

JACKSON AVE SE TRUNK SEWER

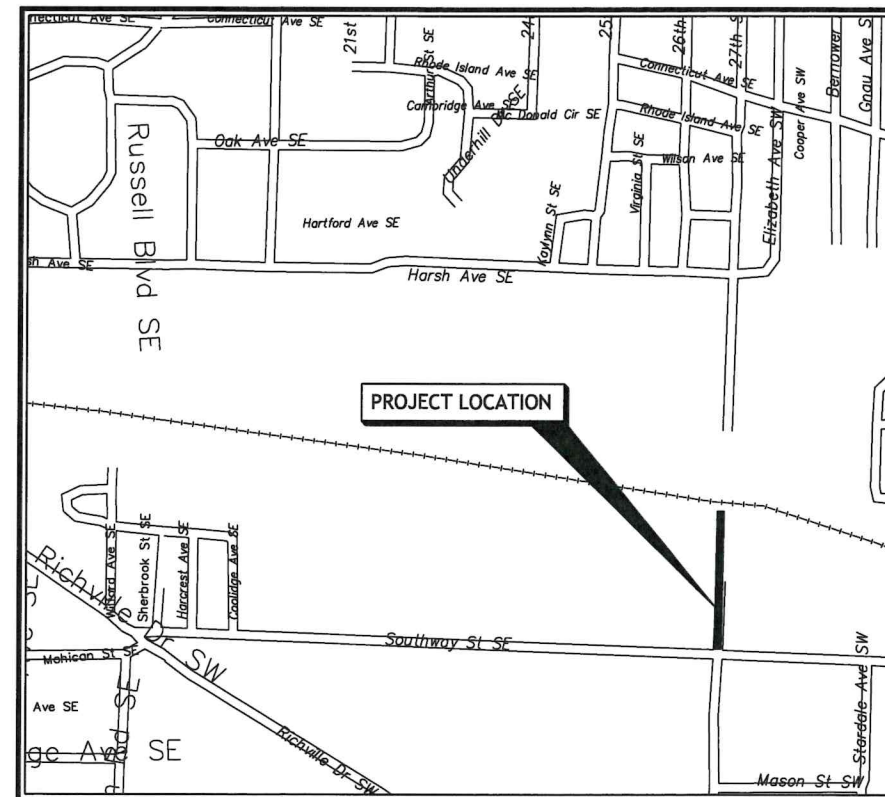
NE QTR SECTION 16 PERRY TWP.

STARK COUNTY, OHIO

ISSUED: DEC 20, 2021

SITE PLAN LEGEND

EXISTING	PROPOSED	
		CENTERLINE/BASELINE CONSTRUCTION
		PROPERTY LINE
		RIGHT OF WAY
		EASEMENT
		TEMPORARY RIGHT OF WAY
		CONTOUR
		SWALE (EDGE OF WATER)
		FENCELINE
		GUARDRAIL
		RAILROAD TRACKS
		STORM SEWER
		SANITARY SEWER
		SANITARY SEWER FORCEMAIN
		WATER LINE
		GAS LINE
		GENERIC COMMUNICATIONS LINE
		CABLE TV LINE
		ELECTRIC LINE
		FIBER OPTIC LINE
		STEAM LINE
		TELEPHONE LINE (UNDERGROUND)
		TRAFFIC SIGNAL CONDUIT
		TRAFFIC INTERCONNECT CONDUIT
		STORM MANHOLES, CATCH BASINS, CURB INLETS
		SANITARY MANHOLE, CLEANOUT, MARKER, VENT PIPE, SEPTIC TANK LID
		FIRE HYDRANT, HYDRANT ASSEMBLY, WATER VALVE, METER, SERVICE BOX
		GAS METER, VALVE, MANHOLE, MARKER, VENT PIPE
		GROUND MOUNTED TRANSFORMER, ELECTRIC PULL BOX, METER, MANHOLE, VAULT
		SIGNAL POLE, TRAFFIC PULL BOX, MANHOLE, CONTROLLER CABINET, PAD MOUNTED CABINET
		CABLE TV BOX, TELEPHONE BOX, AIR CONDITIONER, SATELLITE DISH, CELLPHONE TOWER, GROUND LITE
		MONITORING WELL, GAS WELL, OIL WELL, CISTERN, SOIL BORING
		TELEPHONE BOX, TELEPHONE MANHOLE, UNKNOWN UTILITY BOX, UNKNOWN MANHOLE
		POWER POLE, TELEPHONE POLE, LIGHT POLE, COMBINATION POLES, GENERIC/GUY POLE, GUY WIRE
		STREET SIGNS, STREET NAME SIGN, POST, MAILBOX, FLAG POLE, FLAG
		DECIDUOUS TREE, EVERGREEN, SHRUB, STUMP, ROCK, TREE REMOVED/PRUNED
		MONUMENT BOX, IRON PIN/PIPE



LOCATION MAP

ODOT STANDARD DRAWING INDEX

STD. DWG. NO.	DATE
BP-3.1	1/17/2020
BP-5.1	7/16/2021
CB-2-2A, 2-2B, 2-2C	7/16/2021
CB-2-3, 2-4	7/16/2021
*CB-3	7/16/2021
*CB-3A	7/16/2021

*SEE CB-3 AND CB-3A MODIFIED DETAILS ON DETAIL 1/SHEET 29

INDEX OF DRAWINGS

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APPROVALS:

CITY OF MASSILLON FOR TREATMENT
Date 4/12/23

CITY OF MASSILLON
(PROJECTED FLOW FROM NEW DEVELOPMENT 0.0407 MGD)
Date 4/12/23

OHIO EPA:

SEWER APPROVED BY LETTER DATED: _____
Date _____

DEVELOPER:
A-LIST PROPERTIES
1425 WHIPPLE AVE NW
CANTON, OH 44708
CONTACT:
ALYSSA RICE
(330) 754-6435

PLANS PREPARED AND RECOMMENDED BY:

AKRON / CLEVELAND / COLUMBUS
HQ 450 GRANT ST., AKRON, OH 44311
P 330.375.1390 / TF 800.835.1390
W ENVDESIGNGROUP.COM

REVISED: PER CITY REVIEW 03-25-2022

SET NO. _____

PROJ. NUMBER	----	TITLE	SHEET 1 of 10
DESIGNED BY:	###		
DRAWN BY:	---		
FILE NO.	ZTITL 20-0287-010.dwg		



2016 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THESE PLAN BID DOCUMENTS SHALL GOVERN THIS IMPROVEMENT. FOR PURPOSES OF THIS PLAN, REFERENCES TO DIRECTOR OR ENGINEER SHALL BE CONSTRUED TO MEAN THE CITY ENGINEER AND/OR HIS REPRESENTATIVES.

E:\A LIST DEVELOPMENT\20-022P-010 WESTON PLACE DESIGN\CADD\SEWER DUTYFALL\20-022P-010 - 4-2-2023 10:16:19 AM

ALL ITEM NUMBERS REFER TO THE 2019 STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. ALL EQUIPMENT, MATERIAL AND WORKMANSHIP SHALL BE PERFORMED ACCORDING TO THESE SPECIFICATIONS AND THE REFERENCED OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS NOTED ON THE TITLE SHEET.

MATERIAL STORAGE/EQUIPMENT STORAGE

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE APPROPRIATE EQUIPMENT AND MATERIAL STORAGE AREA TO SUIT HIS NEEDS.

MATERIAL TESTING AND PERMITS

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING. MATERIAL TESTING IS REQUIRED FOR AGGREGATES FOR TRENCH BEDDING AND BACKFILL.
2.

THE CONTRACTOR SHALL INCLUDE IN THE PRICE BID FOR THE NEW PIPE AND FOR TRENCHES WHERE PIPE(S) ARE REMOVED THE COST FOR COMPACTION TESTING OF THE BACKFILL IN ALL TRENCHES. COMPACTION RATES ARE 98% OF THE MAXIMUM DRY DENSITY PER AASHTO T-99 FOR THE VARIOUS LIFTS OF TRENCH BACKFILL AND THEY SHALL BE VERIFIED IN THE FIELD AS CONSTRUCTION PROGRESSES. THE CONTRACTOR WILL PAY FOR THE SERVICES OF AN INDEPENDENT QUALIFIED GEOTECHNICAL ENGINEER TO COMPLETE THIS WORK. THE GEOTECHNICAL ENGINEER SHALL RUN PROCTOR TESTS FOR THE BACKFILL MATERIAL AND BE ON-SITE FULL TIME TO VERIFY THE SPECIFIED COMPACTION RATES. COSTS FOR THIS WORK WILL BE INCLUDED IN THE PRICE OF THE ITEM TO WHICH IT RELATES.

3.

THE EXECUTED PROJECT CONTRACT SHALL SERVE TO FULFILL THE PERRY TOWNSHIP PERMITTING REQUIREMENTS.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.6 ORC.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THE PROJECT:

AT&T 50 W. BOWERY ST. AKRON, OHIO 44308 (330) 384-3561 CONTACT: CINDY ZUCHEGNO	ODOT DISTRICT 4 4505 ATLANTIC BLVD. NE CANTON, OH 44705 (330) 452-0365 ATTN: DOUG McELORY
STARK COUNTY METROPOLITAN SEWER DISTRICT 1701 MAHONING ROAD CANTON, OH 44705 (330) 451-2303 ATTN:	PERRY TOWNSHIP HIGHWAY DEPT 5735 WALES AVENUE NW MASSILLON, OH 44646 (330) 832-4016 ATTN:RALPH BOGER
STARK COUNTY ENGINEER 5165 SOUTHWAY STREET S.W. CANTON, OH 44706 (330) 477-6781 ATTN:	MASSILLON CABLE TV P.O. BOX 1000 MASSILLON, OH 44648 (330) 833 4134
OHIO EDISON 1910 W. MARKET ST., BLDG. 1 AKRON, OH 44313 (330) 436-4055	WATER AQUA OHIO 870 3RD ST NW MASSILLON, OH 44647 (330) 833-4156 EX 50650 ATTN: JACOB FLANNERY
DOMINION EAST OHIO 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OH 44333 (330) 664-2409 ATTN: BRYAN DAYTON	

WORK HOURS

NO NIGHT WORK BETWEEN THE HOURS OF 7:00 P.M. TO 7:00 A.M. SHALL BE PERMITTED UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER AND PERRY TOWNSHIP.

CONSTRUCTION SEQUENCE

THE CONTRACTOR SHALL ENGAGE IN THE CONSTRUCTION OF THE PROJECT SUCH THAT ADEQUATE ACCESS TO THE RESIDENCES AND ALL BUSINESSES IS MAINTAINED AT ALL TIMES. INCLUDE COSTS IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC. ONCE THE CONTRACTOR IS ENGAGED IN THE PROJECT, WORK SHALL BE CONTINUOUS USING FULL CREWS.

DUST NUISANCE ORIGINATION

DUST PRODUCED FROM ANY OPERATIONS INSIDE OR OUTSIDE THE RIGHT-OF-WAY SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM 616. WATER AND/OR CALCIUM CHLORIDE SHALL NOT BE APPLIED UNLESS ORDERED BY THE ENGINEER.

PAVEMENT SWEEPING

AS REQUIRED DURING THE COURSE OF EACH WORK DAY, THE CONTRACTOR SHALL SWEEP ALL PAVED AREAS AFFECTED BY THE DAY'S WORK. PAVEMENT SHALL BE SCRAPED AND SWPT TO REMOVE ALL DIRT, MUD AND DEBRIS. INCLUDE THE COST OF THIS WORK IN THE PRICE BID FOR THE EXCAVATION.

CLEARING AND GRUBBING

ALL TREES, STUMPS, ROOTS, SHRUBS AND DEBRIS REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE AT A LOCATION LICENSED TO ACCEPT SUCH MATERIAL. REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OR AS NOTED ON THE DRAWINGS SHALL BE PAID FOR UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. FOR TREES, REMOVAL INCLUDES THE ROOT MASS. NO ROOT MASS IS PERMITTED WITHIN THE FOOTPRINT OF ANY PAVEMENT (ASPHALT, CONCRETE, AGGREGATE).

PROTECTION AND RESTORATION OF PROPERTY

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY.
2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY OF ANY CHARACTER, DURING THE EXECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLIGENCE, OR MISCONDUCT OF HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO DEFECTIVE WORK OR MATERIALS, AND SAID RESPONSIBILITY WILL NOT BE RELEASED UNTIL THE PROJECT SHALL HAVE BEEN COMPLETED AND ACCEPTED.
3.

WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY OCCURS TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLIGENCE, OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NON-EXECUTION THEREOF BY THE CONTRACTOR, HE SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE, BY REPAIRING, REBUILDING OR OTHERWISE RESTORING AS MAY BE DIRECTED, OR SHALL MAKE GOOD SUCH DAMAGE OR INJURY IN AN ACCEPTABLE MANNER.
4.

WHEN SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION IN A MANNER SATISFACTORY TO AND AS DIRECTED BY THE ENGINEER. AFTER COMPLETION OF THE CONSTRUCTION AND BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE SIGNS AND SUPPORTS IN THEIR ORIGINAL LOCATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

REMOVAL OF EXISTING STRUCTURES

1.

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING PIPES, CATCH BASINS, YARD DRAINS, CONCRETE DRAINAGE CHANNELS, GUARDRAILS, LANDSCAPE TIMBERS, AND OTHER ITEMS WITHIN THE LIMITS OF WORK THAT WILL BE ABANDONED OR OTHERWISE NOT USED AS PART OF THE ROADWAY AND STORM SEWER IMPROVEMENTS. ABANDONING PIPES IN PLACE OR FILLING THEM WITH GROUT IS NOT ACCEPTABLE, UNLESS AUTHORIZED BY THE ENGINEER. THE PROPERTY OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL LANDSCAPE ITEMS REMOVED.
2.

ALL ITEMS REMOVED SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR STRUCTURES REMOVED, EXCEPT FOR REMOVAL ITEMS NOTED SEPARATELY. INCLUDE IN PIPE REMOVAL AND CATCH BASIN REMOVAL THE COST OF TRENCH BACKFILL AND COMPACTION. BACKFILL MATERIAL IN TRENCHES UNDER OR WITHIN 3 FEET OF NEW OR EXISTING PAVEMENT SHALL BE TYPE 1 STRUCTURAL BACKFILL PER ODOT ITEM 703.11. BACKFILL MATERIAL ALL OTHER AREAS SHALL BE SUITABLE NATIVE MATERIAL. THERE IS NO SEPARATE PAY ITEM FOR ROADWAY OR DRIVEWAY PAVEMENT REMOVED WHICH IS INCLUDED IN THE EXCAVATION VOLUME.

TOPSOIL

EXISTING TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE IN AN APPROVED LOCATION. THE AREA TO BE STRIPPED SHALL INCLUDE THE AREA WHERE THE PROPOSED WORK WILL BE LOCATED. UPON COMPLETION OF THE WORK, THE STOCKPILED TOPSOIL WILL BE EVENLY DISTRIBUTED OVER THE DISTURBED WORK AREA IN A UNIFORM THICKNESS OF AT LEAST 4 INCHES. STOCKPILED TOPSOIL IN EXCESS OF THE AMOUNT NEEDED FOR THE ABOVE NOTED WORK WILL BE WASTED REMOVED ROW SITE

EXCAVATION / TOPSOIL STOCKPILE

EXCESS EXCAVATION AND TOPSOIL WILL BE STOCKPILED ON SITE. THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER. A CONSTRUCTION ACCESS DRIVE IS REQUIRED ALONG WITH A SILT FENCE FOR SEDIMENT CONTROL. SEEDING AND MULCHING ARE ALSO REQUIRED. THE STOCKPILES SHALL BE GRADED SMOOTH.

PAVEMENT RESTORATION FOR PIPE INSTALLATION

1.

INSTALL ASPHALT BASE TO THE SURFACE OF EXISTING PAVEMENT FOR PIPE TRENCHES LOCATED WITHIN EXISTING PAVEMENT.
2.

ITEM 301, ASPHALT CONCRETE BASE THICKNESS SHALL BE 6 INCHES AND THE PAVEMENT WIDTH SHALL INCLUDE THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.
3.

PROVIDE MATERIALS OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

MANHOLE LIDS IN PAVEMENT

MANHOLE LIDS MUST BE SET TO THE PAVEMENT CROSS SLOPE. GRADE RING SHALL HAVE VARIABLE THICKNESS TO ACHIEVE THE REQUIRED CROSS SLOPE ACROSS THE LID.

OHIO F.P.A. - GENERAL NOTES:

1.

THE SANITARY SEWERS MUST PASS A LEAKAGE TEST WHICH SHALL BE A LOW PRESSURE AIR TEST IN ACCORDANCE WITH THE "TEN STATES STANDARDS" SECTION 33.95 WITH A LEAKAGE LIMIT OF 100 GAL./IN./MI./DAY.
2.

ALL FLEXIBLE SANITARY SEWERS MUST PASS A DEFLECTION TEST (5% MAXIMUM).
3.

A TEN (10') FOOT MINIMUM HORIZONTAL SEPARATION (OUT TO OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER.
4.

AN 18 INCH MINIMUM VERTICAL SEPARATION (OUT TO OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER AT ALL CROSSINGS.

CLEARANCE REQUIREMENTS

1.

A 10' MINIMUM HORIZONTAL CLEARANCE MUST BE MAINTAINED FROM THE OUTSIDE EDGE OF THE PROPOSED WATERLINE TO THE EDGE OF THE EXISTING STORM SEWER AT ALL TIMES.
2.

A 10' MINIMUM HORIZONTAL CLEARANCE MUST BE MAINTAINED FROM THE OUTSIDE EDGE OF THE PROPOSED WATERLINE TO THE OUTSIDE EDGE OF THE EXISTING SANITARY SEWER AT ALL TIMES.
3.

