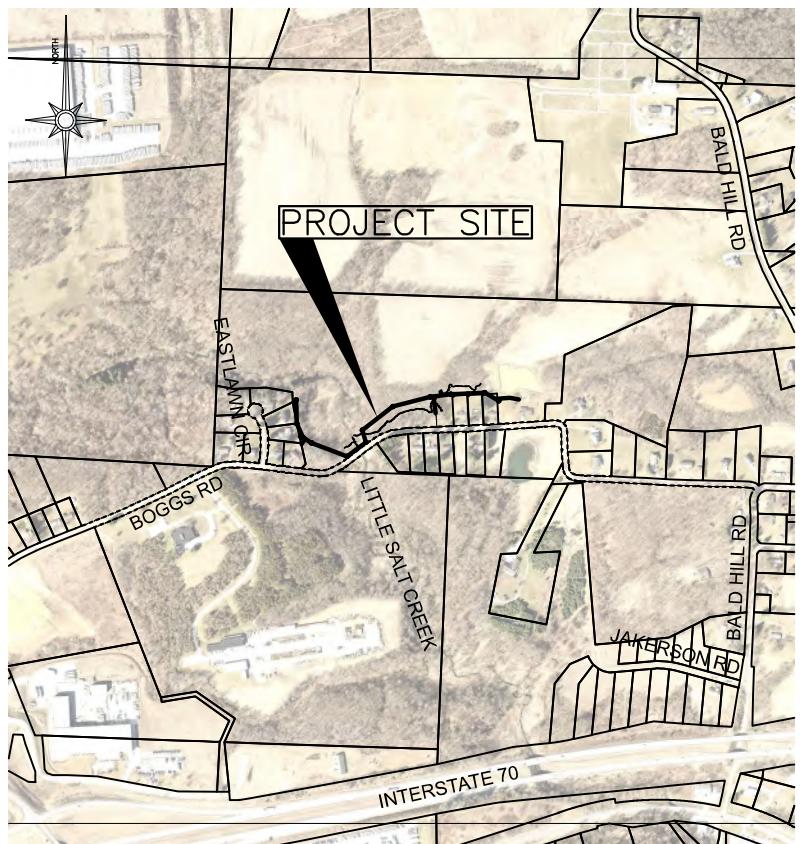


BOGGS ROAD SANITARY SEWER IMPROVEMENTS

PERRY TOWNSHIP MUSKINGUM COUNTY, OHIO

PROJECT DESCRIPTION

THE DESIGN OF SANITARY SEWER IMPROVEMENTS ON BOGGS ROAD FROM EASLAWN CIRCLE TO 5305 BOGGS ROAD

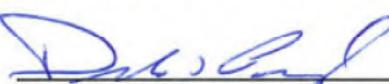


UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

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MELISSA J. BELL, PRESIDENT
MUSKINGUM COUNTY COMMISSIONER


DRAKE L. PROUTY
MUSKINGUM COUNTY COMMISSIONER


CINDY S. CAMERON
MUSKINGUM COUNTY COMMISSIONER

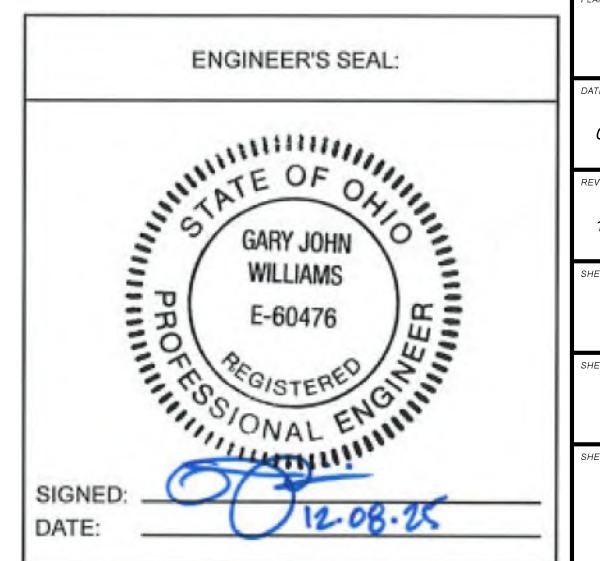
PROPERTY OWNER:
MUSKINGUM COUNTY COMMISSIONERS
401 MAIN STREET
ZANESVILLE, OHIO 43701

CONTACT PERSON:
DON MADDEN, PROJECTS DIRECTOR
401 MAIN STREET
ZANESVILLE, OHIO 43701
(740) 588-4389

REVISIONS			SHEET NOS.
1	10/06/2025	DESCRIPTION MODIFICATION OF MANHOLE CASTING REQUIREMENTS. GENERAL NOTE ADDED TO ADDRESS RESTRICTED PERIODS OF CONSTRUCTION AS A RESULT OF PERMIT AND EASEMENTS.	4
2	10/09/2025	MODIFICATION OF MANHOLE CASTING REQUIREMENTS. MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS. CLARIFICATION ON HOW JOINT RESTRAINTS WILL BE PAID.	4, 5, 7-15
3	12/08/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS BASED ON CONTRACTOR'S FIELD VERIFICATION PER GENERAL NOTES.	9, 11-15

NOTE TO CONTRACTOR:

ANY MODIFICATIONS TO THE SANITARY SEWER IMPROVEMENTS SHOWN ARE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THIS POLICY SHALL BE ADHERED TO THROUGHOUT THE LIFE OF THIS PROJECT. ANY MODIFICATIONS MADE THAT HAVE NOT BEEN APPROVED BY THE PROJECT ENGINEER MAY BE SUBJECT TO REMOVAL, AT THE DISCRETION OF THE PROJECT ENGINEER. THE COST TO REMOVE UNAPPROVED WORK SHALL BE BURDENED BY THE CONTRACTOR WHO PERFORMED SAID WORK, NOT THE OWNERS OR THE PROJECT ENGINEER.



	LIGHT POLE		EXISTING FIRE HYDRANT		EXISTING GAS VALVE		EXISTING ELECTRIC RISER/PULL BOX		STOP CHECK VALVE	
	LIGHT/POWER POLE		PROPOSED FIRE HYDRANT		PROPOSED GAS VALVE		PROPOSED ELECTRIC RISER/PULL BOX		EXISTING MAILBOX	
	POWER POLE		EXISTING WATER GATE VALVE		EXISTING GAS SERVICE STOP		EXISTING ELECTRIC METER		PROPOSED MAILBOX	
	POWER POLE (PP)		PROPOSED WATER GATE VALVE		PROPOSED GAS SERVICE STOP		PROPOSED ELECTRIC METER		MAILBOX	
	TELECOM POLE		EXISTING WATER METER		EXISTING GAS LINE VENT		EXISTING ELECTRIC MANHOLE		EXISTING TREE	
	LIGHT/TELECOM POLE		PROPOSED WATER METER		EXISTING SANITARY SEWER MANHOLE		PROPOSED ELECTRIC MANHOLE		EXISTING EVERGREEN TREE	
	TELECOM/LIGHT/POWER POLE		EXISTING WATER MANHOLE		PROPOSED SANITARY SEWER MANHOLE		EXISTING TELECOM MANHOLE		EXISTING SHRUB	
	UNKNOWN POLE		PROPOSED WATER MANHOLE		EXISTING SEPTIC TANK		PROPOSED TELECOM MANHOLE		EXISTING STONE FOUND	
	SIGN POLE		EXISTING CATCH BASIN NO. 2 - 2B		PROPOSED SEPTIC TANK		EXISTING TELEPHONE PEDESTAL		EXISTING LARGE ROCK	
	GUY WIRE ANCHOR		PROPOSED CATCH BASIN NO. 2 - 2B		EXISTING SEWER PUMP STATION		PROPOSED TELEPHONE PEDESTAL		GRINDER PUMP	
	CELLPHONE TOWER		EXISTING GAS METER		EXISTING SANITARY SEWER VALVE		EXISTING UNKNOWN PULL BOX		SPRING DEVELOPED	
	EXISTING TOWER		PROPOSED GAS METER		PROPOSED SANITARY SEWER VALVE		EXISTING UNKNOWN MANHOLE		SIGNAL PEDESTAL	
	HALF HEADWALL		EXISTING GAS MANHOLE		EXISTING SANITARY SEWER LINE VENT		EXISTING UNKNOWN UTILITY VALVE		PRIVATE/PUBLIC SIGN	
	HEADWALL		PROPOSED GAS MANHOLE		CLEAN OUT		PLUG VALVE			
LINE STYLES										PROPOSED SANITARY
     										UNDERGROUND ELECTRIC
    										UNDERGROUND TELECOM
   										ABANDONED FORCEMAIN
     										FORCEMAIN
     										EXISTING UNDER DRAIN
     										GAS LINE
     										WATER LINE
     										ELECTRIC LINE
     										UTILITY LINE
     										SANITARY LINE
     										FENCE
     										VEGETATION
     										EXISTING FENCE
     										EXISTING RIGHT OF WAY
     										EXISTING LIMITED ACCESS
     										EXISTING RAILROAD RIGHT OF WAY
     										PROPOSED EASEMENT
     										PROPOSED STORM LINE
     										

1. SPECIFICATIONS:
THE REQUIREMENTS OF THE TECHNICAL SPECIFICATIONS MUSKINGUM COUNTY WATER AND SEWER DISTRICT AND THE CURRENT EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, INCLUDING ALL SUPPLEMENTS THERETO IN FORCE ON DATE OF THE CONTRACT SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE LATEST EDITION OF THE AWWA STANDARDS, SHALL APPLY AS NEEDED AND ARE HEREBY CONSIDERED A PART OF THESE PLANS.

2. ELEVATION DATUM:
ELEVATION SHOWN ON THESE PLANS ARE BASED ON NAVD 88 DATUM.

3. BENCH MARKS:
THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES, ANY BENCH MARK PROPERTY CORNER, OR SURVEY MARKER DAMAGED OR DISTURBED BY THE CONTRACTOR SHALL BE RESET BY AN OHIO REGISTERED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

4. SAFETY REQUIREMENTS:
THE CONTRACTOR AND ANY AND ALL SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR TO INITIATE, MAINTAIN, AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING ALL OSHA RULES AND REGULATIONS.

5. CONFINED SPACE ENTRY:
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FOLLOWING THE OSHA REQUIREMENTS FOR "CONFINED SPACE ENTRY" (CSE), TITLE 29 OF THE FEDERAL REGULATIONS CODE, PART 1910.146. WHILE PERFORMING WORK INSIDE ANY MANHOLE OR OTHER CONFINED SPACE REQUIRING A PERMIT, ONE COPY OF ALL CSE PERMITS SHALL BE GIVEN TO THE COUNTY UPON PROJECT COMPLETION.

6. PERMITS:
THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF APPROVED PERMITS FOR THIS PROJECT, UNIT PRICES MUST REFLECT PROVISIONS, MUSKINGUM COUNTY WILL NOT PROVIDE ADDITIONAL PAYMENT FOR CONTRACTOR'S COMPLIANCE WITH PROVISIONS OUTLINED IN APPROVED PERMITS.

7. WORK HOURS:
NO WORK SHALL BE PERMITTED ON WEEKENDS OR ON HOLIDAYS WITHOUT THE PRIOR, WRITTEN APPROVAL OF THE ENGINEER AND/OR THE OWNER.

GENERAL WORK HOURS ON THIS PROJECT SHALL BE 7:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY.

8. UTILITIES:
THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY AS REQUIRED BY SECTION 153.64 OR SECTION 3781.27 OF THE OHIO REVISED CODE, THE COUNTY AND THE ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF LOCATIONS OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS.

THE CONTRACTOR SHALL DESIGNATE FOR EXISTING UTILITIES AROUND ALL PROPOSED STRUCTURES BEFORE DIGGING TO VERIFY NO CONFLICTS EXIST. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING DESIGNATION AND/OR CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER, THE COUNTY AND THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT (1-800-362-2764) AT LEAST 48 HOURS, AND NO MORE THAN 10 DAYS PRIOR TO EXCAVATING WITH SUCH TIME PERIODS NOT INCLUDING WEEKENDS OR HOLIDAYS. CONTRACTOR SHALL SIMILARLY CONTACT ALL UTILITY OWNERS WHO ARE NOT SUBSCRIBERS TO OUPS.

IF THERE ARE MARKERS OR OTHER APPARENT PHYSICAL EVIDENCE IN OUR NEAR THE PROJECT AREA THAT MAY INDICATE THE EXISTENCE OF UNDERGROUND PETROLEUM OR NATURAL GAS PIPELINES, THE CONTRACTOR SHALL ADDITIONALLY CONTACT THE OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS) AT 800-925-0988, TOLL FREE SAID NOTIFICATION SHALL BE GIVEN A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE FOLLOWING UTILITIES ARE KNOWN OR CAN BE EXPECTED TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT:

UTILITY	OWNER	PHONE NUMBER
GAS/PETROLEUM	CAMERON DRILLING CO, INC.	330.493.0440
GAS/PETROLEUM	ENERGEX POWER, INC.	724.622.0993
GAS	THE ENERGY COOP	740.344.2102
ELECTRIC	AEP	614.716.1000
WATER	MUSKINGUM COUNTY WATER DEPT	740.453.0678
WASTEWATER	MUSKINGUM COUNTY SEWER DEPT	740.452.4940
COMMUNICATIONS	AT&T OHIO	740.454.3455
COMMUNICATIONS	CHARTER/SPECTRUM COMMUNICATIONS	888.438.2427

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL PROCEED WITH THE WORK AND PROTECT ALL UNDERGROUND UTILITIES IN A MANNER AT LEAST AS CAUTIOUS AND PROTECTIVE OF SAFETY AND UNDERGROUND UTILITIES AS THOSE METHODS IDENTIFIED IN SECTIONS 3781.25 THROUGH 3781.30 OF THE OHIO REVISED CODE.

ALL MARKED PRIVATE UTILITY REPAIRS OR RELOCATION (GAS, ELECTRIC, PHONE, ETC.) WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ANY REPAIRS OR RELOCATION OF UNMARKED PRIVATE UTILITIES (GAS, ELECTRIC, PHONE, ETC.) SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNER. ANY REPAIRS OR RELOCATION OF UNMARKED PUBLIC UTILITIES SUCH AS WATER SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNER. ANY REPAIRS TO WATER SERVICE LINES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM SPECIAL WATER SERVICE LINE REPAIR, A QUANTITY OF 20 WATER SERVICE LINE REPAIR UNITS HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR THIS PROJECT.

9. SITE VISIT:
THE CONTRACTOR SHALL PERFORM FIELD RECONNAISSANCE TO BECOME ACQUAINTED WITH THE EXISTING SITE CONDITIONS AND THE POTENTIAL EFFECTS UPON THE SCOPE OF WORK.

10. MISCELLANEOUS:
THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SERVICES, AND RELATED ACCESSORIES FOR A COMPLETE PROJECT, AS SHOWN AND DESCRIBED IN THE PLANS AND SPECIFICATIONS. THE PRICE FOR ITEMS OF WORK OR MATERIALS SHOWN ON THE PLANS OR PROVIDED FOR IN THE SPECIFICATIONS OR SPECIAL PROVISIONS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED, SHALL BE PERFORMED BY THE CONTRACTOR AND THE COSTS INCLUDED AMONG THE VARIOUS BID ITEMS, SUBMISSION OF A BID SHALL BE CONSIDERED EVIDENCE THAT THE BIDDER IS SATISFIED WITH THE PLANS AND CONDITIONS, AS SHOWN, NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS, OR SPECIAL PROVISIONS.

11. SUBSURFACE SOIL DATA: - NOT APPLICABLE
TEST BORINGS HAVE BEEN TAKEN AT SEVERAL LOCATIONS ALONG THE PROJECT CORRIDOR FOR DESIGN PURPOSES, THE SUBSURFACE SOILS REPORT IS AVAILABLE FOR THE CONTRACTOR'S REVIEW, THE CONTRACTOR MUST MAKE WRITTEN REQUEST FOR THIS INFORMATION. ANY PERFORMANCE OF ADDITIONAL SITE SUBSURFACE INVESTIGATIONS (TEST HOLES) SHALL BE COORDINATED IN ADVANCED IN A CONTROLLED MANNER TO MINIMIZE IMPACT ON FIELD EARTHWORK. ANY REQUIREMENTS OR CONTINGENCIES INCLUDED WITHIN THE SOILS REPORT SHALL BE INCLUDED IN THE VARIOUS BID ITEMS UNLESS SPECIFICALLY IDENTIFIED IN THE ESTIMATE OF QUANTITIES.

