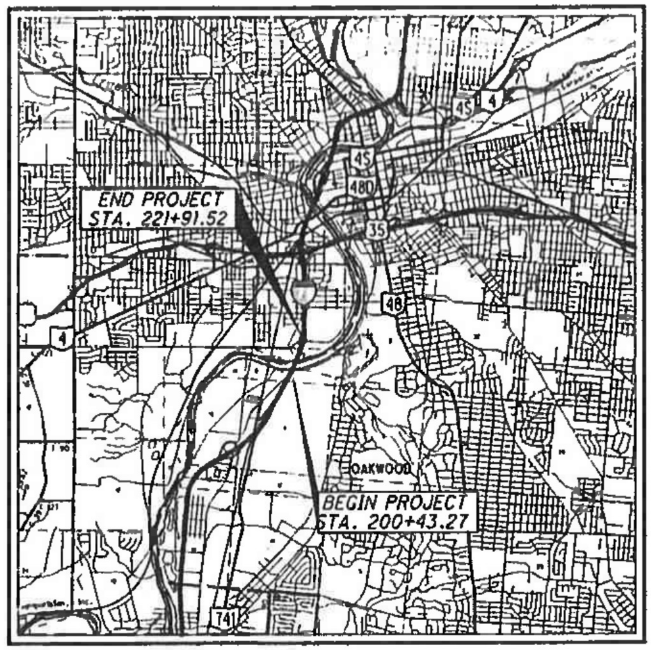

LOCATION MAP

LATITUDE: 39°43'52" LONGITUDE: 84°12'21"

SCALE IN MILES

0 1 2 3 4

N

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

DESIGN DESIGNATION

CURRENT ADT (2019) ______ 119,000
DESIGN YEAR ADT (2039) ______ 131,000
DESIGN HOURLY VOLUME (2039) ______ 12,000
DIRECTIONAL DISTRIBUTION ______ 53%
TRUCKS (24 HOUR B&C) ______ 20%
DESIGN SPEED ______ 60 MPH
LEGAL SPEED ______ 55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:
URBAN INTERSTATE
NHS PROJECT ______ YES

DESIGN EXCEPTIONS

SUPERELEVATION - APPROVED 11/7/16
SHOWN ON SHEETS 2-6-7-8

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS
BEFORE YOU DIG.

OHIO Utilities Protection SERVICE
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:

E.L. ROBINSON ENGINEERING
1801 Watermark Drive, Suite 310 • Columbus, Ohio 43215
www.elrobinsonengineering.com

ENGINEERS SEAL:
FOR SHEETS 178-192

STATE OF OHIO
MARK E. MOELLMAN
E-48120
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 2/13/20

ENGINEERS SEAL:
FOR SHEETS 193-340

STATE OF OHIO
DAVID F. TRAINI
E-48751
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 2/13/20

ENGINEERS SEAL:
FOR SHEETS 1-177

STATE OF OHIO
BRENT B. DOWNING
#E-62866
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 2/13/20

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

MOT-75-(10.44)(10.78)

CITY OF DAYTON

MONTGOMERY COUNTY

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STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	01/17/20	MGS-4.3	1/18/13	VPF-1-90	7/20/18	MT-95.31	7/19/19	MT-103.10	1/19/18	TC-65.11	7/21/17	800-2019	4/17/20	OEPA DEMO
		MGS-5.2	7/15/16			MT-95.40	1/17/20	MT-104.10	10/16/15	TC-72.20	7/20/18	808	1/18/19	1/28/09
I-2.1	1/15/16	MGS-5.3	7/15/16	HL-10.11	7/19/19	MT-95.41	1/17/20	MT-105.10	1/17/20			813	10/19/18	
I-2.2	7/19/19	MGS-6.1	1/19/18	HL-10.12	1/20/17	MT-95.45	1/17/20	MT-110.10	7/19/13			814	7/15/16	WPC
				HL-10.13	1/17/20	MT-95.72	1/17/20					821	4/20/12	6/15/18
DM-1.1	7/21/17	RM-4.1	1/17/20	HL-20.11	4/21/17	MT-98.10	1/17/20	TC-7.65	7/20/18			832	10/19/18	
DM-1.2	1/18/13	RM-4.2	1/17/20	HL-20.13	1/19/18	MT-98.11	1/17/20	TC-9.10	1/19/18			845	4/20/18	
DM-2.1	1/18/13	RM-4.3	7/18/14	HL-30.11	7/19/19	MT-98.20	4/19/19	TC-12.30	1/19/18					
DM-4.1	7/20/18	RM-4.4	7/19/19	HL-30.31	1/17/20	MT-98.21	1/17/20	TC-21.10	7/19/19			908	10/20/17	
DM-4.3	1/15/16	RM-4.6	7/19/13	HL-30.32	1/17/20	MT-98.22	1/17/20	TC-21.20	7/20/18			913	4/21/17	
DM-4.4	1/15/16			HL-30.33	1/17/20	MT-98.29	1/17/20	TC-21.50	7/15/16			914	7/15/16	
		A-1-69	7/19/02	HL-30.41	1/19/18	MT-98.30	7/19/19	TC-41.10	7/19/13			921	4/20/12	
BP-5.1	1/18/19	AS-1-15	7/17/15	HL-40.10	1/20/17	MT-99.20	4/19/19	TC-41.20	10/18/13					
BP-9.1	1/18/19	AS-2-15	1/18/19	HL-40.20	1/17/20	MT-99.30	1/17/20	TC-41.30	10/18/13					
		GSD-1-96	7/19/02	HL-50.11	1/16/15	MT-101.60	1/17/20	TC-42.10	10/18/13					
F-1.1	7/19/13	HW-2.1	7/20/18	HL-50.21	1/18/19	MT-101.70	1/17/20	TC-42.20	10/18/13					
		HW-2.2	7/20/18	HL-60.11	7/21/17	MT-101.75	1/17/20	TC-51.11	1/15/16					
MGS-1.1	1/19/18	PCB-91	1/18/13	HL-60.12	7/15/16	MT-101.80	1/17/20	TC-51.12	1/15/16					
MGS-2.1	1/19/18	SBR-1-13	7/20/18	HL-60.21	7/20/18	MT-101.90	7/21/17	TC-52.10	10/18/13					
MGS-3.1	1/19/18	SBR-2-13	7/20/18	HL-60.31	1/17/20	MT-102.10	1/17/20	TC-52.20	7/20/18					
MGS-3.2	1/18/13	SICD-1-96	7/18/14			MT-102.20	4/19/19	TC-61.30	7/19/19					
MGS-4.2	7/19/13	SICD-2-14	7/18/14	MT-95.30	7/19/19	MT-102.30	10/16/15	TC-65.10	1/17/14					

PROJECT DESCRIPTION

REMOVAL AND REPLACEMENT OF THE CONCRETE DECK OF THE MOT-75-1044 STRUCTURE OVER CARILLON BLVD AND THE GREAT MIAMI RIVER. SUPERSTRUCTURE REPLACEMENT OF THE MOT-75-1078 STRUCTURE OVER EDWIN C. MOSES BLVD. APPROACH SLAB REPLACEMENT FOR EACH STRUCTURE, GUIDE SIGN REPLACEMENT ALONG EDWIN C. MOSES BLVD, REMOVAL OF THE TURNAROUND LOCATED AT THE EDWIN C. MOSES BLVD. INTERCHANGE, AND REPLACEMENT OF MEDIAN BARRIER WALL. RESURFACING OF I.R. 75 AND THE EDWIN C. MOSES BLVD INTERCHANGE RAMPS.

