

ADDENDUM #06

PROJECT: **UPPER POTTS GROVE TOWNSHIP NEW MUNICIPAL COMPLEX**
PROJECT #: 22-0058
ISSUE DATE: **May 08, 2024**

BIDS DUE TO: UPLOAD TO PENBID

BIDS DUE: Thursday, May 22, 2025

The following clarifications, amendments, additions, deletions, revisions and modifications in this Addendum forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. This addendum must be acknowledged in the form of proposal in the space provided for this purpose. Failure to acknowledge this addendum may subject the Bidder to disqualifications.

GENERAL

1. **Addendum #05** was issued with pre-bid meeting notes.
2. Project Manual Table of Contents has been updated to coordinate with **Addendum 06** changes.
3. See attached 8-pg document 'Stormwater Infiltration Study & Report – Additional Testing April 24, 2025'.

ADDED SPECIFICATIONS

1. The following specifications issued with this addendum shall be added from the Contract Documents
 - a. NONE

REVISED SPECIFICATIONS

1. The following revised specifications issued with this addendum shall be made a part of the Contract Documents
 - a. **SECTION 000110 – TABLE OF CONTENTS**
 - b. **SECTION 083613 – SECTIONAL DOORS**

REMOVED SPECIFICATIONS

1. The following removed specifications issued with this addendum shall be removed from the Contract Documents
 - a. NONE

ADDED DRAWINGS

1. The following added drawings issued with this addendum shall be made a part of the Contract Documents
ADMIN & POLICE BUILDING
 - a. NONE

PUBLIC WORKS

- a. NONE

CIVIL

- a. NONE

REVISED DRAWINGS

1. The following revised drawings issued with this addendum shall be made a part of the Contract Documents

ADMIN & POLICE BUILDING

- a. NONE

PUBLIC WORKS

- b. NONE

CIVIL DRAWINGS

- a. **02.N-1 - NOTES**
- b. **06.ES-1 – EROSION & SEDIMENT CONTROL PLAN**
- c. **08.ES-3 – EROSION & SEDIMENT CONTROL DETAILS**
- d. **15.SWM-3 - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN**
- e. **16.SWM-4 – POST CONSTRUCTION STORMWATER MANAGEMENT NOTES/DETAILS**

****Add#05 was mtg notes only.***

- 1) Confirmation of Brick Specs- **To be issued in next Addendum.**

PennBid Questions and Answers:

Q85(Q58): Wiring Specification - Can you provide a specification for wire, including means and methods?

A85: All branch wiring shall be type "mc" where allowed by code or shall be type thhn/thwn in e.m.t. unless noted otherwise. All panel feeders shall be in emt conduit with compressions fittings. Wire shall not be smaller than #12. All wiring underground and in wet locations shall be xhhw-2. All circuits shall have separate ground wire. All wiring in this contract shall be in conduit in plenums unless noted otherwise. Any cables installed in plenums by owner shall be plenum rated.

Q86(Q68): Fire Alarm - Multiple summary specification 01-1250, 1.12, A-16 states to include the Fire detection system. Can you provide a specification for the Fire alarm?

A86: Fire alarm shall be based on ge/est. Each and all items of the fire alarm system shall be listed as a product of a single fire alarm system manufacturer by underwriters laboratories, inc. (ul), and shall bear the "ul" label. Pull stations shall be double action with no glass element to break (plastic is acceptable). Provide flush mounted knox box at main building entrance. Remote annunciator shall be lcd display type. Fire alarm panel shall monitor all fire alarm devices. Fire alarm control panel shall contain an internal duct and system price shall include 1 year of central station monitoring, effective upon first beneficial use of system. Provide battery backup for 24 hours with 5 minutes alarm. Either addressable or hardwired system is acceptable. Installation shall be per nfpa 72 requirements. All wiring shall be power limited. close out documents shall include at minimum; 4 copies o&m manuals, computer generated or typewritten testing report detailing each device tested with test results, central station monitoring contract, and as-built system drawings. Provide 1 year warranty against defects in materials or installation. Provide minimum of 4 hours training. The contractor is responsible for the fire alarm system and will submit (to the engineer and authority having jurisdiction) detailed fire alarm plans, along with cut sheets of all proposed equipment to be installed. The proposed system shall be ul listed and equivalent to that which has been indicated. The contractor shall submit signed & sealed shop drawings to dca for approval and release prior to beginning any work.

Q87(Q69): **Communication Spec** - Multiple summary specification 01-1250, 1.12, A-17 states to include Communication system. Can you provide a specification for this?

A87: EC to provide back boxes, conduits and pull strings as noted on E3.0

Q88(Q73): **Data Racks** - Multiple summary specification 01-1250, 1.12, A-27 states to include Racks, Patch panels, cross connections and equipment. Can you provide a specification for this?

A88: Owner's vendor will provide data racks and terminate cables at head end and at devices.

Q89(Q74): **Wall jacks** - Multiple summary specification 01-1250, 1.12, A-28 states to include Wall Jack face plates. Can you provide a specification for this?

A89: Match Wall Plates in Spec Section 262726 2.5. Coordinate # of jacks with Owner's vendor.

Q90(Q75): **Smoke/Carbon Detection** - Multiple summary specification 01-1250, 1.12, A-36 states to include Smoke and Carbon detectors to tie into existing Fire alarm. Can you provide a specification for this, and show where the existing fire alarm is located and who is the vendor for the existing system?

A90: This is a new system. Disregard any note stating to tie into the existing fire alarm.

Q91(Q81): **Electrical** - On the Administration & Police Department drawing E3.0, Note 8 says EV Charger provided by owner installed by the E.C.. Where is the EV charger located? What size circuit feeds it?

A91: There are no EV chargers included in the scope of this project.

Q92(Q83): **Electrical** - Will specifications be provided for tele / data cabling, devices, racks, patch panels & related equipment?

A92: EC to provide back boxes, conduits and pull strings as noted on E3.0

Q93: **Electrical** - Will specifications be provided for tele / data cabling, devices, racks, patch panels & related equipment?

A93: Duplicate Question see A92

Q94(Q86): **Parking lot light control** - There are no lighting controls shown on the Electrical drawings for the parking lot lights, nor are there any light control specifications. Can you provide lighting control details and specifications?

A94: Parking lot lighting controls are included with the light fixture, see site/civil dwgs light fixture specifications.

Q95(Q87): **OC Sensors Spec** - Can you provide an occupancy sensor, and dimming switch specifications for the interior lights?

A95: Occupancy sensors shall be, as required for the intended areas shown on the drawings by watt stopper company or similar by Leviton or sensor switch.

Q96(Q88): **Remote Annunciator Panel** - The Generator specification indicates a remote annunciator panel. Can you provide a location where you would like this panel?

A96: Mechanical room 110

Q97(Q89): Floor Boxes - Can you provide a part number for the floor boxes in the conference room 115?

A97: Hubbell RAFB Series

Q98(Q93): Electrical Vendor Drawings - Can we please have the electrical vendor drawings mentioned in specification section 011250 - 1.12 - C - 1-4?

A98: EC to provide Back boxes, conduits and pull strings to all Locations required as shown on E3.0.

Q99(Q94): Electrical Owner's Vendor Equipment - Specification section 011250 - 1.12 - C - 3 states that the EC must install all equipment not shown on the vendor drawings. Do you have a list of this equipment? Who is the vendor for coordination purposes?

A99: EC to provide back boxes, conduits and pull strings as noted on E3.0. Owner's vendor will install their own equipment.

Q100(Q95): Electrical Coordination with Division 8 - Specification section 011250 - 1.12 - A - 18 states that the EC owns the access and security as defined in DIV 08. Division 08 only lists the hardware and does not provide a scope of work or any other details. Please provide.

A100: EC to provide back boxes, conduits and pull strings as noted on E3.0. Owner's vendor will install their own equipment and pull cable as required.

Q101(Q96): KW/KWH transducers - Specification section 011250 - 1/7 - E states that the EC shall provide the kW/KWH transducers specified at each secondary metering location. Can you please explain this scope further? How many? Where are they located? What meters?

A101: Not Required. There are no 'secondary metering' locations in this project.

Q102(Q98): Valve Starters - Specification section 260500 General Electrical Requirements section 3.06 - B - 2 states the EC owns furnishing and installing valve starters for propane tanks. Can you please provide more information on this valve starter? Maybe a model number? This is not something the EC typically provides.

A102: To be answered in next addendum

Q103(Q99): Generator - There are no circuits or conduits shown for the battery charger, block heater, and controls for the generator. Please advise.

A103: Electrical contractor to coordinate the emergency generator installation with the manufacturer's installation requirements.

Q104(Q100): Site Lighting Circuiting - There are no circuits shown for the site lighting. Please advise.

A104: See panel "B" circuit #38

Q105(Q103): Fire Alarm Spec - Please provide a fire alarm specification.

A105: Refer to A86

Q106(Q104): Security-Access-Cameras - Drawing E3.0 notes 4, 5, & 6 state to provide a conduit with pull string for these devices. Do these conduits just get stubbed to above an accessible ceiling? Or, do they go back to the head end equipment?

A106: EC to provide conduit, back boxes, and pull wire to head end equipment. Owner's vendor will terminate at head end and at devices.

Q107: Electrical - Can we use MC Cable? Will a specification be provided for wire?

A107: Please see response on Q85

Q108: Electrical - Will a specification be provided for lighting controls?

A108: Lighting control switches shall be 20a-120v-ul listed. specification grade as manufactured by bryant #4900 series or similar by leviton, a&h, p&s, hubble or eagle. each switch shall be equipped with a plastic wall plate - color to be selected by the architect and to match device.

Q109: Generator Pre-Purchase - Please confirm if the generator and transfer switch equipment have already been pre-purchased by the owner.

A109: The Township is in process of acquiring the equipment.

Q110: SW-207 to FS-206 Pipe Run PW BLDG - Is this pipe run part of Base Bid or will it be an Alternate bid item? If this pipe run is not part of Base Bid will all grading around PW BLDG also then be part of an Alternate Bid Item. Please clarify

A110: SW-207 to FS-206 is to be included with the base bid, including all site grading around the proposed PW Building.

Q111: Roof Drain Addendum # 2 Question # Q21/Addendum # 3 Q 44 Please clarify - Q21 Your answer " SC is responsible for all utilities to within 5' of building". Is this base bid? Is this just a cap underground? Please provide detail "GC will tie in roof leaders to SC installed risers". is this Base Bid? If SC ends 5 feet from Building who installs all fittings and splash pad to connect 5 feet from bldg.?

A111: SC is responsible for all utilities to within 5' of the building in the base bid. Yes, temporarily cap for other prime use. Tie in to Roof leaders is Base bid. GC installs all fittings to connect at 5'.

Q112: 370 Evans Rd Dump Site - Where are we to access? Is there an E & S Plan? Where on the site are we to stockpile materials? What E & S measures need to be included at this site?

A112: Access to the Evans Road property will occur at the existing stone parking lot. E&S measures at the Evans Rd. property will not be a part of this contract.

Q113 – Fire Alarm - Does the township have a preferred fire alarm vendor?

A113: Eastern Time. Contact Justin Eddy JustinE@eastern-time.com, 570-840-1473.

Q114 – Electrical - On the Administration & Police Department drawing E3.0, Note 4 says to coordinate exact location & requirements with the security drawings. What are the requirements for the rough in's & wiring? Will the security drawings be made available in a future addendum?

A114: Bid should be based on the locations indicated on the electrical plans. Vendor drawings will not be available until after contract award.

Q115: 370 Evans Rd Types of material - Only Dirt? Can the material from septic field be taken here? Concrete? Asphalt?

A115: Only soil. No concrete, No asphalt and No spoils from the septic field.

Q116: Board Room Ceiling - Drawing A1.21 calls for LP ceiling finish in the Board Conference Room. There is no LP being called out. Drawing A1.22 shows both acoustical ceiling system and linear metal ceiling. Please clarify the ceiling finish in this room

A116: Board Conf Rm 115 is to be a wood look metal linear plank 'WD Panel'; see specification 095100 'Ceilings'.

Q117: Ceiling in Room 115 - In reviewing the drawings for Room 115, we're looking to confirm the exact ceiling plank type required. The only designation we're seeing is "LP," and in Detail 1 on Sheet 1.22, it shows a metal ceiling but doesn't specify the product or type. Could you please clarify what ceiling plank should be used in this location? Let us know if there's a specific product or detail reference we should be looking at

A117: Refer to A116

Q118: Site Construction Bid - The base bid is to include all site work including topsoil removal, excavation to sub-grade for asphalt paving, sidewalks & public works building pad for areas as shown on drawing 5 of 23 listed as alternate items correct? In the event that alternate No. 1 & 8 are not accepted, how are these area to be left, are we to install topsoil and permanently stabilize with grass seed and mulch? Should the cost for stabilization be in the base bid?

A118: Yes, PW area will be prepared for construction with topsoil removal, excavation, utilities, etc. as part of base bid but asphalt, sidewalk, and all finish related site work are part of the alternates. If Alternate 1 and 8 are not accepted, base bid should include permanent seeding and stabilization.

Q119: When will the structural drawings for the admin/police building & public works buildings be uploaded?

A119: Structural dwgs (S-series) are included in bid set for Admin/PD. Public works is delegated design see spec section 133418 'Engineered Post Frame Building System'.

Q120: BMP #1 detail - Top of soil is 439.5, bottom of soil is 439. Pond has 6" of soil. Detail shows 6" pipe bottom of pond surrounded by 4" stone. Please confirm depth of pond and size of pipe.

A120: The 6" pipe with 4" stone surround shall be buried beneath the 6" of soil depth.

Q121: BMP#1 Bioretention Area - Drawing 16 of 23, BMP #1 cross section, indicates bottom of soil is at elevation 439.00 and top of soil is at elevation 439.50. please confirm 6" of amended soils is correct.

A121: 6" of amended soils is correct.

Q122: Flag Pole - Who is responsible to supply and install the flag pole?

A122: Per Addendum 4 - Site Contractor

Q123: Soil Stockpile - Can you expand on the 3,600 cy stockpile? What is the purpose? Can you confirm the material is supplied by others and we are only responsible for loading and hauling the material? Is this still required even if the site is balanced?

A123: The site is not balanced, there is an excess of 3,600 cy of soil that the site contractor is responsible to temporarily store (until the Evans Site NPDES Permit is approved), load, haul and dump at the Evans Site.

Q124: The schedule states to contact Meier Supply Co., Inc. for equipment pricing. Are we restricted to pricing from Meier Supply only?

A124: Please clarify question.

Q125: Electrical work for Alternate 10 - There is an alternate #10 for a mezzanine 115. This is no work shown on any of the electrical plans for this alternate. Do you want to add or modify any of the lighting or power plans for this alternate, and if so can you provide a drawing showing what you will need if this alternate is accepted?

A125: Mezz lighting plan to be provided in next addendum.

Q126: Summary of Multiple Contracts - Specification section 011250, 1.8 Site construction Contract 2 –

a, please identify and provide the location of the " farm property across Moyer Road at the Evans Site". 1.8 Site construction Contract 2-

b, I assume the Evans Site as stated in the first sentence is referring to 370 Evans Road, the Gilbertsville Site in the second sentence I assume is referring to the project site. Please confirm Is there a sediment and erosion control plan for the 370 Evans road Site?

Is the site contractor responsible to install and maintain erosion control devices at the 370 Evans Road site?

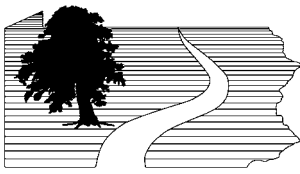
A126: Gilbertsville Site is the Project site. Access to the Evans Road property will occur at the existing stone parking lot. E&S measures at the Evans Rd. property will not be a part of this contract.

Q127: Rock Removal - If rock is encountered in building foundations in either building, which contract is responsible for the removal? (.

A127: GC, but Each Prime is responsible if rock is encountered in utility trenches that may be under the slab or under the foundations

Q128: Site Construction bid - In the event that alternate 1 & 8 are not accepted, how will storm water runoff be controlled?

A128: To be answered in next Addendum



Penn's Trail Environmental, LLC
21 East Lincoln Ave - Suite 160
Hatfield, PA 19440
Phone: (215) 362-4610
e-mail: staff@pennstrail.com

April 24, 2025

Chester Valley Engineers, Inc.
112 Moores Rd. – Suite 200
Malvern, PA 19355

RE: Stormwater Infiltration Study & Report – Additional Testing
2290 Gilbertsville Road Tract
Upper Pottsgrove Twp., Montgomery Co., PA
PTE #7250

Dear Mr. Gryga,

Penn's Trail Environmental, LLC has performed a subsurface soil and permeability investigation on the referenced parcel as additional testing to our December 2024 report. The intent of this investigation was to evaluate the subsurface soil profile and determine the permeability characteristics of the areas indicated for proposed stormwater disposal via infiltration. Test excavations were developed with a backhoe and described in accordance with United States Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS) methodology. In-situ permeability testing was conducted using the Double Ring Infiltrometer (DRI) method as described by ASTM-D3385-09 standards.

Current regulation requires that stormwater control be designed for this proposed new land development project. Permeability testing is required to determine if infiltrative capacity of the subsoil is present. Test locations were positioned throughout this site at the direction of the project engineer. Depth of testing was determined by final constructed grade of the stormwater facilities or adjusted for shallow bedrock or groundwater encountered in test excavations. A backhoe was required for excavation of the test probes and establishment of the double rings.

Soil profile descriptions were developed at each test point and include information such as texture, structure, soil depth, and indication (or lack thereof) of a seasonal high-water table or restricted drainage as would be indicated by redoximorphic features.

Redox features often occur when infiltrating water encounters a slowly permeable layer as it moves downward through the soil profile. These features typically do not indicate a true water table or zone that is saturated for prolonged periods by regional groundwater. Regional groundwater was not encountered on the site. Redox features, when they are observed, are an indicator of infiltration issues which are addressed by permeability testing and should not be considered a limiting design factor unless permeability rates reveal that to be the case.

Pre-development USDA-NRCS soil mapping at this site, or more specifically the test locations, was the Lehigh soil series. The Lehigh series consists of deep, moderately well and somewhat poorly drained soils formed in residuum from metamorphosed sandstone and shale. Saturated hydraulic conductivity is moderately low. Solum thickness ranges from 20 to 40 inches. Bedrock is at 40 to 60 inches. Diagnostic horizons and features recognized in this pedon are an ochric epipedon from the surface of the soil to a depth of about 7 inches (Ap horizon) and an argillic horizon from about 7 to 28 inches (Bt horizon).

The soils at the testing locations were found to be derived primarily from metamorphosed sandstone and shales as mapped. This investigation was not conducted for the purpose of disputing current mapping or as a re-mapping effort.

Soil profiles of the backhoe excavated test pits were developed to depths at or near final constructed grade of proposed stormwater control facilities. The most restrictive barriers from the point of infiltration to contacting the base flow groundwater table were determined. The most common of these barriers in our region include restrictive soil horizons, varying lithology, fracturing of the bedrock or insufficient

fracturing of the bedrock, and encountering groundwater among other factors. Redoximorphic features were noted in all test pits in the argillic (Bt) and Ct horizons. Subsequent detailed testing more accurately predicts the ability of the soil to efficiently infiltrate stormwater and has been attached.

Testing sought to identify zones that would potentially allow the infiltration of stormwater. The testing protocol used considers regional construction practices, the likelihood of “silting in” during and following construction and the subsurface characteristics of the soil and geology. The determination at this site was that bedrock presents the most restrictive condition to establish installation depth for infiltration of stormwater.

The recommended acceptable range for subsurface disposal of stormwater is 0.10 inches per hour to 10.0 inches per hour according to current BMP guidance. Surface basins where additional storage is economical can have much slower rates and still provide some infiltration. Our office recommends that the design engineer assume zero infiltration for any stormwater area which achieves less than 0.10 inches per hour.

There are various means to arrive at an infiltrative rate for the substratum following testing. Our method is to average the last four stabilized readings as established in the PA BMP Manual. Another is to use the “last” reading as is common for percolation testing for wastewater disposal. Averaging more accurately reflects what would likely occur during a rain (soil saturation) event.

Testing was conducted at discreet locations selected by the project engineer using double ring infiltrometers. Data sheets containing the information recorded for the soil profile descriptions and double ring infiltrometers have been included as attachments to this report. A table summarizing the field data can be found below:

Stormwater Testing Summary					
Test Location	Depth of Test Pit Inches	Depth to Water Inches	Depth to Rock Inches	Depth of Testing Inches	Infiltration Rate Inches per hour
5	26	---	26	0	0.00
6	25	---	25	0	0.31

* - very slowly diggable

The soil encountered demonstrated varied infiltration rates. Subsurface conditions may change following construction and resultant redirection of surface water following development. Results suggest that the average infiltration rate at tested location 6 is within the recommended guidelines even after a safety factor of two is applied. At test location 5, the soils encountered demonstrated zero infiltration at the depth tested below the recommended guidelines of 0.10 inches per hour after a safety factor of two is applied.

At the test locations, stormwater control devices that allow the design engineer flexibility in reducing velocity containing and disposing of stormwater on this site should be limited to surface facilities due to the shallow bedrock and slow drainage of the soil at these locations. Alternatively, a stormwater best management practice (BMP) that sufficiently renovates the necessary volume of stormwater onsite can be selected by the project engineer based on the soil profiles and infiltration conditions encountered at the site. Surface features such as vegetated swales and berms can be employed to reduce overland flow and retain water in-situ thus extending contact time and providing for additional infiltration.

Our findings are a result of testing conducted in specific locations and conditions. Should evidence contrary to the findings in this report be discovered prior to, during, or after construction of the

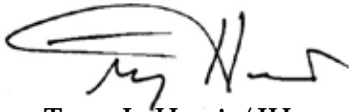
stormwater control devices, our office must be notified immediately so our recommendations can be reviewed and revised if necessary.

Penn's Trail Environmental, LLC expresses no guarantee that the soil conditions following excavation will be identical to those encountered during this investigation. We recommend that caution is exercised during construction to minimize compaction, or other disturbance in those areas intended for use as infiltration areas.

Please review the enclosed information and if any questions arise do not hesitate to contact our office.

Sincerely,

Penn's Trail Environmental, LLC

A handwritten signature in black ink, appearing to read 'Terry L. Harris', with a stylized flourish at the end.

Terry L. Harris/JH
Soil Scientist

Penn's Trail Environmental, LLC



21 East Lincoln Ave - Suite 160
Hatfield, PA 19440
ph. (215) 362-4610

Date: 4/24/25 Pit # 5 PTE # 7250
Project: 2290 Gilbertsville Road
Location: 2290 Gilbertsville Road
Upper Pottsgrove Twp., Montgomery Co., PA
Soil Series Lehigh

Horizon	Depth (in.)	Color	Redox Features	Texture	Structure	Consistence	Boundary
Ap	0-6	10YR 4/2	---	silt loam	moderate medium gr	very friable	abrupt smooth
Bt	6-13	10YR 6/2 variegated	many prominent	gravelly sandy clay	moderate medium sbk	firm	clear wavy
Ct	13-26	10YR 6/2 variegated	many prominent	very flaggy sandy clay	massive	firm	clear wavy
R	26+						

Soil Scientist: James Haklar

Notes

EPIPEDON

Ochric

SUBSURFACE HORIZON(S)

Argillic

SOIL ORDER

Alfisol

DRAINAGE CLASS

Somewhat Poorly Drained

LANDFORM

Upland

POSITION

Shoulder

PARENT MATERIAL

Residium

BEDROCK LITHOLOGY

Hornfels

REDOX FEATURES

Abundance

Few <2%

Common .. 2-20%

Many>20%

Contrast

faint

hue & chroma of matrix and redox are closely related.

distinct

matrix & redox features vary 1-2 units of hue and several units of chroma & value.

prominent

Matrix & redox features vary several units in hue, value & chroma.

