

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

844 REVISED 1/17/25

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 C&MS, 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.

PROPOSED WORK

MAH-680-12.488 (SFN 5007747), OVER BRANCH OF YELLOW CREEK  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

MAH-680-13.427 (SFN 5007828), WALKER-MILL RD OVER MAH-IR-680  
-SEAL THE CONCRETE WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN  
-RESURFACE 50' OF APPROACH PAVEMENT AT FORWARD AND REAR APPROACHES TO SMOOTH OUT TRANSITION  
-PATCH ALL UNSOUND AREAS OF THE PIERS WITH 519, ADD GALVANIC ANODES AS PER SS 844, SEAL ALL PATCHES WITH EPOXY-URETHANE SEALER (MATCH EXISTING COLOR)  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

MAH-680-14.415 (SFN 5003253), E WESTERN RESERVE RD OVER MAH-IR-680  
-PATCH ALL UNSOUND AREAS OF THE PIERS WITH 519, ADD GALVANIC ANODES AS PER SS 844, SEAL ALL PATCHES WITH EPOXY-URETHANE SEALER (MATCH EXISTING COLOR)  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

MAH-680-15.495R (SFN 5007879), OVER CALLA RD  
-SEAL THE CONCRETE WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

MAH-680-15.715L (SFN 5007860), OVER CALLA RD  
-SEAL THE CONCRETE WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

MAH-164-5.269 (SFN 5003230), OVER MAH-IR-680  
-SEAL THE CONCRETE WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN  
-CLEARING AND GRUBBING 15' AROUND STRUCTURE.

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 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 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

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

REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH AN ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT.

MAH-680-13.427 (PIERS)  
ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN, 85 SF

MAH-680-14.415 (PIERS)  
ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN, 40 SF

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 20 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 200 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.

THE FOLLOWING QUANTITIES AND ANODE SPACINGS HAVE BEEN PROVIDED FOR EACH STRUCTURE.

MAH-680-13.427 (SFN 5007828)  
PIERS: ANODE SPACING @ 12 IN C/C  
ITEM 844, GALVANIC ANODE PROTECTION, 204 EACH

MAH-680-14.415 (SFN 5003253)  
PIERS: ANODE SPACING @ 12 IN C/C  
ITEM 844, GALVANIC ANODE PROTECTION, 96 EACH

ITEM 514 - PAINTING OF STRUCTURAL STEEL

THE COLOR FOR THE FINISHED COAT OF STRUCTURE MAH-680-13.427 WILL CONFORM TO FEDERAL COLOR NUMBER 15526 (BLUE). THIS WORK IS TO BE COMPLETED IN CALENDAR YEAR 2025.

LOCATIONS TO BE PAINTED WILL INCLUDE:


- SPAN 3
- BEAMS 1 - 3: REPAIRED PORTION OVER RIGHT LANE OF ROADWAY
- BEAMS 4 - 5: REPAIRED PORTION OVER BOTH LANES OF ROADWAY

INTERSECTING  
FEATURES UPDATED

PARAGRAPH MOVED FROM 844  
PATCHING W/ GALVANIC ANODE  
PROTECTION NOTE TO 519  
PATCHING STRUCTURES NOTE

STRUCTURE NOTES

MAH-680-12.488, MAH-680-13.427, MAH-680-14.415,  
MAH-680-15.495R, MAH-680-15.715L, & MAH-164-5.269

SFN	
VARIOUS	
DESIGN AGENCY	
	
DESIGNER	CHECKER
SBD	JF
REVIEWER	
MJA 12-13-24	
PROJECT ID	
101046	
SUBSET	TOTAL
1	3
SHEET	TOTAL
P.16	18

CALC:	SBD	DATE:	8/23/2024
CHECKED:	MJA	DATE:	12/17/2024

ESTIMATED QUANTITIES												
BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
MAH-680-12.488 5007747 03/IMS	MAH-680-13.427 5007828 02/IMS	MAH-680-14.415 5003253 02/IMS	MAH-680-15.495 R 5007879 02/IMS	MAH-680-15.715 L 5007860 02/IMS	MAH-164-5.269 5003230 02/IMS							
LS	LS	LS	LS	LS	LS			201	11001		CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS	1 / 3
	356							254	01000	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 1 1/2")	
	32							407	20000	GAL	NON-TRACKING TACK COAT	
	14							441	70100	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
	10	5						512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	1113		726	726	2527			512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
	937		466	468	1616			512	74500	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
	LS							514	00100		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
	LS							514	00200		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
	LS							514	00300		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
	LS							514	00400		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
	2							514	00504	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
	1							514	10000	EACH	FINAL INSPECTION REPAIR	
	85	40						519	11101	SE	PATCHING CONCRETE STRUCTURE, AS PER PLAN	1 / 3
	0.12				0.14			646	10010	MILE	EDGE LINE, 6"	
								646	10110	MILE	LANE LINE, 6"	
	0.06				0.07			646	10200	MILE	CENTER LINE	
					0.07			646	20504	FT	DOTTED LINE, 6"	
	204	96						844	20000	EACH	GALVANIC ANODE PROTECTION	