PROJECT EARTH DISTURBED AREA: 1.89 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 4.9 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 APPROVED 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 PE, PS
DATE 2/25/2020 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE 3/5/20 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E120(723)

PID NO. 91606

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

MOT-75-(10.44)(10.78)

MOT - IR - 75 - (10.44)(10.78)
200341 PID - 91606
Dist 7 07/02/2020

WINTER WORK

THE CONTRACTOR IS REQUIRED TO PURSUE ALL AVAILABLE WORK THROUGH THE WINTERS WHILE IN PHASE 2 AND PHASE 4 OF THE PLAN MOT. A SCHEDULE WILL NOT BE ACCEPTED THAT DOES NOT REPRESENT WORK (CRITICAL AND NON-CRITICAL) BEING PERFORMED THROUGHOUT THESE WINTER PERIODS. THE PLAN MOT IS PHASED AS SUCH WITH POTENTIAL DISINCENTIVES TO ENSURE THE PROJECT IS IN A CONDITION TO ALLOW WORK TO CONTINUE THROUGHOUT PHASE 2 AND PHASE 4. WEATHER DAYS THROUGHOUT THESE WINTER PERIODS WILL BE ANALYZED IN ACCORDANCE WITH 108.06 IN CONJUNCTION WITH THE TABLE IN 108.06-1, HOWEVER THE CONTRACT IS REQUIRED TO RECOGNIZE DURING THE BIDDING PROCESS THAT WINTER WORK MAY POTENTIALLY REQUIRE ITEMS SUCH AS COLD WEATHER PROTECTION, LESS EFFICIENT PRODUCTIVITY, ETC.

SEQUENCE OF CONSTRUCTION

PHASE 1

INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES NECESSARY TO MAINTAIN TRAFFIC IN THE PHASE 1 CONFIGURATION. SHIFT NORTHBOUND TRAFFIC ONTO THE OUTSIDE LANES AND SHOULDER AS SHOWN IN THE PLANS.

REMOVE MEDIAN BARRIER WALL WITHIN CROSSOVER LIMITS. EXISTING LIGHT POLES WITHIN REMOVAL LIMITS SHALL BE STORED. PLACE ASPHALT WEDGE ON EXISTING INSIDE SHOULDERS NEAR CROSSOVERS AS DETAILED IN THE PLANS. INSTALL TEMPORARY DRAINAGE NEEDED FOR FUTURE PHASES.

UTILIZE APPLICABLE STANDARD CONSTRUCTION DRAWINGS TO SHIFT OR CLOSE LANES IN ACCORDANCE WITH THE NOTES HEREIN IN ORDER TO PERFORM A 1.5" MILL AND FILL OF THE EXISTING PAVEMENT FROM THE NORTHERN LIMIT OF THE BRIDGE OVER SR-741 TO THE SOUTHERN LIMIT OF THE BRIDGE OVER STEWART ST., INCLUDING THE EDWIN C. MOSES INTERCHANGE RAMPS AND BETWEEN THE MOT-1044 AND MOT-1078 STRUCTURES. THE VARIABLE DEPTH OVERLAY BETWEEN THE STRUCTURES SHALL BE COMPLETED IN FUTURE PHASES.

THE SOUTHBOUND EXIT RAMP TO NORTHBOUND ENTRANCE RAMP TURNAROUND SHALL BE CLOSED AT THE START OF WORK. REMOVAL OF THE PORTION OF THE TURNAROUND ALONG THE EXISTING RAMPS SHALL BE COMPLETED PRIOR TO RAMP RESURFACING. EDWIN C. MOSES BLVD AND RAMP TRAFFIC SHALL BE MAINTAINED ACCORDING TO THE APPLICABLE STANDARD CONSTRUCTION DRAWINGS AND NOTES HEREIN. THE REMOVAL OF THE REMAINDER OF THE TURNAROUND MAY BE PERFORMED AT ANY TIME DURING THE PROJECT.

PHASE 2

PHASE 2 CONSTRUCTION SHALL BEGIN NO LATER THAN OCTOBER 15, 2020.

REMOVE EXISTING SIGNING IN CONFLICT WITH PROPOSED MOT SETUP. INSTALL MOT SIGNING AS PER STANDARD CONSTRUCTION DRAWINGS LISTED AND AS SHOWN IN THE PLANS.

INSTALL ALL TEMPORARY TRAFFIC CONTROL DEVICES NECESSARY TO MAINTAIN TRAFFIC IN THE PHASE 2 CONFIGURATION. SHIFT NORTHBOUND TRAFFIC ONTO THE OUTSIDE LANES AND SHOULDER AS SHOWN IN THE PLANS. CROSSOVER THE SOUTHBOUND INSIDE LANE OF TRAFFIC TO THE NORTHBOUND INSIDE SHOULDER. SHIFT THE REMAINING TWO OUTSIDE SOUTHBOUND LANES ONTO THE EXISTING INSIDE LANES AND SHOULDER. RAMP TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THESE PLANS.

THE SOUTHBOUND ENTRANCE RAMP FROM EDWIN C. MOSES BLVD SHALL BE CLOSED AND DETOURED AS SHOWN IN THE PLANS FOR THE DURATION OF THIS PHASE.

RECONSTRUCT THE PORTION OF SOUTHBOUND PAVEMENT NOT USED TO MAINTAIN TRAFFIC AS SHOWN IN THE PLANS. PLACE TEMPORARY PAVEMENT ADJACENT TO THE EXISTING OUTSIDE SHOULDER AS SHOWN IN THE PLANS. RECONSTRUCT EASTBOUND EDWIN C. MOSES SLIP RAMP TO I.R. 75 SOUTHBOUND DURING RAMP CLOSURE.

