SR 193 SLM 0.42-0.60 SR 193 SLM 1.36-1.46 SR 289 SLM 0.00-0.40 SR 289 SLM 1.41-1.75 SR 289 SLM 1.41-1.75 SR 289 SLM 0.00-0.30 SR 289 SLM 1.41-1.75 SR 289 SLM 0.00-0.30 SR 289 SLM 1.41-1.75 SR 280 SLM 1.41-1.75 SR 280 SR 280 SLM 1.41-1.75 SR	5.06 Sollinoon
LOCATION MAP	
LATITUDE: 41°06′40″ LONGITUDE: 80°39′55″	
SCALE IN MILES	
FEDERAL ROUTES	5 (US 422) 5 (US 62) (SR 193) (SR 289)
UNDERGROUND UTILITIES	
Contact Two Working Days Before You Dig	
OHIO811, 8-1-1, or 1-800-362-2764 (Non-members must be called directly)	
PLAN PREPARED BY: ODOT - DISTRICT 4 2088 SOUTH ARLINGTON ROAD AKRON, OH 44306	SIC DA

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

# $\frac{MAH}{TRU-62} \\ \frac{VAR-19.36}{VAR} \\ \frac{36}{VAR} \\ \frac{36}$

CITY OF YOUNGSTOWN VILLAGE OF LOWELLVILLE POLAND TOWNSHIP MAHONING COUNTY

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PAVEMENT CALCULATIONS	15-19
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			51	ANDAR	D CONSTRUCTION DRAWINGS		UPPLEMEN PECIFICATI		-	ECIAL VISIONS
	BP-3.1	7/18/14	MT-104.10 1	0/16/15		80	0-2019 1/1	7/20	WPC	12/20/19
	BP-3.2	1/18/19	MT-105.10	7/19/13		82	21 4/2	0/12		
	BP-5.1	1/18/19	MT-110.10	7/19/13		83	12 10/1	9/18		
ENGINEERS SEAL:						87	5 1/1	8/19		
	DM-4.3	1/15/16	TC-41.20 I	0/18/13		92	21 4/20	0/12		
TE OF Officient	DM-4.4	1/15/16	TC-42.10 1	0/18/13		82		5/16		
ATE OF OHIGH			TC-42.20 I	0/18/13		8	97 1/1	5/16		
MATTHEW	MT-95.31	4/19/19	TC-52.10 I	0/18/13						
CHANEY	MT-95.32	4/19/19	TC-52.20 7	7/20/18						
另 E-78423 缶	MT-95.50	7/21/17	TC-65.10	1/17/14						
P CHANEY E-78423	MT-98.10	1/20/17		7/21/17						
THE STONES ENGLIST	MT-98.20			1/19/18						
A MAL	MT-98.30		TC-82.10	1/18/19						
Anter Harry	MT-99.20	4/19/19								
SIGNED Auto Charf	_ MT-101.90	7/21/17								
DATE: 11-29-191	_ MT-102.20	4/19/19								

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# PROJECT DESCRIPTION

RESURFACING OF MAH 62 FROM 19.36 TO 19.57, MAH US 422 FROM 3.90 TO 5.06, MAH SR 193 FROM 1.36 TO 1.46, SR 289 FROM 0.00 TO 0.40 AND 1.41 TO 1.75 AND 7.28 TO 9.93. MAH SR 289 REROUTE ONTO CR 554 (N FRUIT ST) FROM 0.00 TO 0.30. MAH SR 289D FROM 0.42 TO 0.60. INCLUDES MINOR BRIDGE WORK TO 8 STRUCTURES. NORFOLK SOUTHERN RAILROAD ON SR 289 AT 3.60, UNKNOWN ABANDONED RAILROAD ON SR 289 AT 0.40.

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RAILROAD

# EARTH DISTURBED AREAS

PROJECT EDA:	N/A (MAINTENANCE PROJECT)
ESTIMATED CONTRACTOR EDA:	N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA:	N/A (MAINTENANCE PROJECT)

# 2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

IAL IONS 2/20/19	арргоvед Да те <b>12/3/14</b>	Munat Jo DISTRICT OFFUTY DIRECTOR	MAH / TRU-62/ VAR-19.36 / VAR
	APPROVED DA TE	DIRECTOR, DEPARTMENT OF TRANSPORTATION	1 26

#### MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. ON 2 AND 3 LANE SECTIONS: A MINIMUM OF ONE TEN FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

FOUR LANE SECTIONS: A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.

6. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

8. A QUANTITY OF 20 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; AND W8-11 [UNEVEN LANES] PER OMUCTD 6F.45. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04. THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAIN-TENANCE OF TRAFFIC ON THIS PROJECT:

- PHASE I PLANED SURFACE
- 614, WORK ZONE CENTER LINE, CLASS I, 5.34 MILE 614, WORK ZONE STOP LINE, CLASS I, 381 FT 614, WORK ZONE LANE LINE, CLASS I, 6", 4.78 MILE 614, WORK ZONE MARKING SIGN, (ALL PHASES) 36 EACH
- PHASE II INTERMEDIATE COURSE 614, WORK ZONE CENTER LINE, CLASS I, 2.39 MILE 614, WORK ZONE STOP LINE, CLASS I, 347 FT 614, WORK ZONE LANE LINE, CLASS I, 6", 4.78 MILE
- PHASE III SURFACE COURSE

614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 5.34 MILE 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 381 FT 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT 4.78 MILE

TO BE USED AS DIRECTED BY THE ENGINEER 614, WORK ZONE EDGE LINE, CLASS III, 6" 642 PAINT 4.32 MILE

#### TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER. TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REP-RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS-ING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

#### ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

#### TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSSESSED A DISINCENTIVE IN THE AMOUNT OF \$1500 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

#### NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

	NOTIFICATIO	IN TIME TABLE				
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO				
ROAD & RAMP	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE				
CLOSURES	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE				
CLOSURES	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE				
	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE				
LANE CLOSURES & RESTRICTIONS	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE				
START OF						
CONSTRUCTION &	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION				
TRAFFIC PATTERNS	IN/A	14 CALENDAR DATS PRIOR TO IMPLEMENTATION				
CHANGES						

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

#### DROPOFFS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND SIDE STREET APPROACHES/DRIVEWAYS GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES AND DRIVEWAYS, PER THE NOTES ON SHEET 5, SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR DRIVEWAY SURFACE. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 13/2 MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/DRIVEWAY IS PAVED.

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# INTERIM START DATE (SR 289, SLM 7.28 - 9.93)

THE CONTRACTOR SHALL NOT BEGING ANY WORK ON SR 289 FROM SLM 7.28 - 9.93 UNTIL JULY 20, 2020. SHOULD THE CONTRACTOR FAIL TO MEET THE APPLICABLE REQUIREMENTS, A DISINCENTIVE IN THE AMOUNT OF \$5,000 SHALL BE ASSESSED PER DAY OF WORK PERFORMED OUTSIDE OF THESE REQUIREMENTS.

# TEMPORARY PAVEMENT WEDGES

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A SURFACE OF A DIFFERENT ELEVATION IN THE DIRECTION OF TRAVEL (JOINTS, MANHOLES, CATCH BASINS, VALVE BOXES, MONUMENT BOXES, ETC.). THE TAPER RATE OF THE TEMPORARY PAVEMENT WEDGES SHALL BE AS PER THE REQUIREMENTS IN THE CHART BELOW. TEMPORARY PAVEMENT WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID ITEM FOR ITEM FOR ITEM 614 - MAINTAINING TRAFFIC.

		DURA	4 <i>TION</i>
		7 DAYS OR LESS	MORE THAN 7 DAYS
	LESS THAN 45MPH	36 <b>:</b> 1	60 <b>:</b> 1
SPEED	45MPH OR GREATER	60 <b>:</b> 1	120:1

MAH/ TRU-62/ VAR-19.36/ VAR



| 6             | 7    | 8   | 13  | 14   | 15   
   
   | 16   | 17   
   
   
   | 18  | 19  | 01/NHS/P<br>V   | 02/S>2/P<br>V   
   | 03/NHS/P<br>V/YOUN  | 04/S>2/P<br>V/YOUN   | ITEM   | EXT  | TOTAL  
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   |   |   | 200   | 2,300   
   | 1,500   | 750  | 251  | 01000  | 4,750  
   | SY   | PARTIAL DEPTH PAVEMENT R  |
| <sup> </sup>  |      |     |   |  | 12,997   
   
   | 9,905  | 0.440  
   
   
   | 1.010   | 35,449  | 407   | 0.000   
   | 35,449  | 22,902   | 254  | 01000  | 58,351   
   | SY   | PAVEMENT PLANING, ASPHAL  |
| <sup> </sup>  |      |     |   |  | 1,948  
   
   | 1,968  | 3,418<br>944   
   
   
   | 1,016   | 5,295   | 467   | 3,968   
   | 5,296   | 3,914  | 407  | 20000  | 13,645<br>1 184  
   | GAL  | NON-TRACKING TACK COAT<br>PRIME COAT, AS PER PLAN   |
|               |      |     |   |  | 271  
   
   | 207  | 344  
   
   
   | 240   | 739   | 110   | 1,000   
   | 739   | 478  | 400  | 10001  | 1,104  
   | CY   | FINE GRADED POLYMER ASPI  |
|               |      |     |   |  |  
   
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   |  | 1,321  
   
   
   | 471   |   | 216   | ,   
   |   |  |  |  | ,  
   |  | ASPHALT CONCRETE SURFAC   |
|               |      |     |   |  |  
   
   |  | 260  
   
   
   |   |   |   | | |
   |   |  |  |  |  
   |  | COMPACTED AGGREGATE, AS   |
|               |      |     |   |  |  
   
   | 223  |  
   
   
   |   |   |   |   
   |   | 223  | 826  | 10041  | 223  
   | CY   | ASPHALT CONCRETE SURFAC   |
|               |      |     |   |  | 542  
   
   | 413  |  
   
   
   |   | 1,981   |   |   
   | 1,981   | 955  | 826  | 10500  | 2,936  
   | CY   | ASPHALT CONCRETE INTERM   |
| !             |      |     |   |  |  
   
   | 396  | 5 657  
   
   
   | 1 3/17  |   | 661   | 6 3/13  
   |   | 396  | 875  | 10000  | 7.400  
   | IB   | LONGITUDINAL JOINT ADHESIN  |
|               |      |     |   |  |  
   
   | 5,347  | 37,972   
   
   
   | ,   |   | 5,181   | 44,073  
   |   | 5,347  | 897  | 01010  | 54,601   
   | SY   | PAVEMENT PLANING, ASPHAI  |
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| 23            |      |     |   |  |  
   