AN 18" VERTICAL CLEARANCE MUST BE MAINTAINED FROM THE OUTSIDE EDGE OF THE PROPOSED WATER MAIN TO THE OUTSIDE EDGE OF THE EXISTING SANITARY SEWER WHERE THEY CROSS.
4.

AN 18" VERTICAL CLEARANCE MUST BE MAINTAINED FROM THE EDGE OF THE PROPOSED WATER MAIN TO THE EDGE OF THE EXISTING STORM SEWER OR INLET LEAD PIPE WHERE THEY CROSS.
5.

A 36" MINIMUM HORIZONTAL CLEARANCE FROM ALL DIRECT BURIED CONDUITS, CONCRETE ENCASED ELECTRICAL CONDUITS, LIGHT POLE BASES AND HAND HOLE PULL BOXES.

STANDARD SANITARY SEWER NOTES

1.

SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF CONSTRUCTION.
2.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. ADOPTED DECEMBER 27, 1968.
3.

PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION MEETING WITH THE CITY OF MASSILLON ENGINEERING DEPARTMENT (330-XXXXXXX). A NOTICE OF NO LESS THAN 72 HOURS IS REQUIRED TO SCHEDULE THIS MEETING.
4.

THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
5.

APPROVAL BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
6.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.
7.

BULKHEADS SHALL BE ERECTED IN EXISTING MANHOLES WHERE TAPS FOR NEW LOCAL SEWERS ARE MADE AND SHALL REMAIN IN PLACE UNTIL THE NEW SEWERS ARE COMPLETE, TESTED AND APPROVED. IN CASES WHERE A BULKHEAD WOULD INTERRUPT THE FLOW FROM EXISTING SERVICE CONNECTIONS, THE BULKHEAD SHALL BE PLACED IN THE FIRST NEW MANHOLE UPSTREAM OF THE EXISTING MANHOLE.
8.

MINIMUM CLEARANCE BETWEEN SANITARY SEWERS AND WATERLINES SHALL BE 18 INCHES VERTICALLY AND 10 FEET HORIZONTALLY.
9.

MINIMUM NOMINAL PIPE DIAMETER FOR SANITARY SERVICE SEWERS SHALL BE 8 INCHES AND BUILDING SEWERS (LATERALS) SHALL BE 6 INCHES. PIPES SHALL BE LAID AT NO LESS THAN 1.0 % GRADE.
10.

NO CHANGES TO SANITARY SERVICE SEWER AND SEWER (LATERAL) LOCATIONS SHALL BE MADE WITHOUT THE APPROVAL OF THE CITY OF MASSILLON ENGINEER.
11.

FOR NEW SUBDIVISION CONSTRUCTION, SANITARY SEWERS (LATERALS) SHALL EXTEND 15 FEET INTO EACH LOT WHEN THE LOCAL SEWER IS IN A STREET RIGHT-OF-WAY OR SHALL TERMINATE AT THE EASEMENT LINE WHEN THE LOCAL SEWER IS IN AN EASEMENT. FOR OTHER SEWER CONSTRUCTION, SERVICE AND BUILDING SEWERS SHALL TERMINATE AT THE RIGHT-OF -WAY LINE OR THE EASEMENT LINE, WHICHEVER IS APPLICABLE.
12.

SERVICE SEWER STACKS SHALL BE EPOXY LINED DUCTILE IRON PIPE IN ACCORDANCE WITH THE CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS, REGARDLESS OF LOCAL SEWER MATERIAL. AN EPOXY LINED DUCTILE IRON TEE SHALL BE INSTALLED IN THE LOCAL SEWER.
13.

MINIMUM COVER OVER SANITARY SEWERS SHALL BE 4 FEET.
14.

ACCEPTABLE SANITARY SEWER PIPE MATERIALS ARE :
PIPE JOINTS INSTALLATION
PVC SMOOTH EXTERIOR : ASTM D - 3034 ASTM D-3212 ASTM D - 2321
PVC WATER PIPE : AWWA C - 900 AWWA C-110/C-111 AWWA C - 151
DIP (CL 52) : AWWA C - 151 AWWA C-110/C-111 AWWA C - 151
15.

ALL SANITARY SEWERS, 8 INCHES IN DIAMETER AND LARGER, SHALL PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPING PROCEDURE SHALL BE IN ACCORDANCE WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS.
16.

A DEFLECTION TEST SHALL BE REQUIRED FOR ALL FLEXIBLE PIPE OF 8 INCHES IN DIAMETER AND LARGER. THE TEST SHALL BE CONDUCTED AT LEAST 30 DAYS AFTER COMPLETION OF BACKFILL AND SHALL BE IN ACCORDANCE WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE PERCENT (5%). TESTING SHALL BE IN ACCORDANCE WITH APPENDIX C OF THE STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS.
17.

ALL SANITARY SEWERS MUST PASS A LOW PRESSURE AIR TEST, WHICH SHALL BE CONDUCTED IN ACCORDANCE WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS. THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GAL/INCH OF DIAMETER/MILE/DAY. THIS TEST SHALL CONFORM TO ASTM F-1417.
18.

MANHOLE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND C-443. ALL MANHOLES SHALL BE AIR/VACUUM TESTED IN ACCORDANCE WITH AND MEET ALL THE REQUIREMENTS OF ASTM C-1244.
19.

CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY. FLEXIBLE GASKETS CONFORMING TO ASTM C -923 (A-LOK, KOR-N-SEAL OR APPROVED EQUAL) SHALL SEAL THE SPACE BETWEEN THE PIPE AND THE MANHOLE WALL.
20.

ANY MANHOLE DROP ATTACHMENTS SHALL BE " OUTSIDE " TYPE.
21.

MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.
22.

ALL SANITARY SEWER TRENCHES BENEATH PROPOSED OR EXISTING PAVEMENT SHALL BE COMPACTED IN LIFTS, IN A MANNER, AND WITH MATERIAL AS SPECIFIED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AND ALL APPLICABLE O.D.O.T. SPECIFICATIONS.

CITY OF MASSILLON

SPECIFICATIONS - SANITARY & STORM MANHOLES & CATCH BASINS

Section 1 - Materials

All materials shall be of the size and type specified on the plans and/or proposals (as noted on the latest State of Ohio Department of Transportation (ODOT) construction and materials specifications). Concrete for foundation slabs for manholes and catch basins shall be ODOT Type Class C concrete, 4000# psi @ 28 days, 6 bags minimum to cubic yard and 4" maximum slump Ohio Department of Highways #46 coarse aggregate. Manhole frames and covers, catch basin grates, and wrought iron steps shall be City standard and are furnished by the Contractor.

Section 2 - Construction Methods: General

Manholes and catch basins shall be built according to plans, specifications, and special provisions to line and grade. Adjustment of manholes and catch basins to grade according to the plans shall include all the necessary materials and labor. All connections for lateral sewers, including drops (as noted in sewer specs under Section 10) shall be included under this item. All Manhole and catch basin structures shall be precast concrete structures on 6" of granular bedding. No brick and mortar construction shall be permitted for structures. The invert channel through the manhole shall be either a half pipe or formed in concrete to the cross section of half pipe. Space between the wall and the invert shall be filled with Class C concrete and shall slope to invert. Adequate precautions shall be taken to prevent concrete and mortar from freezing. Manhole castings, catch basin castings, and wrought iron steps shall be City standard as shown on plans. Care must be taken by the Contractor to keep dirt and debris from getting into the sewer lines while structures are being built.

Section 3 - Excavation and Backfill

All the applicable methods, materials, and provisions for excavation and backfill for main line sewers shall apply for manholes and catch basins.

Section 4 - Massillon Manhole Rehabilitation - below the spring line

All materials shall be as specified. Brick shall be laid radially into an 8" wall with a full bed of mortar so that all joint space is filled. Mortar shall be composed of two parts of clean sharp sand to one part of standard Portland Cement to which may be added lime to the extent of 10% of the cement by weight. After five courses laid as headers, the sixth course shall be laid as a stretcher course. Whole brick only shall be used except to affect closures or to chink exterior radical joints. Interior joints must not be more than a quarter of an inch (1/4") wide. Interior and exterior joints shall be pointed on storm manholes and sanitary manholes. Both inside and outside walls shall be plastered with a half inch (1/2") of mortar with a smooth trowel finish. Special care shall be taken to see that the manhole wall is bonded to the barrel of the sewer. The outside surface of the manhole shall be cured with wet burlap for 48 hours. The upper part of the manhole shall be drawn in uniformly with a precast concrete structure as specified in the plans and specifications.

Section 5 - Precast Concrete Ring Manholes

The concrete in this type of manhole shall conform to the applicable provisions of ODOT #706.13. Joints shall be "O" ring, water tight. Openings for inlet and outlet pipes shall be cast in the rings. Openings 18" or smaller entering the manhole above the outlet may be cut in the field. Openings over 18" entering the manhole above the outlet shall be connected by a tee connection precast with the barrel. Additional details not covered here will be shown on the plans.

Section 6 - Catch Basins and Inlets

Catch basins and inlets shall be constructed in accordance with the design and dimensions and to line and grade as shown on the plans. All materials are to conform to as stated. No Brick shall be laid. The catch basin grade shall be set in accordance to the Massillon Casting Set specification as shown on the plans.

Section 7 - Adjusting Manholes and Catch Basins to Grade

This item shall include excavation, backfill, masonry, concrete, resetting of castings and/or steps, resetting of up to two courses of brick, and any other labor and material incidental to the proper adjustment to the new grade as specified with the City of Massillon specifications. Solid Cast iron ring risers may be considered only with written permission by the Engineer. If a solid cast iron riser ring is used to adjust a manhole to a new grade then a new manhole lid conforming to the casting size shall be supplied by the Contractor. Also see Sanitary/Storm Manhole Rehabilitation and Massillon Catch Basin Rehabilitation.

Section 8 - Manholes

Manholes shall be bid per each unless otherwise stated. This unit price is full compensation for all labor and materials incidental to the construction of the completed manhole in accordance with the plans including excavation, backfill, construction of masonry, and furnishing and placing of the casting, unless otherwise noted. Payment for manholes shall be per vertical foot measured from the invert to the top of the casting for all manholes without sumps; those with CITY OF MASSILLON - PROJECT SPECIFICATIONS PS-6

sumps shall be measured from top of floor of sump to top of casting. Drop manholes shall be paid the same method used in measuring standard manholes. Payment for manholes shall be full compensation for all the labor and materials incidental to the completed manhole with the same exceptions covered by separate pay items as noted in main line sewer. This item shall include all excavation, backfill, masonry, concrete, placing of all connections, furnishing and setting of castings and conforming of City standards as shown on the plans, protecting against cave-ins, dewatering, and any other labor incidental to completion of the manhole according to the plans.

Section 9 - Catch Basins

The price bid per catch basins is a unit price for each catch basin and is full compensation for all labor and materials incidental to the construction of the completed catch basin in accordance with the plans including excavation, backfill, masonry, concrete, furnishing and placing of the casting, and restoration of the gutter and street surface in accordance with Massillon Catch Basin Rehabilitation.

Section 10 - Drop Attachments

Drop attachments shall be built of the same type of material as the pipe it is to receive encased in concrete as shown on the plans. The size of all drops shall be as shown. The tee at the upper end of the drop pipe shall have the same diameter as the incoming sewer unless shown otherwise. The tee, drop pipe, 90° elbow, and encasing concrete are considered the drop attachment, and payment shall be included to the unit price bid for manholes. A channel for the drop inlet pipe shall be formed to a depth below the top of the bench equal to one-half the inlet pipe diameter, and a width equal to the inlet pipe diameter. Bench height to be determined as Engineer deems. The drop is to be on the outside of the manhole only. Any inside drop must be approved in writing by the Engineer.

Section 11 - Massillon Catch Basin Rehabilitation

This work will consist of removing the existing casting and grate, reconstructing per the Engineer, Plans and Specifications, and placing at the proper grade a new casting and grate conforming to Section 14. The rehabilitation work will consist of tearing the existing brick structure down to a stable/suitable level and rebuilt per these specifications, including precast concrete grade rings. If the structure is of a precast material all cracks and joints shall be cleaned and plastered with proper material as to adhere, increase the structural stability, and seal the existing structure from any water infiltration. The existing precast structure may need to be modified/cut to place the new casting and grate to the proper grade, including concrete box out, to be included in the unit price cost. The price bid per catch basin is a unit price for each catch basin and is full compensation for all labor and materials incidental to the construction of the completed catch basin in accordance with the plans and specifications including excavation, bituminous or aggregate backfill, masonry, concrete, concrete box out, furnishing and placing of the casting to the proper grade, and restoration of the gutter and street surface. All existing castings and grates are to be carefully removed and stored by the Contractor for salvage by the City of Massillon. All work shall be completed before final paving.

Section 12 - Sanitary/Drainage Sewer Manhole Rehabilitation

This work will consist of removing the existing casting and lid, reconstructing per the Engineer, Plans and Specifications, and placing at the proper grade a new casting and lid conforming to Section 14. The rehabilitation work will consist of tearing the existing brick structure down to a stable/suitable level and rebuilt per these specifications, including precast concrete grade rings. If the structure is of a precast material all cracks and joints shall be cleaned and plastered with proper material as to adhere, increase the structural stability, and seal the existing structure from any water infiltration. The existing precast structure may need to be modified/cut to place the new casting and lid to the proper grade, including concrete box out, to be included in the unit price cost. The price bid per manhole is a unit price for each manhole and is full compensation for all labor and materials incidental to the construction of the completed manhole in accordance with the plans and specifications including excavation, bituminous or aggregate backfill, masonry, concrete, concrete box out, furnishing and placing of the casting to the proper grade, and restoration of the street surface. All existing castings and lids are to be carefully removed and stored by the Contractor for salvage by the City of Massillon. All work shall be completed before final paving.

Section 13 - Utility Manhole Adjust to Grade

This item will consist of coordinating with the Utility Company, the removing the existing casting, reconstructing per the specific utility, and placing at the proper grade the existing or new casting as supplied by the Utility and/or their Contractor. This item is for coordinating the work between the Contractor, Utility Contractor and the Utility Company only as these manholes are not maintained or owned by the City. This work shall be completed before any asphalt surface course pavement is placed.

CITY OF MASSILLON - PROJECT SPECIFICATIONS

PS-7

Section 14 - Castings

Sanitary sewer castings shall have gasket seal lids. The new castings will be of the following or other approved equal castings by the Engineer in writing, or designated by the plans:

	East Jordan	
Sanitary Manhole Casting	MASS1048- High	MASS1046-Short
Drainage Manhole Casting	MASS1048- High	
Manhole Cover-Massillon Logo Sanitary	MASS 1040AGS-solid	
Manhole Cover- Massillon Logo Storm	MASS 1040A-solid	
Catch basin Type	"B" Single	V-5630
Catch basin Type	"A" Single	7030
Catch basin Type	"A" Double	7031
Catch basin Type	"A" Triple	7032
Catch basin Type	"A" Grate	M2
Catch basin Type	"A" Back	T4



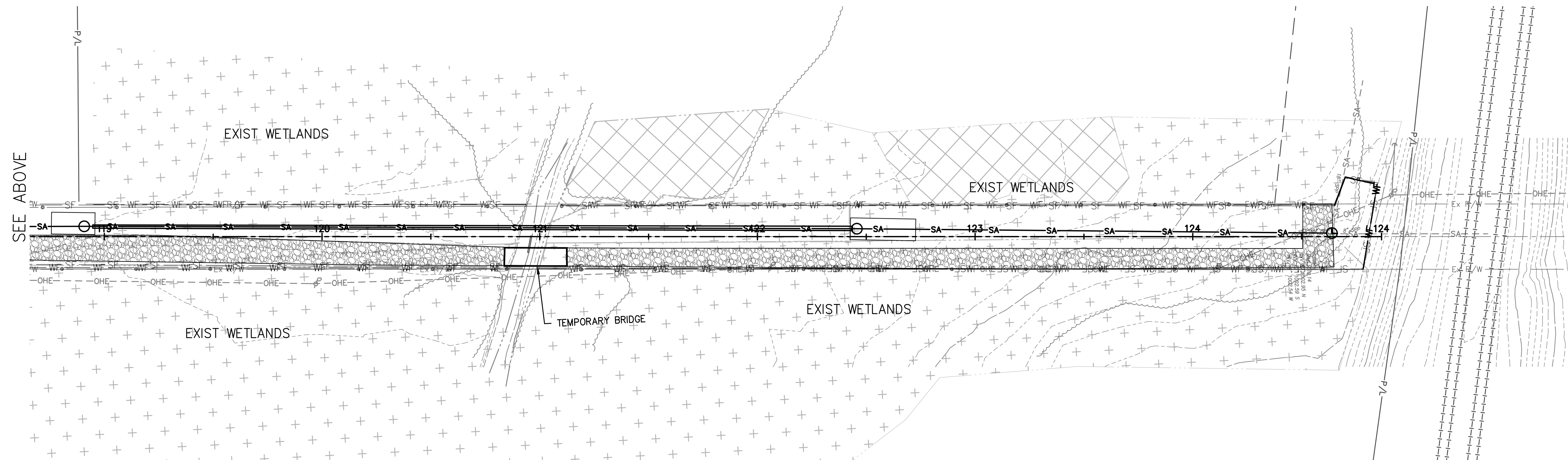
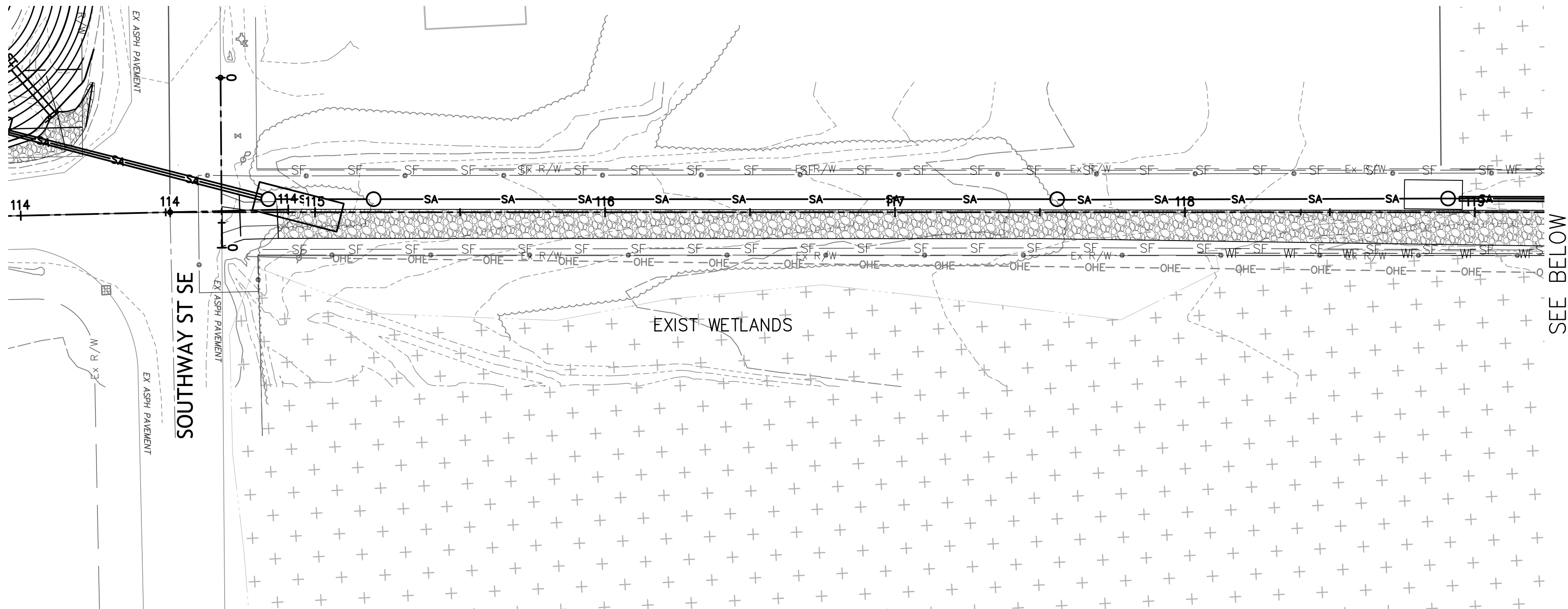
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TRUNK SEWER
PERRY TOWNSHIP, OHIO