PHASE 3A

NORTHBOUND TRAFFIC SHALL REMAIN IN THE PHASE 2 CONFIGURATION. CONTINUE TO CROSSOVER THE SOUTHBOUND INSIDE LANE OF TRAFFIC TO THE NORTHBOUND INSIDE SHOULDER AS SETUP IN PHASE 2. SHIFT THE REMAINING TWO OUTSIDE SOUTHBOUND LANES ONTO THE EXISTING OUTSIDE LANES AND SHOULDER AND TEMPORARY PAVEMENT INSTALLED IN PHASE 2. RAMP TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THESE PLANS. DURING CONCRETE DECK PLACEMENT, THE CONTRACTOR SHALL CLOSE THE LANE ADJACENT TO THE WORK ZONE DURING PERMITTED LANE CLOSURES TIMES WITH THE APPLICABLE STANDARD CONSTRUCTION DRAWINGS.

RECONSTRUCT THE PORTION OF SOUTHBOUND PAVEMENT NOT USED TO MAINTAIN TRAFFIC AS SHOWN IN THE PLANS.

IN ORDER TO PROVIDE ADEQUATE PROTECTION FOR THE DROPOFF BETWEEN EXISTING AND PROPOSED PAVEMENT, THE CONTRACTOR SHALL COMPLETE RESURFACING UP TO THE INTERMEDIATE COURSE BETWEEN THE MOT-75-1044 AND MOT-75-1078 STRUCTURES PRIOR TO INSTALLATION OF THE CONSTRUCTION ACCESS POINT DETAILED ON SHEET 69.

PHASE 3B

NORTHBOUND TRAFFIC SHALL REMAIN IN THE PHASE 2 CONFIGURATION. RETURN ALL LANES OF SOUTHBOUND TRAFFIC TO THE SOUTHBOUND SIDE OF THE MEDIAN AND SHIFT SOUTHBOUND TRAFFIC ONTO THE OUTSIDE LANES AND SHOULDER AS SHOWN IN THE PLANS. RAMP TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THE PLANS.

REPLACE THE PORTIONS OF THE EXISTING CONCRETE MEDIAN BARRIER SHOWN IN THE PLANS. PERFORM ADDITIONAL MEDIAN WORK SUCH AS CATCH BASIN REPLACEMENT AND SIGN FOUNDATION REPLACEMENT.

PHASE 4A

PHASE 4 CONSTRUCTION SHALL BEGIN NO LATER THAN OCTOBER 15, 2021.

PRIOR TO THE START OF PROPOSED PHASE 4 CONSTRUCTION, PLACE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS REQUIRED FOR PHASE 4 OPERATIONS.

SOUTHBOUND TRAFFIC SHALL BE SHIFTED ONTO THE OUTSIDE SHOULDER. CROSSOVER THE NORTHBOUND INSIDE LANE OF TRAFFIC TO THE SOUTHBOUND INSIDE SHOULDER. SHIFT THE REMAINING TWO OUTSIDE NORTHBOUND LANES ONTO THE EXISTING INSIDE SHOULDER. RAMP TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THESE PLANS.

RECONSTRUCT THE PORTION OF NORTHBOUND PAVEMENT NOT USED TO MAINTAIN TRAFFIC AS SHOWN IN THE PLANS.

PHASE 4B

NORTHBOUND AND SOUTHBOUND TRAFFIC SHALL REMAIN IN THE PHASE 4A CONFIGURATION. CLOSE THE NORTHBOUND EXIT RAMP TO EDWIN C. MOSES TO COMPLETE OUTSIDE I.R. 75 AND RAMP RESURFACING. THE RAMP SHALL BE CLOSED FOR A SINGLE WEEKEND PERIOD FROM 8PM FRIDAY TO 6AM MONDAY. RAMP TRAFFIC SHALL BE DETOURED AS SHOWN IN THE PLANS.

PHASE 5

SOUTHBOUND TRAFFIC SHALL REMAIN IN THE PHASE 4 CONFIGURATION. CONTINUE TO CROSSOVER THE NORTHBOUND INSIDE LANE OF TRAFFIC TO THE SOUTHBOUND INSIDE SHOULDER AS SETUP IN PHASE 4. SHIFT THE REMAINING TWO OUTSIDE NORTHBOUND LANES ONTO THE EXISTING OUTSIDE SHOULDER AND TEMPORARY PAVEMENT INSTALLED IN PHASE 4. RAMP TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THESE PLANS. DURING CONCRETE DECK PLACEMENT, THE CONTRACTOR SHALL CLOSE THE LANE ADJACENT TO THE WORK ZONE DURING PERMITTED LANE CLOSURES TIMES WITH THE APPLICABLE STANDARD CONSTRUCTION DRAWINGS.

RECONSTRUCT THE PORTION OF NORTHBOUND PAVEMENT NOT USED TO MAINTAIN TRAFFIC AS SHOWN IN THE PLANS.

IN ORDER TO PROVIDE ADEQUATE PROTECTION FOR THE DROPOFF BETWEEN EXISTING AND PROPOSED PAVEMENT, THE CONTRACTOR SHALL COMPLETE RESURFACING UP TO THE INTERMEDIATE COURSE BETWEEN THE MOT-75-1044 AND MOT-75-1078 STRUCTURES PRIOR TO INSTALLATION OF THE CONSTRUCTION ACCESS POINT DETAILED ON SHEET 106.

AT LEAST TWO WEEKS PRIOR TO OPENING THE BRIDGE TO TRAFFIC THE CONTRACTOR SHALL NOTIFY THE ODOT DISTRICT 7 BRIDGE INSPECTION ENGINEER (937-497-6884) TO PERFORM THE POST-CONSTRUCTION INITIAL INSPECTION OF THE BRIDGE PER THE NOTE ON SHEET 11.

PHASE 6

COMPLETE ALL REMAINING WORK ITEMS.

PLACE FINAL SURFACE COURSE AND PAVEMENT MARKINGS UTILIZING STANDARD CONSTRUCTION DRAWINGS FOR LANE SHIFTS AND CLOSURES AS PER THE PLANS AND NOTES HEREIN.

THE NORTH AND SOUTH CROSSOVERS SHALL BE CLOSED WITH PB USING SCD MT-101.80 AT LOCATIONS SHOWN BELOW. PORTABLE BARRIER USED TO CLOSE THE CROSSOVERS SHALL BE CONCRETE AND INCLUDE ALL COST TO CONNECT TO THE EXISTING CONCRETE BARRIER. AT THE END OF THE PROJECT THE BARRIER SHALL SHALL BE LEFT IN PLACE AND WILL BECOME PROPERTY OF ODOT UPON CONTRACT COMPLETION.

PB LOCATIONS:
STA. 176+75 TO 180+40 = 365'
STA. 238+50 TO 242+20 = 370'

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE WORK.

