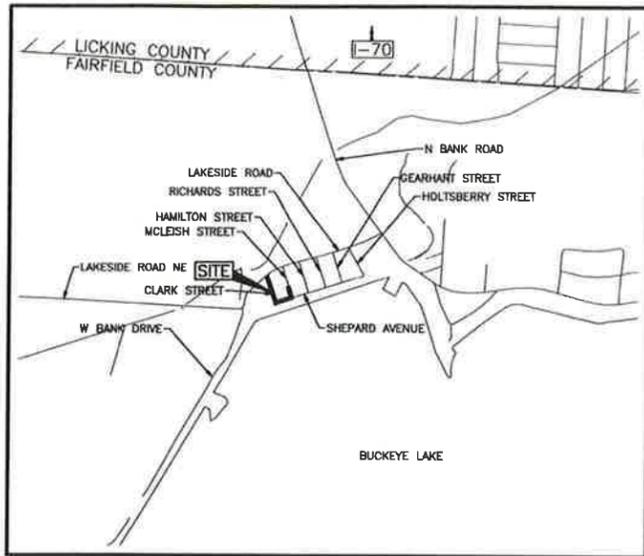


FAIRFIELD COUNTY ENGINEER

WALNUT TOWNSHIP

LAKESIDE PHASE 1 DRAINAGE PROJECT



VICINITY MAP
Not to Scale

SITE DATA TABLE	
Site Total:	2.25 Ac
Total Disturbed Area:	0.19 Ac
Disturbance in the R/W:	0.16 Ac
Pre-Developed Impervious:	0.12 Ac
Post-Developed Impervious:	0.12 Ac

SPECIFICATIONS
THE 2023 STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION INCLUDING CHANGES & SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN THIS IMPROVEMENT.
THE 2024 STANDARD SPECIFICATIONS OF THE SOUTHWEST LICKING WATER AND SEWER DISTRICT SHALL ALSO GOVERN THIS IMPROVEMENT FOR WATERLINE RELATED ITEMS.

BENCH MARKS

The benchmarks and elevations shown on this map are based on the North American Vertical Datum of 1988. Said elevations are based upon positional solutions derived from RTK GNSS observations using the Ohio Department of Transportation's Ohio Real Time Network equipment and software and the National Geodetic Survey's GEOD18 model at traverse control points numbered 201 and 202. Elevations from said traverse control points were then transferred by conventional leveling procedures to the permanent benchmarks listed hereon. (Fieldwork Completed 07/2023).

- BM#1 Railroad Spike on the north side of a wooden utility pole located on the south side of Shepard Avenue, being the first utility pole (100 feet) east of the intersection with McLeish Street.
Elev. = 889.01 (NAVD 88)
- BM#2 Chiseled 'X' on north flange bolt of fire hydrant located on the south side of Lakeside Road, being the first fire hydrant (100 feet) east of the intersection with McLeish Street.
Elev. = 887.77 (NAVD 88)
- BM#3 Chiseled 'X' on the south flange bolt of a fire hydrant located on the north side of Shepard Avenue, being the first fire hydrant (90 feet) west of the intersection with McLeish Street.
Elev. = 889.18 (NAVD 88)

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Mill and Overlay Alternate Detail	12

All Streets in this Development are Public. See Sheet 3 for Legend/Abbreviations List.

DEVELOPER/OWNER
Walnut Township Trustees
Tel: (740) 467-2420
projects@walnuttownship.com
contact@walnuttownship.com
administration@walnuttownship.com

ENGINEER
EMHT Inc.
Douglas C. Turney, PE
5500 New Albany Road
Columbus, Ohio 43054
Tel: (614) 775-4213
Fax: (614) 775-4806
dturney@emht.com

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY.

FAIRFIELD COUNTY ENGINEER: [Signature] PE, BS
Date: 3/2/26

WE THE TRUSTEES OF WALNUT TOWNSHIP, FAIRFIELD COUNTY IN FORMAL SESSION, HEREBY APPROVE THESE PLANS:

TRUSTEE: [Signature]
Date: 10/27/2025
TRUSTEE: [Signature]
Date: 10/27/2025
TRUSTEE: _____
Date: _____



PLAN PREPARED BY:
EMHT INC.
Douglas Turney
5500 NEW ALBANY ROAD
COLUMBUS, OHIO 43054



STANDARD CONSTRUCTION DRAWINGS

The Standard Drawings listed on these plans shall be considered a part thereof:

Ohio Department of Transportation	Southwest Licking Community Water & Sewer District	
CB-2-2A	HW-2.1	W-1B
CB-2-3	HW-2.2	W-4
CB-2-6	MH-3	W-7
CB-2-7	DM-1.1	W-10
MH-3	DM-4.4	W-30

SUPPLEMENTAL SPECIFICATIONS

The Standard Drawings listed on these plans shall be considered a part thereof:

City of Columbus

SS-5

HORIZONTAL SCALE IN FEET

TITLE SHEET

DESIGN AGENCY



DESIGNER
BS

REVIEWER

DCT 10/20/25

PROJECT ID

20220293

SHEET TOTAL

1 12

RD100 – ENGINEER DEFINED
DULY AUTHORIZED AGENT OF THE FAIRFIELD COUNTY ENGINEER ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR PURPOSES OF ENGINEERING AND ADMINISTRATION OF THE CONTRACT.

RD101 – CONTRACTOR DEFINED
THE INDIVIDUAL, FIRM OR CORPORATION CONTRACTING WITH THE FAIRFIELD COUNTY ENGINEER FOR PERFORMANCE OF PRESCRIBED WORK, ACTING DIRECTLY OR THROUGH A DULY AUTHORIZED REPRESENTATIVE AND QUALIFIED UNDER THE PROVISIONS OF 5525.02 TO 5525.09, ORC, AND ANY AMENDMENTS THERETO.

RD102 – CONTINGENCY QUANTITIES
THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

RD103 – PROJECT CONTROL
VERTICAL POSITIONING:
ORTHOMETRIC HEIGHT DATUM – NAVD88
GEIOD – GEOD12A

HORIZONTAL POSITIONING:
REFERENCE FRAME – NAD83(2011)
ELLIPSOID – GR580
COORDINATE SYSTEM – OHIO STATE PLANE SOUTH
UNITS ARE IN U.S. SURVEY FEET

RD104 – WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

RD105 – MATERIAL TESTING
THE COUNTY ENGINEER RESERVES THE RIGHT TO ORDER TESTING OF ALL MATERIALS USED.

RD106 – ROUNDING
THE ROUNDING AT SLOPE BREAK POINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN.

RD107 – ITEM 201 – CLEARING AND GRUBBING
ONLY TREES AND STUMPS MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED WITHOUT PERMISSION FROM THE ENGINEER, UNDER THE LUMP SUM BID FOR ITEM 201. CLEARING AND GRUBBING, EXCEPT THOSE OTHERWISE DESIGNATED BY THE ENGINEER.

LANDOWNERS SHALL BE ALLOWED TO SALVAGE THE WOOD FROM TREES BEING REMOVED FROM THEIR PROPERTY. TREES DESIGNATED AS BEING SALVAGED FOR WOOD, SHALL BE CUT ABOVE THE BASE AND PLACED OUTSIDE OF THE RIGHT-OF-WAY.

RD109 – ITEM 204 – PROOF ROLLING, AS PER PLAN
AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY UTILIZE A FULLY LOADED DUMP TRUCK, APPROVED BY THE ENGINEER, IN LIEU OF THE PROOF ROLLER REQUIREMENTS LISTED IN SPECIFICATION 204.06 A-G. ALL OTHER REQUIREMENTS PER 204.06 SHALL APPLY.

ITEM 204 PROOF ROLLING 1 HOUR.

RD112 – ITEM 407 – TACK COAT AND ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE
THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

407 NON-TRACKING TACK COAT FOR INTERMEDIATE COURSE 0.05 GAL/SQ.YD.
407 NON-TRACKING TACK COAT FOR BASE COURSE 0.080 GAL/SQ.YD.

RD113 – ITEM 203 – GRANULAR MATERIAL, TYPE E (T=6"), AS PER PLAN
THE CRUSHED MATERIAL PROVIDED FOR THIS ITEM SHALL BE CRUSHED #57 LIMESTONE.

RD114 – ITEM 441 – ASPHALT CONCRETE
THE HOT MIX ASPHALT MIXTURE SHALL BE COMPOSED OF AGGREGATE, ASPHALT BINDER, AND MODIFIERS (WHERE SPECIFIED) MEETING OHIO DEPARTMENT OF TRANSPORTATION (ODOT) REQUIREMENTS. PRIOR TO PRODUCING HOT MIX ASPHALT FOR THIS CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, A JOB MIX FORMULA (JMF) OR BITUMINOUS CONCRETE DATA SHEET.

THE JMF SHALL INCLUDE THE MIX TYPE PROPOSED FOR USE, AGGREGATE TYPE AND GRADATION, PERCENTAGE OF ASPHALT BINDER BY WEIGHT OF MIXTURE, GRADE OF ASPHALT BINDER, DESCRIPTION AND SOURCE OF MODIFIER (IF APPLICABLE), AND UNIT WEIGHT OF THE MIXTURE. THE JMF, OR DATA SHEET, SHALL HAVE PREVIOUSLY BEEN APPROVED FOR USE ON ODOT WORK.

E101 – ITEM 659 – SEEDING AND MULCHING
THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDING AREAS:

659 TOPSOIL 50 CU. YDS.
659 SOIL ANALYSIS TEST 1 EACH
659 SEEDING AND MULCHING 209 SY
659 COMMERCIAL FERTILIZER 0.1 TON
659 AGRICULTURAL LIME 0.5 TON
659 WATER 7 M. GAL

RD116 – FARM DRAINS
ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION WILL EITHER BE REPAIRED OR PROVIDED WITH UNOBSTRUCTED OUTLETS.

