

LOCATION MAP

LATITUDE: 41°32'09" N LONGITUDE: 80°48'36" W



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	-----
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION (REFERENCED FROM TMMS DATA)

CURRENT ADT (2023)	3,796
DESIGN YEAR ADT (2023)	3,796
DESIGN HOURLY VOLUME (2021)	357
DIRECTIONAL DISTRIBUTION	63%
TRUCKS (24 HOUR B&C)	281
DESIGN SPEED	65
LEGAL SPEED	55
DESIGN FUNCTIONAL CLASSIFICATION:	04 - RURAL MINOR ARTERIAL
NHS PROJECT	NO

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES
ATB-322-12.18	
LANE WIDTH	9/27/24
SHOULDER WIDTH	9/27/24
ATB-322-13.99	
LANE WIDTH	9/27/24

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

  
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764 (Non members must be called directly)

PLAN PREPARED BY:  
ODOT DISTRICT 4 CAPITAL PLANNING  
2088 SOUTH ARLINGTON ROAD  
AKRON OHIO 44306

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

ATB-322-8.11

COLEBROOK, ORWELL AND WAYNE TOWNSHIPS

VILLAGE OF ORWELL

ASHTABULA COUNTY

INDEX OF SHEETS:

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CULVERT REPLACEMENT - ATB-322-12.18	P.41 - P.52

FEDERAL PROJECT NUMBER

E220687

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACING US 322 FROM 8.11 TO 15.24 IN ASHTABULA COUNTY. INCLUDES MINOR REHAB TO 3 STRUCTURES, REPLACEMENT OF ONE CULVERT, AND REPLACEMENT OF ONE STRUCTURE.

EARTH DISTURBED AREAS

ROADWAY RESURFACING

(INCLUDING STRUCTURE REHAB: ATB-322-9.649 AND ATB-322-13.554)

PROJECT EDA:	3.69 ACRES
ESTIMATED CONTRACTOR EDA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A (MAINTENANCE PROJECT)

CULVERT REPLACEMENT: ATB-322-12.175

PROJECT EDA:	0.38 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

STRUCTURE REPLACEMENT: ATB-322-13.986


PROJECT EDA:	0.58 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

2023 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS P.7 AND P.8.

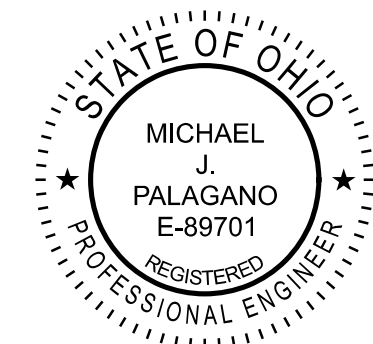
  
Arthur G. Noirot Jr., P.E.  
District 04 Deputy Director

  
Pamela Boratyn  
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/19/24	MT-96.11	7/21/23	TC-41.20	10/18/13			800-2023	1/17/25	WPC	4/4/25
BP-3.2	1/18/19	MT-97.10	4/19/19	TC-42.20	10/18/13			821	4/20/12	ASBESTOS	6/30/23
BP-4.1	7/19/13	MT-97.12	1/20/17	TC-52.10	10/18/13			832	7/19/24		
		MT-99.20	4/19/19	TC-52.20	1/15/21			836	1/19/24		
DM-1.1	1/17/25	MT-101.60	1/17/25	TC-61.30	7/19/24			844	1/17/25		
DM-4.2	7/20/12	MT-101.90	7/17/20	TC-64.10	7/21/23			848	7/19/24		
DM-4.3	1/15/16	MT-105.10	1/17/20	TC-65.10	1/17/14			872	1/17/25		
DM-4.4	1/15/16			TC-65.11	1/17/25			874	4/17/20		
				TC-71.10	4/21/23			875	1/17/25		
HW-2.2	7/20/18							921	7/19/24		
				MGS-1.1	1/17/25			940	4/17/15		
AS-1-15	1/20/23			MGS-2.1	1/17/25			961	4/17/20		
DBR-3-11	7/15/11			MGS-2.3	1/20/23						
DS-1-92	7/15/22			MGS-4.2	1/17/25						
				MGS-5.3	7/15/16						