ITEM 622 PORTABLE BARRIER, ANCHORED, AS PER PLAN-735'

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR PRIOR TO PLACING FINAL PAVEMENT MARKINGS:

ITEM 614 WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT-6.17 MI
ITEM 614 WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT-6.23 MI
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT-3500'
ITEM 614 WORK ZONE DOTTED LINE, 6", CLASS III, 642 PAINT-3274'
ITEM 614 WORK ZONE DOTTED LINE, 12", CLASS III, 642 PAINT-1288'

PN 121 - INCENTIVE/DISINCENTIVE CONTRACT

THE CONTRACTOR SHALL COMPLETE ALL CRITICAL WORK AND SAFETY ITEMS ACCORDING TO THE INCENTIVE/DISINCENTIVE CONTRACT TABLE. IN THE EVENT THE CONTRACTOR IMPEDES THE FLOW OF TRAFFIC SUBSEQUENT TO THE OPENING TO UNRESTRICTED TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE ACCORDING TO THE INCENTIVE/DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS SHOWN IN THE INCENTIVE/DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE IN THE MOT PHASE OR THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, RPM'S, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDERS.

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
TRAFFIC IN PHASE 2 CONFIGURATION	10/15/2020	DAY	$2,000
TRAFFIC IN PHASE 4 CONFIGURATION	10/15/2021	DAY	$2,000
TRAFFIC IN FINAL CONFIGURATION	10/15/2022	DAY	$10,000

CALCULATED MJC CHECKED BBD

MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION

MOT-75-(10.44)(10.78)

SHEET NUM.						PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
288						01/BRO/BR	02/IMS/BR	03/IMS/PV						
													STRUCTURE OVER 20 FOOT SPAN (MOT-75-1078C)	
LS							LS		202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	287,298-304 314-317
642							642		202	22900	642	SY	APPROACH SLAB REMOVED	
LS							LS		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
LS							LS		503	21300	LS		UNCLASSIFIED EXCAVATION	
LS							LS		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
320							320		507	00500	320	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
360							360		507	00550	360	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
209,938							209,938		509	10000	209,938	LB	EPOXY COATED REINFORCING STEEL	
716							716		510	10000	716	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
4							4		511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	326
819							819		511	34446	819	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
208							208		511	34450	208	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
27							27		511	41010	27	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS	
126							126		511	43510	126	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
1,750							1,750		512	10100	1,750	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
14							14		512	33000	14	SY	TYPE 2 WATERPROOFING	
725,675							725,675		513	10260	725,675	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3	
10,620							10,620		513	20000	10,620	EACH	WELDED STUD SHEAR CONNECTORS	
35,834							35,834		514	00060	35,834	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
35,834							35,834		514	00066	35,834	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
32							32		516	13200	32	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
48							48		516	13900	48	SF	2" PREFORMED EXPANSION JOINT FILLER	
273							273		516	14020	273	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
36							36		516	44101	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11" x 15" x 2.948" WITH 12" x 16" x 1.5" LOAD PLATE)	321
36							36		516	44201	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 19" x 3.398" WITH 14" x 20" x 1.5" LOAD PLATE)	321
11							11		518	12301	11	EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN	328
207							207		518	21200	207	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
285							285		518	40000	285	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
62							62		518	40011	62	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	308,312
1							1		523	20000	1	EACH	DYNAMIC LOAD TESTING	
640							640		526	25001	640	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	338
134							134		526	90020	134	SY	TYPE B INSTALLATION	
1,081							1,081		601	21000	1,081	SY	CONCRETE SLOPE PROTECTION	
406							406		607	39900	406	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	

CALCULATED MJC CHECKED BBD

GENERAL SUMMARY

MOT-75-(10.44)(10.78)

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
14	15	16	17		19	20	53	54	115		01/BRO/BR	02/IMS/BR	03/IMS/PV						
																		MAINTENANCE OF TRAFFIC	
			500								250	250		614	11110	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
									21		10	11		614	12338	21	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
											LS			614	12420	LS		DETOUR SIGNING	
11											6	5		614	12484	11	EACH	WORK ZONE INCREASED PENALTIES SIGN	
20											10	10		614	12500	20	EACH	REPLACEMENT SIGN	
50											25	25		614	12600	50	EACH	REPLACEMENT DRUM	
		2,550									1,275	1,275		614	12801	2,550	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	16
100											50	50		614	13000	100	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	250										125	125		614	13001	250	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN	15
		890									445	445		614	13310	890	EACH	BARRIER REFLECTOR, TYPE 1, 1WAY	
		100									50	50		614	13312	100	EACH	BARRIER REFLECTOR, TYPE 2, 1WAY	
		723									362	361		614	13350	723	EACH	OBJECT MARKER, ONE WAY	
		267									134	133		614	13360	267	EACH	OBJECT MARKER, TWO WAY	
		6									3	3		614	18601	6	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	16
									2.03		1.02	1.01		614	20110	2.03	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
					6.23						3.12	3.11		614	20560	6.23	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
									6.7		3.35	3.35		614	22110	6.7	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
					6.17						3.09	3.08		614	22360	6.17	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
									13,219		6,610	6,609		614	23210	13,219	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
					3,500						1,750	1,750		614	23690	3,500	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
									3,522		1,761	1,761		614	24202	3,522	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
					3,274						1,637	1,637		614	24612	3,274	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
					1,288						644	644		614	24618	1,288	FT	WORK ZONE DOTTED LINE, CLASS III, 12", 642 PAINT	
									337		169	168		615	20000	337	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
							648	1,151			900	899		615	20001	1,799	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	53,54
						150					75	75		615	25001	150	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN	20
	7										4	3		616	10000	7	MGAL	WATER	
									26,321		13,161	13,160		622	41011	26,321	FT	PORTABLE BARRIER, 50", AS PER PLAN	17
									1		1			622	41050	1	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
									4,540		2,270	2,270		622	41110	4,540	FT	PORTABLE BARRIER, ANCHORED	
					735						368	367		622	41111	735	FT	PORTABLE BARRIER, ANCHORED, AS PER PLAN	19
									17.74		8.87	8.87		648	00104	17.74	MILE	EDGE LINE, 6"	
									5.9		2.95	2.95		648	00204	5.9	MILE	LANE LINE, 6"	
									30,463		15,232	15,231		648	00404	30,463	FT	CHANNELIZING LINE, 12"	
									8,008		4,004	4,004		648	01510	8,008	FT	DOTTED LINE, 6"	
	46										23	23		808	18700	46	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
									6		3	3		814	00010	6	EACH	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125	
																		INCIDENTALS	
											LS	LS	LS	108	10000	LS		CPM PROGRESS SCHEDULE	
LS											LS	LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
											9	9	8	619	16020	26	MNTH	FIELD OFFICE, TYPE C	
											LS	LS	LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS	LS	LS	624	10000	LS		MOBILIZATION	

CALCULATED MJC
CHECKED BBD

GENERAL SUMMARY

MOT-75-(10.44)(10.78)

