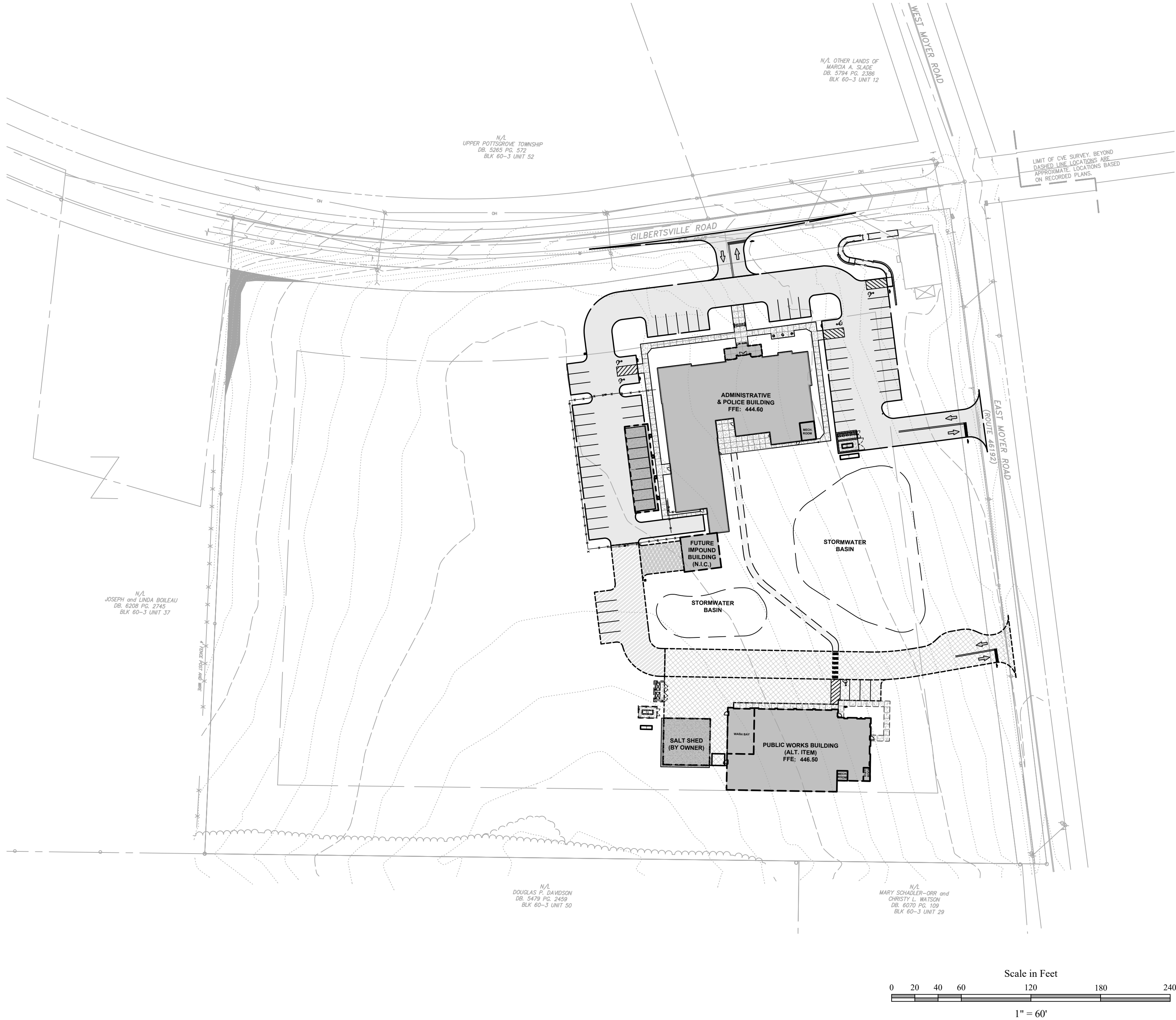
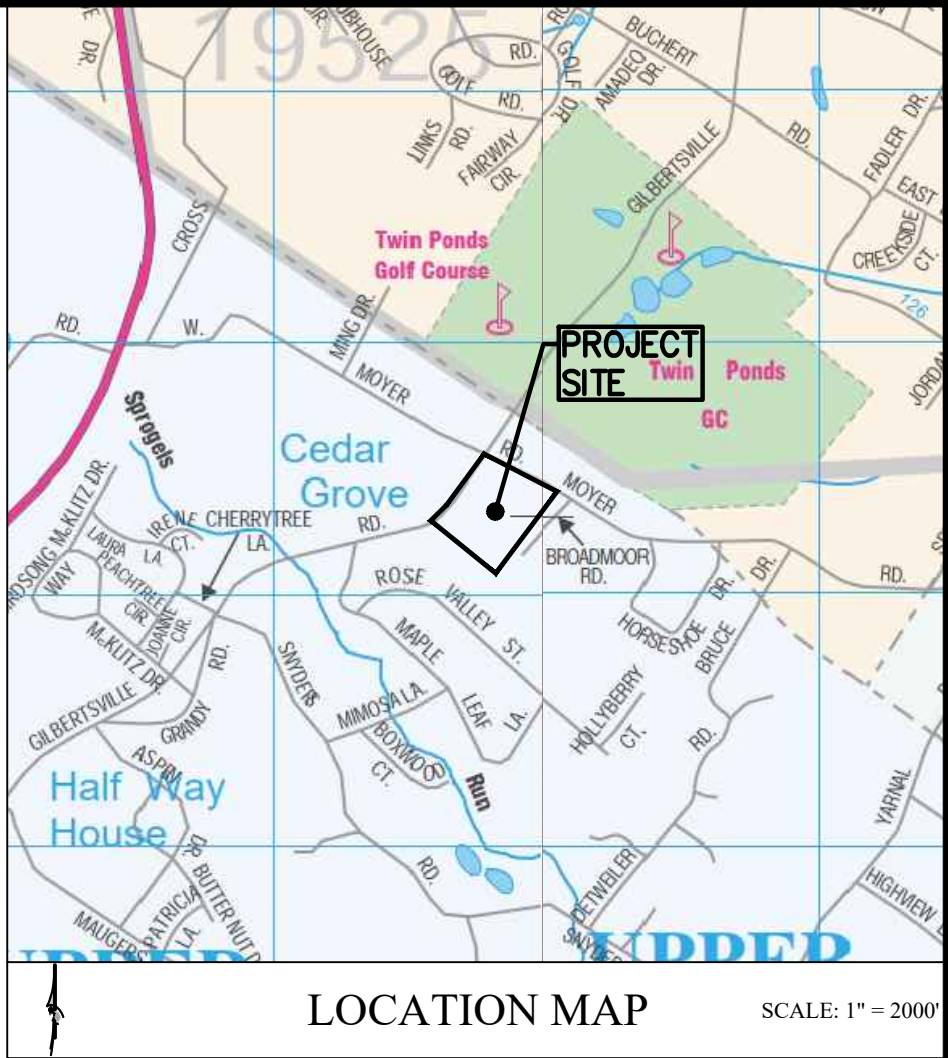


CONSTRUCTION PLANS

FOR

UPPER POTTS GROVE MUNICIPAL COMPLEX

UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA



| SHEET INDEX | | |
|-------------------|--------------|-------------------------------------------------------|
| SHEET NO. | LAST REVISED | TITLE |
| 01 | 03/31/2025 | COVER SHEET |
| 02 | 03/31/2025 | NOTES |
| 03 | 12/09/2024 | EXISTING FEATURES PLAN |
| 04 | 03/31/2025 | DEMOLITION PLAN |
| 05 | 03/31/2025 | SITE PLAN & DETAILS |
| 06 | 03/31/2025 | EROSION AND SEDIMENTATION CONTROL PLAN |
| 07 | 03/31/2025 | EROSION AND SEDIMENTATION CONTROL NOTES |
| 08 | 03/31/2025 | EROSION AND SEDIMENTATION CONTROL DETAILS |
| 09 | 03/31/2025 | UTILITY PLAN |
| 10 | 03/31/2025 | UTILITY DETAILS (SANITARY) |
| 11 | 03/31/2025 | UTILITY DETAILS (WATER & ELECTRIC) |
| 12 | 03/31/2025 | UTILITY DETAILS (ELECTRIC & GAS) |
| 13 | 03/31/2025 | GRADING/ STORMWATER MANAGEMENT PLAN |
| 14 | 03/31/2025 | PROFILES |
| 15 | 03/31/2025 | POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN |
| 16 | 03/31/2025 | POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES/DETAILS |
| 17 | 03/31/2025 | POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS |
| 18 | 03/31/2025 | LANDSCAPE PLAN/ DETAILS |
| 19 | 03/31/2025 | LIGHTING PLAN/ NOTES |
| 20 | 03/31/2025 | LIGHTING DETAILS |
| 21 | 03/31/2025 | CONSTRUCTION DETAILS |
| 22 | 03/31/2025 | CONSTRUCTION DETAILS |
| 23 | 03/31/2025 | CONSTRUCTION DETAILS |
| (23 SHEETS TOTAL) | | |

REFERENCE PLANS

1. PLAN OF PROPERTY FOR HOFFMAN, WALSH AND BOYLES(SLADE) OF PARCEL ID#60-00-01093-00-8, BLOCK 3 UNIT 12. PREPARED BY ASTON SURVEYORS/ENGINEERS, INC. DATED AUGUST 6,2008.
2. BROADMOOR RIDGE SUBDIVISION PLAN PREPARED FOR JOSEPH I. KULP, JR. PREPARED BY RALPH E. SHANER & SON ENGINEERING CO. DATED MARCH 3, 1994 AND RECORDED IN THE OFFICE FOR RECORDING OF DEEDS IN MONTGOMERY COUNTY IN PLAN BOOK A55 PAGE 93.
3. APPROXIMATE EXISTING SANITARY SEWER DATA GRAPHICALLY SHOWN ON WEST MOYER ROAD OBTAINED FROM A PLAN PREPARED BY LTL CONSULTANTS, LTD. (DATED AUGUST 2020).
4. APPROXIMATE EXISTING WATER MAIN DATA GRAPHICALLY SHOWN ON GILBERTSVILLE ROAD, OBTAINED FROM A PLAN BY CONVER AND SMITH ENGINEERING, INC. (PLAN NO. C-07-004 SHEET 03 AND 04 DATED MARCH 13, 2008).

EXCEPTION #1
0.849 ACRES

N/L
JOSEPH AND LINDA BOILEAU
DB. 6208 PG. 2745
BLK 60-3 UNIT 37

EXCEPTION #4
3.028 ACRES

ZONING INFORMATION:
R-1 RESIDENTIAL DISTRICT

| ZONING REQUIREMENTS: | REQUIRED | EXISTING |
|---------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|
| MIN. LOT AREA(GROSS) | 5 ACRES | 8,133 AC. DEED (CALC. 8,569 AC.) 7,603 AC. TO ULT. R/W(CALC.) |
| MIN. LOT WIDTH | 150 FT. | 342.2 FT. |
| MIN. FRONT YARD | 40 FT.(LOCAL STREET) 60 FT.(COLLECTOR STREETS) 100 FT.(ARTERIAL STREETS) | 0 FT.* |
| MIN. SIDE YARD SETBACK | 25/60 FT. AGG. | 584 FT.(GILBERTSVILLE RD.) |
| MIN. SIDE YARD SETBACK | 40 FT. | 485 FT.(MOYER RD.) |
| MIN. REAR YARD SETBACK | 40 FT. | |
| MAX. BUILDING HEIGHT | 35 FT. | <35 FT. |
| ACCESSORY BUILDING | 15 FT. | NA |
| BUILDING COVERAGE MAX. | 5% | 0.48% |
| IMPERVIOUS MAX. | 25% | 0.94% (3,107 S.F.) |
| * EXISTING NON-CONFORMING | | |

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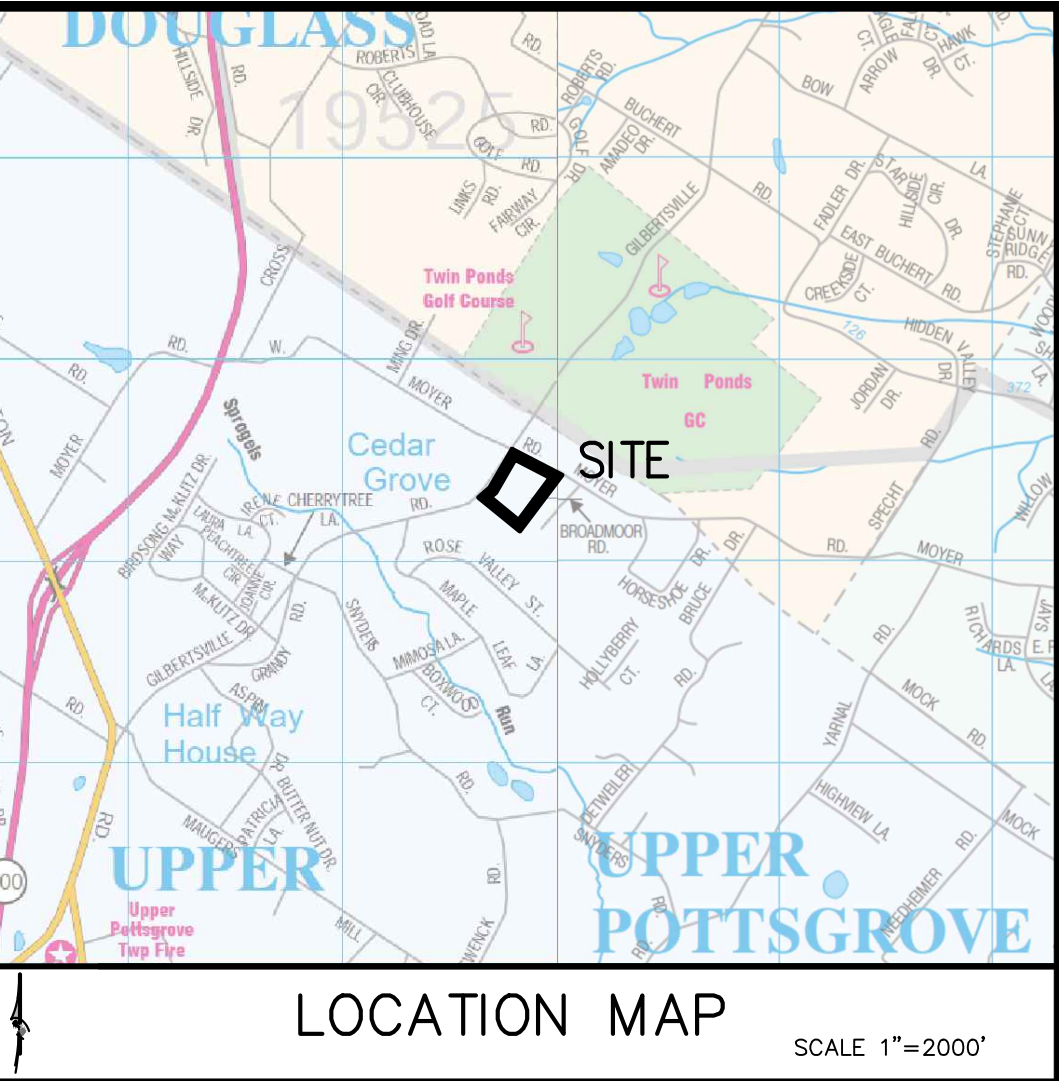
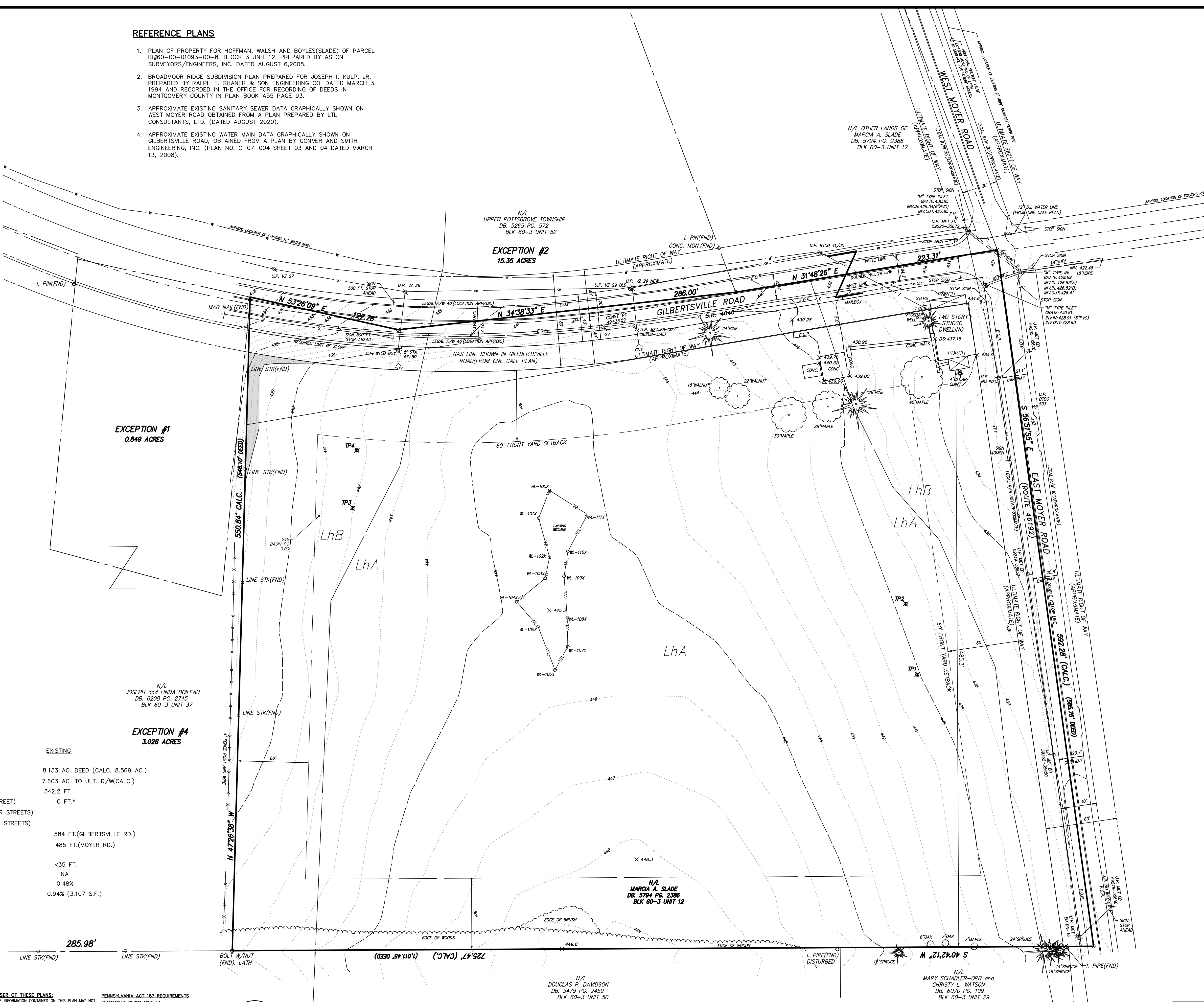
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. _____
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATION FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS. NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN.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

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUPPLEMENT "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING".
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2228) DATED 1985 (REVISED).

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

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

Montgomery County Block 60-3 Unit 12



EXISTING FEATURES LEGEND

| | |
|----------|-----------------------------------------------------------------------------|
| 201 | EXISTING 1' CONTOURS |
| 205 | EXISTING 5' CONTOURS |
| X 212.20 | EXISTING SPOT ELEVATION |
| --- | EXISTING PROPERTY BOUNDARY |
| --- | EXISTING RIGHT OF WAY (LEGAL R/W) |
| --- | BUILDING SETBACK |
| --- | EXISTING FENCE LINE |
| E.O.P. | EXISTING EDGE OF PAVING |
| EcB2 | SOILS LINE AND DESCRIPTION |
| BdA | EXISTING OVERHEAD WIRES |
| W | EXISTING WATER LINE |
| --- | EXISTING HDPE PIPE |
| WL | EXISTING WETLAND BOUNDARY |
| + | EXISTING FIRE HYDRANT |
| + | EXISTING INLETS |
| + | EXISTING UTILITY POLE |
| TP1 | EXISTING TRAFFIC CONTROL SIGNS |
| + | INFILTRATION TESTING LOCATION |
| + | EXISTING DECIDUOUS TREE |
| + | EXISTING CONIFEROUS TREE |
| + | EDGE OF BRUSH |
| + | EXISTING MANHOLE (SAN, STORM, GAS, WATER, WATER, ELECTRIC, TELEPHONE, ETC.) |
| --- | STEEP SLOPES 15% > |

NOTES:

1. BEING MONTGOMERY COUNTY UPI #23-5-22, 2290 GILBERTSVILLE ROAD, POTTSTOWN, PA. 19464.
2. DEED REFERENCE: DEED BOOK 5794 PAGE 2385
3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
4. THE DWELLING IS SERVICED BY PRIVATE WATER AND PRIVATE SEWER.
5. ELEVATIONS BASED UPON NAVD88 ESTABLISHED BY GPS OBSERVATIONS PERFORMED BY CHESTER VALLEY ENGINEERS, INC. UTILIZING THE OPUS SOLUTION TO GPS OBSERVATION.
6. BEARINGS ARE BASED ON NAD83 PENNSYLVANIA STATE PLANE, SOUTH ZONE, COORDINATE SYSTEM BY GPS OBSERVATION PERFORMED BY CHESTER VALLEY ENGINEERS.
7. UTILITIES SHOWN FROM ABOVE GROUND OBSERVATIONS ONLY.
8. TOPOGRAPHY AND IMPROVEMENTS SHOWN FROM PHYSICAL FIELD SURVEY PERFORMED IN NOVEMBER, 2024 BY CHESTER VALLEY ENGINEERS, INC.
9. BY GRAPHIC PLOTTING ONLY, THE PREMISES SHOWN HEREON DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE. THE PREMISES LIES WITHIN AN AREA DESIGNATED AS ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAPS (FIRM) 42029C0067G, MAP REVISED: MARCH 2, 2016, AND MAP 42029C0086G MAP REVISED: MARCH 2, 2016.
10. RIGHT OF WAY INFORMATION: FROM DEPARTMENT OF HIGHWAYS FINAL DRAWINGS FOR CONSTRUCTION AND CONDEMNATION OF RIGHT OF WAY, ROUTE NO. 46179, IN MONTGOMERY COUNTY FROM STATION 0+1416 TO STATION 150+96.7. SHEET 6 OF 14. APPROVED AUGUST 8, 1938.
11. SOILS INFORMATION TAKEN FROM USDA WEB SOIL SURVEY WEB SITE.
12. ULTIMATE RIGHT OF WAYS DERIVED FROM TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT INFORMATION, CHAPTER 310, SECTION 5, DEFINITIONS.

EXISTING FEATURES PLAN

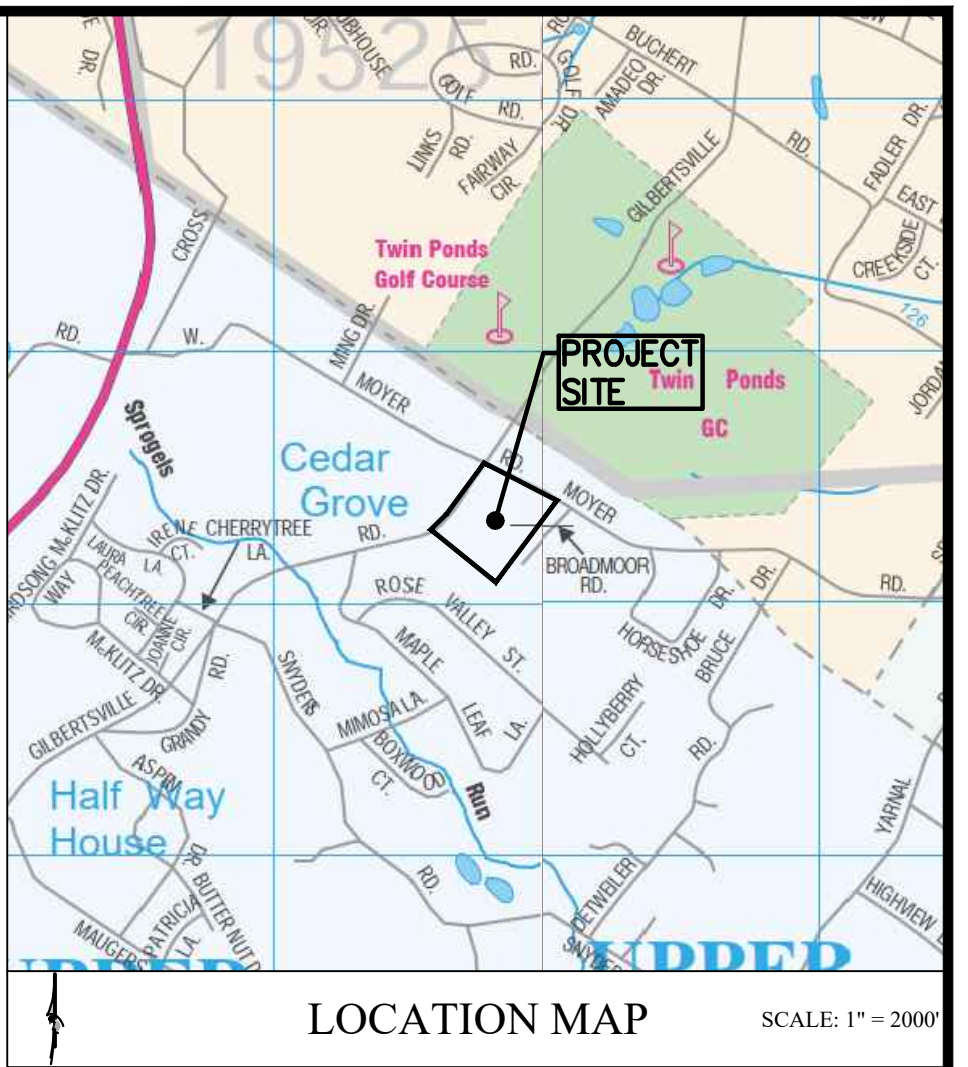
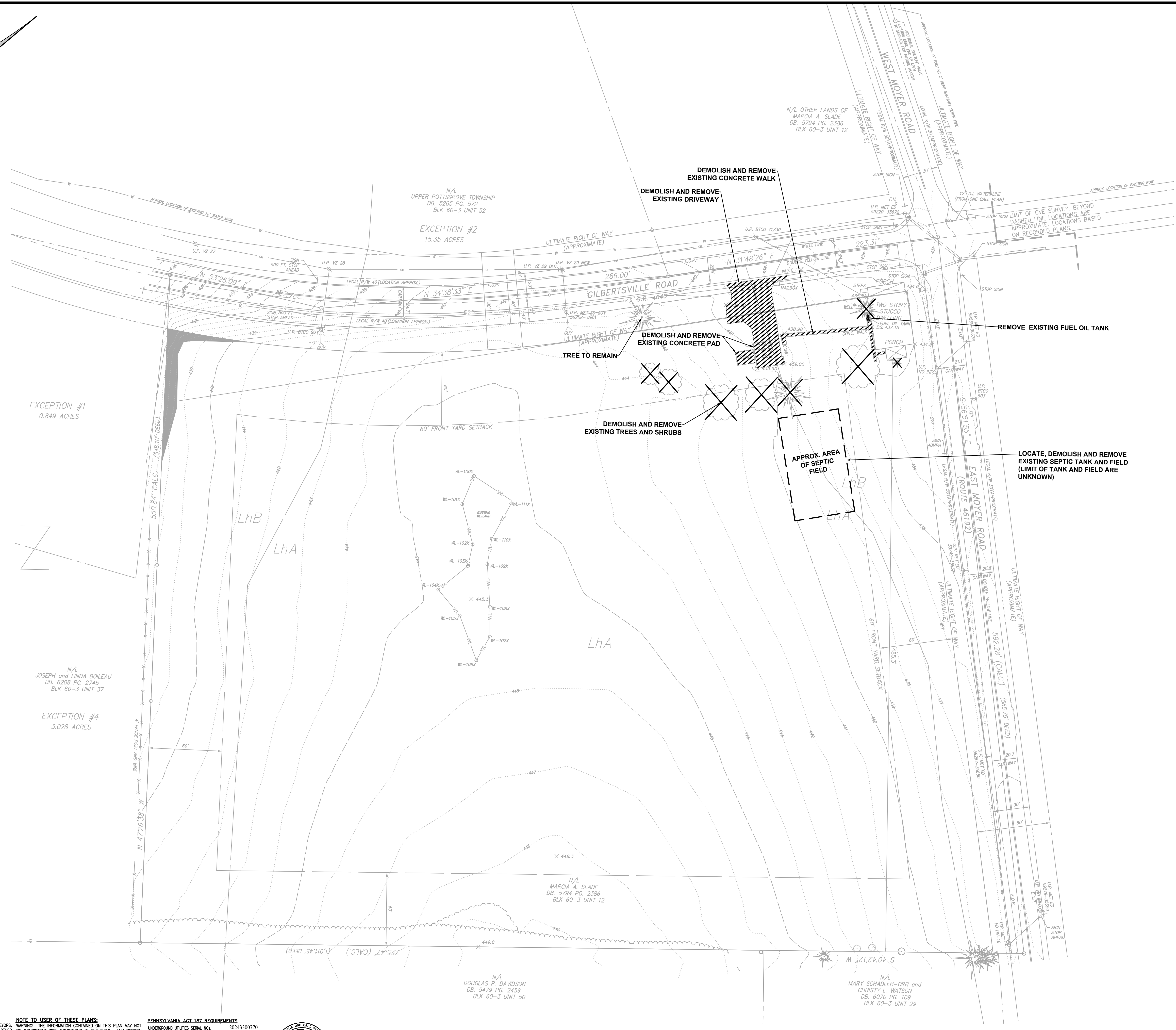
| NO. | DATE | REVISION |
|-----|------|----------|
| | | |
| | | |
| | | |
| | | |

