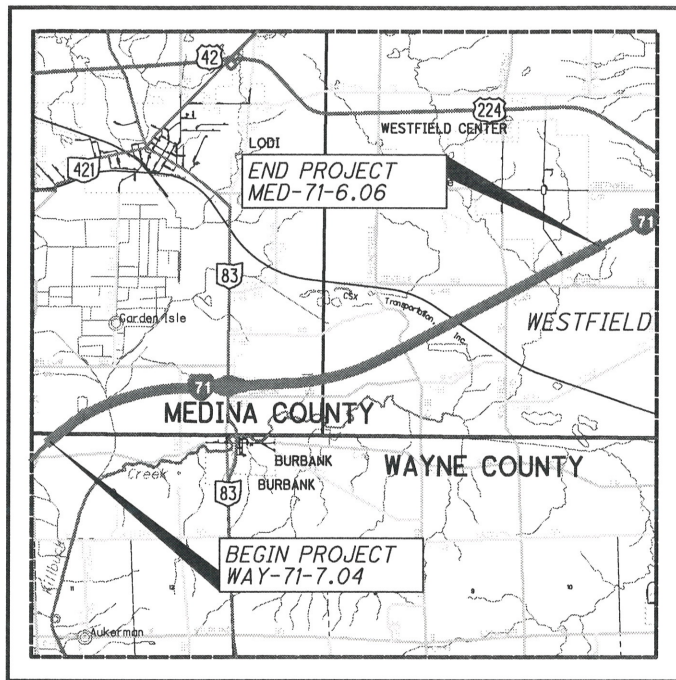


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LOCATION MAP

LATITUDE: N 40° 59' 52" LONGITUDE: W 81° 59' 04"

SCALE IN MILES



PORTION TO BE IMPROVED -----
INTERSTATE & DIVIDED HIGHWAY -----
UNDIVIDED STATE & FEDERAL ROUTES -----
OTHER ROADS -----

DESIGN DESIGNATION

SEE SHEET 2

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection SERVICE
(Non-members must be called directly)
Call Before You Dig
1-800-362-2764

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

ENGINEERS SEAL

SIGNED:
DATE: 2-29-2016

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7/18/14	TC-41.20	10/18/13			800	4/15/16
		TC-42.20	10/18/13			808	1/29/16
DM-4.3	1/15/16	TC-52.10	10/18/13			821	4/20/12
DM-4.4	1/15/16	TC-52.20	7/18/14			832	1/17/14
		TC-65.10	1/17/14			897	1/16/15
MT-95.30	7/18/14	TC-65.11	7/18/14				
MT-95.50	10/16/15	TC-71.10	1/17/14				
MT-98.10	7/18/14	TC-72.20	7/18/14				
MT-98.11	7/18/14						
MT-98.20	7/18/14						
MT-98.22	7/18/14						
MT-98.28	7/18/14						
MT-99.20	7/19/13						
MT-101.90	7/17/15						
MT-105.10	7/19/13						

PLANS PREPARED BY:

ODOT DISTRICT THREE
PLANNING & ENGINEERING DEPT.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
WAY-71-7.04 PM
VILLAGE OF WESTFIELD CENTER
CONGRESS TOWNSHIP
HARRISVILLE TOWNSHIP
WESTFIELD TOWNSHIP
MEDINA COUNTY
WAYNE COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC/ DESIGN DESIGNATION	2
SCHEMATIC PLANS	3
SR 83 RAMP DETAIL	4
TYPICAL SECTIONS AND PAVEMENT DATA	5-6
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GENERAL SUMMARY	11
PAVEMENT & SHOULDER DATA	12
PAVEMENT MARKING/RPM SUB-SUMMARY	13

PROJECT DESCRIPTION

THIS PROJECT WILL INCLUDE PAVEMENT REPAIRS, CRACK SEALING AND MICRO-SURFACING, AN APPLICATION OF MASTIC SURFACE SEAL ON THE SHOULDERS AND THE PLACEMENT OF PAVEMENT MARKINGS.

PROJECT EARTH DISTURBED AREA: N/A ACRES (maintenance project)

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES (maintenance project)

NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES (maintenance project)

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.

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 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.

APPROVED
DATE 2/17/2016 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

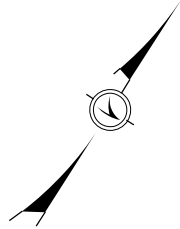
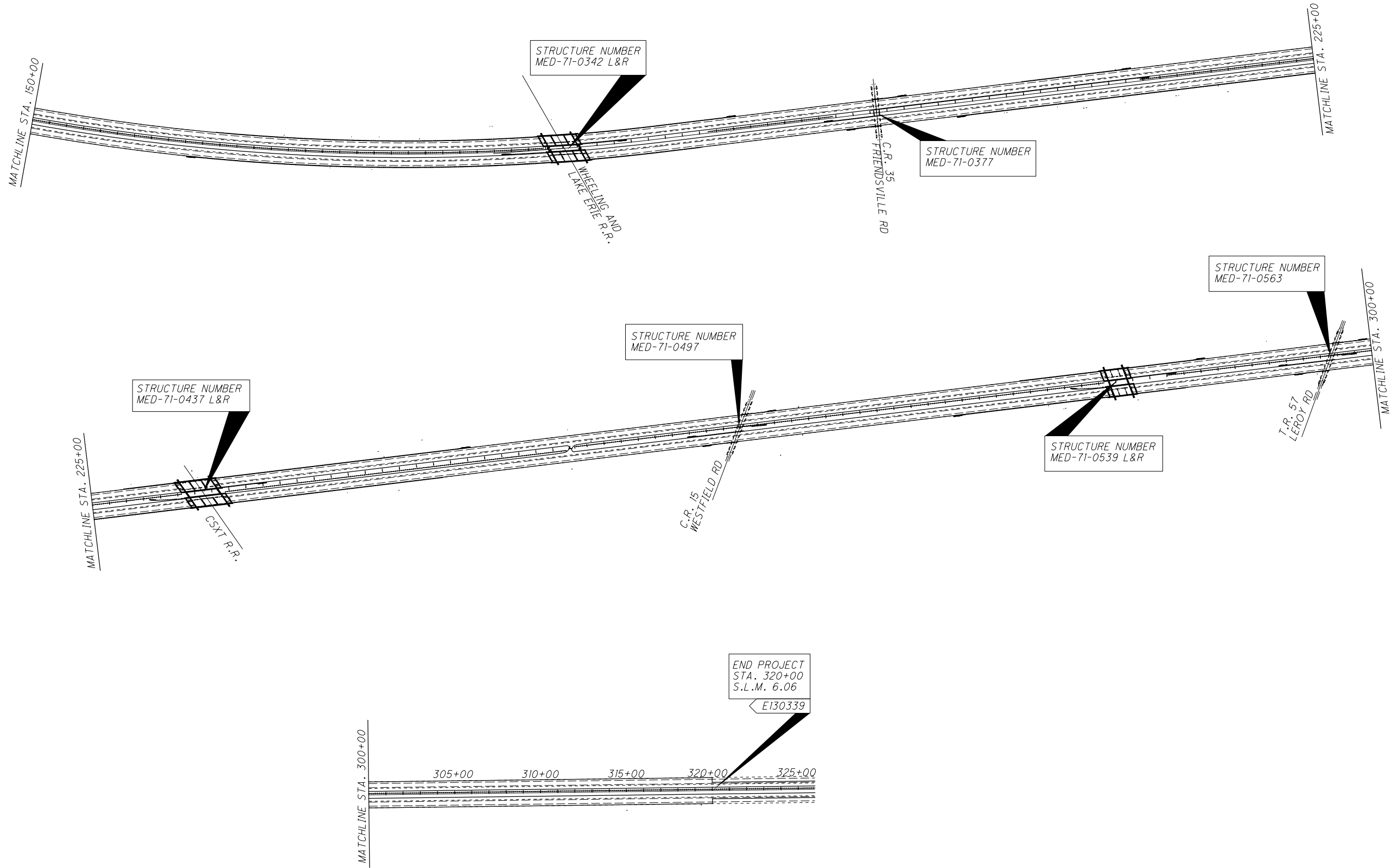


