

LOCATION MAP

LATITUDE: N41°03'25" LONGITUDE: W80°37'45"



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

DESIGN DESIGNATION (DATA FROM TDMS, FOR INFORMATION ONLY)

CURRENT ADT (2022)	43,910
TRUCKS (24 HOUR B&C)	2,809
DESIGN SPEED	60 MPH
LEGAL SPEED	60 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN FREEWAYS AND EXPRESSWAYS	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

UNDERGROUND UTILITIES
 Contact Two Working Days
 Before You Dig

OHIO811.org
 Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
 (Non members must be called directly)

PLAN PREPARED BY:
 ODOT DISTRICT 4 - CAPITAL PROGRAMS
 2088 S. ARLINGTON ROAD
 AKRON, OHIO 44306

ENGINEER'S SEAL

SIGNED: _____
 DATE: _____

BEGIN PROJECT
 S.L.M. 7.37

END PROJECT
 S.L.M. 12.12

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH-680-7.37

CITY OF YOUNGSTOWN, BOARDMAN TOWNSHIP
 MAHONING COUNTY

INDEX OF SHEETS:

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FEDERAL PROJECT NUMBER

E200(173)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACING IR 680, SLM 7.31 TO SLM 12.00, IN MAHONING COUNTY, INCLUDES MINOR REHABILITATION BRIDGE WORK TO 9 STRUCTURES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	4.68 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	NOI NOT REQUIRED

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 SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON 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 EXCEPT AS NOTED ON SHEET 9 , AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Arthur G. Noiro Jr.
 Arthur G. Noiro Jr., P.E.
 District 04 Deputy Director

Jack Marchbanks
 Jack Marchbanks, PhD
 Director, Department of Transportation

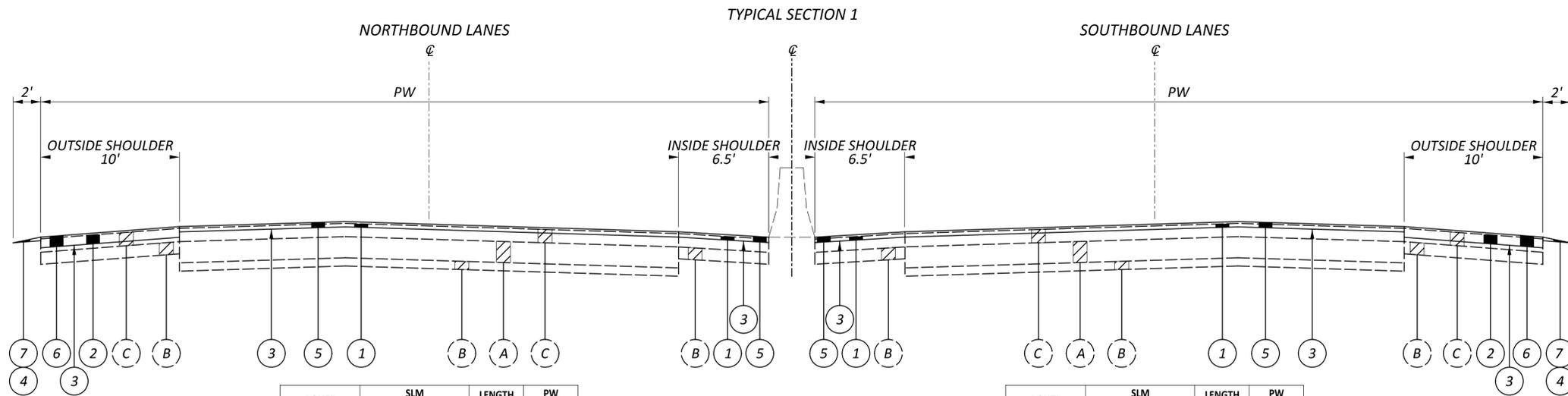
STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-2.1	1/21/22	MT-98.28	1/17/20	TC-52.10	10/18/13	800-2019 SEE PROPOSAL	ASBESTOS REPORT
BP-2.2	1/15/21	MT-98.29	1/17/20	TC-52.20	1/15/21	807 1/21/22	MAH-6880-0791E
BP-3.1	1/21/22	MT-99.20	4/19/19			808 1/18/19	
BP-9.1	1/18/19	MT-101.70	1/17/20	TC-65.10	1/17/14	821 4/20/12	ASBESTOS REPORT
		MT-101.75	1/17/20	TC-65.11	7/15/22	832 7/15/22	MAH-680-0794
DM-4.1	7/17/20	MT-101.90	7/17/20	TC-71.10	7/15/22	850 4/15/22	
DM-4.3	1/15/16	MT-102.10	1/17/20	TC-73.20	1/17/20	875 1/18/19	ASBESTOS REPORT
DM-4.4	1/15/16	MT-104.10	10/16/15			908 10/20/17	MAH-680-1073R
		MT-105.10	1/17/20	GSD-1-19	1/15/21	921 4/20/12	
MT-95.40	1/17/20						ASBESTOS REPORT
MT-95.41	1/17/20	TC-41.10	7/19/13				MAH-680-1073L
MT-95.50	7/21/17	TC-41.20	10/18/13				
MT-98.10	1/17/20	TC-41.30	10/18/13				
MT-98.11	1/17/20	TC-41.40	10/18/13				
MT-98.20	4/19/19	TC-42.10	10/18/13				
MT-98.22	1/17/20	TC-42.20	10/18/13				

TITLE SHEET

DESIGN AGENCY



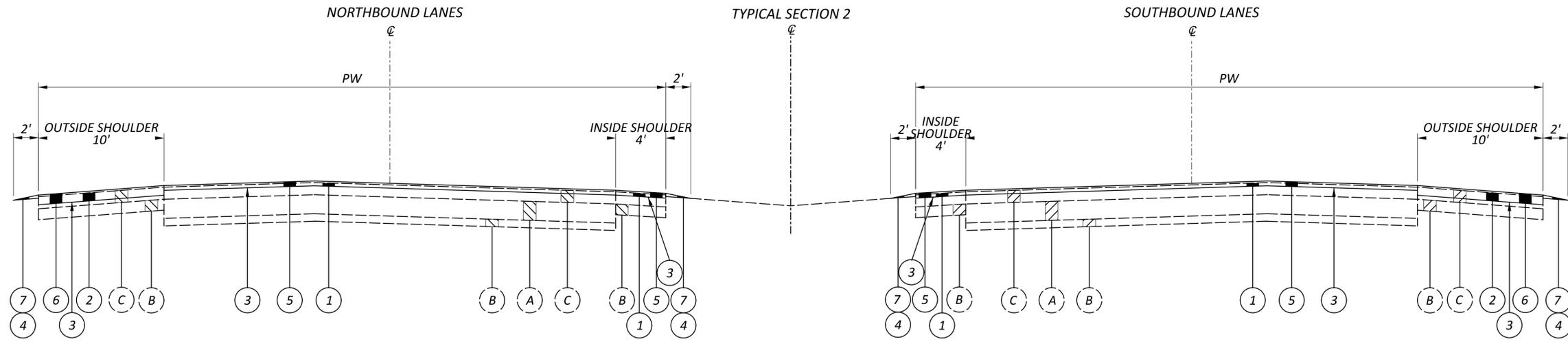
DESIGNER	MRS
REVIEWER	MJA 04-24-23
PROJECT ID	103883
SHEET	P.1
TOTAL	P.35



ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
MAH-680 NB	7.37	7.96	0.59	53.00
MAH-680 NB	8.00	8.69	0.69	53.00
MAH-680 NB	8.69	8.86	0.17	65.00
MAH-680 NB	8.86	9.26	0.40	53.00
MAH-680 NB	9.30	9.43	0.13	53.00
MAH-680 NB	9.43	9.54	0.11	56.00

ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
MAH-680 SB	7.37	7.94	0.57	53.00
MAH-680 SB	7.98	8.50	0.52	53.00
MAH-680 SB	8.50	8.98	0.48	65.00
MAH-680 SB	8.98	9.23	0.25	53.00
MAH-680 SB	9.28	9.41	0.13	53.00
MAH-680 SB	9.41	9.51	0.10	57.00

TYPICAL SECTION 1 INCLUDES ACCELERATION LANES, DECELERATION LANES, AND GORES. SEE PG. 20 & 21 FOR ASSOCIATED CADD GENERATED AREA.



ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
MAH-680 NB	9.54	10.80	1.26	50.00
MAH-680 NB	10.83	11.85	1.02	50.00
MAH-680 NB	11.86	12.09	0.23	38.00

ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
MAH-680 SB	9.51	10.75	1.24	50.00
MAH-680 SB	10.79	11.86	1.07	50.00
MAH-680 SB	11.86	12.16	0.30	38.00

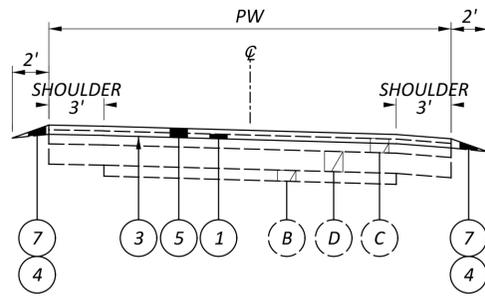
TYPICAL SECTION 2 INCLUDES ACCELERATION LANES, DECELERATION LANES, AND GORES. SEE PG. 20 & 21 FOR ASSOCIATED CADD GENERATED AREA.

LEGEND

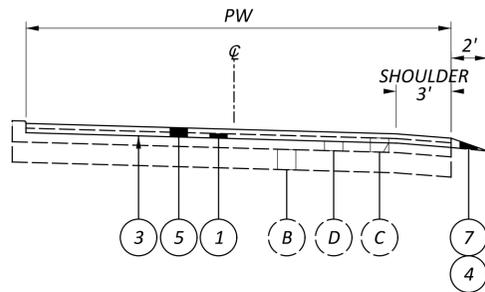
- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T=1")
 - ② ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T=2")
 - ③ ITEM 407, NON-TRACKING TACK COAT (0.08 GAL/SY)
 - ④ ITEM 408, PRIME COAT, AS PER PLAN (0.40 GAL/SY)
 - ⑤ ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PWL, 2024, AS PER PLAN (T=1.5")
 - ⑥ ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN (T=2.5")
 - ⑦ ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T=2")
- (A) EXISTING CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (8")
 - (B) EXISTING AGGREGATE BASE (4"-6")
 - (C) EXISTING ASPHALT CONCRETE PAVEMENT (3"-3.75")
 - (D) EXISTING REINFORCED CONCRETE PAVEMENT

— changed asphalt type

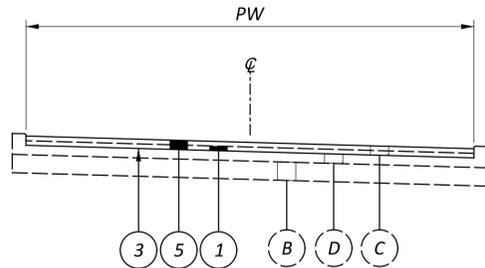
TYPICAL SECTION 3: RAMP, NO CURB



TYPICAL SECTION 4: RAMP, ONE CURB



TYPICAL SECTION 5: RAMP, TWO CURB



LEGEND

- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T=1")
- ② ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T=2")
- ③ ITEM 407, NON-TRACKING TACK COAT (0.08 GAL/SY)
- ④ ITEM 408, PRIME COAT, AS PER PLAN (0.40 GAL/SY)
- ⑤ ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PWL, 2024, AS PER PLAN (T=1.5")
- ⑥ ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN (T=2.5")
- ⑦ ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T=2")

- Ⓐ EXISTING CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (8")
- Ⓑ EXISTING AGGREGATE BASE (4"-6")
- Ⓒ EXISTING ASPHALT CONCRETE PAVEMENT (3"-3.75")
- Ⓓ EXISTING REINFORCED CONCRETE PAVEMENT

TYPICAL SECTION 3: RAMP, NO CURB

COUNTY	INTERCHANGE	SLM	AVG. PW (FT)	RAMP ID	COMMENT
MAH	IR 680 SB TO E INDIANOLA AVE	7.720	22	E	CONTAINS ~250' TWO CURB SECTION
MAH	IR 680 NB TO SHIRLEY RD	8.446	24	G	
MAH	SHIRLEY RD TO IR 680 SB	8.600	22	H	CONTAINS ~300' ONE CURB SECTION
MAH	IR 680 SB TO SR 170 WB	9.065	24	K	
MAH	SR 170 WB TO IR 680 NB	9.080	22	J	CONTAINS ~200' ONE CURB SECTION & ~150' TWO CURB SECTION
MAH	SR 170 EB TO IR 680 NB	9.295	24	O	CONTAINS ~50' ONE CURB SECTION & ~100' TWO CURB SECTION
MAH	680 NB TO LEMOYNE AVE	9.464	22	N-N	CONTAINS ~300' ONE CURB SECTION
MAH	US 224 WB TO IR 680 NB	11.682	24	W	CONTAINS ~300' ONE CURB SECTION & ~350' TWO CURB SECTION
MAH	IR 680 NB TO US 224	12.026	22	U	CONTAINS ~350' ONE CURB SECTION
MAH	US 224 TO IR 680 SB	12.142	34	R	CONTAINS ~350' ONE CURB SECTION
MAH	IR 680 SB TO US 224 WB	11.719	24	T	
MAH	IR 680 SB TO US 224 EB	11.931	22	S	CONTAINS ~450' ONE CURB SECTION

