LATITUDE: 41°35'19" LONGITUDE: 81°24'52" SCALE IN MILES

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	0	2500	5000	7500	10000	N	
PORTION	TO BE	IMPROVED					
NTERST	ATE HIGH	HWAY				_	M
FEDERAL	ROUTE	5					
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COUNTY	& TOWN	SHIP ROAD	5				
THER R	0405						

DESIGN DESIGNATION

CURRENT ADT (2021)	8,582
DESIGN YEAR ADT (2042)	8,582
DESIGN HOURLY VOLUME (2042)	UNKNOWN
DIRECTIONAL DISTRIBUTION	UNKNOWN
TRUCKS (24 HOUR B&C)	
DESIGN SPEED	UKKNOWN
LEGAL SPEED	
DESIGN FUNCTIONAL CLASSIFICATION	
NHS PROJECT	

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LAK-SR 006-02.60

CITY OF WILLOUGHBY HILLS LAKE COUNTY

INDEX OF SHEETS:

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PROJECT DESCRIPTION

RESURFACING OF 2.56 MILES OF CHARDON ROAD (US-06) FROM SOM CENTER ROAD (SR-91) TO THE EASTERN CITY LIMIT OF WILLOUGHBY HILLS.

PROJECT EARTH DISTURBED AREA: ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A* NOTICE OF INTENT EARTH DISTURBED AREA: N/A*

* MAINTENANCE PROJECT

2019 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 REQUIRE THE CLOSING TO TRAFFIC OF THE ROADWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 8 AND 9

NONE

E200(685)

FAN

112503

LAK-US06-02.

DEFUTY DIRECTOR

DESIGN EXCEPTIONS NONE

UNDERGROUND UTILITIES Contact Two Working Days Before You Dig OHIO811. 8-1-1. or 1-800-362-2764

(Non-members must be called directly)

RICHARD L. BOWEN & ASSOC., INC. 2019 CENTER STREET, STE 500 CLEVELAND, OHIO 44113

			STAND	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS			
	BP-3.1	1/17/20	TC-71.10	1/19/18	MT-95.50	7/21/17	800 10/15/21	
	BP-3.2	1/18/19	TC-82.10	7/19/19	MT-99.20	4/19/19	875 1/18/19	
	BP-7.1	7/17/20						
ENGINEERS SEAL:								
S PIETRO								
DIFRANCO E E-086589								
NED: Puete Q Jums E: 09/13/2021								

DATE 9/14/21 CITY OF WILLOUGHBY HILLS G. ANDREW GARDNER

APPROVED_

DIRECTOR, DEPARTMENT OF TRANSPORTATION



TOGETHER WITH THEIR RESPECTIVE OWNERS:

NATURAL GAS: DOMINION ENERGY OHIO 1201 EAST 55TH STREET CLEVELAND, OHIO 44114 216-736-6910 216-736-6651 (AFTER HOURS)

ELECTRIC: CEI FIRST ENERGY 6896 MILLER RD, SUITE 101 BRECKSVILLE, OHIO 44141 JOHN M. ZASSICK 440-546-8706

TELEPHONE: 13630 LORAIN AVENUE, ROOM 200 CLEVELAND, OHIO 44111 JAMES JANIS 216-476-6142

STORM & SANITARY SEWERS: CITY OF WILLOUGHBY HILLS SERVICE DEPARTMENT 35405 CHARDON RD WILLOUGHBY HILLS, OHIO 44094 MARK GRUBISS 440-343-2484

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

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00 PM AND 7:30 AM M-SA OR 8:00 PM AND 10:00 AM SUNDAY. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

THE CONTRACTOR SHALL APPLY FOR A NOISE VARIANCE TO PERFORM NIGHT PAVING. IN THE EVENT A NOISE VARIANCE IS NOT GRANTED BY THE CITY, WORK SHALL COMMENCE DURING THE DAYTIME HOURS AT NO ADDITIONAL COSTS. ANY ADDITIONAL MOT COST WILL BE INCLUDED IN THE LINE ITEM FOR MOT, NO SEPARATE PAYMENT SHALL BE MADE.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL RECORD A VIDEO SURVEY OF ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY. A RECORD OF THIS VIDEO WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

<u>WORK LIMITS</u>

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.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DETERMINED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO START OF CONSTRUCTION ACTIVITIES, LANE CLOSURE, AND ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE CITY AND ANY OTHER LOCAL OFFICIALS RESPONSIBLE FOR PUBLIC NOTIFICATION.