DESIGN DESIGNATION (MED-71-1.88 TO 6.06)

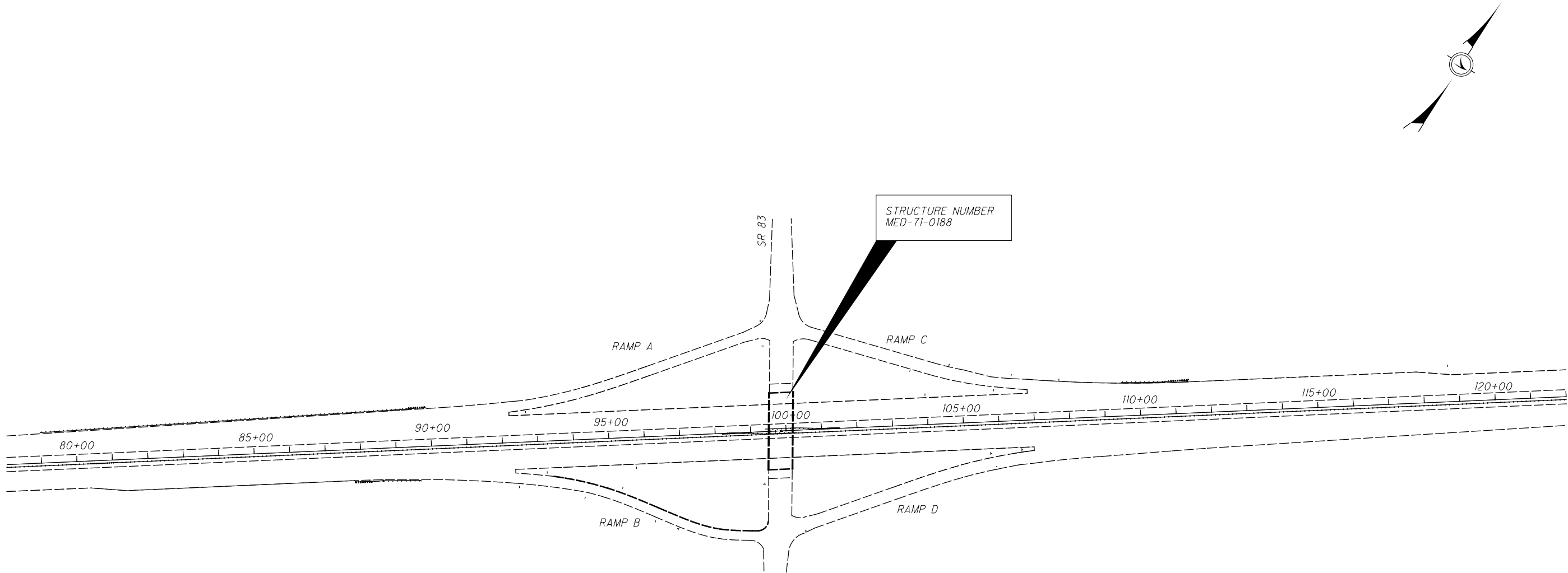
CURRENT ADT (2017)	44,000
DESIGN YEAR ADT (2025)	46,000
DESIGN HOURLY VOLUME (2025)	4,600
DIRECTIONAL DISTRIBUTION	0.50
TRUCKS (24 HOUR B&C)	0.23
DESIGN SPEED	70 MPH
LEGAL SPEED	70 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL INTERSTATE	
NHS PROJECT	YES

DESIGN EXCEPTIONS

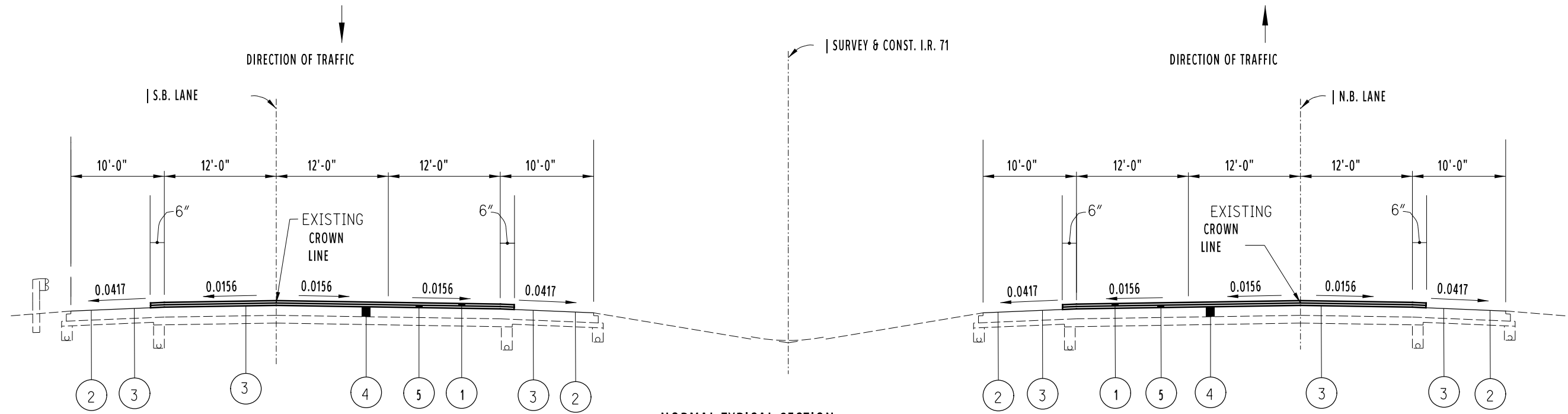
NONE



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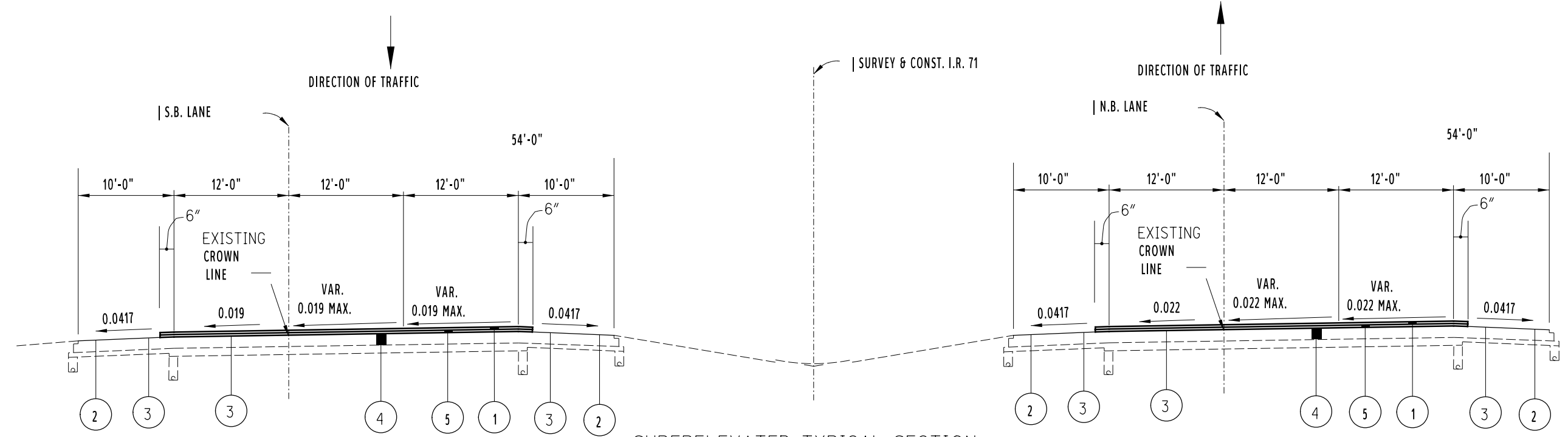


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NORMAL TYPICAL SECTION

STA. 74+50.00 TO STA. 131+25.00 = 5675.00 LIN. FT.
STA. 188+75.00 TO STA. 320+00.00 = 13125.00 LIN. FT.

