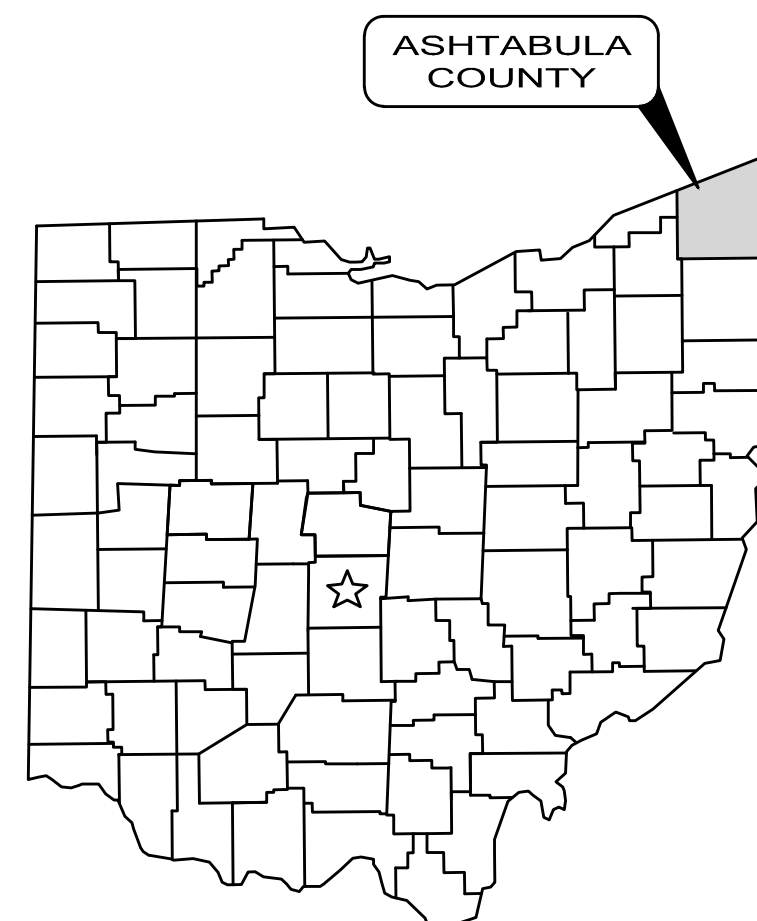


VILLAGE OF GENEVA-ON-THE-LAKE SANITARY SEWER TRUNK LINE REPLACEMENT

ASHTABULA COUNTY, OHIO

JUNE 2024

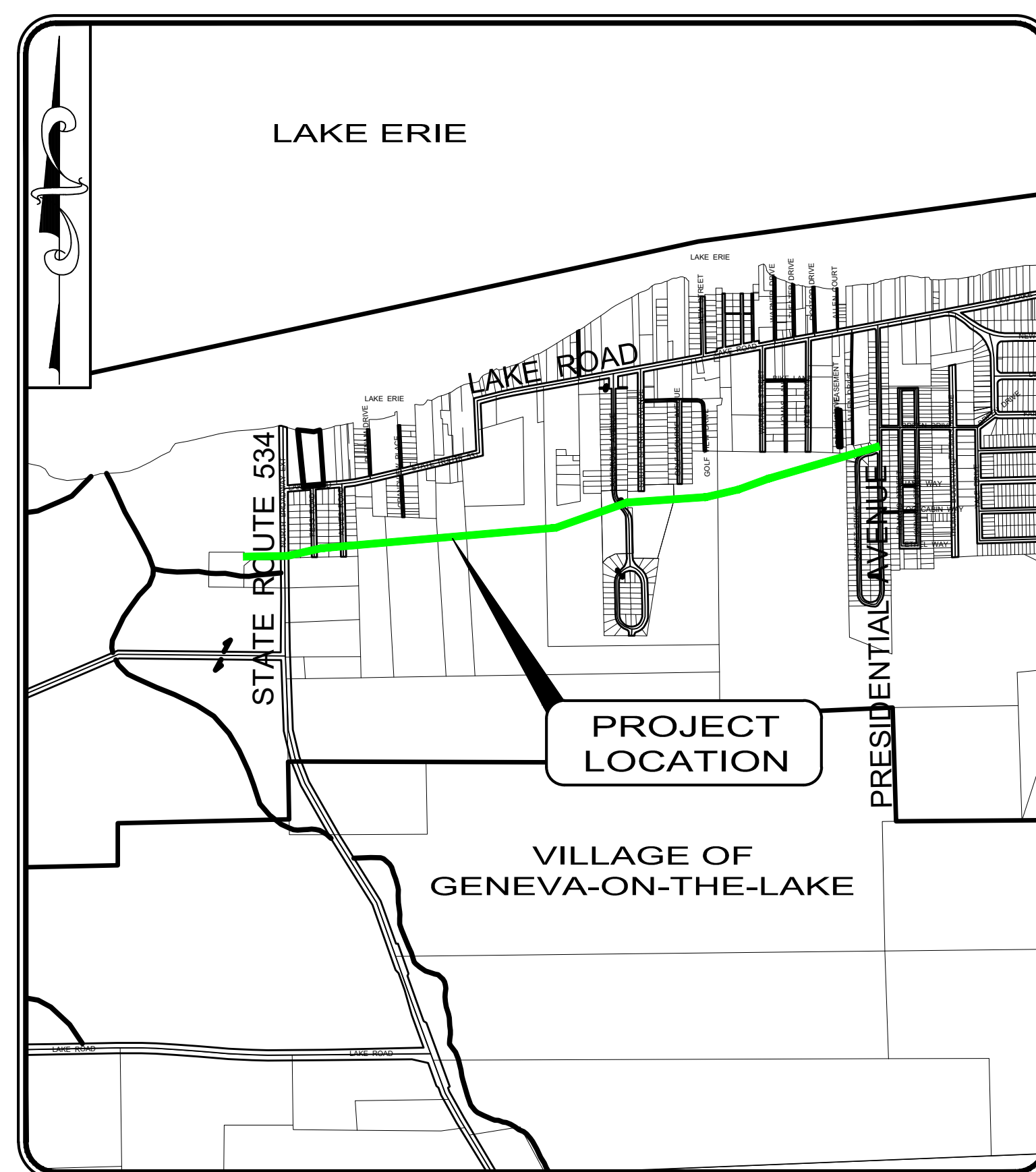


UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988



LOCATION MAP
1" = 1000'

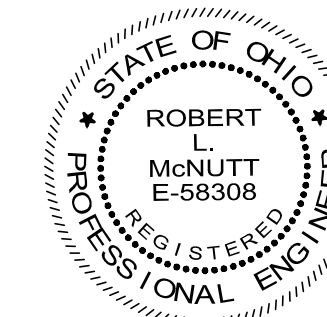
OFFICIALS

DWAYNE M. BENNETT, Sr. MAYOR
JEREMY SHAFFER VILLAGE ADMINISTRATOR
CHRISTOPHER M. NEWCOMB VILLAGE SOLICITOR
TAMMY CAYA FISCAL OFFICER

GENEVA-ON-THE-LAKE COUNCIL

MATT CAUDILL PRESIDENT
BJ McMULLAN MEMBER
DON WOODWARD MEMBER
PJ MACCHIA MEMBER
GARY HIMES MEMBER
CINDEE DUDECK MEMBER

1. THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.
2. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
3. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.



Robert L. McNutt, P.E.

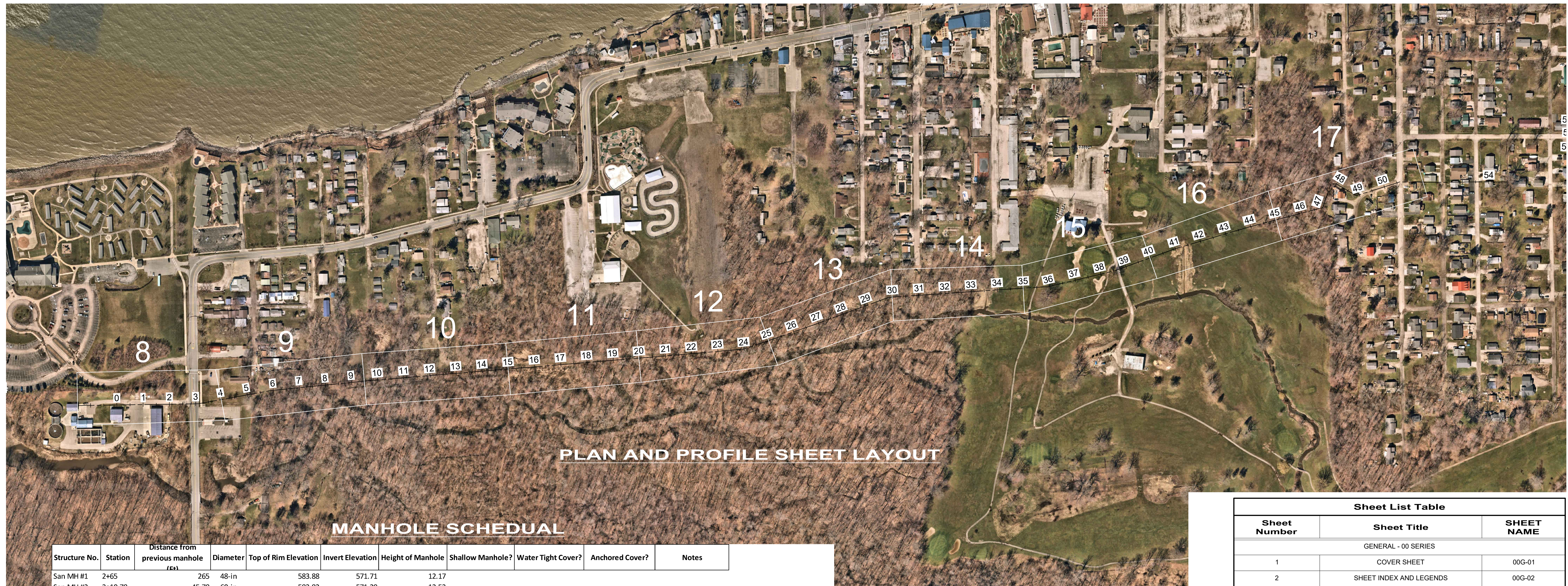
ROBERT McNUTT, P.E. P.E. No. 58308 DATE 6/24/2024



NO	REVISION	DATE

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
ASHTABULA COUNTY OHIO
GENERAL - 00 SERIES
COVER SHEET

PROJECT NO: 231183	
DRAWING NAME 00G-01	
SHEET 1	OF 29



PLAN AND PROFILE SHEET LAYOUT

MANHOLE SCHEDULE

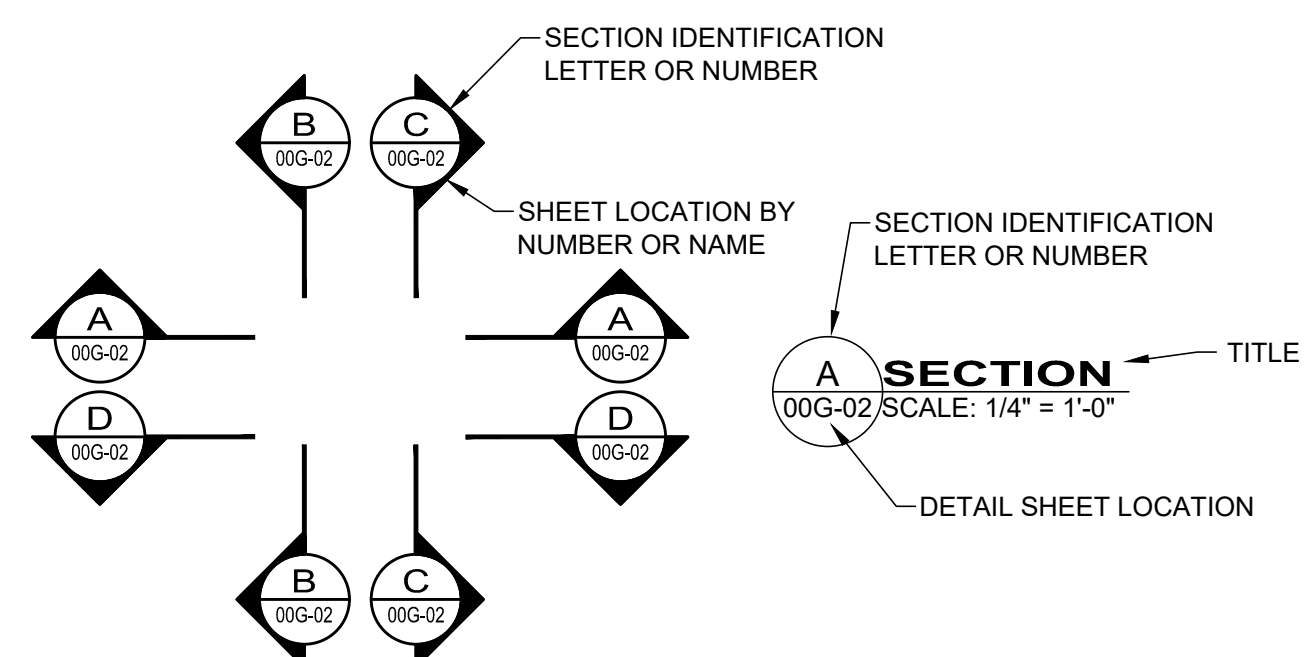
Structure No.	Station	Distance from previous manhole (ft)	Diameter	Top of Rim Elevation	Invert Elevation	Height of Manhole	Shallow Manhole?	Water Tight Cover?	Anchored Cover?	Notes
San MH #1	2+65	265	48-in	583.88	571.71	12.17				
San MH #2	3+10.78	45.78	60-in	583.82	571.29	12.53				
San MH #3	5+85.75	274.97	48-in	580.37	572.28	8.09		X	X	in wetlands
San MH #4	9+68.06	382.31	48-in	577.00	572.99	4.01	X	X	X	shallow + in wetlands
San MH #5	12+89.21	321.15	48-in	578.85	573.56	5.29	X	X	X	Should be shallow? In wetlands
San MH #6	16+08.83	319.62	48-in	580.05	574.14	5.91	X	X	X	shallow? In wetlands
San MH #7	19+07.51	298.68	48-in	581.91	574.67	7.24				Shallow? close to wetlands not in tho
San MH #8	21+96.14	288.63	48-in	581.21	575.19	6.02	X	X	X	in wetlands
San MH #9	24+01.6	205.46	48-in	580.79	575.57	5.22	X	X	X	Shallow, in wetlands
San MH #10	26+85.2	283.6	48-in	580.64	576.08	4.56	X			not in wetlands but surrounded - watertight?
San MH #11	28+56.46	171.26	48-in	581.37	576.40	4.97	X	X	X	shallow & in wetlands
San MH #12	29+85.67	129.21	60-in	587.25	576.63	10.62		X	X	in wetlands
San MH #13	30+80.72	95.05	60-in	588.81	576.81	12		X	X	in wetlands
San MH #14	33+92.72	312	48-in	581.85	577.38	4.47	X	X	X	in wetlands, shallow
San MH #15	35+96.5	203.78	48-in	582.01	577.77	4.24	X	X	X	in wetlands, shallow
San MH #16	38+54.52	258.02	48-in	584.85	578.26	6.59		X	X	in wetlands
San MH #17	40+94.92	240.4	60-in	583.62	578.72	4.9	X	X	X	in wetlands, shallow
San MH #18	43+84.15	289.23	48-in	584.66	579.27	5.39	X	X	X	shallow? In wetlands
San MH #19	46+82.93	298.78	48-in	594.04	579.83	14.21				
San MH #20	47+78.5	95.57	48-in	580.02	580.02	15.09				
San MH #21	47+99.5	21	48-in	596.30	580.06	16.24				drop manhole
San MH #22	48+87.41	85.35	48-in	596.33	596.10	0.23				

11 14 14
anchored and bolted in PTI state that they will include gaskets and anchored cover for no additional cost

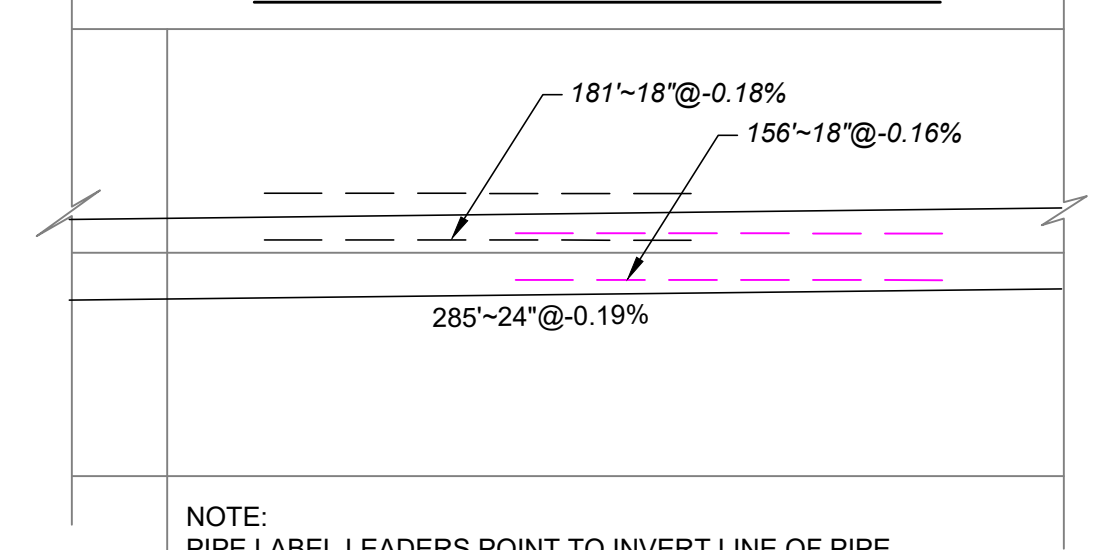
ABBREVIATIONS DRAWING SERIES

- | | |
|------------------------------|-------------------------------|
| ADD'L = ADDITIONAL | GENERAL - 00 SERIES |
| AGG = AGGREGATE | PLAN AND PROFILES - 01 SERIES |
| ALUM. = ALUMINUM | JUNCTION CHAMBER - 10 SERIES |
| BOT = BOTTOM | STANDARD DETAILS - SD SERIES |
| BTWN = BETWEEN | SWPPP - SW SERIES |
| C/L = CENTERLINE | |
| CLR = CLEAR | |
| CONC = CONCRETE | |
| CONT = CONTINUOUS | |
| DWL = DOWN(S) | |
| EF = EACH FACE | |
| EL = ELEVATION | |
| EMBED = EMBEDMENT | |
| EW = EACH WAY | |
| FF = FINISH FLOOR | |
| FND = FOUNDATION | |
| HORIZ = HORIZONTAL | |
| HP = HIGH POINT | |
| LP = LOW POINT | |
| MAX = MAXIMUM | |
| MFR = MANUFACTURER | |
| MIN = MINIMUM | |
| OC = ON CENTER | |
| REF = REFERENCE | |
| REINF = REINFORCING | |
| STRC = STRUCTURE | |
| T/ = TOP OF | |
| TYP = TYPICAL | |
| UNO = UNLESS NOTED OTHERWISE | |
| VERT = VERTICAL | |

SECTION CUT CONVENTIONS:

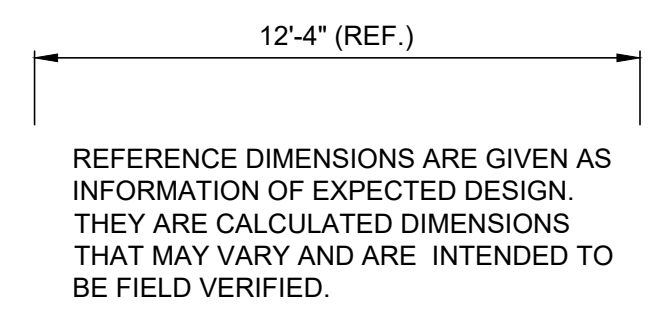


PIPE LABELS IN PROFILES

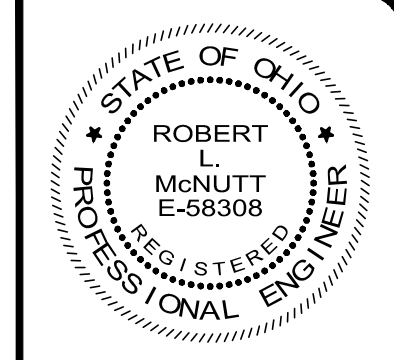


NOTE:
PIPE LABEL LEADERS POINT TO INVERT LINE OF PIPE.
VERTICAL LETTERING INDICATES PROPOSED.
SLANT TEXT AND SHADED OBJECTS INDICATE EXISTING.
MAGENTA COLOR INDICATES PREVIOUSLY ABANDONED SEWER.

REFERENCE DIMENSION:



Sheet Number	Sheet Title	SHEET NAME
GENERAL - 00 SERIES		
1	COVER SHEET	00G-01
2	SHEET INDEX AND LEGENDS	00G-02
3	GENERAL NOTES	00G-03
4	SURVEY CONTROL	00G-04
5	SURVEY CONTROL	00G-05
6	SURVEY CONTROL	00G-06
7	SURVEY CONTROL	00G-07
PLAN AND PROFILES - 01 SERIES		
8	STA. 0+00 TO STA. 4+00	PP-01
9	STA. 4+00 TO STA. 9+50	PP-02
10	STA. 9+50 TO STA. 15+00	PP-03
11	STA. 15+00 TO STA. 20+00	PP-04
12	STA. 20+00 TP STA. 25+00	PP-05
13	STA. 25+00 TO STA. 30+00	PP-06
14	STA. 30+00 TO STA. 35+00	PP-07
15	STA. 35+00 TO STA. 40+00	PP-08
16	STA. 40+00 TO STA. 45+00	PP-09
17	STA. 45+00+00 TO STA. 50+65	PP-10
JUNCTION CHAMBER - 10 SERIES: STRUCTURAL		
18	PIPING AND STRUCTURAL PLANS & SECTIONS	10S-01
19	STRUCTURAL GENERAL NOTES	10S-02
20	STRUCTURAL DETAILS	10S-03
STANDARD DETAILS - SD SERIES		
21	CONSTRUCTION DETAILS	SD-01
22	CONSTRUCTION DETAILS	SD-02
23	CONSTRUCTION DETAILS	SD-03
24	CONSTRUCTION DETAILS	SD-04
25	CONSTRUCTION DETAILS	SD-05
26	CONSTRUCTION DETAILS	SD-06
27	CONSTRUCTION DETAILS	SD-07
SWPPP - SW SERIES		
28	SWPPP DETAILS & NOTES	SW-01
29	SWPPP DETAILS & NOTES	SW-02



NO	REVISION	DATE

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 GENERAL - 00 SERIES
 SHEET INDEX AND LEGENDS

PROJECT NO:
231183

DRAWING NAME
00G-02

SHEET **2** OF **29**

GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF GENEVA-ON-THE-LAKE, THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHEN IN CONFLICT THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
- 2. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS SHALL BE NEW AND BOTH WORKMANSHIP AND MATERIALS SHALL BE OF PREMIUM QUALITY, PROPER AND SUFFICIENT FOR THE PURPOSE CONTEMPLATED. THE CONTRACTOR SHALL FURNISH, IF SO REQUIRED, SATISFACTORY EVIDENCE AS TO TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP.
- 3. ALL ITEMS OF EQUIPMENT AND/OR MATERIAL PROPOSED BY THE CONTRACTOR FOR SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER IN WRITING AND SHALL BE EQUAL OR SUPERIOR TO THE ITEMS SPECIFIED IN THE CONTRACT DOCUMENTS. IF SAID SUBSTITUTION PROPOSED BY THE CONTRACTOR FOR A SPECIFIED ITEM REQUIRES ENGINEERING REVISIONS, THE TOTAL EXPENSE OF SAID REVISIONS SHALL BE PAID BY THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL CHARGES AND FEES AS MAY BE NECESSARY AND REQUIRED BY THE VILLAGE OR STATE.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THEIR WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING FEATURE, (I.E. EXISTING INLETS, CONDUITS, ETC.) WHICH IS NOT MARKED FOR REPLACEMENT OR REMOVAL. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE OPERATIONS OF THE CONTRACTOR, THEY SHALL REPLACE THE DAMAGED PORTION AT HIS EXPENSE.
- 6. THE CONTRACTOR SHALL EXERCISE DUE CARE DURING CONSTRUCTION SO AS NOT TO DESTROY ANY TREES, PLANTS, SHRUBS OR STRUCTURES OUTSIDE OF THE INDICATED WORK LIMITS AND THOSE NOT SPECIFICALLY MARKED FOR REMOVAL OR RELOCATION WITHIN THE WORK LIMITS.
- 7. IN SOME INSTANCES, THE CONTRACTOR WILL BE REQUIRED TO EXCAVATE UNDER AND AROUND THE EXISTING UTILITIES. EXTREME CARE SHOULD BE USED NOT TO DAMAGE THE UTILITY DURING THIS OPERATION.
- 8. ALL EXISTING PAVEMENT SHALL BE SAW CUT WITH A DIAMOND TIPPED BLADE BEFORE REMOVAL TO OBTAIN UNIFORM EDGE.
- 9. DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR SIDEWALK UNLESS OTHERWISE INDICATED.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A MAINTENANCE OF TRAFFIC PLAN AND SCHEDULE FOR APPROVAL WITH THE ENGINEER.
- 11. EXISTING CONDITIONS ARE BASED ON A COMBINATION OF FIELD WORK OBTAINED BY CT CONSULTANTS, UTILITY PROVIDED RECORD DRAWINGS, AVAILABLE GIS DATA, AND PRELIMINARY DESIGN INFORMATION.
- 12. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE GENEVA ON THE LAKE DEPARTMENT OF UTILITIES DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS AND THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO CONFIRM THE PRESENCE AND LOCATION OF ANY AND ALL EXISTING UTILITIES.
- 13. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE THEIR WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT BE THE RESPONSIBILITY OF THE GENEVA ON THE LAKE DEPARTMENT OF UTILITIES.
- 14. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK WITH THE UTILITY COMPANY'S SCHEDULE.
- 15. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL THE EXISTING GAS, WATER, ELECTRIC, CABLE, TELEPHONE, OR OTHER UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF ANY PROPOSED IMPROVEMENT INDICATED ON THE PLANS. SHOULD A CONFLICT EXIST AT A UTILITY CROSSING, THE PROJECT ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- 16. 48 HOURS PRIOR TO ANY EXCAVATION NOTIFY OHIO ONE CALL @ 811.
- 17. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY.
- 18. ALL MATERIALS TO BE REMOVED FROM THE SITE SHALL BE DISPOSED AT A LICENSED FACILITY PER ALL APPLICABLE STATE, FEDERAL AND LOCAL REGULATIONS.
- 19. TRENCH BACKFILL SHALL BE COMPACTION TESTED FOR EVERY 1' OF FILL PLACED WITHIN LIMITS OF A DRIVEWAY OR PROVIDE FLOWABLE FILL BACKFILL.
- 20. DEWATERING WILL BE REQUIRED ON THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN WATER LEVELS IN OPEN TRENCHES AND DISCHARGE IN ACCORDANCE WITH ASHTABULA COUNTY SOIL AND WATER CONSERVATION DISTRICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR DEWATERING.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT ITEM 207 AND AS REQUIRED BY THE ASHTABULA COUNTY SOIL AND WATER CONSERVATION DISTRICT.
- 22. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT

- 23. PROPERTY PINS AND MONUMENTS NEAR THE IMPROVEMENT, WHICH MAY BE DISTURBED BY THE CONTRACTOR, SHALL BE REFERENCED BY A PROFESSIONAL SURVEYOR, SO THEY CAN BE REPLACED IN THE EVENT THAT THEY ARE DISTURBED DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT ALL PINS, MONUMENTS AND REFERENCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF LOCATING AND REFERENCING AND REPLACING THE PROPERTY PINS AND MONUMENTS AS DIRECTED BY THE ENGINEERS.
 - 24. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM THEIR OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ANY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE REGRADED BY THE END OF THE SAME WORK DAY. THE COST FOR THIS WORK SHALL BE COVERED UNDER THE COST PER LINEAL FOOT OF SEWER.
 - 25. ALL EXISTING STORM AND SANITARY SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM AS DIRECTED BY THE ENGINEER.
 - 26. RESTORATION SHALL INCLUDE SEEDING AND MULCHING OF DISTURBED AREAS, RESTORATION OF EXISTING DRIVES AND FINAL CLEAN UP.
 - 27. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL BENCH MARKS, PROPERTY LINE REFERENCES (E.G., PINS, PIPES, MONUMENTS), REFERENCE POINTS, STAKES AND ANY OTHER SURVEY REFERENCE. IN CASE OF DISTURBANCE, THE CONTRACTOR SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT THE CONTRACTOR'S EXPENSE AND SHALL BE RESPONSIBLE FOR ANY ERRORS THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE. ALL NOTES AND CALCULATIONS USED IN RESETTLE OR REPLACEMENT OF PROPERTY PINS, MONUMENTS, REFERENCE POINTS, AND ANY OTHER SURVEY REFERENCE SHALL BE STAMPED, SIGNED AND DATED BY THE REGISTERED SURVEYOR AND COPIES PROVIDED TO THE OWNER.
 - 28. SURVEY AND STREET ALIGNMENTS SHOWN ON THESE PLANS WERE OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR OTHER PURPOSES.
- SANITARY SEWER NOTES**
- 1. SANITARY SEWERS SHALL MAINTAIN A MINIMUM OF 18" VERTICAL AND 10' HORIZONTAL FROM ANY WATER MAIN.
 - 2. SANITARY SEWER MUST BE A MINIMUM OF 4' HORIZONTALLY, MEASURED EDGE-TO-EDGE, FROM STORM SEWERS AND GAS LINES AND MUST MAINTAIN A MINIMUM 18" VERTICAL CLEARANCE AT ANY UTILITY LINE
 - 3. SANITARY SEWER AND MANHOLE TESTING REQUIREMENTS:
 - 3.1. LEAKAGE TESTING SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH SPECIFICATION SECTION 013319 AND RSWF 33.93 AND 33.94.
 - 3.2. DEFLECTION TESTING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 013319 AND RSWF 33.85.
 - 3.3. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH SPECIFICATION SECTION 013319 AND RSWF 34.7.
 - 4. TRENCHING, BEDDING, AND BACKFILL SPECIFICATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 333100 AND CONSTRUCTION DETAILS.
 - 5. SANITARY SEWER FOR OPEN CUT SHALL BE PVC SDR 26, ASTM D3034, JOINT SPEC ASTM D3212 OR APPROVED EQUIVALENT
 - 6. CONTRACTOR SHALL INSTALL DROP STRUCTURES IF INVERTS ARE MODIFIED AND PIPE INLET INVERT ABOVE THE MANHOLE INVERT IS 24" OR GREATER.
 - 7. WHEN EMPTY DURING CONSTRUCTION, THE STRUCTURES MAY BECOME BUOYANT. IN THE EVENT THAT THE EXCAVATIONS BECOME FLOODED, THE STRUCTURES MUST BE FILLED WITH WATER TO PREVENT FLOTATION OR THE EXCAVATION IS TO BE KEPT DEWATERED.
- MAINTENANCE OF TRAFFIC**
- 1. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN PEDESTRIAN AND LOCAL ROADWAY ACCESS AT ALL TIMES. THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY STONE DRIVES WITH A MATERIAL WHICH IS APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL INSTALL TEMPORARY TRENCH TOPPING (SEE DETAIL) IN ALL ROADS AS PART OF THE BACKFILLING OPERATION. THE TEMPORARY PAVEMENT AND STONE DRIVES SHALL BE MAINTAINED TO THE SATISFACTION OF THE ENGINEER. COST FOR ALL MATERIALS, LABOR AND EQUIPMENT FOR CONSTRUCTION MAINTENANCE AND SUBSEQUENT REMOVAL SHALL BE INCLUDED IN THE UNIT PRICES FOR ALL ITEMS OF THE PROPOSAL.
 - 2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". AS A MINIMUM THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN FOR REVIEW AND ACCEPTANCE BY THE ENGINEER PRIOR TO BEGINNING WORK.
 - 3. ACCESS MUST BE MAINTAINED FOR RESIDENCES, EMERGENCY VEHICLES AND PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, AT ALL TIMES.
 - 4. AT ALL EXCAVATION LOCATIONS THE CONTRACTOR SHALL PROVIDE SUITABLE FLASHERS, BARRICADES, AND TRAFFIC CONTROL DEVICES AS DEEMED NECESSARY BY THE ENGINEER AND IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - 5. THE CONTRACTOR SHALL PHASE CONSTRUCTION SUCH THAT AT A MINIMUM, ONE ACCESS LANE IS AVAILABLE FOR LOCAL VEHICULAR TRAFFIC. THE PAVEMENT SURFACE SHALL HAVE A UNIFORM SURFACE TO THE SATISFACTION OF

- NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE, AS DIRECTED BY THE ENGINEER, TO MAINTAIN ALL ROADWAYS BEING USED ALONG THE CONSTRUCTION SITE. PAYMENT FOR ALL SOIL EROSION, SEDIMENT AND DUST CONTROL MEASURES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER VARIOUS ITEMS.

GENEVA-ON-THE-LAKE. THE SAME ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS. ALL OTHER AREAS SHALL BE CLOSED TO TRAFFIC WITH SIGNS AND BARRICADES TO ODOT STANDARDS. THE SURFACES SHALL CONSIST OF THE FOLLOWING MATERIALS:

- 5.1. EXISTING PAVEMENT SURFACE.
- 5.2. ODOT 304 LIMESTONE TEMPORARY TRENCH TOPPING

PROHIBITED CONSTRUCTION ACTIVITIES

- 1. THE USE OF EXPLOSIVES, UNLESS A PERMIT IS ISSUED BY THE OWNER.
- 2. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, STREAM CORRIDORS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
- 3. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, OR ANY OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
- 4. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
- 5. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER.
- 6. OPERATION ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 PM OR OUTSIDE THE HOURS ALLOWED BY LOCAL ORDINANCES OR REGULATIONS.
- 7. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER AND CLOSING CLEAR ACCESS:
 - 7.1. BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
 - 7.2. BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR
 - 7.3. BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.
- 9. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.
- 10. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS.
- 11. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS.
- 12. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.
- 13. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
- 14. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.
- 15. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, RILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION.

AIR POLLUTION AND NOISE CONTROL PRACTICES

- 1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS, UNLESS APPROVED IN ADVANCE BY THE OWNER.
- 2. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
- 3. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.
- 4. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
- 5. UNPAVED AREAS WILL BE WET DOWN (AS NECESSARY) DURING CONSTRUCTION TO MINIMIZE DUST GENERATION.

EROSION AND SEDIMENT CONTROL:

- 1. ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AT A SITE APPROVED BY THE ENGINEER. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOODPLAIN, SURFACE WATER, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED. GIVING EXCAVATED SOIL AWAY DOES NOT RELIEVE THE CONTRACTOR OR ENGINEER OF THIS RESPONSIBILITY.
- 2. PROPERLY INSTALL EROSION CONTROLS (E.G., SILT FENCES, STRAW BALES, ETC.) ON SLOPES, ALONG STREAMS AND DRAINAGE WAYS, AROUND DRAINAGE STRUCTURES, WETLANDS AND ANYWHERE ELSE THAT EXPOSED SOIL COULD RUN OFF. ALL SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION.
- 3. NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY GIVEN TIME. TRENCH OPENING, PIPE LAYING, AND BACKFILLING SHOULD OCCUR SO AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA.

ARCHAEOLOGICAL / HISTORICAL RESOURCES:

- 1. CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53, TO NOTIFY OHIO'S STATE HISTORIC PRESERVATION OFFICE (SHPO), AND TO COOPERATE WITH THAT OFFICE IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND MITIGATION EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.

TREES/VEGETATION PROTECTION (PLEASE PAY ATTENTION TO BAT TREE REMOVAL DATES)

- TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHENEVER POSSIBLE. IF THE PROJECT IS LOCATED WITHIN THE RANGE OF THE FEDERALLY-ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND TREES MUST BE CUT, THIS MUST OCCUR BETWEEN SEPTEMBER 30 AND APRIL 1. INDIANA BATS ARE HIGHLY-DEPENDENT UPON TREES INCLUDING DEAD AND DYING TREES OF SPECIES WITH EXFOLIATING BARK, CREVICES, OR CAVITIES IN UPLAND AREAS OR RIPARIAN CORRIDORS AND LIVING TREES OF THE SPECIES LISTED ABOVE WITH EXFOLIATING BARK, CAVITIES, OR HOLLOW AREAS FORMED FROM BROKEN BRANCHES OR TOPS. IF SUITABLE TREES MUST BE CUT DURING THE PROHIBITED TIME PERIOD, A NET SURVEY MUST BE CONDUCTED TO DETERMINE THE PRESENCE OR ABSENCE OF INDIANA BATS PRIOR TO CUTTING.
- SOIL AND OTHER MATERIAL WILL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.



NO	REVISION	DATE

SCALE: AS NOTED	DATE: 6/21/24	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: RLM
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VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
ASHTABULA COUNTY OHIO
GENERAL - 00 SERIES
GENERAL NOTES

PROJECT NO: 231183	
DRAWING NAME: 00G-03	
SHEET 3	OF 29

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	801477.8802	2386798.0493	580.50	Iron Pin (Set)
3	801464.4761	2387165.4598	583.95	Iron Pin (Set)
4	801484.5647	2387355.4828	583.28	Iron Pin (Set)
5	801547.3083	2387617.7855	578.21	Iron Pin (Set)
105	801475.3079	2387164.7715	0.00	Iron Pin (Fnd) 5/8IN
106	801256.3160	2387167.4165	0.00	Iron Pin (Fnd) 5/8IN
107	801591.0902	2387154.8191	0.00	Iron Pin (Fnd) RED "CT REFERENCE"
122	801791.5497	2387687.0602	0.00	Iron Pin (Fnd)

SURVEYOR'S NOTES

1) HORIZONTAL DATUM IS NAD 1983 (2011 ADJ.), OHIO NORTH ZONE, ESTABLISHED BY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE SYSTEM.

2) VERTICAL DATUM= NORTH AMERICAN VERTICAL DATUM GEOID 18 AS ESTABLISHED BY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE SYSTEM.

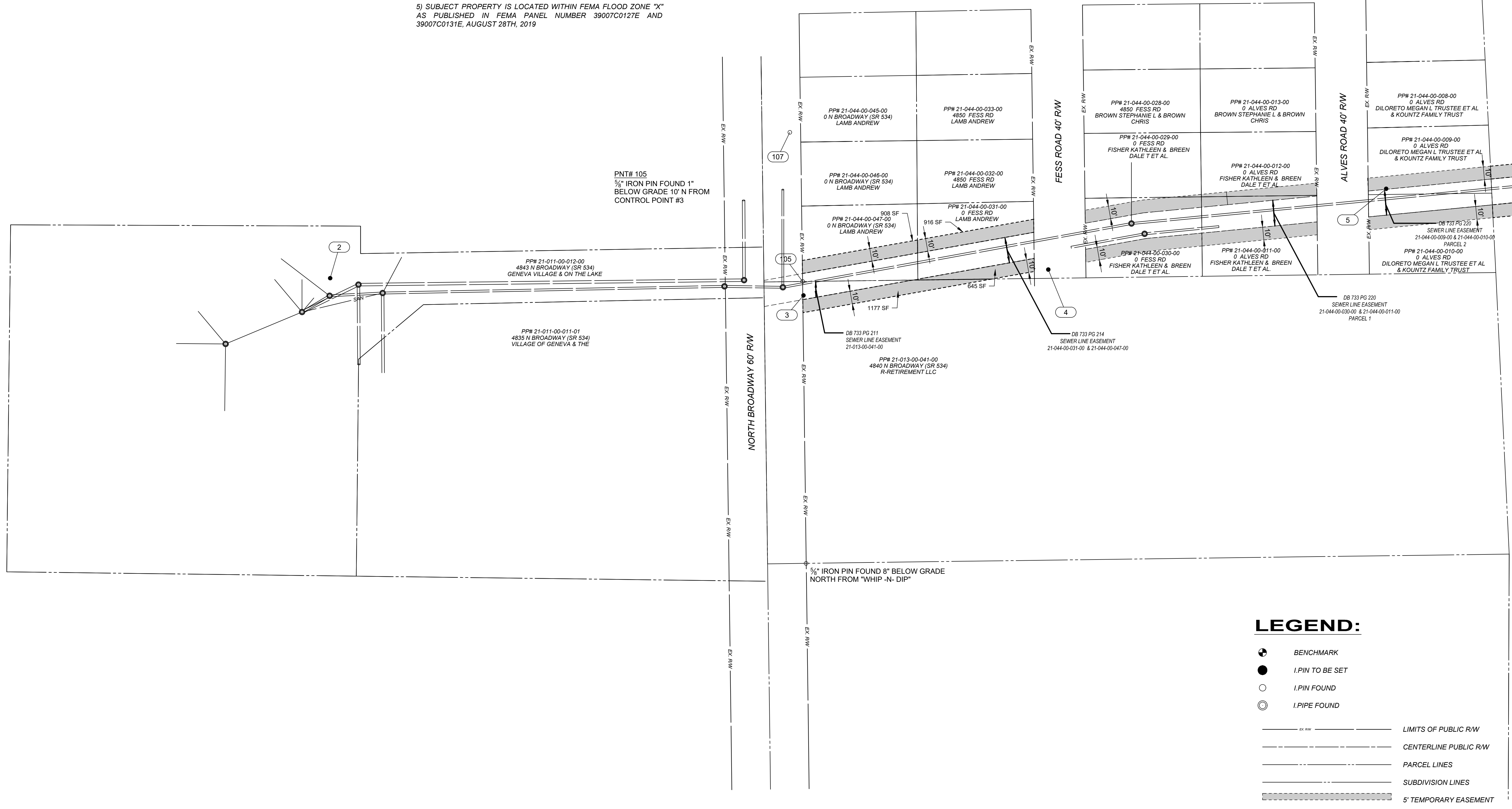
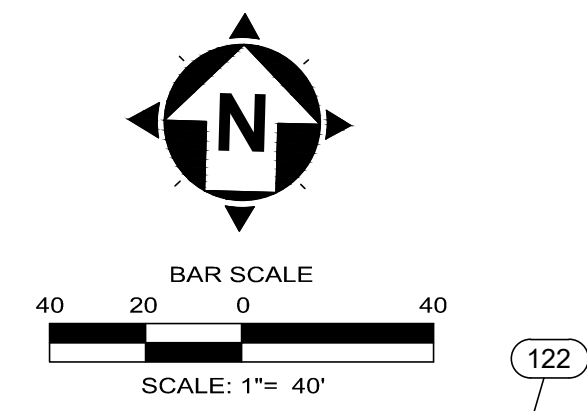
3) THE UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES LOCATED HERE ON COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES LOCATED ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION MADE AVAILABLE.

OUPS TICKET NUMBERS:

A314401526-00A, A314401682-00A, A314401734-00A, B313901455-00B, B313901491-00B, B313901529-00B, A314401526-00A, A314401682-00A, A314401734-00A, B313901455-00B, B313901491-00B, B313901529-00B.

4) FIELD WORK WAS PERFORMED DURING THE MONTHS OF JUNE AND JULY, 2023

5) SUBJECT PROPERTY IS LOCATED WITHIN FEMA FLOOD ZONE "X" AS PUBLISHED IN FEMA PANEL NUMBER 39007C0127E AND 39007C0131E, AUGUST 28TH, 2019



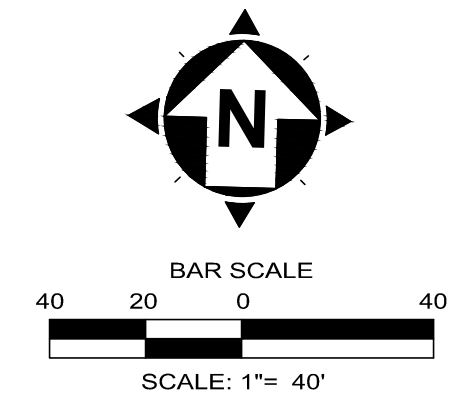
NO	REVISION	DATE

SCALE: AS SHOWN	DATE: FEB 2024	DESIGNED BY: .	DRAWN BY: LUK	CHECKED BY: .
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VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
GENERAL - 00 SERIES
SURVEY CONTROL

PROJECT NO:	
231183	
DRAWING NAME	
00G-04	
SHEET	OF
4	29

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
6	801572.3931	2387993.0391	579.25	Iron Pin (Set)
7	801605.0760	2388154.3489	579.98	Iron Pin (Set)
8	801598.0268	2388397.4036	579.44	Iron Pin (Set)
9	801628.1292	2388646.9491	586.20	Iron Pin (Set)
120	801655.5844	2388549.1484	594.97	Iron Pin (Set) 1/2
121	801650.1900	2388547.9271	594.09	Iron Pin (Set) 1"
122	801791.5497	2387687.0602	000.00	Iron Pin (Fnd)



SURVEYOR'S NOTES

1) HORIZONTAL DATUM IS NAD 1983 (2011 ADJ.), OHIO NORTH ZONE, ESTABLISHED BY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE SYSTEM.

2) VERTICAL DATUM= NORTH AMERICAN VERTICAL DATUM GEOID 18 AS ESTABLISHED BY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE SYSTEM.

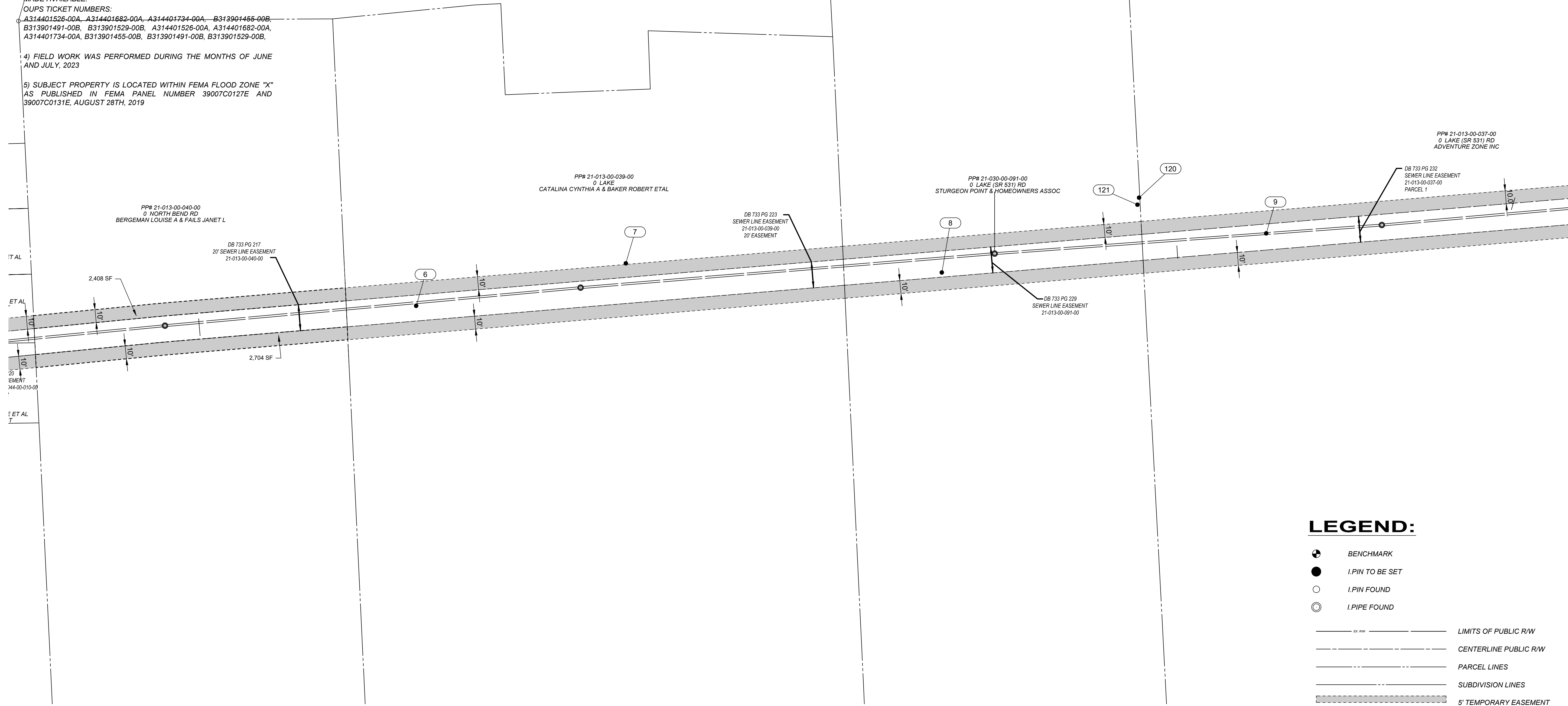
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OUPS TICKET NUMBERS:

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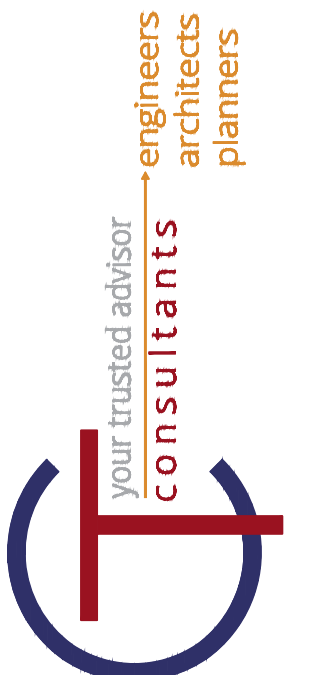
4) FIELD WORK WAS PERFORMED DURING THE MONTHS OF JUNE AND JULY, 2023

5) SUBJECT PROPERTY IS LOCATED WITHIN FEMA FLOOD ZONE "X" AS PUBLISHED IN FEMA PANEL NUMBER 39007C0127E AND 39007C0131E, AUGUST 28TH, 2019



LEGEND:

- BENCHMARK
- I.PIN TO BE SET
- I.PIN FOUND
- I.PIPE FOUND
- LIMITS OF PUBLIC R/W
- CENTERLINE PUBLIC R/W
- PARCEL LINES
- SUBDIVISION LINES
- 5' TEMPORARY EASEMENT



NO	REVISION	DATE

SCALE: AS SHOWN	DATE: FEB 2024	DESIGNED BY: .	DRAWN BY: LUK	CHECKED BY: .
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VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 GENERAL - 00 SERIES
 SURVEY CONTROL

PROJECT NO:	
231183	
DRAWING NAME	
00G-05	
SHEET	OF
5	29

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	802243.3295	2389668.1283	603.78	Iron Pin (Set)
10	801640.5734	2388977.7141	580.86	Iron Pin (Set)
11	801685.5905	2389314.7341	580.79	Iron Pin (Set)
12	801790.5954	2389554.3742	580.84	Iron Pin (Set)
13	801866.0615	2389781.8955	587.14	Iron Pin (Set)
14	801995.9479	2389675.1442	598.81	Iron Pin (Set)
115	801985.1800	2389888.2426	000.00	Iron Pin (Fnd) 1\2
116	801984.7807	2389866.9096	000.00	Iron Pin (Fnd) 1\2
117	801983.5280	2389784.9025	000.00	Iron Pin (Fnd) 1\2
118	801883.1535	2389784.1709	000.00	Iron Pin (Fnd) 1\2
119	801883.4507	2389814.2417	000.00	Iron Pin (Fnd) 1\2
124	802054.0904	2389407.5752	000.00	Iron Pin (Fnd)
125	802046.8338	2389251.8720	000.00	Iron Pin (Fnd)
126	802161.9075	2389692.9944	000.00	Iron Pin (Fnd)
127	802222.7639	2389692.6724	000.00	Iron Pin (Fnd)
128	802282.7655	2389692.2189	000.00	Iron Pin (Fnd)
1368	802144.8952	2389662.2291	605.08	Benchmark (Set)
1487	802047.3769	2389251.5794	000.00	Iron Pin (Fnd)
1488	802128.8711	2389407.3590	000.00	Iron Pin (Fnd)
1491	801701.5419	2389151.5248	000.00	Iron Pin (Fnd)

SURVEYOR'S NOTES

1) HORIZONTAL DATUM IS NAD 1983 (2011 ADJ.), OHIO NORTH ZONE, ESTABLISHED BY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE SYSTEM.