STATIONING AND LOCATIONS

STATIONING AND LOCATIONS INDICATED ON THESE PLANS ARE APPROXIMATE. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS DETERMINED BY THE ENGINEER.

GENERAL (CONT.)

STAGING AND STORAGE

EQUIPMENT AND MATERIALS SHALL NOT BE STAGED OR STORED WITHIN PUBLICLY OWNED PARK PROPERTY. ALL STAGING AND STORAGE AREAS OUTSIDE OF THE RIGHT-OF-WAY SHALL BE PRE-APPROVED BY THE PROPERTY OWNER.

ROADWAY

ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN

THE MONUMENT BOX TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING ADJUSTABLE FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING MONUMENT BOX TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR

ITEM SPECIAL - PRE-CONSTRUCTION VIDEOGRAPHY, AS PER PLAN

THE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION VIDEO PRIOR TO THE DELIVERY OF ANY EQUIPMENT. MATERIAL OR SUPPLIES AS FOLLOWS:

- A. SCOPE: COLOR VIDEO & AUDIO DOCUMENTATION OF SURFACE FEATURES AND IMPROVEMENTS PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING WITHIN PROJECT LIMITS AND STORAGE AREAS, INCLUDING ADJACENT AREA. PRIOR TO AUDIO-VIDEO TAPING OF THE PROJECT, ALL AREAS TO BE INVENTORIED SHALL BE INVESTIGATED VISUALLY WITH NOTATIONS MADE OF ITEMS NOT READILY VISIBLE BY TAPING THE ENGINEER. METHODS.
- B. PURPOSE; DOCUMENTATION OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION FOR USE IN ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 (448) AS PER PLAN DETERMINING RESTORATION WORK AFTER CONSTRUCTION.
- C. QUALIFICATIONS: MINIMUM TWO (2) YEARS OF AUDIO-VIDEO TAPING EXPERIENCE ON SIMILAR TYPE CONSTRUCTION PROJECTS FOR PUBLIC AGENCIES.
- D. COVERAGE AREA: SHALL INCLUDE, BUT NOT LIMITED TO, ALL EXISTING DRIVEWAYS, SIDEWALKS, CURBS, STREETS, SIGNS, LANDSCAPING, TREES, CATCH BASINS, FENCES, VISIBLE UTILITIES, AND ALL BUILDINGS LOCATED WITHIN THE CONSTRUCTION ZONE OF INFLUENCE.
 - a. STREET FULL WIDTH OF RIGHT-OF-WAY UNLESS NOTED OTHERWISE BY THE ENGINEER. b. WORK AGREEMENT AREAS - ALL ADJACENT AREAS LYING WITHIN THE CONSTRUCTION
 - ZONE OF INFLUENCE. c. BUILDING EXTERIORS - ALL EXTERIOR SURFACES IDENTIFIED BY THE ENGINEER TO
 - RECEIVE COVERAGE.
- d. FRONT AND SIDE YARD AREAS OF RESIDENTIAL HOMES WITHIN THE CONSTRUCTION ZONE OF INFLUENCE. EQUIPMENT: CAMERA SHALL BE CAPABLE OF PROVIDING ACCEPTABLE RESOLUTION COLOR
- VIDEO, SUFFICIENT ZOOM, PAN AND TILT CAPABILITIES, VIDEO SIGNAL-TO-NOISE RATIO OF AT LEAST 40 DB. AND A HORIZONTAL RESOLUTION OF 270 LINES. F. DELIVERABLE: CONTRACTOR SHALL PROVIDE TWO (2) COPIES ON CD OR DVD. THE DISKS
- SHALL BE LABELED WITH PROJECT NAME, LOCATION, AND DATE. THE AUDIO-VIDEO CONTENTS SHALL BE INVENTORIED BY RUN SEGMENT, IDENTIFIED BY LOCATION, ADDRESS OR STATIONING.
- G. ENTERING PROPERTY: PRIVATE PROPERTY SHALL NOT BE ENTERED WITHOUT PERMISSION OF THE PROPERTY OWNER.
- H. OWNERSHIP OF DISKS: ALL DISKS AND THEIR CONTENTS SHALL BECOME PROPERTY OF THE CITY OF WILLOUGHBY HILLS.
- SITE RECORDING CONDITIONS ALL RECORDING SHALL BE DONE DURING GOOD AND CLEAR VISIBILITY. THE AVERAGE RATE OF SPEED DURING RECORDING SHALL BE APPROXIMATELY SIXTY (60) FEET PER MINUTE.