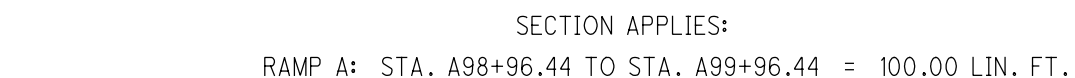


SUPERELEVATED TYPICAL SECTION

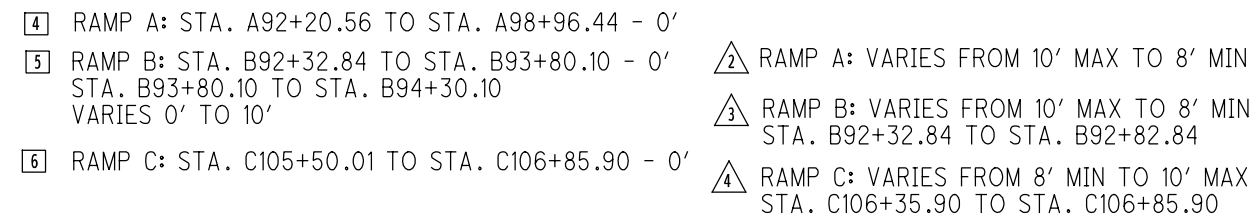
STA. 371+50.00 TO STA. 374+60.25 = 310.25 LIN. FT.
STA. 0+00.00 TO STA. 74+50.00 = 7450.00 LIN. FT.
STA. 131+25.00 TO STA. 188+75.00 = 5750.00 LIN. FT.

LEGEND

- ① MICROSURFACE, SURFACE COURSE (16 LBS/SY)
- ② MASTIC SURFACE TREATMENT
- ③ CRACK SEALING
- ④ EXISTING ASPHALT CONCRETE
- ⑤ MICROSURFACE, LEVELING COURSE (14 LBS/SY)



- ① MICROSURFACE, SURFACE COURSE (16 LBS/SY)
- ② MASTIC SURFACE TREATMENT
- ③ CRACK SEALING
- ④ EXISTING ASPHALT CONCRETE
- ⑤ MICROSURFACE, LEVELING COURSE (14 LBS/SY)



RAMP A: STA. A92+20.56 TO STA. A98+96.44 = 675.88 LIN. FT.
RAMP B: STA. B92+32.84 TO STA. B94+30.10 = 197.26 LIN. FT.
RAMP C: STA. C105+50.01 TO STA. C106+85.90 = 135.89 LIN. FT.



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UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

ARMSTRONG UTILITIES 1141 LAFAYETTE RD. MEDINA, OH 44256 330-722-3141	ASPIRE ENERGY 300 TRACY BRIDGE RD ORRVILLE OH, 44667 330-682-7726
COLUMBIA GAS OF OHIO 7080 FRY ROAD MIDDLEBURG HEIGHTS, OHIO 44130 440-891-2428	COLUMBIA PIPELINE GROUP 589 NORTH STATE ROAD MEDINA, OHIO 44256 330-721-4163
FRONTIER COMMUNICATIONS 6223 NORWALK ROAD MEDINA, OHIO 44256 330-722-9586	OHIO EDISON COMPANY 1910 WEST MARKET STREET, BLDG #1 AKRON, OHIO 44313 330-384-4954
LORAIN-MEDINA RURAL ELECTRIC P.O. BOX 158 WELLINGTON, OHIO 44090 800-222-5673	OHIO DEPT. OF TRANSPORTATION 906 CLARK AVENUE ASHLAND, OHIO 44805 800-276-4188
MCI 120 RAVINE STREET AKRON, OHIO 44303 (330) 253-8269	VILLAGE OF LODI 108 AINSWORTH STREET, P.O. BOX 95 LODI, OHIO 44254 330-948-2040
CITY OF MEDINA 132 NORTH ELMWOOD STREET MEDINA, OHIO 44256 330-722-9020	

THERE ARE NO KNOWN UNDERGROUND UTILITIES ON THIS PROJECT. 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.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4305 OR EMAIL AT D03.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4318 OR EMAIL AT LOUIS.TUMBLIN@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

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.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

INTERIM START DATE

CONSTRUCTION SHALL NOT BEGIN BEFORE JULY 25, 2016.

INTERIM COMPLETION DATE

DUE TO THE STRINGENT AMBIENT TEMPERATURE REQUIREMENTS OF ITEM 421, ALL WORK INVOLVING ITEM 421 SHALL BE COMPLETED BEFORE AN INTERIM COMPLETION DATE OF SEPTEMBER 29, 2016 WITH ALL REMAINING ITEMS FINISHED BEFORE A FINAL COMPLETION DATE OF OCTOBER 31, 2016. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF \$1500.00 PER DAY.

ITEM SPECIAL - AIR SPEED ZONE MARKING

EXCEPT AS NOTED, THIS ITEM IS TO MEET CMS 646. THE SPEED MEASUREMENT MARKINGS ARE TO BE WHITE AND 24 INCHES WIDE (MEASURED IN THE DIRECTION OF TRAVEL) AND FOUR (4) FEET IN LENGTH.

PLACE THE MARKINGS AT 0.25 MILE INTERVALS OVER A ONE (1) MILE LENGTH OF ROADWAY ENTIRELY ON THE PAVED SHOULDERS. THE ZONES ARE TO START AT THE FOLLOWING LOCATIONS:

MED 71 4.03-5.03 NB

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A STATE OF OHIO REGISTERED SURVEYOR. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT 3 TRAFFIC ENGINEER AND ONE COPY FOR THE DISTRICT CONSTRUCTION ENGINEER.

MEASUREMENT AND PAYMENT: THE FIVE (5) MARKINGS PLACED ON EACH OF THE TWO SHOULDERS IN EACH 1 MILE OF ROADWAY PER EACH DIRECTION OF TRAVEL EQUAL ONE ZONE. ONE ZONE WILL BE MEASURED AS 1 EACH. PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND SURVEYING FOR ACCEPTED WORK IS TO BE INCLUDED PER EACH IN ITEM SPECIAL - AIR SPEED ZONE MARKING.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

THESE ITEMS OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING ASPHALT PAVEMENT OR PAVED BERM.

PAVEMENT REPAIR SHALL BE PERFORMED BEFORE PLACEMENT OF THE MICROSURFACE COURSE. THE DEPTH OF REMOVAL FOR THE LANE PATCHING SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH AN AVERAGE DEPTH OF 1.75" AND AN AVERAGE WIDTH OF 6 FT TO 12 FT FOR ESTIMATING PURPOSES. THE LANE PATCHING SHALL HAVE WIDTHS FROM 6 FT TO 12 FT. THE DEPTH OF REMOVAL FOR THE EDGE LINE AND LANE LINE PATCHING SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH AN AVERAGE DEPTH OF 2.00" AND AN AVERAGE WIDTH OF 2 FT FOR ESTIMATING PURPOSES.