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2	02-06-2023	PER CITY REVIEW
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DRAWN BY:		EB
CHECKED BY:		RJW
DATE ISSUED:		12-20-2021

GENERAL NOTES

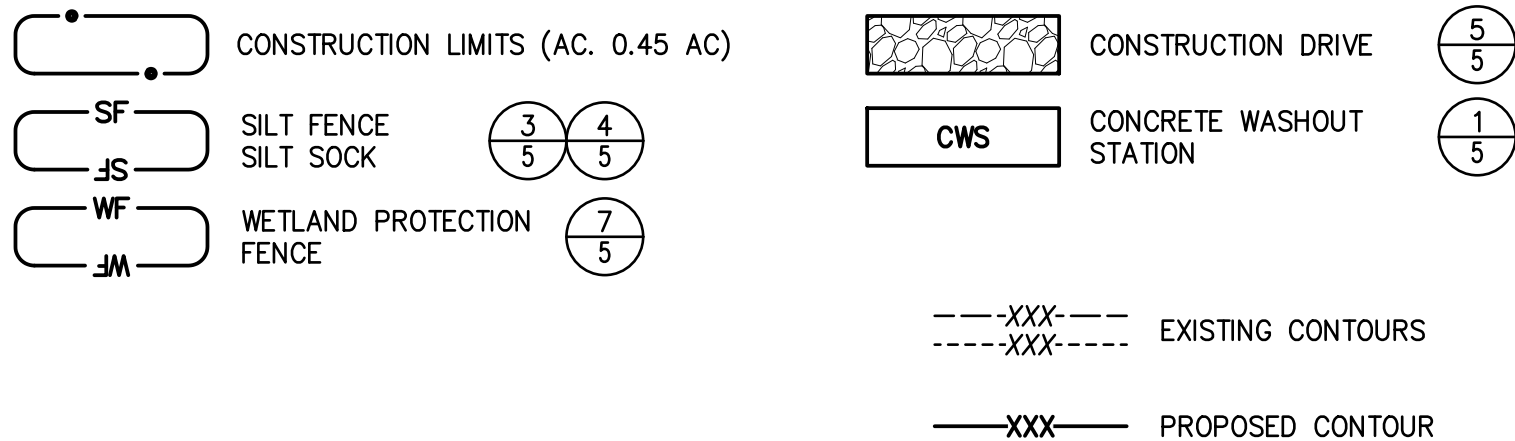
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STORMWATER POLLUTION PREVENTION NOTES

- ALTHOUGH SILT FENCE IS SHOWN AS CONTINUOUS LINE ON PLAN, CONTRACTOR SHALL INSTALL SILT FENCE IN SECTIONS PARALLEL WITH THE CONTOURS ON STEEPLY SLOPED AREAS TO ENSURE SEDIMENT IS TRAPPED BY SILT FENCE.
- ALL DISTURBED AND PROPOSED SWALES SHALL HAVE DITCH EROSION PROTECTION ALONG THE ENTIRE LENGTH OF THE SWALE AS SHOWN ON THE DETAILS.
- WORK SHALL BE PERFORMED IN A LINEAR FASHION. STORMWATER AND EROSION CONTROLS SHALL BE INSTALLED 1 WEEK PRIOR TO PRECEDING WITH ANY EARTH DISTURBANCE. BECAUSE OF THE PROJECT LENGTH, THE CONTRACTOR SHOULD NOT INSTALL ALL THE EROSION CONTROLS AT ONCE. BREAK THE PROJECT INTO PHASES AND MARK THEM ON THIS PLAN. SUBMIT A COPY TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
- SITE FOR POTENTIAL CONTRACTOR STAGING AREA. CONTRACTOR SHALL NEGOTIATE WITH PROPERTY OWNER FOR USE OF THIS PROPERTY. IF THE CONTRACTOR CHOOSES TO LOCATE A DIFFERENT SITE FOR STAGING, THEN THE CONTRACTOR SHALL CREATE HIS OWN SWPP PLAN AND SUBMIT IT TO THE ENGINEER FOR APPROVAL.

STORMWATER POLLUTION PREVENTION LEGEND



DATE: _____

REVISIONS		
Δ	DATE	DESCRIPTION

PROJECT NO.:
DRAWN BY: EB
CHECKED BY: RJW
DATE ISSUED: 12-20-2021

SWPP PLAN

STORMWATER POLLUTION PREVENTION PLAN NOTES

1. CONSTRUCT IN ACCORDANCE WITH THESE PLANS, THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD CONSTRUCTION DRAWING DM-4.4 AND THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006). THE IMPLEMENTATION OF SOIL EROSION AND SEDIMENT CONTROL SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (EPA) UNDER NPDES PERMIT #0HC000004. IF CONFLICTS EXIST REGARDING THE SOIL AND SEDIMENT CONTROL PRACTICES, THE MORE RESTRICTIVE SHALL APPLY.
2. STABILIZATION OF DISTURBED AREAS – DISTURBED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN FOURTEEN (14) DAYS. FOR AREAS WITHIN FIFTY (50) FEET OF ANY LIVE STREAM, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL INACTIVE, DISTURBED AREAS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED.
3. INSTALL ALL EROSION/SEDIMENT CONTROL ITEMS BEFORE ANY CLEARING/GRUBBING OR EARTHWORK HAS STARTED.
4. PROTECT UNDISTURBED AREAS THROUGHOUT CONSTRUCTION. DO NOT STORE EQUIPMENT, VEHICLES OR MATERIALS IN THESE PROTECTED AREAS.
5. SEEDING AND FERTILIZER FOR PERMANENT COVER SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
6. MULCHING SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
7. TOPSOILING SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
8. EXCELSIOR MATTING/EROSION CONTROL BLANKETS WILL BE USED ON TEMPORARY DIVERSION CHANNELS AND DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES STEEPER THAN 6%. EXCELSIOR MATTING/EROSION BLANKETS SHALL BE AS SPECIFIED IN ITEM P-104 OF THE TECHNICAL SPECIFICATIONS.
9. SILT FENCE AND/OR SILT SOCK SHALL BE AS DETAILED ON THE DRAWINGS AND AS SPECIFIED IN ITEM P-104 OF THE TECHNICAL SPECIFICATIONS.
10. ROCK CHANNEL PROTECTION SHALL BE AS SPECIFIED IN ODOT CMS ITEM 601, TYPE C ROCK.
11. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORMWATER RUNOFF.
12. OFF-SITE VEHICLE TRACKING OF SEDIMENTS WILL BE MINIMIZED. ALL OFF-SITE TRACKING OF SEDIMENT SHALL BE CLEANED UP AS IT OCCURS.
13. SEDIMENT TRAPS AND BASINS WILL BE USED FOR TEMPORARY EROSION CONTROL.
14. OTHER EROSION CONTROL AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
15. A PRE-CONSTRUCTION MEETING IS REQUIRED WITH STARK S.W.C.D. (330)-451-7645 PRIOR TO BEGINNING WORK.
16. TRUCK WASHOUT AND DISCHARGE OF SURPLUS WASH WATER ON SITE IS PERMITTED EXCLUSIVELY IN THE DESIGNATED AREA.
17. WINTERIZATION – ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 14 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
18. TRENCH WATER MUST BE PUMPED THROUGH A SEDIMENT SETTLING FACILITY OR EQUALLY EFFECTIVE DEVICE PRIOR TO DISCHARGE FROM THE SITE.
19. STAGING, STORAGE, FUELING AND VEHICLE PARKING ARE SHOWN ON THE SWPP PLAN. IF THE CONTRACTOR WANTS TO UTILIZE A DIFFERENT LOCATION FOR THESE FUNCTIONS, HE SHALL REVISE THE SWPP PLAN AND SUBMIT IT TO STARK S.W.C.D. FOR APPROVAL.
20. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL MEASURES.
21. DISTURBED AREAS REMAINING DORMANT FOR OVER A YEAR AT THE FINAL GRADE WILL HAVE A PERMANENT COVER APPLIED WITHIN 7 DAYS OF LAST DISTURBANCE.

MAINTENANCE AND INSPECTION:

PERMANENT RECORDS OF MAINTENANCE AND INSPECTION MUST BE MAINTAINED

THROUGHOUT CONSTRUCTION A MINIMUM OF ONCE EVERY 7 DAYS AND AFTER STORM EVENTS GREATER THAN 0.5 INCH IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE AND CORRECTIVE MEASURES TAKEN.

REPAIRS:

ANY EROSION CONTROL MEASURES, STRUCTURES, DEVICES, OR RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING PRACTICES SHALL BE EXECUTED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUN-OFF. THE JOB SITE SUPERINTENDENT IS RESPONSIBLE FOR ENSURING THESE PRACTICES ARE FOLLOWED:

1. STORE THE MINIMUM AMOUNT OF PRODUCT REQUIRED TO COMPLETE THE JOB, IF POSSIBLE, UNDER ROOF OR IN A CONTAINMENT AREA. PRODUCTS SHALL REMAIN IN THEIR ORIGINAL CONTAINER. LABEL MUST BE LEGIBLE
2. MANUFACTURER’S RECOMMENDATION SHALL BE FOLLOWED FOR USE AND DISPOSAL.
3. PRODUCT TO BE USED ENTIRELY (WHEN POSSIBLE) PRIOR TO DISPOSING.
4. MATERIAL SAFETY DATA SHEETS (MSDS) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES USED ON THE SITE SHALL BE OBTAINED AND POSTED IN THE IMMEDIATE AREA OF PRODUCT STORAGE AND SHALL BE USED FOR PROPER MANAGEMENT OF POTENTIAL WASTE.
5. ALL HAZARDOUS WASTE MATERIAL WILL BE DISPOSED BY THE CONTRACTOR IN A MANNER SPECIFIED BY LOCAL, STATE OR FEDERAL REGULATIONS AND PER MANUFACTURERS RECOMMENDATIONS.
6. ALL PERSONNEL SHALL BE TRAINED IN THE PROPER HANDLING AND CLEAN UP OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR WASTE SHALL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF NECESSARY, THE CONTAMINATED STORMWATER WILL BE HELD ON SITE UNTIL IT MEETS LOCAL, STATE AND FEDERAL REGULATIONS.
7. IN THE EVENT OF A SPILL THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
 - A. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - B. THE PROJECT MANAGER AND ENGINEER OF RECORD IMMEDIATELY NOTIFIED.
 - C. ANY SPILLS OF TOXIC OR HAZARDOUS MATERIALS MUST BE REPORTED TO THE APPROPRIATE LOCAL, STATE AND FEDERAL AGENCY. THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) MUST BE NOTIFIED WHEN A SPILL EXCEEDS THE REPORTABLE QUANTITY OF A SUBSTANCE. THE SUBSTANCES AND AMOUNTS ARE LOCATED IN FEDERAL REGULATIONS (40 CFR 110, 114 AND 302).
 - D. IF A SPILL EXCEEDS A REPORTABLE QUANTITY, THE SWPP PLAN MUST BE MODIFIED WITHIN 7 DAYS PROVIDING A DESCRIPTION, DATE AND INCIDENT OF THE RELEASE.
8. THE MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, SOAPS AND SOLVENTS USED IN CLEANING VEHICLES, WASHOUT OF CONCRETE, PAINT OR STUCCO, FORM RELEASE OILS, OR CURING COMPOUNDS SHALL BE AWAY FROM STORM WATER DRAINAGE WAYS.
9. FUEL TANKS MUST HAVE SECONDARY CONTAINMENT IN THE EVENT OF A LEAK OR SPILL.
10. OPEN BURNING ON SITE IS A PROHIBITED ACTIVITY.
11. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF AT AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714 AND LOCAL REGULATIONS.

PRODUCT SPECIFIC PRACTICES:

1. PETROLEUM – PETROLEUM PRODUCTS WILL BE STORED IN CLEARLY LABELED TIGHTLY SEALED CONTAINERS. ANY ON SITE PETROLEUM STORAGE TANKS WILL HAVE A CONTAINMENT STRUCTURE AROUND IT FOR POTENTIAL SPILLS. DRIP PANS SHALL BE PROVIDED FOR ALL DISPENSERS. MANUFACTURER’S RECOMMENDATIONS SHALL BE FOLLOWED WHEN ANY ASPHALT SUBSTANCES ARE USED ON SITE.
2. FERTILIZERS – THE MANUFACTURER’S RECOMMENDED MINIMAL AMOUNTS SHALL BE APPLIED AND WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. THE CONTENTS OF ANY PARTIALLY USED BAGS WILL BE TRANSFERRED TO SEALABLE PLASTIC BINS AND STORED UNDER COVER, AWAY FROM STORMWATER DRAINAGE WAYS.

SITE LOCATION INFORMATION		LATITUDE:	40°46’50”N
		LONGITUDE:	81°29’17”W
PERRY TOWNSHIP		STARK	OH
CITY, VILLAGE, TOWNSHIP		COUNTY	STATE
TUSCARAWAS RIVER			
NAME OF WATERSHED/IMMEDIATE RECEIVING WATER(S)			
JACKSON AVE SE, PERRY TOWNSHIP, OHIO			
SITE ADDRESS			
A-LIST PROPERTIES		(330) 754-6435	
DEVELOPER		PHONE	
1425 WHIPPLE AVE NW, CANTON, OH 44708			
DEVELOPER ADDRESS			
HYDROLOGIC SOIL GROUPS:			
MAP UNIT SYMBOL (SOIL TYPE), MAP UNIT NAME (SOIL DESCRIPTION)			
CdB – CANFIELD SILT LOAM, 2 TO 6 PERCENT SLOPES			
CdC2 – CANFIELD SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED			
FcA – FITCHVILLE SILT LOAM, 0 TO 2 PERCENT SLOPES			
ReB – RAVENNA SILT LOAM, 2 TO 6 PERCENT SLOPES			
WuC2 – WOOSTER SILT LOAM, 6 TO 12 PERCENT SLOPES, MODERATELY ERODED			



JACKSON AVE SE
TRUNK SEWER
PERRY TOWNSHIP, OHIO



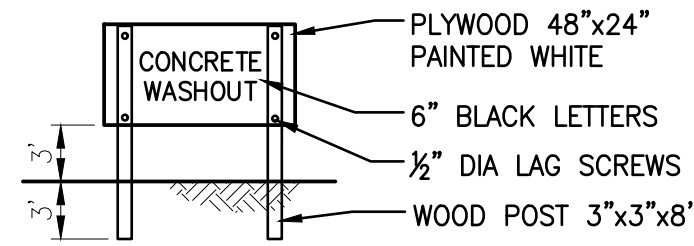
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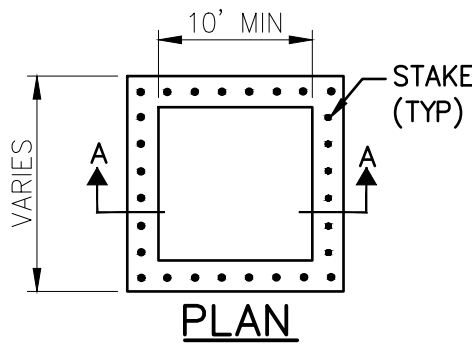
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CHECKED BY:	RJW
DATE ISSUED:	12-20-2021

SWPPP NOTES

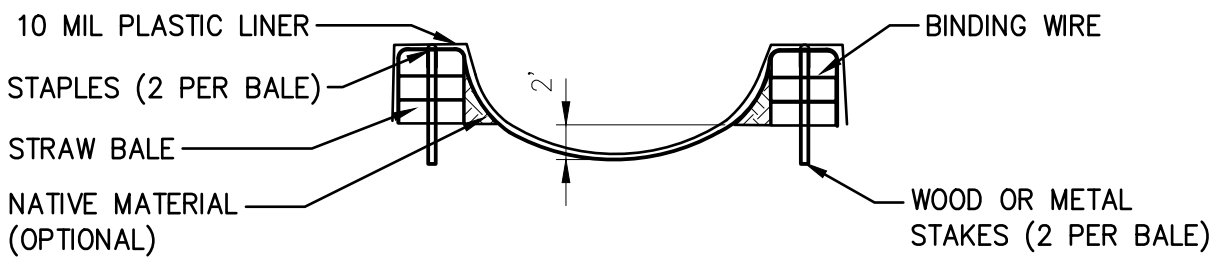
- NOTES:
1. ACTUAL LAYOUT AND SIZE DETERMINED IN THE FIELD.
 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT OF THE TEMPORARY WASHOUT FACILITY.
 3. AS WASHOUT BECOMES FULL, IT SHALL BE REMOVED AND REPLACED.
 4. AFTER CONSTRUCTION COMPLETION, CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE WASHOUT AND SHALL RESTORE AREA AS SHOWN ON PLANS.



