036	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
				6,313						3,157	3,156			618	40100	6,313	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)	
				240						120	120			618	40200	240	FT	RUMBLE STRIPS, (CONCRETE)	
									888	559	329			806	00101	888	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, AS PER PLAN	9
																		PAVEMENT OPTION B - CONCRETE	
									3,756	2,366	1,390			304	20000	3,756	CY	AGGREGATE BASE	
				248						156	92			SPECIAL	45131000	248	FT	PRESSURE RELIEF JOINT, TYPE B	8
									21,301	13,420	7,881			452	16060	21,301	SY	13.5" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	
				6,553						3,277	3,276			618	40200	6,553	FT	RUMBLE STRIPS, (CONCRETE)	
																		TRAFFIC CONTROL	
								33		33				620	00500	33	EACH	DELINEATOR, POST GROUND MOUNTED TYPE C	
								111		67	44			621	00100	111	EACH	RPM	
								60		60				626	00102	60	EACH	BARRIER REFLECTOR, TYPE 1	
								121.4		121.4				630	02100	121.4	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								29		29				630	03100	29	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								2		2				630	08600	2	EACH	SIGN POST REFLECTOR	
								65.5		65.5				630	80100	65.5	SF	SIGN, FLAT SHEET	
								8		8				630	84900	8	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								8		8				630	86002	8	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								14,565		14,565				644	30000	14,565	FT	REMOVAL OF PAVEMENT MARKING	

