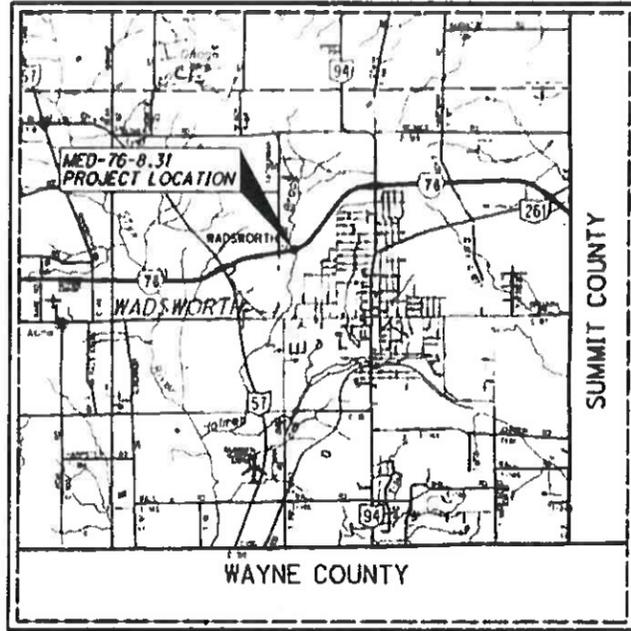


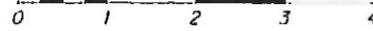
MED - IR 76 - 8.31
 197054 PID - 108636
 DIST3 10/24/2019



LOCATION MAP

LATITUDE: N41°02'11" LONGITUDE: W81°44'44"

SCALE IN MILES



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

DESIGN DESIGNATION

CURRENT ADT (2018)	50000
DESIGN YEAR ADT (2038)	60500
DESIGN HOURLY VOLUME (2038)	5400
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	20%
DESIGN SPEED	65 MPH
LEGAL SPEED	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
INTERSTATE	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
 Contact Two Working Days Before You Dig

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

PLANS PREPARED BY:

OHIO DEPARTMENT OF TRANSPORTATION
 DISTRICT THREE ENGINEERING

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
MED-76-8.31
 CITY OF WADSWORTH
 WADSWORTH TOWNSHIP
 MEDINA COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2-3
MAINTENANCE OF TRAFFIC	4-5
GENERAL SUMMARY	6
PLAN VIEW	7
CULVERT DETAIL	8

PROJECT DESCRIPTION

THIS PROJECT WILL CONSIST OF FILLING VOIDS AROUND THE EXISTING 96" CORRUGATED METAL PIPE, CONDUIT REHABILITATION USING SPRAY APPLIED STRUCTURAL LINING METHODS, AND INSTALLING ROCK CHANNEL PROTECTION, TYPE A AT THE EXISTING CONDUIT OUTLET.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

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

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

ENGINEERS SEAL:		STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
	HW-2.1	7/20/18	TC-52.10	10/18/13		800	7/19/19	WATERWAY PERMIT	
			TC-52.20	7/20/18		821	4/20/12	CONDITIONS DATED 9/26/10	
	DM-1.1	7/21/17				832	10/19/18		
	DM-4.3	1/15/16				833	7/19/19		
	DM-4.4	1/15/16							
	F-2.1	7/20/18							
	F-3.3	7/19/13							
	MT-95.30	7/21/17							
	MT-95.50	7/21/17							
	MT-101.90	7/21/17							
	MT-105.10	7/19/13							
	TC-41.20	10/18/13							
	TC-42.20	10/18/13							

STGNEED: [Signature]
 DATE: 9/19/19

APPROVED: [Signature] DISTRICT DEPUTY DIRECTOR
 DATE: 09/19/19

APPROVED: [Signature] DIRECTOR, DEPARTMENT OF TRANSPORTATION
 DATE: 10/21/2019

FEDERAL PROJECT NO. NONE
 PID NO. 108636
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 MED-76-8.31
 1/8

Contract Proposal Available @
 www.contracts.dot.state.oh.us/home

I:\ProjectData\108636\Design\Roadway\Sheets\108636_C1001.dgn

UTILITIES

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

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ELECTRIC/CABLE/SANITARY/STORM/
WATER/WATER SERVICE/TRAFFIC
CITY OF WADSWORTH
120 MAPLE STREET
WADSWORTH, OH 44281
330.335.2827

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

EXISTING PLANS

EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND. TITLES AND DATES ARE AS FOLLOWS:

STRUCTURE	EXISTING PLAN	DATE
MED-76-0831	MED-224-17.66 SUM-224-0.00	1957

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.

ITEM 201 - CLEARING AND GRUBBING

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

ENVIRONMENTAL COMMITMENTS

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT WETLANDS AT ANY TIME THROUGHOUT CONSTRUCTION. NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED WITHIN WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT WITHIN THE WETLAND BOUNDARIES.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT TREES CONTAINING SUITABLE WOODED HABITAT FOR THE INDIANA AND NORTHERN LONG-EARED BAT. SUITABLE WOODED HABITAT CAN BE DESCRIBED 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 WITHIN CAVITIES OR SHAGGY BARK IN WHICH A BAT CAN UTILIZE FOR COVER.

ROUTINE MAINTENANCE

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

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRUCT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING 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. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL, AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THIS AREA.

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

TEMPORARY CONSTRUCTION FENCE LENGTHS

THE CONTRACTOR SHALL LIMIT THE CONSTRUCTION FOOTPRINT WITHIN FRIEDT PARK TO THE MAXIMUM EXTENT PRACTICABLE. TO PROTECT PARKGOERS AND DELINEATE THE BOUNDARIES OF THE CONSTRUCTION ACCESS PATH AND PHYSICAL CONSTRUCTION LIMITS, A QUANTITY OF ITEM 690 - TEMPORARY CONSTRUCTION FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF THE CONSTRUCTION ACCESS PATH AT THE LOCATIONS DETAILED ON PLAN VIEW SHEET 7.

THE FENCE SHALL BE BRIGHT ORANGE, PLASTIC/VINYL CONSTRUCTION FENCE. THE FENCE SHALL BE SECURELY FASTENED TO WOOD OR METAL POSTS.

THE TEMPORARY CONSTRUCTION FENCE SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES. THE TEMPORARY CONSTRUCTION FENCE SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE WORK PERFORMED AT THE MED-76-8.31 CULVERT. THE TEMPORARY CONSTRUCTION FENCE SHALL BE REMOVED BY THE CONTRACTOR UPON COMPLETION AND FINAL ACCEPTANCE OF THE WORK.

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 690 - SPECIAL TEMPORARY CONSTRUCTION FENCE.