SIGN DETAIL

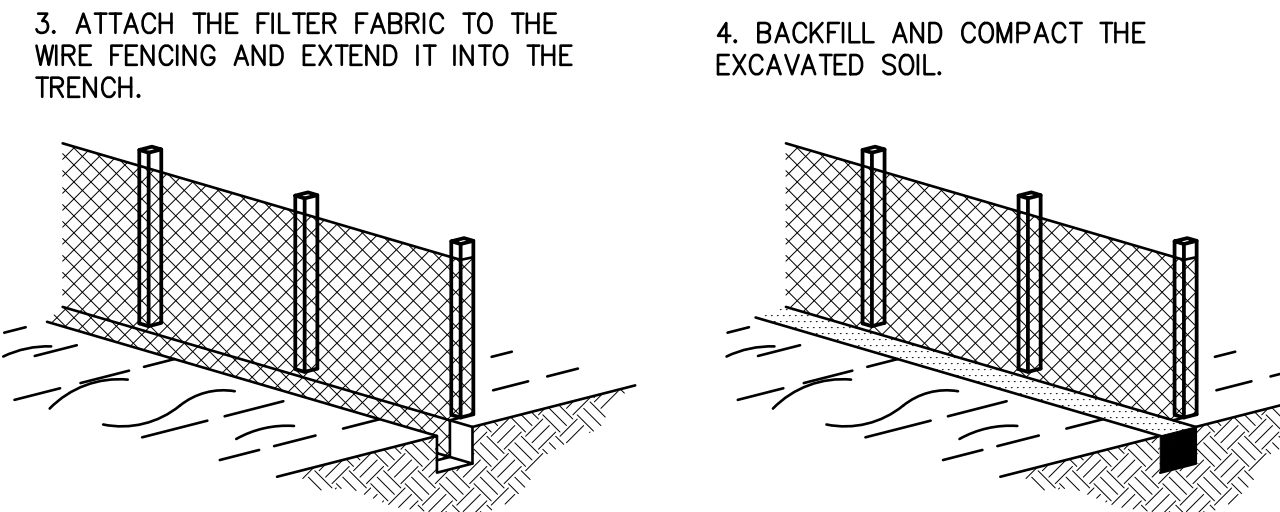
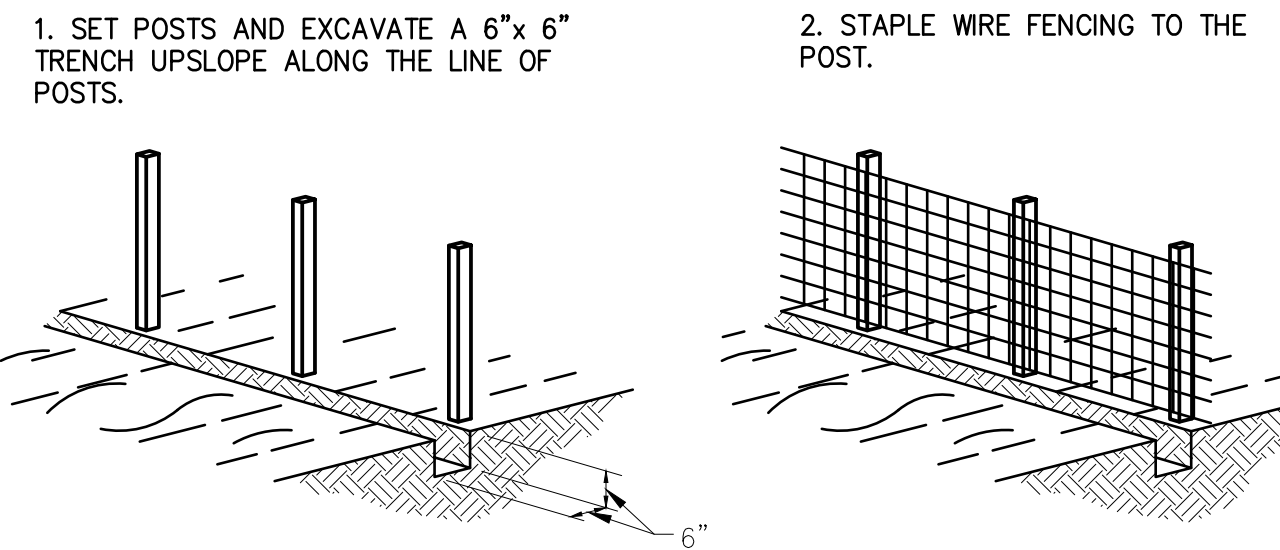


STAPLE DETAIL



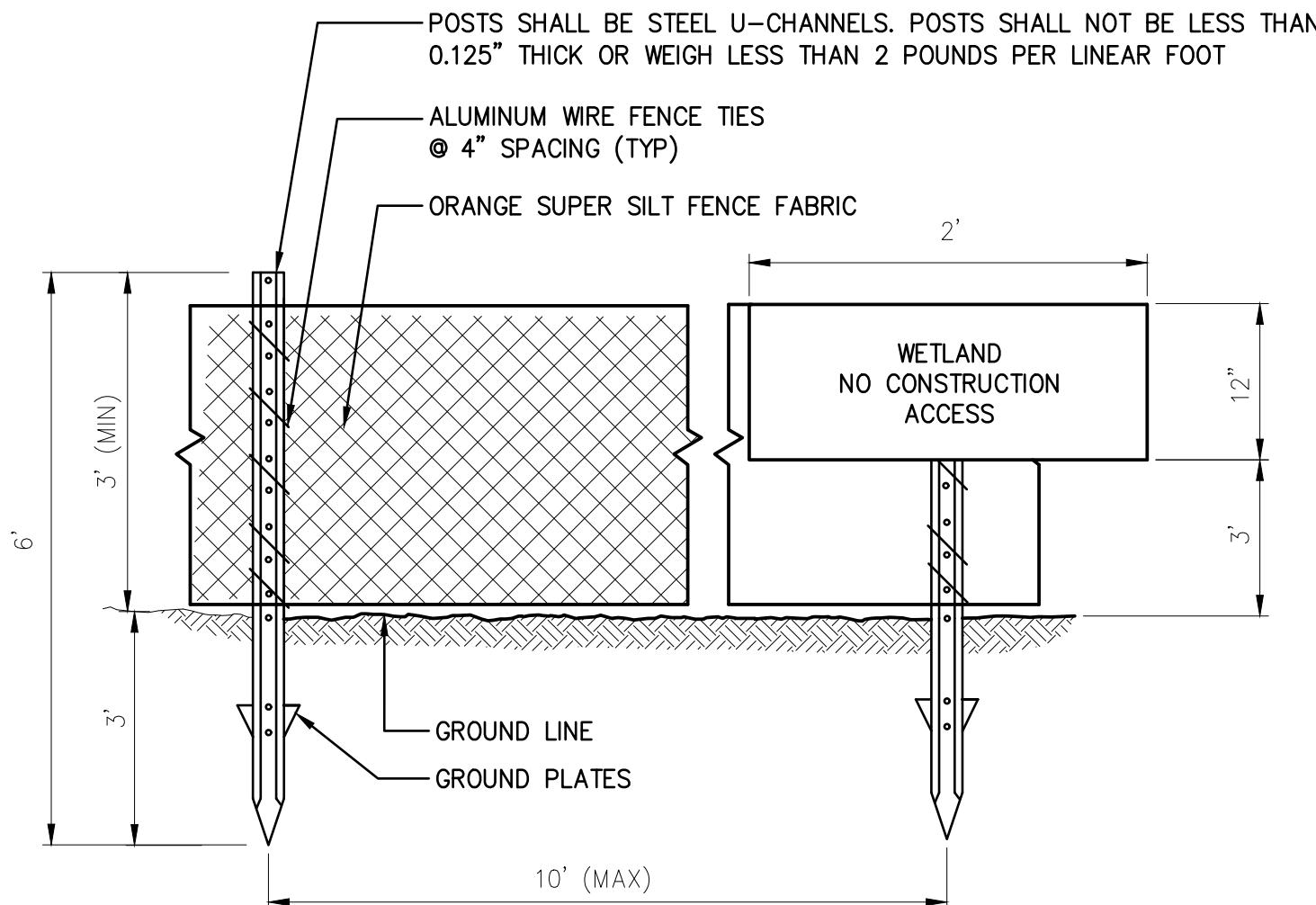
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1 CONCRETE WASHOUT STATION DETAIL
5 NOT TO SCALE



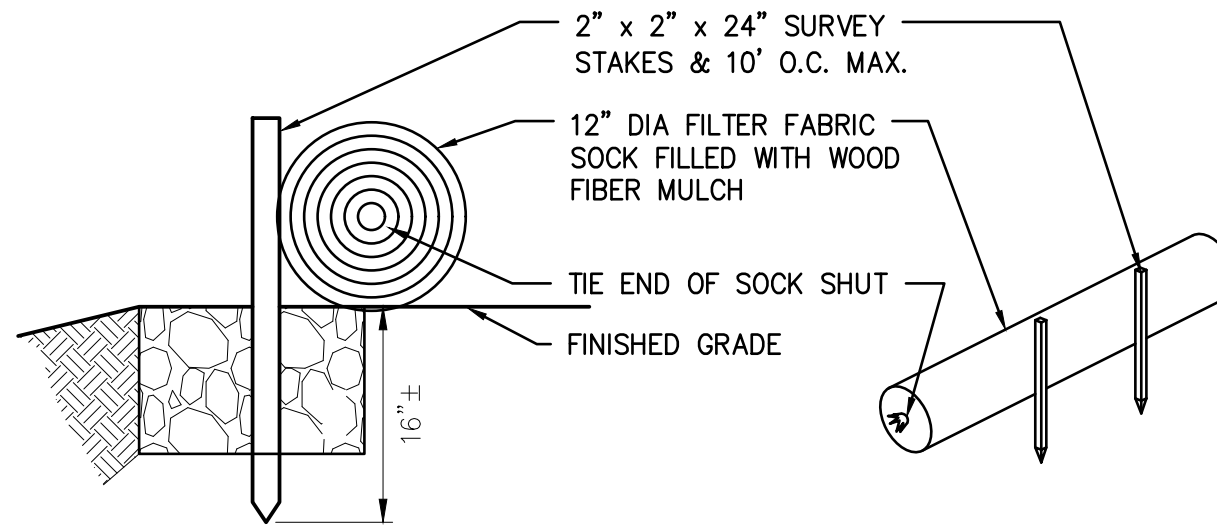
4 SILT FENCE INSTALLATION DETAIL
5 NOT TO SCALE

- NOTES:
1. FENCING SHALL BE INSTALLED ALONG THE PERIMETER OF WETLAND AREA PRIOR TO START OF CONSTRUCTION AS INDICATED ON THE DRAWINGS. SIGNS WILL BE INSTALLED AT 50 FEET OC ALONG THE FENCED IN PROTECTION. SIGNS AND FENCING SHALL BE MAINTAINED THROUGHOUT THE PROJECT AND REMOVED AS DIRECTED BY THE ENGINEER.
 2. INSTALL FENCE FABRIC ON WINDWARD SIDE OF POSTS.

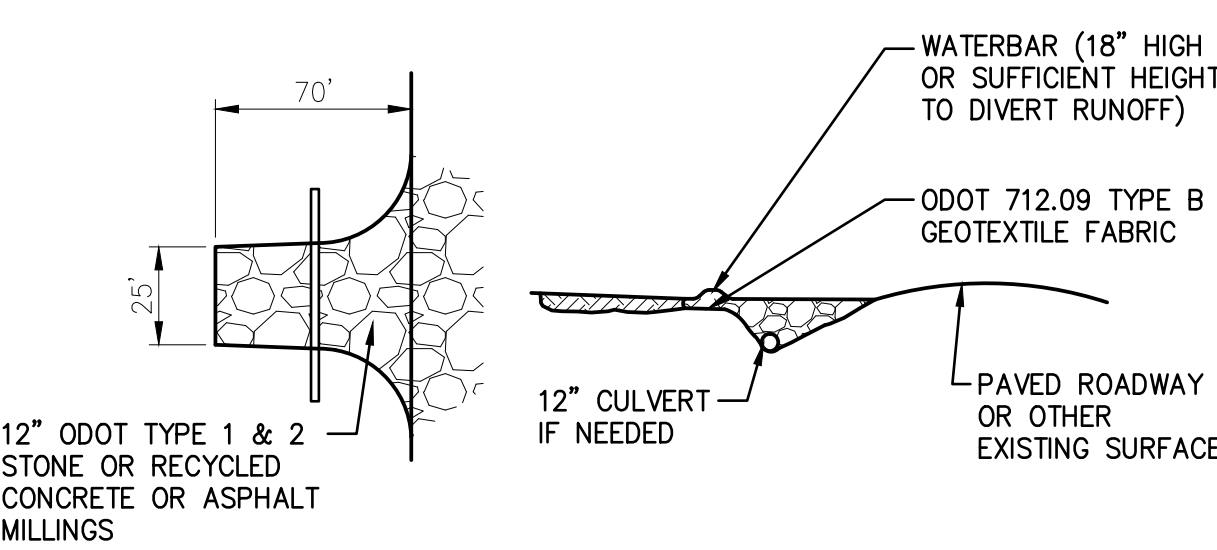


7 WETLAND PROTECTION FENCE DETAIL
5 NOT TO SCALE

- NOTES:
1. WATTLES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING
 2. EACH BALE SHALL BE PLACED ON PAVEMENT SURFACE. MAINTAIN EROSION CONTROL DEVICE UNTIL PLANTS ARE ESTABLISHED AND THE BIOSWALE SOIL MIX IS STABILIZED.
 3. WATTLES SHALL BE SECURELY ANCHORED IN PLACE BY TWO STAKES OR RE BARS DRIVEN THROUGH THE WATTLES. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE WATTLES TOGETHER.
 4. THE CONTRACTOR SHALL INSPECT THE DIKE AFTER EACH STORM, AND BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF SILT SOCK, BIOSWALE SOIL MIX AND PLANTINGS. REPAIRS SHALL BE MADE PROMPTLY AS NEEDED.
 5. WATTLES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR PURPOSE SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