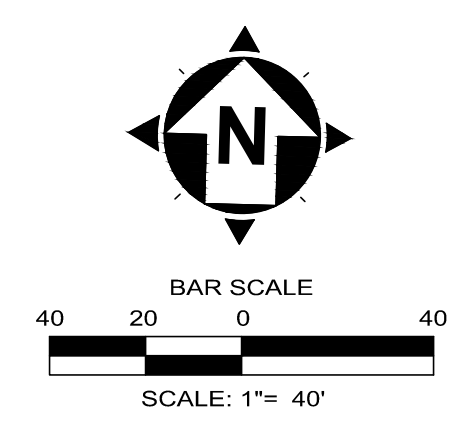
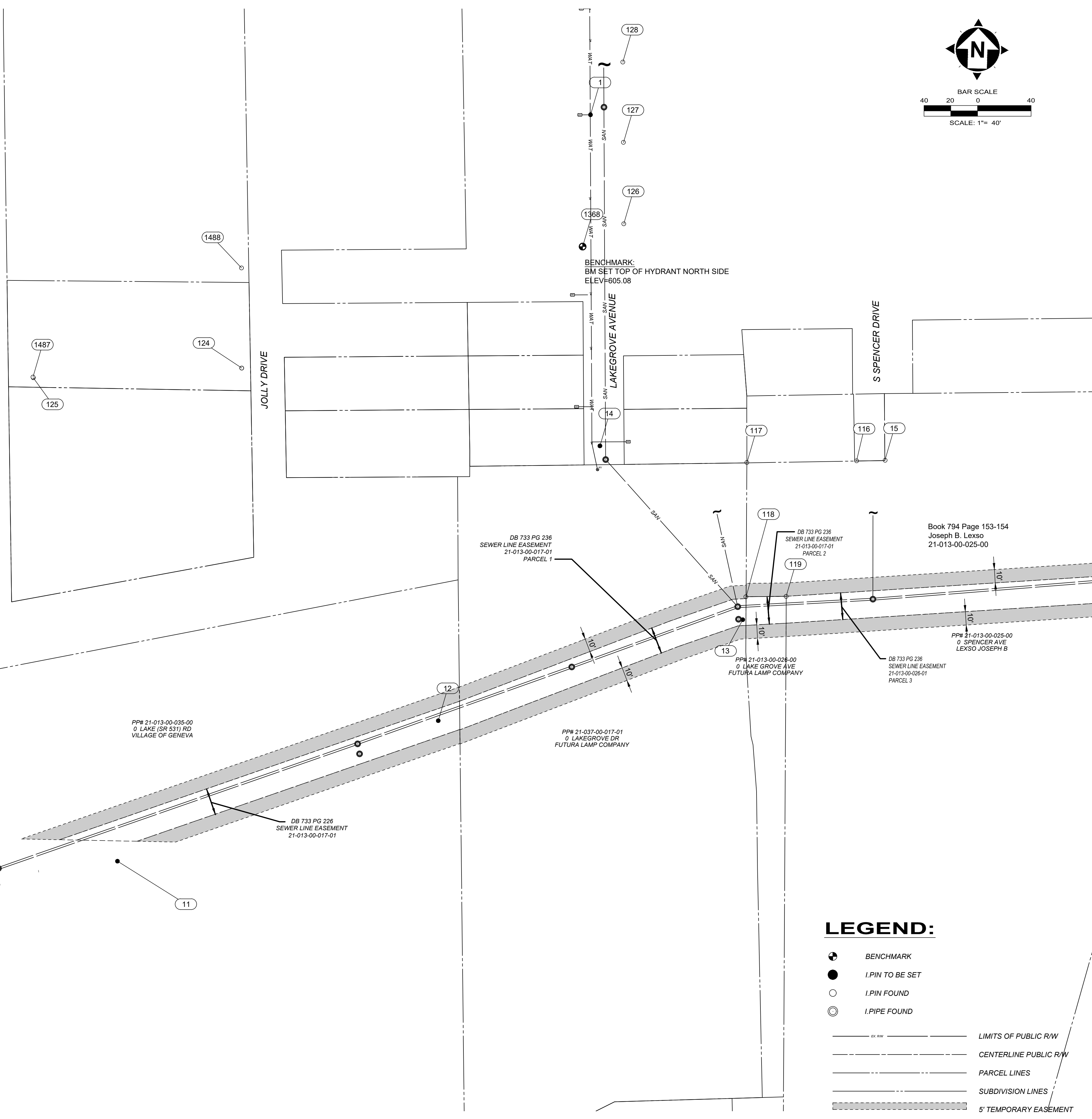
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4) FIELD WORK WAS PERFORMED DURING THE MONTHS OF JUNE AND JULY, 2023

5) SUBJECT PROPERTY IS LOCATED WITHIN FEMA FLOOD ZONE "X" AS PUBLISHED IN FEMA PANEL NUMBER 39007C0127E AND 39007C0131E, AUGUST 28TH, 2019



LEGEND:

- BENCHMARK
- I.PIN TO BE SET
- I.PIN FOUND
- I.PIPE FOUND
- LIMITS OF PUBLIC R/W
- CENTERLINE PUBLIC R/W
- PARCEL LINES
- SUBDIVISION LINES
- 5' TEMPORARY EASEMENT

your trusted advisor
consultants
engineers
architects
planners

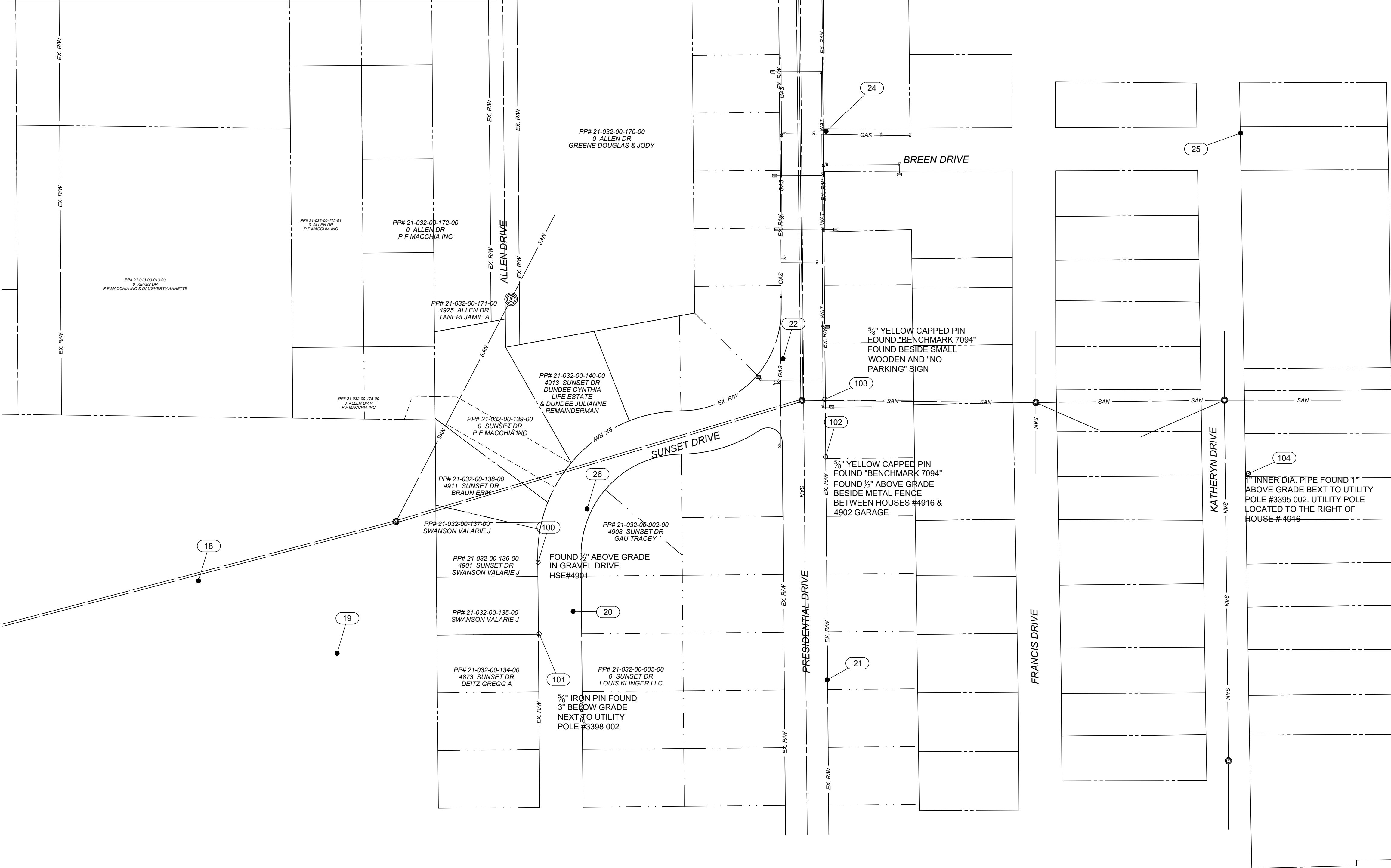
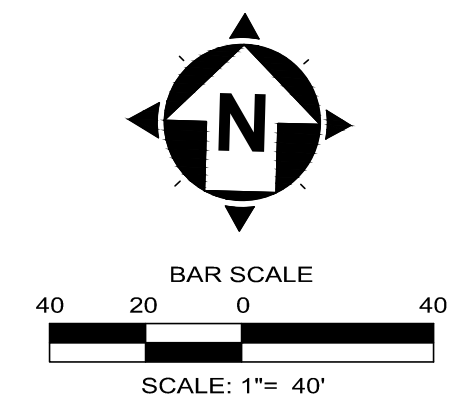
NO	REVISION	DATE

SCALE: AS SHOWN	DATE: FEB 2024	DESIGNED BY: .	DRAWN BY: LUK	CHECKED BY: .
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VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
GENERAL - 00 SERIES
SURVEY CONTROL

PROJECT NO:	
231183	
DRAWING NAME	
00G-06	
SHEET	OF
6	29

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
18	802180.7098	2391306.8178	587.53	Iron Pin (Set)
19	802130.5819	2391402.7170	589.60	Iron Pin (Set)
20	802159.5629	2391566.1535	593.62	Iron Pin (Set)
21	802112.1788	2391742.0846	596.68	Iron Pin (Set)
22	802334.6014	2391711.4916	599.41	Iron Pin (Set)
23	802643.1350	2391736.4809	601.02	Iron Pin (Set)
24	802492.1307	2391741.3184	600.66	Iron Pin (Set)
25	802490.8303	2392028.3032	602.35	Iron Pin (Set)
26	802230.4973	2391575.8565	594.63	Iron Pin (Set)
100	802193.5761	2391541.9507	000.00	Iron Pin (Fnd) 1/2IN
101	802144.0257	2391542.6064	000.00	Iron Pin (Fnd) 5/8IN
102	802266.5371	2391740.9750	000.00	Iron Pin (Fnd) 5/8IN YELLOW CAP "BENCHMARK"
103	802306.4745	2391740.4398	000.00	Iron Pin (Fnd) 5/8IN YELLOW CAP "BENCHMARK"
104	802254.8786	2392033.4600	000.00	Iron Pipe (Fnd) 1IN INNER DIAMETER



SURVEYOR'S NOTES

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- FIELD WORK WAS PERFORMED DURING THE MONTHS OF JUNE AND JULY, 2023
- SUBJECT PROPERTY IS LOCATED WITHIN FEMA FLOOD ZONE "X" AS ESTABLISHED IN FEMA PANEL NUMBER 39007C0127E AND 39007C0131E, AUGUST 28TH, 2019

LEGEND:

- BENCHMARK
- I.PIN TO BE SET
- I.PIN FOUND
- I.PIPE FOUND
- LIMITS OF PUBLIC R/W
- CENTERLINE PUBLIC R/W
- PARCEL LINES
- SUBDIVISION LINES
- 5' TEMPORARY EASEMENT

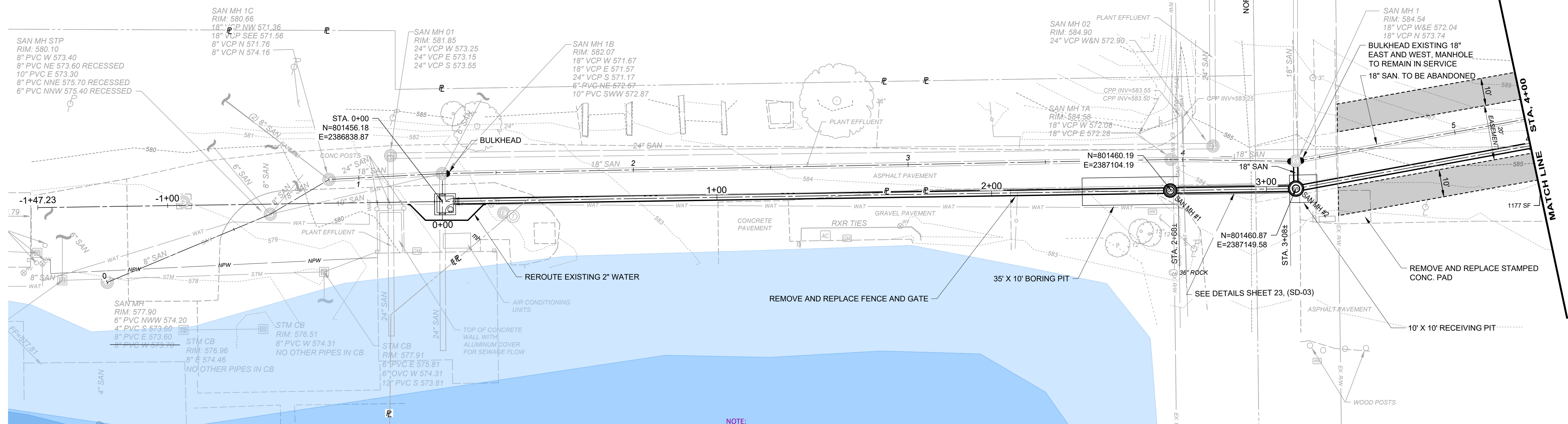
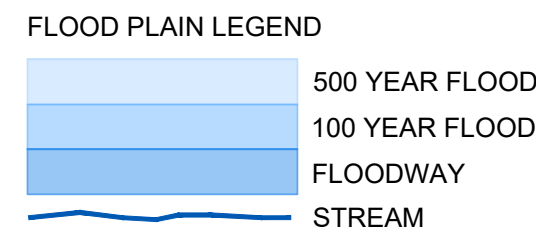


NO	REVISION	DATE

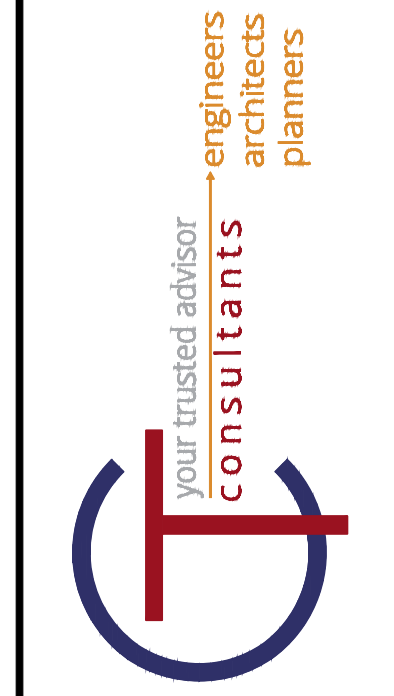
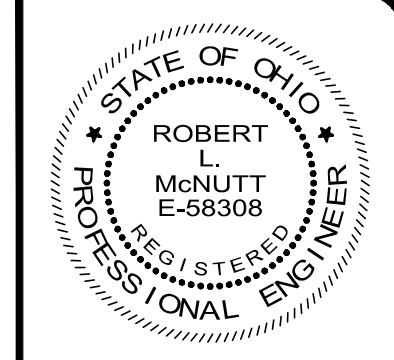
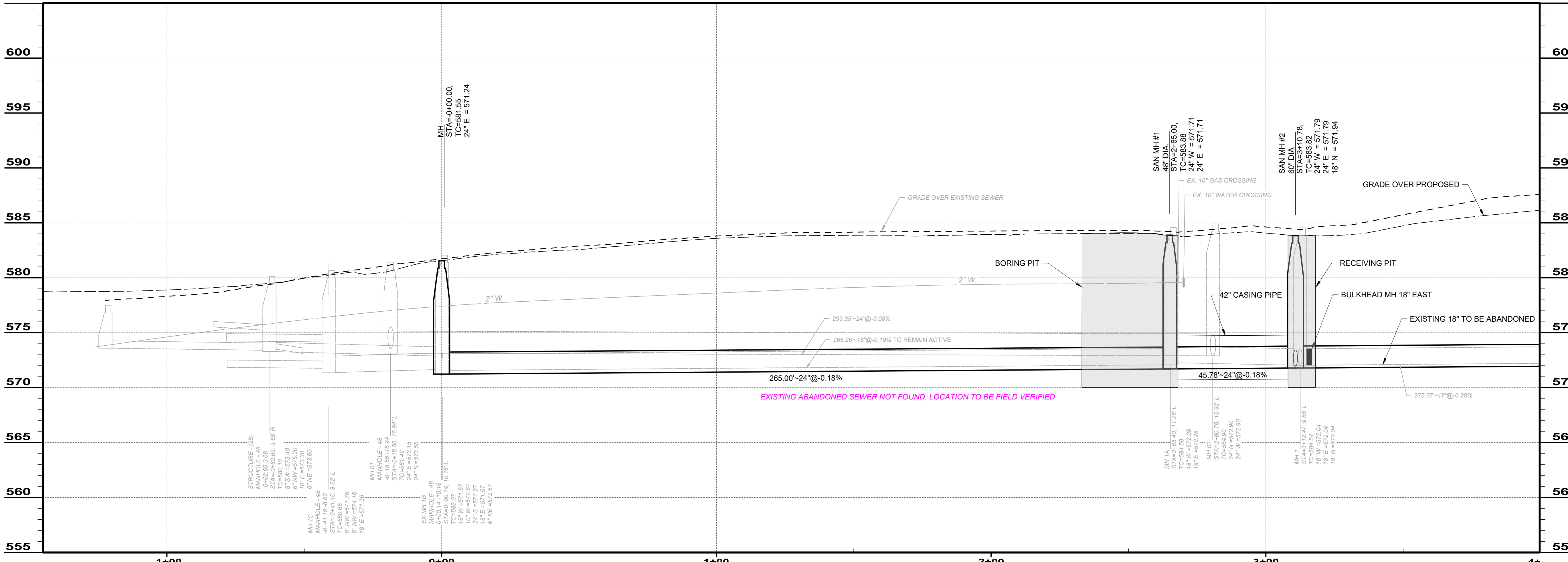
SCALE: AS SHOWN	DATE: FEB 2024	DESIGNED BY: .	DRAWN BY: LUK	CHECKED BY: .
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VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 GENERAL - 00 SERIES
 SURVEY CONTROL

PROJECT NO:	
231183	
DRAWING NAME	
00G-07	
SHEET	OF
7	29



- NOTE:**
- EXISTING - PREVIOUSLY ABANDONED 18" SAN SEWER SHALL BE REMOVED AND DISPOSED OF DURING EXCAVATION WORK FOR THE PROPOSED SANITARY. ONLY REMOVE PIPE AS NEEDED FOR PROPOSED.

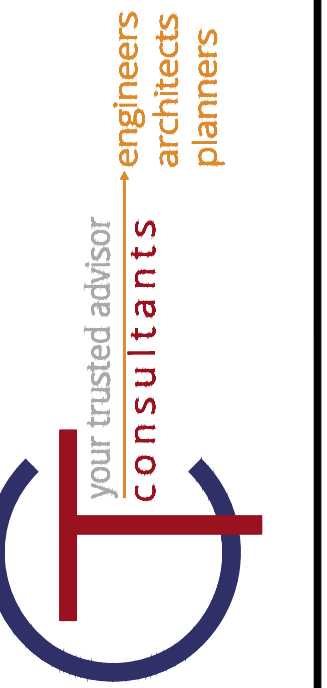
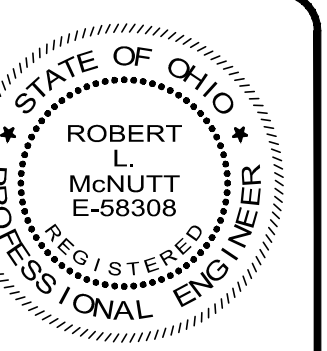


NO	REVISION	DATE

SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
ASHTABULA COUNTY OHIO
PLAN AND PROFILES - 01 SERIES
STA. 0+00 TO STA. 4+00

PROJECT NO:	231183
DRAWING NAME:	PP-01
SHEET OF:	8 29



NO	REVISION	DATE

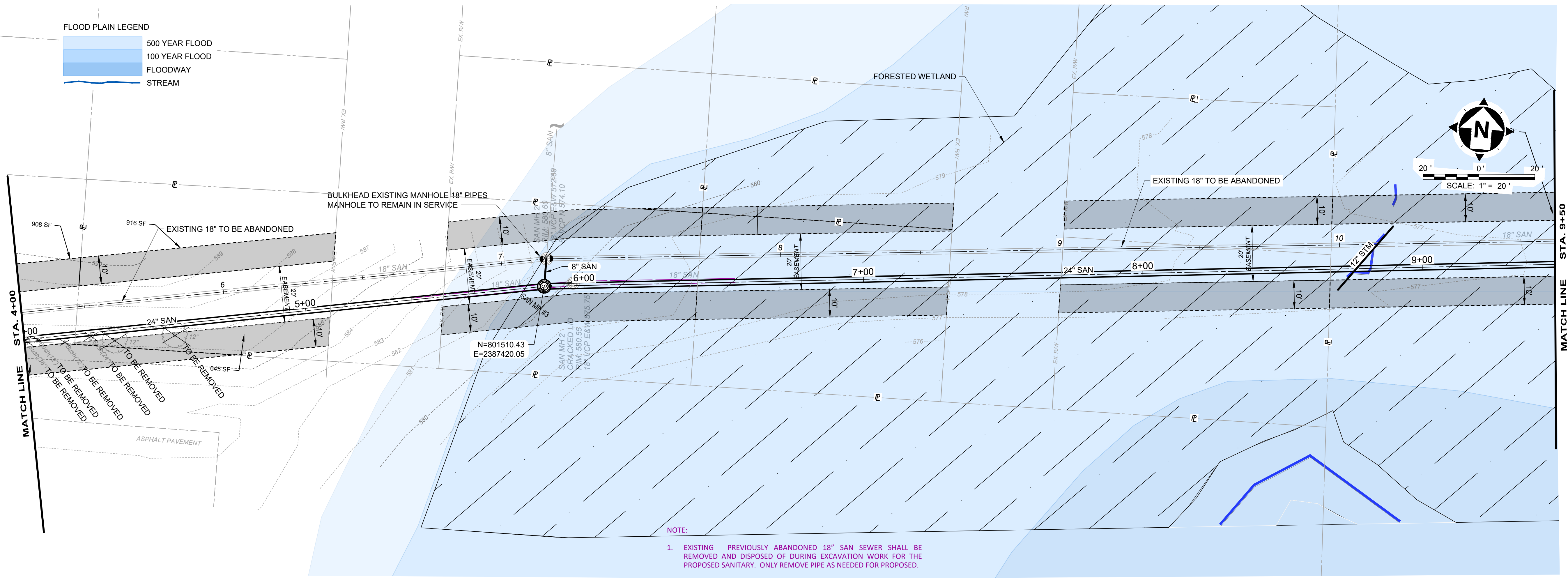
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
PLAN AND PROFILES - 01 SERIES
STA. 4+00 TO STA. 9+50

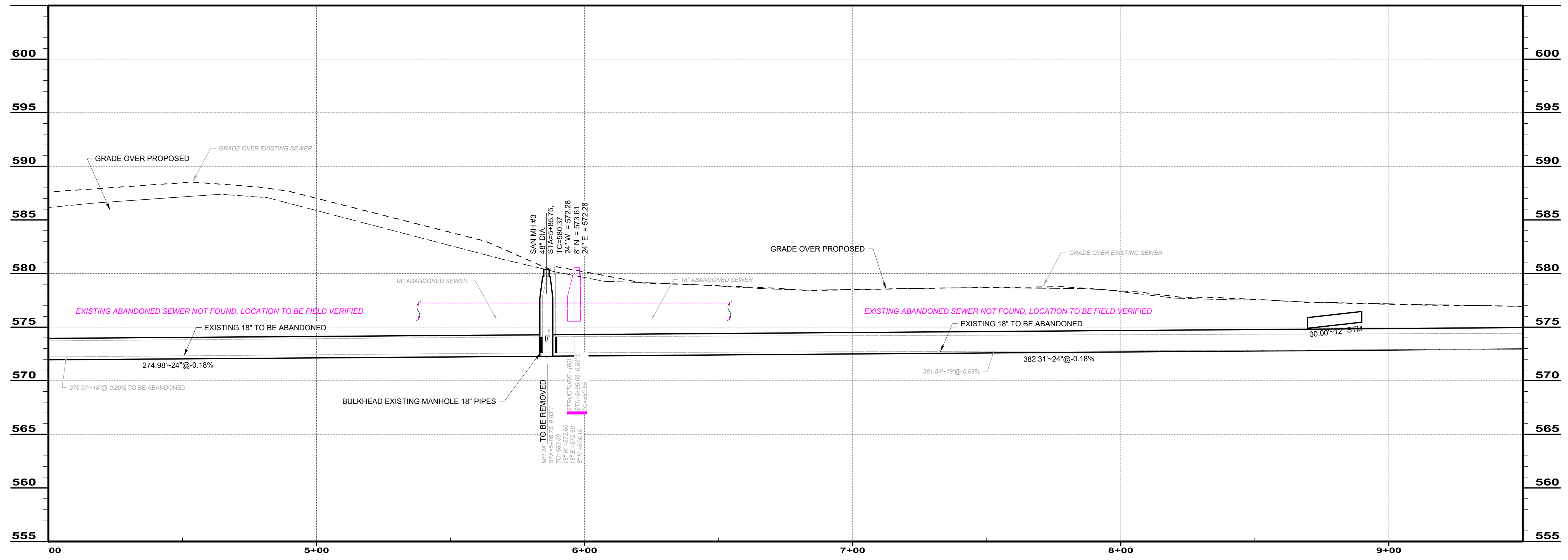
PROJECT NO:	231183
DRAWING NAME:	01PP-02
SHEET OF:	9 OF 29

FLOOD PLAIN LEGEND

	500 YEAR FLOOD
	100 YEAR FLOOD
	FLOODWAY
	STREAM

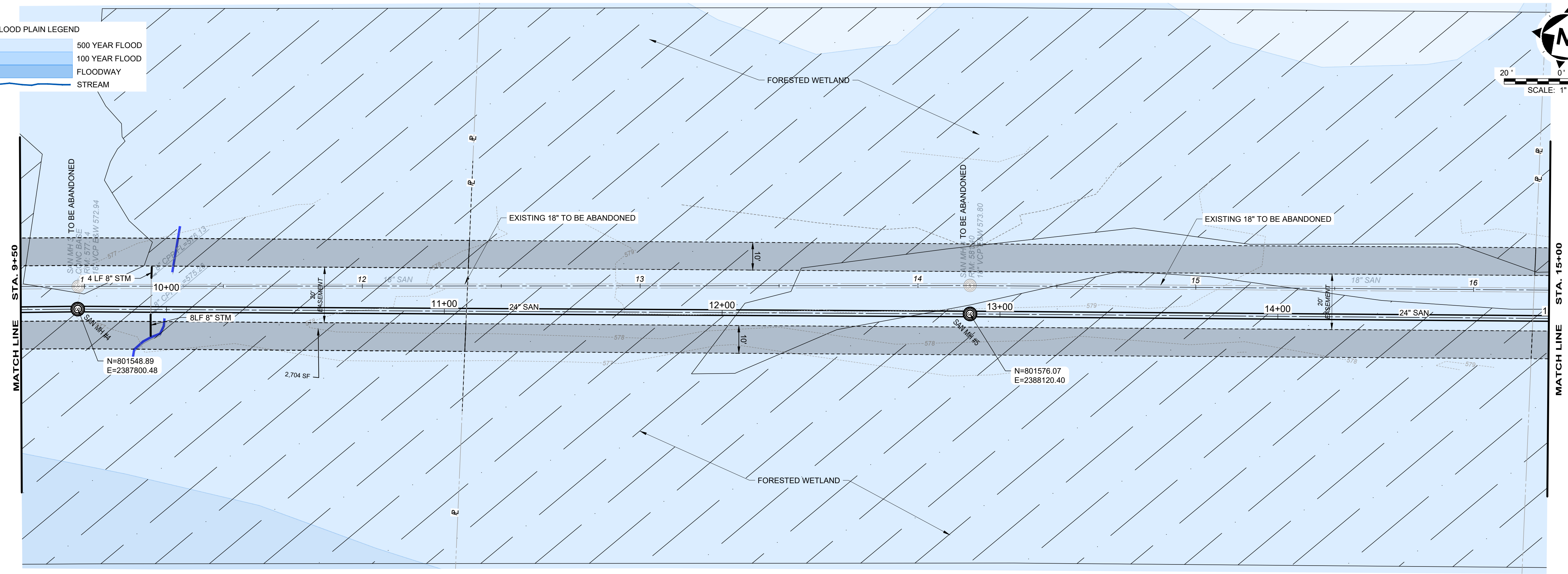
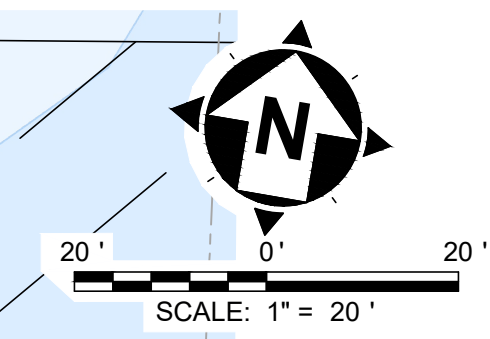


NOTE:
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FLOOD PLAIN LEGEND

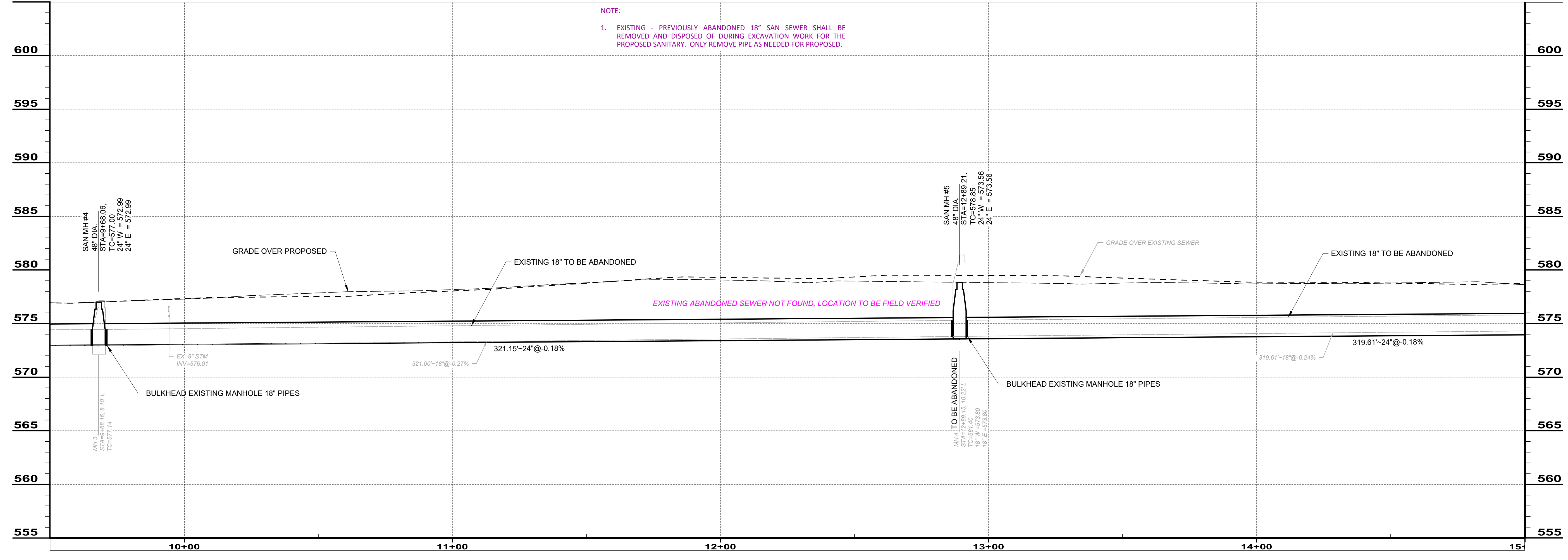
	500 YEAR FLOOD
	100 YEAR FLOOD
	FLOODWAY
	STREAM



NO	REVISION	DATE

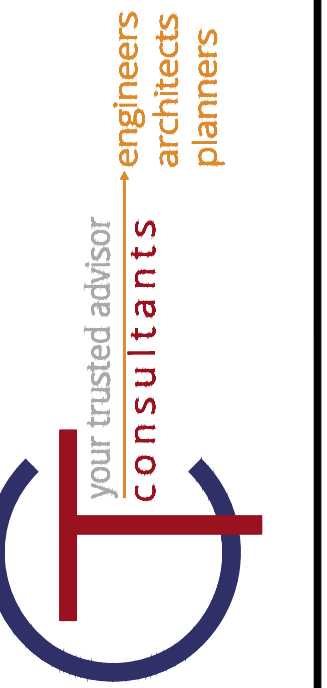
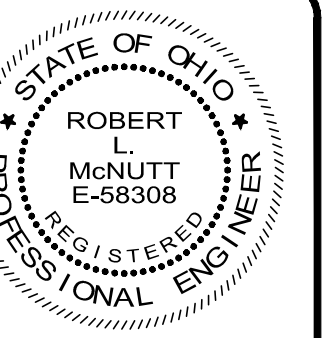
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
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VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
PLAN AND PROFILES - 01 SERIES
STA. 9+50 TO STA. 15+00

PROJECT NO:	231183
DRAWING NAME:	01PP-03
SHEET:	10
OF:	29



NO	REVISION	DATE

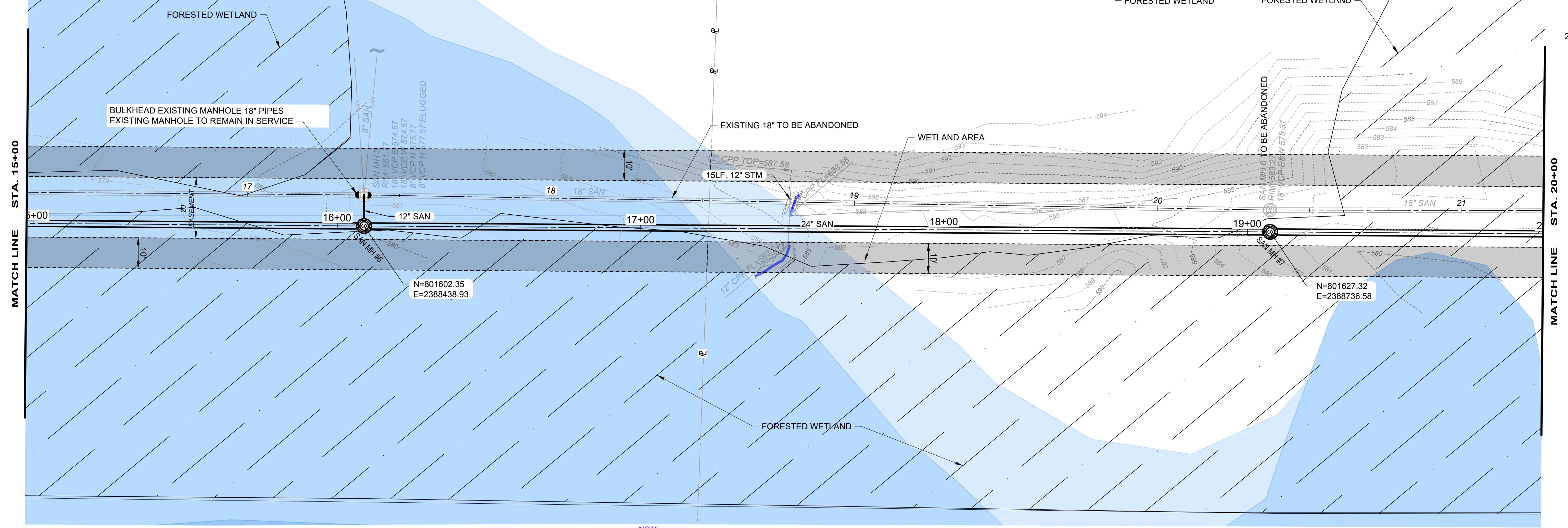
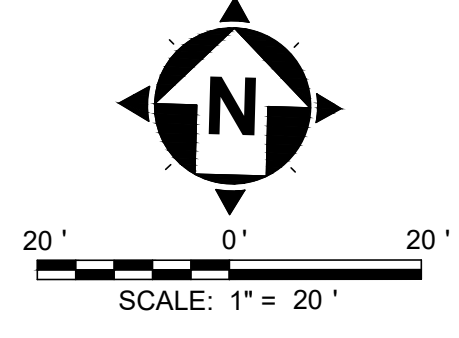
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 15+00 TO STA. 20+00

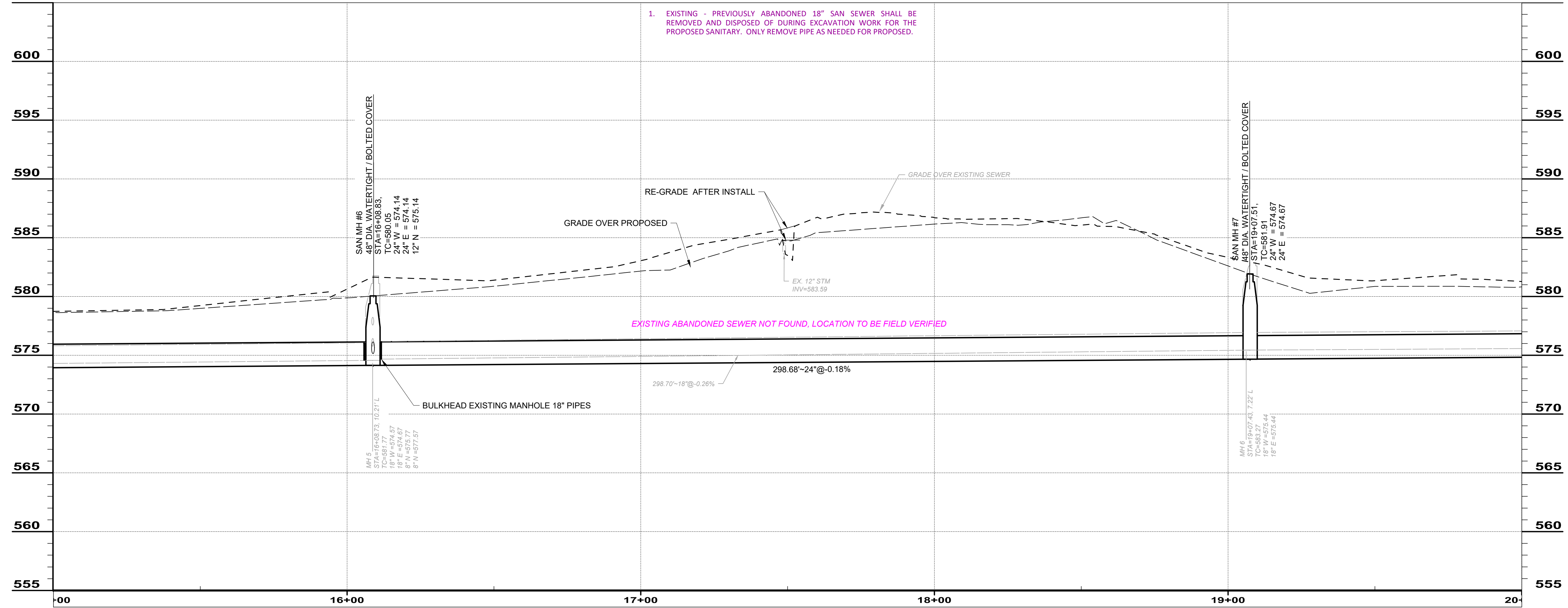
PROJECT NO:	231183
DRAWING NAME:	01PP-04
SHEET OF:	11 29

FLOOD PLAIN LEGEND

	500 YEAR FLOOD
	100 YEAR FLOOD
	FLOODWAY
	STREAM

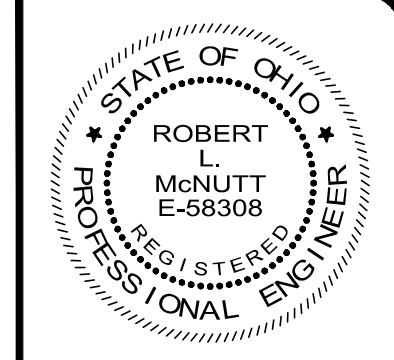
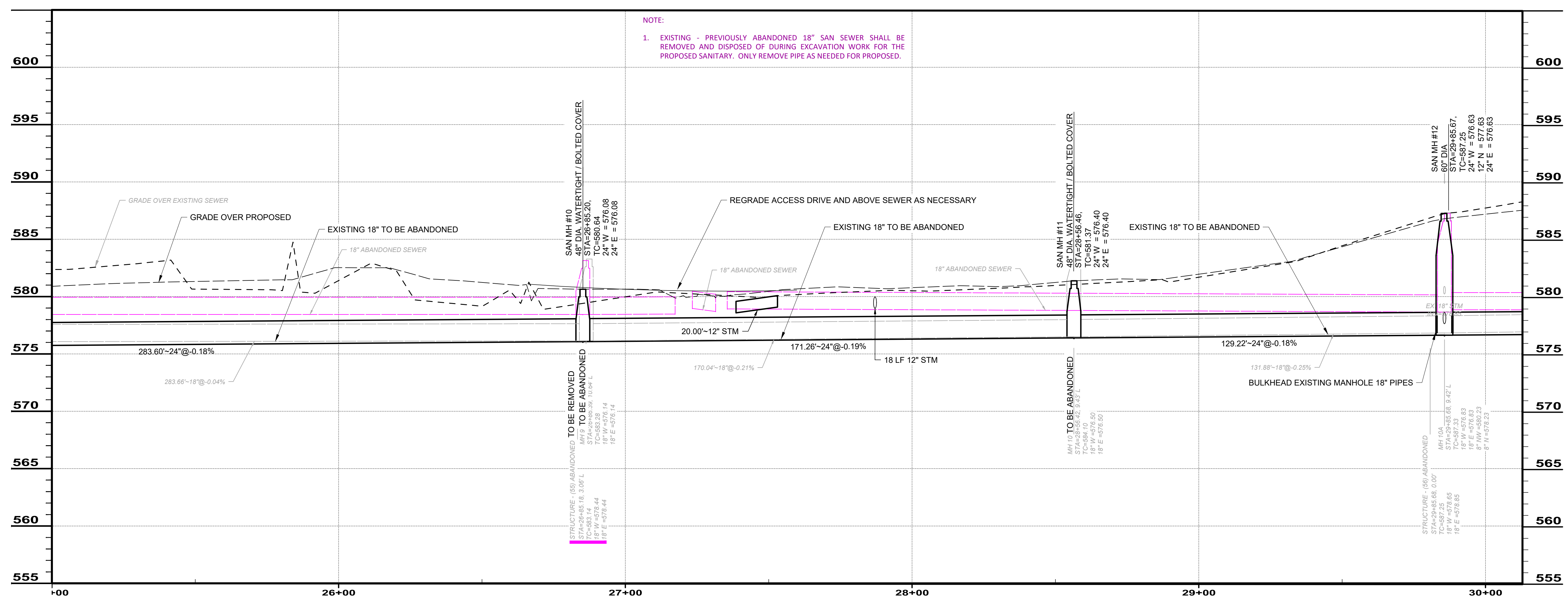
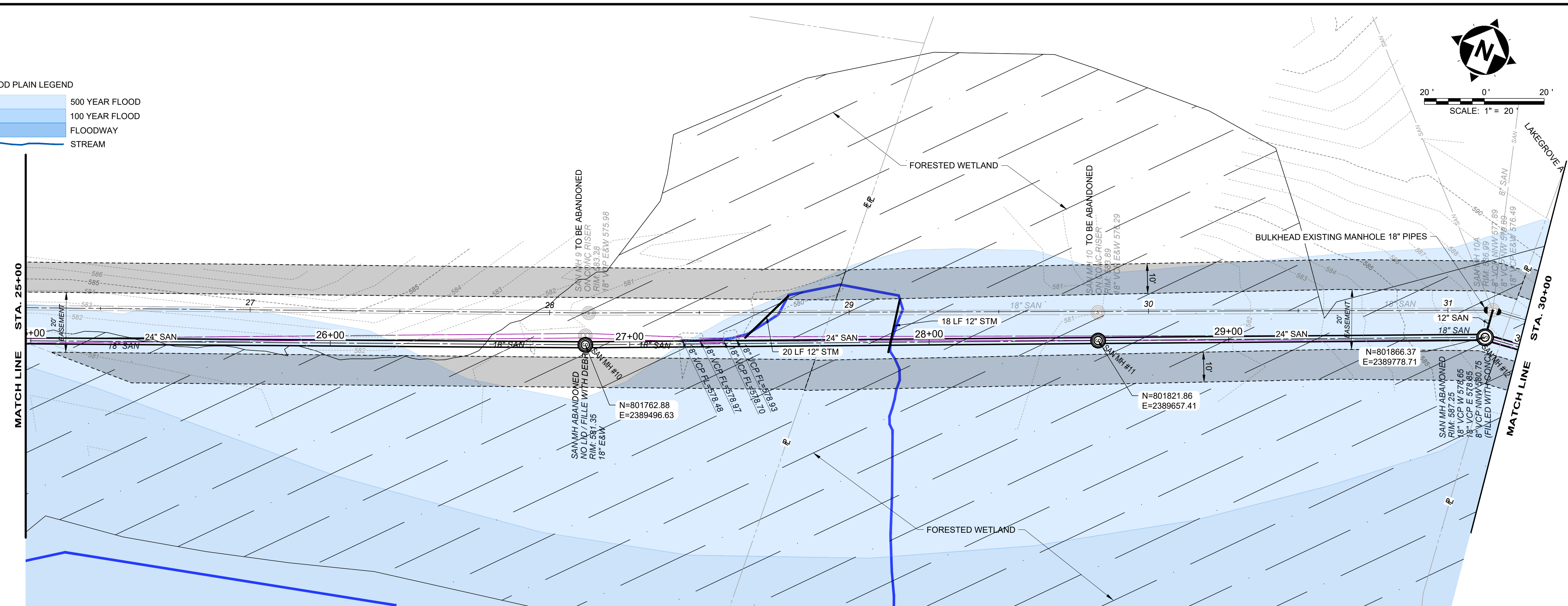
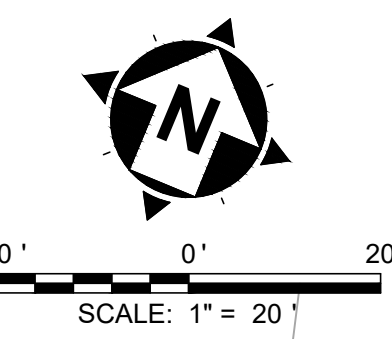


NOTE:
 1. EXISTING - PREVIOUSLY ABANDONED 18\"/>



FLOOD PLAIN LEGEND

	500 YEAR FLOOD
	100 YEAR FLOOD
	FLOODWAY
	STREAM

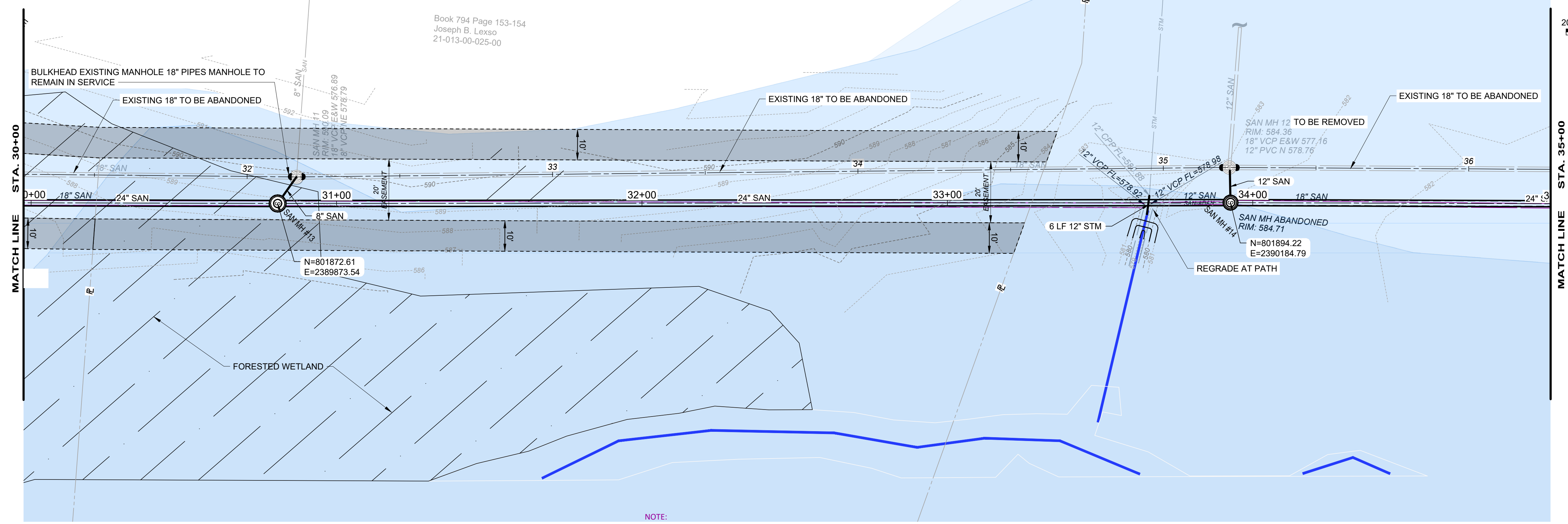
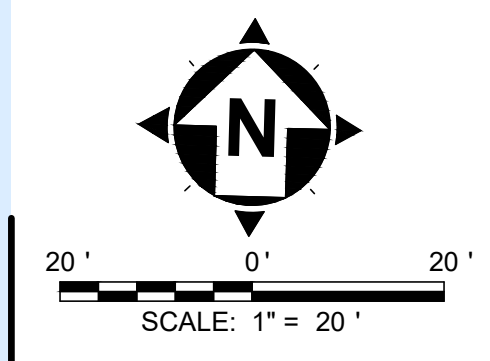
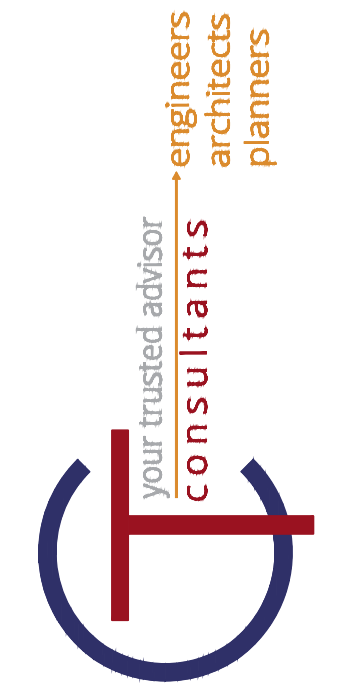
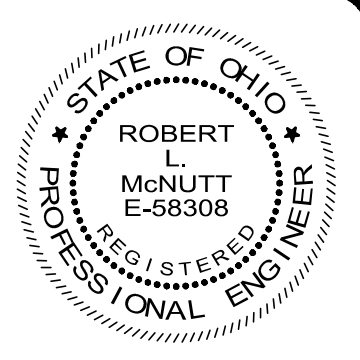
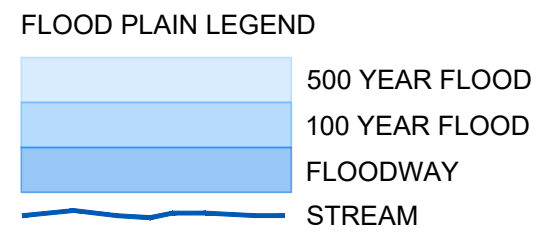


NO	REVISION	DATE

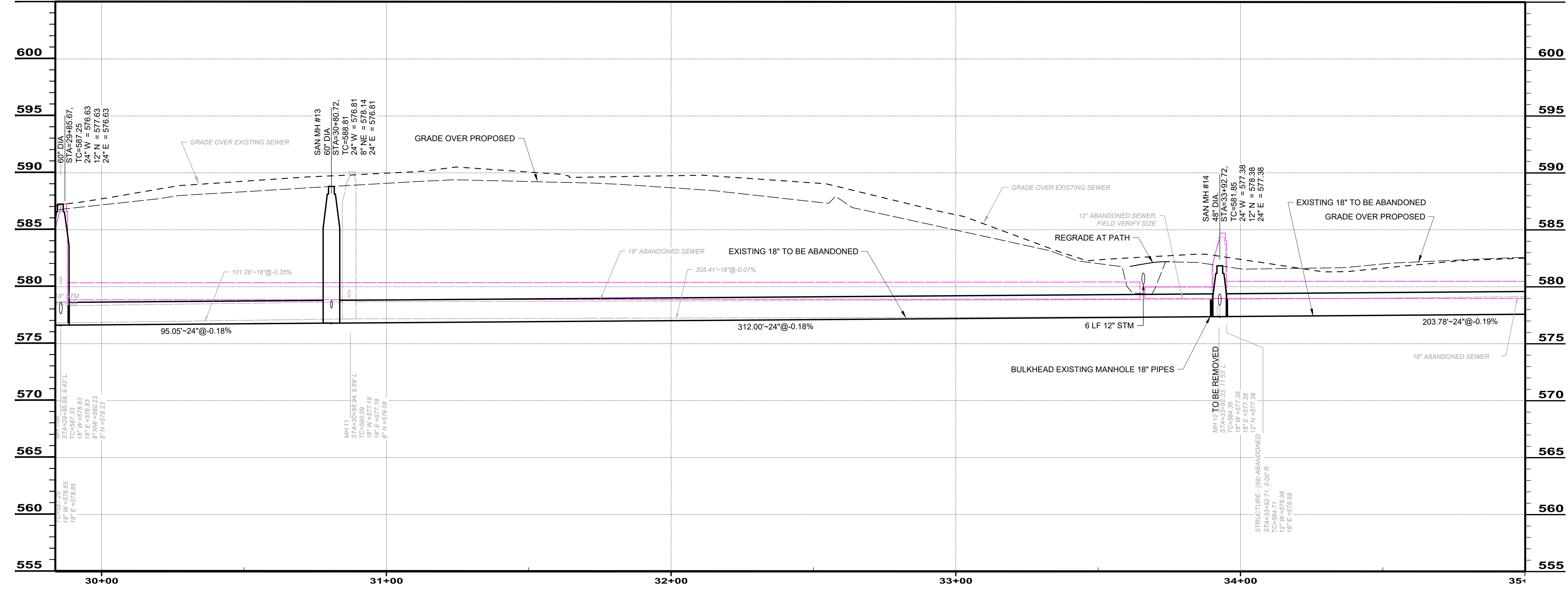
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 25+00 TO STA. 30+00

PROJECT NO:	231183
DRAWING NAME:	01PP-06
SHEET:	13
OF:	29



NOTE:
 1. EXISTING - PREVIOUSLY ABANDONED 18" SAN SEWER SHALL BE REMOVED AND DISPOSED OF DURING EXCAVATION WORK FOR THE PROPOSED SANITARY. ONLY REMOVE PIPE AS NEEDED FOR PROPOSED.