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

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM 690 - SPECIAL TEMPORARY CONSTRUCTION FENCING 1,500 FT

INTERIM COMPLETION DATE

ALL REHABILITATION WORK TO BE PERFORMED ON THE 96" CORRUGATED METAL PIPE CULVERT, INCLUDING ALL SPRAY APPLIED STRUCTURAL LINING AND ROCK CHANNEL PROTECTION, SHALL HAVE AN INTERIM COMPLETION DATE OF 12/20/2019.

THE INTENT IS TO HAVE ALL CULVERT REHABILITATION AND OUTLET PROTECTION COMPLETED IN THE 2019 CONSTRUCTION SEASON.

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

MED-76-0.61; PID 77475 AERIAL MAPPING
VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID03

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (CORS96)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE - NORTH ZONE (3401)
COMBINED SCALE FACTOR: 1.00011618

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.280833333 U.S. SURVEY FEET.

COORDINATION OF WORK BETWEEN CONTRACTORS

THE CONTRACTOR SHOULD BE AWARE THAT THERE MAY BE OTHER WORK BEING PERFORMED BY A SEPARATE CONTRACT. MED-76-00.73 IS A PAVEMENT RESURFACING PROJECT AND IS SCHEDULED TO BEGIN WORK IN THE 2019 CONSTRUCTION SEASON. THE CITY OF WADSWORTH HAS A NEW GENERATOR INSTALLATION PROJECT JUST WEST OF THE EXISTING SUBSTATION THAT IS SCHEDULED TO OCCUR IN THE 2019 CONSTRUCTION SEASON. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 50 FEET WITHIN THE LIMITS OF MED-76-8.31. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO FILE A NEW FAA FORM 7460-1, ADVISING THE FAA THAT AERONAUTICAL STUDY NO. (SEE BELOW LIST) IS BEING RESUBMITTED AND THAT AN ALTERATION TO THE ORIGINAL SUBMISSION IS REQUESTED. COPIES OF THE ALTERATION AND FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

THE CONTRACTOR IS FURTHER ADVISED THAT THE FAA APPROVAL WILL TAKE A MINIMUM OF 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THESE OFFICES:

EXPRESS PROCESSING CENTER THE FEDERAL AVIATION ADMINISTRATION SOUTHWEST REGIONAL OFFICE OBSTRUCTION EVALUATION SERVICE, AJR-32 2601 MEACHAN BLVD. FORT WORTH, TX 76137-0520	ODOT OFFICE OF AVIATION 2829 W DUBLIN-GRANVILLE RD. COLUMBUS, OH 43235 614.793.5046
--	---

AERONAUTICAL STUDY NUMBER	COUNTY	ROUTE	STRAIGHT LINE MILE	LAT-LONG	
				LATITUDE	LONGITUDE
2019-AGL-5741-OE	MED	76	8.31	41.036403	-81.745628

ITEM 659 - SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659 - COMMERCIAL FERTILIZER	0.68 TON
ITEM 659 - LIME	1.03 ACRE
ITEM 659 - WATER	14 MGAL
ITEM 659 - REPAIR SEEDING AND MULCHING	250 SY
ITEM 659 - INTER-SEEDING	250 SY
ITEM 659 - TOPSOIL	425 CY
ITEM 659 - SOIL ANALYSIS TEST	2 EACH
ITEM 659 - SEEDING AND MULCHING	5,000 SY

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

ITEM 202 - GUARDRAIL REMOVED FOR REUSE

THE CONTRACTOR MAY ACCESS THE MED-71-8.31 CULVERT ON THE NORTHERN SIDE OF IR 76 AT THE LOCATION DETAILED ON PLAN VIEW SHEET 7. THE CONTRACTOR IS PERMITTED TO REMOVE THE GUARDRAIL TO ACCESS THE MED-71-8.31 CULVERT AT THIS LOCATION. A QUANTITY OF ITEM 202 - GUARDRAIL REMOVED FOR REUSE HAS BEEN INCLUDED TO PERFORM THIS WORK. THIS ITEM SHALL CONSIST OF THE REMOVAL OF THE EXISTING GUARDRAIL AS PER 202.09. THE CONTRACTOR SHALL RESTORE THE GUARDRAIL TO THE PRECONSTRUCTION CONDITION AT THE END OF EACH WORK DAY.

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

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM 202 - GUARDRAIL REMOVED FOR REUSE 75 FT

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND REGALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

ITEM 611 - CONDUIT MISC.: VIDEO LOG

PRIOR TO THE ACCEPTANCE OF THE PIPE CLEANOUT BY THE ENGINEER AND THE APPLICATION OF THE PIPE LINER, A VIDEO LOG OF THE DRAINAGE SYSTEM SHALL BE PERFORMED.

IF A BLOCKAGE IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND THE VIDEO LOG SHALL BE SUSPENDED UNTIL THE PIPE HAS BEEN THOROUGHLY CLEANED OUT.

IF A COLLAPSE OR FAILURE IN THE PIPE IS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND THE VIDEO LOG AND NOTIFY THE ENGINEER. PAYMENT FOR REPLACEMENT OF ANY SECTION OF THE TRUNK LINE SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR REPLACEMENT OF ANY SECTION OF TRUNK LINE SHALL BE PROVIDED IN A SUPPLEMENTAL AGREEMENT AS PER CMS 109.05.

THE VIDEO LOG OF THE DRAINAGE SYSTEM LINE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 611 - CONDUIT MISC.: VIDEO LOG. THIS PRICE SHALL INCLUDE THE COST OF MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE ABOVE STATED WORK.

ITEM 611 - RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER.

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 APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM 833 - CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, 96" ROUND CONDUIT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 833 THE FOLLOWING REQUIREMENTS APPLY FOR THIS PROJECT:

1. CALCULATIONS

PERFORM ALL DESIGN AND RATING CALCULATIONS WITHOUT ANY CONSIDERATION OF ANY CONTRIBUTING OF ANY KIND BY THE EXISTING STEEL CULVERT.

2. MATERIALS

FURNISH ONLY CEMENTITIOUS OR GEOPOLYMER-BASED LINER MATERIAL.

3. QUALITY CONTROL

A MANUFACTURER'S REPRESENTATIVE SHALL BE ON-SITE TO OVERSEE ALL OPERATIONS. AT A MINIMUM, THE DUTIES OF THE REPRESENTATIVE SHALL INCLUDE:

- A. INSPECTION OF EQUIPMENT AND MATERIAL
- B. APPROVAL OF THE WORK
- C. INSPECTION OF THE WORK WITH THE ENGINEER OR INSPECTOR
- D. VERIFICATION THAT THE CONTRACTOR PERFORMED WORK ACCORDING TO THE CONTRACT DOCUMENTS
- E. NOTIFICATION OF THE SUPERINTENDENT OF NONCONFORMING WORK
- F. STOPPING WORK WHEN NECESSARY TO ENSURE THE WORK IS PERFORMED ACCORDING TO THE CONTRACT

THE ENGINEER MAY CONDUCT SUPPLEMENTAL SAMPLING AND TESTING OF THE LINER.