ENGINEER'S SEAL

P.1 - P.22



ENGINEER'S SEAL

P.23 - P.52



TITLE SHEET

DESIGN AGENCY



DESIGNER

NKF

REVIEWER

MJP 12-30-24

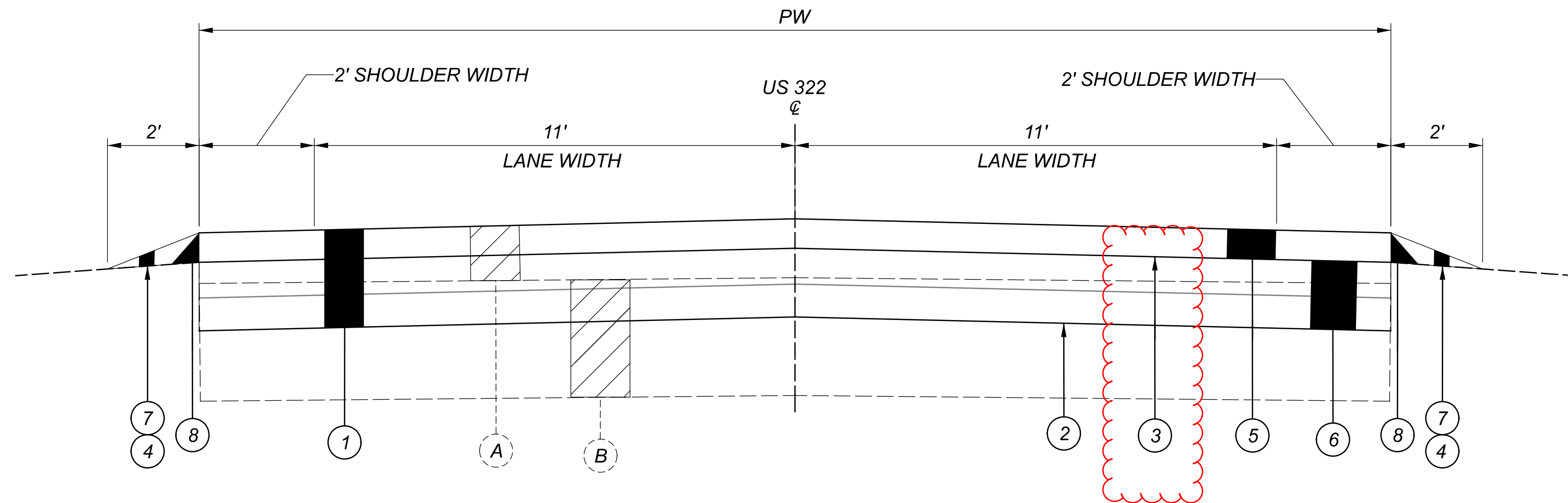
PROJECT ID

113810

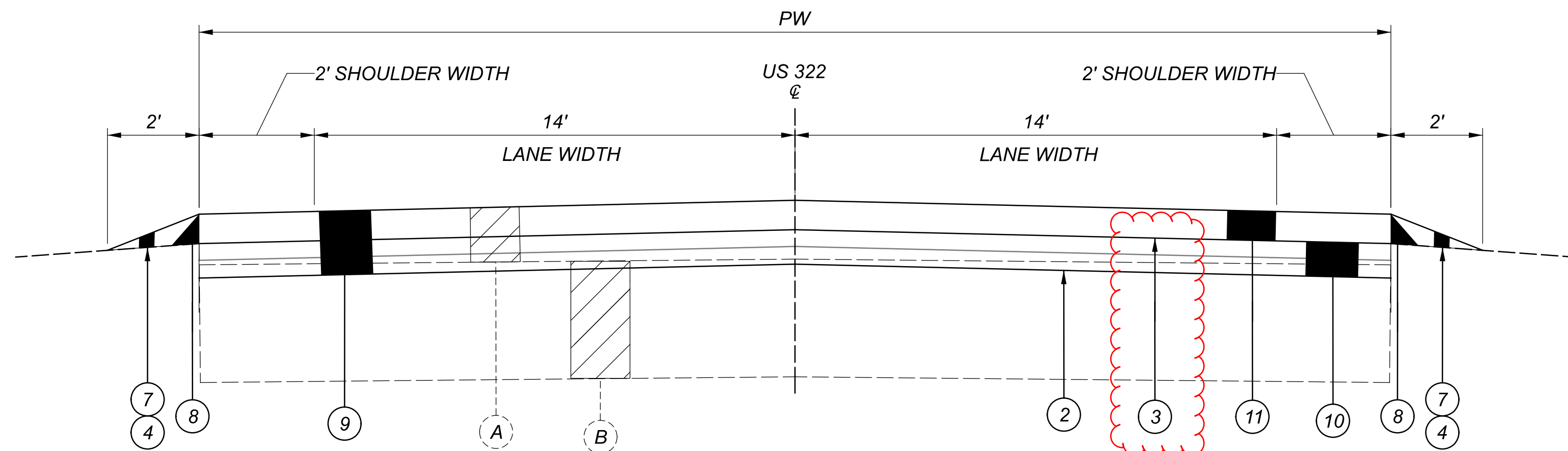
SHEET TOTAL

P.1 52





TYPICAL SECTION 1  
EX. ASPHALT BASE SLM 8.11-14.90



TYPICAL SECTION 2  
EX. ASPHALT BASE SLM 14.90-15.24

LEGEND

- 1 ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T = 5")
- 2 ITEM 407, NON-TRACKING TACK COAT @ 0.08 GAL/SY
- 3 ITEM 407, NON-TRACKING TACK COAT @ 0.05 GAL/SY
- 4 ITEM 408, PRIME COAT, AS PER PLAN @ 0.4 GAL/SY
- 5 ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (446), PG70-22M, (T = 1.5")
- 6 ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), AS PER PLAN (T = 3.5")
- 7 ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T = 1" AVG.)
- 8 ITEM 209, PREPARE SUBGRADE FOR SHOULDER PAVING SAFETY EDGE, PER SCD BP-3.2
- 9 ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T = 3")
- 10 ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), (T = 1.75")
- 11 ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (446), PG70-22M, (T = 1.25")
- A EXISTING ASPHALT SURFACE (T = 3"±)
- B EXISTING ASPHALT BASE (T = 11"±)