NO	REVISION	DATE

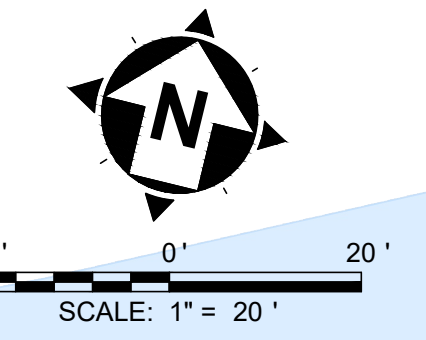
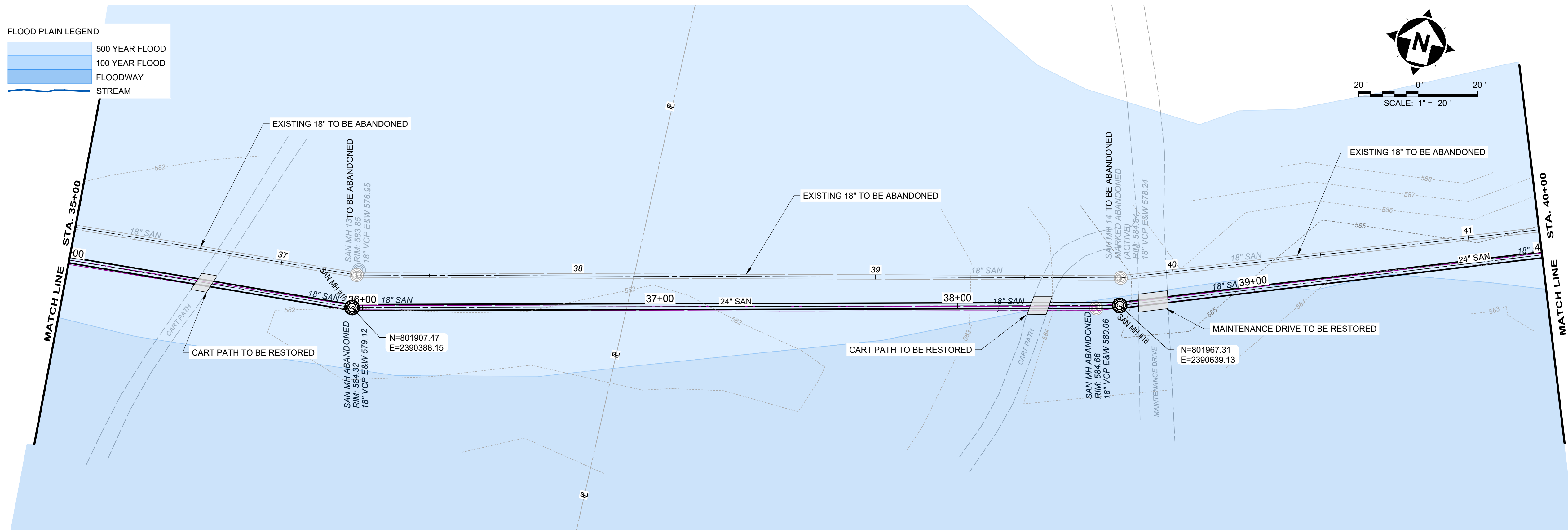
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 30+00 TO STA. 35+00

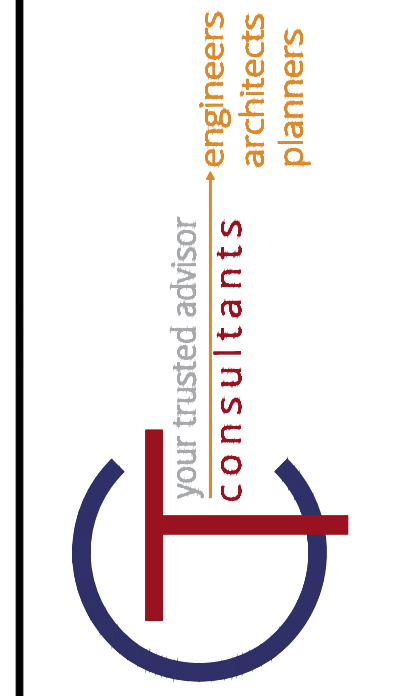
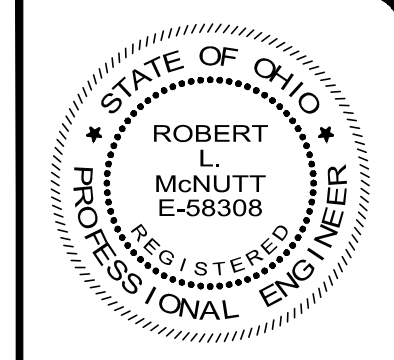
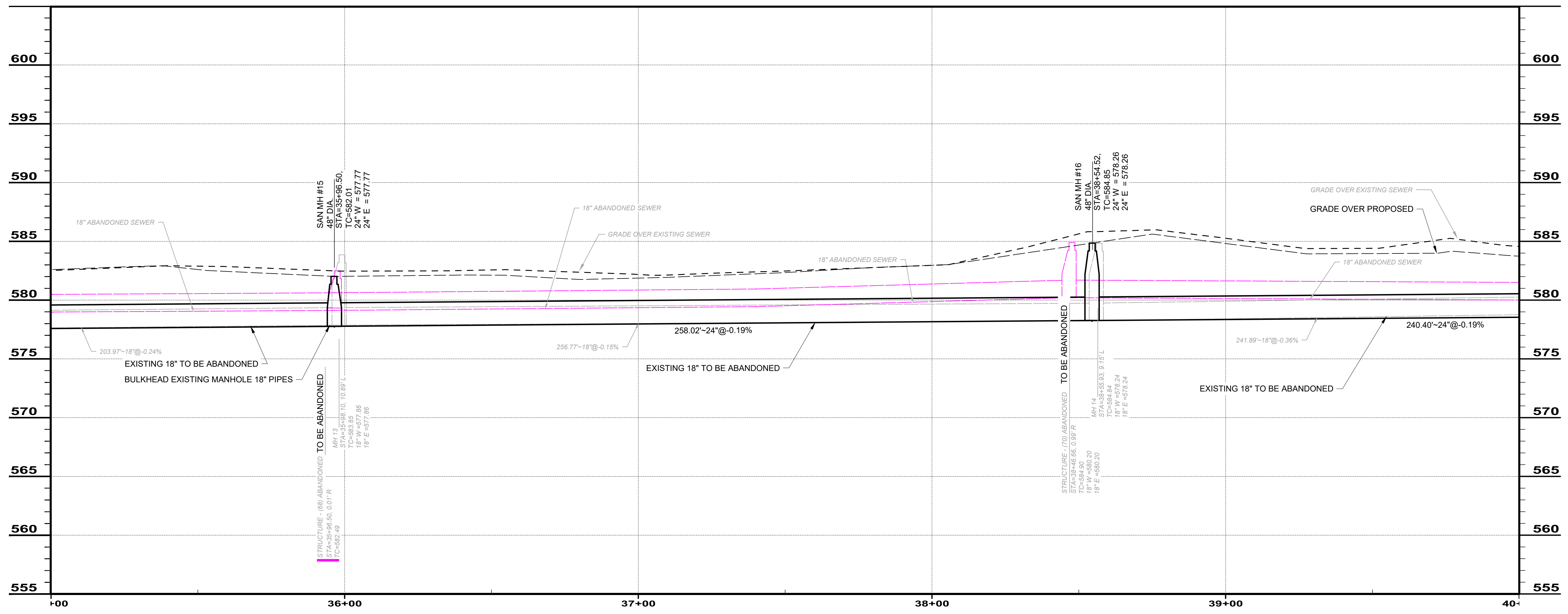
PROJECT NO:	231183
DRAWING NAME:	01PP-07
SHEET:	14
OF:	29

FLOOD PLAIN LEGEND

[Light Blue Box]	500 YEAR FLOOD
[Medium Blue Box]	100 YEAR FLOOD
[Dark Blue Box]	FLOODWAY
[Blue Line]	STREAM



NOTE:
 1. EXISTING - PREVIOUSLY ABANDONED 18" SAN SEWER SHALL BE REMOVED AND DISPOSED OF DURING EXCAVATION WORK FOR THE PROPOSED SANITARY. ONLY REMOVE PIPE AS NEEDED FOR PROPOSED.



NO	REVISION	DATE

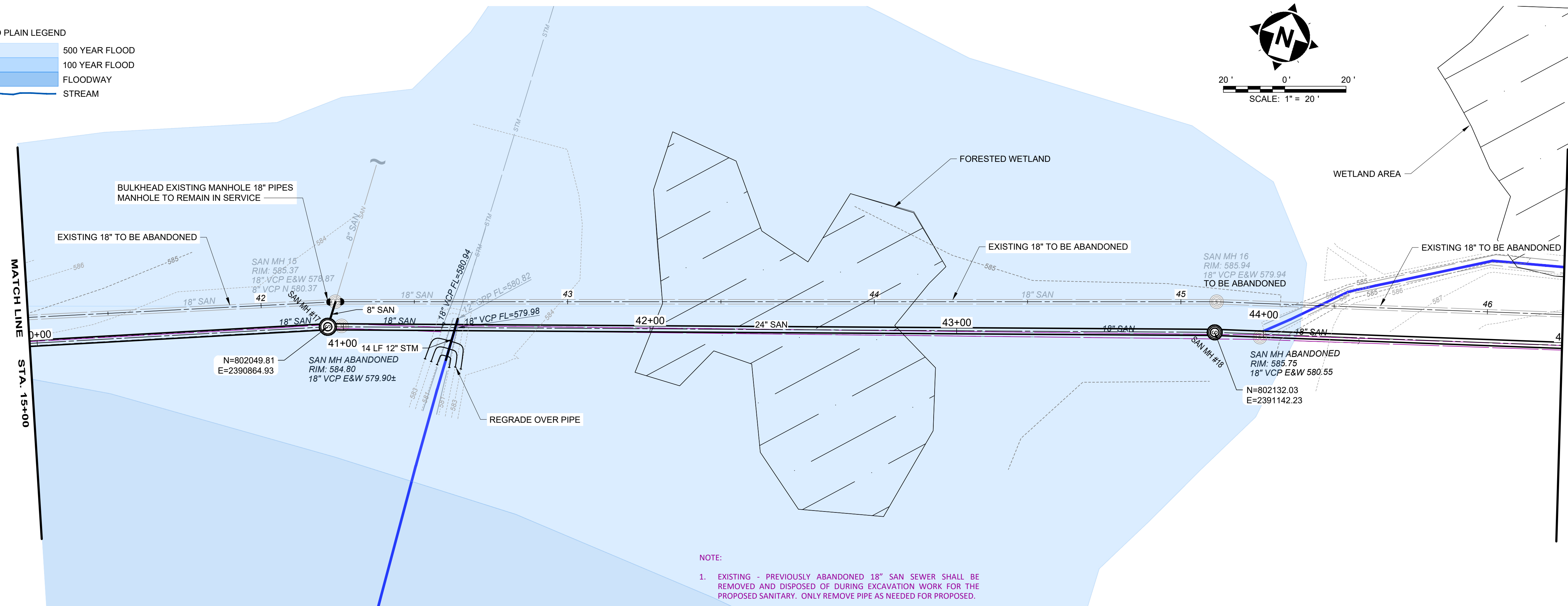
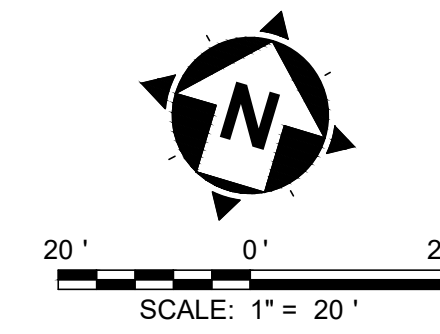
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
 OHIO
 ASHTABULA COUNTY
PLAN AND PROFILES - 01 SERIES
STA. 35+00 TO STA. 40+00

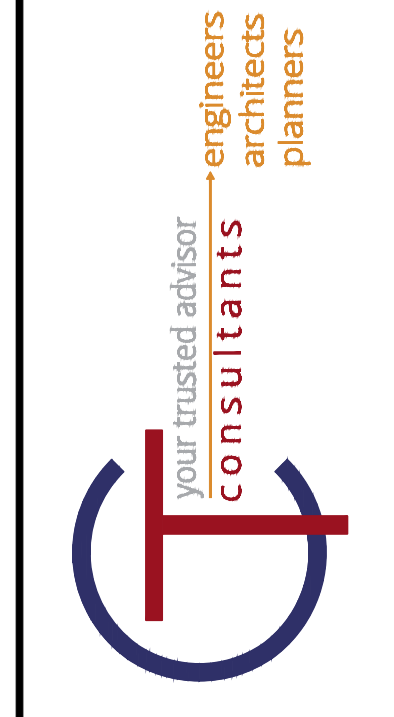
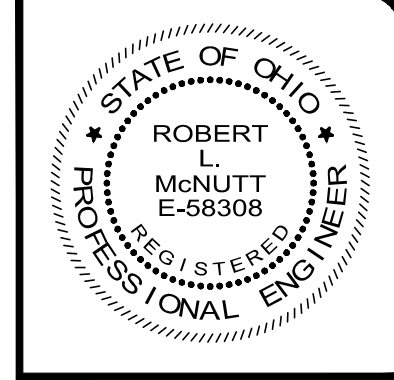
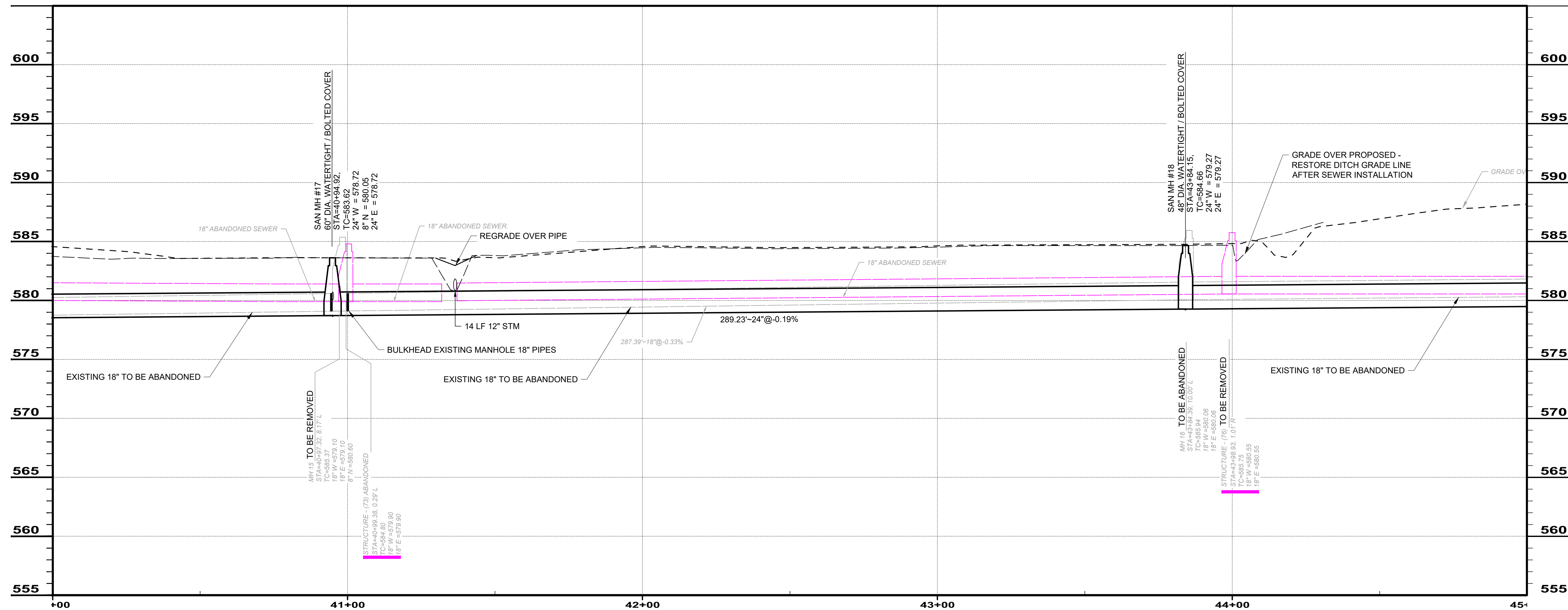
PROJECT NO:	
231183	
DRAWING NAME	
01PP-08	
SHEET	OF
15	29

FLOOD PLAIN LEGEND

	500 YEAR FLOOD
	100 YEAR FLOOD
	FLOODWAY
	STREAM



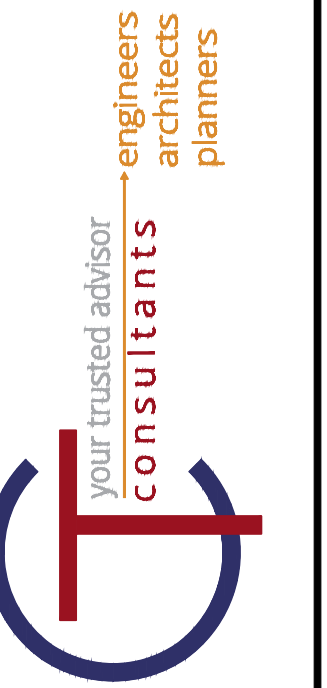
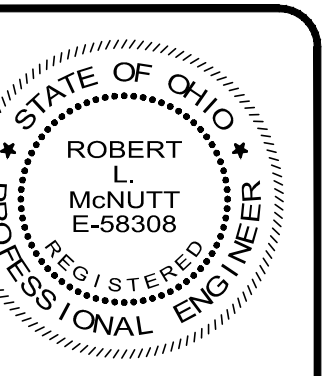
NOTE:
 1. EXISTING - PREVIOUSLY ABANDONED 18" SAN SEWER SHALL BE REMOVED AND DISPOSED OF DURING EXCAVATION WORK FOR THE PROPOSED SANITARY. ONLY REMOVE PIPE AS NEEDED FOR PROPOSED.



NO	REVISION	DATE

SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE	
SANITARY SEWER TRUNK LINE REPLACEMENT	
ASHTABULA COUNTY	OHIO
PLAN AND PROFILES - 01 SERIES	
STA. 40+00 TO STA. 45+00	
PROJECT NO:	
231183	
DRAWING NAME	
01PP-09	
SHEET	OF
16	29

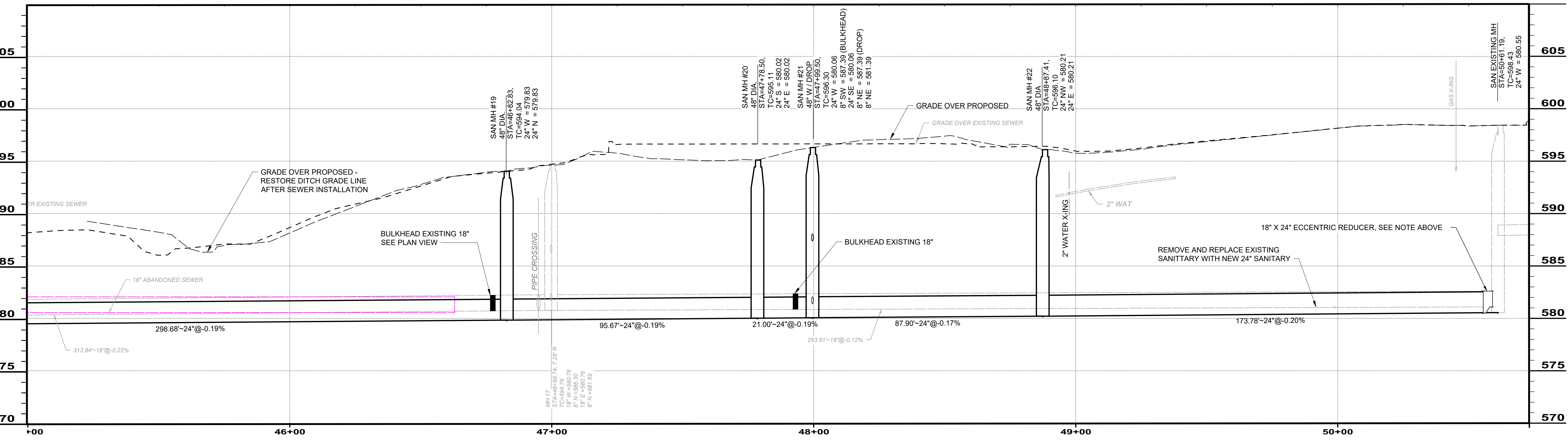
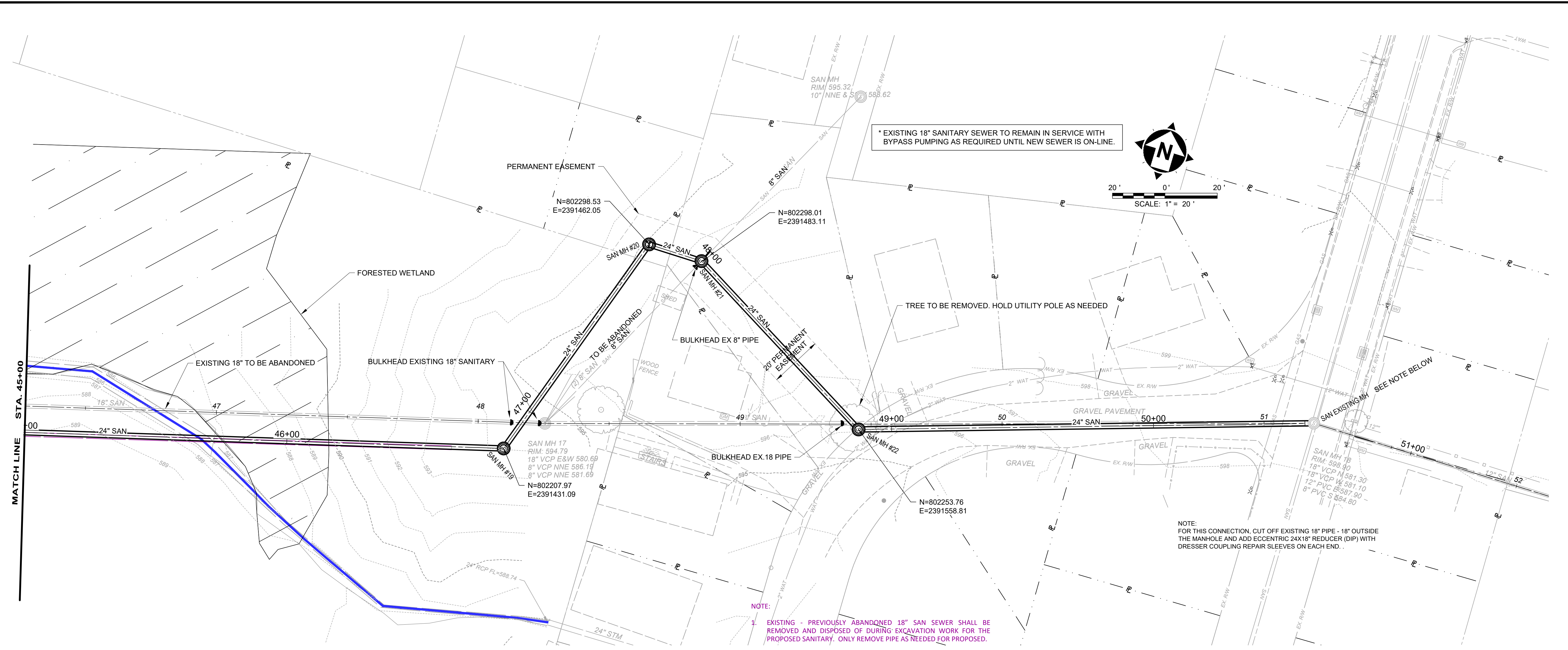


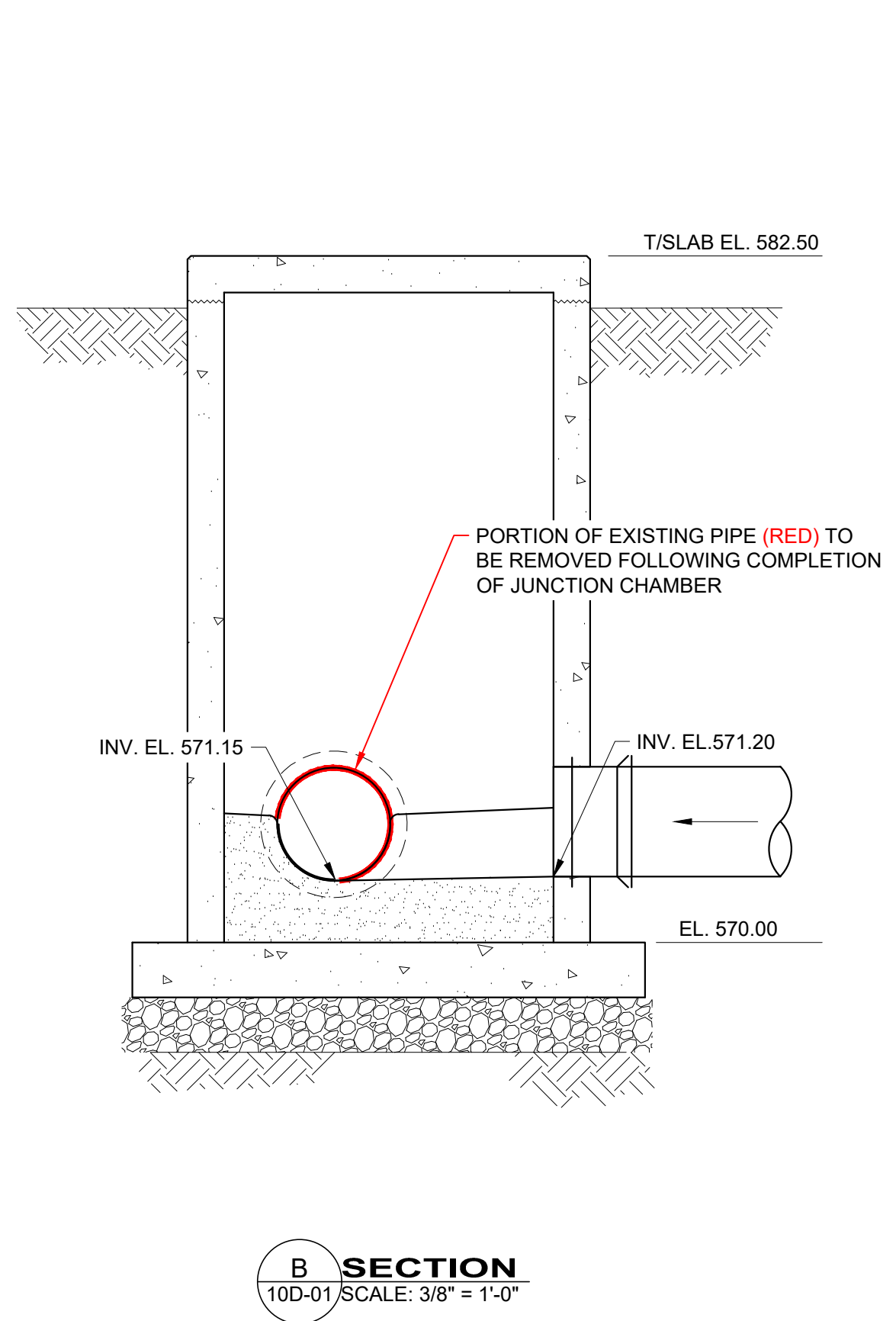
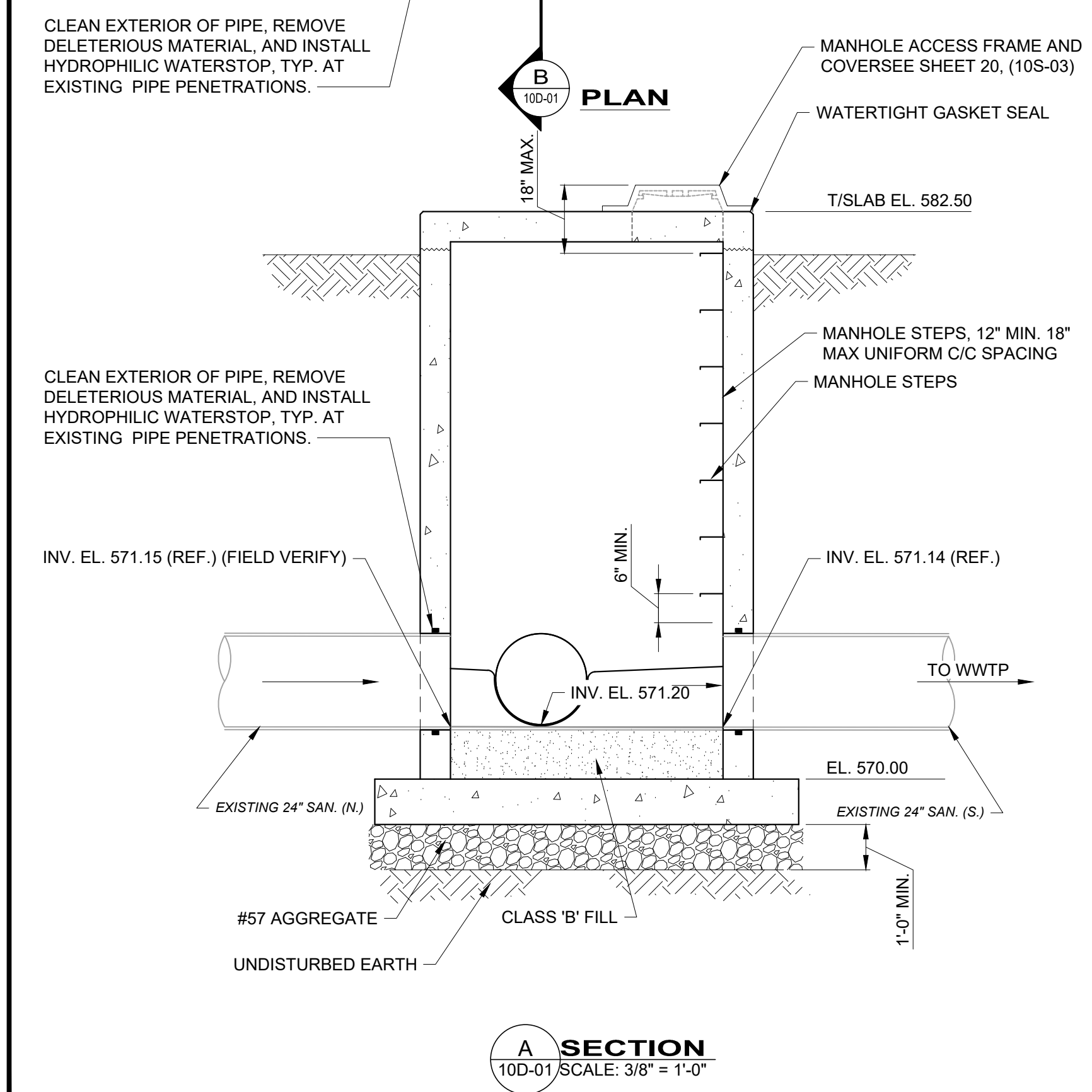
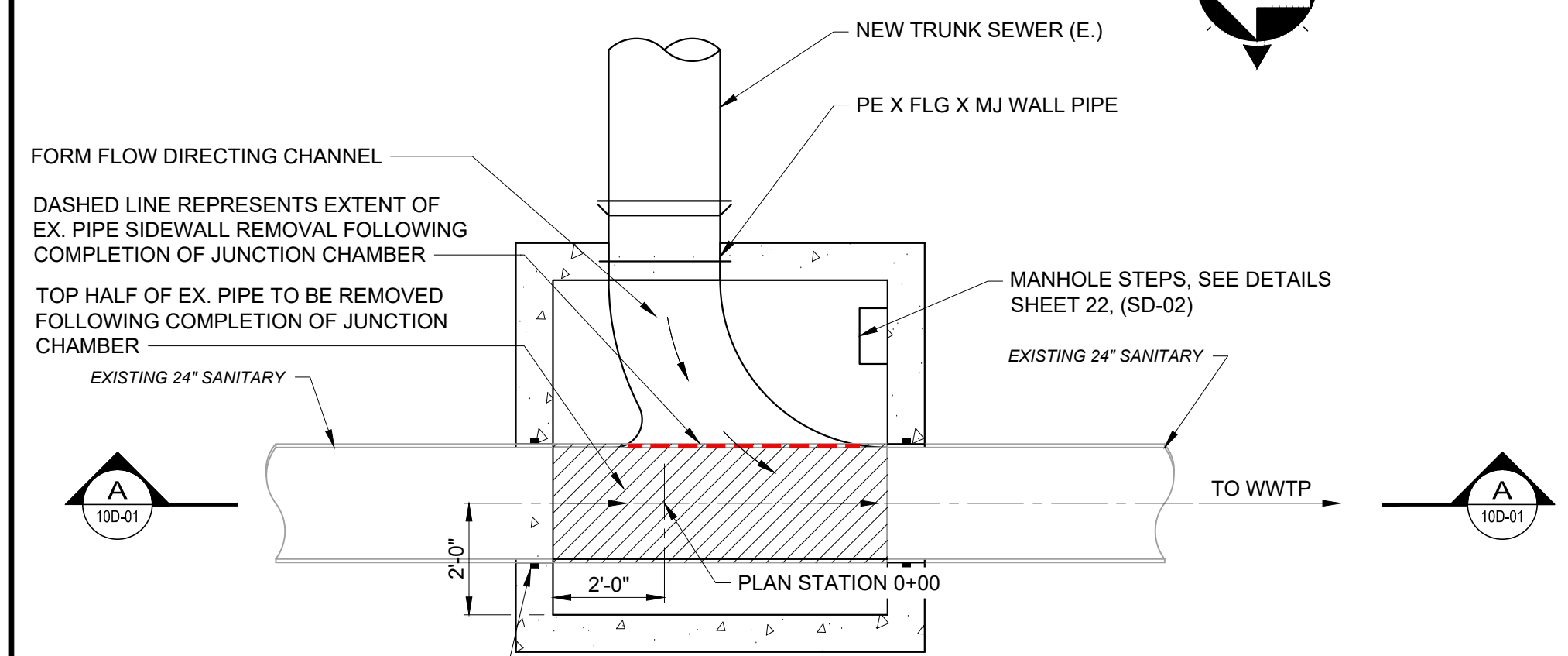
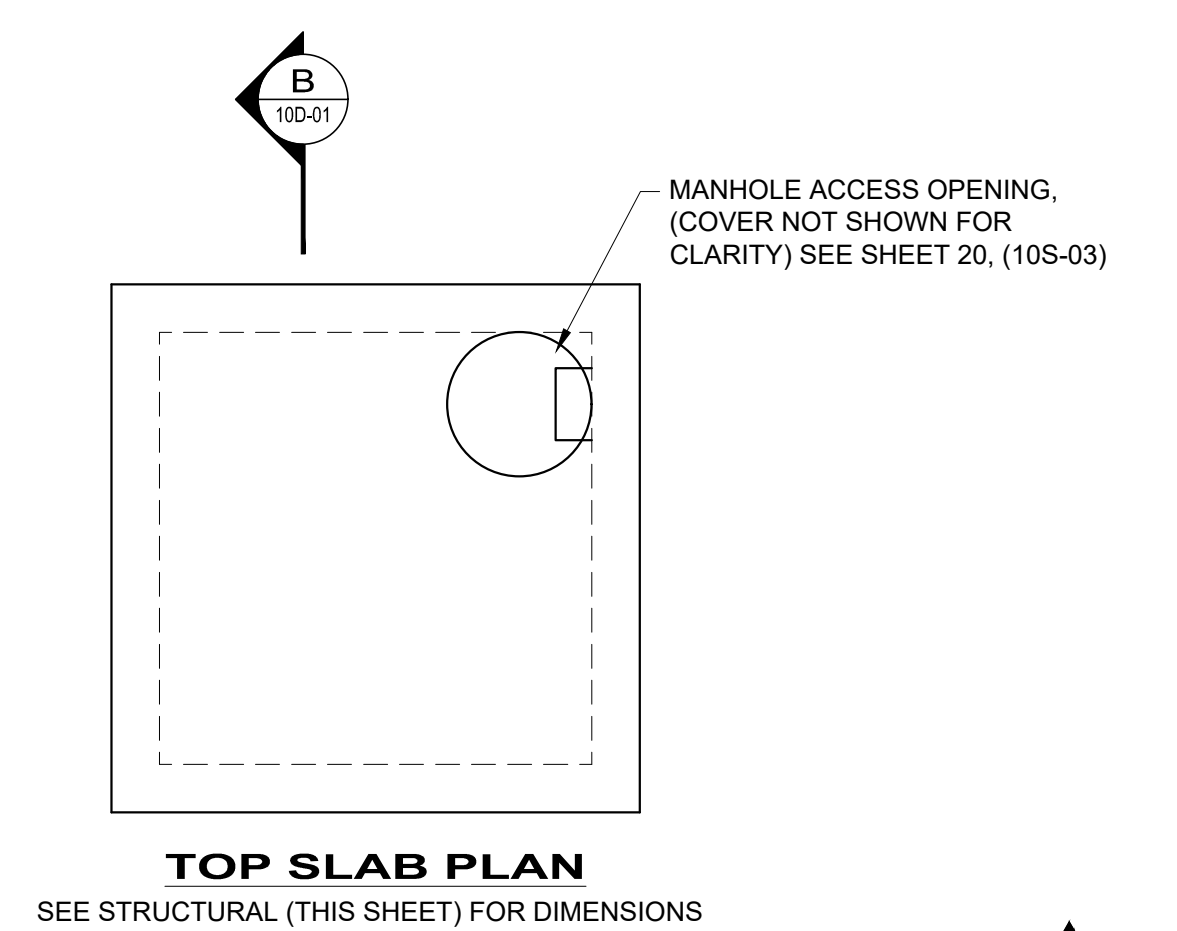
NO	REVISION	DATE