GENERAL SUMMARY

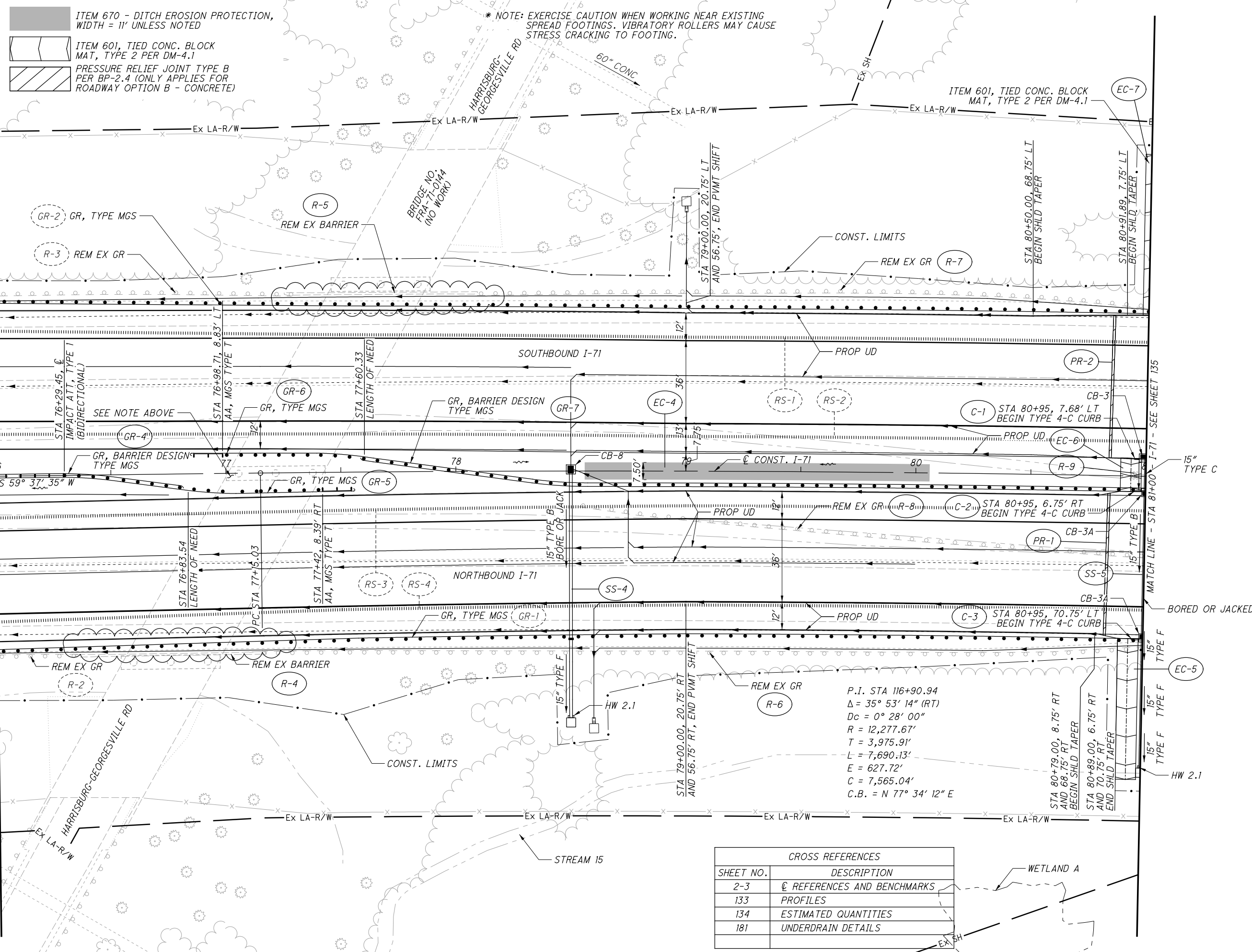
FRA - 71 - 1.53

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SHEET NO.	202	202	202	202	202	451	601	601	601	601	602	605		605	605	605	605	606	606	606	606	606	606	606	606		
	CONCRETE BARRIER REMOVED FT	PIPE REMOVED, 24" AND UNDER FT	GUARDRAIL REMOVED FT	CATCH BASIN REMOVED EACH	FENCE REMOVED FT	SPECIAL - PRESSURE RELIEF JOINT, TYPE B FT	TIED CONCRETE BLOCK MAT, TYPE 1 SY	TIED CONCRETE BLOCK MAT, TYPE 2 SY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER CY	CONCRETE MASONRY CY	6" CONSTRUCTION UNDERDRAINS FT		6" SHALLOW PIPE UNDERDRAINS FT	6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN FT	6" UNCLASSIFIED PIPE UNDERDRAINS FT	6" BASE PIPE UNDERDRAINS FT	GUARDRAIL, TYPE MGS FT	GUARDRAIL - BARRIER DESIGN, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE B EACH	ANCHOR ASSEMBLY, MGS TYPE T EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL) EACH	
128		85		2																							
131			454															1337.5									
134	167	84	1058	1		124	3.6	150.8			0.54							125	400		2		1	1	1	1	
137		84	1216	1	498	124	1.8	122.0	1151	1.3	0.54							900	287.5	1	1	1	1	1	1	1	
140		150		2																							
143										1.3	0.27																
146																											
176A							12.6					6844															
176B							7.2					1732		2561	733	240	2693										
177							7.2					3412		2660	887	240	4277										
178							19.8					7191				454											
TOTALS CARRIED TO GENERAL SUMMARY	167	403	2728	6	498	248	52.2	272.8	1151.0	2.6	1.35	19179		5221	1620	934	6970	2362.5	687.5	1	3	2	2	2	2	2	

ROADWAY SUBSUMMARY	FRA - 71 - 1.53	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">CALCULATED</td> </tr> <tr> <td style="text-align: center;">DCB</td> </tr> <tr> <td style="text-align: center;">CHECKED</td> </tr> <tr> <td style="text-align: center;">JMB</td> </tr> </table>	CALCULATED	DCB	CHECKED	JMB
CALCULATED						
DCB						
CHECKED						
JMB						

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- ITEM 670 - DITCH EROSION PROTECTION, WIDTH = 11' UNLESS NOTED
- ITEM 601, TIED CONC. BLOCK MAT, TYPE 2 PER DM-4.1
- PRESSURE RELIEF JOINT TYPE B PER BP-2.4 (ONLY APPLIES FOR ROADWAY OPTION B - CONCRETE)

* NOTE: EXERCISE CAUTION WHEN WORKING NEAR EXISTING SPREAD FOOTINGS. VIBRATORY ROLLERS MAY CAUSE STRESS CRACKING TO FOOTING.