TYPICAL SECTION 3 DOES NOT INCLUDE ACCELERATION LANES, DECELERATION LANES, AND GORES.

adjusted widths

TYPICAL SECTION 4: RAMP, ONE CURB

COUNTY	INTERCHANGE	SLM	AVG. PW (FT)	RAMP ID	COMMENT
MAH	SR 170 TO IR 680 SB	9.553	22	M-M	CONTAINS ~600' NO CURB SECTION
MAH	IR 680 SB TO SR 170 EB	9.332	22	L	CONTAINS ~400' NO CURB SECTION
MAH	US 224 EB TO IR 680 NB	11.886	22	V	CONTAINS ~500' NO CURB SECTION

TYPICAL SECTION 4 DOES NOT INCLUDE ACCELERATION LANES, DECELERATION LANES, AND GORES.

TYPICAL SECTION 5: RAMP, TWO CURB

COUNTY	INTERCHANGE	SLM	AVG. PW (FT)	RAMP ID	COMMENT
MAH	POWERSDALE AVE TO IR 680 NB	7.450	29	F	CONTAINS ~400' ONE CURB SECTION
MAH	E INDIANOLA AVE TO IR 680 NB	8.070	24	X	CONTAINS ~100' ONE CURB SECTIONS & ~100' NO CURB SECTION

TYPICAL SECTION 5 DOES NOT INCLUDE ACCELERATION LANES, DECELERATION LANES, AND GORES.

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
IR 680	7.37 TO 12.12	12'

PAVEMENT MARKING DETAILS

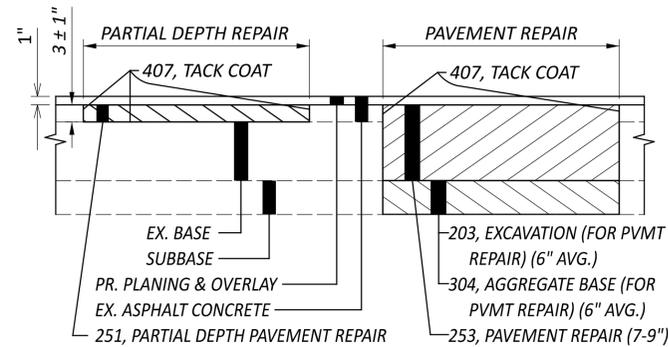
THE PAVEMENT MARKING DETAIL SHEETS HAVE BEEN SUPPLIED AS REFERENCE DOCUMENTS FOR THIS PROJECT AND ARE AVAILBLE ON THE ODOT FTP SITE AT [removed full depth rigid repairs notes](https://ftp.dot.state.oh.us/pub/contracts/Attach/ FOR THIS PROJECT. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.</p></div>
<div data-bbox=)

ITEM 253 - PAVEMENT REPAIR (OUTSIDE SHOULDER REPAIR)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 8" +/-1" 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
253, PAVEMENT REPAIR (OUTSIDE SHOULDER REPAIR), 7000 SQ YD



ITEM 252 - RIGID REMOVAL FLEXIBLE REPLACEMENT (FLANGE BEAM JOINTS)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 8-10" OF 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

FLANGE BEAM JOINTS ARE PRESENT WITHIN 50' OF MAH-680-0794, MAH-680-1073L, AND MAH-680-1073R.

THIS REPLACEMENT IS LIMITED TO THE LANES OF TRAVEL AND SCD BP-1.2 SHALL ONLY BE USED AS REFERENCE (SEE PAGES 50-51 FOR SCD BP-1.2). SCD BP-1.2 SHOWS DETAILS FOR FLANGE BEAM SIZING, CONCRETE DIMENSIONING, AND CONCRETE REINFORCEMENT.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
252, RIGID REMOVAL FLEXIBLE REPLACEMENT (FLANGE BEAM JOINTS), 2000 SQ YD

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441) (LONGITUDINAL)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

THE CONTRACTOR MAY PERFORM UP TO 75% OF THE PARTIAL DEPTH PAVEMENT REPAIRS PRIOR TO OCTOBER 30, 2023 BEFORE MAINLINE PAVEMENT PLANING OPERATIONS COMMENCE AS DIRECTED BY THE PROJECT ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
251, PARTIAL DEPTH PAVEMENT REPAIR (441) (LONGITUDINAL), 7200 SQ. YD.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441) (TRANSVERSE)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

THE CONTRACTOR MAY PERFORM UP TO 75% OF THE PARTIAL DEPTH PAVEMENT REPAIRS PRIOR TO OCTOBER 30, 2023 BEFORE MAINLINE PAVEMENT PLANING OPERATIONS COMMENCE AS DIRECTED BY THE PROJECT ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
251, PARTIAL DEPTH PAVEMENT REPAIR (441) (TRANSVERSE), 800 SQ. YD.

ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203, EXCAVATION (FOR PAVEMENT REPAIR), 1500 CU YD

LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 209, LINEAR GRADING, 810 STA.
- 659, SEEDING AND MULCHING, 22500 SQ YD
- 659, COMMERCIAL FERTILIZER, 3.04 TON
- 659, LIME, 4.68 ACRES
- 659, WATER, 121.5 M. GAL.

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 1500 CU YD

adjusted quantity

DESIGN AGENCY



DESIGNER

MRS

REVIEWER

MJA 04-24-23

PROJECT ID

103883

SHEET TOTAL

P.4 P.35

**442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447),
PWL, 2024, AS PER PLAN (PG70-22M)**

ALL REQUIREMENTS OF C&MS ITEM 442 APPLY EXCEPT AS SHOWN. MAT DENSITY ACCEPTANCE - FOLLOW THE REQUIREMENTS OF 447 MAT DENSITY ACCEPTANCE, EXCEPT AS MODIFIED BELOW. OBTAIN 6-INCH DIAMETER CORES FOR EACH LOT. THE PWL CALCULATOR, LOCATED ON THE ODOT WEBSITE AT THE OFFICE OF CONSTRUCTION ADMINISTRATION, WILL BE USED TO DETERMINE THE LOT PWL AND THE LOT AASHTO PAY FACTORS. THE DEPARTMENT WILL DETERMINE THE PAY FACTOR FOR EACH LOT CORED BY THE FOLLOWING TABLE.