REPLACEMENT MATERIAL SHALL BE ITEM 301, ITEM 448 TYPE 2, OR ITEM 442 19MM MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE, PG64-22 CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 448 TYPE 2 OR ITEM 442 19MM CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 1.5" AND 5" WITH A MAXIMUM PAVEMENT LIFT OF 3". THE CONTRACTOR HAS THE OPTION OF USING EITHER ITEM 301, ITEM 448 TYPE 2, OR ITEM 442 19MM MATERIAL WHEN THE PAVEMENT REPAIR IS BETWEEN 3" AND 5" DEEP. ITEM 448 TYPE 2 OR ITEM 442 19MM MATERIAL SHALL BE PG64-22 FOR MEDIUM MIX DESIGN PAVEMENTS AND PG64-28 FOR HEAVY MIX DESIGN PAVEMENTS.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. FOR PAYMENT PURPOSES ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR IS TO BE A MAXIMUM OF 4" DEEP AND ITEM 253 PAVEMENT REPAIR IS FOR DEPTHS GREATER THAN 4". PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR OR ITEM 253 - PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR 921 CY

ITEM 421 - MICROSURFACING, SURFACE COURSE, AS PER PLAN

ALL REQUIREMENTS OF ITEM 421 APPLY. IN ADDITION, SUPPLY A BLEND OF A MINIMUM OF 50% IGNEOUS DIABASE TRAP ROCK AND A MAXIMUM OF 50% LIMESTONE AGGREGATE FROM APPROVED SOURCES FOR USE AS AGGREGATE IN ITEM 421. DO NOT USE OTHER AGGREGATES.

MICROSURFACING SHALL BE IN ACCORDANCE WITH ITEM 421 WITH THE FOLLOWING CHANGE: TRUCK MOUNTED MACHINES ARE NOT PERMITTED ON THIS PROJECT.

OMIT ITEM 421 ON STRUCTURES WITH CONCRETE WEARING SURFACE.

THE CONTRACTOR IS RESPONSIBLE FOR COVERING ANY CASTINGS SO THE MICROSURFACING WILL NOT COVER THE CASTINGS (MONUMENT BOXES, MANHOLES, ETC.)

ITEM 421 - MICROSURFACING, LEVELING COURSE, AS PER PLAN

ALL REQUIREMENTS OF ITEM 421 APPLY.

MICROSURFACING SHALL BE IN ACCORDANCE WITH ITEM 421 WITH THE FOLLOWING CHANGE: TRUCK MOUNTED MACHINES ARE NOT PERMITTED ON THIS PROJECT.

OMIT ITEM 421 ON STRUCTURES WITH CONCRETE WEARING SURFACE.

THE CONTRACTOR IS RESPONSIBLE FOR COVERING ANY CASTINGS SO THE MICROSURFACING WILL NOT COVER THE CASTINGS (MONUMENT BOXES, MANHOLES, ETC.)

ITEM 423 - CRACK SEALING, TYPE II OR TYPE III

THE CONTRACTOR SHALL SEAL ALL VISIBLE JOINTS AND CRACKS ACCORDING TO ITEM 423 PRIOR TO MICROSURFACING.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER SQUARE YARD.

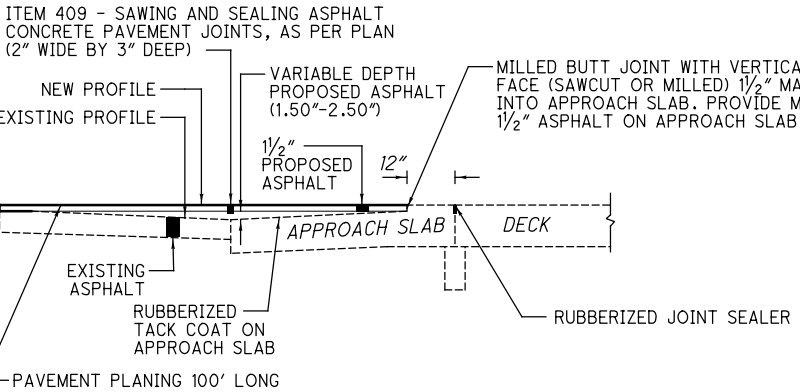
PLACEMENT OF WORK ZONE PAVEMENT MARKINGS

THE CONTRACTOR SHALL PLACE EDGE LINES AND LANE LINES AT THE END OF EACH WORK SHIFT WHEN EXISTING LINES HAVE BEEN OBLITERATED.

PROFILE CORRECTION AT STRUCTURES

THE CONTRACTOR MUST PROFILE THE PAVEMENT IN EACH LANE PER THE "SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES" NOTE ON THIS PAGE, AND SUBMIT A PROFILE CORRECTION PLAN (70 MPH) TO THE ENGINEER FOR APPROVAL PRIOR TO CONDUCTING THE PROFILE CORRECTION WORK.

THE CONTRACTOR SHALL CORRECT THE PAVEMENT PROFILE BY CONSTRUCTING A SMOOTH TRANSITIONING PAVEMENT (MIN 1 1/2" THICK) FOR A DISTANCE OF 100 LF BEGINNING AT THE APPROACH SLAB (12" FROM BRIDGE DECK).



ITEM SPECIAL - MASTIC SURFACE SEAL

1.0 DESCRIPTION. THIS WORK SHALL CONSIST OF MIXING CATIONIC ASPHALT EMULSION, AGGREGATE, WATER, AND OTHER ADDITIVES AS NEEDED AND APPLYING THE MIXTURE ON THE PAVED SHOULDER PAVEMENT AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

2.0 MATERIAL REQUIREMENTS

2.1 ASPHALT EMULSION. BITUMINOUS MATERIAL SHALL BE AN ASPHALT EMULSION, GRADE CSS-1H, IN ACCORDANCE WITH THE FOLLOWING TABLE. THE BITUMINOUS MATERIAL SHALL SHOW NO SEPARATION AFTER MIXING. THE EMULSION SHALL BE SAMPLED IN ACCORDANCE WITH AASHTO T 40.

CSS-1H	Min.	Max.
Viscosity, Saybolt Furol at 25° C, seconds	10	90
Particle charge test	Positive+	
Sieve test, %	--	0.50#
Residue, %	57	--
Test on Residue from Distillation	Min.	Max.
Penetration, 25° C, 100 g, 5 s	30	150

*THE STORAGE STABILITY TEST MAY BE WAIVED PROVIDED THE ASPHALT EMULSION STORAGE TANK AT THE MIXING SITE HAS ADEQUATE PROVISIONS FOR CIRCULATING THE ENTIRE CONTENTS OF THE TANK, AND PROVIDED SATISFACTORY FIELD RESULTS ARE OBTAINED.
+IF THE PARTICLE CHARGE TEST IS INCONCLUSIVE, MATERIAL HAVING A MAXIMUM PH VALUE OF 6.7 WILL BE ACCEPTABLE.
*THE SIEVE TEST MAY BE WAIVED IF MATERIAL APPLIES WITHOUT CLOGGING NOZZLES AND SATISFACTORY FIELD RESULTS ARE OBTAINED.

2.2 AGGREGATE

2.2.1 THE COMPOSITE AGGREGATE/MINERAL FILLER BLEND SHALL BE FREE OF CEMENTED OR CONGLOMERATED MATERIAL AND SHALL NOT HAVE ANY DETRIMENTAL MATERIAL. NOTE: HIGH MINERAL FILLER MIXTURES MAY REQUIRE SEPARATE TESTS TO BE RUN ON THE AGGREGATE/MINERAL FILLER COMPONENTS AND GRADATION VERIFICATION ACCOMPLISHED THE STATED BLEND PERCENTAGES.