P.I. STA 116+90.94
 $\Delta = 35^\circ 53' 14''$ (RT)
 $D_c = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 3,975.91'$
 $L = 7,690.13'$
 $E = 627.72'$
 $C = 7,565.04'$
 $C.B. = N 77^\circ 34' 12'' E$

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
2-3	☐ REFERENCES AND BENCHMARKS
133	PROFILES
134	ESTIMATED QUANTITIES
181	UNDERDRAIN DETAILS

CALCULATED
 DCB
 CHECKED
 JMB

HORIZONTAL SCALE IN FEET

PLAN - I-71
 STA 76+00 TO STA 81+00

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REF. NO.	SHEET NO.	STATION		SIDE	202	202	202	202	451	601	601	602	606	606	606	606	609	611	611	611	611	611	611	670	
					CONCRETE BARRIER REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	CATCH BASIN REMOVED	SPECIAL - PRESSURE RELIEF JOINT, TYPE B	TIED CONCRETE BLOCK MAT, TYPE 1	TIED CONCRETE BLOCK MAT, TYPE 2	CONCRETE MASONRY	GUARDRAIL, TYPE MGS	GUARDRAIL, BARRIER DESIGN, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE I, BARRIER DESIGN	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	CURB, TYPE 4-C	15" CONDUIT, TYPE C	15" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 15", TYPE B	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 8	DITCH EROSION PROTECTION
		FT	FT		FT	EACH	FT	SY	SY	CY	FT	FT	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH	EACH	SY		
R-4	132	76+34	77+17	RT	83																				
R-5	132	77+26	78+10	LT	84																				
R-6	132, 135	77+17	81+39	RT			427																		
R-7	132, 135	78+10	81+45	LT			338																		
R-8	132, 135	78+53	81+46	RT			293																		
R-9	132, 135	80+95	81+79	CL		84		1																	
C-1	132, 135	80+95	81+35	LT													40								
C-2	132, 135	80+95	81+35	RT													40								
C-3	132, 135	80+95	81+35	RT													40								
GR-4	132	76+29	76+80	CL/RT									50												
GR-5	132	76+80	77+55	RT								62.5		1											
GR-6	132	76+86	77+61	LT								62.5		1											
GR-7	132, 135	77+61	81+35	LT/RT									350		1										
EC-4	132, 135	78+56	80+06	CL																				125	
EC-5	132, 135	80+89	80+98	RT						60.7															
EC-6	132, 135	80+89	80+98	CL						14.5															
EC-7	132, 135	80+98	81+08	LT						75.6															
SS-4	132	78+50		CL/RT					1.8		0.27														
SS-5	132, 135	81+00	81+00	CL/RT					1.8		0.27						14	36	74						
PR-1	132	80+83.43	80+84.43	RT					62																
PR-2	132	80+84.05	80+85.05	LT					62																
TOTALS CARRIED TO SHEETS 113-114					167	84	1058	1	124	3.6	150.8	0.54	125	400	2	1	1	120	14	95	138	1	2	1	125