EXISTING FARM DRAINS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY ITEM 603 CONDUIT, TYPE F, THE OPTIMUM OUTLET, INVERT ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS INTO THE LIMITS OF CONSTRUCTION SHALL BE INTERCEPTED BY ITEM 611 CONDUIT, TYPE F AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENT.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1 EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS, TEES OR OTHER FITTINGS SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 611, 4" CONDUIT, TYPE F, 50 FOOT
ITEM 611, 6" CONDUIT, TYPE F, 50 FOOT
ITEM 611, 8" CONDUIT, TYPE F, 50 FOOT
ITEM 611, 12" CONDUIT, TYPE B, 50 FOOT
ITEM 611, 12" CONDUIT, TYPE F, 50 FOOT

RD118 – ITEM 614 – MAINTAINING TRAFFIC
NOTICE OF CLOSURE SIGNS, SHALL BE ERECTED BY THE ENGINEER IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE CONTRACTOR SHALL GIVE AT LEAST A TWO WEEK NOTICE TO THE ENGINEER IN ORDER TO ERECT THESE SIGNS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48"X 30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWINGS MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ACCESS TO LOCAL PROPERTY OWNERS SHALL BE MAINTAINED AT ALL TIMES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

AT THE END OF EACH WORK DAY, ANY OPEN EXCAVATION SHALL BE PROPERLY BACKFILLED AND TEMPORARILY SURFACED WITH AGGREGATE (E.G. STONE) TO RE-OPEN THE ROADWAY TO ALLOW FOR SAFE ACCESS FOR LOCAL RESIDENTIAL TRAFFIC. FOR ANY OPEN EXCAVATIONS THAT ARE NOT BACKFILLED, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING AROUND THE OPEN EXCAVATION TO ENSURE PUBLIC SAFETY.

ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM THIS WORK, INCLUDING THE PLACEMENT AND SUBSEQUENT REMOVAL OF TEMPORARY AGGREGATE SURFACING PRIOR TO FINAL ASPHALT RESTORATION SHALL BE INCLUDED IN THE LUMP SUM PAY ITEM FOR ITEM 614, MAINTENANCE OF TRAFFIC.

RD119 – ITEM 616 – DUST CONTROL
THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL PURPOSES AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE DIRECTED BY THE ENGINEER, FOR DUST CONTROL:

ITEM 616 WATER 1 MGAL
ITEM 616 CALCIUM CHLORIDE 0.1 TON

RD120 – DRIVEWAY APRONS
ALL DRIVEWAYS SHALL BE FEATHERED WITH ITEM 441 TO A DISTANCE OF FOUR FEET FROM EDGE OF ASPHALT PAVEMENT (6' FOR CONCRETE) AND SHALL BE CONSTRUCTED BY EXTENDING THE PAVER SCREED WITH NO JOINTS BETWEEN THE EDGE OF PAVEMENT AND THE APPROACH. THE FOUR-FOOT WIDTHS MAY VARY ACCORDING TO THE SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL PROPOSED CONDUITS SHALL BE CONSTRUCTED BY SAW CUTTING THE EXISTING ASPHALT.

RD121 – ITEM 690 – SPECIAL – MAILBOX REMOVED AND RESET
THIS WORK SHALL CONSIST OF REMOVING AND RESETTING EXISTING MAILBOX SUPPORTS. THE CONTRACTOR SHALL TAKE GREAT CARE IN REMOVING AND RESETTING MAILBOX SUPPORTS TO THE CORRECT DISTANCE FROM THE EDGE OF PAVEMENT AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT FOR DAMAGED OR IMPROPER HANDLING ON THEIR PART AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POSTMASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO BE REMOVED AND RESET.

MAILBOXES REMOVED AND RESET SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR'S OPERATION OF CONSTRUCTION IN JUDGMENT OF THE ENGINEER SHALL NOT BE PAID FOR.

PAYMENT SHALL BE FOR FINAL PERMANENT INSTALLATION ONLY. ALL LABOR, MATERIAL, AND EQUIPMENT NEEDED TO COMPLETE THIS WORK SHALL BE INCLUDED IN ITEM 690 – SPECIAL, MAILBOX REMOVED AND RESET.

A QUANTITY OF 3 EACH OF ITEM SPECIAL, MAILBOX REMOVED AND RESET HAS BEEN CARRIED TO THE GENERAL SUMMARY.

RD122 – ITEM 623 – MONUMENT, MISC.
ALL PROPERTY MONUMENTS DISTURBED WITHIN THE CONSTRUCTION LIMITS SHALL BE RESET BY A REGISTERED PROFESSIONAL SURVEYOR IN THE STATE OF OHIO. THE RESET MONUMENT SHALL BE LOCATED AT THE SAME LOCATION WITH THE SAME MATERIAL AND SIZE AS THAT WHICH WAS DISTURBED. ALL RESET MONUMENTS SHALL HAVE A CAP BEARING THE SURVEYOR'S OHIO REGISTRATION NUMBER AND/OR NAME OR COMPANY NAME AND THE WORD "RESET". COST TO PERFORM SAID WORK SHALL BE INCLUDED IN THE UNIT COST FOR ITEM 623 – RIGHT OF WAY MONUMENT, TYPE B.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE.

ITEM 626 – MONUMENT, MISC. X EACH

RD123 – OHIO UTILITIES PROTECTION SERVICE (OUPS)
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT OUPS (800-362-2764) FOR EACH LOCATION WHERE DIGGING IS REQUIRED OR IN LOCATIONS WHERE POSTS ARE TO BE DRIVEN. NONMEMBER UTILITY COMPANIES MUST BE CALLED DIRECTLY BY THE CONTRACTOR. THE FOLLOWING LIST OF UTILITY OWNERS HAVE FACILITIES WITHIN THE PROJECT LIMITS:

Millersport Water Department 0700
Attn: Chase Wood
2205 Refugee Street
Millersport, Ohio 43046
Phone: (740) 467-2374
Licking County Water & Wastewater
Attn: Kevin Eby
65 East Main Street #2
Newark, Ohio 43055
Phone: (740) 670-5440

Utility Pipeline LTD./Knox Energy Cooperative
ATTN: Roy Goodwin
PO Box 35519
Canton, Ohio
Customer Service: 1-888-863-0032
Emergency Phone: 1-888-784-6160

Columbia Gos (Nisource)
Attn: Lorry Wilkin
Office: (740) 624-1900
Customer Service: 1-800-344-4077
Damage Prevention: 1-866-632-6243
Email: lewilkin@nisource.com

American Electric Power Distribution (AEP)
Attn: Brent Gates
700 Morrison Road
Gahanna, Ohio 43230
Phone: (614) 883-6802, Fax: (614) 883-6868, AEP Solution Center: (800) 277-2177

D104 – CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

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

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

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR

THE PERTINENT 611 CONDUIT ITEM.

D114 – REVIEW OF DRAINAGE FACILITIES
PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

D117 – MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED
CAREFULLY REMOVE AND STORE ALL CASTINGS WITHIN THE RIGHT OF WAY FOR SALVAGE BY FAIRFIELD COUNTY FORCES.

PAYMENT FOR ALL OF THE ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

FAIRFIELD COUNTY WATERLINE NOTES

W-1 CONNECTING WATERLINES:
The connection of proposed waterlines to existing waterlines shall be done in a manner that will cause a minimum of inconvenience to those with affected services. Work concerning the disconnection and reconnection of existing waterlines shall be done between the hours of 10:00 p.m. and 5:00 a.m., or as directed by the Millersport Water Department. No such work shall begin until the Township Fire Department, County Sheriff's Office and residents whose services will be affected are all notified at least seventy-two (72) hours prior to the connection, of the extent, nature and time of the anticipated work, nor until the method and schedule of such work has been approved by the Millersport Water Department.

W-2 SERVICE LOCATIONS:
All water services shall be located near the lot line unless otherwise noted, and shall be laid at least 10 feet horizontally from the sanitary sewer service and in a separate trench. A permit for each water service must be obtained from the Millersport Water Department, prior to making any connection from the water main or water service box to any existing or proposed building.

W-3 CONFLICTS:
When conflicts in grade between waterlines and sewers are found during construction, the waterlines shall be lowered, unless directed otherwise by the Millersport Water Department. A minimum vertical separation of 18 inches, measured from the outside of each pipe, shall be maintained.

W-4 MINIMUM DEPTH:
Water lines shall be laid with a minimum of four (4) feet of cover from the final proposed ground or pavement grade to the top of the waterline.

W-5 LINE CROSSINGS:
At all points of crossing of water mains and sewers, the backfill shall be granular material between the deeper and shallower pipe. The minimum horizontal separation between water mains and all sanitary and storm sewers shall be ten (10) feet measured from the outside of each pipe. The minimum vertical separation at crossings of water mains and all sewers shall be 18 inches measured from the outside of each pipe.

W-6 DISINFECTION:
All water mains shall be cleaned and disinfected in accordance with the applicable sections of AWWA Specification C651. Special attention is directed to the requirements of flushing and chlorinating valves and fire hydrants. Results of the disinfection tests shall be furnished to the Millersport Water Department prior to acceptance of the system.

W-7 TESTING:
A hydrostatic test, as required in Section 7.3 of AWWA Specification C605 for PVC Pipe or Section 5.2 of AWWA Specification C600 for Ductile Iron Pipe as applicable, shall be applied to the water main. If there are indications of leaks under this pressure test, the Contractor shall locate and repair all leaks at the contractor's expense until the leakage is within the specified allowance. All bends, joint deflections and hydrants shall have concrete backing, and all valves shall have concrete supports, in accordance with the Standard Construction Drawings. Final water pressures testing for acceptance to be conducted after all other utilities are installed in new development areas.

W-8 FIRE HYDRANTS:
Fire hydrants shall be American Flow Control Model MK-73 or Mueller Super Centurion 250 Model A-421, as shown on Standard Drawing W-20, and be installed as per Standard Drawings W-21, W-22, W-23 and W-24. Fire hydrants and lids of watch valve boxes shall be thoroughly cleaned and prepped, be primed with one coat Tnemec Uni-bond DF Series Gray and be painted with two coats Tnemec Enduratone Series 102B Chilean Red for the top coats. Hydrants shall be of the same manufacturer as consistent within a subdivision or service area.

W-9 CURB AND VALVE BOXES:
Curb boxes shall be located 12 inches from the property line or easement line for short services and 12 inches from the property line on long services, unless otherwise shown on the plans. All curb box and valve box tops shall be adjusted to be 3" above final surface grades. The Contractor shall furnish and place, as directed, a stake made of 4" x 4" treated hardwood lumber at all curb boxes and valve boxes, extending a minimum of 3 feet above final surface grades with the final 2 feet painted cove blue. All curb and valve box lids shall be thoroughly cleaned and prepped, be primed with one coat Tnemec Uni-bond DF Series Gray and be painted with two coats Tnemec Enduratone Series 102B Cove Blue for the top coats.

W-10 VALVE EXTENSION:
If the top of the operating nut is lower than 36 inches below finished grade, an extension stem shall be furnished to bring the top of the operating nut to between 24 inches and 36 inches of finished grade elevation.

W-11 INSTALLATION IN EMBANKMENT:
Where water mains are to be installed in embankment areas, the embankment shall be placed and compacted in accordance with the specifications prior to the installation of the water main. The water main shall be installed with a minimum of four (4) feet of cover in all directions.

