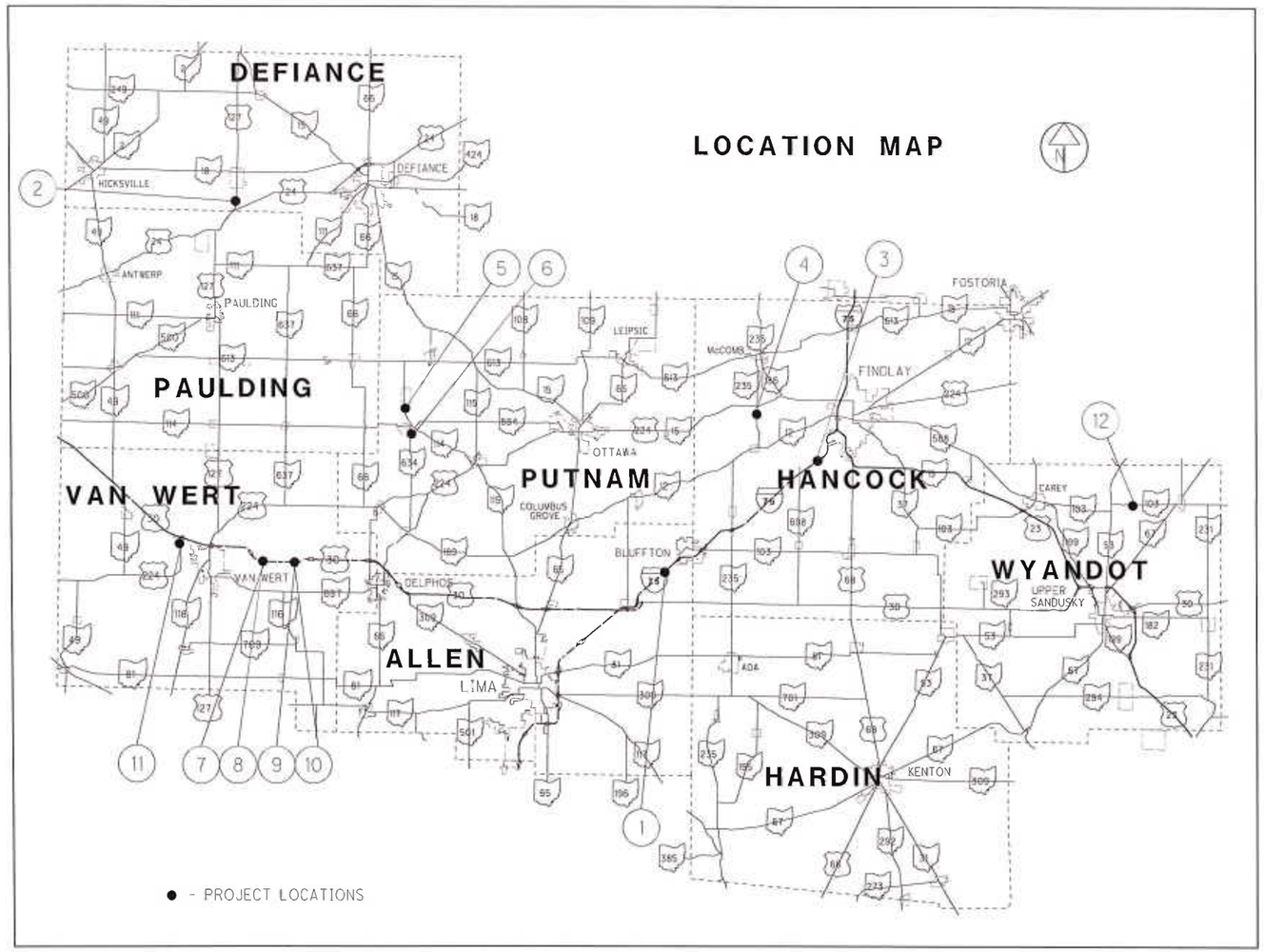
STATE OF OHIO DEPARTMENT OF TRANSPORTATION

D01-BM-FY16



PART	C-R-S
1	ALL-75-20.03
2	DEF-127-0.53
3	HAN-75-13.83
4	HAN-235-16.85
5	PUT-114-2.96
6	PUT-634-10.27
7	VAN-30-17.33 L
8	VAN-30-17.33 R
9	VAN-30-19.96 L
10	VAN-30-19.96 R
11	VAN-224-12.02
12	WYA-103-13.90

LATITUDE: 40°-46'-18" LONGITUDE: 84°-05'-34"

PROJECT DESCRIPTION

MISCELLANEOUS MAINTENANCE AND REPAIRS FOR VARIOUS DISTRICT ONE STRUCTURES

PROJECT EARTH DISTURBED AREA: NA ACRES (MAINTENANCE PROJECT)

ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: NA ACRES (MAINTENANCE PROJECT)

NOTICE OF INTENT EARTH DISTURBED AREA: NA ACRES (MAINTENANCE PROJECT)

2013 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.