AT THE COMPLETION OF ALL WORK, THE REPRESENTATIVE SHALL PROVIDE THE ENGINEER A LETTER THAT INCLUDES:

- A. THE NAME AND CONTACT INFORMATION OF THE REPRESENTATIVE
- B. DOCUMENTATION OF ISSUES THAT AROSE DURING WORK (ATTACHING PHOTOGRAPHS IF AVAILABLE)
- C. DOCUMENTATION OF STEPS TAKEN TO RESOLVE THOSE ISSUES
- D. DOCUMENTATION OF ACCEPTANCE OF THE LINER SYSTEM

PREPARE AT LEAST TWO (2) TEST SPECIMENS FOR EVERY DAY OF PRODUCTION FOR THE FIRST THREE (3) DAYS OF PRODUCTION AND FOR EVERY TWO (2) DAYS OF PRODUCTION THEREAFTER AS REQUIRED PER ASTM C109 UTILIZING ACI-CERTIFIED LEVEL ONE SAMPLE TECHNICIANS TO PROPERLY OBTAIN AND TRANSPORT THE TEST SPECIMENS TO AN ACCREDITED THIRD PARTY LABORATORY. IF A SINGLE COMPRESSIVE STRENGTH TEST RESULT IS LESS THAN THE DESIGN STRENGTH USED IN THE STRUCTURAL CALCULATIONS SUBMITTED BY THE CONTRACTOR, THE MATERIAL WILL BE CONSIDERED UNACCEPTABLE AND THE DEPARTMENT WILL DETERMINE ACCEPTANCE ACCORDING TO ITEM 106.7. THE CONTRACTOR MAY SUBMIT ADDITIONAL STRUCTURAL CALCULATIONS BASED UPON THE ACTUAL MEASURED THICKNESS OF THE LINER AND THE TESTED STRENGTH OF THE MATERIAL FOR CONSIDERATION OF THE ACCEPTANCE OF THE MATERIAL.

EXISTING CULVERT VERIFICATION

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

ITEM 833 - CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, 96" ROUND CONDUIT, AS PER PLAN (CONT.)

4. PRECONSTRUCTION TESTING

BEFORE THE START OF PLACING ANY LINER MATERIAL BY MANUAL METHOD, PERFORM A PRECONSTRUCTION TEST TO VERIFY THE OPERATION OF THE EQUIPMENT, TO CONFIRM THE APPLICATION CREW'S CAPABILITY, AND TO ENSURE THE SPRAY APPLIED LINER WILL BE OF ACCEPTABLE QUALITY.

FABRICATE TWO (2) TEST PANELS BY SPRAYING LINER MATERIAL ONTO A 4-FOOT SQUARE OF CORRUGATED METAL SIMILAR TO THE CULVERT TO WHICH THE LINER WILL BE APPLIED. MOUNT ONE PANEL VERTICALLY AND ONE PANEL OVERHEAD AT A HEIGHT EQUAL TO THE DISTANCE FROM WHICH THE CREW WILL BE APPLYING THE LINER AND APPLY THE LINER USING THE SAME PERSONNEL, EQUIPMENT, AND PROCEDURES THAT WILL BE USED ON THE PROJECT, UNTIL THE DESIGN THICKNESS IS ACHIEVED.

ADJUST THE MIXING WATER TO PROVIDE LINER MATERIAL OF THE PROPER CONSISTENCY, BUT DO NOT EXCEED A TOTAL WATER CONTENT THAT EXCEEDS THE MANUFACTURER MIX DESIGN.

BREAK OR CUT THE TEST PANEL AND ALLOW THE ENGINEER TO CAREFULLY EXAMINE THE INTERIOR PORTIONS. ENSURE THAT THEY ARE SUBSTANTIALLY FREE OF HOLLOW AREAS AND POCKETS OF UNMIXED MATERIAL.

HAVE EACH CREW PROPOSED TO PERFORM THIS WORK FABRICATE SATISFACTORY PANELS BEFORE ALLOWING THAT CREW TO APPLY LINER TO THE STRUCTURE.

5. APPLICATION

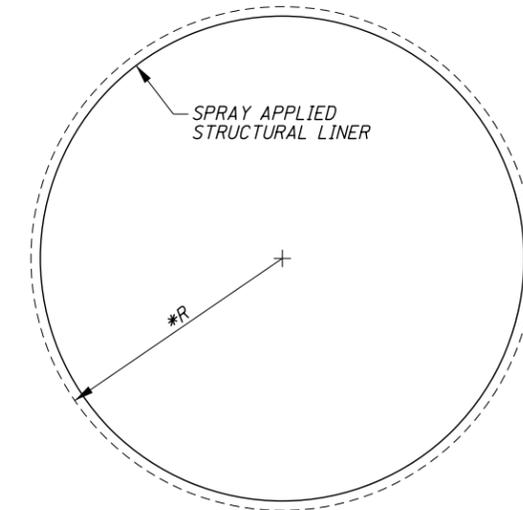
REMOVE ALL DEBRIS AND OBSTRUCTIONS FROM THE HOST PIPE. CLEAN AND PREPARE THE SURFACE OF THE HOST PIPE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

SOUND EXISTING METAL PIPE FOR VOIDS BEHIND THE WALLS OF THE PIPE. FILL ALL VOIDS BEHIND THE PIPE WALLS WITH AN APPROVED HYDRAULIC CEMENT OR THE SAME CEMENTITIOUS OR GEOPOLYMER BASED MATERIAL TO BE USED FOR THE LINER.

THE CEMENTITIOUS OR GEOPOLYMER BASED MATERIAL SHALL BE APPLIED PER THE MANUFACTURER'S DESIGN THICKNESS TO THE ENTIRE INSIDE CIRCUMFERENCE OF THE HOST PIPE.

PLACE EACH COAT SO THAT IT WILL NEITHER SAG NOR DECREASE THE BOND OF THE PRECEDING COAT.

APPLY THE LINER IN A MANNER THAT RESULTS IN A FINISHED SURFACE APPEARANCE AND CONSISTENCY EQUAL TO THE APPEARANCE AND CONSISTENCY EXHIBITED IN THE MANUFACTURER'S BROCHURES, LITERATURE, AND WEBSITE.



EXISTING CORRUGATED METAL SECTIONAL PLATE PIPE, 96" (TYP.)

* THE DESIGN RADIUS FOR THE STRUCTURE IS 48".

6. PAYMENT

PAYMENT FOR THE WORK OUTLINED ABOVE AND THAT REQUIRED IN SUPPLEMENTAL SPECIFICATION 833 SHALL BE MADE AT THE UNIT BID PRICE FROM ITEM 833, CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, 96" ROUND CONDUIT AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MOBILIZATION AND MATERIALS NECESSARY TO CONSTRUCT THE PROPOSED SPRAY LINER UNLESS SEPARATELY ITEMIZED IN THE PLANS.

