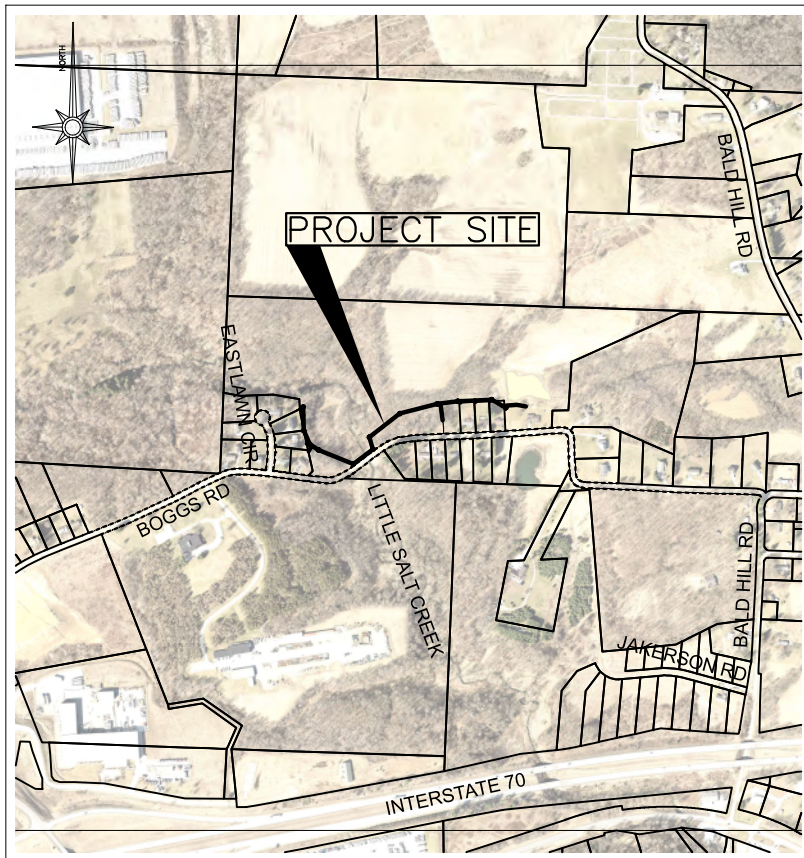


# BOGGS ROAD SANITARY SEWER IMPROVEMENTS

## PERRY TOWNSHIP MUSKINGUM COUNTY, OHIO

### PROJECT DESCRIPTION

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



### INDEX OF SHEETS:

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### 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.

MELISSA J. BELL, PRESIDENT  
MUSKINGUM COUNTY COMMISSIONER

DATE

*Drake L. Prouty*

8-25-25

DRAKE L. PROUTY  
MUSKINGUM COUNTY COMMISSIONER

DATE

*Cindy S. Cameron*

8-25-25

CINDY S. CAMERON  
MUSKINGUM COUNTY COMMISSIONER

DATE

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

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

REVISIONS			
NO.	DATE ISSUED	DESCRIPTION	SHEET NOS.
1	10/06/2025	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
4	04/28/2026	CORRECTED LOCATION, SIZE, AND ELEVATION OF EXISTING SEWER WHERE SYSTEMS 1 AND 2 TIE-IN; CORRECTIONS TO MH NOS. 205/101 AND 102.	9-11

ENGINEER'S SEAL:

SIGNED: \_\_\_\_\_  
DATE: 4-28-26

Mark J. Eicher, P.E., P.S.  
Muskingum County  
109 Graham Street  
Zanesville, Ohio 43701  
ENGINEER'S OFFICE 740-454-0155

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: 04/28/2026

SHEET SIZE: 11" x 17"

SHEET NAME: TITLE SHEET

SHEET NUMBER: 01 / 18

	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		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
	UGE — UGE — UNDERGROUND ELECTRIC
	UGT — UGT — UNDERGROUND TELECOM
	AFM — AFM — ABANDONED FORCEMAIN
	FM — FM — FORCEMAIN
	EXISTING UNDER DRAIN
	-G-G-G-G-G-G-G-G- GAS LINE
	-W-W-W-W-W-W-W-W- WATER LINE
	-E-E-E-E-E-E-E-E- ELECTRIC LINE
	-U-U-U-U-U-U-U-U- UTILITY LINE
	-S-S-S-S-S-S-S-S- SANITARY LINE
	-F-F-F-F-F-F-F-F- FENCE
	-V-V-V-V-V-V-V-V- VEGETATION
	-X-X-X-X-X-X-X- EXISTING FENCE
	— XR/W — XR/W — EXISTING RIGHT OF WAY
	— XL/A — XL/A — EXISTING LIMITED ACCESS
	— XRR — XRR — EXISTING RAILROAD RIGHT OF WAY
	— S/W — S/W — PROPOSED EASEMENT
	— — — — — PROPOSED STORM LINE
	- ST - ST - ST - ST - ST - EXISTING STORM LINE
	----- EXISTING SIDEWALK
	- - - - - SHOULDER AGGREGATE

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

PREPARED BY: **Muskingum COUNTY ENGINEER'S OFFICE**

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: **08/25/2025**

SHEET SIZE: **11" x 17"**

SHEET NAME: **SYMBOLS & LINE STYLES LEGEND**

SHEET NUMBER: **02**  
18

**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 CONTRACTORS 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.	724.622.0093
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 CONTRACTORS 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 TIRE 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 ESCAVATED AREAS PRIOR TO OCTOBER 1ST.

**19. DE-WATERING:**  
THE CONTRACTOR IS SOLELY RESPONSIBLE TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (O.D.N.R.) 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 CONTRACTORS 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 CONTRACTED 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.

**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 MOTE 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



PREPARED BY:

PROJECT NAME: BOGGES ROAD SANITARY SEWER IMPROVEMENTS  
PROJECT LOCATION: ZANESVILLE, OHIO 43701

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/09/2024

REVISED: 08/25/2025

SHEET SIZE: 11" x 17"

SHEET NAME: GENERAL NOTES (1)

SHEET NUMBER: 03 / 18

RESULT OF THE NEGLIGENCE OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 COMPACTED 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.
- 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.
- 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.
- 39. TRASH COLLECTION SERVICE:**  
THE CONTRACTOR SHALL CONTACT THE APPROPRIATE TRASH COLLECTION

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.

**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.

**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.

**42. SWALE REPAIRS & CONSTRUCTION:**  
WHERE CONSTRUCTION OF FORCEMAIN AND/OR SANITARY SEWER DISTURBS EXISTING DRAINAGE SWALES, THE CONTRACTOR WILL BE REQUIRED TO RESTORE

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.

**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.

**44. FORCEMAIN NOTES: - NOT APPLICABLE**

**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.

**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.

**45. SANITARY SEWER NOTES:**  
**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 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.

**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.

**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.

FINAL BACKFILL SHALL BE PLACED IN SUCH A MANNER AS NOT TO DISTURB THE ALIGNMENT OF THE PIPE.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**MANHOLE CASTINGS:**  
ALL MANHOLE CASTINGS SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF ASTM A48. ADDITIONALLY, CASTINGS SHALL BE NEEAHS 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.

**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.

**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.

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.

**SEEDING AND MULCHING:**  
PERMANENT SEEDING SHALL BE APPROVED FOR ALL EXPOSED SOIL SURFACES WITHIN SEVEN (7) DAYS AFTER THE FINISH GRADE IS REACHED. PERMANENT EEDING AND MULCHING AS SPECIFIED IN ODOT ITEM 659 IS ACCEPTABLE.

AREAS WHERE PERMANENT SEEDING HAS FAILED TO GERMINATE SHALL BE RESEEDDED AND MULCHING AS NECESSARY TO ACHIEVE STABILIZATION.

**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 FORM 61 INCHES TO 160 INCHES

**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.

**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.


CONTRACTOR SHALL PROVIDE MUSKINGUM COUNTY WITH AN ELECTRONIC COPY OF ALL SURVEY SHOTS TAKEN IN X, Y, Z COORDINATES.

**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.

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.

**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.

REVISION 

REVISION	REV. BY	DATE	DESCRIPTION
	GJW	10/09/2025	MODIFICATION OF MANHOLE CASTING REQUIREMENTS.

Mark J. Eicher, P.E., P.S.  
  
 Muskingum County Engineer's Office  
 109 Graham Street  
 Zanesville, Ohio 43701  
 ENGINEER'S OFFICE 740-454-0155

PREPARED BY:

BOGGS ROAD SANITARY SEWER IMPROVEMENTS

PROJECT NAME:

PLANS APPROVED BY:

MJE

PLANS PREPARED BY:

GJW

DATE:

09/09/2024

REVISED:

10/09/2025

SHEET SIZE:

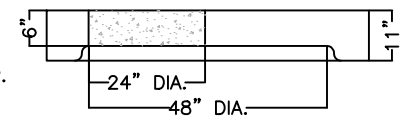
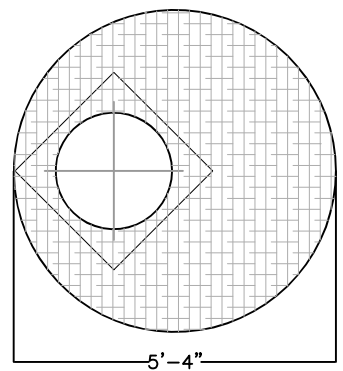
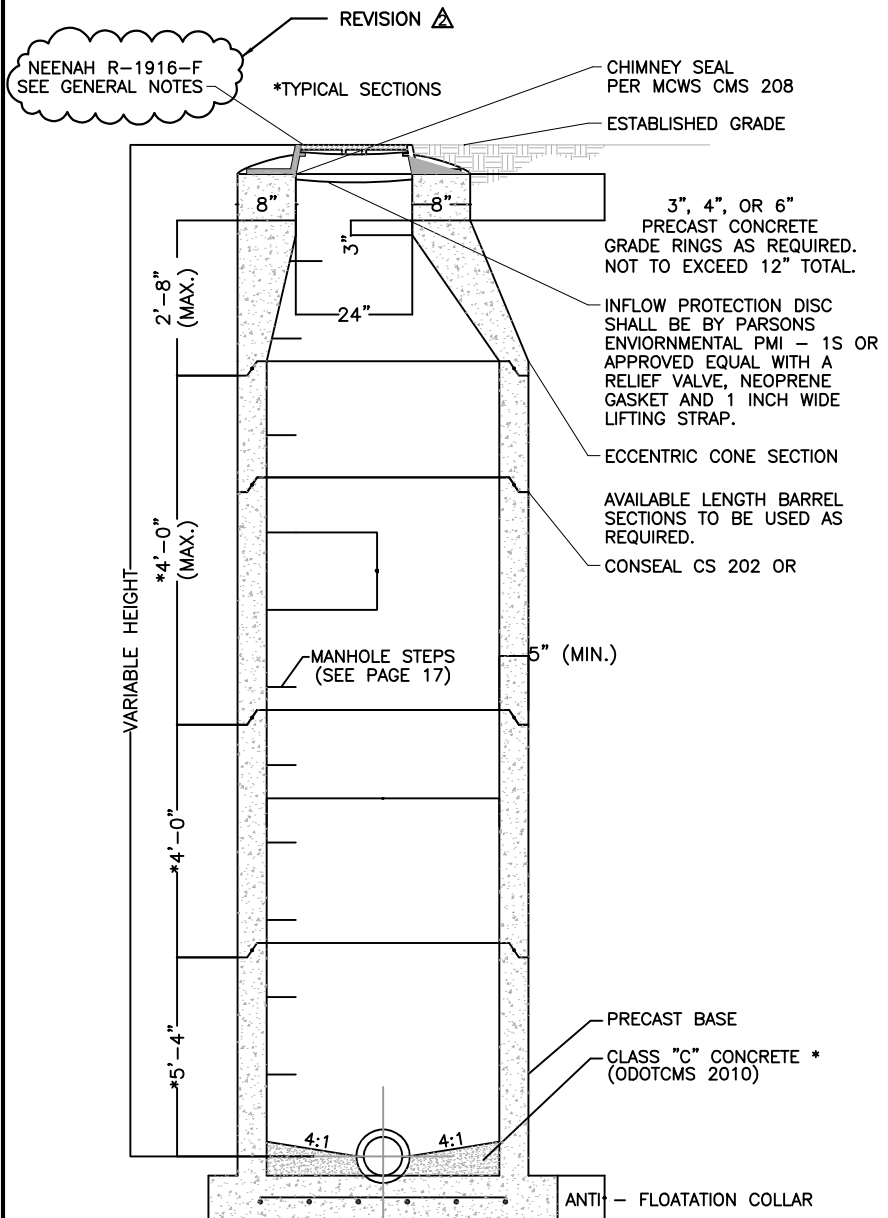
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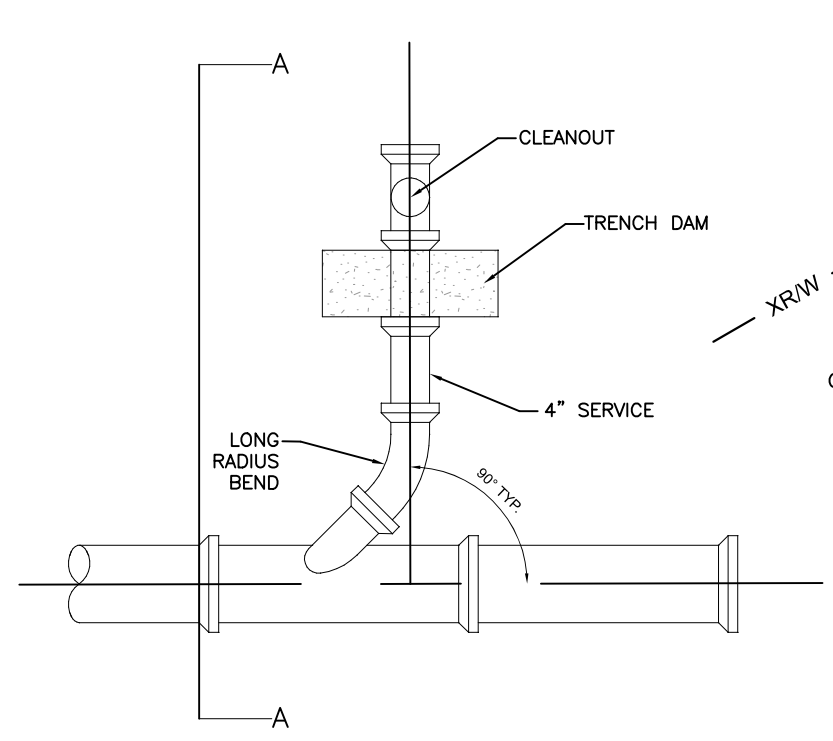
GENERAL NOTES (2)