DESIGN EXCEPTIONS

NONE

INDEX OF SHEETS

TITLE SHEET 1
GENERAL NOTES & SUMMARY 2
MAINTENANCE OF TRAFFICE NOTES 2
STRUCTURE GENERAL NOTES 3
MISCELLANEOUS STRUCTURE DETAIL 4
STRUCTURE GENERAL SUMMARY 5

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:

DISTRICT ONE
OHIO DEPARTMENT OF TRANSPORTATION

STATE OF OHIO
James R. Clark
E-59426
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 10-9-15

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
DM-4.3	7/19/13					800	10-16-15
DM-4.4	7/20/12					832	1-17-14
EXJ-4-87	7/19/02						
MT-97.10	7/18/14						
MT-101.70	1/17/14						
MT-101.90	7/17/15						
MT-105.10	7/19/13						
TC-41.20	10/18/13					SPECIAL PROVISIONS	
TC-41.50	10/18/13						
TC-42.20	10/18/13						
TC-52.10	10/18/13						
TC-52.20	7/18/14						

APPROVED Kirk Shell
DATE 10/9/15 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. NON-FEDERAL

PID NO. 94347

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

D01-BM-FY16

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ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NO DETOURS WILL BE ALLOWED, ALL WORK IS TO BE ACCOMPLISHED WITH MINIMAL LANE CLOSURE DURATIONS AND OPEN TO TRAFFIC AT THE END OF THE WORK DAY.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEARS
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

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

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

GENERAL SUMMARY

ITEM	EXT.	UNIT	01/NFP/BR TOTAL	DESCRIPTION
201	11000		LUMP	CLEARING AND GRUBBING
				STRUCTURES OVER 20'
				FOR VARIOUS STRUCTURE QUANTITIES SEE SHEET 5
614	11001		LUMP	MAINTAINING TRAFFIC, AS PER PLAN
624	10000		LUMP	MOBILIZATION

ENVIRONMENTAL COMMITMENTS

THE ENVIRONMENTAL DOCUMENT WAS APPROVED 7/30/2015 AND CONTAINED THE FOLLOWING CONSTRUCTION RELATED ITEMS THAT THE CONTRACTOR AND PROJECT ENGINEER ARE TO ENSURE ARE CARRIED OUT. IF THEY CANNOT BE FOLLOWED THE DISTRICT PLANNING AND ENGINEERING ADMINISTRATOR SHOULD BE NOTIFIED IMMEDIATELY.

GENERAL

1. NO WORK OR STAGING OF EQUIPMENT SHALL OCCUR OUTSIDE OF THE EXISTING RIGHT-OF-WAY AND CHANNEL EASEMENTS.
2. NO WORK OR STAGING OF EQUIPMENT AND MATERIALS WILL OCCUR WITHIN A STREAM, DITCH, OR WETLAND.
3. FULL CONTAINMENT OF CONSTRUCTION MATERIALS IS REQUIRED OVER ALL WATERWAYS. IF MATERIALS ENTER ANY WATERWAY, THEY MUST BE REMOVED IMMEDIATELY BY HAND METHODS.
4. A PROPER CONCRETE WASHOUT AREA MUST BE PROVIDED BY THE CONTRACTOR.
5. THE PROJECT IS WITHIN THE KNOWN RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND FEDERALLY THREATENED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS). PRIOR TO ANY BRIDGE REHABILITATION, THE UNDERSIDE OF THE BRIDGE SHOULD BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 1 TO SEPTEMBER 30. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF THE BRIDGE STRUCTURE, DO NOT REMOVE THE BATS AND DO NOT CONTINUE CONSTRUCTION ACTIVITIES THAT WOULD DISTURB THE BATS. CONTACT THE ODOT DISTRICT 1 ENVIRONMENTAL STAFF (419-999-6886 OR BRITTANY.BIANCO@DOT.OHIO.GOV) IMMEDIATELY FOR FURTHER INSTRUCTION.
6. ODOT DISTRICT 1 ENVIRONMENTAL STAFF (419-999-6886 OR BRITTANY.BIANCO@DOT.OHIO.GOV) MUST BE CONTACTED 21 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AT THE FOLLOWING BRIDGES: DEF-127-0.53 AND WYA-103-13.90. ODOT DISTRICT 1 ENVIRONMENTAL STAFF WILL NOTIFY THE ODNR SCENIC RIVER MANAGER PRIOR TO THE START OF CONSTRUCTION AT THOSE BRIDGES.
7. ASBESTOS SURVEYS OF THE TWELVE BRIDGE STRUCTURES, SCHEDULED FOR REHABILITATION, WERE CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEYS DETERMINED ASBESTOS IS NOT PRESENT ON THE STRUCTURES. A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE SECTION V AND VII-XVIII OF THE FORMS AND SUBMIT THEM TO:

   OHIO EPA, NWDO
   347 N. DUNBRIDGE ROAD
   BOWLING GREEN, OH 43402
   MARK BUDGE, APC MANAGER
   (419) 352-8461
   FAX: (419) 352-8468

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY REHABILITATION. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORMS TO THE ENGINEER. THE COST OF ANY FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORMS SHALL BE INCLUSIVE TO THE ASSOCIATED DEMOLITION AND REMOVAL BID ITEM

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS III AND X OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY &HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: JUNE 1, 2009 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:

III. HEAD PROTECTION (HARD HATS)

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2003 TYPE 1 CLASS E - G REQUIREMENTS.

X. HIGH VISIBILITY SAFETY APPAREL

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBILITY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS 2 OR CLASS 3 REQUIREMENTS OF THE ANSI/ISEA 107-2004 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND HEADWEAR".

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III APPROVED RAIN SUIT OR JACKET WITHOUT A SAFETY VEST OVER IT. HIGH-VISIBILITY T-SHIRTS, SWEATSHIRTS, OR ZIP UP HOODIES ARE NOT ACCEPTABLE. ALL WORKERS SHALL WEAR A SAFETY VEST OVER THE T-SHIRTS, SWEATSHIRTS, AND ZIP-UP HOODIES, REGARDLESS OF THEIR ANSI RATING.

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DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, ALSO ODOT BRIDGE DESIGN MANUAL 2004.

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 AND 105.02.

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.

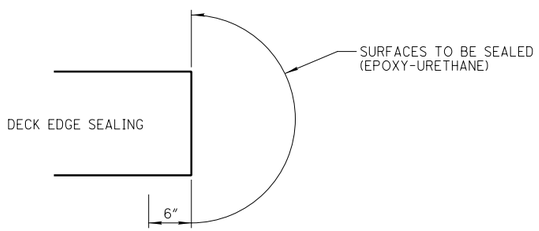
COPIES OF THE EXISTING PLANS ARE ON FILE AT THE DISTRICT 1 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION.

SEALING OF CONCRETE SURFACE (EPOXY-URETHANE)

THE CONTRACTOR SHALL SEAL ALL LOCATIONS THAT HAVE BEEN SHOWN IN THE TABLE BELOW.

STRUCTURE	SEALING LOCATIONS
PUT-114-2.96	DECK EDGES, BACKWALL & WINGWALLS
PUT-634-10.27	PIERS TO WATER LINE; NOT TOP SURFACE OF CAP
VAN-30-17.33 LT	DECK EDGES, BACKWALL & WINGWALLS
VAN-30-17.33 RT	DECK EDGES, BACKWALL & WINGWALLS
VAN-30-19.96 LT	DECK EDGES, BACKWALL & WINGWALLS
VAN-30-19.96 RT	DECK EDGES, BACKWALL & WINGWALLS
VAN-224-12.02	MEDIAN CURB WITHIN LIMITS OF THE STRUCTURE

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQ YD FOR ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: USING DOW CORNING 902

USING DOW CORNING 902: THIS WORK SHALL CONSIST OF PROVIDING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO CLEAN AND SEAL EXISTING SLIDING DECK JOINTS FOR STR. ALL-75-2003.

THE SEALANT SHALL BE DOW CORNING #902 SEALANT (ONE PART/NON SAG/MED. MODULUS) AS MANUFACTURED BY DOW CORNING.

JOINTS SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING AND/OR POWER TOOLS AND WITH A SUFFICIENT AMOUNT OFCOMPRESSED AIR TO REMOVE ANY DIRT OR DELETERIOUS MATTER WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY. JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 P.S.I. SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST.

THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE JOINT.

THE SILICONE SEALANT MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS MODIFIED BY THESE NOTES. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIANT TEMPERATURE IS 60 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

PAYMENT FOR ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PREFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE FOOT CONTRACT PRICE FOR ITEM 516 - STRUCTURAL JOINT OR JOINT SEAL, MISC.: USING DOW CORNING 902, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 519 - PATCHING CONCRETE STRUCTURES, MISC.: ABUTMENT BACKWALL

IN ADDITION TO THE WORK ITEMS REQUIRED IN 519, THIS ITEM WILL INCLUDE, THE CORING OF THE DECK TO PLACE THE CONCRETE, THE DRILLING OF DOWEL HOLES FOR THE PLACEMENT OF THE EPOXY REINFORCING STEEL AND THE WIDENING OF THE ABUTMENT SEATS AS DETAILED IN THESE PLANS AND DESCRIBED IN THE FOLLOWING NOTE.