CALCULATED
DUV
CHECKED
ACM

GENERAL NOTES

MED - 76 - 8.31

3
8

I:\ProjectData\08636\Design\Roadway\Sheets\08636_GN001.dgn

ITEM 614 - MAINTAINING TRAFFIC

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

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

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

ITEM 614 - MAINTAINING TRAFFIC LANE CLOSURE/REDUCTION REQUIRED

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

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

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF \$260 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

WORKING HOURS RESTRICTION

VARIOUS ROUTES ON THIS PROJECT ARE RESTRICTED LANE CLOSURE ROUTES DUE TO HIGH TRAFFIC VOLUME. DURING THE PROJECT DURATION, LANE CLOSURES SHALL BE PERMITTED AS LISTED ON THE ODOT PLCM WEB SITE AT <http://plcm.dot.state.oh.us>.

ANY SINGLE LANE CLOSURES MUST CONFORM TO THE HOUR RESTRICTIONS A SET FORTH ON THE ODOT PLCM WEB SITE. DURING TIMES THAT LANE CLOSURES ARE NOT PERMITTED, ALL LANES SHALL BE OPEN AND CAUSE NO IMPEDANCE TO TRAFFIC.

THE ALLOWABLE LANE CLOSURE TIMES ARE TO INCLUDE ANY TIME NEEDED TO IMPLEMENT AND REMOVE ALL MAINTENANCE OF TRAFFIC MEASURES.

LANE CLOSURE DISINCENTIVE

A LANE CLOSURE IS DEFINED AS ANY RESTRICTION OF A LANE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, SET UP AND TEAR DOWN OF TRAFFIC CONTROL ZONES. THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE IN THE AMOUNT OF \$260.00 PER MINUTE THAT LANES ARE CLOSED TO TRAFFIC DURING TIMES DESIGNATED AS 'LANE CLOSURE NOT PERMITTED' AS STATED IN THESE PLANS AND ON THE ODOT PLCM WEB SITE AT <http://plcm.dot.state.oh.us>.

CONSTRUCTION EQUIPMENT MEDIAN CROSSING

CONSTRUCTION EQUIPMENT SHALL CROSS THE MEDIAN ONLY AT THE EXISTING INTERSECTIONS AND U-TURN CROSSOVERS AND AT OTHER ADDITIONAL LOCATIONS APPROVED BY THE ENGINEER. A MAXIMUM OF TWO (2) ADDITIONAL EQUIPMENT CROSSINGS MAY BE ALLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE, AT HIS EXPENSE, FOR THE RESTORATION OF THE ADDITIONAL EQUIPMENT CROSSINGS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING PRIOR TO HIS WORK OPERATIONS.

ITEM 614 - MAINTAINING TRAFFIC

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 AND STANDARD DRAWING MT-95.30, MT-98.11, MT-98.20, MT-98.22, OR MT-98.28, UNLESS OTHERWISE NOTED BELOW.

EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

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.

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 ODOT AND ALL INTERESTED POLICING AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS 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.

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

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.

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

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

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

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

DURING A TRAFFIC SIGNAL INSTALLATION.

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

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

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

OHIO STATE PATROL
MEDINA COUNTY POST
3149 FRANTZ ROAD
MEDINA, OH 44256
330.725.4921

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 24 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

I:\Projec+Data\08636\Design\M01\Sheet\08636_MN001.dgn

MAINTENANCE OF TRAFFIC

MED-76-8.31

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(S) ON SITE FOR THE DURATION OF THE PROJECT. THE SIGN(S) SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEB SITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT AND 475 FT RESPECTIVELY.

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

THE PROBABLE PCMS LOCATIONS WILL BE DETERMINED BY THE ENGINEER PRIOR TO BEGINNING WORK ON THIS PROJECT. PLACEMENT, OPERATIONS, 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 TO FACE AWAY FROM TRAFFIC AND SHALL DISPLAY A MINIMUM OF ONE YELLOW RETROREFLECTIVE SHEETING SURFACE, A MINIMUM OF 9 INCHES BY 15 INCHES IN SIZE, FACING TRAFFIC.

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

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

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

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

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

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

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

NOTIFICATIONS OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE DISTRICT OFFICE AND 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 DISTRICT TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW. NOTIFICATIONS SHALL BE SENT TO THE EMAIL ADDRESS D03.DeTour.Notification@dot.ohio.gov AND THE PROJECT ENGINEER. PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE NOTIFICATION SIGNS OR MESSAGE BOARDS. UPON RECEIPT OF NOTIFICATION BY THE CONTRACTOR, THE DISTRICT OFFICE WILL ARRANGE NOTIFICATION OF THE FOLLOWING ORGANIZATIONS, IN WRITING, IN ACCORDANCE WITH THE BELOW TABLE:

- MEDINA COUNTY ENGINEER'S OFFICE
- THE CITY OF WADSWORTH
- WADSWORTH TOWNSHIP TRUSTEES (TOWNSHIP ROADS ONLY)
- WADSWORTH POLICE, FIRE, AND EMERGENCY MEDICAL SERVICES
- WADSWORTH SCHOOL DISTRICTS
- MEDINA COUNTY SHERIFF'S OFFICE
- ODOT DISTRICT THREE OFFICE OF ROADWAY SERVICES
- ODOT DISTRICT THREE PUBLIC INFORMATION OFFICE
- SPECIAL HAULING PERMITS SECTION (Hauling.Permits@dot.ohio.gov)

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 LEAD TIME REQUIRED*
RAMP AND/OR ROAD CLOSURES	TWO WEEKS OR GREATER	21 CALENDAR DAYS
	12 HOURS TO TWO WEEKS	14 CALENDAR DAYS
	12 HOURS OR LESS	4 BUSINESS DAYS
LANE CLOSURES AND RESTRICTIONS	TWO WEEKS OR GREATER	14 CALENDAR DAYS
	LESS THAN TWO WEEKS	5 BUSINESS DAYS
START OF CONSTRUCTION AND TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