TYPICAL SECTION 1				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
US 322	8.11	9.65	1.54	26
US 322	9.65	12.49	2.84	26
US 322	12.49	13.55	1.06	30
US 322	13.55	14.9	1.35	30

TYPICAL SECTION 2				
ROUTE	SLM		LENGTH (MILES)	PW FEET
	FROM	TO		
US 322	14.90	14.95	0.05	30
US 322	14.95	14.98	0.03	37
US 322	14.98	15.02	0.04	44
US 322	15.06	15.12	0.06	37
US 322	15.12	15.16	0.04	44
US 322	15.16	15.19	0.03	37
US 322	15.19	15.24	0.05	30





UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

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.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. (PREVIOUS CONSTRUCTION PLANS, PROJECT NO. 21438 AND 22442, SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE). PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY WITH A UNIFORM THICKNESS OF 1.5 INCHES AND TWO LAYERS OF INTERMEDIATE COURSE VARYING IN THICKNESS FROM 1.75 INCHES TO 3 INCHES AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS HAVE BEEN SUPPLIED AS REFERENCE DOCUMENTS FOR THIS PROJECT AND ARE AVAILABLE ON THE ODOT FTP SITE AT <https://ftp.dot.state.oh.us/pub/contracts/Attach/> FOR THIS PROJECT. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

ROUTE	S.L.M.	TO S.L.M.	LANE WIDTH
US 322	8.11	15.24	12'

RUMBLE STRIPES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE ALONG THE FOLLOWING ROUTES WITHIN THE PROJECT LIMITS:

EDGE LINE:	CENTER LINE:	
US 322: SLM 8.11 - 9.65	US 322: SLM 8.11 - 9.65	
US 322: SLM 9.67 - 13.56	US 322: SLM 9.67 - 13.56	
US 322: SLM 13.59 - 15.24	US 322: SLM 13.59 - 15.24	
ITEM 618, RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	15 MILES	
ITEM 618, RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	8 MILES	
ITEM 874, LONGITUDINAL JOINT PREPARATION	42,240 FT	

LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

THE CONTRACTOR IS REQUIRED TO PLACE ITEM 617 WITHIN A PERIOD NOT TO EXCEED 7 DAYS. REFER TO THE AS PER PLAN NOTE FOR REQUIREMENTS.

EXPOSED EARTH OUTSIDE OF THE LIMITS OF ITEM 617 ARE REQUIRED TO BE SEEDED AND MULCHED WITHIN 7 DAYS OF PLACEMENT OF ITEM 617. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 832.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

209, LINEAR GRADING, 753 STA.

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER SCD BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASPHALT SURFACE COURSE.

DRIVEWAYS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS WORK.

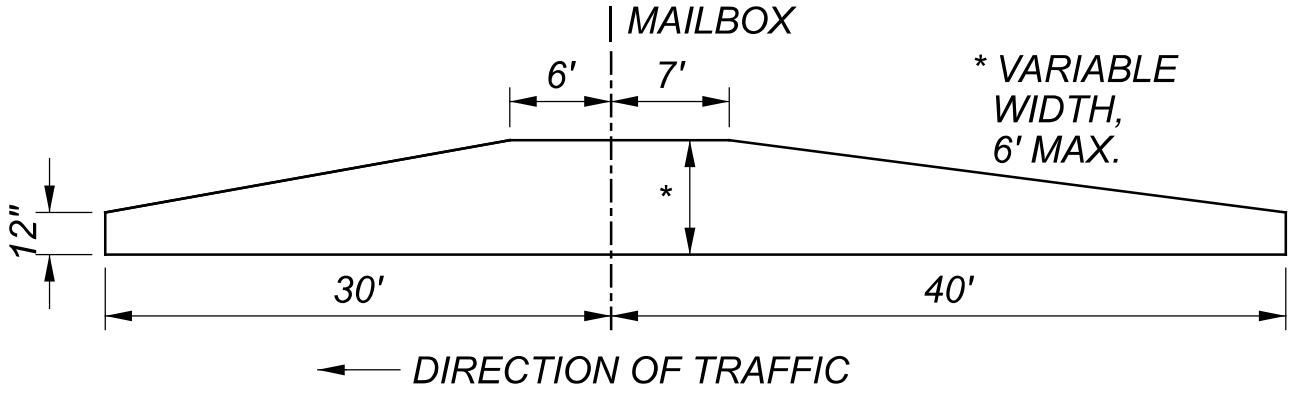
IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1"-2" OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

FIELD DRIVEWAYS

THIS ITEM WILL CONSIST OF PLACING ITEM 411, STABILIZED CRUSHED AGGREGATE. THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING FIELD DRIVEWAYS. FIELD DRIVES WILL BE PLACED AFTER THE COMPLETION OF THE SURFACE COURSE AND SHALL HAVE AN AVERAGE 2 INCH THICKNESS. ALL GRADING TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE FIELD DRIVES WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 411, AGGREGATE BASE. AN ESTIMATED QUANTITY OF 30 CU. YD. HAS BEEN CARRIED TO THE GENERAL SUMMARY.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE. THE BUILDUP OF THE ASPHALT PAVEMENT SHALL MATCH THE MAINLINE PAVING. THE LIMITS OF THE PAVING SHALL MATCH THE EXISTING MAILBOX APPROACH LIMITS. PAYMENT FOR THE WORK SHALL BE INCLUDED IN THE MAINLINE PAVING QUANTITIES, SEPARATE QUANTITIES FOR THE MAILBOX APPROACHES ARE NOT PROVIDED.