SCALE:	AS NOTED
DATE:	6/21/24
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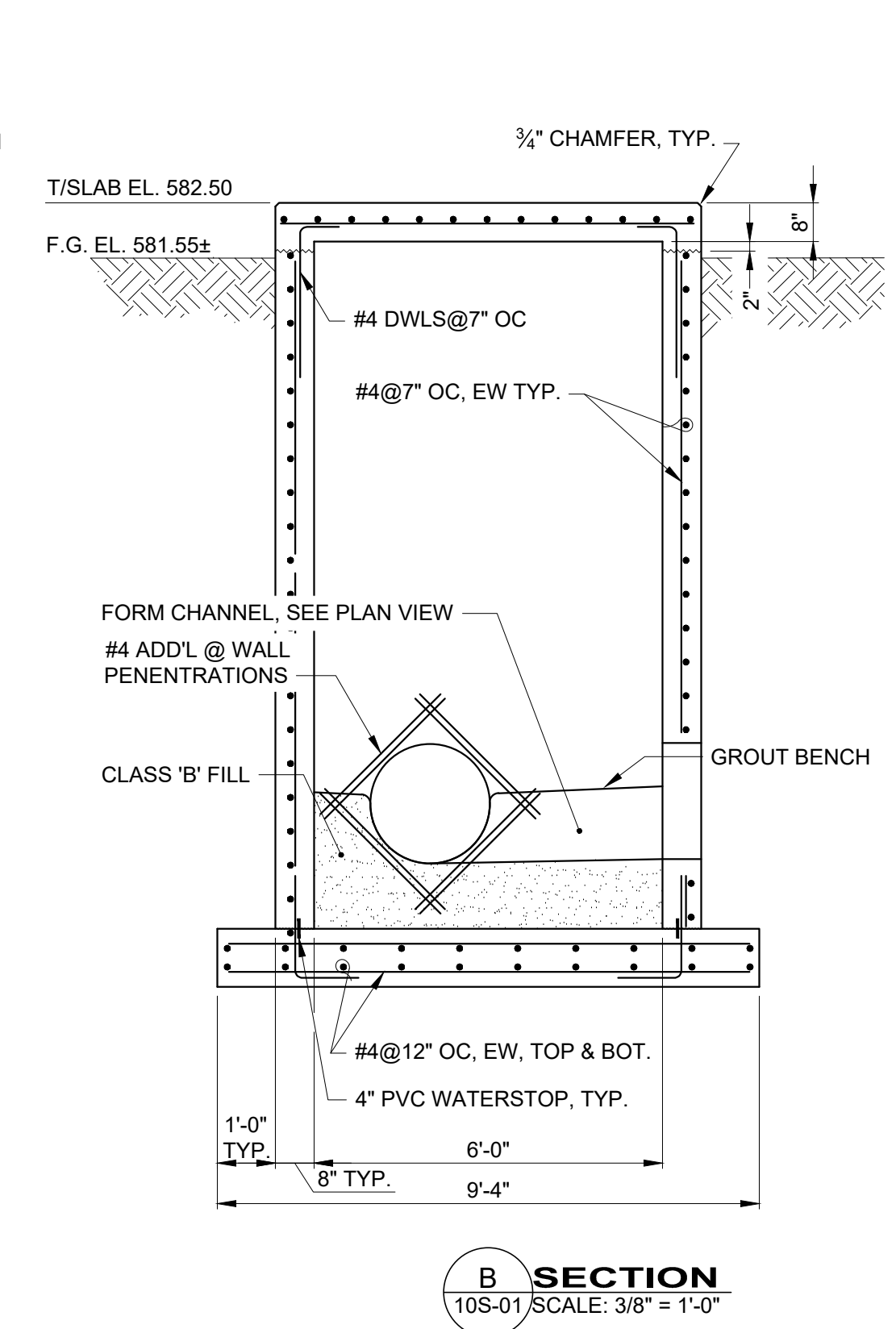
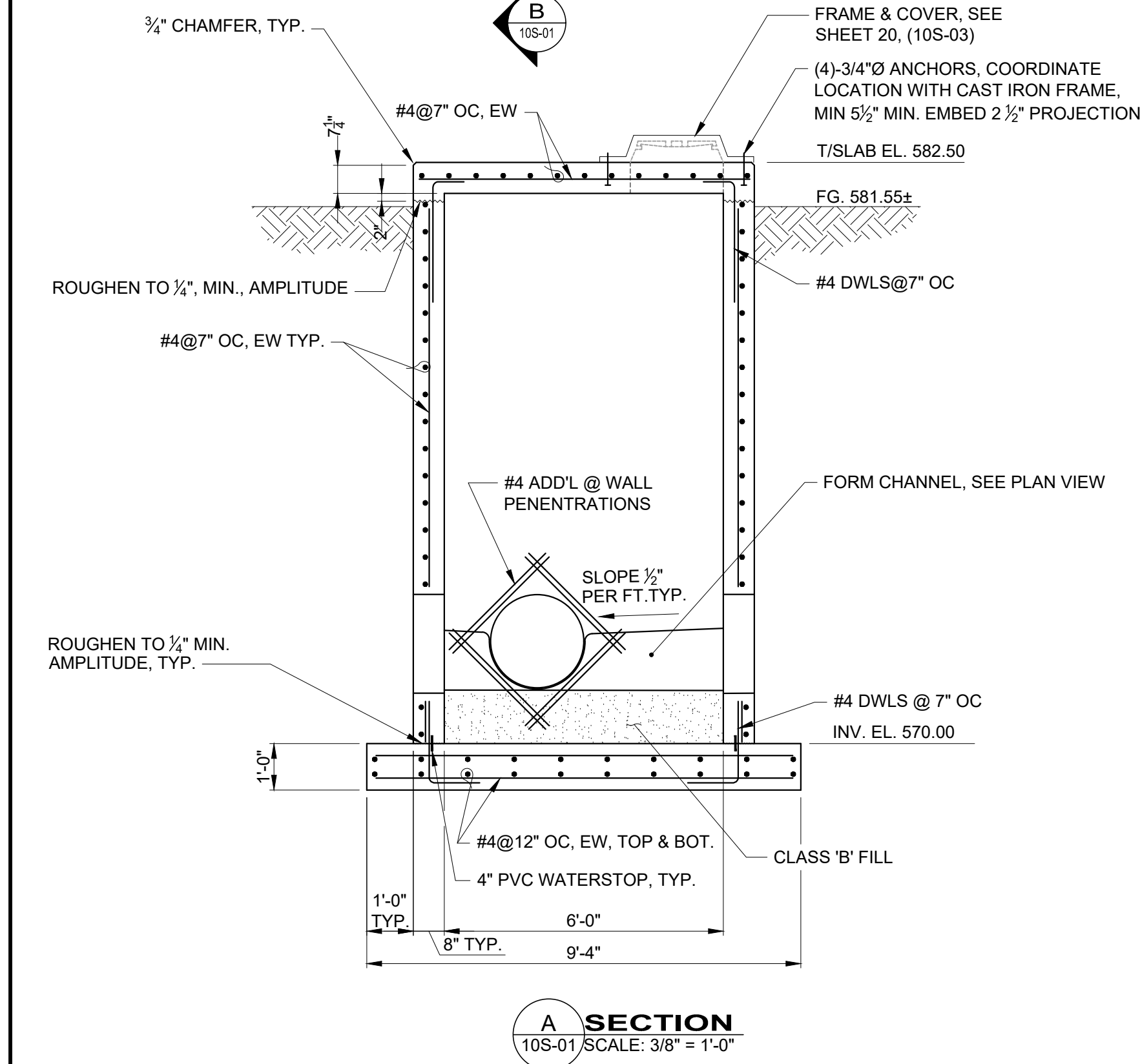
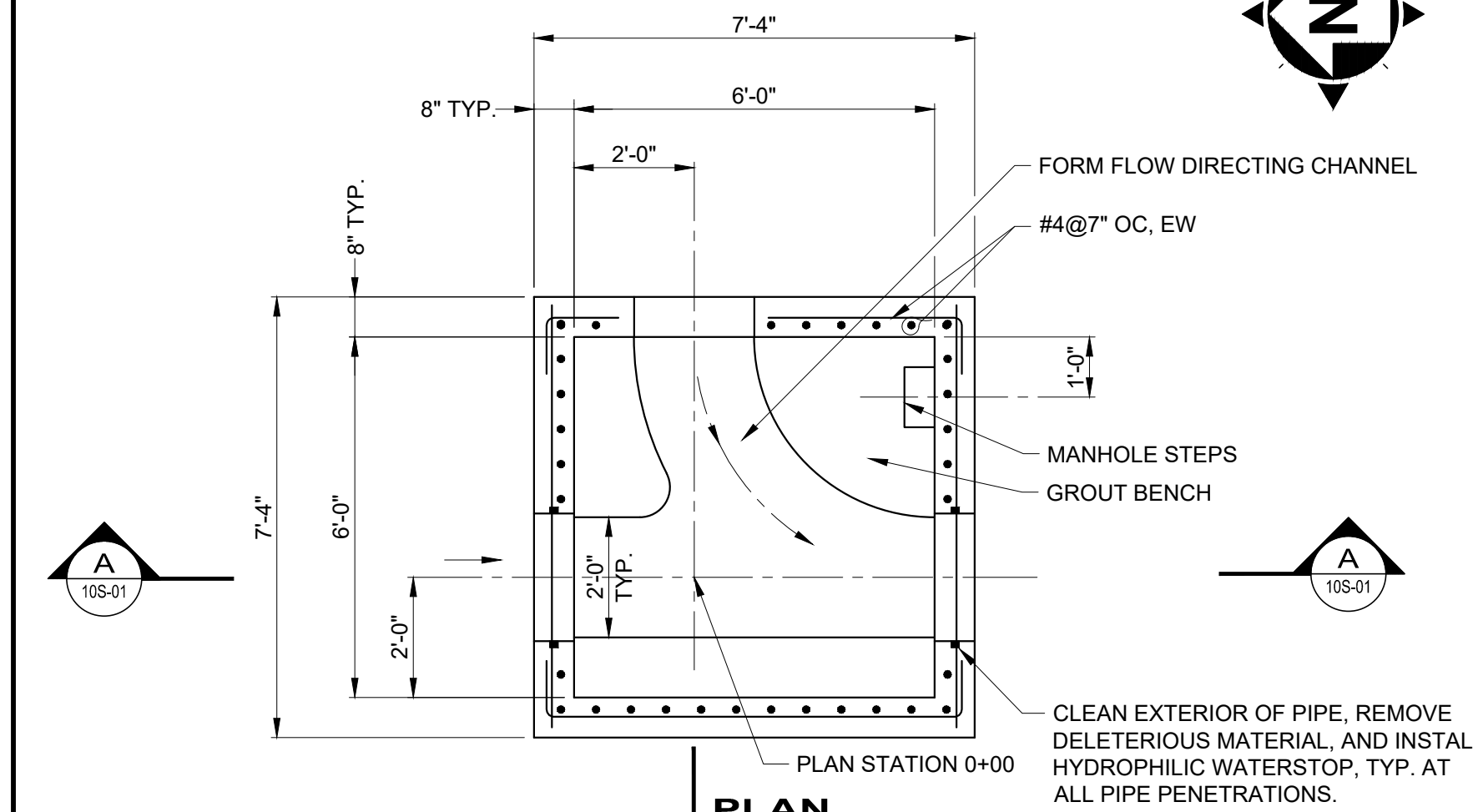
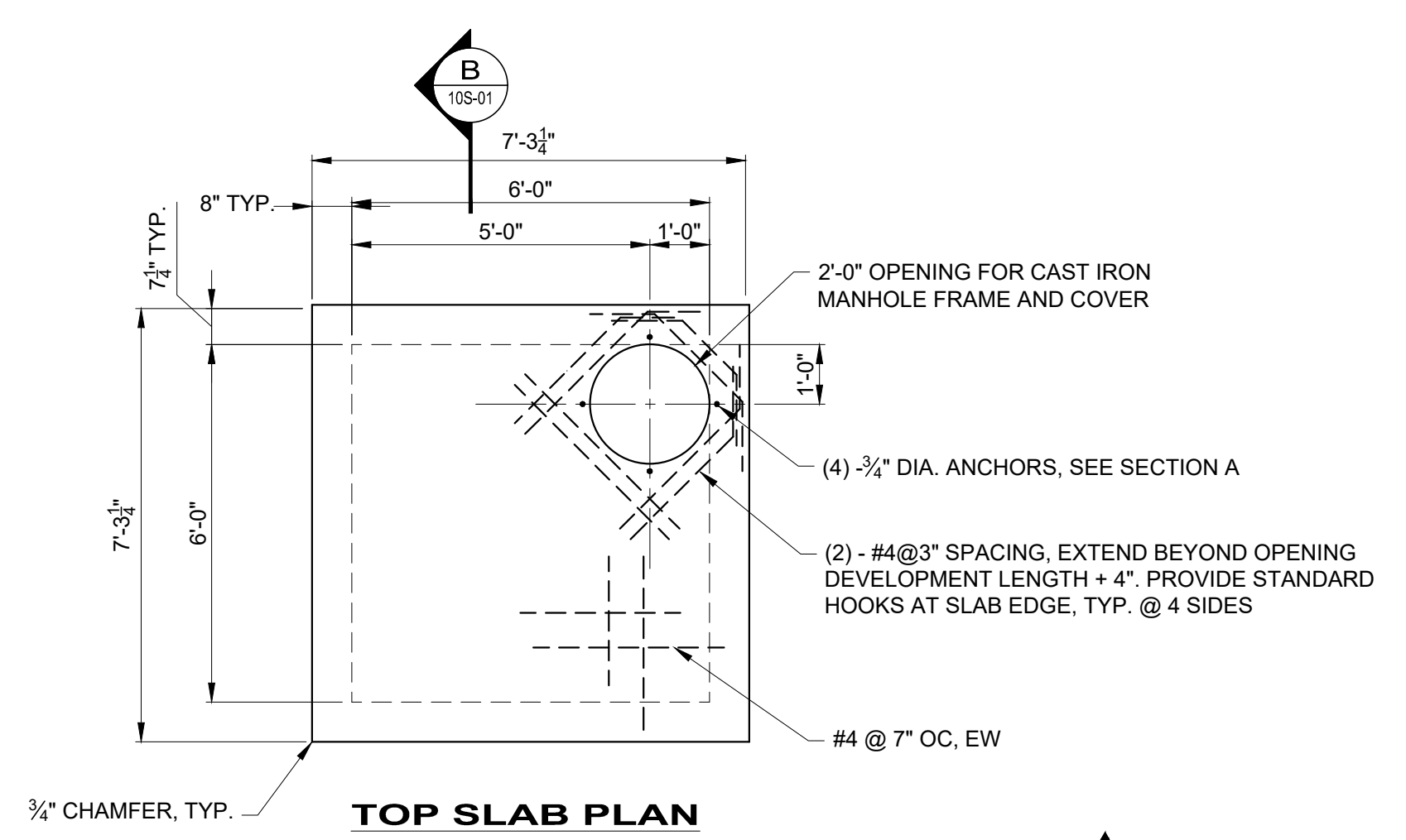
VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 OHIO
 ASHTABULA COUNTY
PLAN AND PROFILES - 01 SERIES
STA. 45+00+00 TO STA. 50+65

PROJECT NO:	231183
DRAWING NAME:	01PP-10
SHEET:	17
OF:	29

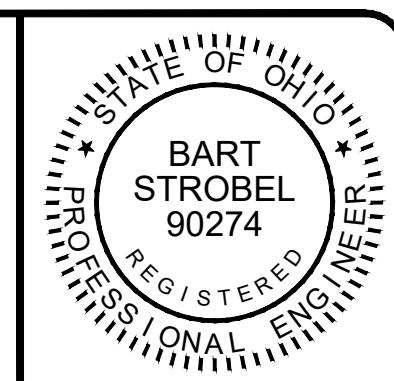




PIPING PLAN AND SECTIONS
SCALE: 3/8" = 1'-0"



STRUCTURAL PLAN AND SECTIONS
SCALE: 3/8" = 1'-0"



NO	REVISION	DATE

SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
ASHTABULA COUNTY OHIO
JUNCTION CHAMBER - 10 SERIES
PIPING AND STRUCTURAL PLANS & SECTIONS

PROJECT NO:	231183
DRAWING NAME	10S-01
SHEET	OF
18	29

GENERAL

- 1. THE GENERAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY. THE WORK SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS, CONSTRUCTION SPECIFICATIONS AND THE LATEST EDITION OF THE APPLICABLE LOCAL AND STATE BUILDING CODES.
a. WHERE CONFLICT IS FOUND TO EXIST BETWEEN THE SPECIFICATIONS AND THESE NOTES, THE REQUIREMENTS OF THE SPECIFICATIONS SHALL GOVERN.
b. ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE OHIO BUILDING CODE (LATEST EDITION) OR THESE DOCUMENTS - WHICHEVER IS MORE STRINGENT.
2. ALL CONTRACTORS SHALL CONFORM TO THE SAFETY REQUIREMENTS OF THE OWNER, AIA DOCUMENTS A201, OSHA SAFETY AND HEALTH STANDARDS, AND ANY OTHER LOCAL AUTHORITY IN CONNECTION WITH THE PROJECT.
3. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL CONSTRUCTION IS COMPLETED.
4. MEANS, METHODS & CONSTRUCTION LOADS - CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS AND SEQUENCE OF CONSTRUCTION, AND SHALL MAKE ADEQUATE PROVISION TO MAINTAIN THE INTEGRITY OF ALL STRUCTURES AT ALL STAGES OF CONSTRUCTION. DETERMINATION OF AND PROVISIONS FOR CONSTRUCTION LOADING SHALL BE PROVIDED BY THE CONTRACTOR.
5. CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO ENSURE THE SAFETY OF WORKERS AND VISITORS TO THE SITE, INCLUDING BUT NOT LIMITED TO SHORING, BRACING AND ACCESS RESTRICTION. COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY CODES AND STANDARDS. ALL EXCAVATIONS SHALL BE PROPERLY SHORED IN ACCORDANCE WITH O.S.H.A. STANDARDS AND REQUIREMENTS.
6. SLOPE DRAINAGE SURFACES UNIFORMLY TO DRAIN. SLOPE SHALL BE 1/8" TO 1/4" PER FOOT EXCEPT WHERE NOTED OTHERWISE ON THE PLANS.
7. ADDITIONAL CONTRACTOR RESPONSIBILITIES
a. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PROVIDING THE MATERIALS FOR SUPPORTING THE SANITARY SEWER DURING CONSTRUCTION. SANITARY SEWER SHALL REMAIN IN SERVICE DURING CONSTRUCTION UNTIL TIE IN OF THE SEWER LINE. BYPASS PUMPING SHALL BE KEPT TO THE MINIMUM. DESIGN SHALL BE BASED A FULL PIPE.
b. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PROVIDING THE MATERIALS FOR THE EXCAVATION SHORING.
c. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE GEOTECHNICAL SUPPORT DURING CONSTRUCTION.
8. FIELD VERIFY ALL DIMENSIONS. STRUCTURAL DIMENSIONS CONTROLLED BY EXISTING CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO THE MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION DIMENSIONS AND NOTIFYING CONSTRUCTION MANAGER OF DISCREPANCIES IN A TIMELY FASHION. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER BEFORE CONTINUING WITH CONSTRUCTION.
9. CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS AND SEQUENCE OF CONSTRUCTION, AND SHALL MAKE ADEQUATE PROVISION TO MAINTAIN THE INTEGRITY OF ALL STRUCTURES AT ALL STAGES OF CONSTRUCTION. DETERMINATION OF AND PROVISIONS FOR CONSTRUCTION LOADING SHALL BE PROVIDED BY THE CONTRACTOR. NO SUBSTITUTIONS OF MATERIAL WILL BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
10. REFERENCE TO STANDARDS OR SPECIFICATIONS OF TECHNICAL SOCIETIES, ORGANIZATIONS, OR ASSOCIATIONS, OR TO CODES OF LOCAL/STATE AUTHORITIES, MEANS THE LATEST STANDARD, SPECIFICATION, OR CODE ADOPTED BY THE DATE SHOWN ON THE DRAWINGS, UNLESS SPECIFICALLY NOTED OTHERWISE.
11. MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.

CODES AND STANDARDS

- 1. THE FOLLOWING CODES AND STANDARDS SHALL BE UTILIZED BY THE CONTRACTOR TO ESTABLISH MINIMUM LEVELS OF QUALITY AND CONSTRUCTION TECHNIQUES.
2. GENERAL
a. OHIO BUILDING CODE (OBC) AND THE INTERNATIONAL BUILDING CODE, (IBC) 2015 EDITION, LOCALLY AMENDED. THE ABOVE SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR CONTRACT PROVISIONS ARE MORE RESTRICTIVE.
b. AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ASCE 7-10).
3. CONCRETE
a. AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14).
b. AMERICAN CONCRETE INSTITUTE, "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES", ACI 350
c. AMERICAN CONCRETE INSTITUTE, "SEISMIC DESIGN OF LIQUID-CONTAINING CONCRETE STRUCTURES", ACI 350.3
d. AMERICAN CONCRETE INSTITUTE, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", (ACI 301).
e. AMERICAN CONCRETE INSTITUTE, "GUIDE TO FORMWORK FOR CONCRETE", ACI 347
f. AMERICAN CONCRETE INSTITUTE, "HOT WEATHER CONCRETING", ACI-305R
g. AMERICAN CONCRETE INSTITUTE, "COLD WEATHER CONCRETING", ACI-306R
h. PORTLAND CEMENT ASSOCIATION, "DESIGN AND CONTROL OF CONCRETE MIXTURES"
i. CONCRETE REINFORCING STEEL INSTITUTE, "MANUAL OF STANDARD PRACTICE", MSP-2

DESIGN CRITERIA

CODE SERVICE DESIGN LIVE LOADS ARE AS FOLLOWS:
SURCHARGE LOAD = 300 PSF

FOUNDATIONS

- 1. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE BEARING CAPACITY OF 2000 PSF AND A MODULUS OF SUBGRADE OF 50 PSI. CONTRACTOR SHALL VERIFY BEARING CAPACITY WITH GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
2. PROVIDE A MINIMUM FROST DEPTH 3'-6". ALL EXTERIOR FOOTINGS SHALL BEAR ON FIRM AND STABLE NATURAL SOILS OR COMPACTED FILL. COMPACTED FILL AND BACK FILL SHALL BE PER THE GEOTECHNICAL ENGINEER PROVIDED BY THE CONTRACTOR. EXTERIOR FOOTINGS SHALL BEAR AT FROST DEPTH, 3'-6" MINIMUM BELOW GRADE, OR DOWN TO ACCEPTABLE SOILS, WHICHEVER IS DEEPER.
3. REMOVE ALL EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS, UNSUITABLE FILLS, ORGANIC SOILS AND/OR OTHER DELETERIOUS MATERIALS DURING SITE PREPARATION AND/OR ENCOUNTERED WITHIN OR BELOW THE AREA TO BE OCCUPIED BY SLABS ON GRADE, EQUIPMENT PADS, AND FOUNDATIONS. THESE MATERIALS SHALL NOT BE USED FOR FILL WITHIN OR ADJACENT TO THE STRUCTURE. AFTER EXCAVATING THE EXPOSED NATURAL SOIL SHALL BE THOROUGHLY COMPACTED PRIOR TO PLACEMENT OF FILL OR AS DIRECTED BY THE CONTRACTORS GEOTECHNICAL ENGINEER.
4. BACKFILL SHALL BE CLEAN, CRUSHED STONE (#57 STONE) OR SELECT ENGINEERED FILL APPROVED BY THE GEOTECHNICAL ENGINEER. ALL BACKFILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACT AS PER THE GEOTECHNICAL.
5. EXCAVATIONS FOR FOUNDATIONS SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL AND CONCRETE. UNDERCUT UNSUITABLE SOILS AND BACKFILL AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
6. FOUNDATION MAT/BASE SLAB SHALL BEAR ON A 12" BASE OF COMPACTED CLEAN, CRUSHED STONE (#57 STONE).
7. CONTRACTOR SHALL KEEP ALL FREE-STANDING WATER OUT OF EXCAVATIONS. CONTRACTOR SHALL PROVIDE DEWATERING MEASURES AS NECESSARY PRIOR TO PLACING CONCRETE. WATER SHOULD BE REMOVED FROM THE FOUNDATION BOTTOMS BEFORE CONCRETE OR REINFORCING STEEL IS PLACE.
8. CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROVIDE TEMPORARY SHORING, BRACING, UNDERPINNING, AND OTHER MEASURES NECESSARY TO ENSURE STABILITY AND SAFETY DURING ERECTION AND CONSTRUCTION AND TO PREVENT MOVEMENT OF SOIL THAT COULD DAMAGE EXISTING STRUCTURES, PAVEMENT, UTILITIES, ETC.
9. UNLESS NOTED OTHERWISE ON THE CIVIL/SITE DRAWINGS, PROVIDE A MINIMUM 2% GRADE WITHIN 10-FEET OF THE PERIMETER OF THE FOUNDATION SYSTEM TO ALLOW SURFACE WATER TO DRAIN AWAY.
10. DO NOT PLACE FILL OR CONCRETE ON FROZEN GROUND.

REINFORCED CONCRETE

- 1. APPLICABLE CODE AND MIX DESIGN - CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE(ACI 318 BUILDINGS AND ACI 350 LIQUID RETAINING). MIX DESIGNS SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE

REINFORCED CONCRETE

- 1. APPLICABLE CODE AND MIX DESIGN - CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE(ACI 318 BUILDINGS AND ACI 350 LIQUID RETAINING). MIX DESIGNS SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
2. REINFORCING STEEL DETAILS - ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI-315), LATEST EDITION.
3. CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS:

Table with 5 columns: CLASS, 28-DAY COMPRESSIVE STRENGTH (f'c), W/C RATIO (MAX), ENTRAINED AIR, SLUMP (MAX). Row 1: A, 4000psi, 0.42, 6%± 1.5%, 3'-4" (WATER) 8" (PLASTICIZED)

- CLASS "A" CONCRETE SHALL BE USED FOR STRUCTURAL APPLICATIONS.
4. COARSE AGGREGATE IN CLASS A CONCRETE SHALL CONFORM TO ASTM /AASHTO COARSE AGGREGATE GRADATION 467 OR 57.
5. PROVIDE 20 TO 25 PERCENT POZZOLAN, BY WEIGHT OF CEMENTITIOUS MATERIALS.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 (DEFORMED)
7. CONCRETE MIX AND MATERIALS
a. PORTLAND CEMENT SHALL BE ASTM C150, TYPE II OR TYPE V, LOW ALKALI, CONTAINING LESS THAN 0.60 PERCENT ALKALIS. PORTLAND-POZZOLAN CEMENT SHALL BE ASTM C595, TYPE IP (IMS), INTERGROUND, LOW ALKALI.
b. FINE AND COARSE AGGREGATES SHALL CONFORM TO ASTM C33. FINE AND COARSE AGGREGATES SHALL BE REGRADED AS SEPARATE INGREDIENTS. AGGREGATES SHALL BE NON-REACTIVE AND SHALL BE WASHED TO REMOVE FINE PARTICLES AND GRADING OF FINE AND COARSE AGGREGATES SHALL BE IN ACCORDANCE WITH ASTM C136. COMBINED AGGREGATES SHALL BE WELL AND UNIFORMLY GRADED FROM COARSE TO FINE SIZES TO PRODUCE A CONCRETE THAT HAS OPTIMUM WORKABILITY AND CONSOLIDATION CHARACTERISTICS. THE FINAL COMBINED AGGREGATE GRADATION SHALL BE ESTABLISHED DURING THE DESIGN MIX.
c. FINE AGGREGATE: FINE AGGREGATE SHALL BE HARD, DENSE, DURABLE PARTICLES OF EITHER SAND OR CRUSHED STONE REGULARLY GRADED FROM COARSE TO FINE. GRADATION SHALL CONFORM TO ASTM C33.
d. COARSE AGGREGATE: COARSE AGGREGATE SHALL BE HARD, ANGULAR (NOT RIVER WASHED), DENSE AND DURABLE GRAVEL OR CRUSHED ROCK FREE FROM INJURIOUS AMOUNTS OF SOFT AND FRIBLE PARTICLES, ALKALI, AND ORGANIC MATTER. OTHER DELETERIOUS SUBSTANCES SHALL NOT EXCEED THE LIMITS LISTED IN ASTM C33, TABLE 3. GRADATION OF EACH COARSE AGGREGATE SIZE SHALL CONFORM TO ASTM C33, TABLE 2.
e. POZZOLAN SHALL BE CLASS N, NATURAL POZZOLAN, OR CLASS F, FLY ASH, CONFORMING TO ASTM C618. FLY ASH POZZOLAN SHALL CONTAIN LESS THAN 1 PERCENT BY WEIGHT CARBON AND LESS THAN 3 PERCENT BY WEIGHT SULFUR TRIOXIDE. POZZOLAN SUPPLIED DURING THE LIFE OF THE PROJECT SHALL HAVE BEEN FORMED AT THE SAME SINGLE SOURCE. THE POZZOLAN COLOR SHALL NOT SUBSTANTIALLY ALTER THE RESULTING CONCRETE FROM THE NORMAL GRAY COLOR AND APPEARANCE.
f. ADMIXTURES SHALL BE COMPATIBLE WITH THE CONCRETE AND WITH EACH OTHER. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE NOT ACCEPTABLE. ADMIXTURES SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE ADDED SEPARATELY TO THE CONCRETE MIX.
g. WATER REDUCING ADMIXTURES AND RETARDERS: WATER REDUCING RETARDERS SHALL CONFORM TO ASTM C494, TYPE D. CANDIDATE MANUFACTURERS INCLUDE DEGUSSA ADMIXTURE SYSTEMS, POZZOLITH 300R; SIKA CHEMICAL CORP., PLASTIMENT; EUCLID CHEMICAL CO., EUCON RETARDER 75; OR EQUAL.
h. WATER REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYP.E A. CANDIDATE MANUFACTURERS INCLUDE DEGUSSA ADMIXTURE SYSTEMS, POZZOLITH 322N; SIKA CHEMICAL CORP., PLASTOCRETE 161; EUCLID CHEMICAL CO., EUCON WR89; OR EQUAL.
i. THE WATER REDUCING RETARDERS AND ADMIXTURES SHALL REDUCE THE WATER REQUIRED BY AT LEAST 11 PERCENT FOR A GIVEN CONCRETE CONSISTENCY AND SHALL COMPLY WITH THE WATER/CEMENT RATIO STANDARDS OF ACI 211.1.
j. AIR ENTRAINING AGENT: AIR ENTRAINING AGENT SHALL CONFORM TO ASTM C260. CANDIDATE MANUFACTURERS INCLUDE DEGUSSA ADMIXTURE SYSTEMS, MB-AE 90; SIKA CHEMICAL CORP., AEA-15; EUCLID CHEMICAL CO., AEA-92 OR EQUAL. THE AIR ENTRAINING AGENT ADDED SHALL PRODUCE, IN ACCORDANCE WITH ASTM C260.
k. WATER FOR WASHING AGGREGATE, FOR MIXING AND FOR CURING SHALL BE POTABLE AND FREE FROM OIL AND DELETERIOUS AMOUNTS OF ACIDS, ALKALIS, AND ORGANIC MATERIALS; SHALL NOT CONTAIN MORE THAN 1,000 MG/L OF CHLORIDES AS CL, NOR MORE THAN 1300 MG/L OF SULFATES AS SO4; AND SHALL NOT CONTAIN AN AMOUNT OF IMPURITIES THAT MAY CAUSE A CHANGE OF MORE THAN 25 PERCENT IN THE SETTING TIME OF THE CEMENT NOR A REDUCTION OF MORE THAN 5 PERCENT IN THE COMPRESSIVE STRENGTH OF THE CONCRETE AT 14 DAYS WHEN COMPARED WITH THE RESULT OBTAINED WITH DISTILLED WATER. ADDITIONALLY, WATER USED FOR CURING SHALL NOT CONTAIN AN NUMBER OF IMPURITIES SUFFICIENT TO DISCOLOR THE CONCRETE.
8. MISCELLANEOUS MATERIALS:
a. ADHESIVE ANCHORS FOR POST-INSTALLED ANCHORS AND DOWELS - HILTI, HIT-RE 500 - SP, SIKADUR - 31 HI-MOD GEL, OR DAYTON SUPERIOR, SURE ANCHOR I J51.
b. BONDING COMPOUNDS - EPOXY RESIN BONDING COMPOUNDS SHALL CONFORM TO ASTM C881 TYPES I OR II, CLASS A, B, OR C DEPENDING ON TEMPERATURE AT USE. ACCEPTABLE PRODUCTS INCLUDE: SIKA CHEMICAL CORPORATION "SIKADUR HI-MOD OR ARMATEC -110 EPOCEM.
c. CURING AND SEALING COMPOUNDS - ACCEPTABLE PRODUCTS INCLUDE, SPEC CHEM "E-CURE", DAYTON SUPERIOR "CLEAR CURE VOC FREE", CONFORMING TO ASTM C309 AND ASTM C1315
9. SUBMIT FOR APPROVAL CONCRETE MIX DESIGN AND CERTIFICATION OF CONCRETE MATERIALS CONFORMING TO THE FOLLOWING EXPOSURE CATEGORIES:

Table with 2 columns: CATEGORY, CLASS. Rows: FREEZE AND THAWING (F1), SULFATE IN CONTACT WITH WATER (S1, W1), CORROSION PROTECTION (C1)

- 10. DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI 315, "DETAILS AND DETAILING OF REINFORCED CONCRETE STRUCTURES" AND THE CRSI, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
11. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", (ACI 301).
12. CONCRETE SHALL BE PROPORTIONED, BATCHED, MIXED, PLACED, CONSOLIDATED, AND CURED IN ACCORDANCE WITH ACI 301, 304, 308, 309, AND 318.
13. REINFORCING BAR HOOKS SHOWN ON THE DRAWINGS SHALL BE ACI STANDARD 90 DEGREE HOOKS. HOOKS DO NOT HAVE TO BE ORIENTATED AS SHOWN IN DRAWINGS. DO NOT LAP OR ATTACH STANDARD 90 DEGREE HOOKS TO ADJACENT BARS.
14. HOOK TOP REINFORCING OF BARS AT DISCONTINUOUS EDGES OF SLABS.
15. REINFORCING STEEL SHALL NOT BE HEATED OR WELDED AND MUST BE DRY AND FREE OF CONTAMINANTS SUCH AS RUST, GREASE, AND PROTECTIVE COATINGS.
16. ALL BAR SPLICES SHALL BE ACI CLASS "B" TENSION LAP SPLICES.
17. CONCRETE PROTECTION (CLEAR COVER) FOR REINFORCING BARS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.
a. FOOTINGS:
• 3 INCHES, BOTTOM AND UNFORMED EDGES
• 2 INCHES, FORMED EDGES
• 2 INCHES, EXPOSED TO EARTH, WATER OR WEATHER
• 2 INCHES, BOTTOM, ON CONCRETE MUDMAT
b. SLABS, WALLS
• 2 INCHES TO REINFORCEMENT
18. CONTRACTOR SHALL PROVIDE BONDING AGENT TO ALL SURFACES BETWEEN EXISTING AND FRESH CONCRETE. BONDING AGENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
19. PRIOR TO APPLICATION OF BONDING AGENT, THE EXISTING CONCRETE BASE SURFACE SHALL BE THOROUGHLY CLEANED TO REMOVE ANY GREASE, OIL OR OTHER CONTAMINANTS THAT MAY PREVENT ADEQUATE BOND TO THE EXISTING CONCRETE. REMOVE WEAK OR DETERIORATED
20. PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CORNERS OF SLABS AND WALLS UNLESS OTHERWISE INDICATED. MINIMUM CLEARANCES FOR REINFORCING STEEL SHALL BE MAINTAINED. EXTEND CHAMFER 2'-0", MINIMUM, BELOW GRADE.
21. WELDING REINFORCING BARS - IF APPROVED BY THE CONSTRUCTION MANAGER, REINFORCING MAY BE WELDED IN ACCORDANCE WITH WITH AWS SPECIFICATION D1.4. ALL REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A706.
22. STANDARD HOOKS - BARS ENDING IN RIGHT ANGLE BENDS OR HOOKS SHALL CONFORM TO THE REQUIREMENTS OF PARAGRAPH 7.1, ACI-318. PROVIDE STANDARD HOOK IN BARS WHICH TERMINATE AT WALL OR SLAB INTERSECTIONS THAT PROVIDE LESS THAN THE SPECIFIED DEVELOPMENT LENGTH.
23. SHORE STRUCTURAL SLABS FOR A MINIMUM OF 21-DAYS OR UNTIL CONCRETE STRENGTH IS AT LEAST 0.75fc. DO NOT BACKFILL STRUCTURE UNTIL CONCRETE STRENGTH IS AT LEAST fc.
24. CURE ALL CONCRETE FOR A MINIMUM 7-DAYS. APPLY CURING COMPOUND AT THE MAXIMUM COVERAGE RATE OF 300 SQUARE FEET PER GALLON. USE PRODUCT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SEE SPECIFICATIONS.

POST-INSTALLED FASTENERS/REBAR/DOWELS

- 1. POST-INSTALLED ANCHORS SHALL BE USED ONLY WHERE SPECIFIED ON THE STRUCTURAL DRAWINGS.
2. ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION IS REQUIRED FOR ALL INSTALLERS OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATION. THIS CERTIFICATION CAN BE OBTAINED

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3. FASTENERS AND OR REBAR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING IN COORDINATION WITH INFORMATION HEREIN. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF CONFLICTS EXIST BETWEEN THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS HEREIN.
4. EXISTING REINFORCEMENT STEEL SHALL NOT BE CUT. PRIOR TO DRILLING THE CONCRETE, THE CONTRACTOR SHALL LOCATE REINFORCEMENT STEEL WITH A MAGNETIC BAR LOCATOR. POST-INSTALLED BOLTS, DOWELS, AND FASTENERS SHALL BE INSTALLED TO MISS REINFORCEMENT STEEL IN CONCRETE. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS.
5. DRILL HOLES USING ROTARY PERCUSSION DRILL WITH A DEPTH GAGE. DO NOT DRILL THROUGH FULL THICKNESS OF CONCRETE. USE OF A DIAMOND CORE BIT WITH ROUGHENING TOOL FOR ANCHOR HOLES MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO DRILLING. UNLESS OTHERWISE SHOWN IN THE DRAWINGS, ALL HOLES SHALL BE DRILLED PERPENDICULAR TO THE CONCRETE SURFACE. CLEAN HOLES IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. IF CONCRETE IS DAMP, BLOW DRY HOLE WITH OIL-FREE COMPRESSED AIR. CLEAN HOLE WITH WATER ONLY IF RECOMMENDED BY MANUFACTURER. ADHESIVE ANCHORS MAY NOT BE SET IF WATER IS SEEPING INTO HOLE AND THE STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED.

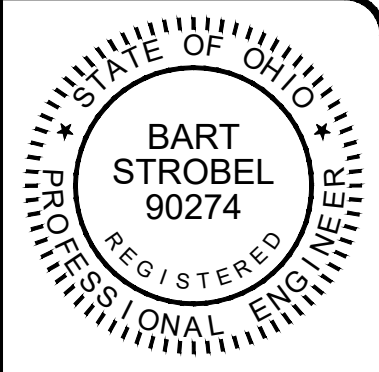


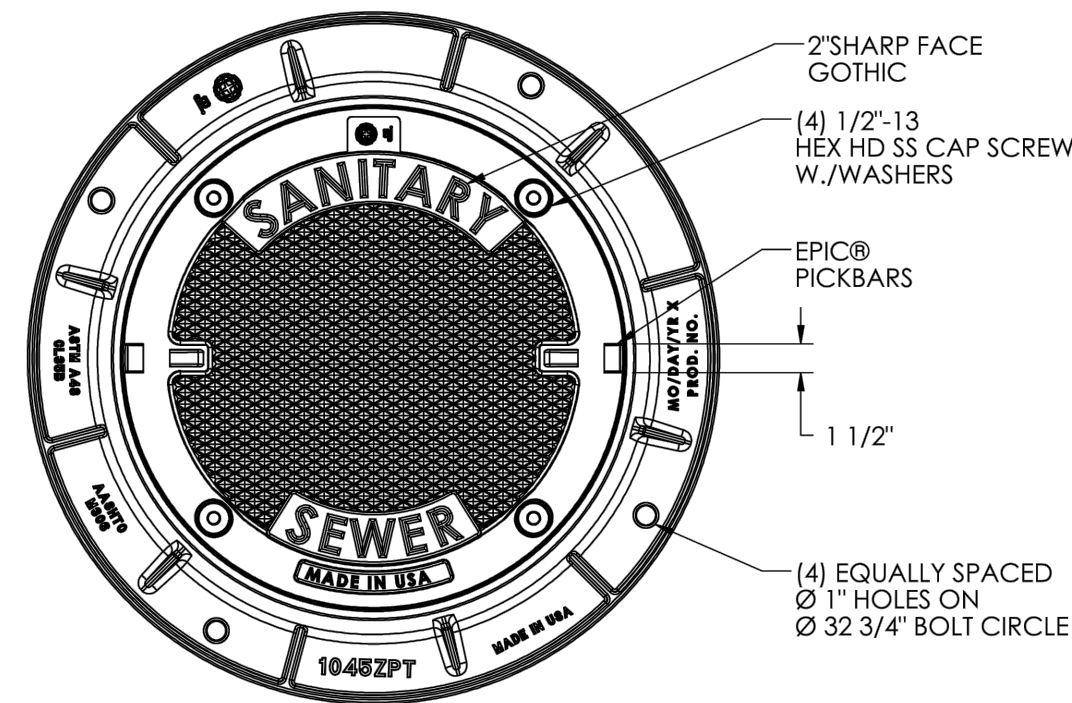
Table with 2 columns: REVISION, DATE. Multiple empty rows for tracking changes.

Table with 2 columns: SCALE, AS NOTED; DATE, 6/21/24; DESIGNED BY, BS; DRAWN BY, RLM; CHECKED BY, BS.

Project information: VILLAGE OF GENEVA-ON-THE-LAKE, SANITARY SEWER TRUNK LINE REPLACEMENT, OHIO, ASHTABULA COUNTY, JUNCTION CHAMBER - 10 SERIES, STRUCTURAL GENERAL NOTES.

Project ID: 231183, Drawing Name: 10S-02, Sheet 19 of 29.

1040APT 1045ZPT Assembly



Product Number
00104509

Design Features

- Materials
- Cover: Gray Iron (CL35B)
- Frame: Gray Iron (CL35B)
- Design Load: Heavy Duty
- Open Area: n/a
- Coating: Dipped
- ∕ Designates Machined Surface

Certification

- ASTM A48
- Country of Origin: USA

Major Components

00104174
00104512

Drawing Revision

9/12/2009 Designer: DVDS-VP
06/06/2013 Revised By: DAE

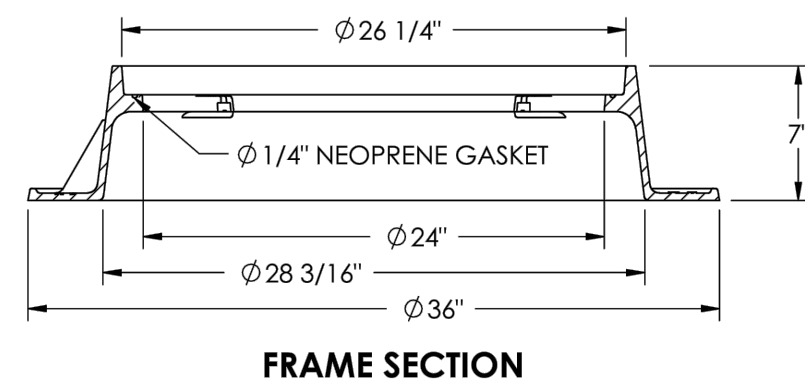
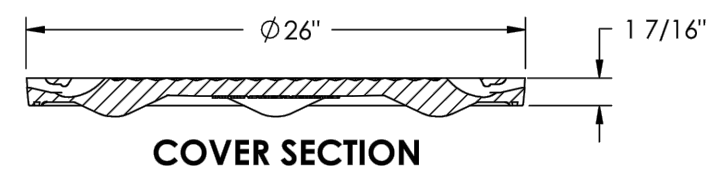
Disclaimer

Weights (lbs/kg), dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

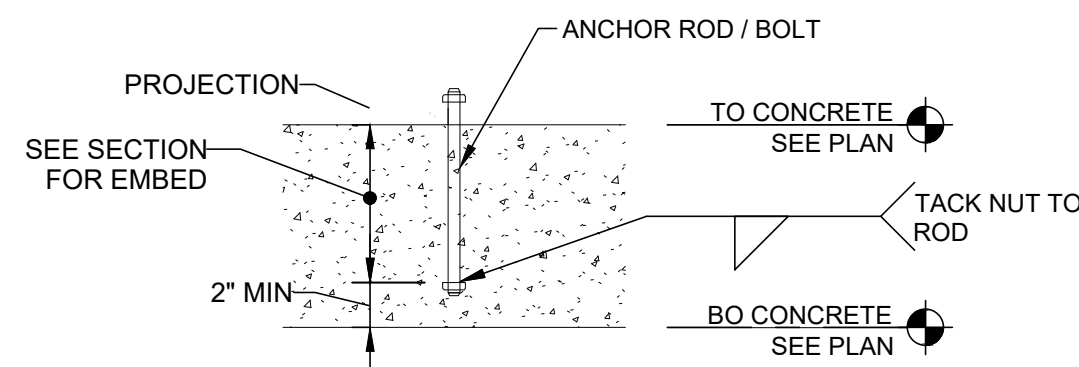
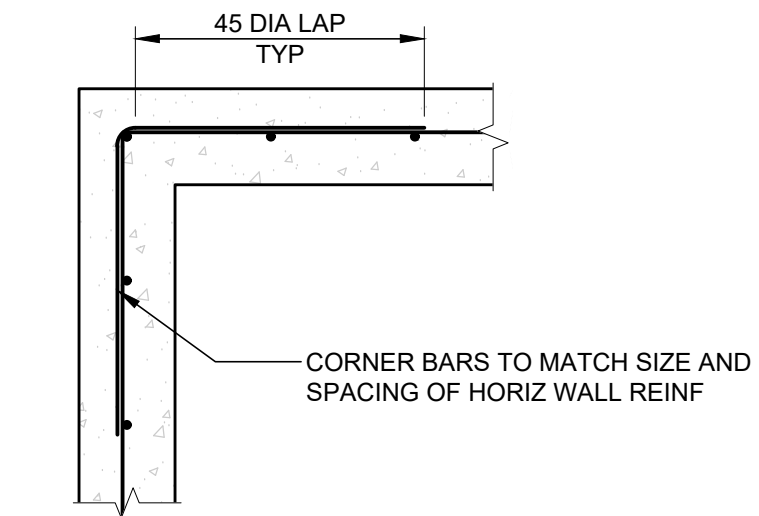
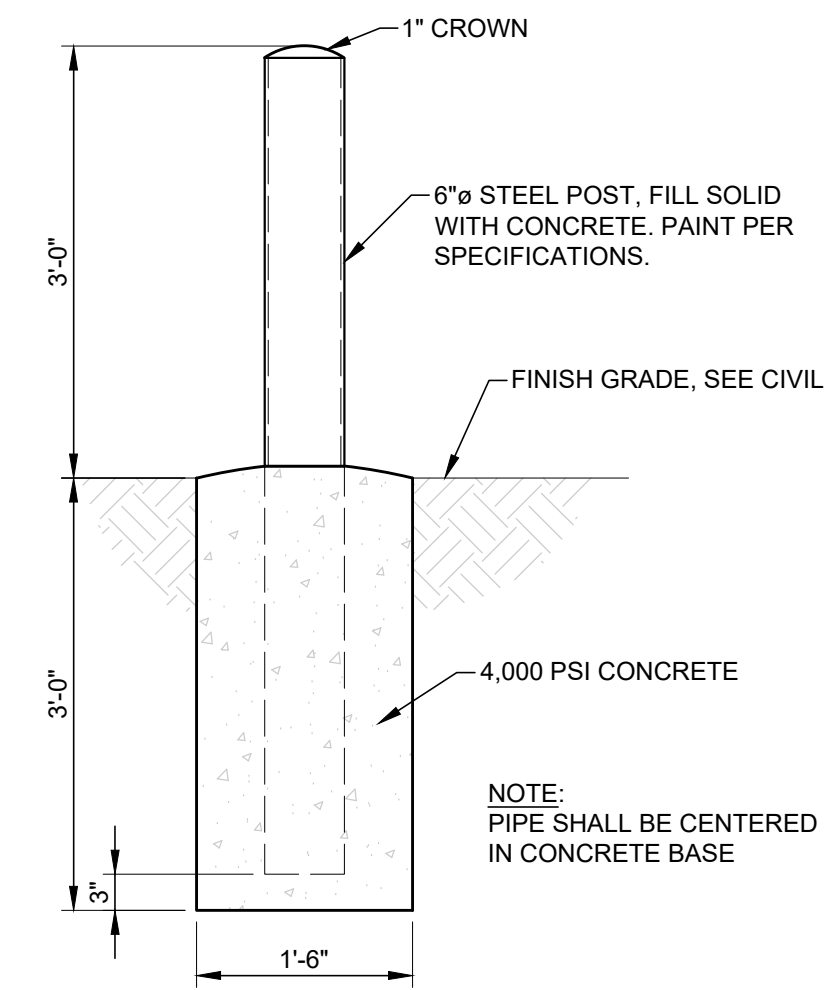
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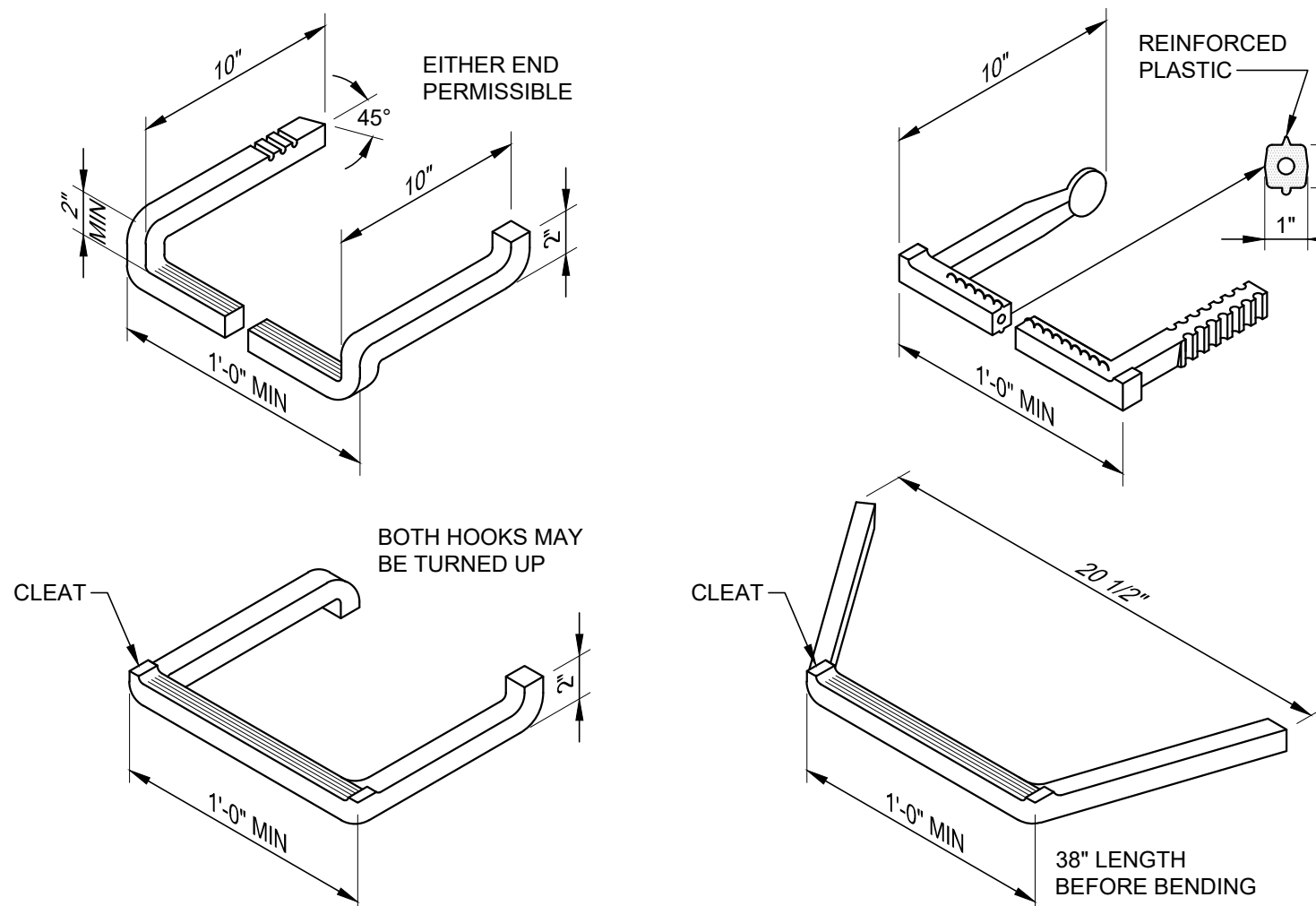


MANHOLE FRAME AND COVER
SCALE: NONE



NOTES:

- USE HEAVY HEAD BOLTS OR TACK WELD NUT AS SHOWN
- COORDINATE PROJECTION WITH MANHOLE CASTING SUPPLIER UNLESS NOTED OTHERWISE.
- DO NOT USE 'J' BOLTS. 'J' BOLTS ARE NOT ACCEPTABLE.
- ANCHOR BOLTS AND ASSOCIATED HARDWARE TO BE GALVANIZED A307 OR GALVANIZED F1554 36 GRADE THREADED ROD.



NOTES:

- PROVIDE STEPS THAT CONFORM TO THE MATERIAL REQUIREMENTS PER THE FOLLOWING STANDARDS AND HAVE A DEPRESSED TREAD OR 1/2" MINIMUM CLEAR HEIGHT AT ENDS.
 - FURNISH DUCTILE IRON CASTING ACCORDING TO ASTM A536.
 - COAT STEEL RODS, GRADE 60 ACCORDING TO ASTM A934/A.
 - PROVIDE DEFORMED AND PLAIN BILLET STEEL BARS, GRADE 60 FOR CONCRETE REINFORCEMENT ACCORDING TO ASTM A615.
- EMBED STEPS INSTALLED IN FRESH CONCRETE AT LEAST 4" DEEP.
- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO TEST LOAD A MAXIMUM OF ONE STEP PER MANHOLE TO A PROOF LOAD OF 400 LB. IN DIRECT PULL. MEET THE APPROVAL OF THE ENGINEER WITH THE EQUIPMENT AND METHOD USED. IF THE SELECTED STEP FAILS THE PULL-OUT TEST, ALSO TEST THE REMAINING STEPS IN THAT MANHOLE. REMOVE ALL STEPS NOT PASSING THE PULL-OUT TEST AND INSTALL AND TEST A NEW STEP TO THE SATISFACTION OF THE ENGINEER. COST OF TESTING IS INCIDENTAL TO THE UNIT PRICE BID FOR THE MANHOLE.

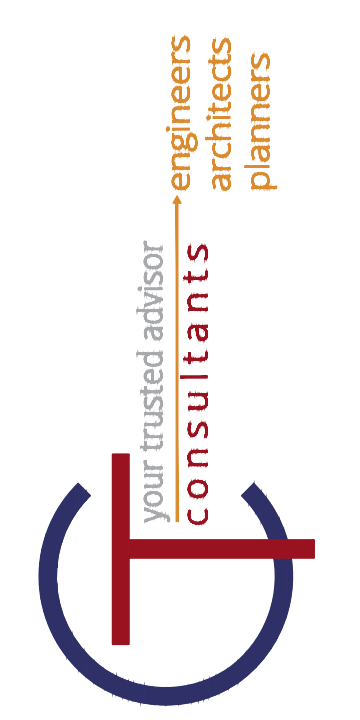
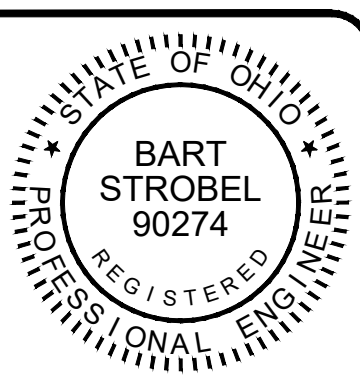
LAP TABLE (f'c = 4,000 PSI)

BAR SIZE	LAP CLASS	UNCOATED BARS			
		TOP BARS		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2
#3	A	19	28	15	22
	B	24	36	19	28
#4	A	25	37	19	29
	B	32	48	25	37
#5	A	31	47	24	36
	B	40	60	31	47
#6	A	37	56	29	43
	B	48	72	37	56

NOTES:

- TABULATED VALUES ARE BASED ON A MINIMUM YIELD STRENGTH OF 60,000 PSI. LENGTHS ARE IN INCHES.
- CASES 1 AND 2, WHICH DEPEND ON THE TYPE OF STRUCTURAL MEMBER, CONCRETE COVER, AND OC SPACING OF THE BARS ARE DEFINED AS:
BEAMS AND COLUMNS
 - CASE 1: CONCRETE COVER AT LEAST 1.0d_b AND OC SPACING AT LEAST 2.0 d_b
 - CASE 2: CONCRETE COVER LESS THAN 1.0d_b OR OC SPACING LESS THAN 2.0 d_b
- OTHER BARS
 - CASE 1: CONCRETE COVER AT LEAST 1.0d_b AND OC SPACING AT LEAST 3.0 d_b
 - CASE 2: CONCRETE COVER LESS THAN 1.0d_b OR OC SPACING LESS THAN 3.0 d_b
- TENSION LAP SPLICES OF #14 OR #18 BARS ARE NOT PERMITTED. THE TABLE VALUES FOR THOSE BAR SIZES ARE TENSION DEVELOP LENGTHS. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.