12. RIGHTS-OF-WAY:
IN ADDITION TO THE DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAYS, INCLUDING EASEMENTS, COURT ENTRIES, RIGHT OF ENTRY, OR ACTION FIELD IN COURT IN ACCORDANCE WITH THE CODE OF THE APPLICABLE GOVERNING AGENCY, THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT UNLESS SPECIFIC PROVISION IS MADE IN THE CONTRACT SPECIFICATIONS FOR SUCH COST UNDER SPECIFIC ITEMS OF THE CONTRACT.

13. WORK LIMITS:
THE CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL PERFORMED WORK AND ALL EQUIPMENT, MATERIALS, VEHICLES, ETC., USED TO COMPLETE THE WORK WITHIN THE RIGHTS-OF-WAY OF THE STREETS, ROADWAYS, PERMANENT EASEMENTS AND THE PROPERTY BOUNDARIES OF THE PROJECT IMPROVEMENTS, AS SHOWN ON THESE PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR COST OF RESTORATION FOR ANY AREA DISTURBED OUTSIDE OF THE RIGHT-OF-WAY, PERMANENT EASEMENT OR PROJECT PROPERLY BOUNDARIES TO FORMER CONDITION OF BETTER AND TO THE SATISFACTION OF THE ENGINEER.

14. CONTRACT WORK PERFORMED BY THE COUNTY:
IN THE EVENT THAT IT BECOMES NECESSARY FOR THE COUNTY TO PERFORM WORK OF AN IMMEDIATE NATURE (SUCH AS THE PLACEMENT OF BARRICADES OR REPLACEMENT OF SIGNS OR OTHER WARNING OR PROTECTIVE DEVICES) REQUIRED OF THE CONTRACTOR BY THIS CONTRACT BECAUSE OF FAILURE OR REFUSAL OF THE CONTRACTOR TO PERFORM SUCH WORK, THE CONTRACTOR SHALL REIMBURSE THE COUNTY AT THE RATE OF 2.5 TIMES THE ACTUAL COST OF LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE COUNTY SHALL BE REIMBURSED BY THE CONTRACTOR BY WAY OF A DEDUCTION FROM THE CONTRACTOR'S NET PAYMENT UNDER THE CONTRACT.

15. CONVENIENCE FACILITIES:
THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKMEN AND INSPECTORS FOR THE DURATION OF THE WORK, COST SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

16. NON-RUBBER TIRE VEHICLES:
NO NON-RUBBER TIRED VEHICLES SHALL BE MOVED ON COUNTY STREETS, EXISTING PRIVATE ROADWAYS OR PARKING LOTS. EXCEPTIONS MAY BE GRANTED BY THE COUNTY, FOR PUBLIC ROADWAYS ONLY, WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED, GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY DAMAGE MUST BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE COUNTY.

17. SIGNS, MAILBOXES, FENCES, ETC.:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL SIGNS, MAILBOXES, FENCES, GUARDRAILS, SHRUBS, PROPERTY, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING CONSTRUCTION, WHETHER SHOWN ON THE PLANS OR NOT, TO THEIR ORIGINAL OR BETTER CONDITION AND LOCATION AND TO THE SATISFACTION OF THE PROPERTY OWNER AND THE COUNTY, COST TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

18. STANDARD TOPSOIL, SEEDING, FERTILIZER, AND MULCHING:
TOPSOIL SHALL BE NATIVE AND OF THE HIGHEST QUALITY AND FREE OF ALL STONES, TRASH AND OTHER DELETERIOUS MATERIALS GREATER THAN 1 INCH.

THE GRADES SHALL MATCH ALL EXISTING LANDSCAPE AND ANY IMPROVEMENTS COMPLETED UNDER THIS PLAN, THE CONTRACT SHALL SCARIFY THE SOIL SURFACE TO OPEN THE SOIL PRIOR TO SEEDING. ALL SEEDING FERTILIZER, AND MULCH SHALL BE PLACED WITHIN 7 WORKING DAYS OF PLACING TOPSOIL, THE SEEDING AND FERTILIZER MIXES SHALL BE AS SPECIFIED BY THE COUNTY AND SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

THE STARTER FERTILIZER MIX SHALL CONTAIN A HERBICIDE TO PREVENT WEED ESTABLISHMENT, NO WEEDS OR UNDESIRABLE GRASSES WILL BE ACCEPTED IN THE FINAL INSPECTION.

IF THE INITIAL SEEDING IS NOT 95% ESTABLISHED BY SEPTEMBER 15TH, THE CONTRACTOR SHALL RE-SEED, FERTILIZER, AND MULCH THE EXCAVATED AREAS PRIOR TO OCTOBER 1ST.

19. DE-WATERING:
THE CONTRACTOR IS SOLELY RESPONSIBLE TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) FOR REGISTRY, MAINTENANCE AND ABANDONMENT OF ANY WITHDRAWAL DEVICES USED IN THE CONSTRUCTION OF THIS PROJECT.

INSTALLATION OF ANY WELL, WELL POINT, PIT OR OTHER DEVICE USED FOR THE PURPOSE OF LOWERING THE GROUNDWATER LEVEL TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR AS DIRECTED BY THE DIRECTOR OR THEIR DESIGNATED REPRESENTATIVE(S).

THE CONTRACTOR SHALL BE REQUIRED TO COMPLETE AND FILE A WELL LOG AND A DRILLING REPORT FORM WITH O.D.N.R. DIVISION OF WATER WITHIN 30 DAYS OF THE COMPLETION OF INSTALLATION OF ANY WELL, WELL POINT, PIT OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUNDWATER FROM AN AQUIFER, IN ACCORDANCE WITH SECTIONS 1521.01 AND 1521.05 OF THE OHIO REVISED CODE, IN ADDITION, ANY SUCH FACILITY THAT HAS A CAPACITY TO WITHDRAW WATERS OF THE STATE IN AN AMOUNT GREATER THAN 100,000 GALLONS PER DAY FROM ALL SOURCES SHALL BE REGISTERED BY THE CONTRACTOR WITH THE CHIEF OF THE O.D.N.R. DIVISION OF WATER WITHIN THREE MONTHS OF THE COMPLETION OF THE FACILITY IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE, COPIES OF THE NECESSARY PAPERWORK CAN BE OBTAINED AT O.D.N.R. DIVISION OF WATER, FOUNTAIN SQUARE, COLUMBUS, OHIO 43224-1387 - (614) 265-6717.

RECORDS OF THESE INSPECTIONS SHALL BE KEPT AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES IF REQUESTED.

ANY SEDIMENT OR DEBRIS WHICH HAS REDUCED THE EFFICIENCY OF A STRUCTURE SHALL BE REMOVED IMMEDIATELY, SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL FURNISH AND OPERATE SUITABLE PUMPING EQUIPMENT OF SUCH CAPACITY, ADEQUATE TO DE-WATER THE TRENCH, SHOULD WATER BE ENCOUNTERED, THE TRENCH SHALL BE SUFFICIENTLY DE-WATERED SO THAT THE PLACEMENT OF BEDDING AND THE LAYING AND JOINING OF PIPE IS MADE ON FIRM, DRY GROUND, IF DE-WATERING CANNOT PRODUCE ACCEPTABLE SUB-GRADING, AND ONLY AS DIRECTED BY THE ENGINEER, UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED BY NO. 2, STONE FOUNDATION. THE CONTRACTOR SHALL CONVEY ALL TRENCH WATER TO A NATURAL DRAINAGE CHANNEL OR STORM SEWER WITHOUT DAMAGE TO PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE AND MAINTAIN THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO FILTER THE DE-WATERING DISCHARGE AND TO PREVENT EROSION AT THE DISCHARGE LOCATION, COST FOR THE ABOVE SHALL BE INCLUDED IN THE BID PRICE FOR THE VARIOUS IMPROVEMENT ITEMS.

THE COST OF ANY DE-WATERING OPERATIONS REQUIRED FOR THE CONSTRUCTION OF THE SANITARY SEWER SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS.

20. REPLACEMENT OF DRAIN TILES AND STORM SEWERS:
ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED, OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR N-12 AT CONTRACTOR'S COST, MAINTAINING THE SAME GRADIENT AS EXISTING. REPLACED DRAIN TILE SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. IF POSSIBLE, THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO A STORM SEWER STRUCTURE, CURB, UNDERDRAIN, OR OUTLET INTO THE ROADWAY DITCH AS APPLICABLE. REPLACEMENT SHALL BE DONE AT THE BACKFILL OPERATION. COST OF THIS WORK TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

21. MAINTAIN DRAINAGE:
THE FLOW IN ALL SEWERS, DRAINS, AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN COST AND EXPENSE, UNLESS SPECIFIC PROVISION IS MADE WITHIN THE CONTRACT DOCUMENTS FOR THE MEASURE OF AND PAYMENT FOR SUCH COST SPECIFIC ITEMS, TO A CONDITION SATISFACTORY TO THE ENGINEER.

CONTRACTOR AT HIS OWN COST AND EXPENSE, UNLESS SPECIFIC PROVISION IS MADE WITHIN THE CONTRACT DOCUMENTS FOR THE MEASURE OF AND PAYMENT FOR SUCH COST SPECIFIC ITEMS, TO A CONDITION SATISFACTORY TO THE ENGINEER.

22. EROSION AND SEDIMENTATION CONTROL:
THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORM WATER RUNOFF LEAVES THE PROJECT INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED AS PER THE REQUIREMENTS AND THE STANDARDS AND SPECIFICATIONS OF THE "RAINWATER AND LAND DEVELOPMENT" MANUAL OF THE ODNR.

EROSION CONTROL MEASURES ARE TO BE INSTALLED PER NPDES PERMIT REGULATIONS OR AS DIRECTED BY THE ENGINEER AND ARE TO BE MAINTAINED UNTIL SUCH TIME THEY ARE NO LONGER REQUIRED BY THE PERMIT AND THE ENGINEER. COST FOR EROSION AND SEDIMENTATION CONTROL SHALL BE INCLUDED IN THE PRICE BID FOR CMSC ITEM 207.

ALL LAND DISTURBING SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE COUNTY AND/OR THE OHIO EPA. FAILURE TO COMPLY WITH THESE REGULATIONS IS SUBJECT TO LEGAL ENFORCEMENT ACTION.

THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE COUNTY 48 HOURS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING, AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL, PRACTICES ARE MANDATED BY REGULATIONS TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY.

ALL DENUDED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN (7) DAYS OF COMPLETION OF GRADING OPERATIONS IF SAID AREAS ARE TO REMAIN UNDISTURBED FOR MORE THAN TWENTY-ONE (21) DAYS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS PROJECT. THE SITE SHALL BE INSPECTED PERIODICALLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAINFALL EVENT.

23. SOIL STOCKPILES:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL SOIL STOCKPILES INCLUDING TRENCH EXCAVATION STOCKPILES, PROTECTED FROM EROSION. THE AREAS SURROUNDING THE STOCKPILES ARE TO BE PROTECTED FROM SEDIMENT WITH THE USE OF PERIMETER CONTROL DEVICES SUCH AS EARTH OR STRAW BALE DEVICES OR SILT FENCES. THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.

24. DISPOSAL OF EXCESS EXCAVATION:
THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS EXCAVATION AT A LOCATION OFF-SITE AND OUTSIDE OF EXISTING FLOODPLAINS. FOR DISPOSAL OUTSIDE THE LIMITS OF THE PROJECT THE CONTRACTOR SHALL PROVIDE A COPY OF THE SIGNED, WRITTEN AGREEMENT BETWEEN THE CONTRACTOR AND THE OFF-SITE LANDOWNER BEFORE SUCH DISPOSAL OCCURS. THIS WRITTEN AGREEMENT SHALL CLEARLY STATE THE PURPOSE OF THE AGREEMENT AND INDICATE THE LANDOWNER PERMISSION FOR SUCH USE.

25. CONSTRUCTION DEBRIS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS, MUD OR DIRT TRACKED OR SPILLED ON COUNTY AND/OR PUBLIC STREETS OR PRIVATE DRIVES WHETHER INSIDE OR OUTSIDE THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ANY SERVICES CONTRACTED AND/OR COMPLETED BY THE COUNTY IN THE CLEAN UP OF ANY TRACKING OR SPILLAGE ANYTIME DURING PROJECT CONSTRUCTION. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO PERFORM WEEKLY STREET CLEANING IF EXCESSIVE AMOUNTS OF DIRT AND MUD ARE LEFT ALONG THE STREET, THIS MAY INCLUDE REMOVAL BY SWEEPING, POWER CLEANING, OR MANUAL METHODS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS. UNLESS OTHERWISE SPECIFIED.

26. CLEAN UP:
ALL DEBRIS, RUBBLE, UNUSABLE MATERIALS, AND ITEMS NOT SALVAGED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF PROPERLY.

27. MAINTENANCE:
ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS (CURRENT EDITION), COPIES OF WHICH ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223.

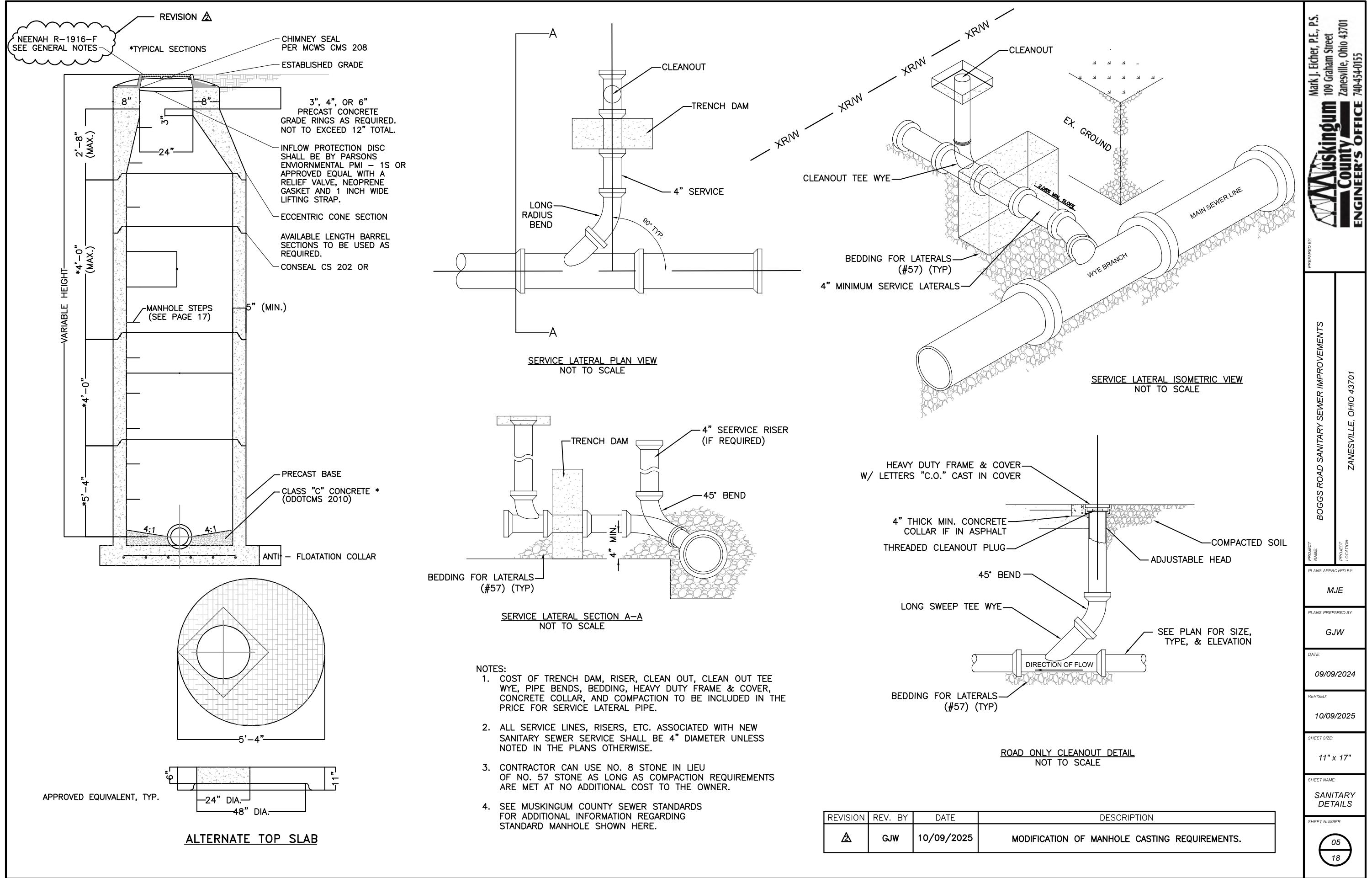
STEADY-BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT, CONES ARE NOT APPROVED FOR USE AT NIGHT.