ITEM SPECIAL - PRE-CONSTRUCTION VIDEOGRAPHY, AS PER PLAN

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE REPRESENTATIVES OF THE STATE AND THE CONTRACTOR ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. THE RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

FLEXIBLE START WINDOW CONTRACT

USE THE FOLLOWING TABLE AS REFFERED TO IN THE PROPOSAL:

DESCRIPTION OF	CALENDAR DAYS	DISINCENTIVE	WORK W	VINDOW
CRITICAL WORK	TO COMPLETE	# PER DAY	START	END
ALL WORK ON PROJECT	60	PER C&MS 108.07	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE

PAVEMENT

ITEM 254 PAVEMENT PLANING. ASPHALT CONCRETE, AS PER PLAN

THE INTENT OF THE PLANING IS TO MILL DOWN 3 INCHES OF THE SURFACE ASPHALT CONTINGENT ON THE FOLLOWING: THE MAXIMUM CROSS SLOPE SHALL BE 0.02 WHILE THE MINIMUM CROSS SLOPE SHALL BE 0.01. THE PREFERRED CROSS SLOPE IS 0.016.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN FOURTEEN (14) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 14 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF \$1,000 A DAY.

AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTING WITHOUT ADJUSTABLE FRAMES. 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 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

PROFILE AND ALIGNMENT

PAVEMENT. AN ADDITIONAL QUANTITY OF ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 HAS BEEN INCLUDED TO BE USED AS A LEVELING COURSE AT LOCATIONS DETERMINED BY

150 CY

BUTT JOINT

BUTT JOINTS SHALL NOT BE CUT AND LEFT OPEN TO TRAFFIC. THEY SHALL BE FILLED IN WITH A TEMPORARY ASPHALT CONCRETE WEDGE PAID FOR UNDER ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN. LUMP SUM.

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 251 - PARTIAL DEPTH PAVEMENT REPAIR. AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT 3" DEEP. WHICH MAY BE ASPHALT, CONCRETE, OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE. AS DETERMINED BY THE ENGINEER.

PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING AND BEFORE PLACEMENT OF THE INTERMEDIATE AND/OR SURFACE COURSE. THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS TO A MINIMUM OF 1 FOOT WIDE.

REPLACEMENT MATERIAL SHALL BE ITEM 301, ITEM 441 TYPE 2, OR ITEM 442 19MM MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIRS. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO BE USED AT LOCATIONS DETERMINED BY THE ENGINEER:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN

1500 SY

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THIS ITEM OF WORK SHALL CONSIST OF REMOVAL OF THE EXISTING ASPHALT SURFACE LAYERS AND REMOVAL OF 3 INCHES OF THE UNDERLYING CONCRETE BASE, IN AREAS OF SEVERE REFLECTIVE CRACKING/JOINT SEPARATION. AS DETERMINED BY THE ENGINEER.

USE CAUTION WHEN REMOVING CONCRETE BASE TO PREVENT DAMAGE TO EXISTING REINFORCING STEEL. THE 3 INCH CONCRETE BASE REMOVAL DEPTH SHALL BE REDUCED WHERE NECESSARY TO DAYS AFTER THE DAMAGED DETECTOR LOOPS ARE REPLACED SO THAT SIGNAL TIMINGS CAN BE PREVENT DAMAGE TO EXISTING REINFORCING STEEL.

PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING AND BEFORE PLACEMENT OF THE NEW DETECTOR LOOP WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX, POLE, OR THE INTERMEDIATE AND/OR SURFACE COURSE. THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS TO A MINIMUM OF 2 FEET WIDE.