ENDANGERED SPECIES HABITAT  
INDIANA BAT/NORTHERN LONG-EARED BAT  
(ADJACENT TO ATB-322-13.55 STRUCTURE ONLY)

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED TO CONSTRUCT THE PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ENDANGERED SPECIES  
EASTERN MASSASAUGA RATTLESNAKE

THE PROJECT SITE AT ATB-322-13.55 IS WITHIN THE RANGE OF THE EASTERN MASSASAUGA RATTLESNAKE (SISTRURUS CATENATUS), A STATE ENDANGERED AND FEDERAL THREATENED SPECIES. IF EASTERN MASSASAUGA RATTLESNAKES ARE ENCOUNTERED IN THE WORK AREA(S) DURING CONSTRUCTION, NO PERSON SHALL HARM OR KILL THE SNAKES OR ATTEMPT TO HANDLE THE EASTERN MASSASAUGA RATTLESNAKE. ALL CONSTRUCTION OPERATIONS AT THE WORK AREA(S) SHALL TEMPORARILY CEASE AND ODOT OFFICE OF ENVIRONMENTAL SERVICES (OES) - ECOLOGICAL SECTION (614-466-5129 OR 614-466-5112) AND THE UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) COLUMBUS FIELD OFFICE (614-416-8993) WILL BE IMMEDIATELY CONTACTED. CONSTRUCTION OPERATIONS WILL NOT RESUME UNTIL COORDINATION WITH ODOT OES AND USFWS HAS BEEN CONCLUDED.

PROTECTION OF DRINKING WATER RESOURCES

PORTIONS OF THE PROJECT ARE LOCATED WITHIN THE INNER MANAGEMENT ZONE AND SOURCE WATER PROTECTION AREA ASSOCIATED WITH THE VILLAGE OF ORWELL'S COMMUNITY WATER SYSTEM, THE SOURCE WATER PROTECTION AREA FOR THE COLEBROOK LOUNGE NONCOMMUNITY SYSTEM, AND THE INLAND SURFACE WATER SOURCE WATER AREA WATERSHED ASSOCIATED WITH THE CITY OF WARREN COMMUNITY SYSTEM. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETRO-CHEMICALS, AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS THAT COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE VILLAGE OF ORWELL VOLUNTEER FIRE DEPARTMENT (911) AND THE OEPA SPILLS HOTLINE (800-282-9378) MUST BE CONTACTED WITHIN 30 MINUTES OF KNOWLEDGE OF THE RELEASE.

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), AS PER PLAN

THIS ITEM OF WORK SHALL BE IN CONFORMANCE WITH ITEM 441 OF CMS EXCEPT THAT THE CONTRACTOR MAY PLACE THE INTERMEDIATE COURSE IN ONE (1) 3 1/2" LIFT. IF DENSITY PER ITEM 446 OF CMS IS NOT ACHIEVED, THE CONTRACTOR SHALL PLACE THE INTERMEDIATE COURSE IN TWO (2) SEPARATE LIFTS WITH NON-TRACKING TACK COAT BETWEEN THE LIFTS. THE FIRST 1 3/4" LIFT SHALL BE TESTED PER ITEM 448 OF CMS SHOULD THE TWO-LIFT METHOD BE CONSTRUCTED, AND EACH OF THE TWO LIFTS SHALL BE TESTED SEPARATELY. THE TACK COAT BETWEEN THE LIFTS SHALL BE AT NO ADDITIONAL COST TO THE DEPARTMENT. ALL EQUIPMENT, LABOR, TOOLS, TACK COAT, AND OTHER INCIDENTALS TO PERFORM THIS THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), AS PER PLAN.

DESIGN AGENCY



DESIGNER  
NKF

REVIEWER  
MJP 04-29-24

PROJECT ID  
113810

SHEET	TOTAL
P.3	52



MAINTENANCE OF TRAFFIC

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

1. A MINIMUM OF ONE TEN FOOT BI-DIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

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

3. WHEN PERFORMING WORK AT STRUCTURES ATB-322-9.649 AND ATB-322-13.554, THE CONTRACTOR IS PERMITTED TO UTILIZE PORTABLE TRAFFIC SIGNALS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-96.11. ALL COSTS ASSOCIATED WITH THE PROCUREMENT AND INSTALLATION OF PORTABLE TRAFFIC SIGNALS AND ALL COSTS TO MAINTAIN TRAFFIC IN ACCORDANCE WITH MT-96.11 SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

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

6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.