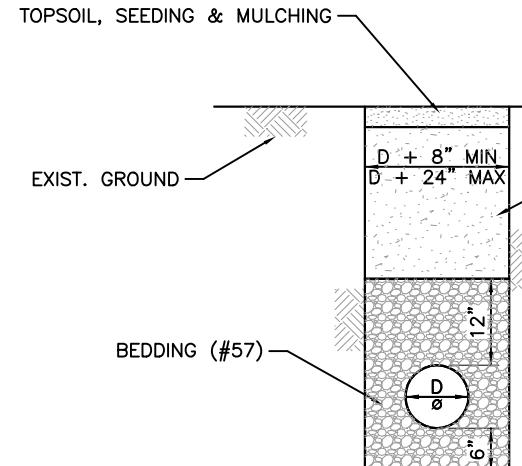
ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA SHALL BE MAINTAINED AT ALL TIMES.

ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS SHALL BE MAINTAINED THROUGH THIS PROJECT BY THE CONTRACTOR. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARY RELOCATED AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGE, AND IMPROPERLY PLACED SIGNS. ANY WORK DONE BY THE COUNTY, INCLUDED INSTALLATION, MODIFICATION REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC

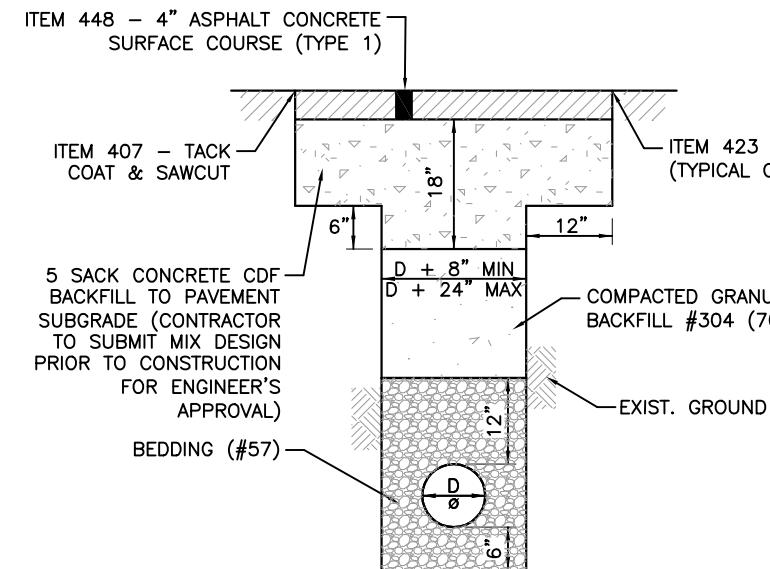
Mark J. Edder, P.E., PS
109 Graham Street
Zanesville, Ohio 43701
740-454-0155
PREPARED BY:

<p>RESULT OF THE NEGLIGENCE OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.</p> <p>28. TREE REMOVAL: THE CONTRACTOR SHALL REMOVE TREES AND VEGETATION ONLY AS NECESSARY TO PERFORM HIS WORK WITHIN THE SPECIFIED WORK LIMITS OR RIGHT-OF-WAY. THEY SHALL MAKE EVERY EFFORT TO MINIMIZE REMOVALS EXCEPT THOSE SPECIFICALLY MARKED FOR REMOVAL IN THE PLANS. CONTRACTOR SHALL ALSO COMPLY WITH RESTRICTIONS ON TREE REMOVAL ASSOCIATED WITH THE INDIANA BAT HABITAT.</p> <p>29. OPEN EXCAVATIONS: ALL EXCAVATIONS WITHIN 40 FEET OF ANY ROADWAY SHALL BE CLOSED OR PLANTED DURING NONWORKING HOURS. DRUMS OR CONCRETE BARRIER SHALL BE USED DURING WORKING HOURS TO SEPARATE TRAFFIC FROM THESE HAZARDS. ALL OTHER EXCAVATION SHALL BE SECURED BY CONSTRUCTION FENCE.</p> <p>30. MANHOLE AND LIFT STATION COATING: ALL INTERIOR EXPOSED CONCRETE SURFACES OF FORCE MAIN RECEIVING MANHOLES, INSIDE THE MANHOLE, AND THE NEXT TWO IN SEQUENCE SHALL BE COATED/SEALED WITH ADVANCED REHABILITATION TECHNOLOGY OBIC ARMOR 1000 OR APPROVED EQUAL. COST SHALL BE INCLUDED IN THE UNIT PRICE OF THE MANHOLE.</p> <p>31. MAINTAINING SEWAGE SYSTEM OPERATION: THE CONTRACTOR SHOULD BE EXPECTED TO ENCOUNTER EXISTING SEPTIC TANKS, PIPES OR TREATMENT DEVICES THAT ARE ACTIVE. THE CONTRACTOR SHALL SEQUENCE THEIR WORK AND MAKE PROVISIONS NECESSARY TO MAINTAIN SERVICE FOR THE STRUCTURES SERVED BY THESE SYSTEMS. ALL COSTS FOR PUMPING, HAULING, TEMPORARY STORAGE OR OTHER WORK REQUIRED TO MAINTAIN SERVICE SHALL BE INCLUDED WITH THE PIPE AND VARIOUS RELATED ITEMS.</p> <p>32. VOLUNTARY ALTERNATIVES: THE CONTRACTOR MAY VOLUNTARY SUBMIT MATERIAL, EQUIPMENT OR METHODS ALTERNATES FOR CONSIDERATION BY THE ENGINEER. EXAMPLES OF VOLUNTARY ALTERNATIVES INCLUDE, BUT LIMITED TO PIPE MATERIALS, PUMPS AND CONTROLS, DIRECTIONAL BORING PLANS, ETC. ALL SUBMITTAL MUST INCLUDE SUFFICIENT INFORMATION FOR THE ENGINEER TO DETERMINE IF THE ALTERNATIVE IS EQUAL AND MUST BE DELIVERED TO THE ENGINEER NO LESS THAN 10 DAYS PRIOR TO THE BID OPENING. PLAN HOLDERS WILL BE NOTIFIED OF APPROVED ALTERNATIVES BY ADDENDUM. ALTERNATIVES MUST BE LISTED ON THE BID FORM. OTHERWISE THE CONTRACT SHALL BE AWARDED BASED ON THE EQUIPMENT SPECIFIED.</p> <p>33. WYE POLES: THE CONTRACTOR SHALL FURNISH AND PLACE AS DIRECTED, APPROVED WYE POLES 2" X 2" OR LARGER AT ALL WYE LOCATIONS, ENDS OF EXTENDED SERVICES, OR AT END OF EACH RISER WHERE RISERS ARE REQUIRED. EXTENDING A MINIMUM OF 3 FEET ABOVE FINAL SURFACE GRADES WITH THE TOP 2 FEET BEING PAINTED WHITE.</p> <p>34. CLEAN WATER CONNECTIONS: NO FOUNDATION DRAINS, ROOF DRAINS, OR OTHER STORM WATER DRAINS OF ANY KIND SHALL BE CONNECTED INTO THE SANITARY SEWER SYSTEM.</p> <p>35. ITEM SPECIAL: ORANGE CONSTRUCTION FENCE: PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE AS SHOWN ON PLANS OR OTHERWISE ESTABLISHED BY THE ENGINEER, FENCE MATERIAL SHALL BE RESINET SLM60 OR APPROVED EQUAL AND INSTALLED PER THE DETAIL ON SHEET AA. THIS PAY ITEM INCLUDES INSTALLATION, ALL MATERIALS REQUIRED FOR INSTALLATION, AND REMOVAL. FENCE SHALL BE REMOVED ONCE THEY HAVE SERVED THEIR USEFUL PURPOSE AND APPROVAL BY THE ENGINEER IS GRANTED.</p> <p>36. TRENCH DAMS: THE CONTRACTOR SHALL PLACE A CUT OFF TRENCH DAM OF NATIVE CLAY OR IMPERVIOUS SOIL ACROSS AND ALONG THE TRENCH OVER AND UPSTREAM FROM THE MAIN LINE SEWER CONNECTION TO RETARD AND RESIST THE MOVEMENT OF GROUNDWATER THROUGHOUT THE TRENCH GRANULAR BEDDING OR BACKFILL MATERIAL. THE TRENCH DAMS SHALL BE CAREFULLY COMPAKTED AND SHALL BE 3 FEET IN THICKNESS AS MEASURED ALONG THE SERVICE CENTER LINE AND SHALL BE CONSTRUCTED AGAINST THE UNDISTURBED TRENCH SIDES FROM THE SUB-GRADE OR BOTTOM OF THE STONE FOUNDATION, WHICHEVER IS LOWER, TO THE LIMIT OF 36 INCHES OVER THE TOP OF THE PIPE, NO MORE THAN 10 FEET FROM THE MAIN LINE SANITARY SEWER.</p> <p>37. TRACER TAPE & TRACER WIRE: THE CONTRACTOR SHALL INSTALL 12-GAUGE COPPER HEAD JACKETED TRACER WIRE ON ALL FORCE MAINS. FASTEN WIRE TO PIPE IN TWO PLACES PER PIPE SECTION, SPLICE WIRE USING DRYCON CONNECTIONS SPLICING FASTENER. THE CONTRACTOR SHALL ALSO INSTALL CONTINUOUS TRACER TAPE 12 INCHES ABOVE ALL FORCE MAINS.</p> <p>38. MAIL SERVICE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MAIL SERVICE IN THE CONSTRUCTION AREA. PRIOR TO DISTURBING ANY MAILBOXES, THE CONTRACTOR SHALL CONTACT THE POSTAL AUTHORITIES AND SHALL TEMPORARILY RELOCATE MAILBOXES IN ACCORDANCE WITH POSTAL REQUIREMENTS. THE CONTRACTOR SHALL RESTORE MAILBOXES TO THEIR ORIGINAL CONDITION AND LOCATION. COST TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.</p> <p>39. TRASH COLLECTION SERVICE: THE CONTRACTOR SHALL CONTACT THE APPROPRIATE TRASH COLLECTION</p>		<p>AUTHORITIES FOR CURRENT COLLECTION DATE EACH WEEK PRIOR TO STARTING WORK AND BEING RESPONSIBLE FOR MAINTAINING A 20 FOOT WIDE CLEAR AREA FOR TRASH CAN PLACEMENT IN THE FRONT OF EACH LOT FOR TRASH COLLECTION SERVICE IN THE CONSTRUCTION AREA ON THE DESIGNATED TRASH DAY.</p> <p>40. FORCemain PLACEMENT: IN AREAS WHERE FORCemain AND SEWER ARE PLACED IN THE SAME TRENCH, FORCemain SHALL BE PLACED 2 FOOT FROM SANITARY SEWER (CENTER TO CENTER) WITH IDENTICAL INVERTS AND ELEVATIONS. IN AREAS WHERE FORCemain IS PLACED IN ITS OWN TRENCH, IT SHALL BE PLACED 4 FOOT BELOW EXISTING GRADE UNLESS OTHERWISE NOTED IN PLANS.</p> <p>41. LANDSCAPE, DRIVEWAY, ALLEY & ROADWAY REPAIRS: WHERE CONSTRUCTION OF FORCemain AND/OR SANITARY SEWER REQUIRES TRENCHING ACROSS LANDSCAPE, DRIVEWAYS, ALLEYS, AND ROADWAYS REFER TO SANITARY DETAILS FOR REPAIR REQUIREMENTS. COST OF REPAIRS IS TO BE INCLUDED IN THE UNIT PRICE FOR FORCemain AND/OR SANITARY SEWER PIPE. REFER ALSO TO GENERAL NOTE #18 FOR ADDITIONAL GUIDANCE.</p> <p>42. SWALE REPAIRS & CONSTRUCTION: WHERE CONSTRUCTION OF FORCemain AND/OR SANITARY SEWER DISTURBS EXISTING DRAINAGE SWALES, THE CONTRACTOR WILL BE REQUIRED TO RESTORE</p> <p>THE DRAINAGE SWALES TO PRE-CONSTRUCTION CONDITIONS, ADDITIONALLY, NEW DRAINAGE SWALES CONSTRUCTION WILL BE REQUIRED IN SOME AREAS DISTURBED BY THE SANITARY SEWER CONSTRUCTION, ALL SWALE REPAIRS AND/OR NEW CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE FOR FORCemain AND/OR SANITARY SEWER PIPE.</p> <p>43. FLOW REQUIREMENTS THROUGH PROPOSED SANITARY MANHOLES: CONTRACTOR MUST CONSTRUCT PROPOSED SANITARY MANHOLES WITH A MINIMUM FLOOR SLOPE OF 2.5% TO ENSURE POSITIVE FLOW THROUGHOUT MANHOLES. COST OF FLOOR SLOPE REQUIREMENT INCIDENTAL TO THE COST OF A MANHOLE.</p> <p>44. FORCemain NOTES: - NOT APPLICABLE</p> <p>BACKFILL: WHERE THE FORCemain CROSSES PAVEMENT THE TOP OF BEDDING SHALL BE BACKFILLED WITH SUITABLE MATERIAL. BACKFILL SHALL BE SUITABLE MATERIAL FROM THE BOTTOM OF THE TRENCH TO WITHIN 8" OF THE FINISHED OR EXISTING GRADE. 8" OF COMPACTED GRANULAR MATERIAL SHALL BE PLACED TO FINISHED GRADE. ALL TRENCH BACKFILL SHALL BE COMPACTED IN 12-INCH LAYERS LOOSE MEASUREMENT. COMPACTION SHALL BE TO AT LEAST THE DENSITY OF THE SURROUNDING GROUND. THE COST OF ALL BACKFILLS IS TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS. PAYMENT FOR THIS ITEM SHALL NOT EXCEED A 4 FEET WIDE TRENCH. THE COST OF ALL BACKFILL IS INCLUDED IN THE PRICE BID FOR VARIOUS SEWER SYSTEMS.</p> <p>MATERIALS: ALL FORCemain MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS. ALL FORCemain MATERIAL SHALL BE PVC IN GRADE BETWEEN WATER LINES AND FORCemain. THE FORCemain SHALL BE LOWERED DURING CONSTRUCTION. BACKFILL GROUND OVER THE TOP OF THE PIPE SHALL BE FREE OF ROCKS, ORGANIC REFUSE OR OTHER OBJECTIONABLE MATERIAL. SEE BACKFILL NOTE ABOVE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR CONDUCTING PRESSURE AND LEAKAGE TESTS AT A PRESSURE OF 150 PSI IN ACCORDANCE WITH AWWA C-600.</p> <p>45. SANITARY SEWER NOTES:</p> <p>SERVICES: PIPE FOR ALL SERVICES SHALL BE 4-INCH, SCHEDULE 40 PVC SEWER PIPE ASTM D3034, SDR 35. THE SERVICE IS SUBJECT TO EITHER THE INFILTRATION/EXFILTRATION OR AIR TEST. ALL SERVICE EXTENSIONS SHALL BE LAID AT A MINIMUM GRADE OF $\frac{1}{4}$ INCH PER FOOT. CONTRACTOR SHALL INSTALL A WYE, RISER AND CAP 3' PAST THE PROPERTY LINE WITH CLEAN OUT, PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 6" SANITARY SEWER SERVICE LATERAL, RISER AND APPURTENANCES AS PER PLAN.</p> <p>BACKFILL: WHERE THE SANITARY SEWER OR SEWER SERVICE CROSSES PAVEMENT THE TOP OF BEDDING SHALL BE BACKFILL WITH SUITABLE MATERIAL. BACKFILL SHALL BE SUITABLE MATERIAL FROM THE BOTTOM OF THE TRENCH TO WITHIN 8" OF THE FINISHED OR EXISTING GRADE. 8" OF COMPACTED GRANULAR MATERIAL SHALL BE PLACED TO FINISHED GRADE. ALL TRENCH BACKFILL SHALL BE COMPACTED IN 12-INCH LAYERS, LOOSE MEASUREMENT. COMPACTION SHALL BE TO AT LEAST THE DENSITY OF THE SURROUNDING GROUND. THE COST OF ALL BACKFILL IS TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS. PAYMENT FOR THIS ITEM SHALL NOT EXCEED A 4 FEET WIDE TRENCH, FOR LANDSCAPE AREAS.</p> <p>FINAL BACKFILL: FINAL BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLOUDS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR FINAL BACKFILL WITHIN 2 FEET OF THE TOP OF THE PIPE.</p> <p>FINAL BACKFILL SHALL BE PLACED IN SUCH A MANNER AS NOT TO DISTURB THE ALIGNMENT OF THE PIPE.</p> <p>BEDDING: ALL PIPE 8" OR SMALLER SHALL BE BEDDED IN #57, 6" BELOW AND 12" ABOVE TOP OF PIPE. AS SHOWN ON PAGES 2, 3, & 4.</p> <p>LEAKAGE TEST: LEAKAGE TEST SHALL BE SPECIFIED. THIS MAY INCLUDE APPROPRIATE WATER OR LOW PRESSURE AIR TESTING. THE TESTING METHODS SELECTED SHOULD TAKE INTO CONSIDERATION THE RANGE IN GROUNDWATER ELEVATIONS DURING THE TEST AND ANTICIPATED DURING THE DESIGN LIFE OF THE SEWER.</p> <p>WATER (HYDROSTATIC) TEST (FORCemain): THE LEAKAGE EXFILTRATION OR INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET.</p> <p>AIR TEST (GRAVITY SEWER): THE AIR TEST SHALL, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828-86 FOR CLAY PIPE, ASTM C 924 FOR CONCRETE PIPE, ASTM F-1417 FOR PVC, AND FOR OTHER MATERIALS TEST PROCEDURES APPROVED BY THE REGULATORY AGENCY.</p> <p>STORM SEWER CROSSING: WHERE THE SANITARY SEWER CROSSES A PROPOSED STORM SEWER, THE TRENCH SHALL BE BACKFILLED TO THE BOTTOM OF THE PROPOSED STORM SEWER WITH COMPACTED GRANULAR MATERIAL. EXTENDING A DISTANCE OF 10 LINEAL FEET CENTERED ON THE STORM SEWER. THE COST OF THIS IS TO BE INCLUDED IN THE PRICE BID FOR VARIOUS SEWER ITEMS.</p> <p>WATER LINE CROSSING: ALL SANITARY SEWERS OR MANHOLES SHALL BE PLACED WITH AT LEAST 10 FEET HORIZONTAL SEPARATION FROM WATER LINES. WHENEVER A WATER LINE AND SEWER MUST CROSS, THE SEWER MAIN SHALL BE LAID SUCH THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER LINE MEASURED BETWEEN THE OUTSIDE PIPE WALLS. IN CASES WHERE THE REQUIRED SEPARATION CANNOT BE MAINTAINED, CLOSER INSTALLATION MAY BE PERMITTED ON A CASE-BY-CASE BASIS ONLY AFTER RECEIPT OF WRITTEN CONCURRENCE FROM THE OHIO EPA DIVISION OF DRINKING WATER.</p> <p>MANHOLES: ALL MANHOLES SHALL BE PRE-CAST, CONSTRUCTION AND PLACED IN ACCORDANCE WITH ASTM C-478 MATERIAL SPECIFICATIONS. THE JOINTS SHALL CONFORM TO ASTM C-443 JOINT SPECIFICATIONS. ALL MANHOLES SHALL REQUIRE MECHANICAL CHIMNEY SEALS TO BE INSTALLED, ALL MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM-1244 SPECIFICATIONS.</p> <p>MANHOLE CASTINGS: ALL MANHOLE CASTINGS SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF ASTM A48. ADDITIONALLY, CASTINGS SHALL BE NEENAH R-1916-F, SUBJECT TO THE COUNTY'S APPROVAL, WITH TOP SURFACE LETTERING "SANITARY SEWER", OR EQUAL. CHIMNEY SEALS TO BE INCLUDED WITH THE CASTINGS. CASTING ADJUSTMENT BY GRADE RINGS MUST BE LESS THAN ONE (1) FOOT BEFORE A BARREL SECTION IS REQUIRED.</p> <p>SEWER PIPE: THE MINIMUM REQUIREMENTS FOR SEWER PIPE ON THIS PROJECT SHALL BE PVC-SDR 35 SEWER PIPE MEETING ASTM D-3034 WITH JOINTS MEETING ASTM D-3212 AND FLEXIBLE RUBBER GASKETS MEETING ASTM F-477. BACKFILL SHALL CONFORM TO ASTM D-2321, UNLESS OTHERWISE SHOWN ON THE PLANS.</p> <p>DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM, AND 1 YEAR AFTER INITIAL TESTING.</p> <p>NO PIPE SHALL EXCEED A DEFLECTION OF 5 PERCENT, IF DEFLECTION EXCEEDS 5 PERCENT REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH REQUIREMENTS IN THE APPROVED SPECIFICATIONS. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95 PERCENT OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS SPECIFIED IN ASTM SPECIFICATION, INCLUDING THE APPENDIX TO WHICH THE PIPE IS MANUFACTURED. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D-2122 STANDARD TEST METHOD OF DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. MANDREL TESTING MUST BE PERFORMED AT 30 DAYS AND ONE (1) YEAR FOLLOWING INSTALLATION.</p> <p>SEEDING AND MULCHING: PERMANENT SEEDING SHALL BE APPROVED FOR ALL EXPOSED SOIL SURFACES WITHIN SEVEN (7) DAYS AFTER THE FINISH GRADE IS REACHED. PERMANENT SEEDING AND MULCHING AS SPECIFIED IN ODOT ITEM 659 IS ACCEPTABLE.</p> <p>AREAS WHERE PERMANENT SEEDING HAS FAILED TO GERMINATE SHALL BE RESEEDED AND MULCHING AS NECESSARY TO ACHIEVE STABILIZATION.</p> <p>46. GRINDER PUMP: SHALL BE E/ONE EXTREME MODEL DH071 MEETING THE FOLLOWING SPECIFICATIONS: RATED FOR 700GPD 70 GALLON CAPACITY INDOOR OR OUTDOOR INSTALLATION STANDARD OUTDOOR HEIGHTS RANGE FROM 61 INCHES TO 160 INCHES</p> <p>GRINDER PUMP ELECTRIC MOTOR: SHALL BE A 1HP, 1725RPM, 240 VOL 60 HERTZ, 1 PHASE, CAPACITOR START, BALL BEARING, AIR-COOLED INDUCTION TYPE WITH CLASS F INSULATION, LOW STARTING CURRENT NOT TO EXCEED 30AMPS.</p> <p>47. FIELD VERIFICATION OF SURVEY: CONTRACTOR SHALL FIELD VERIFY EXISTING GROUND ELEVATIONS AT ALL EXISTING AND PROPOSED MANHOLES TO CONFIRM THE TOP OF CASTINGS. FIELD VERIFICATION SHALL BE COMPLETED BEFORE MANHOLE SHOP DRAWINGS ARE SUBMITTED.</p> <p>CONTRACTOR SHALL PROVIDE MUSKINGUM COUNTY WITH AN ELECTRONIC COPY OF ALL SURVEY SHOTS TAKEN IN X, Y, Z COORDINATES.</p> <p>48. WETLAND IMPACTS / RESTORATION: MATERIAL RESULTING FROM TRENCH EXCAVATION MAY BE TEMPORARILY SIDECAST INTO WATERS OF THE UNITED STATES FOR NO MORE THAN THREE MONTHS, PROVIDED THE MATERIAL IS NOT PLACED IN SUCH A MANNER THAT IT IS DISPERSED BY CURRENTS OR OTHER FORCES. THE DISTRICT ENGINEER MAY EXTEND THE PERIOD OF TEMPORARY SIDE CASTING FOR NO MORE THAN A TOTAL OF 180 DAYS, WHERE APPROPRIATE. IN WETLANDS, THE TOP 6 TO 12 INCHES OF THE TRENCH SHOULD NORMALLY BE BACKFILLED WITH TOPSOIL FROM THE TRENCH. THE TRENCH CANNOT BE CONSTRUCTED OR BACKFILLED IN SUCH A MANNER AS TO DRAIN WATERS OF THE UNITED STATES (E.G. BACKFILLING WITH EXTENSIVE GRAVEL LAYERS, CREATING A FRENCH DRAIN EFFECT). ANY EXPOSED SLOPES AND STREAM BANKS MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF THE UTILITY LINE CROSSING OF EACH WATERBODY. CONTRACTOR SHALL BE REQUIRED ONLY TO SEED WETLAND AREAS THAT ARE IMPACTED. SEED MIX MUST BE A RIPARIAN / WETLAND SEED MIX.</p> <p>MUSKINGUM COUNTY WILL COMPLETE THE REMAINDER OF WETLAND RESTORATION BY REPLANTING SPECIES THAT WERE DAMAGED BY CONSTRUCTION ACTIVITIES WITHIN THE FORESTED WETLAND AREAS DESIGNATED ON THE PLANS. PLANTINGS WILL BE COMPLETED USING THE GUIDE OF 100-200 BARE ROOT TREES PER ACRE. MUSKINGUM COUNTY WILL COMPLETE A PRE-CONSTRUCTION SURVEY OF THE SPECIES FOUND WITHIN THE FORESTED WETLAND AREAS FOR RESTORATION PURPOSES. THE FOLLOWING SPECIES ARE KNOWN TO EXIST: QUERCUS BICOLOR, QUERCUS PALUSTRIS, ULMUS AMERICANA, AND PLATANUS OCCIDENTALIS.</p> <p>49. RESTRICTED PERIODS OF CONSTRUCTION CONTRACTOR RESTRICTED TO A CONSTRUCTION PERIOD THAT BEGINS FEBRUARY 4, 2026 AND ENDS NOVEMBER 28, 2026. ADDITIONALLY, THE OHIO ENVIRONMENTAL PROTECTION AGENCY WILL NOT ALLOW CONSTRUCTION WITHIN THE LITTLE SALT CREEK FROM MARCH 15, 2026 UNTIL JUNE 30, 2026.</p>						
<p style="text-align: right;">REVISION A</p> <p style="text-align: right;">PROJECT NAME: BOOGS ROAD SANITARY SEWER IMPROVEMENTS</p> <p style="text-align: right;">PROJECT LOCATION: ZANESVILLE, OHIO 43701</p> <p style="text-align: right;">PLANS APPROVED BY: MJE</p> <p style="text-align: right;">PLANS PREPARED BY: GJW</p> <p style="text-align: right;">DATE: 09/09/2024</p> <p style="text-align: right;">REVISED: 10/09/2025</p> <p style="text-align: right;">SHEET SIZE: 11" x 17"</p> <p style="text-align: right;">SHEET NAME: GENERAL NOTES (2)</p> <p style="text-align: right;">SHEET NUMBER: 04</p> <p style="text-align: right;">18</p>								
<table border="1"> <thead> <tr> <th>REVISION</th> <th>REV. BY</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>GJW</td> <td>10/09/2025</td> <td>MODIFICATION OF MANHOLE CASTING REQUIREMENTS.</td> </tr> </tbody> </table>	REVISION	REV. BY	DATE	DESCRIPTION	A	GJW	10/09/2025	MODIFICATION OF MANHOLE CASTING REQUIREMENTS.
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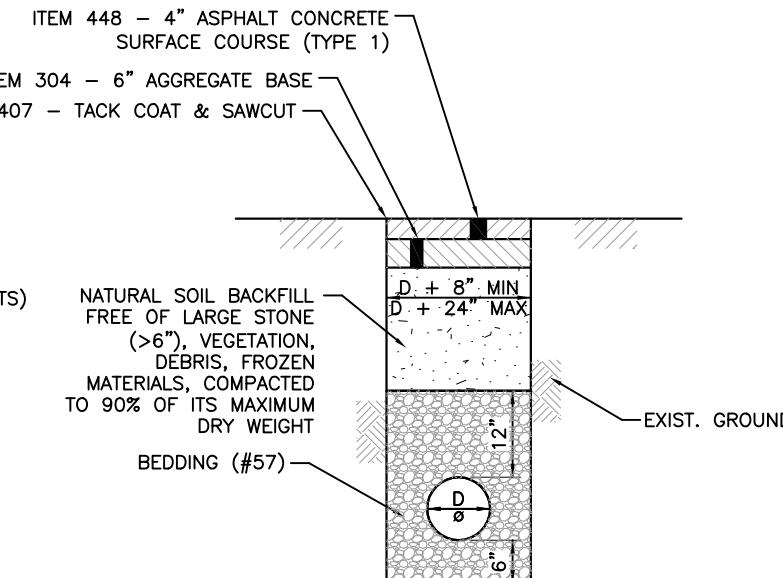




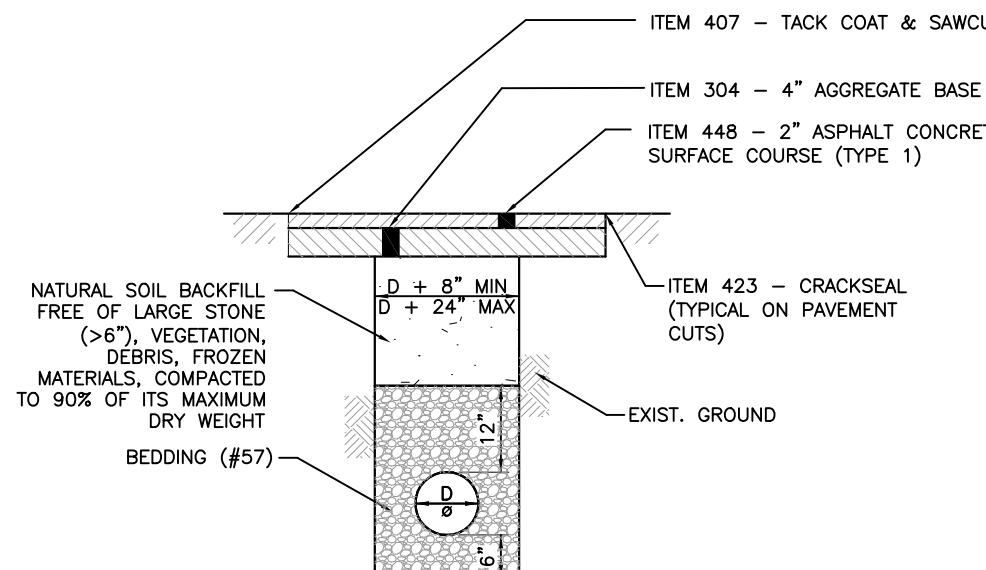
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NOT TO SCALE