THE DEPTH OF THE PAVEMENT REPAIR SHALL BE ESTIMATED AT 6" ± 1".

REPLACEMENT MATERIAL SHALL BE ITEM 301, ITEM 441 TYPE 2, OR ITEM 442 19MM MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT *SURFACE*.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIRS. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 253 - PAVEMENT REPAIR, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO BE USED AT LOCATIONS DETERMINED BY THE ENGINEER:

ITEM 253 - PAVEMENT REPAIR. AS PER PLAN

350 CY

ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, (448), PG64-22, AS PER PLAN

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (MB-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PAYMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS 614 MAINTAINING TRAFFIC. REQUIREMENTS OF 441 APPLY.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE TYPE 1. (446). PG70-22M. <u>AS PER PLAN</u>

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MINIMUM AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (MB-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BEGIN ON THE FIRST DAY OF PLANING AND SHALL CONTINUE BASED ON CALENDAR DAYS, SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PAYMENT OF SIGNS SHALL BE MINUS ANY BAD WEATHER DAYS, UNTIL COMPLETION OF THE ASPHALT CONCRETE INTERMEDIATE INCLUDED IN THE UNIT PRICE BID FOR ITEMS 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS. DRIVES. INTERSECTIONS. ETC.

ASPHALT CONCRETE SURFACE COURSE SEALING REQUIREMENTS

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED ON SCD BP-3.1 AND IN 401.15, THE CONTRACTOR SHALL SEAL THE FOLLOWING LOCATIONS:

- ALL CASTINGS INCLUDING BUT NOT LIMITED TO MONUMENTS, MANHOLES, WATER VALVES, CATCH BASINS, CURB INLETS.
- BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES. BUTT JOINTS BETWEEN PAVED SHOULDER AND DRIVE.WAY ASPHALT AND TAPERED EDGE WHEN FEATHER TO AN EXISTING ASPHALT DRIVEWAY.
- PERIMETER OF ALL PAVEMENT REPAIRS OR OTHER ASPHALT INLAYS WHEN PAVEMENT REPAIRS/INLAYS ARE NOT OVERLAID WITH AN ASPHALT CONCRETE SURFACE COURSE. ALL COLD LONGITUDINAL JOINTS BETWEEN PAVED SHOULDERS AND GUARDRAIL ASPHALT.

THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

ANY ADDITIONAL COSTS ASSOCIATED WITH THE WORK IDENTIFIED IN THIS NOTE SHALL BE INCLUDED IN THE APPROPRIATE ASPHALT CONCRETE SURFACE COURSE ITEM OF WORK.

ITEM 632 - DETECTOR LOOP, AS PER PLAN

DETECTOR LOOPS DISTURBED BY PAVEMENT PLANING, PAVEMENT REPAIR, OR BUTT JOINT OPERATIONS SHALL BE ABANDONED IN PLACE. THE NEW DETECTOR LOOP WIRE WILL BE CUT INTO THE INTERMEDIATE COURSE BEFORE THE PROPOSED SURFACE COURSE HAS BEEN PLACED. NEW LOOP DETECTORS SHALL BE PLACED AT THE SAME LOCATIONS AND BE THE SAME SIZE AND TYPE AS THE EXISTING. OR AS DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY CITY OF WILLOUGHBY HILLS ENGINEER 216-377-3838 FIVE WORKING DAYS IN ADVANCE OF ANY PLANING OPERATIONS OR PAVEMENT REPAIR WORK THAT WILL DAMAGE DETECTOR LOOP INSTALLATIONS. THIS NOTIFICATION IS NEEDED TO SCHEDULE TEMPORARY SIGNAL TIMING MODIFICATIONS FOR THE TIME PERIOD WHEN THE DETECTOR LOOPS ARE OUT OF OPERATION. THE CONTRACTOR SHALL THEN RENOTIFY THE CITY WITHIN 2 WORKING RESTORED TO THE ORIGINAL SETTINGS.

