

PROJECT TEAM

**CLIENT**  
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Wayne, PA 19087  
(610) 240-1900

**ARCHITECTURAL**  
Heckendorn Shiles Architects  
347 East Conestoga Road  
Wayne, PA 19087  
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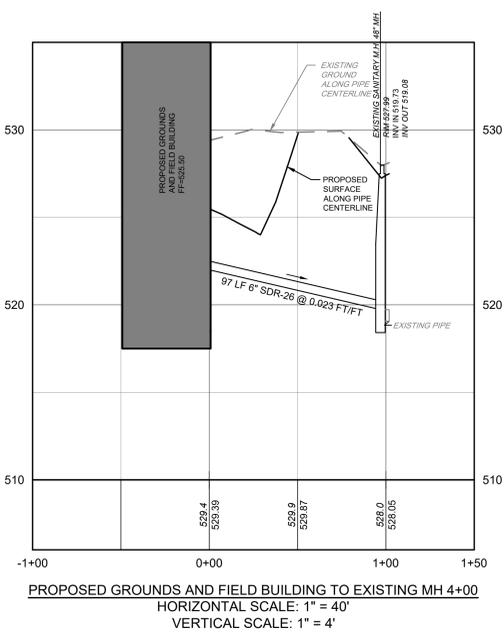
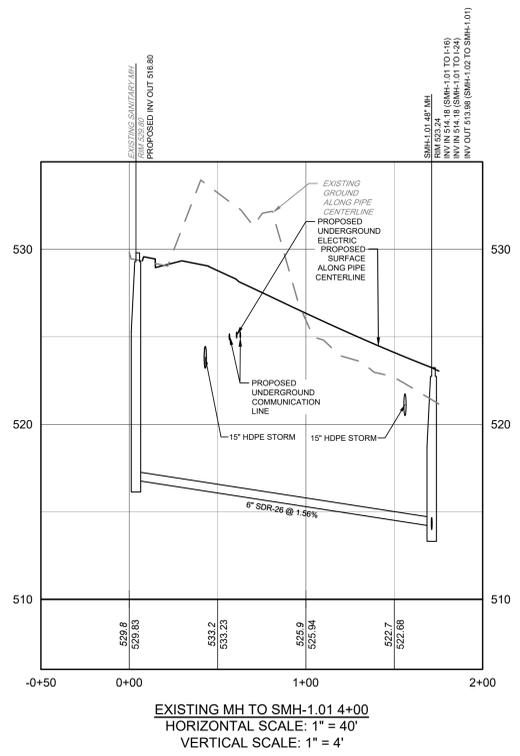
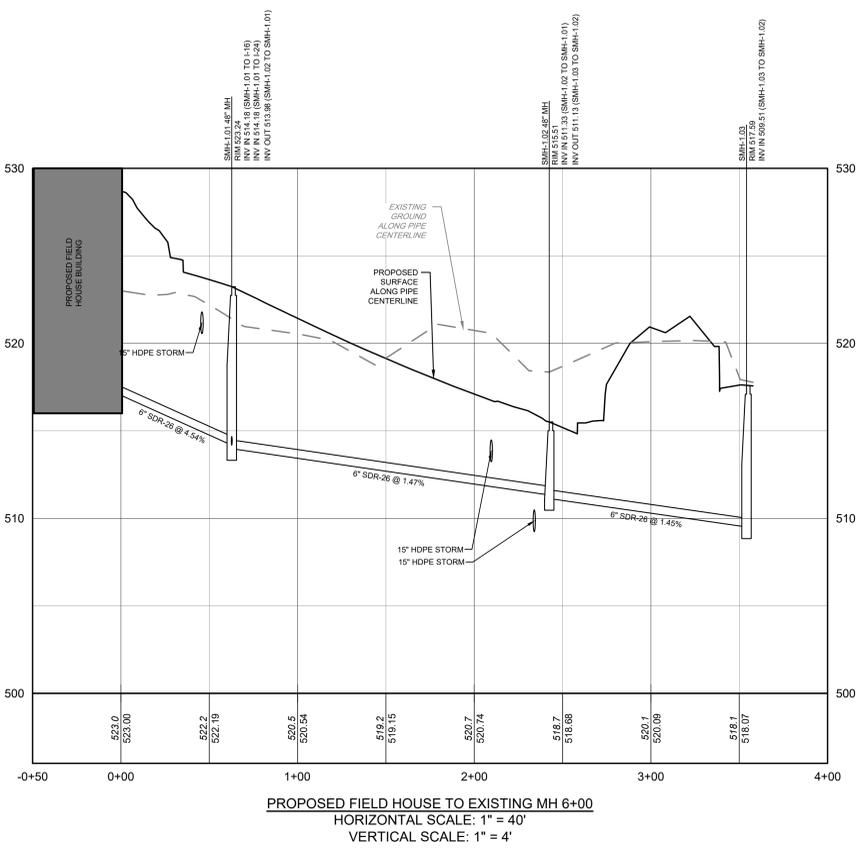
**STRUCTURAL ENGINEER**  
N/A

**MEFP ENGINEER**  
Schiller and Hersh Associates, Inc.  
636 Skippack Pike, Suite 200  
Blue Bell, PA 19422  
(215) 886-8947

**SITE / CIVIL**  
Pennoni Associates, Inc.  
158 W Gay Street, Suite 300  
West Chester, PA 19380  
(610) 429-8907

**MISC DISCIPLINE**  
N/A

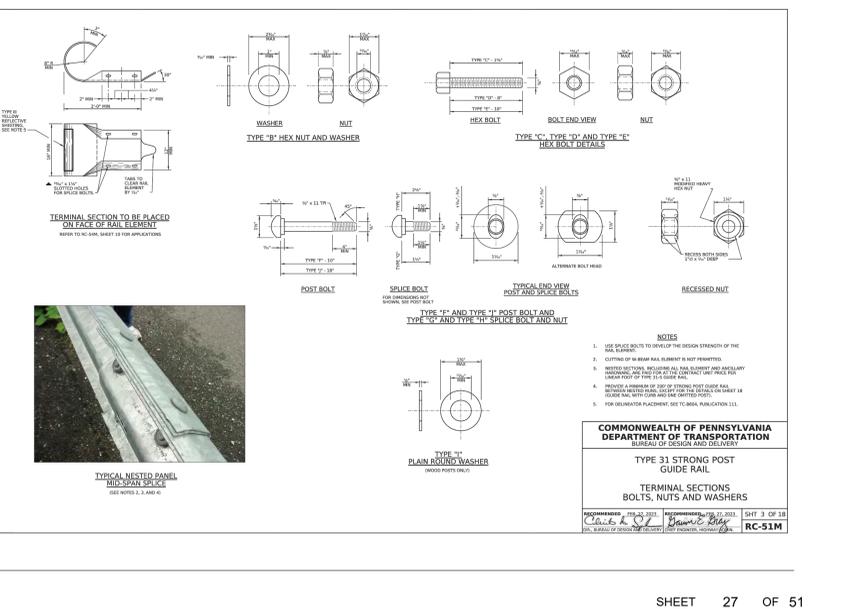
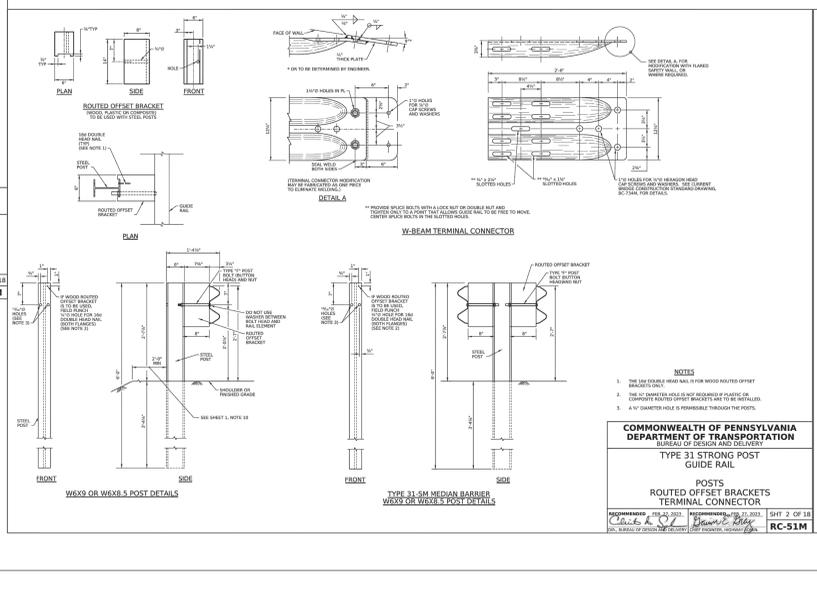
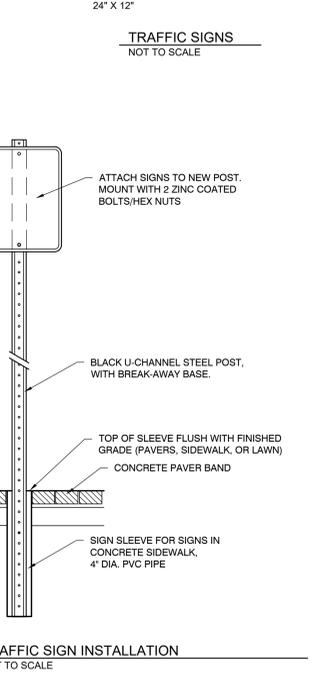
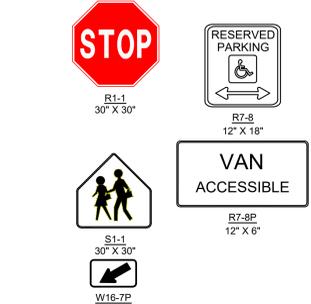
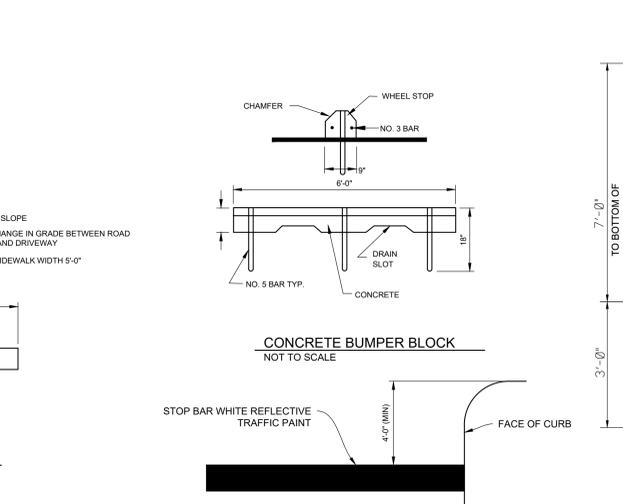
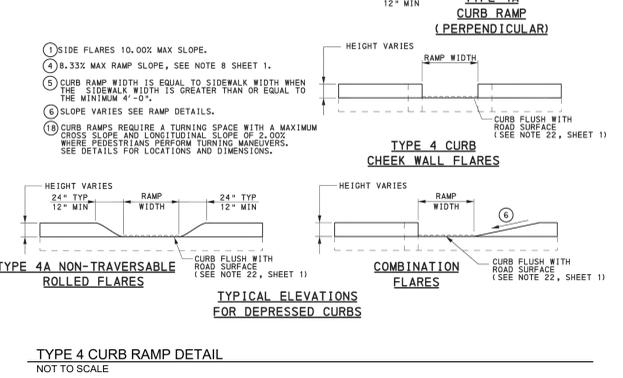
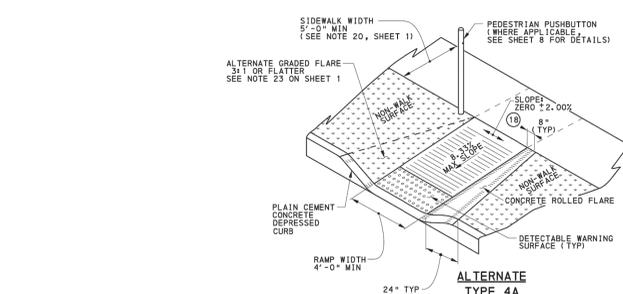
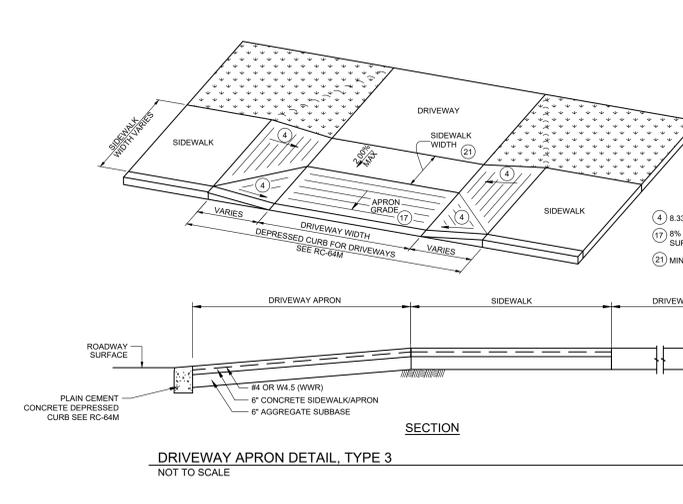
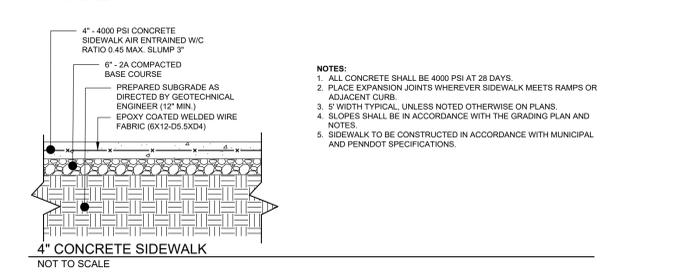
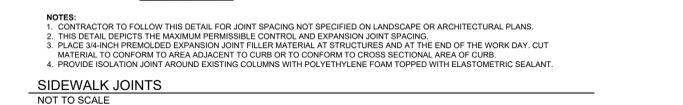
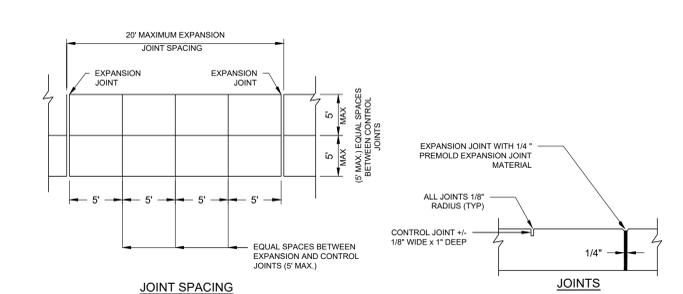
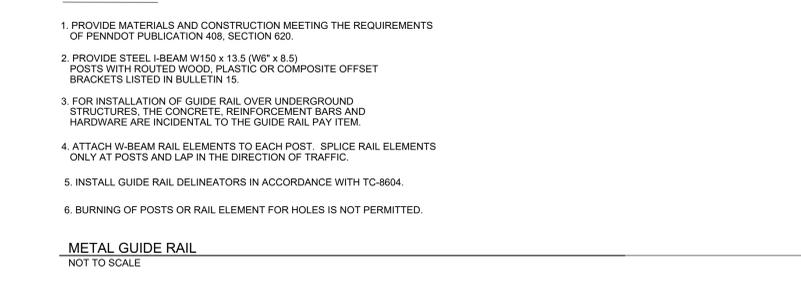
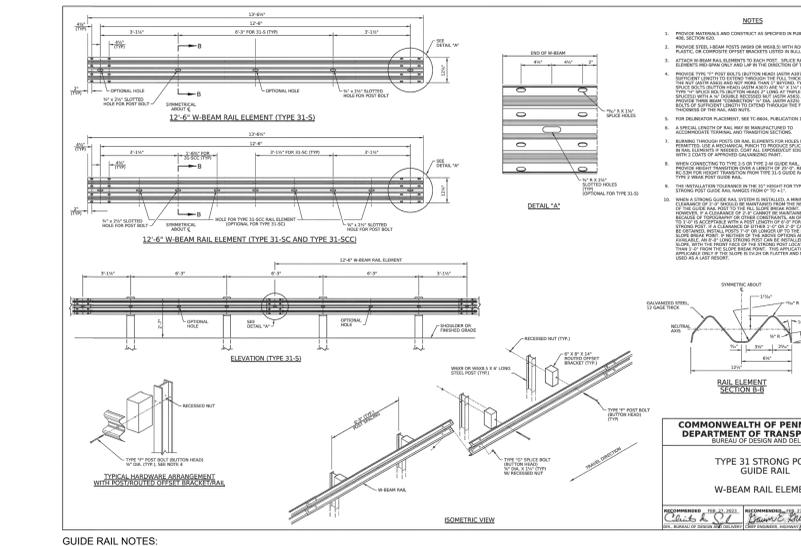
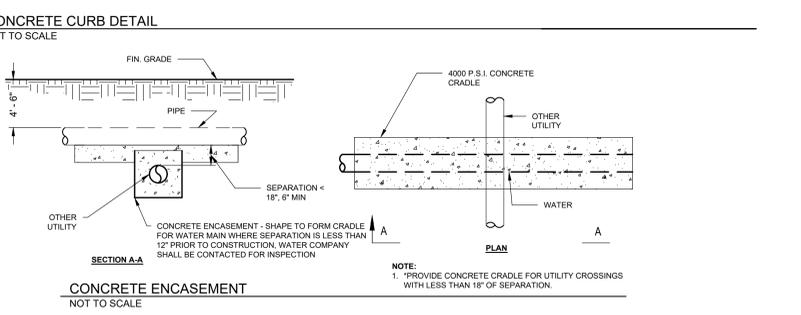
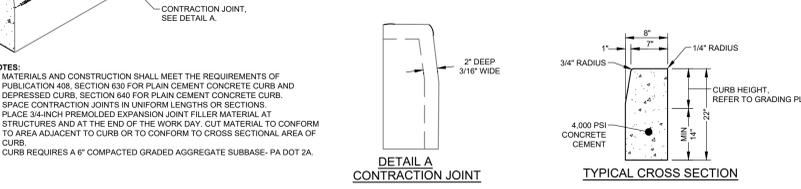
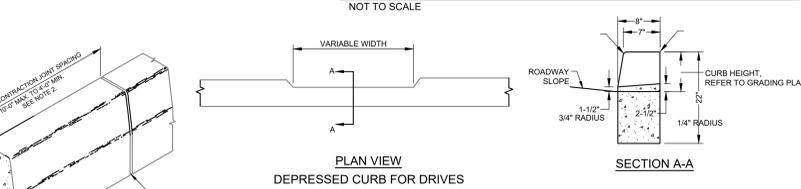
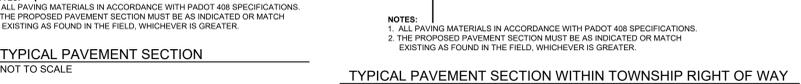
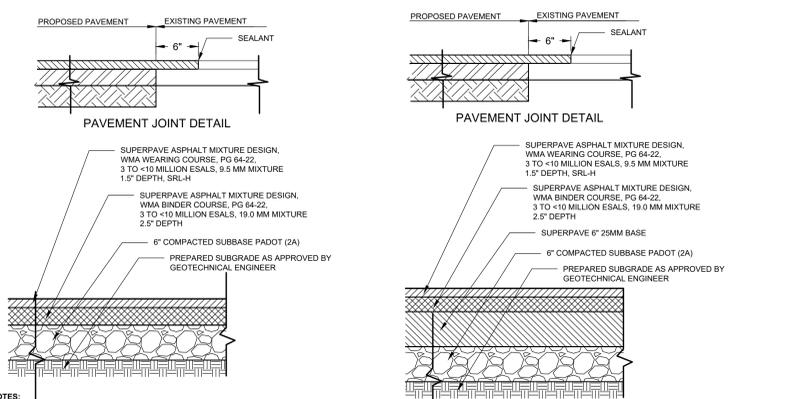
**NOT FOR CONSTRUCTION**



ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN CONNECTION WITH THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENTIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN PERMISSION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

| Δ | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/18/2023 | REVISED PER TWP COMMENTS    |
| 2 | 06/14/2023 | REVISED PER CCDC COMMENTS   |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 5 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/18/2024 | BID ISSUE                   |

**NOT FOR CONSTRUCTION**



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|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/18/2023 | REVISED PER TWP COMMENTS    |
| 2 | 05/14/2023 | REVISED PER CDDC COMMENTS   |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 5 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/16/2024 | BD ISSUE                    |



- LIGHTING NOTES**
- THE LIGHTING PLAN IS FOR LIGHTING PURPOSES ONLY. ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING LOCATIONS, CURBING, SIDEWALK, UTILITIES, AND THEIR ANCILLARY APPURTENANCES, ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE SUBJECT TO MODIFICATION AND REVISION. CONTRACTOR SHALL REFER TO THE SITE PLAN AND CONSTRUCTION IMPROVEMENTS PLAN, AND THEIR RELATED DETAIL SHEETS FOR ALL SITE IMPROVEMENTS OTHER THAN LIGHTING.
  - THE LIGHTING PLAN IS DIAGRAMMATIC IN NATURE AND INDICATES THE GENERAL ARRANGEMENT OF THE VARIOUS SYSTEMS AND APPROXIMATE LOCATIONS OF THE EQUIPMENT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THERE IS ADEQUATE SPACE AT THE LOCATIONS INDICATED FOR ALL EQUIPMENT PRIOR TO INSTALLATION OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
  - MATERIAL QUANTITIES SHOWN ON THE DRAWINGS ARE INTENDED TO ASSIST IN DEFINING THE SCOPE OF THE WORK. IT IS NOT A COMPLETE LISTING OF ALL MATERIALS REQUIRED TO PERFORM THE WORK. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO COMPLETE THE LIGHTING PLAN.
  - PERFORM ALL CONSTRUCTION AND WORKMANSHIP IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, ALL REGULATIONS AND CODES OF ALL JURISDICTIONAL AUTHORITIES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA STANDARDS.
  - ALL WORK AND MATERIALS SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER AND/OR THEIR APPROVED REPRESENTATIVE.
  - CONTRACTOR RESPONSIBLE FOR THE CONDUIT RUNS OR DIRECT BURIAL ELECTRIC SERVICE.
  - ALL EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES, INC. AND SHALL BEAR THE U.L. LABEL. PROVIDE ONLY NEW UNDAMAGED EQUIPMENT.
  - CONTRACTOR SHALL OBTAIN ALL PERMITS.
  - LOCATION OF POWER FOR SITE LIGHTING TO BE PROVIDED FROM PANEL IN EXISTING BUILDING.
  - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS EMPLOYED ON THE PROJECT.
  - SITE LIGHTING SHALL MEET IESNA FULL-CUTOFF CRITERIA.
  - REFER TO THIS SHEET FOR ADDITIONAL LIGHTING DETAILS AND SPECIFICATIONS.
  - CALCULATED FOOTCANDLE ARE AT PAVEMENT SURFACE.
  - BUILDING LIGHTS NOT SHOWN ON THIS PLAN, REFER TO ARCHITECTURAL PLANS.
  - NO SUBSTITUTION SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM THE TOWNSHIP AND DESIGN ENGINEER.
  - VEGETATION SHALL BE MAINTAINED TO ENSURE GROWTH DOES NOT IMPACT THE PROPOSED LIGHTING LEVELS IN THE PARKING LOTS AND DRIVE AISLES.
  - ELECTRICAL CONDUIT SHALL BE ROUTED AROUND THE PROPOSED TREE LOCATIONS, PLANTING ISLANDS, AND CONFLICTING VEGETATION AREAS.
  - IN AREAS WHERE THE LIGHTING FOUNDATION WILL BE LOCATED IN LINED STORMWATER MANAGEMENT FACILITIES, WATERPROOFING MECHANISMS SHALL BE PROVIDED TO PREVENT WATER SEEPAGE ALONG FOUNDATIONS.
  - WHERE NECESSARY, SITE LIGHTING WILL BE EQUIPPED WITH GLARE/SHIELDING DEVICE.
  - ALL POLE BASES SHALL BE FLUSH SITE UNLESS RAISED BASE IS REQUIRED PER NOTE 2 BELOW.
  - ALL POLES SUPPORTING LIGHT FIXTURES FOR THE ILLUMINATION OF PARKING AREAS AND LOCATED DIRECTLY BEHIND PARKING SPACES OR WHERE THEY COULD BE HIT BY SNOW PLOWS, SHALL BE PLACED A MINIMUM OF FIVE (5) FEET OUTSIDE PAVED AREA. FACE OF CURB OR WHEEL STOPS, OR PLACED ON CONCRETE REDEKES AT LEAST THIRTY (30) INCHES HIGH ABOVE THE PAVEMENT, OR ADEQUATELY PROTECTED BY OTHER MEANS.
  - SITE CONTRACTOR SHALL PROVIDE ELECTRICAL POWER SERVICE TO THE PROPOSED LIGHT LOCATIONS. SERVICE LINES TO BE LOCATED WITHIN CONDUIT. SERVICE LINE LOCATIONS TO BE DETERMINED BY THE SITE CONTRACTOR AND SHOWN ON THE FINAL AS-BUILT PLANS.
  - LIGHTING SHALL BE CONTROLLED BY AUTOMATIC SWITCHING DEVICES, SUCH AS TIME CLOCKS OR COMBINATION MOTION DETECTORS AND PHOTOCELLS, TO PREVENT EXTINGUISHING OFFENDING SOURCES BETWEEN 11:00 P.M. AND DAWN TO MITIGATE NUISANCE GLARE AND SKY-LIGHTING CONCERNS.
  - ALL NON-ESSENTIAL LIGHTING, INCLUDING DISPLAY, AESTHETIC, PARKING AND SITE LIGHTING SHALL BE REQUIRED TO BE TURNED OFF OR REDUCED BY 75 PERCENT AFTER BUSINESS HOURS OR 11:00 P.M. FOR A SPECIFIC SAFETY PURPOSE SHALL BE APPROVED BY THE TOWNSHIP.
  - MAINTENANCE - LIGHTING FIXTURES AND ANCILLARY EQUIPMENT SHALL BE MAINTAINED SO AS TO CONTINUOUSLY MEET THE REQUIREMENTS AS SHOWN ON THIS PLAN.

| POLE DESIGNATION | FORCES (1)        |               |                  | DRILLED PIER      |                     |                    | CONCRETE BACKFILL VOLUME (3) |
|------------------|-------------------|---------------|------------------|-------------------|---------------------|--------------------|------------------------------|
|                  | MOMENT (M) FT-LBS | SHEAR (V) LBS | VERTICAL (P) LBS | DIAMETER (INCHES) | EMBEDMENT DEPTH (4) | SUSPENSION "Y" (2) |                              |
| F1, F2, F4       | 83,612            | 1,763         | 2,447            | 36                | 14'-0"              | NA                 | 2.6                          |
| F3               | 83,612            | 1,763         | 2,447            | 36                | 16'-0"              | 2'-0"              | 3.1                          |

**DESIGN NOTES**

DESIGN PARAMETERS:  
WIND: V = 115 MPH, V<sub>max</sub> = 89 MPH (EXPOSURE C, RISK CATEGORY II) PER INTERNATIONAL BUILDING CODE, 2018 EDITION (SECTION 7-10). DESIGN WIND PARAMETERS ARE AS NOTED. ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICIAL.

GEOTECHNICAL PARAMETERS:  
ALLOWABLE END BEARING SOIL PRESSURE: 3.0 KSF  
LATERAL SOIL RESISTANCE PARAMETERS:  
AS PROVIDED IN GEOTECHNICAL REPORT, SECTION 7.7 TABLE (NEGLECT TOP 2'-0") IN ACCORDANCE WITH THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE GEOTECHNICAL EXPLORATION REPORT, PROJECT NO. 545731R1, PREPARED BY DAVID BLACKMORE AND ASSOCIATES, INC., POTTSTOWN, PA.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IT IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION.

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:  
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,200 PSI. ALL TIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:  
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3:1. V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO UNDISTURBED SOIL.

- ADD LOAD COMBINATION D + 0.6W  
VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
- SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
- POTENTIAL FOR ENCOUNTERING ROCK BEFORE REACHING EMBEDMENT DEPTH. ROCK AUGERING EQUIPMENT MAY BE REQUIRED.

| PRECAST BASE IDENTIFICATION |                     |                     |                        |                    |                  |
|-----------------------------|---------------------|---------------------|------------------------|--------------------|------------------|
| PRECAST BASE TYPE           | PRECAST BASE WEIGHT | PRECAST BASE LENGTH | PROJECTION ABOVE GRADE | STANDARD EMBEDMENT | OUTSIDE DIAMETER |
| 4B                          | 3,490 LBS           | 22'-0"              | 8'-0"                  | 14'-0"             | 15.75"           |

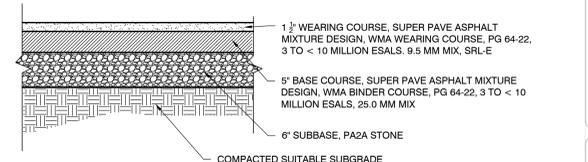
| POLE IDENTIFICATION |           |                   |                                      |                                  |  |
|---------------------|-----------|-------------------|--------------------------------------|----------------------------------|--|
| POLE DESIGNATION    | POLE TYPE | PRECAST BASE TYPE | FIXTURE CONFIGURATION (FIX. PER ARM) | FIXTURE AND ACCESSORIES EPA (FT) |  |
| F1 - F4             | LSSTOC    | 4B                | 10 (4+4)                             | 26.6                             |  |

POLES F1 - F4 HAVE (2) MUSCO LED FIXTURES AT 15'-0" AGL INCLUDING ABOVE.

SOIL BACKFILL NOTE:  
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION: 80% FOR COHESIVE SOIL AND 88% FOR A COHESIONLESS SOIL, BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

**POLE FOUNDATION LEVEL.**  
SCALE: NOT TO SCALE

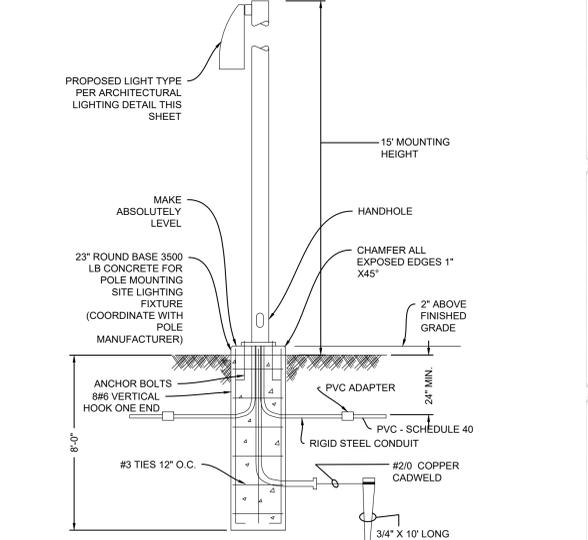
**STADIUM LIGHTING DETAILS**  
NOT TO SCALE



- NOTES:**
- APPLY ACRYLIC RESURFACER AND ACRYLIC COLOR SURFACE SYSTEM PER SPECIFICATIONS. SEE COURT LAYOUT DETAIL FOR COLORS.
  - NEW COURT TO HAVE A CONSISTENT CROSS SLOPE FROM END TO END AND FROM SIDE TO SIDE. CROSS SLOPE TO BE 1% MINIMUM TO 2% MAXIMUM. DIRECTION OF CROSS SLOPE WILL VARY WITH FIELD CONDITIONS.

**TENNIS COURT PAVING DETAIL**  
NOT TO SCALE

- BASIS OF DESIGN (SITE LIGHTING)**
- LIGHT POLE AND FIXTURE SHALL BE MANUFACTURED BY LEOTEK OR APPROVED EQUAL.
  - FIXTURE TYPE: LEOTEK - ARIETA 13 ARCHITECTURAL LED AREA LUMINAIRE (ARIETA 12 SERIES) OR APPROVED EQUAL.
  - POLE: LEOTEK SQ STEEL 20 FT POLE OR APPROVED EQUAL.
  - CONTRACTOR TO FURNISH AND INSTALL FOR EACH FIXTURE: LIFETIME WIRELESS RELAY - RME-RXB OR APPROVED EQUAL. ABLE PRODUCTS PULS-IN SURGE PROTECTOR - MODEL RWL-S OR APPROVED EQUAL.
  - CONTRACTOR SHALL CONSULT MANUFACTURER FOR SPECIFICATIONS AND INSTALLATION INSTRUCTIONS UPON ORDERING LIGHT POLES AND FIXTURES.
  - ANY PROPOSED SUBSTITUTE SHALL BE SUBMITTED IN WRITING FOR OWNER REPRESENTATIVE AND TOWNSHIP APPROVAL PRIOR TO INSTALLATION.
  - SPACING AND NUMBER OF ANCHOR BOLTS SHALL BE PER MANUFACTURER SPECIFICATIONS.
  - DRIVEWAY AND PARKING AREA LIGHTING SHALL BE DARK SKY COMPLIANT.
  - UPON INSTALLATION, THE TOWNSHIP MAY REQUEST ADJUSTMENTS TO THE LIGHTING SHIELDS TO ENSURE NO DIRECT GLARE OCCURS BEYOND THE PROPERTY LIMIT.



**PROPOSED PARKING LOT LIGHT DETAIL**

**ALEDFC52** **RAB Outdoor**

**Project:** Type: **Driver Info:** LED Info

|               |                  |                |              |
|---------------|------------------|----------------|--------------|
| Type          | Constant Current | Watts          | 52W          |
| 120V          | N/A              | Color Temp     | 5000K (Cool) |
| 208V          | N/A              | Color Accuracy | 72 CRI       |
| 240V          | N/A              | L70 Lifespan   | 100,000      |
| 277V          | N/A              | Lumens         | 7,318        |
| Input Voltage | 57V              | Efficiency     | 128.4 LPW    |

Color: Bronze Weight: 29.1 lbs

**Technical Specifications**

**UL Listing:** Suitable for wet locations. Suitable for mounting within 4 feet of the ground.

**DLC Listed:** This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. DLC Product Code: P00001707

**IESNA LM-79 & IESNA LM-80 Testing:** RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

**LED Characteristics**

**Lifespan:** 100,000-hour LED lifespan based on IES LM-80 steady state TM-21 calculations

**Cold Weather Starting:** Minimum starting temperature is -40°C (-40°F)

**Housing:** Precision die cast aluminum housing, lens frame

**Arm:** Die-cast aluminum with wiring access plate

**Effective Projected Area:** EPA = 1.5

**Reflector:** Specular vacuum-metallized polycarbonate

**Gaskets:** High-temperature silicone

**Finish:** Formulated for high durability and long-lasting color

**Green Technology:** Mercury and UV free, RoHS-compliant components.

**Electrical:**

**Surge Protection:** 6kV

**Technical Specifications (continued)**

**Electrical:**

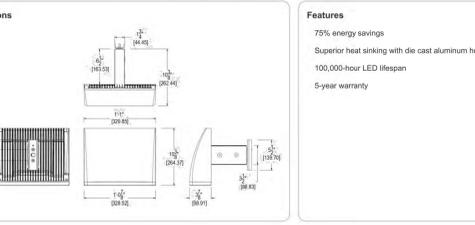
**Driver:** Constant Current, 720mA, Class 2, 100 - 277V, 50 - 60 Hz, 100 - 277VAC, 8 Arms

**THD:** 8.1% at 120V, 7.0% at 277V

**Power Factor:** 99.2% at 120V, 97.3% at 277V

**Optical:**

**Warranty:** RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and future finish. RAB's warranty is subject to all terms and conditions found at [www.rablighting.com/legal/warranty](http://www.rablighting.com/legal/warranty)



**Ordering Matrix**

| Family | Cutoff | Wattage | Color Temp   | Finish    | Driver Options   | Options  | Other Options                          |
|--------|--------|---------|--------------|-----------|--|--|--|
| ALED   | FC     | 52      | 5200K (Cool) | W = White | Blank = 120-277V / 480 = 480V / N = 4000K (Neutral) / Y = 3000K (Warm) | Blank = No Option / PCS = 120V Swivel Photocell / PCS2 = 277V Swivel Photocell / PCS3 = 480V Swivel Photocell / PCT = 120-277V Twisted Photocell | USA = BAA Compliant / Blank = Standard |

Blank = Standard  
C = Cutoff (7.5°)  
FC = Full Cutoff (0°)

Blank = 520W  
N = 4000K (Neutral)  
Y = 3000K (Warm)

Blank = Bronze  
W = White

Blank = 120-277V  
480 = 480V  
N = 4000K (Neutral)  
Y = 3000K (Warm)

Blank = No Option  
PCS = 120V Swivel Photocell  
PCS2 = 277V Swivel Photocell  
PCS3 = 480V Swivel Photocell  
PCT = 120-277V Twisted Photocell

USA = BAA Compliant  
Blank = Standard

PCS4 = 480V Twisted Photocell  
A.C. = Lightswitch/Contactor

**PARKING LOT LIGHTING FIXTURE DETAIL**

**DESIGN NOTES**

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DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE GEOTECHNICAL EXPLORATION REPORT, PROJECT NO. 545731R1, PREPARED BY DAVID BLACKMORE AND ASSOCIATES, INC., POTTSTOWN, PA.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IT IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION.