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

8. A QUANTITY OF 75 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

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

10. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.

11. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC. PLACEMENT OF THE INTERMEDIATE COURSE SHALL FOLLOW MILLING OPERATIONS AND THAT TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH SCD MT-101.90.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

US 322, SLM 8.11 - 14.90

PHASE 1: INTERMEDIATE COURSE  
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 6.79 MILE  
614, WORK ZONE MARKING SIGN, (ALL PHASES), 24 EACH

PHASE 2: SURFACE COURSE  
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 6.79 MILE

TO BE USED AS DIRECTED BY THE ENGINEER  
614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 13.58 MILE

US 322, SLM 14.90 - 15.24

PHASE 1: MILLED SURFACE  
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 0.34 MILE  
614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT, 196 FT

PHASE 2: INTERMEDIATE COURSE  
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 0.34 MILE  
614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT, 196 FT

PHASE 3: SURFACE COURSE  
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 0.34 MILE  
614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT, 196 FT

TO BE USED AS DIRECTED BY THE ENGINEER  
614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 0.68 MILE

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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.

TRAFFIC CONTROL INSPECTOR

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

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING PERIODS WHERE TRAFFIC NEEDS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/OR SHARED USE PATH USERS.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS BY THE ENGINEER:

FOR LANE CLOSURES THAT MEET ALL OF THE CRITERIA LISTED BELOW: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

CRITERIA:  
- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND,  
- AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,  
- AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

IN GENERAL LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES IN WORK ZONES.

LEOS 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 LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE SHIFT DURATION SHALL NOT BE LESS THAN THE LEO'S MINIMUM SHOW-UP TIME REQUIRED BY THEIR LAW ENFORCEMENT AGENCY. LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (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 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 50 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DROPOFFS AT SIDE STREETS AND DRIVEWAYS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE MILLED SURFACES AND SURFACE COURSE OF SIDE STREET APPROACHES/DRIVEWAYS GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES AND DRIVEWAYS, PER THE NOTES ON SHEET P.3, SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR DRIVEWAY SURFACE. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 – MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/DRIVEWAY IS PAVED.

TO ACCOUNT FOR MATERIAL TO INSTALL DROPOFF WEDGES, THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:  
411, STABILIZED CRUSHED AGGREGATE, (DRIVEWAYS), 500 CY.  
411, STABILIZED CRUSHED AGGREGATE, (INTERSECTIONS), 70 CY.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

ADVANCED NOTICE TO PAVE

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

DESIGN AGENCY



DESIGNER

NKF

REVIEWER

MJP 11-29-21

PROJECT ID

113810

SHEET

P:5

TOTAL

10



NOTIFICATION OF TRAFFIC RESTRICTIONS

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

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

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD & RAMP CLOSURES	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

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

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE (SLM 8.11 TO 14.90)  
2 PHASES (INTERMEDIATE AND SURFACE COURSE)

TRAFFIC SHALL NOT BE PERMITTED ON MILLED SURFACES AT ANY TIME. ACCESS TO ALL DRIVEWAYS AND INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES. INTERMEDIATE COURSE MUST BE PLACED WITHIN THE SAME DAY.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE (SLM 14.90 TO 15.24)  
3 PHASES (MILLED, INTERMEDIATE, AND SURFACE COURSE)

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 5 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$3,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

ASPHALT PAVING LIMITATION

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

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. 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 CMS 614.03.

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 CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

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.

614 PORTABLE CHANGEABLE MESSAGE SIGN,  
AS PER PLAN, 12 SIGN MONTH  
ASSUMING 2 SIGNS FOR 6 MONTHS

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)  
(ATB-322-12.48) (ATB-322-13.99)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD & RAMP CLOSURES	>= 2WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)  
(ATB-322-12.18)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 14 CONSECUTIVE DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.7. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS ROADWAY CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF ATB-322-13.99.

MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)  
(ATB-322-13.99)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 21 CONSECUTIVE DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS ROADWAY CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF ATB-322-12.18.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-2208) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

INTERIM START DATE

NO WORK AT STRUCTURE ATB-322-13.99 SHALL BEGIN BEFORE JULY 16, 2025. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, A DISINCENTIVE IN THE AMOUNT OF \$3,000 PER DAY SHALL BE ASSESSED.