PULLBOX, WHICHEVER IS APPLICABLE. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 725.15) THAT MUST BE USED IN MAKING THESE CONNECTIONS. ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT FOR PROPER INSTALLATION AND OPERATION SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

ITEM 611 - MANHOLE, CATCH BASIN, OR INLET ADJUSTED TO GRADE

ITEM 611 - MANHOLE. CATCH BASIN OR INLET RECONSTRUCTED TO GRADE. AS PER PLAN

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED WHERE DIRECTED BY THE ENGINEER.

ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

ITEM SPECIAL - MISCELLANEOUS METAL. AS PER PLAN

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER. REPLACEMENT OF OTHER CASTINGS (I.E. VALVE BOXES, MONUMENT BOXES, ETC.) UNSUITABLE FOR REUSE WILL ALSO BE PAID UNDER THIS

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DETERMINED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL, AS PER PLAN

2000 POUNDS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

PLANED SURFACES

THE DURATION OF TIME BETWEEN MILLING AND PLACEMENT OF THE INTERMEDIATE COURSE SHALL BE NO LONGER THAN FOURTEEN (14) DAYS, UNLESS MOT NOTES STATE OTHERWISE. THE LIMIT

ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT. AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING PAVEMENT (ASPHALT & CONCRETE), FULL DEPTH, AND REPLACING WITH FLEXIBLE PAVEMENT.

FOR ESTIMATING PURPOSES. THE DEPTH OF THE FULL DEPTH PAVEMENT REPAIR SHALL BE 10.5 INCHES (±1 INCH)

THE ENGINEER WILL LOCATE AND MARK ALL AREAS FOR FULL DEPTH REPAIR BEFORE THE START OF FULL DEPTH SAWING. SAW THE LIMITS OF THE FULL DEPTH REPAIR AT THE LIMITS OF THE AREA DESIGNATED BY THE ENGINEER TO BE REPAIRED.

IF, AFTER PAVEMENT REMOVAL, THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS.

PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

ALL COSTS ASSOCIATED WITH THIS ITEM INCLUDING THE SAWCUTTING, LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED OVER TO THE GENERAL SUMMARY TO BE USED AS DETERMINED BY THE ENGINEER:

20 CY 2 EACH ITEM 204 - EXCAVATION OF SUBGRADE, AS PER PLAN ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL & FLEXIBLE REPLACEMENT. 2000 SY AS PER PLAN 20 CY ITEM 304 - AGGREGATE BASE, AS PER PLAN

NOTE

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BEFORE WORK BEGINS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE ENGINEER AND ALL INTERESTED POLICING AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY.

THE CONTRACTOR SHALL ALSO ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIME TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, FLASHING ARROW PANELS COMPLYING WITH SUPPLEMENTAL SPECIFICATION 821, TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614, MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

BY THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE LINES. CENTERLINES. EDGE LINES. STOP LINES. AND CHANNELIZING LINES. THE FOLLOWING WORK ZONE PAVEMENT MARKING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

PLANED	<i>SURFACE:</i>
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ITEM	614	- ,	WORK	ZONE	EDGE LINE, CLASS I, 4"	4.98 MILE
ITEM	614	- ,	WORK	ZONE	CENTERLINE, CLASS I	2.99 MILE
ITEM	614	- ,	WORK	ZONE	STOP LINE, CLASS I	212 FT
ITEM	614	- ,	WORK	ZONE	LANE LINE, CLASS I, 4"	0.03 MILE
ITEM	614	- 1	WORK	ZONE	CHANNELIZING LINE, CLASS I, 8"	384 FT

INTERMEDIATE COURSE:	
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 4"	4.98 MILE
ITEM 614 - WORK ZONE CENTERLINE, CLASS I	2.99 MILE
ITEM 614 - WORK ZONE STOP LINE, CLASS I	212 FT
ITEM 614 - WORK ZONE LANE LINE, CLASS I, 4"	0.03 MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 8"	384 FT

SURFACE COURSE:

) (ITEM	614	-	WORK	ZONE	EDGE LINE, CLASS III, 4", 642 PAINT	4.98 MILE
7	ITEM	614	-	WORK	ZONE	CENTERLINE, CLASS III, 642 PAINT	2.99 MILE
\ I	ITEM	614	-	WORK	ZONE	STOP LINE, CLASS III, 642 PAINT	212 FT
77-	ITEM	614	-	WORK	ZONE	LANE LINE, CLASS III, 4", 642 PAINT	0.03 MILE
$\frac{1}{2}$	ITEM	614	-	WORK	ZONE	CHANNELIZING LINE, CLASS III, 8", 642 PAINT	384 FT