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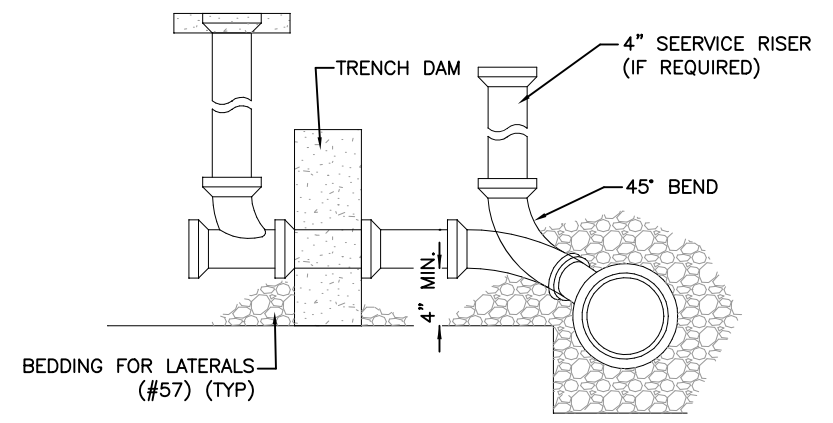
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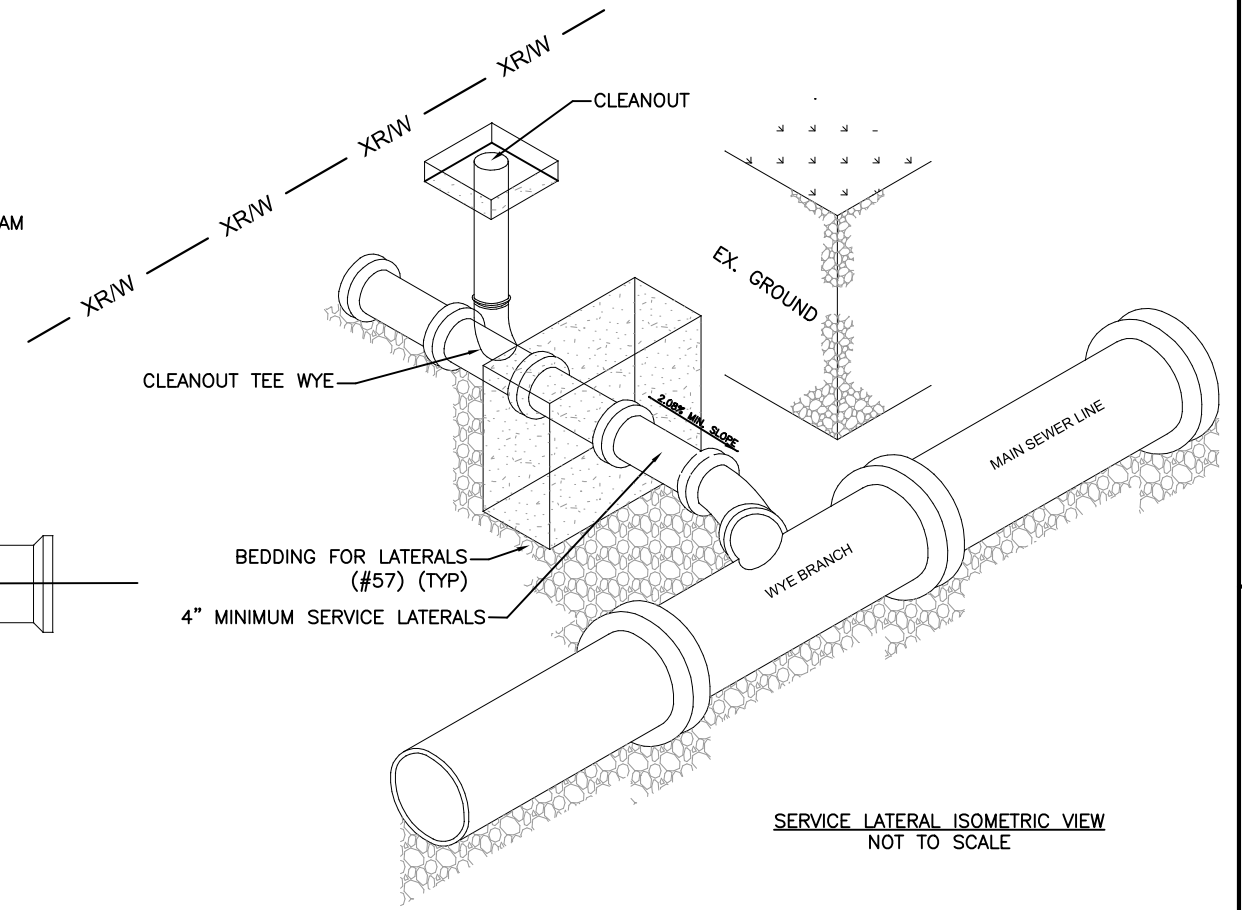
ALTERNATE TOP SLAB



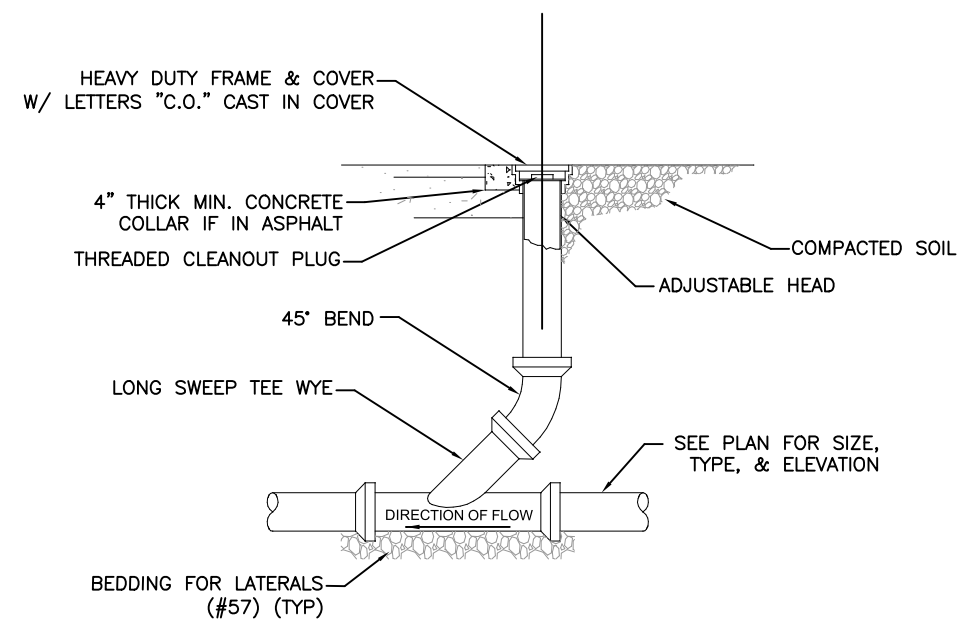
SERVICE LATERAL PLAN VIEW  
NOT TO SCALE



SERVICE LATERAL SECTION A-A  
NOT TO SCALE



SERVICE LATERAL ISOMETRIC VIEW  
NOT TO SCALE



ROAD ONLY CLEANOUT DETAIL  
NOT TO SCALE

- NOTES:
1. COST OF TRENCH DAM, RISER, CLEAN OUT, CLEAN OUT TEE WYE, PIPE BENDS, BEDDING, HEAVY DUTY FRAME & COVER, CONCRETE COLLAR, AND COMPACTION TO BE INCLUDED IN THE PRICE FOR SERVICE LATERAL PIPE.
  2. ALL SERVICE LINES, RISERS, ETC. ASSOCIATED WITH NEW SANITARY SEWER SERVICE SHALL BE 4" DIAMETER UNLESS NOTED IN THE PLANS OTHERWISE.
  3. CONTRACTOR CAN USE NO. 8 STONE IN LIEU OF NO. 57 STONE AS LONG AS COMPACTION REQUIREMENTS ARE MET AT NO ADDITIONAL COST TO THE OWNER.
  4. SEE MUSKINGUM COUNTY SEWER STANDARDS FOR ADDITIONAL INFORMATION REGARDING STANDARD MANHOLE SHOWN HERE.

REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	10/09/2025	MODIFICATION OF MANHOLE CASTING REQUIREMENTS.

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109 Graham Street  
Zanesville, Ohio 43701  
ENGINEER'S OFFICE 740-454-0155

PREPARED BY:  
Muskingum  
County  
ENGINEER'S OFFICE

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

PLANS APPROVED BY:  
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PLANS PREPARED BY:  
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09/09/2024