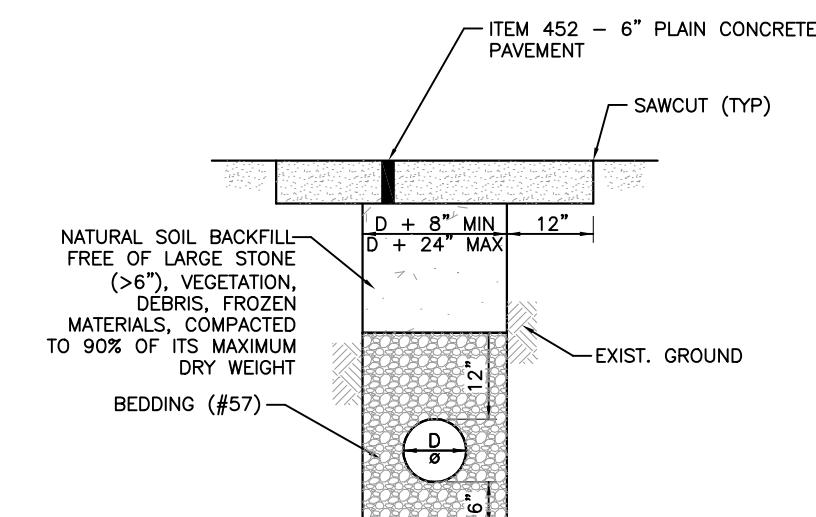
ROADWAY PAVEMENT REPAIR
NOT TO SCALE



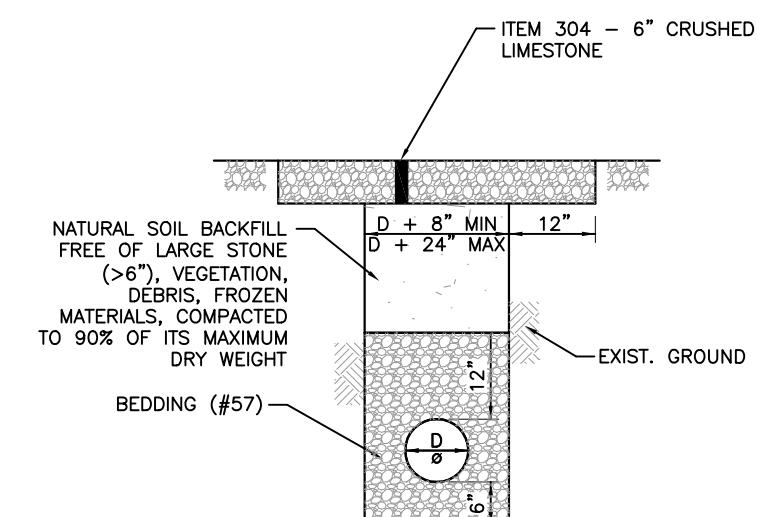
ALLEY PAVEMENT REPAIR
NOT TO SCALE



ASPHALT DRIVEWAY REPAIR
NOT TO SCALE

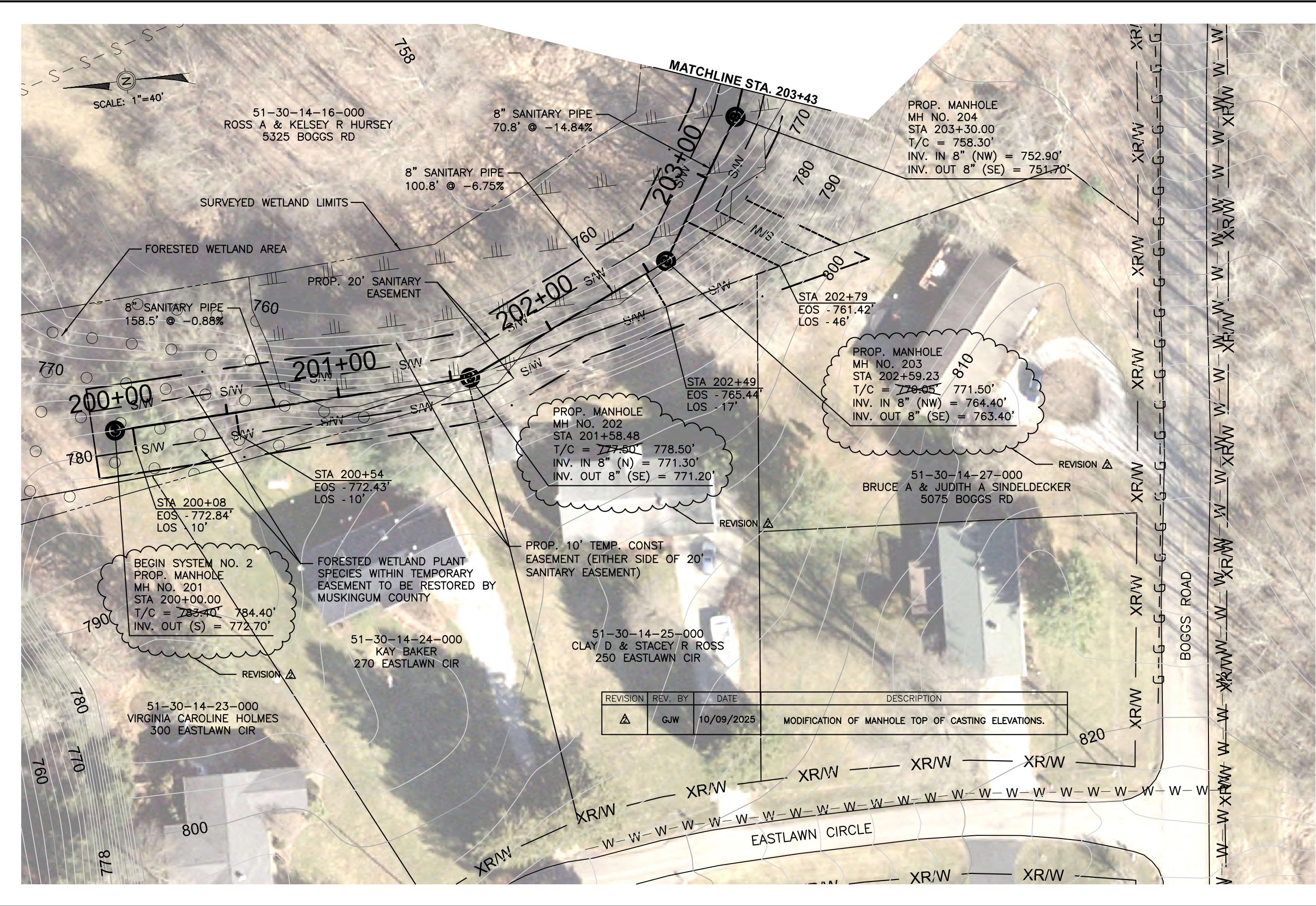


CONCRETE DRIVEWAY REPAIR
NOT TO SCALE



GRAVEL DRIVEWAY REPAIR
NOT TO SCALE

	
Muskingum County ENGINEER'S OFFICE	
<p>Mark J. Eicher, P.E., P.S. 109 Graham Street Zanesville, Ohio 43701 740-454-0155</p>	
<p>PREPARED BY: MJE</p>	
<p>PROJECT NAME: BOGGS ROAD SANITARY SEWER IMPROVEMENTS</p>	
<p>PROJECT LOCATION: ZANESVILLE, OHIO 43701</p>	
<p>PLANS APPROVED BY: GJW</p>	
<p>PLANS PREPARED BY: MJE</p>	
<p>DATE: 09/09/2024</p>	
<p>REVISED: 08/25/2025</p>	
<p>SHEET SIZE: 11" x 17"</p>	
<p>SHEET NAME: SANITARY DETAILS</p>	
<p>SHEET NUMBER: </p>	

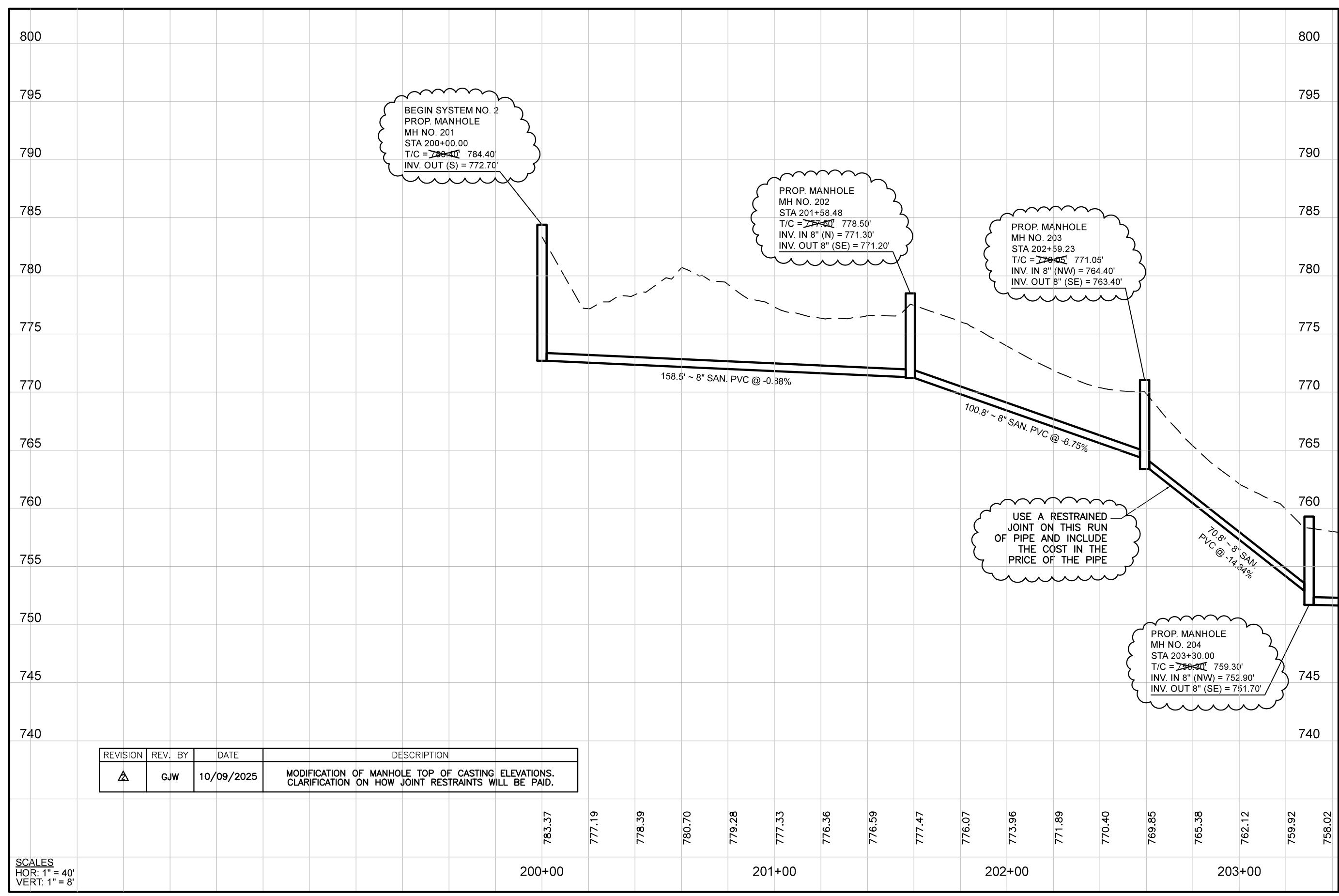


Muskingum
County **ENGINEER'S OFFICE**

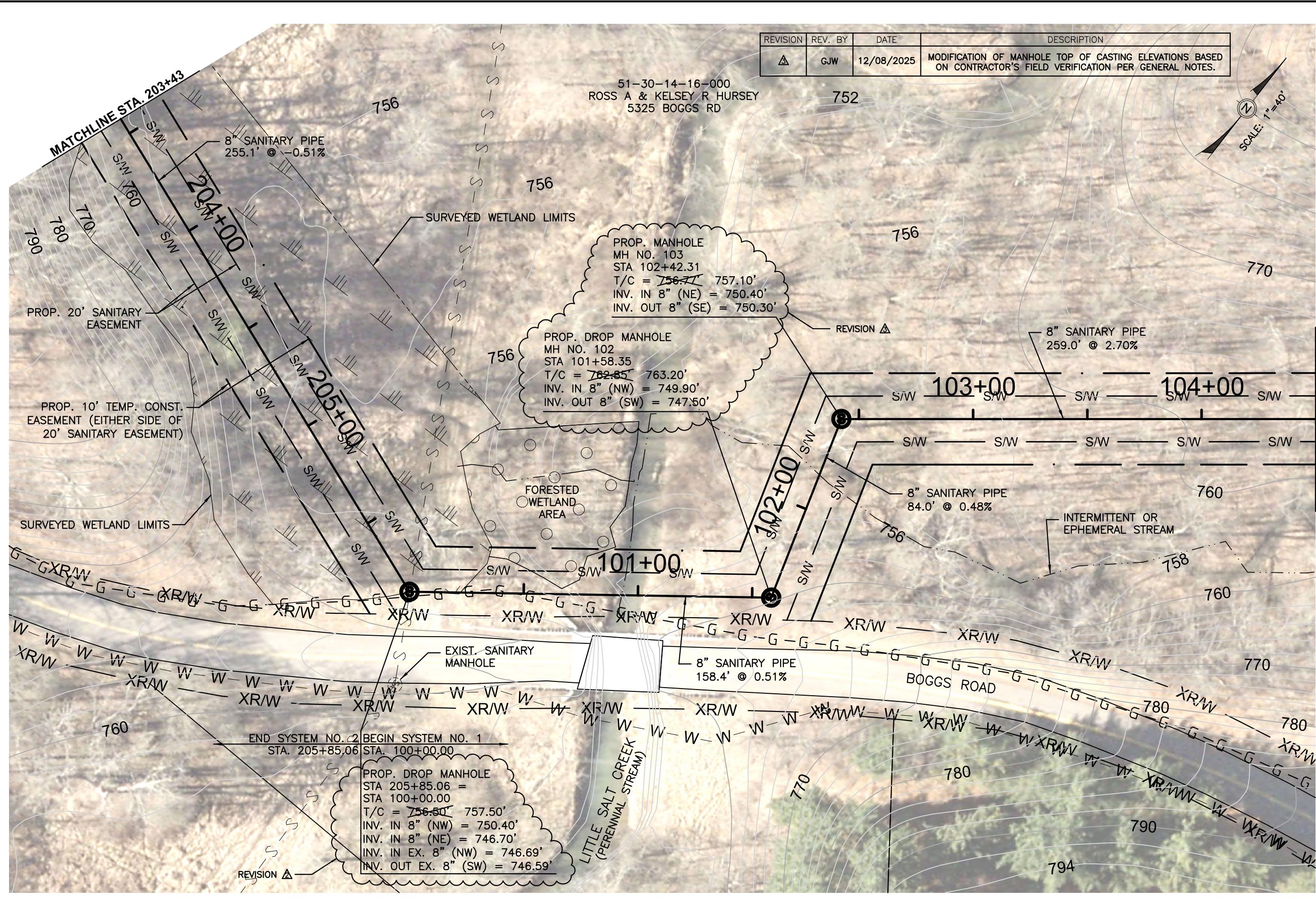
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109 Graham Street
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BOGGS ROAD SANITARY SEWER IMPROVEMENTS
ZANESVILLE, OHIO 43701