ALL DETOUR SIGNAGE, ADDITIONAL WORK ZONE PAVEMENT MARKINGS, AND ADDITIONAL ASPHALT EMAIL: POLICE@WILLOUGHBYHILLS-OH.GOV FOR MAINTAINING TRAFFIC SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING

EXISTING TRAFFIC CONTROL DEVICES (SIGNS AND/OR TRAFFIC SIGNALS), LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT. IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT OR OTHER MEANS APPROVED BY THE ENGINEER TO PROVIDE FULL TIME (TWENTY-FOUR [24] BE PERMITTED. THE LEVEL OF UTILIZATION OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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

A MINIMUM OF 1 LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON TWO LANE ROADWAYS BY USE OF THE EXISTING PAVEMENT. A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FOUR LANE ROADWAYS BY USE OF THE EXISTING PAVEMENT. PART WIDTH CONSTRUCTION SHALL BE USED TO FACILITATE MAINTAINING TWO WAY TRAFFIC ON INTERSECTING STREETS. EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY AND ADJACENT STREETS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE PEDESTRIAN WALKS AT ALL INTERSECTIONS. ALL CONFLICTING SIGNS AND PAVEMENT MARKINGS, WHETHER INSIDE OR OUTSIDE THE WORK LIMITS, SHALL BE COVERED OR REMOVED. WHERE APPLICABLE, AND WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE TEMPORARY SIGNS OR TEMPORARY PAVEMENT MARKING AT THESE LOCATIONS.

SCHOOLS:

SCHOOL DISTRICT FOR APPROPRIATE ACCESS AND STUDENT SAFETY CONSIDERATION DURING THE VARIOUS MOT PHASES.

BUSINESS OWNERS:

MAINTENANCE OF TRAFFIC (CONT.)

THE CONTRACTOR SHALL WORK WITH THE LOCAL BUSINESS OWNERS TO ENSURE ACCESS TO ALL PAYMENT FOR THE NEW SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 -PROPERTIES AT ALL TIMES. HOWEVER, SOME INCONVENIENCES WILL OCCUR. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COORDINATION OF OR PROVIDING ACCESS TO THE BUSINESSES.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS, AS PER PLAN

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 DETERMINED 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.

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 WITH THE LAW ENFORCEMENT AGENCY LISTED BELOW:

THE CITY OF WILLOUGHBY HILLS POLICE DEPT. 35405 CHARDON ROAD WILLOUGHBY HILLS, OHIO 44094 PHONE: (440) 942-9111

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR "ITEM 614 -MAINTAINING TRAFFIC.

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

150 HR ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN

DRIVEWAY ACCESS

THE CONTRACTOR SHALL MAKE AVAILABLE DURING CONSTRUCTION, STEEL PLATES, BRIDGES, HOURS, SEVEN [7] DAYS A WEEK) ACCESS TO DRIVEWAYS THAT REQUIRE IT.

ACROSS FROM EACH DRIVE WITHIN THE DETOURS SHOWN ON SHEETS 8 & 9, A ONE WAY SIGN SHALL BE ERECTED. WHEN THE DETOUR IS NOT IN EFFECT, THE SIGNS SHALL BE COVERED. PAYMENT FOR THESE SIGNS. COVERING AND UNCOVERING OF THE SIGNS. SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614, MAINTAINING TRAFFIC. AS PER PLAN.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL AT THE PRE-CONSTRUCTION MEETING, HIS PROPOSAL FOR PROVIDING ACCESS TO THE DRIVEWAYS. THE PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO MAINTAIN DRIVEWAY ACCESS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR "ITEM 614 - MAINTAINING TRAFFIC.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST 72 HOURS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET TO TRAFFIC.