Lower Specification Limit	Pay Factor Criteria	Pay Factor (PF)
92.60%	If AVE density is \geq 93% AND PWL \geq 80	PF =1 or AASHTO PF whichever is greater
	If 80 > PWL > 50	AASHTO PF
	If PWL \leq 50	REMOVE AND REPLACE

**ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (448),
AS PER PLAN**

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

added

ITEM SPECIAL - VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

- MAH-680-0817
- MAH-680-0837
- MAH-680-0990
- MAH-680-1180

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL, VERTICAL CLEARANCE, 4 EACH

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

removed full depth rigid repairs notes

PAVEMENT PLANING UNDER OVERHEAD BRIDGES (I-680)

THE PAVEMENT PLANING UNDER OVERHEAD BRIDGES SHALL BE INCREASED TO 1.5" AT A RATE AS SHOWN IN STANDARD CONSTRUCTION DRAWING BP-3.1. PAYMENT FOR THIS WORK HAS BEEN CARRIED OVER TO THE GENERAL SUMMARY AS ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T = 1.5").

INLET ADJUSTED TO GRADE (SLM 7.37 TO 9.40)

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING INLETS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

ITEM 611 – INLET ADJUSTED TO GRADE, 6 EACH
ITEM SPECIAL – MISCELLANEOUS METAL, 600 LB

INLET RECONSTRUCTED TO GRADE (SLM 7.37 TO 9.40)

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR RECONSTRUCTING INLETS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

ITEM 611 – INLET RECONSTRUCTED TO GRADE, 9 EACH
ITEM SPECIAL – MISCELLANEOUS METAL, 900 LB

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM SPECIAL - AS-BUILT CONSTRUCTION RECORD DRAWINGS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING PLANS. THE FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION RECORD-DRAWINGS.

THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL RECORD-DRAWING. THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE RECORD-DRAWING PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL,

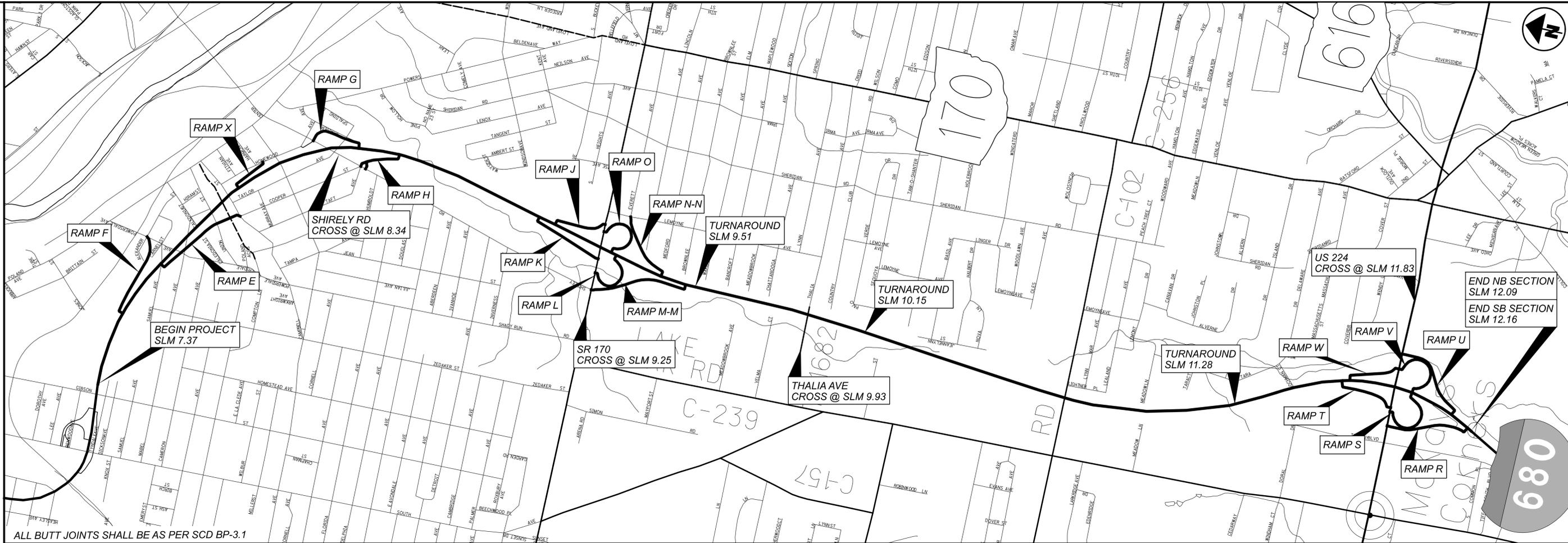
THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