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ITEM SPECIAL – MASTIC SURFACE SEAL (CONTINUED)

Sieve	Percent Passing
No. 8 (2.36 mm)	100
No. 16 (1.18 mm)	95-100
No. 30 (600 mm)	85-100
No. 50 (300 mm)	40-70
No. 100 (150 mm)	30-60
No. 200 (75 mm)	25-65

2.2.2 AGGREGATE FOR SOURCES SHALL BE IN ACCORDANCE WITH THE FOLLOWING AGGREGATE REQUIREMENTS.

Property	Percent Maximum Limit
Absorption, AASHTO T 85, percent, max	n/a
Micro-Deval, AASHTO TP 58, percent, max	20

2.3 WATER.
WATER SHALL BE POTABLE AND FREE OF HARMFUL SOLUBLE SALTS.

2.4 ADDITIVES.
ANY OTHER MATERIAL ADDED TO THE MIXTURE OR TO ANY OF THE COMPONENT MATERIALS TO PROVIDE THE REQUIRED PROPERTIES SHALL BE SUPPLIED BY THE MANUFACTURER.

3.0 JOB MIX FORMULA.
THE MANUFACTURER SHALL DEVELOP THE JOB MIX FORMULA AND SHALL PRESENT CERTIFIED TEST RESULTS FOR THE ENGINEER'S APPROVAL PRIOR TO USE. MIX ACCEPTANCE WILL BE SUBJECT TO SATISFACTORY FIELD PERFORMANCE. THE MIXTURE SHALL CONTAIN A MINIMUM OF 30% AGGREGATE BY WEIGHT OF MIXTURE FOLLOWING IGNITION OVEN AND SHALL MEET THE FOLLOWING REQUIREMENTS.

MIX DESIGN REQUIREMENTS:

	Min.	Max.	Test Method
Wet-Track Abrasion Loss (3 day) Soak, g/m2	--	80	TB 100 (ISSA) Modified
Asphalt Content by Ignition Method, percent	30	--	AASHTO T-308-08*

*THIS METHOD IS MODIFIED TO ACCOUNT FOR A HIGH ASPHALT FINE AGGREGATE MIXTURE.

4.0 EQUIPMENT

4.1 MIXING EQUIPMENT.
THE MIXTURE SHALL BE MIXED THRU A CENTRAL MIXING PLANT. AGGREGATE, ASPHALT EMULSION, WATER AND ADDITIVES SHALL BE PROPORTIONED BY VOLUME OR WEIGHT (MASS) UTILIZING THE MIX DESIGN APPROVED BY THE ENGINEER. THE TANK SHALL BE EQUIPPED WITH A FULL SWEEP AGITATOR CAPABLE OF PRODUCING A HOMOGENEOUS MASTIC SURFACE TREATMENT MIX.

4.1.1 INDIVIDUAL VOLUME OR WEIGHT (MASS) CONTROLS FOR PROPORTIONING EACH ITEM TO BE ADDED TO THE MIX SHALL BE PROVIDED. EACH MATERIAL CONTROL DEVICE SHALL BE CALIBRATED AND PROPERLY MARKED. EACH DEVICE SHALL BE ACCESSIBLE FOR READY CALIBRATION AND PLACED SUCH THAT THE MAY DETERMINE THE AMOUNT OF EACH MATERIAL USED AT THE TIME.

4.3 MOBILE DISTRIBUTION UNIT (MDU).
THE MDU SHALL BE FULLY SELF-CONTAINED AND SHALL HAVE A STORAGE TANK WITH FULL SWEEP AGITATION, HYDRAULIC SYSTEM, OPERATOR CONTROLS, PUMPING SYSTEM, MATERIAL FILTERS AND SPRAY BAR CAPABLE OF APPLYING A FULL LANE WIDTH. THE EQUIPMENT SHALL HAVE SUFFICIENT AVAILABLE POWER TO OPERATE THE FULL SPRAY SYSTEM AND THE AGITATION SYSTEM AT THE SAME TIME.

4.2.1 AS MATERIAL IS DELIVERED TO THE JOB SITE AND APPLIED, THE PROPORTION OF THE MIXTURE SHALL BE MAINTAINED AS IT WAS MANUFACTURED PER THE MIX DESIGN.

4.2.2 THE STORAGE TANK SHALL HAVE AN INTERNAL FULL SWEEP MIXING SYSTEM. THE STORAGE TANK SHALL HAVE SUFFICIENT MIXING CAPABILITY TO ASSURE PROPER SUSPENSION OF FINE AGGREGATES IN THE SURFACING MIX.

4.2.3 THE MDU SHALL BE EQUIPPED WITH A SYSTEM ALLOWING THE MEASUREMENT AND CALCULATION OF APPLICATION RATES.

4.2.4 THE PUMPS SHALL PROVIDE OPERATION RESULTING IN HIGH VOLUME AND LOW POTENTIAL FOR CAVITATION. THE PUMPS SHALL BE ENGINEERED TO ALLOW THE SYSTEM TO HANDLE FINE AGGREGATE FILLED MATERIALS.

4.2.5 THE APPLICATOR SPRAY BAR SHALL BE SIZED WITH VOLUMETRIC CAPACITY TO DAMPEN ANY POSSIBLE PRESSURE RIPPLES BY PROVIDING EVEN PRESSURE TO ALL SPRAY TIPS. ATTACHMENTS SUCH AS A SPRAY SHIELD AND WIND DEFLECTOR SHALL BE AVAILABLE.

5.0 CONSTRUCTION REQUIREMENTS

5.1 SURFACE PREPARATION.
THE SURFACE SHALL BE THOROUGHLY CLEANED OF ALL VEGETATION, LOOSE MATERIAL, DIRT, MUD AND OTHER OBJECTIONABLE MATERIAL IMMEDIATELY PRIOR RO APPLICATION OF THE MIXTURE.

5.2 WEATHER LIMITATIONS.
MIXTURE SHALL NOT BE PLACED WHEN EITHER THE AIR TEMPERATURE OR THE TEMPERATURE OF THE SURFACE ON WHICH THE MIXTURE IS TO BE PLACED IS BELOW 60°F. WHEN IT IS RAINING, WHEN THERE IS A CHANCE OF TEMPERATURES BELOW 32° FAHRENHEIT (0° CELSIUS) WITHIN 24 HOURS AFTER PLACEMENT, OR AS DIRECTED BY THE ENGINEER.

5.3 DILUTION.
CONTRACTOR SHALL NOT DILUTE MIXTURE IN THE FIELD WITH WATER OR ANY OTHER ADDITIVE EXCEPT AS APPROVED BY THE MANUFACTURER.

ITEM SPECIAL – MASTIC SURFACE SEAL (CONTINUED)

5.4 PLACEMENT.
THE EXACT RATE WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE APPLICATION SHALL BE 0.10 GAL/SY PER PASS. PLACEMENT OF THE MIX SHALL BE PERFORMED IN TWO PASSES WITH A COVERAGE OF 0.20 GAL/SY.

5.4.1 THE MIXTURE SHALL BE UNIFORM AND HOMOGENEOUS AFTER APPLYING ON THE EXISTING PAVED SHOULDER AND SHALL NOT SHOW SEPARATION OF THE EMULSION AND AGGREGATE AFTER SETTING.

5.4.2 CONTRACTOR SHALL PROVIDE A MAT ENSURING TOTAL COVERAGE AND ESPECIALLY FREE OF VOIDS AND PIT HOLES.

5.4.3 AFTER APPLICATION, THE PAVED SHOULDER SHALL REMAIN CLOSED UNTIL THE SURFACE IS TACK-FREE AND CAPABLE OF BEING OPEN TO TRAFFIC WITHOUT TRACKING.

5.5 METHOD OF MEASUREMENT.
MEASUREMENT OF MASTIC SURFACE TREATMENT WILL BE MADE TO THE NEAREST GALLON (GAL), COMPLETE IN PLACE, AND ACCEPTED BY THE ENGINEER.