PROVIDE A CONCRETE MIX AT A SLUMP THAT ALLOWS THE CONCRETE MIX TO BE PUMPED THROUGH A 4" DIAMETER ACCESS HOLE FROM THE TOP OF THE DECK AND SELF CONSOLIDATE, FILLING THE PATCH LOCATIONS OF THE UNDERSIDE OF THE DECK, THE ABUTMENT SEAT AND VERTICAL ABUTMENT WALL. THE FINAL CONCRETE MIX WILL BE SELF CONSOLIDATING CONCRETE USING AN APPROVED SELF CONSOLIDATING ADMIXTURE.

WHEN PERFORMING THE DISINTEGRATED CONCRETE REMOVAL, PROVIDE PATCHES WITH A MINIMUM DEPTH OF 4 INCHES AND NO GREATER THAN 6 INCHES. AREAS TO BE PATCHED WILL HAVE SQUARED EDGES AND BE ROUGHLY SQUARE OR RECTANGLE IN SHAPE.

AVOID DAMAGING OR DEBONDING THE REINFORCING, OR SHATTERING THE CONCRETE, BEYOND THE AREA TO BE PATCHED.

AFTER LOCATING THE EXISTING REINFORCING STEEL USING A PACHOMETER, DRILL 4" DIAMETER HOLES THROUGH THE BRIDGE DECK MISSING THE REBAR.

DRILL DOWEL HOLES FOR INSTALLATION OF THE EPOXY COATED REINFORCING STEEL. INSTALL THE REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. IF AN EXISTING STEEL BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. THE DEPARTMENT WILL PAY FOR ALL DOWEL HOLES AND GROUT WITH ITEM 519.

AFTER PLACEMENT OF THE REINFORCING STEEL AND THE DRILLING OF THE HOLES, PUMP THE CONCRETE INTO THE CORE HOLES UNTIL THE PATCH AREAS ARE FILLED AND ALL AIR VOIDS ARE DETERMINED TO HAVE BEEN ELIMINATED.

THE SLAB BRIDGE SEAT WILL ALSO BE WIDENED TO MATCH THE EXISTING ABUTMENT FOOTER WIDTH. REFER TO THE RESPECTIVE STRUCTURE SHEET FOR MORE DETAILS REGARDING THE WIDENING.

PLACE THE CONCRETE THROUGH THE 4" DIAMETER CORE HOLES BY PUMPING AND FREE FALL. ASSURE THE CONCRETE HAS COMPLETELY FILLED THE PATCH VOIDS BEFORE MOVING TO ANOTHER 4" ACCESS HOLE. USE VIBRATION EQUIPMENT TO HELP CONSOLIDATE THE CONCRETE MIX. CONTINUE PLACING THE CONCRETE INTO THE CORE HOLES AND FINISH THE CONCRETE IN THE HOLES LEVEL WITH THE DECK CONCRETE. THE AREAS OF THE 4" HOLES SHALL BE SEALED WITH HIGH MOLECULAR WEIGHT METHACRYLATE RESIN CONFORMING TO CMS 512.04.

WHEN THE FORMWORK IS REMOVED, THE PROJECT ENGINEER WILL DETERMINE IF THE NEW CONCRETE IS FLUSH WITH THE UNDERSIDE OF THE DECK. IF THERE ARE VOIDS FOUND BETWEEN THE NEW CONCRETE AND THE UNDERSIDE OF THE DECK, THE CONTRACTOR WILL PRESSURE GROUT THE VOIDS UNTIL ALL MATERIAL IS FOUND TO BE IN CONTACT WITH ONE ANOTHER. THE GROUT MATERIAL WILL ACHIEVE AT LEAST 4000 PSI IN 7 DAYS AND CONSIST OF CEMENT AND SAND MEETING ODOT MATERIAL SPECIFICATIONS.

THE DEPARTMENT WILL MEASURE THE NUMBER OF CUBIC YARDS DETERMINED BY THE CALCULATIONS FROM THE PLAN DIMENSION FOR THE ABUTMENT WIDENING WORK. THE DEPARTMENT WILL MEASURE THE NUMBER OF CUBIC YARDS FOR THE PATCHED AREAS BY DETERMINING THE SQUARE YARDAGE OF ACTUAL PATCHED AREAS AND MULTIPLYING BY A DEPTH OF 0.333 YARDS TO CALCULATE THE VOLUME OF CUBIC YARDS.

THE DEPATRMENT WILL PAY FOR THE ACCEPTED QUANTITY OF CUBIC YARDS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CU. YD. FOR ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: ABUTMENT BACKWALL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK. EXCEPT FOR THE EPOXY COATED REINFORCING STEEL WHICH WILL BE PAID FOR SEPARATELY.