EXISTING CONDITIONS PLAN
FOR
UPPER POTTS GROVE TOWNSHIP
2290 GILBERTSVILLE ROAD
UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

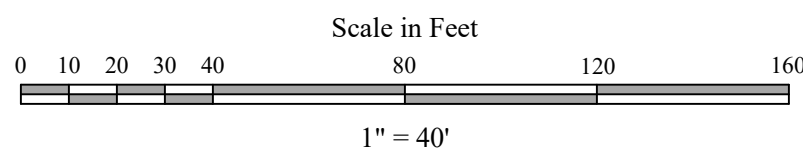
Chester Valley Engineers, Inc.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

22096-2000

SCALE 1"=40'
DATE 12-09-2024
DRAWN BY RJW
CHECKED BY JHB



| SYMBOL | DESCRIPTION | DEPTH TO SEASONALLY HIGH WATER TABLE | DEPTH TO BEDROCK | FREQUENCY OF: | | HYDROLOGIC SOIL GROUP | HYDRIC SOIL RATING |
|------------------------|-----------------|--------------------------------------|------------------|---------------|---------|-----------------------|--------------------|
| | | | | FLOODING | PONDING | | |
| LEIGH SILT LOAM | | | | | | | |
| LHA | 0% TO 3% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |
| LHB | 3% TO 8% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |



DEMOLITION PLAN

| | | |
|-----|------|----------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| No. | DATE | REVISION |

CONSTRUCTION PLANS
FOR
UPPER POTTS GROVE MUNICIPAL COMPLEX
2290 GILBERTSVILLE ROAD



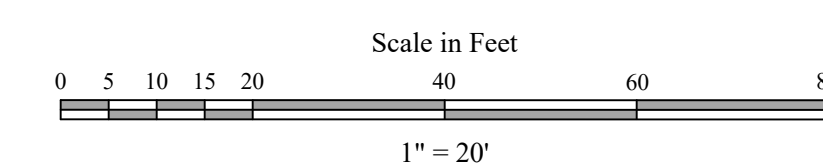
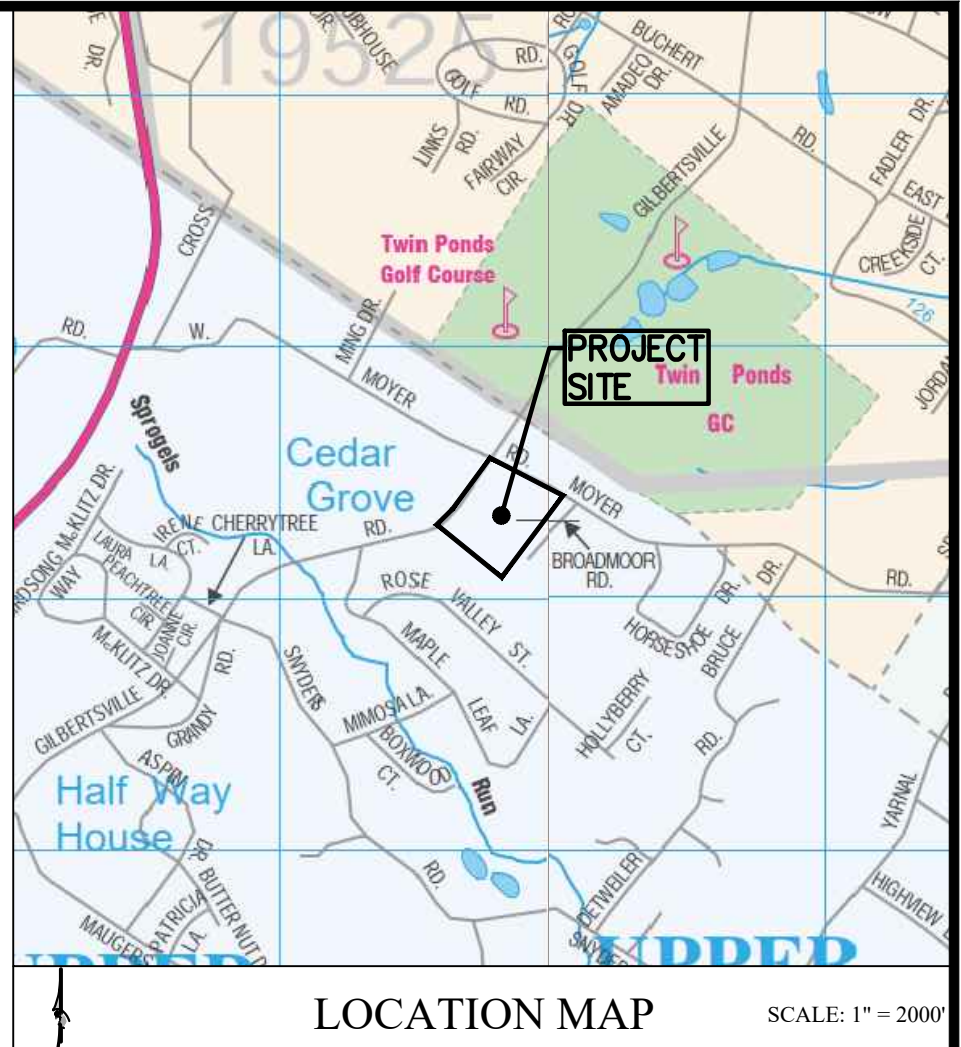
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610-644-4623
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PROJECT NO.
22096-2000

F.B.

| | |
|--|---------|
| | DRAWING |
|--|---------|

SHEET 04 OF 2



SITE PLAN AND DETAILS

[illegible]

SHEET 05 OF 23

[illegible]

LOCATION MAP

SCALE: 1" = 200'

| | |
|---------------------------------------------|--------------------------|
| EX. BUILDING | 1,804 S.F. |
| EX. CONCRETE SURFACES* | 457 S.F. |
| EX. STONE DRIVEWAY | 2,095 S.F. |
| EX. ROAD | 22,640 S.F. |
| TOTAL PRE-CONSTRUCTION IMPERVIOUS | 26,999 S.F. (0.62 ACRES) |
| *INCLUDES: CONCRETE PAD, WALKWAY, AND STEPS | |
| PROP. ASPHALT DRIVEWAY/PARKING/TRAIL | 22,426 S.F. |
| PROP. CONCRETE SURFACES | 4,539 S.F. |
| PROP. PRECAST PAVING | 959 S.F. |
| PROP. BUILDINGS | 21,016 S.F. |
| PROP. STONE | 164 S.F. |
| TOTAL PROPOSED IMPERVIOUS | 49,104 S.F. (1.13 ACRES) |
| TOTAL POST CONSTRUCTION IMPERVIOUS | 73,559 S.F. (1.69 ACRES) |

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

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

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

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

1. FIELD DELINEATE LIMITS OF DISTURBANCE PRIOR TO EARTH MOVING ACTIVITIES.
2. PLACE ALL FILTER SOCKS SHOWN ON THE PLANS AT THE TOE/DOWNSIDE OF EXISTING/PROPOSED SLOPES (PARALLEL WITH EXISTING CONTOURING, PERPENDICULAR WITH EXISTING SLOPES AND AT TERMINUS ENDS).
3. PLACE ALL FILTER SOCKS AT THE CONSTRUCTION ENTRANCE. INSTALL FILTER SOCKS AND PERFORM SITE GRADING WITHIN THIS AREA, ONLY AS NEEDED TO INSTALL THE CONSTRUCTION ENTRANCES.
4. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL SITE STORM WATER, INCLUDING THAT COMING OFF OF THE ROCK CONSTRUCTION ENTRANCE (RCE), IS DIRECTED INTO AN E&S CONTROL BMP.
5. INSTALL ORANGE CONSTRUCTION FENCE PRIOR TO ANY EARTH DISTURBANCE WITHIN AREAS OF PROPOSED STORMWATER MANAGEMENT FACILITIES TO PREVENT SOIL COMBUSTION AS SHOWN ON THE PLAN.
6. MARK AND INSTALL TEMPORARY TOPSOIL/SOIL STOCKPILE AND CONCRETE WASH AREAS AND FINISH INSTALLING ALL EROSION AND SEDIMENTATION CONTROL MEASURE.
7. STRIP AND STORE TOPSOIL AT DESIGNATED TEMPORARY TOPSOIL STOCKPILE LOCATION.
8. EXCAVATE FOR BUILDING FOUNDATION, SEWER MAIN (INCL. MANHOLE), ASPHALT PAVING, SIDEWALKS, CULVERT, DRAIN BASIN, ALL PILES, SWALES AND INCIDENTALS.
9. THE CONTRACTOR RESPONSIBLE FOR TEMPORARILY STOCKPILING APPROXIMATE 3,600 CY OF MATERIAL AND THE APPROPRIATE E&S MEASURES AT THE GILBERTSVILLE SITE AS SHOWN ON THE E&S PLAN, IN LATE FALL OR WINTER, SITE CONTRACTOR IS RESPONSIBLE FOR LOADING, HAULING AND DUMPING ALL MATERIAL AT 370 EVANS ROAD, POTTS TOWN, PA. A SEPARATE CONTRACTOR SHALL BE RESPONSIBLE FOR SPREADING AND COMPACTING MATERIAL CONSTRUCT BUILDINGS AND ALL ARCHITECTURAL ELEMENTS.
11. INSTALL SEWER MAIN AND MANHOLES AND CONNECT TO EXISTING SEWER LATERAL.
12. PERFORM FINAL FINISH SITE GRADING INCLUDING SUB BASE FOR PARKING LOT, CONCRETE PADS AND WALKWAYS.
13. INSTALL ALL PROPOSED UTILITIES, EXCLUDING TEMPORARY SEWER PIPING AND STRUCTURES WITHIN LIMITS OF STORMWATER MANAGEMENT FACILITIES BMP#1 AND BMP#2. ALL INLETS INSTALLED DURING THIS STEP SHALL BE TEMPORARILY SEALED.
14. INSTALL ALL SITE LIGHTING ELEMENTS.
15. INSTALL FLAG POLES FOUNDATION AND COVERED PARKING POSTS' FOOTINGS.
16. INSTALL ALL CONCRETE PAVING, STAIRS, AND BOLLARDS.
17. INSTALL ASPHALT BASE COURSE.
18. FINE GRADE/REDISTRIBUTE TOPSOIL THROUGHOUT DISTURBED AREAS.
19. INSTALL EROSION CONTROL BLANKET FOR STEEP SLOPES AS REQUIRED.
20. CONSTRUCT ASPHALT PARKING TACK AND WEARING COURSE.
21. PERFORM LINE STRIPPING.
22. INSTALL PARKING LOT BUMPER BLOCKS.
23. INSTALL FENCING AND GATES.
24. INSTALL ALL LANDSCAPING INCLUDING TREES, SHRUBS, GROUND COVER.
25. INSTALL ALL SIGNS, FLAG POLES AND COVERED PARKING STRUCTURE.
26. **"CRITICAL STAGE"** - UPON STABILIZATION OF UPLOUSE DISTURBED AREAS, CONSTRUCT STORMWATER MANAGEMENT FACILITIES TO INCLUDE BIOTRETENTION AREA BMP#1, MANAGED RELEASE BIOTRETENTION AREA BMP#2, OUTLET STRUCTURES, PIPES) AND CONTACT PROJECT ENGINEER PRIOR TO FINAL GRADING TO VERIFY THAT ALL BMPs ARE INSTALLED CORRECTLY AND HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES. REFER TO PCSM BMP CONSTRUCTION SEQUENCES ON SHEET 12 FOR CRITICAL STAGES FOR EACH SPECIFIC BMP.
27. FINE GRADE BIOTRETENTION AREAS WITH AMENDED SOIL. ALL PREVIOUSLY DISTURBED AREAS THAT ARE READY FOR FINAL STABILIZATION SHALL BE STABILIZED IMMEDIATELY WITH SEEDING AND HAY OR STRAW MULCH CONSISTENT WITH IMMEDIATE STABILIZATION CRITERIA.
28. COMPLETE FINAL GRADING OF THE BIOTRETENTION AREAS AFTER THE TOP LAYER OF SOIL IS ADDED.
29. INSTALL GAS AND NITROGEN INJECTION AREAS AND STABILIZE SLOPES WITH EROSION BLANKET.
30. REINSTALL THE CONSTRUCTION FENCE AROUND THE BIOTRETENTION AREAS.
31. INSTALL ANY ANTI-GRAZING MEASURES FOR BIOTRETENTION AREAS, IF NECESSARY.
32. **"CRITICAL STAGE"** REMOVE COVERS FROM INLETS TRIBUTARY TO BMP#2 AND INSTALL WATER QUALITY INSERTS.
33. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AND TREE PROTECTION CONSTRUCTION FENCING FROM THE BASIN. FINAL STABILIZATION IS DEFINED AS A UNIFORM 70% PERENNIAL VEGETATION COVER.
34. SUBMIT A NOTICE OF TERMINATION TO THE COUNTY CONSERVATION DISTRICT ONCE ALL TEMPORARY E&S BMPs HAVE BEEN REMOVED AND THE ENTIRE PROJECT SITE IS PERMANENTLY STABILIZED.

[illegible]

| INFILTRATION TESTING RESULTS | | | | | | | | |
|------------------------------|-----------------------|----------------|------------------------|--------------------|---------------|-------------------------|----------|----------------------|
| TEST ID | EX. GROUND DEPTH (IN) | TEST ELEVATION | TEST FLOW RATE (IN/HR) | MEASURED INF. RATE | LIMITING ZONE | LIMITING ZONE ELEVATION | BMP NAME | BMP BOTTOM ELEVATION |
| TP1 | 440.22 | 23 | 438.30 | 0.05 IN/HR | ROCK | 437.30 | BMP #2 | 436.50 |
| TP2 | 439.51 | 32 | 436.84 | 0.10 IN/HR | ROCK | 435.84 | BMP #2 | 436.50 |
| TP3 | 442.18 | 40 | 438.85 | 0.44 IN/HR | ROCK | 437.84 | — | — |
| TP4 | 442.03 | 19 | 440.45 | 0.00 IN/HR | ROCK | 439.44 | — | — |

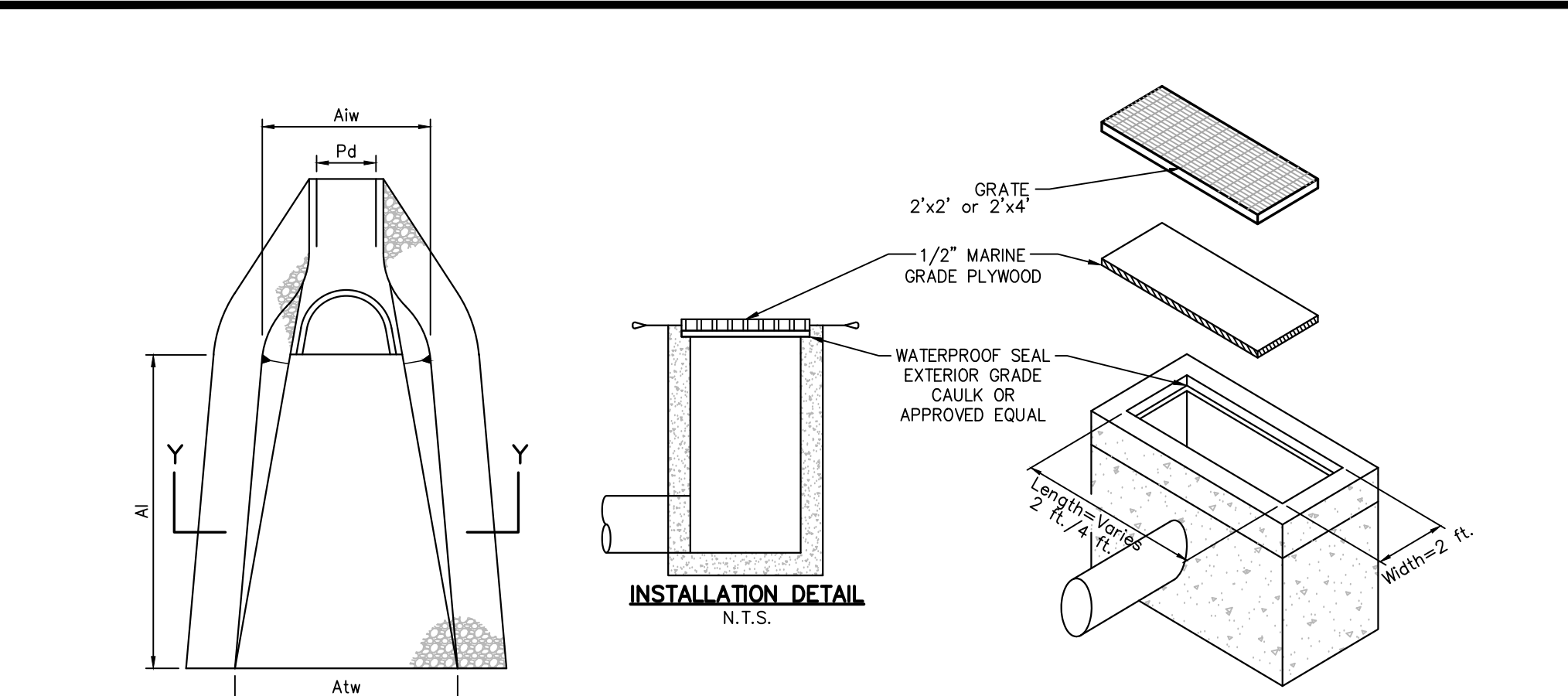
| SYMBOL | DESCRIPTION | DEPTH TO SEASONALLY HIGH WATER TABLE | DEPTH TO BEDROCK | FREQUENCY OF: | | HYDROLOGIC SOIL GROUP | HYDRIC SOIL RATING |
|-------------------------|-----------------|--------------------------------------------|---------------------|---------------|---------|--------------------------|-----------------------|
| | | | | FLOODING | PONDING | | |
| LEHIGH SILT LOAM | | | | | | | |
| LhA | 0% TO 3% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |
| LhB | 3% TO 8% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |

Scale in Feet

0 10 20 30 40 80 120 160

1" = 40'

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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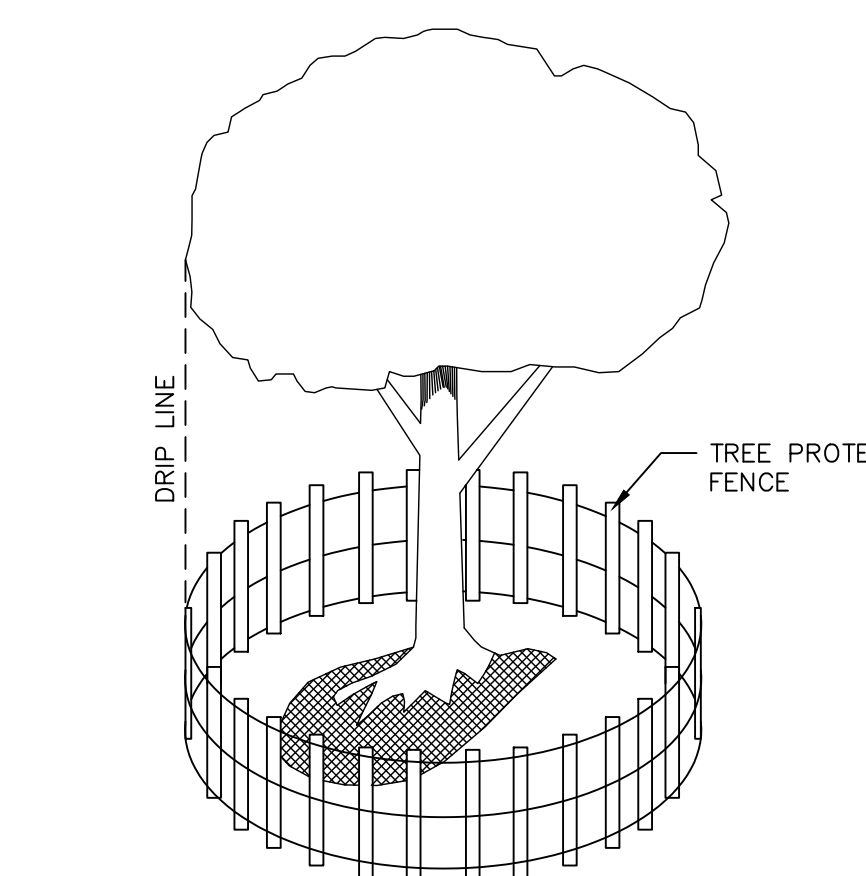


RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL DETAIL
N.T.S.

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

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

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



TREE PROTECTION FENCE DETAIL
N.T.S.

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

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

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

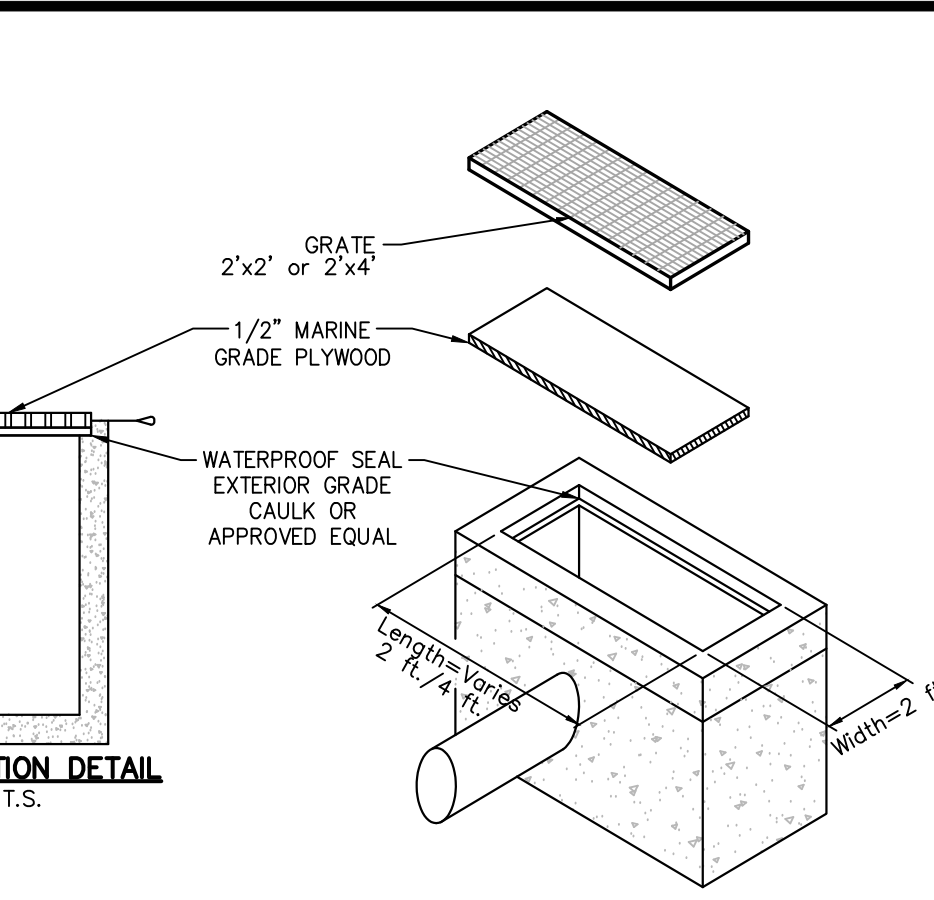
REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER THE MANUFACTURERS' INSTRUCTIONS.

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

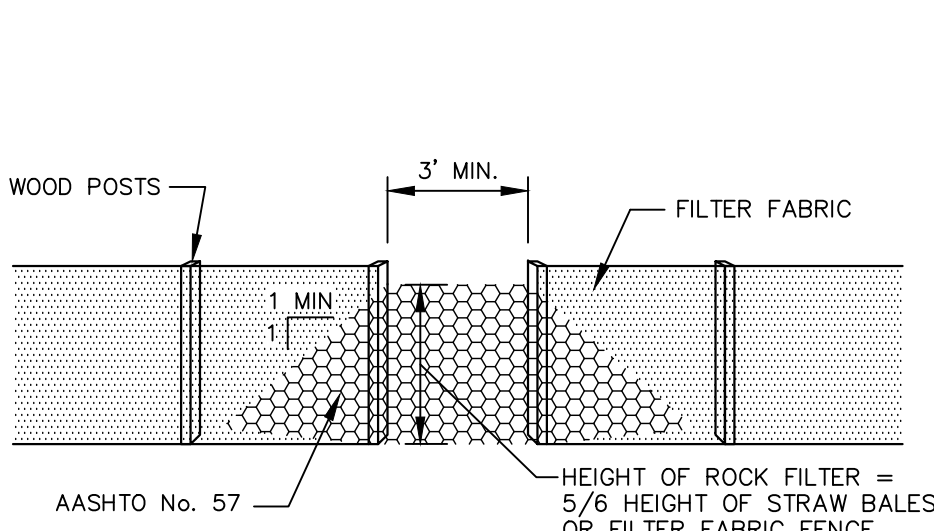
MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.

TREE PROTECTION BARRIER FENCE DETAIL
N.T.S.

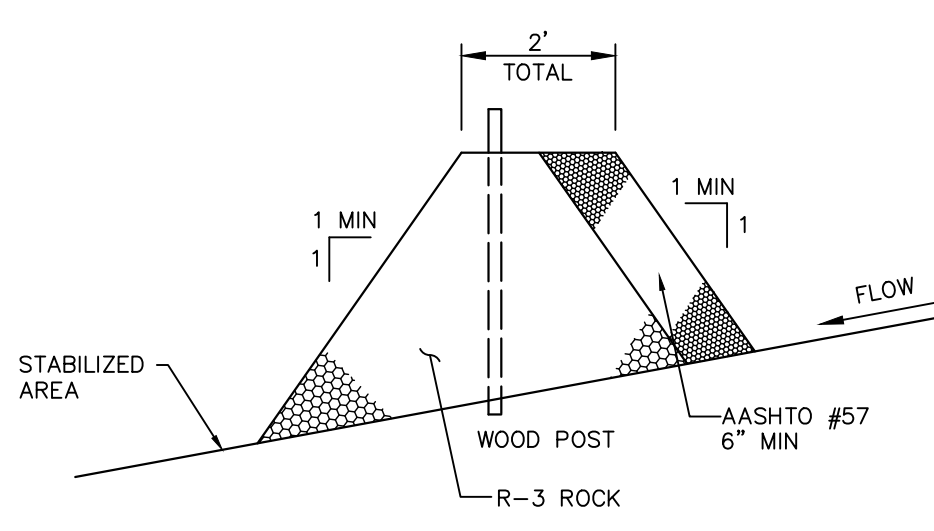
MONTGOMERY COUNTY BLOCK 60-3 UNIT 12



INLET TEMPORARY SEAL DETAIL
N.T.S.



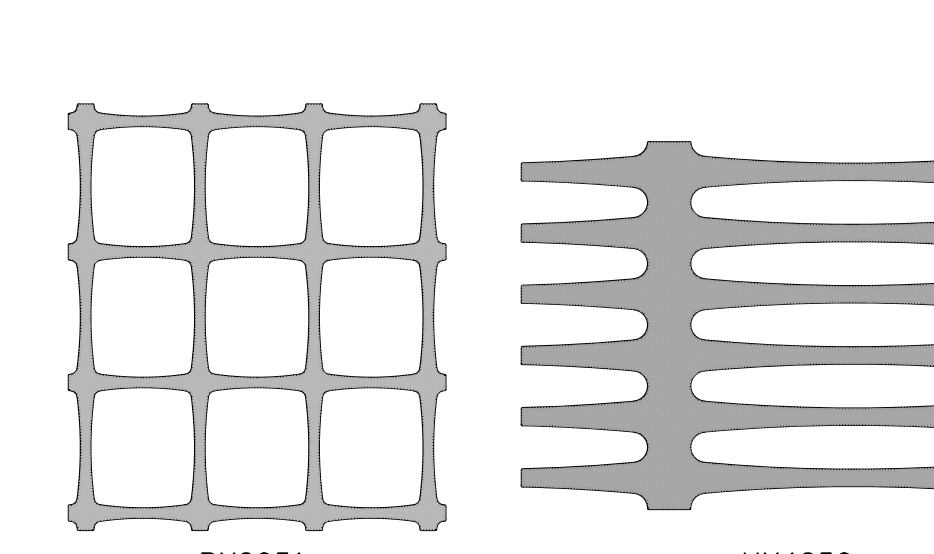
UP SLOPE FACE



OUTLET CROSS-SECTION

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.