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:  
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,200 PSI. ALL TIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:  
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3:1. V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO UNDISTURBED SOIL.

- ADD LOAD COMBINATION D + 0.6W  
VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
- SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
- POTENTIAL FOR ENCOUNTERING ROCK BEFORE REACHING EMBEDMENT DEPTH. ROCK AUGERING EQUIPMENT MAY BE REQUIRED.

| PRECAST BASE IDENTIFICATION |                     |                     |                        |                    |                  |
|-----------------------------|---------------------|---------------------|------------------------|--------------------|------------------|
| PRECAST BASE TYPE           | PRECAST BASE WEIGHT | PRECAST BASE LENGTH | PROJECTION ABOVE GRADE | STANDARD EMBEDMENT | OUTSIDE DIAMETER |
| 4B                          | 3,490 LBS           | 22'-0"              | 8'-0"                  | 14'-0"             | 15.75"           |

| POLE IDENTIFICATION |           |                   |                                      |                                  |  |
|---------------------|-----------|-------------------|--------------------------------------|----------------------------------|--|
| POLE DESIGNATION    | POLE TYPE | PRECAST BASE TYPE | FIXTURE CONFIGURATION (FIX. PER ARM) | FIXTURE AND ACCESSORIES EPA (FT) |  |
| F1 - F4             | LSSTOC    | 4B                | 10 (4+4)                             | 26.6                             |  |

POLES F1 - F4 HAVE (2) MUSCO LED FIXTURES AT 15'-0" AGL INCLUDING ABOVE.

SOIL BACKFILL NOTE:  
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION: 80% FOR COHESIVE SOIL AND 88% FOR A COHESIONLESS SOIL, BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

**POLE FOUNDATION LEVEL.**  
SCALE: NOT TO SCALE

**STADIUM LIGHTING DETAILS**  
NOT TO SCALE

- PLANTING NOTES**
- ALL PLANT LOCATIONS SHALL BE STAKED IN THE FIELD AND LOCATIONS APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.
  - TOPSOIL TO BE QUANTIFIED AND ORDERED PRIOR TO ALL PLANTING AND SEEDING OPERATIONS.
  - NOTIFY ALL UTILITY COMPANIES AND LOCATE ALL UTILITIES PRIOR TO EXCAVATING PLANT PITS. PLANT LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID INTERFERENCE WITH UNDERGROUND UTILITIES.
  - SHOULD ANY DISCREPANCY ARISE BETWEEN THE PLANTING PLAN AND THE PLANTING SCHEDULE, THE PLAN SHALL GOVERN AS TO THE QUANTITY OF PLANT MATERIAL.
  - ALL PLANT MATERIAL SHALL BE OF NURSERY STOCK QUALITY AS DEFINED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. ALL PLANT MATERIAL SHALL BE GUARANTEED TO LIVE AT LEAST 18 MONTHS FOLLOWING INSTALLATION.
  - ALL NON-Biodegradable ROOT WRAPPING TO BE REMOVED COMPLETELY BEFORE PLANTING.
  - ALL SHADE TREES TO BE PRUNED TO A HEIGHT OF 7' ABOVE GRADE EXCEPT WHERE NOTED IN PLANT SCHEDULE.
  - ALL PLANT MATERIAL SHALL BE APPROVED UPON ARRIVAL TO THE SITE, UNLESS OTHERWISE NOTIFIED.
  - PROPOSED PLANT MATERIAL MAY BE SUBSTITUTED BY SIMILAR PLANTS PRIOR TO INSTALLATION, SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
  - DISTURBANCE OF EXISTING VEGETATION SHALL BE LIMITED TO WORK AREA CONTRACTOR IS RESPONSIBLE FOR FINE GRASSING AND SEEDING ALL DISTURBED AREAS.
  - ALL PLANTS SPACED 7'-0" OR CLOSER SHALL BE IN CONTINUOUS MULCH BEDS.
  - SEED ALL DISTURBED AREAS WITH REDWOOD BARK MULCH (SEEING AND SEEDING NOTES).
  - PLANTING SHALL BE DONE APRIL 15TH THRU MAY 31ST OR AUGUST 17TH THRU OCTOBER 15TH.
  - A MINIMUM OF 3" OF TOPSOIL SHALL BE PLACED ON ALL AREAS AFFECTED BY THE BASIN CONSTRUCTION.
  - MULCH BEDS WILL BE CREATED AS MULCH ZONES THREE (3) FEET BEYOND THE TREE DRIP LINE. ALL OTHER AREAS OF DISTURBANCE SHALL BE SEEDED.

- SEEDING NOTES**
- SEED ALL AREAS DISTURBED BY CONSTRUCTION NOT OTHERWISE CONTAINING PLANTING BEDS, SIDEWALKS, BUILDINGS, ETC.
  - BEFORE SEEDING, CONTRACTOR SHALL PROVIDE SOIL TESTS, AND APPLICATIONS OF FERTILIZER AND/OR GROUND LIMESTONE SHALL BE MADE PER SOIL TEST RECOMMENDATIONS. INCORPORATE FERTILIZER OR LIMESTONE INTO TOPSOIL TO A 2" DEPTH.
  - PERFORM ALL FINISH GRADING, WITHIN AREAS OF DISTURBANCE, NECESSARY TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT.
  - SUBGRADE SHALL BE LOOSEMED AND GRADED BY HARROWING, DISCING, OR DRAGGING, AS DICTATED BY THE CONDITION OF THE SUBGRADE. THE ENTIRE SUBGRADE SHALL THEN BE RAKED AND ALL STONES OVER 1-1/2" GRADE STAKES, RUBBISH AND GENERAL DEBRIS REMOVED.
  - ALL UNDISTURBED PORTIONS OF THE SITE THAT ARE TO RECEIVE SEEDING SHALL HAVE SURFACE LOOSEMED BY HARROWING OR DISCING. ALL MECHANICAL OPERATIONS SHALL BE LIMITED TO THE SURFACE OF THE SOIL TO A DEPTH OF 2" TO 3" BELOW THE SURFACE.
  - TOPSOIL SHALL BE UNIFORMLY SPREAD WITH GRADE GRADER, OR BY ANY OTHER APPROVED METHOD, TO A MINIMUM DEPTH OF 6" INCHES TO PERMIT 1 INCH OF SETTLEMENT. CORRECT ANY SURFACE IRREGULARITIES TO PREVENT FORMATION OF LOW SPOTS AND POCKETS THAT WOULD RETAIN WATER. PRIOR TO FINE GRASSING, REMOVE ALL EXISTING TURF VEGETATION.
  - BEFORE SEEDING, CONTRACTOR SHALL PROVIDE SOIL TESTS, AND APPLICATIONS OF FERTILIZER AND/OR GROUND LIMESTONE SHALL BE MADE PER SOIL TEST RECOMMENDATIONS. INCORPORATE FERTILIZER OR LIMESTONE INTO TOPSOIL TO A 2" DEPTH.
  - SEEDING SHALL BE COMPLETED USING THE FOLLOWING RATES PER ACRE:  
A. WATER AS SPECIFIED.  
B. SEED QUANTITY AS SPECIFIED.  
C. LIME QUANTITY AS REQUIRED TO ACHIEVE PH OF 6.5.  
D. SEED QUANTITY AS SPECIFIED AND RATE RECOMMENDED BY THE MANUFACTURER.  
E. SEED MIX AS SPECIFIED.
  - HYDRAULIC SEEDING SHALL BE APPLIED WHEN WIND IS FIVE MPH PER HOUR OR LESS. PREPARED BED SHALL BE IN A MODERATELY DRY CONDITION DURING SEEDING. BROADCAST SPRAYING OF SEED SHALL BE ACCEPTABLE UNLESS SEED IS LATER RAKED INTO TOP ONE INCH OF SURFACE SOIL.
  - ADD GREEN COLORING AGENT TO MULCH IN ORDER TO GUARANTEE ADEQUATE COVERAGE.
  - SOIL SEED TO BE APPLIED RECOMMENDED SEEDING RATE AS SHOWN IN THE SEEDING MIX SCHEDULE.
  - SEED SHALL BE APPLIED APRIL 15TH THRU MAY 31ST OR AUGUST 17TH THRU OCTOBER 15TH.
  - USE MECHANICAL SEEDING EQUIPMENT WHEN HYDRAULIC SEEDING IS NOT PRACTICAL DUE TO CLOSURE OF BUILDINGS, ETC.
  - AFTER SEEDING APPLICATION, WOOD CELLULOSE FIBER SHALL BE APPLIED HYDRAULICALLY AT A NET RATE DRY WEIGHT OF 1,500 LBS PER ACRE OR AT RATES RECOMMENDED BY THE MANUFACTURER. MULCH SHALL BE SEEDER APPLIED WITH CLEAN STRAW.
  - ON ALL SLOPES 3:1 OR GREATER, USE AN ORGANIC SOIL STABILIZER SUCH AS CONTACT OR EQUAL AT THE RATE OF 25 LBS PER 1,000 GALLONS OR AT RATES RECOMMENDED BY THE MANUFACTURER.
  - SEEDS WHEN SEEDING GRASS AREAS MOISTENED DURING SEED GERMINATION AND UNTIL THE GRASS COVERS AT LEAST 75% OF THE SEEDED AREAS TO A HEIGHT OF 2 TO 3 INCHES.
  - ALL AREAS AND SPOTS, WHICH DO NOT SHOW A PROMPT CATCH OF GRASS, SHALL THEN BE RE-SEEDING AND THE OPERATION REPEATED UNTIL COMPLETE COVERAGE IS OBTAINED.
  - CONTRACTOR SHALL PROVIDE SEED MIXTURE SUBMISSION TO OWNER.