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

A-1-69	DATED (REVISED)	7-19-02
AS-1-15	DATED (REVISED)	7-17-15
AS-2-15	DATED (REVISED)	1-18-19
GSD-1-96	DATED (REVISED)	7-19-02
PCB-91	DATED (REVISED)	1-18-13
SBR-1-13	DATED (REVISED)	7-20-18
SBR-2-13	DATED (REVISED)	7-20-18
VPF-1-90	DATED (REVISED)	7-20-18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

845	DATED	4-20-18

DESIGN SPECIFICATIONS:

THIS SUPERSTRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2014, INCLUDING THE 2015 & 2016 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING:

DESIGN LOADING (SUPERSTRUCTURE): HL93
FUTURE WEARING SURFACE (FWS) OF 60 LBS/SF

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL - ASTM A709 GRADE 50

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL WITH 2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING BRIDGE PLANS:

MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE DISTRICT 7 OFFICE IN SIDNEY, OHIO. 1001 SAINT MARYS AVENUE, SIDNEY, OH 45365.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PROTECTION OF TRAFFIC:

REFER TO CMS 501.05 FOR THE REQUIREMENTS FOR THE PROTECTION OF TRAFFIC DURING CONSTRUCTION.

MAINTENANCE OF TRAFFIC:

I.R. 75 TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. SEE ROADWAY PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC NOTES AND DETAILS.

UTILITY LINES:

THE UTILITY(IES) SHALL BARE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

STRUCTURE GROUNDING:

THE STRUCTURE SHALL BE GROUNDED PER ODOT STANDARD DRAWING HL-50.21.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.4 KIPS FOR A TOTAL MACHINE LOAD OF 19.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65".

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). ALSO INCLUDED ARE ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED TO REMOVE AND REINSTALL CROSS FRAMES AS INDICATED IN THE PLANS. DRILLING OF DRAINAGE HOLES IN THE DECK IS INCLUDED. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FT SPAN, AS PER PLAN.

THE DESIGN SHOWN IN THE PLANS FOR TEMPORARY SUPPORT OF BRIDGE DECK OVERHANGS DURING PHASE CONSTRUCTION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE OVERHANG. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF THE OVERHANG, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF OVERHANGS AT THE CONTRACT LUMP SUM PRICE FOR ITEM 202. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 503 - UNCLASSIFIED EXCAVATION:

PLACE AND COMPACT BACKFILL MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE BACKFILL BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT:

DRILL DOWEL HOLES WHERE SHOWN IN THE PLANS. INSTALL REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN:

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE IN ACCORDANCE WITH 501.06, TO THE ENGINEER. PROVIDE THE ENGINEER "AS-BUILT" DRAWINGS ACCORDING TO 513.06, EXCEPT 501.04 DOES NOT APPLY. UPON RECEIPT OF THE ENGINEER'S ACCEPTANCE, SUPPLY A COPY OF THE DRAWINGS, ACCORDING TO SUPPLEMENT 1002, TO THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: END CROSS FRAMES AND ASSEMBLIES.

ITEM 513 - STRUCTURAL STEEL MEMBERS, MODULAR EXPANSION JOINT, LEVEL UF, AS PER PLAN:

ABUTMENT JOINTS SHALL BE WATSON BOWMAN ACME (WABO) MODULAR STM-900 OR APPROVED ALTERNATE. THE MANUFACTURER SHALL SUBMIT DESIGN CALCULATIONS SHOWING THAT THE DEVICE CAN MEET THE IMPACT AND FATIGUE DESIGN REQUIREMENTS SET FORTH BY AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, SECTION 14.5.

A. DESCRIPTION:
FURNISH ALL MATERIALS, SERVICES, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO DESIGN, FABRICATE, INSPECT, TEST AND INSTALL MODULAR EXPANSION JOINTS IN ACCORDANCE WITH THE PLANS AND THESE NOTES. ALL REQUIREMENTS OF 513, UF LEVEL FABRICATION APPLY, UNLESS MODIFIED BY THESE NOTES.

B. DESIGN:
1. PREPARE AND CHECK THE DESIGN UNDER THE AUTHORITY OF AN OHIO REGISTERED PROFESSIONAL ENGINEER. THE REGISTERED ENGINEER SHALL SEAL, SIGN AND DATE THE DESIGN CALCULATIONS AND SHOP DRAWINGS.

2. INCLUDE DESIGN CALCULATIONS WITH THE CONTRACTOR'S SUBMISSION OF SHOP DRAWINGS PER 513.06.

3. PROVIDE A DETAILED INSTALLATION PROCEDURE AND INCLUDE ANY SPECIFIC MANUFACTURER'S NOTES NECESSARY FOR COMPLETION OF THE WORK.

4. DESIGN AND TEST THE MODULAR JOINT COMPONENTS, JOINT ARMOR AND ANCHORAGES ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 402 "FATIGUE DESIGN OF MODULAR BRIDGE EXPANSION JOINTS" APPENDICES A AND B.

E.L. ROBINSON ENGINEERING
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215
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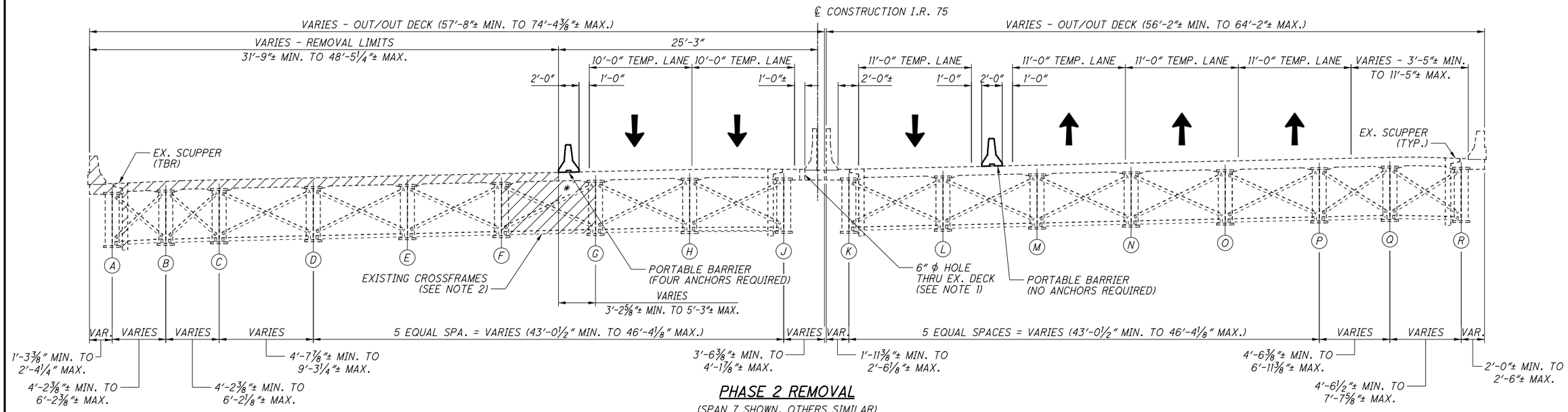
DESIGNED	TAS	CHECKED	CJW
DRAWN	TAS	REVISED	
REVIEWED	DFT	DATE	7/2017
		STRUCTURE FILE NUMBER	5707056