W-12 VALVE OPERATION:
Existing valves shall be operated by Millersport Water Department personnel only.

W-13 FITTING MARKERS:
The contractor shall provide 3M Electronic marking system full range markers at every fitting bend or tee that does not have a valve or every 50' on a straight run. The markers shall be attached to the pipe with a plastic zip tie.

W-14 CONSTRUCTION AND MATERIAL SPECIFICATIONS:
All materials and construction shall meet the requirements of the current Fairfield County Construction and Material Specifications, including all supplements thereto. Water main pipe shall be PVC Plastic Pipe, AWWA C900 DR 14. All bends, joint deflections and fittings shall be backed with concrete. Blue metallic field locator tape of six (6) inch width shall be placed over all water mains, within 12 to 18 inches of finished grade. Copperhead 10 gauge tracer wire (1030 – HS, open trench, 1045-EHS directional drill) shall be laid with the pipe trench and extended into each valve opening.

Water main valves shall be AWWA C509 or C515, Resilient Wedge with 250 PSI working pressure, non-rising stem, left hand open valve with rubber "O" packing seals. All bolts to be 304 stainless steel. Water main valves shall be of the same manufacturer as the hydrants in the subdivision or service area.

Water service line pipe shall be Phillips DriscoPipe Polyethylene SDR 9, and shall be installed with a cover of four (4) feet. Service saddles to be all stainless steel with full rubber insert. See FCU acceptable service saddles and tapping saddle approved list.

W-15 WATER SYSTEM PRESSURE:
The normal working pressure in the water system will not be less than 35 psi. Individual booster pumps are not permitted for any individual service. If the static pressure in the water system at the work area is greater than 80 psi, then a pressure reducing valve shall be required for each house or building.

ITEM 638 - 6" & 12" WATERMAIN LOWERING, AS PER PLAN:
This item is to be used for the lowering of watermains as necessary as shown on the plans. Southwest Licking Community Water and Sewer District Construction and Materials Specifications, Standard Drawings, and notes shown hereon, shall be used for waterline lowerings and services affected by the lowering. Standard Drawings W-1B, W-4, W-7, W-10 and W-30 shall be used for waterline lowerings unless otherwise directed by the Millersport Water Department. Unit cost each for this item shall include all the necessary materials, equipment, and labor to perform a waterline lowering including any affected water services. Watermains are not to be lowered without consent from Engineer.

ITEM SPECIAL - WATER MAIN/SANITARY FORCE MAIN POTHOLING:
Prior to installing the storm sewer or lowering of water mains, the Contractor is encouraged to locate and pothole the existing 6" and 12" water mains as well as the 3" sanitary force mains at the location where the proposed storm sewer alignment intersects with those utilities, as shown on the plans. Contractor shall confirm plan elevation of water main, and shall alert the Owner/Engineer if a conflict is found. The cost of all labor, equipment, and materials required for this work shall be included in the price bid for Item Spec, Utility Potholing.

ITEM SPECIAL - CCTV OF EXISTING SANITARY MAINLINE:
This item shall consist of closed-circuit television (CCTV) inspection of the existing sanitary sewer mainline as shown on the plans, specifically between structures D12 and D13. Additional CCTV work may be necessary as directed by the Engineer. The purpose of this inspection is to verify the condition of the sanitary infrastructure and ensure no damage has occurred due to adjacent construction activities. The Contractor shall provide all labor, equipment, and materials necessary to perform the CCTV inspection in accordance with the latest industry standards. Inspection shall include:

Cleaning of the sanitary sewer line prior to CCTV (if required).
High-resolution video recording of the interior of the pipe.
Documentation of pipe condition, defects, and any signs of damage or infiltration.
Submission of inspection reports and video files to the County or Township for review.

This item will only be utilized at the discretion of the Engineer or their representative. The Contractor to document cost of labor, materials, and equipment needed to perform this work to be paid for out of the Lump Sum amount.

ITEM SPECIAL - 24" ULTRAFLEX CHECKMATE BACKFLOW PREVENTER
This item shall consist of furnishing and installing one (1) 24-inch CheckMate® Inline Backflow Preventer, manufactured by Red Valve Company, or approved equal, at the location shown on the plans or as directed by the Engineer. The backflow preventer shall be installed in accordance with the manufacturer's recommendations and specifications. The device shall be sized appropriately for the existing pipe and shall be installed to prevent backflow from the downstream system. Unit price costs shall include all labor, equipment and materials to install this device.

ITEM SPECIAL - SANITARY FORCE MAIN HOUSE SERVICE LINE REPAIR
The location of the effluent line from the home grinder pump to the sanitary force main was not able to be located. This item covers the labor, materials, and coordination to repair the line if damaged and restore service to the home. Contact the home owner to make them aware of the possible outage while excavating along the lot line. If a service is damaged contact Licking County Water/Wastewater. Repair of service line should be of like materials and size. Unit cost price for each repair shall include all labor, equipment, and materials required for this work.



Item 638 - WATER SERVICE, AS PER PLAN

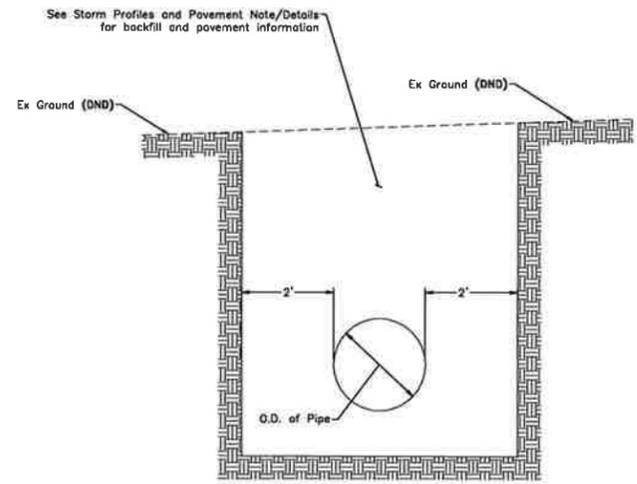
THIS WORK SHALL CONSIST OF REPAIRING EXISTING WATER SERVICES IMPACTED BY THE PROJECT. CARE SHALL BE TAKEN NOT TO DISRUPT SERVICES. THE TYPICAL SERVICE SIZE IS BELIEVED TO BE 3/4" UNIT COST EACH FOR THIS WORK SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS TO PERFORM THIS WORK.

ITEM 638 - 3" SANITARY FORCE MAIN LOWERING AND SERVICE LOWERING, AS PER PLAN

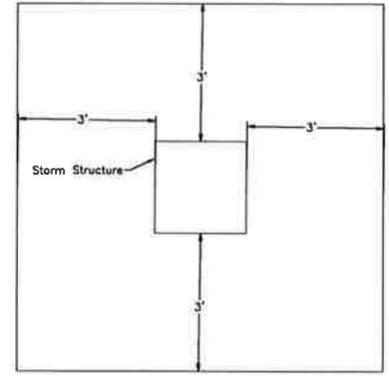
This item covers the labor, equipment and materials, to repair the line if damaged and restore operation. Care shall be taken not to disrupt this utility. If the main is damaged contact Licking County Water/Wastewater. Repair of line should be of like materials and size. Unit cost price for each repair shall include all labor, equipment, and materials required for this work.

SPECIAL CONDITIONS FOR THE NATIONWIDE PERMIT #7 (LRH-205-00579-MUS-UNT):