ROCK FILTER OUTLET DETAIL
N.T.S.



ORANGE CONSTRUCTION FENCE DETAIL
N.T.S.

FOR GENERAL USE: TENSAR SAFETY FENCE BX 2051, 4' HT., ORANGE FOR EXTRA PROTECTION; TENSAR SAFETY FENCE UX 4250, 4' HT., ORANGE

INSTALLATION: ATTACH FENCE TO 2\"/>

THE GROUND, SPACED 8\"/>

ANCHOR POSTS MUST BE MIN. 2\"/>

FENCING ATTACHED TO EACH POST IN AT LEAST 3 PLACES

POSTS MUST BE SET AT LEAST 18\"/>

MAX. 6\"/>

NOTES:

1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND/OR SNOW-FENCE MAY BE USED).

2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

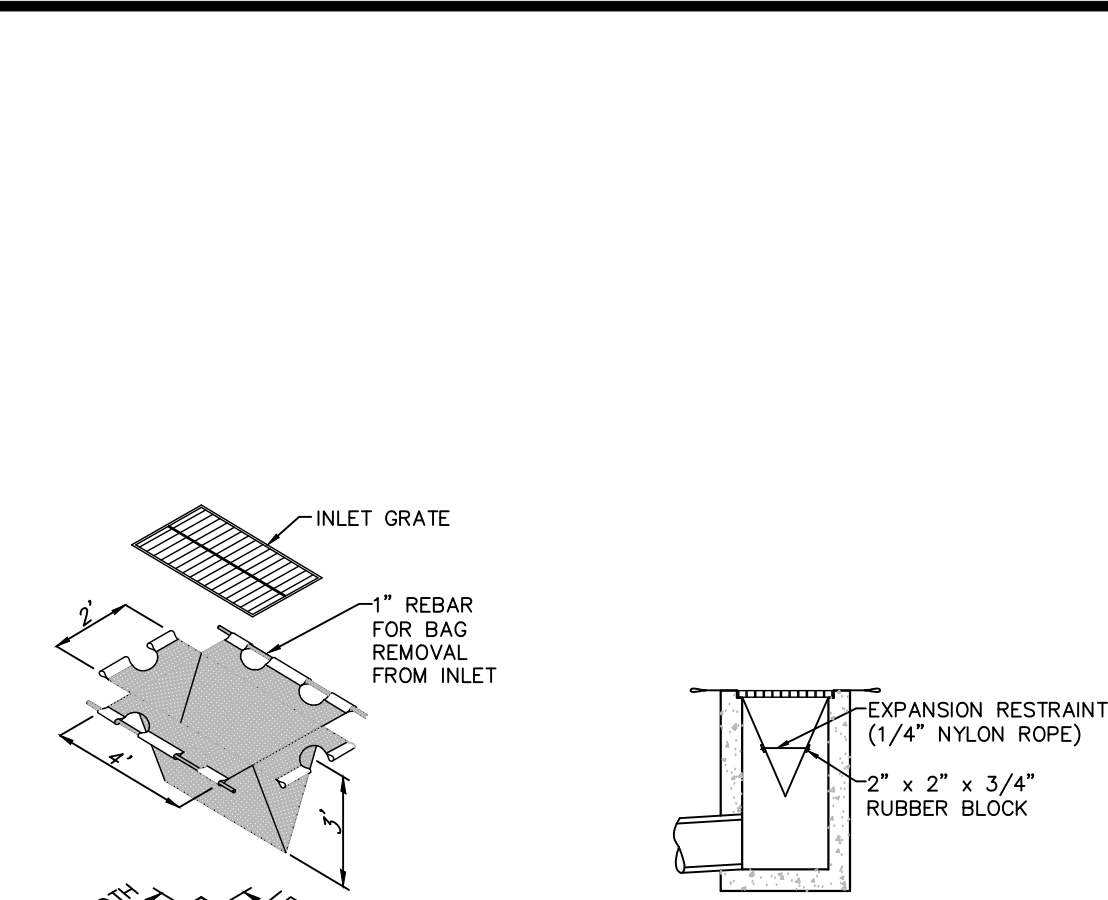
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5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

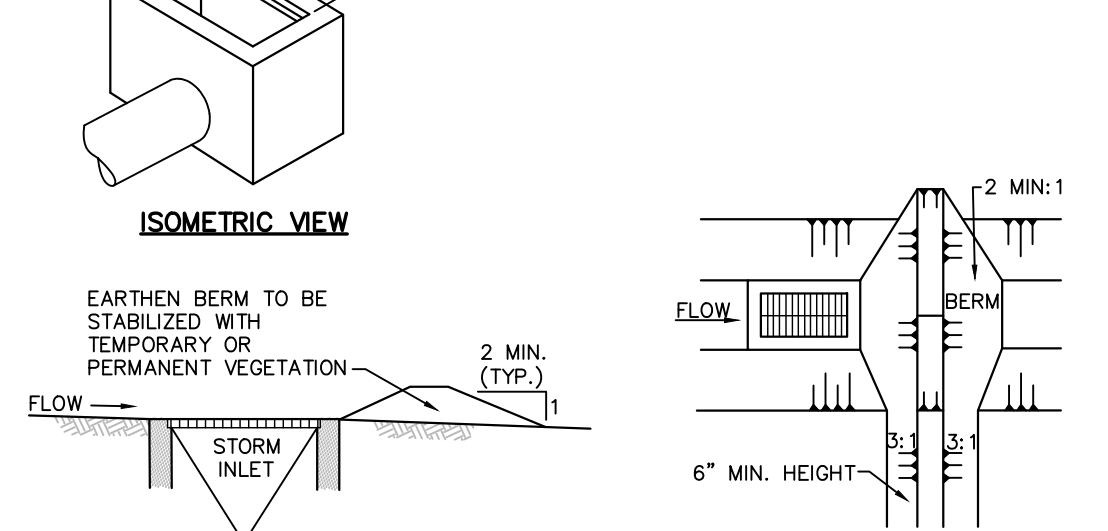
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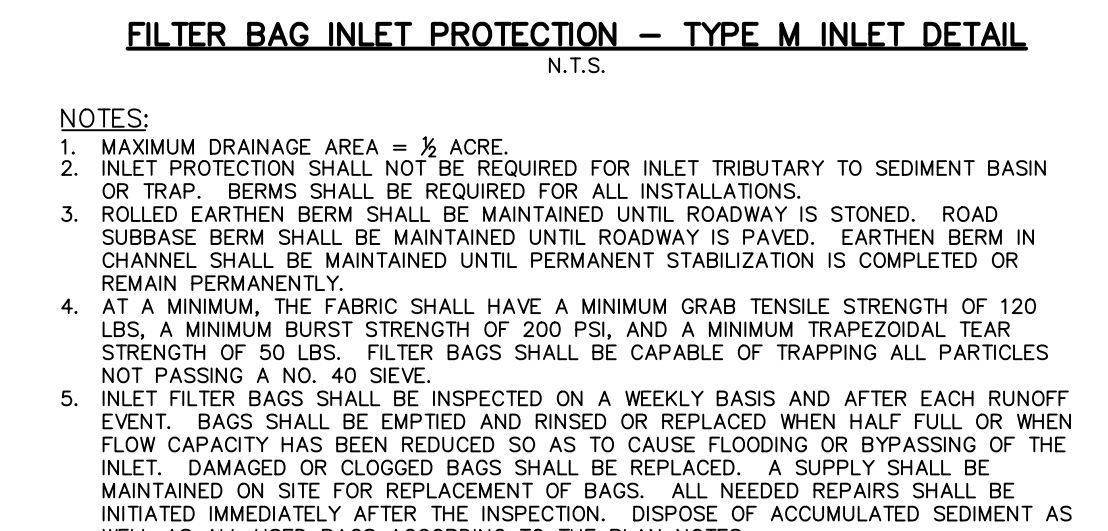
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PUMPED WATER FILTER BAG WITH COMPOST SOCK DETAIL
N.T.S.



FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL
N.T.S.



ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL
N.T.S.

1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

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NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE OR MINIMUM OF 20 FEET.

2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

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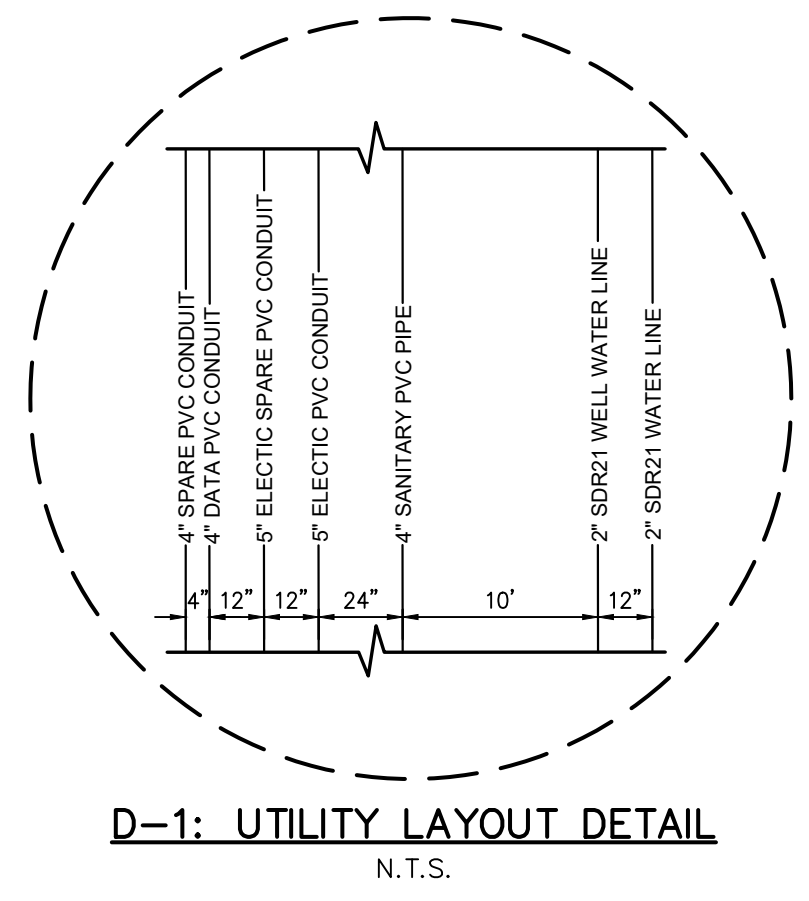
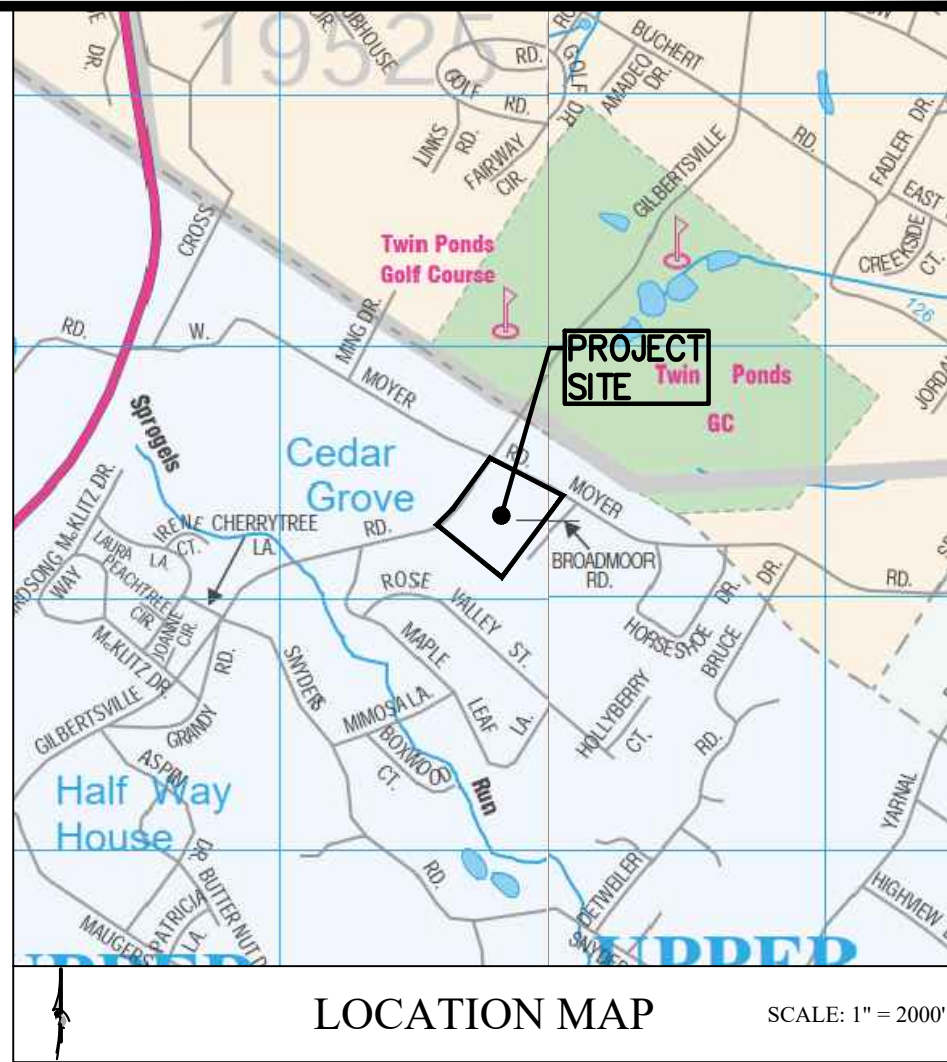
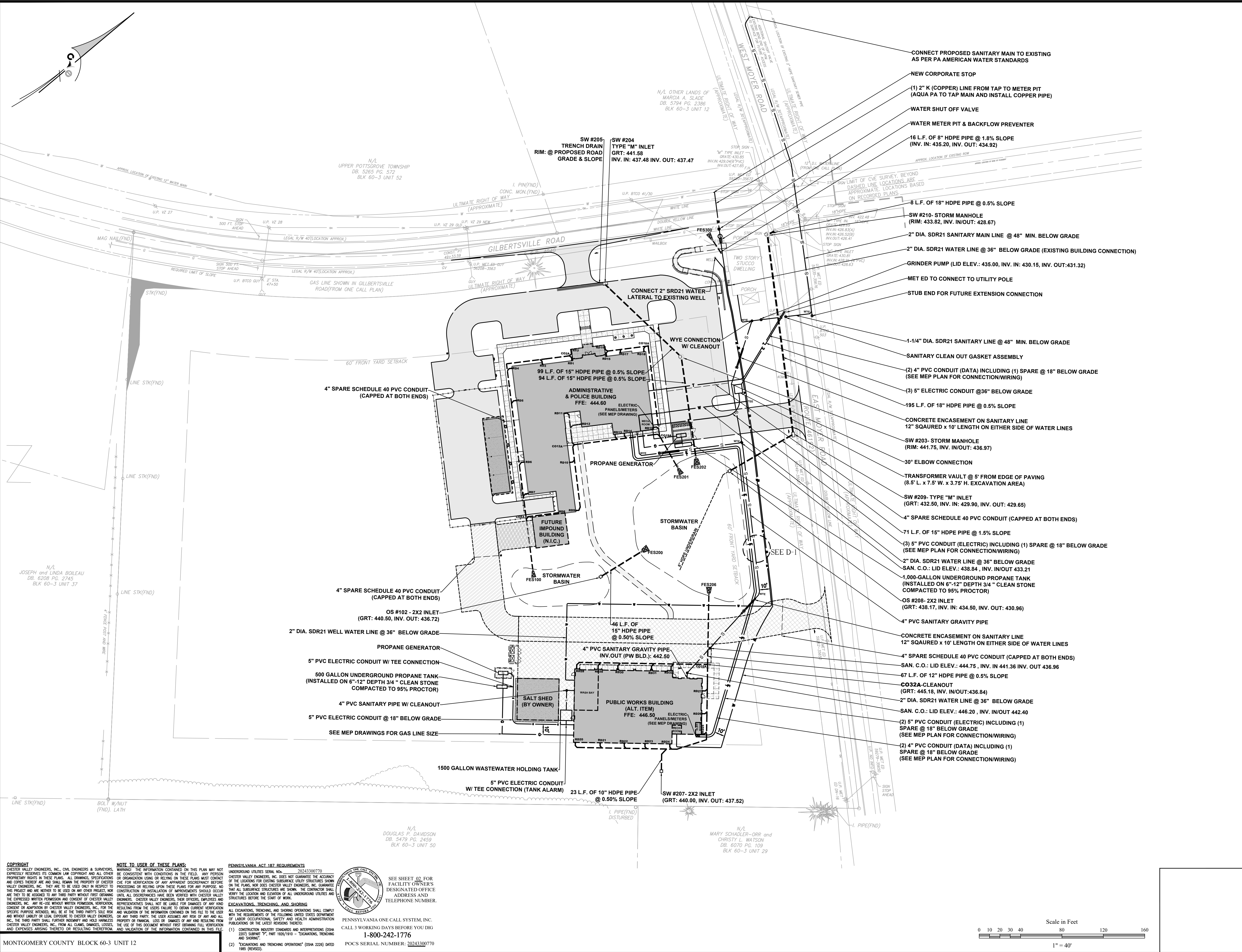
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.

2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUN



UTILITY PLAN

| NO. | | DATE | | REVISION | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|------------------|---------------------------|--|
| <div>CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA</div> | | | | | |
| <div>ChesterValley ENGINEERS, INC.</div> | | | | PROJECT NO. 22096-2000 | |
| 112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.cve-engineers.com | | | | F.B. | |
| SCALE 1"=40' | DATE 03/31/2025 | DRAWN BY HL | CHECKED BY MJ | DRAWING | |