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   | 5   | 8  | 638  | 10801  | 23   
   | FACH   | VALVE BOX ADJUSTED TO GR  |
|               |      |     |   |  |  
   
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   |   |  |  | 10001  |  
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| ]             |      |     | 176   |  |  
   
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   |   |   |   | 176   
   |   |  | 601  | 00100  | 176  
   | EACH   | RPM   |
| !             |      |     |   |  |  
   
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   | }   |   |   | | |
   |   |  |  |  |  
   |  | RPM<br>RAISED PAVEMENT MARKER   |
|               |      |     |   | 4.32   |  
   
   |  |  
   
   
   |   |   | 0.5   | 3.82  
   |   |  | 646  | 10010  | 4.32   
   | MILE   | EDGE LINE, 6"   |
|               |      |     |   | 4.78   |  
   
   |  |  
   
   
   |   |   | 0.16  | 0.26  
   | 2.32  | 2.04   | 646  | 10110  | 4.78   
   | MILE   | LANE LINE, 6"   |
| !             |      |     |   | 5.34   |  
   
   |  |  
   
   
   |   |   | 0.08  | 2.78  
   | 1.16  | 1.32   | 646  | 10200  | 5.34   
   | MILE   | CENTER LINE   |
|               |      |     |   | 315  |  
   
   |  |  
   
   
   |   |   |   | 315   
   |   |  | 646  | 10300  | 315  
   | FT   | CHANNELIZING LINE, 8"   |
|               |      |     |   | 1,228  |  
   
   |  |  
   
   
   |   |   |   | 375   
   | 400   | 453  | 646  | 10310  | 1,228  
   | FT   | CHANNELIZING LINE, 12"  |
|               |      |     |   | 381  |  
   
   |  |  
   
   
   |   |   |   | 59  
   | 312   | 10   | 646  | 10400  | 381  
   | FT   | STOP LINE   |
| []            |      |     |   | ,  |  
   
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   |   |  |  |  | 1,044  
   |  |   |
|               |      |     |   | 229  |  
   
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   |   |   |   | 145   
   | 84  |  | 646  | 10600  | 229  
   | FI   | TRANSVERSE/DIAGONAL LINE  |
|               |      |     |   | 18   |  
   
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   |   |   |   |   
   | 9   | 9  | 646  | 20300  | 18   
   | EACH   | LANE ARROW  |
|               |      |     |   | 2  |  
   
   |  |  
   
   
   |   |   |   | 2   
   |   |  | 646  | 20400  | 2  
   | EACH   | WORD ON PAVEMENT, 72"   |
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   |  | FOR MAH-289-0154 ESTIMATED  |
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   |  | FOR MAH-289-0857 ESTIMATED  |
|               |      |     |   |  |  
   
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   |  | FOR MAH-289D-0007 ESTIMATE  |
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   |  | FOR MAH-289D-0057 ESTIMATE<br>FOR MAH-422-0496 ESTIMATE   |
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   |  | FOR MAH-616-0588 ESTIMATED  |
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   |   |   |   | | |
   |   |  | 614  |  |  
   | HOUR   | LAW ENFORCEMENT OFFICE  |
| !             |      |     |   |  |  
   
   |  |  
   
   
   |   |   | 36  | | |
   | 20  |  |  |  |  
   |  | WORK ZONE MARKING SIGN<br>ASPHALT CONCRETE FOR MA   |
|               | 20   | 10  |   |  |  
   
   |  |  
   
   
   |   |   | 10  | | |
   | 20  |  |  |  |  
   |  | PORTABLE CHANGEABLE ME  |
|               | 9.56 |     |   |  |  
   
   |  |  
   
   
   |   |   | 0.32  | 0.52  
   | 4.64  | 4.08   | 614  | 20010  | 9.56   
   | MILE   | WORK ZONE LANE LINE, CLAS   |
|               | 4.70 |     |   |  |  
   
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   |  | WORK ZONE LANE LINE, CLAS<br>WORK ZONE CENTER LINE, CI  |
|               |      |     |   |  |  
   
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   |   |   |   | | |
   |   |  |  |  |  
   |  | WORK ZONE CENTER LINE, CI   |
|               | 4.32 |     |   |  |  
   
   |  |  
   
   
   |   |   | 0.5   | 3.82  
   |   |  | 614  | 22360  | 4.32   
   | MILE   | WORK ZONE EDGE LINE, CLA  |
|               | 728  |     |   |  |  
   
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   |   |   |   | 94  
   | 624   | 10   | 614  | 26000  | 728  
   | FT   | WORK ZONE STOP LINE, CLAS   |
| '             | 381  |     |   |  |  
   