DESIGN AGENCY



DESIGNER

NKF

REVIEWER

MJP 04-29-24

PROJECT ID

113810

SHEET

P:6

TOTAL

52



SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	6	11	12	13	14	26	43	01/STR/05	02/STR/04	03/STR/10	04/STR/47						
																		PAVEMENT	
	1,330			7,450						1,330				251	01000	1,330	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
				112,338						7,450				254	01000	7,450	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (T = 3")	
										112,338				254	01000	112,338	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (T = 5")	
								73	57			57	73	301	56000	130	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
								20	39			39	20	304	20000	59	CY	AGGREGATE BASE	
				15,655				16	22	15,655	22	16		407	20000	15,693	GAL	NON-TRACKING TACK COAT	
				6,659				235		6,659		235		408	10001	6,894	GAL	PRIME COAT, AS PER PLAN	3
30		570								600				411	10000	600	CY	STABILIZED CRUSHED AGGREGATE	
				4,978						4,978				441	10100	4,978	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	
				363						363				441	10200	363	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
				10,700						10,700				441	10201	10,700	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), AS PER PLAN	
							23			23				441	50201	23	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN (UNDER GUARDRAIL)	4
				463				17		463		17		617	10101	480	CY	COMPACTED AGGREGATE, AS PER PLAN	
15										15				618	41000	15	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
8										8				618	43000	8	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
42,240										42,240				874	20000	42,240	FT	LONGITUDINAL JOINT PREPARATION	
																		TRAFFIC CONTROL	
					489					489				621	00100	489	EACH	RPM	
					391					391				621	54000	391	EACH	RAISED PAVEMENT MARKER REMOVED	
	65						40	17	16	105	16	17		626	00110	138	EACH	BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL)	
45								36	38	45	38	36		630	02100	119	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
6									10	6	10			630	80100	16	SF	SIGN, FLAT SHEET, 730.20	
	6								1	6	1			630	84900	7	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								3						630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
	6							3	2	6	2	3		630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						14.26				14.26				646	10010	14.26	MILE	EDGE LINE, 6"	
						7.13				7.13				646	10200	7.13	MILE	CENTER LINE	
						196				196				646	10310	196	FT	CHANNELIZING LINE, 12"	
						52				52				646	10400	52	FT	STOP LINE	
						168				168				646	10600	168	FT	TRANSVERSE/DIAGONAL LINE	
						114				114				646	10800	114	SF	ISLAND MARKING	
						4				4				646	20300	4	EACH	LANE ARROW	
																		STRUCTURE REPAIRS	
																		FOR ATB-322-10.224 ESTIMATED QUANTITIES	17
																		FOR ATB-322-13.554 ESTIMATED QUANTITIES	17
																		FOR ATB-322-9.649 ESTIMATED QUANTITIES	17
																		STRUCTURES OVER 20 FOOT SPAN	
																		FOR ATB-322-13.986 ESTIMATED QUANTITIES	36
																		MAINTENANCE OF TRAFFIC	
		50								50				614	11110	50	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			LS							LS				614	12420	LS		DETOUR SIGNING	
		24								24				614	12460	24	EACH	WORK ZONE MARKING SIGN	
		75								75				614	13000	75	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
			12							12				614	18601	12	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
		7.47								7.47				614	21100	7.47	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		7.13								7.13				614	21550	7.13	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
		14.26								14.26				614	22360	14.26	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
		392								392				614	23010	392	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
		196								196				614	23690	196	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
																		INCIDENTALS	
										LS				614	11000	LS		MAINTAINING TRAFFIC	
										12				619	16010	12	MNTH	FIELD OFFICE, TYPE B	
										LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS				624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