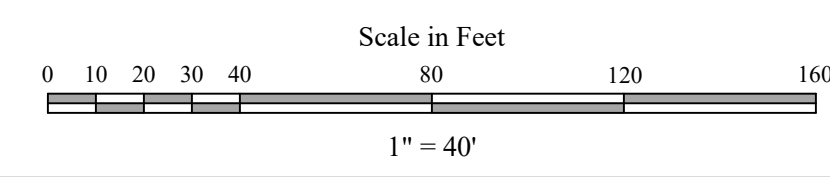
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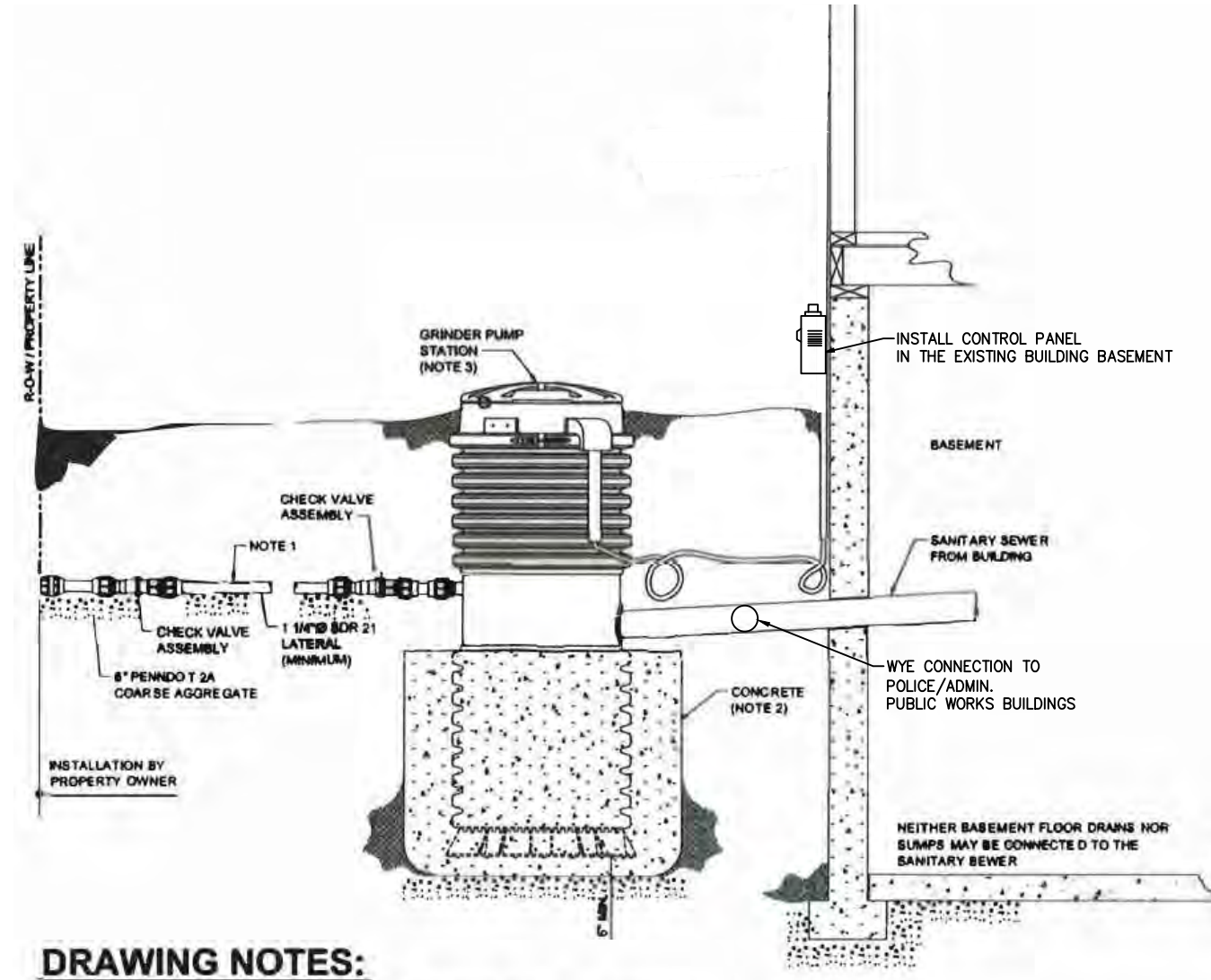
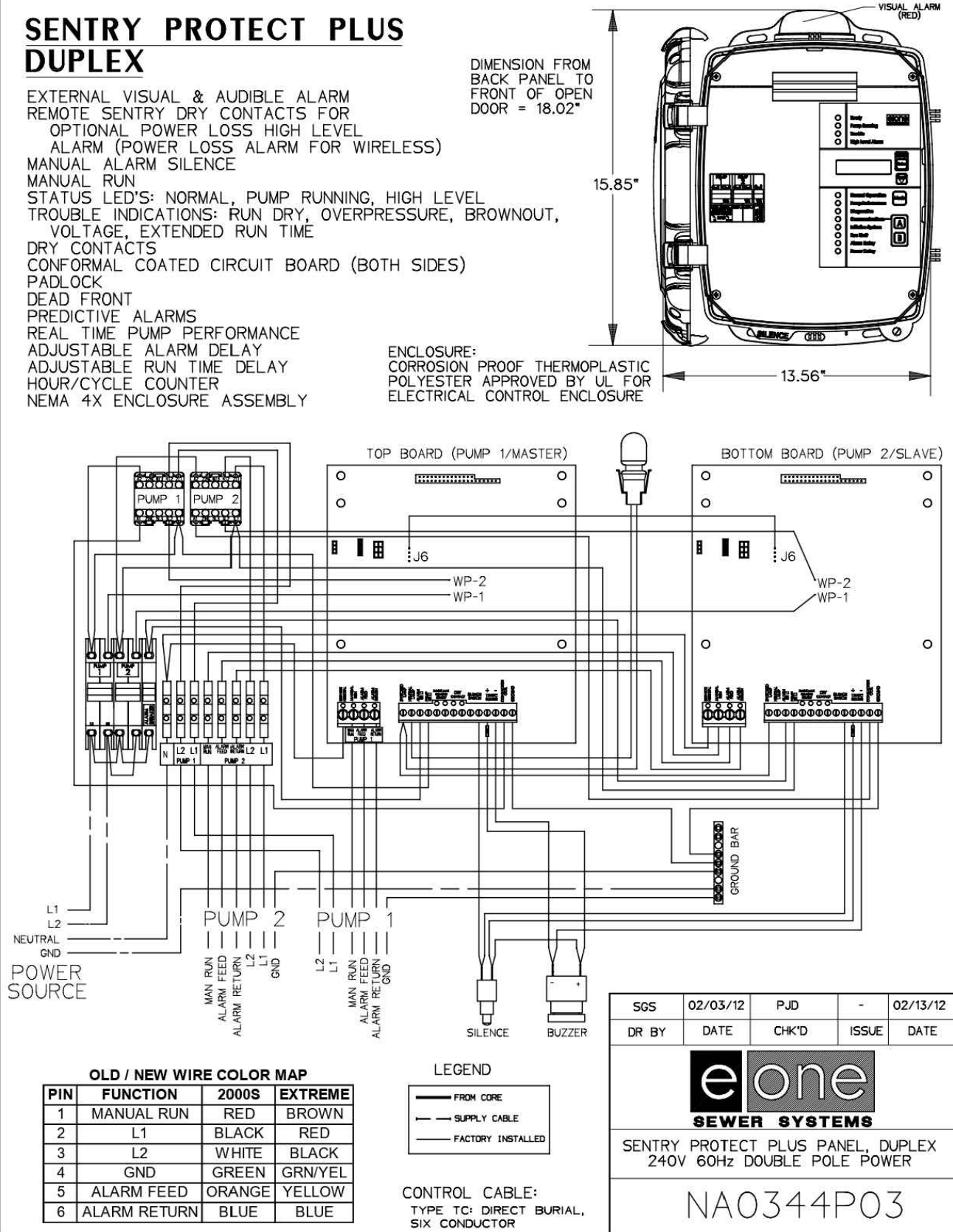
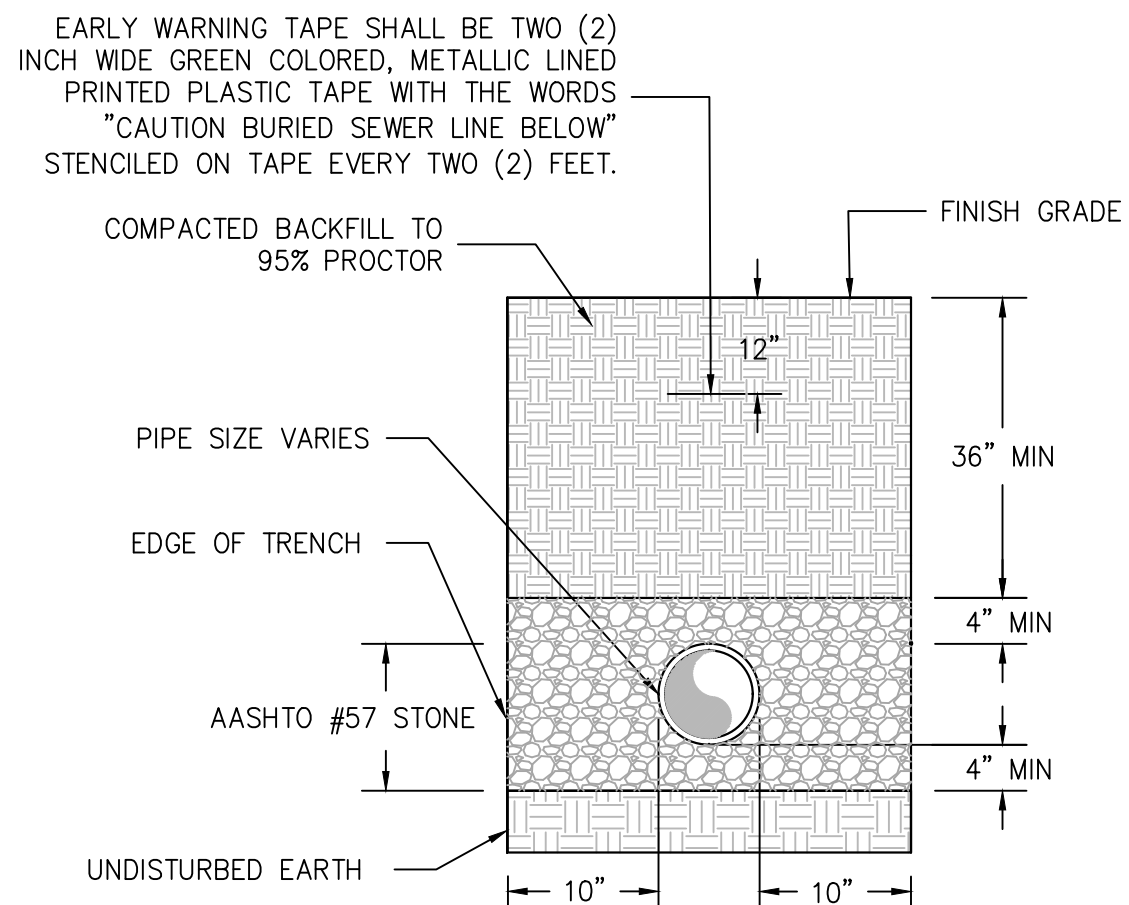
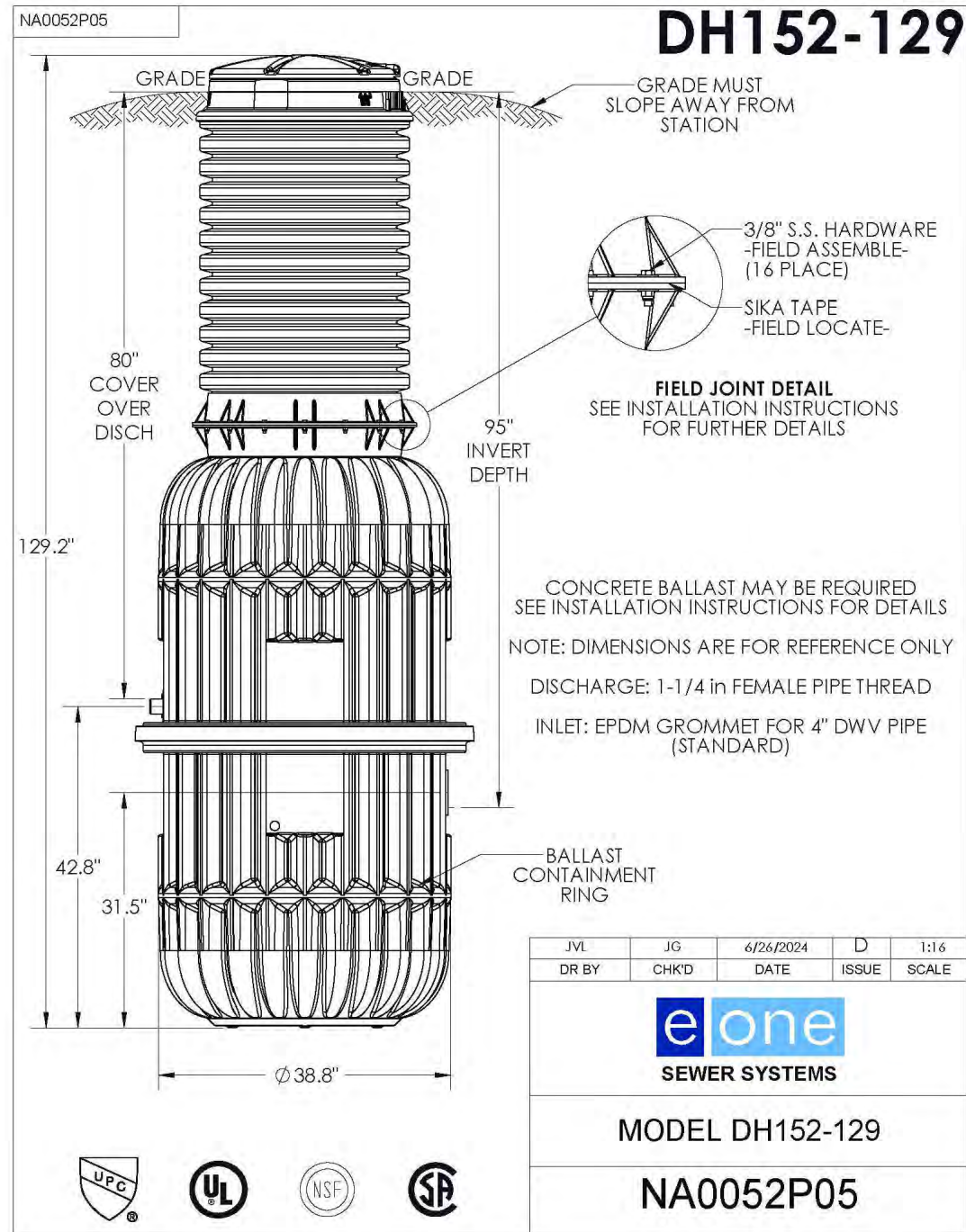
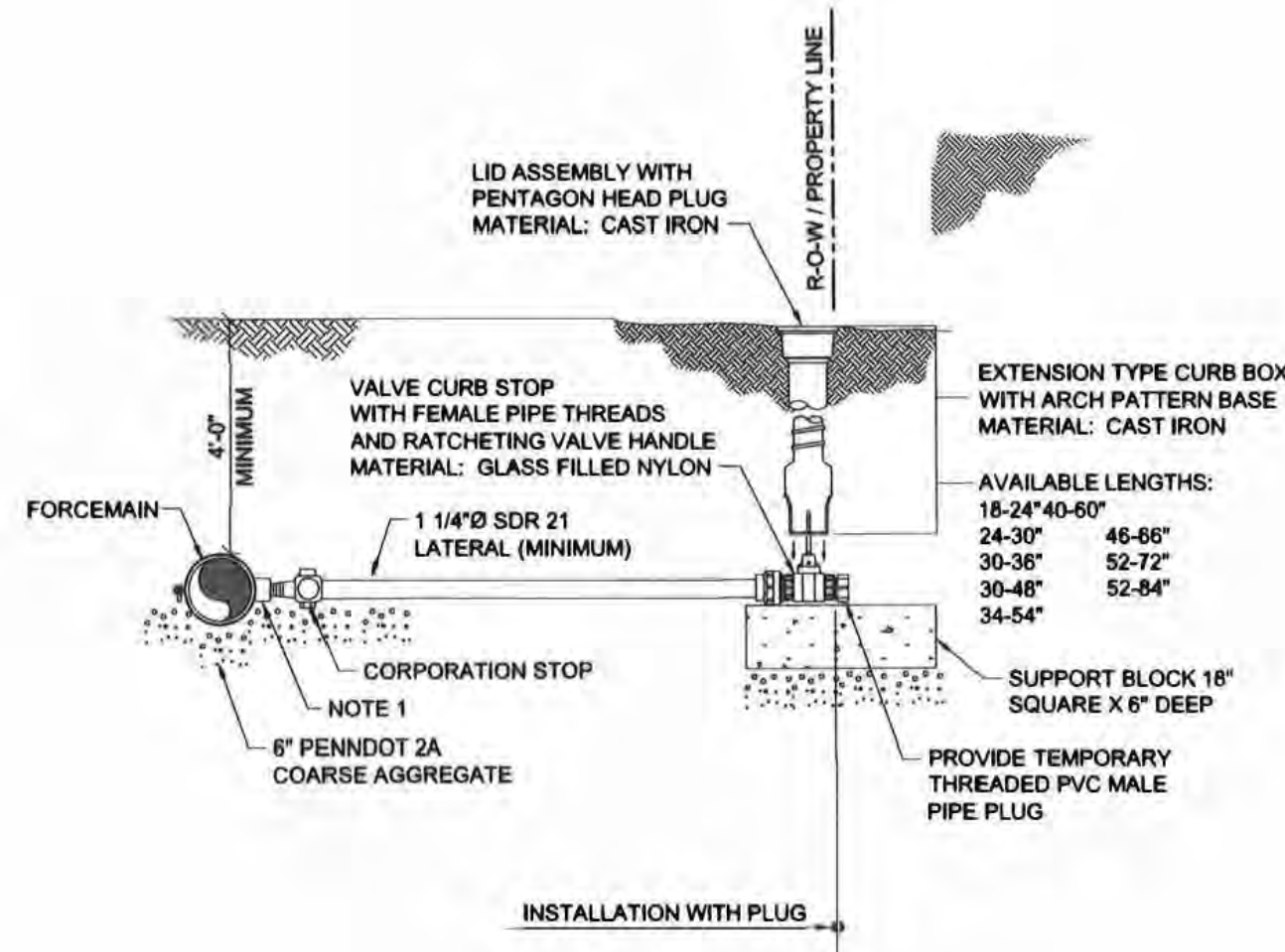
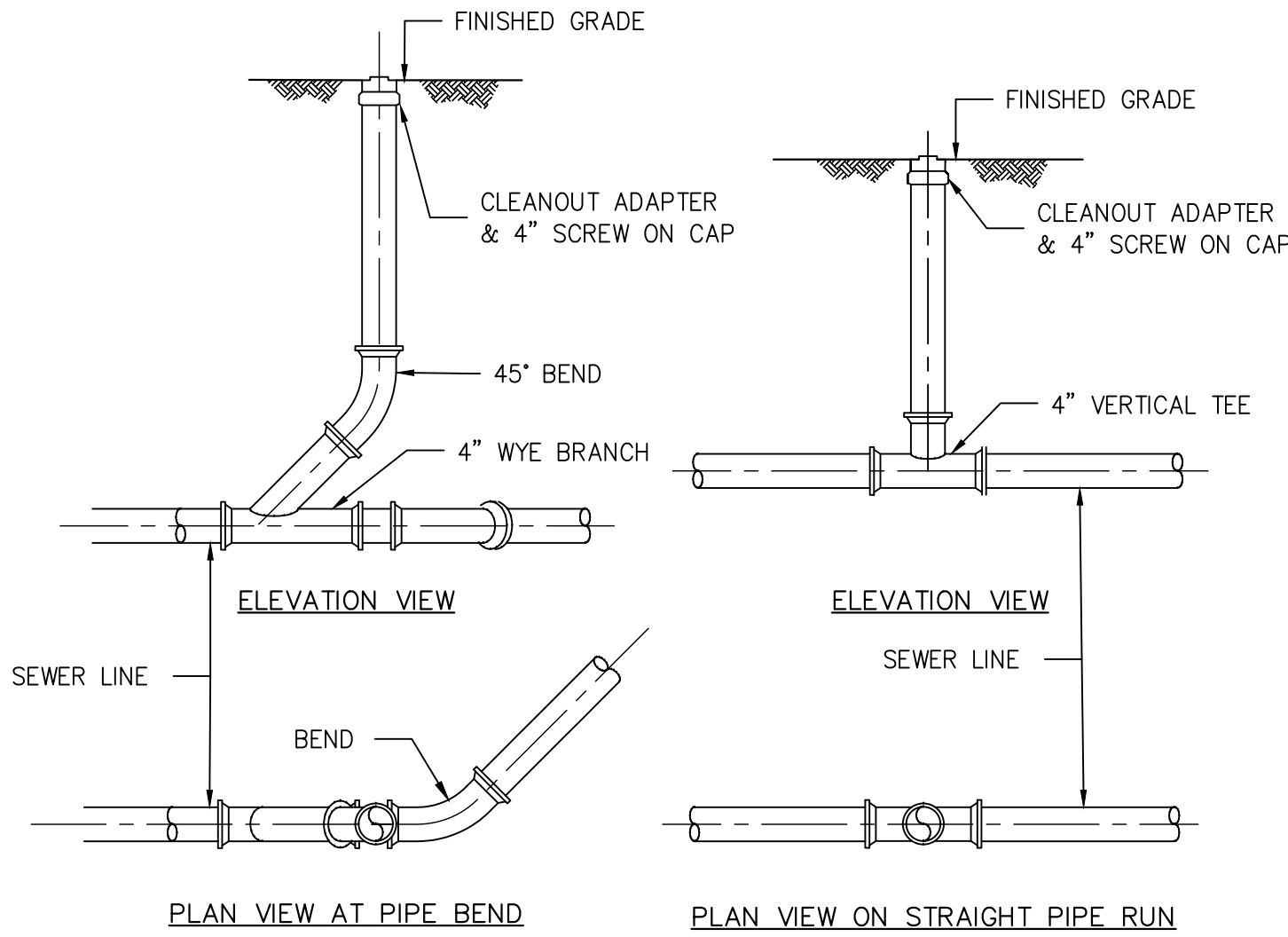
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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO.: 20243300770
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EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2201) SUBPART PP, PART 1926.1019 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS (OSHA 2225) DATED 1989 (REVISED).

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

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





- DRAWING NOTES:**
1. PROVIDE CONTINUOUS UPWARD SLOPE TO THE LATERAL ASSEMBLY CONNECTION.
 2. INSTALL CONCRETE AS REQUIRED TO PROPERLY ANCHOR THE UNIT. MINIMUM DIMENSIONS: 50 INCHES DIAMETER, AS HIGH AS THE FLUTED SECTIONS OF THE STATION. INSTALL TWO EMBEDDED LIFT HOOKS INTO THE TOP OF THE CONCRETE AT 180°.
 3. TO PROVIDE THE MINIMUM 6-INCH CONCRETE FOUNDATION. PRECAST CONCRETE BASES MAY ALSO BE USED. THEY MUST BE AT LEAST 6 INCHES THICK BY 50 INCHES IN DIAMETER, AND CAST WITH AT LEAST 6 NUMBER 4 REBARS EXTENDING AT LEAST 4 INCHES (AND HOOKED) INTO THE BASE AND AT LEAST 8 INCHES (AND HOOKED) INTO THE COLLAR.
 - GRINDER PUMP SHALL BE SIZED TO EXCEED THE PRESSURE IN THE SANITARY SEWER FORCEMAIN.

GRINDER PUMP INSTALLATION DETAIL
N.T.S.

UTILITY DETAILS (SANITARY)

| | | | |
|---------------------------------------------------------------|--|---------------------------------------------------------------|--|
| PROJECT NO. | | 22096-2000 | |
| F.B. | | F.B. | |
| SCALE | | DATE | |
| 1"=40' | | 03/31/2025 | |
| DRAWN BY | | CHECKED BY | |
| HL | | MJ | |
| DATE | | DATE | |
| 03/31/2025 | | 03/31/2025 | |
| DRAWING | | DRAWING | |
| 112 Moores Road, Suite 200, Malvern, PA 19355 | | 610-644-4623 | |
| www.chestervalley.com | | www.chestervalley.com | |
| ChesterValley ENGINEERS, INC. | | ChesterValley ENGINEERS, INC. | |
| CONSTRUCTION PLANS FOR | | CONSTRUCTION PLANS FOR | |
| UPPER POTTS GROVE MUNICIPAL COMPLEX | | UPPER POTTS GROVE MUNICIPAL COMPLEX | |
| 2290 GILBERTSVILLE ROAD | | 2290 GILBERTSVILLE ROAD | |
| UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | |

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 20243300770
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DISCAVATIONS, TRENCHING, AND SHORING
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(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2225) DATED 1989 (REVISED).

PENNSYLVANIA ONE-CALL SYSTEM, INC.
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1-800-242-1776
POCS SERIAL NUMBER: 20243300770

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

The contractor shall contact the Company prior to beginning work to discuss the details of the transformer foundation such as position, orientation, working clearances, barrier protection, construction specifications, and inspection procedures. The contractor is responsible for purchasing as well as installing the necessary materials and equipment for the secondary rack and secondary rack enclosure (if needed). The contractor/developer shall coordinate site preparations with the desired delivery date. The contractor shall provide a clear and firm (e.g., concrete, asphalt, or grasetcrete) approach to within ten (10) feet of the transformer. The contractor shall ensure that the approach is free of any materials that may block the use of delivery vehicles or Company vehicles (e.g., crane access to the transformer).

The developer/contractor is responsible for the excavation to install the transformer foundation and for backfilling afterward. The excavation shall be two (2) feet wider than the vault dimensions (shown Exhibit 25, page 2). The excavation depth shall be 45 inches deep for 42-inch high foundations and 54 inches deep for 54-inch high foundations. The bottom of the excavation shall be compacted. The crushed stone shall be leveled and compacted in the bottom of the excavation as a base. Pavement (concrete, asphalt, or grasetcrete) shall be provided to within ten (10) feet of the installation for Company access. The transformer shall be installed on a 4" x 4" x 8" lumber offset to the side for temporarily unloading the foundation top at delivery time.

Conduits shall extend near the corners of the foundation (refer to Exhibit 25, page 1) through knockouts to provide for proper cable bending radius and pulling set-up and to facilitate cable routing (when needed). Conduits shall have end bells and shall be terminated flush with the inside surface of the transformer. The customer shall provide the conduit knockout areas around the conduit penetration into the foundation to transformer to prevent water migration.

The developer/contractor will furnish and install all service cables as required per Exhibit 1. The developer/contractor shall allow sufficient slack, approximately five (5) feet, in the service lateral cables after they are racked. The slack allows the service cables to be trained so that the weight of the cables will not pull the transformer out of position. The developer/contractor shall request the transformer building to provide the transformer building. The developer/contractor shall supply and install cable racks (e.g., 30-inch rack made by A.B. Chance (HUBBELL), using the inserts, on the sides) of the foundation to support the service cables a minimum of 12 inches above the ground surface. Refer to Exhibit 13 for 30-inch galvanized cable rack and hooks, and ASTM A515 for zinc coating (hot dip) on iron and steel hardware.

The contractor shall seal around the service cables inside the conduits (with approved foam) to prevent migration of water or gases. All unused ducts shall also be capped.

Backfill on all sides up to finish grade with 6" minimum of ASTM A577 crushed stone to form a reservoir to contain the transformer oil in case of a leak.

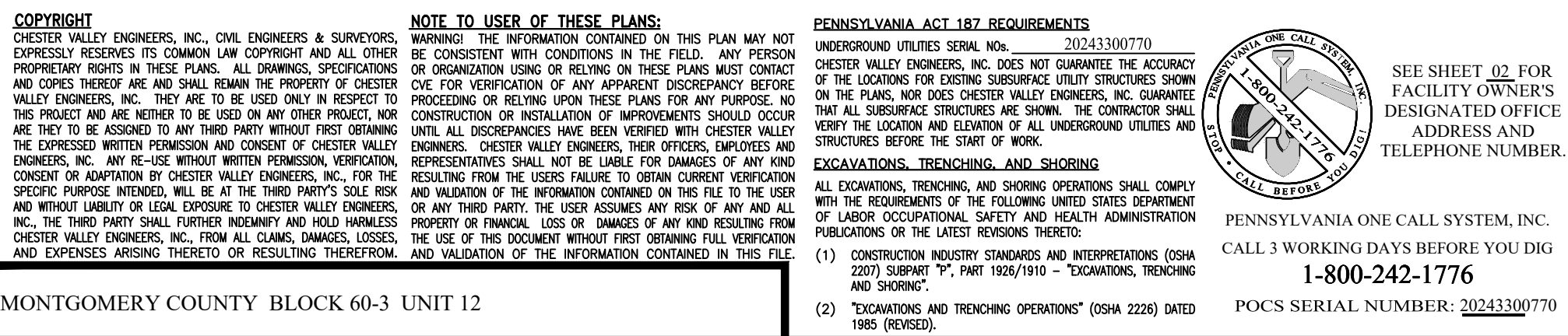
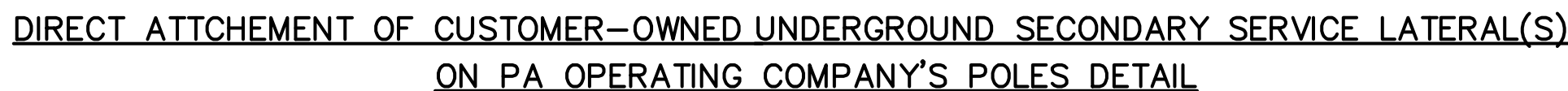
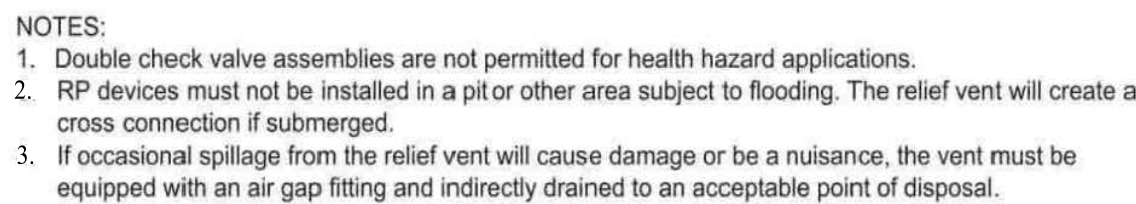
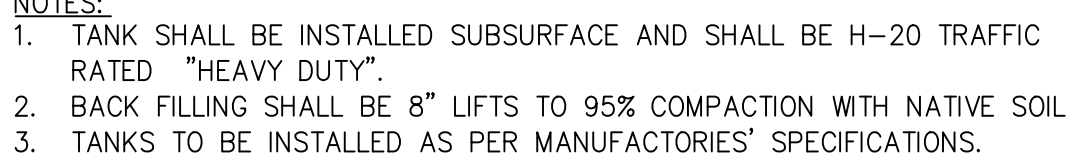
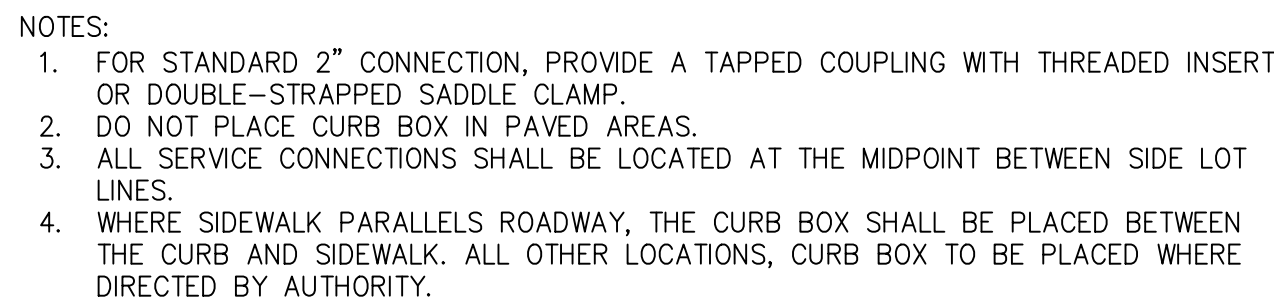
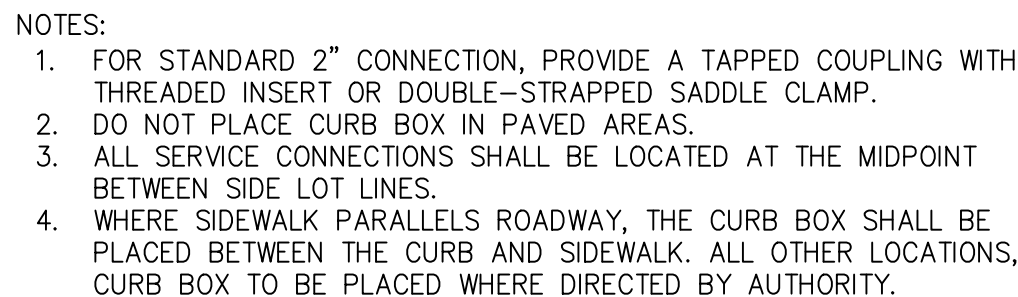
The contractor shall install a continuous loop of #2 bare, seven (7) strand, soft drawn copper ground wire underground with a minimum of 100 feet of continuous loop around the perimeter of the vault excavation in undisturbed earth (refer to Exhibit 25, page 1). Both ends of the ground wire shall enter the foundation through a one (1) inch diameter hole to be drilled or chiseled in the upper right-hand corner of the foundation. Each ground wire tail shall extend fifteen (15) feet inside the vault beyond the knockout point.

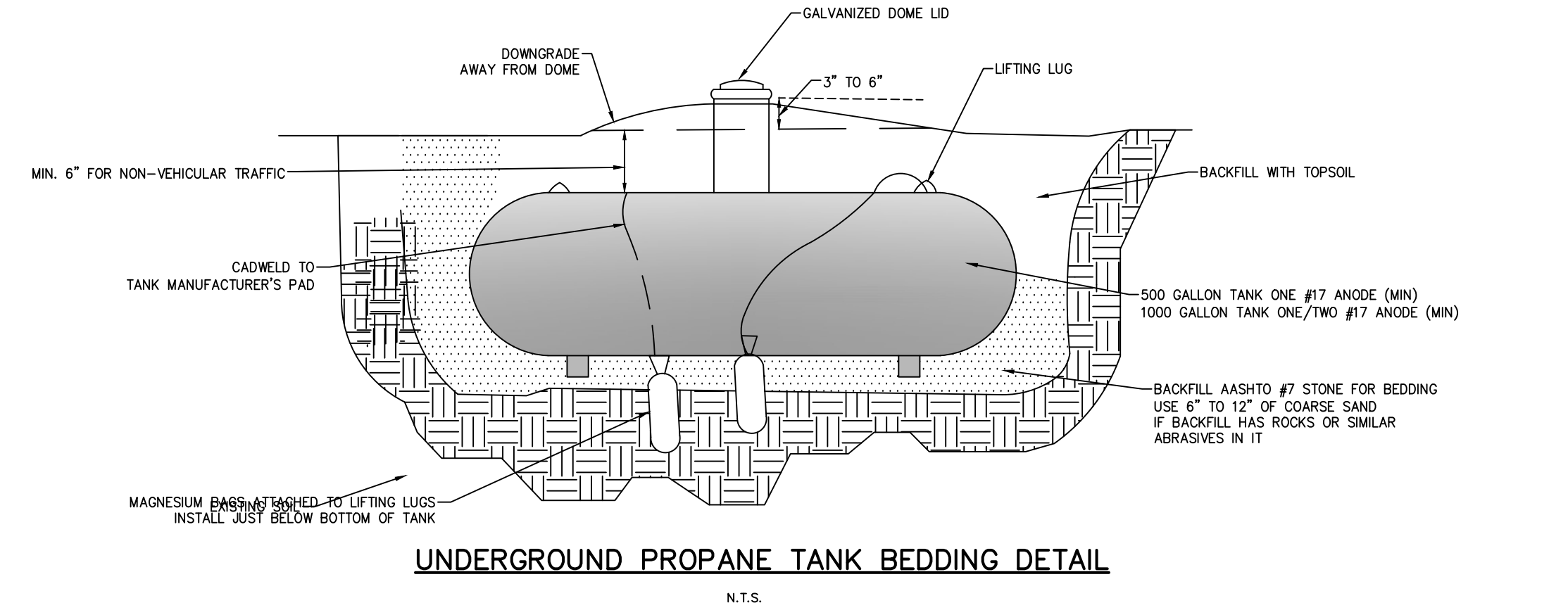
The decision to open the pump drainage or leave it closed will be made by the Company based on field conditions. The contractor is responsible for taking corrective action (improve drainage, pump field, etc.) for a foundation that fills with water and water is leaking through service conduits into the transformer building. The area surrounding the foundation shall be graded so that ground water will not collect.

The contractor shall install protective barriers when the transformer is located in an area exposed to vehicular traffic (refer to Exhibit 30), consult the Company for details.

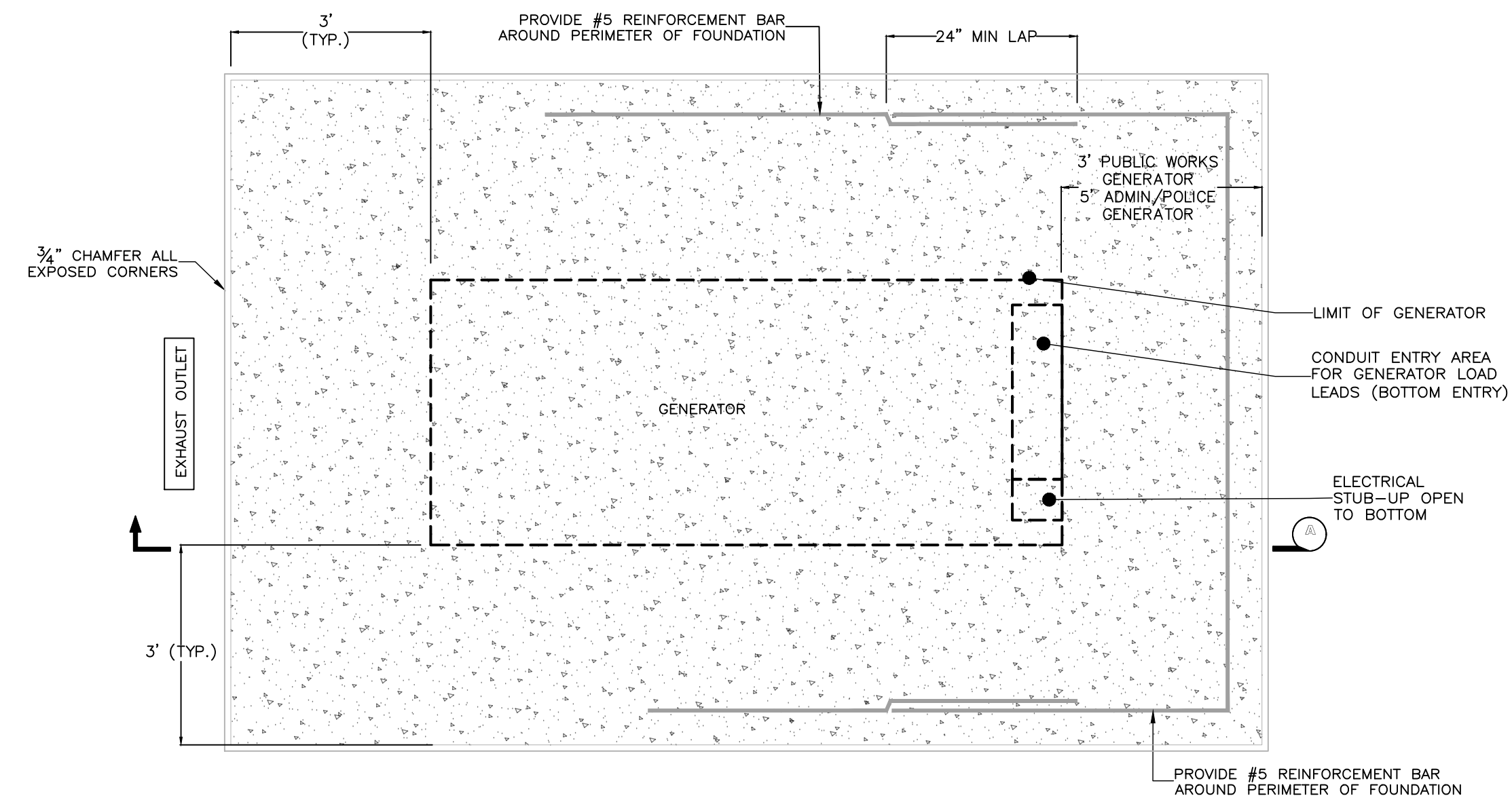
0 The deeper base for the 1500-2000 kVA transformer is used when secondary conduit configuration is not required. The 34.5 kV/1500-2000 kVA NESC common cover is used when secondary conduit configuration is required.