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   |   |   |   | 59  
   | 312   | 10   | 614  | 26610  | 381  
   | FT   | WORK ZONE STOP LINE, CLAS   |
|               | 501  |     |   |  |  
   
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DESCRIPTION	SEE SHEET NO.	CALCULATED AJS CHECKED MAC
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PHALT CONCRETE, TYPE A, AS PER PLAN	6	
CE COURSE, TYPE 1, (448), AS PER PLAN	6	
CE COURSE, 12.5 MM, TYPE B (446), AS PER PLAN (PG70-22M	5	
AS PER PLAN	6	
CE COURSE, TYPE 1, (448), FIBER TYPE C, AS PER PLAN	5	
MEDIATE COURSE, TYPE 2, (448), FIBER TYPE C		
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ALT CONCRETE, CLASS A		
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CLASS III, 642 PAINT		9 <
ASS III, 6", 642 PAINT		<u>⊃</u>
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#### STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD DRAWING AND SUPPLEMENTAL SPECIFICATIONS:

SS 843 DATED 04/18/03

#### DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRAN-SPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

#### EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUC-TURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASURE-MENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXIST-ING 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 EXAM-INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE-PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

#### PROPOSED WORK:

MAH-289-0154 (OVER RR, CRAB CREEK, ANDREWS AVE) -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -REPAIR TRIPPING HAZARD WHERE APPROACH SIDEWALK MEETS SIDEWALK ON LEFT OF STRUCTURE -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN -REPLACE DAMAGED APPROACH GUARDRAIL AT REAR -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION

-NEW STRUCTURE IDENTIFICATION SIGNS

#### MAH-289-0857 (GRAYS RUN)

-PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN -REPAIR TRIPPING HAZARD WHERE APPROACH SIDEWALK MEETS SIDEWALK ON EITHER SIDE STRUCTURE -REPAIR SLOPE PROTECTION AT FORWARD RIGHT ABUTMENT -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION -NEW STRUCTURE IDENTIFICATION SIGNS

MAH-616-0588 (DRY RUN)

-SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN MAH-289D-0007 (HIMROD AVE OVER US62 & SR7)

- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE, INCLUDING RAILING, CURB, AND FLOOR. SEAL WITH EPOXY-URETHANE
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEALWITH EPOXY-URETHANE
- -CLEAN SCUPPERS AND VEGETATION GROWTH AT DECK EDGES -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- MAH-289D-0057 (OAK ST OVER US62 & SR7)
  - -CLEAN SCUPPERS AND VEGETATION GROWTH AT DECK EDGES -REPLACE THE TOPS OF BACKWALLS
  - -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEALWITH EPOXY-URETHANE
  - -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE
  - -REPAIR SLOPE PROTECTION AT REAR LEFT -REMOVE AND REPLACE ASPHALT OVERLAY ON DECK AND APPROACH SLABS
  - -REMOVE DEBRIS FROM SLIDING PLATE EXPANSION JOINT -REPLACE MISSING AND DAMAGED ALUMINUM RAIL AT BOTH SIDES
  - -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION INCLUDING ON VPF -NEW STRUCTURE IDENTIFICATION SIGNS
- MAH-422-0496 (OVER LINCOLN PARK)
- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN
- -REPAIR EXPANSION JOINT SEALS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE, INCLUDING RAILING, AND SEAL WITH EPOXY-URETHANE -REPAIR EROSION AT FORWARD AND REAR RIGHT -REPAIR SLOPE PROTECTION AT FORWARD AND REAR
- -REPLACE OLD AND DAMAGED GUARDRAIL AT ALL FOUR CORNERS OF STRUCTURE -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO
- REMOVE ALL VEGETATION
- MAH-422-0755 (DRY RUN)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN

#### CLEARING AND GRUBBING

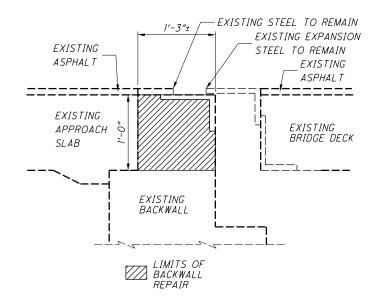
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID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

#### ITEM 511 - CONCRETE MISC.: BACKWALL REPAIR

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT BOTH ABUTMENT BACKWALLS OF STRUCTURE MAH-289D-0057 TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THE PREPARATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPAN-SION JOINT, AND PLACING CLASS OC I CONCRETE, SUBS-TRUCTURE.

TEMPORARY SUPPORTS OF THE EXPANSION JOINT WILL BE USED TO MAINTAIN THE PROPER ALIGNMENT AND GRADE OF THE JOINT DURING REMOVAL AND REPLACEMENT OF BACKWALL CONCRETE. THE COST OF THIS TEMPORARY SUPPORT WILL BE INCIDENTAL TO THIS ITEM.

PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER CU. YD. FOR ITEM 511 - CONCRETE MISC.: BACKWALL REPAIR WHICH WILL INCLUDE ALL MATERIALS AND LABOR INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE REQUIRED TO MAKE THIS WORK COMPLETE.