2 SILT SOCK DETAIL
5 NOT TO SCALE

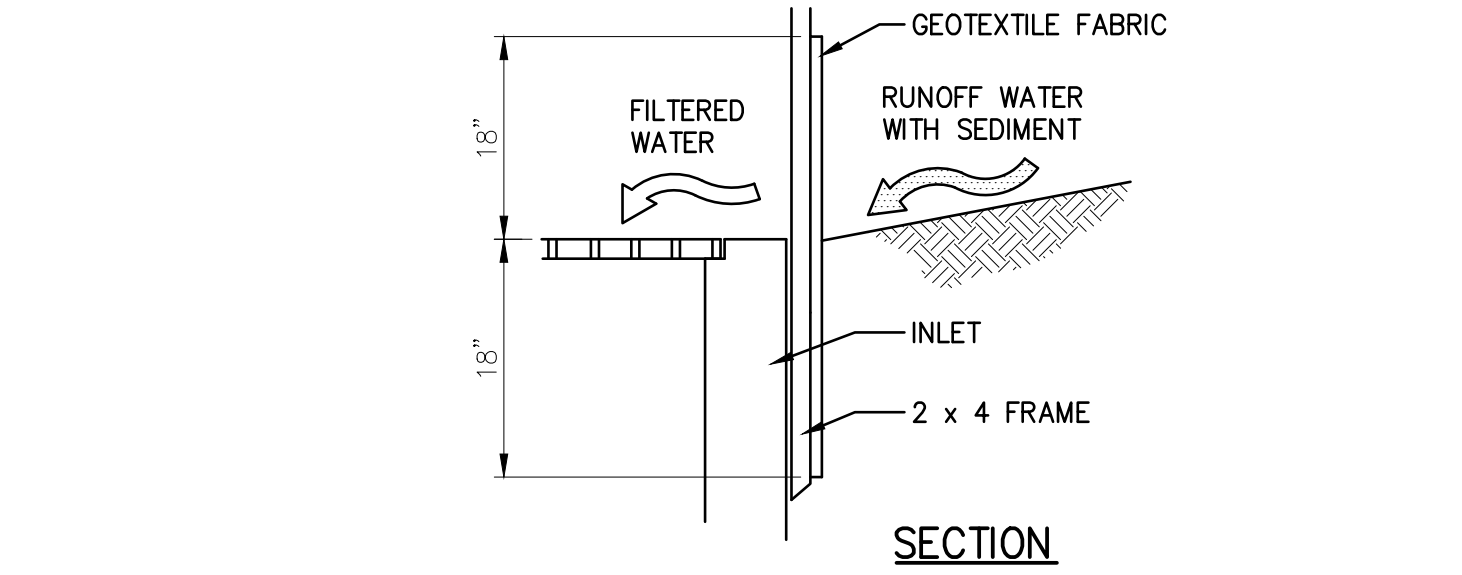
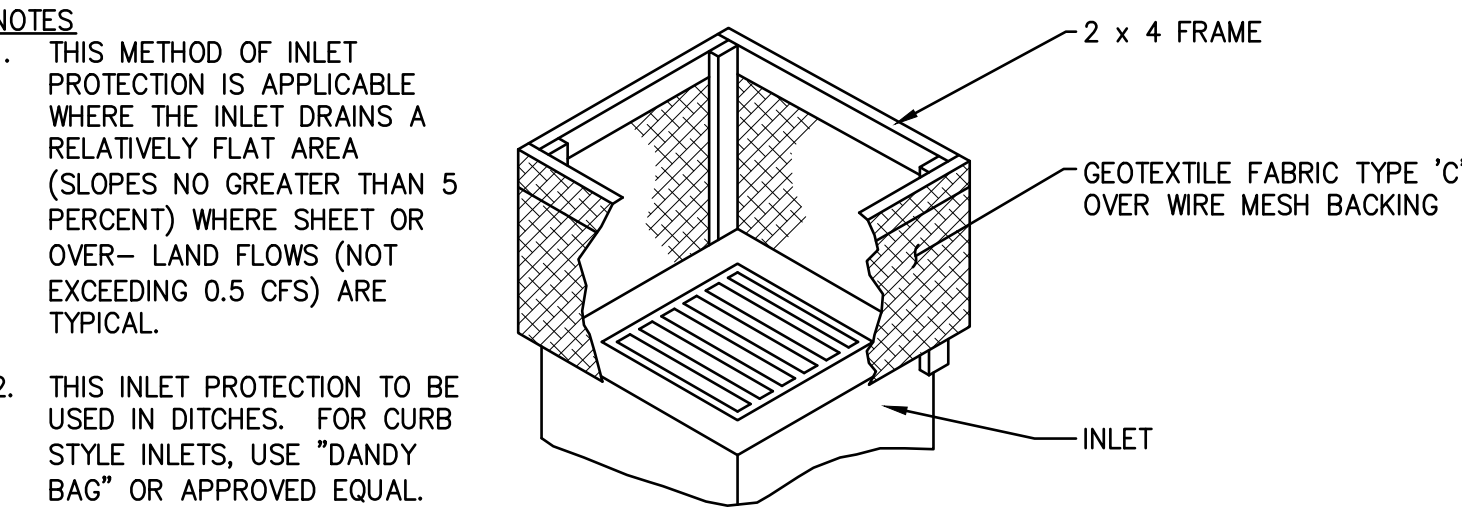


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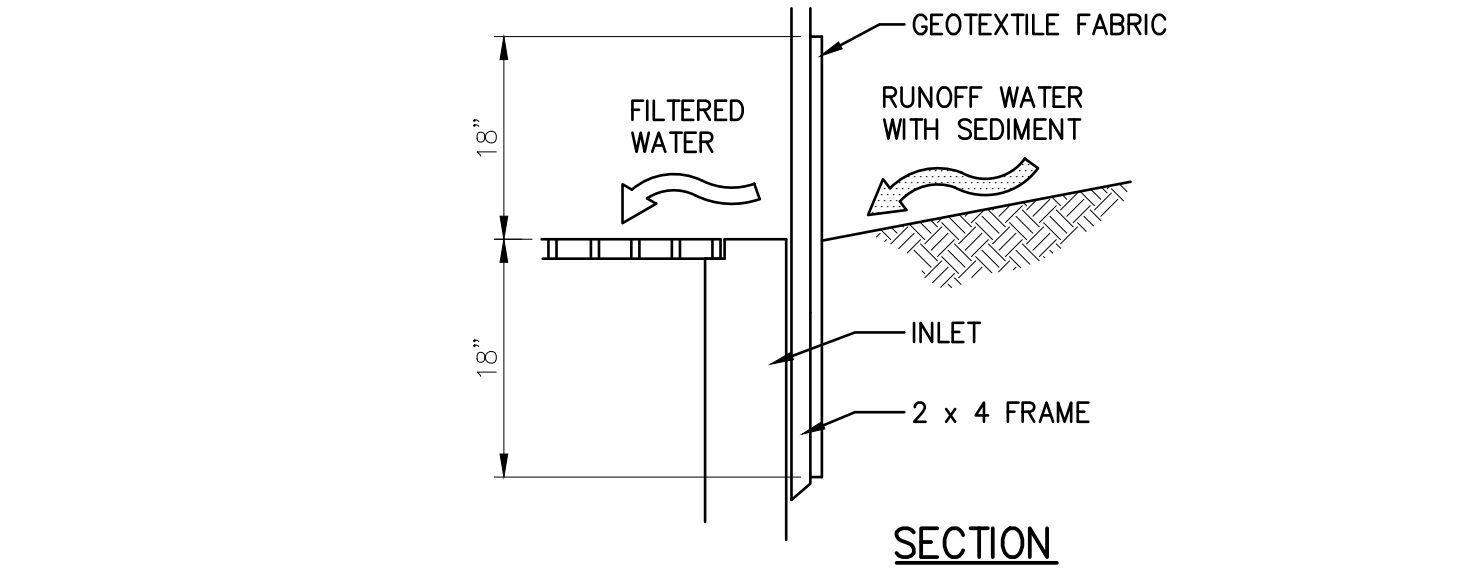
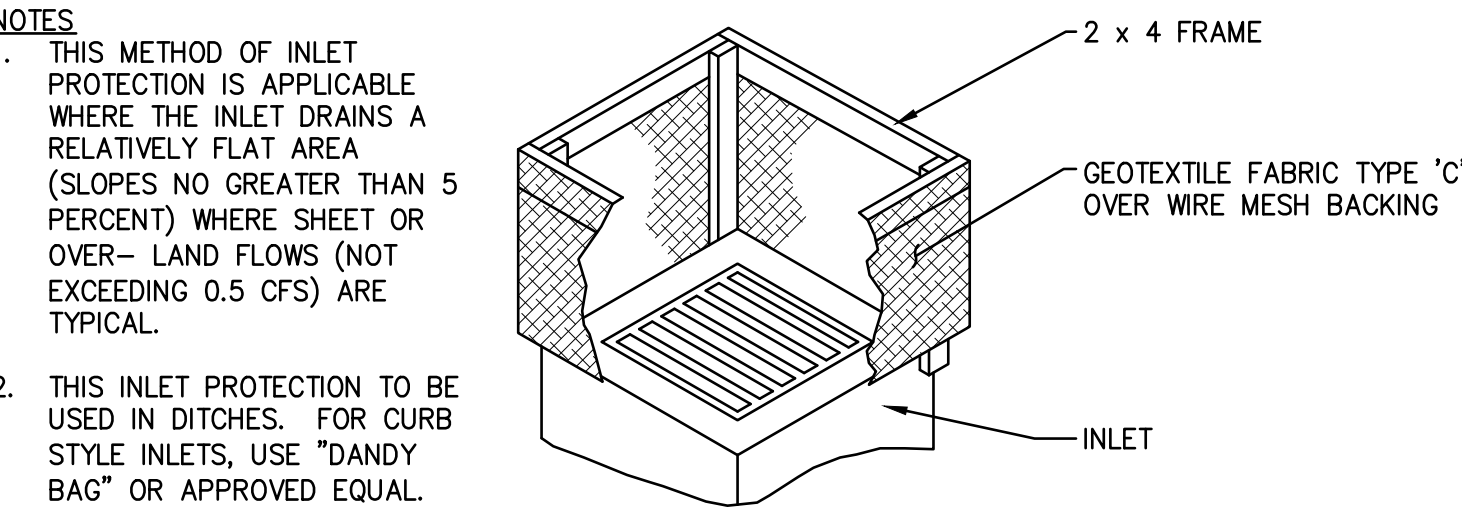
- NOTES:
1. MAINTENANCE — TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED AWAY ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
 2. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
 3. WHEN THE CONSTRUCTION HAUL ROAD IS NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE THE AGGREGATE AND RESTORE GRADE TO IT'S ORIGINAL ELEVATION OR AS SHOWN ON THE PLANS.

5 TEMPORARY CONSTRUCTION DRIVE DETAIL
5 NOT TO SCALE

3 SILT FENCE DETAIL
5 NOT TO SCALE



6 INLET PROTECTION DETAIL - SILT FENCE
5 NOT TO SCALE



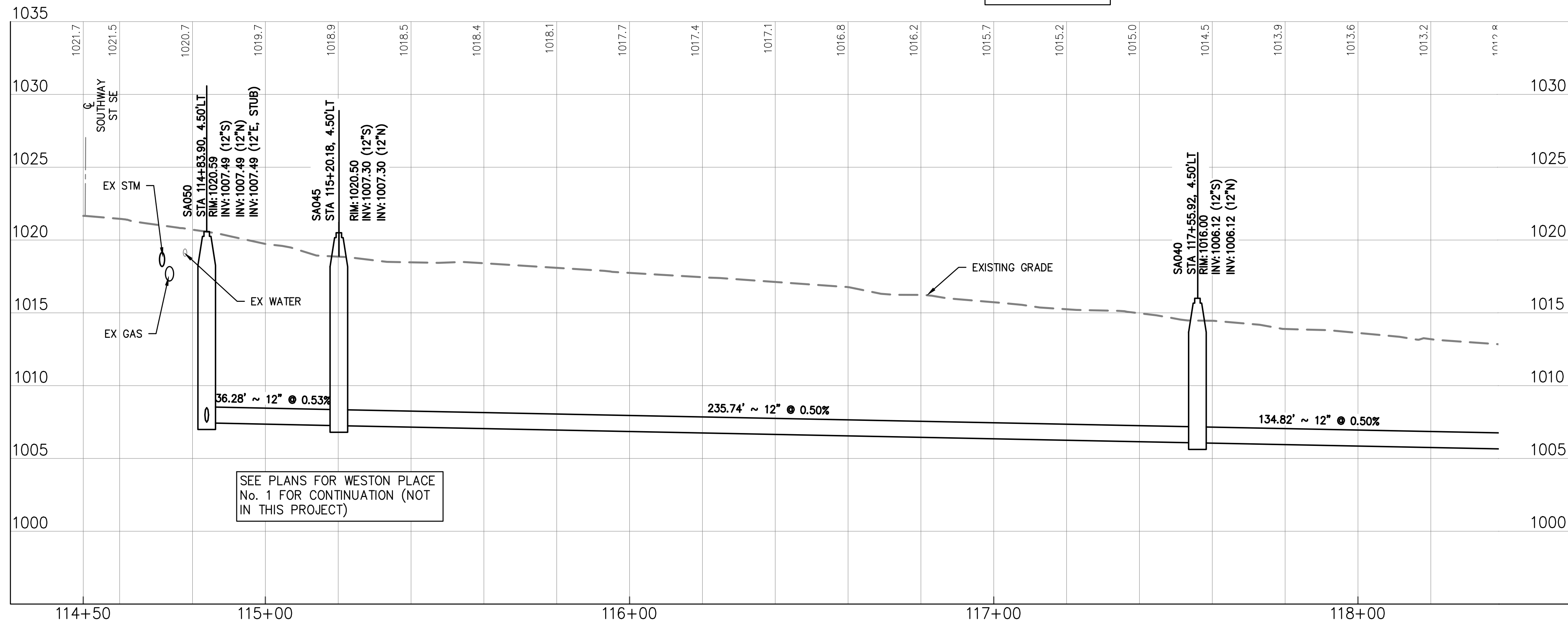
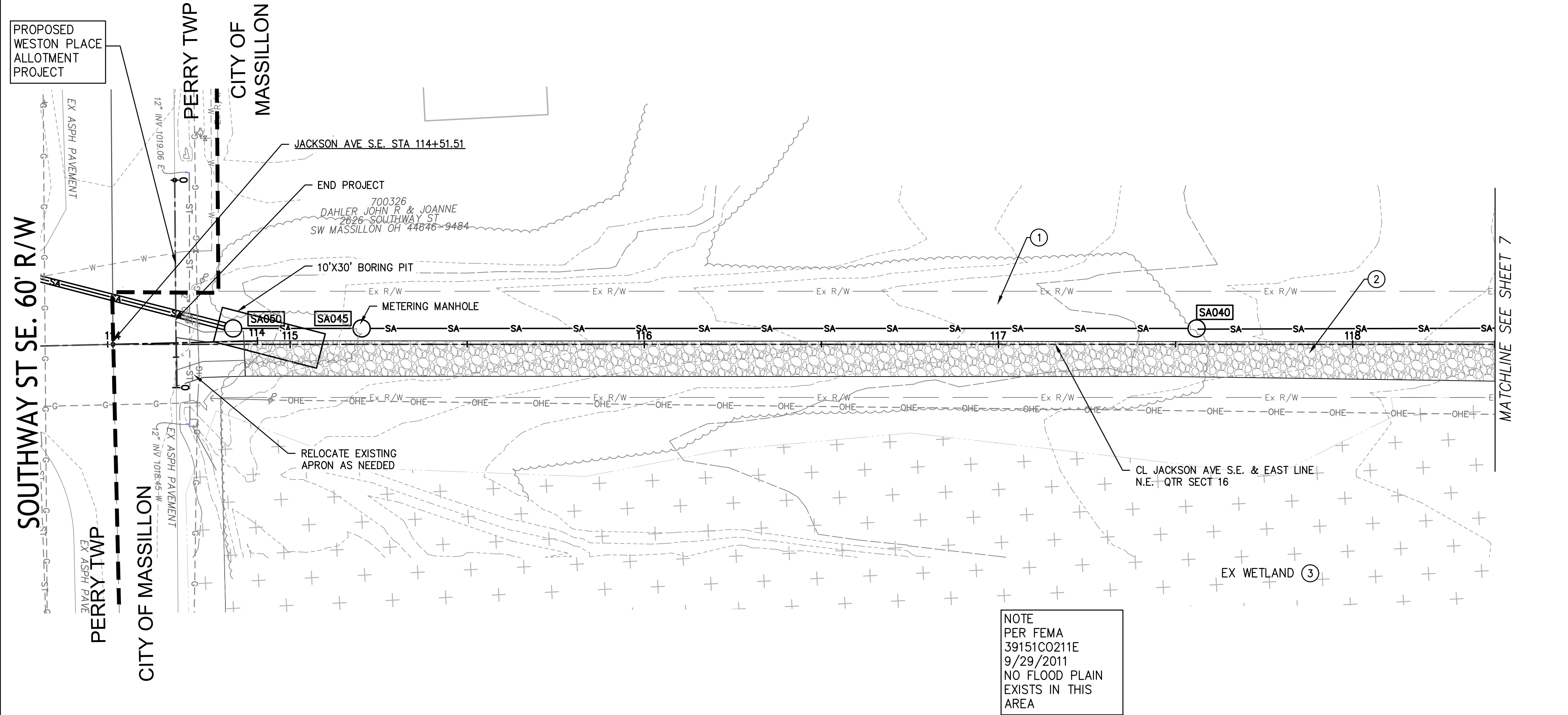
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CHECKED BY: RJW
DATE ISSUED: 12-20-2021

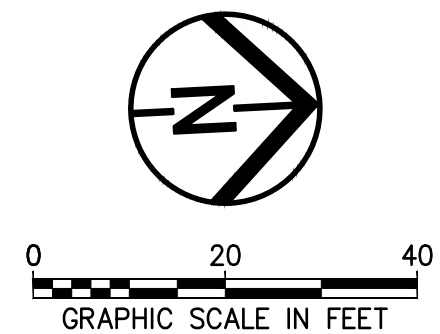
SWPPP DETAILS

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NOTES:

1. PROVIDE CLEARING AS NEEDED
2. GRAVEL ACCESS DRIVE. SEE SHEET 9
3. NO WORK WITHIN THE WETLANDS SHALL BE PERFORMED UNTIL A PERMIT HAS BEEN OBTAINED FROM THE USACE
4. SEE SHEET 3 FOR EROSION CONTROL MEASURES