STRUCTURE

Grade

Structureless - No observable aggregation or arrangement of lines of weakness.

Weak - Poorly formed, indistinct peds barely observable in place.

Moderate - Well-formed, distinct peds moderately durable & evident in place.

Strong - Durable peds evident in undisturbed soil & become separated when disturbed.

COARSE FRAGMENTS (% of profile)

15-35%

gravelly
channery
cobbly
flaggy
stony

35-65%

very gravelly
very channery
very cobbly
very flaggy
very stony

>65%

extremely gravelly
extremely channery
extremely cobbly
extremely flaggy
extremely stony

BOUNDARY

Distinctness

abrupt ...<1" (thick)

clear1-2.5"

gradual ...2.5-5"

diffuse... ..>5"

Topography

smooth - boundary is nearly level

wavy - pockets with width greater than depth

irregular - pockets with depth greater than width

broken - boundary is discontinuous and interrupted

Type

pl - platy

pr - prismatic

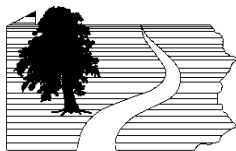
cpr - columnar

gr - granular

abk - angular blocky

sbk - subangular blocky

Penn's Trail Environmental, LLC



21 East Lincoln Ave - Suite 160
Hatfield, PA 19440
ph. (215) 362-4610

Date: 4/24/25 Pit # 6 PTE # 7250
Project: 2290 Gilbertsville Road
Location: 2290 Gilbertsville Road
Upper Pottsgrove Twp., Montgomery Co., PA
Soil Series Lehigh

Horizon	Depth (in.)	Color	Redox Features	Texture	Structure	Consistence	Boundary
Ap	0-4	10YR 4/2	---	silt loam	moderate medium gr	very friable	abrupt smooth
Bt	4-11	10YR 6/2 variegated	many prominent	gravelly sandy clay	moderate medium sbk	firm	clear wavy
Ct	11-25	10YR 6/2 variegated	many prominent	extremely flaggy sandy clay	massive	firm	clear wavy
R	25+						

Soil Scientist: James Haklar

Notes

EPIPEDON

Ochric

SUBSURFACE HORIZON(S)

Argillic

SOIL ORDER

Alfisol

DRAINAGE CLASS

Somewhat Poorly Drained

LANDFORM

Upland

POSITION

Shoulder

PARENT MATERIAL

Residium

BEDROCK LITHOLOGY

Hornfels

REDOX FEATURES

Abundance

Few <2%

Common .. 2-20%

Many>20%

Contrast

faint

hue & chroma of matrix and redox are closely related.

distinct

matrix & redox features vary 1-2 units of hue and several units of chroma & value.

prominent

Matrix & redox features vary several units in hue, value & chroma.

STRUCTURE

Grade

Structureless - No observable aggregation or arrangement of lines of weakness.

Weak - Poorly formed, indistinct peds barely observable in place.

Moderate - Well-formed, distinct peds moderately durable & evident in place.

Strong - Durable peds evident in undisturbed soil & become separated when disturbed.

COARSE FRAGMENTS (% of profile)

15-35%

gravelly
channery
cobbly
flaggy
stony

35-65%

very gravelly
very channery
very cobbly
very flaggy
very stony

>65%

extremely gravelly
extremely channery
extremely cobbly
extremely flaggy
extremely stony

BOUNDARY

Distinctness

abrupt ...<1" (thick)

clear1-2.5"

gradual ...2.5-5"

diffuse...>5"

Topography

smooth - boundary is nearly level

wavy - pockets with width greater than depth

irregular - pockets with depth greater than width

broken - boundary is discontinuous and interrupted

Type

pl - platy

pr - prismatic

cpr - columnar

gr - granular

abk - angular blocky

sbk - subangular blocky

Double Ring Infiltrometer Data Reporting Sheet

Job Name:	2290 Gilbertsville Road	Job #:	7250
Location:	2290 Gilbertsville Road	Date:	4/24/2025
Township:	Upper Pottsgrove	Ring #:	5
County:	Montgomery	Technician:	Devon Tarantino
Witness:	-----	Tax Parcel:	60-00-01093-00-8
Water Temp:	60's °F	Weather:	sunny 60's °F
Test Depth:	Surface	pH:	6.9

Time (hr:min)	Interval (min)	Inner Ring Drop (in)	Inner Ring Volume change (ml)	Outer Ring Drop (in)	Outer Ring Volume Change (ml)	Rate (ml/min)	Infiltration rate (in/hr)
8:10 AM			fill		fill		
8:40 AM	30	0	0	0	0	0.00	0.00
9:10 AM	30	0	0	0	0	0.00	0.00
9:40 AM	30	0	0	0	0	0.00	0.00
10:10 AM	30	0	0	0	0	0.00	0.00
10:40 AM	30	0	0	0	0	0.00	0.00
11:10 AM	30	0	0	0	0	0.00	0.00
Average			0.00		0.00	0.00	0.00

Notes: Water temperature was 56F, but 60F when rounded to the nearest 5F interval.



Double Ring Infiltrometer Data Reporting Sheet

Job Name:	2290 Gilbertsville Road	Job #:	7250
Location:	2290 Gilbertsville Road	Date:	4/24/2025
Township:	Upper Pottsgrove	Ring #:	6
County:	Montgomery	Technician:	Devon Tarantino
Witness:	-----	Tax Parcel:	60-00-01093-00-8
Water Temp:	60's °F	Weather:	sunny 60's °F
Test Depth:	Surface	pH:	6.9

Time (hr:min)	Interval (min)	Inner Ring Drop (in)	Inner Ring Volume change (ml)	Outer Ring Drop (in)	Outer Ring Volume Change (ml)	Rate (ml/min)	Infiltration rate (in/hr)
8:11 AM			fill		fill		
8:41 AM	30	< 1/8	20	1/8	140	0.67	0.09
9:11 AM	30	1/8	50	2/8	170	1.67	0.22
9:41 AM	30	1/8	80	2/8	180	2.67	0.35
10:11 AM	30	1/8	70	2/8	220	2.33	0.30
10:41 AM	30	1/8	80	2/8	190	2.67	0.35
11:11 AM	30	1/8	60	2/8	200	2.00	0.26
Average			72.50		197.50	2.42	0.31

Notes: Water temperature was 56F, but 60F when rounded to the nearest 5F interval.



TABLE OF CONTENTS

VOLUME 1

DIVISION 00 – PROCUREMENT & CONTRACTING REQUIREMENTS

000110	TABLE OF CONTENTS – ADD#06
000115	LIST OF DRAWINGS
001113	ADVERTISEMENT FOR BIDS
001153	CONTRACTOR QUALIFICATION STATEMENT
001153.1	A305 – 2020 - WORKING DRAFT
001153.A	A305 EXHIBIT A – 2020 – FORM DRAFT
001153.B	A305 EXHIBIT B – 2020 – FORM DRAFT
001153.C	A305 EXHIBIT C – 2020 – FORM DRAFT
001153.D	A305 EXHIBIT D – 2020 – FORM DRAFT
001153.E	A305 EXHIBIT E – 2020 – FORM DRAFT
001154	AGREEMENT OF SURETY
001155	LETTER OF INSURER
002113	INSTRUCTION TO BIDDERS
002625	SUBSTITUTION REQUEST FORM
003132	GEOTECHNICAL DATA
003132.1	GEOTECHNICAL REPORT – GILBERTSVILLE
004011	NON-DISCRIMINATION CLAUSE
004116	GENERAL CONSTRUCTION BID FORM
004117	MECHANICAL CONTRACTOR BID FORM
004118	PLUMBING CONTRACTOR BID FORM
004119	ELECTRICAL CONTRACTOR BID FORM
004120	SITE CONTRACTOR BID FORM
004300	BID SECURITY, PAYMENT BOND, PERFORMANCE BOND
004300.01	A312 – 2010 PAYMENT BOND
004300.02	A312 – 2010 PERFORMANCE BOND
004300.03	A310 – 2010 BID BOND
005216	AGREEMENT FORM
005216.1	A132-2019 - AGREEMENT FORM – SAMPLE
005216.2	A132 EXHIBIT A – 2019 – SAMPLE
006119	MAINTENANCE BOND
006119.1	MAINTENANCE BOND – 18 MONTH
007216	GENERAL CONDITIONS
007216.1	GENERAL CONDITIONS – AIA A232-2019 – SAMPLE
007300	SUPPLEMENTARY CONDITIONS
007343	PREVAILING WAGE RATE REQUIREMENTS
007343.1	PA PREVAILING WAGE RATES
008000	PUBLIC WORK EMPLOYMENT VERIFICATION ACT – PA E VERIFY
008020.1	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM – PROGRAM GUIDELINES
008020.2	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM - KEY COMPLIANCE GUIDELINES
008020.3	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM – FREQUENTLY ASKED QUESTIONS
008020.4	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM – STEEL GUIDANCE
008020.5	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM – ST-2
008020.6	REDEVELOPMENT ASSISTANCE CAPITAL PROGRAM – ST-3

008020.7	LIST OF EXEMPT MACHINERY AND EQUIPMENT STEEL PRODUCTS
008200	SAFETY & HEALTH MANAGEMENT PLAN
009000	NON-COLLUSION AFFIDAVIT

DIVISION 01 – GENERAL REQUIREMENTS

011100	SUMMARY
011100.01	MILESTONE CONSTRUCTION SCHEDULE
011250	SUMMARY OF MULTIPLE PRIMES
011400	WORK RESTRICTIONS
011500	FIELD ENGINEERING
012200	UNIT PRICES
012300	ALTERNATES
012600	CONTRACT MODIFICATION PROCEDURES
012900	PAYMENT PROCEDURES
013100	PROJECT MANAGEMENT AND COORDINATION
013117	COORDINATION DRAWINGS
013200	CONSTRUCTION PROGRESS DOCUMENTATION
013300	SUBMITTAL PROCEDURES
014000	QUALITY REQUIREMENTS
014200	REFERENCES
015000	TEMPORARY FACILITIES AND CONTROLS
015526	TRAFFIC CONTROL
016000	PRODUCT REQUIREMENTS
017300	EXECUTION
017329	CUTTING AND PATCHING
017419	CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
017700	CLOSEOUT PROCEDURES
017823	OPERATION AND MAINTNENCE DATA
017839	PROJECT RECORD DOCUMENTS
017900	DEMONSTRATION AND TRAINING

DIVISION 02 – EXISTING CONDITIONS

020500.0	DEMOLITION, REMOVAL, HAULING
024119	SELECTIVE DEMOLITION

DIVISION 03 – CONCRETE

033000	CAST IN PLACE CONCRETE
033000.0	POURED IN PLACE CONCRETE
033300.0	CONCRETE SIDEWALK/VEHICULAR APRON, FOUNDATION (GENERATOR), SLAB, PAD (TRASH ENCLOSURE AREA), CURBS, AND FOOTINGS
033002	CAST IN PLACE CONCRETE FOR UTILITIES
034000	PRECAST CONCRETE PAVING
034826	CONCRETE BUMPER BLOCK

DIVISION 04 – MASONRY

042000	UNIT MASONRY
--------	--------------

DIVISION 05 – METALS

055000	METAL FABRICATIONS
055119	METAL GRATING STAIRS
055200	RAILINGS AND BARRIERS
055213	PIPE AND TUBE RAILINGS

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

061000	ROUGH CARPENTRY
061600	SHEATHING
061753	SHOP FABRICATED WOOD TRUSSES
066400	REINFORCED PLASTIC PANELING

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

071000	DAMPPROOFING AND WATERPROOFING
071326	SELF-ADHERING SHEET WATERPROOFING
072100	THERMAL INSULATION
072600	VAPOR RETARDERS
072715	WEATHER BARRIERS
073113	ASPHALT SHINGLES
074646	FIBER CEMENT SIDING
076200	SHEET METAL FLASHING AND TRIM
077253	SNOW GUARDS
078413	PENETRATION FIRESTOPPING
078443	FIRE-RESISTIVE JOINT SYSTEMS
079200	JOINT SEALANTS
079500	EXPANSION CONTROL

DIVISION 08 – OPENINGS

080671.AD	DOOR HARDWARE SCHEDULE – ADMINISTRATION/PD
080671.PW	DOOR HARDWARE SCHEDULE – PUBLIC WORKS ALTERNATE - GILBERTSVILLE
081113	HOLLOW METAL DOORS & FRAMES
081416	FLUSH WOOD DOORS
083113	ACCESS DOORS AND FRAMES
083323	COILING DOORS
083613	SECTIONAL DOORS – ADD#06
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONT
084213	SECURITY ALUMINUM ENTRANCES AND STOREFRONT
085213	ALUMINUM-CLAD WOOD WINDOWS
085653	SECURITY WINDOWS
087100	DOOR HARDWARE
088800	GLAZING
089000	ARCHITECTURAL LOUVERS

DIVISION 09 – FINISHES

092216	NON-STRUCTURAL METAL FRAMING
092900	GYPSUM BOARD
093000	TILING
095100	CEILINGS
096500	RESILIENT WALL BASE

096519	RESILIENT TILE FLOORING
096710	FLUID APPLIED FLOORING
096813	TILE CARPETING
097200	VINYL WALLCOVERING
099100	PAINTING

DIVISION 10 – SPECIALTIES

101400	INTERIOR TACTILE SIGNAGE
101400.0	SIGNS
101410	PLAQUES
101419	DIMENSIONAL LETTER SIGNAGE
102113	TOILET COMPARTMENTS
102600	WALL PROTECTION
102641	BULLET RESISTANT PANELS
102800	TOILET ACCESSORIES
104400	FIRE PROTECTION SPECIALTIES
105100	METAL STORAGE LOCKERS
105626.13	MOBILE STORAGE SHELVING UNITS
105723	CLOSET AND UTILITY SHELVING
107316	CANOPIES
107516	GROUND SET FLAGPOLES

DIVISION 11 – EQUIPMENT

111100	SPECIALTY EQUIPMENT
--------	---------------------

DIVISION 12 – FURNISHINGS

122400	WINDOW SHADES
123200	MANUFACTURED PLASTIC LAMINATE CLAD CASEWORK
123600	SOLID SURFACE COUNTERTOPS
125500	DETENTION FURNITURE

DIVISION 13 – SPECIAL CONSTRUCTION

133418	ENGINEERED POST FRAME BUILDING SYSTEMS
133419	ENGINEERED CARPORT STRUCTURES

VOLUME 2

DIVISION 22 – PLUMBING

220518	ESCUTCHEONS FOR PLUMBING PIPING
220523	GENERAL DUTY VALVES FOR PLUMBING PIPING
220529	HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
220553	IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
220700	PLUMBING INSULATION
221116	DOMESTIC WATER PIPING
221119	DOMESTIC WATER PIPING SPECIALTIES
221316	SANITARY WASTE AND VENT PIPING
224000	PLUMBING FIXTURES

224700 DRINKING FOUNTAINS AND WATER COOLERS

DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING(HVAC)

230529 HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
230553 IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
230593 TESTING, ADJUSTING, AND BALANCING FOR HVAC
230700 HVAC INSULATION
230900 INSTRUMENTATION AND CONTROL FOR HVAC
230993 SEQUENCE OF OPERATIONS FOR HVAC CONTROLS
232300 REFRIGERANT PIPING
233300 AIR DUCT ACCESSORIES
233423 HVAC POWER VENTILATOR
233713 DIFFUSERS, REGISTER, AND GRILLES
238126 SPLIT-SYSTEM HEAT PUMPS AND AIR CONDITIONERS

DIVISION 26 – ELECTRICAL

260500 GENERAL REQUIREMENTS
260500.0 GENERAL ELECTRICAL REQUIREMENTS
260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
260533 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
262416 PANELBOARDS
262726 WIRING DEVICES
262816 ENCLOSED SWITCHES AND CIRCUIT BREAKERS
263213 ENGINE GENERATORS
263600 TRANSFER SWITCHES
265100 LIGHTING FIXTURES
265600 EXTERIOR LIGHTING
265600.0 EXTERIOR LIGHTING

DIVISION 31 – EARTHWORK

312000 ROUGH GRADING, EXCAVATION, AND TRENCHING
312500 EROSION AND SEDIMENT CONTROL

DIVISION 32 – EXTERIOR IMPROVEMENTS

321216 FURNISHING AND INSTALLATION OF ASPHALT PAVING
321723 PAVEMENT MARKINGS
321823 CONCRETE BUMPER BLOCK
323113 CHAINLINK FENCES AND GATES
323119 DECORATIVE AND CHAIN LINK METAL GATES
323119.0 ORNAMENTAL METAL FENCE
323223 SEGMENTED RETAINING WALL
323913 BOLLARDS
329000 LANDSCAPING
329200 FINE GRADING AND SEEDING

DIVISION 33 – UTILITIES

331100 WATER UTILITY DISTRIBUTION PIPING
333000 SANITARY SEWER

334000 STORMWATER UTILITIES
335100 PROPANE VESSELS

END OF SECTION

SECTION 083613 - SECTIONAL DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Insulated Sectional Overhead Doors.
- B. Electric Operators and Controls.
- C. Operating Hardware, tracks, and support.

1.2 RELATED SECTIONS

- A. Section 033000 - Cast-In-Place Concrete: Prepared opening in concrete. Execution requirements for placement of anchors in concrete wall construction.
- B. Section 042000 - Unit Masonry: Prepared opening in masonry. Execution requirements for placement of anchors in masonry wall construction.
- C. Section 055000 - Metal Fabrications: Steel frame and supports.
- D. Section 061053 - Miscellaneous Rough Carpentry: Rough wood framing and blocking for door opening.
- E. Section 079200 - Joint Sealers: Perimeter sealant and backup materials.
- F. Section 087100 - Door Hardware: Cylinder locks.
- G. Section 099100 - Painting: Field painting.
- H. Section 16150 - Wiring Connections: Electrical service to door operator.

1.3 REFERENCES

- A. [ANSI/DASMA 102](#) - American National Standard Specifications for Sectional Overhead Type Doors.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable code.
 - 1. Refer to Structural Drawings.
- B. Wiring Connections: Requirements for electrical characteristics.
 - 1. Coordinate with Electrical drawings and electrical contractor.

- C. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Operation and Maintenance Data.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
- C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.
- C. Store materials in a dry, ventilated weathertight location.

1.8 PROJECT CONDITIONS

- A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

1.9 WARRANTY

- A. Warranty: Manufacturer's limited door warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 1 year.
- B. Warranty: Manufacturer's limited door and operators System warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: sales@overheaddoor.com.
- B. Acceptable Manufactures:
 - 1. Assa Abloy Entrance Systems
 - 2. Industrial Door Solutions
 - 3. Wayne-Dalton
 - 4. American Garage Door Supply Inc.

2.2 INSULATED SECTIONAL OVERHEAD DOORS

- A. Insulated Steel Sectional Overhead Doors: **Model 592 Thermacore Insulated Steel Doors** by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
 - d. End Stiles: 16 gauge with thermal break.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.
 - 1) High cycle spring: 100,000 cycles.
 - f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
 - g. Thermal Values: Tested installed assembly U-factor of 0.10 Btu/hr/SF degrees F; calculated section R-value of 17.50.
 - h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph.
 - a. Partial Glazing of Steel Panels:
 - 1) Tempered Insulated Glazing – Size & Location as Indicated on Drawings.
 - 2. Finish and Color:
 - a. Two coat baked-on polyester:

- 1) Custom Color as selected by Architect to match RAL#.
3. Wind load Design: Provide to meet the Design/Performance requirements specified.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:
 - a. Interior mounted slide lock.
 - b. Interior mounted slide lock with interlock switch for automatic operator.
 - c. Keyed lock.
 - d. Keyed lock with interlock switch for automatic operator.
 - e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
6. Weatherstripping:
 - a. EPDM bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
 - a. Provide Overhead rack
8. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.
 - 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Push-button and key operated control stations with open, close, and stop buttons.
 - 3) Interior location.
 - c. Special Operation:
 - 1) Radio control operation.
 - (a) **Police Department Sally Port Sectional Door – (8) units total**
 - (b) **Public Works Building – (5) units per door; (25) total**
 - 2) Card reader control.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until openings have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify electric power is available and of correct characteristics.

- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- C. Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.
- F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

3.4 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
- B. Clean doors, frames and glass.
- C. Remove temporary labels and visible markings.

3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.
- C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION

PLANTING NOTES

1. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.
2. ALL PLANTS SHALL BE NURSERY GROWN.
3. ALL PLANTS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
4. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS.
5. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER OR HIS REPRESENTATIVE AND THE TOWNSHIP. CONTRACTOR SHALL NOTIFY THE OWNER, IN WRITING OF ANY PLANT MATERIALS WHICH THEY FEEL WILL NOT BE AVAILABLE OR LIKELY TO THRIVE IN THE LOCATIONS INDICATED ON THE PLAN.
6. MEASUREMENT: DIMENSIONS OF TREES AND SHRUBS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
7. SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE PLANT LIST, UNLESS AUTHORIZED IN WRITING BY AND THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER.
8. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM & WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
9. PLANT MATERIALS NOT PLANTED THE DAY OF DELIVERY ARE TO BE HEALED IN SO THAT ROOT SYSTEMS ARE PROTECTED FROM THE DRYING FORCES OF THE WIND AND SUN. TEMPORARY WATER SYSTEMS ARE TO BE USED FOR PLANT MATERIALS WHICH WILL BE STORED FOR MORE THAN ONE WEEK.
10. THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS, IN WRITING.
11. PLANTS WITH DAMAGED OR BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN AS DETERMINED BY THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER WILL NOT BE ACCEPTED AND ARE TO BE REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL.
12. TREE STAPLING SHALL BE INSTALLED ACCORDING TO THE PLANTING DETAILS. TREE STAPLES SHALL BE INSTALLED ON ALL DECIDUOUS AND EVERGREEN TREES. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT TREES ARE MAINTAINED STRAIGHT AND UPRIGHT THROUGHOUT THE GUARANTEE PERIOD. THE TREE STAPLES REMAIN INSTALLED AS THEY WILL DETERIORATE WITHIN THE SUBGRADE.
13. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA) STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ONLY DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED AT TIME OF PLANTING. TREES AND SHRUBS ARE TO BE PRUNED ONE YEAR AFTER PLANTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PRUNE TREES AND SHRUBS AT THE APPROPRIATE TIME.
14. MULCH FOR TREES, SHRUBS AND GROUND COVER SHALL BE FINELY SHREDDED OAK BARK, DARK BROWN IN COLOR. AGED AT LEAST ONE YEAR AND CLEAN AND FREE OF WEEDS. PRE-EMERGENT WEED KILLER SHALL BE 'TREFLAN' OR APPROVED EQUAL. APPLY WEED KILLER TO TOPSOIL PRIOR TO MULCHING BED PLANTINGS. ALL SHRUBS TO BE PLANTED IN CONTINUOUS BEDS UNLESS OTHERWISE NOTED. ALL SHRUB BEDS TO RECEIVE 3" DEEP CONTINUOUS MULCH COVER. MULCH MAY NOT TOUCH THE TRUNKS OF TREES OR THE MAIN STEMS OF SHRUBS.
15. TREES IN LEAF WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICANT SUCH AS WILT-PROOF.
16. PREPARATION OF PLANTING SOIL - BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, STONES, CLAY LUMPS, AND OTHER EXTRANEIOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH. SOIL (BACKFILL) FOR TREES, SHRUBS, AND GROUND COVER SHALL BE A MIXTURE BY VOLUME OF THE FOLLOWING MATERIALS IN QUANTITIES SPECIFIED: 20% PEAT MOSS, 75% TOPSOIL AND 5% ORGANIC MATTER. ADD AN ORGANIC FERTILIZER TO THE ABOVE MIXTURE AT THE RATES SPECIFIED BY THE MANUFACTURER, FOR NEW TREES AND SHRUBS.
17. WARRANT TREES AND SHRUBS FOR A PERIOD OF 12 MONTHS AFTER WRITTEN DATE OF ACCEPTANCE BY THE TOWNSHIP LANDSCAPE ARCHITECT AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY. REPLACEMENTS SHALL BE PLACED UNDER WARRANTY AN ADDITIONAL 12 MONTH PERIOD. A PLANT SHALL BE CONSIDERED DEAD IF 25% OR MORE OF THE PLANT HAS DIED.
18. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE AND THE TOWNSHIP ENGINEER IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.
19. MINOR ADJUSTMENTS TO TREE LOCATION MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP'S REPRESENTATIVE IF MAJOR ADJUSTMENTS ARE REQUIRED.
20. TOPSOIL SHALL BE REPLACED AT A THICKNESS OF APPROXIMATELY EIGHT (8) INCHES. MINIMUM OF SIX (6) INCHES IN ALL NEWLY ESTABLISHED LAWN AREAS AND A MINIMUM OF TWELVE (12) INCHES IN FOUNDATION PLANTING AREAS. THE MATERIAL MUST MEET THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408 SPECIFICATIONS, AS AMENDED. ANY EXCAVATED ROCK DUE TO LANDSCAPE INSTALLATION MUST BE DISPOSED OF OFF SITE.
21. THE CONTRACTOR SHALL CONTACT THE TOWNSHIP IN WRITING TO REQUEST A FINAL INSPECTION FOR ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THESE INSPECTIONS WILL BE PERFORMED WHEN MATERIALS ARE IN FULL LEAF ONLY (MAY 1 THROUGH NOVEMBER 15). ALL GUARANTEE ESCROW FUNDS WILL BE RELEASED UPON ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THE GUARANTEE WILL BE EXTENDED UNTIL THIRTY (30) DAYS AFTER RECEIPT OF THE REQUEST LETTER FOLLOWING MAY 1. SHOULD THE END OF THE GUARANTEE PERIOD OCCUR AFTER NOVEMBER 15, THE GUARANTEE SHALL BE EXTENDED TO MAY 15.
22. PERMANENT SEED MIX SHALL BE AS NOTED ON EROSION AND SEDIMENTATION NOTES. THE FALL PLANTING SEASON SHALL EXTEND FROM SEPTEMBER 1 TO OCTOBER 15. THE SPRING PLANTING SEASON SHALL EXTEND FROM APRIL 1 TO MAY 15.