#### LINCOLN PARK

ACCESS TO ALL LINCOLN PARK FACILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. TEMPORARY CONSTRUCTION FENCING WILL BE INSTALLED ALONG THE PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT LINCOLN PARK AND THE PUBLIC. APPROPRIATE SIGNAGE WILL BE INSTALLED TO ALERT USERS OF LINCOLN PARK OF CONSTRUCTION ACTIVITIES, IF IN PROXIMITY TO RECREATIONAL FACILITIES OR FEATURES. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND THE CITY OF YOUNGSTOWN PARKS & RECREATION DEPARTMENT (DAWN TURNAGE. 330-742-8712) PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES. AT LEAST ONE (1) DAY PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM ODOT AND THE CITY OF YOUNGSTOWN PARKS AND RECREATION DEPARTMENT OF THE PROPOSED ACCESS POINT(S) TO PERFORM THE PROPOSED MAINTENANCE ACTIVITIES BENEATH THE STRUCTURE AND THE ACCESS POINT(S) SHALL BE AGREED UPON BEFORE ANY SUCH WORK CAN BE PERFORMED.

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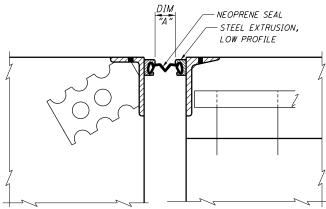
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# ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

THIS ITEM WILL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING SEALS FROM EDGE TO EDGE OF STRUCTURE MAH-422-0496 DECK. UPON REMOVAL OF THE SEAL, THE CONTRACTOR WILL ATTEMPT TO MATCH THE REPLACEMENT SEAL AS CLOSELY AS POSSIBLE WITH THE EXISTING SEAL SO AS TO PROVIDE A SNUG, WATERTIGHT SEAL. THE EXISTING SEAL WILL BE FIELD MEASURE PRIOR TO ORDERING MATERIAL.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 516, ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRU-SIONS, AS PER PLAN. THIS PRICE WILL INCLUDE THE REMOVAL OF THE EXISTING SEAL, LABOR, EOUIPMENT, MATERIAL, AND INCIDENTALS REOUIRED TO REPLACE THE SEAL.



DIMENSION

DIM	ENSION A
TEMPERATURE, °F	ATB-7-2755
30°	25%"
40°	2¾"
50°	21/8 "
60°	17/8 "
70°	15% "
80°	13%"
90°	11/8 "

# ITEM 518 - SCUPPER MISC.: CLEANOUT

THIS WORK WILL CONSIST OF REMOVING ALL DEBRIS FROM ON TOP AND INSIDE OF THE SCUPPERS. SCUPPER CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, SCUPPER MISC.: CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

# 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.



#### EROSION REPAIR

THE FOLLOWING ITEMS WILL BE USED TO REPAIR THE EROSION THAT HAS OCCURED AT THE REAR ABUTMENT OF STRUCTURE MAH-289-0154 AND AT THE FORWARD AND REAR OF STRUCTURE MAH-422-0496 AS DIRECTED BY THE PROJECT ENGINEER:

MAH-289-0154 ITEM 601, DUMPED ROCK FILL, TYPE B, 7 CY

#### MAH-422-0496

ITEM 203, BORROW, 15 CY ITEM 601, DUMPED ROCK FILL, TYPE B, 10 CY ITEM 601, CRUSHED AGGREGATE SLOPE PROTECTION, 20 CY

#### SIDEWALK CORRECTIONS

THE ITEMS LISTED FOR STRUCTURES MAH-289-0154 AND MAH-289-0857 SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR THE EXISTING CURB AND SIDEWALK AT THE APPROACHES OF THE STRUCTURE.

MAH-289-0154

ITEM 202, WALK REMOVED, 40 SF ITEM 202, CURB REMOVED, 10 FT ITEM 608, 6" CONCRETE WALK, 40 SF ITEM 609, CURB, TYPE 7, 10 FT

MAH-289-0857 ITEM 202, WALK REMOVED, 50 SF ITEM 202, CURB REMOVED, 10 FT ITEM 608, 6" CONCRETE WALK, 50 SF

ITEM 609, CURB, TYPE 7, 10 FT

#### SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURES MAH-289D-0007 AND MAH-289D-0057 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

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.

#### MAH-289D-0007

SPEC, STRUCTURES: CONCRETE SPALL REMOVAL, 50 SO YD 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 50 SO YD

#### MAH-289D-0057

SPEC, STRUCTURES: CONCRETE SPALL REMOVAL, 50 SO YD 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 50 SO YD

#### CONCRETE SLOPE PROTECTION REPAIR

THIS WORK WILL CONSIST OF REMOVING AND REPLACING A SLAB OF THE CONCRETE SLOPE PROTECTION UNDER STRUCTURE MAH-289D-0057 WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL AND ITEM 601, CONCRETE SLOPE PROTECTION.