5.6 BASIS OF PAYMENT.
THE ACCEPTED QUANTITY OF MASTIC SURFACE TREATMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE.

ITEM 202 – REMOVAL MISC.: JOINT SEAL

THIS ITEM SHALL BE USED TO REMOVE ANY JOINT SEAL BETWEEN THE APPROACH SLAB AND THE DECK OR BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN

ANY CORRECTIVE WORK REQUIRED FOR SURFACE SMOOTHNESS OF THE BRIDGE DECK WILL BE INCLUDED UNDER ITEM 257.

ITEM 897 – PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A

TAPER THE PLANING AT BUTT JOINT LOCATIONS AT STRUCTURES AND INTERSECTIONS AS SHOWN ON THE PAVEMENT AND SHOULDER DATA SHEET. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS AT ALL TIMES.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 897 – PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A.

ITEM 897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS B

ANY CORRECTIVE WORK REQUIRED FOR SURFACE SMOOTHNESS OF THE APPROACH SLABS AND APPROACH PAVEMENT WILL BE INCLUDED UNDER ITEM 897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS B.

ITEM 409 – SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, AS PER PLAN

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN AND CONSISTS OF SAW CUTTING AND SEALING THE FINISHED SURFACE OF THE ASPHALT CONCRETE PAVEMENT.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS, NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ABOVE ITEM.

EXISTING ODOT PROVAL REPORTS

EXISTING PROVAL REPORTS PERFORMED BY ODOT FOR STRUCTURES MED-71-0031 R&L ARE AVAILABLE AS REFERENCE FILES.

COORDINATION OF WORK BETWEEN CONTRACTORS

THE CONTRACTOR SHOULD BE AWARE THAT THERE MAY BE OTHER WORK BEING PERFORMED BY A SEPARATE CONTRACT. MED-71-9.21 PM IS A SMOOTHSEAL PROJECT AND IS SCHEDULED TO BEGIN WORK IN THE 2016 CONSTRUCTION SEASON. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

CONDUCT THE FOLLOWING WORK UPON COMPLETION OF THE PROFILE CORRECTION AT STRUCTURES WORK FOR STRUCTURES MED-71-0031 R&L.

1.0 DESCRIPTION: THE SURFACE SMOOTHNESS REQUIREMENTS OF C&MS 451.13 ARE MODIFIED AS FOLLOWS FOR BRIDGE ENCOUNTERS DEFINED AS 25 FEET (7.6 M) OF ENTRY PAVEMENT, ENTRY APPROACH SLAB, BRIDGE DECK, EXIT APPROACH SLAB AND 25 FEET (7.6 M) OF EXIT PAVEMENT INCLUDING ALL JOINTS AND PAVEMENT TRANSITIONS WITHIN THIS LENGTH OF ROADWAY.

2.0 MATERIALS AND EQUIPMENT: PROVIDE SMOOTHNESS MEASURING EQUIPMENT CONFORMING TO SUPPLEMENT 1058. FURNISH THE DEPARTMENT'S APPROVAL LETTER OF THE PROFILER AND THE OPERATOR TO THE ENGINEER PRIOR TO COMMENCING WORK. THE ENGINEER WILL VERIFY THE SMOOTHNESS MEASURING EQUIPMENT CONFORMS TO SUPPLEMENT 1058. THE ENGINEER WILL VERIFY THE PROFILE OPERATOR'S CERTIFICATION AGAINST THE OPERATOR LIST POSTED ON THE OFFICE OF TECHNICAL SERVICES WEBPAGE. FURNISH EQUIPMENT MEETING THE REQUIREMENTS OF C&MS 257.02 FOR PERFORMING CORRECTIVE DIAMOND GRINDING. THE ENGINEER WILL COMPLETE THE SMOOTHNESS PROFILER VERIFICATION REPORT IN SUPPLEMENT 1058.

3.0 SMOOTHNESS MEASUREMENT: COLLECT SURFACE SMOOTHNESS MEASUREMENTS FOR BOTH WHEELPATHS IN EACH PROPOSED TRAVEL LANE DURING ONE CONTINUOUS PASS. THE WHEELPATHS ARE LOCATED PARALLEL TO THE CENTERLINE OR BASELINE OF THE ROADWAY OR RAMP AND APPROXIMATELY 3.0 FEET (1.0 M) INSIDE ALL LANE EDGES, MEASURED TRANSVERSELY. START THE PROFILE MEASUREMENT APPROXIMATELY 250 FEET (76 M) BEFORE THE APPROACH SLAB/PAVEMENT INTERFACE AT THE ENTRY END AND CONTINUE TO APPROXIMATELY 250 FEET (76 M) AFTER THE APPROACH SLAB/PAVEMENT INTERFACE AT THE EXIT END. ENSURE THE PROFILER WILL MEET THE SURFACE SMOOTHNESS REQUIREMENTS PER 451.13 FOR THE BRIDGE ENCOUNTER.

NOTIFY THE ENGINEER A MINIMUM OF 24 HOURS PRIOR TO SURFACE SMOOTHNESS MEASUREMENTS. DO NOT PERFORM ANY MEASUREMENTS UNTIL ALL FINAL WEARING COURSES ARE IN PLACE WITHIN THE BRIDGE ENCOUNTER LANES BEING MEASURED AND ALL CONCRETE SURFACES HAVE REACHED SPECIFIED CURING AND LOADING REQUIREMENTS. REMOVE ALL DIRT AND DEBRIS FROM THE SURFACE OF THE TRAVEL LANES PRIOR TO PERFORMING THE SURFACE SMOOTHNESS MEASUREMENTS. PROVIDE TEMPORARY PAVEMENT MARKINGS FOR ALL TRAVEL LANES THAT ARE OF SUFFICIENT SIZE TO BE VISIBLE DURING SURFACE SMOOTHNESS MEASUREMENTS. ENSURE THE PATH OF THE PROFILER IS PARALLEL TO THE LANE EDGES AT ALL TIMES DURING DATA COLLECTION.

DEVELOP AN INTERNATIONAL ROUGHNESS INDEX (IRI) ACCORDING TO ASTM E 1926 FOR THE BRIDGE ENCOUNTER USING A CONTINUOUS 25 FOOT (7.6 M) BASE LENGTH ANALYSIS FOR EACH WHEELPATH AND CALCULATE THE MEAN IRI (MRI) FOR EACH TRAVEL LANE. THE MRI IS THE AVERAGE OF THE IRI VALUES FOR THE RIGHT AND LEFT WHEELPATHS IN EACH TRAVEL LANE. SUBMIT TWO COPIES OF THE SUMMARY REPORT FROM PROVAL CONFORMING TO SUPPLEMENT 1112 AND TWO ELECTRONIC COPIES OF ALL BRIDGE ENCOUNTER PROFILES IN PROVAL COMPATIBLE FORMAT TO THE ENGINEER OF WHICH ONE COPY OF THE SUMMARY REPORT AND ONE ELECTRONIC COPY OF THE PROFILES WILL BE SUBMITTED TO THE OFFICE OF TECHNICAL SERVICES.

PROVIDE NECESSARY TRAFFIC CONTROL AND SURVEY STATIONING FOR ALL SURFACE SMOOTHNESS MEASUREMENTS.

4.0 MANDATORY CORRECTIVE WORK: FOR BRIDGE ENCOUNTERS EXCEEDING 265 FEET (80 M) IN LENGTH, CORRECTIVE WORK IS REQUIRED FOR EACH TRAVEL LANE WITH AN MRI ABOVE 130 INCHES PER MILE (2.08 M/KM). PERFORM CORRECTIVE ACTION TO REDUCE THE MRI FOR EACH CORRECTED LANE TO 100 INCHES PER MILE (1.58 M/KM) OR LESS. THE MRI THRESHOLD DOES NOT APPLY TO BRIDGE ENCOUNTERS LESS THAN 265 FEET (80 M) IN LENGTH.