* - PRIOR TO CLOSURE DATE, UNLESS NOTED OTHERWISE

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

CALCULATED
DUV
CHECKED
SRO

MAINTENANCE OF TRAFFIC

MED - 76 - 8 .31

5
8

I:\ProjectData\08636\Design\M01\Sheet\08636_MN001.dgn

I:\ProjectData\08636\Design\Roadway\Sheets\08636_G001.dgn

SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	4	5	8							01/IMS/CV							
ROADWAY																	
LS										LS	201	11000	LS		CLEARING AND GRUBBING		
75										75	202	38200	75	FT	GUARDRAIL REMOVED FOR REUSE		
1,500										1,500	SPECIAL	69098100	1,500	FT	TEMPORARY CONSTRUCTION FENCE	2	
EROSION CONTROL																	
				75						75	601	32000	75	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER		
2										2	659	00100	2	EACH	SOIL ANALYSIS TEST		
425										425	659	00300	425	CY	TOPSOIL		
5,000										5,000	659	10000	5,000	SY	SEEDING AND MULCHING		
250										250	659	14000	250	SY	REPAIR SEEDING AND MULCHING		
250										250	659	15000	250	SY	INTER-SEEDING		
0.68										0.68	659	20000	0.68	TON	COMMERCIAL FERTILIZER		
1.03										1.03	659	31000	1.03	ACRE	LIME		
14										14	659	35000	14	MGAL	WATER		
										5,000	832	30000	5,000	EACH	EROSION CONTROL		
DRAINAGE																	
				LS						LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING		
				1						1	611	97200	1	EACH	CONDUIT, MISC.: VIDEO LOG	3	
				416						416	833	10001	416	FT	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT, AS PER PLAN, 96"	3	
MAINTENANCE OF TRAFFIC																	
	24									24	614	11110	24	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
		4								4	614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	5	
INCIDENTALS																	
	LS									LS	614	11000	LS		MAINTAINING TRAFFIC		
										LS	624	10000	LS		MOBILIZATION		

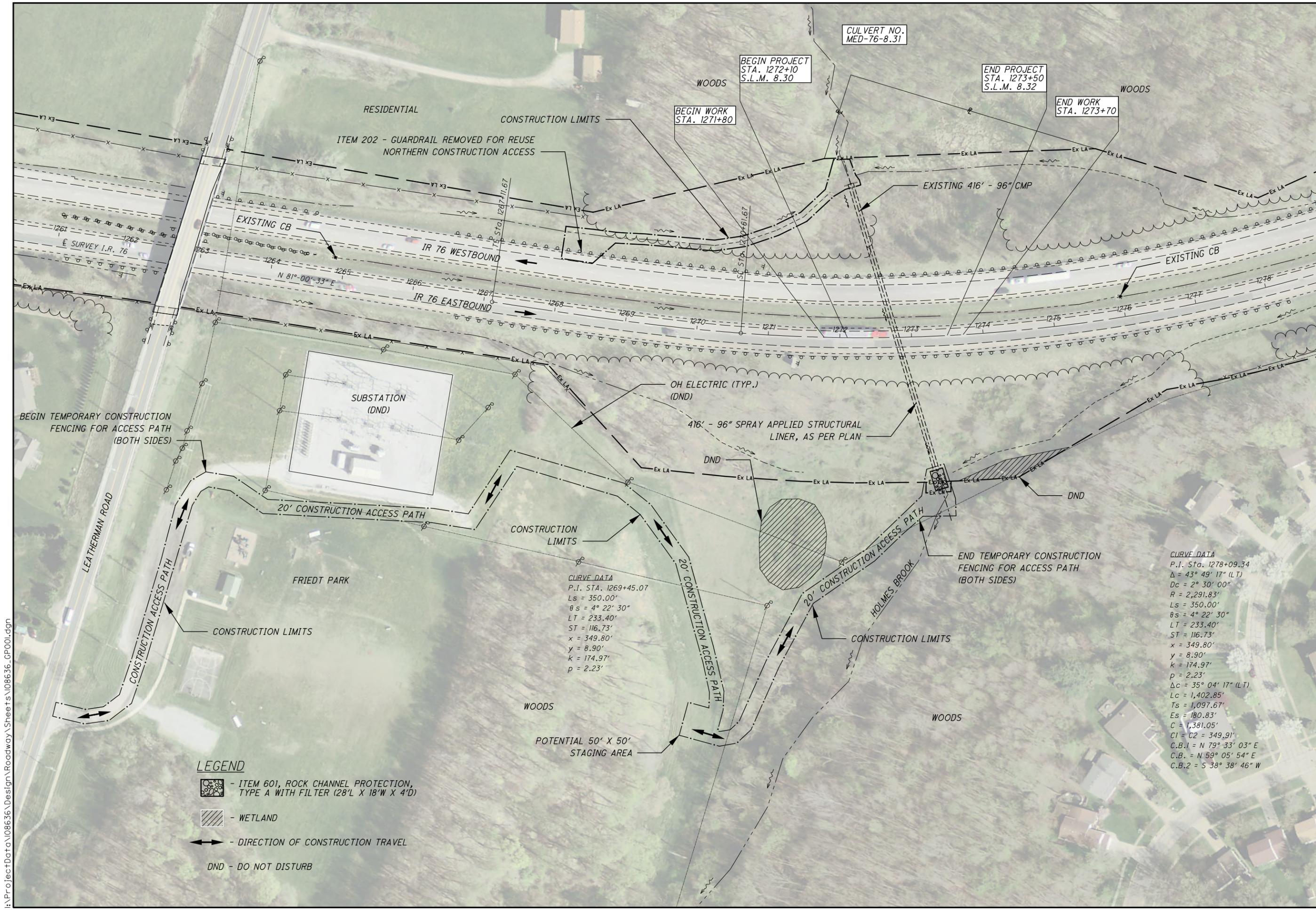
CALCULATED DUJ CHECKED ACM	GENERAL SUMMARY	MED-76-8.31	
-------------------------------------	-----------------	-------------	---



CALCULATED
 DJV
 CHECKED
 ACM

PLAN VIEW
MED-76-8.31

MED-76-8.31



CURVE DATA
 P.I. STA. 1269+45.07
 Ls = 350.00'
 θs = 4° 22' 30"
 LT = 233.40'
 ST = 116.73'
 x = 349.80'
 y = 8.90'
 k = 174.97'
 p = 2.23'

CURVE DATA
 P.I. Sta. 1278+09.34
 Δ = 43° 49' 17" (LT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 350.00'
 θs = 4° 22' 30"
 LT = 233.40'
 ST = 116.73'
 x = 349.80'
 y = 8.90'
 k = 174.97'
 p = 2.23'
 Δc = 35° 04' 17" (LT)
 Lc = 1,402.85'
 Ts = 1,097.67'
 Es = 180.83'
 C = 1,381.05'
 C1 = C2 = 349.91'
 C.B.1 = N 79° 33' 03" E
 C.B. = N 59° 05' 54" E
 C.B.2 = S 38° 38' 46" W