LAP SPLICE TABLE
SCALE: NONE

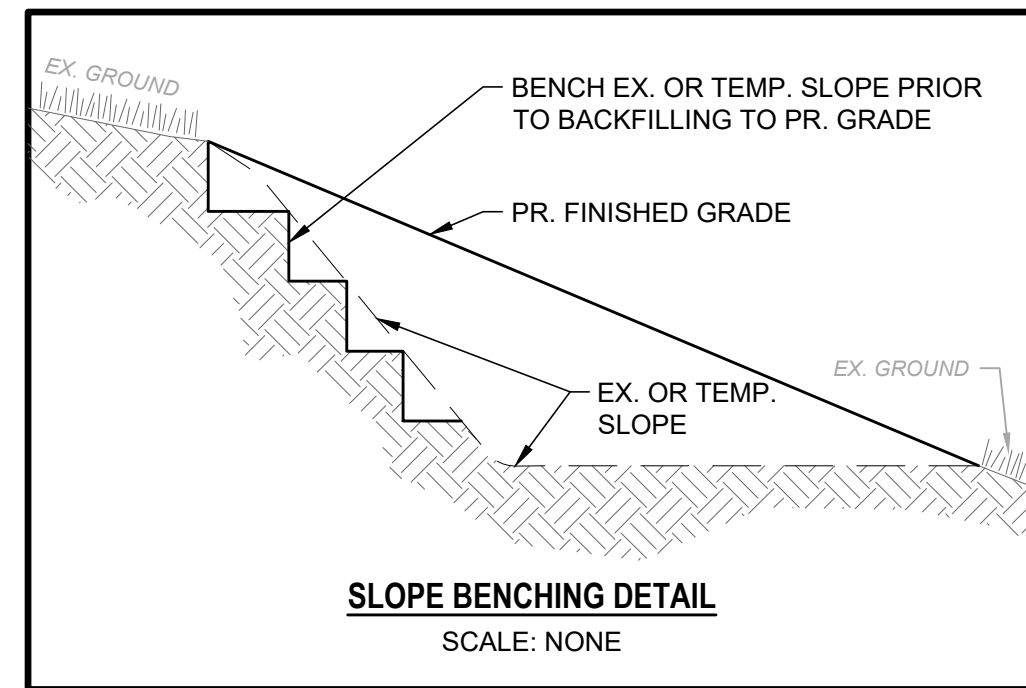


NO	REVISION	DATE

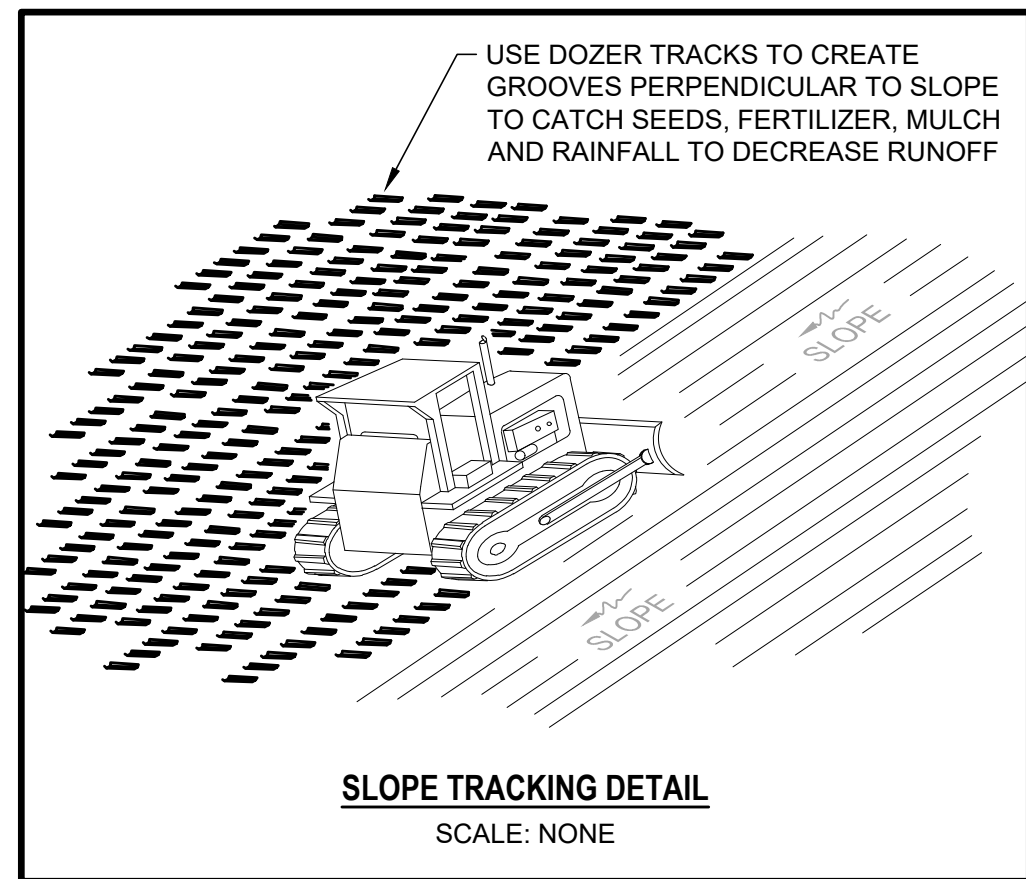
SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	BS
DRAWN BY:	RLM
CHECKED BY:	BS

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
OHIO
ASHTABULA COUNTY
JUNCTION CHAMBER - 10 SERIES
STRUCTURAL DETAILS

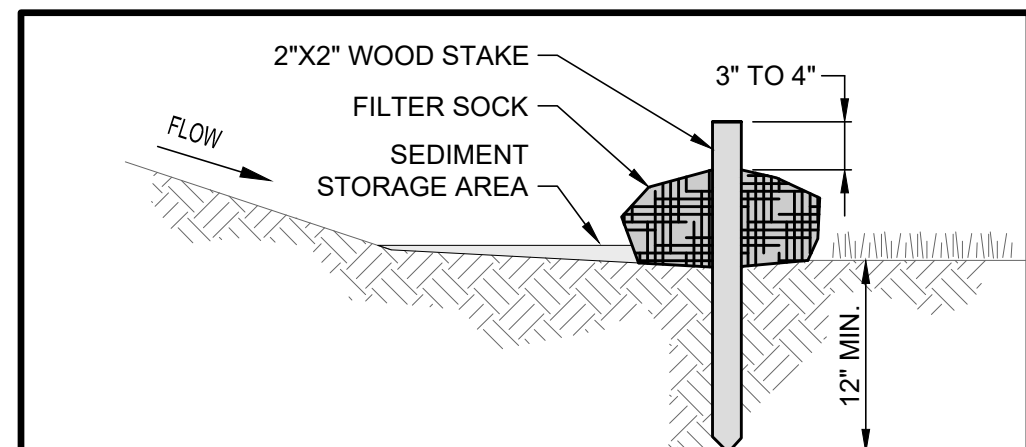
PROJECT NO:	231183
DRAWING NAME	10S-03
SHEET	OF
20	29



SLOPE BENCHING DETAIL
SCALE: NONE



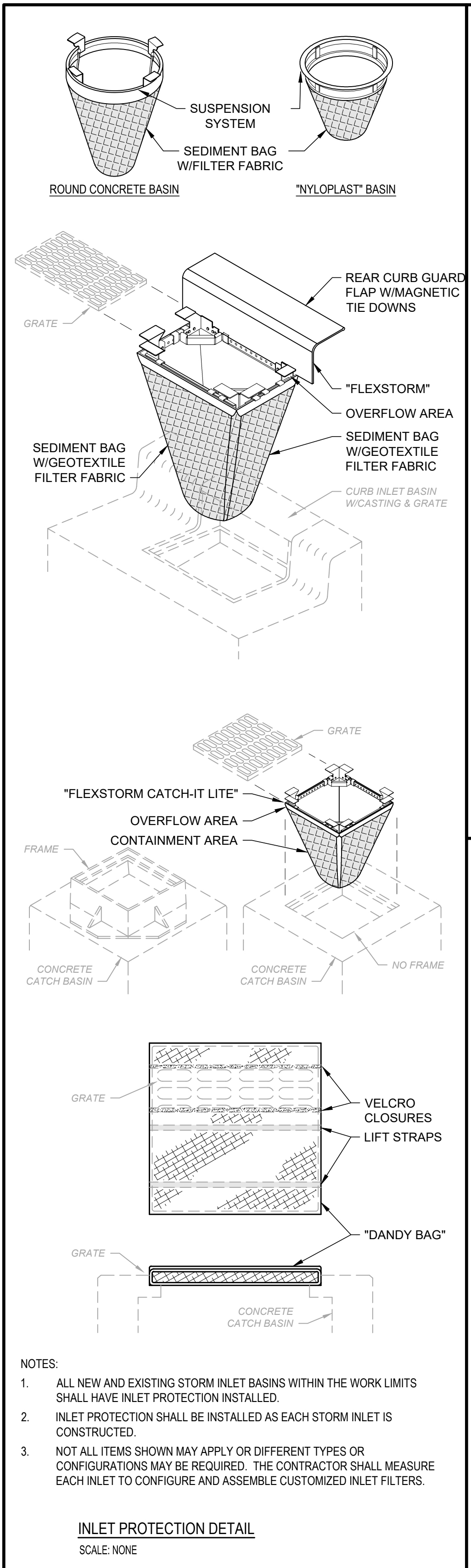
SLOPE TRACKING DETAIL
SCALE: NONE



- NOTES:
- FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
 - COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
 - FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
 - FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
 - BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
 - WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
 - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

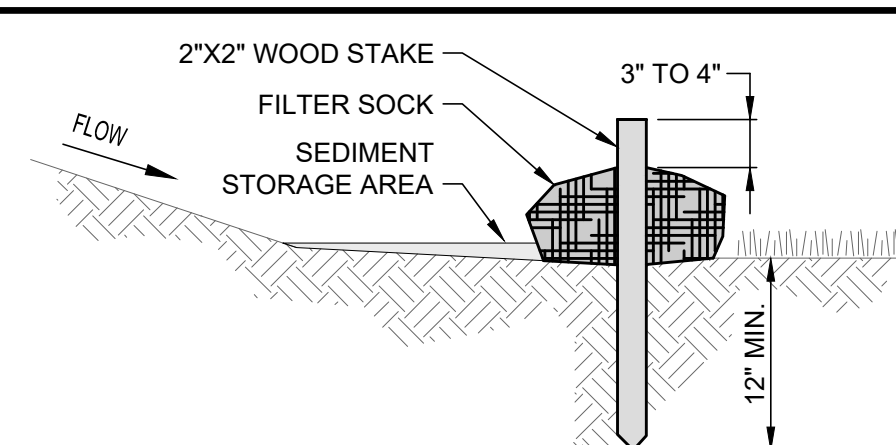
MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8"	12"	18"	24"
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

FILTER SOCK DETAIL
SCALE: NONE



- NOTES:
- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
 - INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
 - NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL
SCALE: NONE



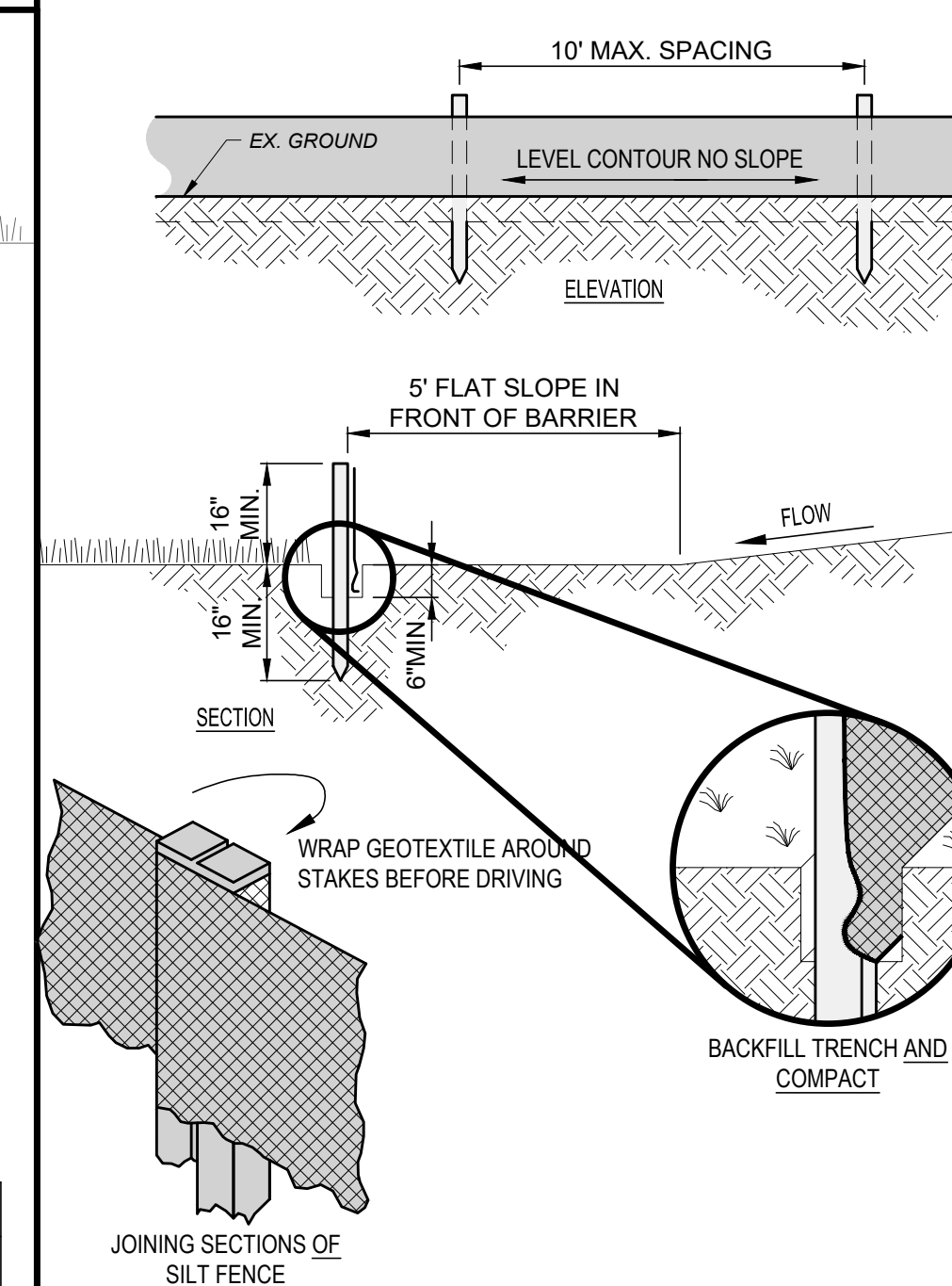
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 - BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
 - WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
 - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8"	12"	18"	24"
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

FILTER SOCK DETAIL
SCALE: NONE

RESTORATION/SEDIMENTATION AND EROSION CONTROL

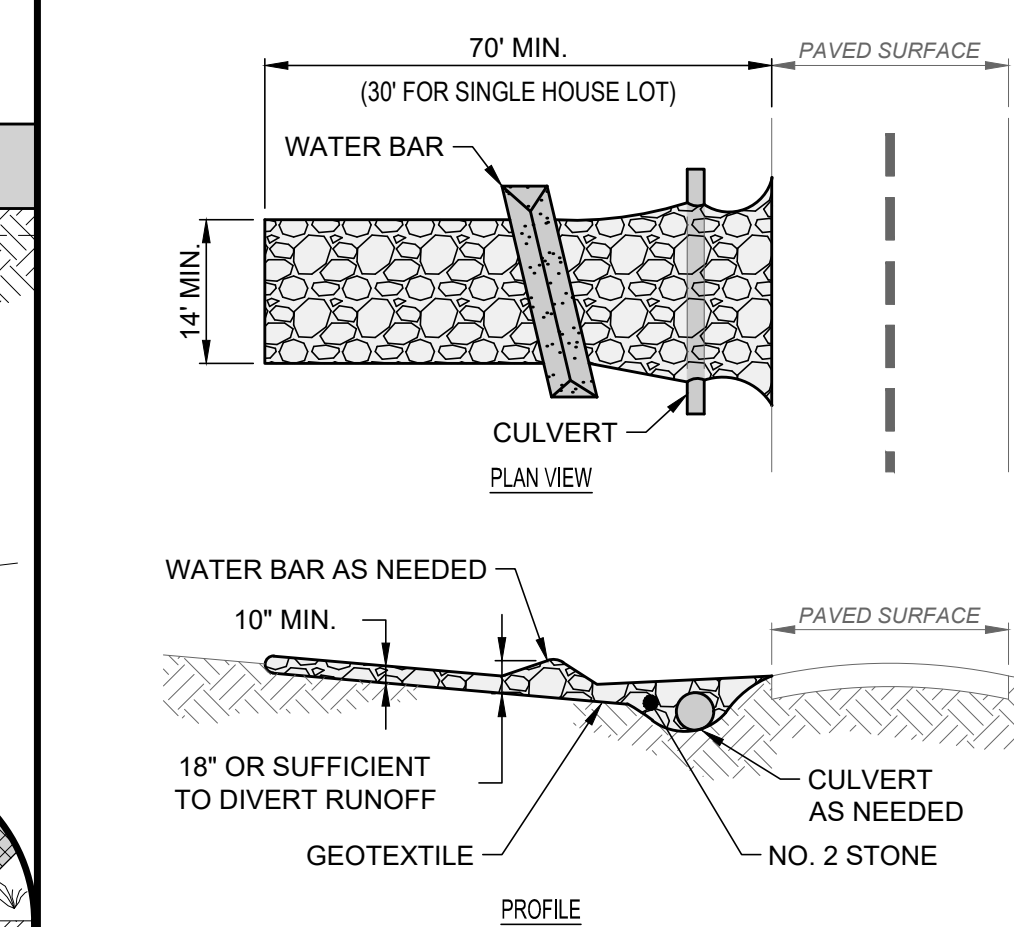
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND OTHER AREAS AS SHOWN ON PLANS SHALL BE PROPERLY RESTORED WITH 4" OF TOPSOIL, SEEDING AND MULCHING PER THE SPECIFICATIONS.
- IN ALL DISTURBED AREAS THE CONTOURS WILL BE RESTORED IN A MANNER THAT MAINTAINS EXISTING DRAINAGE PATTERNS. FOLLOWED BY SEEDING AND MULCHING. IF, DUE TO WEATHER, FINAL GRADING CANNOT BE ACCOMPLISHED IMMEDIATELY, TEMPORARY SEEDING & MULCHING, WITHIN SEVEN DAYS, WILL BE USED UNTIL FINAL RESTORATION CAN OCCUR.
- SILT FENCING SHALL BE EXTRA STRENGTH SYNTHETIC FILTER FABRIC HAVING A MINIMUM FLOW RATE OF 0.3 GA/SQ.FT/MINUTE AND SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F. TO 120°F. SEE STANDARD DETAIL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INSPECTIONS OF ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER ALL STORMS THAT PRODUCE MORE THAN ONE-HALF (1/2") INCH TOTAL RAINFALL. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY. THE CONTRACTOR SHALL DOCUMENT ALL INSPECTIONS AND ANY REPAIRS THAT ARE DONE TO MAINTAIN EFFICIENCY.
- CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS, DRIVES OR WALKS BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.
- THE INSTALLED EROSION CONTROL FEATURES MUST NOT ACT IN A MANNER THAT CAUSES THE AREA TO FLOOD.
- THE CONTRACTOR IS TO PLUG ANY OPEN ENDS OF INSTALLED SEWER AND ALL OTHER CONNECTING PIPES NOT PROTECTED BY EROSION CONTROLS, SUCH THAT AGGREGATES DO NOT CLOG THE NEW SEWER SYSTEM OR ENTER THE NEW PUMP STATION.



FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02216
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

- NOTES:
- PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
 - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN 50%.
 - SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
 - SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

SILT FENCE
SCALE: NONE



- NOTES:
- GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

- INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
- APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
- IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE
SCALE: NONE

- NOTES:
- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
 - SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
 - APPLY SEED UNIFORMLY. COVER BROADCAST SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
 - MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
 - INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	PERENNIAL RYEGRASS TALL FESCUE	2	40
AUGUST 16 - OCTOBER 31	RYE	3	112
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	WHEAT	3	120
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
NOVEMBER 1 - FEBRUARY 28	PERENNIAL RYEGRASS TALL FESCUE	2	40
	TALL FESCUE	1	40
ONLY MULCH OR DORMANT SEEDING.			

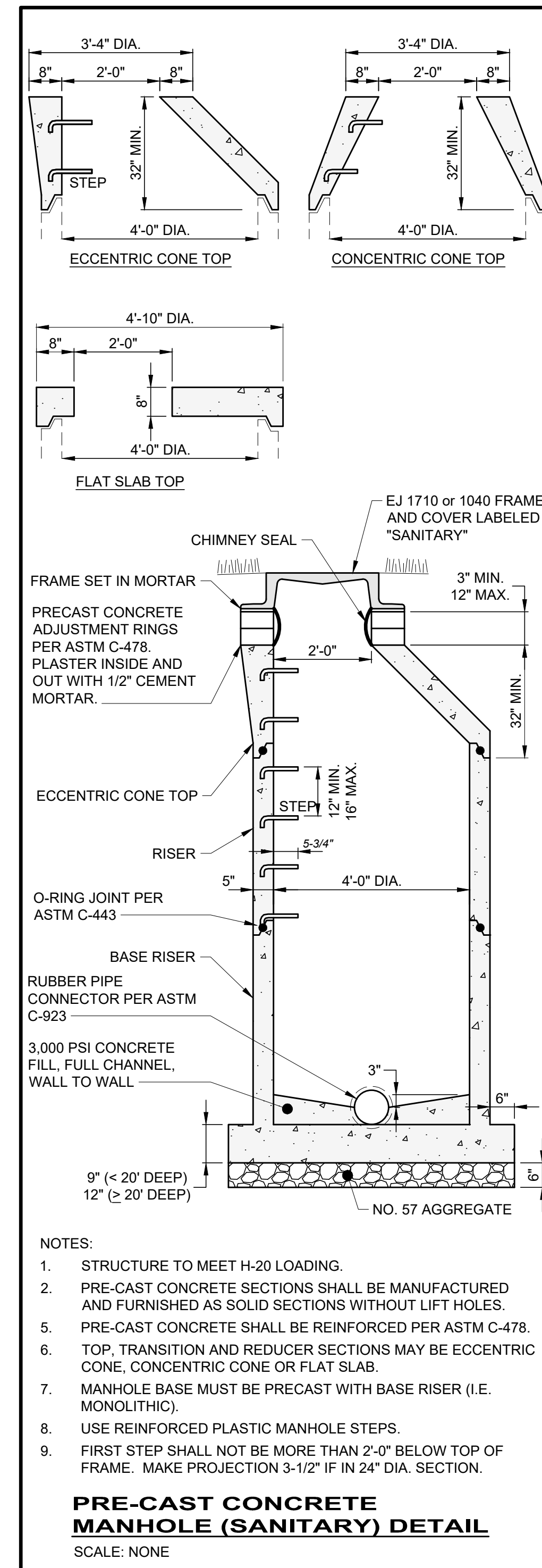
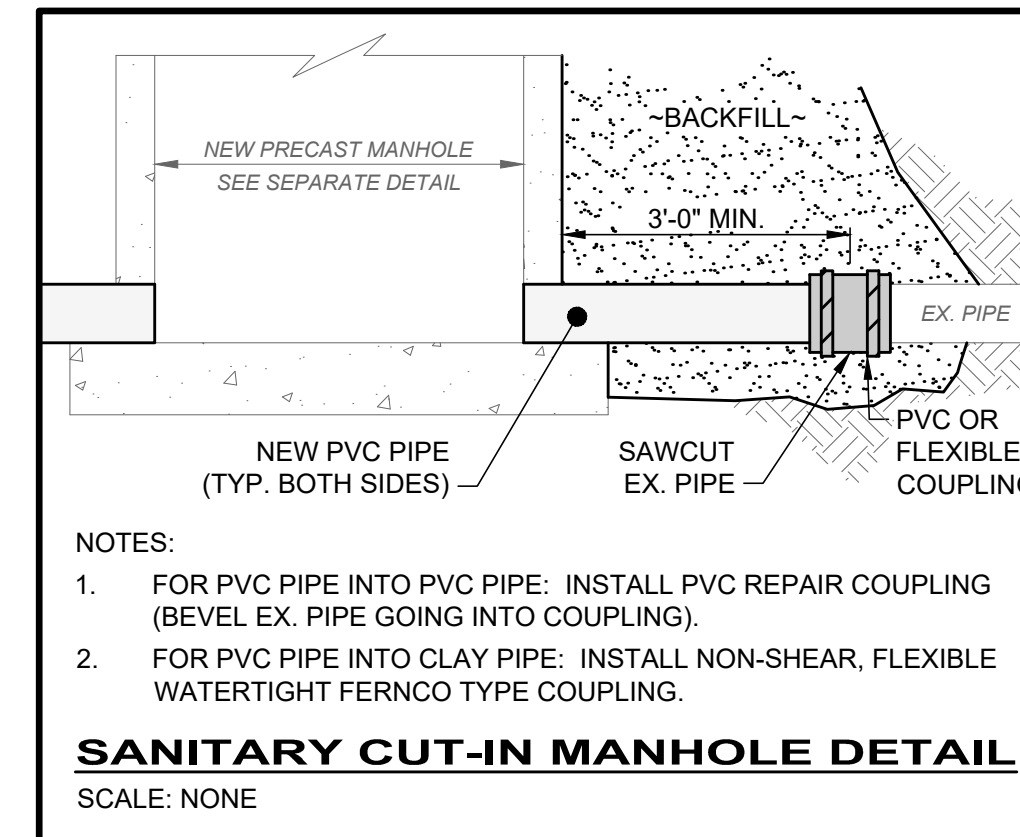
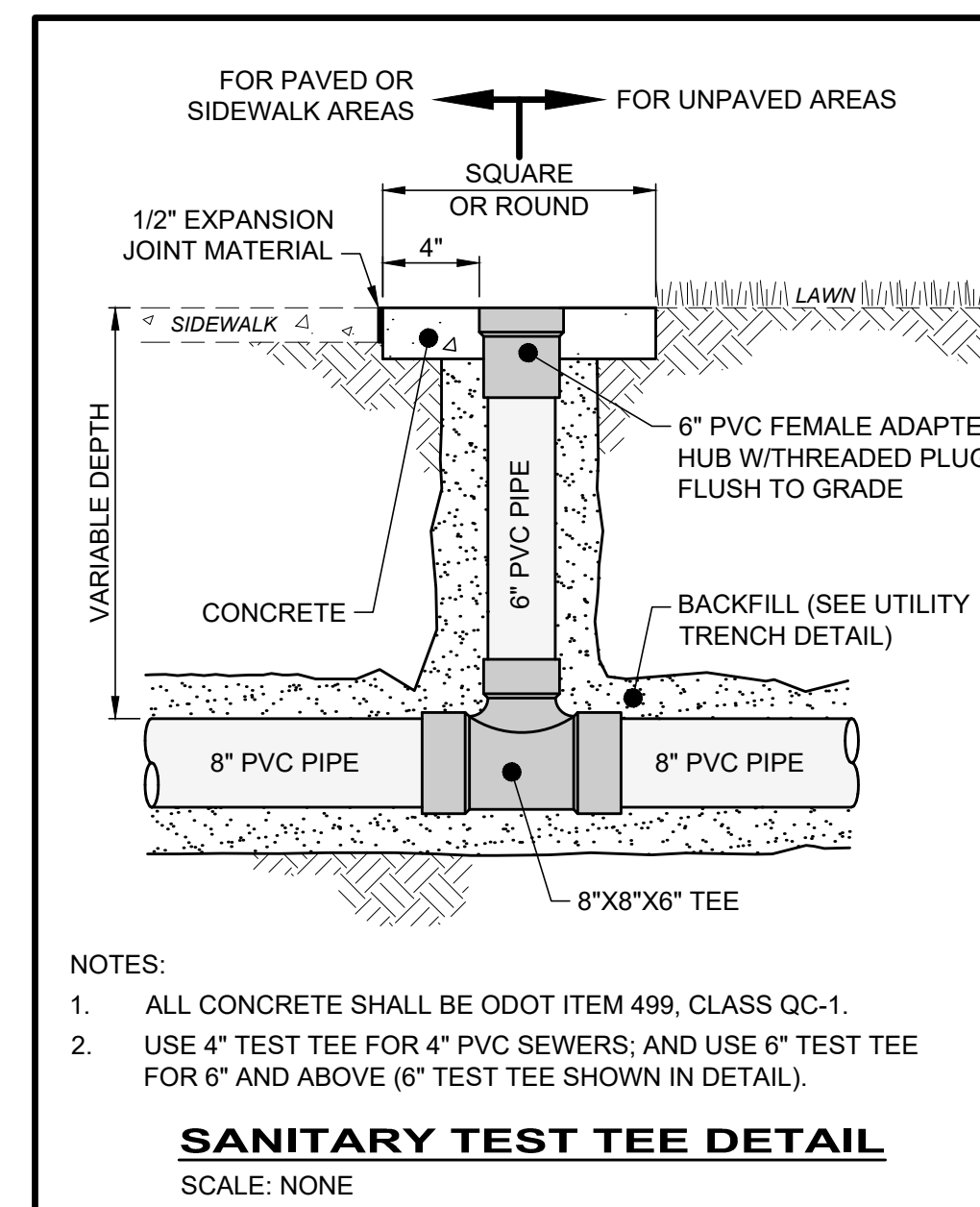
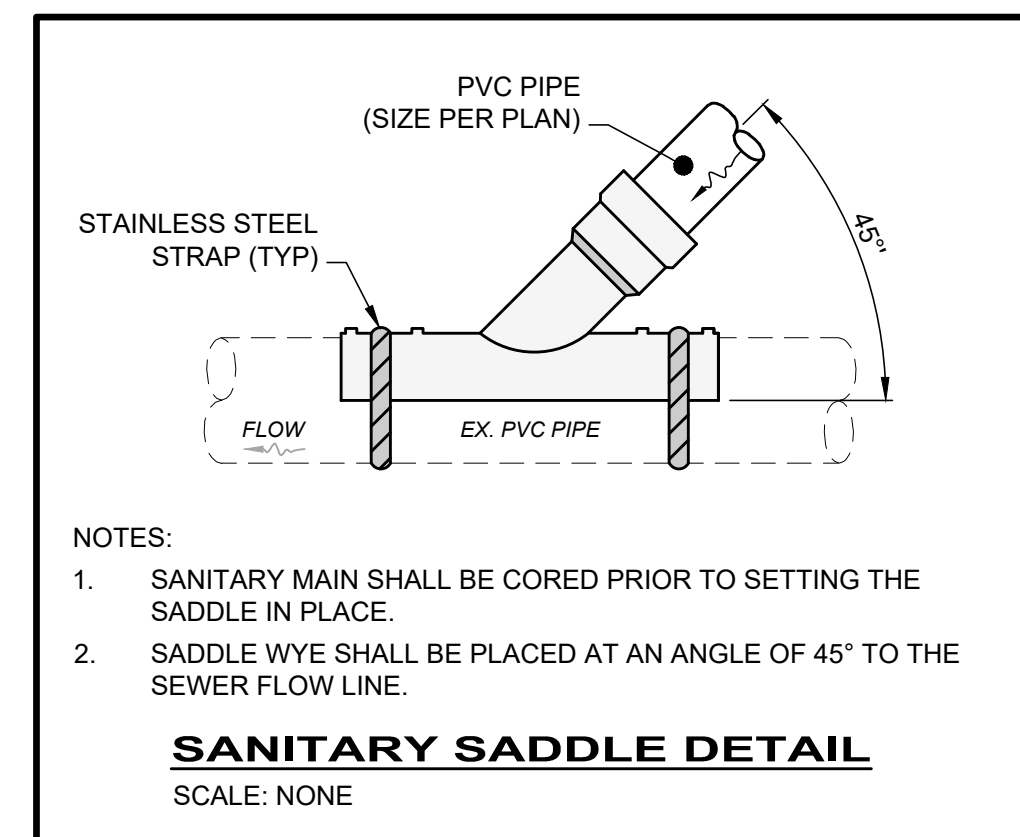
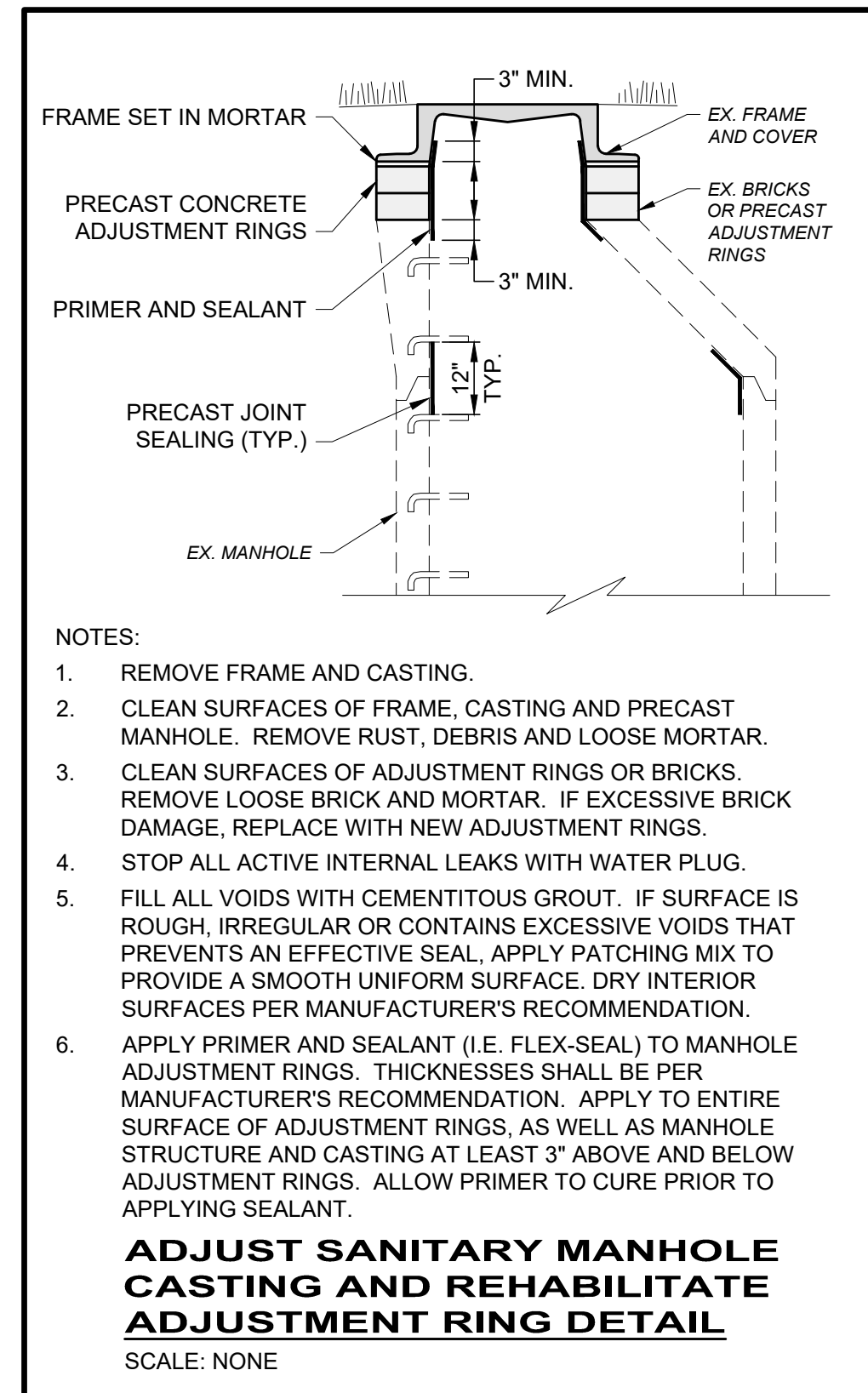
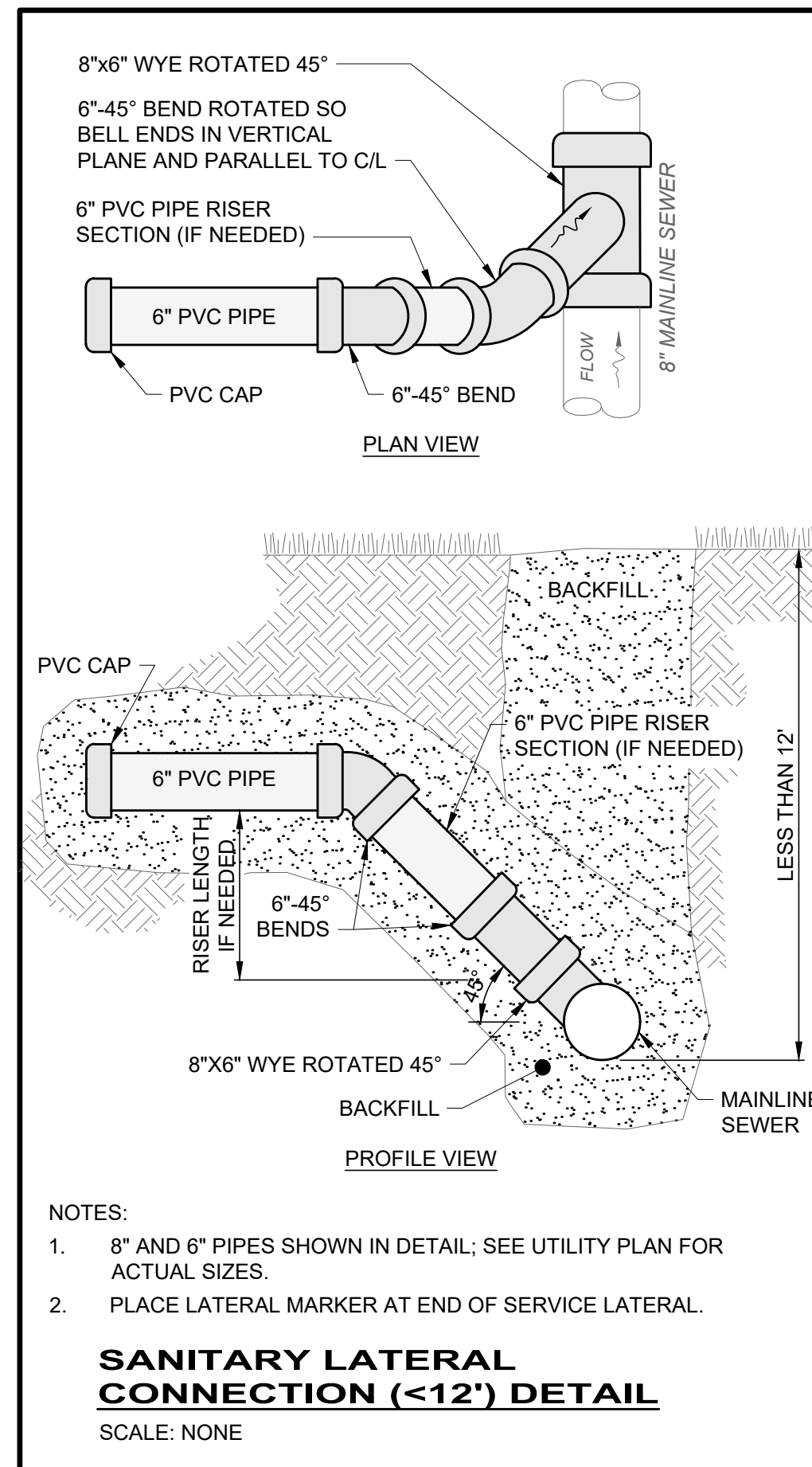
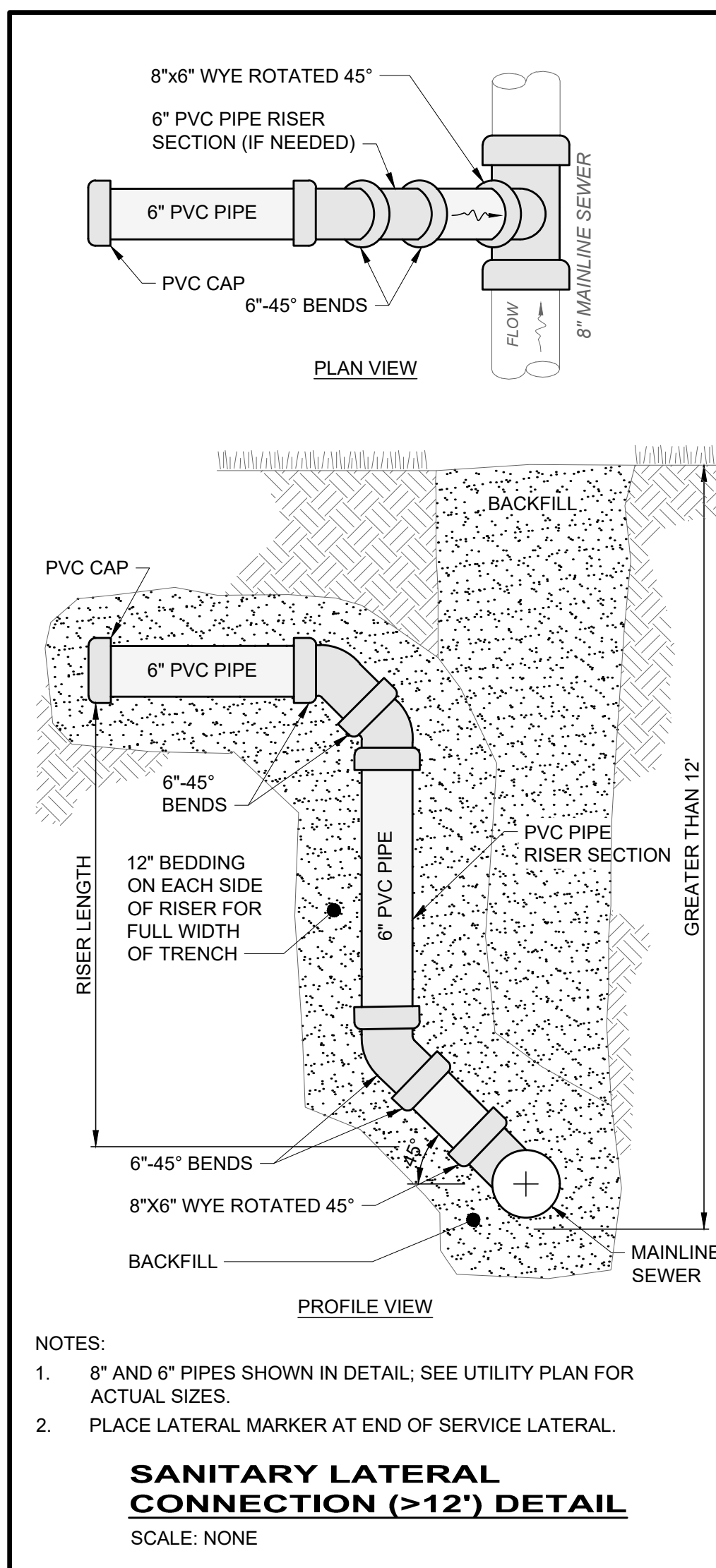
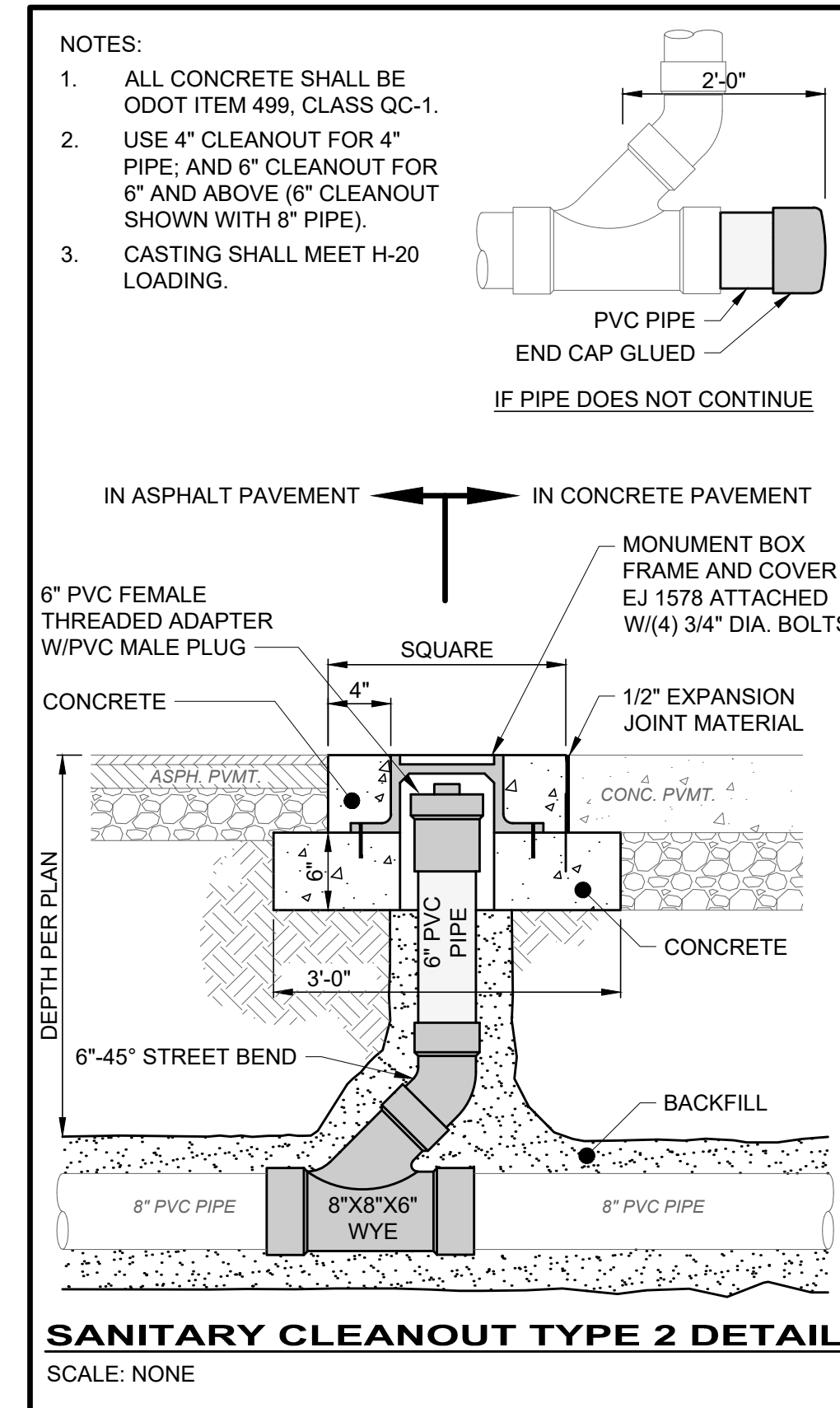
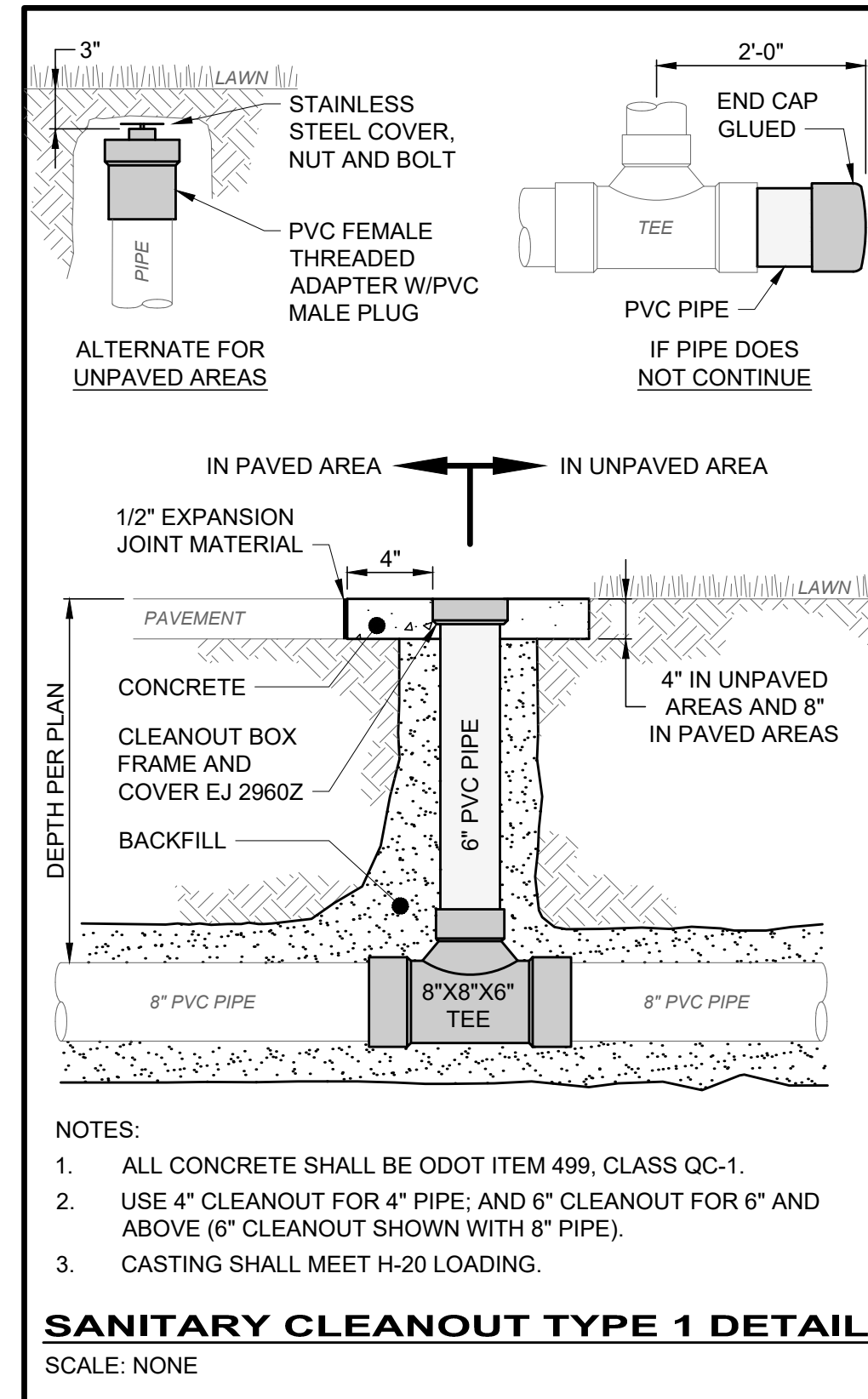
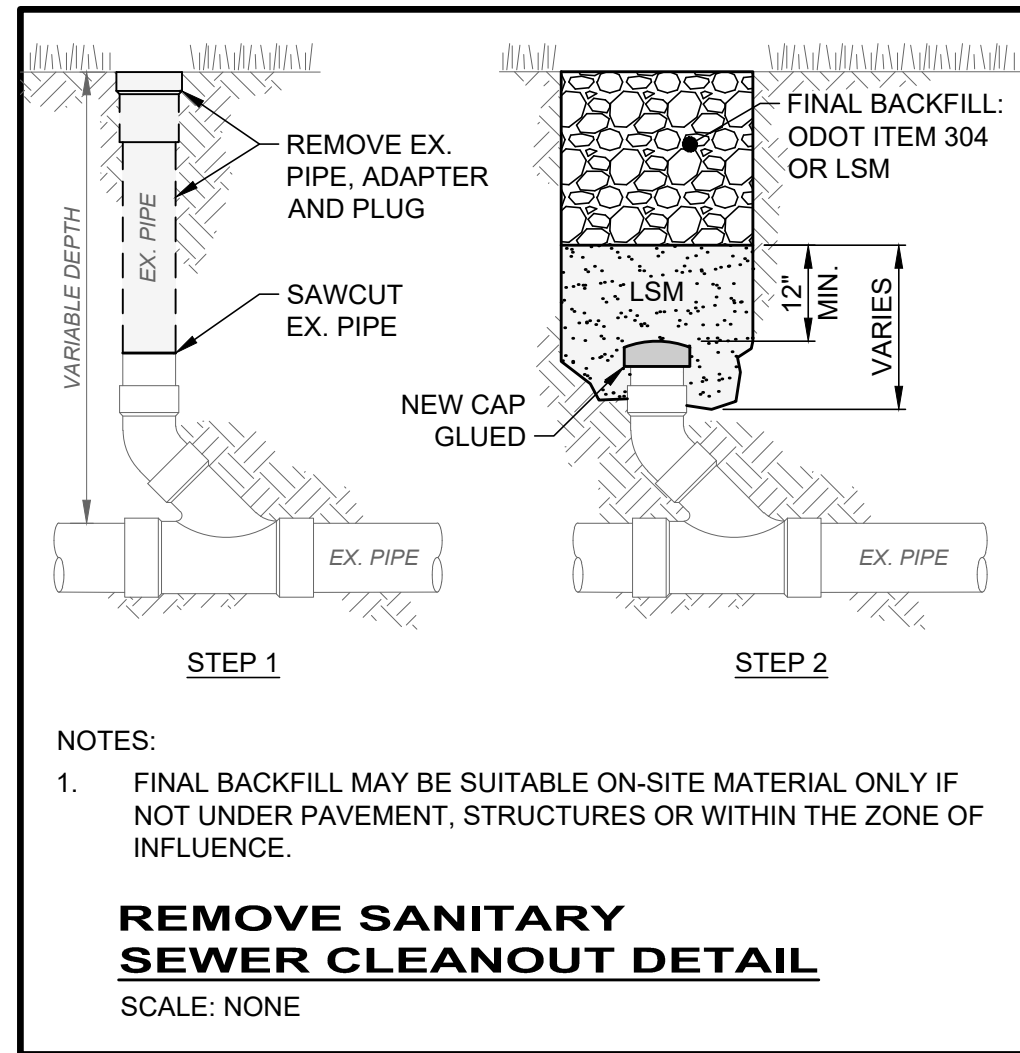
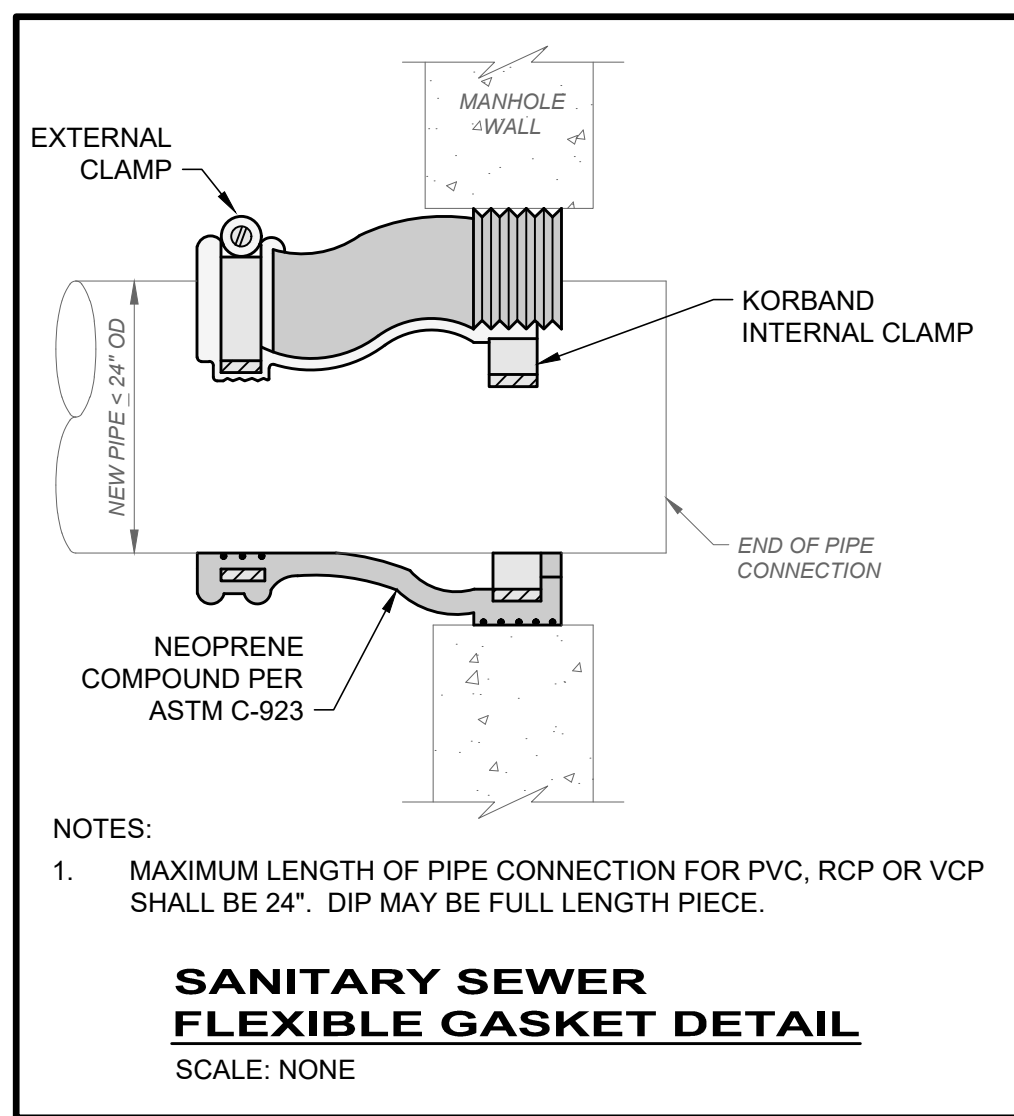
TEMPORARY SEEDING DETAIL

