

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

# TRU-46-1.05

WEATHERSFIELD TOWNSHIP  
TRUMBULL COUNTY

**PROJECT DESCRIPTION**

THIS PROJECT CONSISTS OF DRAINAGE IMPROVEMENTS, THE ADDITION OF CURB AND GUTTER ON THE EAST SIDE, AND THE RESURFACING OF 0.33 MILES OF S.R. 46 IN TRUMBULL COUNTY FROM APPROXIMATELY 500 FEET NORTH OF PROSPECT ST TO OHL TOWN MCDONALD RD.

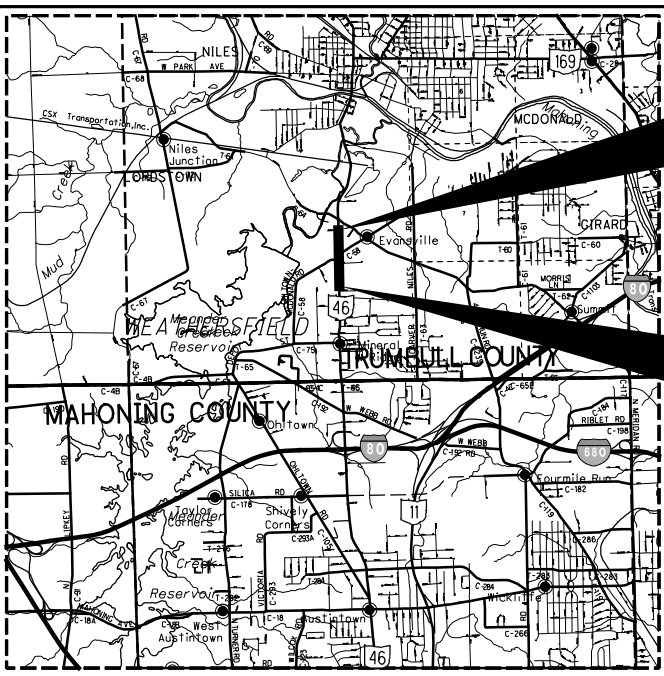
**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 1.44 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 1.69 ACRES

**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 EXCEPT AS NOTED ON SHEET 13, AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE PLANS.



LOCATION MAP

LATITUDE: N 41° 9' 12" LONGITUDE: W 80° 46' 8"



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

**DESIGN DESIGNATION**

CURRENT ADT (2025)	15,150
DESIGN YEAR ADT (2045)	15,150
DESIGN HOURLY VOLUME (2045)	1,450
DIRECTIONAL DISTRIBUTION	0.53
TRUCKS (24 HOUR B&C)	4%
DESIGN SPEED	40 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	PRINCIPAL ARTERIAL (URBAN) (O3)
NHS PROJECT	NO

**DESIGN EXCEPTIONS**

NONE

**ADA DESIGN WAIVER**

NONE REQUIRED

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**UNDERGROUND UTILITIES**  
Contact Two Working Days Before You Dig

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

PLAN PREPARED BY:

GPD GROUP  
520 South Main Street  
Akron, OH 44311  
330.572.2100 Fax 330.572.2101

ENGINEERS SEAL:

MARK R. GROSSMAN  
E-61120  
REGISTERED PROFESSIONAL ENGINEER  
Digitally signed by Mark R. Grossman  
Date: 2023.04.20 12:53:04-04'00'

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-1.1	7-28-00	DM-1.1	7-17-20	MT-97.10	4-19-19	RM-1.1	1-20-23	800 SEE PROPOSAL	WATERWAY PERMIT 9-9-20
BP-3.1	1-21-22	DM-1.2	7-16-21	MT-97.12	1-20-17			832 7-15-22	
BP-3.2	1-18-19	DM-3.1	1-18-13	MT-99.20	4-19-19	TC-41.20	10-18-13	902 7-19-19	
BP-4.1	7-19-13	DM-4.4	1-15-16	MT-101.60	1-17-20	TC-41.30	10-18-13		
BP-5.1	7-15-22			MT-101.90	7-17-20	TC-42.20	10-18-13		
BP-7.1	1-20-23	HW-2.1	7-20-18	MT-102.20	4-19-19	TC-52.10	10-18-13		
		HW-2.2	7-20-18	MT-105.10	1-17-20	TC-52.20	1-15-21		
CB-2-2A, 2-2B, 2-2C	1-20-23					TC-65.10	1-17-14		
CB-2-3, 2-4	1-20-23	MH-1	7-15-22			TC-65.11	7-15-22		
CB-3	7-16-21	MH-3	7-16-21						
CB-3A	7-16-21								
CB-5	7-16-21								
CB-6	1-21-22								