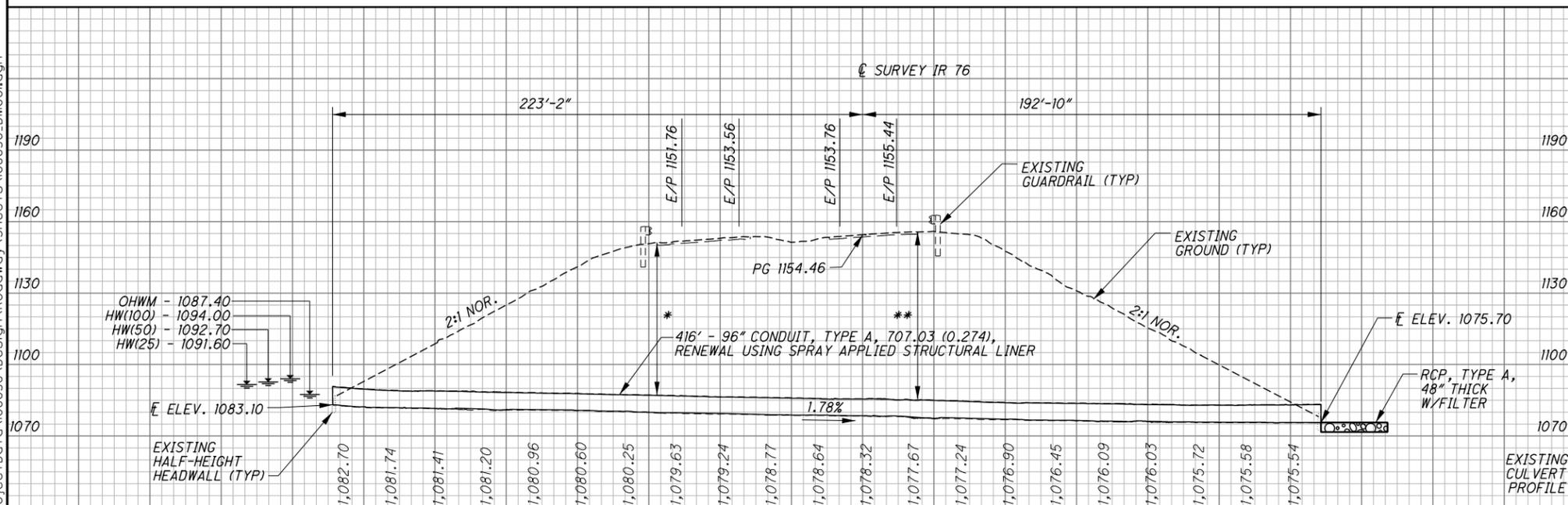
LEGEND

- ITEM 601, ROCK CHANNEL PROTECTION, TYPE A WITH FILTER (28'L X 18'W X 4'D)
- WETLAND
- DIRECTION OF CONSTRUCTION TRAVEL
- DND - DO NOT DISTURB

I:\ProjectData\08636\Design\Roadway\Sheets\08636_GPO01.dgn



* MINIMUM COVER - 63'-9"
 ** MAXIMUM COVER - 70'-4"



BENCHMARK INFORMATION

ELEVATIONS ARE BASED ON EXISTING PLAN, AERIAL MAPPING, AND 3D PIPE SCAN INFORMATION.

NOTES

EXISTING 96" CULVERT LIES WITHIN A FEMA ZONE A FLOODPLAIN.
 EXISTING 96" CULVERT IS TO BE REHABILITATED WITH SPRAY APPLIED STRUCTURAL LINER.
 IR 76, LEATHERMAN ROAD, AND FRIEDT PARK TRAFFIC TO BE MAINTAINED AT ALL TIMES DURING PROJECT CONSTRUCTION.

DESIGN TRAFFIC DATA

2018 ADT = 50000 2018 ADTT = 10000
 2038 ADT = 60500 2038 ADTT = 12100
 DIRECTIONAL DISTRIBUTION = 55%

LEGEND

- ITEM 601, ROCK CHANNEL PROTECTION, TYPE A WITH FILTER (28'L X 18'W X 4'D)
- WETLAND
- DIRECTION OF TRAVEL
- DND - DO NOT DISTURB

HYDRAULIC DATA

DRAINAGE AREA = 2.02 SQ. MILES
 Q (25) = 425 CFS V (25) = 17.35 FT/S
 Q (50) = 492 CFS V (50) = 17.96 FT/S
 Q (100) = 560 CFS V (100) = 18.51 FT/S
 STREAM PH = 7.5 ABRASION LEVEL = 3
 CULVERT CLEARS THE 50 YEAR DESIGN HW BY 2.15 FEET.
 CULVERT CLEARS THE 100 YEAR DESIGN FEMA HW BY 0.72 FEET.

EXISTING STRUCTURE

TYPE: 96" DIAMETER, 6" X 2" CORRUGATED STEEL SECTIONAL PLATE PIPE, NO. 1 GAGE (0.274") ON HALF-HEIGHT HEADWALLS
 SPANS: SINGLE SPAN, 96"
 ROADWAY: 4 LANE DIVIDED - ±36'-0" EDGE TO EDGE OF PAVED SHOULDERS EACH DIRECTION OF TRAVEL
 LOADING: UNKNOWN
 SKEW: 15° 31' 50" R.F.
 APPROACH SLABS: N/A (CULVERT)
 ALIGNMENT: TANGENT
 CROWN: VARIES
 CULVERT FILE NUMBER: 1814616
 DATE BUILT: 1956
 DISPOSITION: POOR (GA=4)

PROPOSED STRUCTURE

TYPE: 96" DIAMETER, CONDUIT RENEWAL USING CEMENTITIOUS OR GEOPOLYMER-BASED SPRAY APPLIED STRUCTURAL LINER
 SPANS: SINGLE SPAN, (LINER DESIGN THICKNESS TO BE DETERMINED PER SS833)
 ROADWAY: 4 LANE DIVIDED - ±36'-0" EDGE TO EDGE OF PAVED SHOULDERS EACH DIRECTION OF TRAVEL
 LOADING: HS25 CASE II AND ALTERNATE MILITARY
 SKEW: 15° 31' 50" R.F.
 APPROACH SLABS: N/A (CULVERT)
 ALIGNMENT: TANGENT
 CROWN: VARIES
 DESIGN SERVICE LIFE: 75 YEARS
 CULVERT FILE NUMBER: 1814616

CULVERT DETAIL

MED-76-8.31

CALCULATED DJV CHECKED ACM

0 30 60 HORIZONTAL SCALE IN FEET

8

I:\ProjectData\08636\Design\Roadway\Sheets\08636.DM001.dgn

SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS

C-R-S: MED-IR 76-8.31

PID: 108636

Date: 09/26/18

1. Waterway Permits Time Restrictions:

Regional General Permit (RGP) Section B (Maintenance) is authorized for MED-IR 76-8.31, PID 108636. A copy of the RGP shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: September 26, 2018. The permit expires: October 24, 2019.

For authorized work in aquatic resources (including streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor's submission of a reauthorization to the waterway permit expiration date based on project constraints. If more than one permit is authorized for the project, then all permits become invalid once the first permit expires. In order for the request to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit expiration date. The Engineer will submit the request for a time extension to the Ohio Department of Transportation, Office of Environmental Services, Waterway Permits Unit (ODOT-OES-WPU) for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR) as appropriate.