removed "442 ASPHALT CONCRETE SURFACE COURSE, 12.55MM, TYPE A (446), PWL, 2024, AS PER PLAN" note





ALL BUTT JOINTS SHALL BE AS PER SCD BP-3.1

SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D) FT	AVERAGE LANE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SQ YD	CADD GENERATED AREA SQ YD	PAVEMENT PLANNING, ASPHALT CONCRETE (T=1")					SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SQ YD	CADD GENERATED AREA SQ YD	PAVEMENT PLANNING, ASPHALT CONCRETE (T=1")		
							SY	GAL	GAL	CY	CY								CY	SY	CY
RAMPS							TURNAROUNDS														
RAMP F	5	NB	2100.00		6766.67	6766.67	541.33		194.44	281.94		SLM 9.51					127.67	127.67	5.32	10.21	
RAMP E	3	SB	2900.00		7088.89	7088.89	567.11		268.52	295.37	71.60	SLM 10.15					398.91	398.91	16.62	31.91	
RAMP X	5	NB	880.00		2346.67	2346.67	187.73		81.48	97.78	10.86	SLM 11.28					322.22	322.22	13.43	25.78	
RAMP G	3	NB	1180.00		3146.67	3146.67	251.73		209.78	109.26	29.14										
RAMP H	3	SB	1270.00		3104.44	3104.44	248.36		225.78	117.59	31.36										
RAMP J	3	NB	1500.00		3666.67	3666.67	293.33		266.67	138.89	37.04										
RAMP O	3	NB	1800.00		4800.00	4800.00	384.00		320.00	166.67	44.44										
RAMP N-N	3	NB	1850.00		4522.22	4522.22	361.78		328.89	171.30	45.68										
RAMP M-M	4	SB	2400.00		5866.67	5866.67	469.33		213.33	222.22	29.63										
RAMP L	4	SB	1600.00		3911.11	3911.11	312.89		142.22	148.15	19.75										
RAMP K	3	SB	2400.00		6400.00	6400.00	512.00		426.67	222.22	59.26										
RAMP W	3	NB	2300.00		6133.33	6133.33	490.67		408.89	212.96	56.79										
RAMP V	4	NB	1700.00		4155.56	4155.56	332.44		151.11	157.41	20.99										
RAMP U	3	NB	2100.00		5133.33	5133.33	410.67		373.33	194.44	51.85										
RAMP R	3	SB	1600.00		6222.22	6222.22	497.78		284.44	148.15	39.51										
RAMP S	3	SB	1800.00		4400.00	4400.00	352.00		320.00	166.67	44.44										
RAMP T	3	SB	2600.00		6933.33	6933.33	554.67		462.22	240.74	64.20										
SUBTOTALS						84597.78	6767.82	4727.11	2961.11	3524.91	656.54	SUBTOTALS						848.80	35.37	67.90	
TOTALS CARRIED TO GENERAL SUMMARY						84598	6768	4728	2962	3525	657	TOTALS CARRIED TO GENERAL SUMMARY						849	36	68	

adjusted dimensions and pavement calcs



PAVEMENT CALCULATIONS

DESIGN AGENCY



DESIGNER

MRS

REVIEWER

MJA 04-24-23

PROJECT ID

103883

SHEET TOTAL

P.21 P.35

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2012 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

EXISTING STRUCTURE VERIFICATION

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 WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK:

MAH-680-0791E (RAMP E OVER DEWEY AVENUE)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS
- REMOVAL OF FORWARD AND REAR SLIDING PLATE EXPANSION JOINTS AND REPLACE WITH ADHESIVE JOINT SEAL SYSTEM
- PATCH ALL UNSOUND AREAS OF CONCRETE ABUTMENTS BACKWALLS, AND DECK UNDERSIDE. SEAL WITH EPOXY-URETHANE. USE FIBER WRAP IN REPAIRS OVER TRAFFIC
- REMOVE EXISTING SEALANT FROM ABUTMENT AND BACKWALL SURFACES AND RESEAL WITH EPOXY-URETHANE SEALER
- RESET AND REFURBISH THE EXISTING ABUTMENT BEARINGS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-0794 (OVER DEWEY AVENUE CR-533P)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS
- REMOVAL OF FORWARD AND REAR SLIDING PLATE EXPANSION JOINTS AND REPLACE WITH ADHESIVE JOINT SEAL SYSTEM
- PATCH ALL UNSOUND AREAS OF CONCRETE ABUTMENTS BACKWALLS, AND DECK UNDERSIDE. SEAL WITH EPOXY-URETHANE. USE FIBER WRAP IN REPAIRS OVER TRAFFIC
- REMOVE EXISTING SEALANT FROM ABUTMENT AND BACKWALL SURFACES AND RESEAL WITH EPOXY-URETHANE SEALER
- RESET AND REFURBISH THE EXISTING ABUTMENT BEARINGS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-0817 (UNDER INDIANOLA AVENUE CR-514)

- PATCH ALL UNSOUND AREAS OF CONCRETE PIERS AND ABUTMENTS. SEAL WITH EPOXY-URETHANE
- ASPHALT PAVING TO TRANSITION THE APPROACH PAVEMENT AND APPROACH SLAB ON THE SOUTH END OF THE BRIDGE
- REPLACEMENT OF PRESSURE RELIEF JOINTS PER BP-2.4
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-0837 (UNDER SHIRLEY ROAD CR-529)

- PATCH ALL UNSOUND AREAS OF CONCRETE PIERS AND ABUTMENTS. SEAL WITH EPOXY-URETHANE
- REPAIR WASHOUT AND EROSION AROUND PIER 1
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-0921 (OVER SR-170 MIDLOTHIAN BLVD)

- PATCH ALL UNSOUND AREAS OF CONCRETE PIERS AND ABUTMENTS. SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING SEALANT FROM PARAPET FACE SURFACES AND RESEAL WITH EPOXY-URETHANE SEALER
- RESET AND REFURBISH THE EXISTING BEARINGS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-0990 (UNDER THALIA AVENUE TR-1682)

- PATCH ALL UNSOUND AREAS OF CONCRETE PIERS. SEAL WITH EPOXY-URETHANE
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-1073L (OVER MATHEWS ROAD CR-102)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS
- REMOVAL OF FORWARD AND REAR SLIDING PLATE EXPANSION JOINTS AND REPLACE WITH ADHESIVE JOINT SEAL SYSTEM
- PATCH ALL UNSOUND AREAS OF CONCRETE ABUTMENTS BACKWALLS, DECK EDGES, AND DECK UNDERSIDE. SEAL WITH EPOXY-URETHANE. USE FIBER WRAP IN REPAIRS OVER TRAFFIC
- REMOVE EXISTING SEALANT FROM ABUTMENT AND BACKWALL SURFACES AND RESEAL WITH EPOXY-URETHANE SEALER
- RESET AND REFURBISH THE EXISTING ABUTMENT BEARINGS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-680-1073R (OVER MATHEWS ROAD CR-102)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS
- REMOVAL OF FORWARD AND REAR SLIDING PLATE EXPANSION JOINTS AND REPLACE WITH ADHESIVE JOINT SEAL SYSTEM
- PATCH ALL UNSOUND AREAS OF CONCRETE ABUTMENTS BACKWALLS, AND DECK UNDERSIDE. SEAL WITH EPOXY-URETHANE. USE FIBER WRAP IN REPAIRS OVER TRAFFIC
- REMOVE EXISTING SEALANT FROM ABUTMENT, BACKWALL, AND INSIDE & TOP OF PARAPETS SURFACES. RESEAL WITH EPOXY-URETHANE SEALER
- RESET AND REFURBISH THE EXISTING ABUTMENT BEARINGS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

MAH-224-1964 (OVER MAH-680-11.80) — corrected CRS

- PATCH ALL UNSOUND AREAS OF CONCRETE PIERS AND ABUTMENTS. SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING SEALANT FROM INSIDE & TOP OF PARAPETS SURFACES. RESEAL WITH EPOXY-URETHANE SEALER
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION, TREE STUMPS AND TREE REMOVAL DEBRIS, AND STANDING/ DOWNED TREES SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR A DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS, AS WELL AS THEIR CLEARING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES FARENHEIT, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURE(S) MAH-680-0791E, MAH-680-0794, MAH-680-1073L, AND MAH-680-1073R WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM SPECIAL - SEALING OF CONCRETE SURFACES

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL – STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR OVER TRAFFIC SHALL ALSO BE PATCHED USING ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR AND ITEM 519 - SPECIAL - COMPOSITE FIBER WRAP SYSTEM AS DIRECTED BY THE PROJECT ENGINEER.