ESTIMATED QUANTITIES

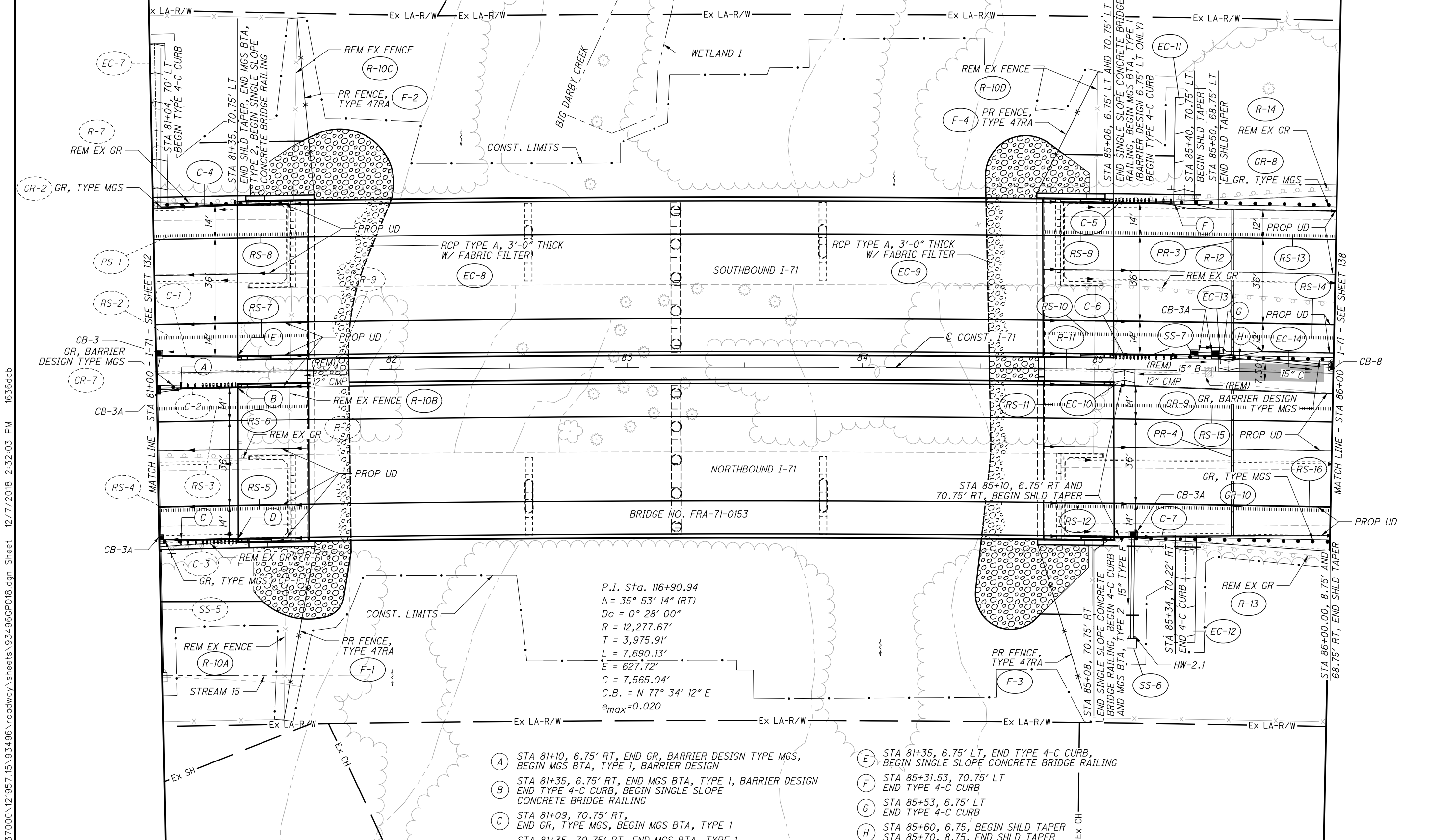
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JMB

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
2-3	REFERENCES AND BENCHMARKS
136	PROFILES
137	ESTIMATED QUANTITIES
182	UNDERDRAIN DETAILS
203-204	STRUCTURE FRA-71-0153



- ITEM 670 - DITCH EROSION PROTECTION, WIDTH = 11' UNLESS NOTED
- ITEM 601, TIED CONC. BLOCK MAT, TYPE 2 PER DM-4.1
- PRESSURE RELIEF JOINT TYPE B PER BP-2.4 (ONLY APPLIES FOR ROADWAY OPTION B - CONCRETE)



P.I. Sta. 116+90.94
 $\Delta = 35^\circ 53' 14''$ (RT)
 $Dc = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 3,975.91'$
 $L = 7,690.13'$
 $E = 627.72'$
 $C = 7,565.04'$
 $C.B. = N 77^\circ 34' 12'' E$
 $e_{max} = 0.020$

- (A) STA 81+10, 6.75' RT, END GR, BARRIER DESIGN TYPE MGS, BEGIN MGS BTA, TYPE 1, BARRIER DESIGN
- (B) STA 81+35, 6.75' RT, END MGS BTA, TYPE 1, BARRIER DESIGN END TYPE 4-C CURB, BEGIN SINGLE SLOPE CONCRETE BRIDGE RAILING
- (C) STA 81+09, 70.75' RT, END GR, TYPE MGS, BEGIN MGS BTA, TYPE 1
- (D) STA 81+35, 70.75' RT, END MGS BTA, TYPE 1, END TYPE 4-C CURB, BEGIN SINGLE SLOPE CONCRETE BRIDGE RAILING
- (E) STA 81+35, 6.75' LT, END TYPE 4-C CURB, BEGIN SINGLE SLOPE CONCRETE BRIDGE RAILING
- (F) STA 85+31.53, 70.75' LT, END TYPE 4-C CURB
- (G) STA 85+53, 6.75' LT, END TYPE 4-C CURB
- (H) STA 85+60, 6.75, BEGIN SHLD TAPER STA 85+70, 8.75, END SHLD TAPER