WILLOUGHBY HILLS POLICE DEPT. 440-942-9111 WILLOUGHBY HILLS FIRE DEPT. 440-942-7207 440-283-4120 WILLOUGHBY EASTLAKE SCHOOL DIST. REPUBLIC SERVICES 216-441-6300

REPLACEMENT SIGNS

THE CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE WITH THE WILLOUGHBY EASTLAKE 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 USED. BUT MUST BE IN GOOD CONDITION SUBJECT TO THE APPROVAL OF THE ENGINEER.

> MAINTAINING TRAFFIC. AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS. HARDWARE AND SUPPORTS. AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE. SUPPORTS. ETC.

PHASED CONSTRUCTION

THE PROJECT HAS BEEN SEPARATED INTO THE FOLLOWING MOT PHASES:

PHASE 1: WEST BOUND LANES OF TRAFFIC CLOSED BETWEEN SOM CENTER RD & RIVER RD PHASE 2: EAST BOUND LANES OF TRAFFIC CLOSED BETWEEN SOM CENTER RD & RIVER RD PHASE 3: WEST BOUND LANES OF TRAFFIC CLOSED BETWEEN RIVER RD & WORRELL RD PHASE 4: EAST BOUND LANES OF TRAFFIC CLOSED BETWEEN RIVER RD & WORRELL RD

ALL LANES OF TRAFFIC SHALL BE FULLY OPENED TO THE PUBLIC AT THE END OF EACH WORK DAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ITEM 614.03. IN ADDITION, THE FOLLOWING PROVISIONS SHALL

- . ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY
- 2. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO ODOT.

IN ORDER TO PREVENT DAMAGE TO PAVEMENT, CURBS, ETC., NO MATERIALS (GRAVEL, SOIL, ETC.) SHALL BE STORED OR STAGED ON THE PAVEMENT. MATERIALS SHALL BE TRANSFERRED DIRECTLY FROM TRUCK TO EXCAVATION OR EXCAVATION TO TRUCK.

COVERING OF SIGNS

ANY EXISTING SIGNS THAT ARE IN CONFLICT WITH THE PROPOSED MAINTENANCE OF TRAFFIC PLANS SHALL BE COVERED. THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO ANY EXISTING OR NEW SIGN FACE IS STRICTLY PROHIBITED. ANY SIGNS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, WHEN DETERMINED BY THE ENGINEER. SHALL BE REPLACED BY AND AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, 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. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

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 AWAY FROM ALL 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.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED 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 PRE-PROGRAMMED 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 UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 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 ESTIMATED QUANTITY PROVIDES FOR 2 PCMS UNITS AT 2 MONTHS EACH.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