CMW

REVIEWER

MJP 04-29-24

PROJECT ID

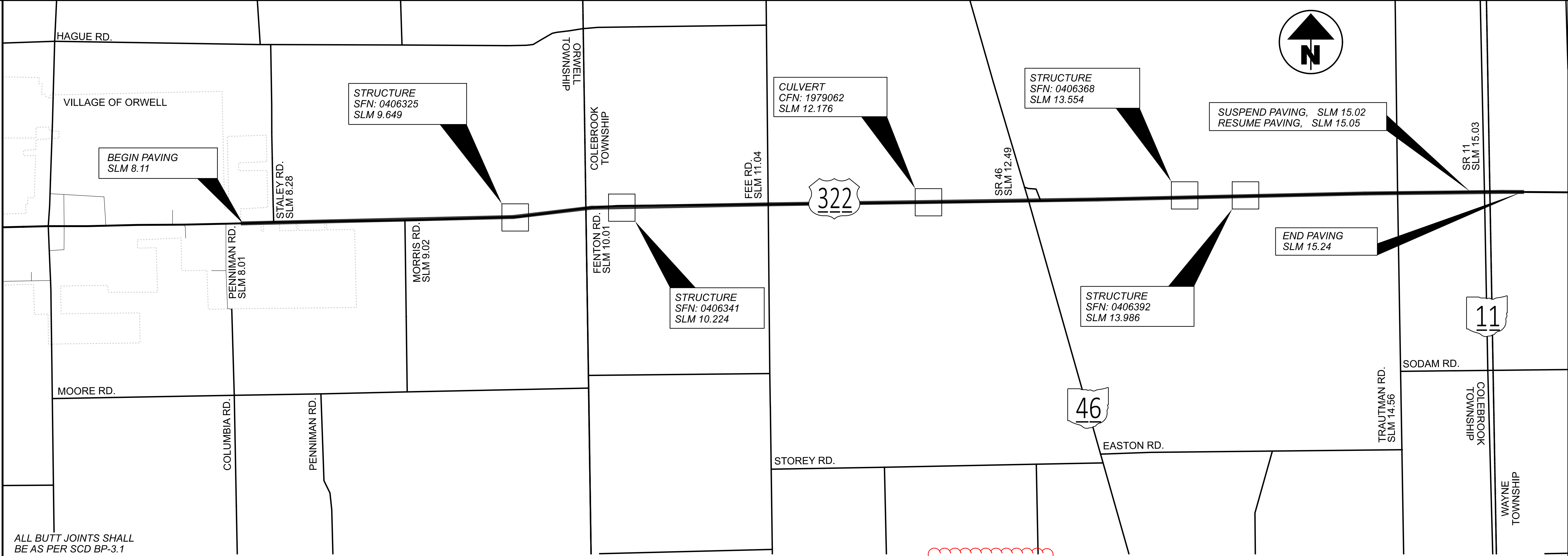
113810

SHEET

P.10

TOTAL

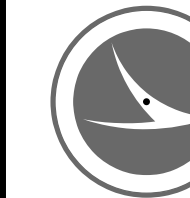
52



SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	PAVEMENT PLANING, ASPHALT CONCRETE, (T = 5")														PAVEMENT PLANING, ASPHALT CONCRETE, (T = 3")														NON-TRACKING TACK COAT @ 0.08 GAL/SY														NON-TRACKING TACK COAT @ 0.05 GAL/SY														PRIME COAT, AS PER PLAN @ 0.4 GAL/SY														ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M, (T = 1.5")														ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M, (T = 1.25")														ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), (T = 1.75")														ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), AS PER PLAN, (T = 3.5")														COMPACTED AGGREGATE, AS PER PLAN, (T = 1" AVG.)														PREPARING SUBGRADE FOR SHOULDER PAVING														ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M (SAFETY EDGE)														NON-TRACKING TACK COAT @ 0.09 GAL/SY (SAFETY EDGE)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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PAVEMENT CALCULATIONS

DESIGN AGENCY



DESIGNER

NKF

REVIEWER

MJP 04-29-24

PROJECT ID

113810

SHEET

P:11

TOTAL

52



DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2012 INTERMIM SPECIFICATIONS, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15                      DATED 1/20/2023  
DBR-3-11                    DATED 7/15/2011  
DS-1-92                     DATED 7/15/2022

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS 844            DATED 4/20/2018  
SS 848            DATED 1/15/2021

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS, SECTIONS 102.05, 105.02, AND 513.04\*. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

ATB-322-9.649 (OVER ROCK CREEK)  
- REMOVE CONCRETE WEARING SURFACE AND REPLACE WITH A FIBER REINFORCED CONCRETE OVERLAY  
- INSTALL NEW DRIP STRIPS  
- INSTALL DEEP BEAM RETROFIT RAILING PER SCD DBR-3-11  
- PATCH UNSOUND AREAS OF EXISTING CONCRETE SURFACE ON DECK EDGES AND ABUTMENTS  
- CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED  
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS  
- CHANNEL CLEANOUT

ATB-322-10.224 (OVER STREAM)  
- PAVE OVER STRUCTURE WITH MAINLINE PAVING  
- CHANNEL CLEANOUT AROUND INLET AND OUTLET  
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION  
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS  
- CHANNEL CLEANOUT

ATB-322-13.554 (OVER MOSQUITO CREEK)  
- REMOVE ASPHALT WEARING SURFACE AND REPLACE WITH A FIBER REINFORCED CONCRETE OVERLAY  
- INSTALL NEW DRIP STRIPS  
- INSTALL DEEP BEAM RETROFIT RAILING PER SCD DBR-3-11  
- PATCH UNSOUND AREAS OF EXISTING CONCRETE SURFACE ON DECK EDGES AND ABUTMENTS  
- CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED  
- PERFORM PILE ENCASEMENTS  
- CHANNEL CLEANOUT  
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION  
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/ /CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

ITEM 202 - REMOVAL MISC.: CHANNEL CLEANOUT

THIS WORK WILL CONSIST OF RE-ESTABLISHING THE ORIGINAL CHANNEL PROFILE BY REMOVING SEDIMENT BUILDUP, VEGETATION, AND DEBRIS FROM THE EXISTING CHANNEL WITHIN STATE RIGHT-OF-WAY LIMITS AS SPECIFIED IN THE PLANS FOR STRUCTURES ATB-322-9.649, ATB-322-10.224, AND ATB-322-13.554. ANY TREES LOCATED WITHIN CHANNEL OR BANK LIMITS, OR UNDER/INSIDE BRIDGE LIMITS WILL BE INCLUDED UNDER ITEM 201, CLEARING AND GRUBBING. ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17 OF THE CMS WITH THE APPROVAL OF THE ENGINEER. NO AREAS OF EXISTING CHANNEL PROTECTION SHALL BE REMOVED IN ORDER TO RESTORE THE ORIGINAL CHANNEL PROFILE. AFFECTED CHANNEL AREAS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CHANNEL CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202 REMOVAL MISC.: CHANNEL CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL CLEANOUT.

EROSION REPAIR

THE FOLLOWING QUANTITIES FOR EACH STRUCTURE SHALL BE USED TO REPAIR EROSION AT THE FOLLOWING LOCATIONS AS DIRECTED BY THE PROJECT ENGINEER.