THE QUANTITIES PER STRUCTURE ARE AS FOLLOWS:
SPEC. STRUCTURES: CONCRETE SPALL REMOVAL, 25 SQ YD
ITEM SPECIAL - SEALING, SEALING OF CONCRETE SURFACES, 25 SQ YD
ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM, 20 SF
843, PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR, 20 SF

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

EROSION REPAIR

THIS WORK WILL CONSIST OF REPAIRING THE EROSION AT THE APPROXIMATE LOCATIONS DETAILED BELOW AND AT THE DIRECTION OF THE ENGINEER. REPAIR WORK WILL BE PAID FOR BY THE FOLLOWING ITEMS.

- MAH-680-0837: REPAIR EROSION AROUND PIERS
- ITEM 203, BORROW, 10 CY
- ITEM 601, DUMPED ROCK FILL, TYPE C, 5 CY
- ITEM 613, LOW STRENGTH MORTAR BACKFILL, 5 CY

SFN	0
DESIGN AGENCY	
DESIGNER	CHECKER
CMR	MJA
REVIEWER	
MJA	04-24-23
PROJECT ID	103883
SUBSET	TOTAL
P.1	P.10
SHEET	TOTAL
P.26	P.35



SCREEDING:

THE PATCHING MATERIAL WILL BE PLACED, CONSOLIDATED, AND FINISHED TO THE ADJACENT GRADE. PATCHES EXCEEDING 50 SQ FT (4.6 SQ M) WILL BE LEVELED AND CONSOLIDATED WITH A MECHANICAL VIBRATING SCREED. SMALLER PATCHES WILL BE HAND VIBRATED AND LEVELED WITH A STRAIGHTEDGE. THE SCREED WILL BE PLACED PARALLEL TO THE BRIDGE CENTERLINE SO THAT THE DECK PROFILE REMAINS CONSISTENT WITH THE WORN SURFACE.

DO NOT ADD WATER TO AID THE FINISHING AND AN EVAPORATION RETARDANT MAY NOT BE USED.

AFTER THE PATCHES HAVE BEEN CONSOLIDATED AND FINISHED THEY WILL BE TEXTURED IN ACCORDANCE WITH 451.09. THE CONTRACTOR WILL TEST THE SURFACE OF THE PLASTIC CONCRETE FOR TRUENESS AND FOR BEING FLUSH WITH THE EDGES OF THE ADJACENT SURFACES BY USE OF A STRAIGHTEDGE. THE STRAIGHTEDGE WILL BE DONE BY PLACING THE STRAIGHTEDGE PARALLEL TO THE BRIDGE CENTERLINE WITH THE ENDS RESTING ON THE EXISTING WEARING SURFACE ADJACENT TO THE PATCH AND DRAWING THE STRAIGHTEDGE ACROSS THE PATCH. ANY HIGH OR LOW AREAS EXCEEDING 1#8 INCH IN 10 FEET (3 MM IN 3 M) WILL BE CORRECTED. IF ANY CORRECTIONS ARE MADE, THE SURFACE WILL BE RECHECKED.

CURING:

COVER THE FINISHED PATCHED SURFACES WITH A SINGLE LAYER OF CLEAN WET BURLAP AND COVER THE BURLAP WITH A 4-MIL WHITE OPAQUE POLYETHYLENE FILM FOR A MINIMUM OF 4 HOURS FOLLOWED BY A MEMBRANE CURE PER 511.17 METHOD (B).

ADEQUATE PRECAUTIONS WILL BE TAKEN TO PROTECT THE FRESHLY PLACED VES-LMC FROM RAIN.

THE CONTRACTOR WILL SUPPLY A PROPERLY CALIBRATED IMPACT REBOUND HAMMER TO VERIFY THAT THE PATCHES HAVE REACHED 3000 PSI COMPRESSIVE STRENGTH PRIOR TO OPENING TO TRAFFIC.

INSPECTION AND SOUNDING OF CONCRETE PATCHES:

AFTER CURING AND BEFORE FINAL ACCEPTANCE, ALL PATCHED AREAS WILL BE SOUNDED. ALL DELAMINATED AREAS WILL BE REMOVED AND REPATCHED ACCORDING TO THIS NOTE. ALL PATCHES WHICH ARE SOUND BUT SHOW SIGNS OF CRACKING WILL BE SEALED AND THE PERIMETER OF ALL PATCHES WILL ALSO BE SEALED WITH GRAVITY FED RESIN.

ALL SOUNDING AND REPLACEMENT OF REJECTED AREAS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

METHOD OF MEASUREMENT:

PAYMENT WILL BE MADE AT THE CONTRACTOR PRICE PER CUBIC YARD FOR ITEM SPECIAL - PATCHING CONCRETE STRUCTURES, MISC.: VES-LMC (VERY EARLY STRENGTH LATEX MODIFIED CONCRETE) WHICH WILL INCLUDE ALL MATERIALS AND LABOR REQUIRED TO PERFORM THIS WORK INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING MATERIAL.

ITEM SPECIAL - PATCHING CONCRETE STRUCTURES, MISC.: TRIAL BATCH FOR VES-LMC (VERY EARLY STRENGTH LATEX MODIFIED CONCRETE)

MAKE ONE OR MORE, ON CUBIC YARD, TRIAL BATCHES OF THE VES-LMC MATERIAL AT LEAST 14 DAYS PRIOR TO THE MATERIAL BEING PLACED. DEMONSTRATE THE ABILITY TO ACHIEVE THE REQUIREMENTS OF THE MATERIAL AS PER THE PLAN NOTE.