1 Foundation for 34.5 kV/1500-2000 kVA transformer includes a 36-inch thick dividing wall between the high voltage and the low voltage compartments based 55-152" from the inside edge of the low voltage compartment side wall.



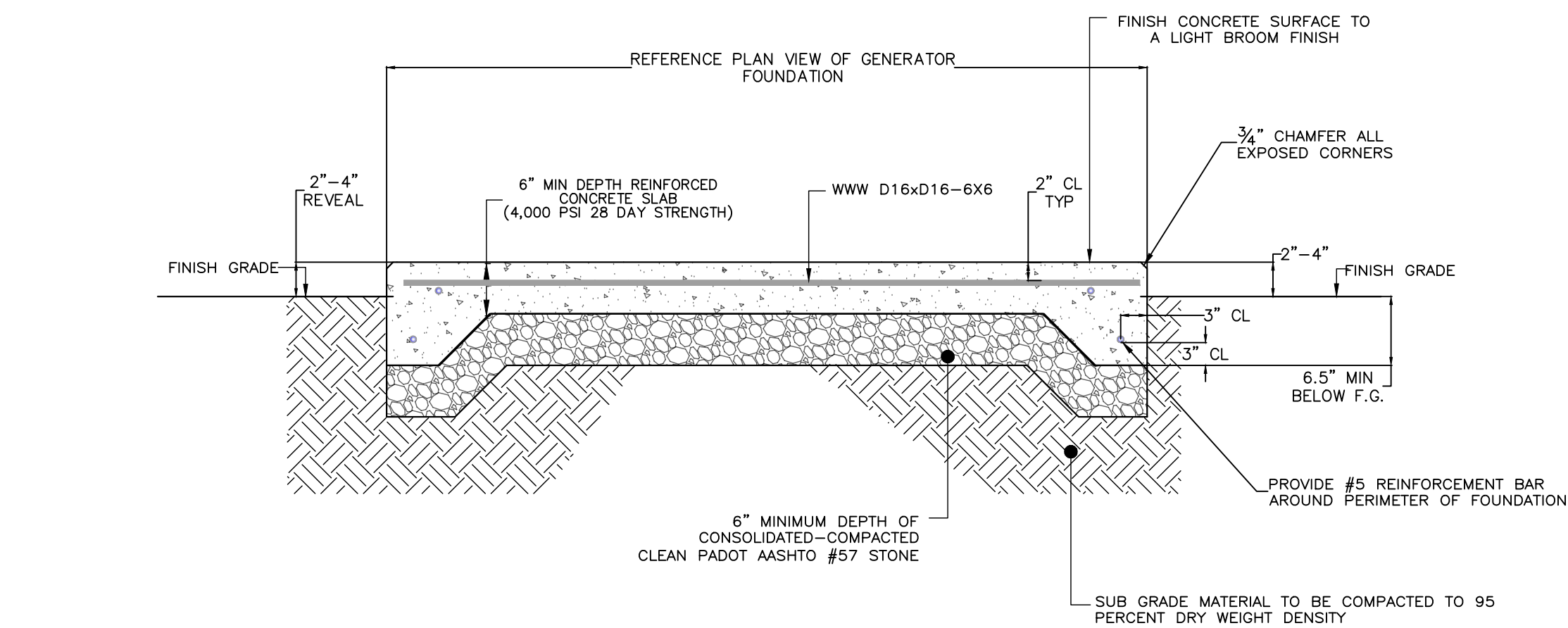


- NOTES:
1. MANUFACTURER: GENERAC
 2. MODEL: PROTECTOR SERIES, RG10090- 100 kW, 60Hz EMERGENCY STANDBY POWER GENERATOR



PLAN VIEW GENERATOR SLAB

N.T.S.



SECTION A-A GENERATOR SLAB (POLICE/ADMIN)

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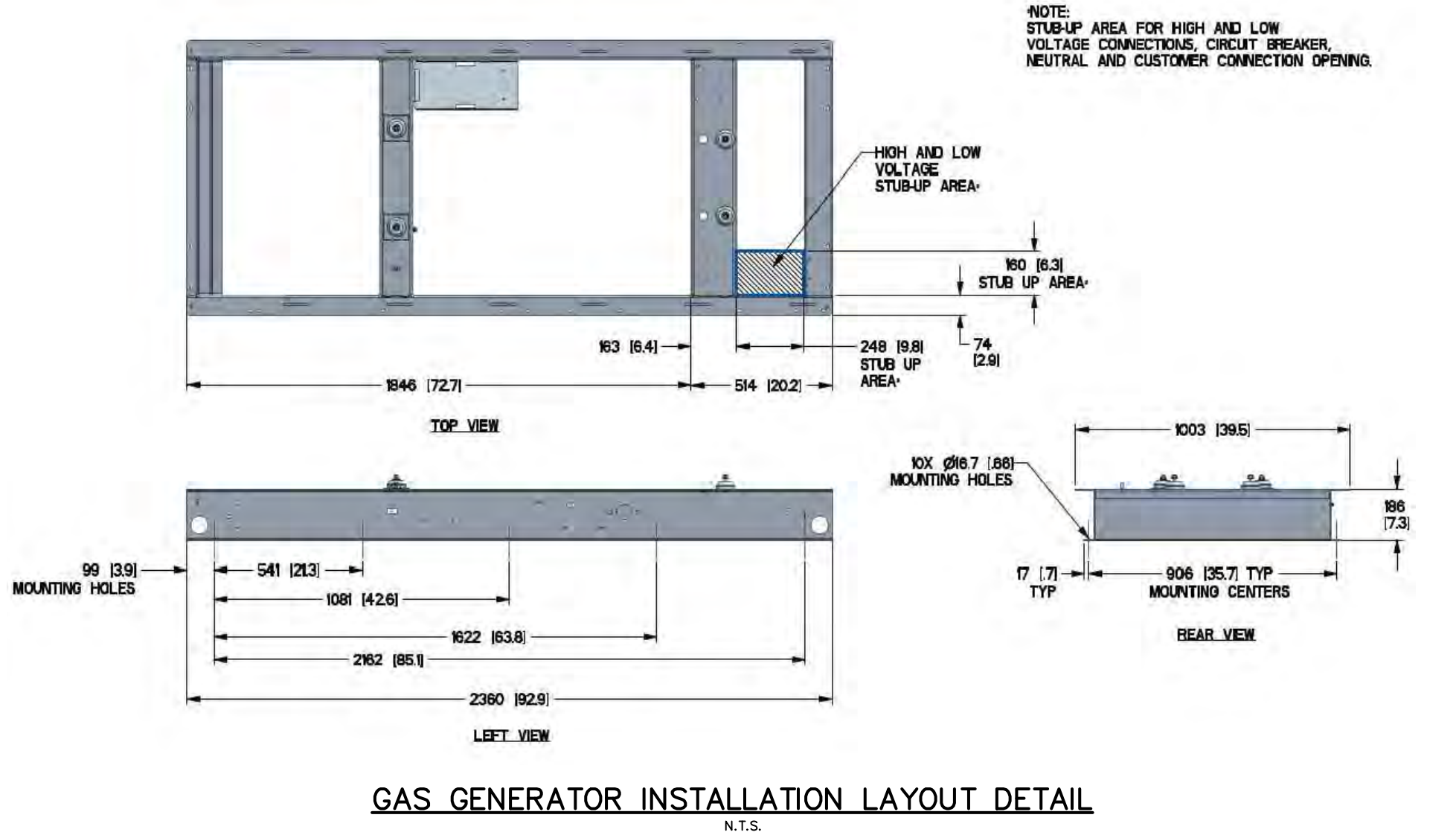
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(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2225) DATED 1989 (REVISED).

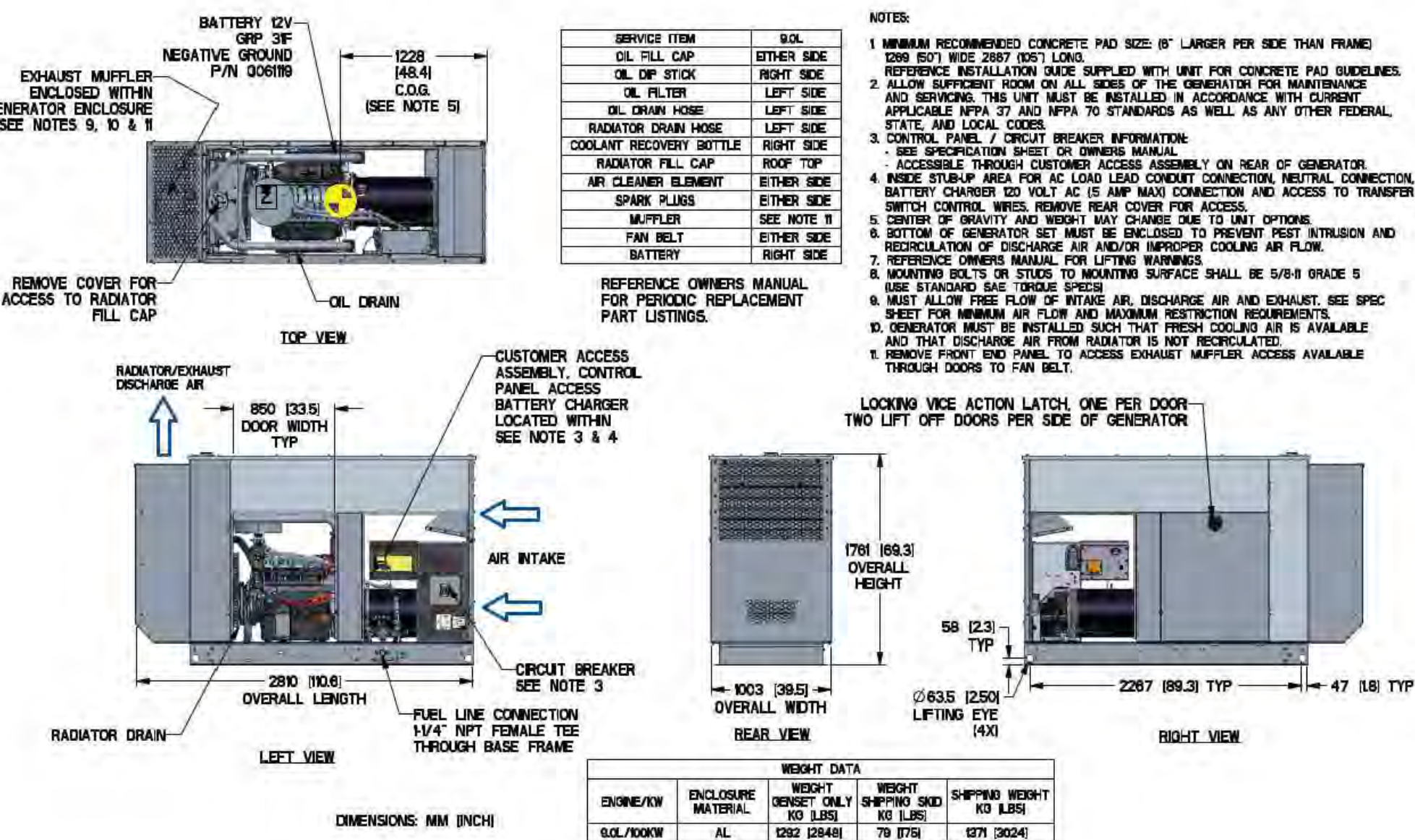
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PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20243300770



GAS GENERATOR INSTALLATION LAYOUT DETAIL

N.T.S.



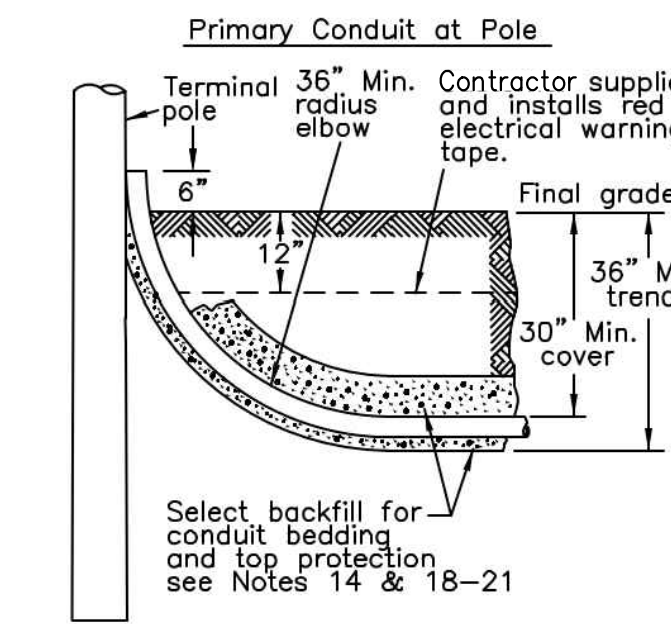
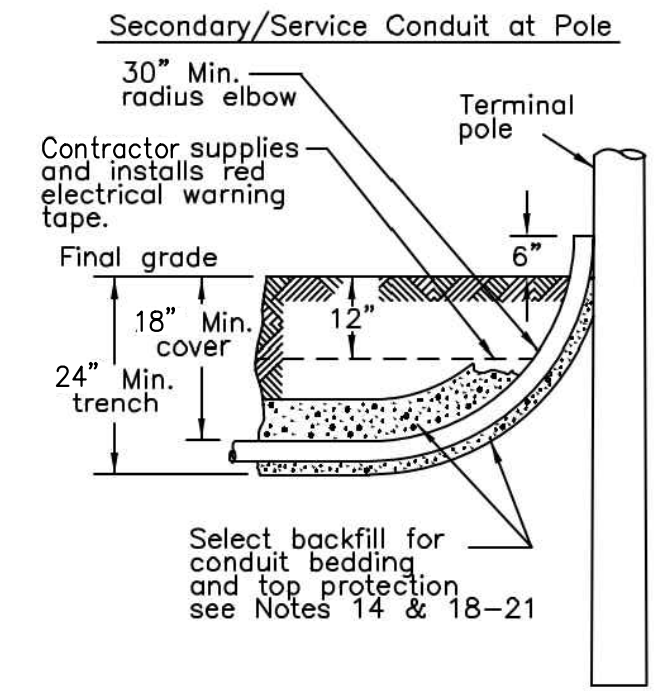
GAS GENERATOR INSTALLATION LAYOUT DETAIL

N.T.S.

- Notes:
1. Contractor shall provide trenching, conduit, and backfill to Company specifications.
 2. The contractor shall contact the Company for placement of both Company and customer electrical facilities and the approved trench route for connecting them.
 3. The contractor shall not deviate from the Company's approved trench route unless expressly approved in writing by the Company's engineering group representative. It shall be the contractor's responsibility to notify the Company of any conflicts that the proposed electrical design creates with obstacles, other facilities, or easements. Changes requested following the design acceptance by the contractor may require the Company to be compensated if facilities need to be relocated or project delays.
 4. Before excavation begins, the excavator shall mark the proposed facilities (in white) and then notify the appropriate state One-Call agency to mark other underground facilities (refer to Sections 3.13 and 3.14).
 5. The contractor shall also coordinate the installation of all other buried utilities that are installing their facilities nearby, jointly occupying the trench (with Company approval), or crossing the electrical supply trench.
 6. Below are the Company's required minimum clearances between electric supply lines and the following utility lines:
 - Steam or cryogenic lines - six (6) feet (use of an approved thermal barrier may reduce this clearance).
 - Fuel lines: four (4) feet for low-pressure natural gas, oil, propane, or other like fuels or ten (10) feet for gas lines that are high-pressure lines or are greater than four (4) inches in diameter.
 - Water, sewer, and telecommunication (i.e., telephone & CATV) lines - one (1) foot.
 - Clearances from telephone and CATV lines may be reduced to zero (0) feet or no deliberate separation (a.k.a. - random lay) if all involved parties agree and NESC [2017] Rule 354 is met.
 - Other utility companies (e.g., local steam, water, communication, sewer, and fuel companies) may require greater clearances than stated above.
 - If required clearances cannot be met (e.g., trenching through solid rock), clearances may be reduced to one (1) foot minimum if all involved parties agree.
 - Other facilities are prohibited from running above/below and parallel to the electrical cable without specific Company's approval.
 7. The Company's minimum cover requirements for the primary (> 600 V) and secondary (< 600 V) conduits are based on providing adequate cover per NESC Code (depth). It shall be the responsibility of the customer to ensure that the minimum required coverages over the conduits are always maintained. Any necessary corrections to the depth of cover or required mechanical protection to prevent damage to the conduits from surface activity shall be the responsibility of the customer. Minimum cover over the conduits shall be maintained until all stages of the construction are completed.

| Minimum Cover Requirements | | |
|----------------------------|-----------------------------|--|
| Voltage V (0-0) | Minimum Cover Over Conduits | |
| < 600 V | 24 inches | |
| > 600 V to 50 kV | 30 inches | |

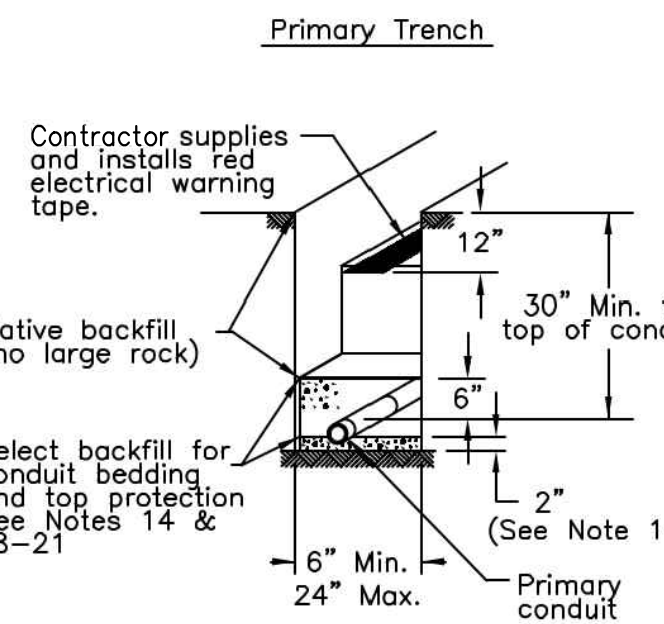
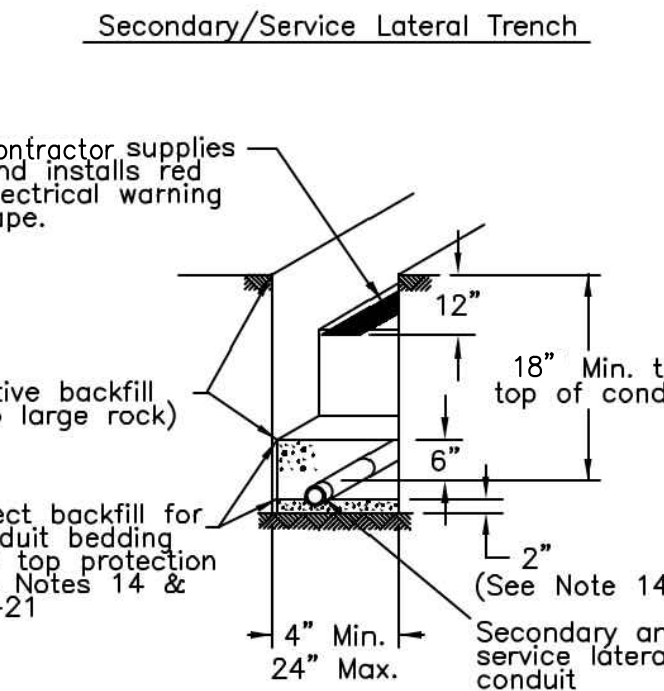
8. When primary (> 600 V to 50 kV) and secondary (< 600 V) conduits share the same trench and are located side-by-side, the depth of cover for both conduits shall be to the primary conduit requirement with a minimum of two (2) inches of separation. If the conduits are stacked, the primary conduit(s) shall be on the bottom at the required primary depth. The secondary/service conduit(s) shall be on top of the primary conduit(s) with a minimum separation of two (2) inches between the conduits.
9. See Exhibit 24, page 1 for details on the trench dimensions (width and depth requirements). Contractor shall contact the Company representative if the trench must be more than four (4) feet deep.



ELECTRIC CONDUIT TRENCHING AND BACKFILL DETAIL AND NOTES

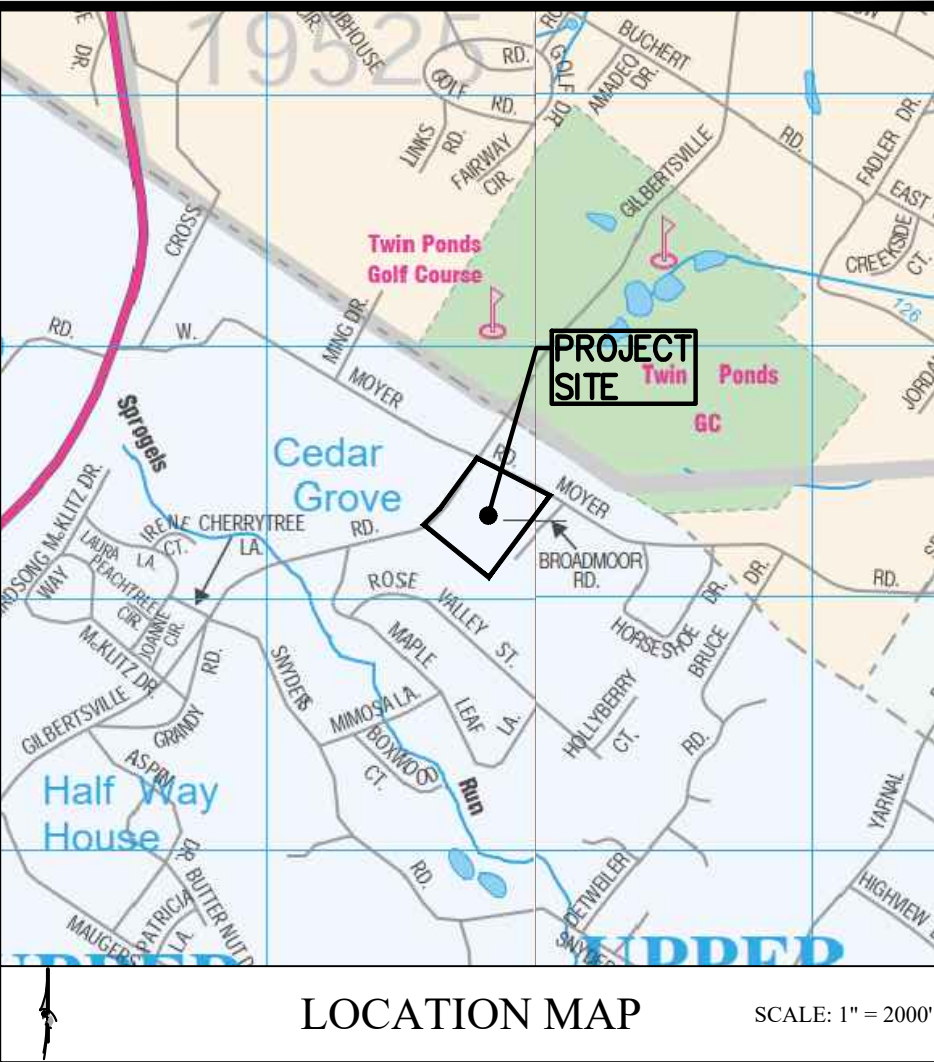
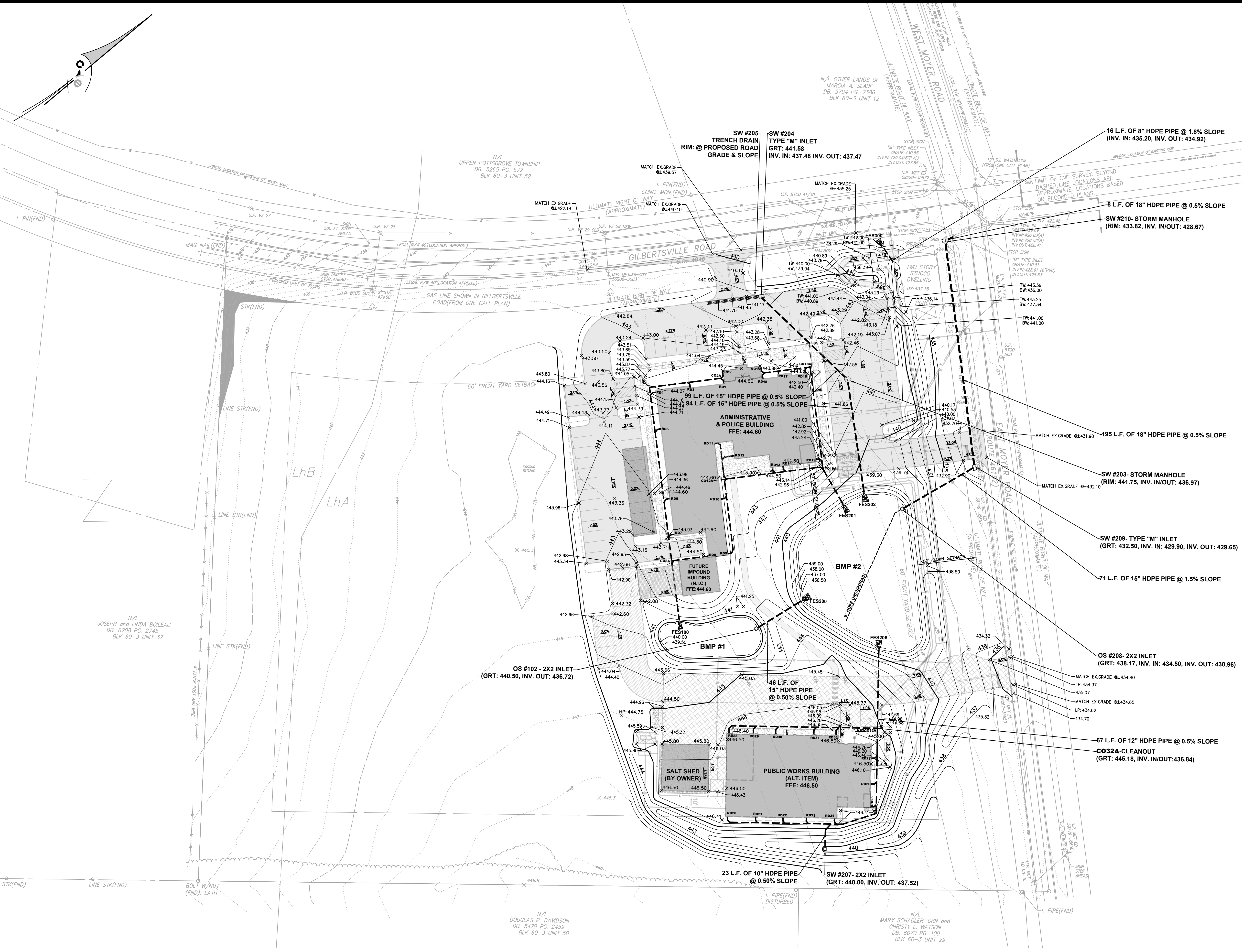
N.T.S.