JACKSON AVE SE
TRUNK SEWER
PERRY TOWNSHIP, OHIO



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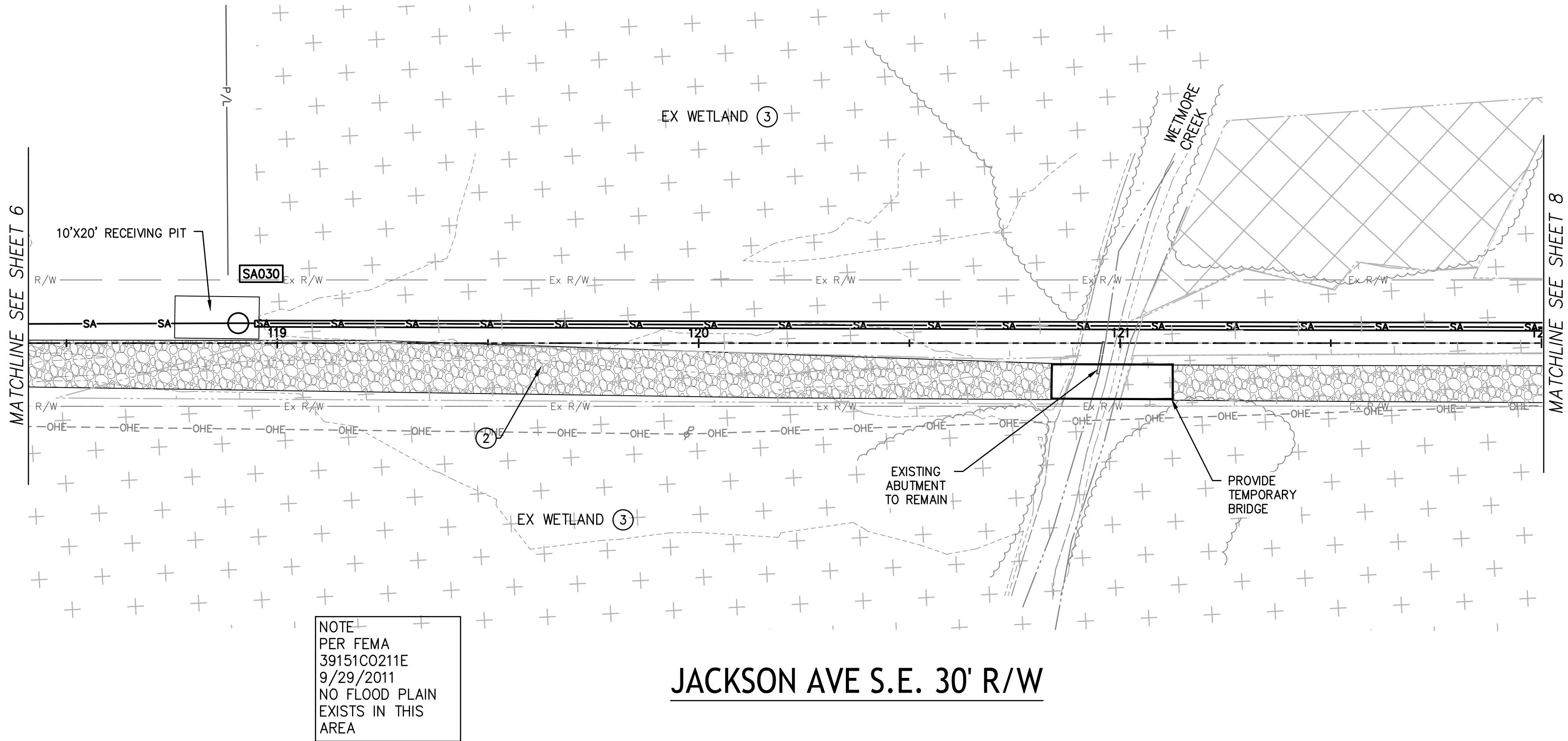
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2	02-06-2023	PER CITY REVIEW
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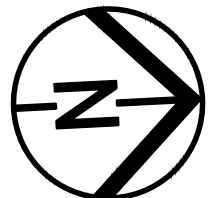
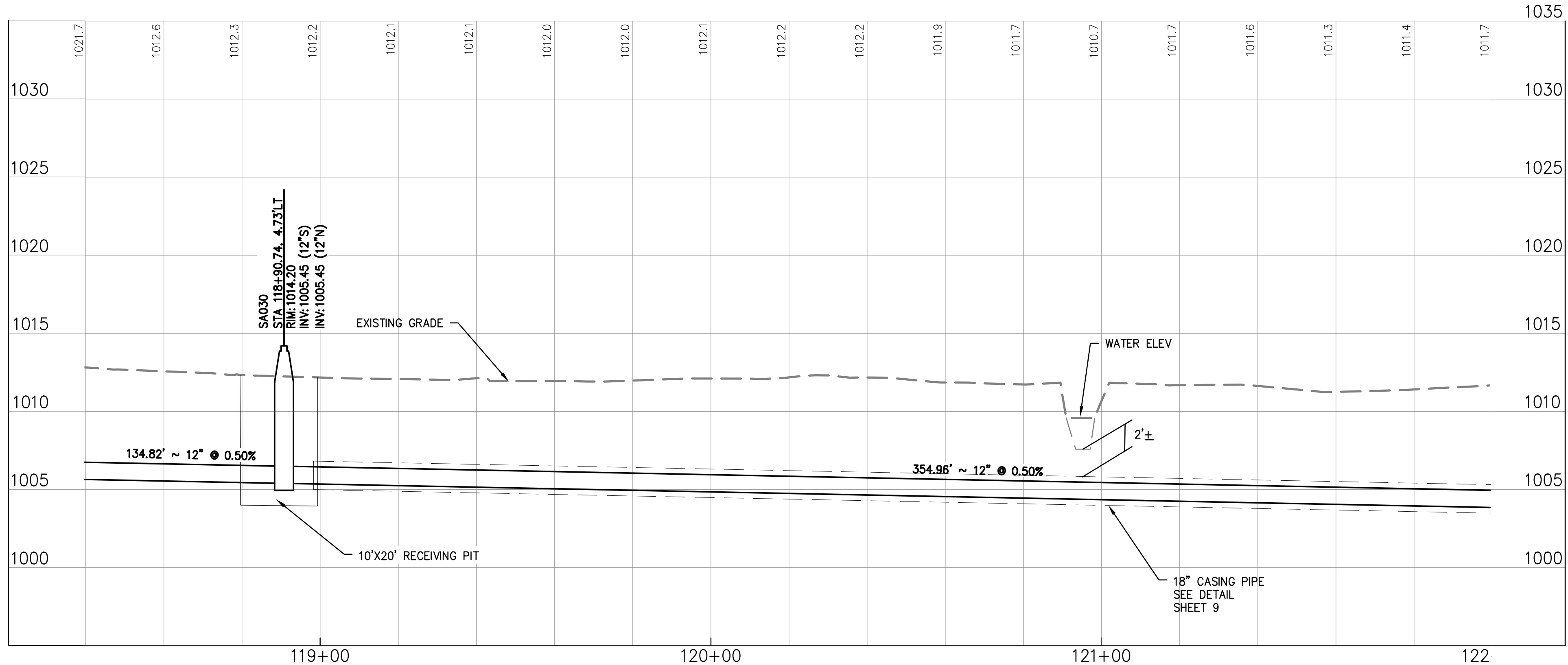
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JACKSON AVE SE
TRUNK SWR STA
114+50 - 118+40

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- NOTES:
1. PROVIDE CLEARING AS NEEDED
 2. GRAVEL ACCESS DRIVE. SEE SHEET 9
 3. NO WORK WITHIN THE WETLANDS SHALL BE PERFORMED UNTIL A PERMIT HAS BEEN OBTAINED FROM THE USACE
 4. SEE SHEET 3 FOR EROSION CONTROL MEASURES



0 20 40
GRAPHIC SCALE IN FEET

JACKSON AVE SE
TRUNK SEWER
PERRY TOWNSHIP, OHIO

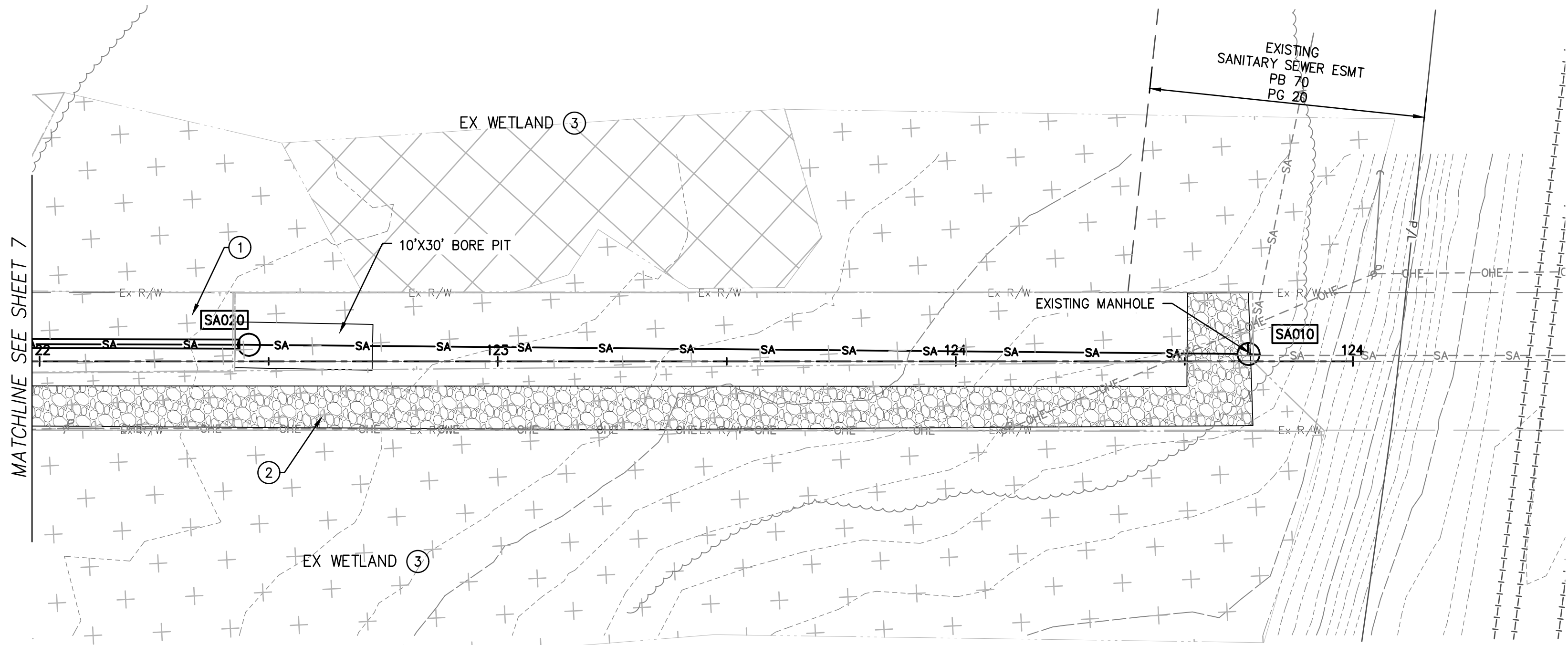


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REVISIONS		
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1	03-25-2022	PER CITY REVIEW
2	02-06-2023	PER CITY REVIEW
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PROJECT NO.:		----
DRAWN BY:		###
CHECKED BY:		###
DATE ISSUED:		12-20-2021

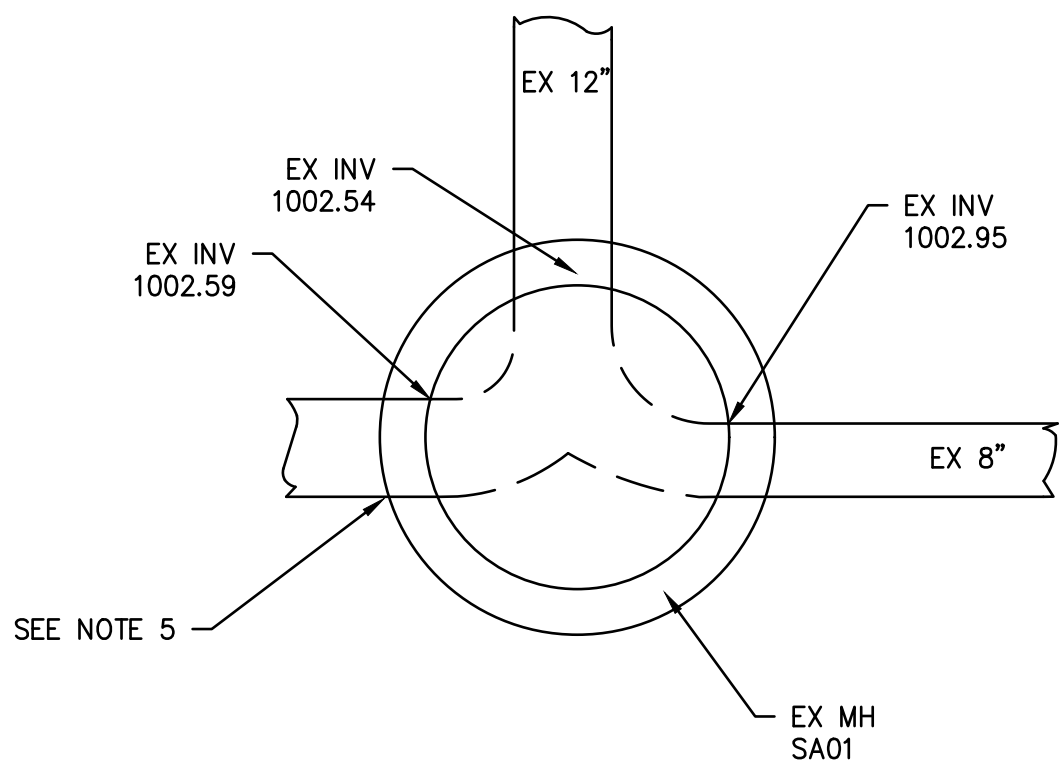
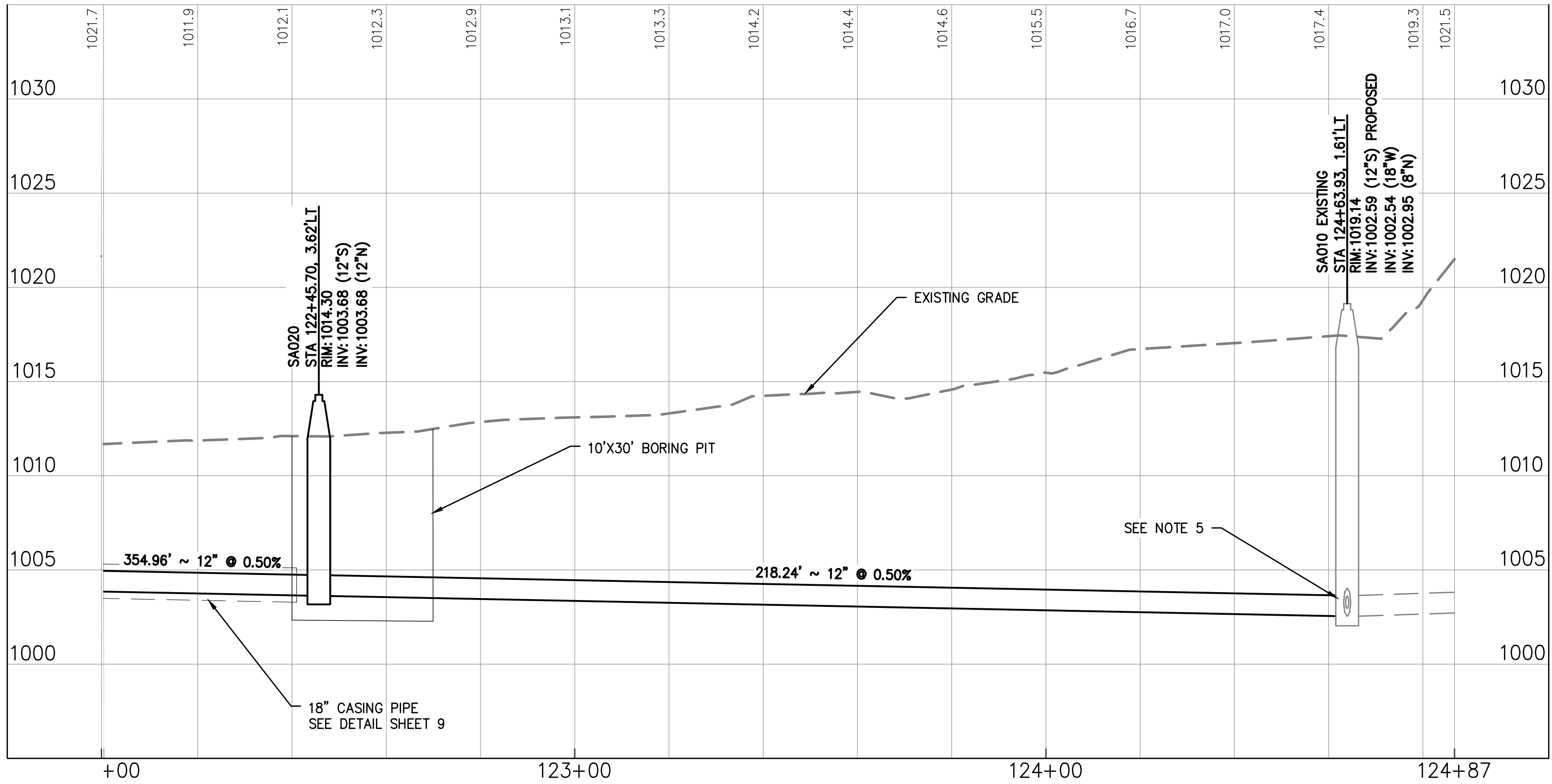
JACKSON AVE SE
TRUNK SWR STA
118+40 - 122+00

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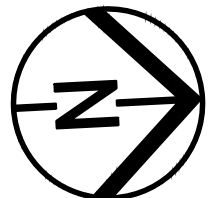


JACKSON AVE S.E. 30' R/W

NOTE
PER FEMA
39151C0211E
9/29/2011
NO FLOOD PLAIN
EXISTS IN THIS
AREA



- NOTES:
1. PROVIDE CLEARING AS NEEDED
 2. GRAVEL ACCESS DRIVE. SEE SHEET 9
 3. NO WORK WITHIN THE WETLANDS SHALL BE PERFORMED UNTIL A PERMIT HAS BEEN OBTAINED FROM THE USACE
 4. SEE SHEET 3 FOR EROSION CONTROL MEASURES
 5. PROVIDE WATER TIGHT SEAL AT MANHOLES