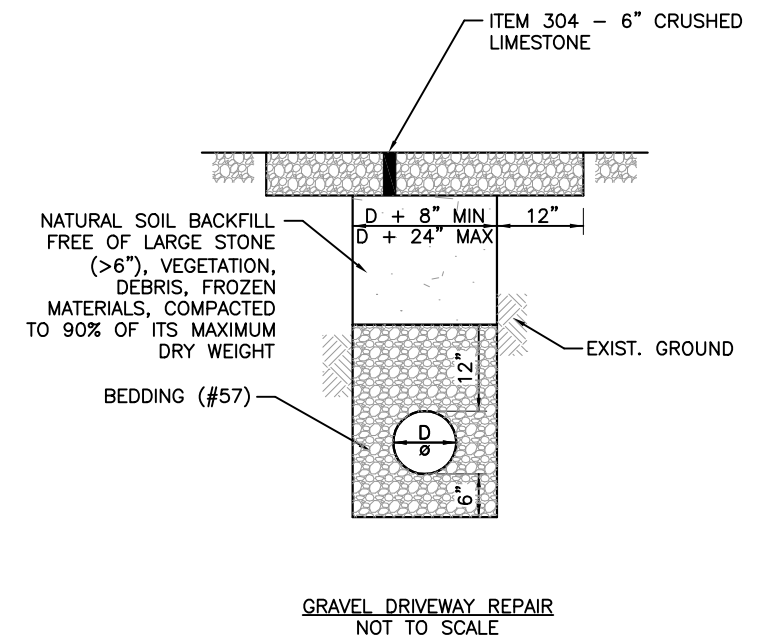
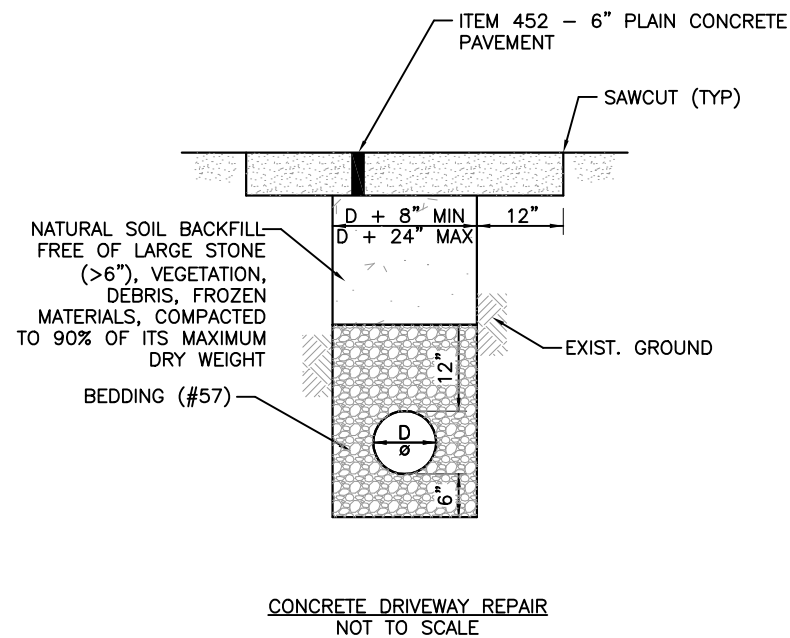
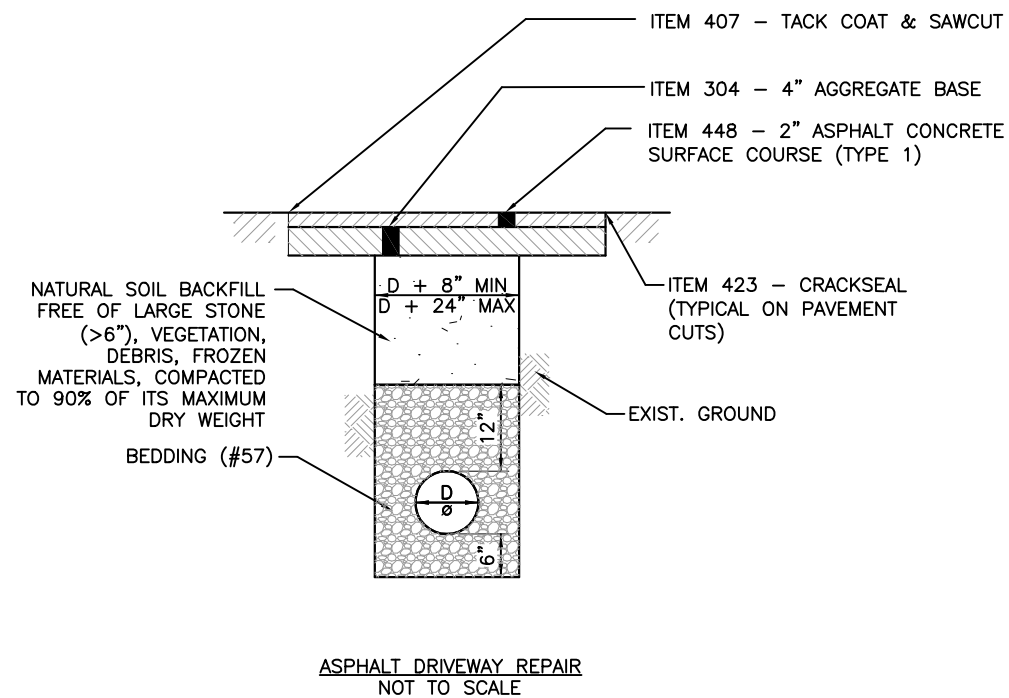
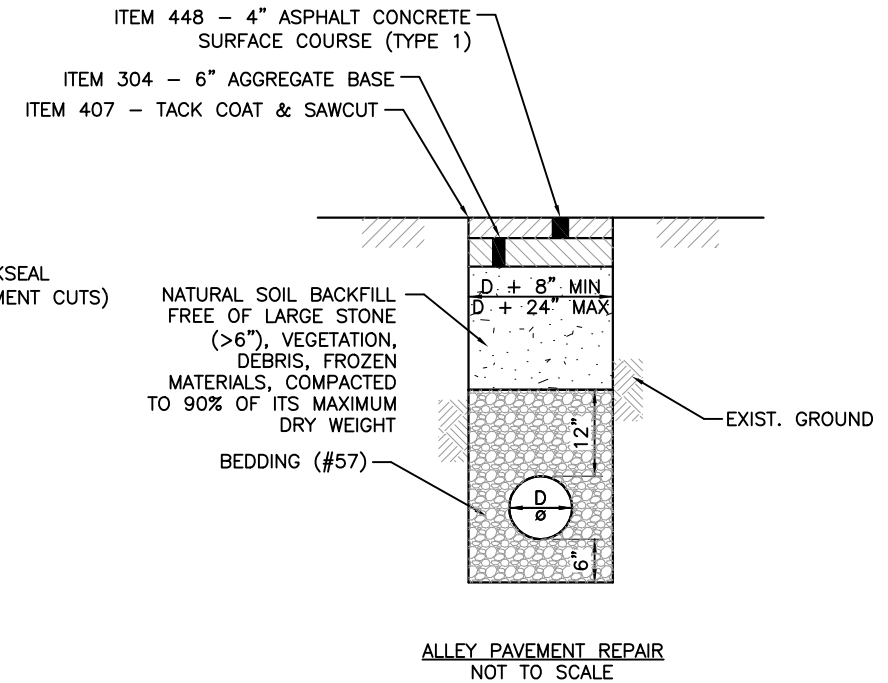
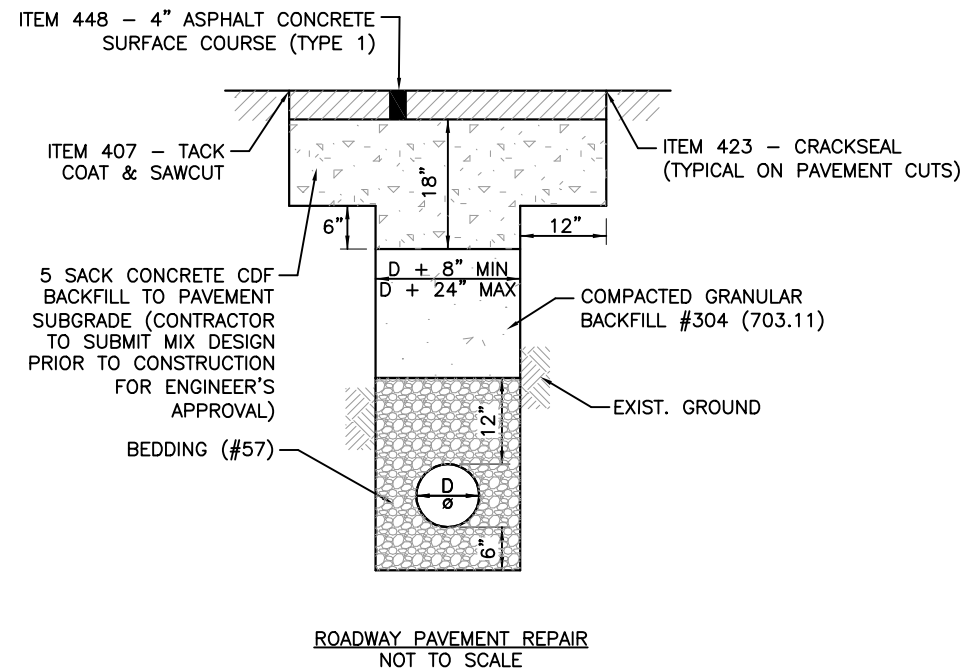
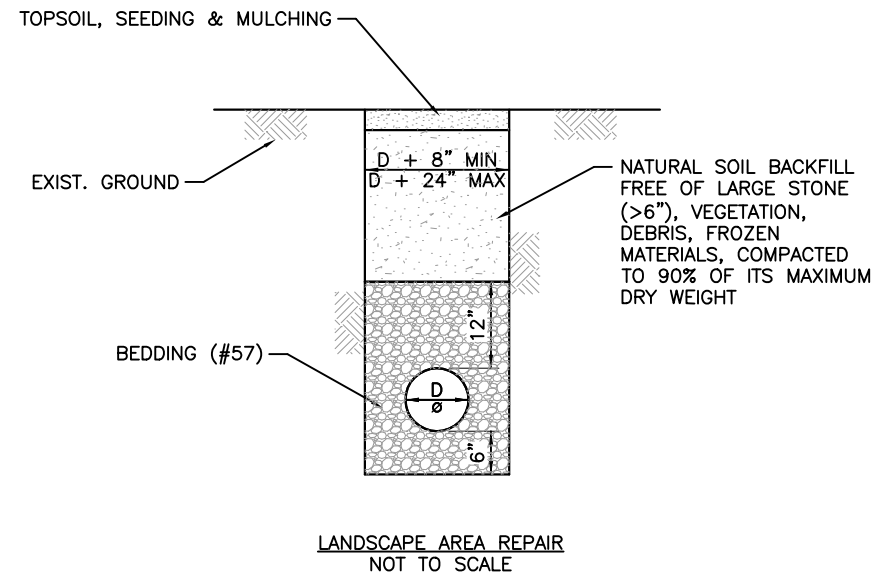
REVISED:  
10/09/2025

SHEET SIZE:  
11" x 17"

SHEET NAME:  
SANITARY DETAILS

SHEET NUMBER:  
05  
18

APPROVED EQUIVALENT, TYP.



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:

08/25/2025

SHEET SIZE:

11" x 17"

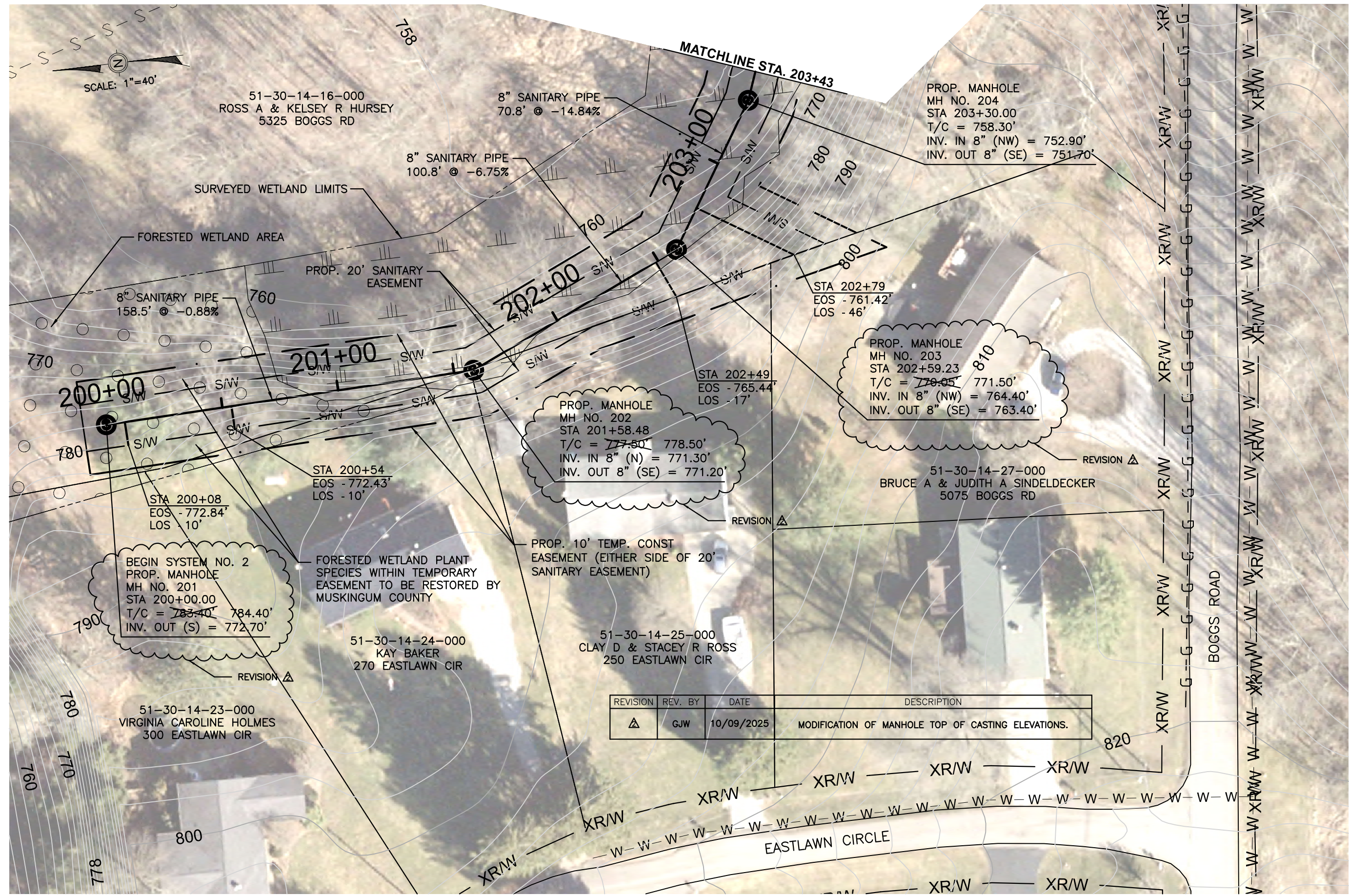
SHEET NAME:

SANITARY DETAILS

SHEET NUMBER:

06

18



SCALE: 1"=40'

51-30-14-16-000  
ROSS A & KELSEY R HURSEY  
5325 BOGGS RD

8" SANITARY PIPE  
70.8' @ -14.84%

PROP. MANHOLE  
MH NO. 204  
STA 203+30.00  
T/C = 758.30'  
INV. IN 8" (NW) = 752.90'  
INV. OUT 8" (SE) = 751.70'

8" SANITARY PIPE  
100.8' @ -6.75%

STA 202+79  
EOS - 761.42'  
LOS - 46'

PROP. MANHOLE  
MH NO. 203  
STA 202+59.23  
T/C = ~~770.05~~ 771.50'  
INV. IN 8" (NW) = 764.40'  
INV. OUT 8" (SE) = 763.40'

PROP. MANHOLE  
MH NO. 202  
STA 201+58.48  
T/C = ~~777.50~~ 778.50'  
INV. IN 8" (N) = 771.30'  
INV. OUT 8" (SE) = 771.20'

STA 200+54  
EOS - 772.43'  
LOS - 10'

STA 200+08  
EOS - 772.84'  
LOS - 10'

BEGIN SYSTEM NO. 2  
PROP. MANHOLE  
MH NO. 201  
STA 200+00.00  
T/C = ~~783.40~~ 784.40'  
INV. OUT (S) = 772.70'

FORESTED WETLAND PLANT  
SPECIES WITHIN TEMPORARY  
EASEMENT TO BE RESTORED BY  
MUSKINGUM COUNTY

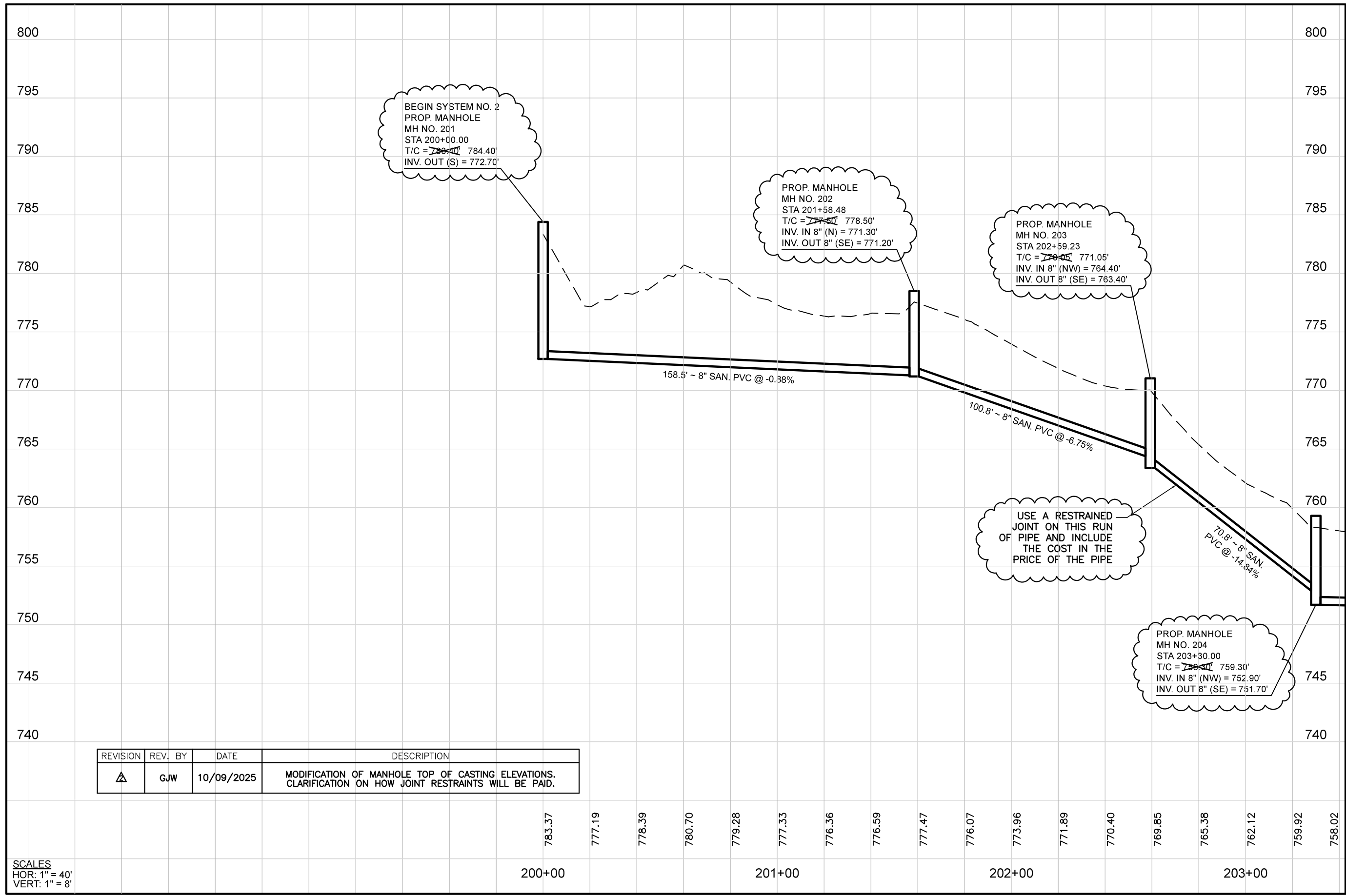
51-30-14-24-000  
KAY BAKER  
270 EASTLAWN CIR

PROP. 10' TEMP. CONST  
EASEMENT (EITHER SIDE OF 20'  
SANITARY EASEMENT)

51-30-14-25-000  
CLAY D & STACEY R ROSS  
250 EASTLAWN CIR

51-30-14-23-000  
VIRGINIA CAROLINE HOLMES  
300 EASTLAWN CIR

REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	10/09/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS.



BEGIN SYSTEM NO. 2  
 PROP. MANHOLE  
 MH NO. 201  
 STA 200+00.00  
 T/C = ~~783.40~~ 784.40'  
 INV. OUT (S) = 772.70'

PROP. MANHOLE  
 MH NO. 202  
 STA 201+58.48  
 T/C = ~~777.50~~ 778.50'  
 INV. IN 8" (N) = 771.30'  
 INV. OUT 8" (SE) = 771.20'

PROP. MANHOLE  
 MH NO. 203  
 STA 202+59.23  
 T/C = ~~770.05~~ 771.05'  
 INV. IN 8" (NW) = 764.40'  
 INV. OUT 8" (SE) = 763.40'

USE A RESTRAINED  
 JOINT ON THIS RUN  
 OF PIPE AND INCLUDE  
 THE COST IN THE  
 PRICE OF THE PIPE

PROP. MANHOLE  
 MH NO. 204  
 STA 203+30.00  
 T/C = ~~759.30~~ 759.30'  
 INV. IN 8" (NW) = 752.90'  
 INV. OUT 8" (SE) = 751.70'

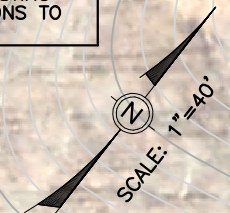
REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	10/09/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS. CLARIFICATION ON HOW JOINT RESTRAINTS WILL BE PAID.

SCALES  
 HOR: 1" = 40'  
 VERT: 1" = 8'

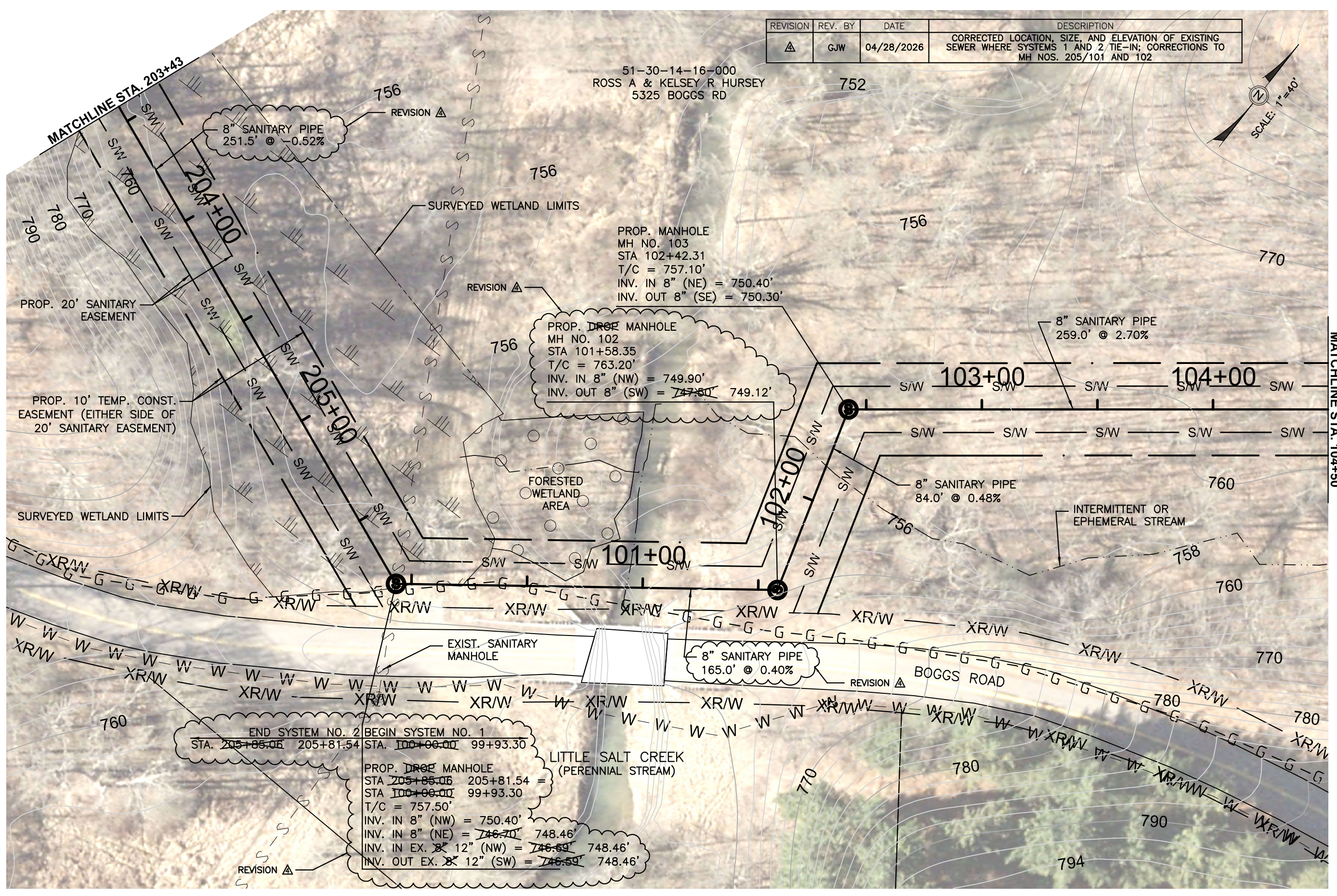
MATCHLINE STA. 203+43

PREPARED BY: **Mark J. Eicher, P.E., P.S.**  
**Muskingum** 109 Graham Street Zanesville, Ohio 43701  
**A COUNTY** **ENGINEER'S OFFICE** 740-454-0155  
 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 (1)  
 SHEET NUMBER: 08 / 18

REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	04/28/2026	CORRECTED LOCATION, SIZE, AND ELEVATION OF EXISTING SEWER WHERE SYSTEMS 1 AND 2 TIE-IN; CORRECTIONS TO MH NOS. 205/101 AND 102



51-30-14-16-000  
ROSS A & KELSEY R HURSEY  
5325 BOGGS RD



PROP. ~~DRG~~ MANHOLE  
MH NO. 102  
STA 101+58.35  
T/C = 763.20'  
INV. IN 8" (NW) = 749.90'  
INV. OUT 8" (SW) = ~~747.50'~~ 749.12'