APPROVED  
DISTRICT DEPUTY DIRECTOR

APPROVED  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.  
**E180 (792)**

PID NO.  
**105945**

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
**NONE**

**TRU-46-1.05**

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**GENERAL**

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

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

ARMSTRONG CABLE AT&T  
9328 WOODWORTH ROAD THE OHIO BELL TELEPHONE  
NORTH LIMA, OH 44452 COMPANY  
330-953-0705 50 W. BOWERY ST, 6TH FLOOR  
ATTN: GENE SHONCE AKRON, OHIO 44308  
330-384-9851

CITY OF NILES WATER AND WASTE WATER DEPT. DOMINION EAST OHIO  
34 WEST STATE ST 320 SPRINGSIDE DRIVE, SUITE 320  
NILES, OH 44446 AKRON, OH 44333  
330-544-9000 EXT. 1171 330-664-2638  
ATTN: KEVIN ROBERTSON ATTN: MICAH RISACHER

TRUMBULL COUNTY SANITARY ENGINEER  
842 YOUNGSTOWN-KINGSVILLE RD  
VIENNA, OH 44473  
330-675-7753/330-675-7758  
ATTN: GARY NEWBROUGH/RON WATSON

CITY OF NILES ELECTRIC / LIGHTING  
34 WEST STATE STREET  
NILES, OH 44446  
330-550-8872  
ATTN: JIM NEWBROUGH

OHIO EDISON  
1910 W. MARKET ST, BLDG 1  
AKRON OH, 44313  
330-740-7622  
ATTN: CHARLIE COLIADIS

ODOT DISTRICT 4  
2088 S. ARLINGTON RD  
AKRON OH, 44306  
330-786-4832  
ATTN: MATT STEELE

THE UNDERGROUND UTILITIES ON THIS PLAN HAVE BEEN LOCATED BY USING A SUBSURFACE UTILITY ENGINEERING COMPANY [SUE]. IF THERE ARE ANY DISCREPANCIES BETWEEN FIELD MARKINGS AND WHAT THE PLAN INDICATES, PLEASE CONTACT MATTHEW STEELE, DISTRICT UTILITY COORDINATOR, 330-786-4832 PRIOR TO ANY SUBSURFACE WORK BEING INITIATED.

**DOMINION ENERGY**

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DOMINION ENERGY'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P, (SAFE EXCAVATION AND SHORING). ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DOMINION ENERGY OHIO'S (DEO) EXISTING PIPELINE(S) AND ALL OTHER IMPROVEMENTS. EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY (PIPELINES, ETC.). DEO FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL DEO EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE AND IN WORKING ORDER. THE CROSSING OF DEO'S PIPELINE WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING DEO FACILITY. PLEASE CONTACT DOMINION ENERGY OHIO'S CORROSION DEPARTMENT, DAVE CUTLIP (330-266-2121), RICK McDONALD (330-266-2122) OR AL HUMRICHOUER (330-478-3757).

**EXISTING UTILITY POLES**

THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING NEAR ANY UTILITY POLES WITHIN THE PROJECT LIMITS. WHERE EXCAVATION IS REQUIRED IN CLOSE PROXIMITY TO EXISTING UTILITY POLES, THE CONTRACTOR SHALL INSTALL TEMPORARY SUPPORT FOR THE UTILITY POLE. THE SUPPORT SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ADJACENT TO THE POLE ARE COMPLETED.

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THROUGH OTHERWISE SHOWN. NO ROUNDING SHALL BE APPLIED IN AREAS OF VEGETATED BIOFILTERS.