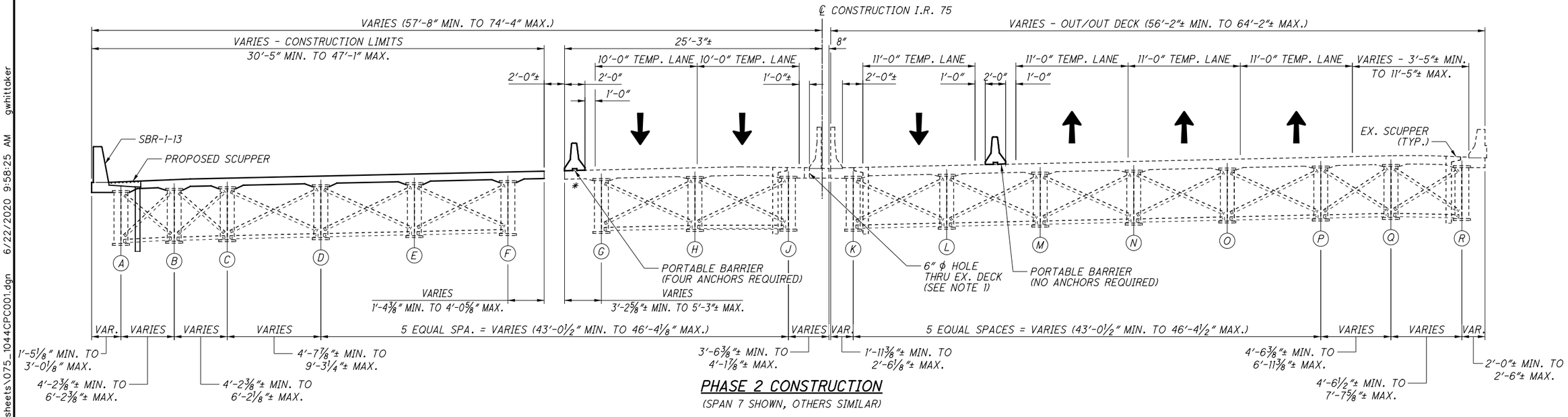
GENERAL NOTES (1 OF 3)
BRIDGE NO. MOT-75-1044
OVER THE GREAT MIAMI RIVER AND CARILLON BOULEVARD

MOT-75-(10.44)(10.78) PID No. 91606



PHASE 2 REMOVAL

(SPAN 7 SHOWN, OTHERS SIMILAR)



PHASE 2 CONSTRUCTION

(SPAN 7 SHOWN, OTHERS SIMILAR)

PHASE 2 REMOVAL

1. INSTALL PORTABLE BARRIERS AS SHOWN.
2. REMOVE EXISTING WEARING COURSE, CONCRETE DECK, SCUPPERS, APPROACH SLABS, AND PORTIONS OF EXISTING GIRDERS TO THE LIMITS SHOWN IN THE PLANS.
3. INSTALL TEMPORARY EXCAVATION BRACING.
4. REMOVE PORTIONS OF ABUTMENT TO THE LIMITS SHOWN IN THE PLANS.

PHASE 2 CONSTRUCTION

1. CONSTRUCT MODIFIED ABUTMENTS TO THE LIMITS SHOWN IN THE PLANS AND REMOVE TEMPORARY EXCAVATION BRACING.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND PERFORM STEEL REHABILITATION.
3. CONSTRUCT NEW CONCRETE DECK, PARAPETS, VANDAL PROTECTION FENCE, AND APPROACH SLAB TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:

- ▨ - INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
- (#) - GIRDER DESIGNATION
- * - DUE TO EXCESSIVE OVERHANG, THE CONTRACTOR SHALL SUPPORT THE EXISTING DECK DURING PHASE 2 WHERE THE OVERHANG EXCEEDS 3'-9". SUPPORTS SHALL BE INSTALLED PRIOR TO ADJACENT DECK REMOVAL. SEE 134/91 FOR DETAILS.

NOTES:

1. SEE 23/91 FOR HOLE LOCATIONS. ALL HOLES THROUGH THE EXISTING DECK SHALL BE DRILLED DURING PHASE 1. THE CONTRACTOR SHALL ADHERE TO ODOT STANDARD DRAWING MT-95.30 REQUIREMENTS FOR LANE CLOSURE.
2. EXISTING CROSSFRAMES TO BE REMOVED AND STORED DURING PHASE REMOVAL. EXISTING CROSSFRAMES ARE TO BE USED AND REINSTALLED DURING PHASE CONSTRUCTION. PAINT DAMAGED DURING REMOVAL AND REINSTALLATION SHALL BE REPAIRED. CROSSFRAMES REMOVAL AND PAINT REPAIR SHALL BE PAID UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
3. FOR EXISTING SCUPPERS TO BE REMOVED, WELDS SHALL BE GROUND FLUSH AT THE WEB AND PAINT SHALL BE REPAIRED. PAYMENT INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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DESIGNED TJE | DRAWN FIB | REVIEWED DFT | DATE 7/2017
CHECKED CJW | REVISED | STRUCTURE FILE NUMBER 5707056