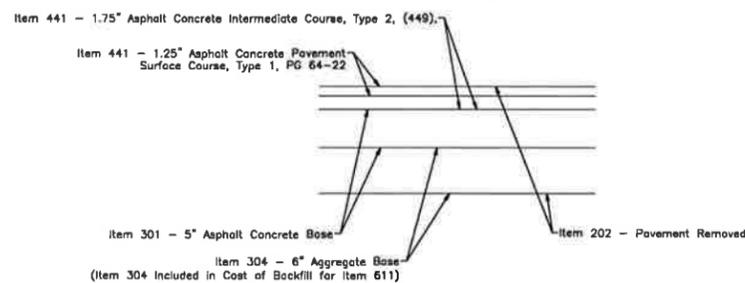
- ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE PLANS AND DRAWINGS SUBMITTED AS PART OF THE PRE-CONSTRUCTION NOTIFICATION (PCN) FOR THE THE NORTH WALNUT TOWNSHIP STORMWATER INFRASTRUCTURE PROJECT RECEIVED IN THIS OFFICE ON JULY 7, 2025.
- ENCLOSED IS A COPY OF NATIONWIDE PERMIT 7, WHICH WILL BE KEPT AT THE SITE DURING CONSTRUCTION. A COPY OF THE NATIONWIDE PERMIT VERIFICATION, SPECIAL CONDITIONS, AND THE SUBMITTED CONSTRUCTION PLANS MUST BE KEPT AT THE SITE DURING CONSTRUCTION. THE PERMITTEE WILL SUPPLY A COPY OF THESE DOCUMENTS TO THEIR PROJECT ENGINEER RESPONSIBLE FOR CONSTRUCTION ACTIVITIES.
- CONSTRUCTION ACTIVITIES WILL BE PERFORMED DURING LOW FLOW CONDITIONS TO THE GREATEST EXTENT PRACTICABLE. ADDITIONALLY, APPROPRIATE SITE SPECIFIC BEST MANAGEMENT PRACTICES FOR SEDIMENT AND EROSION CONTROL WILL BE FULLY IMPLEMENTED DURING CONSTRUCTION ACTIVITIES AT THE SITE.
- UPON COMPLETION OF THE ACTIVITY AUTHORIZED BY THIS NATIONWIDE PERMIT VERIFICATION, THE ENCLOSED CERTIFICATION MUST BE SIGNED AND RETURNED TO THIS OFFICE ALONG WITH AS-BUILT DRAWINGS SHOWING THE LOCATION AND CONFIGURATION, AS WELL AS ALL PERTINENT DIMENSIONS AND ELEVATIONS OF THE ACTIVITY AUTHORIZED UNDER THIS NATIONWIDE PERMIT VERIFICATION.
- NO AREA FOR WHICH GRADING HAS BEEN COMPLETED WILL BE UNSEEDED OR UNMULCHED FOR LONGER THAN 14 DAYS. ALL DISTURBED AREAS WILL BE SEEDED AND/OR REVEGETATED WITH NATIVE SPECIES AND APPROVED SEED MIXES (WHERE PRACTICABLE) AFTER COMPLETION OF CONSTRUCTION ACTIVITIES FOR STABILIZATION AND TO HELP PRECLUDE THE ESTABLISHMENT OF NON-NATIVE INVASIVE SPECIES
- SHOULD NEW INFORMATION REGARDING THE SCOPE AND/OR IMPACTS OF THE PROJECT BECOME AVAILABLE THAT WAS NOT SUBMITTED TO THIS OFFICE DURING OUR REVIEW OF THE PROPOSAL, THE PERMITTEE WILL SUBMIT WRITTEN INFORMATION CONCERNING PROPOSED MODIFICATION(S) TO THIS OFFICE FOR REVIEW AND EVALUATION, AS SOON AS PRACTICABLE.
- IN THE EVENT ANY PREVIOUSLY UNKNOWN HISTORIC OR ARCHAEOLOGICAL SITES OR HUMAN REMAINS ARE UNCOVERED WHILE ACCOMPLISHING THE ACTIVITY AUTHORIZED BY THIS NATIONWIDE PERMIT AUTHORIZATION, THE PERMITTEE MUST CEASE ALL WORK IN WATERS OF THE UNITED STATES IMMEDIATELY AND CONTACT LOCAL, STATE AND COUNTY LAW ENFORCEMENT OFFICES (ONLY CONTACT LAW ENFORCEMENT ON FINDINGS OF HUMAN REMAINS), THE CORPS AT (304) 399-5210 AND OHIO STATE HISTORIC PRESERVATION OFFICE AT (614) 298-2000. THE CORPS WILL INITIATE THE FEDERAL, STATE, AND TRIBAL COORDINATION REQUIRED TO COMPLY WITH THE NATIONAL HISTORIC PRESERVATION ACT AND APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS. FEDERALLY RECOGNIZED TRIBES ARE AFFORDED A GOVERNMENT-TO-GOVERNMENT STATUS AS SOVEREIGN NATIONS AND CONSULTATION IS REQUIRED UNDER EXECUTIVE ORDER 13175 AND 36 CFR PART 800.
- THE PROJECT SITE LIES WITHIN THE RANGE OF THE INDIANA BAT (MYOTIS SODALIS), A FEDERALLY-LISTED ENDANGERED SPECIES. SEVERAL FACTORS HAVE CONTRIBUTED TO THE SPECIES' DECLINE, INCLUDING HABITAT LOSS, FRAGMENTATION OF HABITAT AND THE DISEASE WHITE NOSE SYNDROME. DURING WINTER, THE BAT SPECIES HIBERNATES IN CAVES AND ABANDONED MINES. SUITABLE SUMMER HABITAT FOR THE INDIANA BATS CONSISTS OF A WIDE VARIETY OF FORESTED/WOODED HABITATS WHERE THEY ROOST, FORAGE, AND TRAVEL AND MAY ALSO INCLUDE SOME ADJACENT AND INTERSPERSED NON-FORESTED HABITATS SUCH AS EMERGENT WETLANDS AND ADJACENT EDGES OF AGRICULTURAL FIELDS, OLD FIELDS AND PASTURES. THIS INCLUDES FORESTS AND WOODLOTS CONTAINING POTENTIAL ROOSTS (I.E., LIVE TREES AND/OR SNAGS ≥3 INCHES DIAMETER AT BREST HEIGHT (DBH) THAT HAVE ANY EXFOLIATING BARK, CRACKS, CREVICES, HOLLOW AND/OR CAVITIES), AS WELL AS LINEAR FEATURES SUCH AS FENCEROWS, RIPARIAN FORESTS, AND OTHER WOODED CORRIDORS. THESE WOODED AREAS MAY BE DENSE OR LOOSE AGGREGATES OF TREES WITH VARIABLE AMOUNTS OF CANOPY CLOSURE. INDIVIDUAL TREES MAY BE CONSIDERED SUITABLE HABITAT WHEN THEY EXHIBIT THE CHARACTERISTICS OF A POTENTIAL ROOST TREE AND ARE LOCATED WITHIN 1,000 FEET (305 METERS) OF OTHER FORESTED/WOODED HABITAT. THE PERMITTEE WILL PRESERVE WOODED/FORESTED HABITATS EXHIBITING ANY OF THE CHARACTERISTICS LISTED ABOVE WHEREVER POSSIBLE. SHOULD SUITABLE HABITAT BE PRESENT THAT CANNOT BE SAVED DURING CONSTRUCTION ACTIVITIES, ANY TREES ≥3 INCHES DBH WILL ONLY BE CUT BETWEEN OCTOBER 1 - MARCH 31.



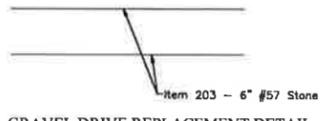
TYPICAL STORM CONDUIT TRENCH WIDTH DETAIL
N.T.S.



TYPICAL STORM STRUCTURE (MANHOLE/CB) PIT DIMENSION DETAIL
N.T.S.



ASPHALT PAVEMENT REPLACEMENT DETAIL
N.T.S.



GRAVEL DRIVE REPLACEMENT DETAIL
N.T.S.

LEGEND

<p>EXISTING CONDITIONS</p> <ul style="list-style-type: none"> --- CENTERLINE SURVEY --- EDGE OF PAVEMENT --- CURB --- SIDEWALK --- DRIVEWAY X X X FENCE --- GUARDRAIL --- CORP LINE --- RIGHT OF WAY --- SH HIGHWAY EASEMENT --- P PROPERTY LINE --- LOT LINE --- DITCH --- WM WATER X X X WM X X X WM X X X WATER TO BE ABANDONED --- SANITARY --- STORM --- COMBINATION STORM & SEWER --- GM GAS --- C TELEPHONE --- E ELECTRIC --- OHE-OHC OVERHEAD ELECTRIC/COMM --- CATV CABLE TV --- FO FIBER OPTIC --- L LIGHTING --- TR TRAFFIC --- STEM STEAM 	<p>PROPOSED LAYOUT</p> <ul style="list-style-type: none"> --- CENTERLINE CONSTRUCTION --- EDGE OF PAVEMENT --- BACK OF CURB --- FACE OF CURB X X X SIDEWALK/BIKEPATH --- GUARDRAIL --- R/W RIGHT OF WAY --- SH L/A R/W EASEMENT --- P HIGHWAY EASEMENT --- PERMANENT SIDEWALK EASEMENT --- UTILITY EASEMENT --- S SEWER EASEMENT --- TMP TEMP. CONSTRUCTION EASEMENT --- WORKLIMITS --- DITCH --- WM WATER MAIN --- WS WATER SERVICE --- SANITARY --- STORM --- GM GAS --- C COMMUNICATION/TELEPHONE --- CDB COMMUNICATION DUCT BANK --- E ELECTRIC --- EDB ELECTRIC DUCT BANK --- CATV CABLE TV --- FIBER OPTIC --- TR LIGHTING --- TR TRAFFIC
--	--

<p>EXISTING SYMBOLS</p> <ul style="list-style-type: none"> ○ FIRE HYDRANT ⊗ WATER VALVE ○ SANITARY MANHOLE ○ STORM MANHOLE ⊕ GRATED STM MANHOLE ⊕ CURB INLET MANHOLE ⊕ CURB & GUTTER INLET ⊕ CATCH BASIN ⊕ GAS VALVE ⊕ GAS METER ⊕ PULLBOX ⊕ EMERGENCY CALL BOX ⊕ TRAFFIC PULL BOX ⊕ SIGNAL CONTROLLER ▭ BUILDING ⊕ BENCHMARK ⊕ SOIL BORING ⊕ FLOOD LIGHT ⊕ GUY ANCHOR ⊕ HEDGE/SHRUB ⊕ STUMP ⊕ BUSH ⊕ TELEPHONE POLE ⊕ COMM LIGHT POLE ⊕ COMM ELEC POLE ⊕ COMM ELEC LIGHT POLE ⊕ ELECTRIC POLE ⊕ ELECTRIC LIGHT POLE ⊕ LIGHT POLE ⊕ SIGNAL POLE ○ BOLLARD ⊕ MAILBOX ▭ PARKING BLOCK ⊕ SIGNS ⊕ BENCHMARK ⊕ SOIL BORING ⊕ FLOOD LIGHT ⊕ GUY ANCHOR ⊕ HEDGE/SHRUB ⊕ STUMP ⊕ BUSH 	<p>PROPOSED SYMBOLS</p> <ul style="list-style-type: none"> ⊕ FIRE HYDRANT ⊕ RELOC. FIRE HYDRANT ⊕ WATER VALVE ⊕ WATER REDUCER ⊕ WATER SERVICE ● SAN/STM MANHOLE ● SAN/STM CLEANOUT ▭ CURB INLET ▭ CATCH BASIN ▭ YARD DRAIN ⊕ LIGHT POLE ⊕ LIGHT POLE ⊕ SIGNAL POLE ⊕ SIGNAL PULL BOX ⊕ PULLBOX ⊕ GUY ANCHOR
---	--

ABBREVIATIONS

<p>Ex ___ EXISTING</p> <p>Prop ___ PROPOSED</p> <p>1"WS ___ 1" WATER SERVICE</p> <p>1"GS ___ 1" GAS SERVICE</p> <p>6"SS ___ 6" SANITARY SERVICE</p> <p>6"RD ___ 6" ROOF DRAIN</p> <p>WM ___ WATER MAIN</p> <p>WSB ___ WATER SERVICE BOX</p> <p>FWS ___ FIRE WATER SERVICE</p> <p>DWS ___ DOMESTIC WATER SERVICE</p> <p>NF ___ NOT FOUND</p> <p>CB ___ CATCH BASIN</p> <p>CI ___ CURB INLET</p> <p>CIMH ___ CURB INLET MANHOLE</p> <p>OHE ___ OVERHEAD ELECTRIC</p> <p>OHC ___ OVERHEAD COMM.</p> <p>UGE ___ UNDERGROUND ELECTRIC</p> <p>CATV ___ CABLE TELEVISION</p> <p>SGNL ___ SIGNAL</p> <p>DB ___ DUCT BANK</p> <p>(PA) ___ PREVIOUSLY ABANDONED</p> <p>CL ___ CENTERLINE</p> <p>EP ___ EDGE OF PAVEMENT</p> <p>TC ___ TOP OF CURB</p> <p>ESMT ___ EASEMENT</p> <p>Vert ___ VERTICAL</p> <p>Horz ___ HORIZONTAL</p> <p>Defl ___ DEFLECTION</p>	<p>TYP ___ TYPICAL</p> <p>INV ___ INVERT</p> <p>CONST ___ CONSTRUCTION</p> <p>ST ___ STREET</p> <p>PED ___ PEDESTRIAN</p> <p>SUP ___ SHARED USED PATH</p> <p>CoC ___ CITY OF COLUMBUS</p> <p>DoT ___ DIVISION OF TECHNOLOGY</p> <p>DoP ___ DIVISION OF POWER</p> <p>OSU ___ OHIO STATE UNIVERSITY</p> <p>(DND) ___ DO NOT DISTURB</p> <p>(FIP) ___ FILL IN PLACE</p> <p>(TBA) ___ TO BE ABANDONED</p> <p>(TBAO) ___ TO BE ABANDONED (BY OTHERS)</p> <p>(TBR) ___ TO BE REMOVED</p> <p>(TBR0) ___ TO BE REMOVED (BY OTHERS)</p> <p>(TBR1) ___ TO BE REMOVED AND SALVAGED</p> <p>(TBR2) ___ TO BE RELOCATED</p> <p>(TBRLO) ___ TO BE RELOCATED (BY OTHERS)</p> <p>(TBV) ___ TO BE VACATED</p> <p>(ATG) ___ ADJUST TO GRADE</p> <p>(ATGO) ___ ADJUST TO GRADE (BY OTHERS)</p> <p>(RTG) ___ RECONSTRUCT TO GRADE</p> <p>(R&R) ___ REMOVE AND RESET</p> <p>(R&B) ___ REMOVE AND REBUILD</p> <p>(REM) ___ REMOVE</p> <p>(APP) ___ AS PER PLAN</p> <p>(BO) ___ BY OTHERS</p>
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J:\20220293\04Sheets\02 CC Plan (Phase 1)\20220293-Title Sheet & Notes.dwg 05-Dec-25 12:43 PM

