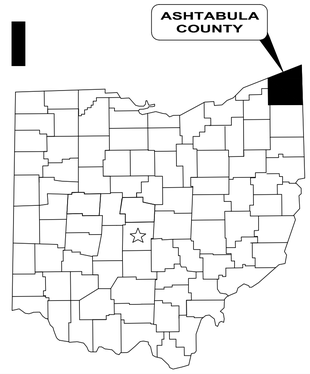
CITY OF CONNEAUT

OLD MAIN STREET
BRIDGE AREA IMPROVEMENTS
WATERLINE RELOCATION - PHASE I

CONNEAUT, OHIO

APRIL 2026 RE-BID

LOCATION MAP
NOT TO SCALE



CONNEAUT COUNCIL:

TERRY MOISIO, JR.	PRESIDENT
RICK GAUGH	WARD 1
CHRIS CASTRILLA	WARD 2
OAKEY EMERY	WARD 3
TOM KOZESKY	WARD 4
MARIANA BRANCH	COUNCIL AT LARGE
NICK PERKOSKI	COUNCIL AT LARGE
JENNIFER HOOVER	CLERK OF COUNCIL

OFFICIALS:

NICK SANFORD	CITY MANAGER
JOHN WILLIAMS	FINANCIAL DIRECTOR
MICHAEL BERTOLASIO	CHIEF OF POLICE
STEVEN LEE	FIRE CHIEF

OHIO811.org Before You Dig

Ticket No. B408900846-00B
Ticket No. B408900847-00B

1. 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.

2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

ENBRIDGE GAS OHIO
KENNETH CONANT
ATTN: 2ND FLOOR RELOCATION DESIGN
320 SPRINGSIDE DR, SUITE 320
AKRON, OH 44333
330.664.2409
kenneth.conant@enbridge.com

FIRST ENERGY
ROBERT WILSON
2231 WEST MARKET STREET
WARREN, OH 44485
330.314.8797
robert.wilson@firstenergycorp.com

GREATWAVE COMMUNICATIONS
224 STATE ST. CONNEAUT, OH 44030
440.593.7140
info@greatwavecom.com

CITY OF CONNEAUT [WATER]
CALEB RZESZUTEK - WATER DISTRIBUTION MANAGER
513 CLARK ST, CONNEAUT, OH 44030
440.593.7435
waterdist@conneautoh.org

CITY OF CONNEAUT [WASTEWATER]
BRIAN BIDWELL - SUPERINTENDENT
1206 BROAD ST. EXT. CONNEAUT, OH 44030
440.593.7434
ww1@conneautoh.org

CITY OF CONNEAUT [PUBLIC WORKS]
JOE DIBELL - MANAGER
1200 INNOVATION WAY, CONNEAUT, OH 44030
440.593.7430
PWD3@conneautoh.org

verdantas

8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

ENGINEER'S PROJECT No. 241632

APPROVALS:

CALEB RZESZUTEK, DISTRIBUTION MANAGER — DATE: 01-28-2026

NICK SANFORD, CITY MANAGER — DATE: 01-28-26

OFFICE:

THE CITY OF CONNEAUT
294 MAIN STREET
CONNEAUT, OH 44030

(440) 594-7401 PHONE
(440) 593-6908 FAX

PROJECT SITE:

LOCATED ON OLD MAIN STREET UNDERNEATH CONNEAUT CREEK

ENGINEER:

VERDANTAS
3875 EMBASSY PARKWAY
SUITE 200
AKRON, OH 44333

(330) 375-0800 PHONE
(330) 665-0620 FAX

PROJECT DESCRIPTION:

THE SCOPE INCLUDES THE RELOCATION OF AN EXISTING WATERLINE THAT IS NORTH OF THE OLD MAIN STREET BRIDGE. THE LINE WILL BE APPROXIMATELY 500-LF OF NEW 12" ID DUCTILE IRON WATERLINE. 310-LF IS TO BE INSTALLED BY JACK AND BORE UNDER THE CONNEAUT CREEK.

Robert L McNutt, PE — 4/23/26

ROBERT L. MCNUTT P.E. — P.E. No. — DATE

STATE OF OHIO · ROBERT L. McNUTT E-58308 · REGISTERED PROFESSIONAL ENGINEER

verdantas

ISSUED FOR:	BID
ISSUE DATE:	11/11/2025
SCALE:	AS SHOWN
DESIGNED BY:	PAB
DRAWN BY:	MMB
CHECKED BY:	RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

COVER SHEET

PROJECT NO.	41632
DISCIPLINE	GENERAL
SHEET NAME	00G-01
SHEET	1
OF	10

Z:\PROJECT FILES\CA-DZ\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATER\CAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - COVER SHEET.DWG - 2/2/2026 11:01:24 AM - PATRICK BLAKE

SERIES No:	DESCRIPTION:
00	GENERAL
01	WATER TOWER SITE
10	WATER TOWER FACILITY
20	WATER TREATMENT PLANT IMPROVEMENTS
30	CONSTRUCTION DETAILS
E	ELECTRICAL
SWP3	STORM WATER POLLUTION PREVENTION PLAN - SWP3 SERIES

IDENTIFIER:	DISCIPLINE:
G	GENERAL
C	CIVIL
S	STRUCTURAL
A	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (PLUMBING & HVAC)
E	ELECTRICAL
Y	INSTRUMENTATION

GENERAL SYMBOLOGY NOTES:

1. THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOGY.
2. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
3. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE NEW IMPROVEMENTS SO AS TO HIGHLIGHT SPECIFIC TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
4. SYMBOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS, SCHEMATICS OR EQUIPMENT.

DRAWING CODED NOTE TYPES:

1. VERDANTAS CONTRACTUAL NOTES ARE DEPICTED WITH A HEXAGON, SQUARE, CIRCLE OR TRIANGLE. ALL OTHER EXISTING WRITTEN CALLOUTS SHOWN ON THE REUSED SCANNED PLANS, SECTIONS & DETAILS ARE FOR EXISTING CONDITIONS AND REFERENCE ONLY, MANY OF THOSE NOTES FROM THE SCANNED DRAWINGS PERTAIN TO PREVIOUS WORK DONE.

DEMOLITION CODED NOTES:

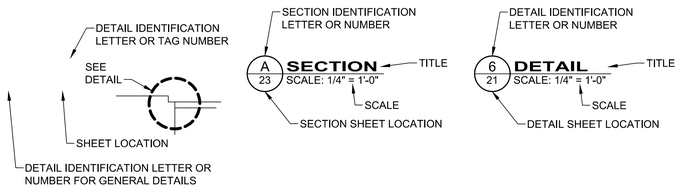
DEMOLITION DESCRIPTION

DEMOLITION DESCRIPTION

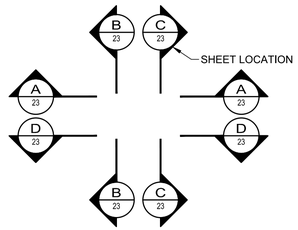
REFERENCE DIMENSION:

12'-4" (REF.)

REFERENCE DIMENSIONS ARE GIVEN FOR INFORMATION ONLY. THEY ARE CALCULATED DIMENSIONS NOT INTENDED TO BE USED WITHOUT FIELD VERIFICATION AND ARE USEFUL IN SHOWING INTENDED DESIGN.



MAJOR SECTION CUT CONVENTIONS:



AR	AIR RELEASE VALVE
AV	AIR & VACUUM VALVE
BA	BALL VALVE
BFV	BUTTERFLY VALVE
BK	BACKPRESSURE VALVE
BM	BENCH MARK
BP	BACKFLOW PREVENTER
CB	CATCH BASIN
CL	CENTER LINE
CO	CONE VALVE
CPP	CORRUGATED PLASTIC PIPE
CV	CHECK VALVE
DIP	DUCTILE IRON PIPE
E	EASTING
EG	EXISTING GRADE
EL	ELEVATION
EX	EXISTING
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLANGED
FRP	FIBERGLASS REINFORCED PLASTIC
FTG	FITTING
GL	GLOBE VALVE
GS	GALVANIZED STEEL
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
KG	KNIFE GATE VALVE
KN	KNIFE VALVE
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MV	MUD VALVE
N	NORTHING
OH	OVERHEAD
PD	PLUG DRAIN VALVE
PF	PRESSURE RELIEF
PG	PRESSURE REGULATOR
PI	PINCH VALVE
PR	PROPOSED
PRV	PRESSURE REDUCING VALVE
PT	PRESSURE TEMPERATURE RELIEF
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE PIPE
R/W	RIGHT OF WAY
RJ	RESTRAINED JOINT
SAN	SANITARY
SCH	SCHEDULE
SB	SOIL BORING
SDR	STANDARD DIMENTER RATIO
SS	STAINLESS STEEL
STA	STATION
STL	STEEL PIPE
STM	STORM
SU	SURGE VALVE
SV	SOLENOID VALVE
TYP	TYPCIAL
UG	UNDERGROUND
VB	VALVE BOX
WAT	WATER
WV	WATER VALVE

SITE SYMBOL LEGEND:

EX:	PR:	
MB	MB	POST, MAILBOX
		POST, SIGN
		POST, SIGN - DOUBLE
		POST, SIGN - DUAL
		GEOTECH - SOIL BORING
		BUSH
		TREE, DECIDUOUS
		TREE, EVERGREEN
		TREE, STUMP
		NAIL - MAG
		PIN - IRON
		PIPE - IRON
		SPIKE
GM	GM	GAS METER
		GAS VALVE
		GAS VENT
		POLE - ELECTRIC (POWER)
		POLE - GENERAL
		POLE - GUY
		POLE - GUY ANCHOR
		POLE - LIGHT
		SANITARY CLEAN-OUT
		SANITARY MANHOLE - 48"
		SANITARY VENT
		CATCH BASIN - 2X2
		CURB INLET - 2X3
		STORM CLEAN-OUT
		STORM DRAIN
		STORM MANHOLE - 48"
		WATER HYDRANT, FDC
		WATER HYDRANT, FIRE
WV	WV	WATER VALVE W/TEXT

SITE LINE LEGEND:

EX:

- EX. R/W — RIGHT-OF-WAY
- PROPERTY LINE
- BUILDING OUTLINES
- 650 — CONTOURS - MAJOR
- 648 — CONTOURS - MINOR
- SLOPE LINE
- SLOPE - BREAKLINE
- SLOPE - TOP
- SLOPE - TOE
- WATER CENTERLINE
- WATER EDGE
- EDGE OF ROAD
- FENCE - GENERAL
- FENCE - CHAIN LINK
- GUIDE RAIL
- TREE LINE
- ELEC — ELECTRIC LINE
- ELEC-OH — ELECTRIC LINE - OH
- ELEC-UG — ELECTRIC LINE - UG
- GAS — GAS LINE
- GS — GAS SERVICE
- SAN — SANITARY LINE
- STM — STORM LINE
- WAT — WATER LINE
- WS — WATER SERVICE

PR:

- UTIL-OH — UTILITY LINE - OH
- UTIL-UG — UTILITY LINE - UG
- US — UTILITY SERVICE
- US-OH — UTILITY SERVICE - OH
- US-UG — UTILITY SERVICE - UG
- TEL-OH — TELEPHONE LINE - OH
- TEL-UG — TELEPHONE LINE - UG
- ELEC-OH — ELECTRIC LINE - OH
- ELEC-UG — ELECTRIC LINE - UG
- GAS — GAS LINE
- GS — GAS SERVICE
- SANITARY LINE
- SS — SANITARY SERVICE
- STORM LINE
- WAT — WATER LINE
- WS — WATER SERVICE
- UTILITY WITH CASING PIPE
- CENTERLINE
- DRIVE CENTERLINE
- PAVEMENT SAWCUT
- GUIDE RAIL
- FENCE - BARB WIRE
- FENCE - CHAIN LINK
- DITCH CENTERLINE
- STORM CULVERT LINE
- EDGE OF PAVEMENT
- CENTERLINE
- PERMANENT CONSTRUCTION EASEMENT LINE (PCE)
- TEMPORARY CONSTRUCTION EASEMENT LINE (TCE)
- WORK LIMITS

Sheet List Table

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10	SWPPP DETAILS 2	00G-10

STATE OF OHIO — ROBERT L. McNUTT E-58308 — REGISTERED PROFESSIONAL ENGINEER

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ISSUED FOR: BID
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CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

LEGENDS SYMBOLOGY & SHEET INDEX

PROJECT NO. 41632
DISCIPLINE: GENERAL
SHEET NAME: 00G-02
SHEET 2 OF 10

Z:\PROJECT FILES\CA-DZ\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATER\CAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - LEGENDS SYMBOLOGY & SHEET INDEX.DWG - SHEET NAME - 1/27/2026 11:08:03 AM - PATRICK BLAKE

1. PROHIBITED CONSTRUCTION ACTIVITIES

1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;
2. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS;
3. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;
4. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE;
5. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;
6. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM;
7. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA;
8. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;
9. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT;
10. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, 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;
11. 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;
12. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER;
13. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS; AND
14. NO 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:

    - BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;

    - BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR

    - BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

2. MITIGATIVE MEASURES

EROSION/SEDIMENT CONTROL

1. SITE CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL SUCH TIME THAT THE CONTRACTOR IS PREPARED TO START CONSTRUCTION. REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION OF ACTUAL FACILITIES; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.
2. IMMEDIATELY FOLLOWING SITE AND ACCESS CLEARING, TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED. THEY WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION UNTIL FINAL SEEDING AND SITE RESTORATION OCCURS.
3. SILT FENCES SHOULD BE TRENCHED SIX TO TWELVE INCHES DEEP, THE FABRIC LAID IN THE TRENCH, AND THE SOIL PROPERLY BACKFILLED INTO THE TRENCH TO PREVENT UNDERCUTTING.
4. WHERE TRENCH EXCAVATION OCCURS PARALLEL TO ANY WATERWAY, A VEGETATED BARRIER SHOULD BE MAINTAINED BETWEEN THE STREAM AND THE CONSTRUCTION SITE. ALL TRENCH SPOILS WILL BE STOCKPILED ON THE SIDE OF THE TRENCH AWAY FROM THE WATERWAY, AND A LINE OF SILT BARRIERS WILL BE ESTABLISHED ALONG THE EDGE OF CONSTRUCTION ON THE CONTOUR BETWEEN THE TRENCH AND THE WATERWAY.
5. NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY GIVEN TIME. TRENCH OPENING AND LAYING OF PIPE SHOULD OCCUR SO AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA. ALL TRENCHES ARE TO BE BACKFILLED AND COMPACTED IMMEDIATELY AFTER PIPE INSTALLATION. IMMEDIATELY FOLLOWING THE BACKFILLING OF THE TRENCH, THE GROUND SURFACE WILL BE ROUGH GRADED TO THE EXISTING CONTOURS TO ALLOW FOR PROPER DRAINAGE, AND WILL BE SEEDED AND/OR MULCHED IN STAGES TO PREVENT EROSION.
6. ANY DISTURBED AREA THAT WILL NOT BE ACTIVELY UNDER CONSTRUCTION FOR A PERIOD OF 15 DAYS OR MORE WILL BE TEMPORARILY STABILIZED IMMEDIATELY BY SEEDING AND MULCHING OR BY ANCHORED STRAW MULCH.
7. AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA IN STAGES WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO OHIO EPA (OR EQUIVALENT) STANDARDS AND SPECIFICATIONS. FINAL GRADING WILL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY FOR DRAINAGE AND AESTHETIC REASONS.
8. EXCAVATION PITS SHALL BE SURROUNDED WITH SILT BARRIERS TO PREVENT EROSION OF THE EXCAVATED PIT MATERIAL. STORM SEWER INLETS WILL BE SURROUNDED WITH SILT BARRIERS TO PREVENT SILTATION.
9. SLOPES EXCEEDING 15 PERCENT OR THAT TEND TO BE UNSTABLE REQUIRE SPECIAL TREATMENT SUCH AS WATER DIVERSION BERMS, SODDING, OR THE USE OF JUTE OR EXCELSIOR BLANKETS.
10. WHEN BORROW MATERIAL IS OBTAINED FROM OTHER THAN COMMERCIALLY OPERATED SOURCES, EROSION OF THE BORROW SITE WILL BE SO CONTROLLED BOTH DURING AND AFTER COMPLETION OF THE WORK THAT EROSION WILL BE MINIMIZED AND SEDIMENT WILL NOT ENTER STREAMS OR OTHER BODIES OF WATER. WASTE OR DISPOSAL AREAS AND CONSTRUCTION ROADS SHALL BE LOCATED AND CONSTRUCTED IN A MANNER THAT WILL KEEP SEDIMENT FROM ENTERING STREAMS. TEMPORARY EROSION CONTROL BARRIERS AND LIMITED SITE CLEARING WILL BE USED AS NEEDED.
11. IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROLS IN GOOD OPERATING CONDITION DURING THE SUSPENSION OF THE WORK. ALSO, WHEN SEASONAL CONDITIONS PERMIT AND THE SUSPENSION OF WORK IS EXPECTED TO EXCEED A PERIOD OF ONE MONTH, THE CONTRACTOR SHALL SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS LEFT EXPOSED WHEN THE WORK IS STOPPED.
12. INSTALL THE ABOVE EROSION AND SEDIMENT CONTROL MEASURES, AS APPROPRIATE, REFERRING TO OHIO EPA, STORM WATER TECHNICAL ASSISTANCE, RAINWATER AND LAND DEVELOPMENT MANUAL STANDARDS AND SPECIFICATIONS (FORMERLY ODNR) OR EQUIVALENT FOR PARTICULAR TECHNIQUES. THESE MEASURES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
    LINK:
    HTTP://EPA.OHIO.GOV/PORTALS/35/STORM/TECHNICALASSISTANCE/RLD11-6-14All.pdf

3. MITIGATIVE MEASURES - CONTINUED

TRAFFIC CONTROL

1. AT LEAST ONE LANE OF TRAFFIC MUST BE MAINTAINED ALONG THE TRAVEL ROUTE TO THE CONSTRUCTION SITE.
2. ACCESS MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES.
3. NO TRENCH WILL BE LEFT OPEN AT THE END OF A WORK DAY, WHERE PRACTICAL; ANY OPEN TRENCH WILL BE PROPERLY IDENTIFIED AND BARRICADED FOR SAFETY PURPOSES.
4. ANY CONSTRUCTION EQUIPMENT OR EXCAVATIONS NEAR ROADS MUST BE MARKED WITH LIGHTS, REFLECTORS, OIL LANTERNS, OR SMUDGE POTS.
5. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, DANGER SIGNALS, FLAG PERSON(S), WATCHERS, AND ALL OTHER APPROPRIATE PRECAUTIONS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR SAFETY.
6. PRIOR TO CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE, OR BOULEVARD, THE CONTRACTOR MUST HAVE CONSENT FROM LOCAL OFFICIALS AND THE ENGINEER.

AIR POLLUTION / NOISE CONTROL

7. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAYTIME HOURS.
8. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
9. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
10. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.
11. UNPAVED AREAS WILL BE WET DOWN (AS NECESSARY) DURING CONSTRUCTION TO MINIMIZE DUST GENERATION.

TREE / VEGETATION PROTECTION

12. TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHEREVER POSSIBLE.
13. NO TREE REMOVAL WILL BE PERMITTED OUTSIDE THE TEMPORARY EASEMENT WITHOUT PERMISSION OF THE ENGINEER.
14. TREES WHICH ARE NOT REMOVED WILL BE PROTECTED BY ENSURING THAT TREES TO BE REMOVED ARE FELLED SO AS NOT TO INJURE THE REMAINING TREES.
15. PRIOR TO CLEARING, THE CONTRACTOR AND ENGINEER, SHALL WALK THE ACQUIRED EASEMENTS IN AN EFFORT TO DESIGNATE THE TREES THAT ARE TO BE SAVED. TREES TO BE SAVED WILL BE CLEARLY MARKED BY PAINT WITH THE LETTER "S". TREES TO BE PROTECTED BY AN APPROPRIATE BARRIER SHALL BE MARKED WITH AN "S" ENCLOSED IN A CIRCLE.
16. SOIL AND OTHER MATERIAL WILL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.
17. PRESERVATION OF LANDSCAPING SHOULD TAKE PRECEDENCE OVER REMOVAL. IF REMOVAL OR DAMAGE IS UNAVOIDABLE, EXISTING VEGETATION SHOULD BE REPAIRED OR REPLACED "IN-KIND" UNLESS THE HOMEOWNER SPECIFIES OTHERWISE.
18. IF TREES/SHRUBS CANNOT BE REPLACED IN THE SAME LOCATION DUE TO INSTALLATION OF IMPROVEMENTS, RELOCATION SHOULD BE CONSIDERED.
19. THE CONTRACTOR'S ARBORIST SHALL REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING VEGETATION BY PROPERLY DRESSING, CUTTING, BRACING AND PAINTING, USING ONLY APPROVED TREE SURGERY METHODS, TOOLS, AND MATERIALS.
20. SELECTIVE PRUNING OF TREE LIMBS PRIOR TO INITIATION OF CONSTRUCTION SHOULD ONLY BE USED WITHIN ESTABLISHED EASEMENTS WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.
21. LIMIT THE USE OF RIP-RAP TO AREAS WHERE STREAM FLOW CONDITIONS PREEMPT VEGETATIVE STABILIZATION.

DEWATERING

22. ALL DEWATERING FLOWS ARE TO BE SETTLED IN SILTATION BASINS OR DIRECTED THROUGH FILTERING DEVICES BEFORE DISCHARGE TO STABILIZED SITES, SUCH AS STREAMS OR STORM SEWERS; NOT ONTO EXPOSED SOILS, STREAM BANKS, OR ANY OTHER SITE WHERE THE FLOW COULD CAUSE EROSION.
23. SILT FROM CONSTRUCTION OPERATIONS SHALL NOT BE PERMITTED TO ENTER THE STORM SEWER SYSTEM. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, EROSION CONTROL MEASURES SUCH AS INLET FILTERS AND HAY BALES SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM SEWERS.
24. CONVEY WATER FROM THE CONSTRUCTION SITE IN A CLOSED CONDUIT. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.