PHASE CONSTRUCTION SEQUENCE (1 OF 4)
BRIDGE NO. MOT-75-1044
OVER THE GREAT MIAMI RIVER AND CARILLON BOULEVARD

MOT-75-(10.44)(10.78) PID No. 91606

10 / 91

202 / 348

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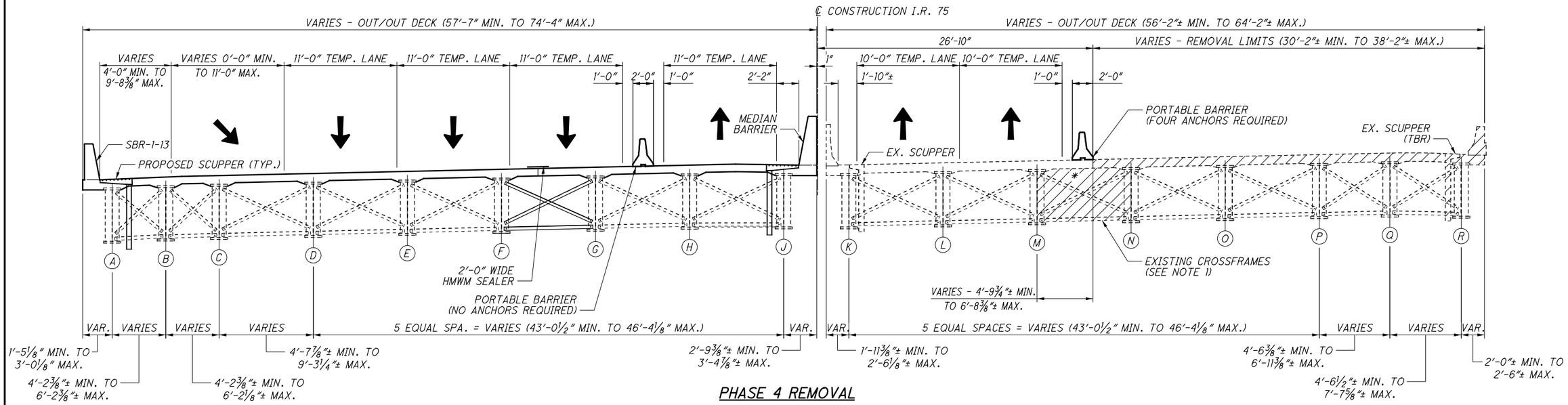
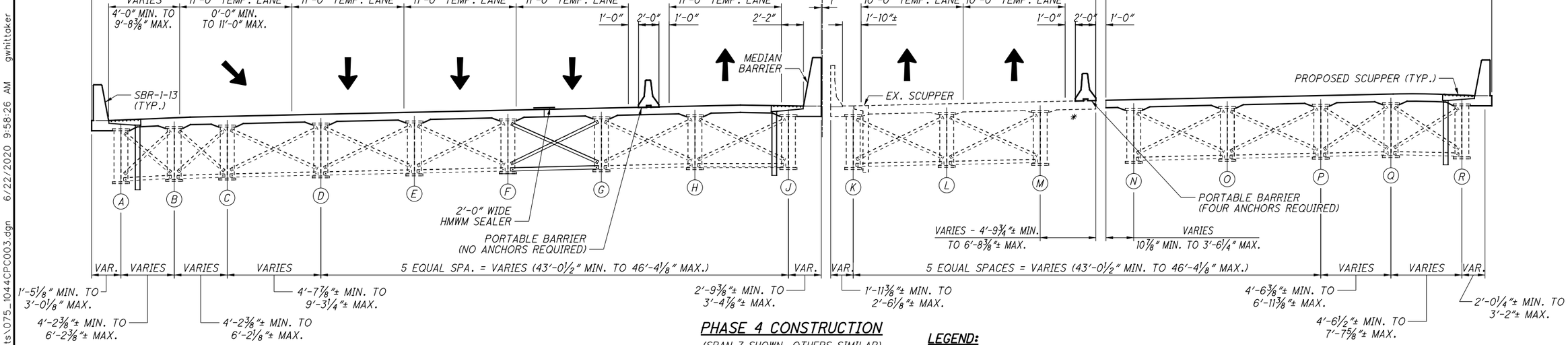


PHASE 4 REMOVAL

(SPAN 7 SHOWN, OTHERS SIMILAR)



PHASE 4 CONSTRUCTION

(SPAN 7 SHOWN, OTHERS SIMILAR)

PHASE 4 REMOVAL

1. INSTALL PORTABLE BARRIERS AS SHOWN.
2. REMOVE EXISTING WEARING COURSE, CONCRETE DECK, SCUPPERS, APPROACH SLABS, AND PORTIONS OF EXISTING GIRDERS TO THE LIMITS SHOWN IN THE PLANS.
3. INSTALL TEMPORARY EXCAVATION BRACING.
4. REMOVE PORTIONS OF ABUTMENT TO THE LIMITS SHOWN IN THE PLANS.

PHASE 4 CONSTRUCTION

1. CONSTRUCT MODIFIED ABUTMENTS TO THE LIMITS SHOWN IN THE PLANS AND REMOVE TEMPORARY EXCAVATION BRACING.
2. INSTALL NEW BEARINGS, STEEL BEAM, AND CROSSFRAMES, AND PERFORM STEEL REHABILITATION.
3. CONSTRUCT NEW CONCRETE DECK, PARAPETS, VANDAL PROTECTION FENCE, AND APPROACH SLAB TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:

- ▨ - INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
- (#) - GIRDER DESIGNATION
- * - DUE TO EXCESSIVE OVERHANG, THE CONTRACTOR SHALL SUPPORT THE EXISTING DECK DURING PHASE 4. SUPPORTS SHALL BE INSTALLED PRIOR TO ADJACENT DECK REMOVAL. SEE 134/91 FOR DETAILS.

NOTES:

1. EXISTING CROSSFRAMES TO BE REMOVED AND STORED DURING PHASE REMOVAL. EXISTING CROSSFRAMES ARE TO BE USED AND REINSTALLED DURING PHASE CONSTRUCTION. PAINT DAMAGED DURING REMOVAL AND REINSTALLATION SHALL BE REPAIRED. CROSSFRAMES REMOVAL AND PAINT REPAIR SHALL BE PAID UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
2. FOR EXISTING SCUPPERS TO BE REMOVED, WELDS SHALL BE GROUND FLUSH AT THE WEB AND PAINT SHALL BE REPAIRED. PAYMENT INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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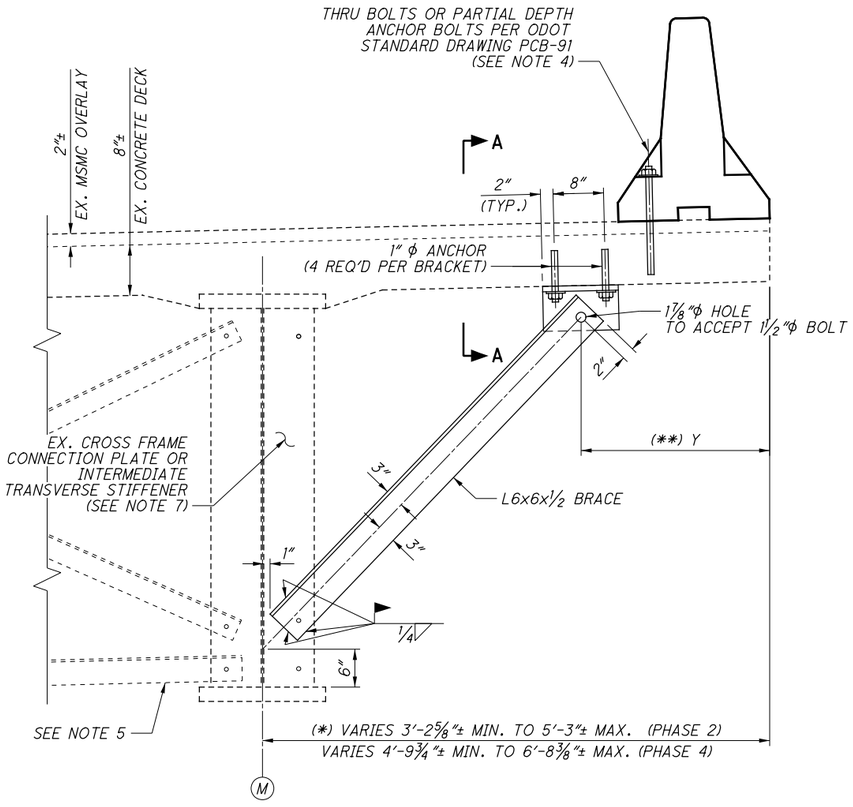
DESIGNED TJE | DRAWN FIB | REVIEWED DFT | DATE 7/2017
CHECKED CJW | REVISED | STRUCTURE FILE NUMBER 5707056