HORIZONTAL SCALE IN FEET

GENERAL NOTES

DESIGN AGENCY

EMHT

DESIGNER

BS

REVIEWER

DCT 12/5/25

PROJECT ID

20220293

SHEET	TOTAL
3	12

ITEM	QUANTITY	UNIT	DESCRIPTION
ROADWAY			
201	1	LS	Clearing and Grubbing
202	50	LF	Pipe Removed, 24" and Under
202	3	EA	Catch Basin Removed
202	515	SY	Pavement Removed
203	40	CF	Excavation
203	17	CY	Granular Material, Type E (T=6"), As Per Plan
204	1	HR	Proof Rolling
301	72	CY	Asphalt Concrete Base (T=5")
304	17	CY	Aggregate Base (T=6")
423	1183	LF	Crack Sealing, Type I
441	18	CY	Asphalt Concrete Surface Course, Type 1, PG64-22 (T=1.25")
441	26	CY	Asphalt Concrete Intermediate Course, Type 2 (T=1.75")
623	1	EA	Monument, Misc.
690	3	EA	Mailbox Removed and Reset
EROSION CONTROL			
616	1	MGAL	Dust Control - Water
659	270	SY	Seeding and Mulching
659	27	SY	Repair Seeding and Mulching
659	18	CY	Topsoil Furnished and Placed
659	1	EA	Soil Analysis Test
659	0.1	TON	Commercial Fertilizer
616	0.1	TON	Calcium Chloride
616	1	MGAL	Water
632	13	EA	Inlet Protection
671	30	SY	Erosion Control Mat, Type B
DRAINAGE			
601	4	CY	Rock Channel Protection, Type B with Filter
602	1	CY	Concrete Masonry
611	2	EA	Manhole No. 3 w/ 48" Base I.D.
611	6	EA	Manhole No. 3, 48" Base I.D. w/ Flat Slab Top and Neenah R-1798-1S Manhole Frame & Lid
611	1	EA	Manhole No. 3, 60" Base I.D. w/ Flat Slab Top and Neenah R-1798-1S Manhole Frame & Lid
611	1	EA	Manhole No. 3, 72" Base I.D. w/ Flat Slab Top and Neenah R-1798-1S Manhole Frame & Lid
611	1	EA	Manhole No. 3, 48" Base I.D. w/ Catch Basin No. 2-6 Frame and Grate
611	10	EA	Catch Basin No. 2-2A
611	2	EA	Catch Basin No. 2-3
611	1	EA	Catch Basin No. 2-4 w/ Solid Lid
611	50	LF	4" Conduit, Type B, for Private Drain Outlet (Contingency Item)
611	50	LF	8" Conduit, Type B for Trench Drain Outlet (Contingency Item)
611	100	LF	10" Conduit, Type C (Contingency Item)
611	148	LF	12" Conduit, Type B
611	50	LF	12" Conduit, Type B (Contingency Item)
611	91	LF	12" Conduit, ODOT CMS 706.02, Type B
611	50	LF	12" Conduit, Type F (Contingency Item)
611	22	LF	15" Conduit, ODOT CMS 706.02, Type B
611	19	LF	14"x23" Elliptical Conduit, Type B
611	14	LF	19"x30" Elliptical Conduit, Type B
611	100	LF	24" Conduit, Type C (Contingency Item)
611	487	LF	24" Conduit, Type B
611	65	LF	36" Conduit, Type B
611	102	LF	36" Conduit, Type C
Spec.	1	EA	24" Ultraflex Checkmate Check Valve
Spec.	1	LS	CCTV of Existing Sanitary Mainline (Contingency Item)
WATER			
638	1	EA	12" Watermain Lowering, As Per Plan
638	9	EA	6" Watermain Lowering, As Per Plan
638	4	EA	Water Service, As Per Plan
Spec.	15	EA	Utility Potholing
SEWER			
638	5	EA	3" Sanitary Force Main Lowering and Service Lowering, As Per Plan (Contingency Item)
Spec.	5	EA	Sanitary Force Main House Service Line Repair
MAINTENANCE OF TRAFFIC			
614	1	LS	Maintenance of Traffic
ALTERNATE (MILL AND OVERLAY)			
254	1257	SY	Pavement Planing, Asphalt Concrete (T=1.25")
407	126	GAL	Tack Coat (0.10 Gal./S.Y.)
441	44	CY	Asphalt Concrete Surface Course, Type 1, PG64-22 (T=1.25")
Calculated by: DT Date: 12/5/2025 Checked: Date:			

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

BS

REVIEWER

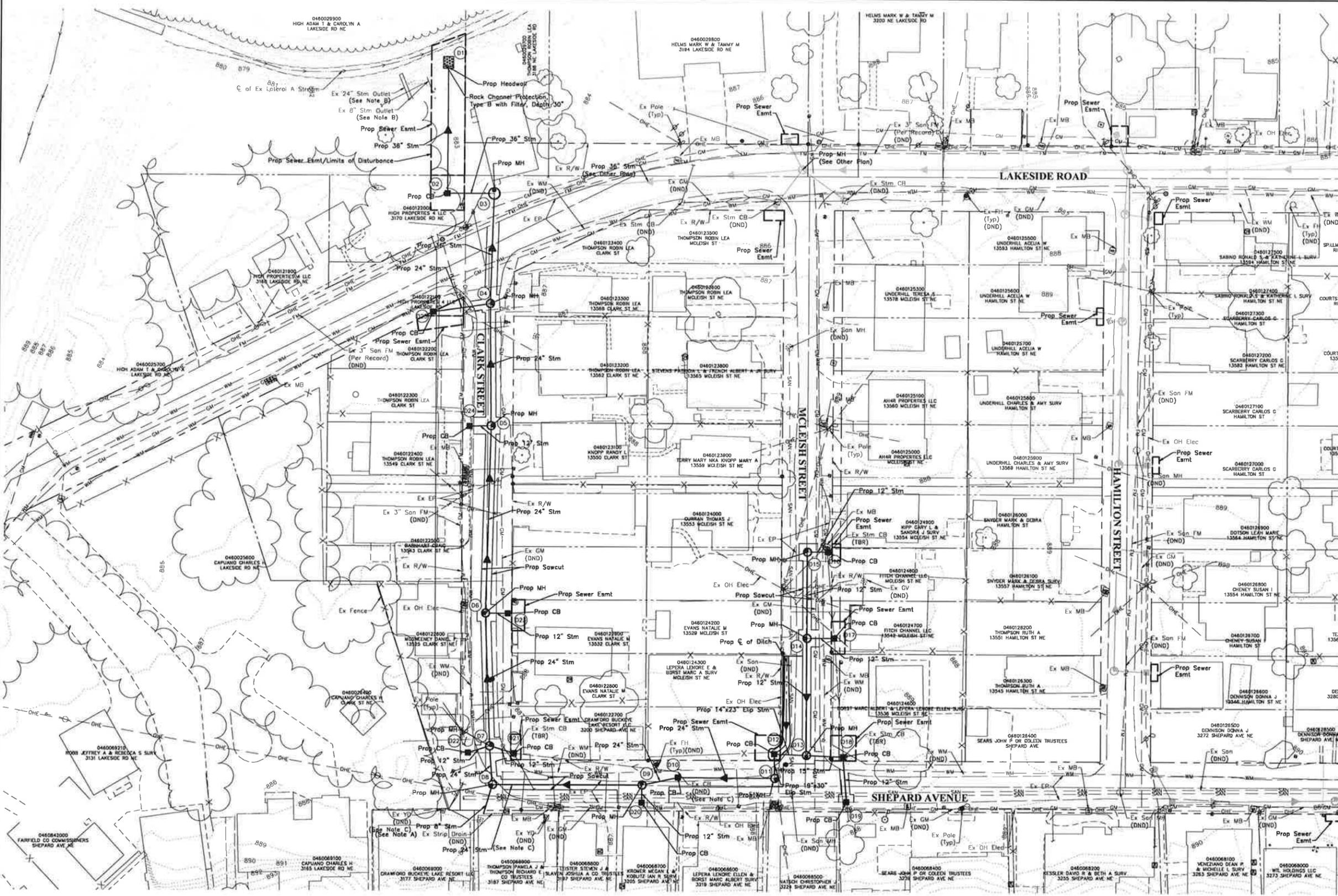
DCT 12/5/25

PROJECT ID

20220293

SHEET TOTAL

4 12



Note A: Contractor to field investigate the existing trench drain sewer outlet. After the investigation is complete and the contractor locates the existing trench drain outlet planimetrically and vertically, the contractor shall install a new proposed pipe from the existing trench drain outlet location to the proposed adjacent storm manhole with a minimum running slope of 2.08%. The contractor shall perform this field investigation ahead of storm shop drawing submittals to ensure an opening can be manufactured into the structure, or the contractor may elect to field core into the proposed structures during construction. A contingency quantity of 50' of 8" pipe, Type B bedding has been carried to the general summary. All costs associated with this investigation, and complete installation as described shall be included within the costs for this line item.