CONSTRUCTION NOTES

1. WORK IN THE SITEWORK CONSTRUCTION CONTRACT INCLUDES ALL LABOR, MATERIALS EQUIPMENT, AND SERVICES NECESSARY FOR THE CIVIL CONSTRUCTION. WORK SHALL BE DEFINED IN THE CIVIL (C-SERIES) AND HIGHWAY OCCUPANCY PERMIT (HOP) DRAWINGS, AS DESCRIBED IN THE GENERAL CONDITIONS AND SPECIFICATIONS DIVISIONS 01, 31, 32, AND 33. WORK OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
- 1.1. SITE PREPARATION, INCLUDING CLEARING, EARTHWORK, DEMOLITION, AND GRADING.
- 1.2. IMPORT AND/OR EXPORT OF FILL MATERIAL.
- 1.2.1. THIS INCLUDES LOADING, HAULING, INSTALLATION, IMPORT, EXPORT, AND DISPOSAL OF FILL MATERIAL LOCATED ON THE FARM PROPERTY ACROSS MOYER ROAD AT THE EVANS SITE. THIS INCLUDES IMPORT OF FILL MATERIAL TO THE EVANS SITE, AND EXPORT OF FILL MATERIAL FROM THE GILBERTSVILLE SITE. SITE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY STOCKPILING APPROXIMATELY 3,600CY OF MATERIAL AND THE APPROPRIATE E&S MEASURES AT THE GILBERTSVILLE SITE AS SHOWN ON THE CVE CIVIL PLANS. IN LATE FALL OR WINTER, AS DIRECTED BY THE CONSTRUCTION MANAGER, THE SITE CONTRACTOR IS RESPONSIBLE FOR LOADING, HAULING AND DUMPING ALL MATERIAL TO 370 EVANS ROAD, POTTS TOWN, PA.
- 1.3. SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, ROADWAYS, PARKING LOTS, PEDESTRIAN PAVING WHERE NOT ASSIGNED TO THE GC, SITE DEVELOPMENT FURNISHINGS, EQUIPMENT, AND LANDSCAPING, ALL CURBS, ISLANDS, ACCESS ROADS, RETAINING WALLS, FENCING, OPERABLE GATES, RAIN GARDENS, UTILITY INSTALLATION UP TO WITHIN 5 FEET OF THE BUILDING.
- 1.4. ESTABLISHMENT OF BUILDING PAD TO BE PROVIDED AT FINISH FLOOR MINUS CONCRETE STAB AND STONE THICKNESS.
- 1.5. SANITARY, STORM, AND WATER PIPING TO WITHIN 5 FEET OUTSIDE THE BUILDING FOOTPRINT, INCLUDING EXCAVATION, PATCHING IF REQUIRED, AND BACKFILL.
- 1.6. AQUA AMERICA WILL INSTALL THE PROPOSED COPPER WATER SUPPLY PIPE, LOCATED BETWEEN THE CONNECTION WITH THE MAIN AND THE PROPOSED WATER METER, ALONG WITH MAKING THE CONNECTION AT THE MAIN. THE SITE CONTRACTOR SHALL PERFORM ALL OTHER WATER RELATED UTILITY WORK IN SUPPORT OF AQUA AMERICA'S WORK INCLUDING BUT NOT LIMITED TO: ROADWAY AND NON-ROADWAY EXCAVATION/REPAIR, METER PIT/BACKFLOW PREVENTER INSTALLATION, AND ALL ON SITE WATER COMPONENTS. SITE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SAW CUTTING, TRENCH EXCAVATION, BACKFILLING OF TRENCH, AND RESTORE EITHER IN GRASS OR PAVED AREAS FROM THE MAIN CONNECTION TO THE METER PIT. THE SITE CONTRACTOR IS RESPONSIBLE FOR FULL INSTALLATION METHODS OF THE WATER FROM THE METER PIT TO 5 FEET FROM THE BUILDING
2. THE PUBLIC WORKS AND IMPOUND BUILDINGS, ALONG WITH THE ASSOCIATED ENTRY DRIVE AND PARKING LOT, ARE DESIGNATED AS ALTERNATE BID ITEMS; HOWEVER, ALL UTILITIES, STORMWATER MANAGEMENT FACILITIES, AND FINAL GRADING SHALL BE COMPLETED AS PART OF THE BASE BID.
3. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY, FOR RESOLUTION.
4. COST OF BUILDING REPAIRS ASSESSED TO CONTRACTOR RESPONSIBLE FOR BUILDING & FACADE DAMAGE DURING CONSTRUCTION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT SEALED DRAWINGS AND CALCULATIONS FOR THE RETAINING WALL TO THE TOWNSHIP AND LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. ALL SUCH DOCUMENTS SHALL BE SEALED BY A PENNSYLVANIA-LICENSED STRUCTURAL ENGINEER.

DEMOLITION NOTES:

1. REMOVAL OF EXISTING SANITARY INCLUDES THE REMOVAL OF THE ENTIRE SEPTIC SYSTEM AND ANY UNSUITABLE SOILS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.
3. IF REQUIRED, CONTRACTOR IS RESPONSIBLE FOR GRADE ADJUSTMENT OF ALL SURFACE UTILITIES, INCLUDING BUT NOT LIMITED TO VALVES, LIDS, GRATES, RIMS, CAPS, STORM AND SANITARY STRUCTURES WITHIN THE LIMITS OF WORK. GRADE ADJUSTMENTS SHALL BE MADE PRIOR TO THE INSTALLATION OF PAVEMENT WEARING COURSE OR PLACEMENT OF TOPSOIL IN UNPAVED AREAS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL EXISTING FEATURES WHICH ARE DAMAGED DURING CONSTRUCTION AND ARE INDICATED TO REMAIN.
5. REMOVAL OF EXISTING PAVED SURFACES INCLUDES THE REMOVAL OF CRUSHED STONE BASE MATERIALS.
6. DEMOLITION OF TREES AND OTHER VEGETATION INCLUDES REMOVAL OF ALL STUMPS AND ROOT SYSTEMS WITHIN 24" OF EXISTING GRADE.

GRADING NOTES:

1. ALL GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS.
2. ADA RAMP TO EXISTING RESIDENCE IS AN ALTERNATE ITEM. IF NOT SELECTED, A 3:1 FILL SLOPE AND SWALE AT BUILDING SHALL BE INSTALLED AS PART OF THE BASE BID.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING SITE AND SUBSURFACE CONDITIONS PRIOR TO PROCEEDING AND WHILE PROGRESSING WITH THE WORK.
4. CLASSIFICATION OF EXCAVATION: IF ROCK AS HEREIN DEFINED, IS ENCOUNTERED WITHIN THE LIMITS OF EXCAVATION, THE CONTRACT PRICE WILL BE ADJUSTED UPON AN AGREED UNIT PRICE PER CUBIC YARD AND INFORM THE TOWNSHIP REPRESENTATIVE IMMEDIATELY. ROCK EXCAVATION WILL CONSIST OF THE REMOVAL AND DISPOSAL OF BOULDERS ONE CUBIC YARD OR MORE IN VOLUME; SOLID ROCK; MATERIALS THAT CANNOT BE REMOVED WITHOUT SYSTEMATIC DRILLING AND BLASTING SUCH AS ROCK MATERIAL IN LEDGES OR AGGREGATE CONGLOMERATE DEPOSITS THAT ARE SO FIRMLY CEMENTED AS TO POSSESS THE CHARACTERISTICS OF SOLID ROCK; AND CONCRETE OR MASONRY STRUCTURES EXCEEDING ONE CUBIC YARD IN VOLUME, EXCEPT SIDEWALKS AND PAVING.
5. HARD AND COMPACT MATERIALS SUCH AS CEMENTED-GRAVEL, GLACIAL TILL, AND RELATIVELY SOFT OR DISINTEGRATED ROCK THAT CAN BE REMOVED WITHOUT CONTINUOUS AND SYSTEMATIC DRILLING AND BLASTING WILL NOT BE CONSIDERED AS ROCK EXCAVATION. ROCK EXCAVATION WILL NOT BE CONSIDERED SUCH BECAUSE OF INTERMITTENT DRILLING AND BLASTING THAT IS PERFORMED MERELY TO INCREASE PRODUCTION. EXCAVATION OF THE MATERIAL CLAIMED AS ROCK WILL NOT BE PERFORMED UNTIL THE MATERIAL HAS BEEN CROSS-SECTIONED AND CLASSIFIED BY THE ENGINEER.
6. ALL PROPOSED SLOPES SHALL BE ROUNDED INTO THE EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
7. ALL PROPOSED CONTOUR GRADES AND SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING, FINISHED FLOOR OR FINISH GRADE IN LANDSCAPED AREAS.

PA ONE CALL OWNERS LIST:

COMPANY:COMCAST
ADDRESS:1250 HADDONFIELD-BERLIN RD.
CHERRY HILL, NJ. 08034
CONTACT:WYATT PARRISH
EMAIL:WYATT_PARRISH@CABLE.COMCAST.COM
PHONE:484-368-4391

COMPANY:AQUA PENNSYLVANIA
ADDRESS:762 LANCASTER AVE.
BRYN MAWR, PA. 19010
CONTACT:THOMAS WADDY
EMAIL:TBWADDY@AQUAAMERICA.COM
PHONE:610-525-1400 EXT. 52105

COMPANY:PECO AN EXELON COMPANY C/O USIC
ADDRESS:450 S HENDERSON ROAD SUITE B
KING OF PRUSSIA, PA. 19406
CONTACT:NIKKIA SIMPKINS
EMAIL:NIKKIASIMPKINS@USICLLC.COM
PHONE:484-681-5720

COMPANY:FIRSTENERGY CORPORATION
ADDRESS:21 S MAIN ST.
AKRON, OH. 44308
CONTACT:MELLYSSA ADAMS
EMAIL:MADAMS@FIRSTENERGYCORP.COM
PHONE:330-604-4073

COMPANY:UGI UTILITIES INC
ADDRESS:225 MORGANTOWN RD.
READING, PA. 19611
CONTACT:KURT ZIELASKOWSKI
EMAIL:KZIELASKOWSKI@UGI.COM
PHONE:610-736-5571

COMPANY:UPPER POTTS GROVE TOWNSHIP
ADDRESS:1409 FARMINGTON AVE.
POTTS TOWN, PA. 19464
CONTACT:KEVIN SNYDER
EMAIL:PUBLICWORKS@UPTOWNSHIP.ORG
PHONE:610-326-9938

LEGENDS

PROPOSED GRADING FEATURES	
	PROPOSED SPOT ELEVATION
	PROPOSED SLOPE
	PROPOSED TYPE 'M' INLET BOX
	PROPOSED 5' CONTOURS
	PROPOSED 5' CONTOURS

PROPOSED STORMWATER FEATURES	
	PROPOSED STORM PIPE
	PROPOSED YARD DRAIN
	PROPOSED TYPE 'M' INLET BOX
	PROPOSED TRENCH DRAIN
	PROPOSED STORM MANHOLE
	PROPOSED FLARED END SECTION & RIPRAP APRON

PROPOSED LANDSCAPING FEATURES	
	PROPOSED DECIDUOUS TREE
	PROPOSED EVERGREEN TREE
	PROPOSED SHRUB
	PROPOSED PERENNIAL & GRASS

LIGHTING LEGEND	
	SITE LIGHT POLE
	ORNAMENTAL LIGHT POLE
	WALL SCONCE LIGHT
	BOLLARD LIGHT
	2" PVC ELECTRIC CONDUIT
	ELECTRIC PULL BOX

PROPOSED UTILITY FEATURES	
	PROPOSED WATER LINE
	PROPOSED SANITARY LINE
	PROPOSED ELECTRIC LINE
	PROPOSED DATA LINE
	PROPOSED GAS LINE
	PROPOSED XFMR VAULT
	PROPOSED GENERATOR
	PROPOSED PROPANE TANK

EXISTING FEATURES	
	EXISTING 1' CONTOURS
	EXISTING 5' CONTOURS
	EXISTING SPOT ELEVATION
	EXISTING PROPERTY BOUNDARY
	EXISTING RIGHT OF WAY (LEGAL R/W)
	EXISTING SETBACK
	EXISTING FENCE LINE
	EXISTING EDGE OF PAVING
	SOILS LINE AND DESCRIPTION
	EXISTING OVERHEAD WIRES
	EXISTING WATER LINE
	EXISTING HDPE PIPE
	EXISTING WETLAND BOUNDARY
	EXISTING FIRE HYDRANT
	EXISTING INLETS
	EXISTING UTILITY POLE
	EXISTING TRAFFIC CONTROL SIGNS
	INFILTRATION TESTING LOCATION
	EXISTING DECIDUOUS TREE
	EXISTING CONIFEROUS TREE
	EDGE OF BRUSH
	EXISTING MANHOLE (SAN, STORM, GAS, WATER, ELECTRIC, TELEPHONE, ETC.)
	STEEP SLOPES 15%+>

PROPOSED DEMOLITION FEATURES	
	EXISTING PAVING TO BE DEMOLISHED
	EXISTING PLANTS TO BE DEMOLISHED

PROPOSED SITE FEATURES	
	PROPOSED STANDARD BITUMINOUS PAVEMENT
	PROPOSED STANDARD BITUMINOUS PAVEMENT (ALT. ITEM)
	PROPOSED HEAVY DUTY BITUMINOUS PAVEMENT (ALT. ITEM)
	FUTURE STANDARD BITUMINOUS PAVEMENT (N.I.C.)
	PROPOSED CONCRETE PAVING
	PROPOSED BUILDING
	PROPOSED PARKING OVERHANG
	PROPOSED PATIO
	PROPOSED PAVEMENT MARKING
	PROPOSED FENCE/GATE
	PROPOSED SPARE CONDUIT
	PROPOSED DRIVE PAVEMENT MARKING
	PROPOSED DUMPSTER
	PROPOSED SIGN
	PROPOSED WHEEL STOP
	PROPOSED HANDICAP MARKING
	PROPOSED BOLLARD
	PROPOSED FLAG POLE
	PARKING STALL QUANTITY
	FUTURE E.V. CHARGING STATION
	PROPOSED POLICE PARKING ACCESS KEY PAD

PROPOSED E&S FEATURES	
	PROPOSED CONSTRUCTION ENTRANCE
	PROPOSED CONCRETE WASHOUT
	PROPOSED TEMPORARY TOPSOIL STOCKPILE
	PROPOSED EROSION CONTROL BLANKET
	PROPOSED LIMIT OF DISTURBANCE
	NPDES PROJECT SITE AREA
	PROPOSED TREE PROTECTION FENCE/ ORANGE CONSTRUCTION FENCE
	PROPOSED COMPOST FILTER SOCK
	DURING CONSTRUCTION DRAINAGE AREA TO BMPs
	PROPOSED INLET PROTECTION
	PROPOSED TEMPORARY INLET SEAL
	DISCHARGE POINT

NOTES

ITEMS INCLUDED IN 04/11/2025 REVISIONS:

- LIGHTING LEGEND ITEMS ADDED

ITEMS INCLUDED IN 05/01/2025 REVISIONS:

- DURING CONSTRUCTION DRAINAGE AREA TO BMPs ITEM ADDED TO THE PROPOSED E&S FEATURES LEGEND.


COPYRIGHT
CHESTER VALLEY ENGINEERS, INC., CIVIL ENGINEERS & SURVEYORS.
EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND ALL OTHER PROPRIETARY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATIONS AND COPIES THEREOF ARE AND SHALL REMAIN THE PROPERTY OF CHESTER VALLEY ENGINEERS, INC. THEY ARE TO BE USED ONLY IN RESPECT TO THE PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, WORK OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF CHESTER VALLEY ENGINEERS, INC. ANY RE-USE WITHOUT WRITTEN PERMISSION, REPRODUCTION, OR ADAPTATION BY CHESTER VALLEY ENGINEERS, INC. FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE THIRD PARTY'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO CHESTER VALLEY ENGINEERS, INC. THE THIRD PARTY SHALL FURTHER INDEMNIFY AND HOLD HARMLESS CHESTER VALLEY ENGINEERS, INC. FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING THEREFROM OR RESULTING THEREFROM.


NOTE TO USER OF THESE PLANS:
WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CHESTER VALLEY ENGINEERS, INC. FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING OR RELYING UPON THESE PLANS FOR ANY PURPOSE. NO CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS SHOULD OCCUR UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY ENGINEERS. CHESTER VALLEY ENGINEERS, THEIR OFFICERS, EMPLOYEES AND REPRESENTATIVES SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM THE USER'S FAILURE TO OBTAIN CURRENT VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED ON THIS PLAN. THE USER OR ANY THIRD PARTY, THE USER ASSUMES ANY RISK OF ANY AND ALL PROPERTY OF FINANCIAL LOSS OR DAMAGES OF ANY KIND RESULTING FROM THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 20243300770
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THESE PLANS. WHO DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.
EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2201) SUBPART "P", PART 1030/1010 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2220) DATED 1985 (REVISED).

SEE SHEET 02 FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

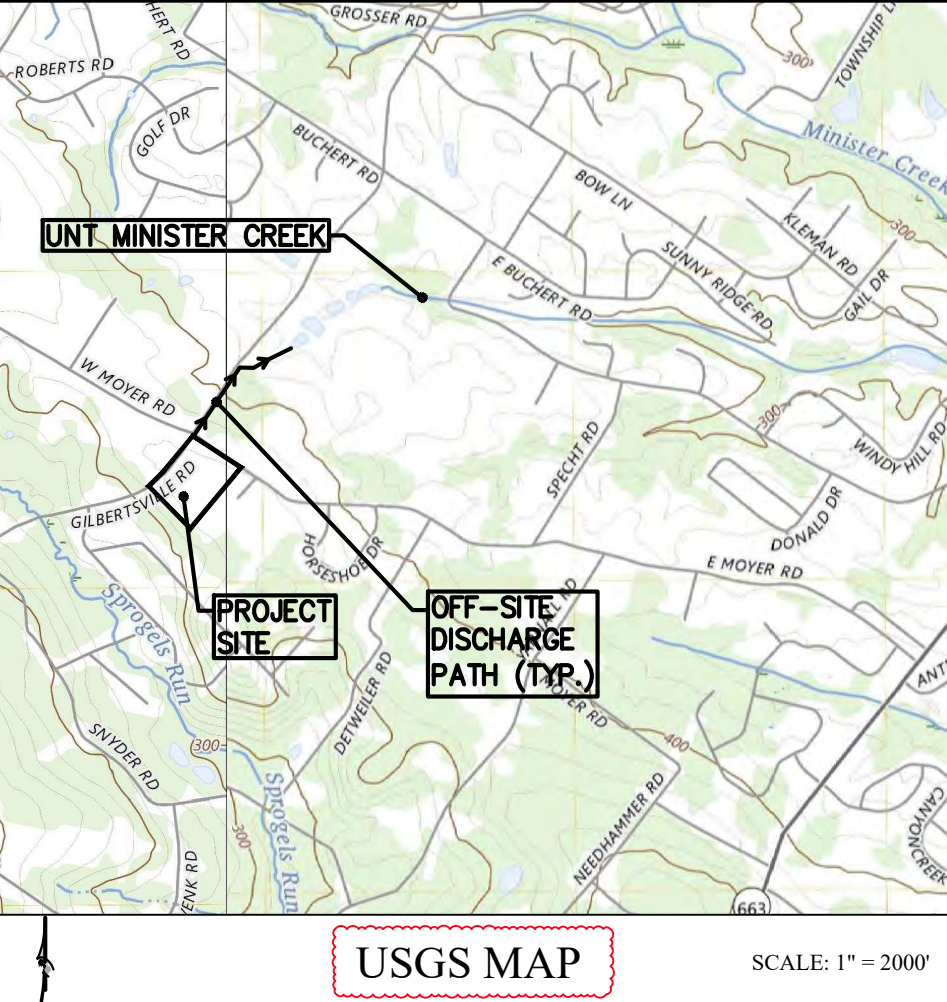
PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20243300770



02	05/01/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025			
01	04/11/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025			
NO.	DATE	REVISION			
<div>CONSTRUCTION PLANS</div> <div>FOR</div> <div>UPPER POTTS GROVE MUNICIPAL COMPLEX</div> <div>2290 GILBERTSVILLE ROAD</div> <div>UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA</div>					
		<div>ChesterValley</div> <div>ENGINEERS, INC.</div>		<div>PROJECT NO.</div> <div>22096-2000</div>	
		112 Moores Road, Suite 200, Malvern, PA 19355		F.B.	
		610-644-4623			
		www.chesterv.com			
SCALE		DATE	DRAWN BY	CHECKED BY	DRAWING
As Noted		03/31/2025	HL	AG	

THIS PLAN IS FOR EROSION & SEDIMENTATION CONTROL PURPOSE ONLY.

SURFACE WATER FROM THE SITE
ENTERS AN UNNAMED TRIBUTARY
OF MINISTER CREEK (TSF-MF)



NPDES PROJECT SITE IMPERVIOUS AREAS

EX. BUILDING	1,804 S.F.
EX. CONCRETE SURFACES*	907 S.F.
EX. STONE DRIVEWAY	1,650 S.F.
EX. ROAD	16,998 S.F.
TOTAL PRE-CONSTRUCTION IMPERVIOUS *INCLUDES CONCRETE PAD, WALKWAY, AND STEPS	21,359 S.F. (0.49 ACRES)
PROP. ASPHALT DRIVEWAY/PARKING/TRAIL	45,864 S.F.
PROP. CONCRETE SURFACES	6,634 S.F.
PROP. BUILDINGS	22,823 S.F.
PROP. STONE	164 S.F.
TOTAL PROPOSED IMPERVIOUS	75,485 S.F. (1.73 ACRES)
TOTAL POST CONSTRUCTION IMPERVIOUS	94,287 S.F. (2.16 ACRES)

CONSTRUCTION SEQUENCE

AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, TOWNSHIP ENGINEER/INSPECTOR, MONTGOMERY COUNTY CONSERVATION DISTRICT AND LICENSED PROFESSIONAL ENGINEER OR DESIGNEE TO AN ON-SITE PRE-CONSTRUCTION MEETING.

UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL, BMPs AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE TOWNSHIP.

AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

- FIELD DELINEATE LIMITS OF DISTURBANCE PRIOR TO EARTH MOVING ACTIVITIES.
- PLACE ALL FILTER SOCKS SHOWN ON THE PLANS AT THE TOE/DOWNSIDE OF EXISTING/PROPOSED SLOPES (PARALLEL WITH EXISTING CONTOURING, PERPENDICULAR WITH EXISTING SLOPES AND AT TERMINUS ENDS).
- PLACE THE ROCK CONSTRUCTION ENTRANCE, INSTALL FILTER SOCKS AND PERFORM SITE GRADING WITHIN THIS AREA, ONLY AS NEEDED TO INSTALL THE CONSTRUCTION ENTRANCES. INSTALL FILTER SOCKS #13 AND #14 ALONG THE EDGE OF PAVING ON GILBERTSVILLE ROAD TO FACILITATE THE EFFICIENT REMOVAL OF THE EXISTING DRIVEWAY.
- THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL SITE STORM WATER, INCLUDING THAT COMING OFF OF THE ROCK CONSTRUCTION ENTRANCE (RCE), IS DIRECTED INTO AN E&S CONTROL BMP.
- INSTALL ORANGE CONSTRUCTION FENCE PRIOR TO ANY EARTH DISTURBANCE WITHIN AREAS OF PROPOSED STORMWATER MANAGEMENT FACILITIES TO PREVENT SOIL COMPACTION AS SHOWN ON THE PLAN.
- MARK AND INSTALL TEMPORARY TOPSOIL/SOIL STOCKPILE AND CONCRETE WASH AREAS AND FINISH INSTALLING ALL EROSION AND SEDIMENTATION CONTROL MEASURES.
- PERFORM SITE DEMOLITION PER DEMOLITION PLAN AND NOTES.
- RELOCATE FILTER SOCKS #13 AND #14 TO THE DESIGNATED AREA SHOWN ON THIS PLAN.
- STRIP AND STORE TOPSOIL AT DESIGNATED TEMPORARY TOPSOIL STOCKPILE LOCATION.
- EXCAVATE FOR BUILDING FOUNDATION, SEWER MAIN (INCL. MANHOLE), ASPHALT PAVING, SIDEWALKS, CULVERT, DRAIN BASIN, ALL PIPES, SWALES AND INCIDENTALS.
- THE CONTRACTOR RESPONSIBLE FOR TEMPORARILY STOCKPILING APPROXIMATE 3,600 CY OF MATERIAL AND THE APPROPRIATE E&S MEASURES AT THE GILBERTSVILLE SITE AS SHOWN ON THE E&S PLAN. IN LATE FALL OR WINTER, SITE CONTRACTOR IS RESPONSIBLE FOR LOADING, HAULING AND DUMPING ALL MATERIAL AT 370 EVANS ROAD, POTTSVILLE, PA. A SEPARATE CONTRACTOR SHALL BE RESPONSIBLE FOR SPREADING AND COMPACTING MATERIAL.
- CONSTRUCT BUILDINGS AND ALL ARCHITECTURAL ELEMENTS.
- INSTALL SEWER MAIN AND MANHOLES AND CONNECT TO EXISTING SEWER LATERAL.
- PERFORM AND FINISH ALL SITE GRADING INCLUDING: SUB-BASE FOR PARKING LOT, CONCRETE PADS AND WALKWAYS.
- INSTALL ALL PROPOSED UTILITIES, EXCLUDING STORM SEWER PIPING AND STRUCTURES WITHIN LIMITS OF STORMWATER MANAGEMENT FACILITIES BMP#1 AND BMP#2. ALL INLETS INSTALLED DURING THIS STEP SHALL BE TEMPORARILY SEALED.
- INSTALL ALL SITE LIGHTING ELEMENTS.
- INSTALL FLAG POLES FOUNDATION AND COVERED PARKING POSTS' FOOTINGS.
- INSTALL ALL CONCRETE PAVING, STAIRS, AND BOLLARDS.
- INSTALL ASPHALT BASE COURSE.
- FINE GRADE/REDISTRIBUTE TOPSOIL THROUGHOUT DISTURBED AREAS.
- INSTALL EROSION CONTROL BLANKET FOR STEEP SLOPES AS REQUIRED.
- CONSTRUCT ASPHALT PARKING TACK AND WEARING COURSE.
- PERFORM LINE STRIPING.
- INSTALL PARKING LOT BUMPER BLOCKS.
- INSTALL FENCING AND GATES.
- INSTALL ALL LANDSCAPING INCLUDING TREES, SHRUBS, GROUND COVER.
- INSTALL ALL SIGNS, FLAG POLES AND COVERED PARKING STRUCTURE.
- "CRITICAL STAGE" - UPON STABILIZATION OF UPSLOPE DISTURBED AREAS, CONSTRUCT BIORETENTION AREA BMP#1 AND MANAGED RELEASE BIORETENTION AREA BMP#2 AND CONTACT PROJECT ENGINEER PRIOR TO FINAL GRADING TO VERIFY THAT BMPs ARE INSTALLED, FUNCTIONING, AND HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES. REFER TO BIORETENTION AREA CONSTRUCTION SEQUENCE ON SHEET 15 FOR BMP-SPECIFIC CONSTRUCTION SEQUENCE AND CRITICAL STAGES.
- INSTALL REMAINING STORM SEWER PIPING, FLARED END SECTIONS, AND RIPRAP APRONS INCLUDING WITHIN LIMITS OF BMP #1 AND BMP #2.
- FINE GRADE BIORETENTION AREAS WITH AMENDED SOIL. ALL PREVIOUSLY DISTURBED AREAS THAT ARE READY FOR FINAL STABILIZATION SHALL BE STABILIZED IMMEDIATELY WITH SEEDING AND HAY OR STRAW MULCH CONSISTENT WITH IMMEDIATE STABILIZATION CRITERIA.
- COMPLETE FINAL GRADING OF THE BIORETENTION AREAS AFTER THE TOP LAYER OF SOIL IS ADDED.
- INSTALL SEED MIX WITHIN BIORETENTION AREAS AND STABILIZE SLOPES WITH EROSION BLANKET.
- REINSTALL THE CONSTRUCTION FENCE AROUND THE BIORETENTION AREAS.
- INSTALL ANY ANTI-GRAZING MEASURES FOR BIORETENTION AREAS, IF NECESSARY.
- "CRITICAL STAGE" - REMOVE COVERS FROM INLETS TRIBUTARY TO BMP#2 AND INSTALL WATER QUALITY INSERTS.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AND TREE PROTECTION/CONSTRUCTION FENCING FROM THE BASIN. FINAL STABILIZATION IS DEFINED AS A UNIFORM 70% PERENNIAL VEGETATION COVER.
- SUBMIT A NOTICE OF TERMINATION TO THE COUNTY CONSERVATION DISTRICT ONCE ALL TEMPORARY E&S BMPs HAVE BEEN REMOVED AND THE ENTIRE PROJECT SITE IS PERMANENTLY STABILIZED.

INFILTRATION TESTING RESULTS

TEST ID	EX. GROUND ELEVATION	TEST DEPTH (IN)	TEST ELEVATION	MEASURED INF. RATE	LIMITING ZONE	LIMITING ZONE ELEVATION	BMP NAME	BMP BOTTOM ELEVATION
TP1	440.22	23	438.30	0.05 IN/HR	ROCK	437.30	BMP #2	436.50
TP2	439.51	32	436.84	0.10 IN/HR	ROCK	435.84	BMP #2	436.50
TP3	442.18	40	438.85	0.44 IN/HR	ROCK	437.84	-	-
TP4	442.03	19	440.45	0.00 IN/HR	ROCK	439.44	-	-
TP5	445.72	26	443.55	0.00 IN/HR	ROCK	443.55	BMP #1	439.50
TP6	444.33	25	442.25	0.31 IN/HR	ROCK	442.25	BMP #1	439.50

ITEMS INCLUDED IN 05/01/2025 REVISIONS:

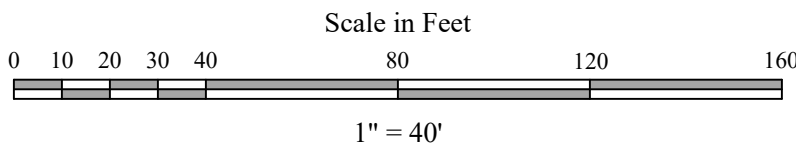
- INFILTRATION TESTING RESULT CHART UPDATED WITH 2 NEW TEST PITS FOR BMP#1 (TP5 & TP6)
- DURING CONSTRUCTION DRAINAGE AREA TO BMPs ADDED TO THE PLAN.
- PROPOSED INLET PROTECTION REPLACED BY TEMPORARY INLET SEALS.
- DISCHARGE POINT #2 (DP 002) ADDED TO THE PLAN.
- CONSTRUCTION SEQUENCE ITEM #28 REVISED.
- CONSTRUCTION SEQUENCE ITEM #29 ADDED.

ITEMS INCLUDED IN 04/11/2025 REVISIONS:

- PROFESSIONAL SEAL ADDED TO PLAN.
- SOIL LIST CHART UPDATED.
- LOCATION MAP REPLACED WITH USGS MAP.
- CONSTRUCTION SEQUENCE REVISED.
- FILTER SOCK LOCATION, LENGTH, AND DIAMETER REVISED.
- ROCK CONSTRUCTION ENTRANCE CHANGED.
- LIMIT OF DISTURBANCE AREA EXPANDED.
- CONCRETE WASHOUT AREA SLIGHTLY MOVED.
- WATER/SAND JERSEY BARRIER ADDED TO THE PLAN.
- VEGETATED SWALE #1 CALLOUT ADDED TO THE PLAN.

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF FLOODING	PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
LHA	0% TO 3% SLOPES	6" - 36"	40" - 60"	NONE	NONE	C/D	YES
LHB	3% TO 8% SLOPES	6" - 36"	40" - 60"	NONE	NONE	C/D	YES



COPYRIGHT
CHESTER VALLEY ENGINEERS, INC., CIVIL ENGINEERS & SURVEYORS
EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND ALL OTHER
PROPRIETARY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATIONS,
AND COPIES THEREOF ARE AND SHALL REMAIN THE PROPERTY OF CHESTER
VALLEY ENGINEERS, INC. THEY ARE TO BE USED ONLY IN RESPECT TO
THE PROJECT AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING
PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND
RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHESTER
VALLEY ENGINEERS, INC. ANY RE-USE WITHOUT WRITTEN PERMISSION
CONSTITUTES VIOLATION OF THE COPYRIGHT AND ALL OTHER
PROPRIETARY RIGHTS OF CHESTER VALLEY ENGINEERS, INC. THE
THIRD PARTY SHALL FURTHER INDEMNIFY AND HOLD HARMLESS
CHESTER VALLEY ENGINEERS, INC. FROM ALL CLAIMS, DAMAGES, LOSSES,
AND EXPENSES ARISING THEREFROM OR RESULTING THEREFROM.

NOTE TO USER OF THESE PLANS:
WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT
BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON
OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT
CVC FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE
PROCEEDING OR RELYING UPON THESE PLANS FOR ANY PURPOSE. NO
CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS SHOULD OCCUR
UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY
ENGINEERS. CHESTER VALLEY ENGINEERS, THEIR OFFICERS, EMPLOYEES AND
ENGINEERS, INC. MAY BE USED WITHOUT WRITTEN PERMISSION, VERIFICATION,
OR REPRESENTATION SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND
RESULTING FROM THE USER'S FAILURE TO OBTAIN CURRENT VERIFICATION
AND VALIDATION OF THE INFORMATION CONTAINED ON THIS FILE TO THE USER
OR ANY THIRD PARTY. THE USER ASSUMES ANY RISK OF ANY AND ALL
PROPERTY OF FINANCIAL LOSS OR DAMAGES OF ANY KIND RESULTING FROM
THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION
AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 20243300770
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY
OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN
ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE
THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL
VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND
STRUCTURES BEFORE THE START OF WORK.
EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY
WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT
OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA
2201) SUBPART "P", PART 1926/1915 - EXCAVATIONS, TRENCHING
AND SHORING.
(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2225) DATED
1989 (REVISED).

SEE SHEET 02 FOR
FACILITY OWNER'S
DESIGNATED OFFICE
ADDRESS AND
TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20243300770

EROSION & SEDIMENTATION CONTROL PLAN

02	05/01/2025	REVISED PER MCCD REVIEW LETTER DATED 03/25/2025
01	04/11/2025	REVISED PER MCCD REVIEW LETTER DATED 03/25/2025
NO.	DATE	REVISION

CONSTRUCTION PLANS
FOR
UPPER POTTS GROVE MUNICIPAL COMPLEX
2290 GILBERTSVILLE ROAD
UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

Chester Valley
ENGINEERS, INC.

112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

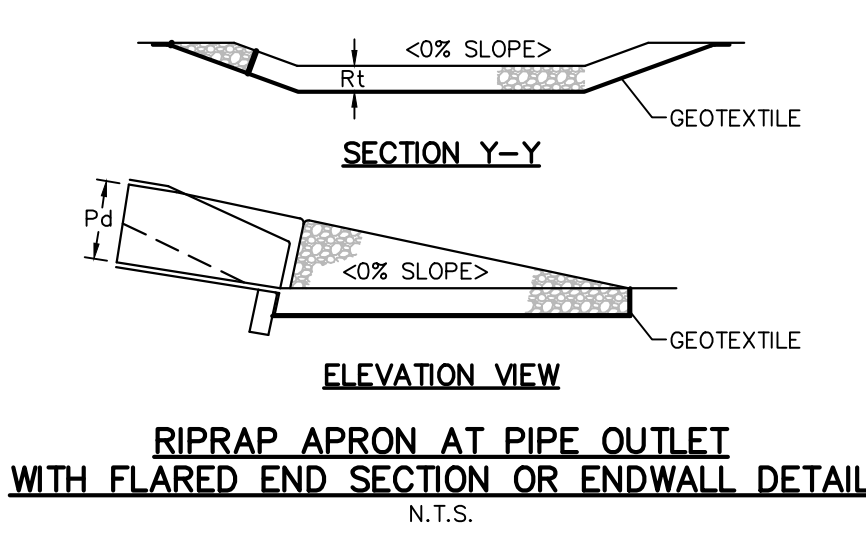
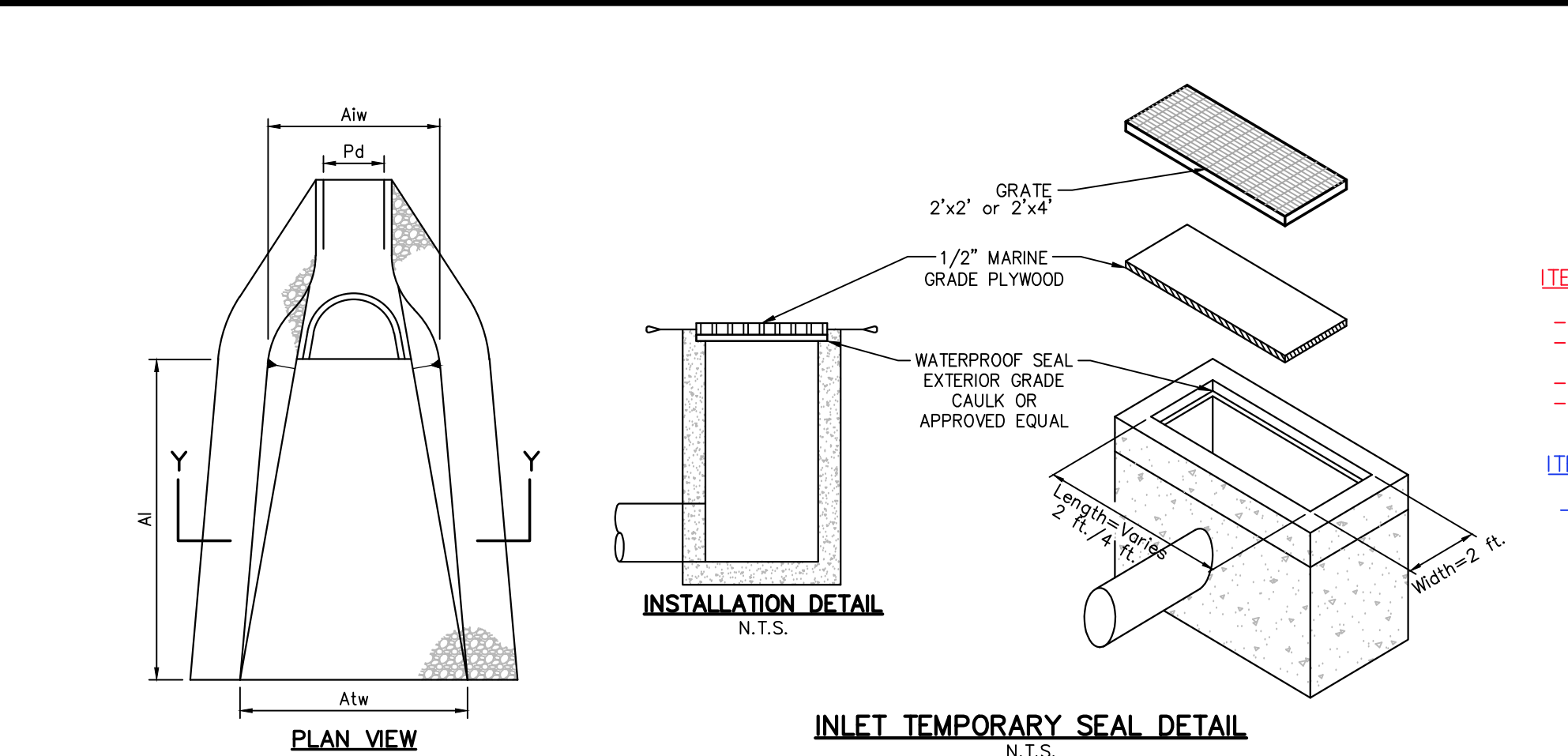
PROJECT NO.
22096-2000

F.B.
DATE
03/31/2025

DRAWN BY
HL

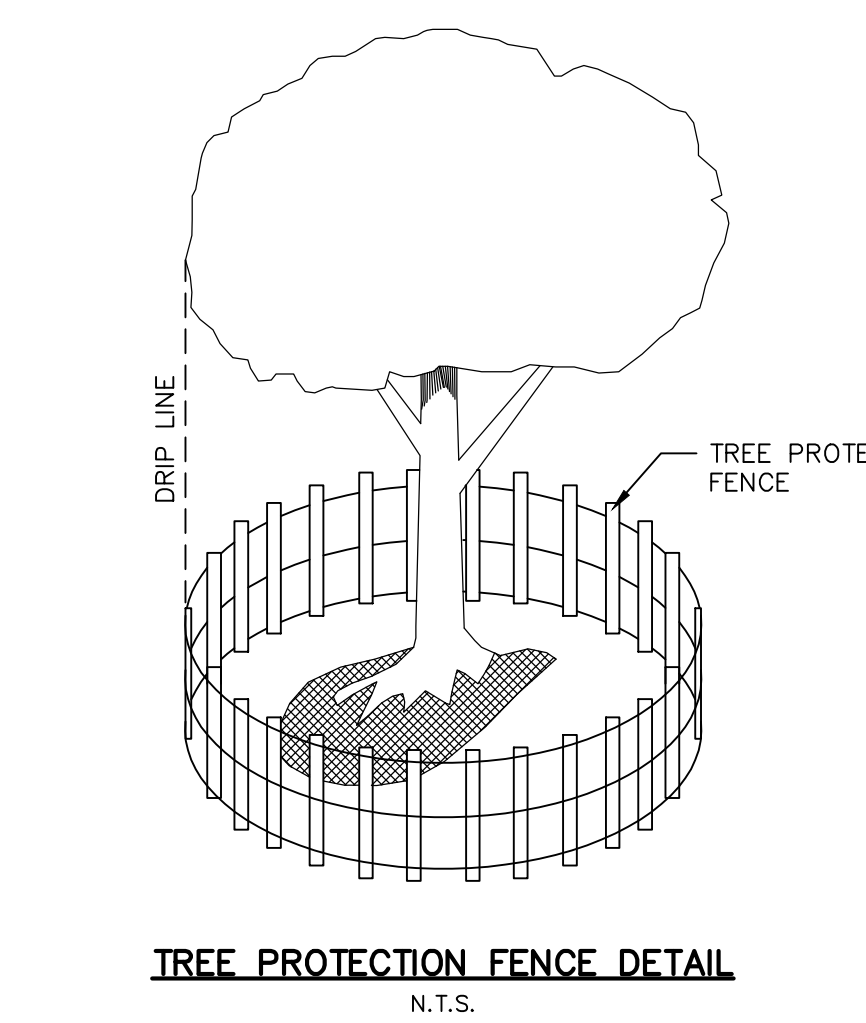
CHECKED BY
AG

DRAWING



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH At (FT)	INITIAL WIDTH Atw (FT)
FES100	8"	3	9	6	2
FES200	15"	3	9	6	3.75
FES201	10"	3	9	6	2.5
FES202	15"	3	9	6	3.75
FES206	12"	3	9	6	3
FES300	8"	3	9	6	2

- NOTES:
1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
 2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FEET OF A BUILDING SITE, PARKING AREA, DRIVEWAY OR OTHER PROPOSED IMPROVEMENT SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING OR OTHER EFFECTIVE BARRIERS APPROVED BY THE TOWNSHIP ENGINEER. LANDSCAPE ARCHITECT. FENCING OR BARRIERS SHALL BE PLACED AS NOTED BELOW, UNLESS PRIOR DETERMINATION HAS BEEN MADE BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT REGARDING A MORE APPROPRIATE LOCATION.

DESCRIPTION: TREES ARE OFTEN DAMAGED BY MOVING CONSTRUCTION EQUIPMENT OR BY SEDIMENT BUILDUP AROUND THE ROOTS. TREE PROTECTION FENCING, WHEN PLACED ALONG OR AROUND TREES, SERVES AS A BOUNDARY MARKER TO INDICATE THAT CLEARING AND STOCKPILING ARE NOT PERMITTED BEYOND THAT POINT.