PLACE THE LOW STRENGTH MORTAR BACKFILL TO FILL ALL EROSION UNDER THE OLD CONCRETE SLOPE PROTECTION AND THEN PLACE NEW CONCRETE SLOPE PROTECTION SLABS PER CMS 601.07 AS DIRECTED BY THE PROJECT ENGINEER.

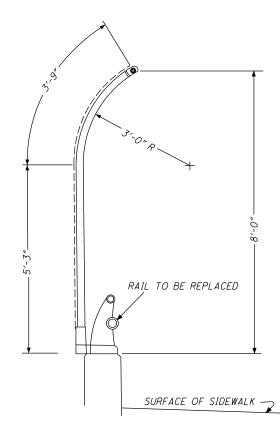
CONCRETE SLOPE PROTECTION REPLACEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601, CONCRETE SLOPE PROTECTION AND ITEM 613, LOW STRENGTH MORTAR BACKFILL. REMOVAL OF EXISTING CONCRETE SLOPE PROTECTION WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202, CONCRETE SLOPE PROTECTION REMOVED. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 202, CONCRETE SLOPE PROTECTION REMOVED, 63 SY ITEM 601, CONCRETE SLOPE PROTECTION, 63 SY ITEM 613, LOW STRENGTH MORTAR BACKFILL, 125 CY

#### SPECIAL - STRUCTURES: REPLACE ALUMINUM RAIL

THIS ITEM WILL CONSIST OF THE REPLACEMENT OF THE MISSING AND DAMAGED RAILING OF THE VANDEL PROTECTION FENCE ON STRUCTURE MAH-289D-0057. THE ACTUAL SECTIONS NEEDED WILL BE FIELD MEASURED PRIOR TO ORDERING MATERIAL.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR SPECIAL - STRUCTURES: REPLACE ALUMINUM RAIL. THIS PRICE WILL INCLUDE THE LABOR, EQUIPMENT, MATERIAL, RAILING AND INCIDENTALS REQUIRED TO REPLACE THE RAILING.



#### CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE MAH-289-0154 (SFN:5004942) THE EXISTING SIGN SHOWS 0155. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0154.

STRUCTURE MAH-289D-0057 (SFN:5009510) THE EXISTING SIGN SHOWS 0053. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0057.

#### STRUCTURE/CULVERT IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A OUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

MAH-289-0154 (TWO APPROACHES) MAH-289-0857 (TWO APPROACHES) MAH-289D-0057 (TWO APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

- ITEM 630 SIGN, FLAT SHEET, 730.20, I SQ FT
- ITEM 630 GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, I EACH
- ITEM 630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, I EACH

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#### GUARDRAIL REPLACEMENT

THE FOLLOWING ITEMS WILL BE USED TO REPLACE EXISTING PIECES OF GUARDRAIL THAT ARE DAMAGED, ROTTED, OR OUTDATED AT STRUCTURES MAH-289-0154 AND MAH-422-0496 AS DIRECTED BY THE PROJECT ENGINEER:

#### MAH-289-0154

202, GUARDRAIL REMOVED	50 FT
606, GUARDRAIL, TYPE MGS	50 FT
MAH-422-0496	
202, GUARDRAIL REMOVED	125 FT
202, BRIDGE TERMINAL ASSEMBLY REMOVED,	4 EA
606, GUARDRAIL, TYPE MGS	125 FT
606, BRIDGE TERMINAL ASSEMBLY, TYPE 2,	4 EA

#### STREAM AVOIDANCE - MAH-289-1.54, MAH-616-5.88, MAH-422-4.96 AND MAH-422-7.55

UNDER NO CIRCUMSTANCES SHALL ANY EQUIPMENT (LIFT, BACKHOE, EARTH MOVING EQUIPMENT, ETC.) AND/OR MATERIALS ENTER THE STREAM(S) AT MAH-289-1.54, MAH-616-5.88, MAH-422-4.96 AND MAH-422-7.55. NO FILL MATERIAL (INCLUDING TEMPORARY FILLS) SHALL BE PLACED BELOW THE IDENTIFIED ORDINARY HIGH WATER MARK (OHWM) OF THE STREAM(S). THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ALL CONSTRUCTION MATERIALS, WASTE MATERIALS, WATER CHEMICALS OR OTHER SUBSTANCES USED TO CONSTRUCT THE PROJECT FROM ENTERING THE STREAM(S).

### TREE CUTTING/REMOVAL PROHIBITED

THE MAH-289-1.54, MAH-289-8.57, MAH-289D-0.07, MAH-289D-0.57 AND MAH-422-4.96 BRIDGES ARE LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. TREE TRIMMING IS PERMITTED AT THESE LOCATIONS AS DIRECTED BY THE PROJECT ENGINEER, HOWEVER, NO TREES SHALL BE REMOVED AT THIS LOCATION. A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