ARCHAEOLOGICAL / HISTORICAL RESOURCES

25. CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53, TO NOTIFY THE 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.

    CONTACT: OHIO STATE HISTORIC PRESERVATION OFFICE
    DIANA WELLING, RESOURCE PROTECTION & REVIEW DEPARTMENT MANAGER
    PHONE: 1-614-298-2000
    EMAIL: DWELLING@OHIOHISTORY.ORG

GROUND WATER AND DRINKING WATER PROTECTION

26. REPORT ALL SPILLS TO THE APPLICANT AND TO THE OHIO EPA SPILL HOTLINE AT 1-800-282-9378.
27. POST THE OHIO EPA EMERGENCY SPILL HOTLINE NUMBER (1-800-282-9378) AT THE PROJECT SITE.

STATE OF OHIO
ROBERT L. McNUTT
E-58308
REGISTERED
PROFESSIONAL ENGINEER

verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

OEPA GENERAL NOTES

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME
00G-03
SHEET 3 OF 10

Z:\PROJECT FILES\CA-DZ\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATERCAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - OEPA GENERAL NOTES.DWG - SHEET NAME - 1/27/2026 11:08:29 AM - PATRICK BLAKE

GENERAL:

1. THE STANDARD SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, LATEST EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS SHALL GOVERN ALL WORK NOT COVERED BY THESE DRAWINGS. ALL WORK CONTEMPLATED SHALL BE COVERED BY THE PROJECT SPECIFIC CONTRACT DOCUMENTS.

2. THE CONTRACTOR SHALL PERFORM ALL OF THE WORK AND FURNISH ALL OF THE LABOR AND MATERIALS NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.

3. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONNEAUT A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING. NO WORK SHALL BEGIN UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD.

4. A PRE-CONSTRUCTION VIDEO TAPE OF THE PROJECT AREA WILL BE REQUIRED AND SUBMITTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.

5. ACCESS TO ALL DRIVEWAYS WILL BE MAINTAINED AT ALL TIMES EXCEPT THE TIME WHEN UTILITY INSTALLATION AND PAVEMENT REPLACEMENT WILL NOT PERMIT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE CITY WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER.

7. ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUBCONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY SYMBOL.

8. BEFORE THE CITY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH THE CITY OF CONNEAUT A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.

9. MATERIALS FOR "AS-DIRECTED" ITEMS SHALL NOT BE ORDERED OR DELIVERED TO THE PROJECT SITE OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.

10. ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR CHECKING.

11. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONNEAUT POLICE AND FIRE DEPARTMENTS AND THE CITY MANAGER'S OFFICE AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

12. THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPERBOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRATOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.

13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE OWNER, WATER OR CALCIUM CHLORIDE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL. THE COST OF DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.

13. ALL SOIL AREAS DISTURBED SHALL BE TOPSOILED (4" THICK), SEEDED AND MULCHED. ALL TOPSOIL WORK INSIDE THE STREET RIGHT-OF-WAY SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT.

15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED CONDUIT. ANY ADJUSTMENTS NEEDED SHALL BE APPROVED BY THE ENGINEER.

EXCESS EXCAVATION:

1. ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY OF CONNEAUT IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL CONSTRUCTION MATERIALS/DEBRIS.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS:

1. THE CONTRACTOR WILL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

SUBSURFACE CONDITIONS:

1. A STRUCTURE FOUNDATION EXPLORATION REPORT WAS PREPARED BY CT CONSULTANTS, A VERDANTAS COMPANY OCTOBER 27, 2025. THIS DOCUMENT WILL BE INCLUDED WITHIN CONTRACT DOCUMENTS FOR USE AS A REFERENCE. IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID.

STATIONING AND LOCATIONS:

1. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

PROTECTION AGAINST VANDALISM:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND / OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST.

EXCAVATION, BACKFILL, AND COMPACTION:

1. ALL UTILITY LINES (i.e. STORM SEWERS, STORM LATERALS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OBT CONDUITS, CABLE T.V. LINES) CROSSING THE PROPOSED IMPROVEMENTS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.

SALVAGED ITEMS:

1. THE CITY OF CONNEAUT SHALL RECEIVE ALL SALVAGED ITEMS SUCH AS MANHOLE CASTINGS, FIRE HYDRANTS, VALVE CAPS, ETC. THE CITY OF CONNEAUT HAS THE RIGHT OF FIRST REFUSAL FOR ALL STEEL REMOVED FROM THE PROJECT.

WATER MAIN SPECIFICATIONS & NOTES:

1. WATER MAINS SHALL BE DUCTILE IRON PIPE, CEMENT LINED, AND MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C151/A21.51 WITH A THICKNESS CLASS OF 52. ALL PIPES, UNLESS OTHERWISE SPECIFIED, SHALL BE FURNISHED WITH PUSH-ON TYPE JOINTS, SUCH AS TYTON OR FASTITE WITH RESTRAINED TYPE JOINTS PROVIDED WITHIN THE LENGTHS NOTED ON THE DRAWING, AND BE IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.

   RESTRAINED PUSH-ON JOINTS SHALL BE COMPLETELY BOLTLESS; U.S. PTR FLEX, OR AS APPROVED. RESTRAINED MECHANICAL JOINTS SHALL BE MEGALUG AS MANUFACTURED BY EBAA IRON, INC., OR AS APPROVED, OF DUCTILE IRON AND WITH A WORKING PRESSURE OF AT LEAST 200 PSI AND A MINIMUM SAFETY FACTOR OF 2:1. MINIMUM LENGTH OF CUT PIECES OF WATER MAIN THAT MAY BE REUSED IS 5 LF.

2. FITTINGS SHALL BE DUCTILE IRON AND MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53 (FOR COMPACT FITTINGS). ALL FITTINGS AND ACCESSORIES SHALL BE FURNISHED WITH MECHANICAL TYPE JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.

   2.1. ALL FITTINGS, BENDS, TEES, PLUGS, ETC. SHALL BE TIED TO THE WATER MAIN WITH EITHER M.J. TYPE CONNECTIONS, TIE RODS OR MEGA-LUGS. TIE RODS SHALL BE 3/4" DIAMETER STAINLESS STEEL. FOR 8" DIAMETER PIPE USE FOUR RODS.

3. POLYETHYLENE ENCASEMENT SHALL BE AN 8 MIL. THICK POLYETHYLENE TUBE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5. POLYETHYLENE ADHESIVE TAPE, 2" WIDE, SHALL BE USED TO SEAL ALL JOINTS.

4. GATE VALVES SHALL BE RESILIENT SEAT, NON-RISING STEM WITH MECHANICAL JOINT TYPE ENDS WHICH MEET THE REQUIREMENTS OF AWWA C509. MECHANICAL JOINT ENDS SHALL COMPLY WITH AWWA C111; EXCEPT FOR TAPPING VALVES. THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550. ALL SEALS TO BE RATED FOR 200 PSI AND ALL FASTENERS SHALL BE STAINLESS STEEL.

5. VALVE BOXES SHALL BE CAST IRON, TWO PIECE SCREW TYPE, 5¼" DIA. CONFORMING TO ASTM A-126. EACH PIECE SHALL BE COATED, INSIDE AND OUTSIDE WITH A COAL-TAR PITCH VARNISH, SIMILAR TO THAT USED FOR COATING CAST IRON PIPE. HEIGHT RANGE OF BOX ASSEMBLED SHALL BE 36" TO 60". EACH BOX SHALL INCLUDE A CAST IRON LID WITH THE WORD "WATER" CAST INTO THE TOP. ALL VALVE BOXES SHALL INCLUDE ONE 1½" VALVE BOX RISER.

6. WATER MAINS SHALL TYPICALLY HAVE 6'-0" OF COVER UNDER THE RAILROAD AND CREEK, AND 5' MIN. EVERYWHERE ELSE, MEASURED FROM THE TOP OF PIPE VERTICALLY TO THE FINAL FINISH GROUND GRADE OR AS SHOWN SPECIFICALLY ON THE PLANS OR AS DIRECTED BY THE CITY OF CONNEAUT.

7. TAPPING SLEEVES SHALL HAVE A STAINLESS STEEL BODY WITH A DUCTILE IRON FLANGED OUTLET WHICH COMPLIES WITH ANSI B16.1, CLASS 125 AND WITH MSS SP-60. THE GASKET SHALL COMPLETELY SURROUND THE INSIDE OF THE STAINLESS STEEL BODY. THE SLEEVE SHALL COME EQUIPPED WITH A ¾" NPT BRASS TEST PLUG. MAXIMUM WORKING PRESSURE FOR 4" - 12" SIZES (250 psig) AND FOR 14" - 24" SIZES (200 psig).

   TAPPING VALVES SHALL MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF ANSI/AWWA C509. THE INLET FLANGE SHALL COMPLY WITH ANSI B16.1, CLASS 125 DRILLING. THE MECHANICAL JOINT OUTLET SHALL COMPLY WITH ANSI/AWWA C111. THE VALVE SHALL HAVE A NON-RISING STEM (NRS). THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550.

8. CURB VALVES (STOPS) SHALL BE A ONE PIECE DESIGN, CAST FROM A BRASS ALLOY, CONFORMING TO ANSI/AWWA C800, HAVE A MAXIMUM WORKING PRESSURE OF 175 PSIG, AND HAVE A QUARTER TURN CHECK. BOTH ENDS SHALL HAVE COPPER COMPRESSION FITTINGS. CURB VALVES SHALL BE BURIED TO A MINIMUM DEPTH OF 4 FEET AND A MAXIMUM DEPTH OF 5 FEET.

9. CURB BOXES SHALL BE CAST IRON, TWO PIECE SCREW TYPE, ADJUSTABLE TO A TOTAL HEIGHT BETWEEN 48 INCHES TO 60 INCHES. LIDS SHALL BE CAST IRON WITH THE WORD "WATER" CAST INTO THE TOP. LIDS SHALL BE SECURED WITH ONE BRASS PENTAGONAL HEAD SCREW. ALL BOXES SHALL BE LOCATED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF CONNEAUT.

10. BEFORE TESTING THE WATER MAIN, THE SYSTEM SHALL BE FLUSHED ACCORDING TO THE MOST CURRENT PROCEDURES SET FORTH BY THE CITY OF CONNEAUT WATER DEPT. ALL LEAKS SHALL BE LOCATED AND REPAIRED BY THE CONTRACTOR. ALL WATER SAMPLES SHALL BE OBTAINED AND TESTED BY THE CITY OF CONNEAUT.

11. WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600. ALL TEST RESULTS MUST BE APPROVED BY THE CITY OF CONNEAUT BEFORE INSTALLATION OF WATER SERVICES. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN. TEST PRESSURE SHALL BE 150 PSI.

12. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN.

13. THE PROPOSED WATER SYSTEM SHALL MAINTAIN A MINIMUM STATIC PRESSURE OF 35PSI.

14. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING STORM SEWERS AS MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE UNLESS NOTED ON THE PLAN AND PROFILE SHEETS.

15. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING SANITARY SEWERS FROM OUTSIDE EDGE TO OUTSIDE EDGE.