Note B: Contractor to field investigate the existing storm sewer outlet. After the investigation is complete, the Contractor is to notify the County Engineer of the existing condition of the storm outlet. The Contractor shall connect the storm sewer outlet to the proposed storm sewer. A contingency quantity of 100' of (10" OR 24") pipe with Type C bedding has been carried to the general summary. All costs associated with this investigation, and complete installation as described shall be included within the costs for this line item.

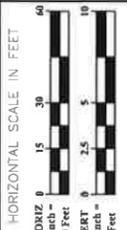
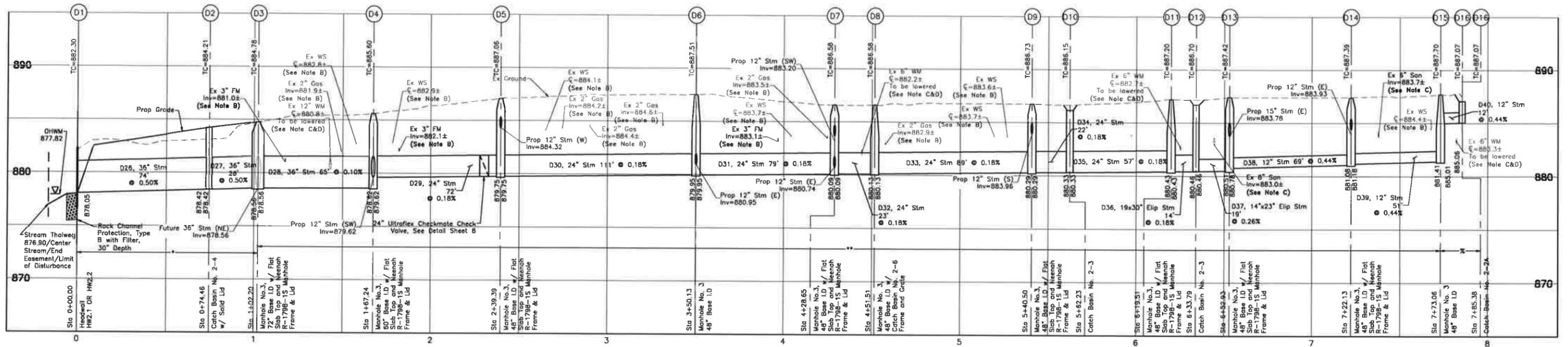
Note C: Contractor to field investigate the existing private drain. After the investigation is complete and the contractor locates the existing private drain outlet, the contractor shall install a newly proposed pipe from the existing private drain location to the proposed storm system with a minimum slope of 2.08%. The contractor shall perform this field investigation ahead of storm shop drawing submittals to ensure an opening can be manufactured into the structure, or the contractor may elect to field core into the proposed structures during construction. A contingency quantity of 50' of 4" pipe with Type B bedding has been carried to the general summary for each private yard drain. All costs associated with this investigation, and complete installation as described herein shall be included within the costs for this line item, which contains the contingency quantity for the 4" pipes as noted herein.

LEGEND	
MH	Manhole
CB	Catch Basin
CI	Curb Inlet
CO	Cleanout
SAS	Sanitary Service
FM	Force Main
WM	Water Main
WV	Water Valve
PA	Previously Abandoned
TG	Top of Grate
HP	High Point
DND	Do Not Disturb
TIP	Filled in Place
TBR	To Be Removed
TBR0	To Be Removed by Others
TBR1	To Be Relocated
ATG	Adjust To Grade
ATG0	Adjust To Grade by Others
RTG	Reconstruct To Grade
RTG0	Reconstruct To Grade by Others
-XX5-	Existing Major Contours
-XX1-	Existing Minor Contours
-XX5-	Proposed Major Contours
-XX1-	Proposed Minor Contours
Ex R/W	Existing Right-of-Way



PLAN VIEW

DESIGN AGENCY	
EMHT	
DESIGNER	
BS	
REVIEWER	
DCT 12/5/25	
PROJECT ID	
20220293	
SHEET	TOTAL
5	12



Note A: CAUTION! Special care shall be provided for installation of the storm pipe crossing the existing sanitary pipe. Sanitary pipe shall be protected during the installation of the storm pipe. The proposed storm pipe shall be installed such that a full length of pipe is centered over top of the existing sanitary ensuring no pipe joint is over the existing sanitary pipe. Contractor to use extreme caution during construction. Contractor to maintain 4" minimum out to out separation between the existing sanitary sewer and the proposed storm sewer. Authorities Having Jurisdiction (AHJ) to confirm if separation variance is required where 18" of vertical separation can not be met/maintained. After the proposed sewer has been installed and the trench has been backfilled, the contractor shall CCTV the sanitary sewer per Columbus SS-5. The contractor shall repair any damage to the sanitary sewer. If damage to the existing sanitary occurs, an additional CCTV shall be performed ensuring the sanitary pipe has been restored to a condition acceptable to the Design Engineer and AHJ. All performed CCTV video shall be sent to the Design Engineer and AHJ. All costs associated with performing and delivering the televiewing information as described herein and within SS-5 shall be included within the bid item "Item Special - CCTV of Existing Sanitary Mainline". No additional payment will be made for this work.

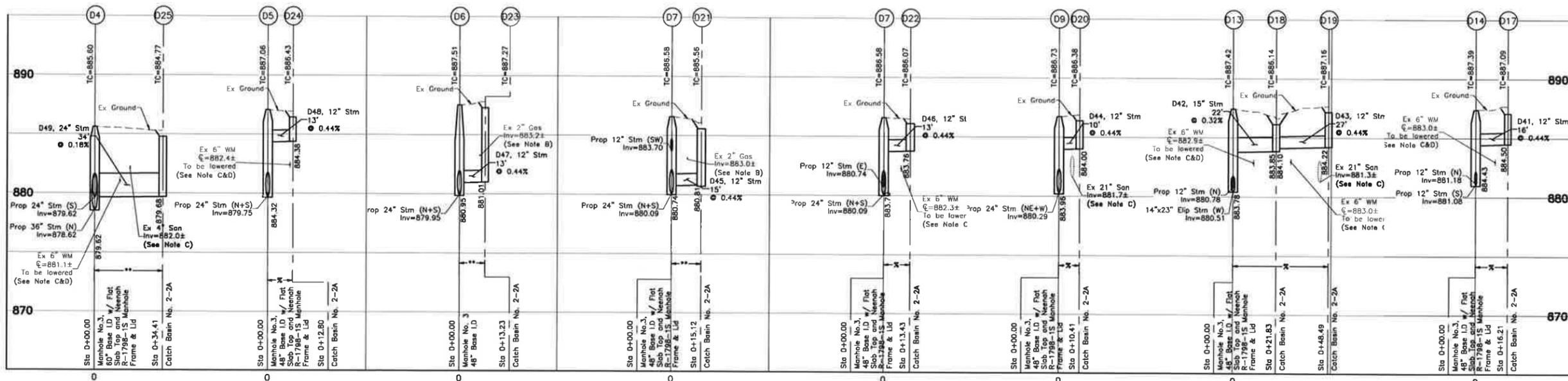
Note B: Existing utilities have been illustrated at standard depths and have not been field measured/verified. Gas mains and services to be relocated as necessary by the Owner of the infrastructure and coordinated by the Contractor. A contingency quantity has been provided for water and sanitary force main services that require lowering to install the storm sewer. Water and sanitary force main services damaged by the Contractor during construction that are not required to be relocated to be repaired by the Contractor at no cost.

Note C: Contractor to expose the existing water mains, sanitary sewer, and sanitary sewer laterals as necessary and measure depths of the existing crossing facilities/utilities prior to creating and submitting storm structure shop drawings to the Engineer and prior to ordering structures. The contractor shall measure depths down to the top of the crossing facilities/utilities from the existing surface. The contractor shall neatly organize the field measured information in tabular form and provide the depths (with locations) to the Engineer and Authorities Having Jurisdiction (AHJ) for depth confirmation. The Engineer will review the depths and make modifications to the plans pursuant to what the existing and proposed conditions permit. An Item Special - Utility Pot-holing has been provided.

NOTE D: The depths to the existing 12" and 6" waterlines are not known, but appear to be in conflict with the proposed storm sewer or do not have enough cover from top of watermain to bottom of proposed storm sewer. Quantities have been added to the plan for lowering of the waterlines to meet separation requirements. In some cases, adjustments to the storm profile may provide sufficient space for the lowering not to be required as determined by the Engineer. In other cases, lowering of the watermain may not be necessary and are to be non-performed. No lowerings are to be performed without approval from the Engineer.

NOTES:

- All elevations on this plan are based on NAVD 1988 datum, unless otherwise noted.
- All backfill shall be compacted to the density of the existing ground unless otherwise noted:
- * Backfill using Select Excavated Material. Use mechanical compaction method (Type C).
- ** Backfill with Type 2 Structural Backfill per CMS Item 703.11 (Type B).
- ☒ RCP per ODOT CMS 706.02 with Type 2 Structural Backfill per CMS Item 703.11 (Type B)



STORM PROFILES

DESIGN AGENCY



DESIGNER
 BS
 REVIEWER
 DCT 12/5/25
 PROJECT ID
 20220293
 SHEET TOTAL
 6 12

DRAINAGE SUB-SUMMARY																											
REF. #	SHEET #	CY	CY	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA												
D1	6	1	1																								
D2	6																										
D3	6																										
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TOTALS CARRIED TO GENERAL SUMMARY		4	1	2	6	1	1	10	2	1	1	50	50	100	50	50	148	91	22	19	14	100	487	65	102	1	1

STRUCTURE COORDINATES				
STRUCTURE #	NORTHING - PLAN	EASTING - PLAN	NORTHING - AS BUILT	EASTING - AS BUILT
D1	699810.0796	1962809.2674		
D2	699738.8967	1962831.1105		
D3	699747.0642	1962857.6236		
D4	699684.3803	1962874.9651		
D5	699615.7047	1962897.0805		
D6	699508.1316	1962927.1609		
D7	699434.9638	1962952.9513		
D8	699413.7222	1962961.4132		
D9	699440.0815	1963046.4034		
D10	699450.5968	1963065.4267		
D11	699467.3673	1963120.1928		
D12	699480.9150	1963115.6682		
D13	699485.9384	1963134.1337		
D14	699552.0585	1963113.7354		
D15	699600.7323	1963098.7194		
D16	699604.3634	1963110.4894		
D17	699556.8370	1963129.2247		
D18	699491.5321	1963155.2353		
D19	699466.7674	1963165.1059		
D20	699430.0771	1963049.2850		
D21	699435.0990	1962968.0750		
D22	699427.3221	1962941.9032		
D23	699512.8313	1962939.8667		
D24	699611.7027	1962884.9227		
D25	699669.6497	1962843.8647		