ITEM 601 DUMP ROCK FILL, TYPE B

THE CONTRACTOR SHALL PLACE DUMP ROCK AT THE EACH CORNER OF THE HAN-75-1383 STRUCTURE TO ADDRESS THE EROSION.

ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN

THE CONTRACTOR SHALL SEAL THE DECKS AND ANY WITH EXPOSED CONCRETE APPROACH SLABS SHALL ALSO BE SEALED.

516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING AND REPLACING THE EXISTING NEOPRENE STRIP SEAL. SANDBLAST THE EXISTING STEEL ARMOR AND RETAINERS TO A WHITE METAL AND THEN BLOW THE JOINT OPENING WITH OIL- FREE COMPRESSED AIR TO REMOVE LAITANCE AND DEBRIS FROM THE SANDBLASTING OPERATION. ONCE COMPLETE, PLACE A NEOPRENE STRIP SEAL APPROVED BY THE ENGINEER IN ACCORDANCE WITH STANDARD DRAWING EXJ-4-87.

F°	DIMENSION FOR ANTICIPATED PEAK AMBIENT TEMP.			
	DEF-127-0.53	HAN-75-1383	PUT-114-2.96	WYA-103-1390
30°	2 3/16"	2 3/16"	2 3/16"	4 1/8"
40°	2 1/16"	2 1/16"	2 1/16"	4"
50°	1 15/16"	1 15/16"	1 15/16"	3 3/4"
60°	1 13/16"	1 13/16"	1 13/16"	3 5/8"
70°	1 3/4"	1 3/4"	1 3/4"	3 1/2"
80°	1 5/8"	1 5/8"	1 5/8"	3 3/8"
90°	1 1/2"	1 1/2"	1 1/2"	3 1/4"

(HAN-75-1383 REPLACE ONLY REAR & FORWARD JOINTS)

PAYMENT FOR ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PREFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE FOOT CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT EXTRUSIONS, AS PER PLAN, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

A QUANTITY IS INCLUDED IN THE ESTIMATED QUANTITIES OF EACH STRUCTURE TO REPAIR ANY DETERIORATED AREAS SUCH AS THE WINGWALLS, DECK EDGES, ETC. WITH ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN. A GENERAL LIST OF STRUCTURES AND LOCATIONS THAT WILL NEED PATCHING IS LISTED IN THE TABLE BELOW.

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.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQ FT FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

STRUCTURE	PATCHING LOCATIONS
DEF-127-0.53	DECK EDGES & BEAM SEATS
PUT-114-2.96	DECK EDGES, PIER CAPS, ABUTMENTS & WINGWALLS
PUT-634-10.27	PIERS TO WATER LINE
VAN-224-12.02	MEDIAN CURB WITHIN LIMITS OF STRUCTURE
VAN-30-17.33 LT	WINGWALLS

DESIGN AGENCY
DISTRICT ONE
OFFICE OF PRODUCTION

REVIEWED | DATE | STRUCTURE FILE NUMBER VARIOUS
DRAWN JRC | REVISED
DESIGNED JRC | CHECKED

STRUCTURE GENERAL NOTES

D01-BM-FY16
PID No. 94347

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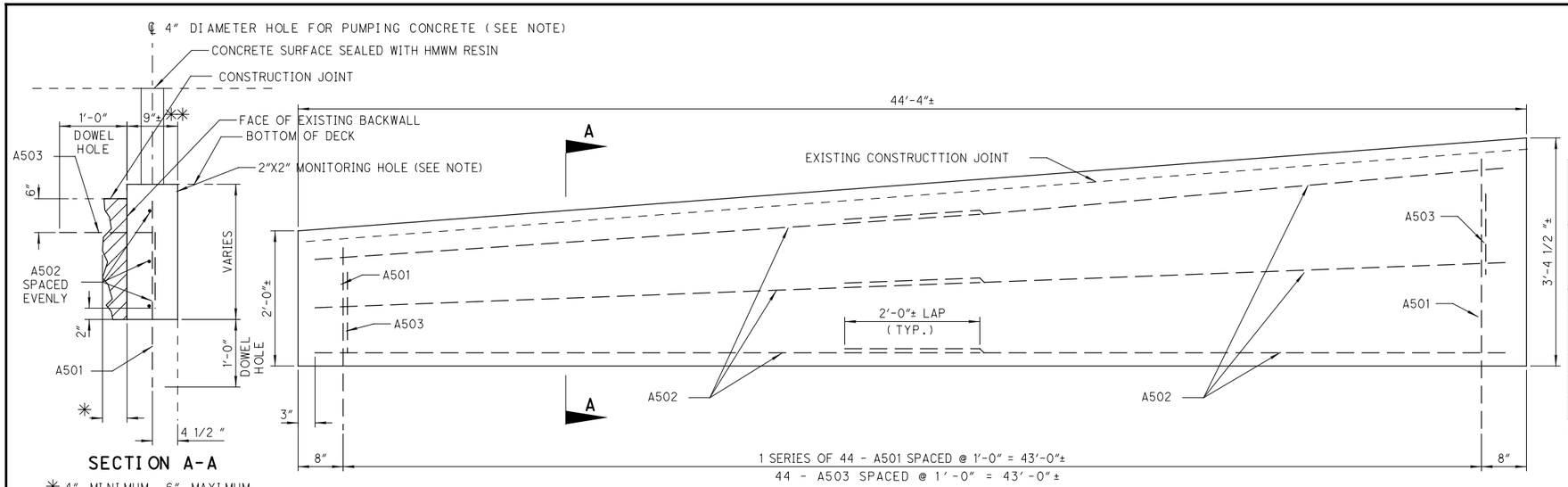