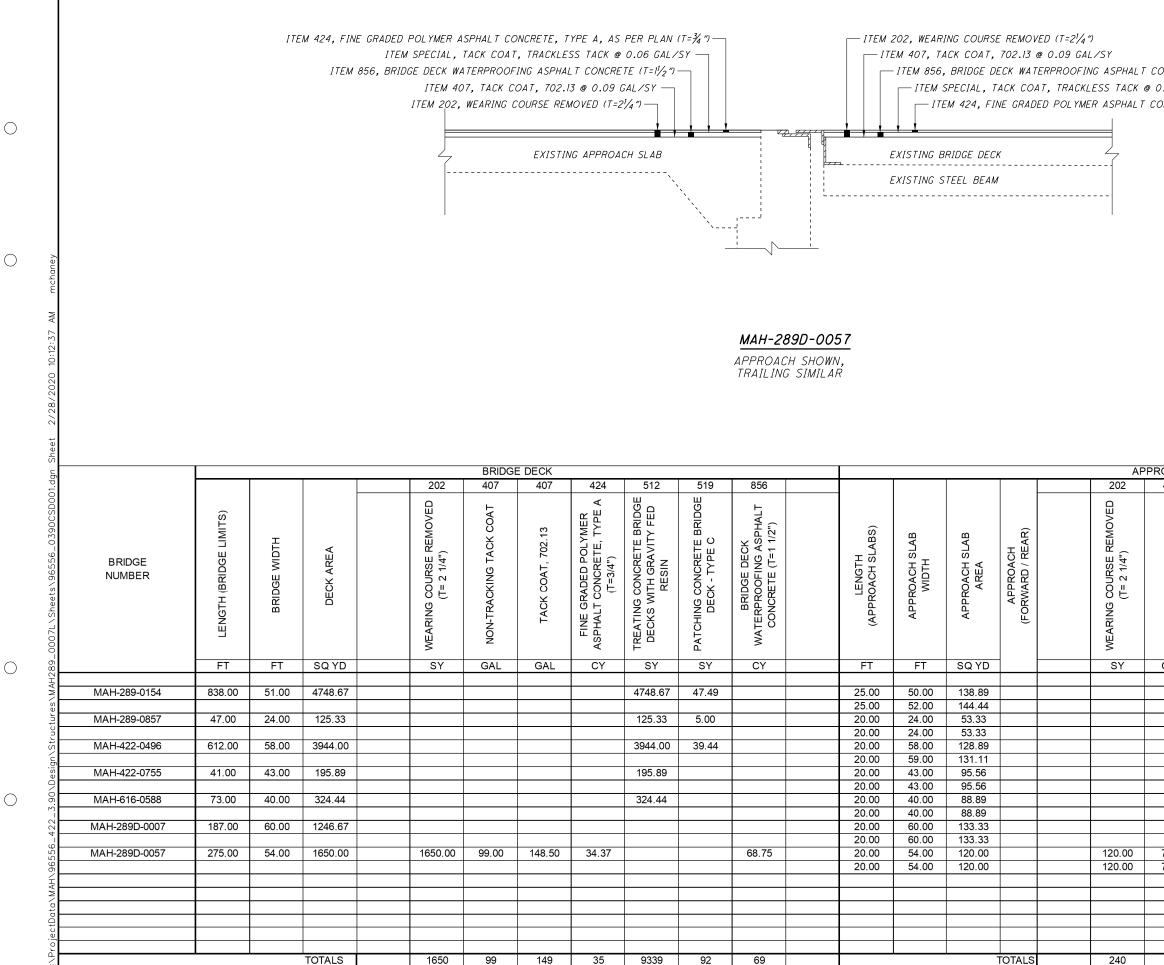


								EST	TIMATED	QUANTITIES		
06/S>2/BR	MAH-289-0857 5005086 06/S>2/BR	MAH-289D-0007 5009472 05/NHS/BR	MAH-289D-0057 5009510 05/NHS/BR	MAH-422-0496 5005493 05/NHS/BR		MAH-616-0588 5006015 05/NHS/BR	ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET	
s	LS	LS	LS	LS			201	11000		CLEARING AND GRUBBING		
0	50						202	30000	SF	WALK REMOVED		
0	10						202	32000	FT	CURB REMOVED		
			63				202	32800	SY			
			1890				202	23500	SY	WEARING COURSE REMOVED	<b> </b>	
0				125			202	38000	FT	GUARDRAIL REMOVED	21	
				4			202	47000	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	21	
				16				40000	CV	ROPPOW		
				15	+		203	40000	CY	BORROW		
			171				407	13900	GAL	TACK COAT, 702.13		
			114				407	20000	GAL	NON-TRACKING TACK COAT		
			40				424	10001	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A, AS PER PLAN		
			16				511	71100	CY	CONCRETE, MISC.:BACKWALL REPAIR	<b> </b>	
00		150	200	200			512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
32	232			4204	387	503	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN		
				128			516	01301	FT	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	20	
			128				516	14600	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: CLEANOUT OF EXPANSION JOINTS	<b> </b>	
		6	4	17			518	12500	EACH	SCUPPER, MISC.: CLEANOUT		
00		100	150	200			519	11101		PATCHING CONCRETE STRUCTURE, AS PER PLAN	20	
1	6	3		42			519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C		
		50	50				SPECIAL	53000800	SY	STRUCTURES: CONCRETE SPALL REMOVAL		
			72				SPECIAL	53001300	FT	STRUCTURES: REPLACE ALUMINUM RAIL	21	
			63				601	21000	SY			
7				10			601	26000	CY	DUMPED ROCK FILL, TYPE B	<b> </b>	
				20			601	20010	CY	CRUSHED AGGREGATE SLOPE PROTECTION		
	10						601	32100	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER		
0				125		[	606	15050	FT		21	
				4			606	35100	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	21	
0	50						608	13000	SF	6" CONCRETE WALK		
0	10						609	28000	FT	CURB, TYPE 7		
			125				613	41200	CY	LOW STRENGTH MORTAR BACKFILL		
5	15		15				630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST		