NO	REVISION	DATE

SCALE:	AS NOTED
DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

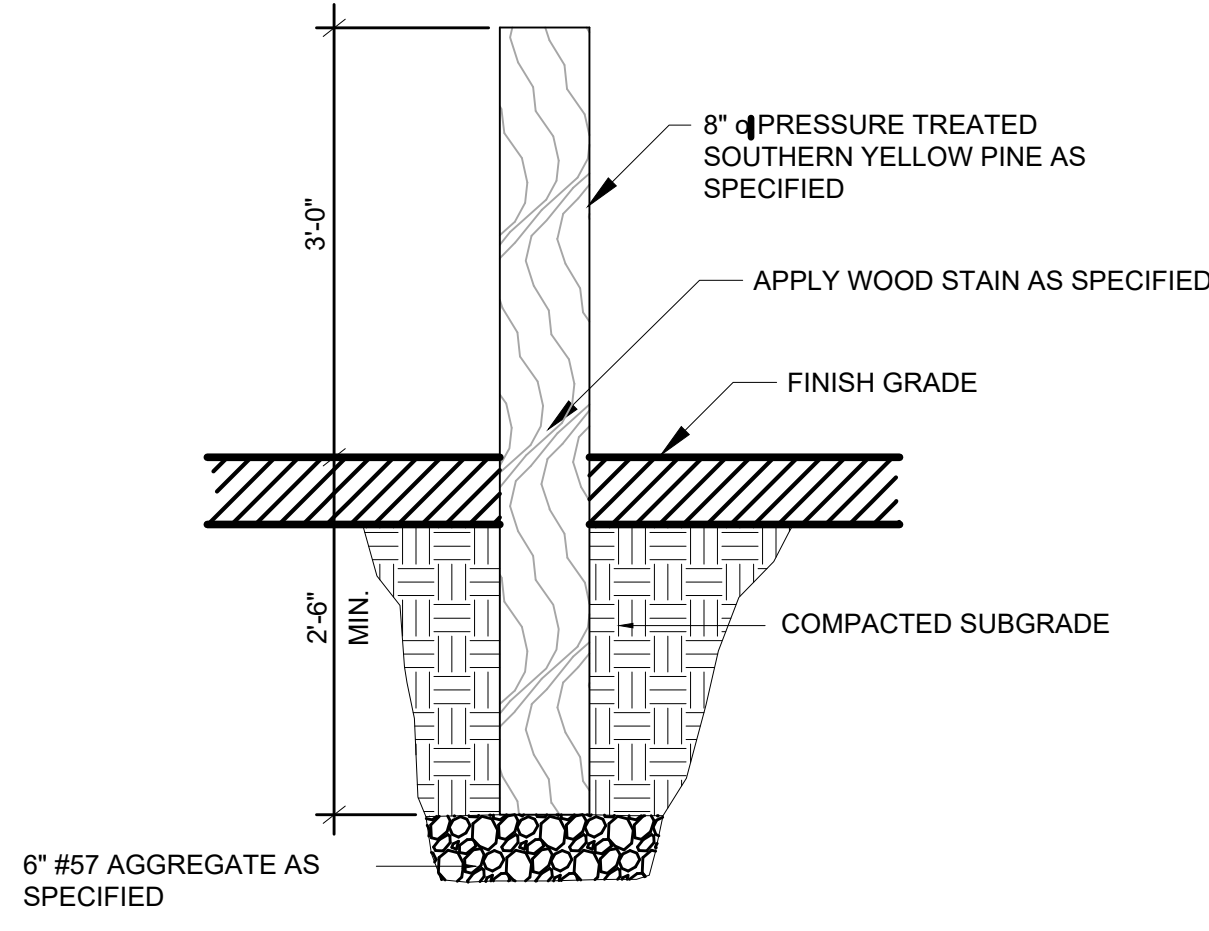
VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
OHIO
ASHTABULA COUNTY
STANDARD DETAILS - SD SERIES
CONSTRUCTION DETAILS

PROJECT NO:	
231183	
DRAWING NAME	
SD-01	
SHEET	OF
21	29



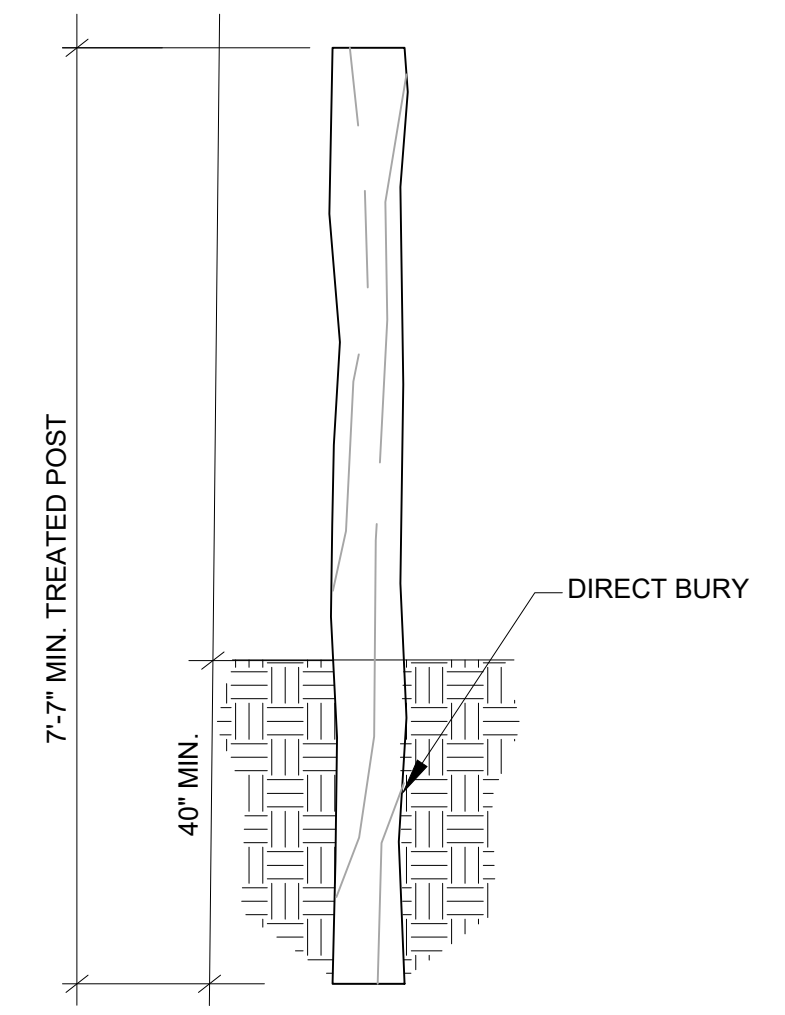
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		6/21/24				

VILLAGE OF GENEVA-ON-THE-LAKE	
SANITARY SEWER TRUNK LINE REPLACEMENT	
ASHTABULA COUNTY	OHIO
STANDARD DETAILS - SD SERIES	
CONSTRUCTION DETAILS	
PROJECT NO:	231183
DRAWING NAME	SD-02
SHEET	OF
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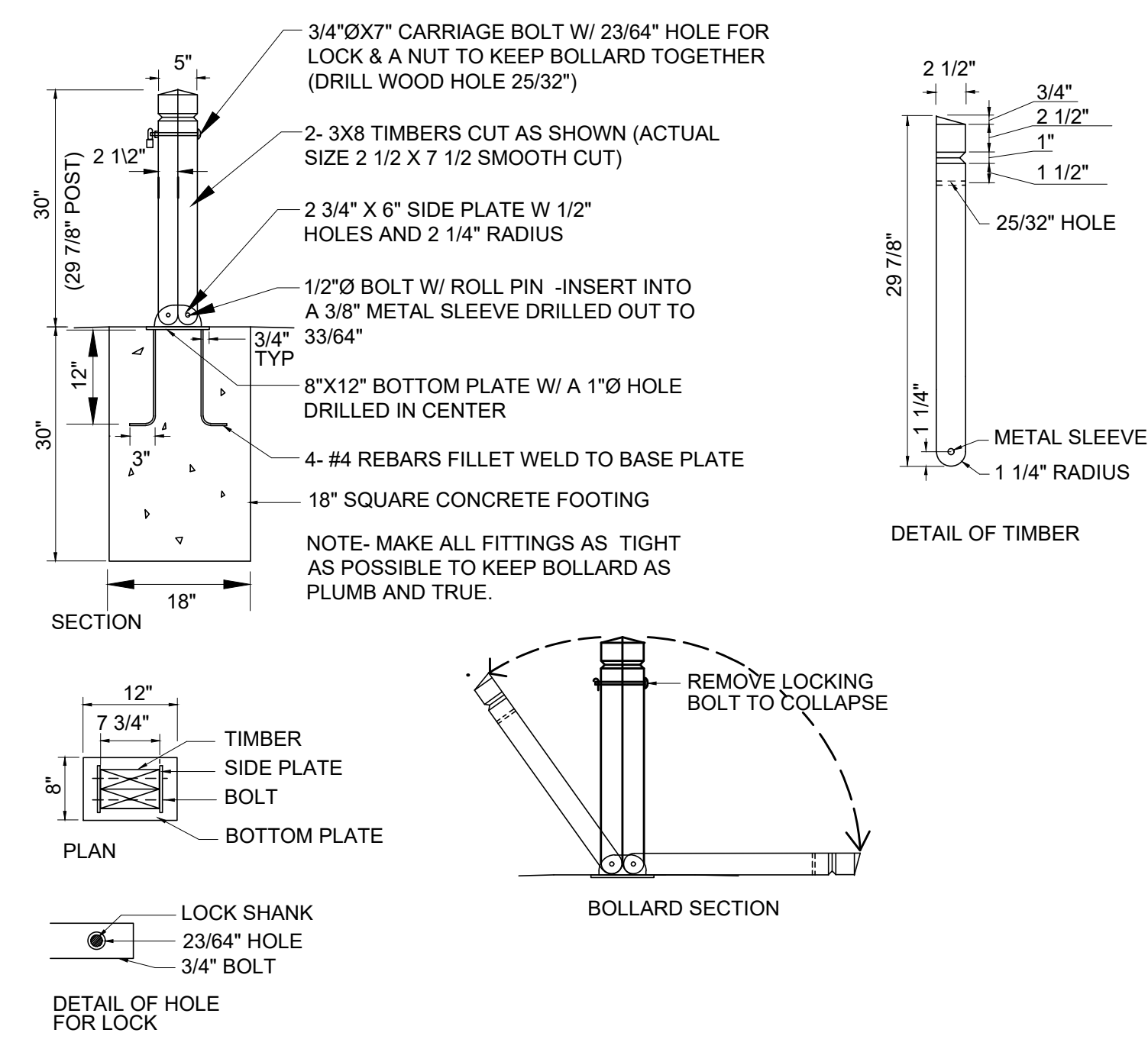
1 WOOD BOLLARD

NOT TO SCALE



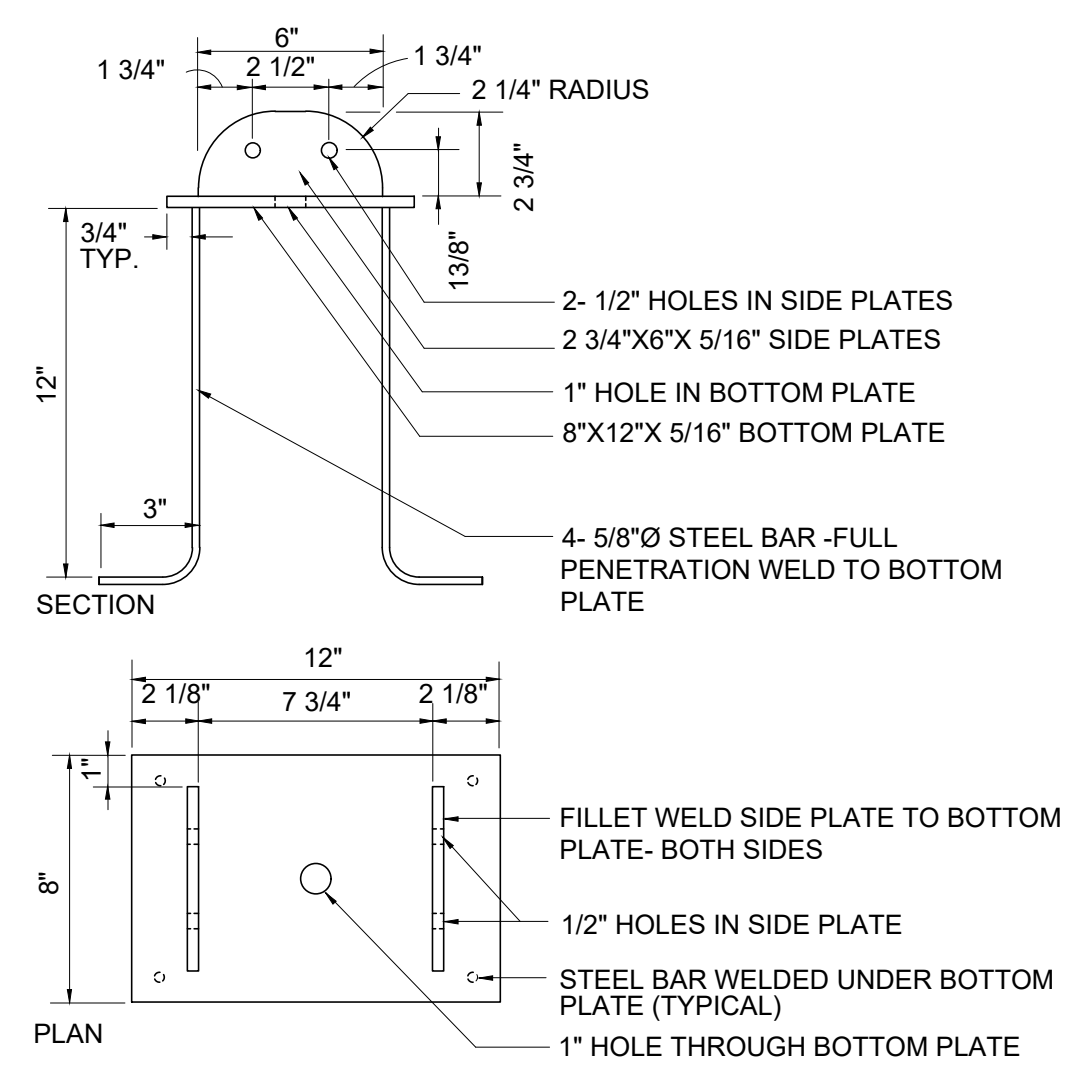
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NOT TO SCALE



3 DEMOUNTABLE BOLLARD

NOT TO SCALE

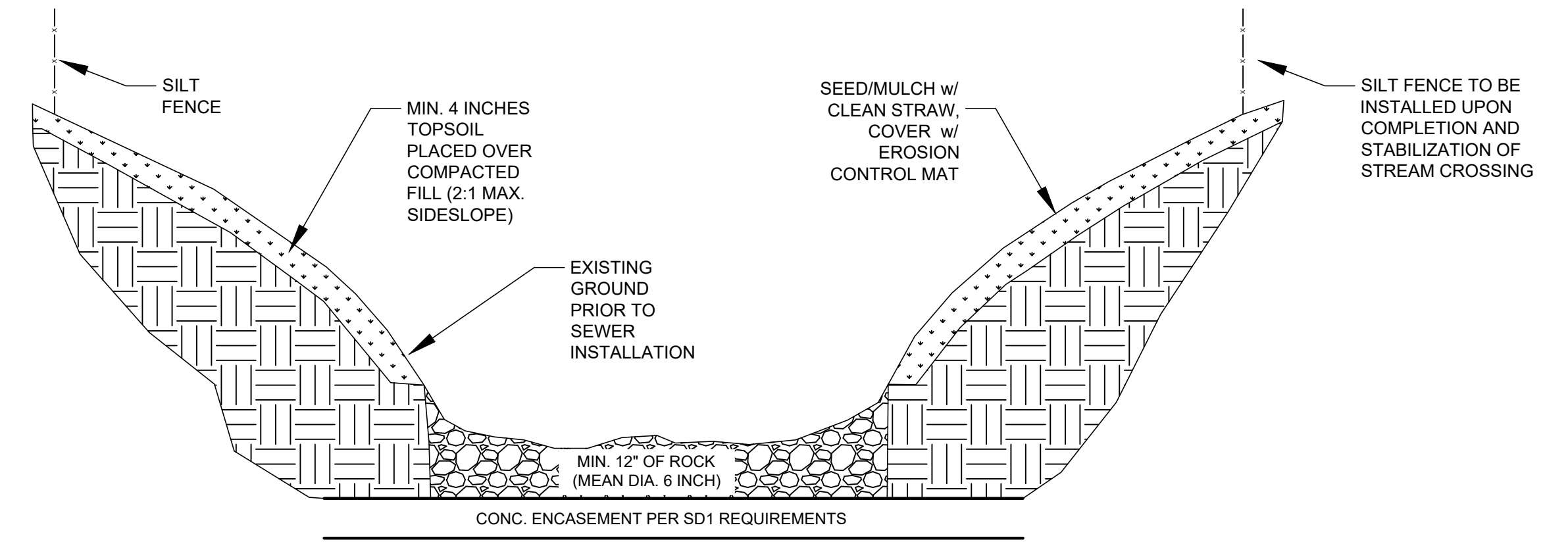


NOTES:
 -MAKE ALL FITTINGS AS TIGHT AS POSSIBLE TO KEEP BOLLARD PLUMB AND TRUE.
 -ALL WOOD TO BE CCA PRESSURE TREATED SOUTHERN YELLOW PINE.
 -ALL HARDWARE & STEEL TO BE HOT-DIPPED GALVANIZED.

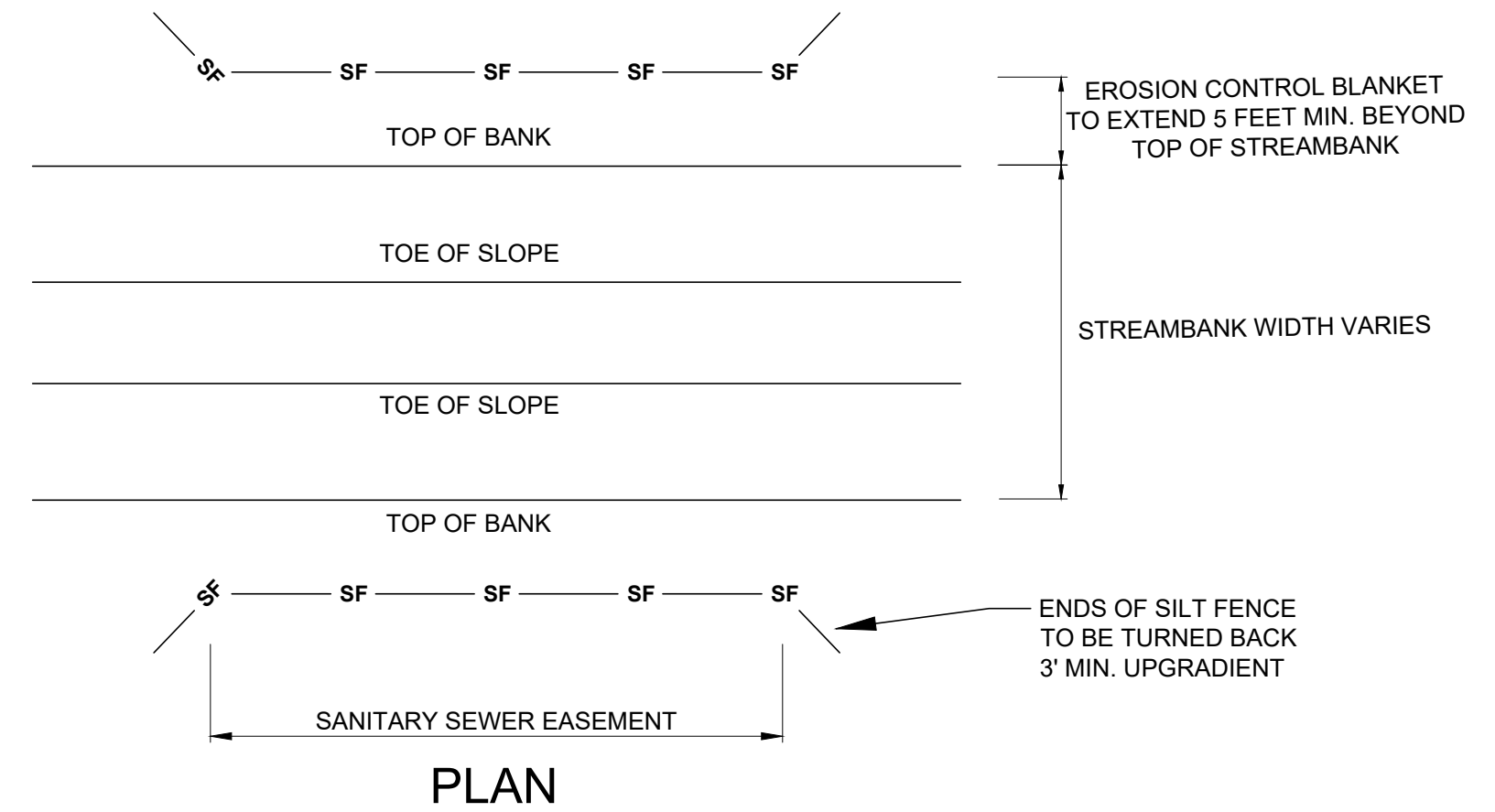
DEMOUNTABLE BOLLARD
NTS

02840-1

STREAMS



SECTION

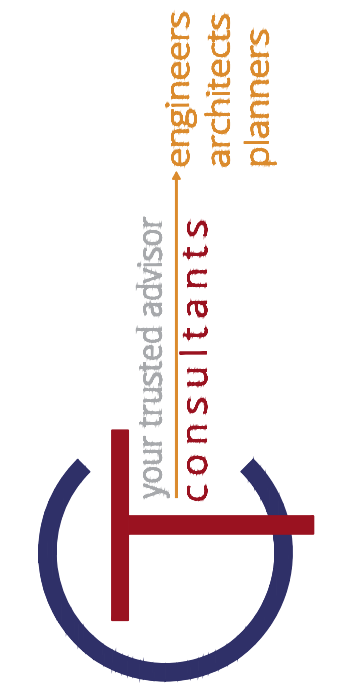
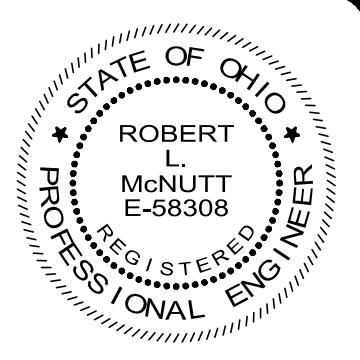


PLAN

- FOR WETLAND CROSSINGS:**
- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
 - FLOW DIVERSIONS/PUMP AROUND SYSTEMS AS NECESSARY
 - CONSTRUCTION WILL INCLUDE AN OPEN CUT TRENCH
 - WETLAND TOPSOIL WILL BE COLLECTED AND STOCKPILED SEPARATELY FROM SUBSOIL
 - TRENCH WILL BE BACKFILLED WITH A MINIMUM OF 20" WETLAND SUBSOIL MATERIALS STOCKPILED FROM TRENCH
 - STOCKPILED TOPSOIL WILL THEN BE PLACED AND LOOSENESED FOR SEEDBED PREPARATION
 - SURFACE ELEVATION TO BE RESTORED TO SIMILAR PRE-CONSTRUCTION CONTOURS
 - ALL TEMPORARY IMPACTS TO BE RESTORED WITHIN 30 DAYS
 - NATIVE WETLAND SEED MIX (50lbs/acre) WILL BE SPREAD IN DISTURBED AREAS AND TOPPED WITH STRAW (2 tons/acres) AND ANCHORED

- FOR STREAM CROSSINGS:**
- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
 - FLOW DIVERSIONS/PUMP AROUND SYSTEMS AS NECESSARY
 - CONSTRUCTION WILL INCLUDE AN OPEN CUT TRENCH
 - STREAMBED/TOPSOIL WILL BE COLLECTED AND STOCKPILED SEPARATELY FROM SUBSOIL
 - MINIMUM OF 12" STOCKPILED STREAMBED/TOPSOIL MATERIALS WILL BE PLACED AND COMPACTED
 - 12" OF ROCK CHANNEL PROTECTION TO BE PLACED IN DISTURBED STREAMBED
 - SURFACE ELEVATION TO BE RESTORED TO SIMILAR PRE-CONSTRUCTION CONTOURS
 - STREAM BANK BMPs TO BE EROSION CONTROL MATTING
 - TEMPORARY LOW WATER CROSSINGS FOR EQUIPMENT ACCESS TO BE LOCATED ADJACENT TO OPEN TRENCH CUT

- GENERAL WETLAND/STREAM BMP'S:**
- CONSTRUCTION WILL OCCUR IN DRY OR LOW FLOW CONDITIONS
 - FLOW DIVERSIONS/PUMP AROUND SYSTEMS AS NECESSARY
 - EQUIPMENT TO OPERATE FROM OUTSIDE OF STREAMS
 - EROSION CONTROL STRUCTURES - SILT FENCING AND HEAVY ACCESS MATTING (TIMBER OR COMPOSITE)

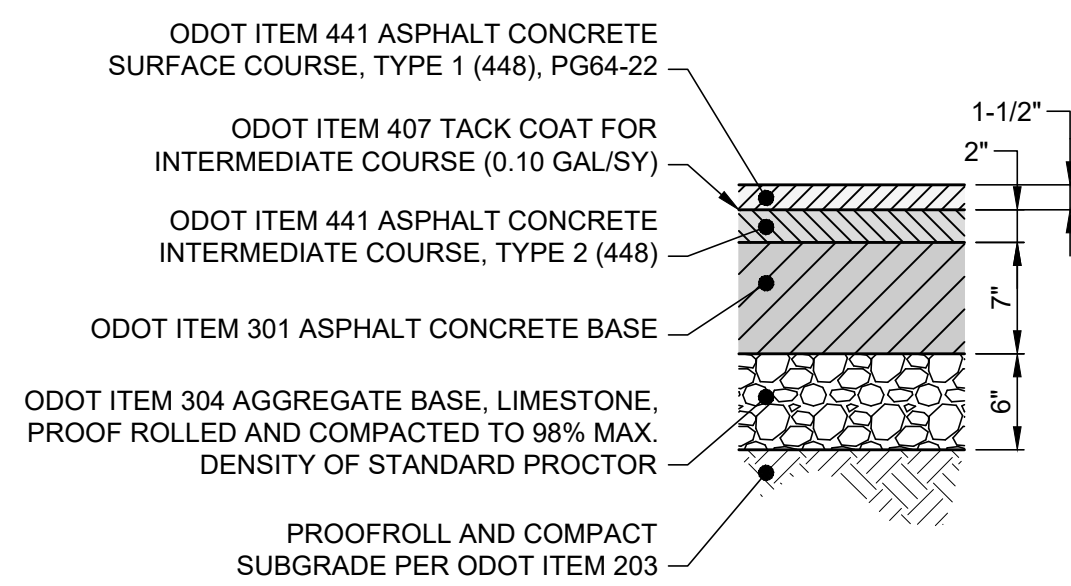


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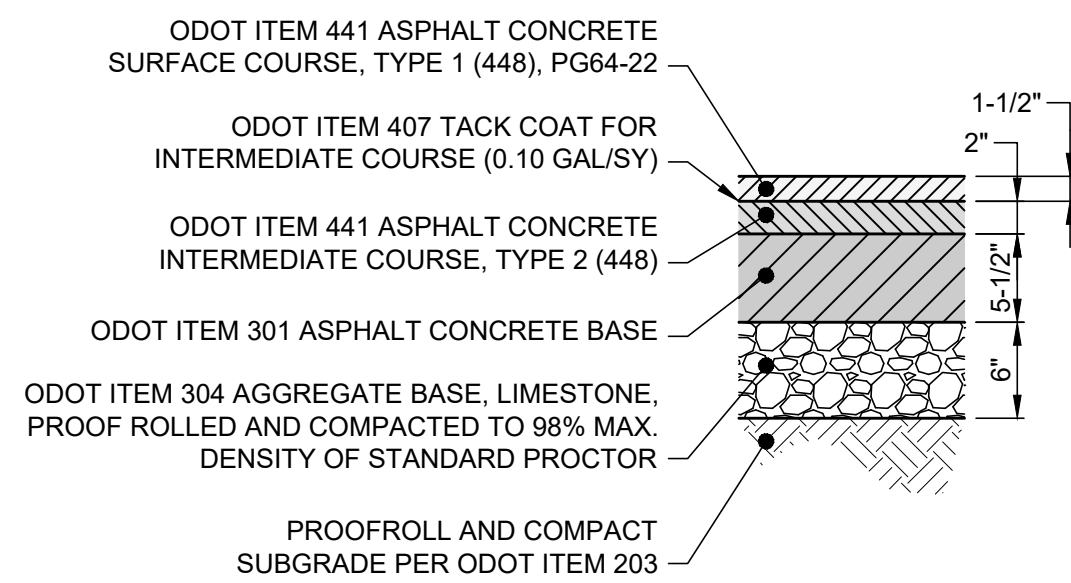
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DATE:	6/21/24
DESIGNED BY:	RLM
DRAWN BY:	RLM
CHECKED BY:	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 STANDARD DETAILS - SD SERIES
CONSTRUCTION DETAILS

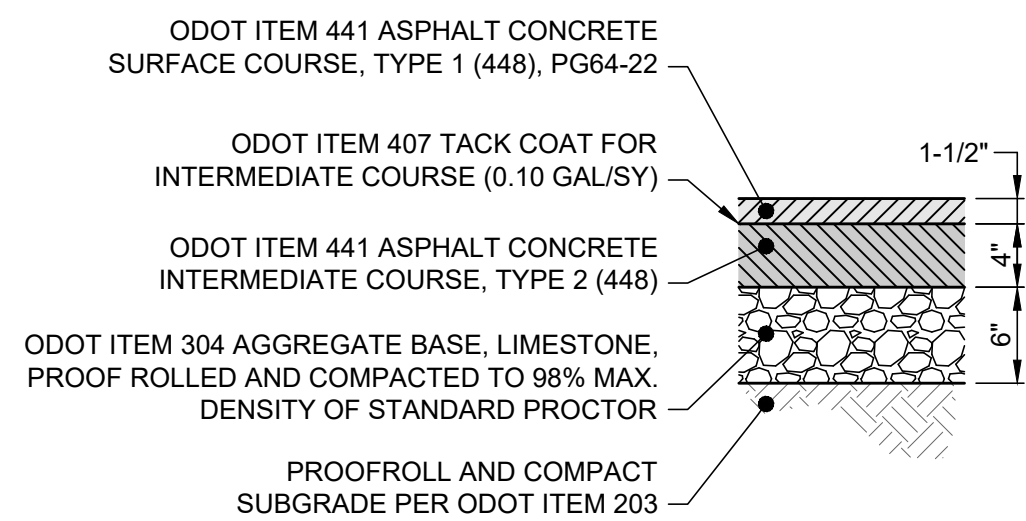
PROJECT NO:	231183
DRAWING NAME:	SD-03
SHEET OF:	24 29



MINOR URBAN COLLECTOR ROADWAY
ADT >1,500 & <3,500 (SN = 4.50)



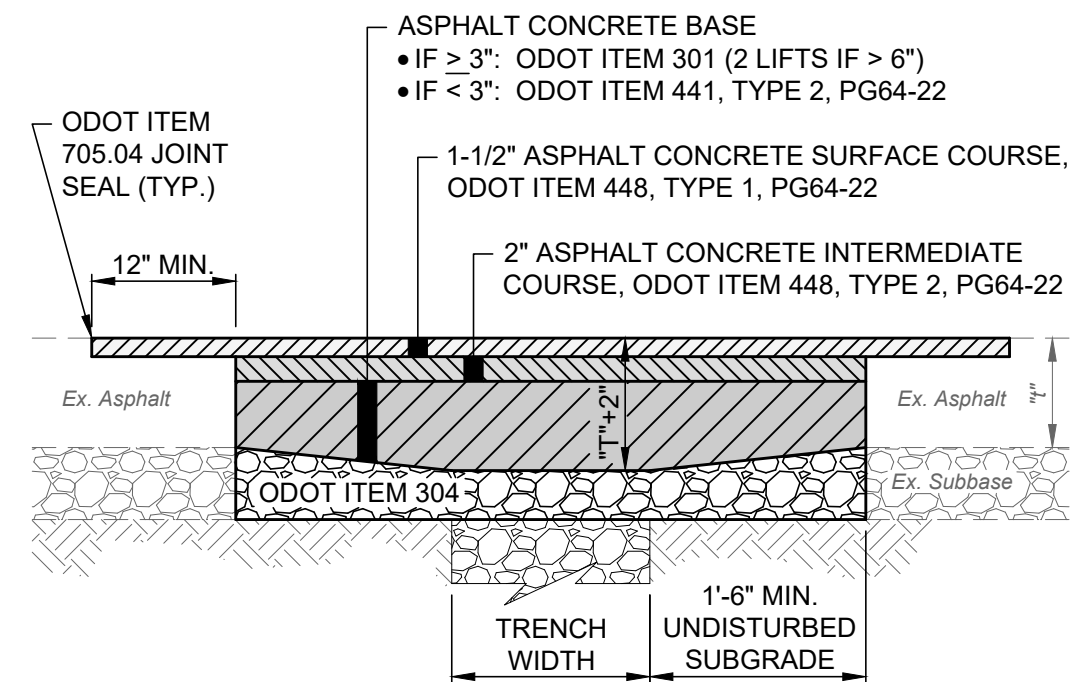
HEAVY DUTY PARKING LOT DRIVE LANES & RESIDENTIAL ROADS (SN = 4.00)



PARKING LOTS & DRIVE LANES (SN = 2.75)

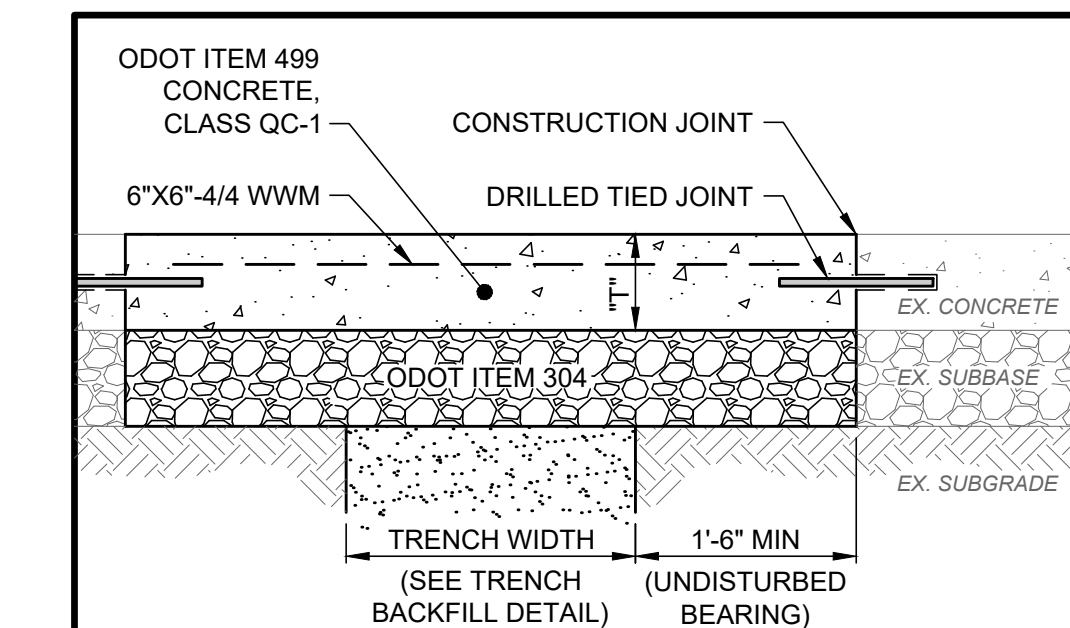
- NOTES:**
- IF UNSUITABLE SOILS EXISTS, UNDERCUT SUBGRADE AND REPLACE WITH ODOT ITEM 304 CRUSHED LIMESTONE, 12" MIN. AS DIRECTED.

ASPHALT PAVEMENT DETAIL
SCALE: NONE

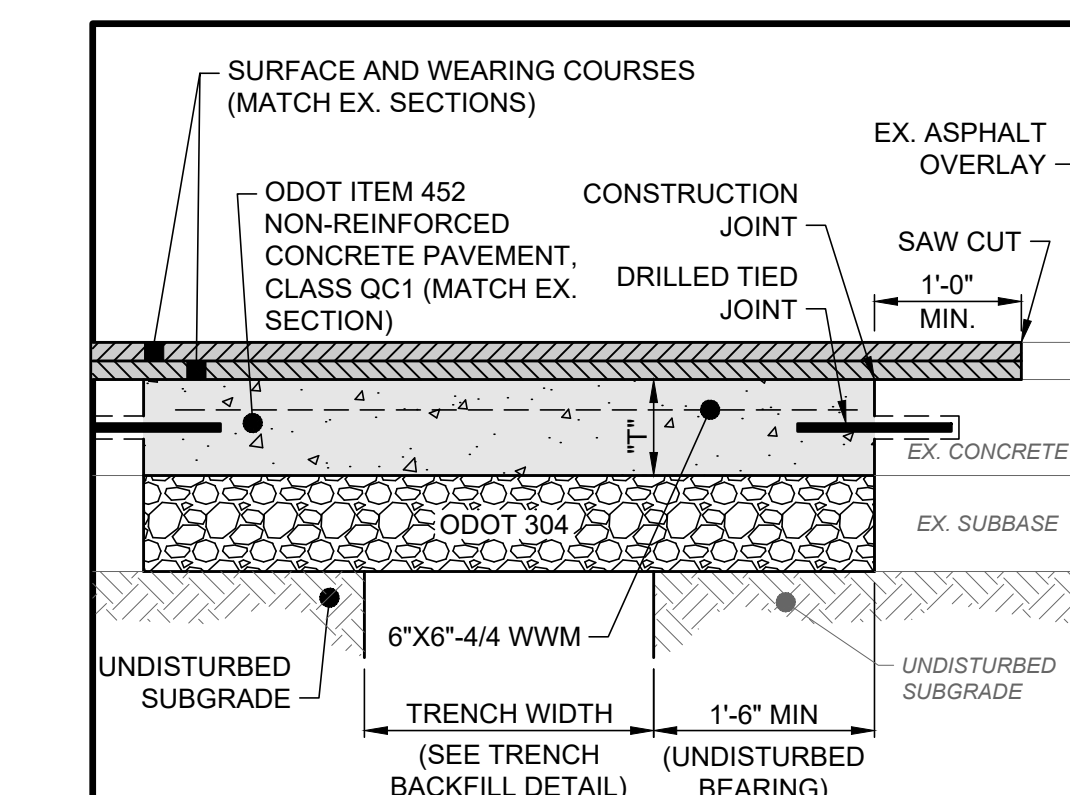


- NOTES:**
- ASPHALT PAVEMENT TO BE REMOVED SHALL BE SAW CUT IN A NEAT AND STRAIGHT LINE. ADDITIONAL SAW CUTS MAY BE DESIRED TO FACILITATE REMOVAL, BUT THERE WILL BE NO EXTRA PAYMENT.
 - PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE PAVEMENT TO REMAIN. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL SAW CUTS, REMOVE THE DAMAGED AREAS AND REPAIR AS NECESSARY WITH NO ADDITIONAL COMPENSATION.
 - TACK COAT SHALL BE APPLIED TO THE EXPOSED EX. ASPHALT BASE COURSE AND ALL SIDES OF PATCH.
 - ODOT ITEM 705.04 JOINT SEALANT SHALL BE APPLIED AROUND THE EDGE OF PATCH.

ASPHALT PAVEMENT REPAIR OVER TRENCH DETAIL
SCALE: NONE

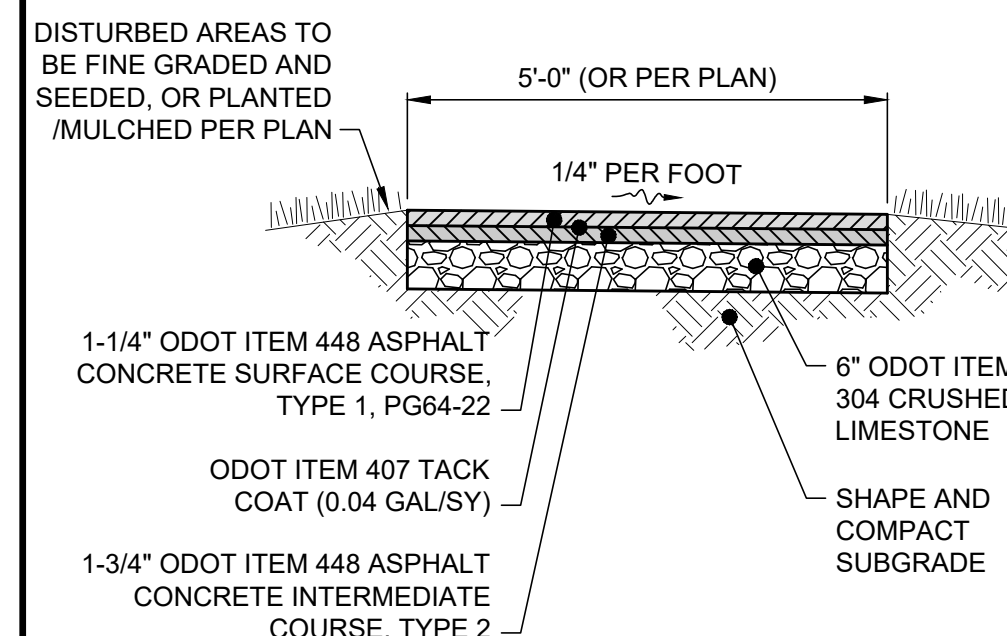


REPAIR OF CONCRETE PAVEMENT OVER TRENCH DETAIL
SCALE: NONE

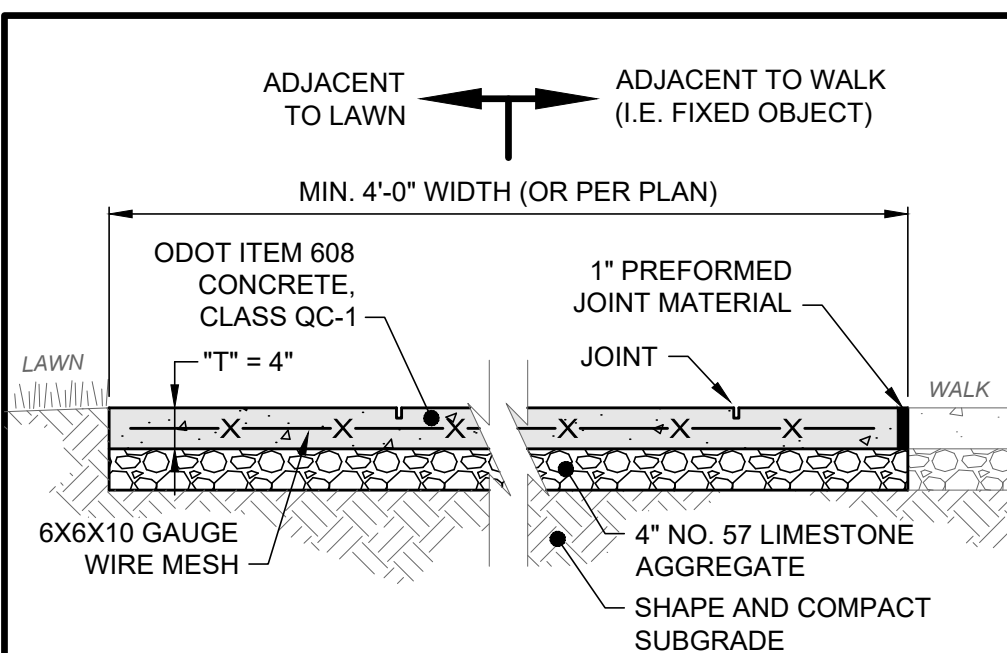


- NOTES:**
- TACK COAT SHALL BE APPLIED TO THE EXPOSED EX. CONCRETE BASE AND ALL SIDES OF EACH PATCH.
 - A SEALANT SHALL BE APPLIED AROUND THE EDGE OF PATCH.