PHASE CONSTRUCTION SEQUENCE (3 OF 4)
BRIDGE NO. MOT-75-1044
OVER THE GREAT MIAMI RIVER AND CARILLON BOULEVARD

MOT-75-(10.44)(10.78) PID No. 91606



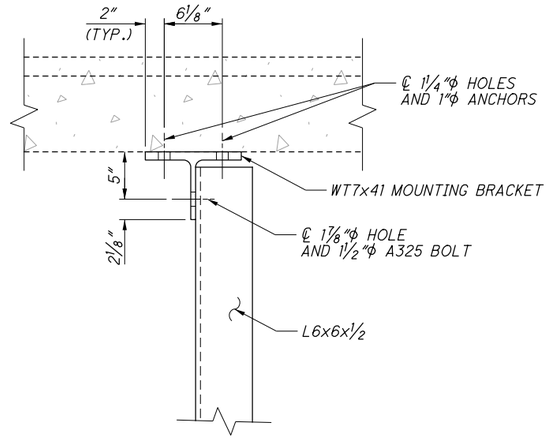
TEMPORARY OVERHANG SUPPORT

(PHASE 4 SHOWN, PHASE 2 OPPOSITE HAND)

(*) TEMPORARY SUPPORT REQUIRED AT 15'-0" MAX. SPACING WHERE OVERHANG EXCEEDS 3'-9". TEMPORARY SUPPORT REQUIRED AT 7'-6" MAX. SPACING WHERE OVERHANG EXCEEDS 5'-6".

(**) FOR OVERHANGS BETWEEN 3'-9" AND 4'-7", Y = OVERHANG - 25"
FOR OVERHANGS > 4'-7", Y = 30"

APPROXIMATE STATION LIMITS FOR TEMPORARY OVERHANG SUPPORT			
PHASE	STATION RANGE	OVERHANG	MAX. SUPPORT SPACING
2	201+15 THRU 208+33	VARIES 5'-3"± TO 3'-9"±	15'-0"
4	201+45 THRU 208+12	VARIES 6'-8¾"± TO 5'-6"±	7'-6"
4	208+12 THRU 210+75	VARIES 5'-6"± TO 4'-9¾"±	15'-0"



SECTION A-A

NOTES:

1. MOUNTING BRACKETS AND BRACES SHALL BE ASTM A709 GRADE 50 OR 50W.
2. BOLTS SHALL BE ASTM F3125, GRADE A325, WITH THREADS EXCLUDED FROM THE SHEAR PLANE.
3. THE ANCHOR BOLTS SHALL BE 1"ϕ HILTI KWIK BOLT 3 CARBON STEEL WITH 4" EFFECTIVE EMBEDMENT, OR APPROVED EQUAL THAT MEET THE FOLLOWING DESIGN CRITERIA:
   EFFECTIVE EMBEDMENT = 4"
   DESIGN SHEAR CAPACITY = 11.6 KIPS/ANCHOR
   DESIGN TENSILE CAPACITY = 2.2 KIPS/ANCHOR
4. PRIOR TO INSTALLING PCB ANCHORS, THE CONTRACTOR SHALL MARK THE LOCATION OF THE OVERHANG BRACKET ANCHORS ON THE TOP SURFACE OF THE BRIDGE DECK. PCB ANCHORS SHALL BE SPACED AS NECESSARY TO PROVIDE A MINIMUM CLEARANCE OF 5 INCHES FROM THE OVERHANG BRACKET ANCHORS.
5. AT TEMPORARY OVERHANG SUPPORTS WHERE CROSS FRAMES ARE NOT LOCATED IN EITHER OF THE ADJACENT TWO BAYS, LATERAL BRACING SUFFICIENT TO RESIST A FACTORED COMPRESSIVE LOAD OF 24 KIPS SHALL BE INSTALLED TO PROVIDE A LINE OF CONTINUOUS SUPPORT AT THE BOTTOM FLANGES OF THE THREE GIRDERS.
6. THE CONTRACTOR MAY, AT HIS DISCRETION, CHOOSE AN ALTERNATE OVERHANG SUPPORT SYSTEM. TEMPORARY SUPPORT DETAILS SHALL BE INCLUDED WITH THE ENGINEERING DRAWING SUBMITTAL REQUIRED PER CM&S 501.05.
7. WHERE THE DECK OVERHANG EXCEEDS 3'-9", TEMPORARY DECK OVERHANG BRACING SHALL BE INSTALLED AT THE EXISTING INTERMEDIATE AND BEND POINT CROSS FRAMES. WHERE THE CROSS FRAME SPACING EXCEEDS THE MAXIMUM TEMPORARY OVERHANG BRACING SPACING, TEMPORARY OVERHANG BRACING SHALL BE INSTALLED AT INTERMEDIATE TRANSVERSE STIFFENERS BETWEEN CROSS FRAMES AS NECESSARY TO MEET THE MAXIMUM ALLOWABLE SPACING. AT EXPANSION ROLLERS, CONTRACTOR SHALL MODIFY THESE DETAILS AS NECESSARY. THE COST OF THIS TEMPORARY BRACING SHALL INCLUDE INSTALLATION OF TEMPORARY BRACING AND REMOVAL, INCLUDING GRINDING FLUSH ALL REQUIRED WELDS AND REPAIRING DAMAGED PAINT. COST TO BE INCLUDED IN ITEM 202, PORTIONS OF STRUCTURES REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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DESIGNED	DRAWN	REVIEWED	DATE
DFT	GMW	TAS	6/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GMW		5707056	

TEMPORARY OVERHANG BRACKET
BRIDGE NO. MOT-75-1044
OVER THE GREAT MIAMI RIVER AND CARILLON BOULEVARD

MOT-75-(10.44)(10.78)
PID No. 91606

13A 91

205A 348