10. The contractor shall clear the cable route of trees, tree stumps, boulders, or other obstructions at and below grade. The excavator shall grade the trench route to final grade level. The contractor shall be responsible for any damage caused by the excavator. This includes damage to any tree whose root system is subsequently damaged from the trenching operations. The excavator shall grade all trench routes to final grade.
11. The contractor shall not use power-excavating equipment within 18 inches of any existing buried cables or other electrical or communications facilities.
12. Excavated material ("spoils") should be placed on the field side of the trench (unless directed by the Company otherwise), two (2) feet from the edge of excavations (per OSHA Standard 1926.651(b)(2)).
13. Standing water in the trench should be removed by pumping or draining (per OSHA Standard 1926.651(b)(3)).
14. The bottom of the trench shall be relatively smooth, undisturbed earth, sand, or well-tamped earth which is free of rock, cinders, or sharp objects. Trench excavations in rocky soil may require a two-inch layer of select backfill on the bottom of the trench as determined by the Company.
15. Buried conduits shall be rigid PVC, heavy wall, sunlight resistant, listed and labeled, Schedule 40 conduit per NEMA TC2 (i.e., electrical grade). Additional requirements, such as concrete encasement of elbows or galvanized steel elbows, may be specified by the Company based on the specific design parameters of the conduit system and will be detailed in the electrical layout drawing. Contractor shall contact the Company for the proper minimum conduit diameters.
16. Customer-owned service lateral conduits (if used) shall be sized per NEC. Those conduits shall be supplied, installed, and covered by the contractor. Conduit for service laterals shall be a minimum of 3-inch diameter.
17. Secondary/service conduit elbows shall have a minimum radius of 30 inches. Service riser conduit shall be rigid PVC, heavy wall, sunlight resistant, listed and labeled, Schedule 80 conduit per NEMA TC2. Primary conduit elbows shall have a minimum radius of 36 inches for sizes from 3" to 5". For conduits 6 inch and larger, the elbows shall have a minimum radius of 48 inches.
18. All joints shall be glued together. Conduit shall be cleaned and confirmed with a mandrel 1/2 inch smaller than the conduit inside diameter. Unused conduits shall be plugged at each end to keep water and dirt out. When conduit runs are greater than twenty (20) feet, a 1/4-inch unbroken nylon or polypropylene pulling rope shall be installed in each conduit. If the Company cannot pull conductors through the conduit run, or if the pulling rope is broken or unusable because it is glued to the conduit, the contractor shall make the necessary repairs.
19. Before backfilling, the contractor shall verify that the Company and local electrical inspector have completed all required inspections of the trench and conduit. In addition, the customer shall verify other utilities that were approved to use joint trench have completed their work.
20. The contractor shall backfill around all conduits with six (6) inches of select backfill. Select backfill shall be graded sand, stone dust, limestone dust, rock free earth or topsoil. Materials that "set up" such as fly ash, culm and foundry waste are not acceptable. The remainder of the trench shall be backfilled with native soil and not contain large rocks (greater than two (2) inch diameter), rocks with sharp edges or other debris. An additional six (6) inches of mounded backfill is recommended to allow for settling.
21. Backfill should be compacted in six-inch layers by hand or using a pneumatic or vibrating tamping equipment to lessen the effects of settling. Note: machine compaction should not be used within six inches of the conduit (per NESC Rule 353A). Do not run wheels or tracks of equipment along the trench to compact the backfill as this could damage the conduits.
22. The contractor shall provide and bury a red "electrical" warning tape at least three (3) inches wide directly above all conduits twelve (12) inches below final grade as shown in Exhibit 24 (refer to NEC 300.5(D)(3)).
24. For cables located beneath roads under PennDOT jurisdiction, cables shall be installed in conduit, have a minimum of 36 inches of cover, and shall be completely backfilled with #2 RC aggregate.



UTILITY DETAILS (ELECTRIC & GAS)

| NO. | | DATE | REVISION |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--|------------|----------|
| CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | | |
| PROJECT NO. | | 22096-2000 | |
| SCALE | | DATE | DRAWN BY |
| 1"=40' | | 03/31/2025 | HL |
| CHECKED BY | | MJ | |
| DRAWING | | F.B. | |



GRADING/STORMWATER MANAGEMENT PLAN

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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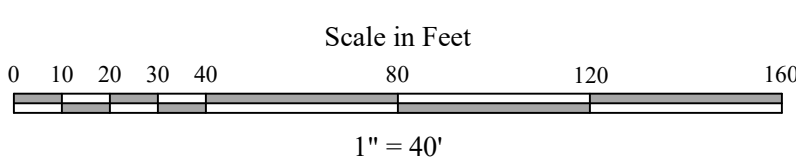
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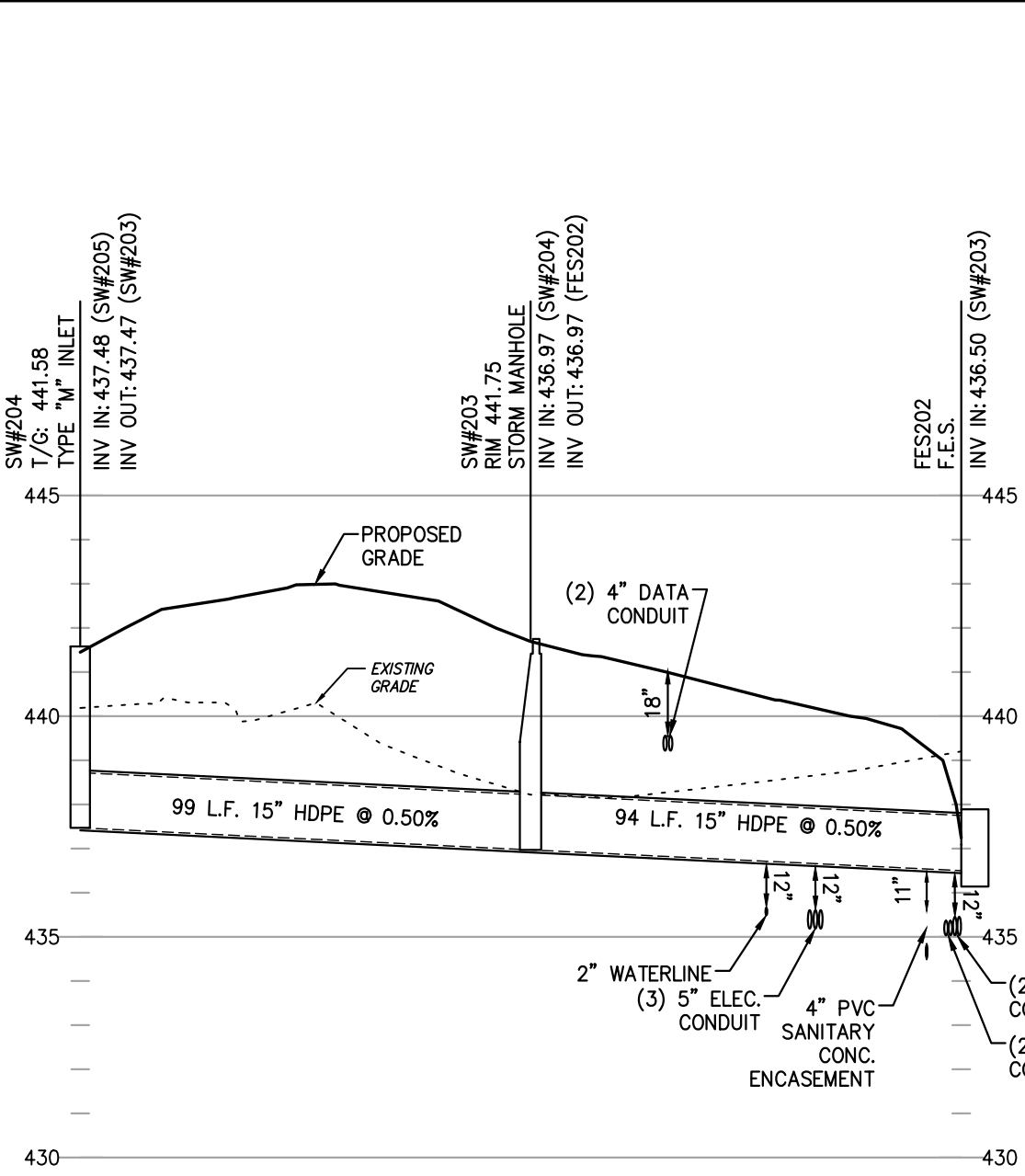
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CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.
EXCAVATIONS, TRENCHING, AND SHORING
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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2201) SUBPART P, PART 1025/1019 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2225) DATED 1989 (REVISED).

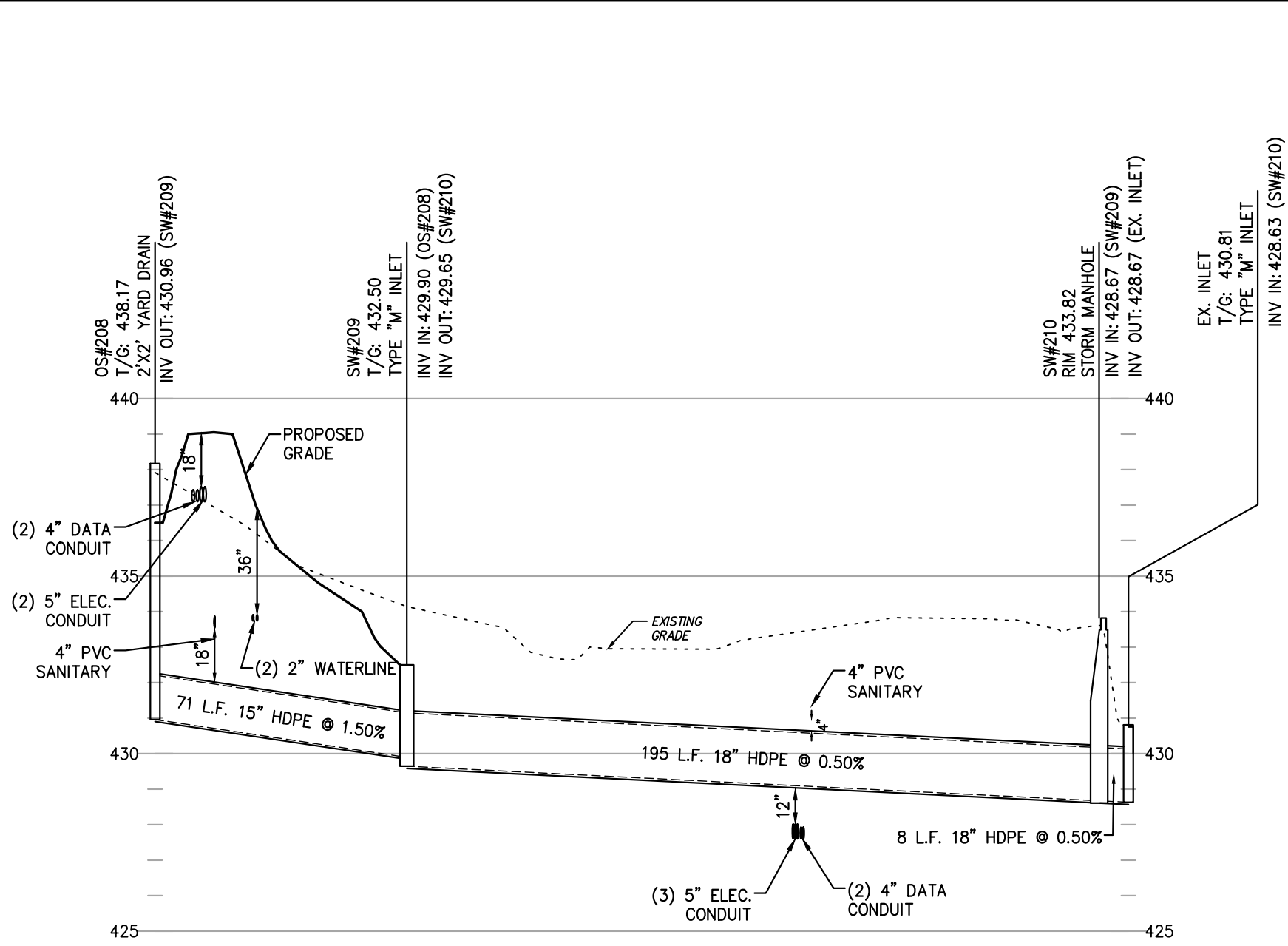
SEE SHEET 02 FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.
PENNSYLVANIA ONE-CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776
POCS SERIAL NUMBER: 20243300770

| SYMBOL | | DEPTH TO SEASONALLY HIGH WATER TABLE | | FREQUENCY OF FLOODING | | HYDROLOGIC SOIL GROUP | | HYDRIC SOIL RATING | |
|--------|--|--------------------------------------|--|-----------------------|--|-----------------------|--|--------------------|--|
| LHA | | 6" - 36" | | NONE | | C/D | | NO | |
| LHB | | 6" - 36" | | NONE | | C/D | | NO | |

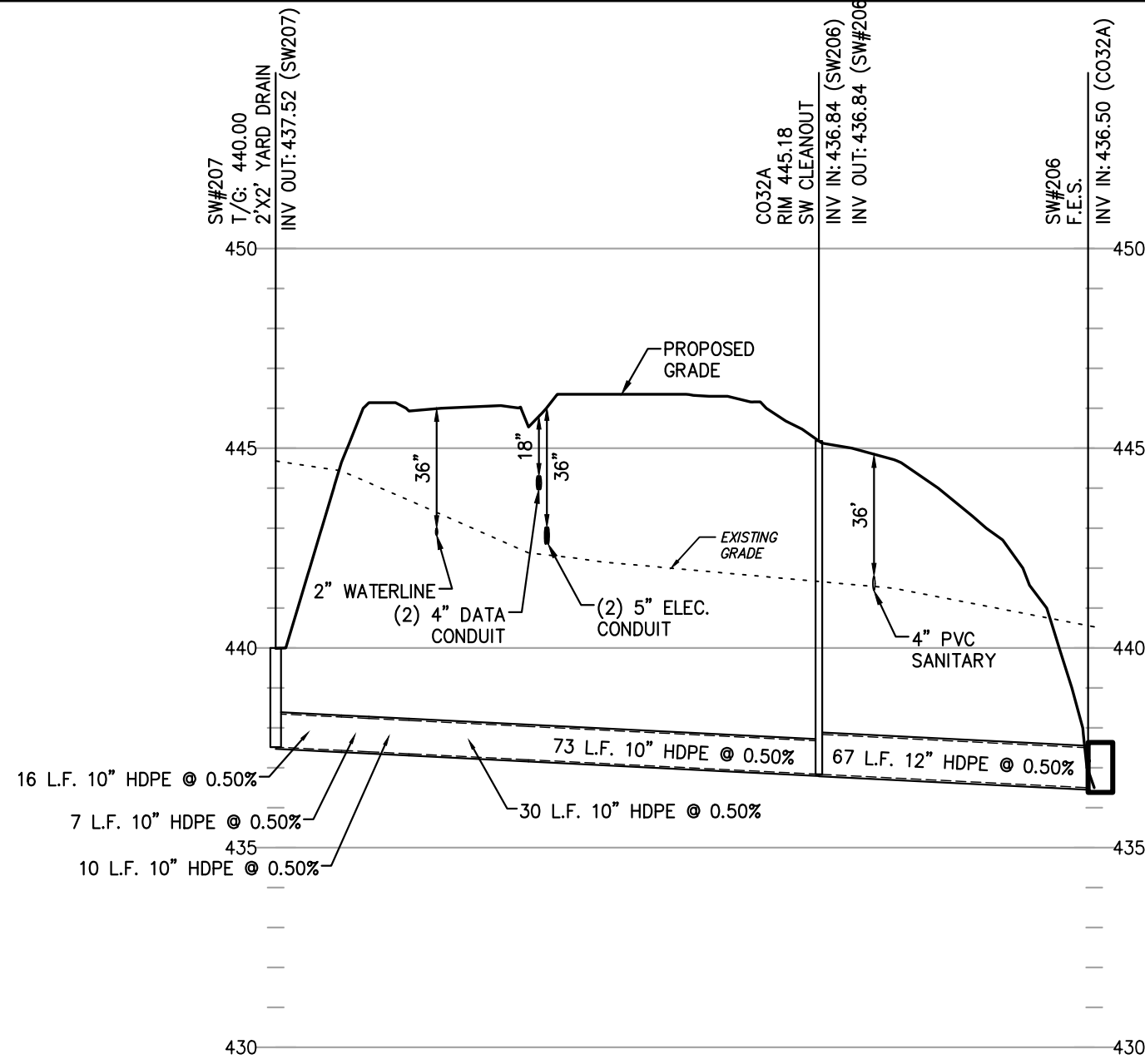




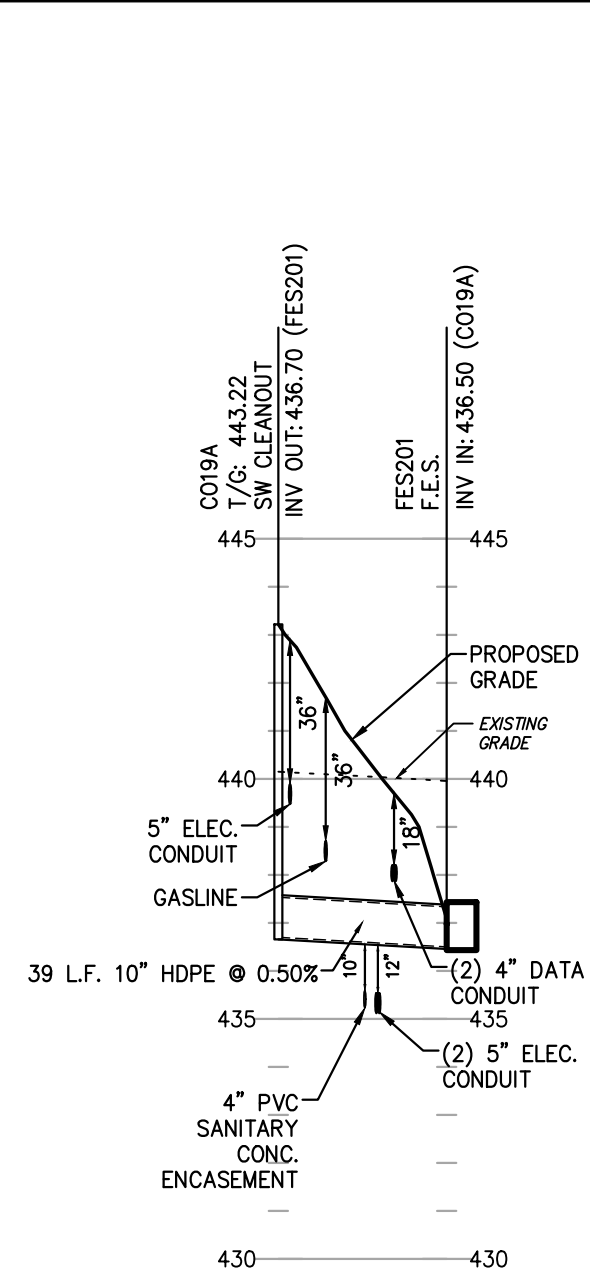
STORMWATER PROFILE
FROM SW205 TO SW202
SCALE: 1"=40' HORIZ. 1"=4' VERT.



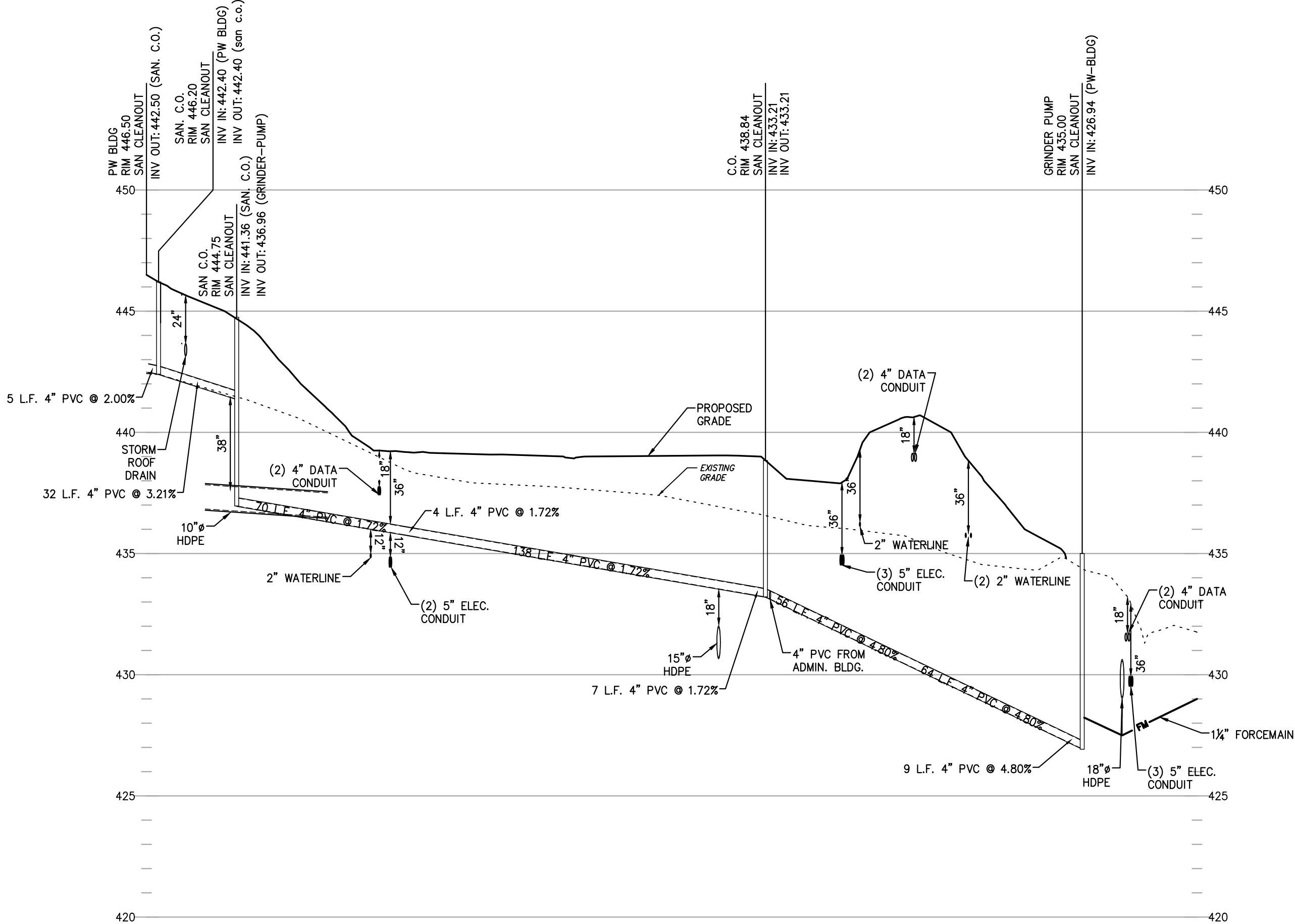
STORMWATER PROFILE
FROM OS#208 TO SW210
SCALE: 1"=40' HORIZ. 1"=4' VERT.



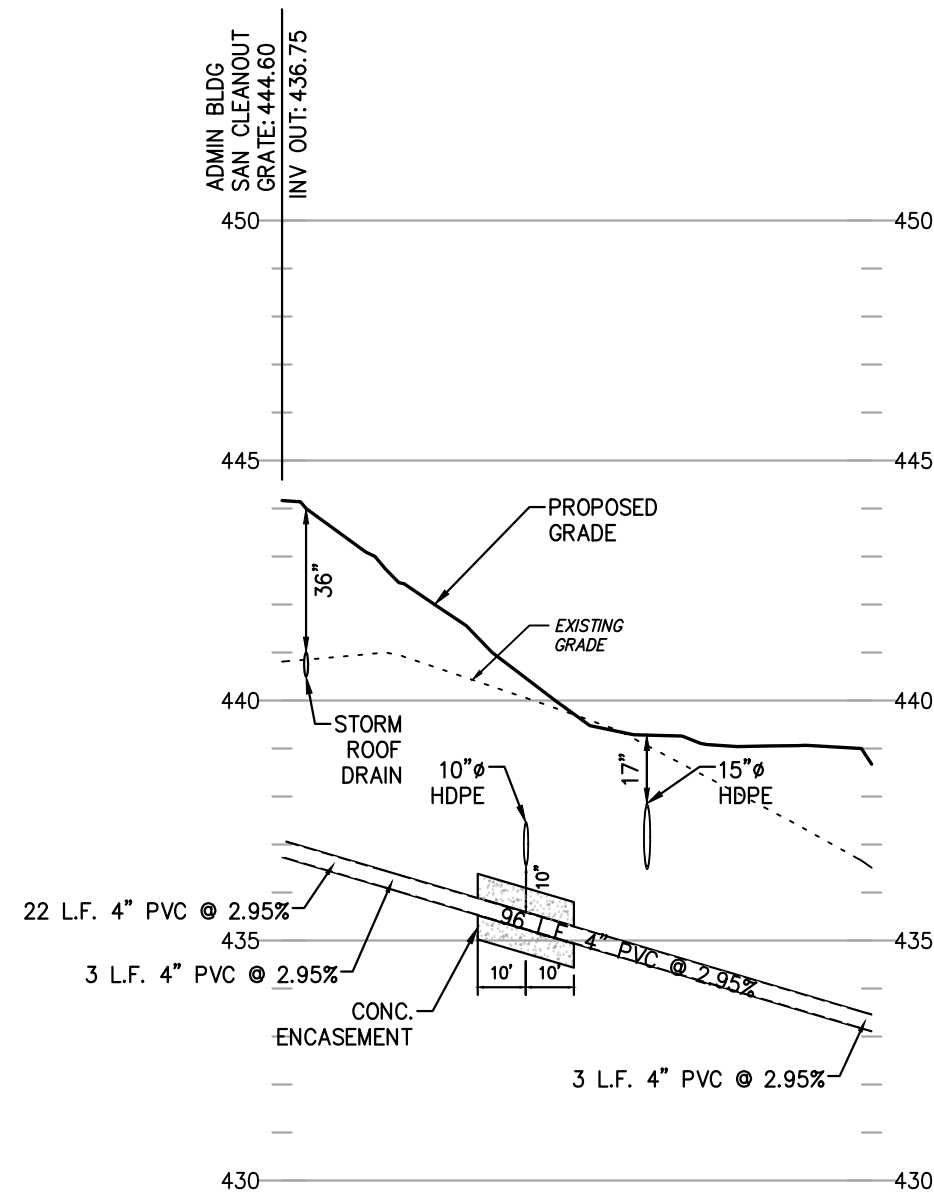
STORMWATER PROFILE
FROM SW207 TO SW206
SCALE: 1"=40' HORIZ. 1"=4' VERT.



STORMWATER PROFILE
FROM CO19A TO FES201
SCALE: 1"=40' HORIZ. 1"=4' VERT.



SANITARY SEWER PROFILE
FROM PUBLIC WORKS BUILDING
SCALE: 1"=40' HORIZ. 1"=4' VERT.



SANITARY SEWER PROFILE
FROM ADMIN. BUILDING
SCALE: 1"=40' HORIZ. 1"=4' VERT.