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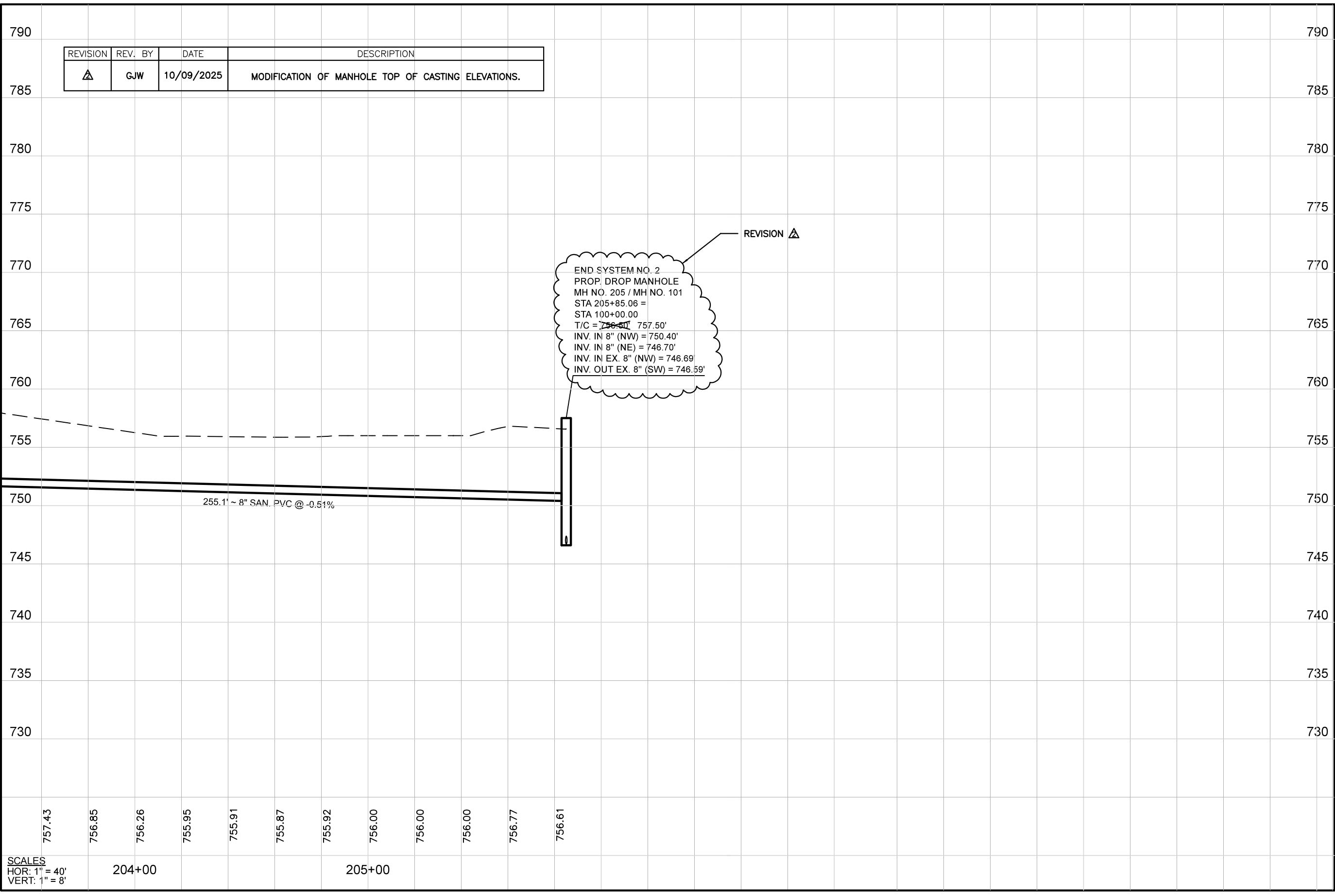
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SHEET NAME:	PROFILE SHEET (1)
SHEET NUMBER:	08 18



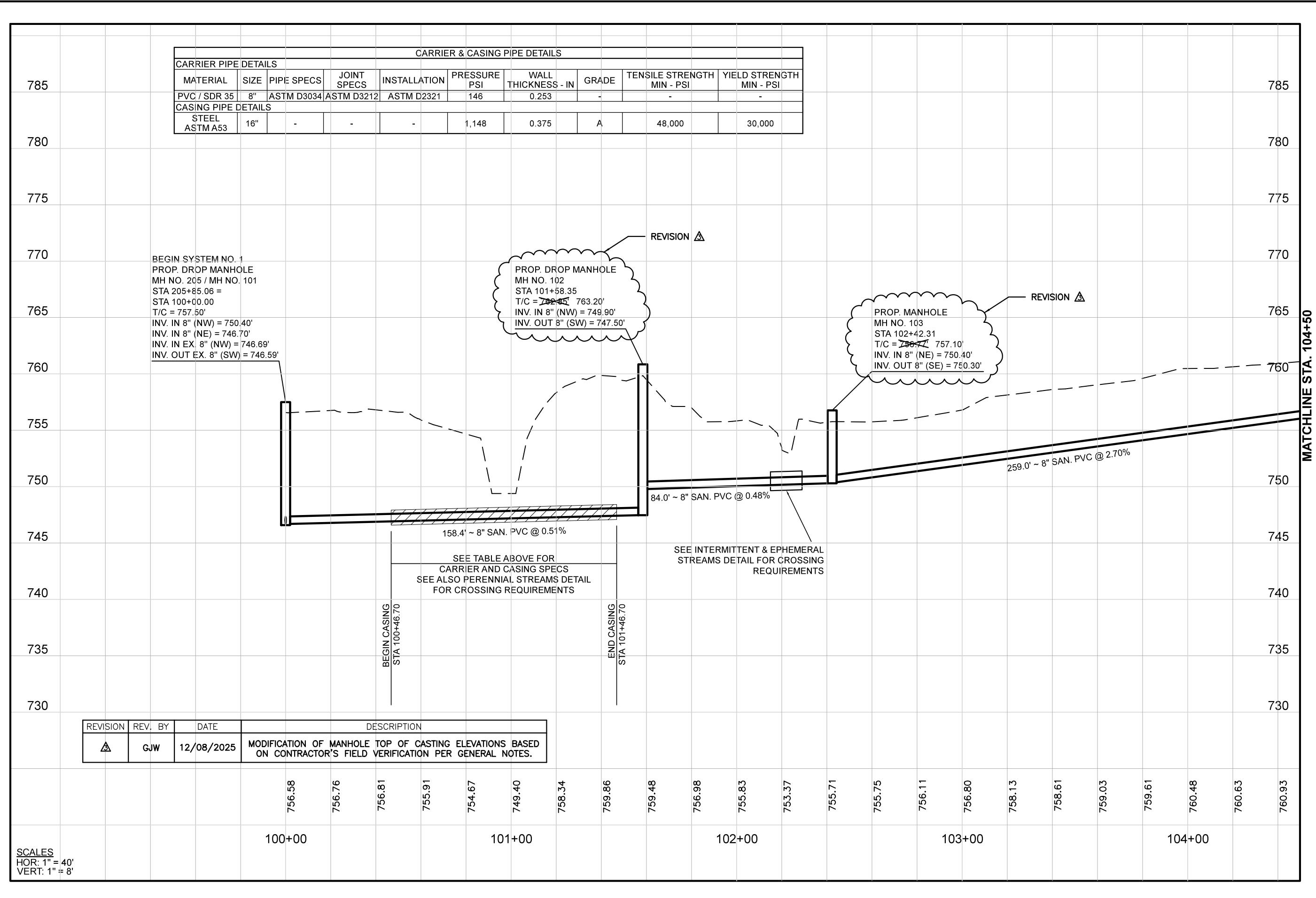
The logo for the Muskingum County Engineer's Office. It features a stylized graphic of a bridge arch on the left. To the right of the graphic, the word "Muskingum" is written in a large, bold, serif font. Below "Muskingum", the word "County" is written in a smaller, bold, sans-serif font. To the right of "County", there is a small graphic of a bridge arch. To the right of the graphic, the words "ENGINEER'S OFFICE" are written in a bold, sans-serif font. At the top of the logo, the name "Mark J. Eicher, P.E., P.S." is written in a small, serif font, followed by "109 Graham Street" and "Zanesville, Ohio 43701". To the right of the address, the phone number "740-454-0155" is written in a small, sans-serif font.

BOOGGS ROAD SANITARY SEWER IMPROVEMENTS

PROJECT NAME:	PROJECT LOCATION:
PLANS APPROVED BY:	
MJE	
PLANS PREPARED BY:	
GJW	
DATE:	
09/09/2024	
REVISED:	
12/08/2025	
SHEET SIZE:	
11" x 17"	
SHEET NAME:	
PLAN SHEET (2)	
SHEET NUMBER:	
	

MATCHLINE STA. 203+43

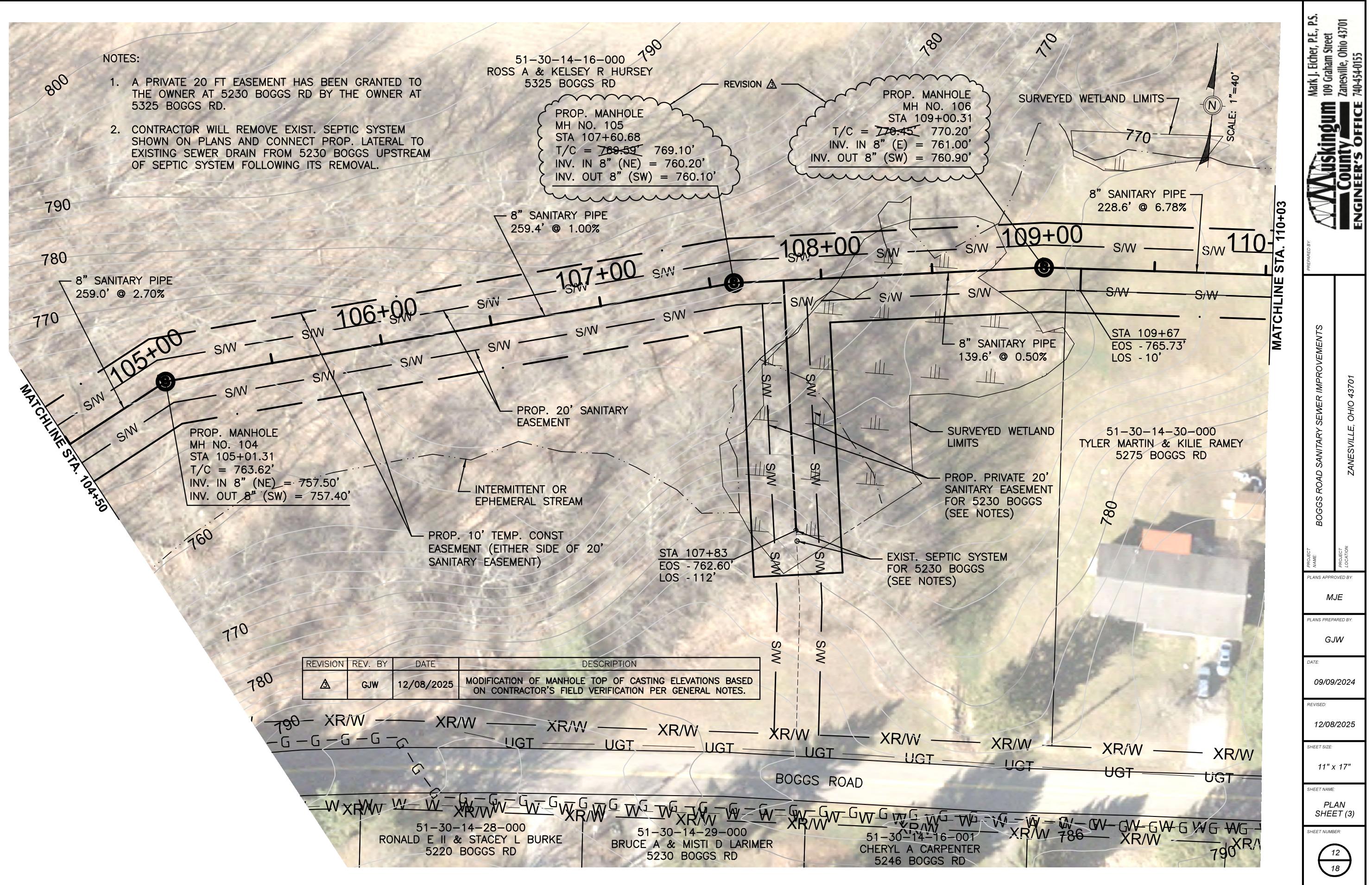
Mark J. Edder, P.E., P.S.	109 Graham Street	Zanesville, Ohio 43701	740-454-0155
Muskingum County Engineer's Office			
PREPARED BY:			
PROJECT NAME:	BOGGS ROAD SANITARY SEWER IMPROVEMENTS		
PROJECT LOCATION:	ZANESVILLE, OHIO 43701		
PLANS APPROVED BY:	MJE		
PLANS PREPARED BY:	GJW		
DATE:	09/09/2024		
REVISED:	10/09/2025		
SHEET SIZE:	11" x 17"		
SHEET NAME:	PROFILE SHEET (2)		
SHEET NUMBER:	10 18		