SECTION A-A

✳ 4" MINIMUM, 6" MAXIMUM LIMIT OF REMOVAL

✳✳ SLAB BRIDGE SEAT WIDENING

NOTE:

DRILL 4" DIAMETER OPENINGS IN TOP OF DECK AT A MINIMUM OF 4' AND A MAXIMUM OF 6' APART FOR PUMPING THE CONCRETE.

PLACE 2"X2" OPENINGS IN TOP OF FORMS AT A MINIMUM OF 4' AND A MAXIMUM OF 6' APART FOR MONITERING THE CONCRETE POUR CENTERED BETWEEN THE 4" DRILLED HOLES.

ALL NEW EXPOSED CONCRETE IS TO BE SEALED WITH EPOXY-URETHANE.

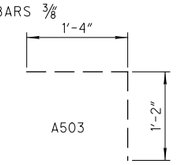
AREA OF POSSIBLE UNSOUND CONCRETE

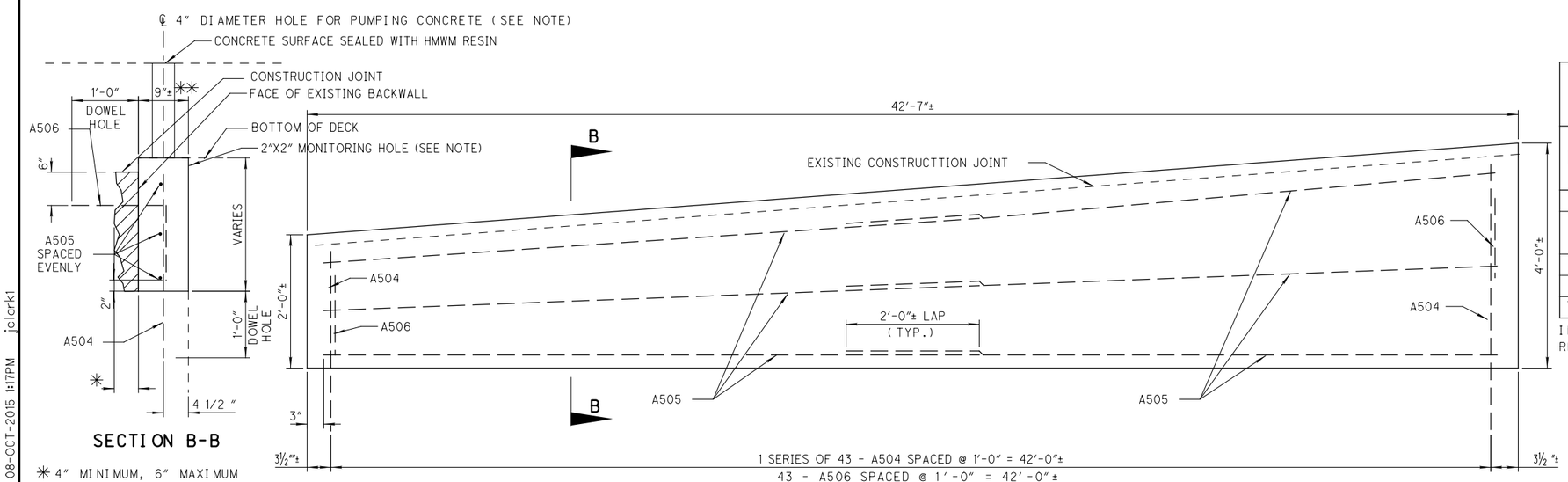
VAN-30-1733 R FORWARD & REAR ABUTMENT DETAILS (DRAWING N.T.S.)

REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	NUMBER			WEIGHT
			REAR	FWD.	TOTAL	LBS.
A501	VARIES 2'-9" TO 4'-1"	STR.	1 SERIES OF 44	1 SERIES OF 44	2 SERIES OF 44	314
A502	23'-0"	STR.	6	6	12	288
A503	2'-4½"	BNT.	44	44	88	218
TOTAL						820

INCREMENT A501 BARS ⅜





SECTION B-B

✳ 4" MINIMUM, 6" MAXIMUM LIMIT OF REMOVAL

✳✳ SLAB BRIDGE SEAT WIDENING

NOTE:

DRILL 4" DIAMETER OPENINGS IN TOP OF DECK AT A MINIMUM OF 4' AND A MAXIMUM OF 6' APART FOR PUMPING THE CONCRETE.

PLACE 2"X2" OPENINGS IN TOP OF FORMS AT A MINIMUM OF 4' AND A MAXIMUM OF 6' APART FOR MONITERING THE CONCRETE POUR CENTERED BETWEEN THE 4" DRILLED HOLES.

ALL NEW EXPOSED CONCRETE IS TO BE SEALED WITH EPOXY-URETHANE.

AREA OF POSSIBLE UNSOUND CONCRETE

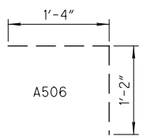
VAN-30-1996 LT & RT FORWARD & REAR ABUTMENT DETAILS (DRAWING N.T.S.)

REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	NUMBER		WEIGHT
			FWD.	TOTAL	LBS.
A504	VARIES 2'-9" TO 4'-9"	STR.	1 SERIES OF 43		168
A505	22'-1"	STR.	6		138
A506	2'-4½"	BNT.	43		106
TOTAL					412

INCREMENT A501 BARS ½"

REINFORCING LIST FOR ONE STRUCTURE, THE OTHER IS IDENTICAL



1. ALL BENDS ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
2. ALL BARS ARE EPOXY COATED.
3. STR. BARS ARE STRAIGHT BARS.
   BNT. BARS ARE BENT BARS.
4. REINFORCING STEEL SIZE IS INDICATED IN THE BAR MARK. THE FIRST LETTER IDENTIFIES THE BAR LOCATION; THE NEXT TWO DIGITS AND LETTER INDICATES THE BAR SIZE DESIGNATION; AND THE REMAINING DIGITS ITS SEQUENCE NUMBER.

   EXAMPLE: A501
   A) A = LOCATION OF BAR IN THE STRUCTURE (IE. ABUTMENT)
   B) 501 = SEQUENCE NUMBER

DESIGN AGENCY
DISTRICT ONE
PRODUCTION DEPARTMENT

DESIGNED | CHECKED | DRAWN | REVISED | REVIEWED | DATE | STRUCTURE FILE NUMBER VARIOUS

MISCELLANEOUS STRUCTURE DETAILS

D01-BM-FY16

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STRUCTURE NO. ALL-75-2003 SFN 0202886 (HILLVILLE RD OVER IR 75)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
516	14600	STRUCTURAL JOINT OR JOINT SEALER, MISC.: USING DOW CORNING 902	FT	113

STRUCTURE NO. DEF-127-0053 SFN 2001950 (OVER MAUMEE RIVER)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	2110
516	01301	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	FT	101
519	11101	PATCHING CONCRETE STRUCTURES, AS PER PLAN	SQ FT	200
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	15

STRUCTURE NO. HAN-75-1383 SFN 3202828 (CR 313 OVER IR 75)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
516	01301	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	FT	76
601	26000	DUMPED ROCK FILL, TYPE B	CU YD	8

STRUCTURE NO. HAN-235-1685 SFN 3204561 (OVER BLANCHARD RIVER)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
516	14600	STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2" PRECOMPRESSED EXPANSION JOINT FILLER	FT	99

STRUCTURE NO. PUT-114-0296 SFN 6901065 (OVER AUGLAIZE RIVER)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	357
512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	SQ YD	33
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	1655
516	01301	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	FT	57
519	11101	PATCHING CONCRETE STRUCTURES, AS PER PLAN	SQ FT	100
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	5

STRUCTURE NO. PUT-634-1027 SFN 6901956 (OVER AUGLAIZE RIVER)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	419
519	11101	PATCHING CONCRETE STRUCTURES, AS PER PLAN	SQ FT	100

STRUCTURE NO. VAN-30-1733 LT SFN 8103968 (OVER SPICE RUN)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	53
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	502
512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	SQ YD	26
519	11101	PATCHING CONCRETE STRUCTURES, AS PER PLAN	SQ FT	20
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	15

STRUCTURE NO. VAN-30-1733 RT SFN 8103976 (OVER SPICE RUN)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
509	10000	EPOXY COATED REINFORCING STEEL	LB	820
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	50
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	502
SPECIAL	519E11900	PATCHING CONCRETE STRUCTURE, MISC.: ABUTMENT BACKWALL	CU YD	8.83
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	10