PROFILES

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PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NO. 20243300770
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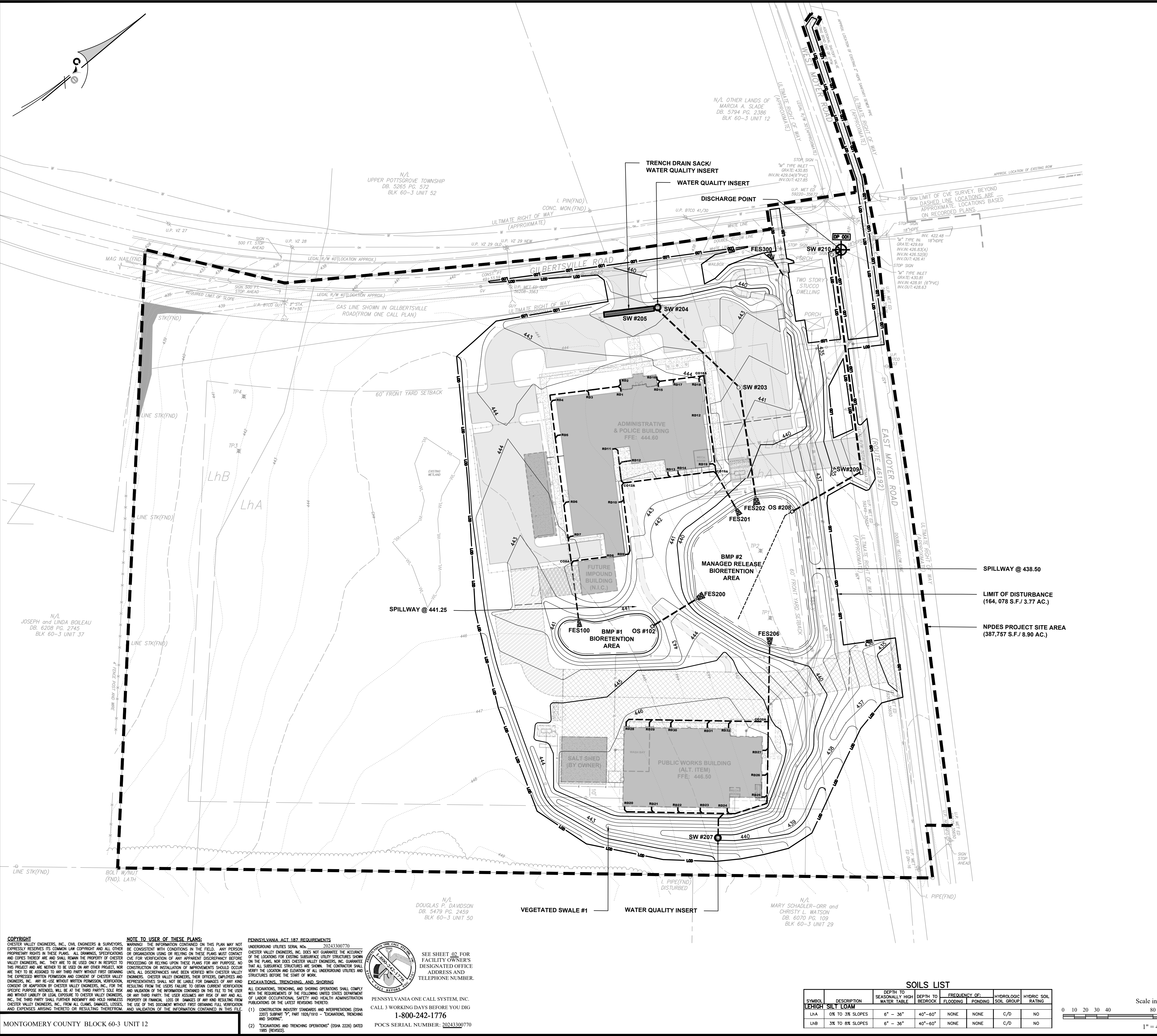
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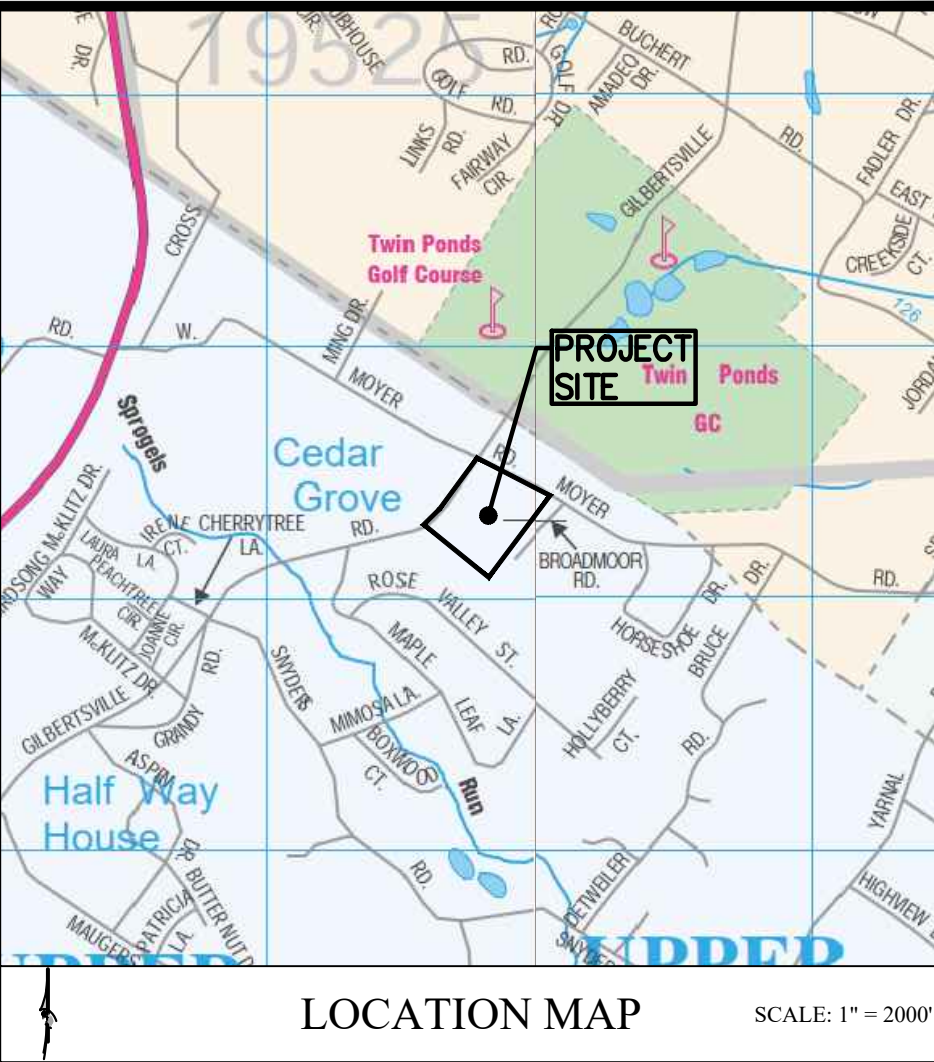
| | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|--------------------|--|
| NO. | | DATE | | REVISION | |
| CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | | | | |
| PROJECT NO. 22096-2000 | | | | F.B. | |
| SCALE 1"=40' | | | | DATE 03/31/2025 | |
| DRAWN BY PT | | | | CHECKED BY MJ | |

CVE ChesterValley
ENGINEERS, INC.

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



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



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

POST-CONSTRUCTION
STORMWATER
MANAGEMENT PLAN

NO.

DATE

REVISION

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

CVE

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SCALE
1"=40'

DATE
03/31/2025

DRAWN BY
HL

CHECKED BY
MJ

DRAWING

PROJECT NO.
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UPPER POTTS GROVE MUNICIPAL COMPLEX
2290 GILBERTSVILLE ROAD
UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

1-800-242-1776

POCS SERIAL NUMBER: 20243300770

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

1-800-242-1776

POCS SERIAL NUMBER: 20243300770

| SOILS LIST | | DEPTH TO SEASONALLY HIGH WATER TABLE | | DEPTH TO BEDROCK | | FREQUENCY OF FLOODING | | HYDROLOGIC SOIL GROUP | | HYDRIC SOIL RATING | |
|------------|-----------------|--------------------------------------|-----------|------------------|-----------|-----------------------|------|-----------------------|----|--------------------|----|
| SYMBOL | DESCRIPTION | 6" - 36" | 40" - 60" | 6" - 36" | 40" - 60" | NONE | NONE | C/D | NO | C/D | NO |
| LHA | 0% TO 3% SLOPES | 6" - 36" | 40" - 60" | NONE | NONE | NONE | NONE | C/D | NO | C/D | NO |
| LHB | 3% TO 8% SLOPES | 6" - 36" | 40" - 60" | NONE | NONE | NONE | NONE | C/D | NO | C/D | NO |

SHEET 15 OF 23

GENERAL NOTES:

- IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES.
- STORMWATER MANAGEMENT DESIGN:
REFER TO "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT FOR PROPOSED MUNICIPAL COMPLEX," PREPARED BY CHESTER VALLEY ENGINEERS.
- EROSION AND SEDIMENTATION CONTROL:
REFER TO "EROSION AND SEDIMENTATION CONTROL PLAN", PREPARED BY CHESTER VALLEY ENGINEERS.
- MAINTENANCE NOTES:
 - THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
 - BIORETENTION AREAS
 - STORM SEWER AND ASSOCIATED STRUCTURES
 - THE PARTY RESPONSIBLE FOR THE LONG TERM OPERATIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL MAKE RECORDS OF THE INSTALLATION AND ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST TEN (10) YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE TOWNSHIP AS ESTABLISHED BY THE OPERATION AND MAINTENANCE PLAN OR IF OTHERWISE REQUIRED BY THE TOWNSHIP
- THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
 - PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS THROUGH THE IMPLEMENTATION OF WATER QUALITY BMP'S TO TREAT THE RUNOFF PRODUCED BY THE PROPOSED DEVELOPMENT BEFORE DISCHARGING FROM THE SITE.
 - PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF AT THE DISCHARGE POINTS.
 - MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
 - MINIMIZE IMPERVIOUS AREAS TO ONLY THOSE WHICH ARE NECESSARY FOR THE SITE TO FUNCTION AS INTENDED.
 - MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
 - MINIMIZE LAND CLEARING AND GRADING.
 - MINIMIZE SOIL COMPACTION.
 - UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S TO PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF RESULTING FROM THE CHANGE IN IMPERVIOUS AREA.
- THE RECEIVING WATERCOURSE FOR THIS PROJECT IS AN UNNAMED TRIBUTARY OF MINISTER CREEK (TSF-MF).
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMP'S, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
- AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
- A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.
- PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
- FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

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

- (1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
- (2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S.

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

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

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

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

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

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

DISPOSAL AND RECYCLING

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

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

LIKELY WASTE TO BE GENERATED DURING MAINTENANCE OF THE POST-CONSTRUCTION BMP'S ARE:

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

CRITICAL STAGES OF CONSTRUCTION

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

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

CRITICAL VEGETATION AREAS (CVA)

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

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

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

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

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

BIORETENTION AREAS

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

PLANTING NOTES AND SPECIFICATIONS:

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

INSPECTION REQUIREMENTS

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

MAINTENANCE/REPAIR INSTRUCTIONS

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

GENERAL MAINTENANCE NOTES:

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

WINTER MAINTENANCE NOTES:

- BMP SHOULD BE INSPECTED IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION.

- IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE BMP, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.

- USE NONTOTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.

- USE SALT-TOLERANT VEGETATION.

- CLOSE MOW OR TRIM PERENNIAL MATERIAL TO ALLOW PROPER GERMINATION AND TO CONTROL INVASIVE SPECIES (TO BE DONE ONCE IN LATE FALL, WINTER OR EARLY SPRING).

- REPLENISH MULCH IN AREAS WHERE EROSION IS EVIDENT. REPLENISH MULCH IN ENTIRE INFILTRATION AREA AT LEAST EVERY 2 TO 3 YEARS.

CONSTRUCTION SEQUENCING

- INSTALL FILTER SOCK AND/OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
- PRIOR TO CONSTRUCTION, BIORETENTION AREA/BIO-FILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC.
- ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
- PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
- INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE.
- ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS LEAVE A MINIMUM OF 1 FOOT OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
- PERFORM ALL OTHER SITE IMPROVEMENTS.
- TRIM AND MULCH ALL AREAS AFTER DISTURBANCE.
- CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
- CONSTRUCT CURB CUTS OR OTHER INFLOW BUT PROVIDE PROTECTION TO PROHIBIT SEDIMENT LADEN WATER FROM ENTERING THE BMP.
- CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF BIORETENTION AREA.
- IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
- PLANT AND MULCH BIORETENTION DEVICE.
- REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

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

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

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

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

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

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

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

THERMAL IMPACT

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

STORM SEWER

INSPECTION REQUIREMENTS:

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

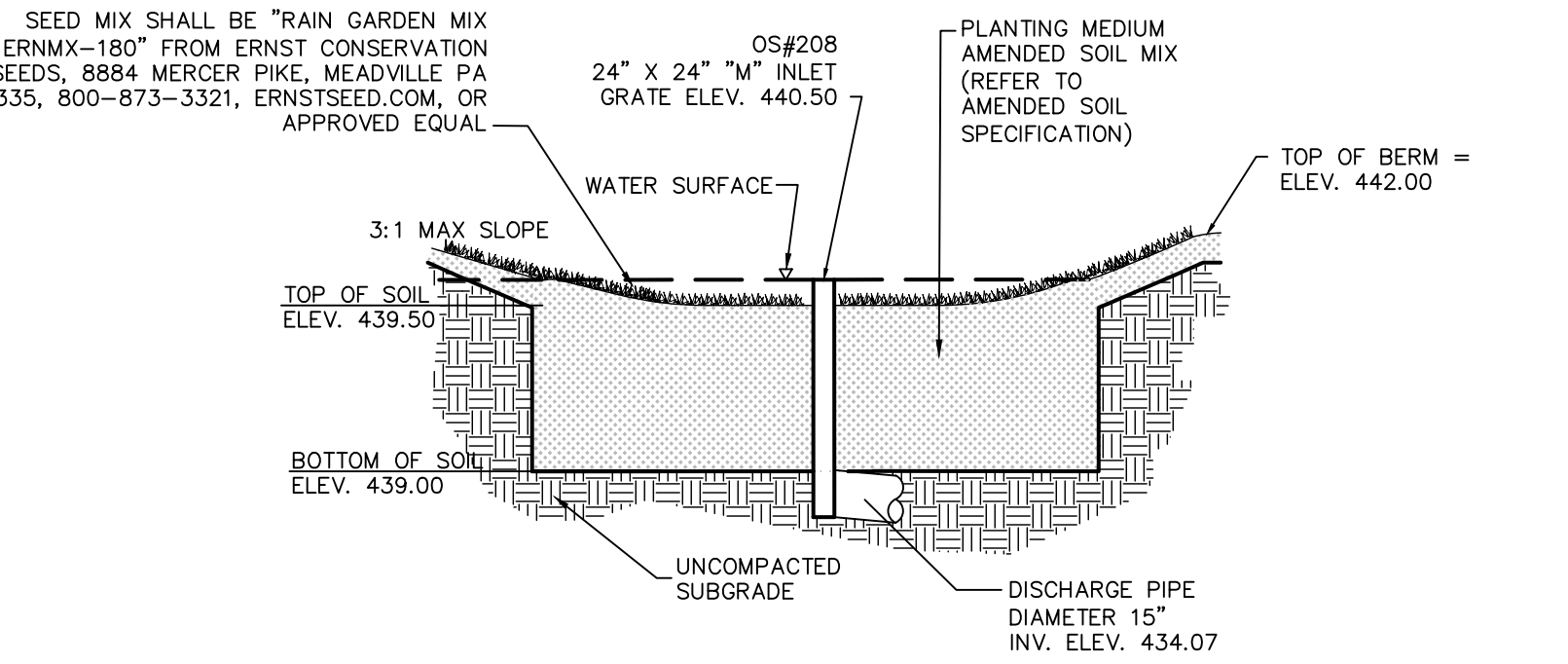
GENERAL MAINTENANCE NOTES:

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

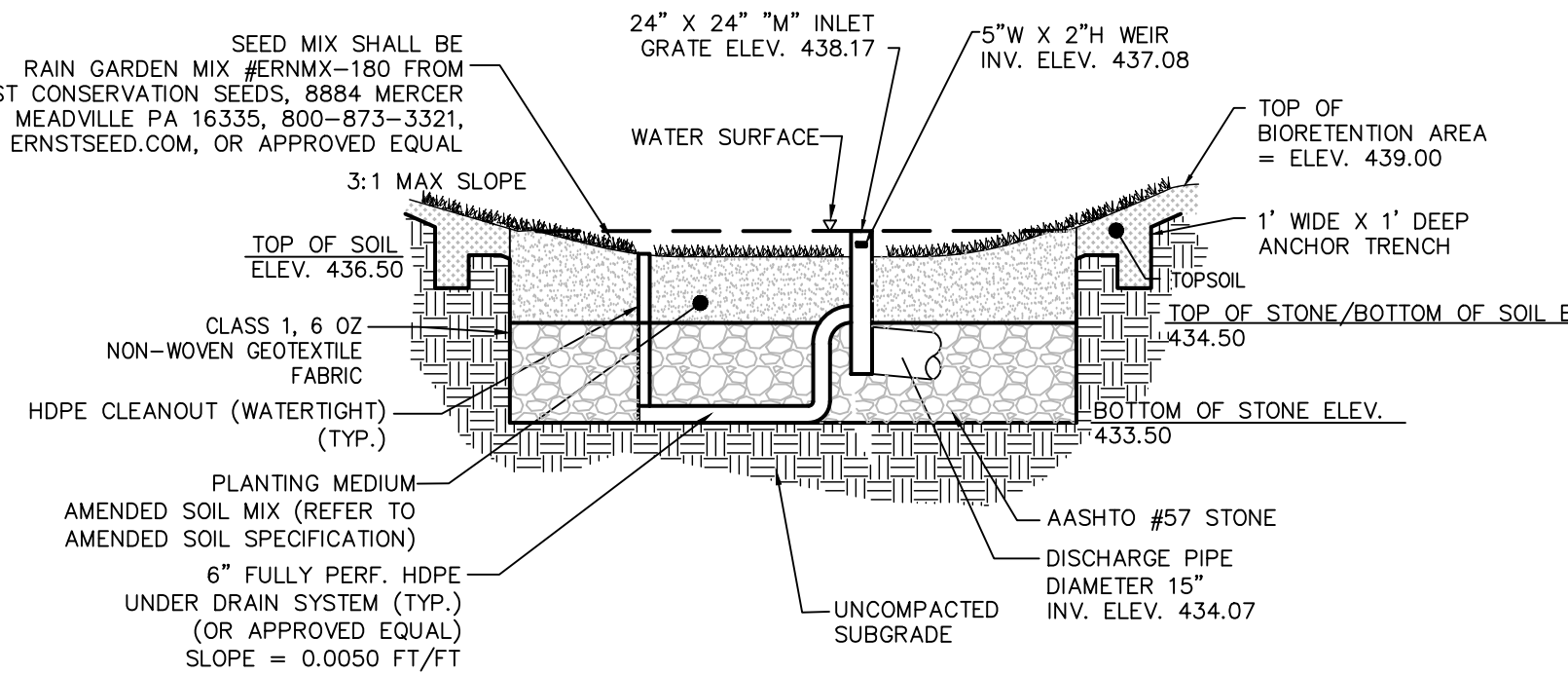
SITE RESTORATION O&M REQUIREMENTS

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

PERFORM ROUTINE INSPECTIONS AND CORRECT EROSION PROBLEMS, IF ENCOUNTERED.



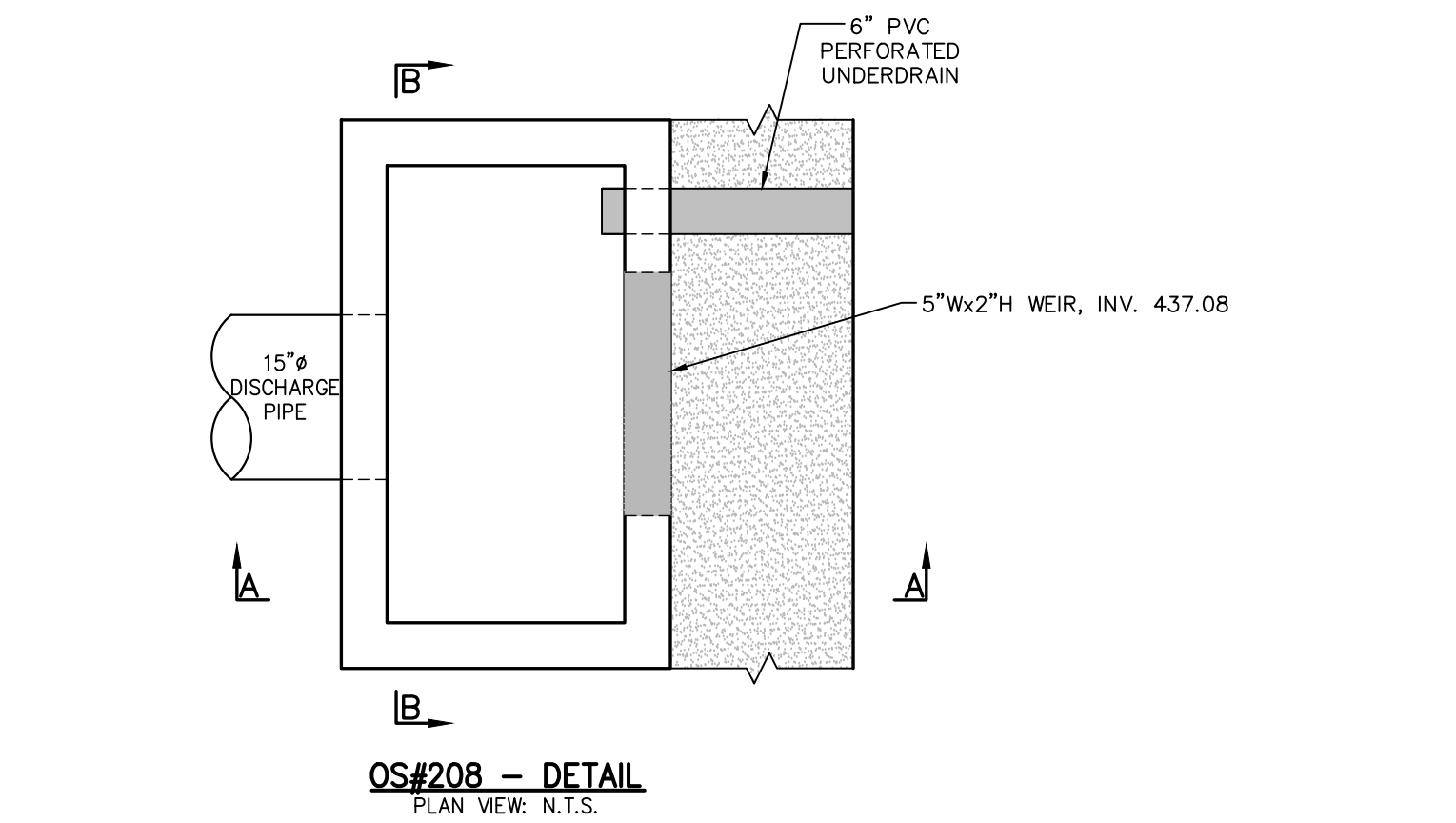
BMP #1 BIORETENTION AREA
CROSS-SECTION
N.T.S.



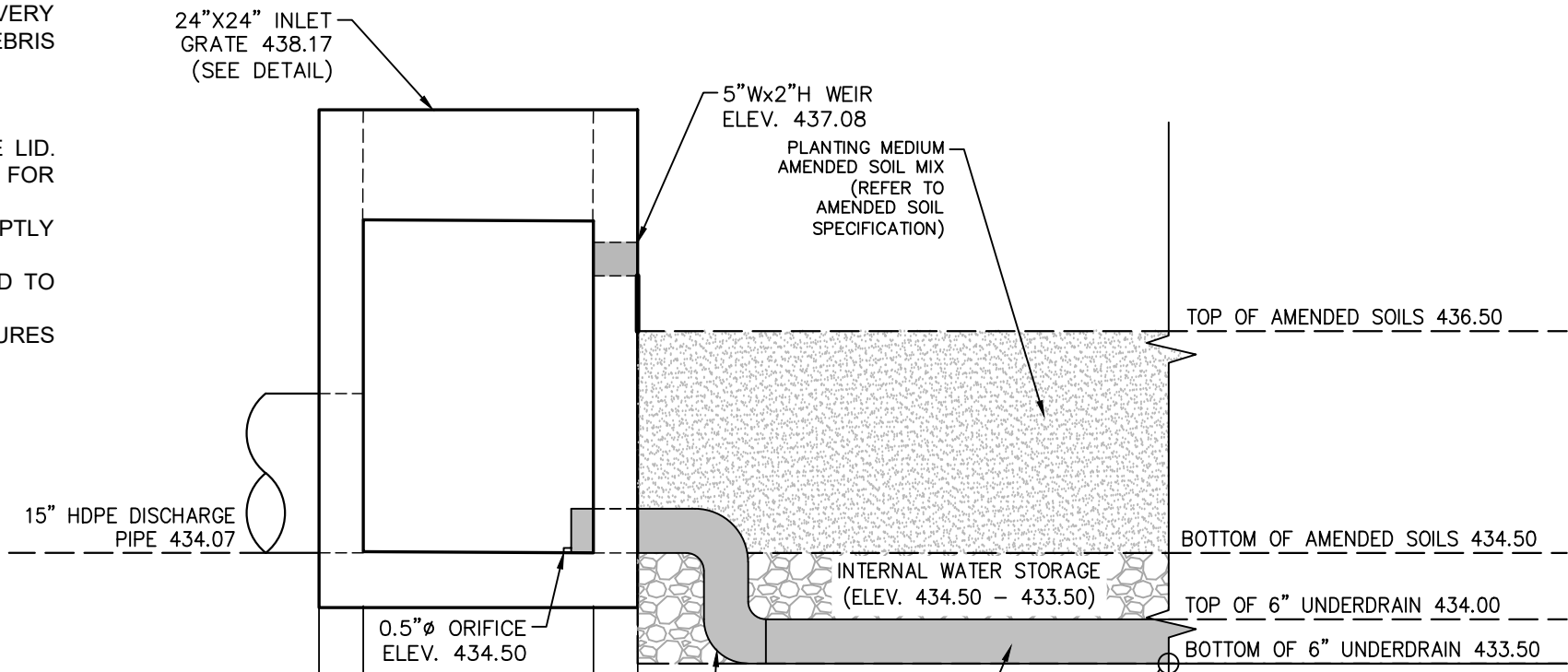
BMP #2 M.R. BIORETENTION AREA
CROSS-SECTION
N.T.S.

TYPICAL BIORETENTION AREA NOTES:

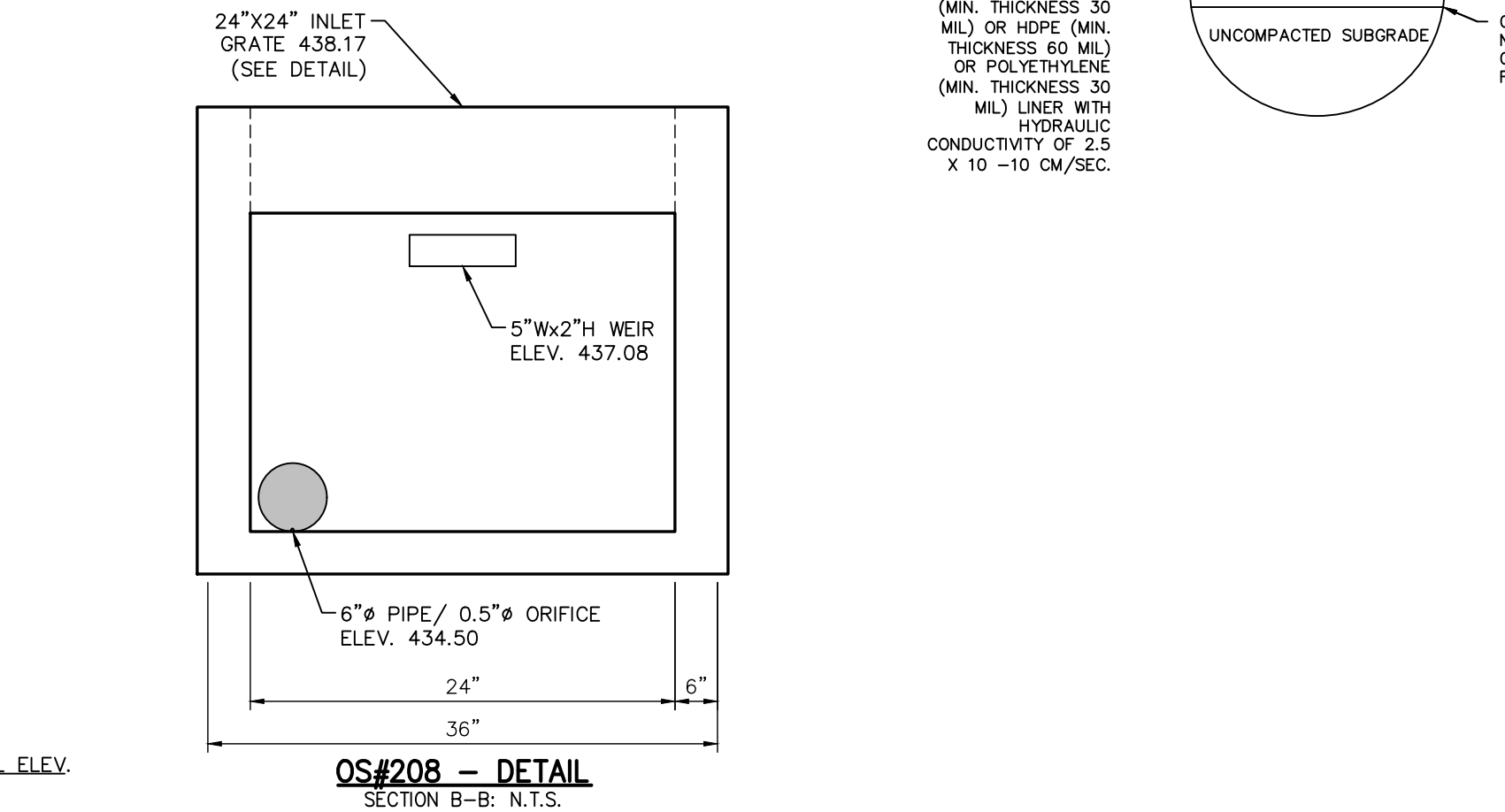
- CONTRACTOR SHALL TREAT COMPACTED SUBGRADE SOILS AS SPECIFIED IN THE SOIL AMENDMENT SPECIFICATION PRIOR TO PLACEMENT OF THE UNDERDRAIN AND SOIL AMENDMENT SHOWN ON SHEET 9F.
- IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED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



OS#208 -- DETAIL
PLAN VIEW: N.T.S.