CORRECTIVE WORK IS REQUIRED WHERE THE IRI IN ANY 25 FOOT (7.6 M) SEGMENT OF THE BRIDGE ENCOUNTER EXCEEDS 250 INCHES PER MILE (3.94 M/KM), EXCEPT IN SEGMENTS THAT INCLUDE A STEEL ARMORED EXPANSION JOINT SYSTEM, WHERE THE LIMIT WOULD BE 350 INCHES PER MILE (5.52 M/KM). PERFORM CORRECTIVE ACTION TO REDUCE THE IRI FOR EACH CORRECTED LANE TO 250 INCHES PER MILE (3.16 M/KM) OR LESS, EXCEPT IN SEGMENTS THAT INCLUDE A STEEL ARMORED EXPANSION JOINT SYSTEM, REDUCE THE IRI FOR EACH CORRECTED LANE TO 350 INCHES PER MILE (4.74 M/KM), OR LESS. DO NOT PERFORM CORRECTIVE DIAMOND GRINDING WITHIN 1.5 FEET (0.45 M) OF A STEEL ARMORED EXPANSION JOINT SYSTEM INSTALLED PRIOR TO THE CORRECTIVE WORK. DO NOT EXCEED 3⁄8" INCH (9.5 MM) ON THE BRIDGE DECK AND 1⁄2" INCH (13 MM) ON THE APPROACH SLAB OF MATERIAL REMOVED BY CORRECTIVE DIAMOND GRINDING WITHOUT APPROVAL OF THE ENGINEER.

IF CORRECTIVE WORK IS REQUIRED, DEVELOP A CORRECTIVE WORK PLAN. AT LEAST 7 DAYS BEFORE BEGINNING CORRECTIVE WORK, SUBMIT ONE COPY OF THE FOLLOWING INFORMATION TO THE ENGINEER: (1) CORRECTIVE WORK PLAN; (2) ALL IRI AND MRI ANALYSES; AND (3) ALL COLLECTED ROAD PROFILES IN PROVAL COMPATIBLE FORMAT AND ONE COPY OF THE INFORMATION WILL BE SENT TO THE OFFICE OF TECHNICAL SERVICES; ATTN.: INFRASTRUCTURE MANAGEMENT SECTION, 1980 W. BROAD ST., COLUMBUS, OH 43223. DO NOT BEGIN CORRECTIVE WORK UNTIL RECEIVING THE ENGINEER'S ACCEPTANCE OF THE CORRECTIVE WORK PLAN. UPON COMPLETION OF THE CORRECTIVE WORK, RE-MEASURE SURFACE SMOOTHNESS ACCORDING TO THESE SPECIFICATIONS. FEATHER AREAS ADJACENT TO GROUND AREAS TO PROVIDE A SMOOTH SURFACE. RE-GROOVE DIAMOND GROUND SURFACES TO MATCH THE EXISTING TRANSVERSE GROOVE PATTERN IF THE EXISTING GROOVES ARE LESS THAN 0.08 INCHES (2 MM) DEEP. IF ANY RE-GROOVING IS REQUIRED, SAW GROOVES APPROXIMATELY 0.15 INCHES (4 MM) DEEP AND 0.10 INCHES (3 MM) WIDE. ANY RE-GROOVING WILL BE INCLUDED WITH ITEM 257.

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ITEM 614 – WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS).
2. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703- 235-0528.
3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-614-599-7915.
4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTS’S CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS.

THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.
2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.
3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.
4. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.
5. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEO’S WHILE THEY ARE ON THE PROJECT.
6. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEO’S AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.
7. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.
8. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.
9. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:
 - A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).
 - B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.
 - C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.
 - D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.
 - E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.
 - F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.

10. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 9 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL DATED 10/15/06 OR CURRENT REVISION.

11. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

12. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL NOT PAY THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR’S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTOR’S NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614 – WORKSITE TRAFFIC SUPERVISOR 3 MNTH

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHALL BE DELINEATED ON A PERMANENT BASIS BY AFFIXING CONSPICUITY TAPE CONFORMING TO CMS 614.03, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS WILL BE DETERMINED BY THE ENGINEER PRIOR TO BEGINNING WORK ON THIS PROJECT. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN __ HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PREPROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR’S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE CONTRACTOR SHALL ONLY BE PAID FOR PCMS UNITS WHEN THEY ARE IN OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE ENGINEER.

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 4 SIGN-MONTH

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS AS DIRECTED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (LEO’S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO’S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEO’S SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST’S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES AND PROVIDE 72 HOURS ADVANCE NOTICE AS REQUIRED BY THE HIGHWAY PATROL LISTED BELOW:

STATE HIGHWAY PATROL
3149 FRANTZ ROAD
MEDINA, OHIO 44256
330-725-4921

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 200 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO’S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

ITEM 614 – REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614 – REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 10 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614 – REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614 – REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 25 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

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ITEM 614 – MAINTAINING TRAFFIC
(LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL 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 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF \$50.00 PER MINUTE.

MAINTENANCE OF TRAFFIC SCHEME

THE CONTRACTOR SHALL SCHEDULE THEIR WORK AND METHODS IN ORDER TO MEET THE INTENT OF THE PLANS. THE PAVEMENT SURFACES TO BE USED BY THE TRAVELING PUBLIC SHALL BE ABLE TO DRAIN FREELY. ALL COSTS TO MAINTAIN THE ROADWAY AS PER THE CONSTRUCTION AND MATERIALS SPECIFICATIONS AND THE PLANS SHALL BE INCLUDED IN ITEM 614 LUMP SUM MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

BUTT JOINTS

BUTT JOINTS SHALL NOT BE CUT AND LEFT OPEN TO TRAFFIC. THEY SHALL BE FILLED IN WITH A TEMPORARY ASPHALT CONCRETE WEDGE USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

CONSTRUCTION “BUMP” (W8-1-36) AND “ADVISORY SPEED” (W13-1-24) SIGNS SHALL BE ERECTED AND MAINTAINED DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. THESE SIGNS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614 – MAINTAINING TRAFFIC: GENERAL

ONE 11’ LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, PLAN DETAILS, STANDARD DRAWINGS, AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 – MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED ON THIS PLAN.

THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:
THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

NIGHT WORK IS PERMITTED.

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PAVEMENT THROUGHOUT THE PROJECT UNDER ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC DURING THE PERIOD FROM THE START OF WORK TO THE COMPLETION OF ALL WORK.

ITEM 614 – MAINTAINING TRAFFIC

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHEN THEY ARE NOT APPLICABLE, WITH THE APPROVAL OF THE ENGINEER.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OMTCD, AND SUCH FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ALL MAINTENANCE OF TRAFFIC SIGNS ARE PAID UNDER ITEM 614 – MAINTAINING TRAFFIC.

ITEM 614 – ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

TEMPORARY WEDGES AT END OF RAMPS, PAVEMENT LAYER ENDS, APPROACH SLABS OR BRIDGE DECKS ARE TO BE CONSTRUCTED AS PER STANDARD DRAWING BP-3.1.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC.

ITEM 614 – ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 25 CY

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT UNIT PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

LANE CLOSURE DISINCENTIVE

A LANE CLOSURE IS DEFINED AS ANY RESTRICTION OF A LANE OF TRAFFIC INCLUDING, BUT IS NOT LIMITED TO, SET-UP AND TEARDOWN OF TRAFFIC CONTROL ZONES. THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE IN THE AMOUNT OF \$50.00 PER MINUTE THAT TWO LANES IN ONE DIRECTION ARE CLOSED TO TRAFFIC OUTSIDE THE TIMES PERMITTED IN THE “WORKING HOURS RESTRICTION” NOTE.