PAYMENT WILL BE MADE AT THE LUMP SUM CONTRACT PRICE FOR ITEM SPECIAL - PATCHING CONCRETE STRUCTURES, MISC.: TRIAL BATCH FOR VES-LMC (VERY EARLY STRENGTH LATEX MODIFIED CONCRETE) WHICH WILL INCLUDE ALL MATERIALS AND LABOR REQUIRED TO PERFORM THIS WORK.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

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 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN: IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

SPECIAL - COMPOSITE FIBER WRAP SYSTEM

FIBER WRAP SYSTEM SHALL BE USED ON PATCHING OF SPALLED AREAS OF THE BOTTOM DECK FLOOR AND DECK EDGES LOCATED OVER VEHICULAR, RAIL OR PEDESTRIAN TRAFFIC. USE OF FIBER WRAP SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. FOR DETAILS SEE PROPOSAL NOTE 519 - COMPOSITE FIBER WRAP SYSTEM.

**ITEM 611 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 638 - VALVE BOX ADJUSTED TO GRADE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, OR 638.18 FOR VALVE BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (48" DIAMETER FOR STORM AND SANITARY MANHOLE CASTINGS, 24"-28" FOR VALVE BOXES AND MONUMENT ASSEMBLIES, AND 2' IN DIAMETER LARGER THAN THE CASTING DIAMETER FOR ANY CASTINGS THAT ARE LARGER THAN STANDARD MANHOLES) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

corrected item name

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

ASBESTOS NOTIFICATION (MAH-680-0791E)

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION;

adjusted note and pay items

THE INSPECTION DETERMINED THAT MAH-680-0791E CONTAINS ASBESTOS. THE ASBESTOS CONTAINING MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL ENSURE THAT THE ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL IS CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL ENSURE THAT ALL DOCUMENTATION RELATED TO THE ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL IS SUBMITTED TO THE PROJECT ENGINEER FOR RECORD KEEPING WITHIN 2 WEEKS OF COMPLETION.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS I INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT <http://www.epa.ohio.gov/asbestos> AND IS ENCOURAGED, OR THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

- 1. THE CONTRACTOR'S NAME AND ADDRESS
- 2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
- 3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND METHODS BE USED
- 4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY ABATE, TRANSPORT, AND DISPOSE OF ASBESTOS CONTAINING MATERIAL IN A LANDFILL LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY - DIVISION OF AIR POLLUTION CONTROL TO ACCEPT ASBESTOS CONTAINING MATERIAL. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM SPECIAL - REMOVAL OF ASBESTOS CONTAINING MATERIAL.

END CROSSFRAMES (MAH-680-1073L&R)

THE CONTRACTOR SHALL REMOVE AND INSTALL NEW END CROSSFRAMES AT THE ABUTMENTS OF MAH-680-1073L&R DURING THE CONCRETE PATCHING OF THE BACKWALLS AS DIRECTED BY THE PROJECT ENGINEER. THE CONTRACTOR SHALL NOT REMOVE ABUTTING END CROSSFRAMES AT THE SAME TIME. THE CONTRACTOR SHALL NOT REMOVE BOTH END CROSSFRAMES IN THE SAME BAY AT THE SAME TIME. ALL CROSSFRAME STEEL SHALL BE PAINTED TO MATCH THE EXISTING COLOR.

THIS WORK SHALL BE PAID FOR BY THE FOLLOWING ITEMS PER STRUCTURE:

- ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, 2,543 LBS
- ITEM 513 - STRUCTURAL STEEL MISC.: FILLET WELDING, 120 FT
- ITEM 514 - FIELD PAINTING OF STRUCTURAL STEEL CROSSFRAMES, LS

ITEM 513 - STRUCTURAL STEEL, MISC.: REPLACEMENT OF DAMAGED CROSSFRAMES

THIS WORK CONSISTS OF REPLACING DAMAGED CROSSFRAMES THAT ARE BENT OF HAVE SECTION LOSS. THIS ITEM WILL INCLUDE SUPPLYING NEW CROSSFRAMES AND WELDING THEM BACK TO THE ORIGINAL POSITIONS OF THE CROSSFRAMES THAT ARE BEING REPLACED. AFTER REMOVAL, ALL WELDS WILL BE GROUND SMOOTH IN PREPARATION OF WELDING THE NEW CROSSFRAMES IN PLACE. ALL CROSSFRAMES TO BE REPLACED WILL BE FIELD MEASURED TO VERIFY SIZE AND LENGTHS PRIOR TO ORDERING MATERIAL. THE NEW CROSSFRAMES WILL BE WELDED TO THE GIRDDERS OR BEAMS ON BOTH SIDES OF THE VERTICAL LEG AND ON THE TOP SIDE OF THE HORIZONTAL LEG. THE ANGLE WILL BE WELDED USING A 1/4" CONTINUOUS FILLET WELD. STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. AISC CERTIFICATION IS NOT REQUIRED. THE CONTRACTOR WILL TAKE THE NECESSARY FIELD MEASUREMENTS TO VERIFY MEASUREMENTS BEFORE ORDERING MATERIALS. THE ENGINEER WILL HAVE THE AUTHORITY AND THE RESPONSIBILITY FOR ENSURING THAT THE STEEL IS ACCEPTABLE. AFTER FABRICATION THE PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH ITEM 513 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

added note

ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM EXCEPT FOR PAINT WILL BE INCLUDED FOR PAYMENT UNDER ITEM 513 - STRUCTURAL STEEL MISC.: REPLACEMENT OF DAMAGED CROSSFRAMES.

ASBESTOS NOTIFICATION (MAH-680-0794, MAH-680-1073L&R)

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION;

THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS I INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT <http://www.epa.ohio.gov/asbestos> AND IS ENCOURAGED, OR THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049
OR
ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

- 1. THE CONTRACTOR'S NAME AND ADDRESS
- 2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
- 3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND METHODS BE USED
- 4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

corrected item name

SFN	0
DESIGN AGENCY	
DESIGNER	CHECKER
CMR	MJA
REVIEWER	
MJA 04-24-23	
PROJECT ID	
103883	
SUBSET	TOTAL
P.3	P.10
SHEET	TOTAL
P.28	P.35