4 SNMT
ASSUMING 3 PCMS SIGN(S) FOR 2 MONTH(S)

7

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	6	7	11		1			-			ITEM	GRAND			
20			//	12 1.	3	14		CITY (20%)	01/MPO/PV	ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	SHEE NO.
			7						0.4	007	70501	7		ROADWAY	
20			3					0.6	2.4	623	39501	3	EA	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	5
20			260		<u> </u> 			0.2 52	208	690 608	98400 52000	260	LS SF	SPECIAL - PRE-CONSTRUCTION VIDEOGRAPHY CURB RAMP	5
20			24					4.8	19.2	608	53020	24	SF	DETECTABLE WARNING	
20			24		<u> </u>			4.0 	13.2	<i>008</i> 	33020	29	31	DETECTABLE WARNING	
20					1									DRAINAGE	
20			2					0.4	1.6	611	98630	2	EA	CATCH BASIN ADJUSTED TO GRADE	
20	2							0.4	1.6	611	98635	2	EA	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	6
	2000				j			400	1600	611	99820	2000	LB	SPECIAL - MISCELLANEOUS METAL	6
														PAVEMENT	
	20							4	16	204	13001	20	CY	EXCAVATION OF SUBGRADE, AS PER PLAN	6
0	750							300	1200	251	01001	1500	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	5
3	350					45774		70	280	253	02001	350	CY	PAVEMENT REPAIR, AS PER PLAN	6
1 20	2000				4	45374		9074.8	36299.2	254	01001	45374	SY	PAVEMENT PLANING, 3" ASPHALT CONCRETE, AS PER PLAN	5
-	2000							400	1600	252 304	01001 20001	2000	SY CY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN AGGREGATE BASE, AS PER PLAN	0
	20				1	2269		453.8	1815.2	407	10000	2269	GAL	TACK COAT	0
1	<u> </u>					3176		635.2	2540.8	407	13900	3176	GAL	TACK COAT, 702.13	l
<u> </u>						2206		471.2	1884.8	441	50301	2356	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22, AS PER PLAN	6
					<u>-</u>	1577		315.4	1261.6	441	10101	1577	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M, AS PER PLAN	6
<u> </u>						72		14.4	57.6	441	10101	72	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M, AS PER PLAN - SAFETY EDGE	6
						316		63.2	252.8	617	10100	316	CY	COMPACTED AGGREGATE	
					,	5552		1110.4	4441.6	617	20000	5552	SY	SHOULDER PREPARATION	
						2618		523.6	2094.4	875	10000	2618	LB	LONGITUDINAL JOINT ADHESIVE	
										I	1				
			0						7.0	070	10000			WATER WORK	
			9					1.8	7.2	638	10800	9	EA	VALVE BOX ADJUSTED TO GRADE	
											<u> </u>			TRAFFIC SIGNALS	
			12					2.4	9.6	632	26501	12	EA	DETECTOR LOOP, AS PER PLAN	6
			12		<u> </u>			2.1	0.0	032	20001			DETECTOR EGGT, NOTER TEAM	
														TRAFFIC CONTROL	
				4.77 0.	21			0.996	3.984	642	00100	4.98	MILE	EDGE LINE, 4", TYPE 1	
				2.78 0.	21			0.598	2.392	642	00300	2.99	MILE	CENTERLINE, TYPE 1	
İ				212	j	İ		42.4	169.6	642	00500	212	FT	STOP LINE, TYPE 1	
				369				73.8	295.2	642	00600	369	FT	CROSSWALK LINE, TYPE 1	
				0.03				0.006	0.024	642	00200	0.03	MILE	LANE LINE, 4", TYPE 1	
				384				76.8	307.2	642	00400	384	FT	CHANNELIZING LINE, 8", TYPE 1	
				3192				638.4	2553.6	642	00700	3192	SF	TRANSVERSE/DIAGONAL LINE, TYPE 1	
				21				4.2	16.8	642	01300	21	EA	LANE ARROW, TYPE 1	1
				5				1	4	642	01400	5	EA	WORD ON PAVEMENT, 72", TYPE 1	
1					1									MAINTENANCE OF TRAFFIC	
<u> </u>	1.	150			<u> </u>			30	120	614	11111	150	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN	7
		4						0.8	3.2	614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	7 <i>A</i>
	9	9.96						1.99	7.97	614	22000	9.96	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	7
	<u> </u>	5.98						1.20	4.78	614	21000	5.98	MILE	WORK ZONE CENTERLINE, CLASS I	7
		424			 			84.8	339.2	614	26000	424	FT	WORK ZONE STOP LINE, CLASS I	7
i	0	0.06			i			0.01	0.05	614	20000	0.06	MILE	WORK ZONE LANE LINE, CLASS I, 4"	7
	_	768						153.6	614.4	614	23000	768	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"	7
	!	1.98			Ī			1.00	3.98	614	22350	4.98	MILE	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT	7
		2.99						0.60	2.39	614	21550	2.99	MILE	WORK ZONE CENTERLINE, CLASS III, 642 PAINT	7
	<u> </u>	212						42.4	169.6	614	26610	212	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	7
		704						0.01	0.02	614	20550	0.03	MILE	WORK ZONE LANE LINE, CLASS III, 4", 642 PAINT	7
	3	384						76.8	307.2	614	23680	384	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	7
														INCIDENTALC	
<u> </u>	<u> </u>	<u> </u>						0.2	0.8	623	10000	1	LS	INCIDENTALS CONSTRUCTION LAYOUT STAKES AND SURVEYING	<u> </u>
								0.2	0.8	623 624	10000	1	LS LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING MOBILIZATION	
	<u> </u>	<u> </u>						0.2	0.8	614	11001	1 1	LS LS	MAINTAINING TRAFFIC, AS PER PLAN	7
<u> </u>								0.2	0.0	<u> </u>	11001 	'	LJ		'
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