16. THE CONTRACTOR SHALL NOT OPERATE OR TURN ANY EXISTING WATER VALVE. IF VALVES NEED TO BE OPENED OR CLOSED HE SHALL NOTIFY THE CITY OF CONNEAUT.

17. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISH GRADE SHALL BE COMPLETED OVER THE PROPOSED WATER MAIN PRIOR TO IT'S INSTALLATION.

18. THE LOCATION OF EXISTING WATER UTILITIES AS SHOWN ON THESE PLANS WERE DETERMINED FROM AVAILABLE DATA AT THE TIME OF FIELD SURVEYING IN ACCORDANCE WITH SECTION 153.63 OF THE OHIO REVISED CODE.

19. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL FEES, AND FOLLOWING ALL REQUIREMENTS ASSOCIATED WITH THE PERMITS. THE CITY OF CONNEAUT ASSUMES NO LIABILITY FOR NOT FOLLOWING THE ABOVE.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITY PROTECTION SERVICE (OUPS) AS REQUIRED BY LAW.

21. NO WATERLINE TIE-INS SHALL BE DONE ON FRIDAYS OR THE DAY BEFORE A CITY HOLIDAY.

22. DEFLECT WATER MAIN AS REQUIRED TO MAINTAIN ALIGNMENT AS SHOWN ON PLANS. MAXIMUM DEFLECTION IS 3 DEGREES PER JOINT.

RESTORATION:

1. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS 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 WORKDAY.

2. 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 AT NO COST TO THE OWNER.

DEMOLITION:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS AND CONSTRUCTION DRAWINGS.

EXISTING UTILITIES:

1. EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION.

2. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, MAY NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.

3. THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE CITY DOES NOT GUARANTEE THE ACCURACY THEREOF.

4. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS 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 THAT OF THE CITY.

5. 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 IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.

6. BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE CITY OF CONNEAUT, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE CITY OF CONNEAUT, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. THE UTILITY OWNERSHIPS ARE LISTED ON THE COVER SHEET.

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

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

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

CONSTRUCTION MONITORING PLAN

PER STANDARDS AND REQUIREMENTS BY THE RAILROAD, THE FOLLOWING CONSTRUCTION MONITORING PLAN AND REPORTING SHALL BE REQUIRED:

1. MONITORING MUST BE BY A QUALIFIED GEOTECHNICAL PERSONNEL AND REPORT TO CN (BESSEMER AND LAKE ERIE RAILROAD) (BESSEMER & LAKE ERIE RAILROAD) DAILY.
2. INSTALLATION SHALL BE ACCORDANCE WITH THE CONTRACTOR'S DETAILED WORK PLAN.
3. OVER-EXCAVATION DOES NOT OCCUR, AND THE LINER / CASING IS INSTALLED TIGHT TO THE EXCAVATION.
4. REPORT THEORETICAL VS. ACTUAL VOLUMES OF SPOILS REMOVED ON PER METER AND TOTAL BASES.
5. THE EXCAVATION IS FULLY SUPPORTED UNTIL THE LINER / PIPE INSTALLATION IS COMPLETE. BORING OF THE CROSSING SHALL BE CONTINUOUS UNTIL COMPLETION. DO NOT LEAVE EQUIPMENT OR BORE PARTIALLY COMPLETED OVER NIGHT OR WEEKEND.
6. THE BULKHEAD IS INSTALLED AT THE END OF EVERY WORK SHIFT OR DURING ANY PROLONGED STOPPAGE OF WORK.
7. VOIDS ARE FULLY GROUTED TO REFUSAL IMMEDIATELY AFTER THE COMPLETION OF LINER / PIPE INSTALLATION. REPORT THEORETICAL VS. ACTUAL VOLUMES OF GROUT PUMPED.)

SETTLEMENT MONITORING PLAN

PER STANDARDS AND REQUIREMENTS SET FORTH BY THE RAILROAD, THE FOLLOWING PLAN AND REPORTING SHALL BE REQUIRED:

1. **SUMMARY OF PROPOSED SETTLEMENT MONITORING**
   - I. GEOGRAPHICAL LOCATION
   - II. NUMBER OF SETTLEMENT MONITORING PROBES
   - III. TYPE OF PROBE & INSTALLATION METHOD
   - IV. EXPECTED AMOUNT OF SETTLEMENT (IN)
   - V. FREQUENCY OF MONITORING
   - VI. DURATION OF MONITORING
2. **SITE PLAN:**
   - I. SITE PLAN
   - II. IDENTIFY PROBE LOCATIONS AND OFFSET DISTANCES TO NEAREST RAILS
   - III. ELEVATION OF TOP-OF-PROBES
3. **PROBE DETAIL DRAWING:**
   - I. SHOW SECTION THROUGH RAILROAD TRACK ROADBED
   - II. EXISTING GROUND LINE
   - III. DEPTH OF BORE
   - IV. DISTANCE TO BOTTOM-OF-PROBE TO TOP OF CASING PIPE
   - V. SUBMIT A DEWATERING PLAN.

REPORTING TO THE RAILROAD DURING & POST CONSTRUCTION

PER STANDARDS AND REQUIREMENTS BY THE RAILROAD, THE FOLLOWING CONSTRUCTION REPORTING SHALL BE REQUIRED:

1. A PROGRESS OF THE CONTRACTOR AND PIPE INSTALLATION AND WHAT WORK WAS COMPLETED ON THAT DAY,
2. A SUMMARY OF THE DAILY GROUND SURFACE AND SUBSURFACE MOVEMENTS SHOWING A COMPARISON TO A BASELINE READING TAKEN BEFORE THE START OF CONSTRUCTION, SETTLEMENTS OF GREATER THAN 3/8" SHALL BE REPORTED TO CN (BESSEMER AND LAKE ERIE RAILROAD) IMMEDIATELY.
3. ANY OTHER GEOTECHNICAL ISSUES THAT MAY BE OF CONCERN TO CN (BESSEMER AND LAKE ERIE RAILROAD).
4. LOG OF SETTLEMENT SURVEY RESULTS SHOWING
   - 4.1. STATION
   - 4.2. DATE AND ELEVATION OF INITIAL READINGS
   - 4.3. DATE AND ELEVATION OF SUBSEQUENT READINGS
   - 4.4. DIFFERENCE IN ELEVATION
5. SUBMIT GROUND SURFACE AND SUBSURFACE MONITORING REPORTS TO CN (BESSEMER AND LAKE ERIE RAILROAD) DAILY, SHOWING A COMPARISON TO BASELINE READINGS TAKEN PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SETTLEMENT OF 3/16" IS TO BE REPORTED TO CN (BESSEMER AND LAKE ERIE RAILROAD) IMMEDIATELY, AND A SETTLEMENT OF 3/8" OR GREATER THE WORK IS STOPPED UNTIL A RESOLUTION IS ACHIEVED.
6. PROVIDE, IN WRITING, THE NAME AND PHONE NUMBER OF THE APPLICANT'S QUALIFIED SITE INSPECTOR WHO WILL BE ON THE JOB SITE ON A FULL-TIME BASIS FOR THE DURATION OF CONSTRUCTION. UPDATE PRIOR TO WORK BEGINNING IF THERE ARE ANY CHANGES.)

STATE OF OHIO — ROBERT L. McNUTT E-58308 — REGISTERED PROFESSIONAL ENGINEER

verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
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OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

GENERAL NOTES 1

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME 00G-04
SHEET 4 OF 10

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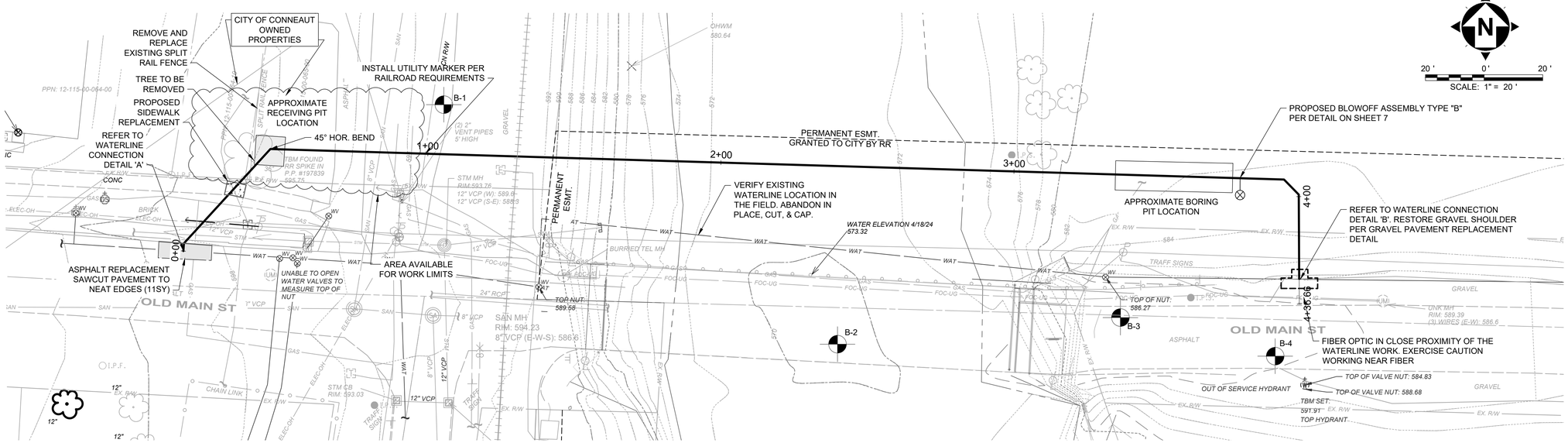
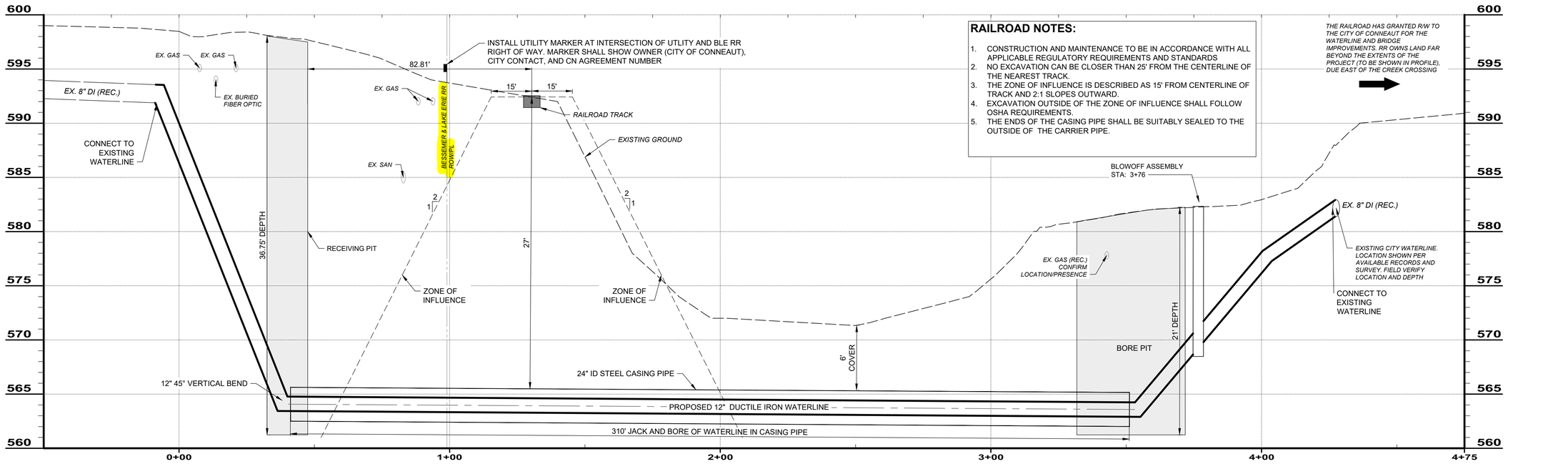