REPAIR OF CONCRETE BASE / ASPHALT OVERLAY PAVEMENT OVER TRENCH DETAIL
SCALE: NONE

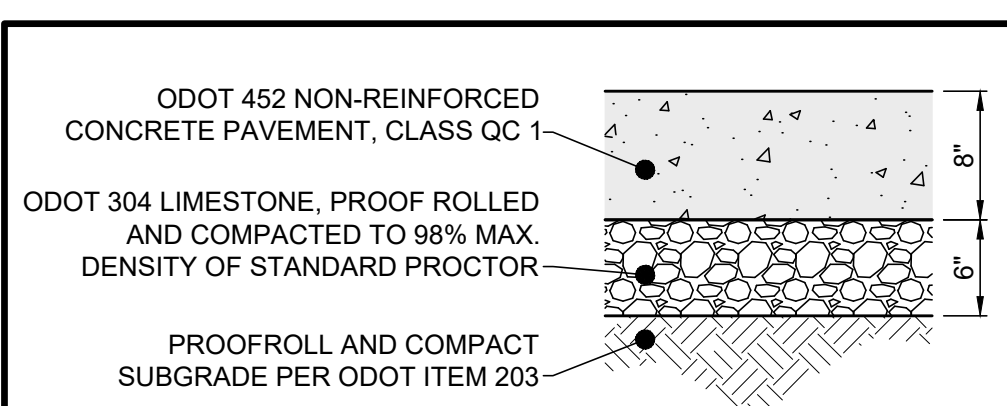


ASPHALT WALK DETAIL
SCALE: NONE



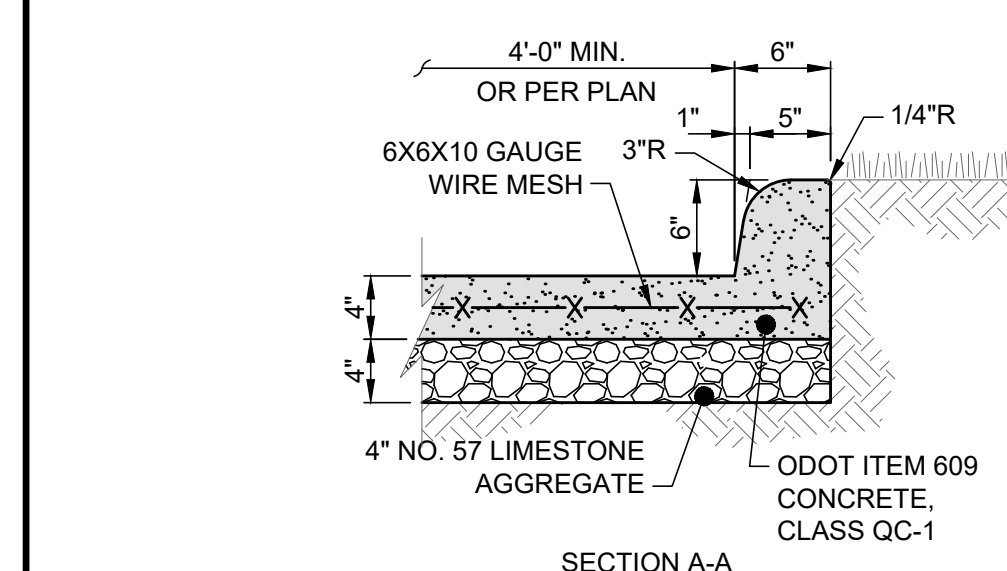
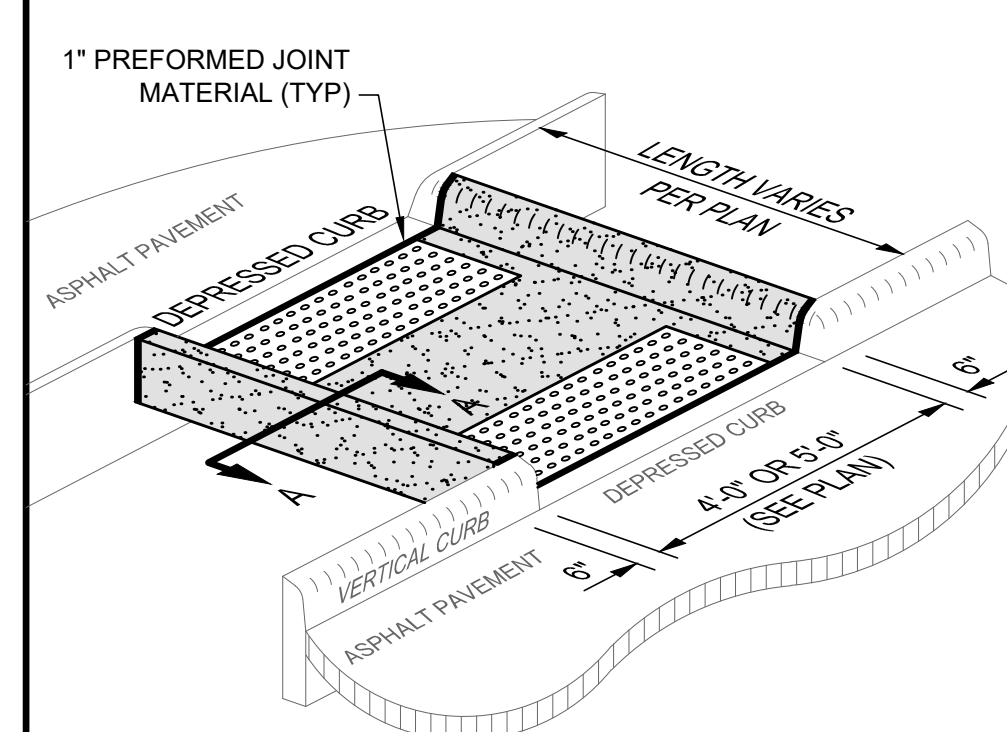
- NOTES:**
- SEE LAYOUT PLAN FOR JOINT LOCATIONS. IF JOINTS ARE NOT PROVIDED, THEN THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL JOINTS. DIVIDE JOINTS INTO EQUALLY SPACED RECTANGULAR BLOCKS.
 - SAW CUT OR HAND TOOL JOINT 1/8" WIDE BY 1/4 OF "T" DEEP.
 - ROUND ALL EDGES AND JOINTS SIDES WITH A 1/4" RADIUS.
 - INSTALL PREFORMED JOINT MATERIAL EVERY 30' OR BETWEEN SIDEWALK AND FIXED OBJECT (I.E. MANHOLE, WALK, BUILDING). WALK SHOWN FOR REFERENCE ONLY.
 - LIGHTLY BROOM THE FINISH PERPENDICULAR TO THE WALKING PATH OR PER PLAN. IF HAND TOOLED JOINTS AND EDGES ARE SPECIFIED, FINISH AFTER PANEL INTERIOR TEXTURE HAS BEEN APPLIED (I.E. WINDOW PANE EFFECT).
 - APPLY LIQUID-MEMBRANE CURING COMPOUND (200 S.F./GAL.)

CONCRETE WALK DETAIL
SCALE: NONE



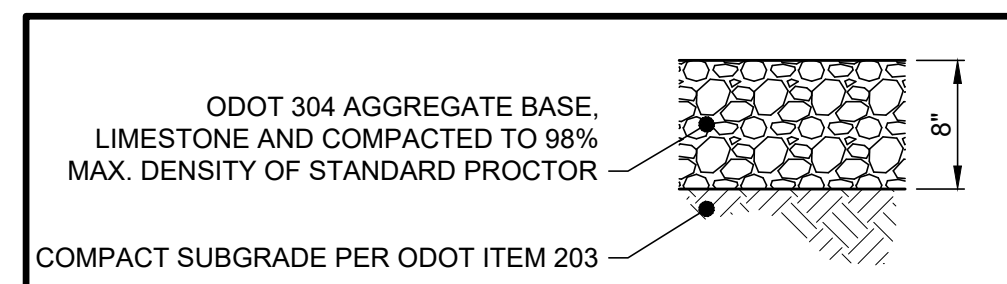
- NOTES:**
- SEE LAYOUT PLAN FOR JOINT LOCATIONS. IF JOINTS ARE NOT SHOWN, THEN THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL JOINTS. DIVIDE JOINTS INTO EQUALLY SPACED RECTANGULAR BLOCKS.
 - IF UNSUITABLE SOILS EXIST, UNDERCUT SUBGRADE, REMOVE AND REPLACE WITH ODOT ITEM 304 CRUSHED LIMESTONE, 12" MIN. OR PER GEOTECHNICAL ENGINEER.
 - APPLY LIQUID-MEMBRANE CURING COMPOUND (200 S.F./GAL.).

NON-REINFORCED CONCRETE PAVEMENT DETAIL
SCALE: NONE

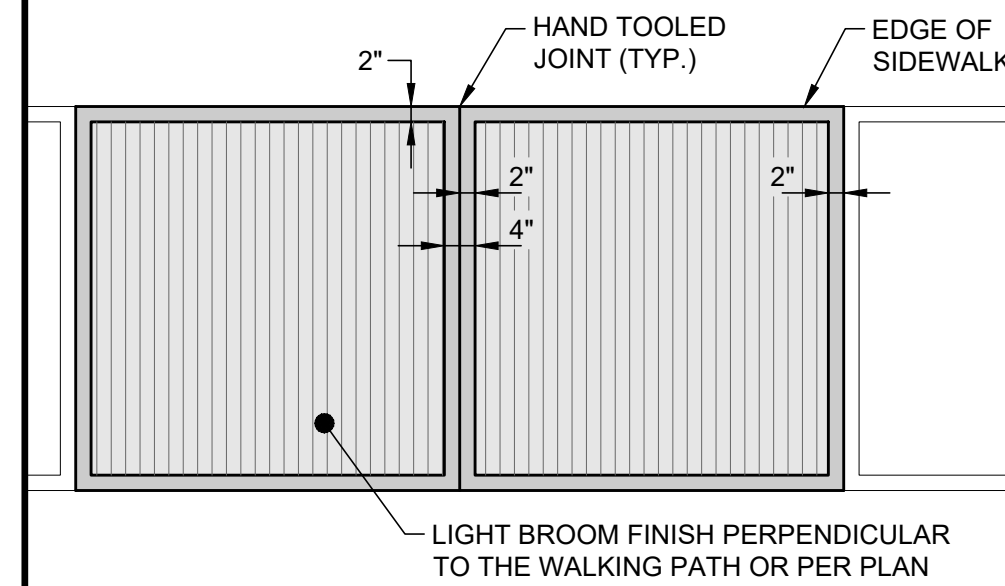


- NOTES:**
- DEPRESSED CURB EDGE SHALL BE FLUSH WITH PAVEMENT AND SLOPED TOWARDS PAVEMENT.
 - INSTALL DETECTABLE WARNINGS ONLY IF SHOWN ON THE LAYOUT PLAN.
 - SEE CONCRETE SIDEWALK DETAIL FOR SPECIFICATIONS.

SIDEWALK CUT-THROUGH DETAIL
SCALE: NONE

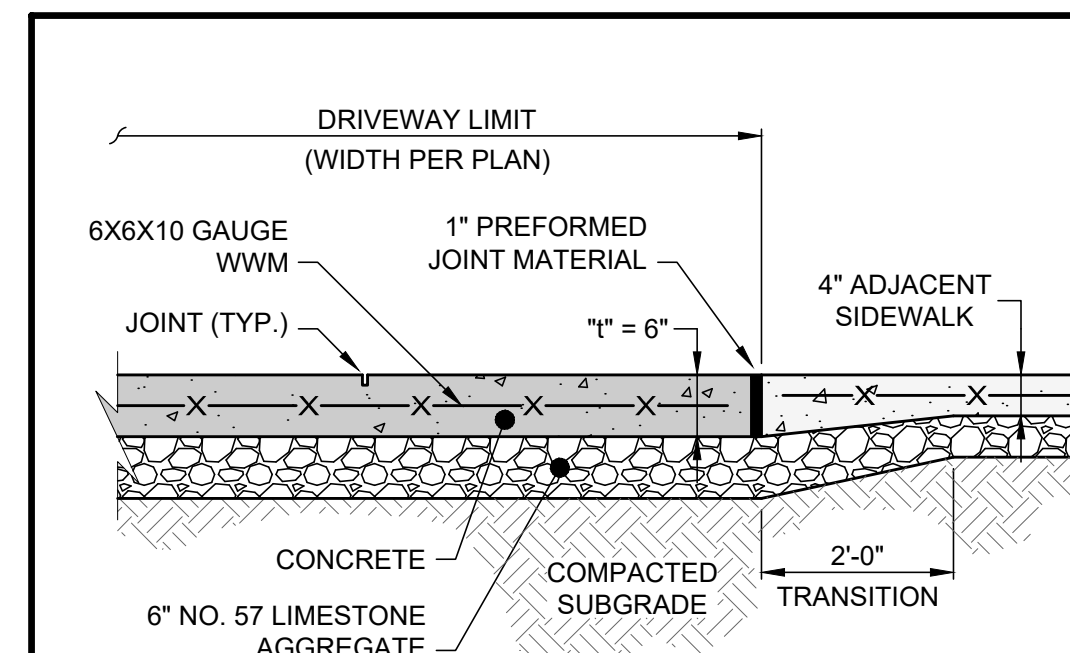


GRAVEL STREET AND CART PATH
SCALE: NONE



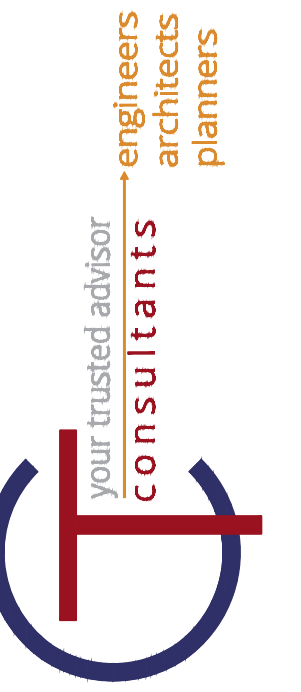
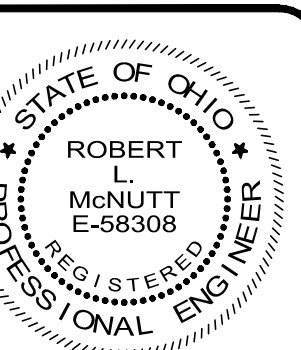
- NOTES:**
- THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE LAYOUT PLAN FOR LOCATIONS.
 - HAND TOOLED JOINTS AND EDGES SHALL BE APPLIED AFTER PANEL INTERIOR TEXTURE HAS BEEN APPLIED TO CREATE A "WINDOW PANE" EFFECT AROUND EACH PANEL.
 - TOOLED EDGE SHALL BE 2" WIDTH EACH SIDE OF JOINT.

CONCRETE SIDEWALK JOINT AND FINISH DETAIL
SCALE: NONE



- NOTES:**
- CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1 EXCEPT AT ACTIVE DRIVE APRONS WHICH SHALL BE CLASS QC MS.
 - THIS DETAIL SHOWS A 6" SIDEWALK AND AGGREGATE FOR REFERENCE ONLY, BUT "T" SHALL ALWAYS BE THE SAME THICKNESS AS THE DRIVE APRON. SEE LAYOUT PLAN FOR ACTUAL THICKNESSES.

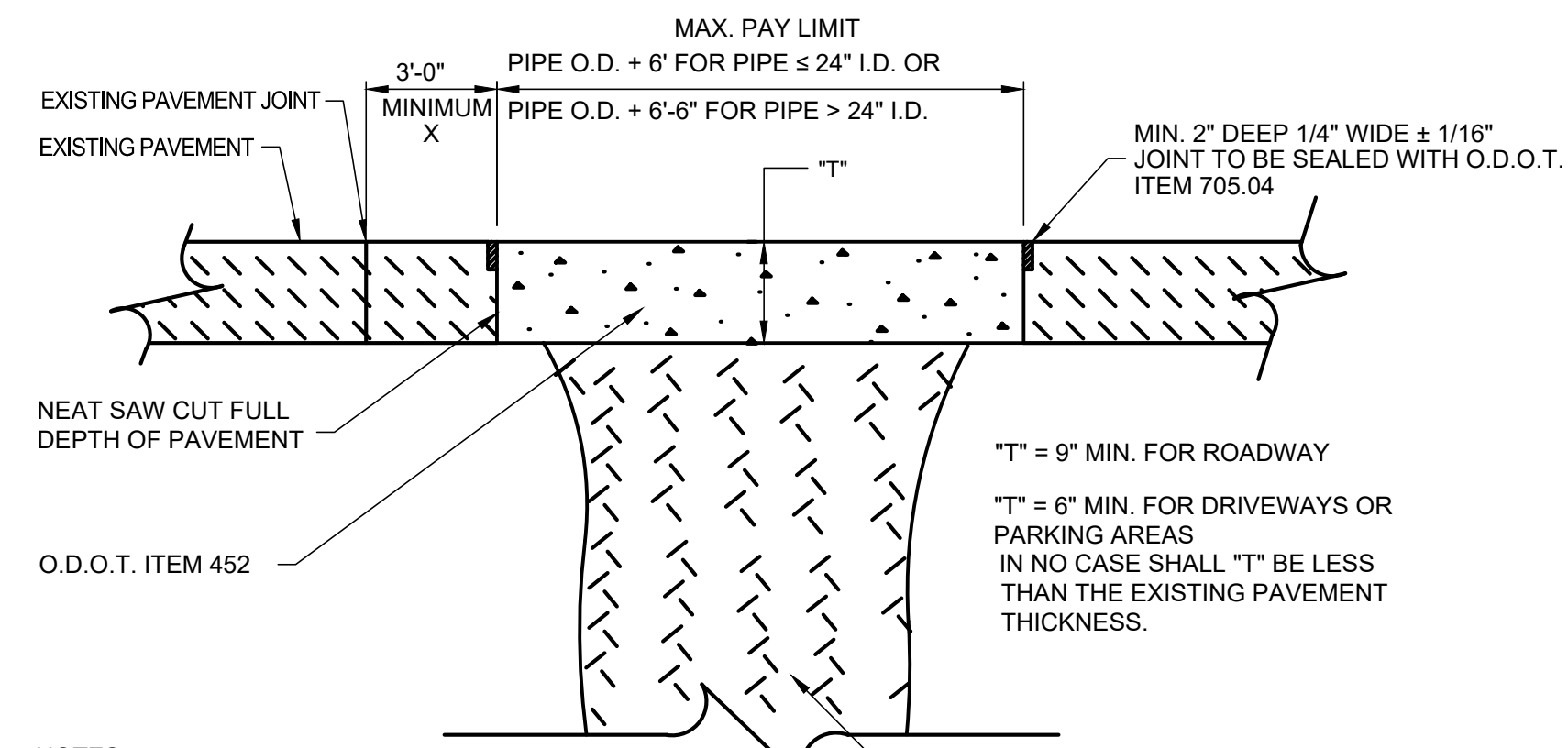
CONCRETE WALK THROUGH DRIVEWAY DETAIL
SCALE: NONE



NO.	DATE	REVISION	AS NOTED	DESIGNED BY:	DRAWN BY:	CHECKED BY:
	6/21/24		RLM	RLM	RLM	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
OHIO
ASHTABULA COUNTY
STANDARD DETAILS - SD SERIES
CONSTRUCTION DETAILS

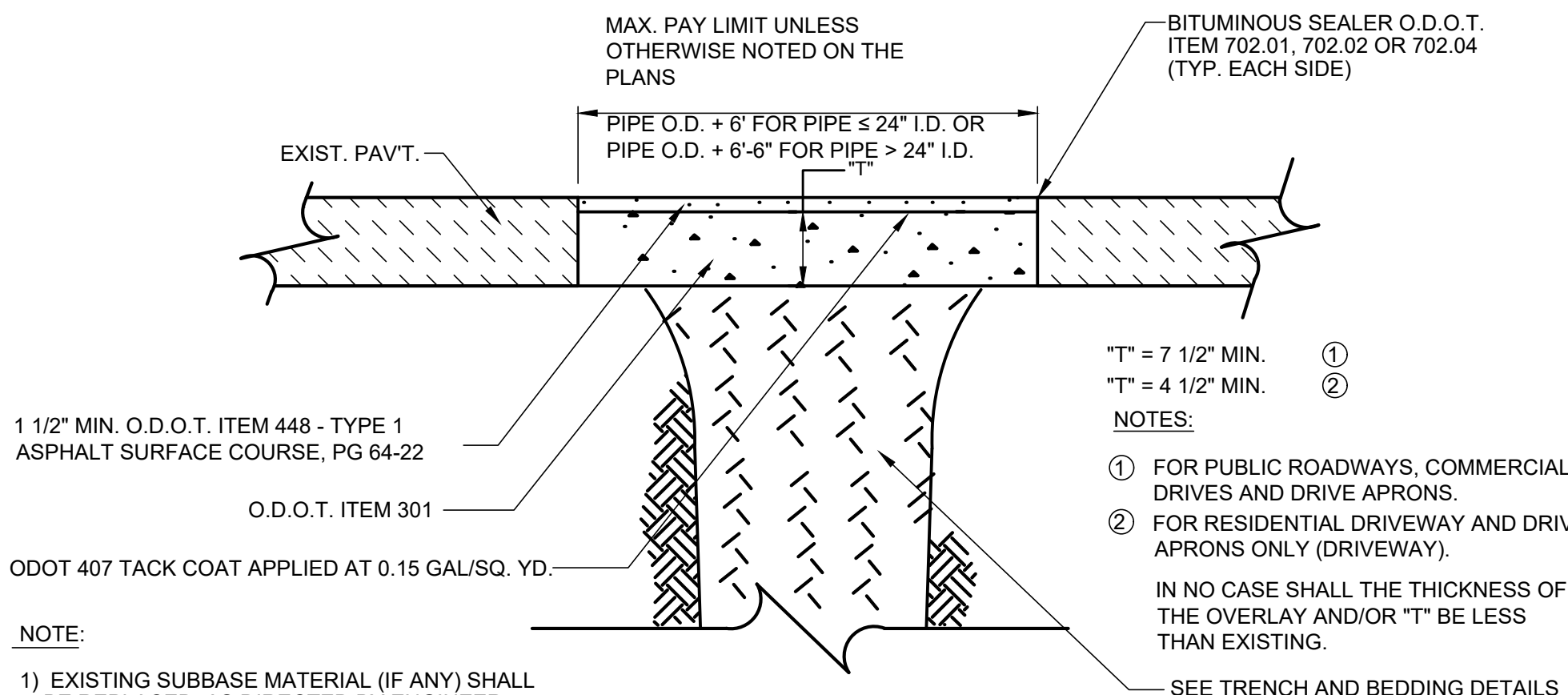
PROJECT NO:	231183
DRAWING NAME:	SD-05
SHEET	25
OF	29



- NOTES:**
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
 - REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
 - 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- SEE TRENCH AND BEDDING DETAILS
- X WHERE WIDTH IS LESS THAN 3'-0" OR EXISTING PAVEMENT IS DETERIORATED, THE CONTRACTOR SHALL REPLACE ADDITIONAL PAVEMENT AS DIRECTED BY THE ENGINEER. PAYMENT FOR ADDITIONAL PAVEMENT REPLACEMENT AS DIRECTED BY THE ENGINEER SHALL BE AT THE SAME UNIT PRICE BID.

TYPE A PAVEMENT REPLACEMENT
(CONCRETE)

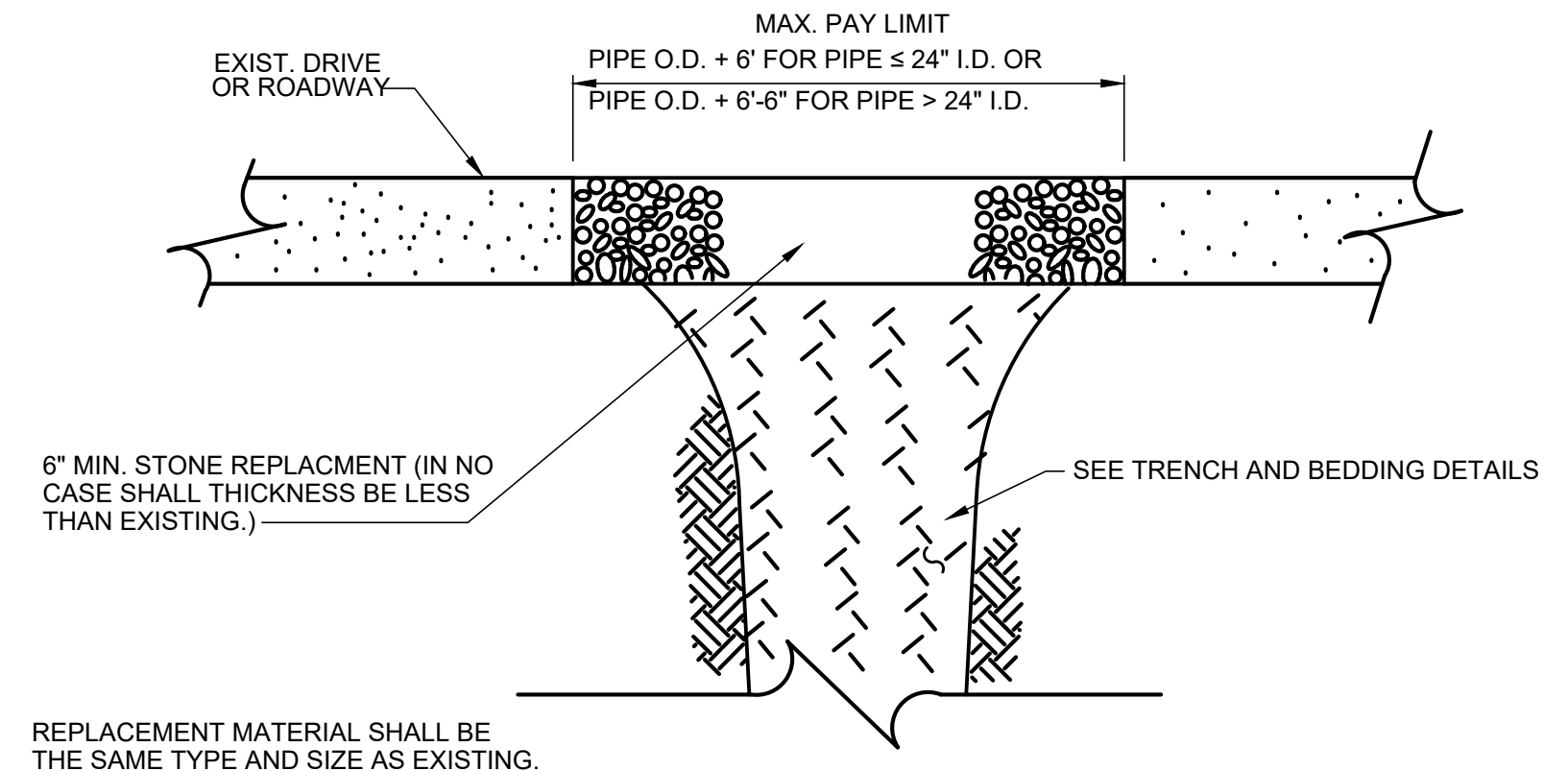
10/10 SD-5-1



- NOTES:**
- FOR PUBLIC ROADWAYS, COMMERCIAL DRIVES AND DRIVE APRONS.
 - FOR RESIDENTIAL DRIVEWAY AND DRIVE APRONS ONLY (DRIVEWAY).
- IN NO CASE SHALL THE THICKNESS OF THE OVERLAY AND/OR "T" BE LESS THAN EXISTING.
- SEE TRENCH AND BEDDING DETAILS
- 1) EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.

TYPE C PAVEMENT REPLACEMENT
(ASPHALT)

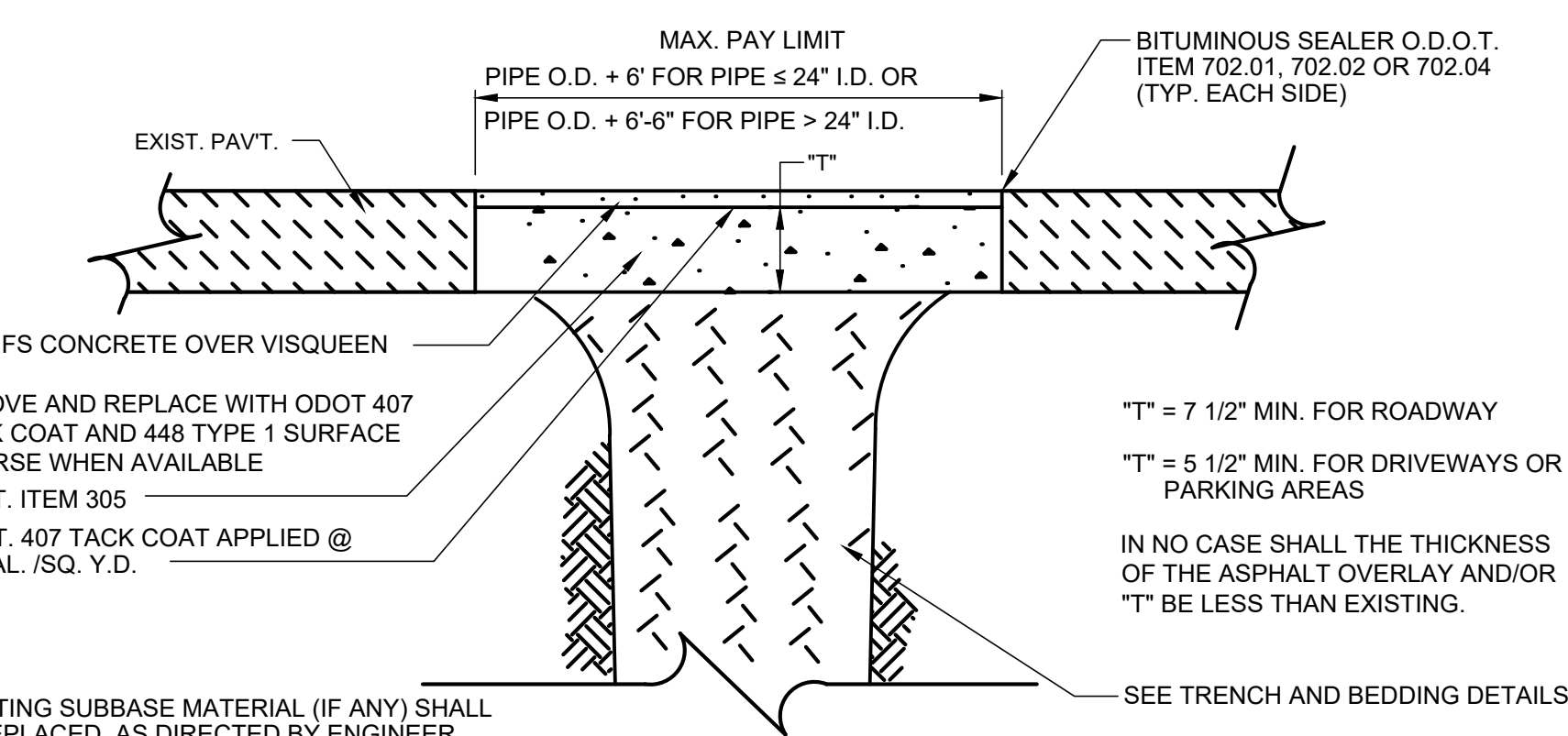
10/10 SD-5-3



- REPLACEMENT MATERIAL SHALL BE THE SAME TYPE AND SIZE AS EXISTING.
- SEE TRENCH AND BEDDING DETAILS

TYPE F PAVEMENT REPLACEMENT
(STONE)

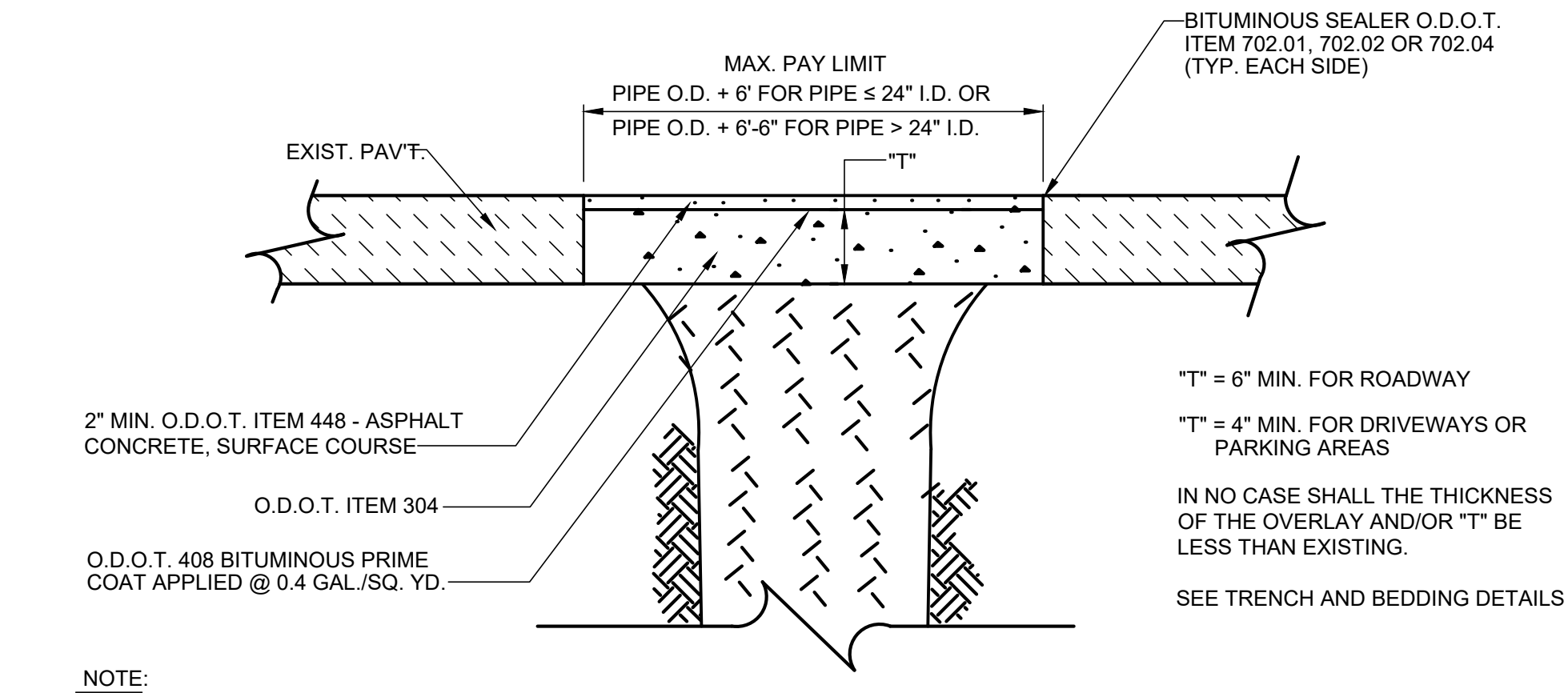
10/10 SD-5-6



- NOTES:**
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
 - REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
 - 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- SEE TRENCH AND BEDDING DETAILS

TYPE W PAVEMENT REPLACEMENT

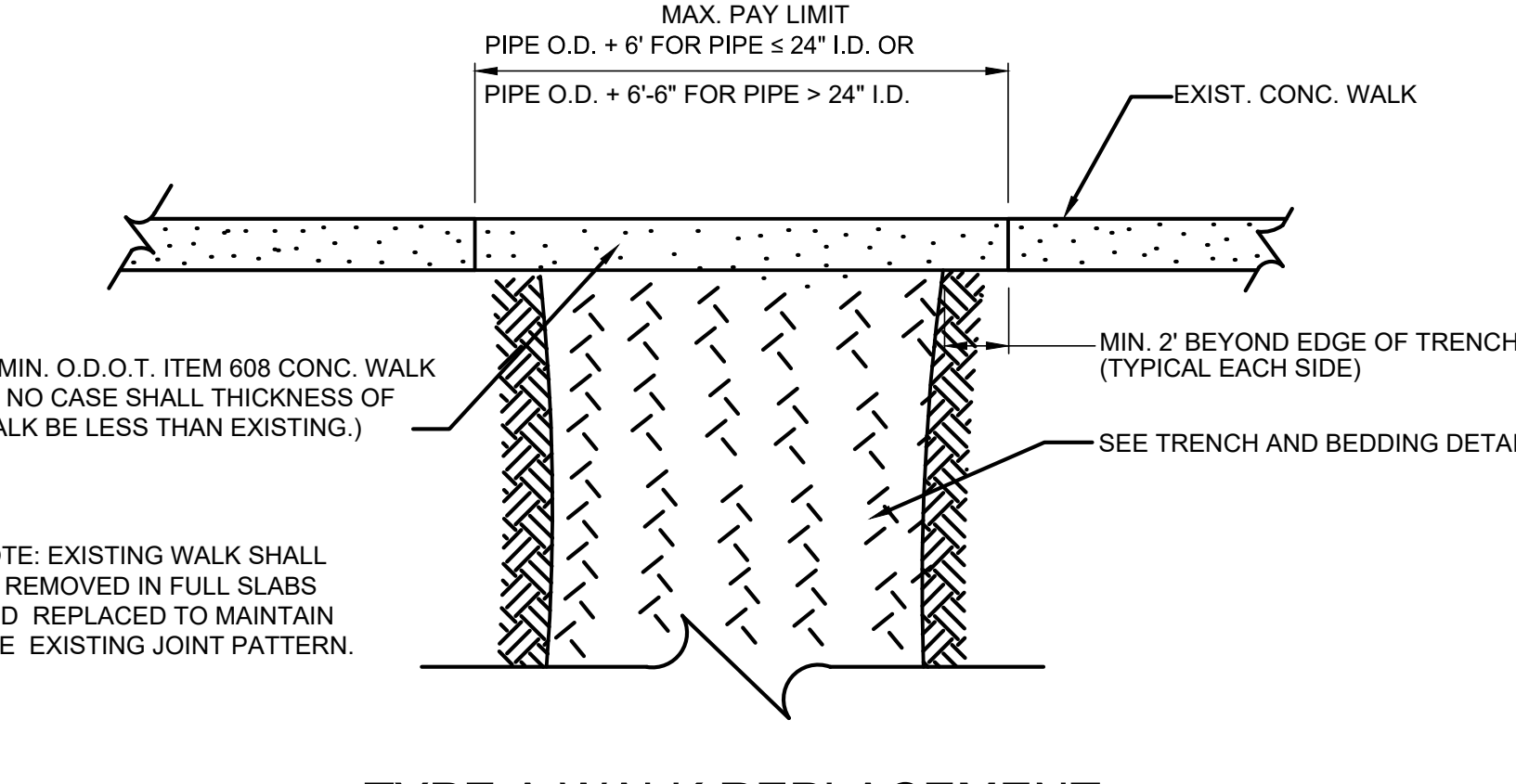
7/08 SD-5-2.1



- NOTE:**
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
- SEE TRENCH AND BEDDING DETAILS

TYPE D PAVEMENT REPLACEMENT
(ASPHALT OVER STONE BASE)

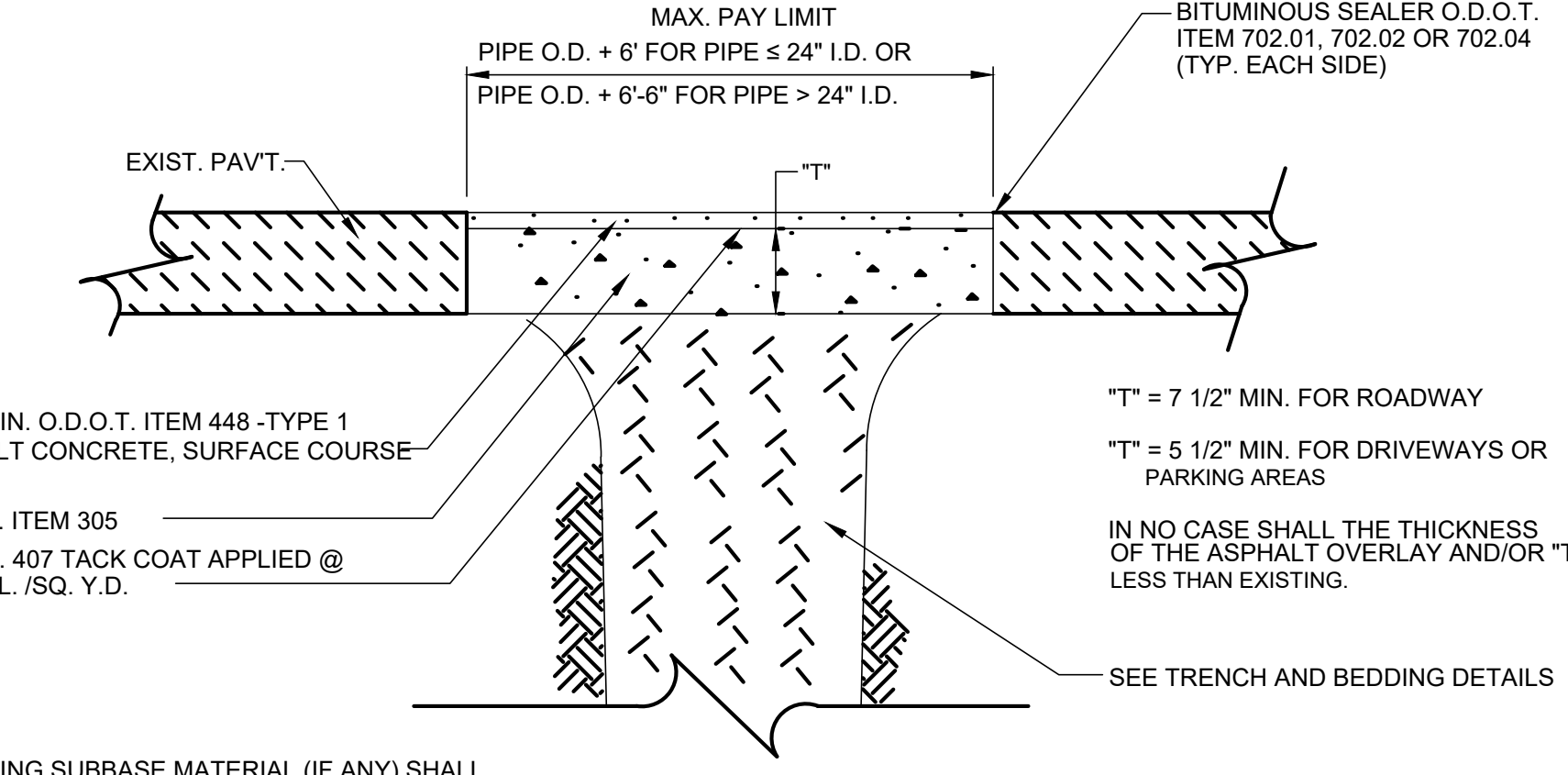
10/10 SD-5-4



- NOTE:** EXISTING WALK SHALL BE REMOVED IN FULL SLABS AND REPLACED TO MAINTAIN THE EXISTING JOINT PATTERN.
- SEE TRENCH AND BEDDING DETAILS

TYPE A WALK REPLACEMENT

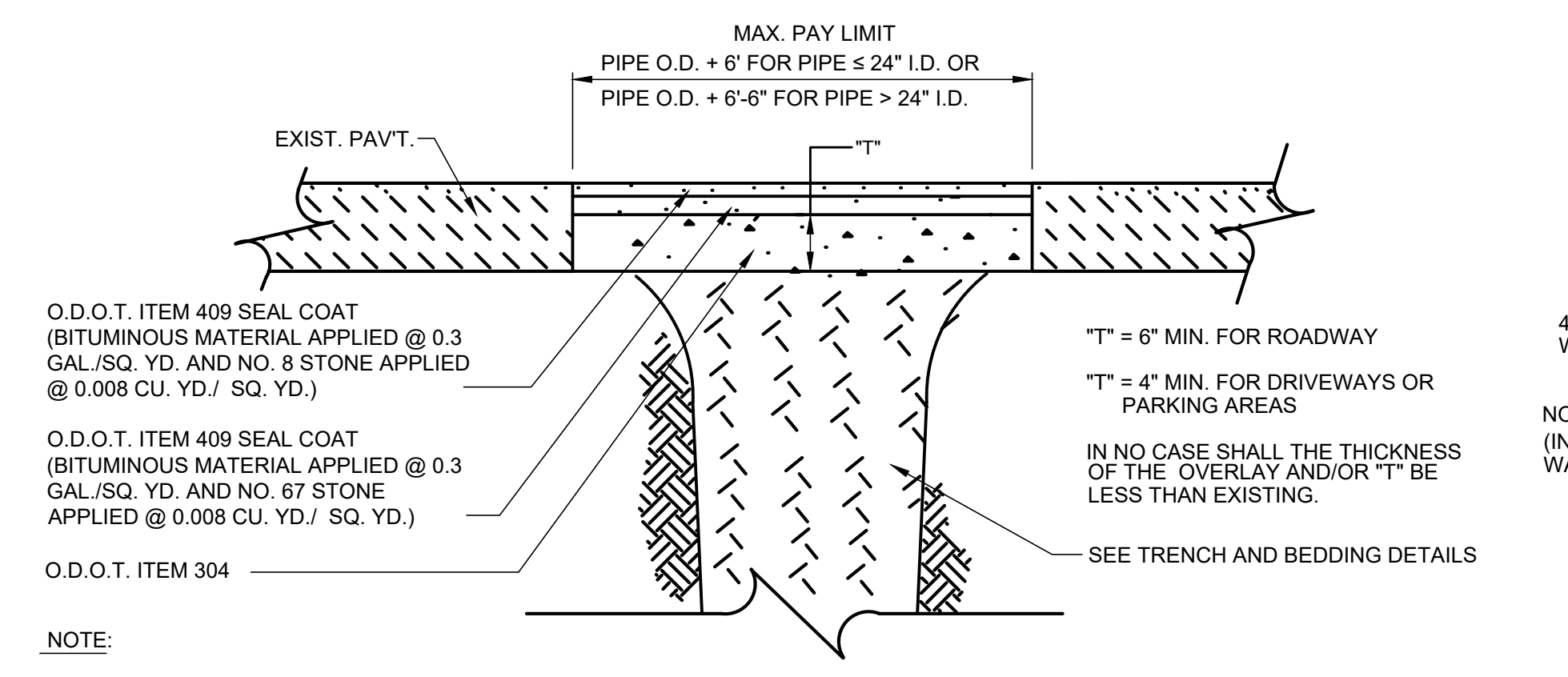
12/88 SD-5-7



- NOTES:**
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
 - REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
 - 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- SEE TRENCH AND BEDDING DETAILS

TYPE B PAVEMENT REPLACEMENT
(ASPHALT OVER CONCRETE)

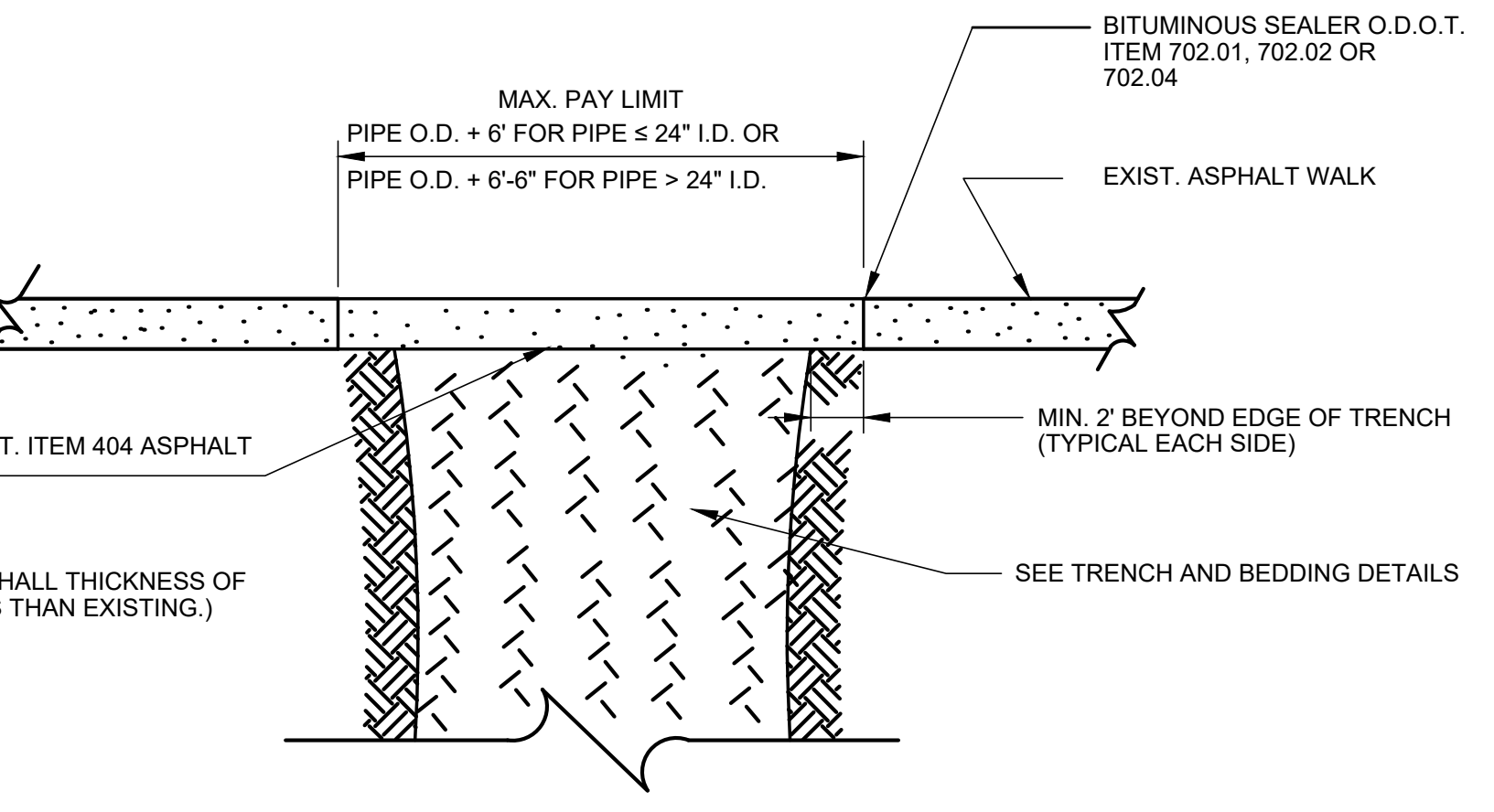
10/10 SD-5-2



- NOTE:**
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
- SEE TRENCH AND BEDDING DETAILS

TYPE E PAVEMENT REPLACEMENT
(SEAL COAT OVER STONE BASE)

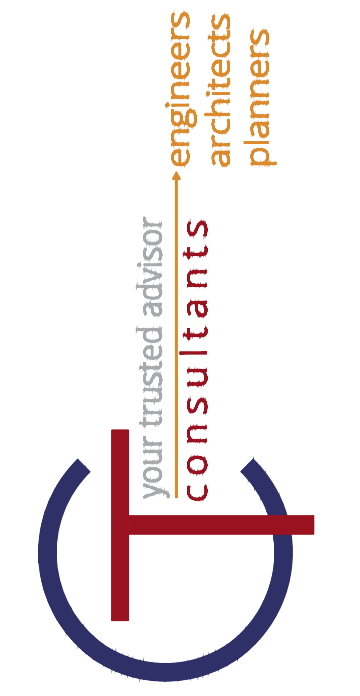
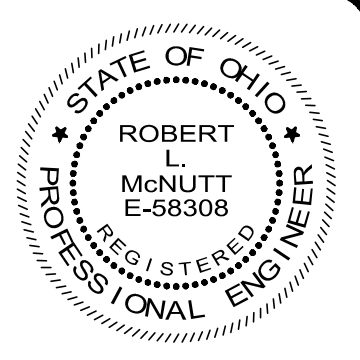
10/10 SD-5-5



- NOTE:** (IN NO CASE SHALL THICKNESS OF WALK BE LESS THAN EXISTING.)
- SEE TRENCH AND BEDDING DETAILS

TYPE B WALK REPLACEMENT

12/88 SD-5-8

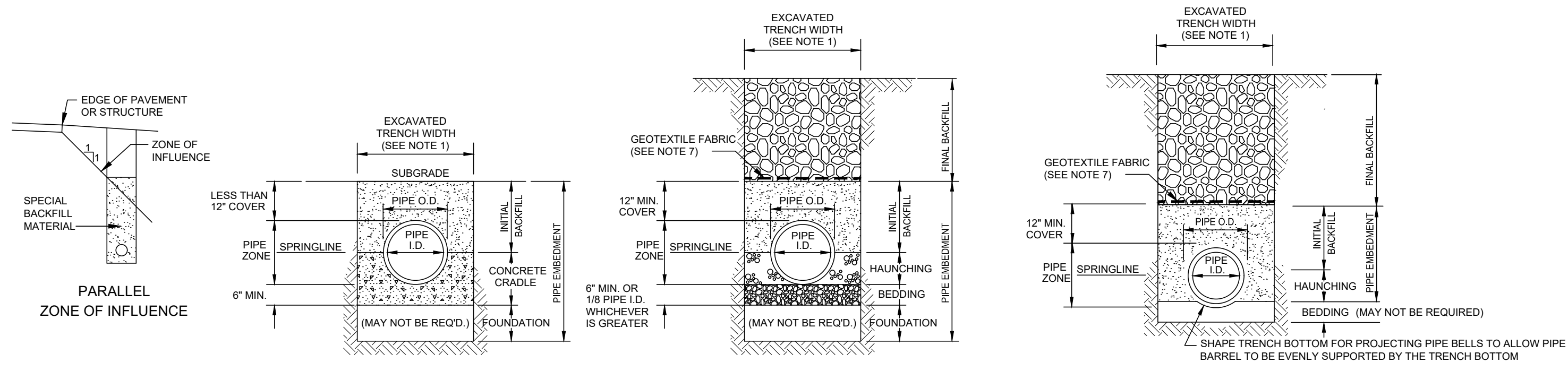


NO.	DATE	REVISION

SCALE:	AS NOTED	DATE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
		6/21/24	RLM	RLM	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
OHIO
ASHTABULA COUNTY
STANDARD DETAILS - SD SERIES
CONSTRUCTION DETAILS

PROJECT NO:	231183
DRAWING NAME:	SD-06
SHEET	26
OF	29



CLASS 'A' PIPE EMBEDMENT

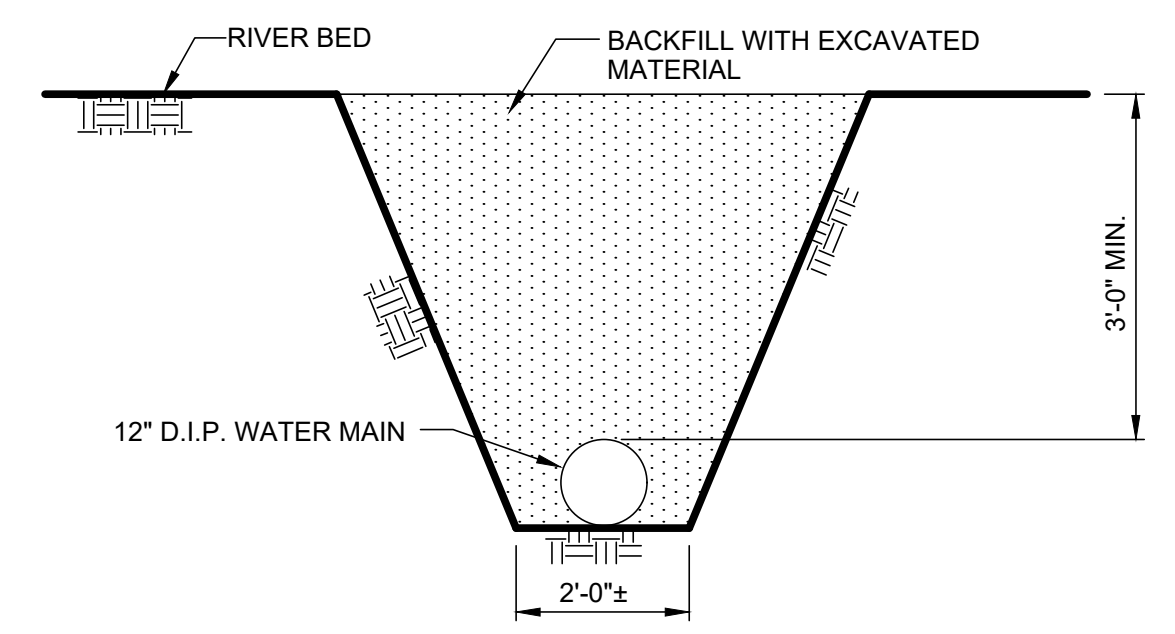
CLASS 'B' PIPE EMBEDMENT

CLASS 'C' PIPE EMBEDMENT

NOTES:

1. MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O. D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.D. AND OVER.
2. FOUNDATION: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
3. PIPE EMBEDMENT:
 CLASS A: CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "C". THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
 CLASS B: CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE BEDDING AND HAUNCHING SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 STONE GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
 CLASS C: CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6-INCHES OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
4. FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE THE FINAL BACKFILL SHALL BE SPECIAL BACKFILL MATERIAL. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER.
5. SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 02300CT - EARTHWORK.
6. CLAY TRENCH DAMS: CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR WHEN AND WHERE NECESSARY AS DIRECTED BY THE ENGINEER.
7. GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
8. DETECTOR TAPE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 12" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.