2	2		2				630	80100	SF	SIGN, FLAT SHEET, 730.20	<b> </b>	
2	2		2				630	84900		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
2	2		2				630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		
			79				856	10000	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE		
					+						<b> </b>	
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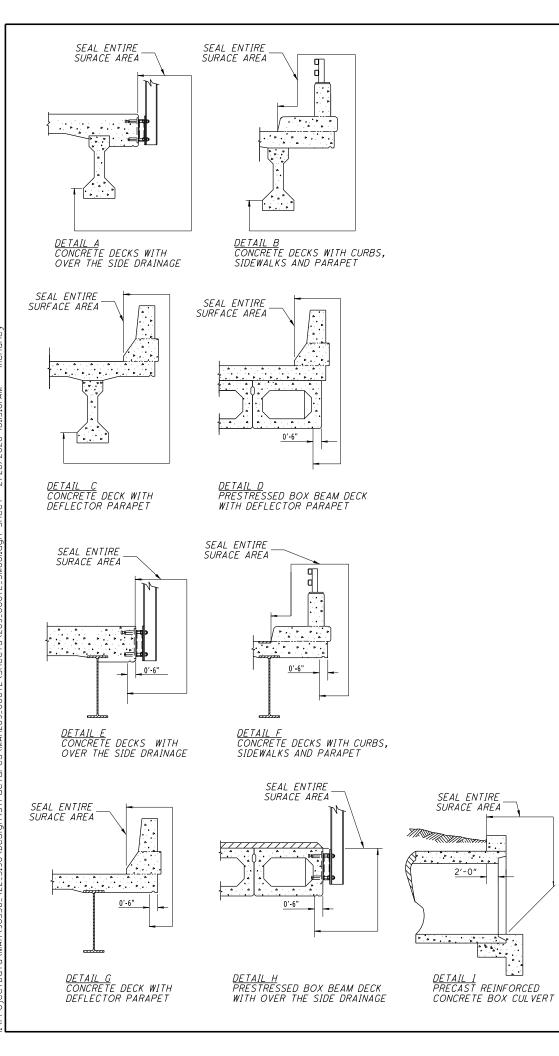
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0.06 GAL		AS PER PL	AN (T=¾ ")			DESIGN AGENCY ODOT DISTRICT 4 PLANNING & ENCINEERING
						DESIGNED DRAWN REVIEWED DATE AJS AJS MAC 09/20/18 CHECKED REVISED STRUCTURE FILE NUMBER MAC CMR
ROACH S 407	SLABS 407	424	512	519	856	 LS 0007, MAH-289D-0057, MAH-616-0588
NON-TRACKING TACK COAT	TACK COAT, 702.13	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A (T=3/4")	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	PATCHING CONCRETE BRIDGE DECK - TYPE C	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE (T=1 1/2")	STRUCTURE DETAILS MAH-289-0154, MAH-289-0857, MAH-289D-0007, MAH-2299D-0057, MAH-422-0496, MAH-422-0755, MAH-616-0588
GAL	GAL	CY	SY 138.89 144.44 53.33 53.33 128.89	SY 1.39 1.44 0.53 0.53 1.29 1.31	CY	MAH-285
7.20 7.20	10.80	2.50 2.50	128.89 131.11 95.56 95.56 88.89 88.89	1.33 1.33 1.33	5.00 5.00	MAH/ TRU-62/ VAR-19.36/ VAR PID No. 96556
15	22	5	1019	10	10	$\begin{array}{c} 4 \\ \hline 23 \\ \hline 26 \end{array}$



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		PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES					IN AGENCY
RIDGE NUMBER	STRUCTURE TYPE			ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)	ESIC
MAH-289-0154	PRESTRESSED CONCRETE BEAM SIMPLE SPAN	SEAL ALL PATCHED AREAS OF SUBSTRUCTURE PER DETAIL D	PER CMS				100	100	DATE 11/20/19
MAH-289D-0007	STEEL BEAM CONTINUOUS	SEAL ALL PATCHED AREAS OF SUBSTRUCTURE PER DETAIL F	PER CMS				150	150	reviewed date MAC 11/20/19
MAH-289D-0057	STEEL BEAM CONTINUOUS	SEAL ALL PATCHED AREAS OF SUBSTRUCTURE PER DETAIL F	PER CMS				200	200	drawn AJS
MAH-422-0496	STEEL GIRDER DECK	SEAL ALL PATCHED AREAS OF SUBSTRUCTURE PER DETAIL F AND DETAIL G	PER CMS				200	200	DESIGNED
									CONCRETE SEALING SHEET
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