END SYSTEM NO. 2  
STA. ~~205+85.06~~ 205+81.54

BEGIN SYSTEM NO. 1  
STA. ~~100+00.00~~ 99+93.30

PROP. ~~DRG~~ MANHOLE  
STA ~~205+85.06~~ 205+81.54 =  
STA ~~100+00.00~~ 99+93.30  
T/C = 757.50'  
INV. IN 8" (NW) = 750.40'  
INV. IN 8" (NE) = ~~746.70'~~ 748.46'  
INV. IN EX. ~~8"~~ 12" (NW) = ~~746.59'~~ 748.46'  
INV. OUT EX. ~~8"~~ 12" (SW) = ~~746.59'~~ 748.46'

MATCHLINE STA. 104+50

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

**Muskingum**  
**County**  
**ENGINEER'S OFFICE**

PREPARED BY:  
BOGGS ROAD SANITARY SEWER IMPROVEMENTS

PROJECT NAME:  
BOGGS ROAD SANITARY SEWER IMPROVEMENTS

PROJECT LOCATION:  
ZANESVILLE, OHIO 43701

PLANS APPROVED BY:  
MJE

PLANS PREPARED BY:  
GJW

DATE:  
09/09/2024

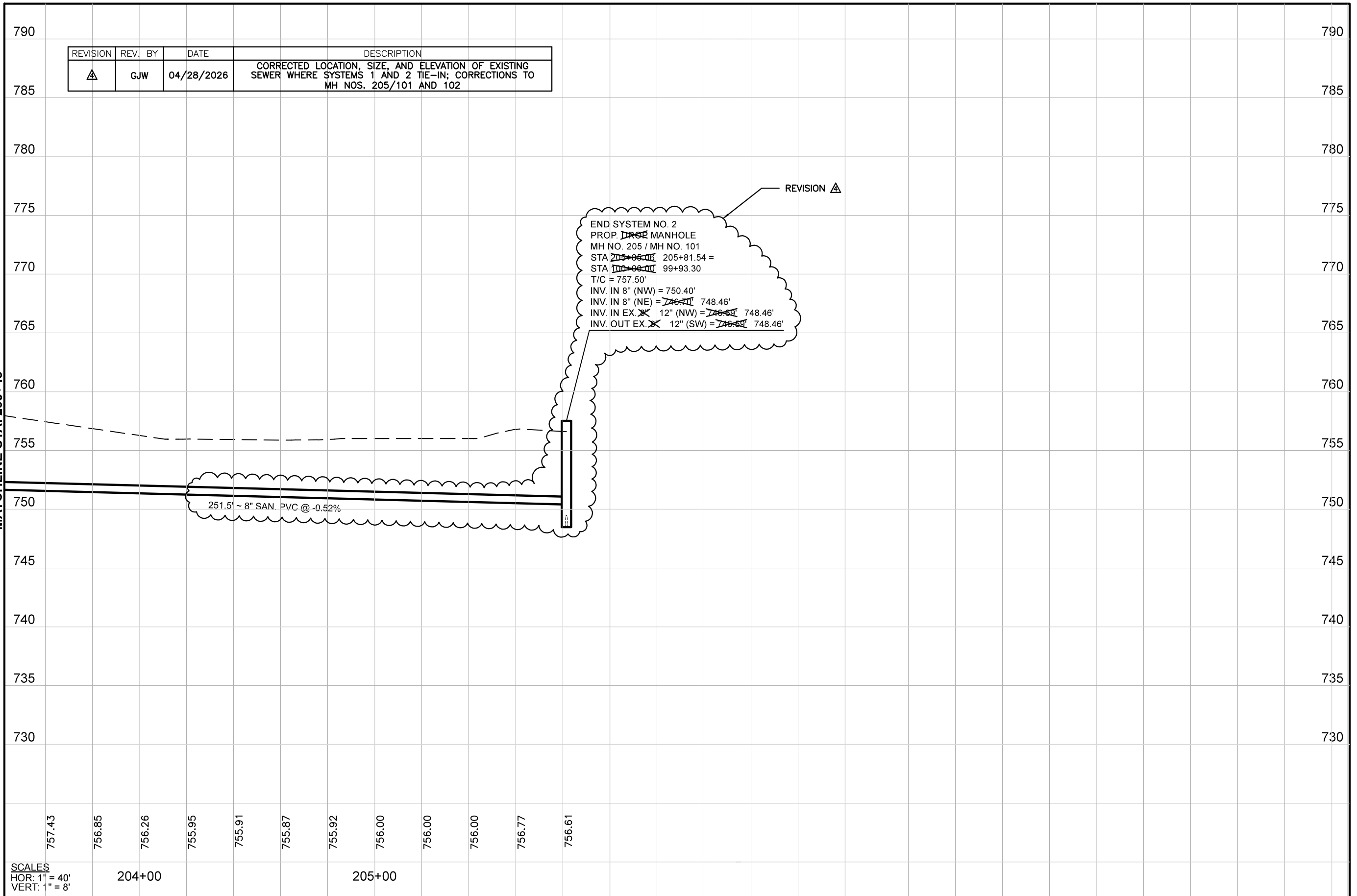
REVISED:  
04/28/2026

SHEET SIZE:  
11" x 17"

SHEET NAME:  
PLAN SHEET (2)

SHEET NUMBER:  
09  
18

MATCHLINE STA. 203+43



REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	04/28/2026	CORRECTED LOCATION, SIZE, AND ELEVATION OF EXISTING SEWER WHERE SYSTEMS 1 AND 2 TIE-IN; CORRECTIONS TO MH NOS. 205/101 AND 102

END SYSTEM NO. 2  
 PROP. ~~DRP~~ MANHOLE  
 MH NO. 205 / MH NO. 101  
 STA ~~205+88.05~~ 205+81.54 =  
 STA ~~100+08.00~~ 99+93.30  
 T/C = 757.50'  
 INV. IN 8" (NW) = 750.40'  
 INV. IN 8" (NE) = ~~748.71~~ 748.46'  
 INV. IN EX. ~~12"~~ 12" (NW) = ~~748.64~~ 748.46'  
 INV. OUT EX. ~~12"~~ 12" (SW) = ~~748.64~~ 748.46'

REVISION △

251.5' ~ 8" SAN. PVC @ -0.52%

SCALES  
HOR: 1" = 40'  
VERT: 1" = 8'

204+00

205+00

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:

04/28/2026

SHEET SIZE:

11" x 17"

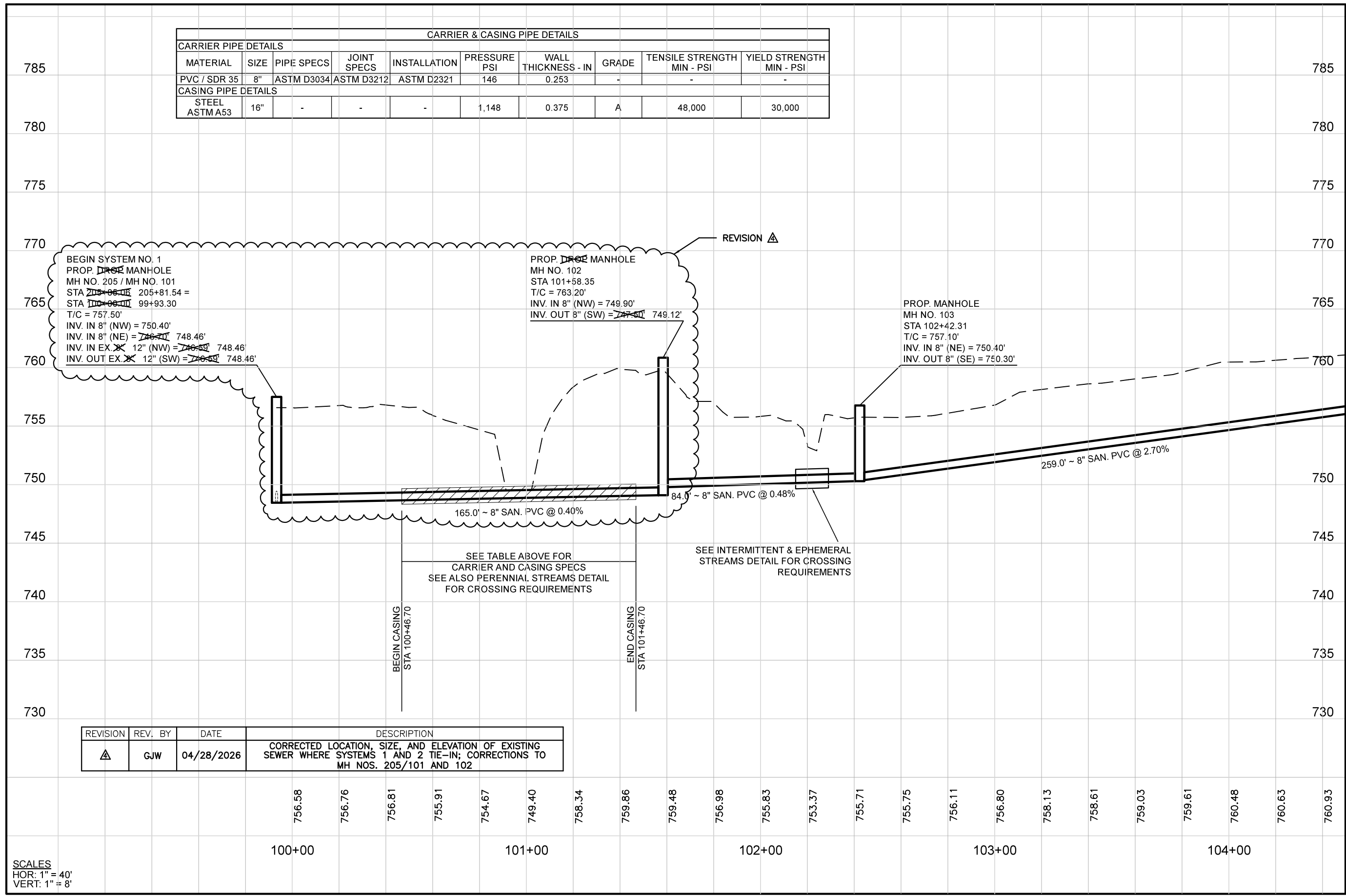
SHEET NAME:

PROFILE SHEET (2)

SHEET NUMBER:

10 / 18

CARRIER & CASING PIPE DETAILS									
CARRIER PIPE DETAILS					CASING PIPE DETAILS				
MATERIAL	SIZE	PIPE SPECS	JOINT SPECS	INSTALLATION	PRESSURE PSI	WALL THICKNESS - IN	GRADE	TENSILE STRENGTH MIN - PSI	YIELD STRENGTH MIN - PSI
PVC / SDR 35	8"	ASTM D3034	ASTM D3212	ASTM D2321	146	0.253	-	-	-
STEEL	16"	-	-	-	1,148	0.375	A	48,000	30,000



BEGIN SYSTEM NO. 1  
 PROP. DROP MANHOLE  
 MH NO. 205 / MH NO. 101  
 STA 205+05.15 205+81.54 =  
 STA 100+06.10 99+93.30  
 T/C = 757.50'  
 INV. IN 8" (NW) = 750.40'  
 INV. IN 8" (NE) = 748.70' 748.46'  
 INV. IN EX 12" (NW) = 748.50' 748.46'  
 INV. OUT EX 12" (SW) = 748.50' 748.46'

PROP. DROP MANHOLE  
 MH NO. 102  
 STA 101+58.35  
 T/C = 763.20'  
 INV. IN 8" (NW) = 749.90'  
 INV. OUT 8" (SW) = 749.12'

PROP. MANHOLE  
 MH NO. 103  
 STA 102+42.31  
 T/C = 757.10'  
 INV. IN 8" (NE) = 750.40'  
 INV. OUT 8" (SE) = 750.30'

BEGIN CASING  
 STA 100+46.70

END CASING  
 STA 101+46.70

REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	04/28/2026	CORRECTED LOCATION, SIZE, AND ELEVATION OF EXISTING SEWER WHERE SYSTEMS 1 AND 2 TIE-IN; CORRECTIONS TO MH NOS. 205/101 AND 102

SCALES  
 HOR: 1" = 40'  
 VERT: 1" = 8'