STORM SEWER TABLE			
LINE	BEARING	LENGTH	SIZE
D26	S17°03'33"E	74'	36"
D27	N72°52'42"E	28'	36"
D28	S15°27'51"E	65'	36"
D29	S17°51'00"E	72'	24"
D30	S15°45'43"E	111'	24"
D31	S19°10'27"E	79'	24"
D32	S21°43'14"E	23'	24"
D33	N72°48'08"E	89'	24"
D34	N61°04'04"E	22'	24"
D35	N72°58'28"E	57'	24"
D36	N18°28'05"W	14'	30"
D37	N74°46'53"E	19'	23"
D38	N17°08'43"W	69'	12"
D39	N17°08'43"W	51'	12"
D40	N72°51'18"E	12'	12"
D41	N72°51'18"E	16'	12"
D42	N75°09'12"E	22'	15"
D43	S21°43'52"E	27'	12"
D44	S16°04'05"E	10'	12"
D45	N89°29'15"E	15'	12"
D46	S55°19'47"W	13'	12"
D47	N73°45'58"E	13'	12"
D48	S71°46'47"W	13'	12"
D49	S64°38'20"W	34'	24"

HORIZONTAL SCALE IN FEET

STORM SEWER TABLES AND DETAILS

DESIGN AGENCY



DESIGNER
BS
REVIEWER
DCT 12/5/25
PROJECT ID
20220293
SHEET 7 TOTAL 12

SITE NARRATIVE

PLAN DESIGNER: EMHT Inc. Consulting Engineers & Surveyors
Douglas Turney, PE, CFM
5500 New Albany Road
Columbus, Ohio 43054
Tel: (614) 775-4213
dturney@emht.com

OWNER/DEVELOPER: Walnut Township
Tel: (740) 467-2420
projects@walnuttownship.com; contact@walnuttownship.com; administration@walnuttownship.com

PROJECT DESCRIPTION: The purpose of this plan is to install new stormwater infrastructure – headwalls, manholes, catch basins, and piping sufficient to alleviate/reduce the current flooding conditions present in the project area as shown herein in the Lakeside Township area. This plan covers structures D1-D25. The future improvements will be a separate plan.

EXISTING SITE CONDITIONS: Site runoff currently drains to catch basins connected to a storm sewer. This site is tributary to the lateral A thenceforth tributary to the South Fork Licking River.

AREAS OF DISTURBANCE: The project will install headwalls, manholes, catch basins, and piping and will complete minimal grading to promote positive drainage to the proposed storm structures. All storm sewers within the project limit shall be protected by inlet protection by this Contractor.

ADJACENT AREAS: The improvements in this plan are bounded to the north by Lakeside Road and Lateral A. The site is bounded to the south by Shephard Avenue. The site is bounded to the west by Clark Street. The site is bounded to the east by McLeish Street.

EROSION AND SEDIMENT MEASURES: Erosion and sediment will be controlled by the use of silt fence and inlet protection at existing and proposed inlets.

MAINTENANCE: All erosion control devices are to be inspected by the construction superintendent daily and after significant rainfalls. Any damaged facilities are to be replaced/repared immediately as may be necessary.

CONSTRUCTION SEQUENCE: The contractor will install all erosion control devices in accordance with notes and details on this sheet prior to start of construction activities. The contractor will then complete the grading and utility improvements. Only after the grading and utility work is completed, earthwork completed, and areas seeded may the erosion control be removed.

SCHEDULE: The Contractor shall provide a schedule of operations to the owner. Sedimentation and erosion control features shall be placed in accordance with this schedule.

OEPA NOI # N/A

SEDIMENT AND EROSION CONTROL NOTES

MAINTENANCE:
It is the Contractor's responsibility to maintain the sedimentation and erosion control features on this project. Any sediment or debris which has reduced the efficiency of a control shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the Owner.

INSPECTIONS:
The NPDES permit holder along with the Contractor shall provide qualified personnel to conduct site inspections ensuring proper functionality of the erosion and sedimentation controls. All erosion and sedimentation controls are to be inspected once per every seven calendar days and within 24 hours of a 0.5" storm event or greater that occurs over a 24 hour period. Records of the site inspections shall be kept and made available to jurisdictional agencies if requested.

CONTRACTORS RESPONSIBILITIES:
Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the ODNR Manual "Rainwater and Land Development". The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Discharges. Associated with Construction Activity.

The Contractor shall provide a schedule of operations to the Owner. The schedule should include a sequence of the placement of the sedimentation and erosion control measures that provides for continual protection of the site throughout the earth moving activities.

Prior to construction operations in a particular area, all sedimentation and erosion control features shall be in place. Field adjustments with respect to locations and dimensions may be made by the Engineer and the Ohio EPA.

The Contractor shall place inlet protection for the sedimentation control immediately after construction of the catch basins or inlets.

It may become necessary to remove portions of sedimentation controls during construction to facilitate the grading operations in certain areas. However, the controls shall be replaced upon grading or during any inclement weather.

The Contractor shall be responsible to have the current Storm Water Pollution Prevention Plan immediately available or posted on site.

The contractor is responsible for ensuring that offsite soil borrow and export areas have Ohio EPA NPDES permit coverage and that appropriate erosion and sediment controls are properly installed and maintained.

The Contractor shall be responsible to ensure that off-site tracking of sediments by vehicles and equipment is minimized. All such off-site sediment shall be cleaned up daily.

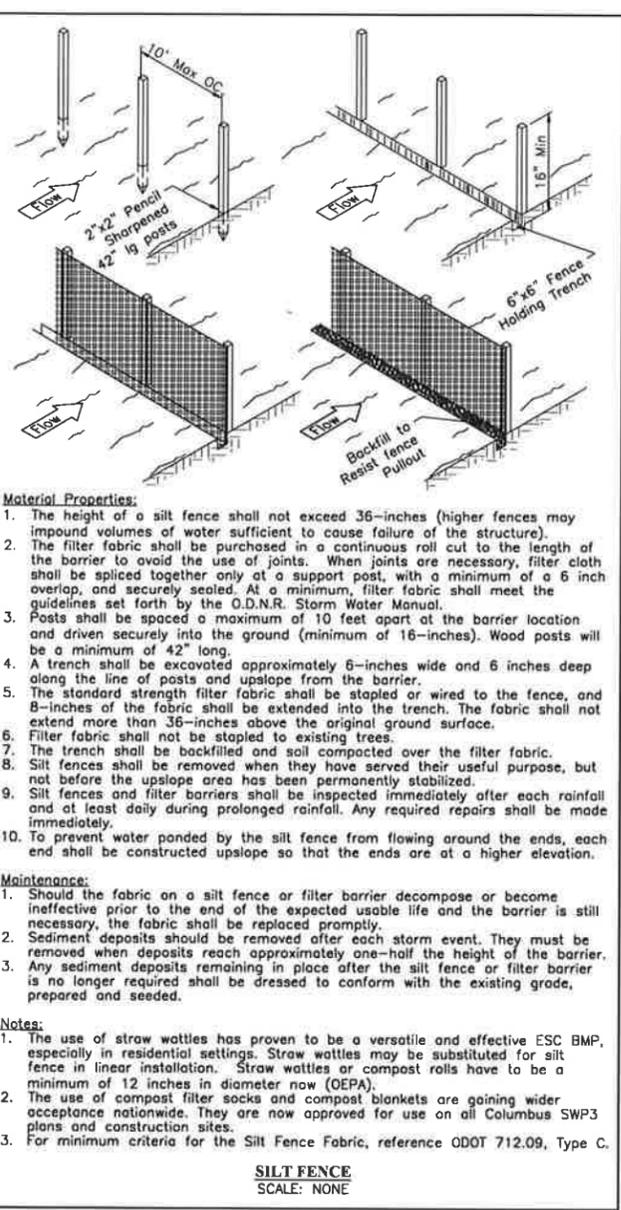
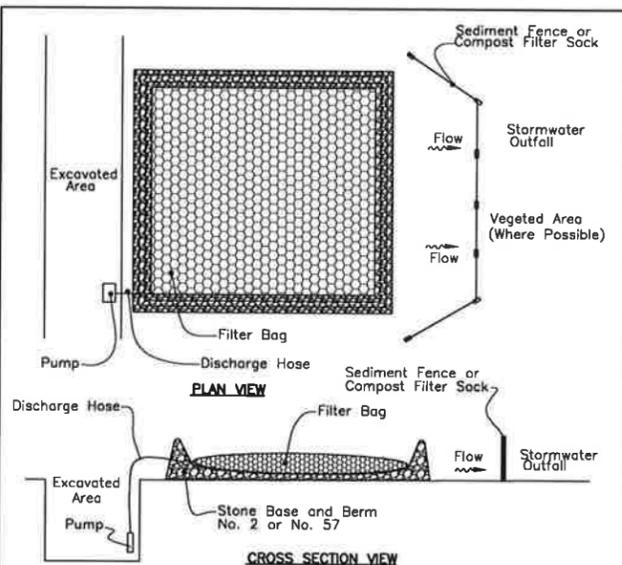
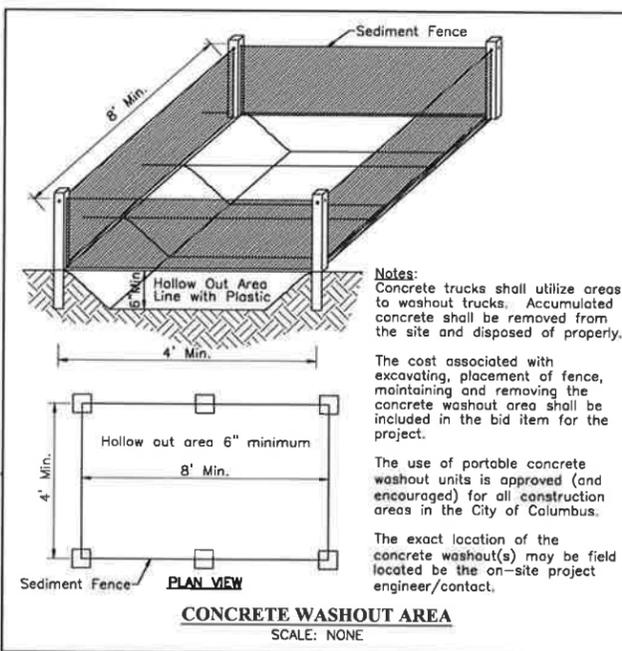
The Contractor shall be responsible to ensure that no solid or liquid waste is discharged into storm water runoff. Untreated sediment-laden runoff shall not flow off of site without being directed through a control practice.