**CONSTRUCTION NOISE**

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT. THE ABOVE RESTRICTIONS FOR POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT APPLY FOR WEEKEND CLOSURE HOURS INDICATED ON SHEET 10.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 3 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS  
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
GEOID: 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, OHIO NORTH ZONE (3401)  
COMBINED SCALE FACTOR: 1.000102700  
ORIGIN OF COORDINATE  
SYSTEM: EASTING (X): 0, NORTHING (Y): 0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

**CLEARING AND GRUBBING**

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

**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.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON THE RIGHT-OF-WAY PLANS. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 623 - MONUMENT ASSEMBLY, TYPE C 3 EACH

**ITEM 202 - GUTTER REMOVED, AS PER PLAN**

FIELD SURVEY INDICATES THE EXISTING GUTTER COMPOSITION VARIES BETWEEN CUT CONCRETE CONDUIT, CUT CLAY CONDUIT, AND POURED CONCRETE OF UNKNOWN THICKNESS. THIS ITEM SHALL CONSIST OF THE REMOVAL AND PROPER DISPOSAL OF THE EXISTING CONCRETE GUTTER REGARDLESS OF THE MATERIAL COMPOSITION.

ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE WORK DESCRIBED TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT, FOR ITEM 202 - GUTTER REMOVED, AS PER PLAN.

**ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE**

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE, ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

THE MAILBOXES ON THE SIDE TEMPORARY WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE.

**UNSTABLE OR UNSUITABLE SOILS FOR PAVEMENT STABILIZATION**

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSTABLE OR UNSUITABLE SOILS ENCOUNTERED IN THE AREAS OF PAVEMENT CONSTRUCTION:

ITEM 204 - EXCAVATION OF SUBGRADE, 36 CY  
ITEM 204 - GRANULAR MATERIAL, TYPE B 36 CY  
ITEM 204 - GEOTEXTILE FABRIC 108 SY

**PROOF ROLLING**

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 3 HOUR

**ITEM 202 - PAVEMENT REMOVED, AS PER PLAN**

PAVEMENT CORES AND SITE IMAGERY INDICATE THE PRESENCE OF UNDERLYING BRICK AND/OR CONCRETE BASE IN CONFLICTING LOCATIONS ALONG S.R. 46. THE EXACT WIDTH, DEPTH, AND LIMITS OF THE BRICK BASE ARE UNKNOWN. THIS ITEM SHALL CONSIST OF THE REMOVAL AND PROPER DISPOSAL OF THE EXISTING PAVEMENT AS SHOWN IN THE PLANS. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING BRICK BASE WHERE PRESENT. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE WORK DESCRIBED TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 202 - PAVEMENT REMOVED, AS PER PLAN.

THE EXACT QUANTITY OF THE RIGID AND FLEXIBLE PAVEMENT BASE WITHIN THE PROJECT LIMITS IS UNKNOWN. ACTUAL QUANTITY REMOVED SHALL BE PAID FOR AS DESCRIBED ABOVE.

**ITEM SPECIAL - SURVEY CONTROL VERIFICATION**

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

- 1) IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.
2) IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN
c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED WORK:

ITEM SPECIAL - SURVEY CONTROL VERIFICATION LS

**EROSION CONTROL**

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:
ITEM 659, SOIL ANALYSIS TEST 2 EACH
ITEM 659, TOPSOIL 447 CY
ITEM 659, SEEDING AND MULCHING 4029 SY
ITEM 659, REPAIR SEEDING AND MULCHING 201 SY
ITEM 659, INTER-SEEDING 201 SY
ITEM 659, COMMERCIAL FERTILIZER 0.90 TON
ITEM 659, LIME 0.83 ACRE
ITEM 659, WATER 22 MGAL

APPLY SEEDING AND MULCHING 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.