MATCHLINE STA. 104+50

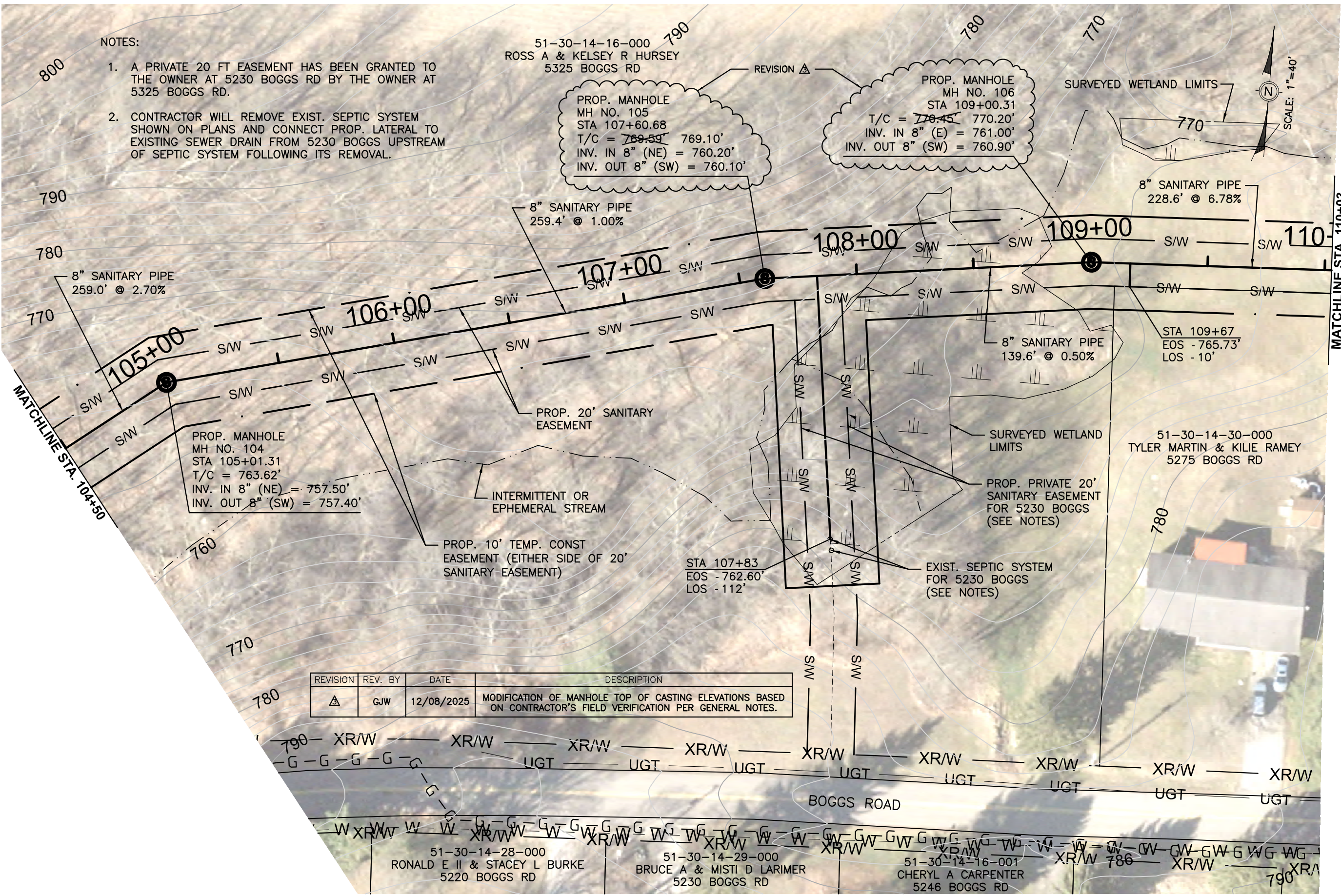
NOTES:

1. A PRIVATE 20 FT EASEMENT HAS BEEN GRANTED TO THE OWNER AT 5230 BOGGS RD BY THE OWNER AT 5325 BOGGS RD.
2. CONTRACTOR WILL REMOVE EXIST. SEPTIC SYSTEM SHOWN ON PLANS AND CONNECT PROP. LATERAL TO EXISTING SEWER DRAIN FROM 5230 BOGGS UPSTREAM OF SEPTIC SYSTEM FOLLOWING ITS REMOVAL.

51-30-14-16-000  
ROSS A & KELSEY R HURSEY  
5325 BOGGS RD

PROP. MANHOLE  
MH NO. 105  
STA 107+60.68  
T/C = ~~769.59~~ 769.10'  
INV. IN 8" (NE) = 760.20'  
INV. OUT 8" (SW) = 760.10'

PROP. MANHOLE  
MH NO. 106  
STA 109+00.31  
T/C = ~~770.45~~ 770.20'  
INV. IN 8" (E) = 761.00'  
INV. OUT 8" (SW) = 760.90'

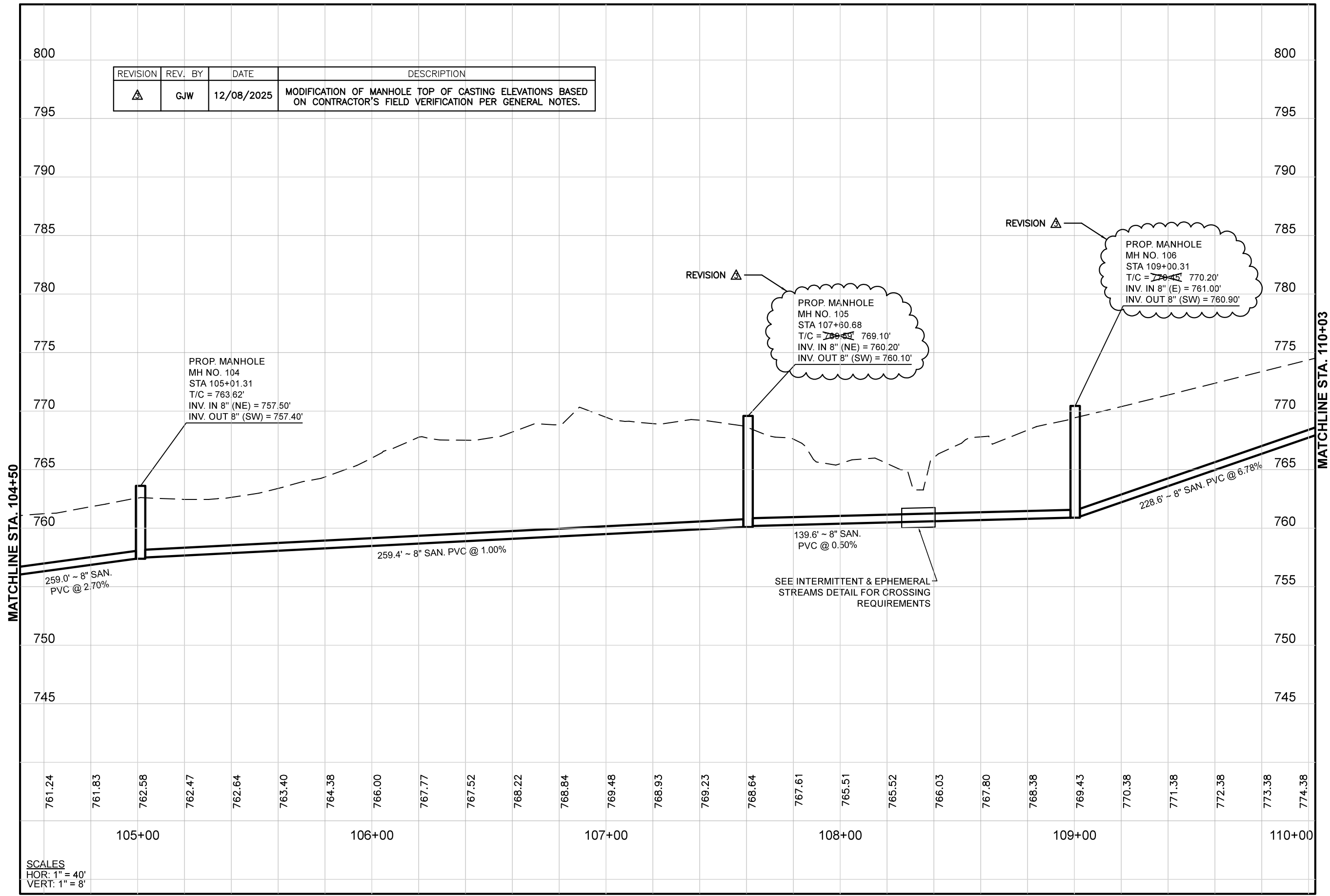


REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	12/08/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS BASED ON CONTRACTOR'S FIELD VERIFICATION PER GENERAL NOTES.

Mark J. Eicher, P.E., P.S.  
109 Graham Street  
Zanesville, Ohio 43701  
**Muskingum COUNTY ENGINEER'S OFFICE**  
740-454-0155

PREPARED BY:  
**Muskingum COUNTY ENGINEER'S OFFICE**  
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:  
PLAN SHEET (3)  
SHEET NUMBER:



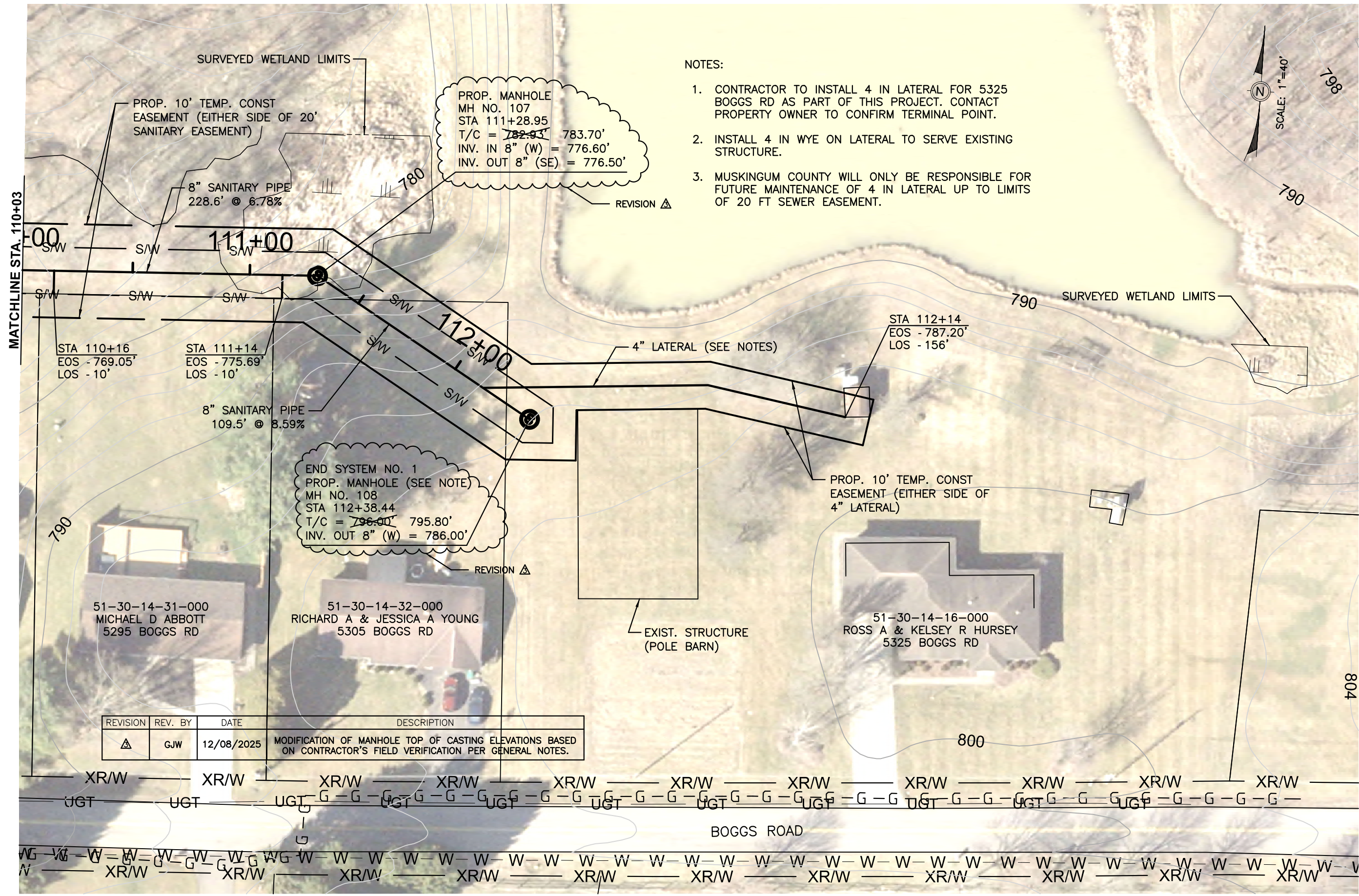
REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	12/08/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS BASED ON CONTRACTOR'S FIELD VERIFICATION PER GENERAL NOTES.