**MOWN LAWN SEED MIX (ERNMX-114) OR APPROVED EQUAL**

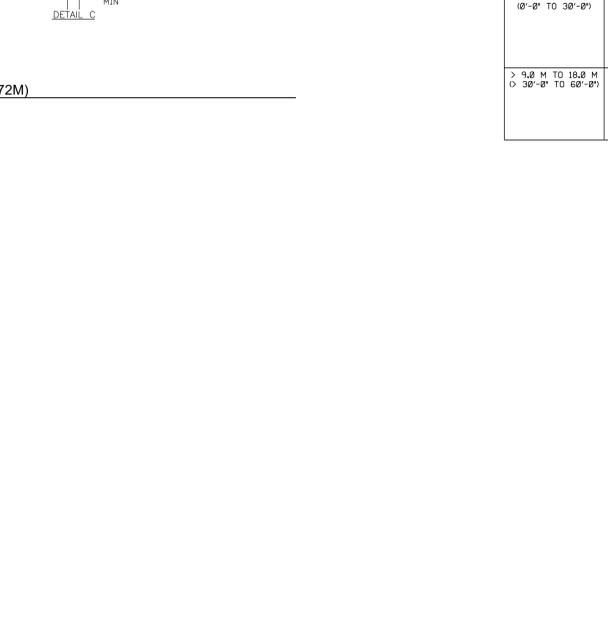
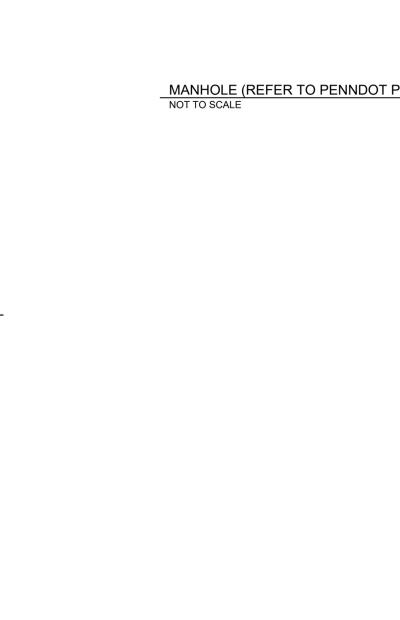
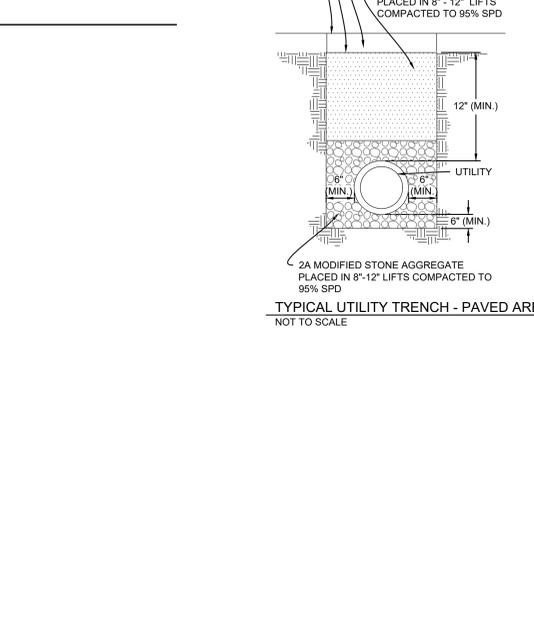
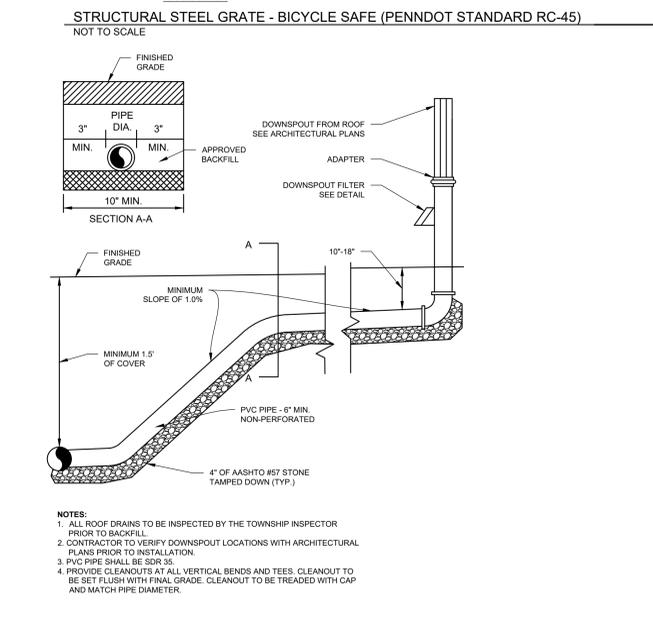
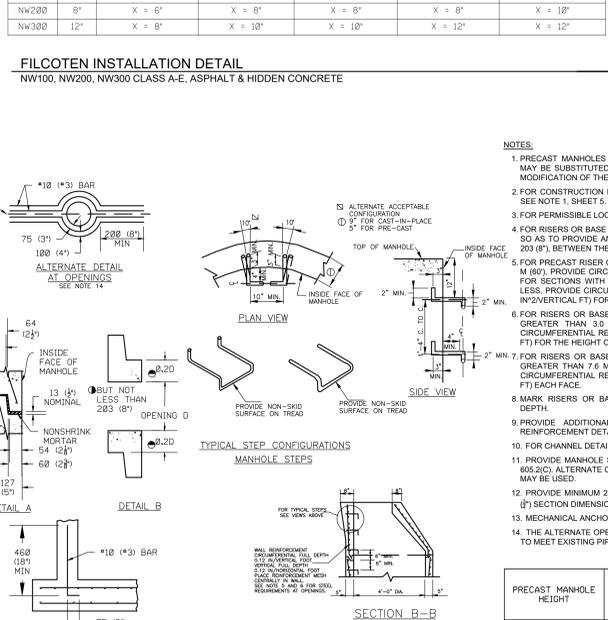
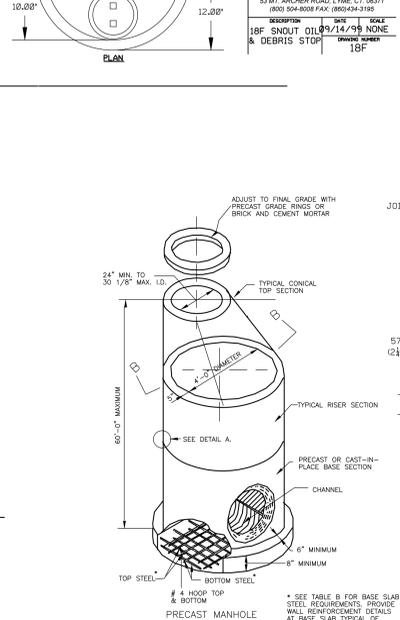
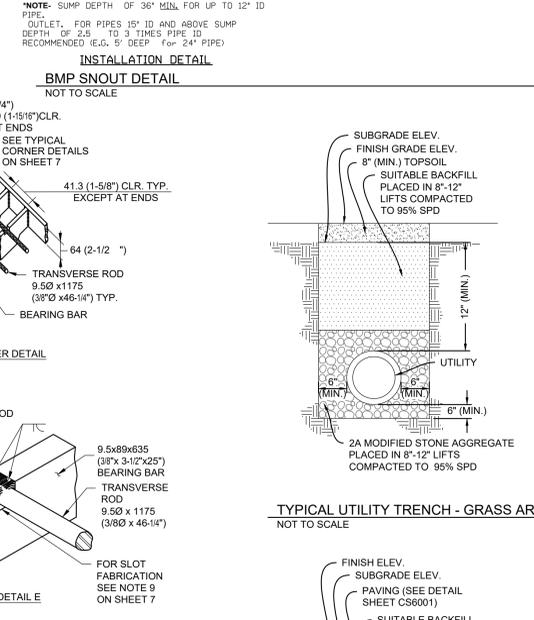
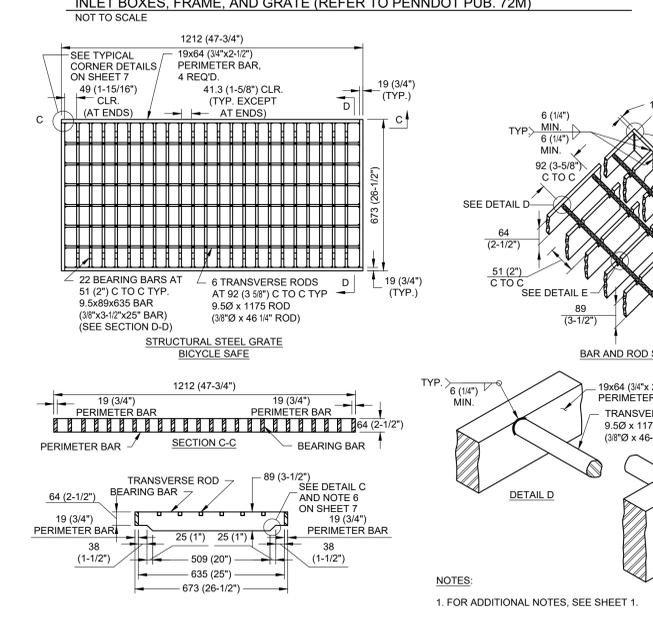
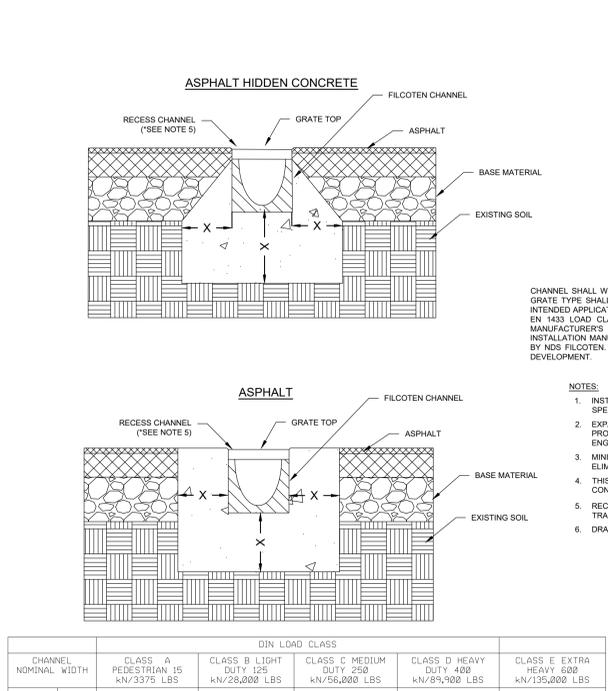
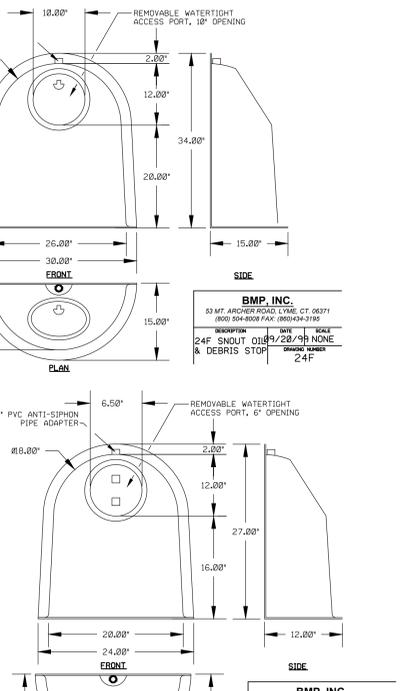
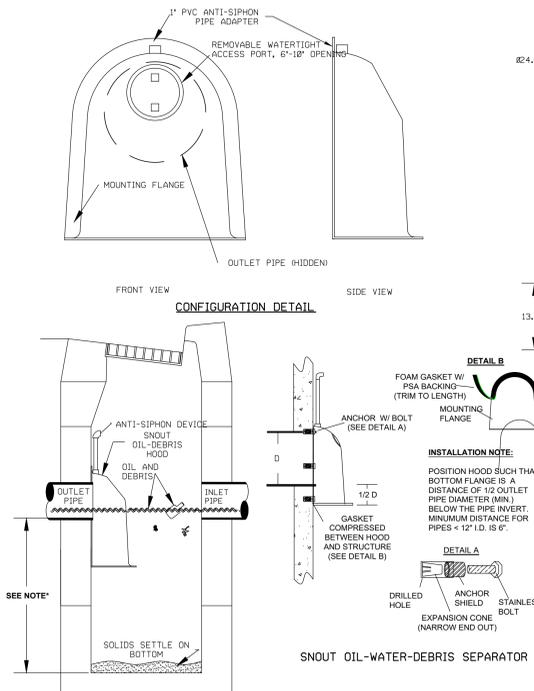
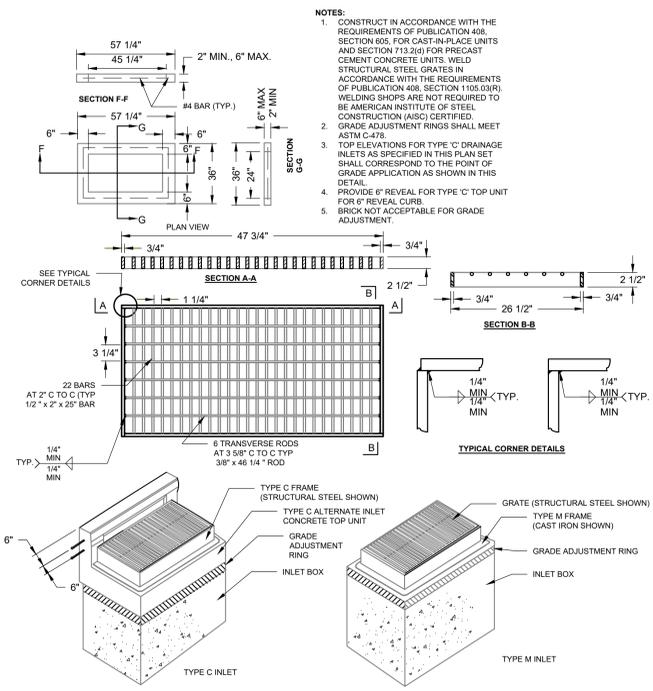
|       |   |
|-------|---|
| 30%   | ORANGE RED FESCUE (PSTUGA RUBRA)  |
| 30%   | CAREX VULPINOIDEA (PA ECOTYPE) (FOX SODD) (PA ECOTYPE)                  |
| 18.0% | ELYMUS VIRGINICUS (PA ECOTYPE) (VIRGINIA WILDOY, PA ECOTYPE)            |
| 12%   | PANICUM MODOIUM (PA ECOTYPE) (WINDMILL GRASS, EASTERN SHORE MD ECOTYPE) |
| 12%   | PANICUM RIGIDUM (PA ECOTYPE) (RED TOP PANICGRASS, PA ECOTYPE)           |
| 1.0%  | CAREX SCORPIONIA (PA ECOTYPE) (SCORPION GRASS, PA ECOTYPE)              |
| 3.0%  | JANCUSS EFFUSUS (SOFT FURSH)  |
| 1.0%  | ADIRONDACK BROMUS (PA ECOTYPE) (BROMUS, PA ECOTYPE)                     |
| 1.0%  | EUPATORIUM COLEOSTEMUM (PA ECOTYPE) (MILFLOWER, PA ECOTYPE)             |
| 1.0%  | EUPATORIUM COLEOSTEMUM (PA ECOTYPE) (BONSETT, PA ECOTYPE)               |
| 1.0%  | GLYCERHIZA CANADENSIS (PA ECOTYPE) (BATTLESTAR GRASS, PA ECOTYPE)       |
| 1.0%  | POLYPOGON PENNYLANCUM (PA ECOTYPE) (PENNYLANN, PA ECOTYPE)              |
| 1.0%  | SCIRPUS VAGINATUS (PA ECOTYPE) (SPOFTEN MILLRUSH, PA ECOTYPE)           |
| 1.0%  | VERNONIA GRANATA (PA ECOTYPE) (GIANT BROWLISH, PA ECOTYPE)              |
| 1.0%  | ZEA ALUREA (PA ECOTYPE) (GOLDEN ALEXANDERS, PA ECOTYPE)                 |
| 3.0%  | EUPATORIUM FISTULOSUM (PA ECOTYPE) (WEEED, PA ECOTYPE)                  |
| 100%  | SEEDING RATE: 2.0 LB PER ACRE OR 1/2 LB PER 1,000 SQ FT                 |

DO NOT USE FERTILIZER WHERE BAA GARDEN SEED MIX IS PLANTED.

**STORMWATER BASIN/RAIN GARDEN MIX (ERNMX-18) OR S APPROVED EQUAL**

|       |   |
|-------|---|
| 30.0% | CAREX VULPINOIDEA (PA ECOTYPE) (FOX SODD) (PA ECOTYPE)                  |
| 18.0% | ELYMUS VIRGINICUS (PA ECOTYPE) (VIRGINIA WILDOY, PA ECOTYPE)            |
| 12%   | PANICUM MODOIUM (PA ECOTYPE) (WINDMILL GRASS, EASTERN SHORE MD ECOTYPE) |
| 12%   | PANICUM RIGIDUM (PA ECOTYPE) (RED TOP PANICGRASS, PA ECOTYPE)           |
| 1.0%  | CAREX SCORPIONIA (PA ECOTYPE) (SCORPION GRASS, PA ECOTYPE)              |
| 3.0%  | JANCUSS EFFUSUS (SOFT FURSH)  |
| 1.0%  | ADIRONDACK BROMUS (PA ECOTYPE) (BROMUS, PA ECOTYPE)                     |
| 1.0%  | EUPATORIUM COLEOSTEMUM (PA ECOTYPE) (MILFLOWER, PA ECOTYPE)             |
| 1.0%  | EUPATORIUM COLEOSTEMUM (PA ECOTYPE) (BONSETT, PA ECOTYPE)               |
| 1.0%  | GLYCERHIZA CANADENSIS (PA ECOTYPE) (BATTLESTAR GRASS, PA ECOTYPE)       |
| 1.0%  | POLYPOGON PENNYLANCUM (PA ECOTYPE) (PENNYLANN, PA ECOTYPE)              |
| 1.0%  | SCIRPUS VAGINATUS (PA ECOTYPE) (SPOFTEN MILLRUSH, PA ECOTYPE)           |
| 1.0%  | VERNONIA GRANATA (PA ECOTYPE) (GIANT BROWLISH, PA ECOTYPE)              |
| 1.0%  | ZEA ALUREA (PA ECOTYPE) (GOLDEN ALEXANDERS, PA ECOTYPE)                 |
| 3.0%  | EUPATORIUM FISTULOSUM (PA ECOTYPE) (WEEED, PA ECOTYPE)                  |
| 100%  | SEEDING RATE: 2.0 LB PER ACRE OR 1/2 LB PER 1,000 SQ FT                 |

NOT FOR CONSTRUCTION



CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. REFER TO NDS FILTOCOT INSTALLATION MANUAL FOR FURTHER DETAILS. ENTIRE SYSTEM SHALL BE MANUFACTURED BY NDS FILTOCOT. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT.

NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.  
2. EXPANSION AND CONTRACTION CONTROL JOINTS ARE RECOMMENDED TO PROTECT THE CHANNEL AND SURROUNDING CONCRETE. CONSULT WITH AN ENGINEER NECESSARY.  
3. MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI AND VIBRATION TO ELIMINATE AIR POCKETS IS RECOMMENDED.  
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS AND CONTRACTORS FOR PLANNING PURPOSES.  
5. RECESS CHANNEL/GRATE 1" FOR PEDESTRIAN TRAFFIC OF 2" FOR VEHICULAR TRAFFIC.  
6. DRAWING IS NOT TO SCALE.

NOTES:  
1. PRECAST MANHOLES MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR THE STANDARD CAST-IN-PLACE MANHOLE. FOR DEVIATION OR MODIFICATION OF THE STANDARDS, SUBMIT SHOP DRAWINGS FOR APPROVAL.  
2. FOR CONSTRUCTION REQUIREMENTS SEE NOTE 1, SHEET 1. FOR DESIGN REQUIREMENTS SEE NOTE 1, SHEET 5.  
3. FOR PERMISSIBLE LOCATION OF PIPES SEE PLAN VIEW AND NOTE 3, SHEET 1.  
4. FOR RISERS OR BASE SECTIONS WITH OPENINGS, PROVIDE A MINIMUM HEIGHT OF SECTION 50 AS TO PROVIDE AN UNCLUT WALL EQUAL TO 20% OF THE OPENING, BUT NOT LESS THAN 203 (8") BETWEEN THE OPENING AND THE CLOSEST JOINT BETWEEN RISERS - SEE DETAIL B.  
5. FOR PRECAST RISER OR BASE SECTIONS WITH ONE OPENING LOCATED AT DEPTHS TO 18.0 M (60'), PROVIDE CIRCUMFERENTIAL REINFORCEMENT IN ACCORDANCE WITH SECTION B.6 FOR SECTIONS WITH TWO OR MORE OPENINGS, LOCATED AT DEPTH OF 3.0 M (10') AND LESS, PROVIDE CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 340 MM<sup>2</sup>/VERTICAL M (0.16 IN<sup>2</sup>/VERTICAL FT) FOR THE HEIGHT OF RISER OR BASE SECTION.  
6. FOR RISERS OR BASE SECTIONS WITH TWO OR MORE OPENINGS, LOCATED AT A DEPTH GREATER THAN 3.0 M (10'), BUT LESS THAN OR EQUAL TO 7.6 M (25'), PROVIDE CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 470 MM<sup>2</sup>/VERTICAL M (0.22 IN<sup>2</sup>/VERTICAL FT) EACH FACE.  
7. FOR RISERS OR BASE SECTIONS WITH TWO OR MORE OPENINGS, LOCATED AT DEPTHS GREATER THAN 7.6 M (25'), USE A 254 (10") THICK WALL RISER OR BASE SECTION WITH CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 470 MM<sup>2</sup>/VERTICAL M (0.22 IN<sup>2</sup>/VERTICAL FT) EACH FACE.  
8. MARK RISERS OR BASE SECTIONS WITH HOLES CLEARLY WITH MAXIMUM ALLOWABLE DEPTH.  
9. PROVIDE ADDITIONAL REINFORCEMENT BARS AROUND OPENINGS AS SHOWN ON REINFORCEMENT DETAILS AT OPENING SHEET 1.  
10. FOR CHANNEL DETAILS IN PRECAST MANHOLE SEE CAST-IN-PLACE MANHOLE SHEET 1.  
11. PROVIDE MANHOLE STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.2(C). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, MAY BE USED.  
12. PROVIDE MINIMUM 25 (1") SECTION DIMENSION FOR METAL STEPS. PROVIDE MINIMUM 19 (3/4") SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS.  
13. MECHANICAL ANCHOR REQUIRED FOR INSTALLATION OF STEPS WITHOUT HOLES.  
14. THE ALTERNATE OPENING REINFORCEMENT DETAIL IS NOT DESIRABLE BY DESIGN USE IT TO MEET EXISTING PIPE ELEVATIONS.