The cost for temporary channels, sediment dams, sediment basins, and other appurtenant earth moving operations shall be included in the price bid for erosion and sedimentation control quantities.

PERMANENT AND TEMPORARY SEEDING

The limits of seeding and mulching are as shown within the plan as indicated by the limits of disturbance. All areas not designated to be seeded shall remain under natural ground cover. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense.

Seeding Provided Per Item 659.



The onsite contacts responsible for sediment and erosion control on this site are:

BMP Installation	TBD, Attn: TBD	Tel: TBD	Email: TBD
BMP Maintenance	Same as above	Same as above	Same as above
Site Stabilization and BMP Removal	Same as above	Same as above	Same as above

NOTE: All erosion and sedimentation control practices are subject to field modifications at the discretion of the Engineer and/or the Ohio EPA.

Street cleaning (on an as-needed basis) is required through the duration of this construction project. This includes sweeping, power cleaning and (if necessary) manual removal of dirt or mud in the street gutters.

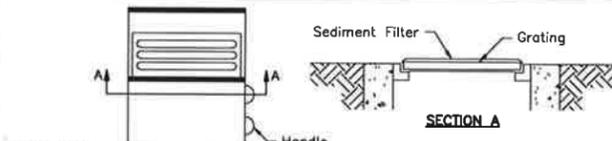
Direct discharge of sediment laden water to a receiving stream is a violation of Ohio EPA regulations. The Contractor will be held liable for the violation and subsequent fines.

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any areas at final grade	Within seven days of reaching final grade within that area

TABLE 2: TEMPORARY STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
Ant areas within 50 feet of a surface water of the state and at final grade	Within two days of the most recent disturbance if the area will remain idle for more than fourteen days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s) Prior to the onset of winter weather



Installation:
1. Stand grate on end. Place Catch Basin Protection Bag over grate. Roll grate over so that open end is up. Pull up sock. Tuck flap in. Be sure end of grate is completely covered by flap or Catch Basin Protection Bag will not fit properly. Holding handles, carefully place Catch Basin Protection Bag with grate inserted into catch basin frame so that red dot on the top of the Catch Basin Protection Bag is visible.

Maintenance:
1. With a stiff bristle broom or square point shovel, remove silt & other debris off surface after each event.

Note:
1. Dandy Bag, FryeFlow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable

To be used on Structures: All structures within project limits and all structures with tributaries inclusive of construction activities.

CATCH BASIN SEDIMENT FILTER
SCALE: NONE

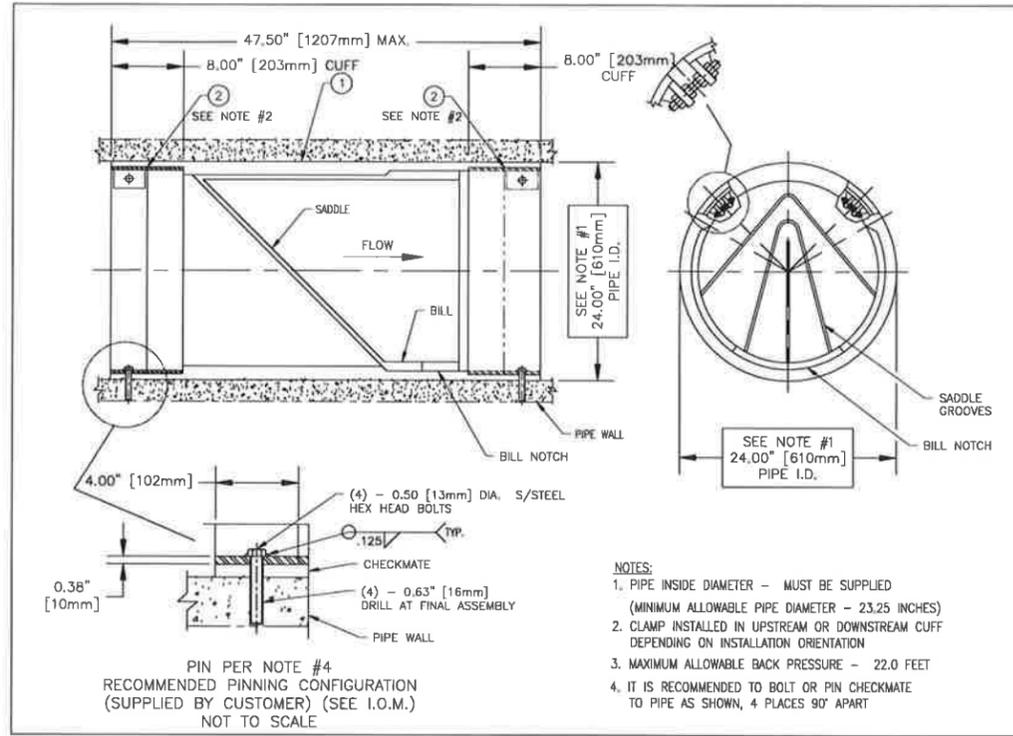
Installation:
The Contractor shall pump muddy water encountered within excavated areas into a filter fabric bag. The bag shall be placed within a level undisturbed area as far away from the stormwater outfall as possible. The bag shall be placed on top of an aggregate pad. Additionally, a perimeter aggregate berm shall be constructed around the bag. Perimeter controls such as compost filter sock or sediment fence shall be installed to ensure that the water flowing out of the bag does not flow around the ends of the controls. Upon completion, the bag shall be removed to an area away from the stormwater outfall and opened. The accumulated sediment shall be spread out to allow to dry and stabilized with vegetation. Filterbag shall be sized for pumping rate.

Maintenance:
The filter bag shall be replaced when the bag is half filled with sediment.

The Contractor shall contact the project inspector/engineer for consultative services if dewatering activities overwhelm the filter bag and perimeter controls.

DEWATERING FILTER BAG
SCALE: NONE

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24" ULTRAFLEX CHECKMATE CHECK VALVE

HORIZONTAL SCALE IN FEET

BACKFLOW DETAILS

DESIGN AGENCY



DESIGNER
BS

REVIEWER

DCT 12/5/25

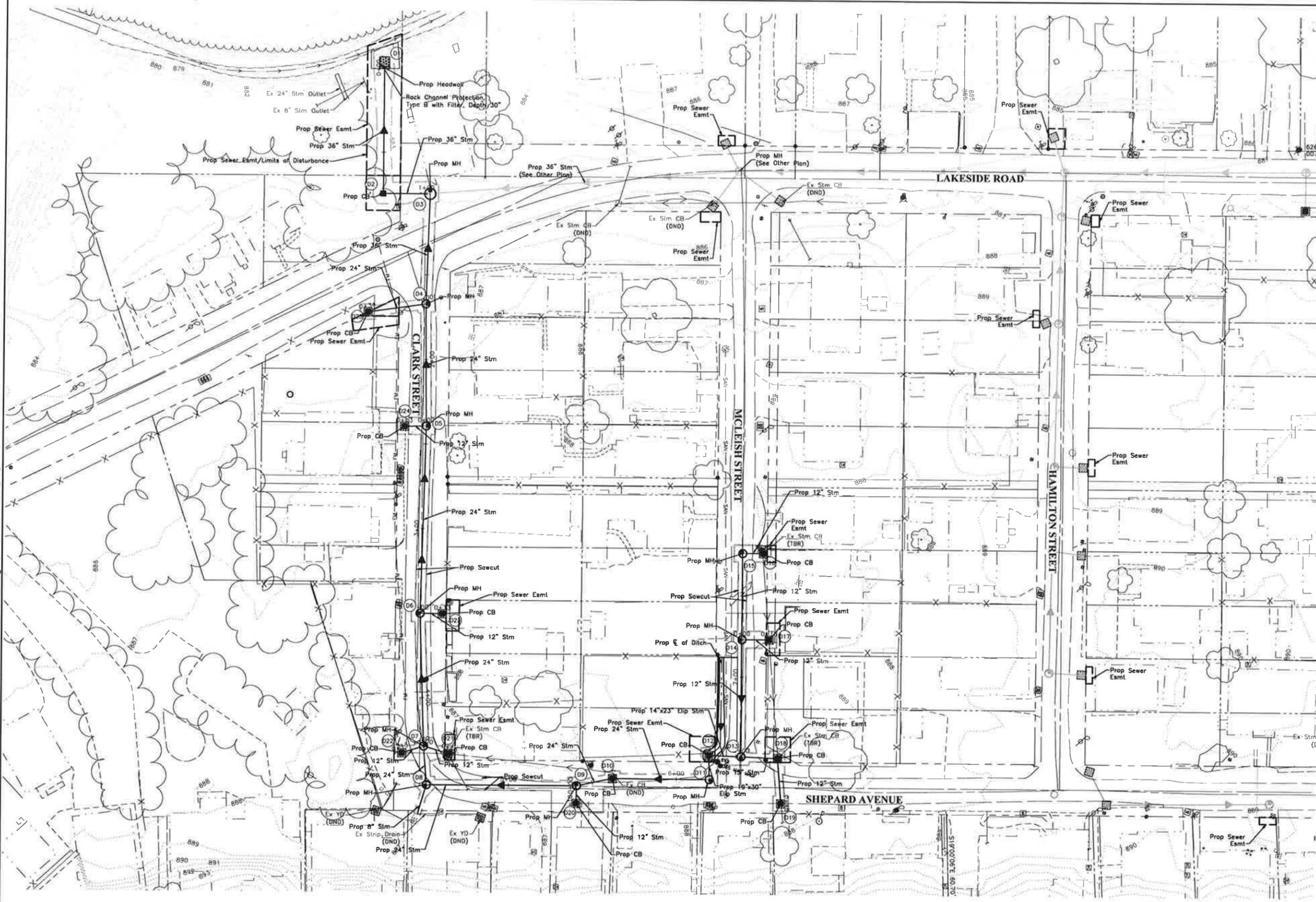
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LEGEND

- Existing Contours
- Proposed Contours
- Limits of Disturbance
- Catch Basin Sediment Filter (See Detail, Sheet 8)

Note A:
Any existing storm inlets impacted by the new construction activity will need the appropriate inlet protection for sediment control.

Note B:
All erosion and sediment control practices are subject to field modification at the discretion of the Fairfield County Engineer and/or the Ohio EPA.

Note C:
Upper bank above normal water elevation should be stabilized quickly with straw blankets, jute matting or similar geo-textile.



EROSION CONTROL

DESIGN AGENCY



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