WORK OPERATIONS

IN ADDITION TO THE REQUIREMENTS OF SECTION 614 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY:

THE CONTRACTOR’S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAVEL WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR’S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM.

THE CONTRACTOR SHALL ARRANGE CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO THE CLOSED LANES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

WORKING HOURS RESTRICTION

IR-71 IS A RESTRICTED LANE CLOSURE ROUTE DUE TO HIGH TRAFFIC VOLUMES.

THERE WILL BE NO TWO-LANE CLOSURES ALLOWED, WITH EXCEPTION TO MONDAY NIGHT THROUGH THURSDAY NIGHT. ALL LANE CLOSURES ON IR-71 RESTRICTING TRAFFIC FROM 3 LANES TO 1 LANE SHALL BE INSTALLED, INCLUDING ZONE SETUP AND TEAR DOWNS, ONLY MONDAY THROUGH THURSDAY NIGHTS BETWEEN THE HOURS OF 10PM AND 6AM. ANY HOLIDAY RESTRICTIONS THAT AFFECT MONDAY-THURSDAY NIGHT LANE CLOSURES STILL APPLY.

SINGLE LANE CLOSURES SHALL BE PERMITTED AS LISTED ON THE ODOT WEBSITE AT: <http://plcm.dot.state.oh.us>.
IF A LARGE BACK-UP OCCURS THE CONTRACTOR WILL BE REQUIRED TO OPEN THE ROAD TO ALL LANES AS SOON AS FEASIBLY POSSIBLE PER THE PROJECT ENGINEERS REQUEST.

RAMP WORK SHALL BE DONE ONLY AT NIGHTTIME FROM 10 PM TO 6 AM. RAMP CLOSURES ARE NOT PERMITTED.

MAINTENANCE OF TRAFFIC FOR MARKING PAVEMENT REPAIRS

A MINIMUM OF 24 HOURS PRIOR TO PERFORMING PAVEMENT REPAIRS, THE CONTRACTOR SHALL PROVIDE LANE CLOSURES, PER THE MAINTENANCE OF TRAFFIC NOTES IN THESE PLANS, FOR THE ENGINEER TO IDENTIFY THE AREAS IN NEED OF REPAIR.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT UNIT PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

614 – WORK ZONE SPEED LIMIT SIGN

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF =55 MPH, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ. THE PRIMARY SIGNING STRATEGY USES DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES. THE SECONDARY STRATEGY USES TEMPORARY FLATSHEET SPEED LIMIT SIGNS (R2-1) FOR WHEN THERE ARE NO DSL SIGN ASSEMBLIES ON THE APPROVED LIST, OR DSL SIGN ASSEMBLIES ARE NOT AVAILABLE.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, SUPPLEMENTAL SPECIFICATION (SS) 808, AND TRAFFIC SCD MT-104.10. WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (=55 MPH) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT UNIT PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

GENERAL SUMMARY

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COUNTY	ROUTE	LOG POINT TO LOG POINT		DIRECTION	LENGTH		WIDTH	MICROSURFACING WIDTH (ONE DIRECTION)	MISC.: MASTIC SURFACE SEAL WIDTH (ONE DIRECTION)		421	421	423	SPECIAL	897	442	407	897	897	257	202	516	409	
											MICROSURFACING, SURFACE COURSE, AS PER PLAN	MICROSURFACING,LEVELING COURSE, AS PER PLAN	CRACK SEALING, TYPE II OR TYPE III	MISC.: MASTIC SURFACE SEAL (0.24 GAL/SY)	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (BUTT JOINTS)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448) (VARIABLE 1.50" - 2.50")	TACK COAT, 702.13 (0.08 GAL/SY)	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (VARIABLE 1.50" - 0")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS B	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN	REMOVAL MISC. JOINT SEALER	JOINT SEALER	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, AS PER PLAN	
		16lb/ SY	14lb/ SY		16 LB/SY	14 LB/SY					SY	GAL												SY
PAVEMENT ITEMS																								
MED	71	0.00	6.06	NB	6.06	31997		37			131542	131542	131542											
MED	71	0.00	6.06	SB	6.06	31997		37			131542	131542	131542											
WAY	71	7.04	7.12	NB	0.08	422		37			1737	1737	1737											
WAY	71	7.04	7.12	SB	0.08	422		37			1737	1737	1737											
SHOULDER ITEMS																								
OUTSIDE																								
MED	71	0.00	6.06	NB	6.06	31997			9.5				33774	8106										
MED	71	0.00	6.06	SB	6.06	31997			9.5				33774	8106										
WAY	71	7.04	7.12	NB	0.08	422			9.5				446	107										
WAY	71	7.04	7.12	SB	0.08	422			9.5				446	107										
INSIDE (MEDIAN SIDE)																								
MED	71	0.00	6.06	NB	6.06	31997			9.5				33774	8106										
MED	71	0.00	6.06	SB	6.06	31997			9.5				33774	8106										
WAY	71	7.04	7.12	NB	0.08	422			9.5				446	107										
WAY	71	7.04	7.12	SB	0.08	422			9.5				446	107										
ACCELERATION/ DECELERATION RAMP DATA																								
MED	71	SR 83 SB DECEL LANE				1197		14			1862	1862	1862											
MED	71	SR 83 SB ACCEL LANE				1738		14			2704	2704	2704											
MED	71	SR 83 NB DECEL LANE				1197		14			1862	1862	1862											
MED	71	SR 83 NB ACCEL LANE				1738		14			2704	2704	2704											
RAMP AND RAMP SHOULDER DATA																								
MED	71	SR 83 SB ENTRANCE RAMP (RAMP C)				684		27.5			2090	2090	2090											
MED	71	SR 83 SB ENTRANCE RAMP OUTSIDE SHOULDER (RAMP C)				684			7.5				570	137										
MED	71	SR 83 SB EXIT RAMP (RAMP A)				776		19.5			1681	1681	1681											
MED	71	SR 83 SB EXIT RAMP OUTSIDE SHOULDER (RAMP A)				776			7.5				647	155										
MED	71	SR 83 NB ENTRANCE RAMP (RAMP B)				733		31.5			2566	2566	2566											
MED	71	SR 83 NB ENTRANCE RAMP OUTSIDE SHOULDER (RAMP B)				733			7.5				611	147										
MED	71	SR 83 NB EXIT RAMP (RAMP D)				725		19.5			1571	1571	1571											
MED	71	SR 83 NB EXIT RAMP OUTSIDE SHOULDER (RAMP D)				725			7.5				604	145										
BRIDGES																								
MED	71	0.31 R SFN:5202280				200	56-60									2.00	72	103	1289	1289	3159	120	120	120
MED	71	0.31 L SFN:5202256				200	56-60									2.00	72	103	1289	1289	3159	120	120	120
DO NOT PLACE MICROSURFACING OR MASTIC SEAL TREATMENT ON EXPOSED CONCRETE RAMPS, BRIDGE DECKS & APPROACH SLABS																								
SUB TOTALS											283598	283598	422910	33436	0	143	206	2578	2578	6317	240	240	240	
EXTRA AREAS FOR BUTT JOINTS															5756									
EXTRA AREA FOR U-TURNS															1800									
DEDUCTION AREA FOR BRIDGE APPROACHES AND DECKS						2058		37			8461	8461	8461	521										
TOTALS											275137	275137	414449	34715	5756	143	206	2578	2578	6317	240	240	240	

CALCULATED

MAE

CHECKED

CAD

PAVEMENT & SHOULDER DATA

WAY-71-7.04 PM

12

13

[illegible]