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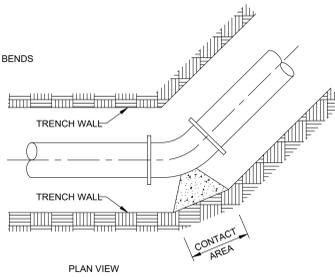
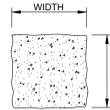
| Δ | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
| 1 | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 2 | 05/18/2023 | REVISED PER TWP COMMENTS    |
| 3 | 06/14/2023 | REVISED PER COCD COMMENTS   |
| 4 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 5 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 6 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 7 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 8 | 03/18/2024 | BD ISSUE                    |

SHEET TITLE  
DRAINAGE DETAILS  
DRAWING NUMBER  
CS6021

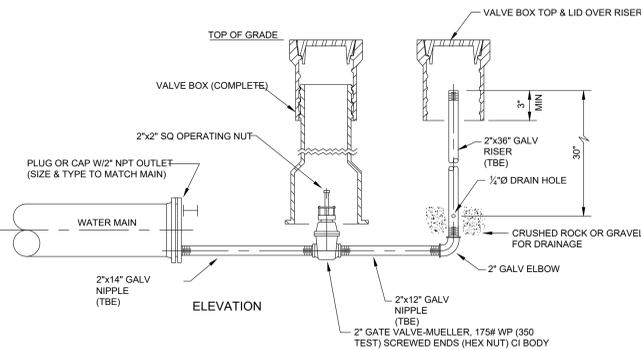
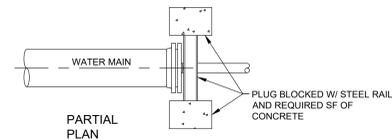
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|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/18/2023 | REVISED PER TWP COMMENTS    |
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| 5 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/18/2024 | BID ISSUE                   |

| PIPE DIAMETER (INCHES) | HYDRANTS, TEES & BLOW-OFFS |                |                | 90° BENDS    |                | 45° BENDS    |                | 11 1/4" & 22 1/2" BENDS |                |                |                |    |
|------------------------|----------------------------|----------------|----------------|--------------|----------------|--------------|----------------|-------------------------|----------------|----------------|----------------|----|
|                        | 0-100 P.S.I.               | 101-150 P.S.I. | 151-200 P.S.I. | 0-100 P.S.I. | 101-150 P.S.I. | 0-100 P.S.I. | 101-150 P.S.I. | 0-100 P.S.I.            | 101-150 P.S.I. | 151-200 P.S.I. | 151-200 P.S.I. |    |
| 6                      | 3                          | 4              | 5              | 3            | 5              | 6            | 2              | 3                       | 4              | 1              | 2              | 2  |
| 8                      | 4                          | 6              | 8              | 6            | 8              | 11           | 3              | 5                       | 6              | 2              | 3              | 3  |
| 12                     | 9                          | 13             | 17             | 12           | 18             | 24           | 7              | 10                      | 13             | 4              | 5              | 7  |
| 16                     | 15                         | 23             | 30             | 21           | 32             | 43           | 12             | 17                      | 23             | 6              | 9              | 12 |

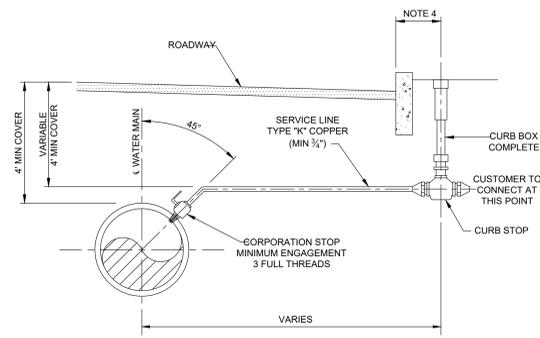
NOTE:  
REFER TO ENGINEERING DEPT. FOR ALL VERTICAL BENDS AND HORIZONTAL BENDS HAVING ANGLES, PRESSURES OR PIPE DIAMETERS NOT LISTED ABOVE.



MINIMUM THRUST BLOCK AREAS REQUIRED (SQUARE FEET OF CONTACT SURFACE AREA ALONG TRENCH WALL) NOT TO SCALE



STANDARD 2" BLOW-OFF N.T.S.

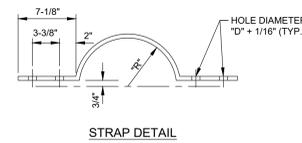


- NOTES:
- FOR STANDARD 3/4 CONNECTION, PROVIDE A TAPPED COUPLING WITH THREADED INSERT OR DOUBLE-STRAPPED SADDLE CLAMP.
  - DO NOT PLACE CURB STOP IN PAVED AREAS.
  - ALL SERVICE CONNECTIONS SHALL BE LOCATED AT THE MIDPOINT BETWEEN SIDE LOT LINES OR AS DIRECTED BY A AQUA PA FIELD REPRESENTATIVE.
  - WHERE SIDEWALK PARALLELS ROADWAY, THE CURB BOX SHALL BE PLACED BETWEEN THE CURB AND SIDEWALK. ALL OTHER LOCATIONS, CURB BOX TO BE PLACED AS DIRECTED BY A AQUA PA FIELD REPRESENTATIVE.

STANDARD SERVICE CONNECTION N.T.S.

| KEY | PIPE DIAMETER | PRESSURE (P.S.I.) | BEND ANGLE | CONCRETE REQUIRED (CU. YD.) | STEEL STRAP SIZE | "R" STRAP RADIUS | ANCHOR BOLT DIAMETER "D" AND NUMBER REQUIRED PER STRAP | EMBEDMENT LENGTH |
|-----|---------------|-------------------|------------|-----------------------------|------------------|------------------|--|------------------|
| A   | 6"            | 0 - 100           | ALL        | 1.0                         | 1/4" x 2 1/2"    | 3 5/8"           | (2) 3/4"   | 24"              |
| A-1 | 6"            | 101 - 150         | ALL        | 2.5                         | 1/4" x 2 1/2"    | 3 5/8"           | (2) 1"   | 36"              |
| B   | 8"            | 0 - 100           | ALL        | 2.0                         | 3/8" x 3"        | 4 3/4"           | (2) 1"   | 36"              |
| B-1 | 8"            | 101 - 150         | 45°        | 3.0                         | 3/8" x 3"        | 4 3/4"           | (2) 1"   | 36"              |
| B-2 | 8"            | 101 - 150         | 90°        | 4.0                         | 3/8" x 3"        | 4 3/4"           | (4) 1"   | 36"              |
| C   | 12"           | 0 - 100           | ALL        | 4.5                         | 1/2" x 3"        | 6 3/4"           | (4) 1"   | 36"              |
| C-1 | 12"           | 101 - 150         | 45°        | 6.0                         | (2) 1/2" x 3"    | 6 3/4"           | (4) 1"   | 36"              |
| C-2 | 12"           | 101 - 150         | 90°        | 8.5                         | (2) 1/2" x 3"    | 6 3/4"           | (4) 1"   | 36"              |

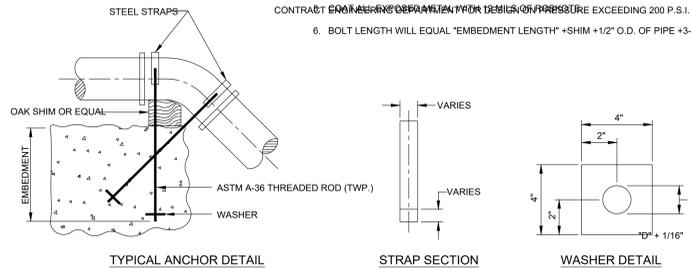
\* - WHERE (2) 1" DIAMETER BOLTS ARE REQUIRED (4) 3/4" DIAMETER BOLTS MAY BE USED



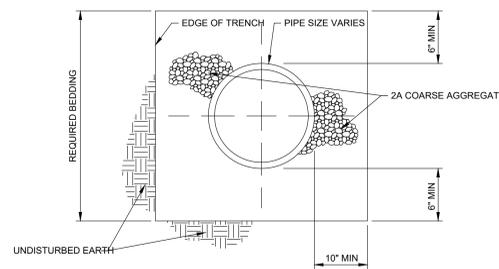
- NOTES:
- ALL STEEL SHALL CONFORM TO ASTM A-36
  - (2) STRAPS ARE REQUIRED, EACH WITH (4)-1" DIAMETER ANCHOR BOLTS FOR CASES C-1 AND C-2
  - REFER TO AQUA DRAWING E-4453 FOR USE AS PIPE AND VALVE CLAMP
  - OR IF PIPE SIZE IS LARGER THAN 12"

CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF PRESSURE EXCEEDING 200 P.S.I.

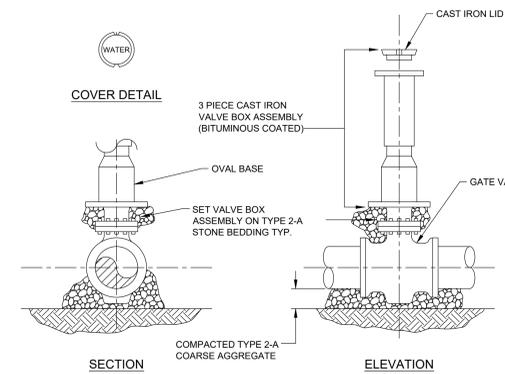
- BOLT LENGTH WILL EQUAL "EMBEDMENT LENGTH" + SHIM + 1/2" O.D. OF PIPE + 3-1/2".



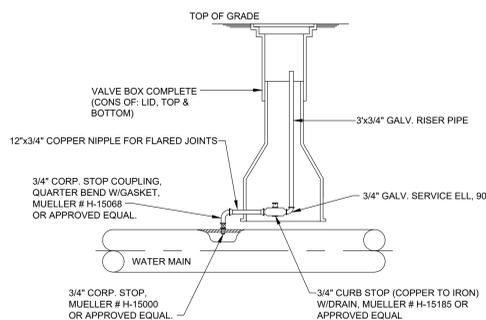
MINIMUM CONCRETE VOLUMES AND STEEL STRAP SIZES REQUIRED FOR BLOCKING 6", 8" & 12" VERTICAL BENDS NOT TO SCALE



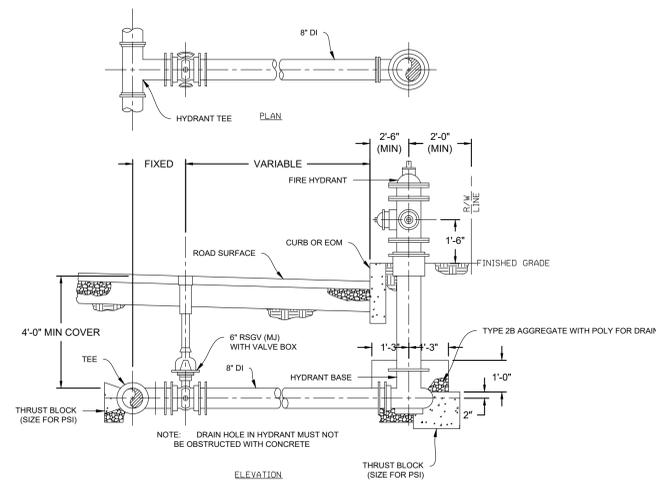
STANDARD PIPE BEDDING DETAIL N.T.S.



STANDARD GATE VALVE AND VALVE BOX ASSEMBLY DETAIL N.T.S.



STANDARD 3/4" M.A.V. & CL2 ASSEMBLY N.T.S.



FIRE HYDRANT DETAIL NOT TO SCALE



NOTES:  
1. PLACARD TO BE INSTALLED ON INLETS IN ACCORDANCE WITH MUNICIPAL SPECIFICATIONS.

INLET PLACARD NOT TO SCALE



**SOILS SUMMARY CHART:**  
 NRCS WEB SOIL SURVEY, CHESTER COUNTY, PENNSYLVANIA, APRIL, 8 2019

| SYMBOL | NAME  | GROUP | SLOPES (%) | DEPTH TO         |              | LIMITATIONS |          |          |                      |
|--------|---|-------|------------|------------------|--------------|-------------|----------|----------|----------------------|
|        |   |       |            | WATER TABLE (FT) | BEDROCK (IN) | FROST       | PIPES    | BUILDING | RESOLUTION           |
| GgC    | GLENELG SILT LOAM                                 | B     | 8-15       | --               | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| GgB    | GLENELG SILT LOAM                                 | B     | 3-8        | --               | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UmB    | URBAN LAND - GLENELG COMPLEX                      | B     | 0-6        | --               | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UmD    | URBAN LAND - GLENELG COMPLEX                      | B     | 8-25       | --               | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UuB    | URBAN LAND - UDORHTENTS SCHIST AND GNEISS COMPLEX | B     | 0-6        | 5                | 60-120       | MODERATE    | MODERATE | MODERATE | SEE RESOLUTION NOTES |

**RESOLUTION NOTES:**

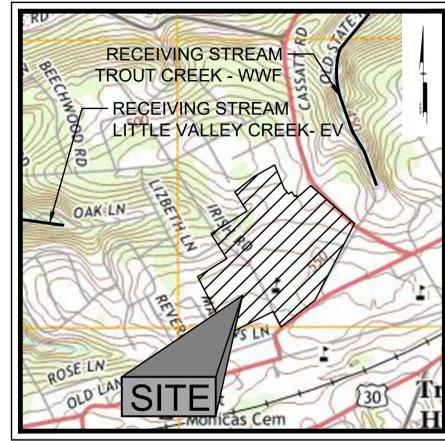
- HIGH WATER TABLE: IF SITE IS TO BE USED FOR CONSTRUCTION, DEWATER EXCAVATIONS THROUGH A PUMPED WATER FILTER BAG AS NECESSARY, AVOID PONDING DURING CONSTRUCTION. CLOSE ALL EXCAVATIONS AS SOON AS PRACTICAL. ENSURE ALL INSTALLED PIPE IS WATERTIGHT.
- EROSION HAZARD: THE CONTRACTOR SHALL FOLLOW THE EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION AND PLANS. THE EROSION CONTROL MEASURES SHALL BE INSTALLED AFTER EVERY RUNOFF EVENT AND ON A WEEKLY BASIS. IMMEDIATELY AFTER EVERY RUNOFF EVENT THE EROSION AND SEDIMENTATION FACILITIES AND MEASURES WILL BE CLEANED, REPAIRED, AND REPLACED AS NEEDED. WASHED-OUT AREAS WILL BE RE-GRADED AND RE-SEEDED. SILT FENCES WILL BE INSPECTED AND RESTORED TO AN UPRIGHT AND EFFECTIVE POSITION AFTER EVERY RUNOFF EVENT OR WHEN THEY ARE OBSERVED TO BE IN NEED OF MAINTENANCE.
- PIPING HAZARD: SUITABLE FILL MATERIAL FOR ALL PIPING SHALL BE USED PER RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER. ANTI-SEEP COLLARS SHALL BE INSTALLED AT THE DETENTION BASIN OUTLET STRUCTURE PIPE BARRELS AS SHOWN ON DETAILS.

**GEOLOGY CHART**  
 OCTORARO FORMATION  
 ALBITE-CHLORITE SCHIST, PHYLLITE, SOME HORNBLENDE GNEISS, AND GRANITIZED MEMBERS.

STATE PENNSYLVANIA  
 NAME OCTORARO FORMATION  
 GEOLOGIC AGE LOWER PALEOZOIC  
 ORIGINAL MAP LABEL X6  
 PRIMARY ROCK TYPE ALBITE-CHLORITE SCHIST  
 SECONDARY ROCK TYPE PHYLLITE  
 OTHER ROCK TYPES HORNBLENDE GNEISS

**E&S LEGEND:**

- LOD PROPOSED LIMIT OF DISTURBANCE
- PROPOSED INLET PROTECTION
- SSF PROPOSED SUPER SILT FENCE
- OFS PROPOSED COMPOST FILTER SOCK
- PROPOSED SLOPE MATTING
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED CONCRETE WASHOUT
- PROJECT SITE AREA



USGS MAP  
 Scale: 1" = 800'