GENERAL NOTES:

1. THE EXISTING UNDERGROUND UTILITIES WERE OBTAINED FROM VARIOUS SOURCES INCLUDING, BUT NOT LIMITED TO, FIELD OBSERVATIONS (E.G. ABOVE GROUND FEATURES, FLAGGED OR PAINTED MARKED UNDERGROUND UTILITIES) AND RECORDS MADE AVAILABLE (E.G. ORIGINAL CONSTRUCTION PLANS, AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICE MAPS, GIS DATABASES) TO CREATE A COMPOSITE DRAWING OF EXISTING CONDITIONS. ALTHOUGH GRAPHICALLY SHOWN AS ACCURATELY AS POSSIBLE. FROM THE INFORMATION MADE AVAILABLE, THERE IS NO GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, OF THE COMPLETENESS, CORRECTNESS OR ACCURACY OF SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE CONTRACTOR SHALL PERFORM A FIELD INVESTIGATION TO CONFIRM LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND STRUCTURES IN THE WORK AREA. IN THE EVENT UTILITY LOCATIONS OR DEPTHS DIFFER IN FILED FROM PLAN; THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
2. REFER TO THE GEOTECHNICAL REPORT PREPARED BY VERDANTAS, DATED OCTOBER 27, 2025 FOR SOIL AND GROUNDWATER CONDITIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES WITHIN AND ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINE SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME EXISTING UTILITIES WERE INSTALLED AT TYPICAL OR STANDARD DEPTHS OR AT UNIFORM SLOPES, GRADES OR DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)
4. THE CONTRACTOR SHALL CONFIRM OR LOCATE ALL UNDERGROUND UTILITIES WITHIN WORK LIMITS WHETHER OR NOT SHOWN ON THE CONSTRUCTIONS PLANS OR FIELD MARKED BY OUPS, OGPUPS, OR OTHER UTILITY MARKING SERVICE. THE CONTRACTOR SHALL DOCUMENT ANY UTILITY NOT SHOWN OR DIFFERING FROM THE CONSTRUCTION PLANS AND PROVIDE THE INFORMATION TO THE OWNER SHOWING LOCATIONS WITH MEASUREMENTS TO REFERENCE POINTS. ANY RESULTING UTILITY CONFLICTS WITH PROPOSED IMPROVEMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND DESIGN ENGINEER.



RAILROAD NOTES:

1. CONSTRUCTION AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS
2. NO EXCAVATION CAN BE CLOSER THAN 25' FROM THE CENTERLINE OF THE NEAREST TRACK.
3. THE ZONE OF INFLUENCE IS DESCRIBED AS 15' FROM CENTERLINE OF TRACK AND 2:1 SLOPES OUTWARD.
4. EXCAVATION OUTSIDE OF THE ZONE OF INFLUENCE SHALL FOLLOW OSHA REQUIREMENTS.
5. THE ENDS OF THE CASING PIPE SHALL BE SUITABLY SEALED TO THE OUTSIDE OF THE CARRIER PIPE.

PROFILE BAR SCALE
HORIZ: 20' 10' 0' 20'
VERT: 5' 2.5' 0' 5'

STATE OF OHIO
ROBERT L. McNUTT E-58308
REGISTERED PROFESSIONAL ENGINEER
verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1

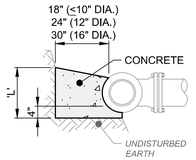
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

PLAN & PROFILE

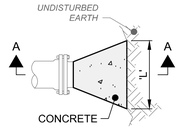
PROJECT NO. 41632
DISCIPLINE CIVIL
SHEET NAME 00G-05
SHEET 5 OF 10

Z:\PROJECT FILES\CA-DZ\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATER\CAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - PLAN & PROFILE.DWG - PLAN & PROFILE - 6/1/2026 9:15:00 AM - PATRICK BLAKE

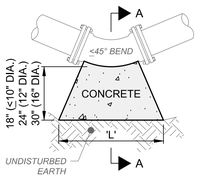
"L" DIMENSIONS						
MAIN DIA.	HORIZONTAL BENDS				TEE	CAP & PLUG
	11.25°	22.5°	45°	90°		
6"	8"	12"	20"	27"	20"	17"
12"	14"	24"	36"	47"	36"	38"
16"	18"	32"	36"	54"	36"	49"



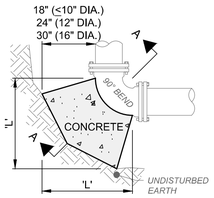
SECTION VIEW A-A



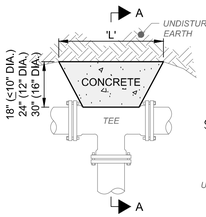
PLAN VIEW OF PLUG OR CAP



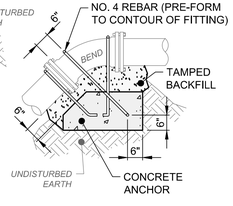
HORIZONTAL BEND OR VERTICAL BEND (UPWARD)



HORIZONTAL BEND OR VERTICAL BEND (UPWARD)



PLAN VIEW OF TEE



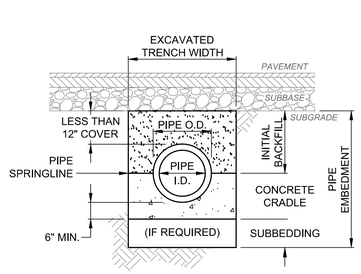
VERTICAL BEND (DOWNWARD)

NOTES:

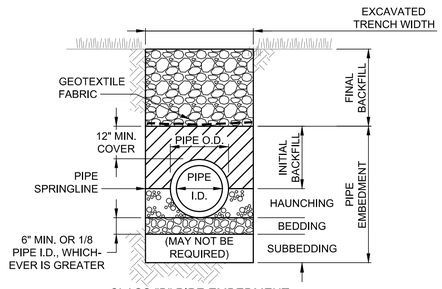
1. ALL CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. ALL DIMENSIONS SHOWN ARE MINIMUMS. THRUST BLOCKS SHALL BE POURED TO UNDISTURBED EARTH.
3. DO NOT COVER BOLTS WITH CONCRETE ON MECHANICAL JOINTS.
4. USE FORMS WHEN POURING CONCRETE TO MAINTAIN SHAPE AND DIMENSIONS OF THRUST BLOCKS.

CONCRETE THRUST BLOCK DETAIL

SCALE: NONE



CLASS "A" PIPE EMBEDMENT



CLASS "B" PIPE EMBEDMENT

1. EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE 9" AND THE MAX. SHALL BE:
   - O.D.+24" FOR 24" AND SMALLER I.D. PIPE
   - O.D.+30" FOR 27" THRU 72" I.D. PIPE
2. FINAL BACKFILL: ALL AREAS UNDER AND WITHIN 5-FT OF PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LIMESTONE). PAVEMENT INCLUDES ROADWAY, SHOULDER AND DRIVEWAY, BUT NOT SIDEWALK. NO SLAG OR SLACKER AGGREGATES ALLOWED. IN ALL OTHER AREAS, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL.
3. PIPE EMBEDMENT:

3.1. CLASS "A": SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12" OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS QC-1. THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE.

3.2. CLASS "B": SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING AND HAUNCHING SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN ALL OTHER AREAS, THE INITIAL BACKFILL MAY BE SUITABLE ON-SITE MATERIAL FOR RIGID PIPE, AND SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE FOR FLEXIBLE PIPE.

4. NOTES FOR BETWEEN RESIDENCES:

4.1. WHERE BACKFILL OPERATIONS ARE LOCATED IN CLOSE PROXIMITY TO EXISTING STRUCTURES, COMPACTION SHOULD BE PERFORMED USING A WALK BEHIND TRENCH ROLLER (WACKER NEUSON RT, OR APPROVED EQUIVALENT) TO AVOID DISTURBANCE TO THE EXISTING STRUCTURE WALLS AND FOUNDATIONS. LARGE COMPACTION EQUIPMENT SHALL NOT BE ALLOWED IN THE SECTION OF THE TRENCH LOCATED WITHIN 25 FEET OF EXISTING STRUCTURES.

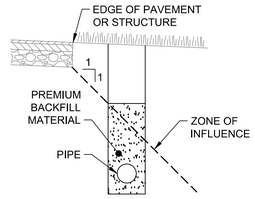
4.2. WHERE PIPE AND TRENCHING IS TO BE PLACED BETWEEN THE EXISTING RESIDENCES, THE INITIAL BACKFILL SHALL BE FINE AGGREGATE OF NATURAL SAND MEETING GRADATION REQUIREMENTS OF ODOT ITEM 703.02.A.2 OR SHOWN IN THE CONTRACT DOCUMENTS. THE MATERIAL SHALL NOT BE LUMPY OR FROZEN, AND SHALL BE FREE FROM SLAG, CINDERS, ASHES AND OTHER DELETERIOUS MATERIALS. SAND SHALL NOT CONTAIN A TOTAL OF MORE THAN 10% BY WEIGHT OF LOAM AND CLAY. VIBRATORY OR OTHER MECHANICALLY OPERATED COMPACTION EQUIPMENT SHALL NOT BE USED IN THESE AREAS DUE TO THE PROXIMITY OF THE TRENCH EXTENTS TO THE EXISTING STRUCTURES.

4.3. DESIGN OF THE TEMPORARY SUPPORT OF EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, SINCE THEIR INSTALLATION AND PERFORMANCE IS INTEGRALLY TIED TO THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION. ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS MUST BE FOLLOWED. IT IS THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR TO DEVELOP APPROPRIATE INSTALLATION METHODS AND EQUIPMENT SPECIFICATIONS PRIOR TO COMMENCEMENT OF WORK, AND TO OBTAIN THE SERVICES OF A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN OR APPROVE SLOPED OR BENCHED EXCAVATIONS AND/OR LATERAL BRACING SYSTEMS AS REQUIRED BY OSHA CRITERIA.

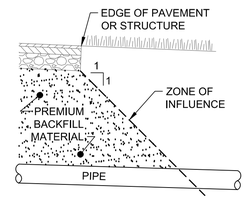
5. SUBBEDDING: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER. THIS SHALL NOT BE CONSIDERED FOR ADDITIONAL PAYMENT .
6. GEOTEXTILE FABRIC SHALL BE PER ODOT 712.09, TYPE A, AND INSTALLED AFTER ALL INITIAL BACKFILL.