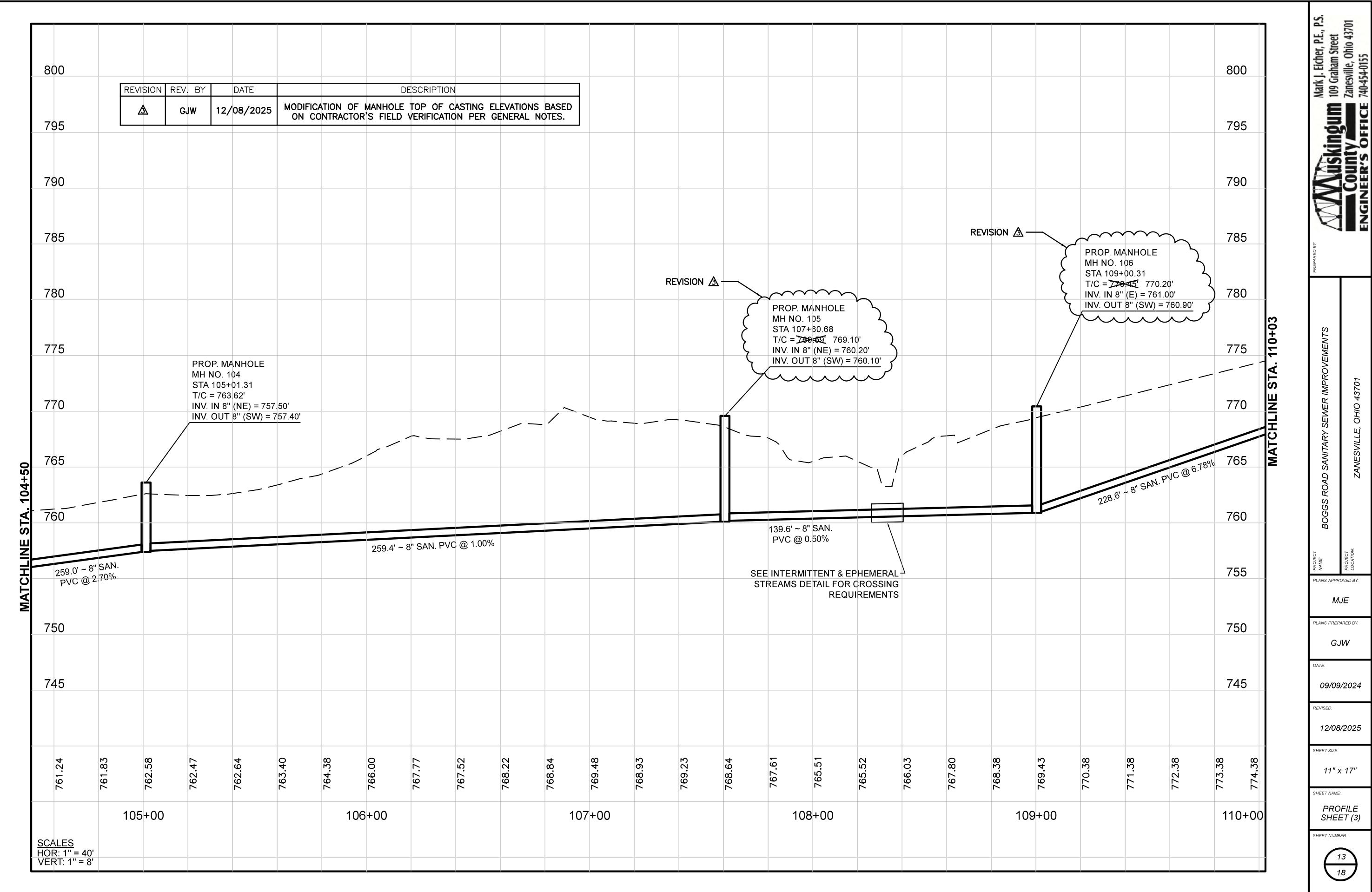


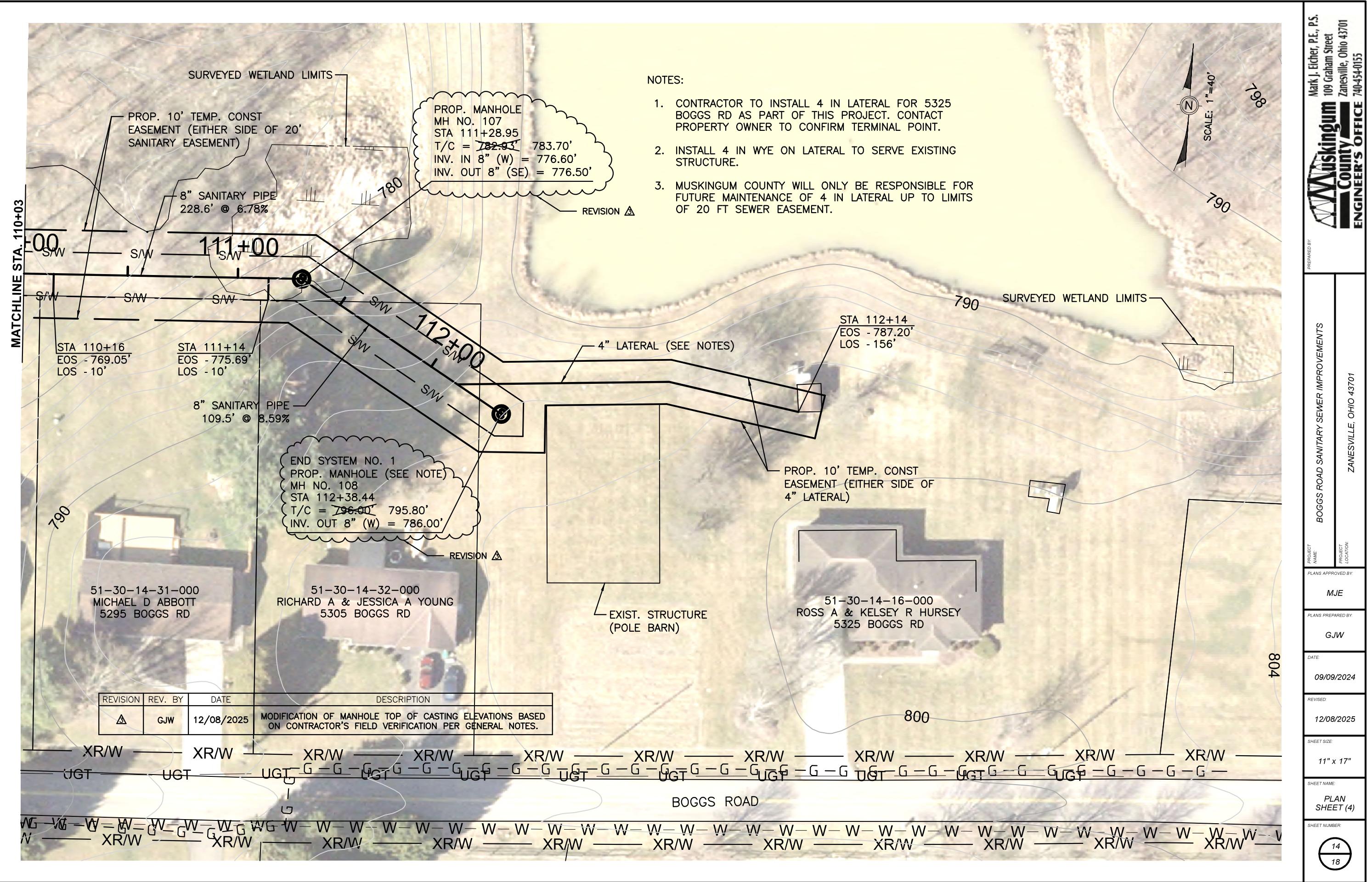
PREPARED FOR THE BOGGS ROAD SANITARY SEWER IMPROVEMENTS

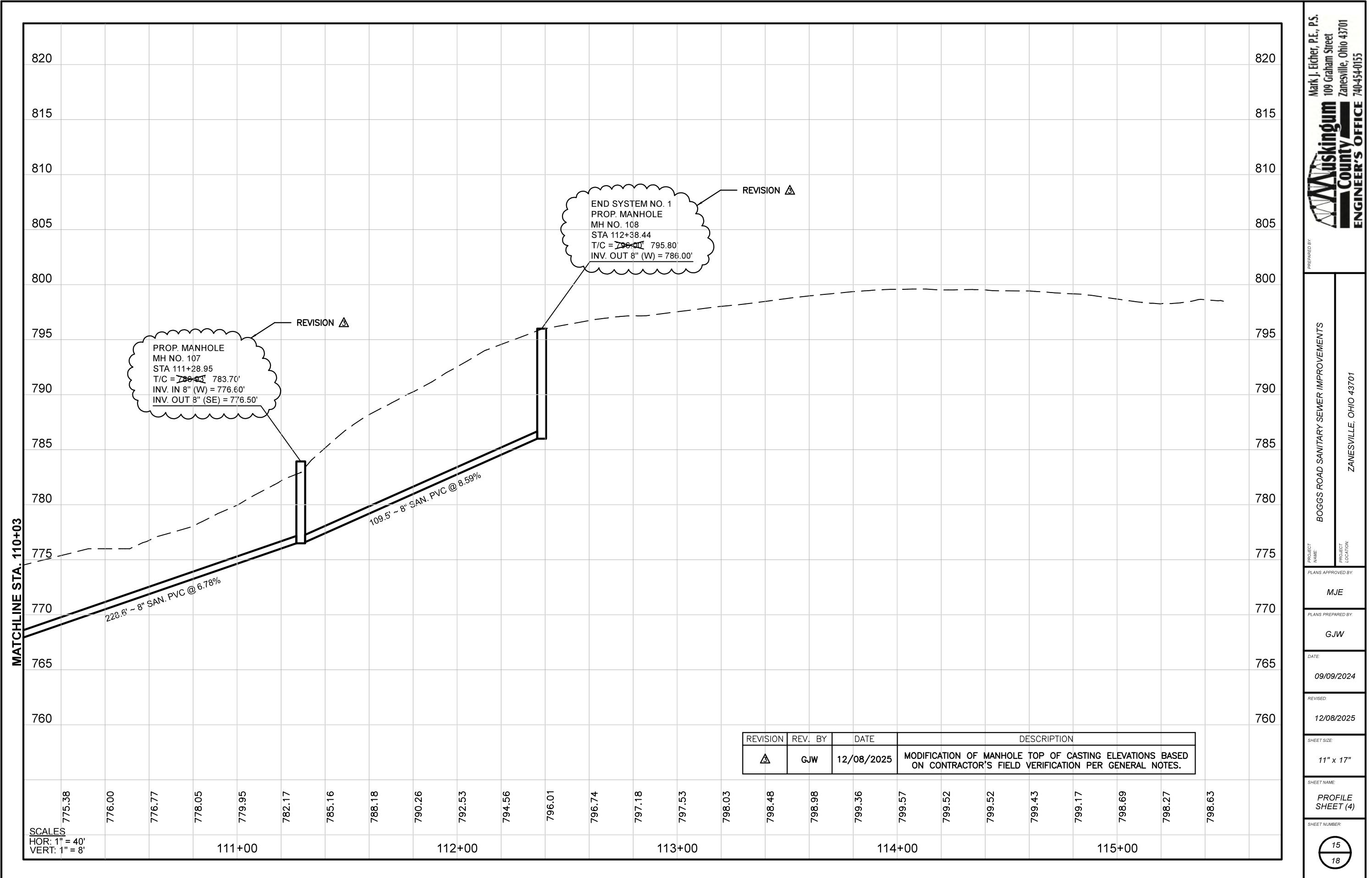
111

PROJECT NAME:	PROJECT LOCATION:
PLANS APPROVED BY:	
MJE	
PLANS PREPARED BY:	
GJW	
DATE:	
08/25/2025	
REVISED:	
12/08/2025	
SHEET SIZE:	
11" x 17"	
SHEET NAME:	
PROFILE SHEET (2A)	
SHEET NUMBER:	
	









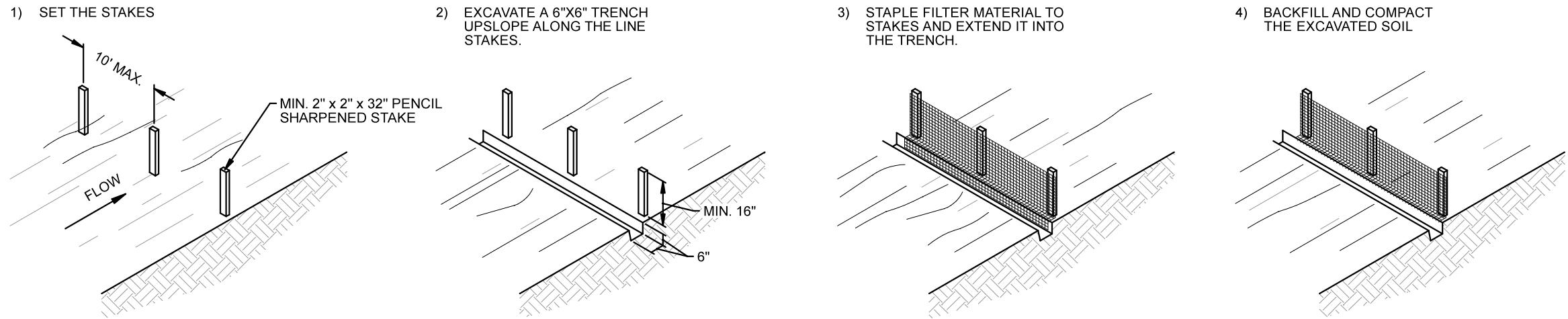
Mark J. Edder, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

Waukingum County ENGINEER'S OFFICE

PREPARED BY:
BOGGS ROAD SANITARY SEWER IMPROVEMENTS
PROJECT LOCATION: ZANESVILLE, OHIO 43701

PROJECT NAME: BOGGS ROAD SANITARY SEWER IMPROVEMENTS
PROJECT LOCATION: ZANESVILLE, OHIO 43701
PLANS APPROVED BY: MJE
PLANS PREPARED BY: GJW
DATE: 09/09/2024
REVISED: 12/08/2025

SHEET SIZE: 11" x 17"
SHEET NAME: PROFILE SHEET (4)
SHEET NUMBER: 15
18



SEDIMENT FENCE DETAIL

SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.

THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

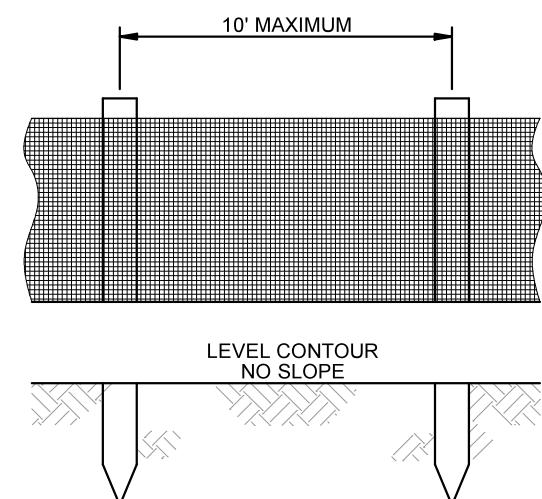
MAINTENANCE:

SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

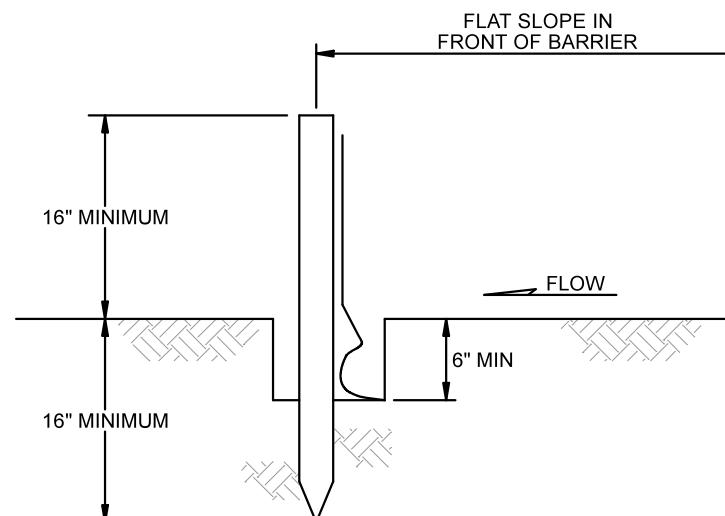
CRITERIA FOR SILT FENCE MATERIALS:

1. FENCE POSTS: THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2-IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
2. SILT FENCE FABRIC SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR AS DESCRIBED BY THE CHART BELOW:

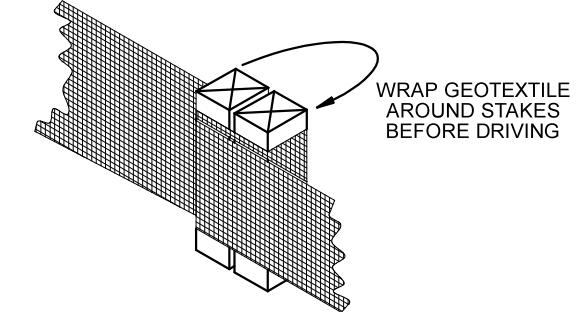
FABRIC PROPERTIES	
MINIMUM TENSILE STRENGTH.....	120 LBS.
MAXIMUM ELONGATION AT 60 LBS.....	50%
MINIMUM PUNCTURE STRENGTH.....	50 LBS.
MINIMUM TEAR STRENGTH.....	40 LBS.
MINIMUM BURST STRENGTH.....	200 PSI
APPARENT OPENING SIZE.....	$\leq 0.84\text{MM}$
MINIMUM PERMITTIVITY.....	$1 \times 10^{-2}\text{ SEC}^{-1}$
ULTRAVIOLET EXPOSURE STRENGTH RETENTION.....	70%



ELEVATION



SECTION



JOINING SECTIONS
OF SILT FENCE

SEDIMENT & EROSION CONTROL GENERAL NOTES

IMPLEMENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION TO THE STANDARDS AND SPECIFICATIONS OF THE STATE OF OHIO AND THEY ARE TO REMAIN IN EFFECT UNTIL AREAS ARE PERMANENTLY STABILIZED.

MAKE DAILY INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, IMMEDIATELY MAKE NECESSARY REPAIRS.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF THE BARRIER DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE BARRIER SHALL BE IN PLACE IN THE EVENING OR DURING ANY INCLEMENT WEATHER.

EROSION AND ANY SEDIMENTATION FROM THE WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT IN ANY OFF-SITE DRAINAGE COURSE, WHETHER NATURAL OR MAN-MADE.

ALL EARTH CHANGES SHALL BE CONSTRUCTED AND COMPLETED IN SUCH A MANNER TO LIMIT THE EXPOSED AREA OF ANY DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME.

ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING THE SITE. INSTRUCT ALL VEHICLES TO CLEAN SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIAL SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO AND FROM THE SITE.

INSTALL TEMPORARY EROSION AND SEDIMENTATION DEVICES AS SHOWN AND REQUIRED BY THESE PLANS. THESE DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED.

CATCH BASINS LOCATED IN THE STREET OR NEAR THE SITE WILL BE PROTECTED TO PREVENT SEDIMENTATION FROM ENTERING FACILITY. THE COVERS SHALL BE CHECKED PERIODICALLY AND CLEANED WHENEVER THEY FAIL TO FILTER RUNOFF.

WHERE APPLICABLE, THE DETENTION BASIN SHALL BE USED AS A TEMPORARY SEDIMENTATION BASIN. ALL SURFACE RUNOFF FROM THE PROJECT AREAS SHALL BE DIRECTED BY TEMPORARY DRAINAGE SWALES TO THE BASINS. AT THE COMPLETION OF CONSTRUCTION WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED THE BASINS SHALL BE CAREFULLY DRAINED WITHOUT DISTURBING THE SETTLED SILT, AND THEN GRADED AND SODDED TO CONFORM TO THE SITE GRADING PLAN.

THE LIMITS OF SEEDING AND MULCHING ARE AS SHOWN WITHIN THE PLAN. SEEDING HAS BEEN ASSUMED TO 5' OUTSIDE THE WORK LIMITS OR RIGHT-OF-WAY WHICHEVER IS GREATER. ALL AREAS NOT DESIGNATED TO BE SEEDED SHALL REMAIN UNDER NATURAL GROUND COVER. THOSE AREAS DISTURBED OUTSIDE THE SEEDING LIMITS SHALL BE MULCHED.