STRUCTURE NO. VAN-30-1996 LT SFN 8104190 (OVER CR 173)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
509	10000	EPOXY COATED REINFORCING STEEL	LB	412
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	233
512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	SQ YD	201
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	623
SPECIAL	519E11900	PATCHING CONCRETE STRUCTURE, MISC.: ABUTMENT BACKWALL	CU YD	4.73
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	10

STRUCTURE NO. VAN-30-1996 RT SFN 8104204 (OVER CR 173)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
509	10000	EPOXY COATED REINFORCING STEEL	LB	412
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	231
512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	SQ YD	199
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	623
SPECIAL	519E11900	PATCHING CONCRETE STRUCTURE, MISC.: ABUTMENT BACKWALL	CU YD	4.73
SPECIAL	519E12500	PATCHING CONCRETE BRIDGE DECKS, TYPE A, B OR C	SQ YD	10

STRUCTURE NO. VAN-224-1202 SFN 8100454 (US 30 RAMP)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SQ YD	118
519	11101	PATCHING CONCRETE STRUCTURES, AS PER PLAN	SQ FT	267

STRUCTURE NO. WYA-103-1390 SFN 8802769 (OVER SANDUSKY RIVER)

01/NFP/BR

ITEM	EXT.	DESCRIPTION	UNIT	TOTAL
512	73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN	SQ YD	638
516	01301	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	FT	66

ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2" PRECOMPRESSED EXPANSION JOINT FILLER

THIS ITEM SHALL CONSIST OF SAW CUTTING AND REMOVAL OF CONCRETE ON DECK, THEN SANDBLASTING THE EXISTING STEEL ARMOR A WHITE METAL AND THEN BLOW THE JOINT OPENING WITH OIL-FREE COMPRESSED AIR TO REMOVE LAITANCE AND DEBRIS FROM THE SANDBLASTING OPERATION. PLACE ELASTOMERIC CONCRETE ON DECK TO COMPLETE THE DECK REPAIR.

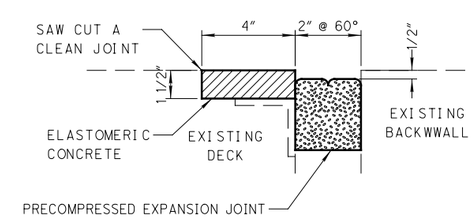
EXPANSION JOINT GAP VALUES LISTED ARE ANTICIPATED BASED ON AVAILABLE RECORD DATA. FIELD MEASURE THE ACTUAL GAP AT THE TEMPERATURE PRIOR TO THE MANUFACTURING OF THE JOINT COMPONENTS. IF THE MEASURED VALUES ARE REASONABLY CLOSE TO THE GIVEN VALUES, THE FILLER SIZE GIVEN IN THE PLANS MAY BE USED. OTHERWISE, ADJUST THE SIZE AS RECOMMENDED BY THE MANUFACTURE AND APPROVED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR MEASUREMENT AND ADJUSTMENT.

SURFACE PREPARATION:
BLAST CLEAN THE FACES TO WHICH THE SEAL MUST ADHERE SO THAT IT IS FREE OF FOREIGN MATERIAL SUCH AS DIRT, DUST, GREASE FORM RELEASE AGENTS, AND OTHER MATERIAL DETRIMENTAL TO THE ADHESION OF THE SEALANT ACCORDING TO THE MANUFACTURER SPECIFICATIONS. BLASTING ABRASIVE CONTAINING MORE THAN 1% FREE SILICA IS NOT ALLOWED. INSTALL JOINT AS PER THE MANUFACTURE'S SPECIFICATIONS.

MATERIALS:
USE PRECOMPRESSED EXPANSION JOINT FILLER SUCH AS THE EMSEAL BEJS SYSTEM OR AN APPROVED EQUAL, AS DIRECTED BY THE ENGINEER. EMSEAL BEJS SYSTEM CAN BE OBTAINED FROM:

EMSAL JOINT SYSTEMS, LTD.
25 BRIDLE LANE
WESTBOROUGH, MA 01581-2603
PHONE: (800)526-8365

PAYMENT FOR ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PREFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE FOOT CONTRACT PRICE FOR ITEM 516 - STRUCTURAL JOINT SEAL OR JOINT SEALER, MISC.: 2" PRECOMPRESSED EXPANSION JOINT FILLER, UNLESS SEPARATELY ITEMIZED IN THE PLANS.



DESIGN AGENCY
DISTRICT ONE
OFFICE OF PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
JRC	JRC		
CHECKED	REVISED	STRUCTURE FILE NUMBER	
EJS		Various	

STRUCTURE GENERAL SUMMARY

D01-BM-FY16
PID No. 94347

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