TRENCHING, EMBEDMENT AND BACKFILL DETAIL

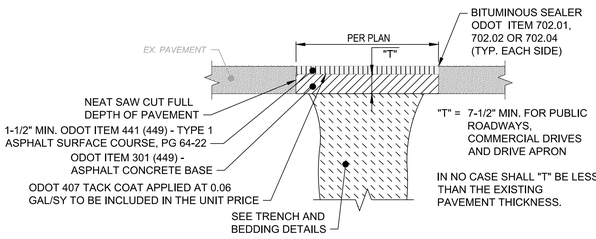
NOT TO SCALE



PARALLEL ZONE OF INFLUENCE



TRANSVERSE ZONE OF INFLUENCE

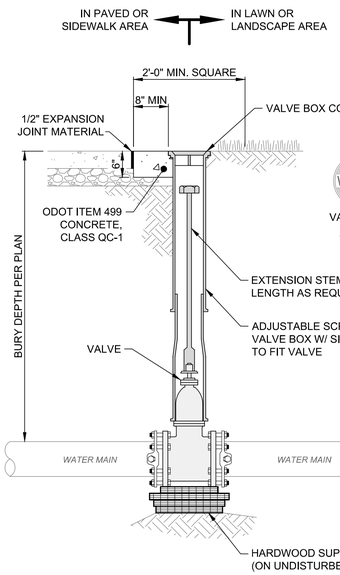


NOTE:

1. EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.

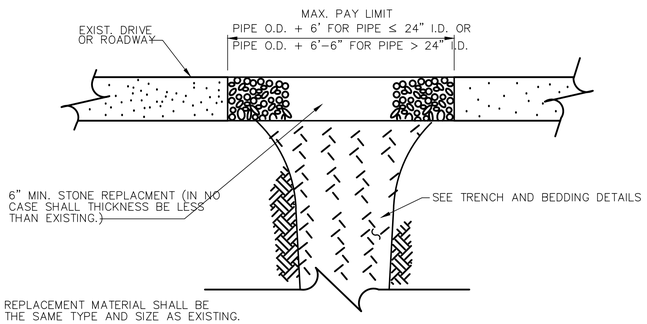
TYPE 'C' PAVEMENT REPLACEMENT (ASPHALT), ROADWAY

NOT TO SCALE



WATER VALVE & VALVE BOX SETTING DETAIL

SCALE: NONE



TYPE F PAVEMENT REPLACEMENT

(STONE)

10/10 SD-5-6

STATE OF OHIO
ROBERT L. McNUTT
E-58308
REGISTERED PROFESSIONAL ENGINEER

verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1

CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

CONSTRUCTION DETAILS 1

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME 00G-06
SHEET 6 OF 10

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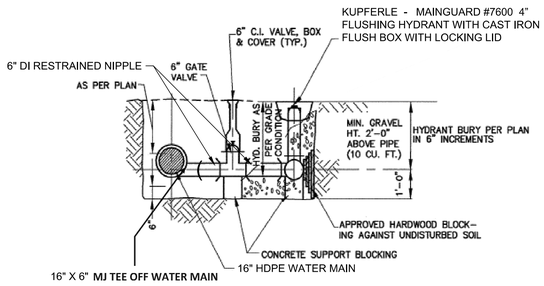
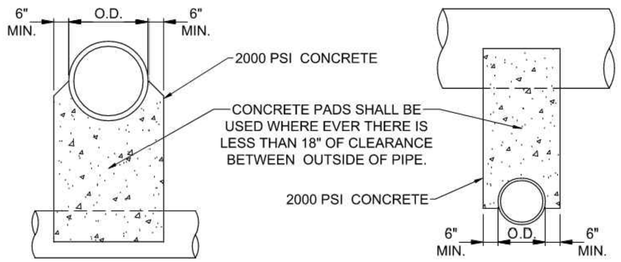


WATERLINE BLOW OFF ASSEMBLY

NOTES:

1. ALL JOINTS SHALL BE RESTRAINED MECHANICAL JOINTS.

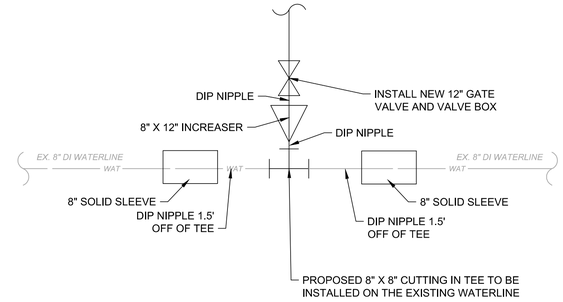


NOTE:

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER) CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPARATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

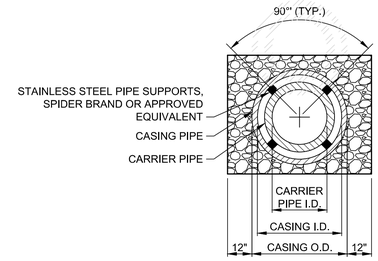
PIPE CROSSING DETAIL

NOT TO SCALE



WATERLINE CONNECTION DETAIL "A"

SCALE: NONE

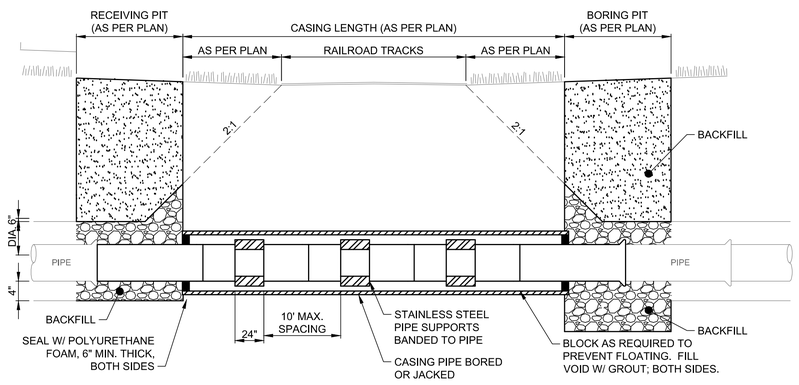


END VIEW

NOTES:

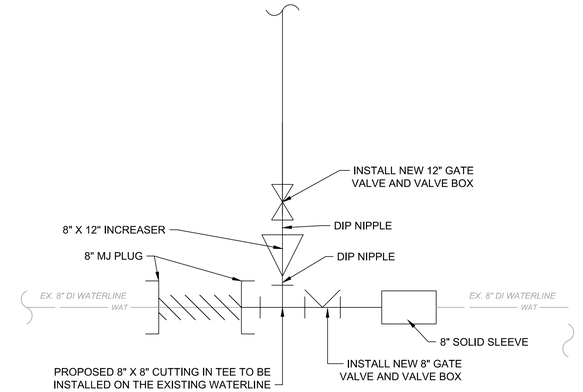
1. THIS DETAIL IS FOR DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR LENGTHS, CONFIGURATION AND PIPE SIZES.
2. CASING PIPE SHALL BE A MINIMUM OF ASTM A252 GRADE 2 STEEL, RATED FOR COOPER E80 LOADING, AND MINIMUM WALL THICKNESS OF 0.375 INCHES IN ACCORDANCE WITH AREMA STANDARDS.

CARRIER PIPE	CASING PIPE
I.D.	I.D.
12	24



BORED CROSSING WITH CASING DETAIL

SCALE: NONE



WATERLINE CONNECTION DETAIL "B"

SCALE: NONE

A-2. Minimum Wall Thickness for Steel Casing Pipe for E80 Loading

Table 1-5-1. Minimum Wall Thickness for Steel Casing Pipe for E80 Loading

Nominal Diameter (inches)	When coated or cathodically protected Nominal Thickness (inches)	When not coated or cathodically protected Nominal Thickness (inches)
12-3/4 and under	0.188	0.188
14	0.188	0.250
16	0.219	0.281
18	0.250	0.312
20 and 22	0.281	0.344
24	0.312	0.375
26	0.344	0.406
28	0.375	0.438
30	0.406	0.469

STATE OF OHIO
ROBERT L. McNUTT E-58308
REGISTERED PROFESSIONAL ENGINEER

verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

CONSTRUCTION DETAILS 2

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME 00G-07
SHEET 7 OF 10

Z:\PROJECT FILES\CA-DZ\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATER\CAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - CONSTRUCTION DETAILS 2.DWG - SHEET NAME - 4/3/2026 3:59:18 PM - PATRICK BLAKE

ADMINISTRATIVE NOTES

1. AN OHIO EPA NPDES PERMIT IS REQUIRED WHERE CONSTRUCTION ACTIVITIES DISTURB 1 OR MORE ACRES OF LAND, OR SMALLER SITES LESS THAN 1 ACRE THAT ARE PART OF A LARGER COMMON DEVELOPMENT. DISTURBED LAND IS LAND IN WHICH VEGETATION HAS BEEN CLEARED AND SOILS ARE EXPOSED TO STORM WATER. A NOI IS NOT REQUIRED FOR THIS PROJECT AND MUST BE FILED WITH THE OHIO EPA AT LEAST 21 DAYS PRIOR TO THE START OF CONSTRUCTION BECAUSE THE TOTAL LAND DISTURBANCE IS LESS THAN 1 ACRE. THE LIMIT OF EARTH DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY 0.10 ACRES.
2. THE CONTRACTOR SHALL FOLLOW THE PRACTICES AND REQUIREMENTS PROVIDED IN THE OHIO EPA NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT OHC000006 AND THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL. NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR:
   - THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS
3. THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE A "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND SWCD.
4. ALL PROCEDURES AND REQUIREMENTS CONTAINED IN THIS SWP3 APPLY TO ALL GENERAL AND SUBCONTRACTORS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, INFORM, REQUIRE AND ENFORCE ALL ASPECTS AND PROCEDURES OF THE SWP3. THE CONTRACTOR SHALL HAVE ALL SUBCONTRACTORS THAT ARE OR MAY BE ENGAGED IN ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A "SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL", AND PROVIDE A COPY TO THE OWNER AND SWCD.
5. THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NPDES, SWP3 AND INSPECTION LOGS/REPORTS.
6. ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.

GENERAL NOTES

1. THE CONTRACTOR IS REQUIRED TO DEVELOP THE SWP3 FOR THIS PROJECT AND SUBMIT FOR APPROVAL TO THE SWCD SHOWING THE ITEMS LISTED BELOW. SOME ITEMS MAY ALREADY BE SHOWN ON THE SWP3, BUT MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.
   - LIMITS OF EARTH DISTURBING ACTIVITY
   - CONSTRUCTION ENTRANCE(S)
   - EROSION AND SEDIMENT CONTROL MEASURES
   - INLET PROTECTIONS
   - CONCRETE WASHOUT PIT(S)
   - EQUIPMENT STAGING
   - FUEL STORAGE AND VEHICLE FUELING AREA
   - CONSTRUCTION TRAILER(S)
   - SANITATION FACILITY
   - MATERIAL STOCKPILE LOCATION(S)
   - CHEMICAL COMPOUND MIXING AND STORAGE AREA
   - ANY OTHER EROSION CONTROL REQUIRED
2. ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL AMEND THE SWP3 WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT REQUIRES INSTALLATION OF BMPS OR MODIFICATION TO EXISTING BMPS.
4. ADDITIONAL OR DIFFERENT BMPS MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
5. PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE.