PROP. MANHOLE  
MH NO. 104  
STA 105+01.31  
T/C = 763.62'  
INV. IN 8" (NE) = 757.50'  
INV. OUT 8" (SW) = 757.40'

PROP. MANHOLE  
MH NO. 105  
STA 107+60.68  
T/C = 769.51'  
INV. IN 8" (NE) = 760.20'  
INV. OUT 8" (SW) = 760.10'

PROP. MANHOLE  
MH NO. 106  
STA 109+00.31  
T/C = 770.45'  
INV. IN 8" (E) = 761.00'  
INV. OUT 8" (SW) = 760.90'

SCALES  
HOR: 1" = 40'  
VERT: 1" = 8'



NOTES:

1. CONTRACTOR TO INSTALL 4 IN LATERAL FOR 5325 BOGGS RD AS PART OF THIS PROJECT. CONTACT PROPERTY OWNER TO CONFIRM TERMINAL POINT.
2. INSTALL 4 IN WYE ON LATERAL TO SERVE EXISTING STRUCTURE.
3. MUSKINGUM COUNTY WILL ONLY BE RESPONSIBLE FOR FUTURE MAINTENANCE OF 4 IN LATERAL UP TO LIMITS OF 20 FT SEWER EASEMENT.

PROP. MANHOLE  
MH NO. 107  
STA 111+28.95  
T/C = ~~782.95~~ 783.70'  
INV. IN 8" (W) = 776.60'  
INV. OUT 8" (SE) = 776.50'

END SYSTEM NO. 1  
PROP. MANHOLE (SEE NOTE)  
MH NO. 108  
STA 112+38.44  
T/C = ~~796.00~~ 795.80'  
INV. OUT 8" (W) = 786.00'

REVISION	REV. BY	DATE	DESCRIPTION
△	GJW	12/08/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS BASED ON CONTRACTOR'S FIELD VERIFICATION PER GENERAL NOTES.

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

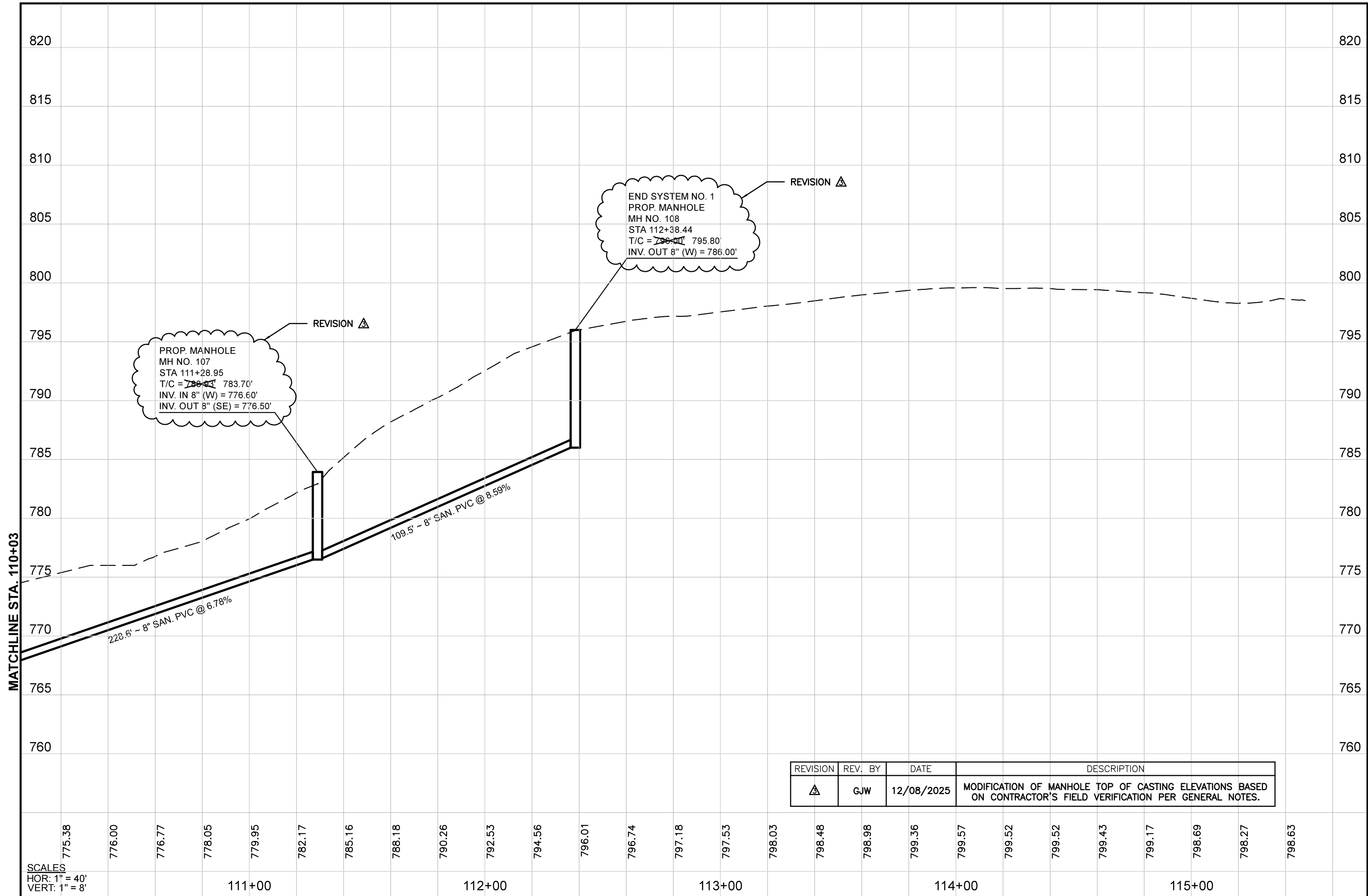
DATE: 09/09/2024

REVISED: 12/08/2025

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (4)

SHEET NUMBER: 14 / 18



REVISION	REV. BY	DATE	DESCRIPTION
$\triangle$	GJW	12/08/2025	MODIFICATION OF MANHOLE TOP OF CASTING ELEVATIONS BASED ON CONTRACTOR'S FIELD VERIFICATION PER GENERAL NOTES.

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

PREPARED BY: **Muskingum COUNTY ENGINEER'S OFFICE**

PROJECT NAME: **BOGGS ROAD SANITARY SEWER IMPROVEMENTS**

PROJECT LOCATION: **ZANESVILLE, OHIO 43701**

PLANS APPROVED BY: **MJE**

PLANS PREPARED BY: **GJW**

DATE: **09/09/2024**

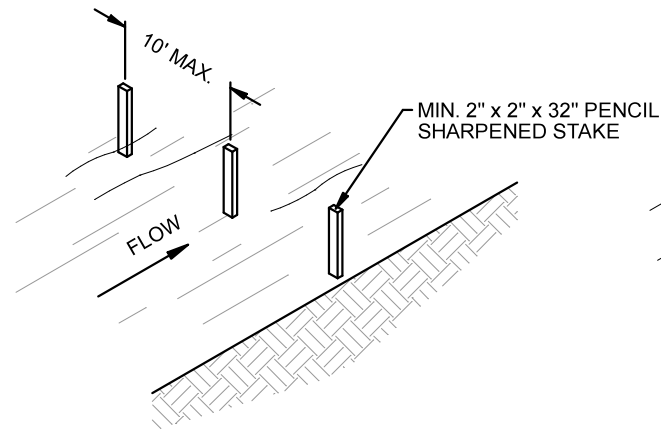
REVISED: **12/08/2025**

SHEET SIZE: **11" x 17"**

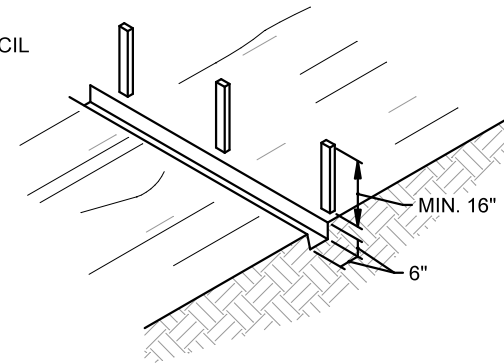
SHEET NAME: **PROFILE SHEET (4)**

SHEET NUMBER: **15** (top), **18** (bottom)

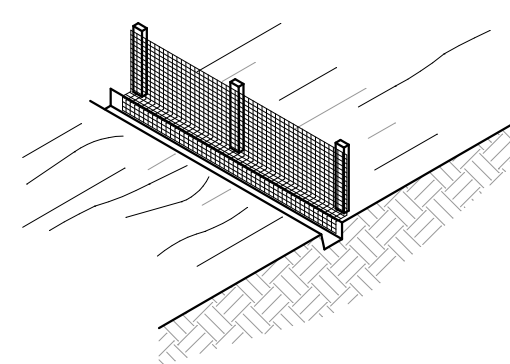
1) SET THE STAKES



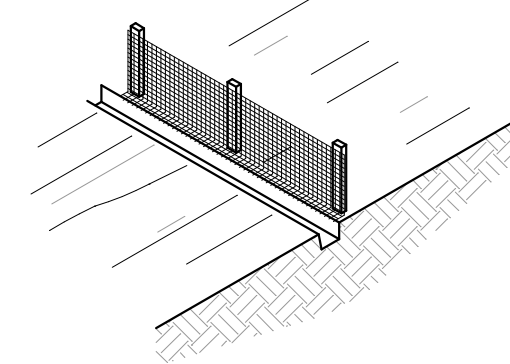
2) EXCAVATE A 6"x6" TRENCH UPSLOPE ALONG THE LINE STAKES.



3) STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4) BACKFILL AND COMPACT THE EXCAVATED SOIL



## 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.

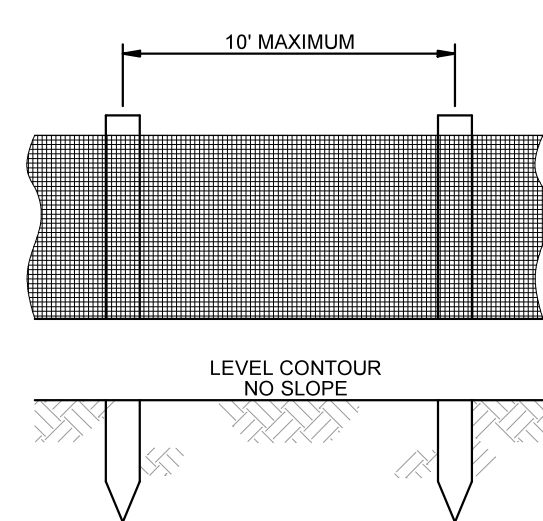
MAINTENANCE:

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.