STRUCTURE ATB-322-9.649 (FORWARD FOOTERS)  
ITEM 203, EMBANKMENT, 3 CY  
ITEM 601, DUMPED ROCK FILL, TYPE C, 3 CY

STRUCTURE ATB-322-9.649 (REAR FOOTERS)  
ITEM 203, EMBANKMENT, 3 CY  
ITEM 601, DUMPED ROCK FILL, TYPE C, 3 CY

STRUCTURE ATB-322-13.554 (FORWARD FOOTERS)  
ITEM 203, EMBANKMENT, 4 CY  
ITEM 601, DUMPED ROCK FILL, TYPE C, 4 CY

STRUCTURE ATB-322-13.554 (REAR FOOTERS)  
ITEM 203, EMBANKMENT, 4 CY  
ITEM 601, DUMPED ROCK FILL, TYPE C, 4 CY

ITEM SPECIAL, STEEL DRIP STRIP

AFTER REMOVAL OF THE EXISTING WEARING COURSE, INSTALL STEEL DRIP STRIPS ON EACH EDGE OF STRUCTURES ATB-322-9.649 AND ATB-322-15.554. INSTALLATION IS TO BE AS PER SCD DS-1-92.

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE UNDERSIDE OF THE DECK WITHOUT SOUNDING.

AFTER SPALLED CONCRETE IS REMOVED THE EXISTING EXPOSED REINFORCING STEEL SHALL BE BLAST CLEANED. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVES WITH CONTAINMENT, OR VACUUM BLASTING. APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, OVER ALL EXPOSED STEEL SURFACES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE DEPARTMENT WILL MEASURE THIS WORK AS THE ACTUAL AREA IN SQUARE YARDS OF CONCRETE SPALLS REMOVED.

CONCRETE SPALL REMOVAL WILL BE PAID AT THE UNIT BID PRICE FOR SPECIAL – STRUCTURE MISC.: CONCRETE SPALL REMOVAL WITH ZINC PRICH PRIMER APPLIED. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

SPALL REMOVAL ON STRUCTURES ATB-322-9.649 & ATB-322-13.554 NOT OVER TRAVEL LANES AND PAVED SHOULDERS

THE FOLLOWING WORK AND QUANTITIES SHALL BE USED ON THIS STRUCTURE TO REPAIR THE CONCRETE SPALLS OVER TRAVEL LANES AND PAVED SHOULDERS:

ATB-322-9.649:  
ITEM SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED, 10 SY

ATB-322-13.554:  
ITEM SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED, 4 SY

SPECIAL - STRUCTURES: ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS

AFTER THE LOOSE MATERIALS ARE REMOVED FROM THE EXISTING PILE ENCASEMENTS APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, TO ALL EXPOSED STEEL SURFACES INCLUDING THE EXISTING PILE ENCASEMENTS AND EXPOSED EXISTING H PILES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE EXISTING EXPOSED REINFORCING STEEL SHALL BE BLAST CLEANED. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVES WITH CONTAINMENT, OR VACUUM BLASTING. APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, OVER ALL EXPOSED STEEL SURFACES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE DEPARTMENT WILL MEASURE THIS WORK AS THE ACTUAL AREA IN SQUARE FEET OF THE EXISTING PILE ENCASEMENTS.

THIS WORK WILL BE PAID AT THE UNIT BID PRICE FOR SPECIAL - STRUCTURES: ZINC RICH PRIMER APPLIED TO EXSITING PILE ENCASEMENTS. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR EACH STRUCURE.

ATB-322-9.646:  
SPECIAL, ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS, 810 SF

ATB-322-13.554:  
SPECIAL, ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS, 315 SF

ITEM SPECIAL - PILE ENCASEMENT

INSPECT AND REMOVE ALL THE EXISTING LOOSE CONCRETE AND EXISTING CMP PILE ENCASEMENTS FROM THE EXISTING PILE ENCASEMENTS.

ENCASE ALL EXISTING PILE ENCASEMENTS FOR THE CAPPED PILE PIERS IN CONCRETE CONFORMING TO CMS 511 (QC1, F'C = 4.0 KSI). PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (CMS 707.33), OR PVC PIPE (CMS 707.42). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP. POSITION THE PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE. THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET.

THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM - SPECIAL, PILE ENCASEMENT.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR EACH STRUCTURE.

ATB-322-9.649, 98 FT  
ATB-322-13.554, 80 FT

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

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

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

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

ATB-322-9.649  
ABUTMENTS: ANODE SPACING @ \_\_\_ IN C/C  
DECK EDGE: ANODE SPACING @ \_\_\_ IN C/C  
ITEM 844, GALVANIC ANODE PROTECTION, \_\_\_ EACH  
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

ATB-322-13.554  
ABUTMENTS: ANODE SPACING @ \_\_\_ IN C/C  
DECK EDGE: ANODE SPACING @ \_\_\_ IN C/C  
ITEM 844, GALVANIC ANODE PROTECTION, \_\_\_ EACH  
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

SFN		VARIES	
DESIGN AGENCY			
DESIGNER		CHECKER	
NKF		MJP	
REVIEWER			
MJA 04-29-24			
PROJECT ID			
113810			
SUBSET		TOTAL	
1		8	
SHEET		TOTAL	
P.15		52	