OTHER WASTE CONTROL NOTES

1. SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST DISTURBANCE.
2. CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS. ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, MUST BE DISPOSED OF IN A CONCRETE WASHOUT AREA TO COLLECT AND HARDEN.
3. OFF-SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES MUST BE MINIMIZED. THE CONTRACTOR SHALL SWEEP ALL ADJACENT ROADS TO REMOVE MUD, DIRT OR ROCK TRACKED FROM THE SITE AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPAULIN.
4. IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS SOLID OR LIQUID WASTE INCLUDING TRASH, CONSTRUCTION DEBRIS, SOLVENTS, PAINT, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUND, ANTIFREEZE OR OTHER TOXIC OR HAZARDOUS WASTE. WASTE MATERIALS SHALL BE COLLECTED IN A SECURELY LIDDED DUMPSTER, DISPOSED OF IN AN APPROVED LANDFILL AND EMPTIED AS NECESSARY.
5. FUEL TANKS, DRUMS AND OTHER CONTAINERS HOLDING CHEMICALS MUST BE STORED WITHIN A DIKED AREA WITH A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. A DIKED AREA IS NOT NECESSARY IF A SELF-CONTAINED SPILL PROOF TANK IS USED.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE. SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.
7. ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE, MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
8. CONTAMINATED SOIL, SOIL WHERE CONSTRUCTION CHEMICALS HAVE BEEN SPILLED OR HAZARDOUS WASTE MATERIALS MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
9. STORM WATER THAT COMES IN CONTACT WITH CONTAMINATED SOIL OR HAS A VISIBLE SHEEN MUST BE COLLECTED BY A VACUUM TRUCK AND DISPOSED OF AS A WASTE WATER.

EROSION CONTROL NOTES

1. SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.
2. DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.
3. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN THE TIME FRAMES IN THE FOLLOWING TABLES:

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA WITHIN 50 FEET OF A SURFACE WATER, NOT AT FINAL GRADE AND TO REMAIN IDLE MORE THAN 14 DAYS	WITHIN 2 DAYS OF MOST RECENT DISTURBANCE
ANY OTHER AREA TO BE DORMANT MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA TO REMAIN IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER
AREA TO BE PAVED	STABILIZE WITH STONE SUBBASE UNTIL PAVED

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA TO BE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA WITHIN 50 FEET OF A SURFACE WATER AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREA AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE

SEDIMENT CONTROL NOTES

1. INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
2. PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING.
3. SEDIMENT PONDS, TEMPORARILY MODIFIED PERMANENT PONDS AND PERIMETER SEDIMENT BARRIERS MUST BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING, AND CONTINUE TO FUNCTION UNTIL ALL DISTURBED UPLAND AREAS ARE STABILIZED.
4. SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
5. SEDIMENT-LADEN TRENCH OR GROUND WATER MUST PASS THROUGH A SEDIMENT-SETTLING POND OR BE DEWATERED IN-PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO DISCHARGE FROM THE SITE.
6. TRENCH AND GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
7. SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL.

EROSION CONTROL TIMETABLE

	2025											
STABILIZATION	J	F	M	A	M	J	J	A	S	O	N	D
TEMP. SEEDING			O	O	⊗	⊗	⊗	⊗	O	O		
PERM. SEEDING				O	⊗	⊗	⊗	⊗	O	O		
SODDING			⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		
MULCHING	O	O	O	O	O	O	O	O	O	O	O	O
PAVING					O	O	O	O	O	O	O	

⊗ IRRIGATION NEEDED

TMDLS AND BMPS SELECTED

1. APPLICABLE TMDLS FOR THE SITE:
   (X) PHOSPHORUS ( ) AMMONIA (X) HABITAT
   (X) NITROGEN (X) BACTERIA ( ) FLOW
   ( ) SEDIMENT/TOTAL SUSPEND SOLIDS
   (X) DISSOLVED OXYGEN/ORGANIC ENRICHMENT
2. THE FOLLOWING BMPS ARE SELECTED TO ADDRESS APPLICABLE TMDLS FOR THE PROJECT:

   CONSTRUCTION SITE:
   ( ) DEMARCATE PROTECTED AREA BEFORE CONSTRUCTION
   (X) MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL
   (X) PROPER STORAGE OF LANDSCAPE FERTILIZER
   (X) MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION
   (X) RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS
   ( ) FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION

   TEMPORARY EROSION CONTROL:
   ( ) CHECK DAMS ( ) TEMPORARY DIVERSION
   ( ) SLOPE DRAIN ( ) STREAM UTILITY CROSSING
   ( ) DEWATERING (X) STREAM CROSSING

   TEMPORARY SEDIMENT CONTROL:
   ( ) SEDIMENT BASIN ( ) SEDIMENT TRAP
   (X) SILT FENCE (X) INLET PROTECTION
   (X) FILTER SOCK ( ) FILTER BERM

   SOIL STABILIZATION:
   (X) DUST CONTROL (X) PHASED DISTURBANCE
   (X) MULCHING (X) CLEARING AND GRUBBING
   ( ) SODDING (X) TEMPORARY SEEDING
   (X) TOPSOILING (X) PERMANENT SEEDING
   ( ) GRADE TREATMENT (X) CONSTRUCTION ENTRANCE
   ( ) TEMPORARY ROLLED EROSION CONTROL PRODUCTS
   ( ) TURF REINFORCEMENT MATTING
   (X) TREE AND NATURAL AREA PRESERVATION

   PERMANENT EROSION CONTROL:
   ( ) GRASSED SWALE ( ) ROCK LINED CHANNEL
   ( ) LEVEL SPREADER ( ) ROCK OUTLET PROTECTION
   ( ) DIVERSION ( ) SUBSURFACE DRAIN

   POLLUTION PREVENTION AND GOOD HOUSEKEEPING:
   (X) ROUTINE FACILITY INSPECTIONS
   (X) VISUAL ASSESSMENT OF STORM WATER DISCHARGE
   ( ) ANNUAL COMPREHENSIVE SITE INSPECTION
   ( ) SWEEP PARKING LOT AND DRIVE LANES
   (X) CLEAN CATCH BASINS
   (X) STORE WASTE IN LIDDED CONTAINERS
   (X) LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPS
   ( ) ESTABLISH "PICK-UP PET WASTE" STATION

   POST-CONSTRUCTION:
   ( ) WETLAND SETBACK ( ) STREAM SETBACK
   ( ) WATER QUALITY POND ( ) PERMEABLE PAVEMENT
   ( ) GRASS FILTER STRIP ( ) INFILTRATION TRENCH
   ( ) TREE BOX FILTER ( ) SAND FILTER
   ( ) GREEN ROOF ( ) LTMA
   ( ) BIORETENTION AREA ( ) CISTERN
   ( ) BIORETENTION WITH INTERNAL WATER STORAGE
   ( ) OPEN CHANNEL SWALES
   ( ) WET EXTENDED DETENTION BASIN
   ( ) DRY EXTENDED DETENTION BASIN WITH FOREBAY
   ( ) RETROFIT SWMF TO TREAT WQV
   ( ) RETROFIT SWMF TO INCREASE INFILTRATION
   ( ) RETROFIT SWMF POND TO FUNCTION AS WETLAND
   ( ) AS-BUILT POST-BMPS
   ( ) SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4
   (X) REDUCE IMPERVIOUS SURFACES
   ( ) DECREASE QUANTITY OF PARKING SPACES
   ( ) LOW IMPACT DEVELOPMENT
   ( ) CONSERVATION DEVELOPMENT
   ( ) DISCONNECT DOWNSPOUT AND REDIRECT TO BMP
   ( ) VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS
   (X) IMPLEMENT LOW-MOW OR NO-MOW PRACTICES
   ( ) PEST MANAGEMENT PROGRAM

PERMIT CLOSURE REQUIREMENTS

1. FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS BE PERMANENTLY STABILIZED.
2. THE CONTRACTOR SHALL COMPLETE A "FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL" UPON PROJECT COMPLETION AND PROVIDE A COPY TO THE OWNER AND SWCD.
3. ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE REACHES FINAL STABILIZATION, THE CONTRACTOR MUST TERMINATE THE NPDES PERMIT COVERAGE BY FILING A NOT WITH THE OHIO EPA WITHIN 45 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION IS DEFINED AS AN ESTABLISHED VEGETATIVE GROUND COVER OF AT LEAST 70% GROWTH DENSITY, OR OTHER MEANS OF PERMANENT STABILIZATION, OVER ALL AREAS DISTURBED DURING CONSTRUCTION.
4. THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS AFTER THE NOT IS FILED, AND PROVIDE DIGITAL COPIES TO THE OWNER AND SWCD.

MAINTENANCE REQUIREMENTS

1. BMPS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.
2. THE CONTRACTOR SHALL PROVIDE A QUALIFIED PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS, POSSESS THE TECHNICAL SKILLS TO ASSESS SITE CONDITIONS THAT COULD IMPACT STORM WATER QUALITY, AND CAN ASSESS THE EFFECTIVENESS OF ANY BMP SELECTED.
3. A QUALIFIED PERSON MUST INSPECT BMPS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL IN A 24-HOUR PERIOD TO DETERMINE IF THE SWP3 WAS PROPERLY IMPLEMENTED.
4. THE QUALIFIED PERSON MUST PREPARE A WRITTEN REPORT AFTER EACH INSPECTION SUMMARIZING INSPECTION RESULTS INCLUDING THE FOLLOWING:
   - DATE OF INSPECTION
   - NAME AND QUALIFICATION OF THE INSPECTOR
   - WEATHER CONDITIONS
   - LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE OBSERVED.
   - LOCATIONS OF BMPS NEEDING MAINTENANCE.
   - LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION.
   - LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.
   - CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.
   - GRADING AND STABILIZATION ACTIVITY LOG
   - EROSION AND SEDIMENT CONTROL AMENDMENT LOG
5. ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
6. BMP MAINTENANCE OR REPAIR MUST BE COMPLETED WITHIN 3 DAYS, AND SEDIMENT POND MAINTENANCE OR REPAIR WITHIN 10 DAYS, OF THE INSPECTION THAT REVEALED A DEFICIENCY.
7. WHEN AN INSPECTION REVEALS A BMP IS NOT EFFECTIVE AND A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED, THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
8. WHEN AN INSPECTION REVEALS A BMP HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE INSPECTION THAT REVEALED THE DEFICIENCY.
9. THE INSPECTION FREQUENCY MAY BE REDUCED TO 1 TIME PER MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER WEATHER (I.E. SUSTAINED SNOW COVER OR FROZEN GROUND CONDITIONS). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
10. FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E. MORE THAN 1 MONTH).
11. SOIL DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED.
12. THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWP3.
13. ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE.
14. INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1. HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS.
2. CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR CONSTRUCTION ACTIVITIES.
3. BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPS.
4. ESTABLISH STAGING AREA AND NON-SEDIMENT BMPS.
5. INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
6. INSTALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS AFTER FIRST SOIL DISTURBANCE. INSPECT AND MAINTAIN BMPS FOR THE PROJECT DURATION UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
7. BEGIN SITE DEMOLITION AND CONSTRUCTION.
8. INSTALL DEWATERING MEASURES.
9. BEGIN EARTHWORK OPERATIONS.
10. APPLY TEMPORARY SEED.
11. INSTALL WATER LINES STORM SEWERS AND INLETS.
12. INSTALL WATER TOWER & CONTROL BUILDING.
13. CONSTRUCT REMAINING UTILITIES INCLUDING SANITARY, WATER, ELECTRIC, GAS AND PHONE.
14. INSTALL PAVING.
15. INSPECT AND CLEAN EXISTING AND NEW STORM SEWERS AND INLETS.
16. APPLY PERMANENT SEED.
17. INSTALL LANDSCAPING.
18. CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
19. REMOVE TEMPORARY BMPS FROM STORM SEWER AND INLETS, AND OPEN GUTTERS AND DITCHES TO OBTAIN FREE DRAINAGE.
20. DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.