**EROSION & SEDIMENT POLLUTION CONTROL PLAN NOTES**

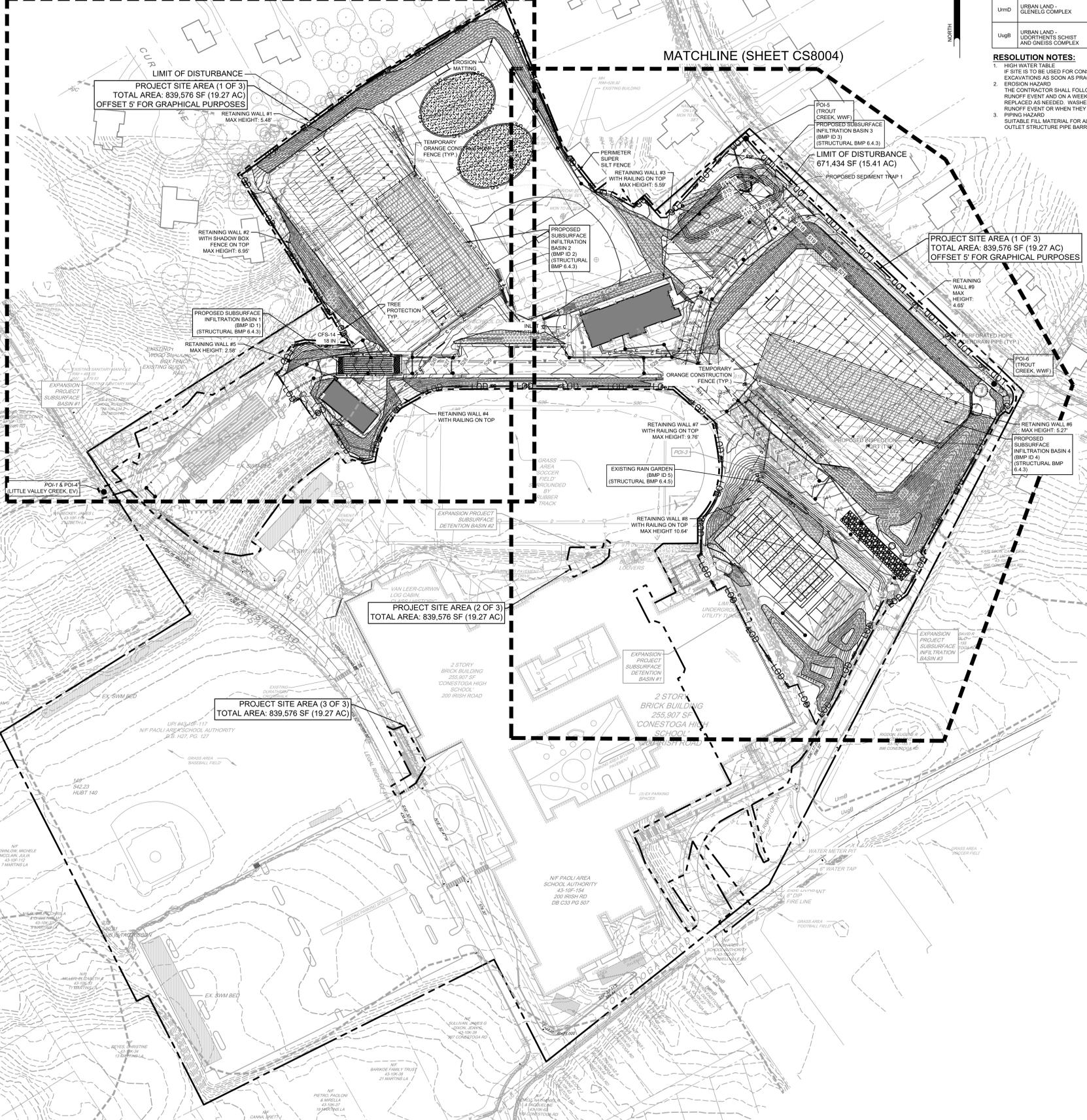
- THE PROJECT'S RECEIVING WATERCOURSE IS THE TRIBUTARY 00997 OF LITTLE VALLEY CREEK AND TROUT CREEK WATERSHED.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTION AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.  
 ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENEWING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.  
 WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:  
 a. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.  
 b. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENT OF THE NON-COMPLIANCE.  
 c. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.  
 AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERMANENT VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES DURING NON-GERMINATING PERIODS. MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. (PLEASE NOTE THAT HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES). HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING, I.E. YARDS.
- SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE RESIDENCE BY THE END OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED OR SWEEP INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- CONTRACTOR IS TO ENSURE THAT PIPES DISCHARGING INTO SUBSURFACE BASINS ARE SEALED UNTIL ALL FLOW SOURCES TO THAT AREA ARE FULLY STABILIZED. ONCE THE SUBSURFACE BASIN IS CONSTRUCTED, IMMEDIATELY INSTALL FILTER SOCKS ALONG THE PERIMETER OF THE SUBSURFACE BASIN TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE BASIN. THE SILT SOCKS MUST REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA TO THE SUBSURFACE BASIN ACHIEVES 70% UNIFORM STABILIZATION. IMMEDIATELY INSTALL INLET PROTECTION ON ALL NEW INLETS.
- CONTRACTOR TO ENSURE THE PROPOSED PIPING HAS AT LEAST ONE AND A HALF FEET OF COVER.
- CONTRACTOR TO INSTALL ORANGE CONSTRUCTION FENCE AROUND THE PERIMETER OF ALL INFILTRATION BMP'S TO AVOID COMPACTION FROM MACHINERY.
- STOCKPILES SHALL NOT BE PLACED ABOVE THE LOCATION OF ANY PROPOSED SUBSURFACE BASIN OR TRENCH.
- TREE REMOVAL SHALL NOT BE CONDUCTED FROM MAY 15 TO AUGUST 15.

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUPERSEDED BY ANY OTHER INSTRUMENTS OF SERVICE. ANY REVISIONS TO THE PROJECT, ANY REUSE WITHOUT WRITTEN PERMISSION, OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PROJECT WILL BE THE SOLE RESPONSIBILITY OF THE USER. PENNONI ASSOCIATES AND OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. PENNONI ASSOCIATES SHALL NOT BE RESPONSIBLE FOR OBTAINING SUCH PERMITS AND APPROVALS.

| Δ | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/19/2023 | REVISED PER TWP COMMENTS    |
| 2 | 06/14/2023 | REVISED PER COCD COMMENTS   |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & PDES REVIEW  |
| 5 | 09/29/2023 | REVISED PER ISSM REVIEW     |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/16/2024 | BID ISSUE                   |

MATCHLINE (SHEET CS8003)

MATCHLINE (SHEET CS8004)



CALL BEFORE YOU DIG  
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 CALL 1-800-242-1776  
 PA ACT 287 OF 1974 REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC. SERIAL NUMBER(S): 20223192984



PROJECT TEAM

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940 West Valley Road, Suite 1700  
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(610) 240-1900

ARCHITECTURAL  
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347 East Conestoga Road  
Wayne, PA 19087  
610-994-3500

STRUCTURAL ENGINEER  
N/A

MEPFP ENGINEER  
Schiller and Hersh Associates, Inc.  
636 Skippack Pike, Suite 200  
Blue Bell, PA 19422  
(215) 886-8947

SITE / CIVIL  
Pennoni Associates, Inc.  
158 W Gay Street, Suite 300  
West Chester, PA 19380  
(610) 429-8907

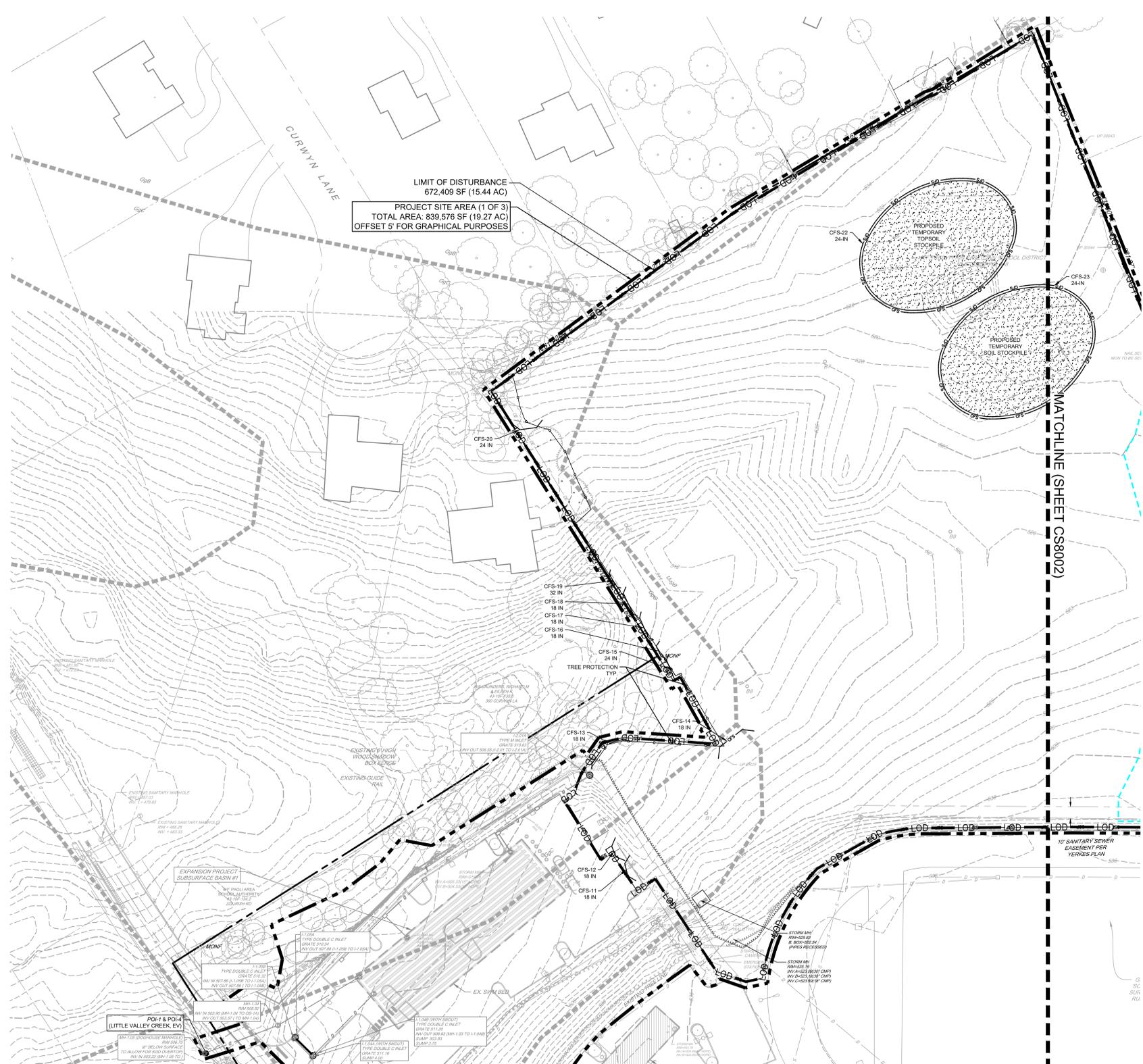
MISC DISCIPLINE  
N/A

NOT FOR CONSTRUCTION

**E&S LEGEND:**

|  |                           |                                     |
|--|---------------------------|-------------------------------------|
|  | LOD                       | PROPOSED LIMIT OF DISTURBANCE       |
|  | PROPOSED INLET PROTECTION |                                     |
|  | SSF                       | PROPOSED SUPER SILT FENCE           |
|  | CFS                       | PROPOSED COMPOST FILTER SOCK        |
|  |                           | PROPOSED SLOPE MATTING              |
|  |                           | PROPOSED ROCK CONSTRUCTION ENTRANCE |
|  |                           | PROPOSED CONCRETE WASHOUT           |
|  |                           | PROJECT SITE AREA                   |
|  |                           | PROPOSED SKIMMER AND TEMP RISER     |
|  |                           | PROPOSED BAFFLE                     |
|  |                           | CHANNEL DRAINAGE AREA               |
|  |                           | SEDIMENT TRAP DRAINAGE AREA         |

NOTES:  
EXPOSED SOIL TO BE SPRINKLED WITH WATER UNTIL MOIST ON A DAILY BASIS TO PREVENT DUST GENERATION AND TRANSPORT. ANY WHERE DUST COULD BE PRODUCED WILL BE WETTED TO PREVENT DUST GENERATION.



LIMIT OF DISTURBANCE  
672,409 SF (15.44 AC)  
PROJECT SITE AREA (1 OF 3)  
TOTAL AREA: 839,576 SF (19.27 AC)  
OFFSET 5' FOR GRAPHICAL PURPOSES

MATCHLINE (SHEET CS8002)

**SOILS SUMMARY CHART:**

NRCS WEB SOIL SURVEY, CHESTER COUNTY, PENNSYLVANIA, APRIL, 8 2019

| SYMBOL | NAME  | GROUP | SLOPES (%) | DEPTH TO         |              | LIMITATIONS |          |          | RESOLUTION           |
|--------|---|-------|------------|------------------|--------------|-------------|----------|----------|----------------------|
|        |   |       |            | WATER TABLE (FT) | BEDROCK (IN) | FROST       | PIPES    | BUILDING |                      |
| GgC    | GLENELG SILT LOAM                                 | B     | 8-15       | -                | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| GgB    | GLENELG SILT LOAM                                 | B     | 3-8        | -                | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UrmB   | URBAN LAND - GLENELG COMPLEX                      | B     | 0-8        | -                | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UrmD   | URBAN LAND - GLENELG COMPLEX                      | B     | 8-25       | -                | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UuigB  | URBAN LAND - UDORNTHE'S SCHIST AND GNEISS COMPLEX | B     | 0-8        | 5                | 60-120       | MODERATE    | MODERATE | MODERATE | SEE RESOLUTION NOTES |

**RESOLUTION NOTES:**

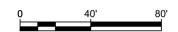
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**GEOLOGY CHART**

OCTORARO FORMATION  
ALBITE-CHLORITE SCHIST, PHYLITE, SOME HORNBLENDE GNEISS, AND GRANITIZED MEMBERS.  
STATE-PENNSYLVANIA  
NAME: OCTORARO FORMATION  
GEOLOGIC AGE: LOWER PALEOZOIC  
ORIGINAL MAP LABEL: Xg  
PRIMARY ROCK TYPE: ALBITE-CHLORITE SCHIST  
SECONDARY ROCK TYPE: PHYLITE  
OTHER ROCK TYPES: HORNBLENDE GNEISS



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PA ACT 287 OF 1974 REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC. SERIAL NUMBER(S): 20223192994



PROJECT TEAM

CLIENT  
Tredyffrin/Eastown School District  
940 West Valley Road, Suite 1700  
Wayne, PA 19087  
(610) 240-1900

ARCHITECTURAL  
Heckendorn Shiles Architects  
347 East Conestoga Road  
Wayne, PA 19087  
610-994-3500

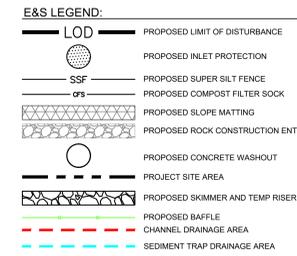
STRUCTURAL ENGINEER  
N/A

MEPFP ENGINEER  
Schiller and Hersh Associates, Inc.  
636 Skipack Pike, Suite 200  
Blue Bell, PA 19422  
(215) 886-8947

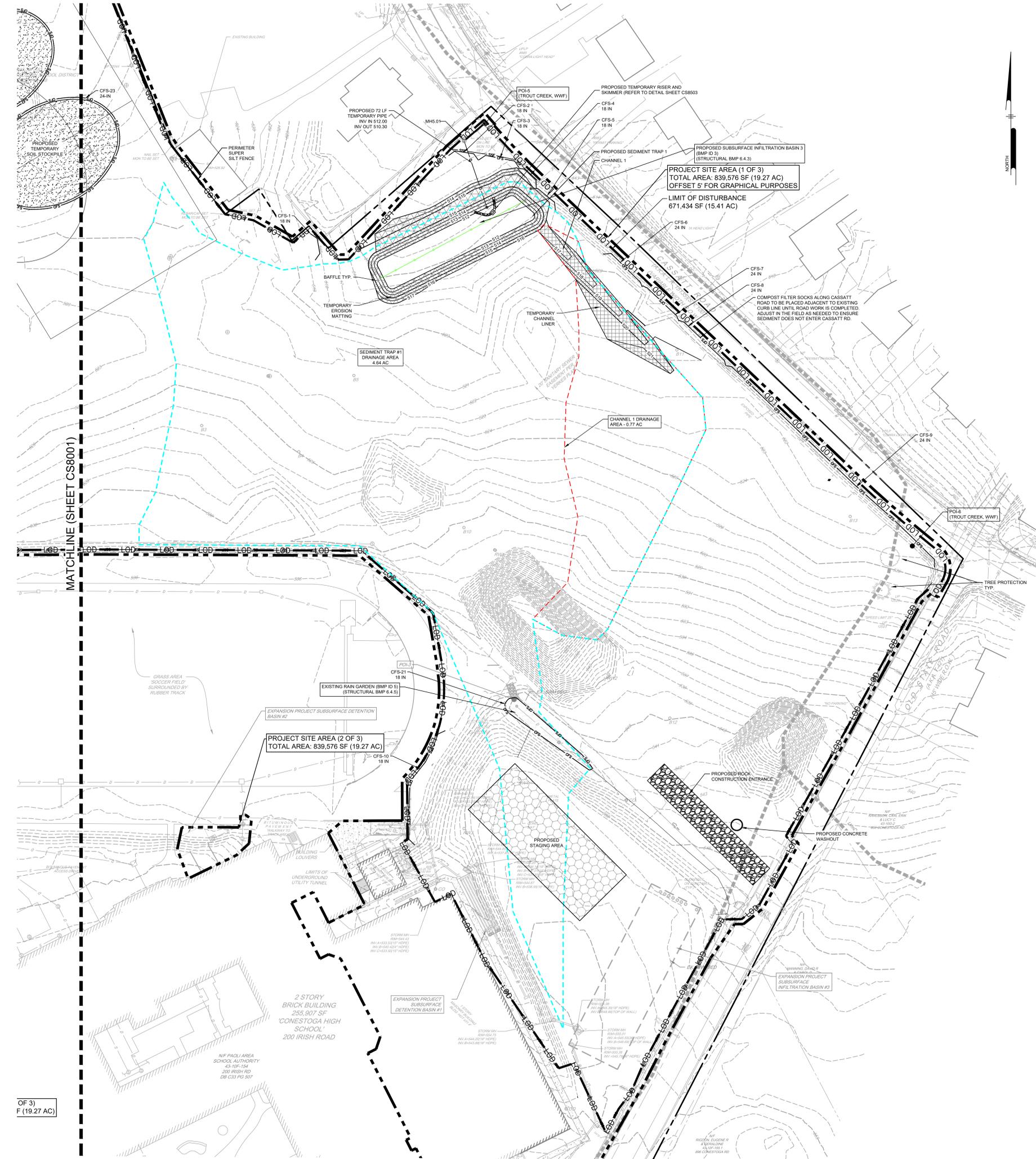
SITE / CIVIL  
Pennoni Associates, Inc  
158 W Gay Street, Suite 300  
West Chester, PA 19380  
(610) 429-8907

MISC DISCIPLINE  
N/A

**NOT FOR  
CONSTRUCTION**



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PLOTTED: 10/20/24 4:56 PM BY: [Name] PROJECT STATUS: [Status]



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SERIAL NUMBER(S): 20223192994