CALC:	CR	DATE:	3/24/2023
CHECKED:	MJA	DATE:	4/12/2023

ESTIMATED QUANTITIES

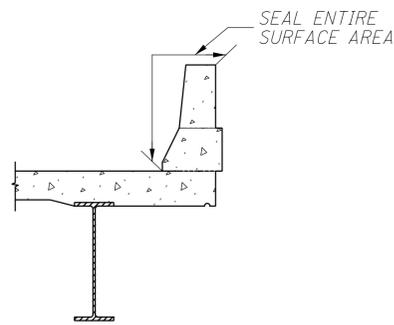
BRIDGE NO. / STRUCTURE FILE NO.									ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
MAH-680-0791E 5007348 02/IMS/47									201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS	1/10
MAH-680-0794 5007380 02/IMS/47									202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	1/10
MAH-680-0817 5007429 02/IMS/47									518	12500	EACH	SCUPPER, MISC.: SCUPPER CLEANOUT	
MAH-680-0837 5007534 02/IMS/47			10						203	40000	CY	BORROW	
MAH-680-0921 5007577 02/IMS/47				21					254	01000	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=2")	
MAH-680-0990 5007615 02/IMS/47									407	20000	GAL	NON-TRACKING TACK COAT @ 0.09 GAL/SY	
MAH-680-1073L 5007712 02/IMS/47									441	70101	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN (T=2")	3/10
MAH-680-1073R 5007720 02/IMS/47									509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	2/10
MAH-224-1964 5004853 02/IMS/47									509	20001	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	2/10
									512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
									512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
									613	41200	CY	LOW STRENGTH MORTAR BACKFILL	
									516	45305	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	1/10
									516	47001	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	1/10
									SPECIAL	51900100	SF	COMPOSITE FIBER WRAP SYSTEM	
									519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	1/10
									SPECIAL	51911900	CY	PATCHING CONCRETE STRUCTURE VES-LMC (VERY EARLY STRENGTH LATEX MODIFIED CONCRETE)	
									519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
									SPECIAL	51960000	LS	PATCHING CONCRETE STRUCTURE TRIAL BATCH FOR VES-LMC (VERY EARLY STRENGTH LATEX MODIFIED CONCRETE)	
									SPECIAL	53000800	SY	STRUCTURES: CONCRETE SPALL REMOVAL	
									601	27000	CY	DUMPED ROCK FILL, TYPE C	
									611	99655	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	3/10
									638	10801	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	3/10
									843	50000	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
									844	10000	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION	
									513	10200	LB	STRUCTURAL STEEL MEMBERS, LEVEL UP	
									513	95000	FT	STRUCTURAL STEEL, MISC.: FILLET WELDING	
									SPECIAL	51480110	LS	FIELD PAINTING OF STRUCTURAL STEEL CROSSFRAMES	
									SPECIAL	53000200	LS	STRUCTURES, REMOVAL OF ASBESTOS CONTAINING MATERIAL	
									441	50300	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
									510	10000	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	

corrected CRS

adjusted quantities

changed items and quantities





DETAIL A
CONCRETE DECK WITH
DEFLECTOR PARAPET

APPROACH PAVEMENT TYPICAL SECTION



LEGEND

- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE PAVEMENT (T=2")
- ② ITEM 407, NON-TRACKING TACK COAT (0.09 GAL/SY)
- ③ ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN (T=2")

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
MAH-680-0791E	STEEL BEAM CONTINUOUS	SEAL ABUTMENT, BACKWALL, AND SPALL REMOVAL SURFACES	MATCH EXISTING	57		25	17	99
MAH-680-0794	STEEL BEAM CONTINUOUS	SEAL ABUTMENTS, BACKWALLS, AND SPALL REMOVAL SURFACES	MATCH EXISTING	230		25	28	283
MAH-680-0817	STEEL BEAM CONTINUOUS	SEAL ALL REPAIRED CONCRETE SURFACES	MATCH EXISTING				28	28
MAH-680-0837	STEEL BEAM CONTINUOUS	SEAL ALL REPAIRED CONCRETE SURFACES	MATCH EXISTING				39	39
MAH-680-0921	STEEL BEAM CONTINUOUS	SEAL PARAPETS PER DETAIL A SEAL ALL REPAIRED CONCRETE SURFACES	MATCH EXISTING			228	28	256
MAH-680-0990	STEEL BEAM CONTINUOUS	SEAL ALL REPAIRED CONCRETE SURFACES	MATCH EXISTING				23	23
MAH-680-1073L	STEEL BEAM CONTINUOUS	SEAL ABUTMENT, BACKWALL, DECK EDGES, SPALL REMOVAL SURFACES, AND PARAPETS AS PER DETAIL A	MATCH EXISTING	85		153	25	263
MAH-680-1073R	STEEL BEAM CONTINUOUS	SEAL ABUTMENT, BACKWALL, DECK EDGES, SPALL REMOVAL SURFACES, AND PARAPETS AS PER DETAIL A	MATCH EXISTING	85		153	14	252
MAH-224-1964	STEEL BEAM CONTINUOUS	SEAL PARAPETS PER DETAIL A SEAL ALL REPAIRED CONCRETE SURFACES	MATCH EXISTING			344	23	367

modified descriptions

corrected CRS

adjusted quantities

STRUCTURE DETAILS

BRIDGE NUMBER	BRIDGE DECK					APPROACH SLABS				APPROACH PAVEMENT				
	LENGTH (BRIDGE LIMITS) FT	BRIDGE WIDTH FT	DECK AREA SQ YD	SPECIAL PATCHING CONCRETE BRIDGE DECK - TYPE C SY		LENGTH (APPROACH SLABS) FT	APPROACH SLAB WIDTH FT	APPROACH SLAB AREA SQ YD	APPROACH (FORWARD / REAR)	SPECIAL PATCHING CONCRETE BRIDGE DECK - TYPE C SY	254 PAVEMENT PLANING, ASPHALT CONCRETE (T=2") SY	SPECIAL NON-TRACKING TACK COAT @ 0.09 GAL/SY GAL	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN (T=2") CY	
MAH-680-0791E	252.50	28.00	785.56	8.00		20.00	28.00	62.22	FWD	1.00				
						20.00	28.00	62.22	REAR	1.00				
MAH-680-0794	183.87	119.25	2436.28	25.00		20.00	119.25	265.00	FWD	3.00				
						20.00	119.25	265.00	REAR	3.00				
MAH-680-0817											180.00	17.00	10.00	
MAH-680-1073L	107.76	51.00	610.64	7.00		25.00	51.00	141.67	FWD	2.00				
						25.00	51.00	141.67	REAR	2.00				
MAH-680-1073R	107.76	51.00	610.64	7.00		25.00	51.00	141.67	FWD	1.00				
						25.00	51.00	141.67	REAR	1.00				

SFN
0
DESIGN AGENCY

DESIGNER: CMR
CHECKER: MJA
REVIEWER: MJA
PROJECT ID: 103883
SUBSET: P.5
TOTAL: P.10
SHEET: P.30
TOTAL: P.35