STATE OF OHIO
ROBERT L. McNUTT E-58308
REGISTERED PROFESSIONAL ENGINEER

verdantas

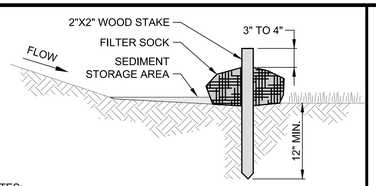
ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1
CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

SWPPP GENERAL NOTES

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME 00G-08
SHEET 8 OF 10

Z:\PROJECT FILES\CA-02\CONNEAUT\41632 - CONNEAUT OH OLD MAIN STREET BPS & WATER\CAD\DWG\SHEETS\WATERLINE CROSSING SHEETS\G_41632 - SWPPP GENERAL NOTES.DWG - SWPPP GENERAL NOTES - 1/27/2026 11:10:23 AM - PATRICK BLAKE



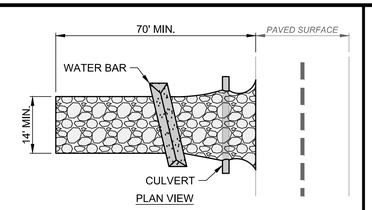
NOTES:

1. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
2. 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".
3. 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.
4. FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
5. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
6. WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
7. 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:

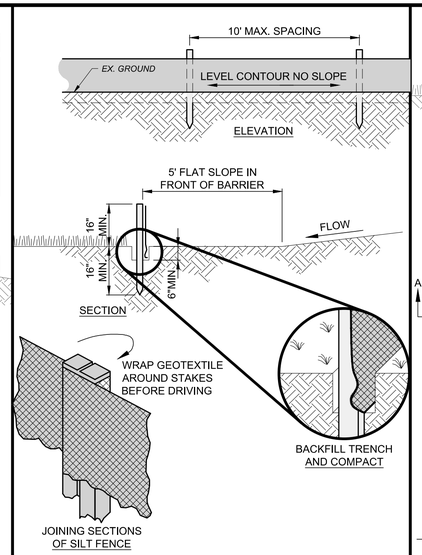
1. GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

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.

2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
4. IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
5. 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.
6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE

SCALE: NONE



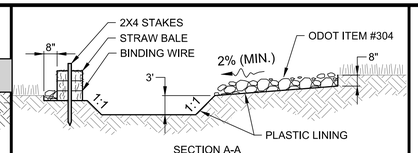
FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

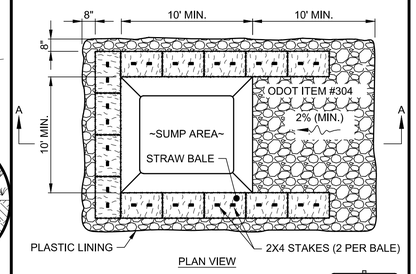
NOTES:

1. 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.
2. 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%.
3. 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.
4. 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.

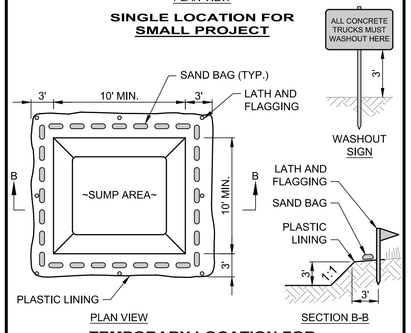
SILT FENCE

SCALE: NONE





SINGLE LOCATION FOR SMALL PROJECT



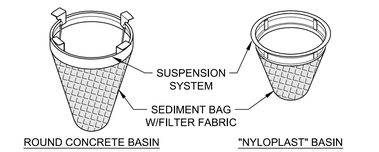
TEMPORARY LOCATION FOR MULTIPLE PHASE OR LARGE PROJECT

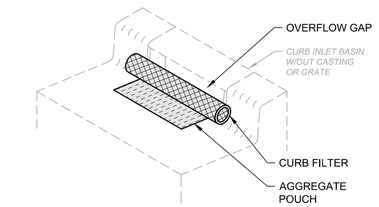
NOTES:

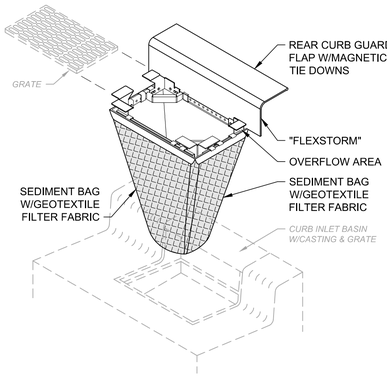
1. CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
5. CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
7. PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
8. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

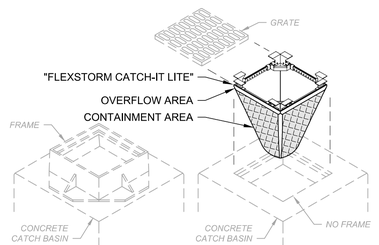
CONCRETE WASHOUT AREA DETAIL

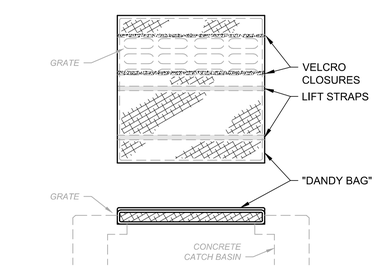
SCALE: NONE











NOTES:

1. ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
2. INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
3. 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

STATE OF OHIO — ROBERT L. McNUTT E-58308 — REGISTERED PROFESSIONAL ENGINEER

verdantas

ISSUED FOR: BID
ISSUE DATE: 11/11/2025
SCALE: AS SHOWN
DESIGNED BY: PAB
DRAWN BY: MMB
CHECKED BY: RLM

OLD MAIN STREET BRIDGE AREA IMPROVEMENTS WATERLINE RELOCATION: PHASE 1

CITY OF CONNEAUT ASHTABULA COUNTY, OHIO

SWPPP DETAILS 1

PROJECT NO. 41632
DISCIPLINE GENERAL
SHEET NAME 00G-09
SHEET 9 OF 10

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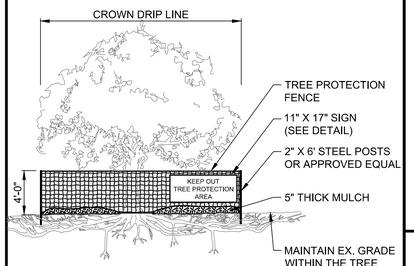
NOTES:

1. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
   - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
   - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
   - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
   - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
2. MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
   - 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".
   - NETTING PER MANUFACTURER RECOMMENDATION IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
   - SYNTHETIC BINDERS AT MANUFACTURER RATE.
   - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC., MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL



NOTES:

1. TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
2. FENCE MUST BE PLACED BEYOND THE DRIP LINE OR CANOPY OF TREES (SEE PLANS FOR GENERAL FENCE ALIGNMENT).
3. FENCE SHALL BE ORANGE COLOR, HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS.
4. STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
5. SIGN SHALL BE LAMINATED IN PLASTIC AND SPACED EVERY 50' ALONG THE FENCE.
6. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING, INCLUDING FENCE INSTALLATION AND REMOVAL.

TREE PROTECTION DETAIL

SCALE: NONE

NOTES:

1. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN 48 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
2. SOD SHALL BE KEPT MOIST AND COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
3. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" ±1/4", EXCLUDING TOP GROWTH AND THATCH.
4. AREAS SHALL BE GRADED AND TOPSOIL SPREAD AS NEEDED.
5. THE SEEDBED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 100 LB/1,000 S.F. OR FERTILIZER AT 12 LB/1,000 S.F. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
6. BEFORE LAYING SOD, THE SURFACE SHALL BE FINE GRADED AND CLEARED OF DEBRIS, STONES AND CLODS LARGER THAN 3" DIAMETER. KNOCK DOWN HIGH SPOTS AND FILL IN LOW SPOTS SO SOIL IS LEVEL AND 1" BELOW THE GRADE OF ANY PAVED SURFACE, SUCH AS CURBS, WALKS AND PAVEMENT.
7. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED PRIOR TO LAYING SOD.
8. DO NOT PLACE SOD ON FROZEN SOIL.
9. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE SOD IS NOT STRETCHED OR OVERLAPPED, AND JOINTS ARE BUTTED TIGHT.
10. ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE CONTOUR, WITH STAGGERED JOINTS AND BE SECURED WITH PEGS OR STAPLES.
11. AS SODDING IS COMPLETED IN ANY ONE SECTION, ROLL OR TAMP THE SOD TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL. WATER IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SURFACE BELOW ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.
12. IN THE ABSENCE OF ADEQUATE RAINFALL DURING THE FIRST WEEK, WATER DAILY OR AS NECESSARY TO MAINTAIN MOIST SOIL. AFTER THE FIRST WEEK, WATER SOD AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
13. DO NOT MOW UNTIL SOD IS FIRMLY ROOTED.

SODDING DETAIL

NOTES:

1. THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
2. 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
3. APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
4. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
5. 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 TALL FESCUE PERENNIAL RYEGRASS	3 1 1	128 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
AUGUST 16 - OCTOBER 31	RYE TALL FESCUE PERENNIAL RYEGRASS	3 1 1	112 40 40
	WHEAT TALL FESCUE PERENNIAL RYEGRASS	3 1 1	120 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
NOVEMBER 1 - FEBRUARY 28	ONLY MULCH OR DORMANT SEEDING.		

TEMPORARY SEEDING DETAIL

NOTES:

1. SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
2. DISTURBED AREAS SHALL BE GRADED AND TOPSOIL SPREAD.
3. THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. 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. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
4. APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
5. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
6. SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS. AVOID EXCESSIVE IRRIGATION TO PREVENT EROSION AND DAMAGE FROM RUNOFF.
7. SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
8. ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/ AC.	TIME	MOW
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH ≤2.0 FT./SEC. VELOCITY
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	
LAWN		
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS

PERMANENT SEEDING DETAIL

STATE OF OHIO
ROBERT L. McNUTT
E-58308
REGISTERED PROFESSIONAL ENGINEER

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SWPPP DETAILS 2

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SHEET 10 OF 10

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