0 20 40
GRAPHIC SCALE IN FEET



JACKSON AVE SE
TRUNK SEWER
PERRY TOWNSHIP, OHIO

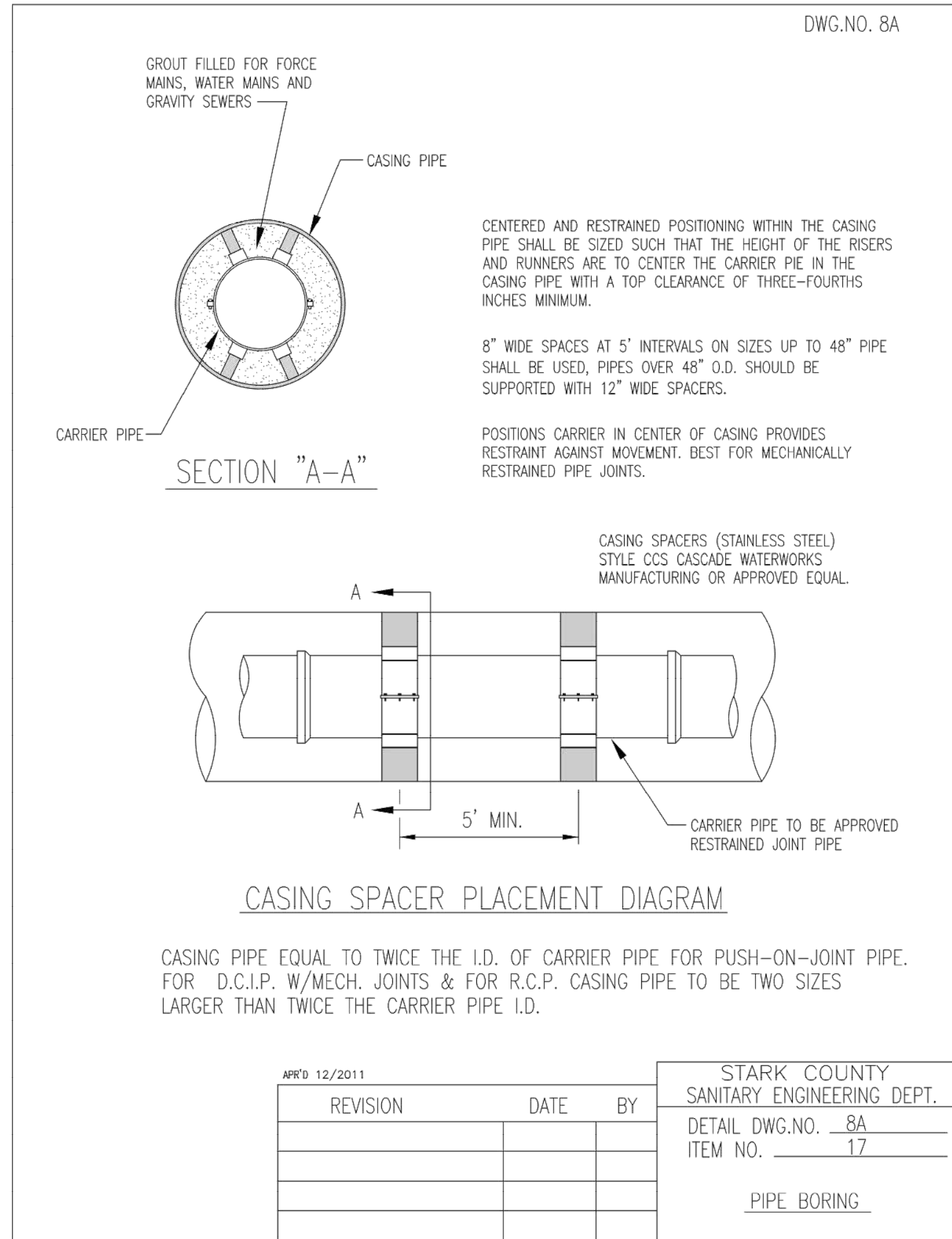
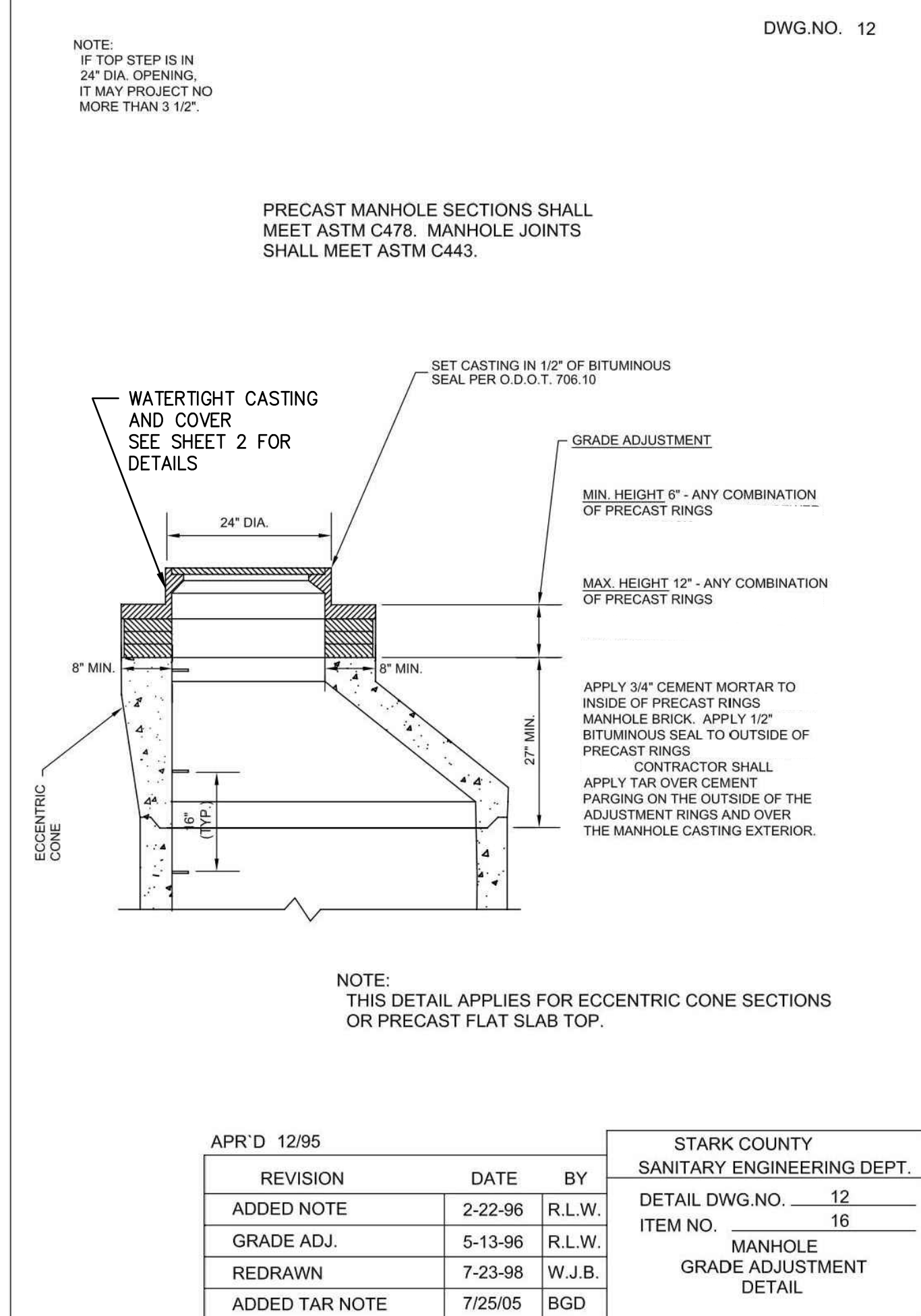
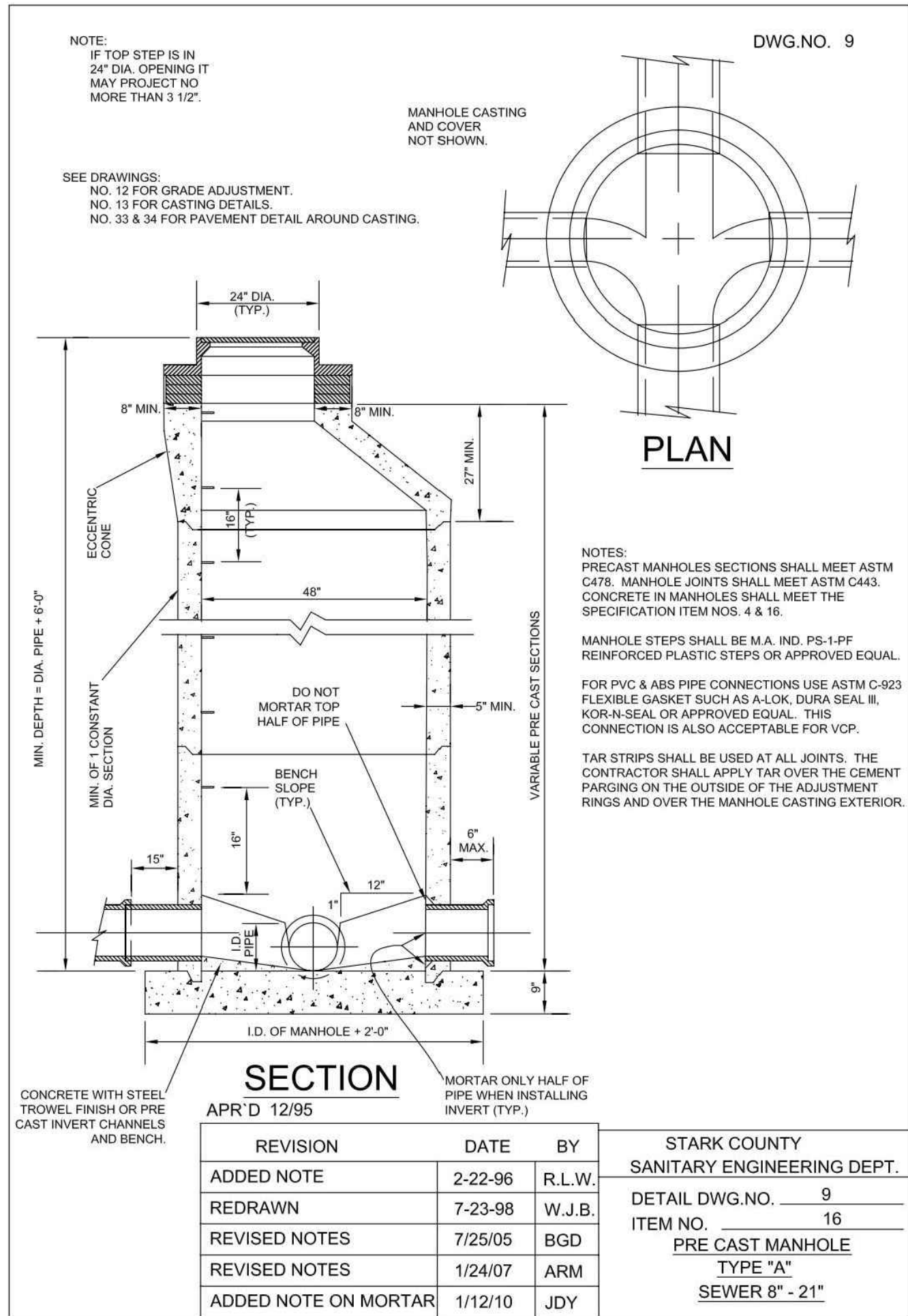


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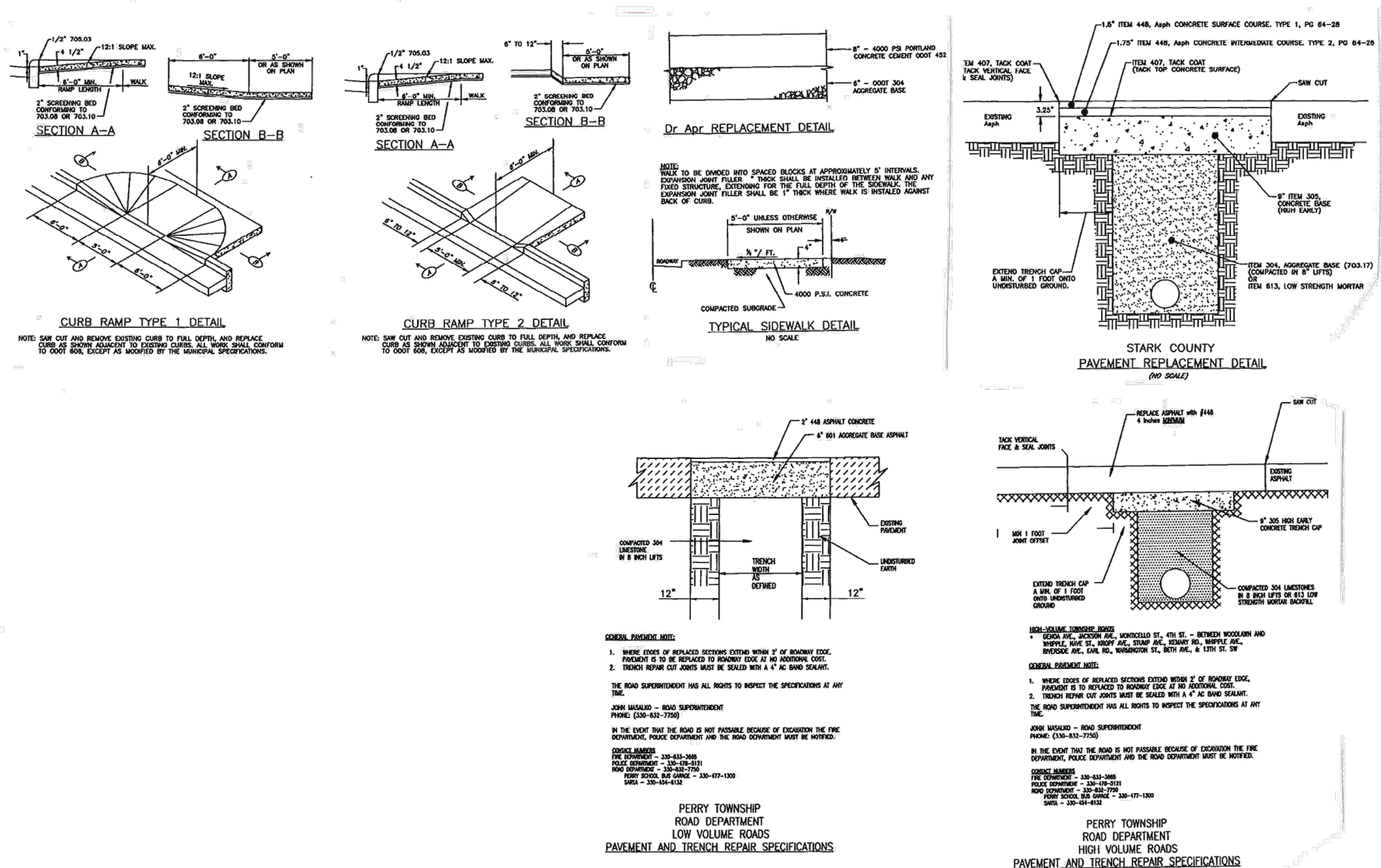
JACKSON AVE SE
TRUNK SWR STA
122+00 - 124+88