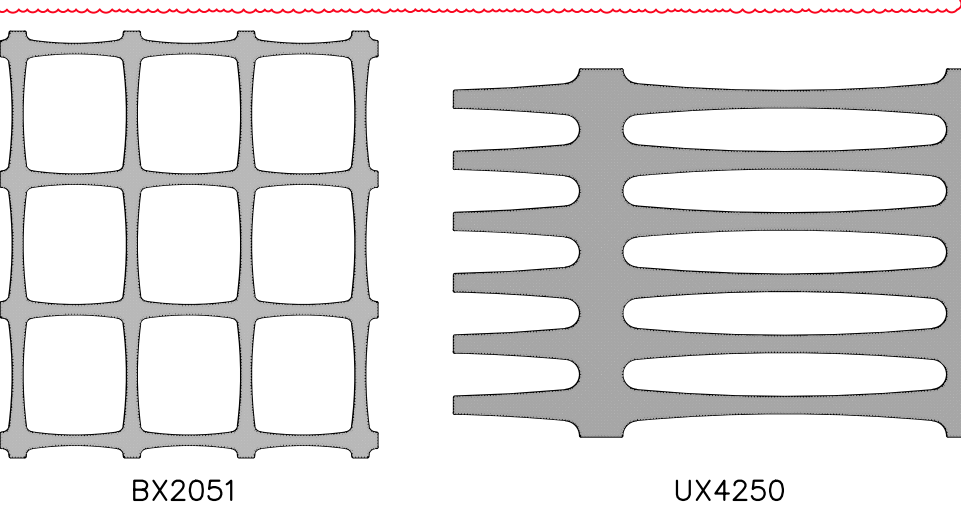
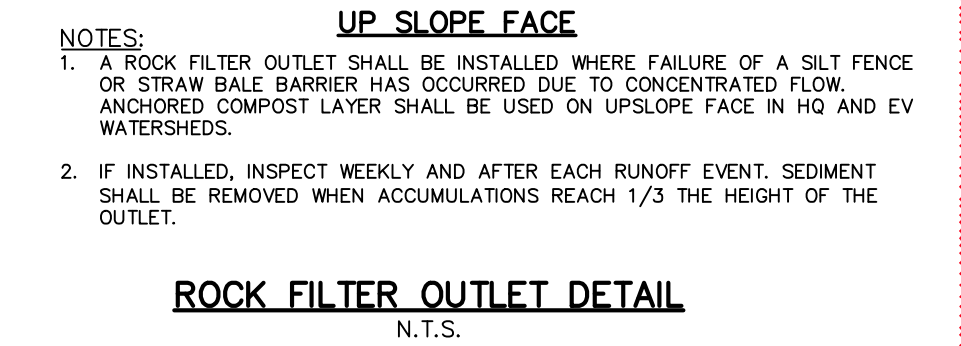
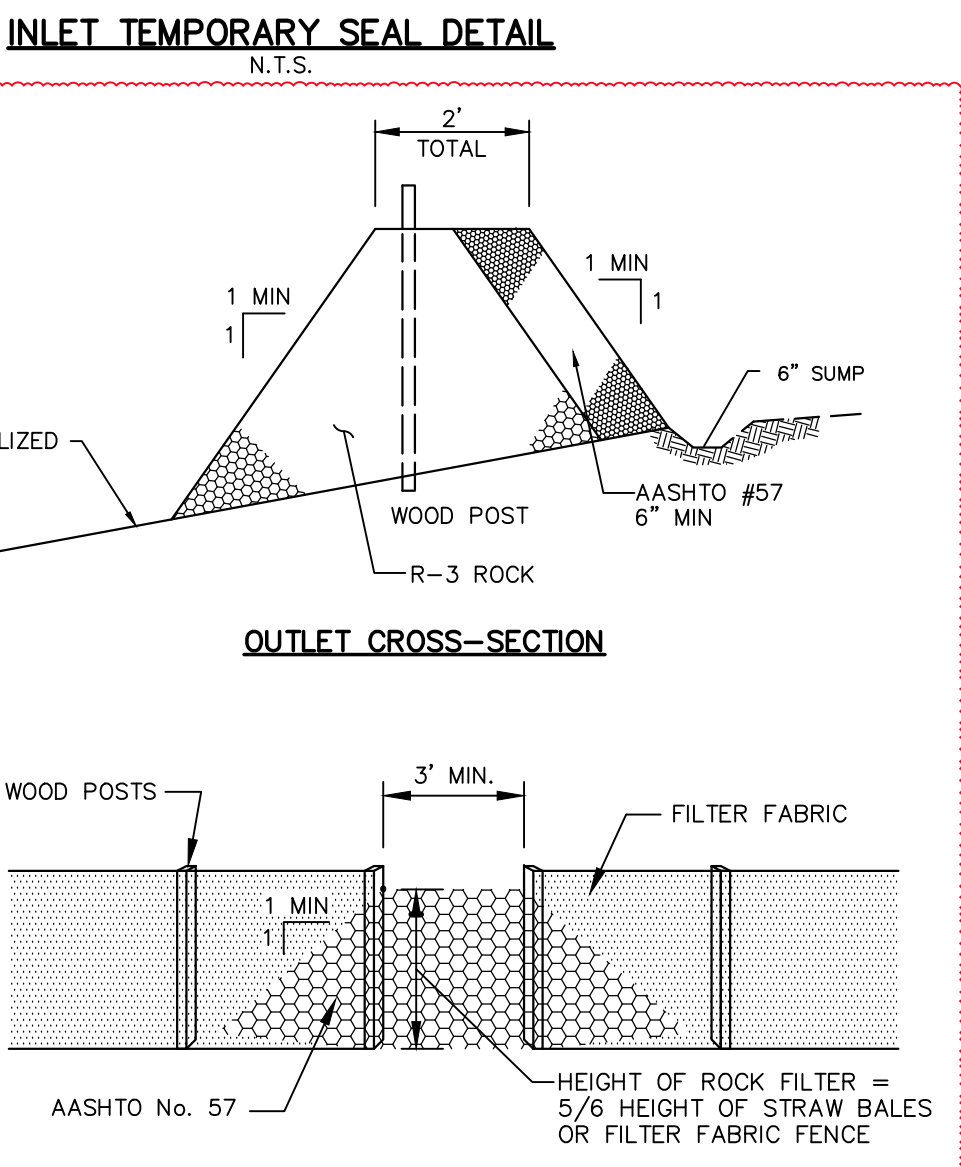
WHEN USED: TREE PROTECTION FENCE MAY BE USED WHENEVER THERE ARE SPECIFIC TREES OR WOODED AREAS THAT MUST BE PROTECTED.

REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER THE MANUFACTURERS' INSTRUCTIONS.

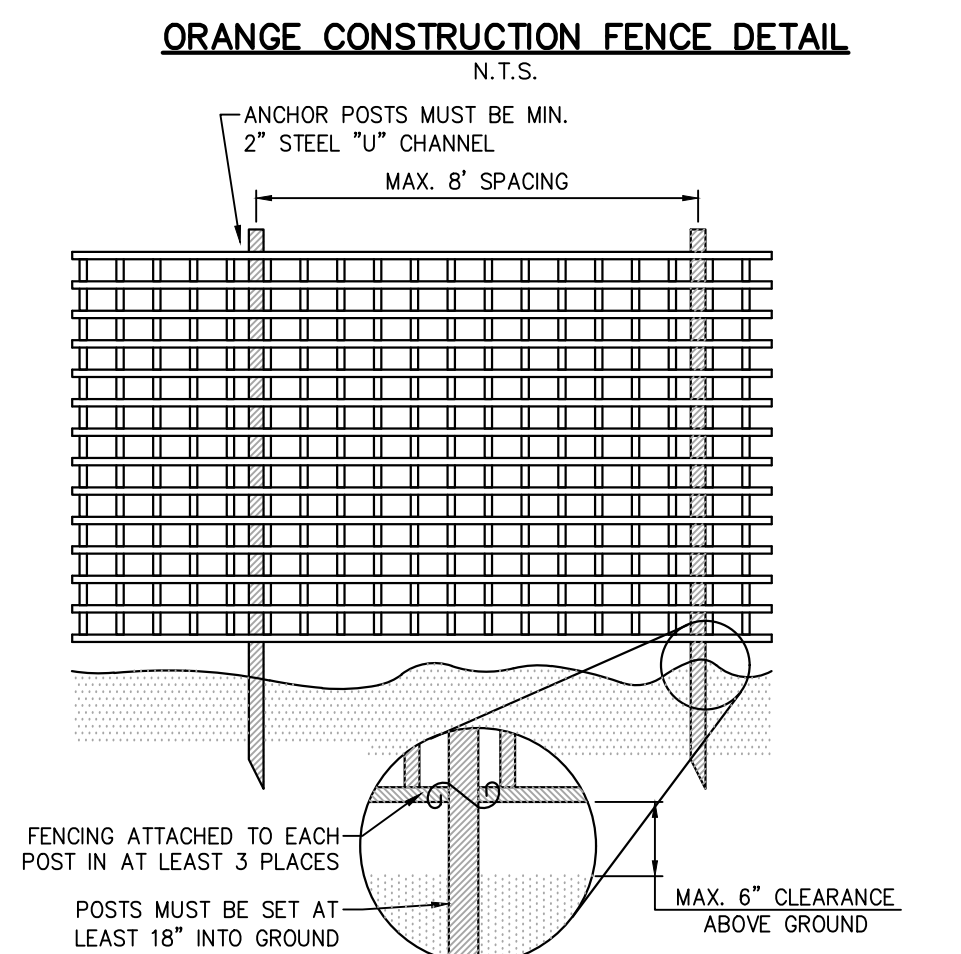
PLACE THE TREE PROTECTION FENCE ALONG THE DRIPLINES OF TREES OR 1 FOOT FROM THE TREE TRUNK FOR EVERY INCH OF TRUNK DIAMETER, WHICHEVER IS GREATER. A DRIPLINE IS AN IMAGINARY LINE EXTENDING DOWN FROM THE OUTER-MOST BRANCHES OF A TREE TO THE GROUND. THIS IS GENERALLY THE OUTER BOUNDARY FOR TREE ROOTS. IF THE TREE PROTECTION FENCE IS PLACED ANY CLOSER TO A TREE, ITS PURPOSE MAY BE DEFEATED.

MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12



FOR GENERAL USE:
TENSAR SAFETY FENCE BX 2051, 4' HT., ORANGE
FOR EXTRA PROTECTION:
TENSAR SAFETY FENCE UX 4250, 4' HT., ORANGE
INSTALLATION: ATTACH FENCE TO 2\"/>

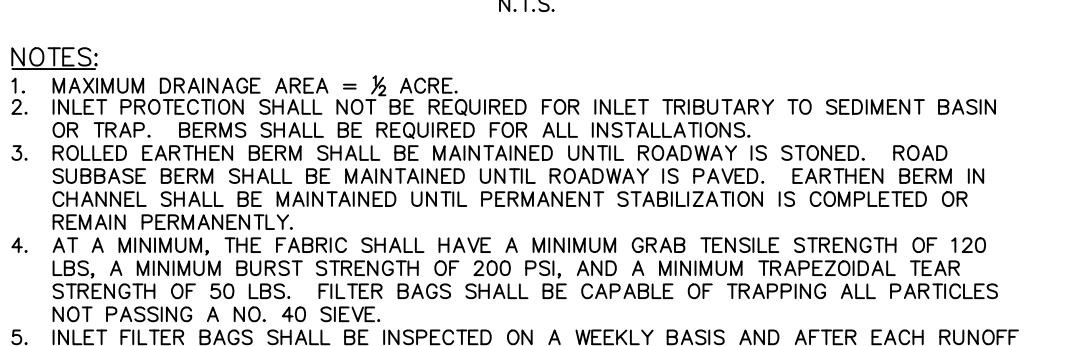
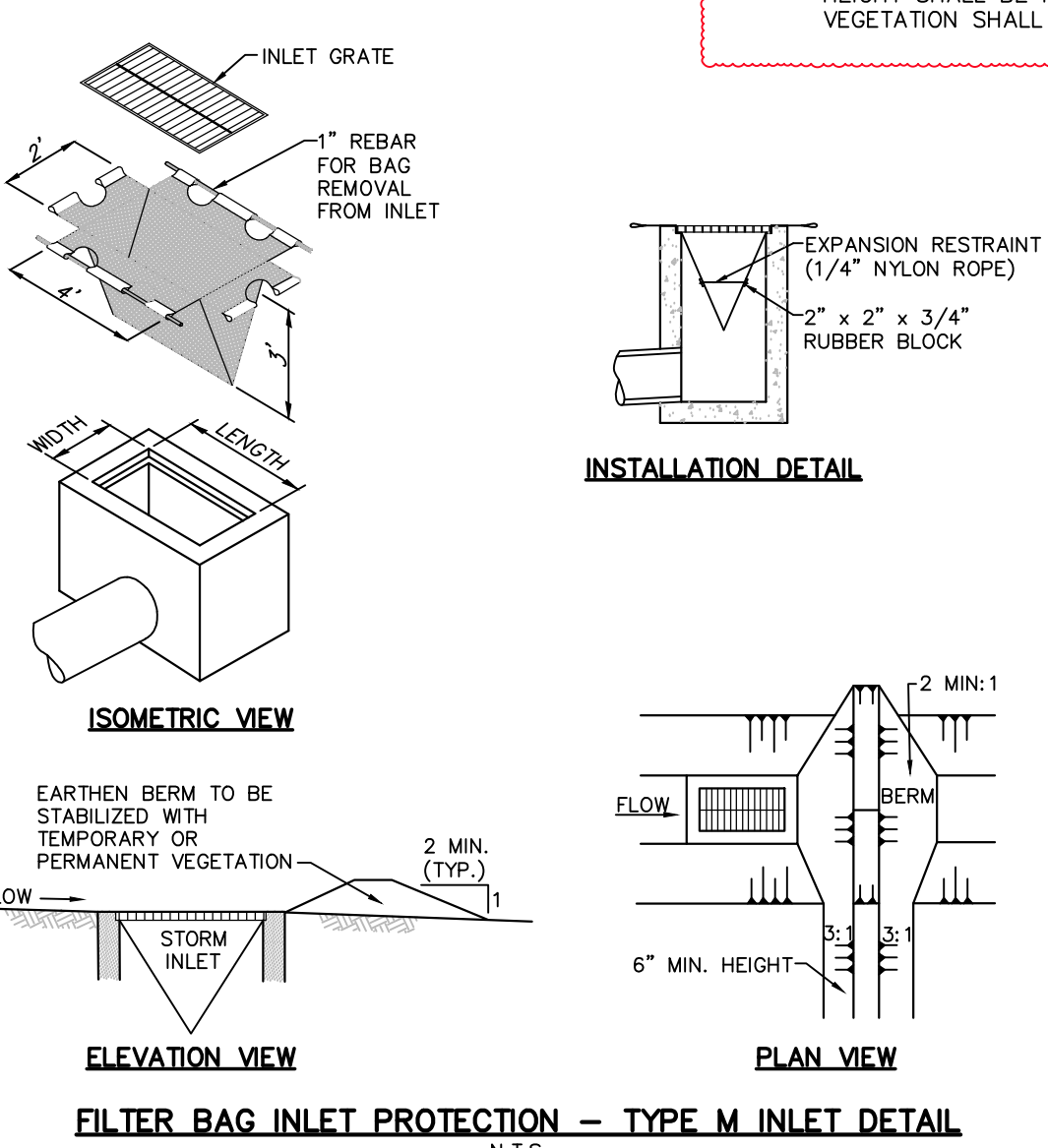


- NOTES:
1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND/OR SNOW-FENCE MAY BE USED).
 2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

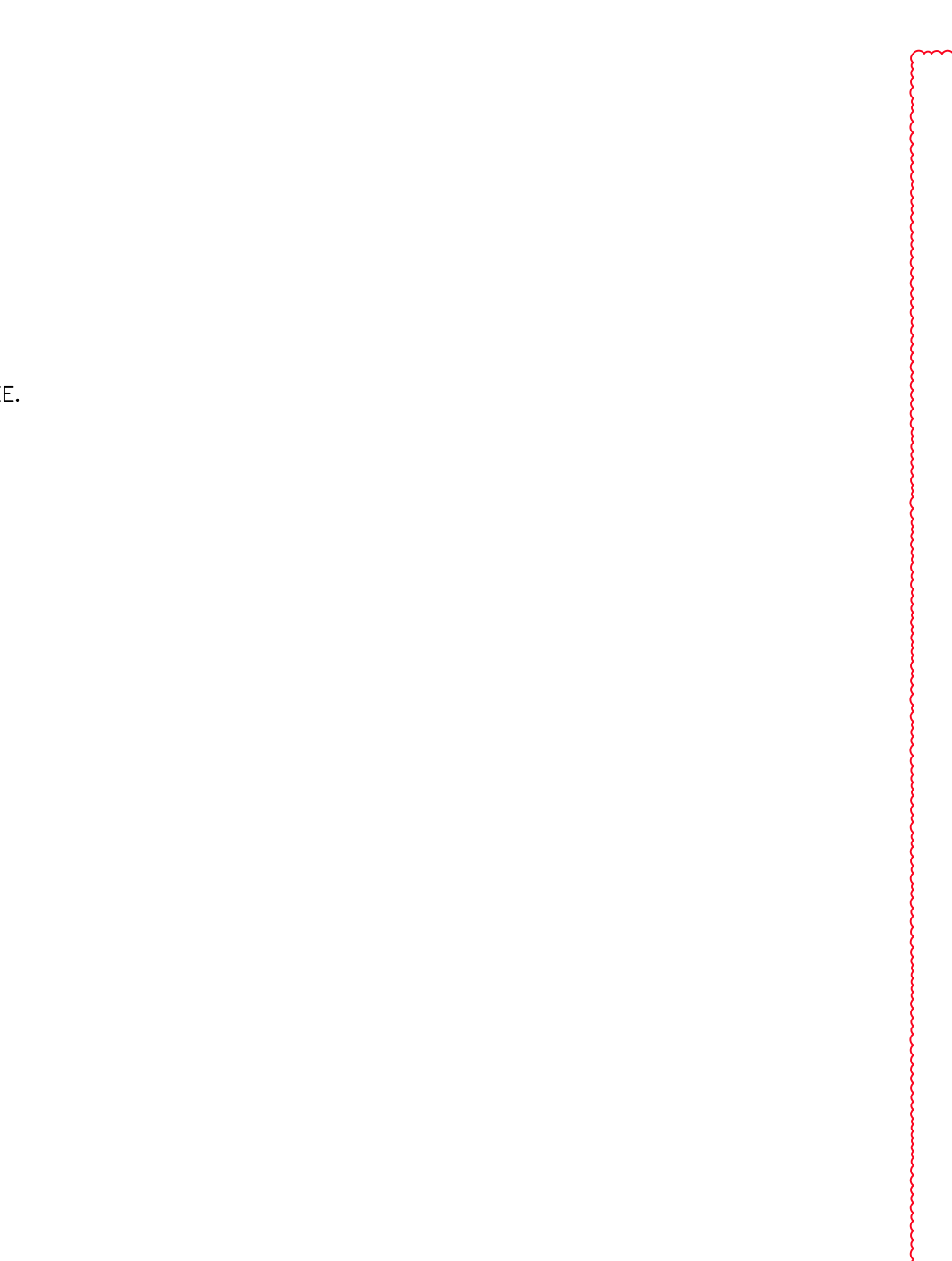
MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

- ITEMS INCLUDED IN 04/11/2025 REVISIONS:
- PROFESSIONAL SEAL ADDED TO PLAN.
 - NEW ROCK CONSTRUCTION ENTRANCE DETAIL ADDED TO THIS SHEET.
 - VEGETATED SWALE DETAIL ADDED TO THIS SHEET.
 - ROCK FILTER OUTLET DETAIL REVISED.

- ITEMS INCLUDED IN 05/01/2025 REVISIONS:
- FILTER BAG INLET PROTECTION FOR 2'x2' YARD DRAIN DETAIL OMITTED.

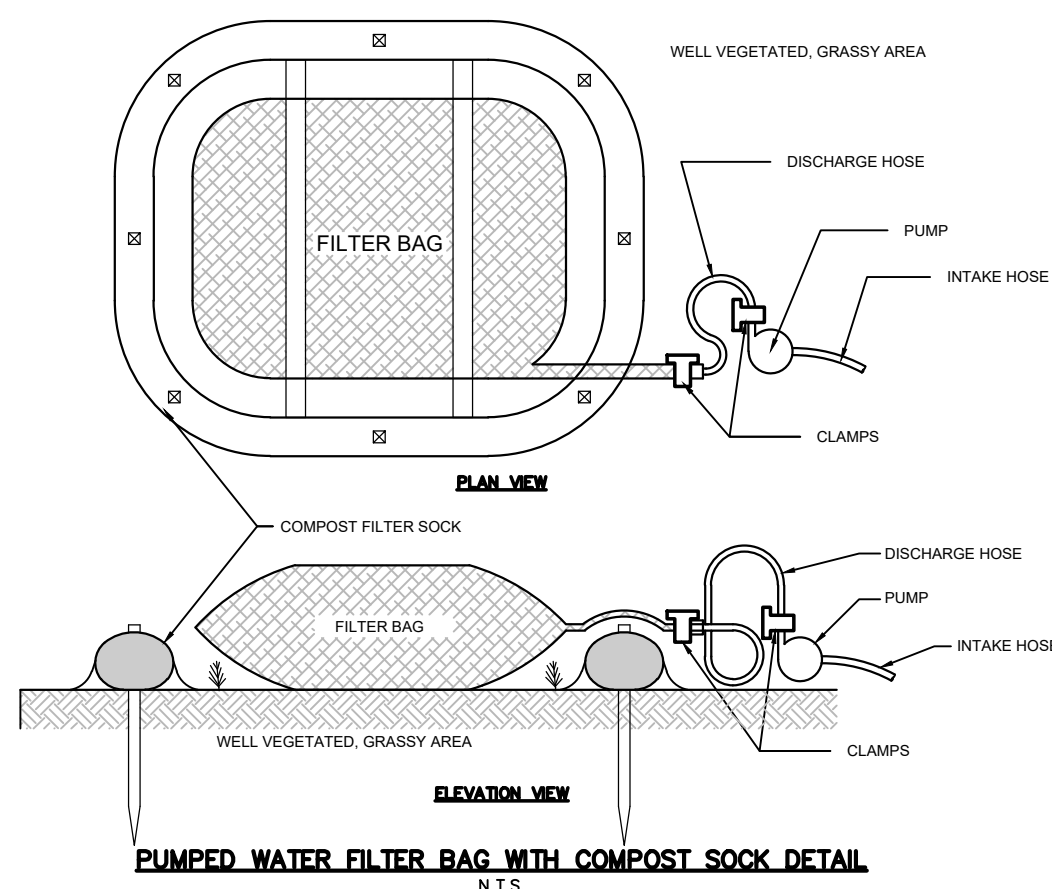
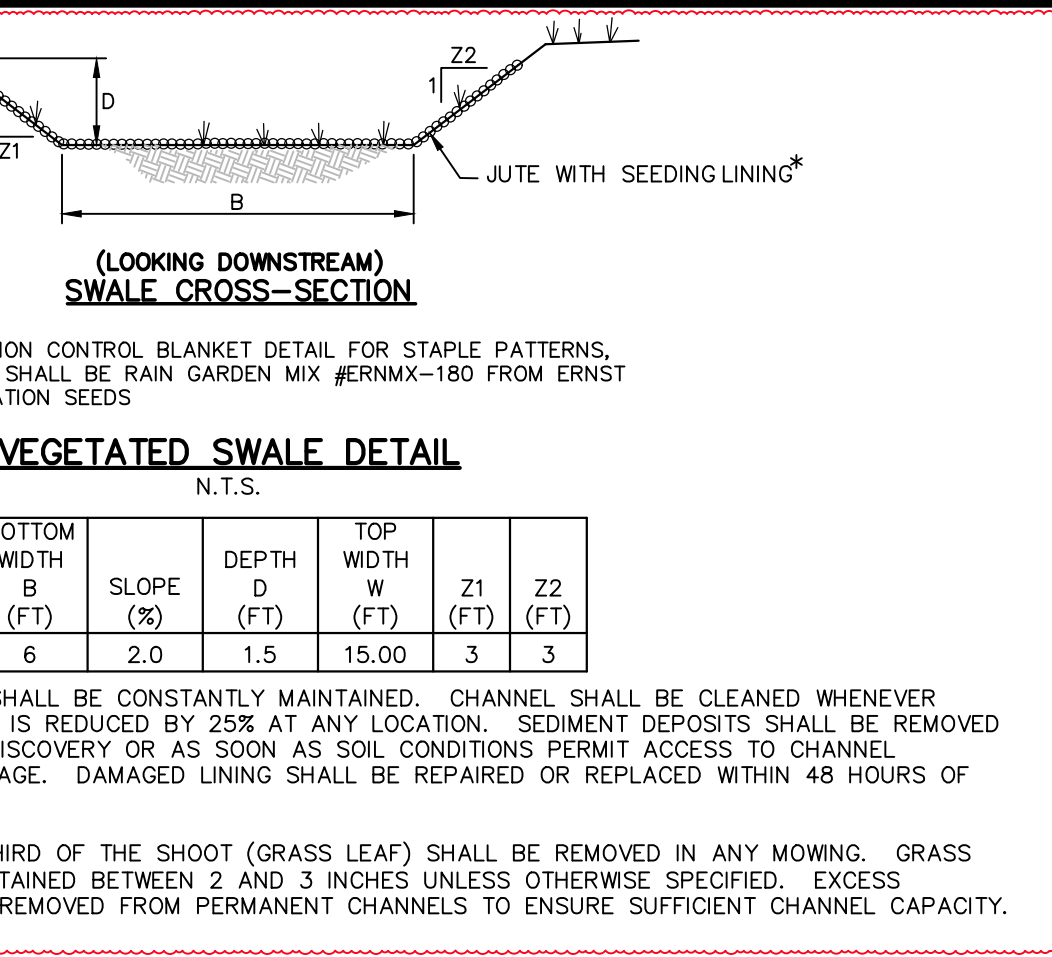


DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.