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CHECKED  
MRC

GENERAL NOTES

TRU-46-1.05

**UNMARKED RESIDENTIAL AND COMMERCIAL CONNECTIONS**

ANY UNMARKED ACTIVE WATER SERVICE CONNECTIONS OR ACTIVE SERVICE CONNECTIONS DISTURBED DURING CONSTRUCTION SHALL BE RECONNECTED TO THE EXISTING WATERMAIN TO THE SATISFACTION OF THE ENGINEER. ALL MATERIAL SHALL MEET ITEM 638 OF THE SPECIFICATIONS AND SHALL HAVE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

638, 1" COPPER SERVICE BRANCH	100 FT
638, 1-1/2" COPPER SERVICE BRANCH	100 FT
638, 2" COPPER SERVICE BRANCH	100 FT

**ITEM 638 WATER WORK, MISC.: WATERMAIN INSTALLATION**

THE PROPOSED WATERMAIN LOWERING AS SHOWN IN THE PLANS SHALL BE FACILITATED THROUGH THE COORDINATED EFFORTS OF THE CONTRACTOR AND THE TRUMBULL COUNTY SANITARY ENGINEER. AS DESCRIBED BELOW, THE COUNTY WILL PERFORM THE WORK ASSOCIATED WITH THE PHYSICAL WATERMAIN AND THE CONTRACTOR SHALL PERFORM ALL OTHER WORK. THE COUNTY WILL REMOVE THE EXISTING LINE, SUPPLY, INSTALL AND DISINFECT THE NEW WATERLINE. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER WORK INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, EXCAVATION, BEDDING, BACKFILL AND PAVEMENT RESTORATION. COORDINATION WITH THE COUNTY SHALL BE INITIATED A MINIMUM OF 30 DAYS AHEAD OF THE CONTRACTOR'S INTENDED WORK.

TRUMBULL COUNTY SANITARY ENGINEER (WATER)  
842 YOUNGSTOWN-KINGSVILLE ROAD  
VIENNA, OH 44473  
ATTN: GARY NEWBROUGH / RON WATSON  
330-675-7753 / 330-675-7758

ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 638 WATER WORK, MISC.: WATERMAIN INSTALLATION.

**WETLAND AVOIDANCE**

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN WETLAND 1 DELINEATED BEYOND THE PROJECT CONSTRUCTION LIMITS AND DEPICTED IN THE PROJECT PLANS ON SHEET 65. ADDITIONALLY, UNDER NO CIRCUMSTANCES SHALL ANY EQUIPMENT (LIFT, SCAFFOLDING, BACKHOE, EARTH MOVING EQUIPMENT, ETC.) AND/OR MATERIALS ENTER WETLAND 1. TO PROTECT AND DELINEATE THE BOUNDARIES OF THE EXISTING RESOURCES, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS, MAINTAINING A ONE-FOOT BUFFER BETWEEN THE FENCE AND THE WETLAND BOUNDARIES, WHEN PRACTICABLE, PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND BE MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, ETC. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS AND/OR WETLANDS.

**TIME LIMITATION, CURB RAMP**

THE MAXIMUM ALLOWABLE TIME FOR THE CONTRACTOR TO HAVE AN INDIVIDUAL CURB RAMP AND ASSOCIATED SIDEWALK LEADING INTO THE CURB RAMP OUT OF SERVICE FOR THE REMOVAL AND REPLACEMENT SHALL BE 14 CONSECUTIVE CALENDAR DAYS (THE TIME PERIOD INCLUDES ALL WORK AND CURING TIME PERIOD).

AT THE CONCLUSION OF CONSTRUCTING OF THE CURB RAMP AND PRIOR TO OPENING TO PEDESTRIAN TRAFFIC THE CONTRACTOR SHALL ENSURE THAT THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING BP-7.1 ARE MET. THE CONTRACTOR SHALL USE ASPHALT AS A WEDGE, OR SUBMIT ANOTHER METHOD APPROVED BY THE ENGINEER, TO ENSURE THE TRANSITION FROM THE CURB RAMP TO THE ROADWAY ARE PER STANDARD CONSTRUCTION DRAWING BP-7.1. ALL COSTS TO PERFORM THIS WORK SHALL BE INCIDENTAL TO THE ASSOCIATED PAY ITEMS FOR THE INSTALLATION OF THE CURB RAMP.

SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$1000 PER DAY PER AFFECTED RAMP THAT THE AFFECTED CURB RAMP REMAINS OUT OF SERVICE BEYOND 14 CONSECUTIVE CALENDAR DAYS.