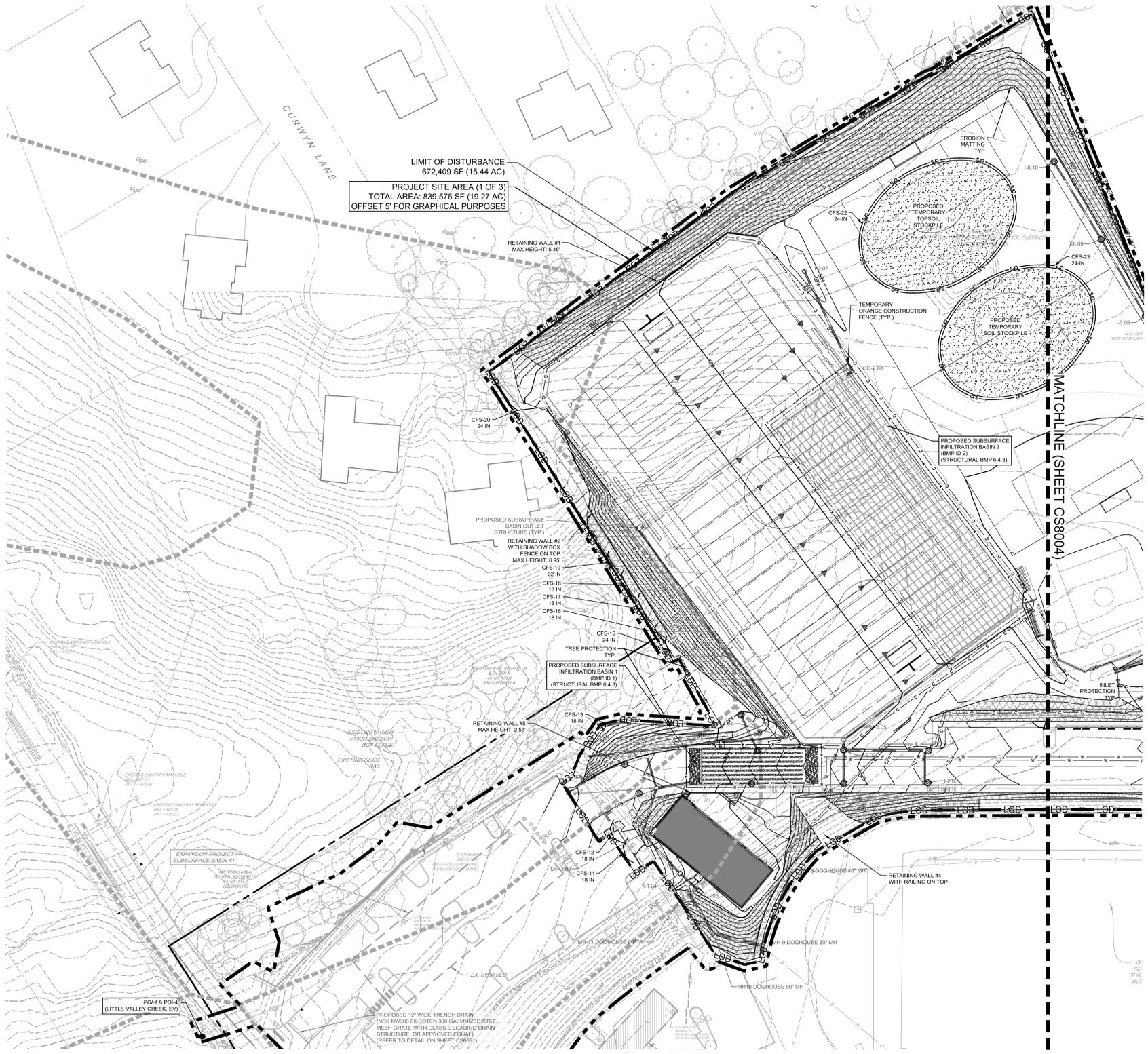
OF 3  
F (19.27 AC)



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| Δ | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/18/2023 | REVISED PER TWP COMMENTS    |
| 2 | 06/14/2023 | REVISED PER CDD COMMENTS    |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 5 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/16/2024 | BD ISSUE                    |

NOT FOR CONSTRUCTION



**E&S LEGEND:**

|  |                                     |                               |
|--|-------------------------------------|-------------------------------|
|  | LOD                                 | PROPOSED LIMIT OF DISTURBANCE |
|  | PROPOSED INLET PROTECTION           |                               |
|  | PROPOSED SUPER SILT FENCE           |                               |
|  | PROPOSED COMPOST FILTER SOCK        |                               |
|  | PROPOSED SLOPE MATTING              |                               |
|  | PROPOSED ROCK CONSTRUCTION ENTRANCE |                               |
|  | PROPOSED CONCRETE WASHOUT           |                               |
|  | PROPOSED CONCRETE WASHOUT           |                               |
|  | PROJECT SITE AREA                   |                               |

**EROSION & SEDIMENT POLLUTION CONTROL PLAN NOTES**

- THE PROJECTS RECEIVING WATERCOURSE IS THE TRIBUTARY 00997 OF LITTLE VALLEY CREEK AND TROUT CREEK WATERSHED.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REWELCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
- WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
  - THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
  - ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENT OF THE NON-COMPLIANCE.
  - THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. (PLEASE NOTE THAT HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES); HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING, I.E. YARDS.
- SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE RESIDENCE BY THE END OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEEPED INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- CONTRACTOR IS TO ENSURE THAT PIPES DISCHARGING INTO SUBSURFACE BASINS ARE SEALED UNTIL ALL FLOW SOURCES TO THAT AREA ARE FULLY STABILIZED. ONCE THE SUBSURFACE BASIN IS CONSTRUCTED, IMMEDIATELY INSTALL FILTER SOCKS ALONG THE PERIMETER OF THE SUBSURFACE BASIN TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE BASIN. THE SILT SOCKS MUST REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA TO THE SUBSURFACE BASIN ACHIEVES 70% UNIFORM STABILIZATION. IMMEDIATELY INSTALL INLET PROTECTION ON ALL NEW INLETS.
- CONTRACTOR TO INSTALL THE PROPOSED PIPING HAS AT LEAST ONE AND A HALF FEET OF COVER.
- CONTRACTOR TO INSTALL ORANGE CONSTRUCTION FENCE AROUND THE PERIMETER OF ALL INFILTRATION BMP'S TO AVOID COMPACTION FROM MACHINERY.
- STOCKPILES SHALL NOT BE PLACED ABOVE THE LOCATION OF ANY PROPOSED SUBSURFACE BASIN OR TRENCH.
- TREE REMOVAL SHALL NOT BE CONDUCTED FROM MAY 15 TO AUGUST 15.

**SOILS SUMMARY CHART:**

NRCS WEB SOIL SURVEY, CHESTER COUNTY, PENNSYLVANIA, APRIL 8 2019

| SYMBOL | NAME  | GROUP | SLOPES (%) | DEPTH TO         |              | LIMITATIONS |          |          |                      |
|--------|---|-------|------------|------------------|--------------|-------------|----------|----------|----------------------|
|        |   |       |            | WATER TABLE (FT) | BEDROCK (IN) | FROST       | PIPES    | BUILDING | RESOLUTION           |
| GgC    | GLENELG SILT LOAM                                 | B     | 8-15       | --               | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| GgB    | GLENELG SILT LOAM                                 | B     | 3-8        | --               | 72-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| Umb    | URBAN LAND - GLENELG COMPLEX                      | B     | 0-8        | --               | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| Umq    | URBAN LAND - GLENELG COMPLEX                      | B     | 8-25       | --               | 60-120       | MODERATE    | LOW      | HIGH     | SEE RESOLUTION NOTES |
| UuqB   | URBAN LAND - UDORTHEM'S SCHIST AND GNEISS COMPLEX | B     | 0-8        | 5                | 60-120       | MODERATE    | MODERATE | MODERATE | SEE RESOLUTION NOTES |

**RESOLUTION NOTES:**

- HIGH WATER TABLE  
IF SITE IS TO BE USED FOR CONSTRUCTION, DEWATER EXCAVATIONS THROUGH A PUMPED WATER FILTER BAG AS NECESSARY. AVOID PONDING DURING CONSTRUCTION. CLOSE ALL EXCAVATIONS AS SOON AS PRACTICAL. ENSURE ALL INSTALLED PIPE IS WATERTIGHT.
- EROSION HAZARD  
THE CONTRACTOR SHALL FOLLOW THE EROSION AND SEDIMENT CONTROL, SEQUENCE OF CONSTRUCTION AND PLANS. THE EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER EVERY RUNOFF EVENT AND ON A WEEKLY BASIS. IMMEDIATELY AFTER EVERY RUNOFF EVENT THE EROSION AND SEDIMENTATION FACILITIES AND MEASURES WILL BE CLEANED, REPAIRED, AND REPLACED AS NEEDED. WASHED-OUT AREAS WILL BE RE-GRADED AND RE-SEED. SILT FENCES WILL BE INSPECTED AND RESTORED TO AN UPRIGHT AND EFFECTIVE POSITION AFTER EVERY RUNOFF EVENT OR WHEN THEY ARE OBSERVED TO BE IN NEED OF MAINTENANCE.
- PIPING HAZARD  
SUITABLE FILL MATERIAL FOR ALL PIPING SHALL BE USED PER RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER. ANTI-SEEP COLLARS SHALL BE INSTALLED AT THE DETENTION BASIN OUTLET STRUCTURE PIPE BARRELS AS SHOWN ON DETAILS.

**GEOLOGY CHART**

**OCTORARO FORMATION**  
ALBITE-CHLORITE SCHIST, PHYLLITE, SOME HORNBLENDE GNEISS, AND GRANITIZED MEMBERS.  
STATE: PENNSYLVANIA  
NAME: OCTORARO FORMATION  
GEOLOGIC AGE: LOWER PALEOZOIC  
ORIGINAL MAP LABEL: 169  
PRIMARY ROCK TYPE: ALBITE-CHLORITE SCHIST  
SECONDARY ROCK TYPE: PHYLLITE  
OTHER ROCK TYPES: HORNBLENDE GNEISS



**CALL BEFORE YOU DIG**  
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA  
CALL 1-800-442-1776  
PA. ACT 287 OF 1974 REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC.  
SERIAL NUMBER(S): 202319294

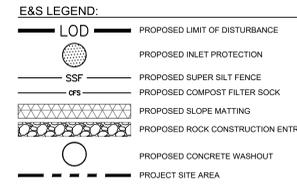
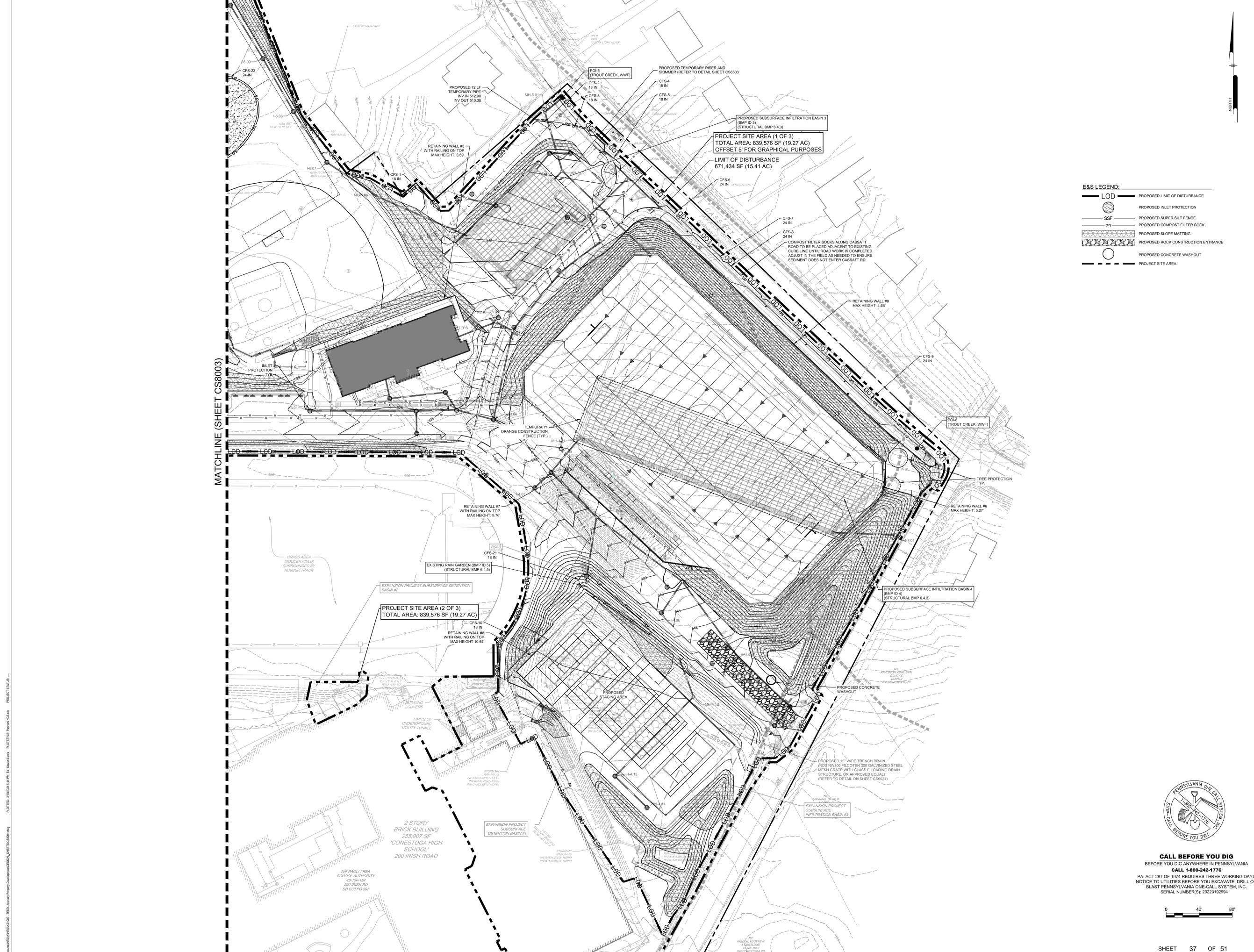
ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHER OWNERS OR THE EXTENSIVE OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN PERMISSION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNERS SHALL INDICATE ANY AND ALL REUSE OF PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

| # | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/18/2023 | REVISED PER TWP COMMENTS    |
| 2 | 06/14/2023 | REVISED PER COCD COMMENTS   |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 5 | 09/29/2023 | REVISED PER ISM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/16/2024 | BD ISSUE                    |



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 I:\Users\ESD003\OneDrive\Projects\ESD003\Drawings\ESD003\_02\CS8003.dwg

**NOT FOR CONSTRUCTION**



**CALL BEFORE YOU DIG**  
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA  
CALL 1-800-242-1776  
PA. ACT 287 OF 1974 REQUIRES THREE WORKING DAYS  
NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR  
BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC.  
SERIAL NUMBER(S): 2022319294

| Δ | DATE       | ISSUED FOR                  |
|---|------------|-----------------------------|
|   | 03/16/2023 | LAND DEVELOPMENT SUBMISSION |
| 1 | 05/19/2023 | REVISED PER TWP COMMENTS    |
| 2 | 06/14/2023 | REVISED PER CDDC COMMENTS   |
| 3 | 07/20/2023 | REVISED PER TWP REVIEW      |
| 4 | 09/26/2023 | REV. PER TWP & NPDES REVIEW |
| 5 | 09/29/2023 | REVISED PER SSM REVIEW      |
| 6 | 01/17/2024 | ISSUED FOR FINAL SUBMISSION |
| 7 | 03/16/2024 | BD ISSUE                    |



I:\Account\ESHA\PROJECTS\TESD - Tredyffrin Township\Development\ESHA\PROJECTS\CONESTOGA\...  
 PLOTTED: 10/10/2024 5:49 PM BY: [Name] FROM: [Name]  
 PROJECT STATUS:

**EROSION AND SEDIMENTATION CONTROL NOTES**

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE E&S PLAN, INCLUDING BUT NOT LIMITED TO ANY CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL NOTIFY ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSEER, THE CRIMINAL PENALTY ENFORCEMENT OFFICER, THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- 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 IN THIS SEQUENCE. ANY CHANGES TO THE SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S PLAN IS REVIEWED AND APPROVED. ANY EARTH STAGE OR PHASE HAVING BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND OPERATIONS BEGINS WITHIN THE TRIBUTARY AREA OF THOSE AREAS.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED, IF NECESSARY, AT THE LOCATIONS SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINAL GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. TOPSOIL SHALL BE STORED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCIDENTAL EROSION, SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL EROSION, SEDIMENT POLLUTION, AND TO REPORT SUCH INCIDENTS TO THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ. OR TO AN APPROVED WASTE MANAGEMENT, INCINERATION, BUMP, COMPOST FILTER SOCKS, AND UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THIS SITE.
- ALL OFF-SITE WASTE AND BORROW WARES MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN. OVER UNDISTURBED VEGETATED AREAS. ALL PUMPING OF SEDIMENT OR OTHER MATERIALS FROM THE PROJECT AREA SHALL BE SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
- VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS. VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA A STABILIZED ROUGH CONSTRUCTION ENTRANCE FROM THE ROADWAY.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO LOCAL JURISDICTIONS, COMPLETELY WRITTEN INSPECTION LOGS OF ALL SUCH INSPECTIONS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN UP, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BUMP, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMP'S WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKING DAY. THE SEDIMENT AS DESCRIBED IN THIS PLAN, IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAIN OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN STOCKPILES.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARPED TO A MINIMUM DEPTH OF 3 TO 5 INCHES. 4 TO 12 INCHES OF TOPSOIL SHALL BE APPLIED TO ALL EXPOSED AREAS THAT ARE TO BE VEGETATED. SEEDS SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTCROPS SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLURPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDING OR STRUCTURAL LOADS SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBSTACLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMBET BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS DURING NON-GERMINATING MONTHS. MULCH OR OTHER PROTECTIVE LAYERS SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM PERENNIAL 10% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S. E&S BMP'S SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMP'S.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMP'S SHALL BE STABILIZED IMMEDIATELY IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS. SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL E&S BMP'S, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMP'S MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING IMPOSED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$1000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MIDDLEMANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
- EROSION CONTROL, BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE LOCAL COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
- THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- THE CONTRACTOR IS ADVISED TO COMPLETELY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 6A EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- THE E&S CONTROL PLAN MAPPING MUST DISPLAY A PA ONE CALL SYSTEM INCORPORATED SYMBOL INCLUDING THE SITE IDENTIFICATION NUMBER. IF THIS IS A NUMBERED SYMBOL, NOT A NOTE.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN

**CLEAN FILL & ENVIRONMENTAL DUE DILIGENCE**

- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. IF THE SITE IS NEEDED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE CONTRACTOR.
- CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK. BLOCK OR CURB CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
- CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE. FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENTS' POLICY MANAGEMENT OF FILLS.
- ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
- ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO: VISUAL, PROPERTY INSPECTIONS, TRANSACTIONS SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS' POLICY MANAGEMENT OF FILLS.
- FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENTS' MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PADCODE.COM.