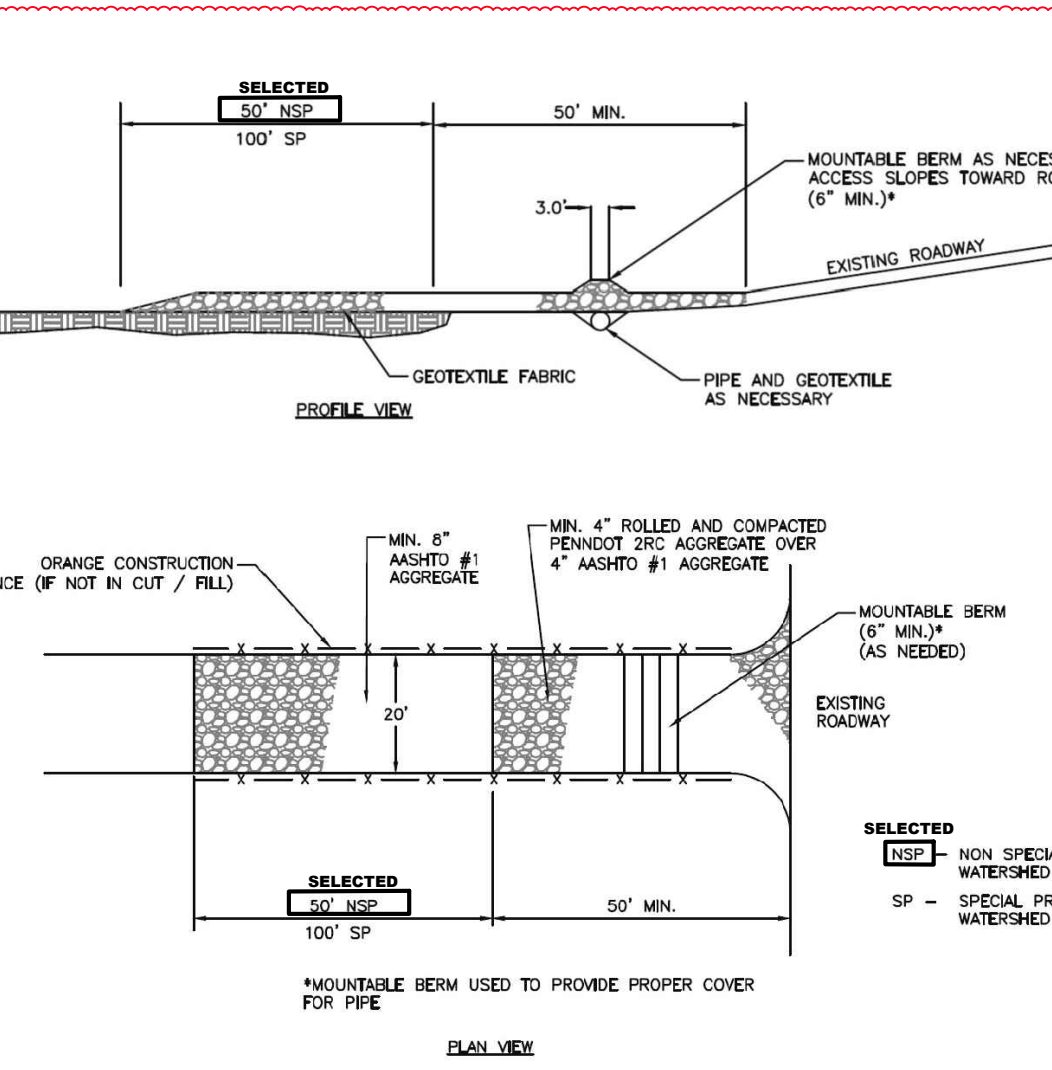
- NOTES:
1. THE PROJECT SITE IS LOCATED IN NON SPECIAL PROTECTION WATERSHED. CONTRACTOR SHALL CONSTRUCT THE TOTAL LENGTH OF 100 FT FOR ALL CONSTRUCTION ENTRANCES PER THIS DETAIL.
 2. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE OR MINIMUM OF 20 FEET.
 3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
 4. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12



PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB./IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

- NOTES:
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "I" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:
 2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME A FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 2% FOR SLOPES EXCEEDING 2% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO OR EV WATERSHEDS, WITHIN 30 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
 5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
 6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 3/8\"/>
 7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



- NOTES:
1. THE PROJECT SITE IS LOCATED IN NON SPECIAL PROTECTION WATERSHED. CONTRACTOR SHALL CONSTRUCT THE TOTAL LENGTH OF 100 FT FOR ALL CONSTRUCTION ENTRANCES PER THIS DETAIL.
 2. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE OR MINIMUM OF 20 FEET.
 3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
 4. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE:
ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

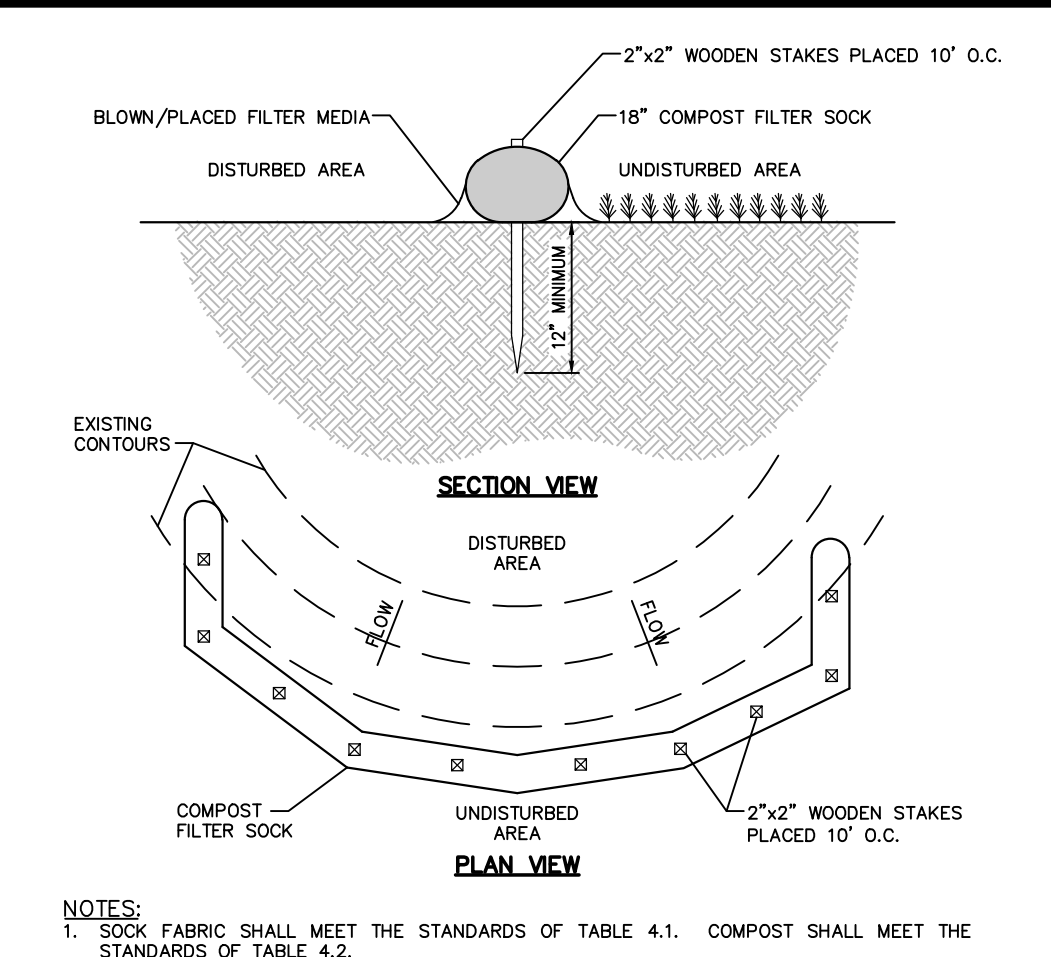
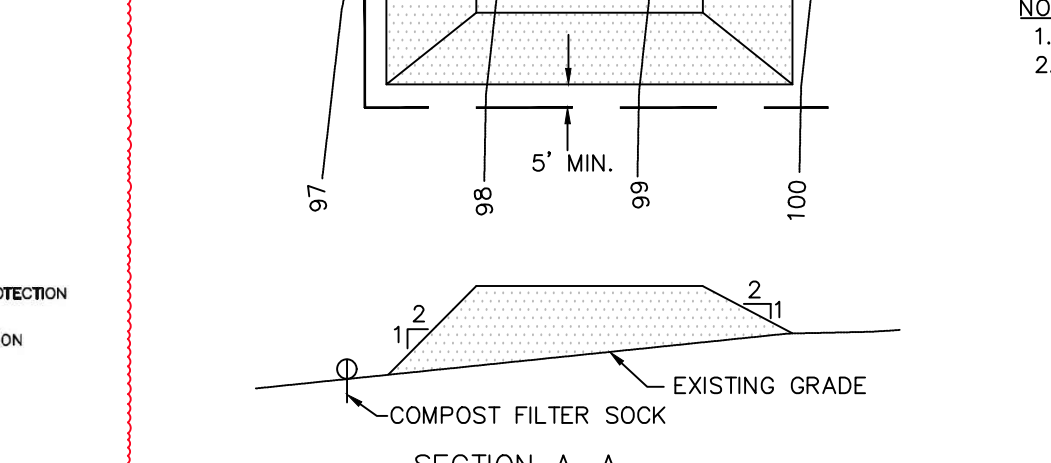
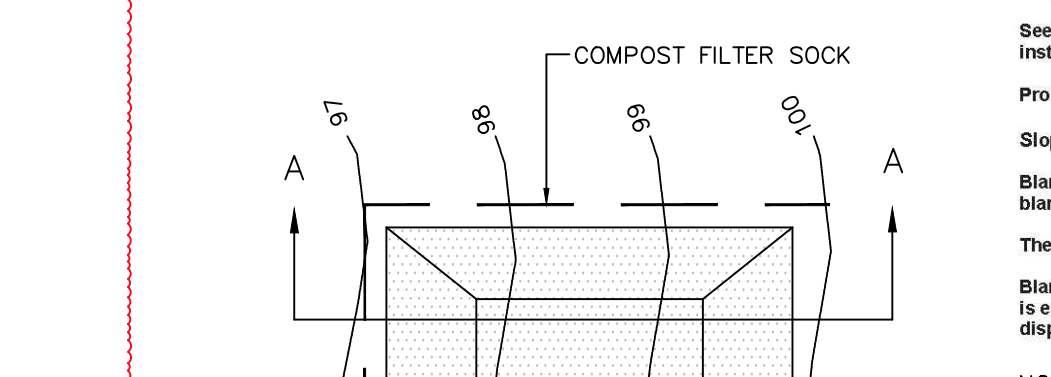


TABLE 4.1 – COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 ML HDPE	5 ML HDPE	5 ML HDPE	MULTI-FLAMMABLE POLYPROPYLENE (MPP)	HEAVY DUTY MULTI-FLAMMABLE POLYPROPYLENE (HEMPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12"	12"	12"	12"	12"
	18"	18"	18"	18"	18"
	24"	24"	24"	24"	24"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	3/8"
	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH	26 PSI	26 PSI	26 PSI	44 PSI	202 PSI

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB./IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

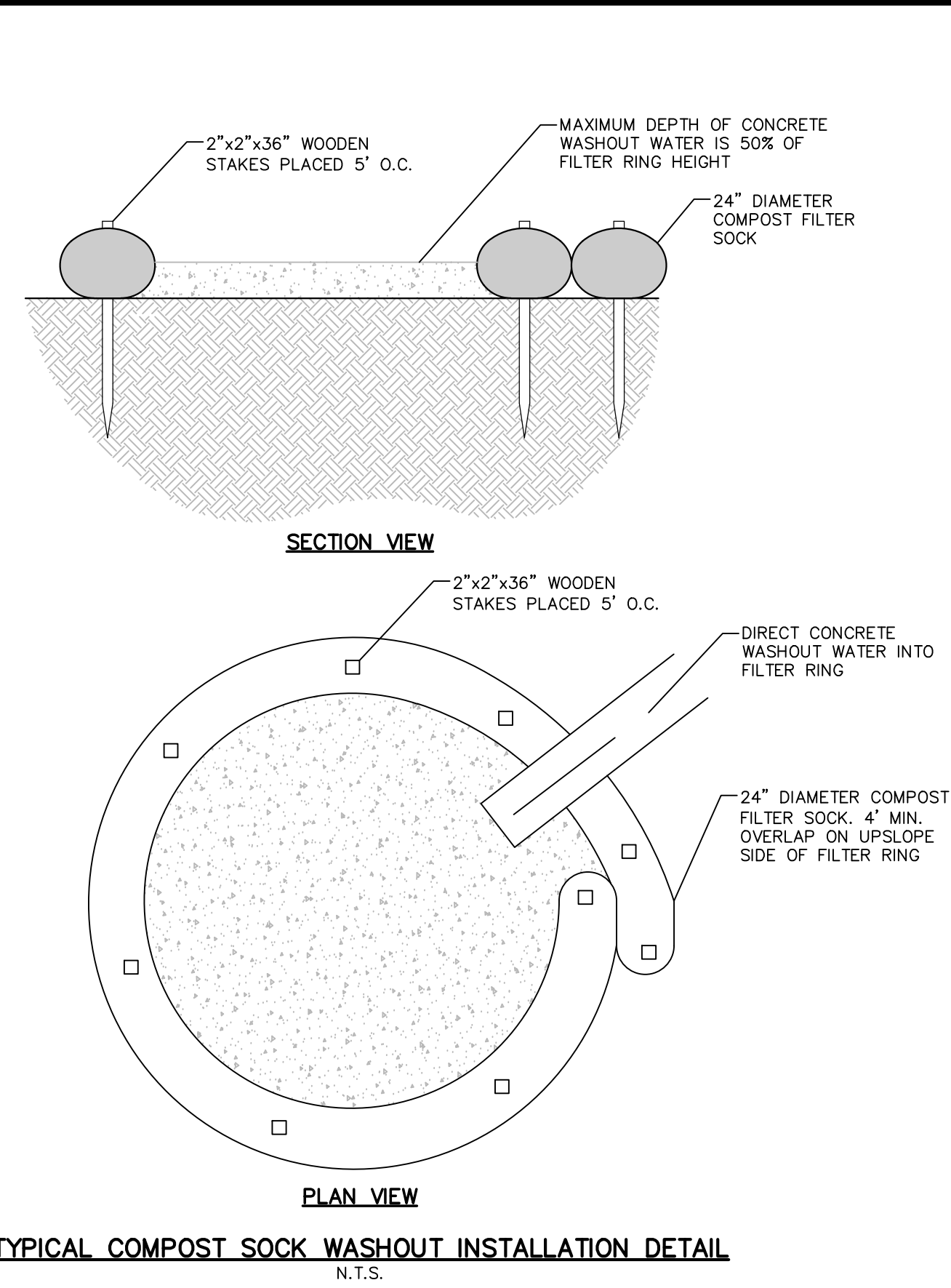
PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB./IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB./IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

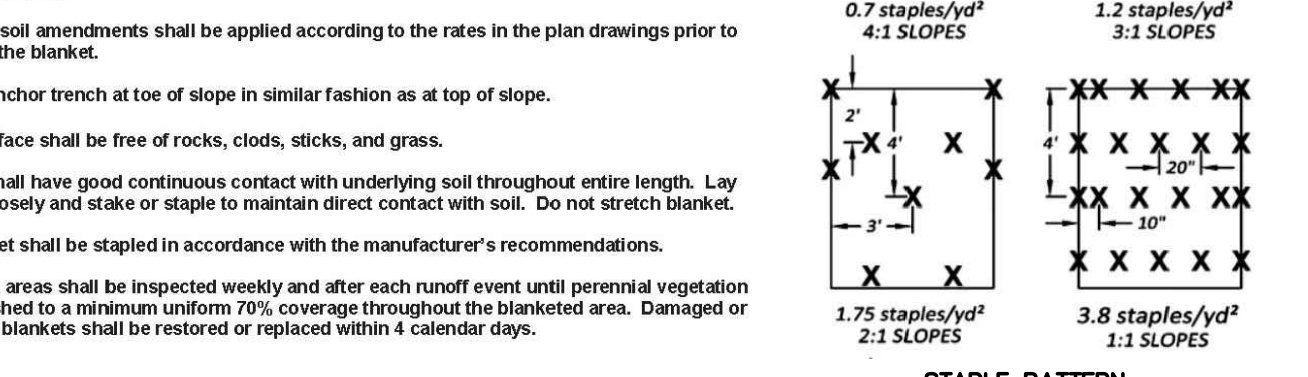
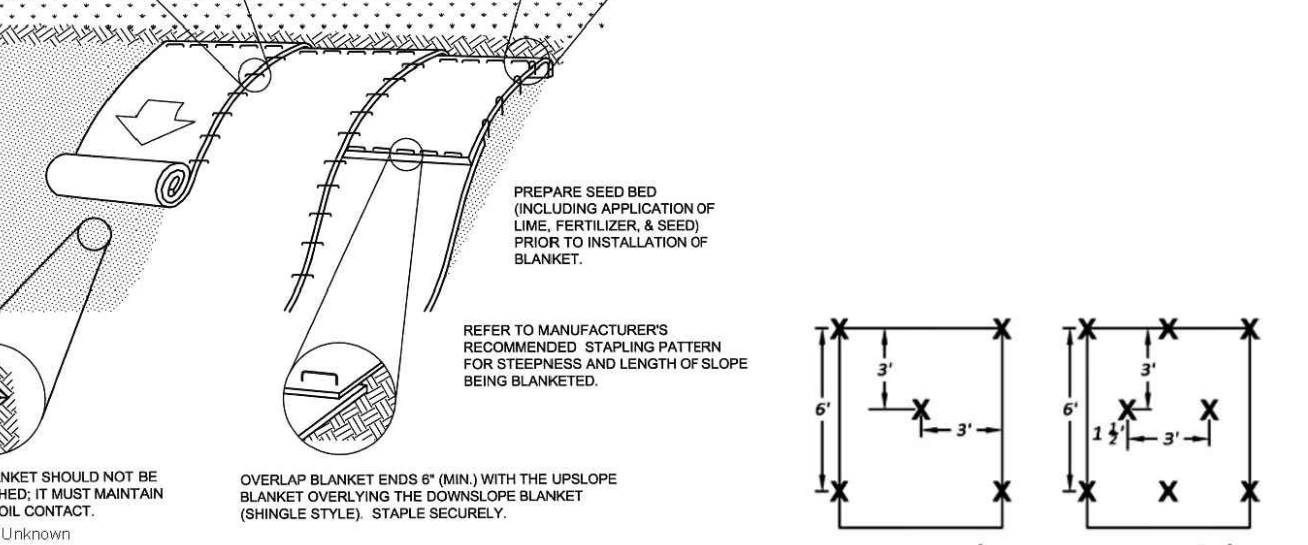
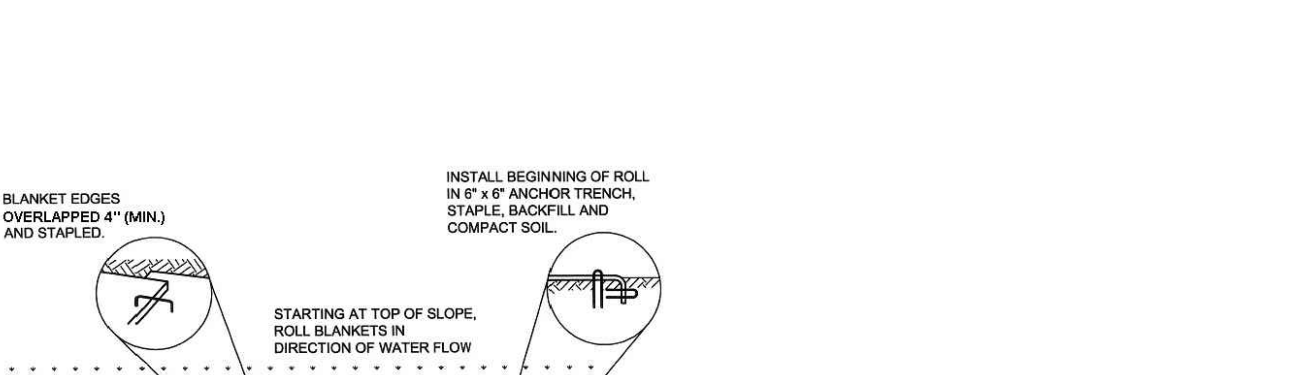


- NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
 2. ALL SLOPE SLOPES SHALL BE 2 TO 1 OR FLATTER.
 3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS FOR AN EXTENDED PERIOD.
 4. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAILED HEREON.
 5. LOCATION OF PROPOSED STOCKPILE WHICH AFFECT EROSION CONTROLS ARE SHOWN SCHEMATICALLY ONLY. ACTUAL STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION.
 6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.
 7. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12



- NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 2. 18\"/>
 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.



- NOTES:
1. USE JUTE OR COIR MATTING W/ WOOD STAKES.
 2. NO PLASTIC/ POLYPROPYLENE MATERIALS ARE ALLOWED.

EROSION CONTROL BLANKET DETAIL
N.T.S.