**ENDANGERED BAT HABITAT REMOVAL**

THIS 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 UNDER THIS 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 (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**ITEM SPECIAL - AS-BUILT CONSTRUCTION RECORD DRAWINGS**

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING PLANS. THE FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION RECORD-DRAWINGS.

THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL RECORD-DRAWING. THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE). IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE ASBUILT CONSTRUCTION RECORD-DRAWINGS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE RECORD-DRAWING PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

**ASPHALT PAVEMENT LIMITATION**

THE CONTRACTOR SHALL NOT PLACE ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE COURSE, ETC.) BETWEEN NOVEMBER 1ST AND APRIL 1ST.

**POST CONSTRUCTION STORM WATER TREATMENT**

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

**VEGETATED BIOFILTER**

THIS PLAN UTILIZES VEGETATED BIOFILTERS FOR POST CONSTRUCTION STORMWATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

**BALLOON LEGEND**

- (SM-#) SEEDING AND MULCHING
- (SP-#) SANITARY PIPE
- (SR-#) SANITARY REMOVAL
- (SW-#) SIDEWALKS
- (U-#) UNDERDRAINS
- (W-#) WATER WORK
- (WJ-#) WATER WORK ADJUSTED TO GRADE
- (WR-#) WATER WORK REMOVALS

**EXISTING UTILITY SYMBOL LEGEND**

- ⋄ = Guy Pole
- ⚑ = Flag Pole
- ⊕ = Utility Pole
- ⊙ = Power Pole
- ☛ = Yard Light
- ∞ = Parking Meters
- = Parking Meter
- ☒ = Air Condition Unit
- ↓ = Guy Wire w/Anchor
- ⊕ = Light Pole
- ⊞ = Light Pedestal
- ⊕ = Electric Marker Post
- ☒ = Electric Transformer
- ☒ = Electric Pedestal
- ☒ = Electric Tower
- ⊙ = Electric Outlet
- ☒ = Electric Pull Box
- ⊕ = Electric Manhole
- ⊕ = Gas Valve
- ⊙ = Gas Service
- = Gas Marker Post
- ☒ = Gas Meter/Regulator
- ⊞ = Tank (Gas, Propane)
- ⚡ = Fire Hydrant
- ⊕ = Water Valve
- ⊕ = Water Manhole
- ⊕ = Water Well
- ⊕ = Water Meter
- ⊕ = Water Spigot / Tap
- ⊕ = Cistern
- ⊙ = Sprinkler
- ☒ = Sprinkler Control Box
- ⊕ = Monitoring Well
- ⊕ = Cable TV Pole
- ⊕ = Cable TV Marker Post
- ☒ = Cable TV Pedestal
- ⊕ = Telephone Pole
- ⊕ = Telephone Marker Post
- ☒ = Telephone Pedestal
- ☒ = Telephone Booth/or Drive-Up
- ☒ = Traffic Lighting Control Box
- ☒ = Traffic Lighting Pull Box
- ⊕ = Sign
- ☒ = Curb Inlet
- ☒ = Catch Basin
- ⊕ = Cleanout
- ⊕ = Sanitary Manhole
- ⊕ = Storm Manhole
- ⊕ = Telephone Manhole

**PROPOSED UTILITY SYMBOL LEGEND**

- ☒ ☒ ☒ ☒ = Proposed Catch Basins
- ⊕ = Proposed Manhole
- ⊕ = Manhole Adjusted To Grade
- ⊕ = Proposed Water Valve
- ⚡ = Proposed Fire Hydrant
- ⊕ = Sanitary Manhole Adjusted To Grade
- ☒ = Proposed Traffic Pullbox
- ☒ = Proposed Signal Pole Pedestal
- ☒ = Proposed Signal Pole
- TH-# ⚡ = Test Hole location

**UTILITY LINE LEGEND**

- W — = Water Line
- G — = Gas Line
- SAN — = Sanitary Line
- E — = Underground Electric
- P — = Propane Line
- T — = Underground Telephone
- D — = Diesel
- CATV — = Cable TV.
- TR — = Signal Wiring

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