2. Deviations From Permitted Construction Activities

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or Working Drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-7100) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-7100) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

3. In-Stream Work Restrictions

Work in the following aquatic resources is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Holmes Brook	8.31 mile marker*	None

*See attached Environmental Footprint plan sheet.

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of "fill" include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection, and temporary access fills.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

<p>4. Materials:</p> <p>Materials utilized in or adjacent to aquatic resources for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.</p>								
<p>5. Cultural Resources</p> <p>Per CMS 107.10, if archeological sites, historical sites, or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-7100. In the event of human remains are identified by OES-Cultural Resources Section, the Engineer shall also contact the Medina County Sheriff's Office at (330) 725-0028.</p>								
<p>6. Aquatic Resource Demarcation:</p> <p>All aquatic resources indicated on the plans shall be demarcated in the field as per SS 832 prior to site disturbance. The remainder of the aquatic resources must be demarcated as to ensure avoidance. Specifically, the wetland depicted on the attached Environmental Footprint plan sheet shall be marked for avoidance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.</p> <table border="1"> <thead> <tr> <th>Resource ID</th> <th>Impact Location</th> <th>Permanent Impact Amount</th> <th>Temporary Impact Amount</th> </tr> </thead> <tbody> <tr> <td>Holmes Brook</td> <td>8.31 mile marker</td> <td>447 feet (0.089 acre)</td> <td>80 feet (0.025 acre)</td> </tr> </tbody> </table> <p>Note: Wetland impacts are <u>not</u> authorized.</p>	Resource ID	Impact Location	Permanent Impact Amount	Temporary Impact Amount	Holmes Brook	8.31 mile marker	447 feet (0.089 acre)	80 feet (0.025 acre)
Resource ID	Impact Location	Permanent Impact Amount	Temporary Impact Amount					
Holmes Brook	8.31 mile marker	447 feet (0.089 acre)	80 feet (0.025 acre)					
<p>7. Spill containment:</p> <p>Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:</p> <ul style="list-style-type: none"> - 6 - 3 in. X 8 ft. Oil only socks - 4 - 18 in. X18 in. Oil only pillows - 2 - 5 in. X 10ft. Booms - 50 - 16in. X 20 in. Oil only pads - 10- Disposable Bags - 1- 65 Gallon drum with lid - 25 pounds of Granular Oil Absorbent <p>The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above referenced spill containment kit is incidental to work.</p>								

<p>8. Blasting:</p> <p>State law requires notification to the Ohio Department of Natural Resources should blasting be required within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify the Engineer, in writing, a minimum of 30 days in advance of blasting, for submission to ODOT-OES-WPU (614-466-7100) for coordination with ODNR.</p>
<p>9. Bridge Inspection:</p> <p>Prior to the removal of bridge structures, the underside must be carefully examined for the presence of birds and bats. Should any birds or bats be found roosting on the underside of the bridge, the Contractor is required to notify the Engineer for coordination with ODOT-OES-WPU (614-466-7100).</p>
<p>10. Project Inspection:</p> <p>Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer. Please forward a copy to ODOT-OES-WPU (614-466-7100).</p>
<p>11. Temporary Access Fills (Stream and River Crossings and Fills)</p> <p>Special Provisions Notes:</p> <p>Definitions:</p> <p>Hydraulic Opening The cross-sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM).</p> <p>Standard Temporary Discharge Discharge equal to twice the <i>highest monthly flow</i> without producing a rise in the backwater above the OHWM. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (https://water.usgs.gov/osw/streamstats/ohio.html).</p> <p>Average Monthly Flow The average monthly flow represents the estimated "normal" flow.</p> <p>Temporary Access Fills (TAFs) Include, but are not limited to, causeways, cofferdams, access pads, temporary bridges, etc. below the OHWM.</p> <p>Requirements 21 calendar days prior to the initiation of any in-stream work, provide the Engineer with Working Drawings that include:</p> <ul style="list-style-type: none"> • Plan view drawing (50 scale or less) showing the location of all jurisdictional temporary fill proposed for use on the project • Scaled cross section and profile drawing showing the OHWM and the proposed hydraulic opening. • Calculations analyzing the hydraulic impacts of the TAF on the waterway. Include in the calculations an analysis of the hydraulic opening sized adequately to pass the Standard Temporary Discharge without producing a rise in backwater above the OHWM. Include, in the analysis, calculated channel velocities adjacent to the TAF, culvert exit velocities, calculated headwater and tailwater elevations, and any

additional appropriate calculations to assess potential impacts to the waterway during normal and anticipated high flow (twice the highest monthly flow) events.

- A description of the installation and staging of all temporary fill over the life of the contract.
- A description of the removal of all temporary fill and restoration of the channel and all areas impacted by the temporary fill.
- A schedule outlining the timing of the placement and removal of all temporary fill.
- Have competent individuals prepare and check the Working Drawings and hydraulic calculations. Provide a cover sheet containing the preparer(s) and checker(s): First Name, Last Name and Initials. The preparer(s) and checker(s) shall not be the same individual. Have an Ohio Registered Engineer review, approve, sign, seal and date the Working Drawings and hydraulic calculations according to ORC 4733 and OAC 4733-35. Include the following statement on the Working Drawings:
"These Working Drawings were prepared in compliance with the terms of these Special Provisions and all contract documents."

Do not begin in-stream work until the Engineer has accepted the Working Drawings and hydraulic calculations.

The design of the Contractor's TAF must minimize impacts to water bodies, stream banks, stream beds, and riparian zones to the maximum extent practicable.

Fording of streams and rivers is prohibited.

Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. *TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the (OHWM).*

If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (as defined in SS 832) or the peak discharge from the 2-year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

If the Contractor proposes a TAF which does not meet all the requirements of these Special Provisions, the Contractor must submit a request in writing for a modified TAF to the Engineer. The request must include all Working Drawings and hydraulic calculations required by these Special Provisions. The Department makes no guarantee to grant the request. The Contractor's proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate. The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days.

Installation of any temporary fill without appropriate authorization is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

TAFs Construction and Payment

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with these Special Provisions or other environmental commitments that have been included in the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, sheet piling, temporary bridges, etc. The Contractor must make every attempt to minimize disturbance to waterbodies, stream banks, stream beds and riparian zones during the construction, maintenance, and removal of the TAF. Construct the TAFs as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the TAFs in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, and approach sections. Construct the TAFs as to not erode stream banks or allow sediment deposits in the channel.

Prior to the initiation of any in-stream work, establish a monument upstream of the proposed TAF to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the

monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the surface water elevation exceed the elevation 1 foot above OHWM, the Department will compensate the Contractor for repair of any resulting damage to the TAF up to the elevation of 1 foot above the OHWM, except as noted. The Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 of the Construction & Materials Specifications.

Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and Excavation Bracing and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of TAFs associated with Items 502 and 503 as a result of surface water elevation exceeding 1 foot above the OHWM. Compensation for damages associated with waterway flows will be provided as described in Items 502 and 503.