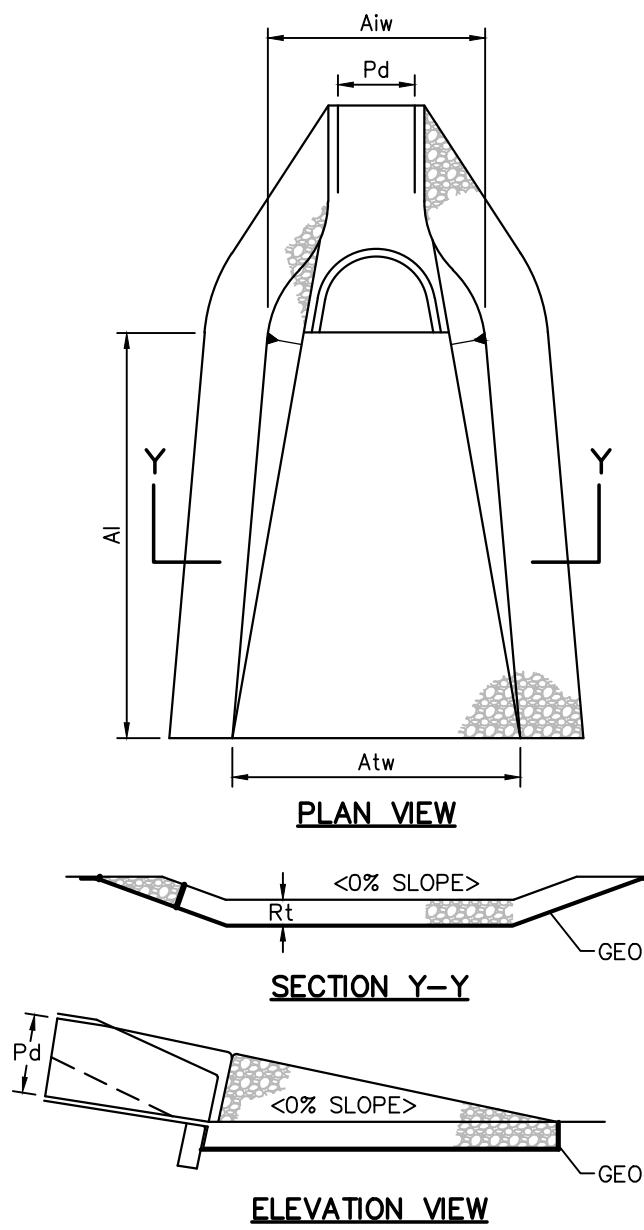
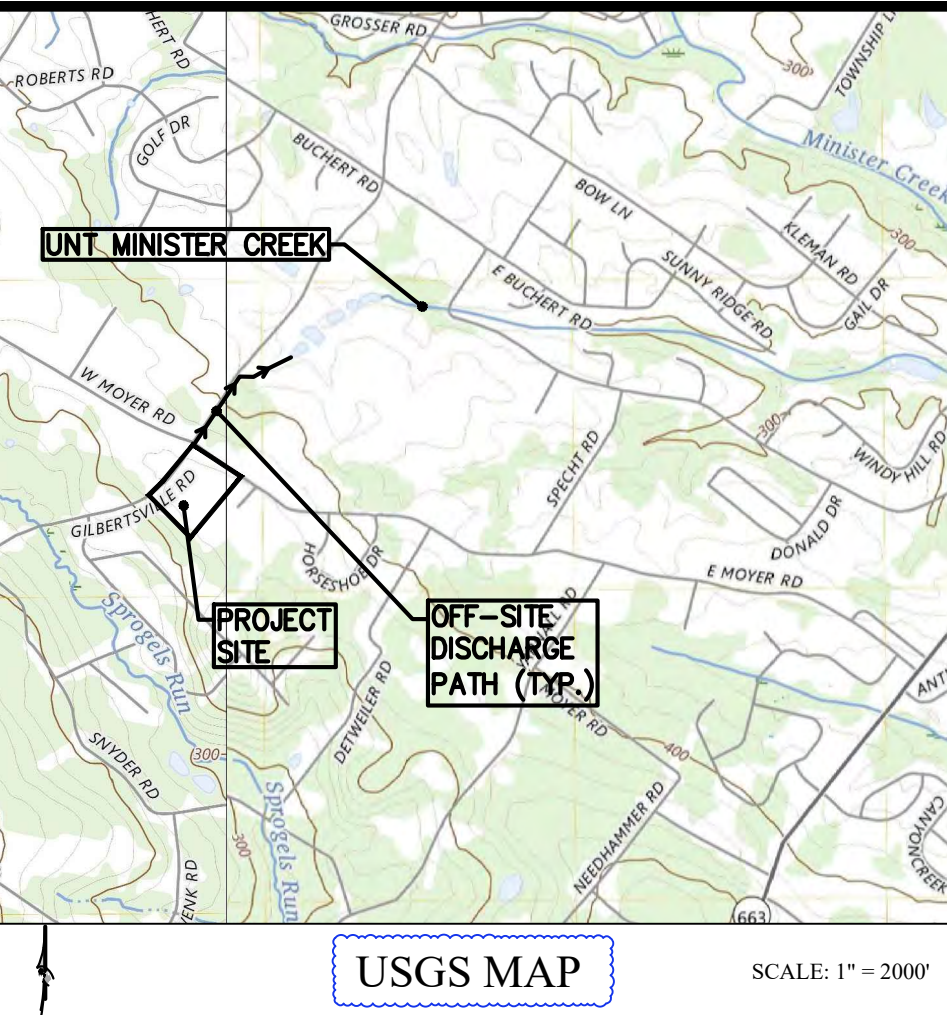
EROSION & SEDIMENTATION CONTROL DETAILS

02	05/01/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025			
01	04/11/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025			
NO.	DATE	REVISION			
CONSTRUCTION PLANS					
FOR					
UPPER POTTSVILLE MUNICIPAL COMPLEX					
2290 GILBERTSVILLE ROAD					
UPPER POTTSVILLE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA					
		PROJECT NO.		22096-2000	
112 Moores Road, Suite 200, Malvern, PA 19355		F.B.			
610-644-4623		SCALE		As Noted	
www.chestervalley.com		DATE		03/31/2025	
		DRAWN BY		HL	
		CHECKED BY		AG	

alton



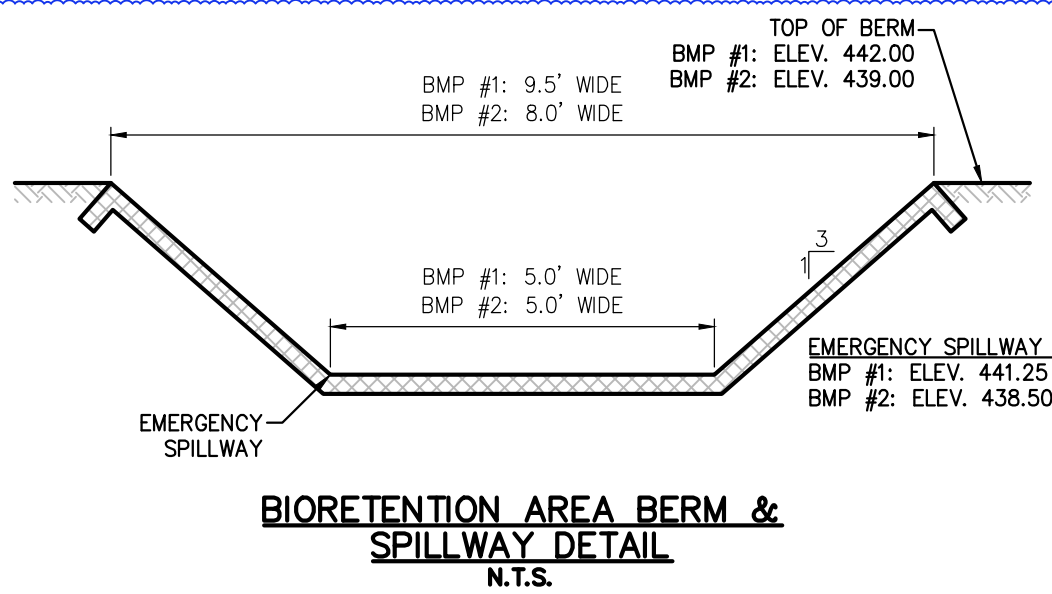
SURFACE WATER FROM THE SITE ENTERS AN UNNAMED TRIBUTARY OF MINISTER CREEK (TSF-MF)



RIPRAP APRON AT PIPE OUTLET
WITH FLARED END SECTION OR ENDWALL DETAIL
N.T.S.

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
FES100	8"	3	9	6	2	4.4
FES200	15"	3	9	6	3.75	6.15
FES201	10"	3	9	6	2.5	4.9
FES202	15"	3	9	6	3.75	6.15
FES206	12"	3	9	6	3	5.4
FES300	8"	3	9	6	2	4.4

NOTES:
1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



INFILTRATION TESTING RESULTS							
TEST ID	EX. GROUND ELEVATION	TEST DEPTH (IN)	TEST ELEVATION	MEASURED INF. RATE	LIMITING ZONE	LIMITING ZONE ELEVATION	BMP NAME
TP1	440.22	23	438.30	0.05 IN/HR	ROCK	437.30	BMP #2
TP2	439.51	32	436.84	0.10 IN/HR	ROCK	435.84	BMP #2
TP3	442.18	40	438.85	0.44 IN/HR	ROCK	437.84	-
TP4	442.03	19	440.45	0.00 IN/HR	ROCK	439.44	-
TP5	445.72	26	443.55	0.00 IN/HR	ROCK	443.55	BMP #1
TP6	444.33	25	442.25	0.31 IN/HR	ROCK	442.25	BMP #1

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

REVISION		REVISION	
02	05/01/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025	
01	04/11/2025	REVISED PER MCD REVIEW LETTER DATED 03/25/2025	
NO.	DATE	REVISION	
CONSTRUCTION PLANS FOR UPPER POTTSBORO MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD UPPER POTTSBORO TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA			
PROJECT NO. 22096-2000		F.B.	
SCALE 1"=40'		DATE 03/31/2025	
DRAWN BY HL		CHECKED BY MJ	

COPYRIGHT
CHESTER VALLEY ENGINEERS, INC., CIVIL ENGINEERS & SURVEYORS, EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND ALL OTHER PROPRIETARY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATIONS, AND COPIES THEREOF ARE AND SHALL REMAIN THE PROPERTY OF CHESTER VALLEY ENGINEERS, INC. THEY ARE TO BE USED ONLY IN RESPECT TO THE PROJECT AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHESTER VALLEY ENGINEERS, INC. ANY RE-USE WITHOUT WRITTEN PERMISSION OF CHESTER VALLEY ENGINEERS, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL REMEDY TO CHESTER VALLEY ENGINEERS, INC. THE USER ASSUMES ALL RISK OF ANY AND ALL PROPERTY OF FINANCIAL LOSS OR DAMAGE OF ANY KIND RESULTING FROM THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

NOTE TO USER OF THESE PLANS:
WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CHESTER VALLEY ENGINEERS, INC. FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING OR RELYING UPON THESE PLANS FOR ANY PURPOSE. NO CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS SHOULD OCCUR UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY ENGINEERS, INC. OR ITS OFFICIALS, EMPLOYEES AND AGENTS. ANY RE-USE WITHOUT WRITTEN PERMISSION OF CHESTER VALLEY ENGINEERS, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL REMEDY TO CHESTER VALLEY ENGINEERS, INC. THE USER ASSUMES ALL RISK OF ANY AND ALL PROPERTY OF FINANCIAL LOSS OR DAMAGE OF ANY KIND RESULTING FROM THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 20243300770
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

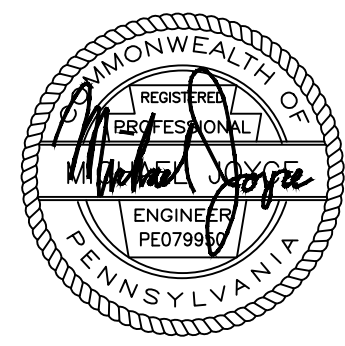
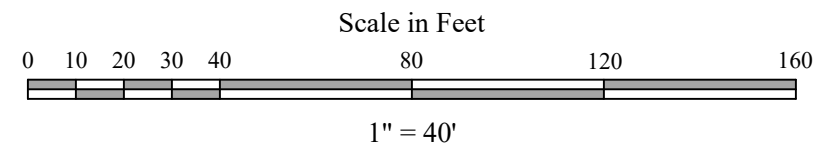
DISCLAIMERS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2201) SUBPART PP, PART 1926/1915 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS (OSHA 2225) DATED 1989 (REVISED).

SEE SHEET 02 FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE-CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20243300770

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

SOILS LIST		DEPTH TO SEASONALLY HIGH WATER TABLE		DEPTH TO BEDROCK		FREQUENCY OF FLOODING/PONDING		HYDROLOGIC SOIL GROUP		HYDRIC SOIL RATING	
SYMBOL	DESCRIPTION										
LHA	0% TO 3% SLOPES	6" - 36"	40" - 60"	NONE	NONE	C/D	YES				
LHB	3% TO 8% SLOPES	6" - 36"	40" - 60"	NONE	NONE	C/D	YES				



GENERAL NOTES:

- IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES.
- STORMWATER MANAGEMENT DESIGN:
REFER TO "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT FOR PROPOSED MUNICIPAL COMPLEX," PREPARED BY CHESTER VALLEY ENGINEERS.
- EROSION AND SEDIMENTATION CONTROL:
REFER TO "EROSION AND SEDIMENTATION CONTROL PLAN", PREPARED BY CHESTER VALLEY ENGINEERS.
- MAINTENANCE NOTES:
 - THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
 - BIORETENTION AREAS
 - STORM SEWER AND ASSOCIATED STRUCTURES
 - THE PARTY RESPONSIBLE FOR THE LONG TERM OPERATIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL MAKE RECORDS OF THE INSTALLATION AND ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST TEN (10) YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE TOWNSHIP AS ESTABLISHED BY THE OPERATION AND MAINTENANCE PLAN OR IF OTHERWISE REQUIRED BY THE TOWNSHIP
- THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
 - PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS THROUGH THE IMPLEMENTATION OF WATER QUALITY BMPs TO TREAT THE RUNOFF PRODUCED BY THE PROPOSED DEVELOPMENT BEFORE DISCHARGING FROM THE SITE.
 - PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF AT THE DISCHARGE POINTS.
 - MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
 - MINIMIZE IMPERVIOUS AREAS TO ONLY THOSE WHICH ARE NECESSARY FOR THE SITE TO FUNCTION AS INTENDED.
 - MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
 - MINIMIZE LAND CLEARING AND GRADING.
 - MINIMIZE SOIL COMPACTION.
 - UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs TO PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF RESULTING FROM THE CHANGE IN IMPERVIOUS AREA.

- THE RECEIVING WATERCOURSE FOR THIS PROJECT IS AN UNNAMED TRIBUTARY OF MINISTER CREEK (TSF-MF).
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPs. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPs, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
- AS-BUILT PLANS OF THE STORMWATER BMPs SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
- A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs.
- PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
- FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND RELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

- THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
- THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

- UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

- THE NOTICE OF TERMINATION MUST INCLUDE:
- THE FACILITY NAME, ADDRESS AND LOCATION.
 - THE OPERATOR NAME AND ADDRESS.
 - THE PERMIT NUMBER.
 - THE REASON FOR PERMIT TERMINATION.
 - IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH §102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY ERODIBLE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED. PREFERABLY WITH A PERMANENT TREATMENT.

DISPOSAL AND RECYCLING

THE OWNER IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTES ONSITE. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY. CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

SILT REMOVED FROM POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF VEGETATED RAIN GARDEN AREAS. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED CRITICAL VEGETATION AREAS (CVA).

LIKELY WASTE TO BE GENERATED DURING MAINTENANCE OF THE POST-CONSTRUCTION BMPs ARE:

- ACCUMULATED SEDIMENT IN THE BIORETENTION AREAS AND STORM SYSTEM.
- ACCUMULATED GARBAGE AND DEBRIS IN THE BIORETENTION AREAS AND STORM SEWER.

CRITICAL STAGES OF CONSTRUCTION

THE PROFESSIONAL DESIGN ENGINEER, GEOTECHNICAL ENGINEER, OR SOILS PROFESSIONAL MUST BE PRESENT ON-SITE FOR THE ENTIRE INSTALLATION AND INSPECTION OF THE STORMWATER BMPs. THE SPECIFIC CRITICAL STAGES OF CONSTRUCTION FOR EACH BMP ARE:

- FOR BIORETENTION AREAS: EXCAVATION OF BIORETENTION AREA, PREPARATION OF THE SUBGRADE, PLACEMENT OF THE GEOTEXTILE FABRIC, INSTALLATION OF THE UNDERDRAIN, INSTALLATION OF AMENDED SOILS, CONSTRUCTION OF THE BIORETENTION BERM, AND INSTALLATION OF THE OUTLET STRUCTURE.
- FOR ALL WATER QUALITY INLETS: VERIFY INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1, IN ALL DRAINAGE SWALES, BASIN AND RAIN GARDEN AREAS.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

BIORETENTION AREAS

- BMP #1 & BMP #2, AS INDICATED ON PCSM PLAN

PLANTING NOTES AND SPECIFICATIONS:

- DEVELOP A PLANTING MEDIUM IN ACCORDANCE WITH THE APPROVED DETAIL SHOWN ON POST-CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET.

INSPECTION REQUIREMENTS

- ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER, FOR ACCUMULATION OF SEDIMENT, TRASH AND DEBRIS, DAMAGE TO OUTLET STRUCTURES, EROSION, SIGNS OF CONTAMINATION OR SPILLS AND BERM STABILITY.

MAINTENANCE/REPAIR INSTRUCTIONS

- THE SUGGESTED ITEMS IN THIS SECTION INCLUDE, BUT ARE NOT LIMITED TO THE THOSE LISTED BELOW:
 - ACCUMULATED SEDIMENT SHALL BE RESPREAD ON-SITE AS DESCRIBED IN THE DISPOSAL AND RECYCLING SECTION OF THIS PLAN SHEET;
 - ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY;
 - REPAIR OR REPLACE OUTLET STRUCTURE AS NEEDED;
 - STABILIZE ERODED AREAS IN ACCORDANCE WITH APPROVED E&S SEEDING AND MULCHING NOTES;
 - IN THE EVENT OF CONTAMINATION OR SPILL, IMMEDIATELY CONTACT AN ENVIRONMENTAL PROFESSIONAL QUALIFIED TO IDENTIFY AND EXECUTE THE REQUIRED CLEANUP METHODS THAT ADHERE TO LOCAL, STATE AND FEDERAL REGULATIONS;
 - IMMEDIATELY AFTER DISCOVERY OF BERM INSTABILITY, CONTACT A GEOTECHNICAL ENGINEER AND SITE CONTRACTOR TO DETERMINE AND EXECUTE METHODS TO REMEDY THE UNSTABLE BERM.

GENERAL MAINTENANCE NOTES:

- INSPECT BMP FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC.
- WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MY BE REQUIRED.
- RE-SPREAD MULCH WHEN EROSION IS EVIDENT AND REPLENISH AS NEEDED. REPLENISH MULCH ONCE EVERY 2 TO 3 YEARS.
- INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION).
- WATER AS NEEDED DURING PERIODS OF EXTENDED DROUGHT.
- INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.
- INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
- TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY, MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.
- INSPECT FOR LITTER; REMOVE PRIOR TO TRIMMING.
- INSPECT FOR UNIFORMITY IN CROSS-SECTION, CORRECT AS NEEDED.
- INSPECT INFLOW POINTS (CURB CUTS, INLETS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
- THE VEGETATION (FOR BMP CONTRIBUTING DRAINAGE AREA) SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED.
- CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. MOW ONLY AS APPROPRIATE FOR VEGETATIVE SPECIES.
- INSPECT BMP #2 AT LEAST TWO TIMES PER YEAR AFTER RUNOFF EVENTS GREATER THAN 0.8 INCH AND MAKE SURE THAT RUNN WITHIN THE DESIGN PARAMETERS (THE LICENSED PROFESSIONAL ENGINEER SHOULD CLEARLY IDENTIFY WHAT THESE PARAMETERS ARE).
- ALL CATCH BASINS AND INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST TWO (2) TIMES PER YEAR.
- AS NEEDED, REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO MAINTAIN INFILTRATION THROUGH THE MRC STONE MEDIA AND TO MAINTAIN WATER QUALITY FUNCTIONALITY. RESTORE ORIGINAL CROSS SECTION. PROPERLY DISPOSE OF SEDIMENT.
- ALL MRC BMP COMPONENTS SHOULD BE MAINTAINED AS INDICATED IN THE STORMWATER BMP MANUAL.
- AT LEAST TWO TIMES PER YEAR, OR MORE IF HISTORICAL MAINTENANCE INDICATE IT IS NECESSARY, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION, SIGNS OF WATER CONTAMINATIONS/SPILLS, AND INSTABILITY.
- LEAF LITTER NEEDS TO BE REMOVED ANNUALLY.

WINTER MAINTENANCE NOTES:

- BMP SHOULD BE INSPECTED IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION.
- IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE BMP, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.
- USE NONTOTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.
- USE SALT-TOLERANT VEGETATION.
- CLOSE MOW OR TRIM PERENNIAL MATERIAL TO ALLOW PROPER GERMINATION AND TO CONTROL INVASIVE SPECIES (TO BE DONE ONCE IN LATE FALL, WINTER OR EARLY SPRING).
- REPLENISH MULCH IN AREAS WHERE EROSION IS EVIDENT. REPLENISH MULCH IN ENTIRE INFILTRATION AREA AT LEAST EVERY 2 TO 3 YEARS.

CONSTRUCTION SEQUENCING

- INSTALL THE BMP DURING FINAL PHASES OF SITE CONSTRUCTION, FOLLOWING PERMANENT STABILIZATION OF THE BMP'S DRAINAGE AREA. TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY, AFTER INSTALLATION, PREVENT SEDIMENT-LADEN WATER FROM ENTERING THE FACILITY.
- INSTALL AND MAINTAIN PROPER E&S BMPs DURING CONSTRUCTION.
- CRITICAL STAGE OF CONSTRUCTION: EXCAVATE BIORETENTION AREA. FOR BMP #2 (MRC), INSTALL LAYER OF GEOTEXTILE FABRIC PER CONSTRUCTION DETAIL.
- INSTALL INLET AND OUTLET STRUCTURES, SPILLWAY, UNDERDRAIN PIPING WITH AGGREGATE ENVELOPE, CLEANOUTS, ORIFICE/WEIR, ETC.
- PLACE SOIL MEDIA GENTLY. DO NOT COMPACT SOIL MEDIA OR THE BASIN BOTTOM. THE PLACEMENT OF SOIL MEDIA SHOULD BE DONE FROM OUTSIDE THE BMP FOOTPRINT TO AVOID COMPACTION BY CONSTRUCTION EQUIPMENT. EQUIPMENT SHOULD NEVER DRIVE OVER PLACED SOIL MEDIA.
- VEGETATE THE BMP WITH NATIVE PLANTINGS AND SEED MIXES, AS APPLICABLE.
- MAINTAIN INLET PROTECTION AND OTHER E&S CONTROLS UNTIL THE SITE IS FULLY STABILIZED.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF BIORETENTION AREA.
- REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

THE TERM "FAILURE" FOR THE PROPOSED BIORETENTION AREAS SHALL BE DEFINED AS:

- THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE, DISCHARGE PIPE, UNDERDRAIN SYSTEM OR ANY OTHER DRAINAGE STRUCTURE/PIPE WITHIN THE BMP.
- THE LOSS OF STRUCTURAL INTEGRITY OF THE PROPOSED BERM
- THE INABILITY OF THE BIORETENTION AREA TO SUPPORT SURFACE VEGETATION DUE TO TOO MUCH OR TOO LITTLE WATER
- EXCESSIVE EROSION OR ACCUMULATION OF SEDIMENT OR DEBRIS
- STANDING WATER IS OBSERVED IN THE BIORETENTION AREA AFTER 72-HOURS.

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, UNDERDRAIN SYSTEM, OTHER DRAINAGE STRUCTURES/PIPES WITHIN THE BMP, SURFACE VEGETATION, AND BERM AS NEEDED. REMOVE SEDIMENT OR DEBRIS THAT HAS ACCUMULATED IN THE BMP BOTTOM AND STABILIZE EROSION USING PERMANENT STABILIZATION TECHNIQUES INDICATED ON THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN. DEWATER BIORETENTION AREAS.