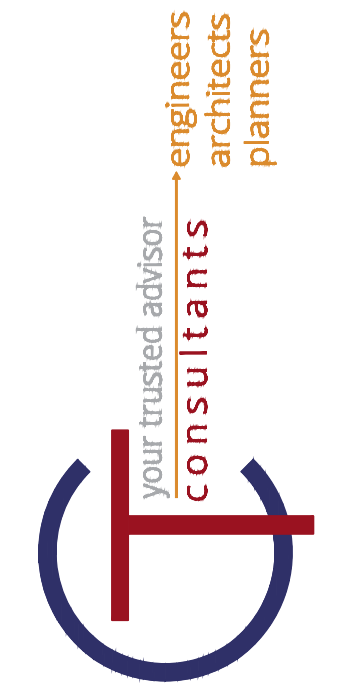
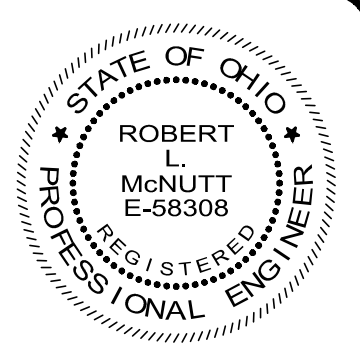
TRENCHING, EMBEDMENT AND BACKFILL DETAIL
6/04 NO SCALE SD-1-1



CREEK CROSSING NOTES

CONSTRUCTION OF PIPE CROSSING OF CREEK SHALL BE DONE DURING LOW FLOW PERIODS AS DIRECTED BY THE U.S. ARMY CORPS OF ENGINEERS.
 TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL FOR THE CREEK CROSSING AREA SHALL CONFORM TO APPLICABLE PORTIONS OF O.D.O.T. ITEM 207.

TYPICAL CREEK CROSSING DETAIL
9/02 SD-1-7



NO	REVISION	DATE

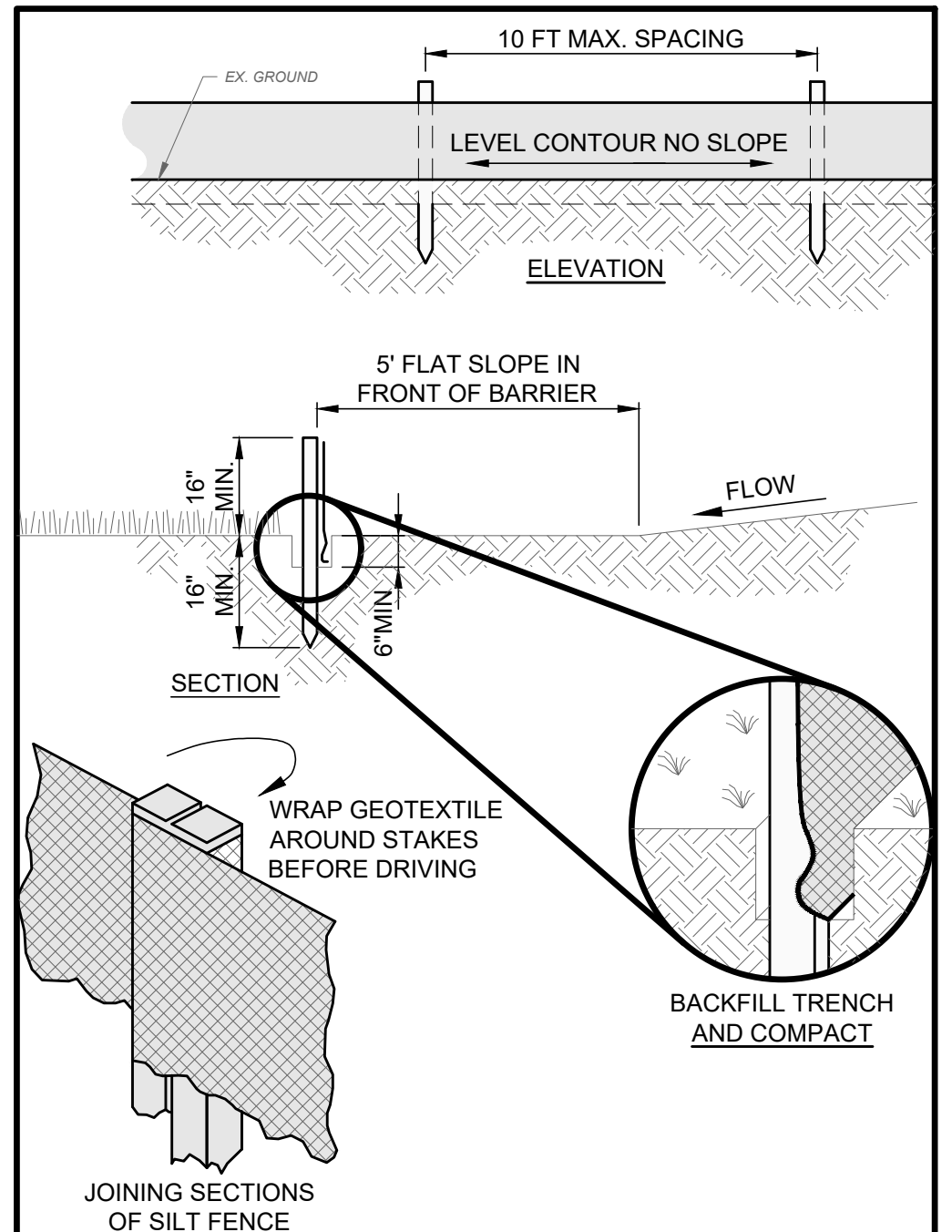
VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 ASHTABULA COUNTY OHIO
 STANDARD DETAILS - SD SERIES
 CONSTRUCTION DETAILS

PROJECT NO:	231183
DRAWING NAME:	SD-07
SHEET	27
OF	29

NO	REVISION	DATE

VILLAGE OF GENEVA-ON-THE-LAKE
 SANITARY SEWER TRUNK LINE REPLACEMENT
 OHIO
 ASHTABULA COUNTY
SWPPP - SW SERIES
SWPPP DETAILS & NOTES

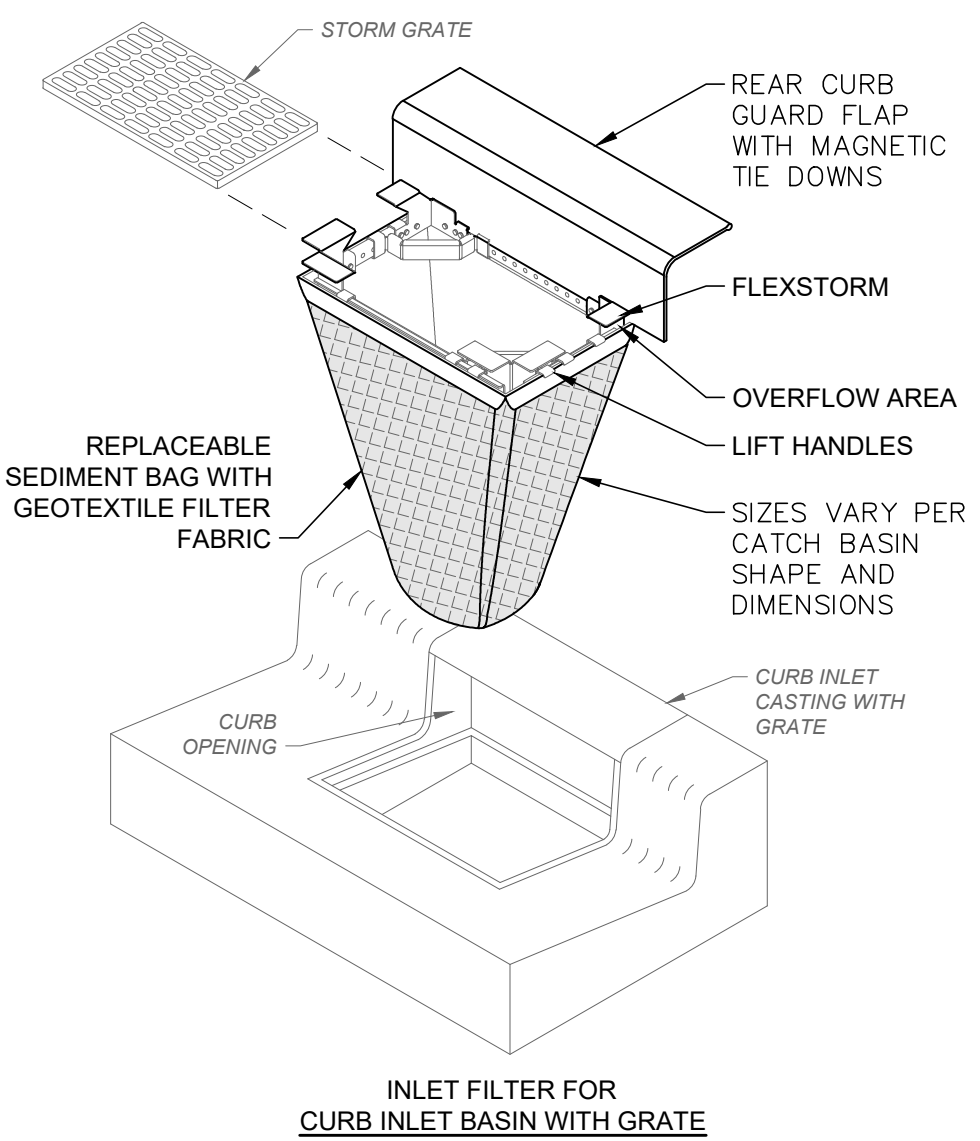
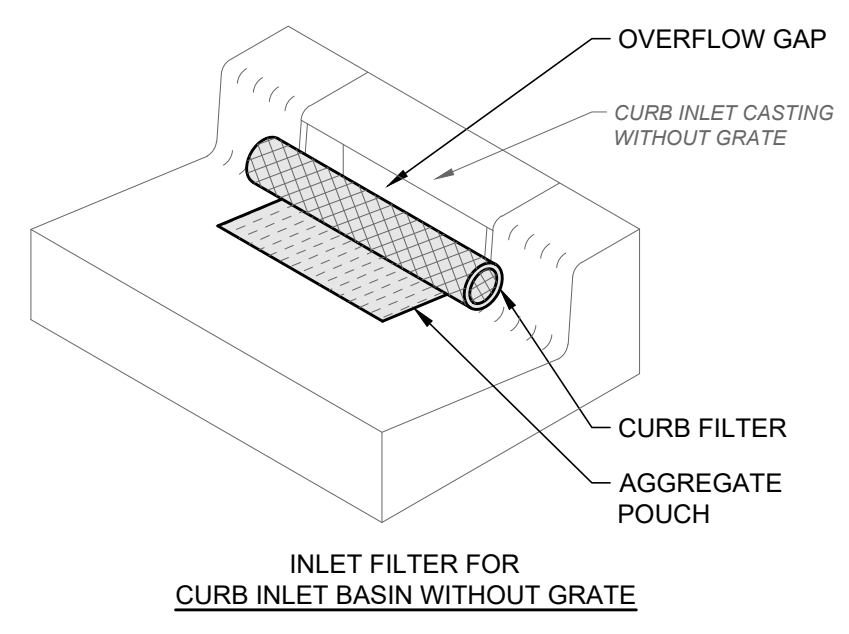
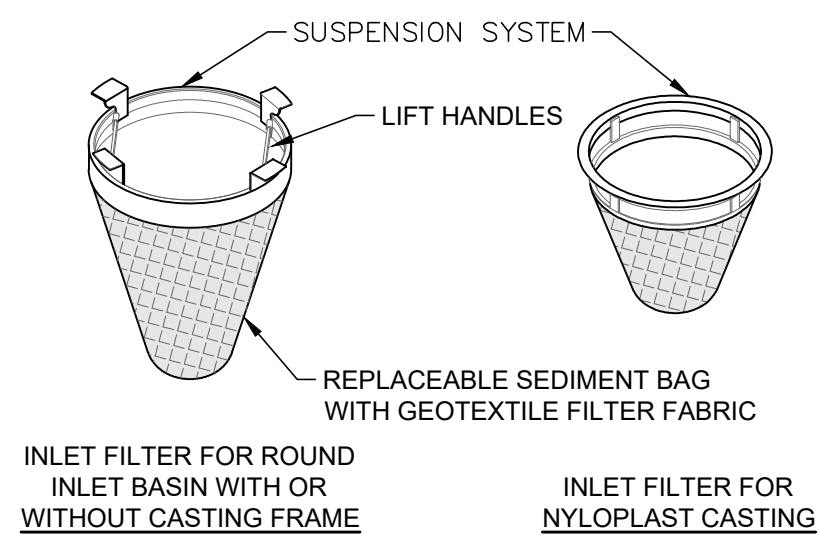
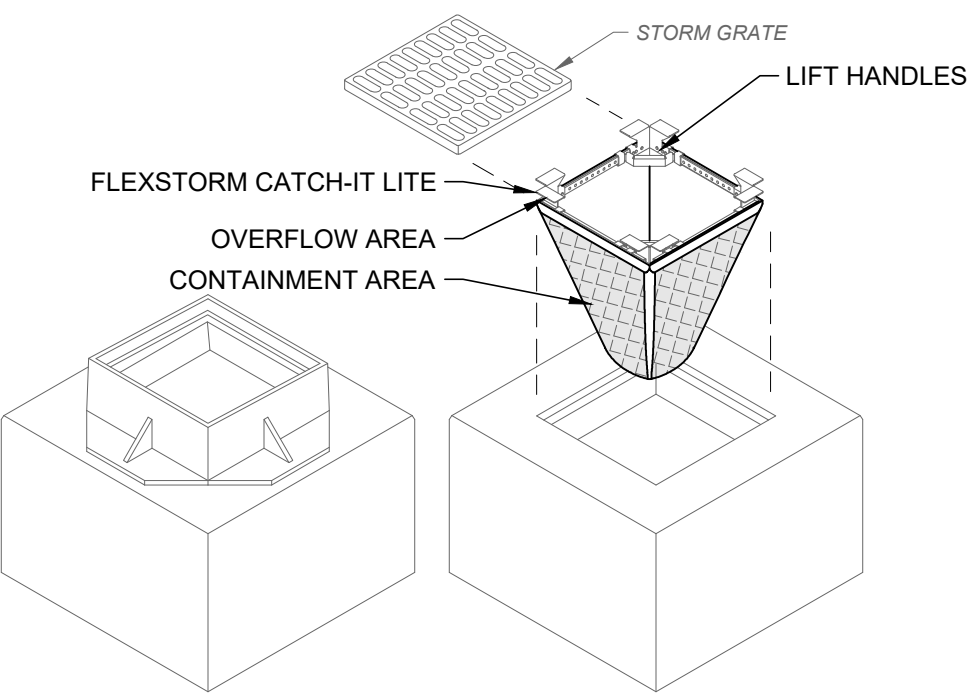
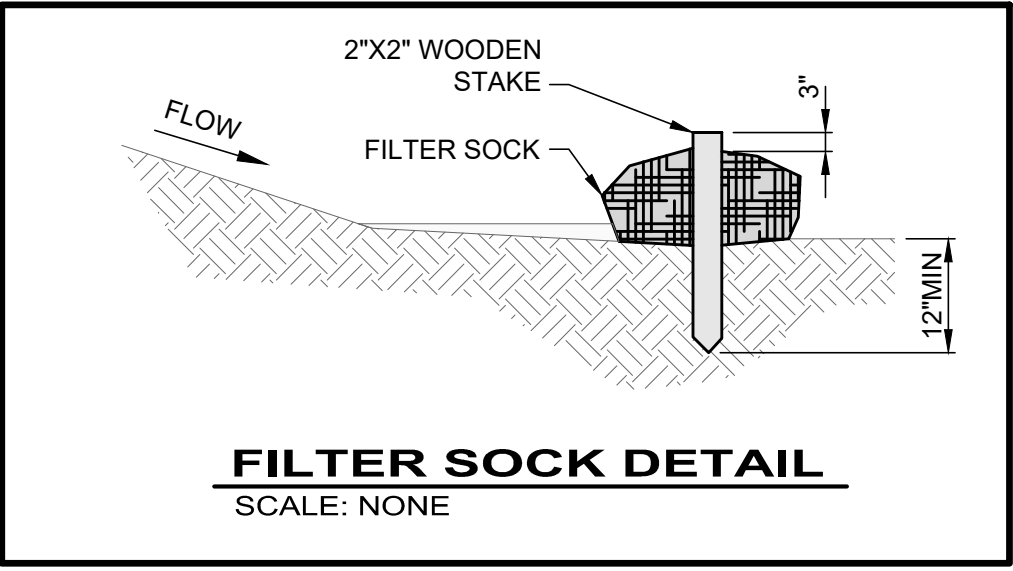
PROJECT NO:	231183
DRAWING NAME:	SW-01
SHEET OF:	28 29



- NOTES:
- PRESERVE VEGETATION FOR 5 FEET, OR AS MUCH AS POSSIBLE, UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
 - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. PERFORM ONE OF THE FOLLOWING IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW:
 - CHANGE THE LAYOUT OF THE SILT FENCE.
 - REMOVE ACCUMULATED SEDIMENT.
 - INSTALL OTHER PRACTICES.

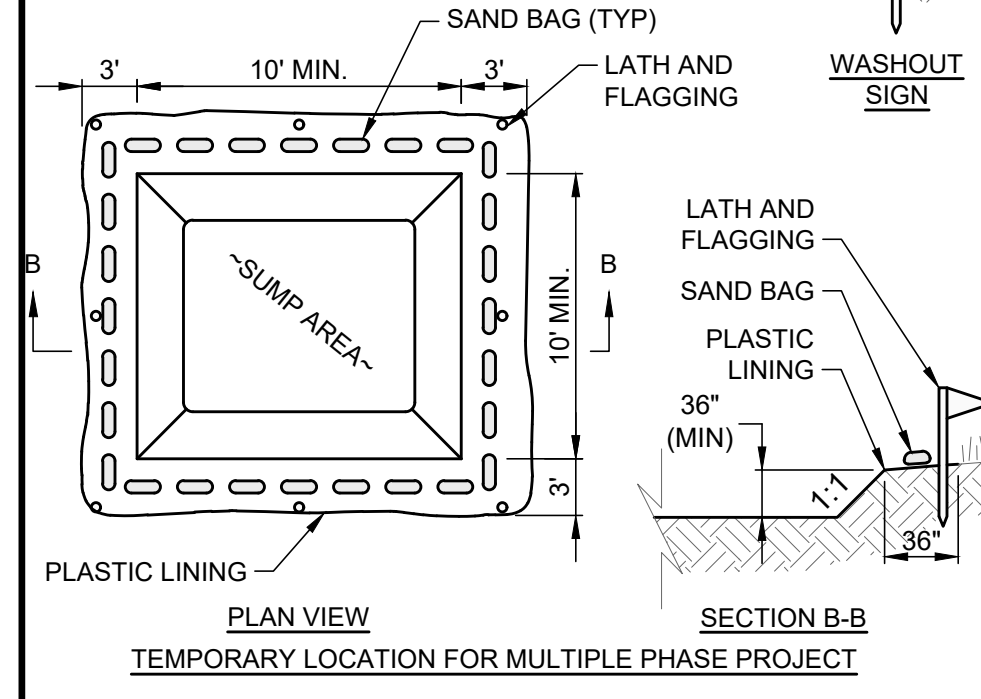
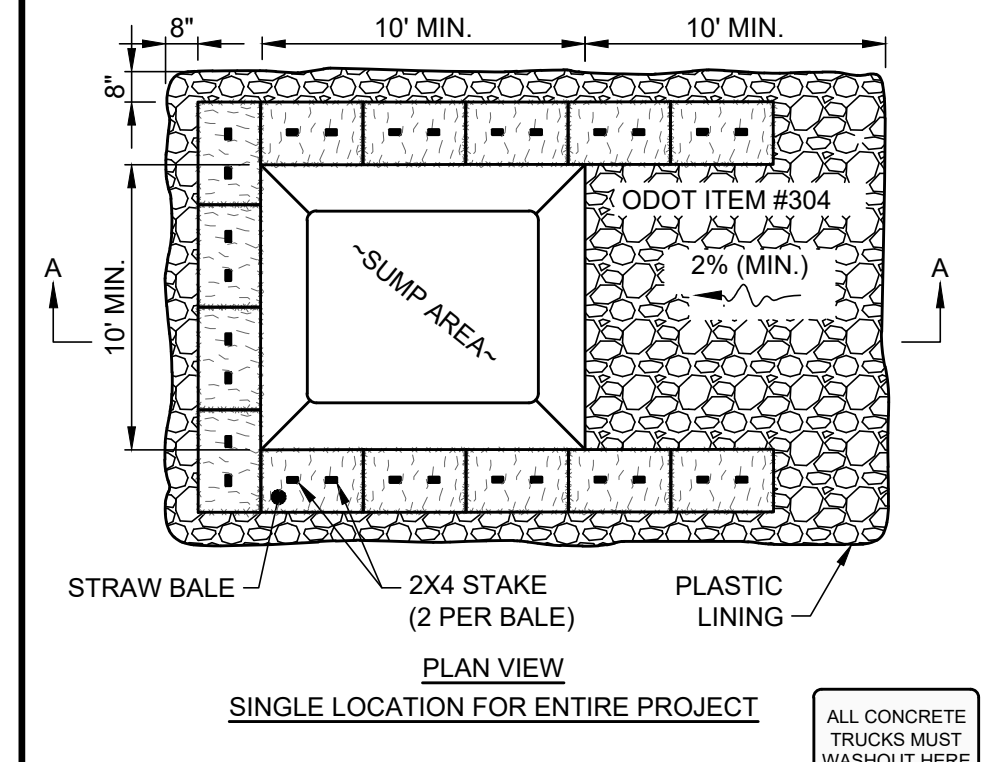
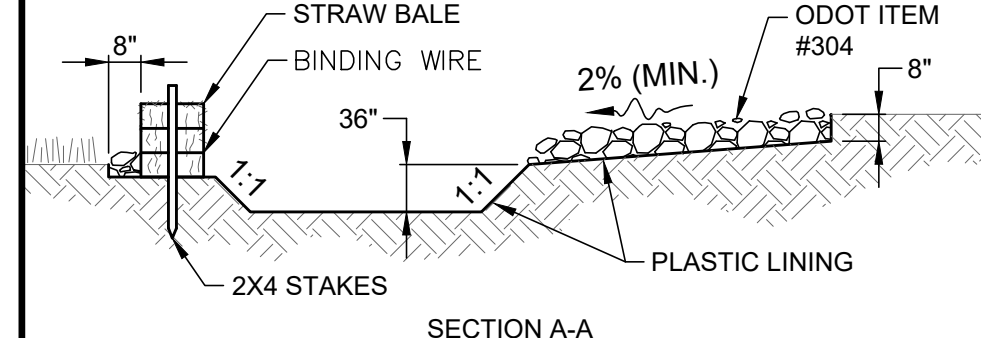
FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

SILT FENCE
 SCALE: NONE



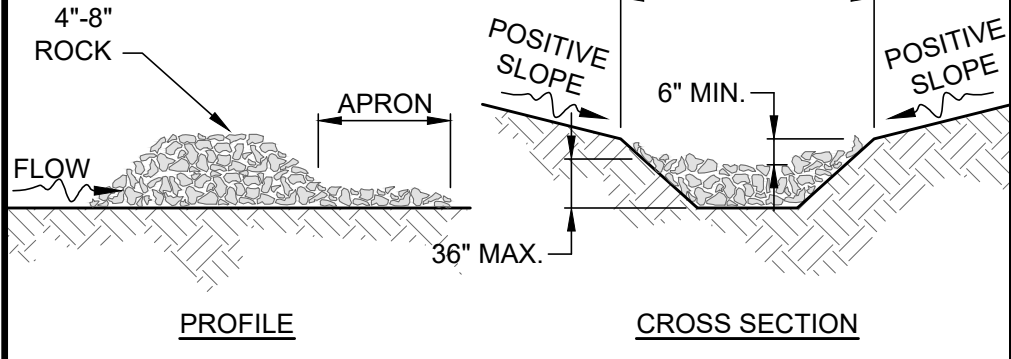
- NOTES:
- ALL FRAMING SHALL BE CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
 - CONTRACTOR SHALL PROVIDE EXISTING OR PROPOSED STRUCTURE DETAILED DIMENSIONS, CASTING CALLOUT, MAKE AND MODEL TO CONFIGURE AND ASSEMBLE CUSTOMIZED FLEXSTORM INLET FILTERS.

STORM DRAIN INLET PROTECTION DETAIL
 SCALE: NONE



- NOTES:
- WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
 - ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, SHALL BE DISPOSED OF IN THE CONCRETE WASHOUT AREA. DISPOSAL OF EXCESS CONCRETE OR CONCRETE WASHOUT ON THE GROUND, OR IN STORM DRAINS, DITCHES OR WATER BODIES, IS PROHIBITED.
 - CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. FOR LARGER SITES, MULTIPLE CONCRETE WASHOUT AREAS MAY BE REQUIRED.
 - IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO THE CONSTRUCTION ENTRANCE.
 - PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS, AND INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF ROCKS OR DEBRIS.
 - CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
 - CONCRETE WASHOUT AREAS SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOWS.
 - PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE, BUT MUST BE SPECIFICALLY DESIGNED FOR CONCRETE WASHOUT USE.
 - CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND TO DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR POLYETHYLENE SHEETING SHALL BE REPAIRED IMMEDIATELY. THE CONCRETE WASHOUT AREA SHALL BE CLEANED OR REPLACED WHEN IT IS 75% FULL. THE POLYETHYLENE SHEETING SHALL BE REPLACED AFTER EACH CLEANING.
 - SAW CUT CONCRETE, RESIDUE FROM SAW CUT, AND GRINDINGS SHALL BE DISPOSED OF IN THE WASHOUT PIT.

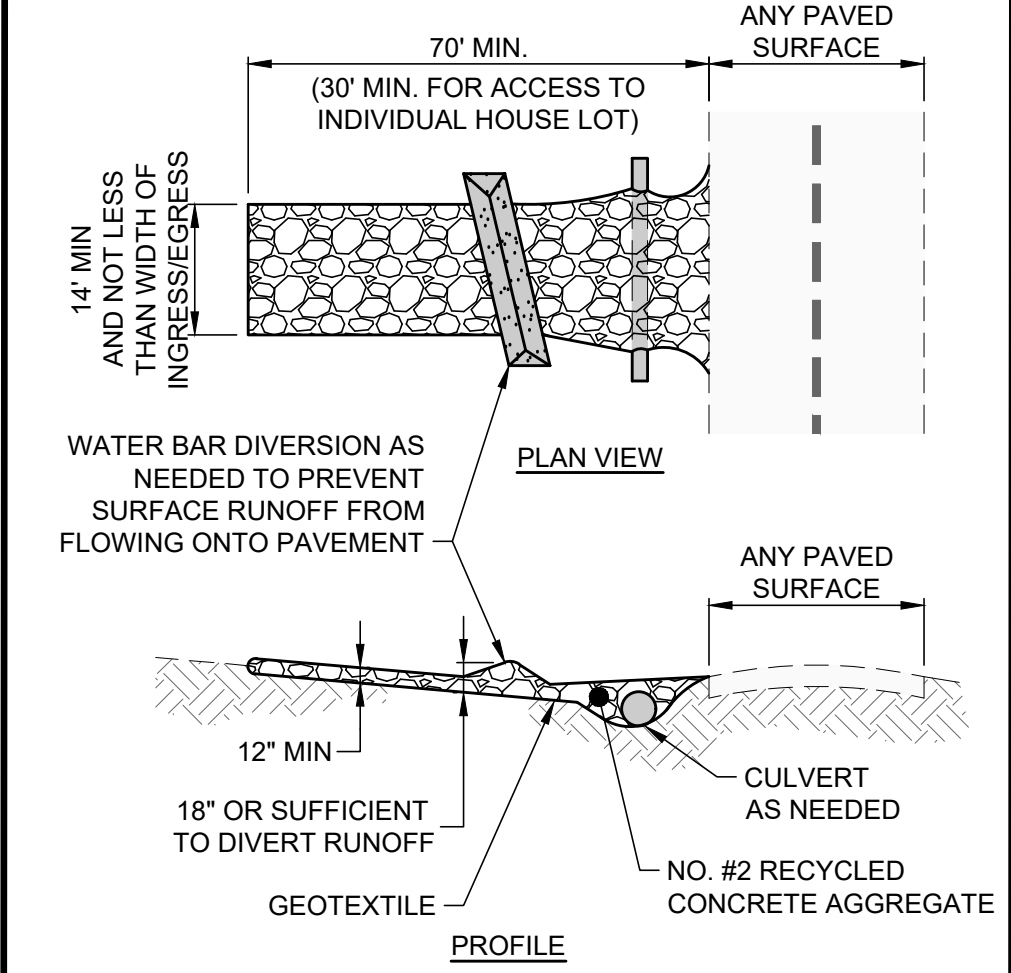
CONCRETE WASHOUT DETAIL
 SCALE: NONE



- NOTES:
- THE CHECK DAM SHALL BE CONSTRUCTED OF 4" TO 8" DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL.
 - THE TOP OF THE CHECK DAM SHALL BE CONSTRUCTED SO THE CENTER IS APPROXIMATELY 6" LOWER THAN THE OUTER EDGES; SO WATER WILL FLOW ACROSS THE CENTER AND NOT AROUND THE ENDS.
 - THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER OF THE WEIR SHALL NOT EXCEED 36".
 - SPACING BETWEEN DAMS SHALL BE AS SHOWN IN THE CONSTRUCTION PLANS OR BY THE FOLLOWING TABLE:

DAM HEIGHT	CHECK DAM SPACING			
	CHANNEL SLOPE			
< 5%	5% - 10%	10% - 15%	15% - 20%	
1 FT.	65 FT.	30 FT.	20 FT.	15 FT.
2 FT.	130 FT.	65 FT.	40 FT.	30 FT.
3 FT.	200 FT.	100 FT.	65 FT.	50 FT.

CHECK DAM DETAIL
 SCALE: NONE



- NOTES:
- PLACE GEOTEXTILE OVER THE ENTIRE AREA PRIOR TO PLACING STONE MEETING THE MIN. SPECIFICATIONS:
 - A. TENSILE STRENGTH = 200 LBS.
 - B. PUNCTURE STRENGTH = 80 PSI
 - C. TEAR STRENGTH = 50 LBS.
 - D. BURST STRENGTH = 320 PSI
 - E. ELONGATION = 20%
 - F. EQUIVALENT OPENING SIZE ≤ 0.6 MM
 - G. PERMITTIVITY = 0.001 CM/SEC
 - APPLY ADDITIONAL STONE AS CONDITIONS DEMAND AND REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6". REMOVE AND REPLACE IF STONES BECOMES MUD-LADEN.
 - IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
 - CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR TO PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

CONSTRUCTION ENTRANCE
 SCALE: NONE

STORM WATER POLLUTION PREVENTION PLAN NOTES

- THE EROSION CONTROL MEASURES INCLUDED IN THIS PLAN SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL. SEDIMENT SHALL BE PREVENTED FROM DISCHARGING FROM THE PROJECT SITE BY INSTALLING AND MAINTAINING SILT FENCE, SEDIMENT BASINS, ETC. AS SHOWN ON THIS PLAN. STRUCTURAL PRACTICES SHALL BE USED TO CONTROL EROSION FROM ALL SITES REMAINING DISTURBED FOR MORE THAN 14 DAYS.
- THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIALS, APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL, IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.
- PUBLIC OR PRIVATE ROADWAYS SHALL BE KEPT CLEARED OF ACCUMULATED SEDIMENT. OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD NOTED ON PLAN. BULK CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING THE AREA WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE POINT OF LIKELY ORIGIN OR OTHER SUITABLE LOCATION.
- EXCEPT AS PREVENTED BY INCLEMENT WEATHER CONDITIONS, ALL DISTURBED AREAS OVER 50 FEET AWAY FROM THE STREAM BED TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED BY SEEDING AND MULCHING, COVERING, OR BY OTHER EQUIVALENT EROSION CONTROL MEASURES WITHIN SEVEN (7) DAYS OF THE MOST RECENT DISTURBANCE AND PRIOR TO THE ONSET OF WINTER WEATHER. PERMANENT SOIL STABILIZATION SHALL BE PROVIDED WITHIN 7 DAYS AFTER FINAL GRADE IS ESTABLISHED.
- EXCEPT AS PREVENTED BY INCLEMENT WEATHER CONDITIONS, ALL DISTURBED AREAS WITHIN 50 FEET OF THE STREAM BED TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED BY SEEDING AND MULCHING, COVERING, OR BY OTHER EQUIVALENT EROSION CONTROL MEASURES WITHIN TWO (2) DAYS OF THE MOST RECENT DISTURBANCE AND PRIOR TO THE ONSET OF WINTER WEATHER. PERMANENT SOIL STABILIZATION SHALL BE PROVIDED WITHIN 2 DAYS AFTER FINAL GRADE IS ESTABLISHED.
- DISTURBED AREAS WHICH WILL REMAIN IDLE DURING THE WINTER MONTHS SHALL BE STABILIZED USING SEEDING AND MULCHING. SUCH STABILIZATION MEASURES MUST BE INSTALLED NO LATER THAN NOVEMBER 1.
- THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATION INCLUDED HEREIN. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, WITH THE OWNER. MAINTENANCE SHALL BE IN ACCORDANCE WITH THE "OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006)".
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE "OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006)," AND THE THE OHIO DEPARTMENT OF TRANSPORTATION (O.D.O.T.) STANDARD CONSTRUCTION DRAWING MC-11.
- POST CONSTRUCTION STORM WATER MANAGEMENT: ALL DISTURBED AREAS SHALL HAVE ADEQUATE VEGETATION TO FILTER POLLUTANTS AS MUCH AS PRACTICAL. LOCAL LAWS REGARDING THE DISCHARGING OF OIL AND OTHER POLLUTANTS INTO DRAINAGE-WAYS SHALL APPLY.
- ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED IN ACCORDANCE WITH THE CONDITIONS OF APPLICABLE NPDES PERMITS.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.
- THIS EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
- FIELD ADJUSTMENTS FOR LOCATION AND DIMENSION OF SEDIMENT CONTROL DEVICES MAY BE MADE BY THE ENGINEER AS REQUIRED.
- EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE AT THE END OF THE DAY OR DURING INCLEMENT WEATHER.
- NO SOIL, ROCK, DEBRIS, OR OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SLIP, OR ERODE INTO A WATER RESOURCE UNLESS DUMPING OR PLACING IS AUTHORIZED BY THE ENGINEER AND, WHEN APPLICABLE, THE U.S. ARMY CORPS OF ENGINEERS, FOR SUCH PURPOSES AS, BUT NOT LIMITED TO, CONSTRUCTION BRIDGES, CULVERTS, AND EROSION CONTROL STRUCTURES.
- THE CONTRACTOR IS RESPONSIBLE TO CONFORM TO ALL REGULATORY REQUIREMENTS FOR DISCHARGING WATER RELATED TO DE-WATERING ACTIVITIES. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE COST OF ITEM 503 - COFFERDAMS, CRIBS AND SHEETING.
- SEDIMENT PONDS/TRAPS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.
- EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 6% GRADE.
- REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN.
- MARK LIMITS OF CLEARING AND GRUBBING FOR APPROVAL PRIOR TO CONSTRUCTION. AFTER CLEARING, BUT BEFORE GRUBBING, INSTALL ALL INITIAL EROSION CONTROL ITEMS. AFTER GRUBBING, BUT BEFORE TOPSOIL STRIPPING AND GRADING, INSTALL CONSTRUCTION FENCING AT THE CLEARING LIMIT LINE.
- PROTECT UNDISTURBED AREAS THROUGHOUT CONSTRUCTION. DO NOT STORE EQUIPMENT, VEHICLES OR MATERIALS IN THE PROTECTED AREA BEYOND THE CONSTRUCTION FENCE.

- OFF-SITE VEHICLES TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.
- OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- THE CONTRACTOR SHALL MAINTAIN AN SWPPP INSPECTION LOG IN THE FIELD.
- ALL CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL, AS REQUIRED BY OHIO REVISED CODE (ORC) 3714.
- NO TURBID STORM WATER MAY BE DISCHARGED OFF SITE.
- THE CONTRACTOR SHALL CREATE A SIGN THAT WILL BE DISPLAYED ON SITE LABELING THE STEPS FOR SMALL AND LARGE OIL SPILL PROCEDURES. A SPILL RESPONSE KIT SHALL BE MAINTAINED ON THE SITE. THE SIGNAGE SHALL IDENTIFY WHERE THE KIT IS LOCATED.
- (SMALL RELEASE) ANY DISCHARGE OF PETROLEUM OR PETROLEUM PRODUCTS OF LESS THAN 25 GALLONS ONTO A PERVIOUS SURFACE SHALL BE LEGALLY REMOVED AND PROPERLY TREATED OR PROPERLY DISPOSED OF, OR OTHERWISE REMEDIATED, SO THAT NO CONTAMINATIONS FROM THE DISCHARGE REMAINS ON-SITE. THE CONTRACTOR SHALL FOLLOW THE STEPS PROVIDED BELOW:
 - SPILLS LESS THAN 25 GALLONS THAT REMAINS ON SITE DOES NOT NEED TO BE REPORTED.
 - ALL SPILLS SHALL BE CONTAINED USING STRAW TO ABSORB THE LIQUID, A COMMERCIAL MATERIAL THAT IS CAPABLE OF ABSORBING OIL IN SOILS, MECHANICAL REMOVAL OR A VACUUM PUMP.
 - ONCE THE SPILL HAS BEEN CONTAINED, THE AFFECTED SOIL, MATERIAL AND/OR LIQUID SHALL BE LEGALLY DISPOSED OF IN A MUNICIPAL SOLID WASTE LANDFILL PERMITTED BY THE OHIO EPA.
- (LARGE RELEASE) IN THE EVENT OF A LARGE RELEASE (25 OR MORE GALLONS) OF PETROLEUM WASTE, THE CONTRACTOR MUST CONTACT THE OHIO EPA AT 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS. THE CONTRACTOR SHALL FOLLOW THE STEPS PROVIDED BELOW:
 - ALL SPILLS GREATER THAN 25 GALLONS NEEDS TO BE REPORTED.
 - ALL SPILLS SHALL BE CONTAINED USING STRAW TO ABSORB THE LIQUID, A COMMERCIAL MATERIAL THAT IS CAPABLE OF ABSORBING OIL IN SOILS, MECHANICAL REMOVAL OR A VACUUM PUMP. IF THE SPILL IS HEADING TOWARD SURFACE OR GROUND WATER, THE CONTRACTOR SHALL SET BOOMS AS CLOSE TO THE WATER ENTRY POINT OF THE SPILL AS POSSIBLE.
 - ONCE THE SPILL HAS BEEN CONTAINED, THE AFFECTED SOIL, MATERIAL AND/OR LIQUID SHALL BE LEGALLY DISPOSED OF IN A MUNICIPAL SOLID WASTE LANDFILL PERMITTED BY THE OHIO EPA.

- APPLY MULCH OR OTHER APPROPRIATE VEGETATIVE PRACTICES TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT FOR MORE THAN 45 DAYS OR ON AREAS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - UNROTTED SMALL-GRAIN STRAW APPLIED AT A RATE OF 2 TONS/AC. OR 90 LB/1,000 S.F. (2 TO 3 BALES) AND SPREAD UNIFORMLY BY HAND OR MECHANICALLY.
 - WOOD-CELLULOSE FIBER APPLIED AT A RATE OF 2,000 LB/AC. OR 46 LB/1,000 S.F.
 - MULCH MATTING.
 - WOOD CHIPS APPLIED AT 6 TONS/AC.
- ANCHOR MULCH IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. ACCEPTABLE ANCHORING METHODS ARE:
 - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6 INCHES.
 - USE NETTING PER THE MANUFACTURER RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
 - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC. WOOD CELLULOSE FIBER IS TO BE MIXED WITH WATER AND THE MIXTURE IS TO CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL

SCALE: NONE

MULCHING DETAIL

SCALE: NONE

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/1,000 S.F.	PER AC.
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
August 16 to November 1	Perennial Ryegrass	2	40 lb.
	Tall Fescue	1	40 lb.
	Rye	3	2 bushel
November 1 to Spring Seeding	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Perennial Ryegrass	2	40 lb.
	Tall Fescue	1	40 lb.
Use mulch only, sodding practices or dormant seeding.			

TEMPORARY SEEDING DETAIL

SCALE: NONE

SPECIFICATIONS FOR PERMANENT SEEDING SITE PREPARATION:

- A SUBSOILER, PLOW OR OTHER IMPLEMENT TO BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. SUBSOILING TO BE DONE WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT TO BE DONE ON SLIP-PRONE AREAS.
- GRADE THE SITE AS NEEDED TO PERMIT USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
- APPLY REISOIL WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION:

- APPLY AGRICULTURAL GROUND LIMESTONE TO ACIDIC SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT RATE OF 100 LB/1,000 S.F. OR 2 TONS/AC.
- APPLY FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT A RATE OF 12 LB/1,000 S.F. OR 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS.
- LIME AND FERTILIZER TO BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3".

SEEDING DATES AND SOIL CONDITIONS:

- SEED MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. THESE ARE IDEAL SEEDING DATES, BUT SEEDING MAY BE MADE ANY TIME THROUGHOUT THE GROWING SEASON WITH THE USE OF ADDITIONAL MULCH AND IRRIGATION. TILLAG/SEED BED PREPARATION TO BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEE THE FOLLOWING SECTION ON DORMANT SEEDING FOR WINTER SEEDING.

DORMANT SEEDINGS:

- DO NOT PLANT SEEDINGS FROM OCTOBER 1 TO NOVEMBER 20. SEEDS ARE LIKELY TO GERMINATE DURING THIS PERIOD, BUT PROBABLY WILL NOT SURVIVE THE WINTER.
- THE FOLLOWING METHODS MAY BE USED:
 - FROM OCTOBER 1 TO NOVEMBER 20, PREPARE THE SEED BED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20 AND BEFORE MARCH 15, INCREASE THE SEEDING RATES BY 50% AND BROADCAST THE SEED MIXTURE.
 - FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEED BED, LIME AND FERTILIZER, APPLY THE SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
 - APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDED (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON FIRM, MOIST SEED BED.
 - WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEED BED IS TO BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG.

IRRIGATION:

- PERMANENT SEEDING TO INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED FOR ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.
- EXCESSIVE IRRIGATION RATES TO BE AVOIDED AND IRRIGATION MONITORED TO PREVENT EROSION AND DAMAGE FROM RUNOFF.

PERMANENT SEEDING DETAIL

SCALE: NONE

MULCHING:

- APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FLAT AREAS WITH FAVORABLE SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE STABILIZATION. DORMANT SEEDING IS TO BE MULCHED.

SPECIFICATIONS FOR MAINTENANCE OF PERMANENT SEEDING:

- PERMANENT SEEDING TO NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. SEEDED AREAS TO BE INSPECTED FOR FAILURE AND VEGETATION REESTABLISHED AS NEEDED. DEPENDING ON SITE CONDITIONS, IT MAY BE NECESSARY TO IRRIGATE, FERTILIZE, OVERSEED, OR REESTABLISH PLANTINGS IN ORDER TO PROVIDE PERMANENT VEGETATION FOR ADEQUATE EROSION CONTROL.
- ESTABLISH MAINTENANCE FERTILIZATION RATES BY SOIL TEST RECOMMENDATIONS OR USING THE FOLLOWING RATES:

SEED MIX	SEEDING RATE		NOTES:
	LB./AC.	LB./1,000 S.F.	
GENERAL USE			
Creeping Red Fescue	20-40	1/2 TO 1	
Domestic Ryegrass	10-20	1/4 TO 1/2	
Kentucky Bluegrass	10-20	1/4 TO 1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	

STEEP BANKS OR CUT SLOPES			
Tall Fescue	40	1	
Crown Vetch	10	1/4	Do not seed later than August
Tall Fescue	20	1/2	
Flat Pea	20	1/2	Do not seed later than August
Tall Fescue	20	1/2	

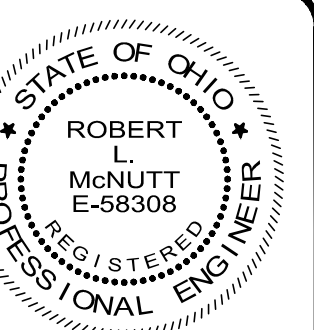
ROAD DITCHES AND SWALES			
Tall Fescue	40	1	
Dwarf Fescue	90	2-1/4	Do not seed later than August
Kentucky Bluegrass	5		

LAWN			
Kentucky Bluegrass	60	1-1/2	
Perennial Ryegrass	60	1-1/2	
Kentucky Bluegrass	60	1-1/2	For shaded areas
Creeping Red Fescue	60	1-1/2	

Note: Other approved seed species may be substituted.

MAINTENANCE FOR PERMANENT SEEDINGS FERTILIZATION AND MOWING				
MIXTURE	FORMULA	LB./AC.		MOWING
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	10-10-10	500		≥3"
Tall Fescue	10-10-10	500	Fall, yearly or as needed	≥4"
Dwarf Fescue	10-10-10			≥2"
Crown Vetch Fescue	0-20-20		Spring, yearly following establishment, then every 4-7 years	Do not mow
Flat Pea Fescue	0-20-20	400		

Note: Following soil test recommendations is preferred to the fertilizer rates above.



NO	REVISION	DATE	AS NOTED		
			SCALE:	DATE:	DESIGNED BY:
			6/21/24	RLM	RLM
				RLM	RLM
				RLM	RLM

VILLAGE OF GENEVA-ON-THE-LAKE
SANITARY SEWER TRUNK LINE REPLACEMENT
OHIO
ASHTABULA COUNTY
SWPPP - SW SERIES
SWPPP DETAILS & NOTES

PROJECT NO:	
231183	
DRAWING NAME	
SW-02	
SHEET	OF
29	29