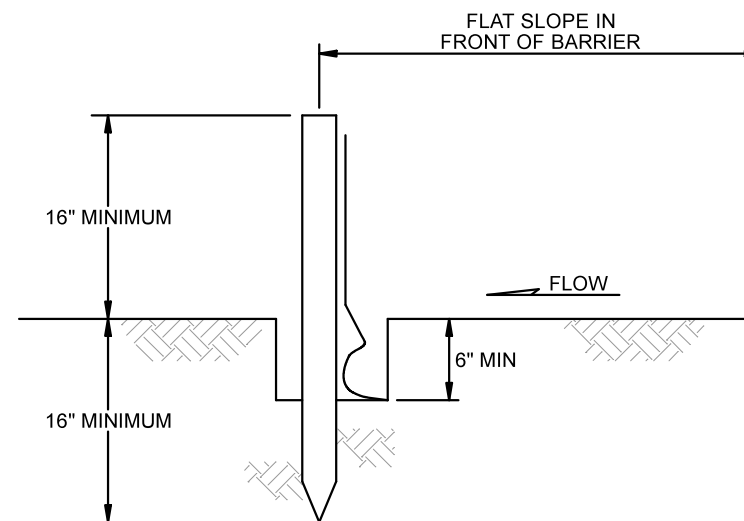
CRITERIA FOR SILT FENCE MATERIALS:

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:

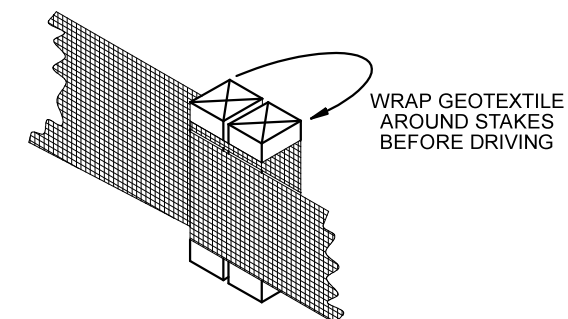
FABRIC PROPERTIES	
MINIMUM TENSILE STRENGTH.....	120 LBS.
MAXIMUM ELONGATION AT 60 LBS.....	50%
MINIMUM PUNCTURE STRENGTH.....	50 LBS.
MINIMUM TEAR STRENGTH.....	40 LBS.
MINIMUM BURST STRENGTH.....	200 PSI
APPARENT OPENING SIZE.....	≤ 0.84MM
MINIMUM PERMITTIVITY.....	1X10 <sup>-2</sup> SEC <sup>-1</sup>
ULTRAVIOLET EXPOSURE STRENGTH RETENTION.....	70%



ELEVATION



SECTION



JOINING SECTIONS OF SILT FENCE

PREPARED BY:

BOGGS ROAD SANITARY SEWER IMPROVEMENTS

PROJECT NAME

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 (1)

SHEET NUMBER:

16

18

## 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.

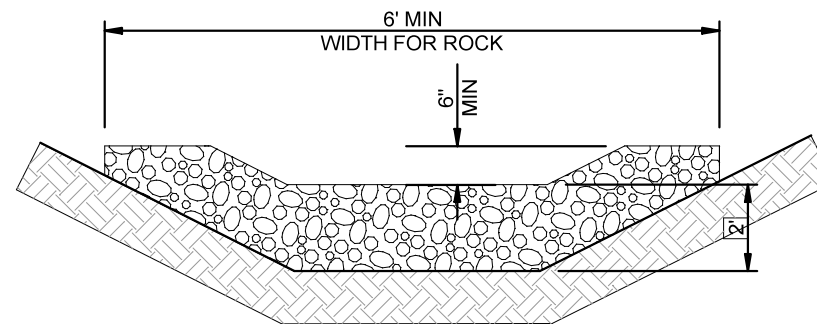
ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO, OR IN CONJUNCTION WITH, THE START OF EXCAVATION AND ARE TO REMAIN IN EFFECT UNTIL AREAS ARE STABILIZED. FIELD ADJUSTMENTS WITH RESPECT TO LOCATION AND DIMENSIONS MAY BE MADE BY THE ENGINEER AS REQUIRED.

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.

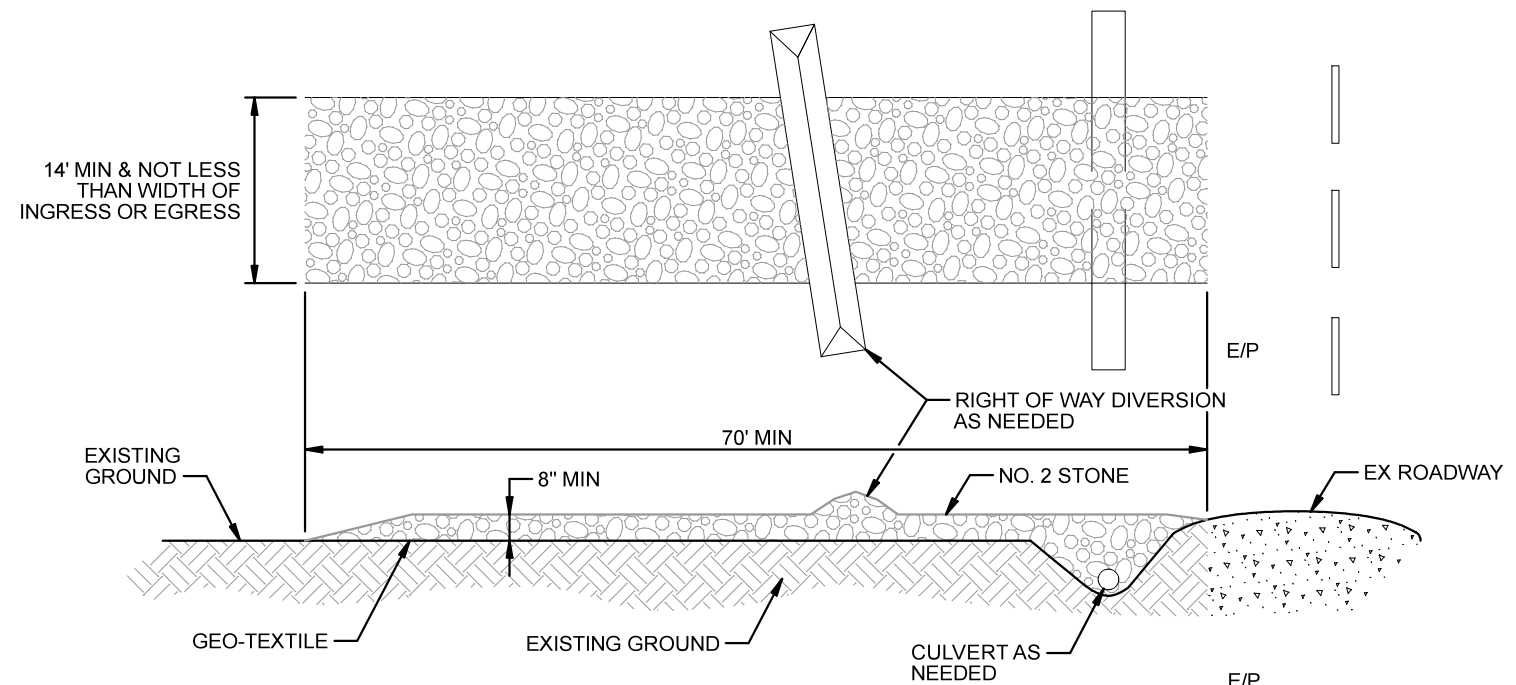
TEMPORARY SEEDING (TS) SHALL BE PROVIDED FOR ALL EXPOSED SURFACES AND SOIL STOCKPILES WHERE PERMANENT SEEDING OR ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF FORTY-FIVE (45) DAYS. SEEDING SHALL BE PROVIDED WITHIN SEVEN (7) DAYS AFTER CONSTRUCTION OPERATIONS CEASE.

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 RESEDED 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  
**ENGINEER'S OFFICE** 740-454-0155

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"

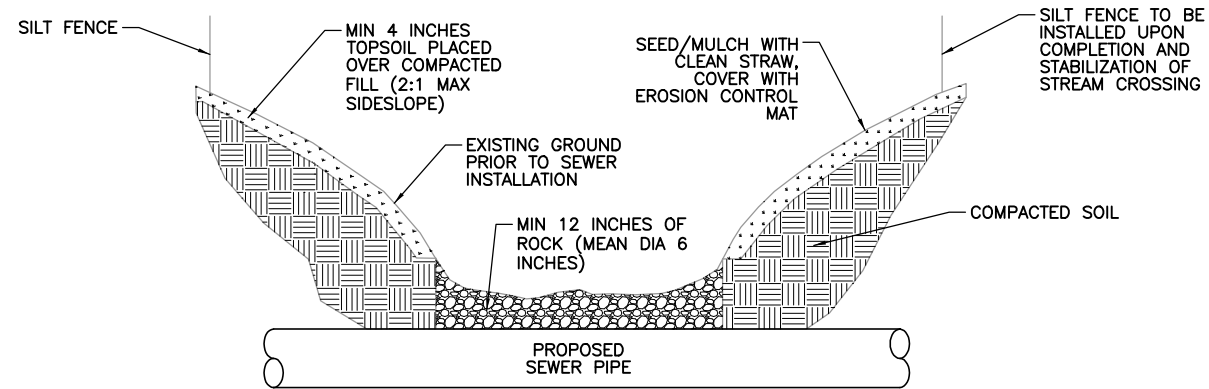
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EROSION CONTROL DETAILS (2)

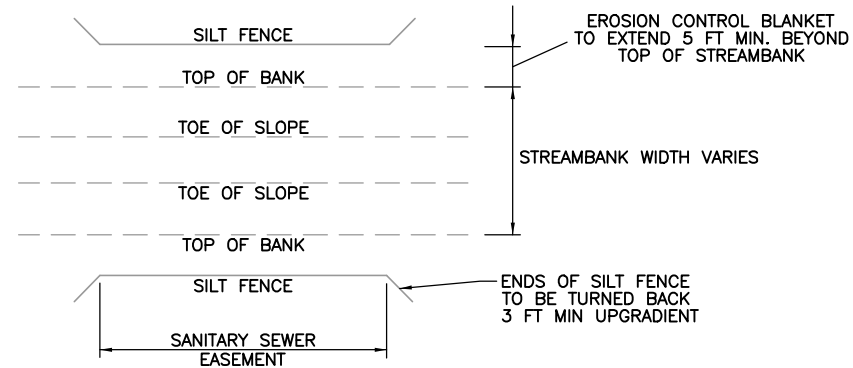
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17  
18

## INTERMITTENT & EPHEMERAL STREAMS DETAIL



SECTION



PLAN

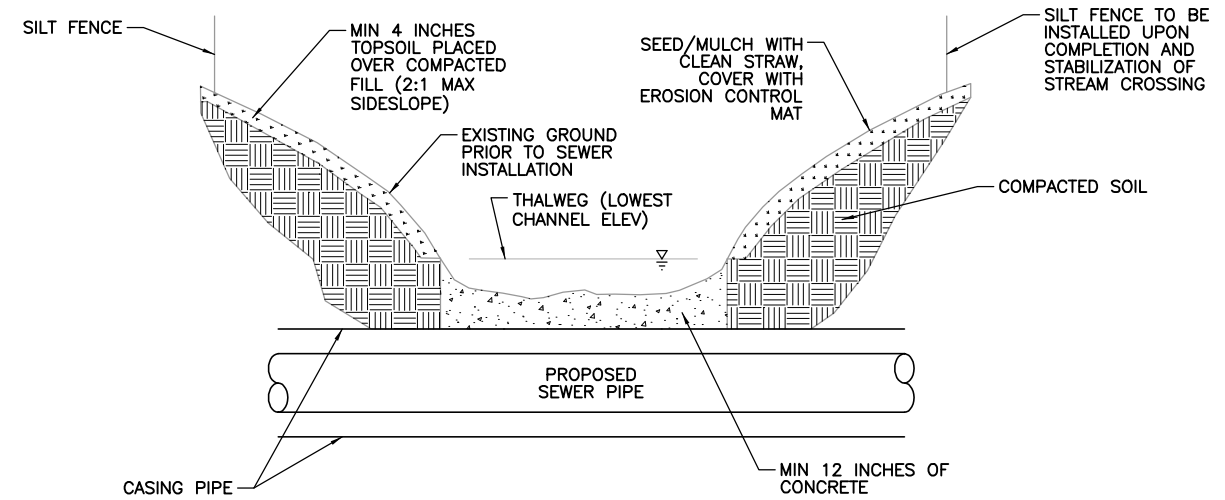
**FOR WETLAND CROSSINGS:**

- 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 LOOSENEED 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.

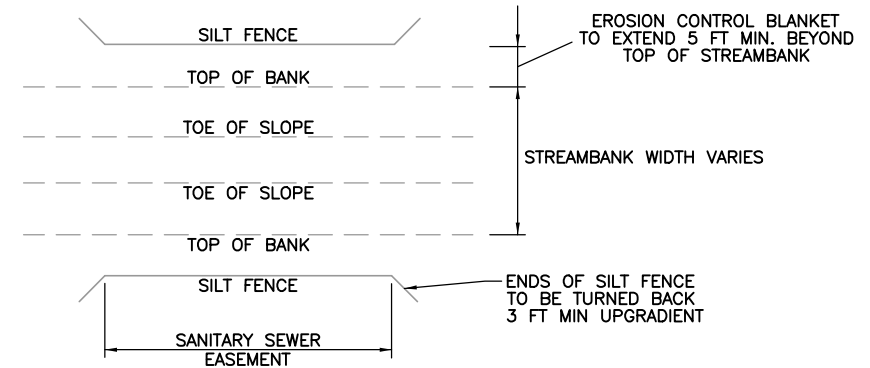
**FOR STREAM CROSSINGS**

- 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

## PERENNIAL STREAMS DETAIL



SECTION



PLAN

**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

PREPARED BY:

BOGGS ROAD SANITARY SEWER IMPROVEMENTS  
 PROJECT NAME  
 ZANESVILLE, OHIO 43701  
 PROJECT LOCATION

PROJECT LOCATION:

PLANS APPROVED BY:

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GJW

DATE:

08/25/2025

REVISED:

SHEET SIZE:

11" x 17"

SHEET NAME:

**EROSION CONTROL DETAILS (3)**

SHEET NUMBER:

18