**COMPLETION CERTIFICATE AND FINAL PLANS**

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMP'S IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT AUTHORIZED CONSTRUCTION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE, VERIFYING THAT ALL WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

**CLEAN FILL & ENVIRONMENTAL DUE DILIGENCE**

- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. IF THE SITE IS NEEDED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE CONTRACTOR.
- CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK. BLOCK OR CURB CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
- CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE. FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENTS' POLICY MANAGEMENT OF FILLS.
- ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
- ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO: VISUAL, PROPERTY INSPECTIONS, TRANSACTIONS SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS' POLICY MANAGEMENT OF FILLS.
- FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENTS' MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PADCODE.COM.

**RECYCLE & DISPOSAL OF MATERIALS**

- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENTS' 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 INCLUDE, BUT NOT LIMITED TO:
  - INLET PROTECTION
  - PUMPED WATER FILTER BAGS
- ANY WASTE OR BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE COUNTY CONSERVATION DISTRICT PRIOR TO BEING ACTIVATED.

**EROSION & SEDIMENTATION MAINTENANCE:**

- DURING THE LIFE OF THE PROJECT, ALL EROSION AND SEDIMENTATION CONTROL DEVICES MUST BE PROPERLY MAINTAINED. MAINTENANCE SHALL INCLUDE THE INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES. MAINTENANCE SHALL BE INITIATED IMMEDIATELY AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO DEP UPON REQUEST.
- WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE NOTIFY THE LOCAL COUNTY CONSERVATION DISTRICT OF THE FAILURE AND SHALL INCLUDE THE FOLLOWING INFORMATION:
  - THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
  - ALL STEPS TAKEN TO REMOVE, ELIMINATE AND PREVENT THE RECURRENCE OF THE FAILURE.
- THE TIME FRAME TO CORRECT THE NONCOMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO BE MAINTAINED AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
- SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED, AS NECESSARY, AND THE EROSION AND SEDIMENTATION BMP'S MUST BE REINSTALLED IMMEDIATELY WITH AN ANCHORING METHOD DESCRIBED ON THE ATTACHED MULCH ANCHORING GUIDE. UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS DURING NON-GERMINATING MONTHS. MULCH OR OTHER PROTECTIVE LAYERS SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS.
- SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN STOCKPILES.
- INLET FILTER BAGS SHALL BE CLEANED OUT OR REPLACED WHEN BAG IS HALF FULL.
- SEDIMENT SHALL BE REMOVED FROM COMPOST FILTER SOCKS WHEN REACHING ONE HALF THE HEIGHT OF THE SOCK, IF USED.
- THE CONTRACTOR SHALL INSPECT ALL ROCK CONSTRUCTION ENTRANCES ON A DAILY BASIS AND SHALL MAINTAIN THE PROPER CLEARANCE AND BEING TRACKED ONTO PUBLIC STREETS. SEDIMENT THAT IS TRACKED ONTO PUBLIC STREETS SHALL BE COLLECTED AND RETURNED TO THE SITE OR OTHERWISE PROPERLY REMOVED BY A STREET SWEEPER.
- EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS. IF USED.
- FILL MATERIAL, FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. SUCH EMBANKMENTS SHALL BE COMPACTED TO A MAXIMUM OF 16 INCH LAYERS LIFT AT 90% DENSITY.
- THE CONCRETE WASHOUT AREA (CWA) SHALL BE REPAIRED, CLEANED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASHOUT. CONCRETE MATERIALS ACCUMULATED IN PITS SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2".
- CONCRETE WASHOUT AREA (CWA) SHALL BE REPAIRED, CLEANED AND ALL OTHER DEBRIS IN CONCRETE WASHOUT AREA SHALL BE PROPERLY REPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- CLEARING WASTE WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ABOVE. IN NO CASE SHALL IT BE ALLOWED TO ENTER THE SURFACE WATERS OR GROUNDWATER SYSTEMS.

**E&S BMP OPERATION AND MAINTENANCE:**

- INSPECT ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS AND AFTER ALL PRECIPITATION EVENTS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT.
- INSPECT ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS AND AFTER ALL PRECIPITATION EVENTS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT.
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- INSPECT ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS AND AFTER ALL PRECIPITATION EVENTS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT.
- INSPECT ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS AND AFTER ALL PRECIPITATION EVENTS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT.

- CONSTRUCTION WASTES INCLUDE, BUT NOT LIMITED TO:
  - INLET PROTECTION
  - PUMPED WATER FILTER BAGS
- ANY WASTE OR BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE COUNTY CONSERVATION DISTRICT PRIOR TO BEING ACTIVATED.

**COMPOST FILTER SOCK:**

- INSPECT ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS AND AFTER ALL PRECIPITATION EVENTS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER EACH PRECIPITATION EVENT.
- COMPOST FILTER SOCK IS TO BE MAINTAINED, AND REPLACED IF NECESSARY, DURING THE ENTIRE CONSTRUCTION PERIOD UNTIL A PERMANENT VEGETATIVE COVER WITHIN THE TRIBUTARY AREA IS ESTABLISHED.
- CONSTRUCT COMPOST FILTER SOCK ALONG THE DOWNSTREAM SIDE OF ALL PROPOSED SILT AND FILL ACTIVITIES.
- THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT ACCUMULATIONS REACH 1/4 THE ABOVE GROUND HEIGHT OF THE FENCE.
- WHEN YOU REMOVE MATERIALS FROM THE SELF-INSTALLED CONCRETE WASHOUT, BUILD A NEW STRUCTURE OR, IF THE PREVIOUS STRUCTURE IS STILL INTACT, INSPECT FOR SIGNS OF WEAKENING OR DAMAGE, AND MAKE ANY NECESSARY REPAIRS. RE-LINE THE STRUCTURE WITH NEW PLASTIC AFTER EACH CLEANING.

**TEMPORARY SEEDINGS FOR CRITICAL AREAS**

| SPECIES OR MIXTURE                   | PERCENT BY WEIGHT | PERCENT PURE LIVE SEED | PERCENT GERMINATION | RECOMMENDED SEEDING DATES | ADAPTION TO SOIL-SITE CONDITIONS |                           |                      |                      |                                     |                  |
|--------------------------------------|-------------------|------------------------|---------------------|---------------------------|----------------------------------|---------------------------|----------------------|----------------------|-------------------------------------|------------------|
|                                      |                   |                        |                     |                           | SHALLOW WELLS (DRAINED)          | MOD. DEEP WELLS (DRAINED) | DEEP WELLS (DRAINED) | MOD. WELLS (DRAINED) | SOMEWHAT POORLY TO POORLY (DRAINED) | POORLY (DRAINED) |
| ANNUAL RYEGRASS (PENN DOT FORMULA E) | 100.0%            | 98.0%                  | 90.0%               | 48                        | MAR 15 TO OCT 15                 | X                         | X                    | X                    | X                                   | X                |

**PERMANENT SEEDINGS FOR CRITICAL AREAS**

| SPECIES OR MIXTURE         | PERCENT BY WEIGHT | PERCENT PURE LIVE SEED | PERCENT GERMINATION | RECOMMENDED SEEDING DATES | ADAPTION TO SOIL-SITE CONDITIONS      |                           |                      |                      |                                     |                  |
|----------------------------|-------------------|------------------------|---------------------|---------------------------|---------------------------------------|---------------------------|----------------------|----------------------|-------------------------------------|------------------|
|                            |                   |                        |                     |                           | SHALLOW WELLS (DRAINED)               | MOD. DEEP WELLS (DRAINED) | DEEP WELLS (DRAINED) | MOD. WELLS (DRAINED) | SOMEWHAT POORLY TO POORLY (DRAINED) | POORLY (DRAINED) |
| WINNING COLORS TALL FESCUE | 100.0%            | 98.0%                  | 90.0%               | 227                       | APR 1 TO JUNE 15 OR JUL 15 TO SEPT 15 | X                         | X                    | X                    | X                                   | X                |

**ROOF FILTER OUTLET / ROOF FILTER:**

- ROOF FILTER OUTLETS SHOULD BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED FROM ACCUMULATIONS REACH ONE-HALF THE HEIGHT OF THE FILTER BAG.
- CLOGGED FILTER STONE SHOULD BE REPLACED.
- NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.

**INLET PROTECTION:**

- EARTHEN BERM TO BE MAINTAINED UNTIL ROADWAY IS STONED, ROAD SUBBASE BERM TO BE MAINTAINED UNTIL ROAD IS PAVED. SIX INCH ROADWAY ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
- INSPECT AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER INSPECTION.
- SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.

**CHANNELS (FOR RUNOFF CONVEYANCE):**

- DIMENSIONS OF EACH CHANNEL SHALL BE CONSTANTLY MAINTAINED. CLEAN THE CHANNELS WHENEVER THE TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
- DEPOSITS OF SEDIMENT SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO THE CHANNEL WITHOUT FURTHER DAMAGE.
- REPAIR OR REPLACEMENT DAMAGED LINING WITHIN 48 HOURS OF DISCOVERY.

**TEMPORARY STABILIZATION & PERMANENT STABILIZATION:**

- HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- MULCH WITH MULCH CONTROL, NETTING OR EROSION CONTROL, BLANKETS MUST BE INSTALLED WITHIN 5 DAYS OF SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS. IF USED.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- GRADED AREAS ARE TO BE TEMPORARILY SEEDDED AND MULCHED IMMEDIATELY FOLLOWING EARTHWORK PROCEDURES. TEMPORARY SEED SHALL BE ANNUAL RYE GRASS APPLIED AT THE RATES SPECIFIED. MULCH SHALL BE HAY OR STRAW APPLIED AT THE RATE OF AT LEAST 3.0 TONS PER ACRE.
- LIME SHALL BE APPLIED TO ALL TEMPORARILY SEEDDED AREAS AT A MINIMUM RATE AS SPECIFIED.
- ALL TEMPORARILY SEEDDED AREAS SHALL HAVE 5-5.5 FERTILIZER APPLIED AT THE MINIMUM RATES SPECIFIED.
- ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE AVAILABLE FOR USE AT THE END OF EACH WORKING DAY. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.
- SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.
- NOTE: WATCH THE ROADWAY OR SWEEPING THE DEPOSITS INTO DITCHES, SEWERS, OR OTHER DRAINAGE CHANNELS. TEMPORARY SEED SHALL BE ANNUAL RYE GRASS APPLIED AT THE RATES SPECIFIED. MULCH SHALL BE HAY OR STRAW APPLIED AT THE RATE OF AT LEAST 3.0 TONS PER ACRE. ANY AREAS WHERE HYDROSEED IS USED, MULCH IS NEEDED AT A MINIMUM RATE OF 3.0 TONS PER ACRE.
- A GEOTECHNICAL ENGINEER SHOULD BE PRESENT FOR CONSTRUCTION OF 2:1 SLOPES TO ENSURE STABILITY.

**TEMPORARY SEEDING NOTE:**

- TEMPORARY STABILIZATION OF ALL EXPOSED EARTH SURFACES WHERE CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING TOPSOIL STOCKPILES, SHALL BE STABILIZED IMMEDIATELY BY THE FOLLOWING METHODS AND MATERIALS:
  - APPLY ONE (1) TON OF AGRICULTURAL GRADE LIMESTONE PER ACRES PLUS FERTILIZER (10-10-10) AT THE RATE OF 500 LBS PER ACRE AND WORK INTO SOIL WHEREVER POSSIBLE.
  - APPLY SPECIFIED SEED AND SEEDING RATE ACCORDING TO THE TEMPORARY SEEDINGS FOR CRITICAL AREAS TABLE THIS SHEET.
  - APPLY SEEDING MULCH WITH HAY OR STRAW AT A RATE OF THREE (3) TONS PER ACRE.

**PERMANENT SEEDING SITE PREPARATION**

- PERMANENT STABILIZATION OF THE ALL EXPOSED EARTH SURFACES AFTER THE COMPLETION OF THE SITE GRADING AND IMPROVEMENTS SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS:
  - AFTER INSTALLATION OF THE NEEDED SURFACE WATER CONTROL MEASURES, PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
  - OBTAIN SOILS TESTING FROM AN INDEPENDENT LABORATORY TO DETERMINE NECESSARY SOILS MODIFICATIONS.
  - IN THE ABSENCE OF SOILS TESTING, APPLY AGRICULTURAL GRADE LIMESTONE AT THE MINIMUM RATE OF SIX TONS LIMESTONE PER ACRE (27 LBS PER 1,000 SQUARE FEET).
  - IN THE ABSENCE OF SOILS TESTING, WORK IN FERTILIZER AT THE RATE OF 1000 LBS. OF 10-20-20 OR EQUIVALENT PER ACRE.
  - SMOOTH AND FIRM SEEDDED AREAS WITH CULTIPACKER, OR OTHER SIMILAR EQUIPMENT, PRIOR TO SEEDING.
  - APPLY SPECIFIED SEED AND SEEDING RATES ACCORDING TO THE PERMANENT SEEDING RATES FOR CRITICAL AREAS TABLE THIS SHEET.
  - COVER GRASS SEEDS WITH 1/4 INCH OF TOPSOIL WITH SUITABLE EQUIPMENT.
  - APPLY STRAW MULCH AT A RATE OF 3.0 TON PER ACRE IMMEDIATELY AFTER SEEDING.
  - USE SOO WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER IN ORDER TO PREVENT GULLING. USE SOO AT THE DIRECTION OF THE TOWNSHIP ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
  - HYDROSEEDING SHALL BE AN ACCEPTABLE ALTERNATIVE TO THE ABOVE SEEDING WHEN PERFORMED IN ACCORDANCE WITH PENNDOT PUB. 408 SECTIONS 904 AND 905 AND APPROVED BY THE SITE ENGINEER.

**CONSTRUCTION SEQUENCE**

- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE WILL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN THIS SEQUENCE. ANY CHANGES TO THE SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- CONSTRUCTION WILL BEGIN UPON RECEIPT OF ALL REQUIRED PERMITS FROM THE TOWNSHIP PENNDOT, PA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND THE CONSERVATION DISTRICT.
- AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL NOTIFY ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LAND OWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- AT LEAST 3 WORKING DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT.

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENTS' SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ. AND 287.1 ET SEQ.

THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED APPROVED BY THE CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL PROPOSED SOIL/ROCK SPOIL AND BORROW AREAS ON OR OFF-SITE.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 60 DAYS OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. PLEASE NOTE THAT HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.

**CRITICAL STAGE: CONCURRENTLY, REMOVE SEDIMENT TRAP 1**

- CONCURRENTLY, BEGIN INSTALLATION OF SITE UTILITIES ON THE WEST SIDE OF THE PROPERTY. INSTALLATION SHOULD OCCUR FROM DOWNSTREAM TO UPSTREAM. THE CONTRACTOR SHALL ONLY EXCAVATE TRENCH FOR THE AMOUNT THAT CAN BE INSTALLED, BACKFILLED, AND STABILIZED WITHIN ONE WORKING DAY.
- CONCURRENTLY, BUILD RETAINING WALL #3
- ONCE BUILDING AND PARKING AREA IS INSTALLED, BEGIN CONSTRUCTION OF STORMWATER PIPE, AND PROPOSED STORM SEWER ROOF DRAINS. INSTALLATION SHOULD OCCUR FROM DOWNSTREAM TO UPSTREAM. THE CONTRACTOR SHALL ONLY EXCAVATE TRENCH FOR THE AMOUNT THAT CAN BE INSTALLED, BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY.
- CONCURRENTLY, BEGIN INSTALLATION OF CONCRETE CURB, STONE SUBBASE AND BINDER COURSE.
- INSTALL SIDEWALKS, FINAL GRADING, AND LANDSCAPING.
- CRITICAL STAGE: ONCE AREA HAS ACHIEVED A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE PERMANENT NON-VEGETATIVE COVER SUFFICIENT TO RESIST ACCELERATED EROSION AND SEDIMENTATION BMP'S, INCLUDING ALL COMPOST TRAPS, COMPOST FILTER SOCKS, AND INLET PROTECTION, ANY AREA DISTURBED DURING THE REMOVAL OF A TEMPORARY BMP SHALL BE IMMEDIATELY STABILIZED WITH SEEDING AND STRAW MULCH.**
- ONCE THE CONSTRUCTION ACTIVITIES NO LONGER REQUIRE HEAVY EQUIPMENT FOR ITS CONSTRUCTION, THE CONTRACTOR SHALL SWEEP ALL PAVEMENT AREAS AND INSTALL THE FINAL WEARING COURSE. PERFORM PAVEMENT LINE STRIPING AS INDICATED ON THE APPROVED PLANS. REMOVE ALL REMAINING ACCESS BARRIERS.
- PRIOR TO NOT SUBMISSION, ALL PCSM FACILITIES SHALL BE INSPECTED FOR FUNCTIONALITY AS THEY WERE INSTALLED DURING ACTIVE CONSTRUCTION.
- UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMP'S IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE (IF APPLICABLE) A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND SECTION 1-C, SIGNATORY REQUIREMENTS, OF THIS PERMIT, REFER TO "TERMINATION OF COVERAGE" AND "COMPLETION CERTIFICATION AND FINAL PLANS" NOTES ON THIS SHEET FOR ADDITIONAL INFORMATION.

**CONSTRUCTION SEQUENCE - EXISTING RAIN GARDEN MODIFICATION**

- CRITICAL STAGE: RAIN G**