THE TERM "FAILURE" FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS:

- DISCOVER EVIDENCE OF DAMAGED FILTER MEDIA
- DISCOVER EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

THERMAL IMPACT

THERE ARE SEVERAL PROPOSED/IN PLACE MEASURES INTENDED TO TREAT RUNOFF FOR THERMAL IMPACTS. FIRSTLY, THE PROPOSED LANDSCAPING TREES WITHIN AND BORDERING THE NEW BUILDING AND SIDEWALK AREAS WILL SHADE THE ADJACENT IMPERVIOUS SURFACES WHICH WILL KEEP THE AREAS COOL. SECONDLY, THE STORMWATER RUNOFF COLLECTED BY THE STORM SEWER SYSTEM WILL BE COOLED BY THE LOWER UNDERGROUND TEMPERATURE AS THE RUNOFF FLOWS THROUGH THE SYSTEM. THIRDLY, THE WATER DETAINED IN THE BIORETENTION AMENDED SOILS WILL BE COOLED AS IT IS SLOWLY RELEASED AS A RESULT OF THE LOWER UNDERGROUND TEMPERATURE. AS THE POST DEVELOPMENT FLOWS ARE LOWER THAN THE PRE-DEVELOPMENT FLOWS THE REDUCED RATE MEANS THE RUNOFF WILL HAVE MORE TIME TO COOL IN THE PROPOSED BMPs. THE COOLING INFLUENCES OF THE ONSITE BMPs WILL NEUTRALIZE/REMOVE THE HEAT ENERGY ABSORBED BY THE PROJECT SITE RUNOFF PRIOR TO DISCHARGE INTO THE RECEIVING WATERCOURSE.

STORM SEWER

INSPECTION REQUIREMENTS:

- ALL DRAINAGE COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER, FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

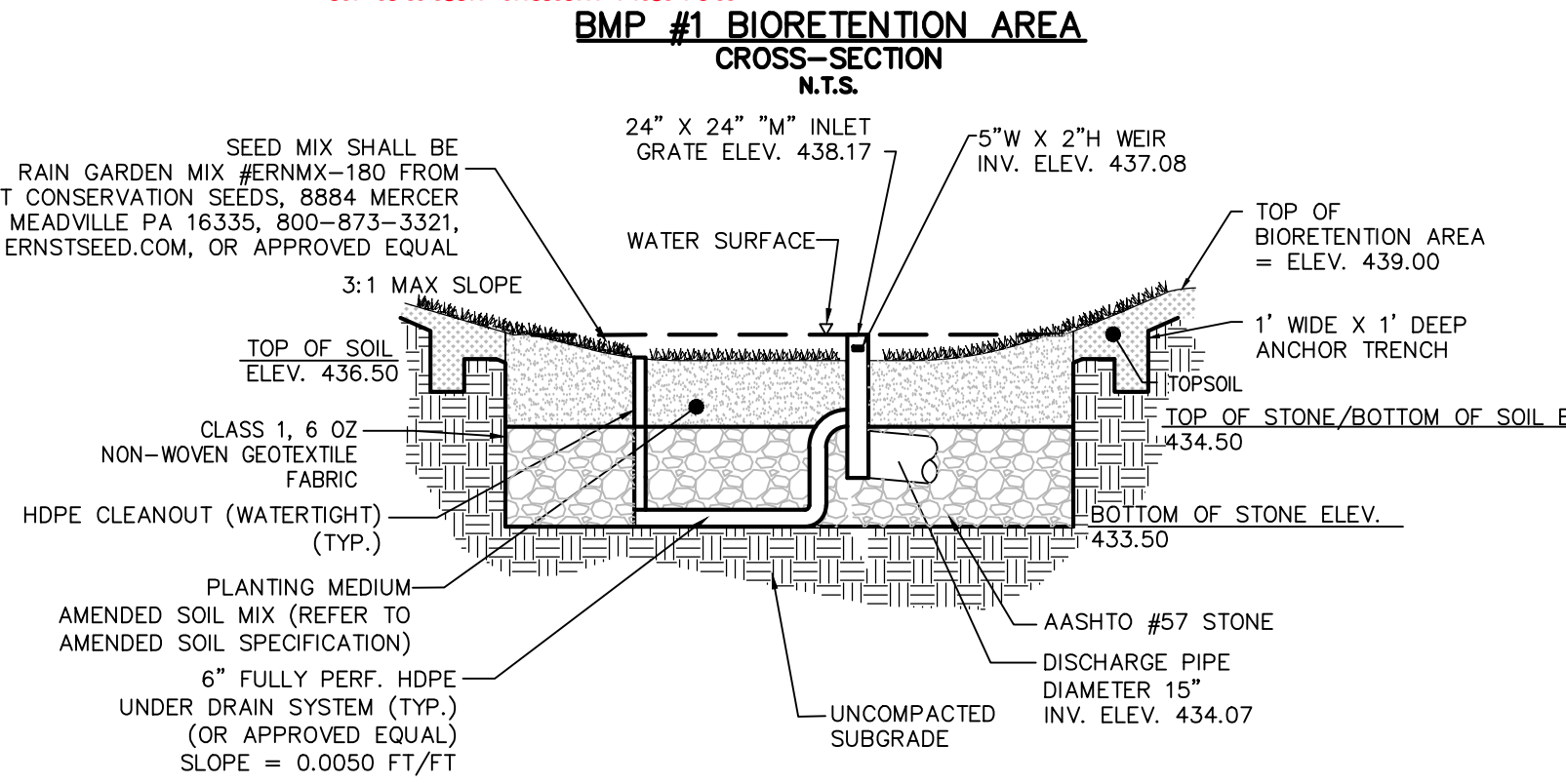
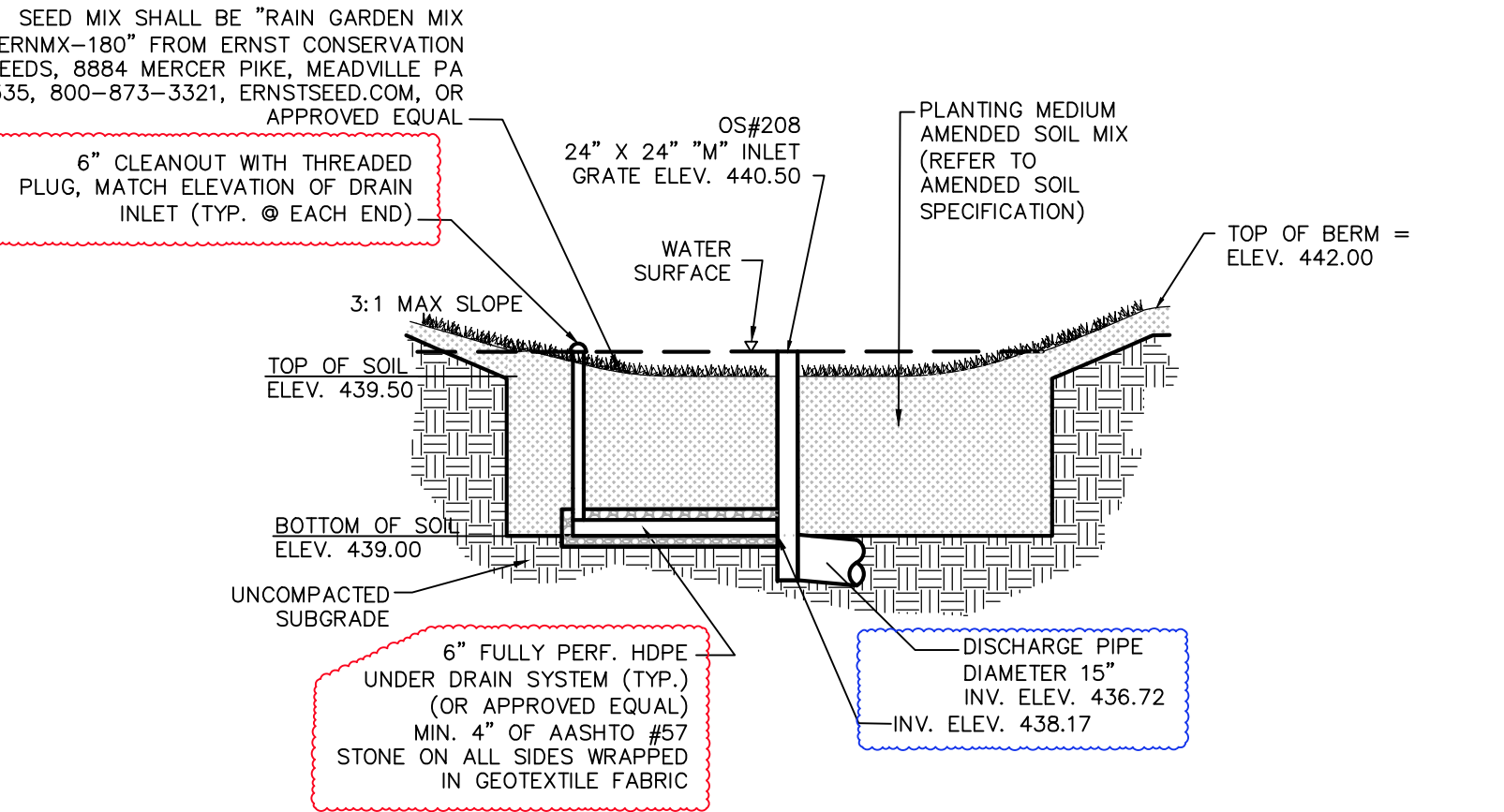
GENERAL MAINTENANCE NOTES:

- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
- IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE SYSTEM SHALL BE JETTED AND VACUUMED TO REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSED OF APPROPRIATELY.
- REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

SITE RESTORATION O&M REQUIREMENTS

ESTABLISH AND MAINTAIN VEGETATIVE COVER IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

PERFORM ROUTINE INSPECTIONS AND CORRECT EROSION PROBLEMS, IF ENCOUNTERED.



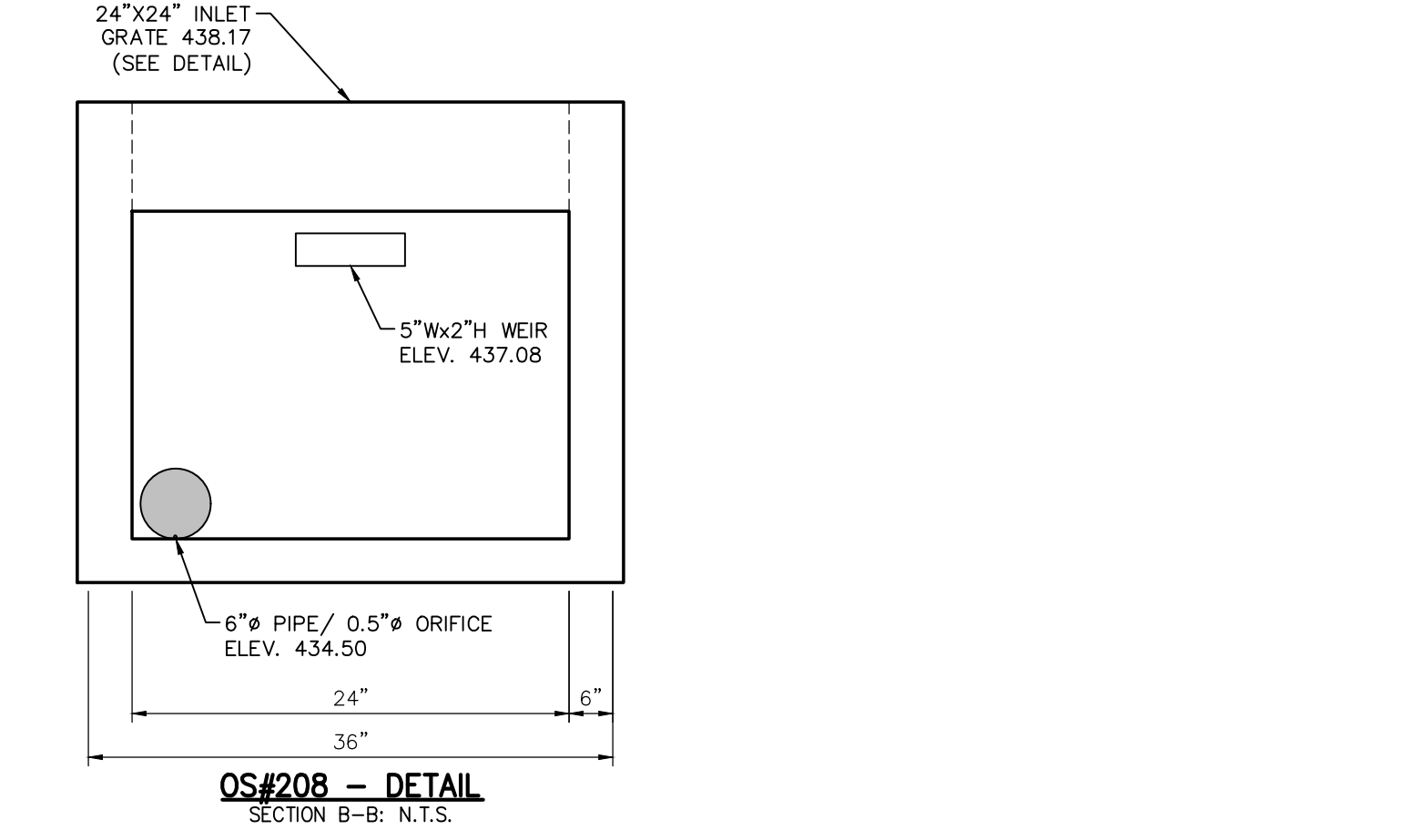
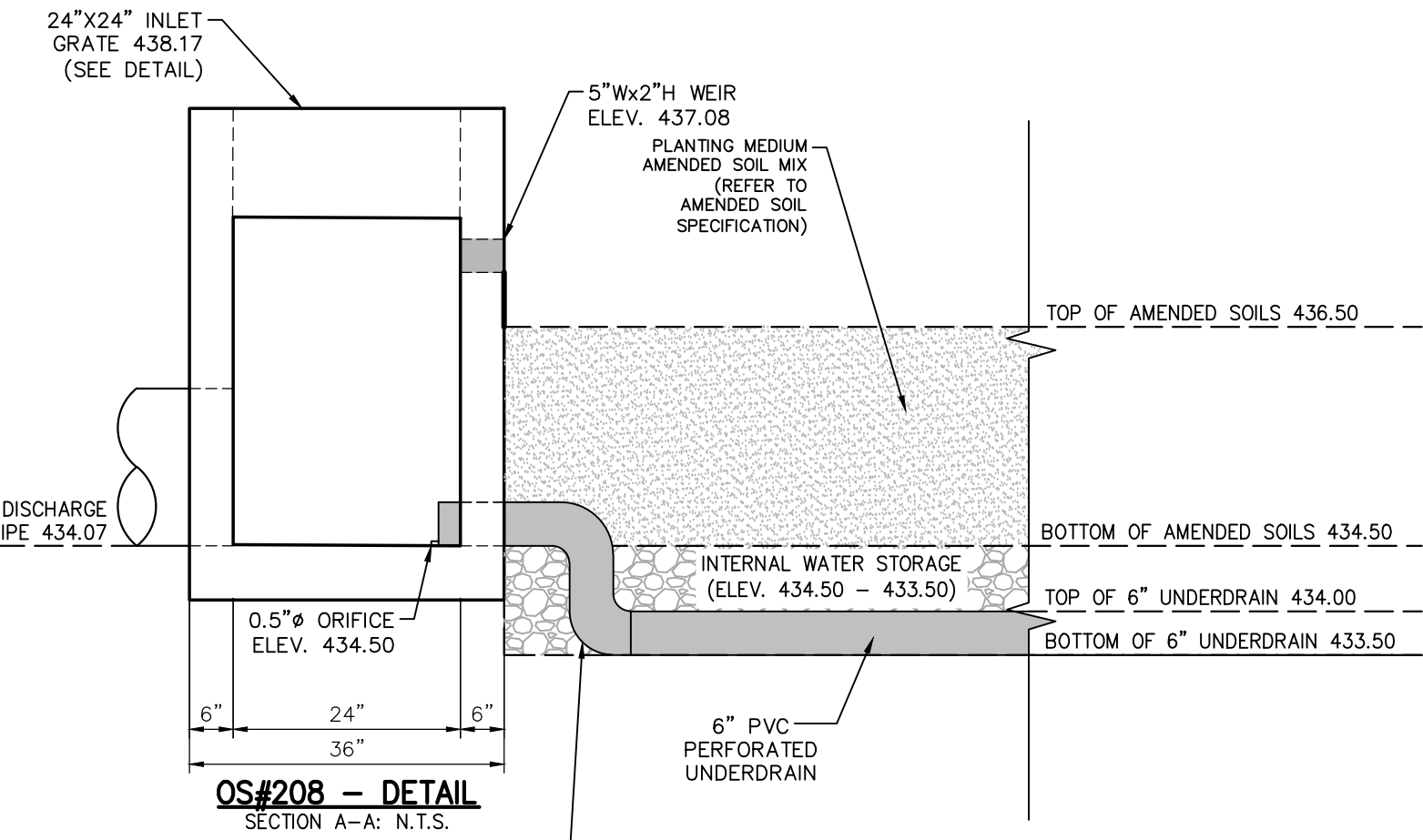
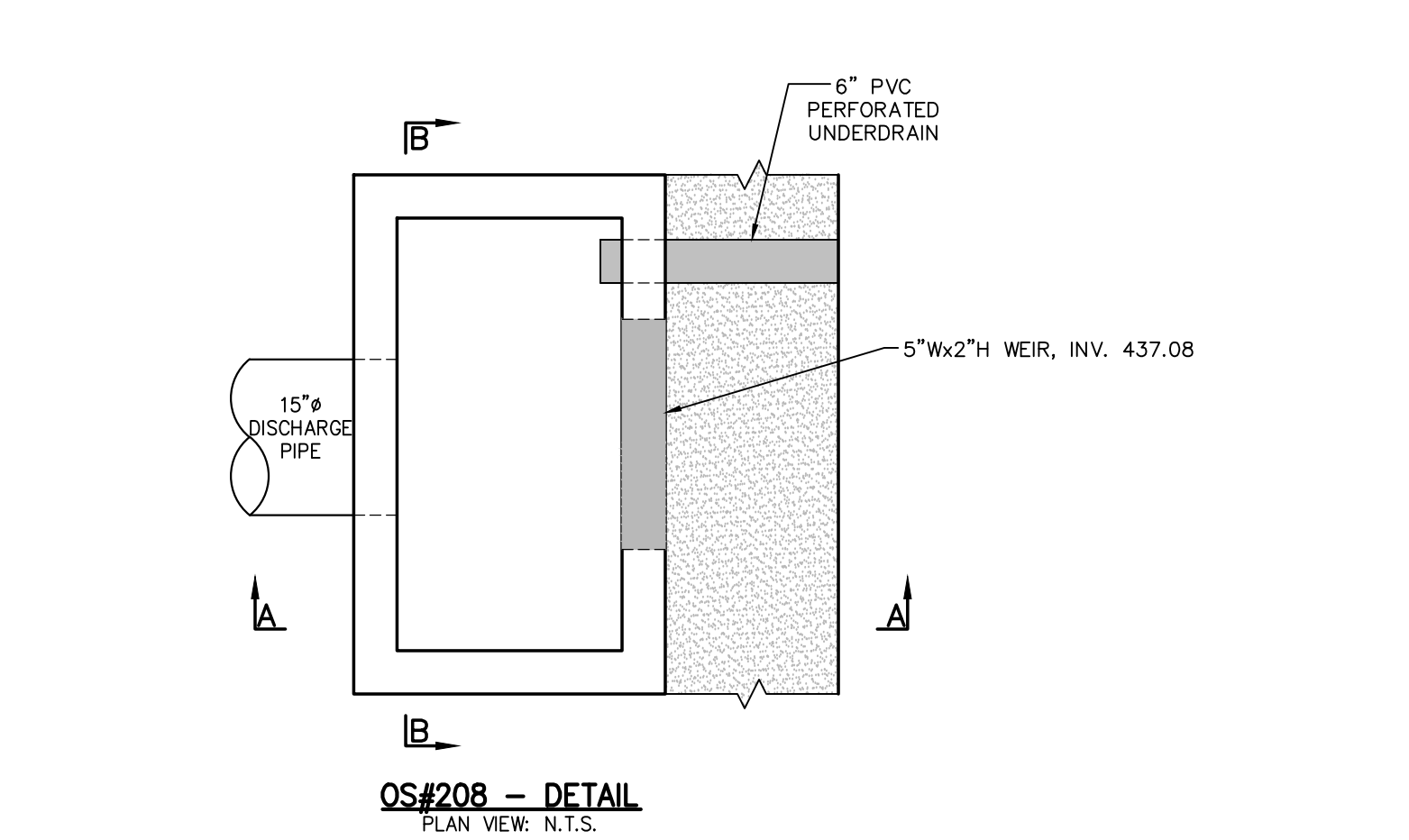
AMENDED SOILS SPECIFICATION:
A WELL BLENDED MIXTURE (BY VOLUME):
40-60% ORGANIC LEAF COMPOST
40-60% NATIVE TOPSOIL

0.50 IN/HR (MIN.) TO 1.00 IN/HR (MAX.)
*THE AMENDED SOIL MIX SHALL BE INSPECTED AND TESTED DURING INSTALLATION BY A GEOTECHNICAL ENGINEER TO VERIFY ACCEPTABILITY OF THE MIXTURE AND PERMEABILITY.

BMP #2 M.R. BIORETENTION AREA
CROSS-SECTION
N.T.S.

TYPICAL BIORETENTION AREA NOTES:

- CONTRACTOR SHALL TREAT COMPACTED SUBGRADE SOILS AS SPECIFIED IN THE SOIL AMENDMENT SPECIFICATION PRIOR TO PLACEMENT OF THE UNDERDRAIN AND SOIL AMENDMENT SHOWN ON SHEET 9F.
- IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTING CONSTRUCTION.
- GRADING OF AREAS SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
- ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHOULD PROVIDE A ONE-YEAR 100% CARE AND REPLACEMENT WARRANTY FOR ALL PLANTING BEGINNING AFTER INSTALLATION AND INSPECTION OF ALL PLANTS.
- REFER TO OPERATIONS AND MAINTENANCE PLAN FOR POST-DEVELOPMENT CONSTRUCTION SEQUENCING AND MAINTENANCE SPECIFICATIONS.
- ALL CONNECTIONS TO INLET/OUTLET STRUCTURES AND CLEANOUT PIPES SHALL HAVE WATERTIGHT SEALS.

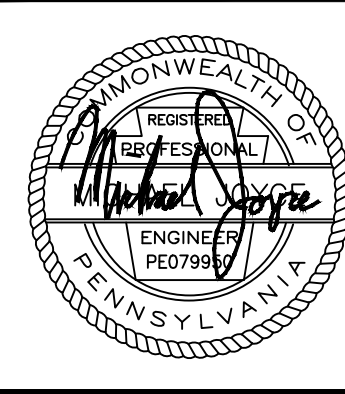


ITEMS INCLUDED IN 04/11/2025 REVISIONS:

- PROFESSIONAL SEAL ADDED TO PLAN.
- BMP #1 DETAIL REVISED TO INCLUDE UNDERDRAIN, STONE, GEOTEXTILE FABRIC, AND CLEANOUT.

ITEMS INCLUDED IN 05/01/2025 REVISIONS:

- OS#208 POND LINER OMITTED.
- BMP #1 BIORETENTION AREA DETAIL- DISCHARGE PIPE INVERT ELEVATION REVISED.
- BMP #1 BIORETENTION AREA DETAIL- UNDER DRAIN INVERT ELEVATION ADDED.
- CONSTRUCTION SEQUENCING NOTE REVISED.



POST-CONSTRUCTION
STORMWATER
MANAGEMENT
NOTES/DETAILS

PROJECT NO.		22096-2000	
SCALE		As Noted	
DATE		03/31/2025	
DRAWN BY		HL	
CHECKED BY		MJ	
DRAWING		16	

CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA	
	ChesterValley ENGINEERS, INC. 112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chesterenv.com
F.B.	