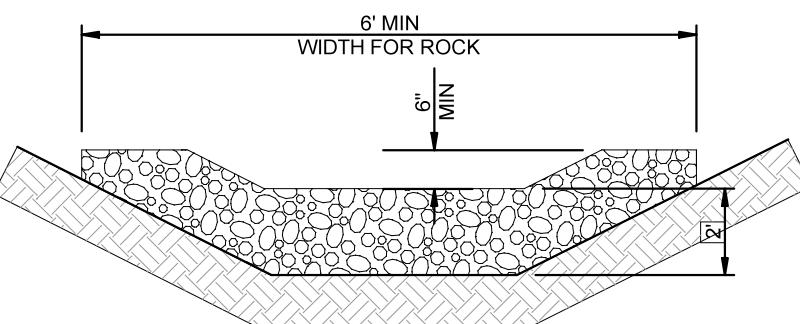
ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO, OR IN CONJUNCTION WITH, THE START OF EXCAVATION AND ARE TO REMAIN IN EFFECT UNTIL AREAS ARE STABILIZED. FIELD ADJUSTMENTS WITH RESPECT TO LOCATION AND DIMENSIONS MAY BE MADE BY THE ENGINEER AS REQUIRED.

FILTER BARRIERS CONSIST OF FILTER FABRIC AS SHOWN HEREON.

OHIO EPA PERMITS FOR TEMPORARY EROSION CONTROL ON THE CONSTRUCTION SITE SHALL BE OBTAINED. THE DESIGN OF THE EROSION CONTROL SYSTEMS SHALL FOLLOW THE REQUIREMENTS OF OHIO EPA, ITEM 207 OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND THE CITY ENGINEER.

ADEQUATE DRAINAGE OF THE WORK AREA SHALL BE PROVIDED AT ALL TIMES, CONSISTENT WITH EROSION CONTROL PRACTICES.

ROCK CHECK DETAIL



MINIMUM DIMENSIONS: 2' HIGH x 6' WIDE x 3' LONG

ROCK CHECKS:

MATERIALS: FURNISH MATERIAL CONFORMING TO ITEM 601, ROCK CHANNEL PROTECTION TYPE C OR D WITHOUT FILTER.

CONSTRUCTION:

PLACE THE ROCK OUTSIDE THE TRAFFIC CLEAR ZONE IN THE DITCH.

SEEDING

DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR 45 DAYS OR MORE SHALL BE SEEDED. OTHER SEDIMENT CONTROLS THAT ARE INSTALLED SHALL BE MAINTAINED UNTIL VEGETATION GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

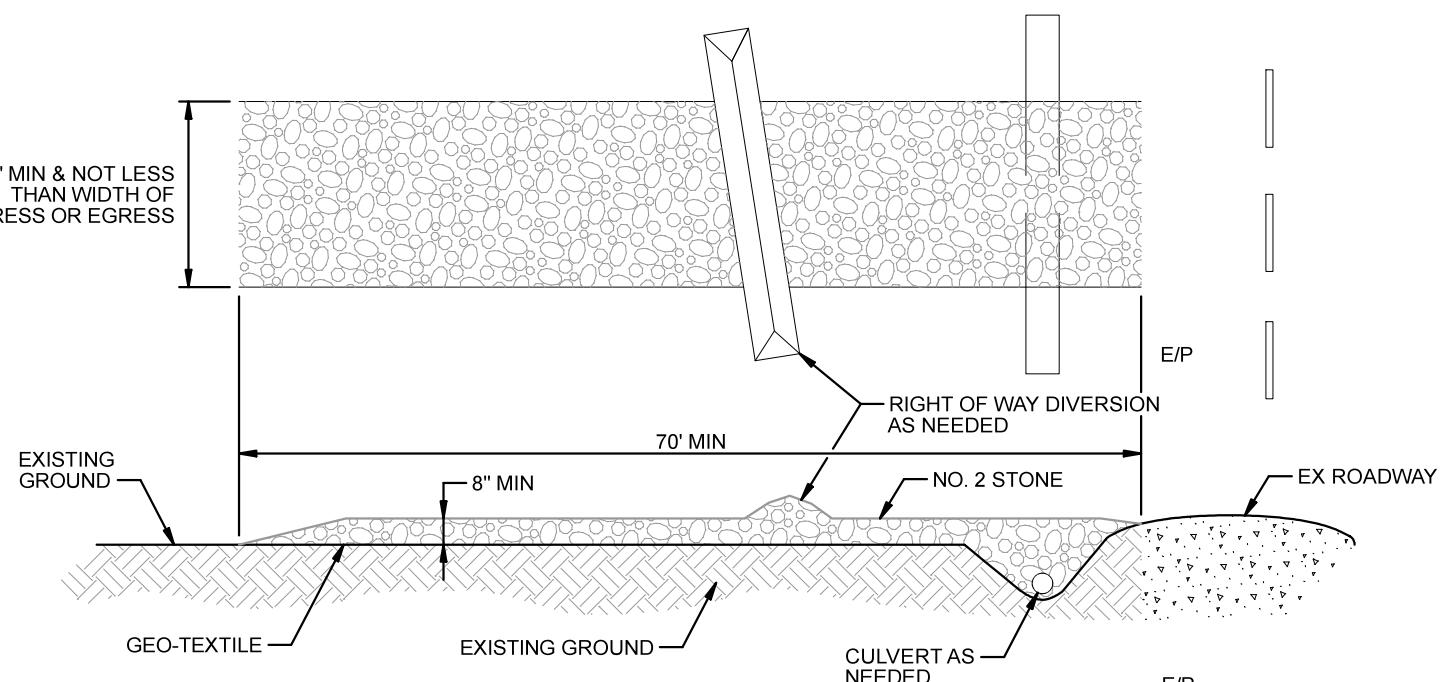
TEMPORARY SEEDING (TS) SHALL BE PROVIDED FOR ALL EXPOSED SURFACES AND SOIL STOCKPILES WHERE PERMANENT SEEDING OR ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF FORTY-FIVE (45) DAYS. SEEDING SHALL BE PROVIDED WITHIN SEVEN (7) DAYS AFTER CONSTRUCTION OPERATIONS CEASE.

PERMANENT SEEDING (PS) SHALL BE PROVIDED FOR ALL EXPOSED SOIL SURFACES WITHIN SEVEN (7) DAYS AFTER THE FINISH GRADE IS REACHED.

TEMPORARY AND PERMANENT SEEDING, AS SPECIFIED IN ODOT ITEMS 207 AND 659, IS ACCEPTABLE.

AREAS WHERE TEMPORARY OR PERMANENT SEEDING HAS FAILED TO GERMINATE SHALL BE RESEEDED AND MULCHED AS NECESSARY TO ACHIEVE STABILIZATION.

SODDING (SO), CRITICAL AREA PLANTING (GC) AND TEMPORARY AND PERMANENT MULCHING (M) SHALL BE PROVIDED WITHIN SEVEN (7) DAYS AFTER FINISHED GRADE IS REACHED. AS SPECIFIED ODOT ITEM 660.



STONE SIZE- NO. 2 (2-1/2" TO 2") OR ITS RECYCLED CONCRETE EQUIVALENT.
LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 70 FEET.
THICKNESS - NOT LESS THAN SIX (6) INCHES.
WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS. (MINIMUM 14')

WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

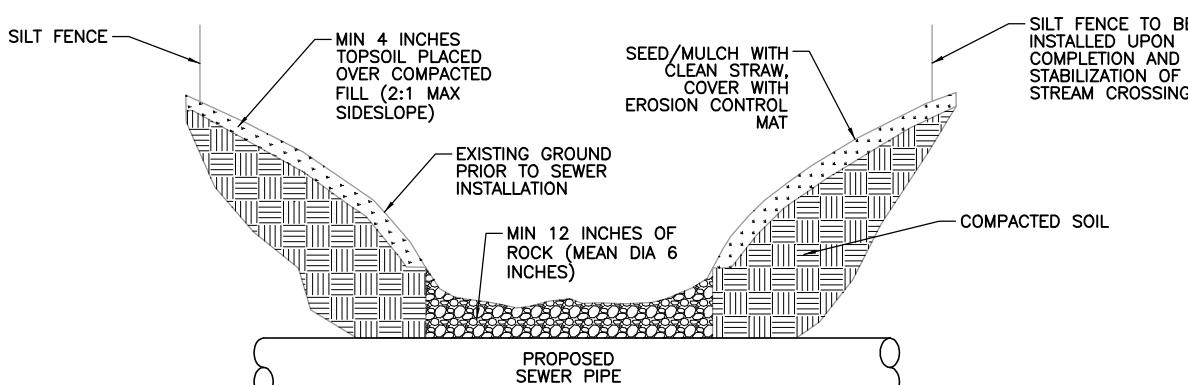
CONSTRUCTION ENTRANCE DETAIL

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

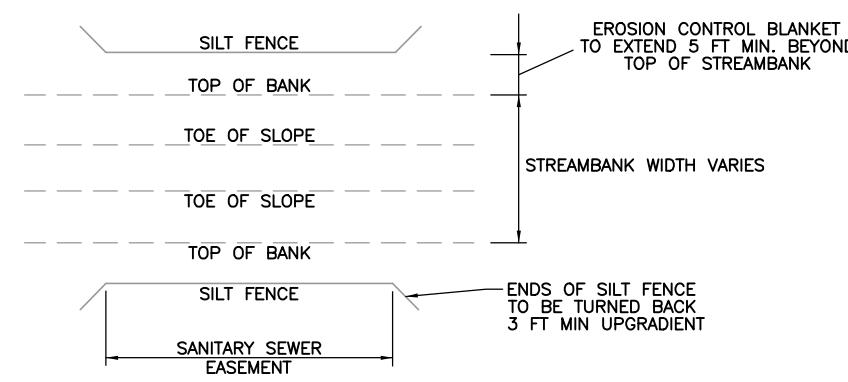
Muskingum County Office Engineer

PREPARED BY:	
PROJECT NAME:	BOGGS ROAD SANITARY SEWER IMPROVEMENTS
PROJECT LOCATION:	ZANESVILLE, OHIO 43701
PLANS APPROVED BY:	MJE
PLANS PREPARED BY:	GJW
DATE:	08/25/2025
REVISED:	
SHEET SIZE:	11" x 17"
SHEET NAME:	EROSION CONTROL DETAILS (2)
SHEET NUMBER:	17 18

INTERMITTENT & Ephemeral STREAMS DETAIL



SECTION

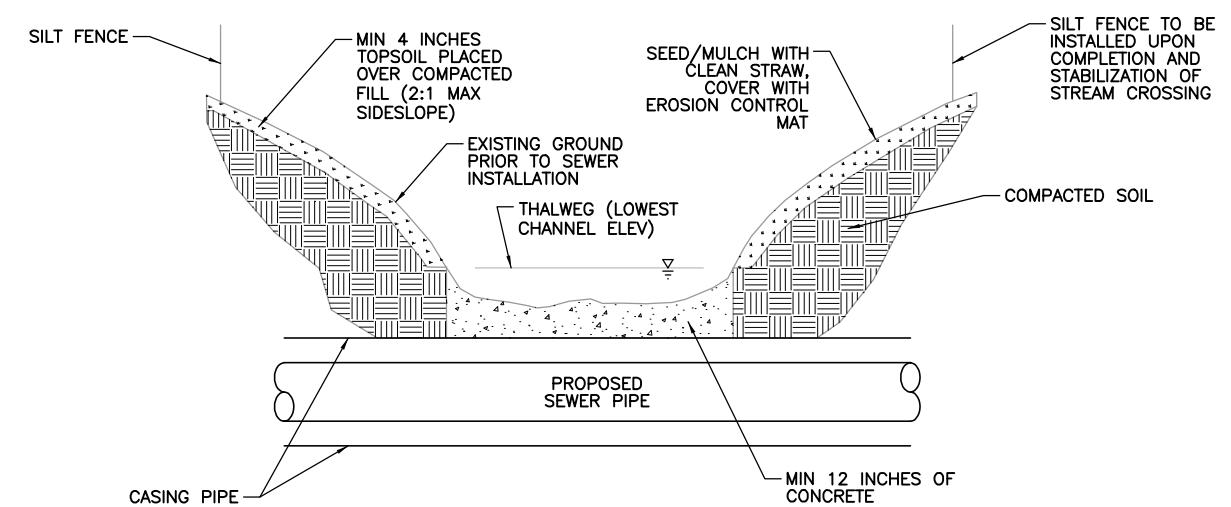


PLAN

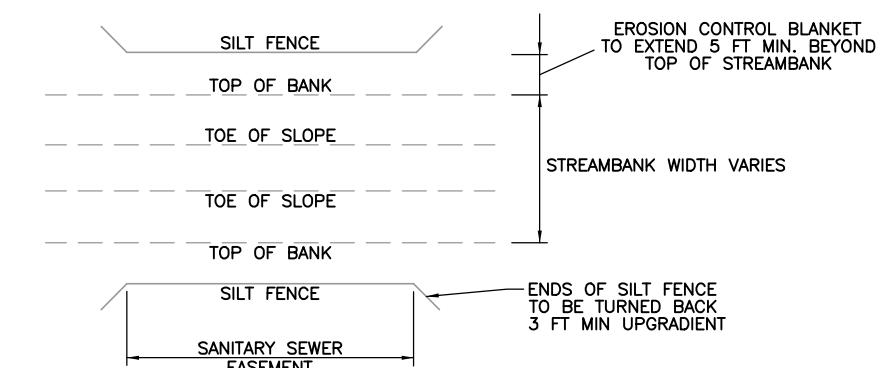
FOR WETLAND CROSSINGS:

- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
- USE FLOW DIVERSIONS / PUMP AROUND SYSTEMS AS NECESSARY
- CONSTRUCTION WILL INCLUDE AN OPEN CUT TRENCH
- WETLAND TOPSOIL WILL BE COLLECTED AND STOCKPILED SEPARATELY FROM SUBSOIL
- TRENCH WILL BE BACKFILLED WITH A MINIMUM OF 20" WETLAND SUBSOIL MATERIALS STOCKPILED FROM TRENCH
- STOCKPILED TOPSOIL WILL THEN BE PLACED AND LOOSEND FOR SEEDBED PREPARATION
- SURFACE ELEVATION TO BE RESTORED TO SIMILAR PRE-CONSTRUCTION CONTOURS
- ALL TEMPORARY IMPACTS TO BE RESTORED WITHIN 30 DAYS
- MUSKINGUM COUNTY WILL BE RESPONSIBLE FOR RESTORING WETLAND SPECIES POST CONSTRUCTION. SEE GENERAL NOTES SHEETS FOR ADDITIONAL INFORMATION.

PERENNIAL STREAMS DETAIL



SECTION



PLAN

FOR STREAM CROSSINGS

- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
- USE FLOW DIVERSIONS / PUMP AROUND SYSTEMS AS NECESSARY
- CONSTRUCTION WILL INCLUDE AN OPEN CUT TRENCH
- WETLAND TOPSOIL WILL BE COLLECTED AND STOCKPILED SEPARATELY FROM SUBSOIL
- MINIMUM OF 12" STOCKPILED STREAM BED / TOPSOIL
- 12" OF CONCRETE TO BE PLACED IN DISTURBED STREAM BED PER DETAIL ABOVE
- SURFACE ELEVATION TO BE RESTORED TO SIMILAR PRE-CONSTRUCTION CONTOURS
- STREAM BANK BMPs TO BE EROSION CONTROL MATTING
- TEMPORARY LOW WATER CROSSINGS FOR EQUIPMENT ACCESS TO BE LOCATED ADJACENT TO OPEN TRENCH CUT

GENERAL WETLAND / STREAM BMPs

- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
- USE FLOW DIVERSIONS / PUMP AROUND SYSTEMS AS NECESSARY
- EQUIPMENT TO OPERATE FROM OUTSIDE OF STREAMS
- EROSION CONTROL STRUCTURES – SILT FENCING AND HEAVY ACCESS MATTING (TIMBER OR COMPOSITE)
- STREAM OPEN TRENCH CROSSING AND FINAL STABILIZATION DETAILS