Construct the TAFs, not including Items 502 and 503, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the causeway and access fills will not damage property or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

- Furnish culverts on the existing stream bottom.
- Avoid a drop in water elevation at the downstream end of the culvert that would result in an adverse impact to the waterway.
- Furnish a sufficient number of culverts in addition to stream openings to provide a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
- Furnish culverts with a minimum diameter of 18 inches (0.5 m).

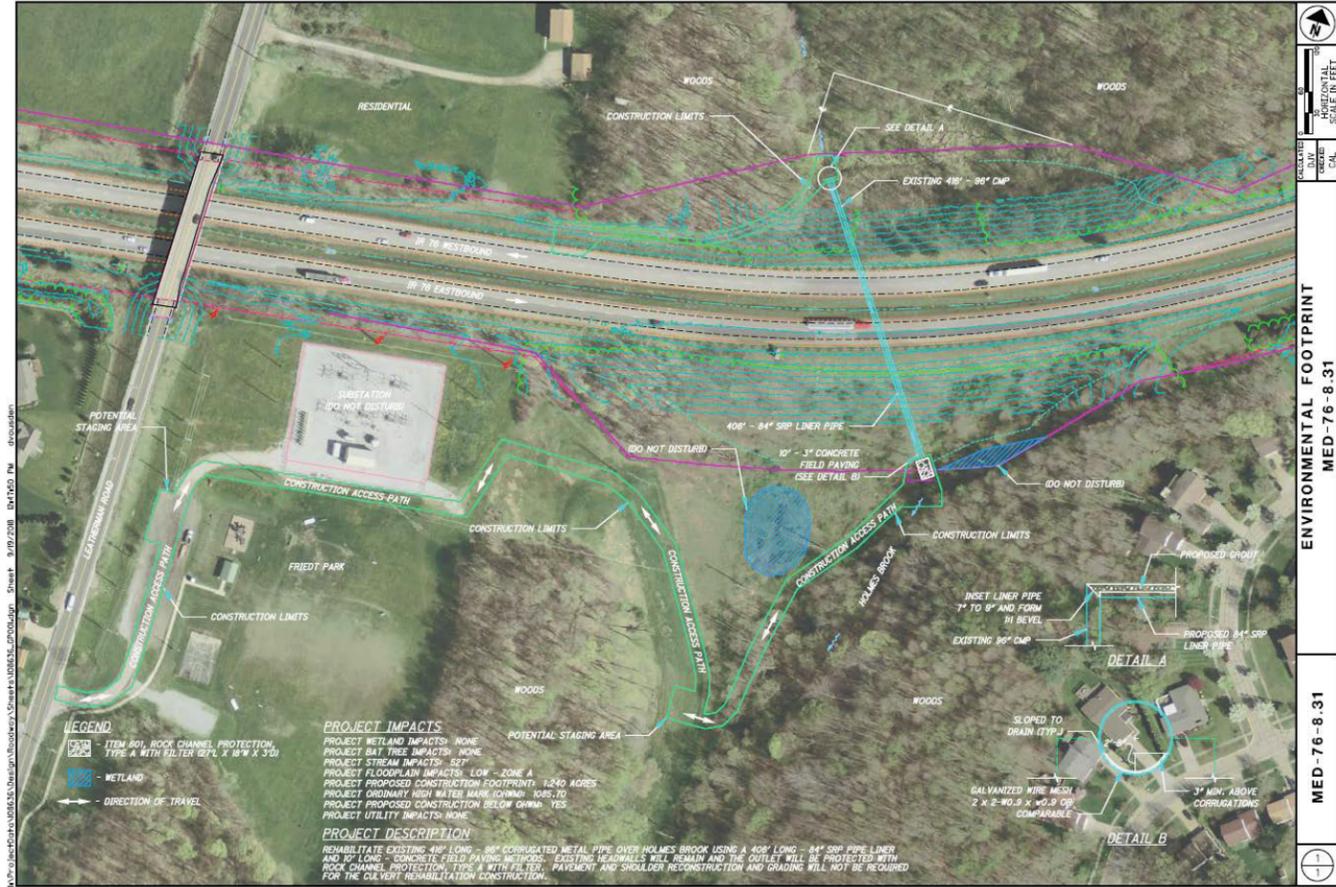
All TAFs must be constructed of suitable materials. Causeways and access fills must be encapsulated with clean, non-erodible, nontoxic Dumped Rock Fill, Type A, B, C, or D, as specified in C&MS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring TAF is complete, all portions of the TAF (including all rock and culverts) will be removed in its entirety. Do not dispose of TAF material in other aquatic resources or where erosion into another aquatic resource is possible. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The TAF will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAF compensation is included in the plans, all environmental protection and control associated with the authorized activities, are incidental to the work within the boundaries of the aquatic resources.

12. Excavation Activities:

Excavated material will be placed at an upland site and disposed of in such a manner that sediment and runoff to streams and other aquatic resources is controlled and minimized. Additionally, no more than incidental fallback into jurisdictional waters of the U.S. is permitted during the excavation process. If any changes to the proposed work are deemed necessary, you must notify and coordinate with the ODOT-OES-WPU (614-466-7100).



CALCULATED
 AREA
 CUL
 SCALE IN FEET
 ENVIRONMENTAL FOOTPRINT
 MED-76-8-31
 MED-76-8-31

LEGEND
 ITEM #01, ROCK CHANNEL PROTECTION, TYPE A WITH FILTER (24" x 24" x 3-3/4")
 WETLAND
 DIRECTION OF TRAVEL

PROJECT IMPACTS
 PROJECT WETLAND IMPACTS: NONE
 PROJECT BAY TREE IMPACTS: NONE
 PROJECT STREAM IMPACTS: 52'
 PROJECT FLOODPLAIN IMPACTS: LOW - ZONE A
 PROJECT PROPOSED CONSTRUCTION FOOTPRINT: 1,240 SQUARE FEET
 PROJECT ORDINARY HIGH WATER MARK (OHWM): 1005.70
 PROJECT PROPOSED CONSTRUCTION BELOW OHWM: YES
 PROJECT UTILITY IMPACTS: NONE

PROJECT DESCRIPTION
 REHABILITATE EXISTING 48" LONG - 36" CORRUGATED METAL PIPE OVER HOLMES BROOK USING A 408' LONG - 84" SRP PIPE LINER AND 10' LONG - CONCRETE FIELD PAVING METHODS. EXISTING HEADWALLS WILL REMAIN AND THE OUTLET WILL BE PROTECTED WITH ROCK CHANNEL PROTECTION, TYPE A WITH FILTER. PAVEMENT AND SHOULDER RECONSTRUCTION AND GRADING WILL NOT BE REQUIRED FOR THE CULVERT REHABILITATION CONSTRUCTION.