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2
9

SANITARY SEWER CASING DETAIL
NOT TO SCALE



JACKSON AVE SE
TRUNK SEWER
PERRY TOWNSHIP, OHIO

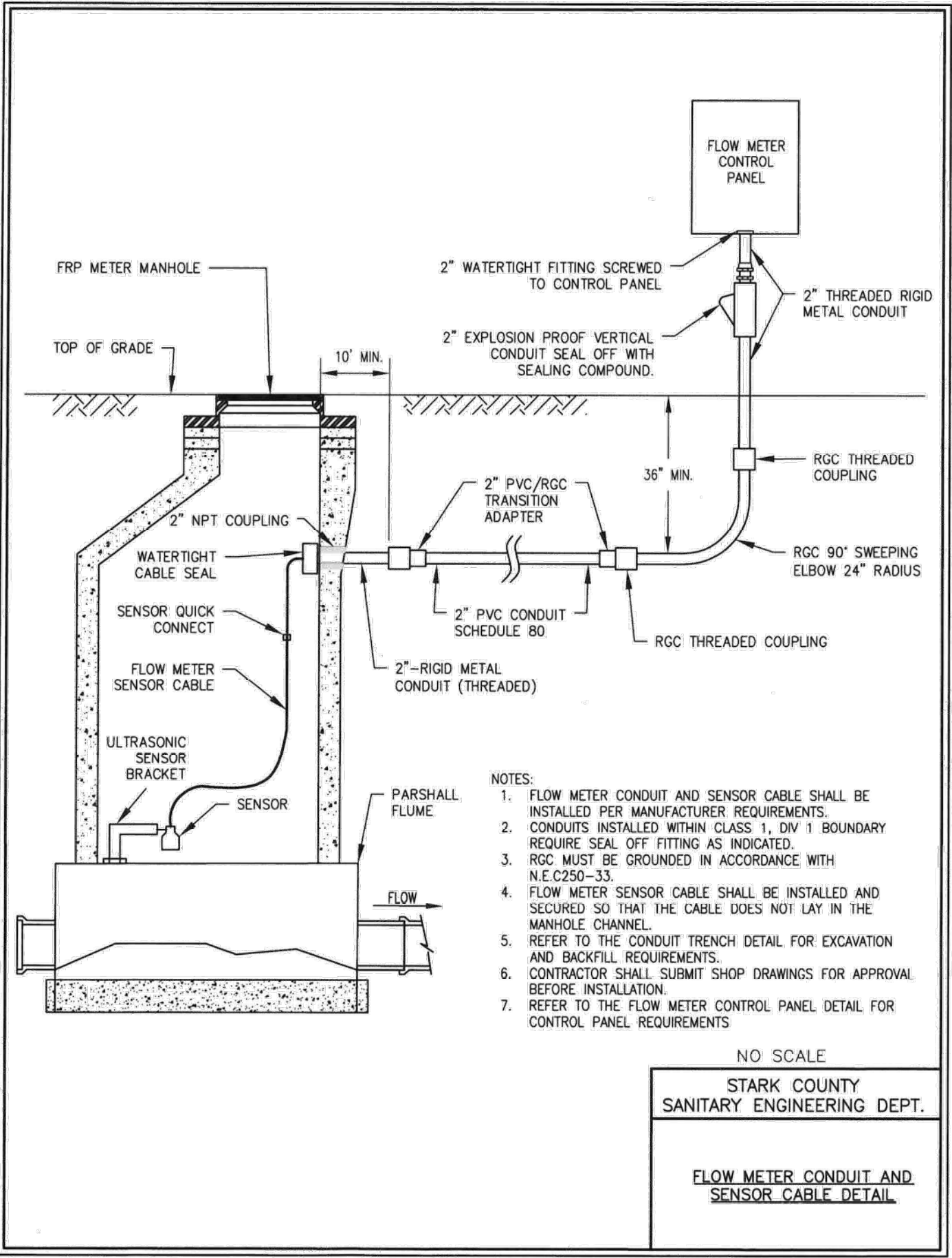
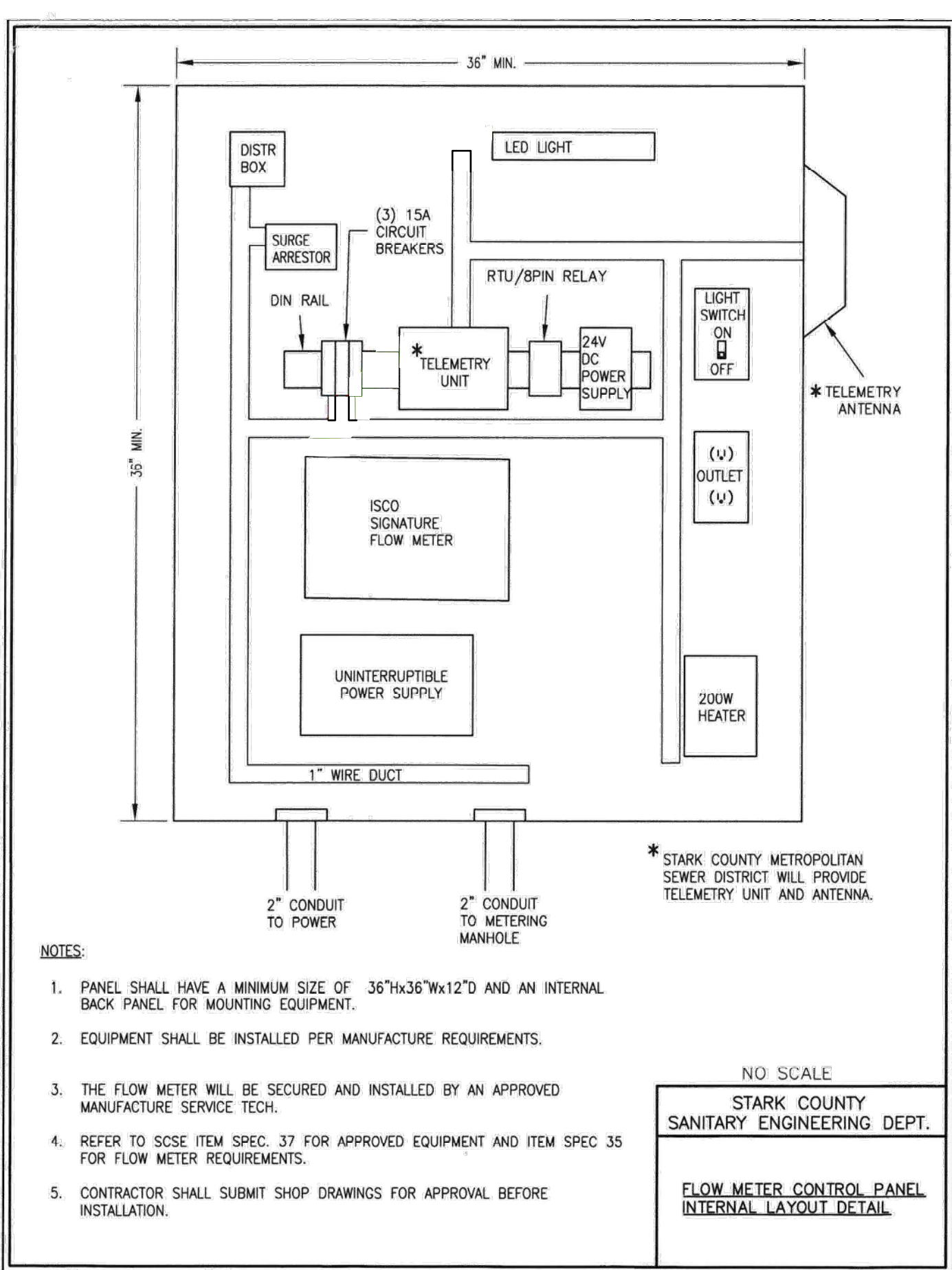
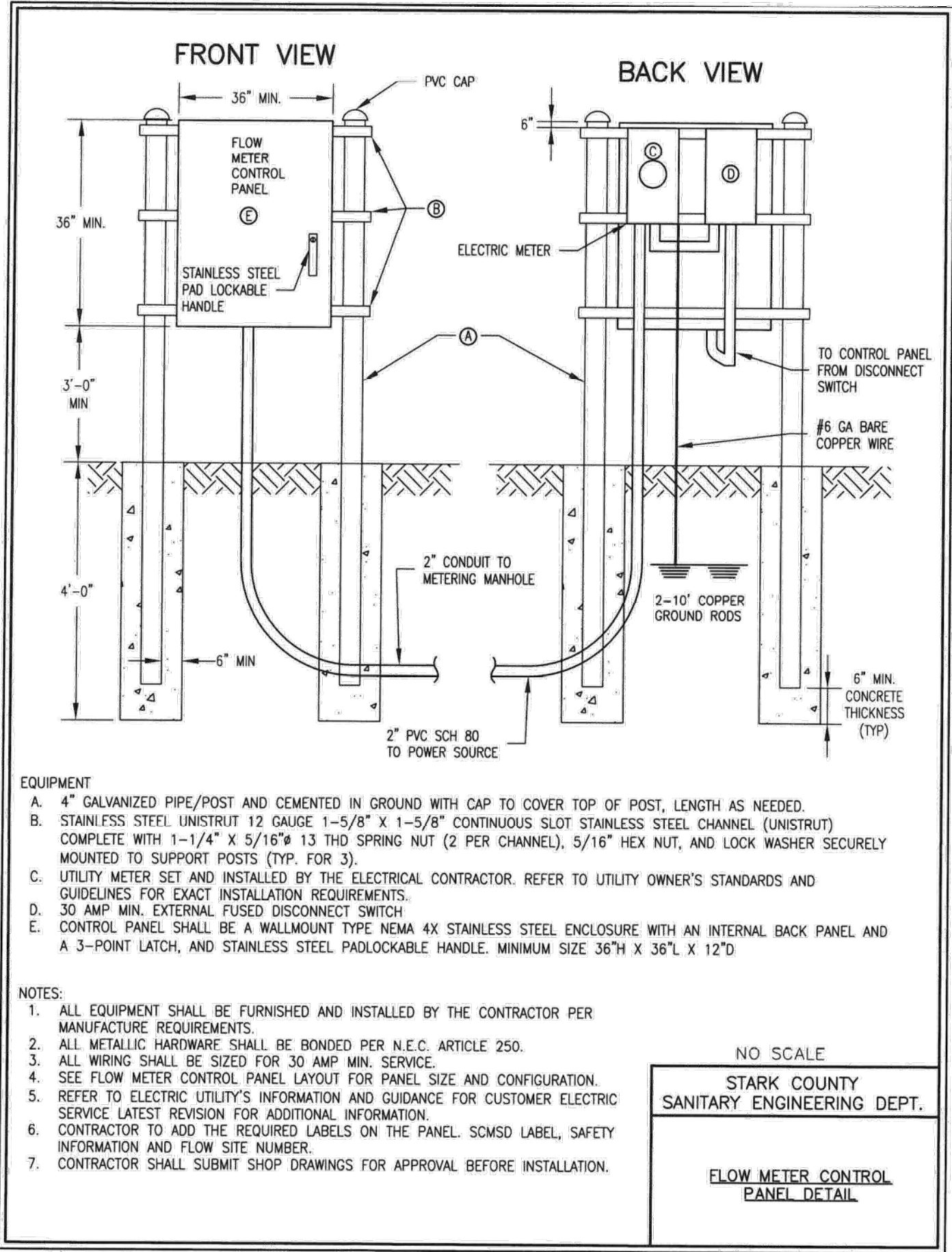
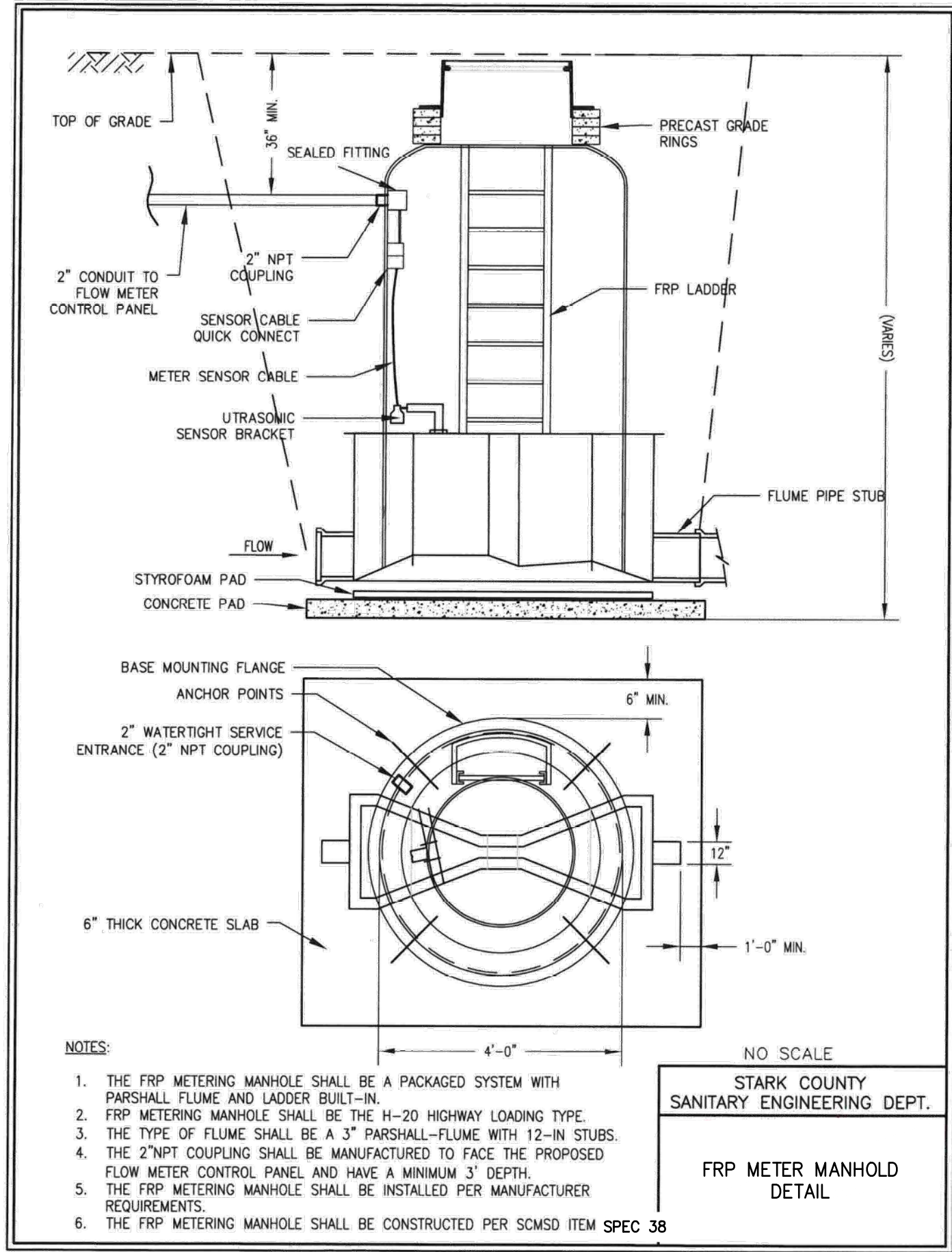


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NO.	DATE	DESCRIPTION

PROJECT NO.: _____
DRAWN BY: EB
CHECKED BY: RJW
DATE ISSUED: 12-05-2021

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FRP MANHOLE
ITEM 38

WORK INCLUDED (Sec. 38.01) The contractor shall, under Item 38 furnish and install a packaged fiberglass reinforced plastic (FRP) flow metering manhole for use in measuring sanitary sewer flows in strict accordance with the requirements hereinafter specified.

The package flow metering manhole shall include but not be limited to prefabricated fiberglass manhole, cone top reducer, manhole casting and cover, grade rings, sewer pipe end adapters, ladder, integral flume, concrete base, bead board, anchor bolts, and any necessary appurtenances.

It is the intent of this contract that the final installation shall be complete in all respects and the Contractor shall be responsible for minor details and any necessary special construction not specifically included in the Drawings or Specifications.

This work shall include all required earth excavation, backfill, concrete work, dewatering, flow maintaining/diversion, and furnishing of all labor, equipment, and materials necessary to complete this item.

WORKMANSHIP (Sec. 38.02) All work shall be installed in strict accordance with the Requirement, codes and ordinances of the owner and shall meet the inspection of same. Workmanship shall be first class in every respect and persons who are thoroughly experienced in this line of work shall carry out all work.

SUBMITTAL (Sec. 38.03) The Contractor shall submit detail drawings, drawn to scale, catalog data, and three (5) copies and cuts of all equipment he proposes to furnish.

FLOW METERING MANHOLE (Sec. 38.04) The Contractor shall furnish and install complete and in place flow metering manhole which shall consist of the following components:

Manhole shall meet the requirements of ANSI/ASTM D-3753 Standard Specifications for Fiber Reinforced Manholes. The packaged metering manhole shall be designed to withstand a 16,000 pound vertical dynamic wheel load (H-20), plus lateral forces from earth loading, ground water and frozen soil. The manhole opening shall be a 22-1/2 inch man-way for use with a cast iron cover, suitable for H-20 highway loading.

In general the top of an H-20 manhole should be manufactured one foot less than the distance from the pipe invert to the finish grade. Refer to the manufacturer for ordering height.

The manhole shall be a five feet (5') diameter corrosion resistant fiberglass reinforced plastic (FRP manhole) as manufactured by Tracom, Inc. or approved equal with sealed fiberglass bottom, fiberglass access ladder, self contained integral flow measuring flume, two flexible boots with stainless steel clamps sized to connect the existing inlet and outlet pipes to the manhole pipe stubs - boots shall be Strong Back Fernco, RC Series Repair Coupling and hold-down brackets for anchoring the unit to the concrete slab base. An integral 2" NPT watertight coupling shall be installed at the depth and location shown on the plans.

The concrete slab base shall be seven feet (7') square by six inches (6") thick. A one-half inch (1/2") thick expanded polystyrene bead board shall be supplied for placement on the concrete slab under the manhole. Concrete Work shall be done in accordance with Item 4. All concrete shall be Class "A". Separate payment shall not be made. Prior to installation of the base slab the foundation shall be prepared with the installation of 8" of #4 limestone, compacted, leveled and ready for pouring the concrete base.

An integral flume, of the size and type as indicated on the plans, shall be provided with a head gauge calibrated in tenths of a foot; molded into the side of the flume, a two position stainless steel ultrasonic mounting bracket (Ultrasonic Meter) at the point of measurement as indicated on the plans.

A concrete bench shall be supplied after manhole installation. Refer to INSTALLATION section below.

FRP Manhole Schedule

P-_____:

MH/Site No.	Site Name	Diameter	Flume Type	Flume Size

MANHOLE CASTING AND COVER (Sec. 38.05) Manhole frames and covers are required and shall be Stark County Standards as shown on Detail Drawings 13 or 13A. All covers shall bear the words "Sanitary Sewer", or "San. Sewer" cast in raised letters. Finished dimensions shall not vary more than 1/8 inch. The rim and cover shall be machined to prevent rocking of the cover. For grade adjustment refer to Detail Drawing No. 12 and use precast adjustment rings.

INSTALLATION (Sec. 38.06) Flow metering manholes shall be installed where shown on the plans or as directed by the Engineer and in accordance with manufacturers recommendations, unless otherwise noted on the plans. The completed installation shall be completely accessible and shall be such that the possibility of damage from vehicles or injury to pedestrians will be minimized.

The contractor shall OUPS all utilities and notify the Engineer of any utility conflicts not shown on the plans.

After manhole installation per the manufacturer's instructions, the bottom of the manhole around the flume shall be filled with concrete to form a bench that slopes back to the flume to provide a dry bench during normal operation. Care shall be taken during pouring of bench so that the flume is not damaged or distorted and concrete is kept out of pipe.

The contractor shall see that good construction and installation procedures are followed throughout the handling, storage, and placement process to ensure that the manhole is not damaged, and that acceptable operational results are achieved.

Excavation and Backfill shall be done in accordance with the plans and Item 1 of the specifications. Separate payment shall not be made.

MEASUREMENT AND PAYMENT (Sec 38.07) All materials, labor, and equipment to complete the work as called for on the drawings and as specified herein shall be included in the lump sum cost for the metering site under Contract 1A.

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PROJECT NO.: -----

DRAWN BY: EB

CHECKED BY: RJW

DATE ISSUED: 12-05-2021