PLAN - I-71
 STA 81+00 TO STA 86+00

FRA-71-1.53

135
 285

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X:\4037000\121957.15\93496\roadway\sheet\93496GQ018.dgn Sheet 12/7/2018 2:37:32 PM 1636dcb

REF. NO.	SHEET NO.	STATION		SIDE	ITEM DESCRIPTION																												670
					202	202	202	202	451	601	601	601	601	602	606	606	606	606	606	606	606	606	606	607	609	611	611	611	611	611	618	618	
		PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED		CATCH BASIN REMOVED	FENCE REMOVED	SPECIAL - PRESSURE RELIEF JOINT, TYPE B	TIED CONCRETE BLOCK MAT, TYPE 1	TIED CONCRETE BLOCK MAT, TYPE 2	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	GUARDRAIL, TYPE MGS	GUARDRAIL, BARRIER DESIGN, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE B	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	FENCE, TYPE 47RA	CURB, TYPE 4-C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	15" CONDUIT, TYPE F	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 8	MANHOLE, NO. 3	RUMBLE STRIPS, (ASPHALT CONCRETE)	RUMBLE STRIPS, (CONCRETE)	DITCH EROSION PROTECTION			
FROM	TO	FT	FT	EACH	FT	FT	SY	SY	CY	CY	CY	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	EACH	EACH	EACH	FT	FT	SY			
R-10A	135	81+52	81+54	RT																													
R-10B	135	81+56	81+58	RT/LT																													
R-10C	135	81+60	81+62	LT																													
R-10D	135	84+85	84+97	RT/LT																													
R-11	135	84+62	85+47	CL	84		1																										
R-12	135, 138	84+92	87+88	LT		298																											
R-13	135, 138	84+98	90+92	RT		593																											
R-14	135, 138	85+01	88+24	LT		325																											
C-4	135	81+04	81+35	LT																													
C-5	135	85+06	85+32	LT																													
C-6	135	85+06	85+53	LT																													
C-7	135	85+08	85+34	RT																													
EC-8	135	81+41	82+02	LT/RT																													
EC-9	135	84+49	84+96	LT/RT																													
EC-10	135	85+07	85+16	RT																													
EC-11	135	85+31	85+40	LT																													
EC-12	135	85+34	85+43	RT																													
EC-13	135	85+51	85+60	LT																													
EC-14	135	85+60	85+96	CL																													
F-1	135	81+52	81+66	RT																													
F-2	135	81+62	81+68	LT																													
F-3	135	84+75	84+85	RT																													
F-4	135	84+73	84+97	LT																													
GR-8	135, 138	85+06	88+57	LT																													
GR-9	135, 138	85+06	88+18	LT																													
GR-10	135, 138	85+08	90+99	RT																													
SS-6	135	85+16	85+16	RT																													
SS-7	135, 138	85+41	89+97	CL/RT																													
RS-5	135	81+34.43	81+64.48	RT																													
RS-6	135	81+34.43	81+64.48	RT																													
RS-7	135	81+35.05	81+65.00	LT																													
RS-8	135	81+35.05	81+65.00	LT																													
RS-9	135	84+76.49	85+06.43	LT																													
RS-10	135	84+76.49	85+06.43	LT																													
RS-11	135	84+77.01	85+07.06	RT																													
RS-12	135	84+77.01	85+07.06	RT																													
RS-13	135, 138, 141	85+06.43	94+00.00	LT																													
RS-14	135, 138, 141	85+06.43	94+00.00	LT																													
RS-15	135, 138, 141	85+07.06	94+00.00	RT																													
RS-16	135, 138, 141	85+07.06	94+00.00	RT																													
PR-3	135	85+56.43	85+57.43	LT																													
PR-4	135	85+57.06	85+58.06	RT																													
TOTALS CARRIED TO SHEETS 113-114					84	1216	1	498	124	1.8	122.0	1151.0	1.3	0.54	900	287.5	1	1	1	1	1	1	282	132	111	347	44	3	2	1	3573.0	240.4	30

ESTIMATED QUANTITIES

FRA - 71 - 1.53

CALCULATED
DCB
CHECKED
JMB