OS#208 -- DETAIL
SECTION A-A: N.T.S.



OS#208 -- DETAIL
SECTION B-B: N.T.S.

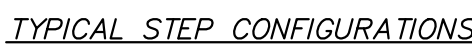
POST-CONSTRUCTION
STORMWATER
MANAGEMENT
NOTES/DETAILS

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| NO. | DATE | REVISION | | | |
| CONSTRUCTION PLANS | | | | | |
| FOR | | | | | |
| UPPER POTTS GROVE MUNICIPAL COMPLEX | | | | | |
| UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | | | | |
|  112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chesterv.com | | | | PROJECT NO. | |
| | | | | 22096-2000 | |
| | | | | F.B. | |
| | | | | | |
| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING | |
| As Noted | 03/31/2025 | HL | MJ | | |

1. WEIGHT (EMPTY): 30 LB MAX
2. MATERIAL:
 - A) ALUMINUM FRAME: ALUM. ALLOY SHEET, 5000 SERIES
 - B) STORMSHAW GEOTEXTILE, 10" X20" MESH
 - C) MESH LINER (INNER): HDPE, 1" DIAMOND CONFIGURATION
 - D) SPOUT HARDWARE: STAINLESS STEEL
 - E) OIL BOOM: 100% POLYPROPYLENE
3. PERFORMANCE CHARACTERISTICS (TYP):
 - A) DEBRIS CAPACITY: 3 CU-FIT
 - B) FILTERED (CLEAN) FLOW RATE: 3250 GPM (8.7 CFS)
4. FRAMES ARE DESIGNED WITH MATING FLANGES AND CAN BE BOLTED TOGETHER (END-TO-END) IF MORE THAN ONE FILTER UNIT IS REQUIRED. SEE DETAILS.
5. TYPICAL MAINTENANCE: REMOVE EACH TRENCH FILTER SEGMENT, EMPTY AND HOSE CLEAN. ALTERNATE METHOD: VACUUM AND POWER-WASH.
6. FABCO REPLACEABLE OIL BOOM, P/N: 10040-4-730.
7. DESIGNED SPECIFICALLY TO FIT OLDCASTLE TRENCH DIM WITH "A" = 16", SECTION LENGTH IS 10'

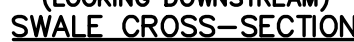


FLARED END SECTION DETAIL



| NOTES | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Precast manholes meeting the requirements of publication 408 specifications, section 605.2(C), may be substituted for type 'A' and 'B' manholes. | 2. Provide manhole steps meeting the requirements of publication 408 specifications, section 605.2(C). Alternate configurations and dimensions, as approved by the engineer, may be used. |

* Provide Welded Wire Fabric Meeting the Requirements of Publication 408 Specifications, Section 709.3.



*SEE EROSION CONTROL BLANKET DETAIL FOR STAPLE PATTERNS,
SEED MIX SHALL BE RAIN GARDEN MIX #ERNMX-180 FROM ERNST
CONSERVATION SEEDS

NOTES:

1. CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDUITS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
2. NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS WEEDS SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.



CAST IRON MANHOLE FRAME
(MAKE ALL ROUNDS AND FILLETS 1/4" UNLESS OTHERWISE NOTED)



NOTES:

1. THIS SHEET DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGABILITY. IT DOES NOT INCLUDE THE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. ONLY FRAMES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED. FOR A BULLETIN 15 LISTING, SUBMIT A 22" x 36" SCALE SHOP DRAWING TO THE MATERIALS AND TESTING DIVISION, BUREAU OF CONSTRUCTION AND MATERIALS FOR REVIEW AND APPROVAL.
2. PROVIDE EITHER GRAY, MALLEABLE OR DUCTILE IRON CASTING OR STRUCTURAL STEEL FRAMES.
3. WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, DIVISION 1105-03.00. ALL WELD SHOPS ARE NOT REQUIRED TO BE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CERTIFIED.



N.T.S.



SUITABLE MATERIAL - CLEAN SOIL CONTAINING NOT MORE THAN 30% SILT/CLAY PARTICLES FINER THAN THE NO. 200 SIEVE (BY WEIGHT), AS DETERMINED BY SOIL LABORATORY TESTING AND METHOD OF ASTM D-2487, WHICH IS CAPABLE OF BEING COMPACTED TO THE REQUIRED DENSITY AT THE PROPER MOISTURE CONTENT, AND WHICH IS FREE OF TOPSOIL, ROCKS, TRASH, DEBRIS, FROZEN MATERIAL, ORGANIC MATTER, EXCESS MOISTURE (WATER CONTENT AT COMPACTION MUST BE WITHIN 2% OF OPTIMUM) AND OTHER DELETERIOUS INCLUSIONS. THE LIMITS OF ROCK AS SUITABLE MATERIAL SHALL NOT EXCEED 4 INCHES (4") IN SIZE. THE REMAINDER OF ROCK SHALL BE CLASSED AS UNSUITABLE. THE PERCENTAGE OF UNSUITABLE MATERIAL SHALL BE DETERMINED BY THE METHOD OF ASTM D-2487. THE PERCENTAGE OF UNSUITABLE MATERIAL SHALL BE DETERMINED BY THE ON-SITE GEOTECHNICAL ENGINEER AND TOWNSHIP PRIOR TO PLACEMENT AND COMPACTION.

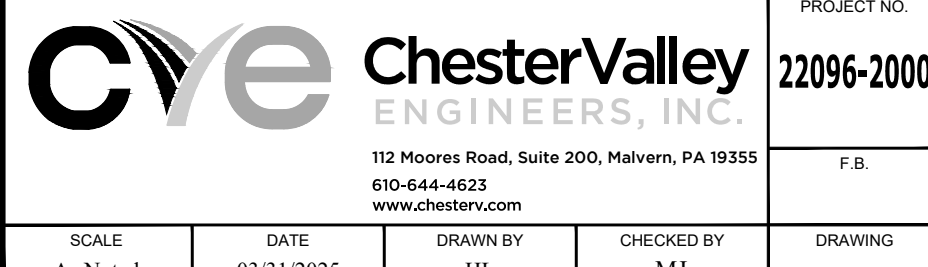
1. PLACEMENT OF BACKFILL MATERIAL IN 8 INCH LAYERS (LIFTS) SHALL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT.

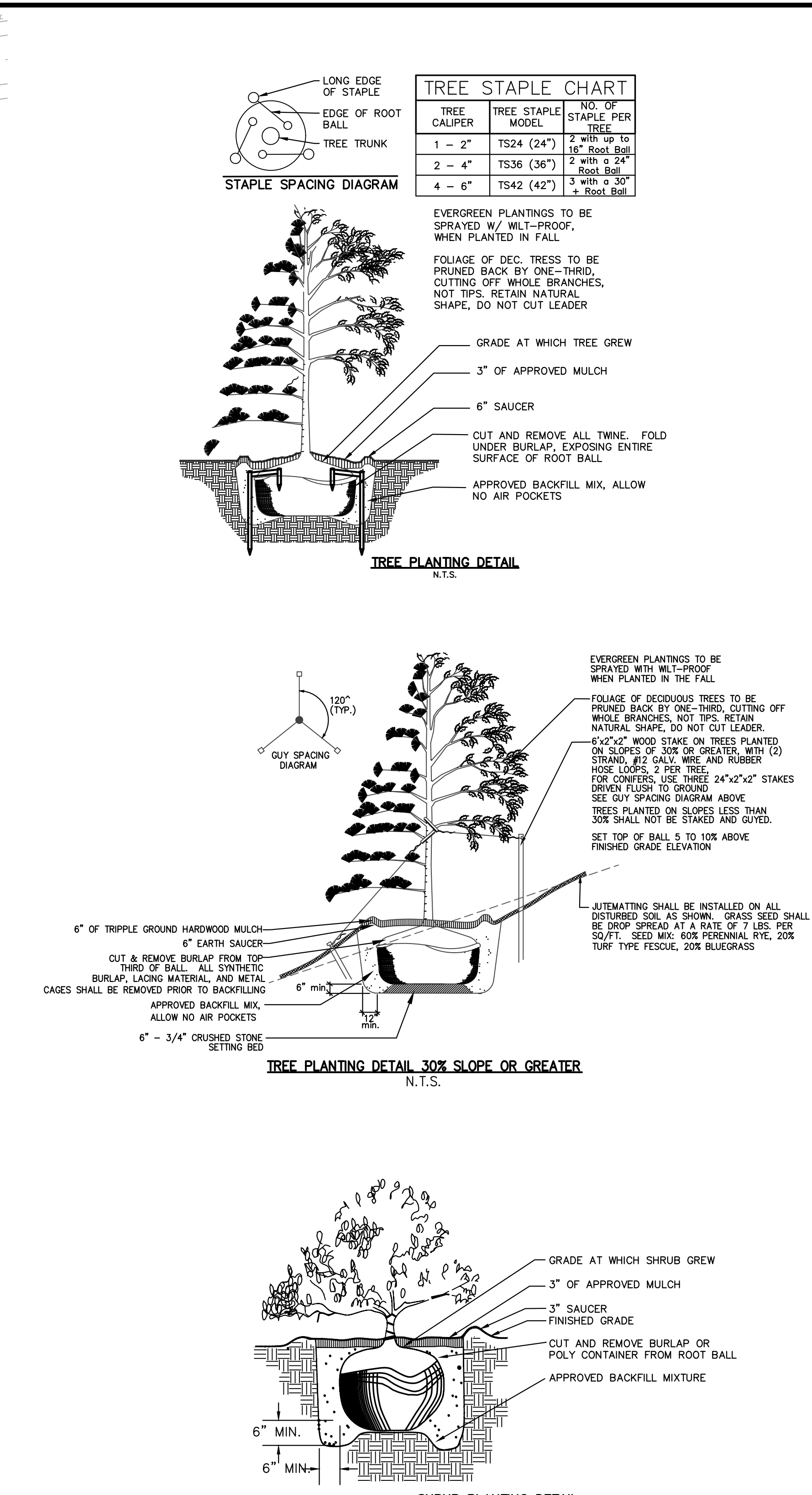
| PIPE TYPE | BEDDING | INITIAL BACKFILL | BACKFILL TO SUBGRADE | |
|-------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
| | | | BENEATH BITUMINOUS PAVEMENT (EXISTING TO REMAIN OR PROPOSED), CONCRETE SIDEWALK OR PAVERS | BENEATH OTHER AREA |
| ANY PIPE WITHIN PUBLIC ROW | ASHTO #57 COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. | PA DOT NO. 2A COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. |
| STORM (METAL) | ASHTO #57 COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. | PA DOT NO. 2A COARSE AGGREGATE | SUITABLE MATERIAL |
| STORM (RCP) | ASHTO #57 COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. | PA DOT NO. 2A COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. |
| STORM (OTHER) | ASHTO #57 COARSE AGGR. | PA DOT NO. 2A COARSE AGGR. | PA DOT NO. 2A COARSE AGGREGATE | SUITABLE MATERIAL |
| SANITARY | ASHTO #57 COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. | SUITABLE MATERIAL | SUITABLE MATERIAL |
| WATER (PIPE) | NONE REQUIRED | PA DOT NO. 2A COARSE AGGR. | SUITABLE MATERIAL | SUITABLE MATERIAL |
| WATER (TUBING) | CEMENT CONCRETE SAND, TYPE A, PA DOT, PUB. 408, § 703.1 | CEMENT CONCRETE SAND, TYPE A, PA DOT, PUB. 408, § 703.1 | SUITABLE MATERIAL | SUITABLE MATERIAL |
| OTHER PIPE, CONDUIT | ASHTO #57 COARSE AGGREGATE | PA DOT NO. 2A COARSE AGGR. | SUITABLE MATERIAL | SUITABLE MATERIAL |

1. ALL STORM SEWERS SHALL BE CONSTRUCTED PER PENNDOT SPECIFICATIONS AS OUTLINED IN PUBLICATION 408 DESIGN MANUAL, PART 2, HIGHWAY DESIGN AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-SERIES UNLESS OTHERWISE DICTATED BY THE TOWNSHIP CODE.
2. ALL STORM SEWER UTILITIES BENEATH A PAVED SURFACE SHALL BE BEDDED AND BACKFILLED WITH PENNDOT 2A STONE. THE BACKFILL SHALL BE PLACED IN SIX-INCH LIFTS AND SOLIDLY COMPACTED TO THE SATISFACTION OF THE TOWNSHIP.

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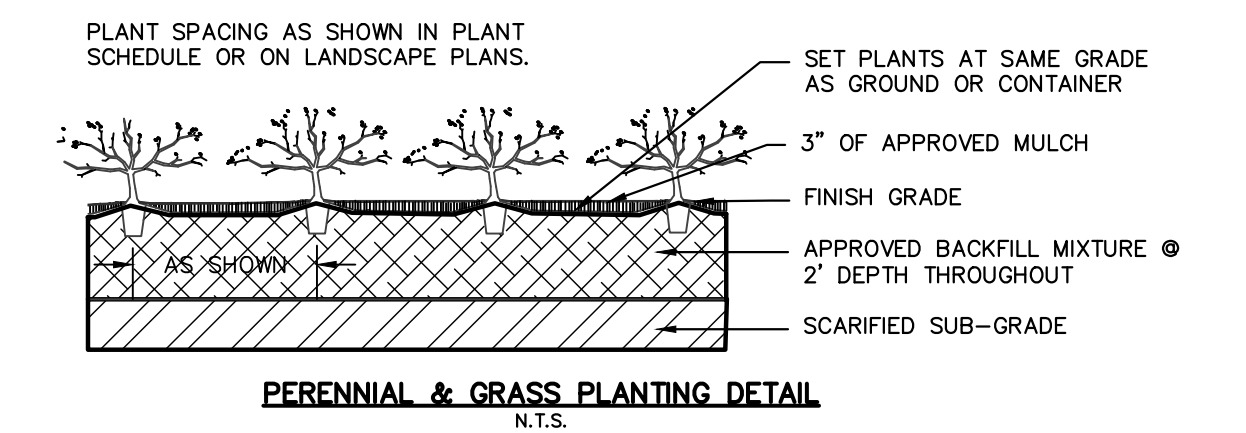
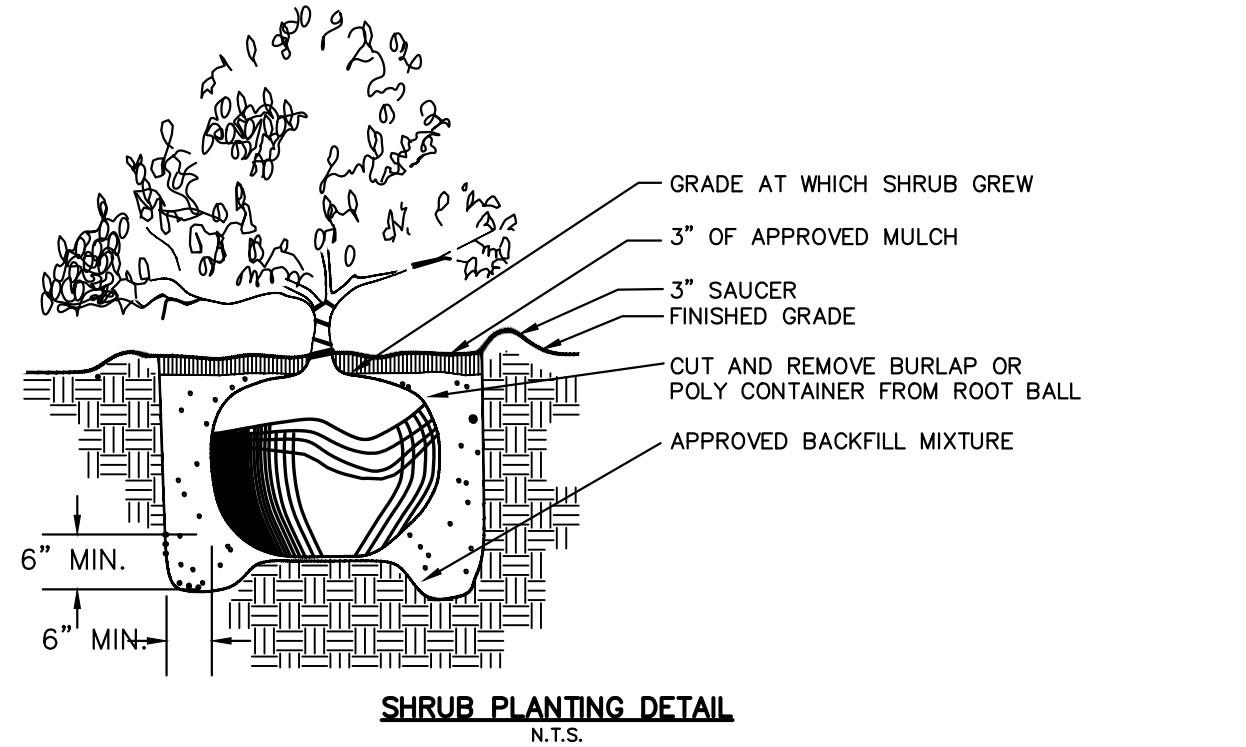
UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA



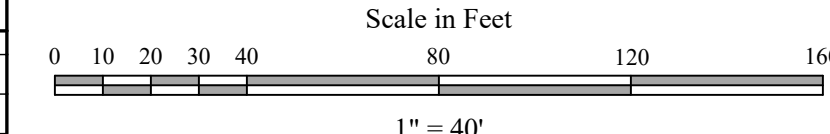



| SHRUBS | | | | | | | |
|--------|--------------------------------------------------|-----------------------------|--------|-----|------|----------|--|
| KEY | BOTANICAL NAME | COMMON NAME | SIZE | QTY | ZONE | DISTANCE | |
| NA | <i>Aronia arbutifolia</i> | RED CHOKEBERRY | 5 GAL. | 13 | 3-9 | 6' O.C. | |
| NP | <i>Aesculus parviflora</i> | BOTTLEBRUSH BUCKEYE | 3 GAL. | 8 | 4-8 | 10' O.C. | |
| NA | <i>Celtis ainifolia</i> | SWEET PEPPERBUSH | 4 GAL. | 21 | 3-9 | 6' O.C. | |
| OS | <i>Cornus sericea 'Keiskei'</i> | REDTIG DOGWOOD | 2 GAL. | 7 | 3-8 | 8' O.C. | |
| NS | <i>Hydrangea macrophylla</i> 'Endless summer' | ENDLESS SUMMER HYDRANGEA | 3 GAL. | 15 | 4-9 | 5' O.C. | |
| CA | <i>Ilex crenata 'Compacta'</i> | COMPACT JAPANESE HOLLY | 3 GAL. | 23 | 3-9 | 4' O.C. | |
| V | <i>Ilex verticillata</i> | WINTERBERRY | 3 GAL. | 6 | 3-9 | 6' O.C. | |
| NA | <i>Rhus aratica 'Gro-Low'</i> | GRO-LOW SUMAC | 2 GAL. | 51 | 3-9 | AS SHOWN | |
| W | <i>Rhododendron 'White Lights'</i> | AZALEA WHITE LIGHTS | 3 GAL. | 7 | 4-8 | 6' O.C. | |
| JA | <i>Spiraea japonica</i> | JAPANESE SPIREA | 3 GAL. | 17 | 4-9 | 5' O.C. | |
| JV | <i>Spiraea x vanhouttei</i> | VANHOUTTE SPIREA | 4 GAL. | 10 | 3-8 | 5' O.C. | |

| | BOTANICAL NAME | COMMON NAME | SIZE | QTY | ZONE | DISTANCE |
|---|-------------------------------------------|------------------------------------|--------|-----|------|-----------|
| Y | <i>Asitibe 'Chocolate Cherry'</i> | CHINESE ASTILBE 'CHOCOLATE CHERRY' | 1 GAL. | 32 | 3-8 | 2' O.C. |
| C | | | | | | |
| M | <i>Hakonechloa macra</i> | HAKONE GRASS | 1 GAL. | 86 | 5-9 | 2' O.C. |
| I | <i>Lavandula x intermedia</i> | PHENOMENAL LAVENDER | 1 GAL. | 28 | 5-9 | 2' O.C. |
| M | <i>Liriope Muscarei 'Silver Sunproof'</i> | SILVERY SUNPROOF LILYTURF | 1 GAL. | 133 | 5-10 | 1.5' O.C. |
| R | <i>Nepeta racemosa</i> | CATMINT | 1 GAL. | 10 | 4-8 | 2' O.C. |
| I | <i>Panicum virgatum 'Purple Tears'</i> | PURPLE TEARS SWITCHGRASS | 1 GAL. | 27 | 4-9 | 2' O.C. |



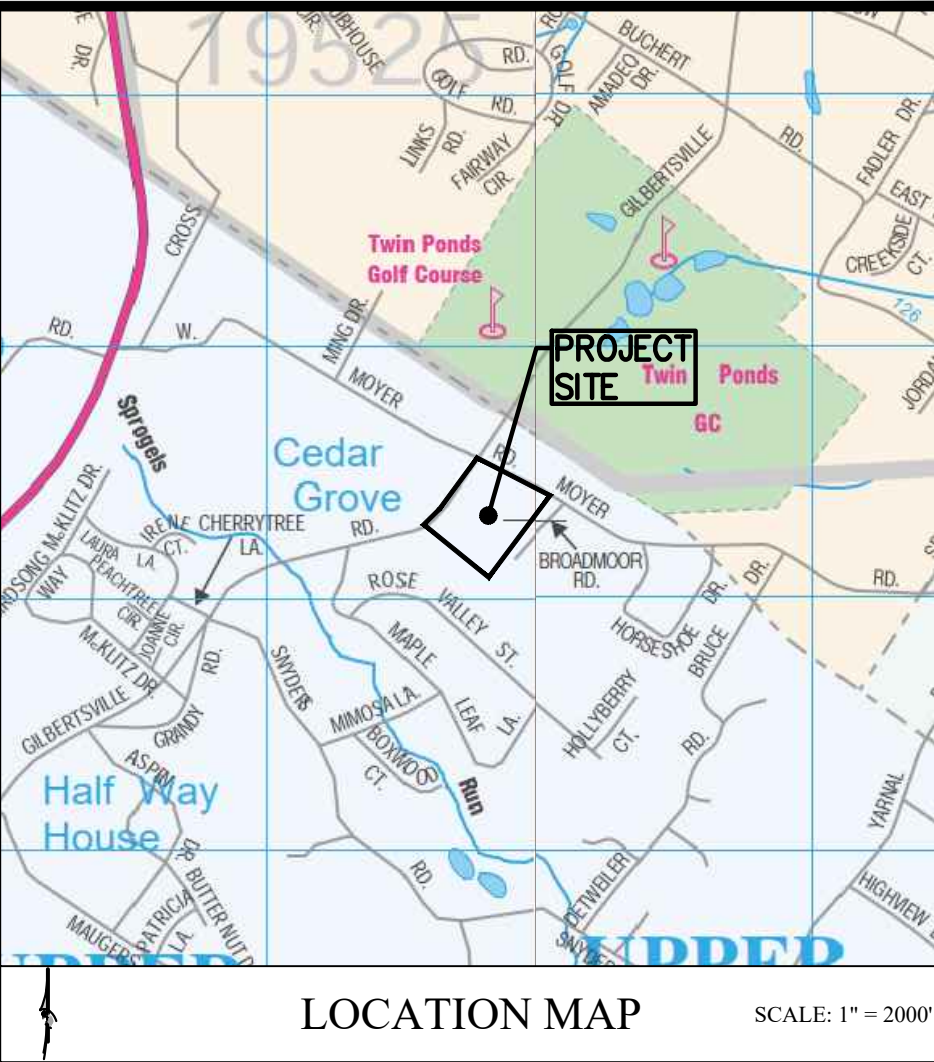
| SOILS LIST | | | | | | | |
|------------------|-----------------|--------------------------------------------|---------------------|---------------|---------|--------------------------|-----------------------|
| SYMBOL | DESCRIPTION | DEPTH TO SEASONALLY HIGH WATER TABLE | DEPTH TO BEDROCK | FREQUENCY OF: | | HYDROLOGIC SOIL GROUP | HYDRIC SOIL RATING |
| | | | | FLOODING | PONDING | | |
| LEHIGH SILT LOAM | | | | | | | |
| LHA | 0% to 3% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |
| LHB | 3% to 8% SLOPES | 6" - 36" | 40"-60" | NONE | NONE | C/D | NO |

[illegible]

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| LANDSCAPE PLAN/ DETAILS | | | | | | | | | |
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| NO. | DATE | REVISION | | | | | | | |
| <p align="center">CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX 2290 GILBERTSVILLE ROAD</p> <p align="center">UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA</p> | | | | | | | | | |
|  <p>ChesterValley ENGINEERS, INC.</p> <p>112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chestervalley.com</p> | | | | | | | <p>PROJECT NO. 22096-2000</p> <p>F.B.</p> | | |
| SCALE 1"=40' | DATE 03/31/2025 | DRAWN BY ND | | CHECKED BY AG | | DRAWING | | | |



| GENERAL PHOTOMETRIC SCHEDULE | |
|------------------------------|-------------|
| AVERAGE FOOT-CANDLES | 0.30 |
| MAXIMUM FOOT-CANDLES | 8.93 |
| MINIMUM FOOT-CANDLES | 0.00 |
| MINIMUM TO MAXIMUM FC RATIO | 0.00 |
| MAXIMUM TO MINIMUM FC RATIO | 8.93 / 0.00 |
| AVERAGE TO MINIMUM FC RATIO | 0.30 / 0.00 |



GENERAL LIGHTING NOTES
THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURERS.

- INSTALLATION NOTES:
- 1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER MAINS, SANITARY AND STORM SEWERS, TELEPHONE AND ELECTRIC CONDUITS, AND GAS LINES, ETC. AND ABOVE GROUND UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS.
 - 2.) DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATIONS, INVERTS, AND DIMENSIONS IN THE FIELD PRIOR TO THE COMMENCEMENT OF WORK.
 - 3.) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE "ONE-CALL" HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.
 - 4.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE MUNICIPALITY RELATIVE TO THE PROPOSED PROJECT.
 - 5.) THE CONTRACTOR SHALL REPAIR ALL UTILITY TRENCHING WORK LOCATED WITHIN EXISTING PAVED STREETS.
 - 6.) THE CONTRACTOR SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
 - 7.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL.
 - 8.) ALL AREAS DISTURBED AS A RESULT OF THE INSTALLATION OF LIGHTING IMPROVEMENTS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
 - 9.) THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF SHOWN IN THE LUMINAIRE SCHEDULE.
 - 10.) THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED.
 - 11.) ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
 - 12.) THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

LIGHTING CONTROLS AND SURGE PROTECTION: ALL NEW FIXTURES ARE TO BE EQUIPPED WITH DIMONOFF RME-XBP PHOTOCELLS AND ABLE POWER PRODUCTS RWL-S SURGE DEVICE. FIXTURES MUST BE EQUIPPED WITH ALL-MODE PROTECTION (L-N, L-G, N-G). SURGE PROTECTION INTEGRAL TO THE PHOTOCONTROL SHOULD HAVE 3 MODES OF PROTECTION: LINE-TO-NEUTRAL, LINE-TO-GROUND AND NEUTRAL-TO-GROUND. THE MINIMUM SURGE PROTECTION SPECIFICATIONS SHOULD BE 10KA IN, 25KA IMAX AND 20KV UOC.

PARKING FACILITY AND VEHICULAR AND PEDESTRIAN WAY LIGHTING (EXCEPT FOR SAFETY AND SECURITY APPLICATIONS AND ALL-NIGHT BUSINESS OPERATIONS), FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL USES SHALL BE AUTOMATICALLY EXTINGUISHED NO LATER THAN ONE HOUR AFTER THE CLOSE OF BUSINESS OR FACILITY OPERATION. WHEN SAFETY OR SECURITY LIGHTING IS PROPOSED FOR AFTER-HOURS ILLUMINATION, IT SHALL NOT BE IN EXCESS OF 33% OF THE NUMBER OF FIXTURES REQUIRED OR PERMITTED FOR ILLUMINATION DURING REGULAR BUSINESS HOURS, OR IN AN AMOUNT JUDGED NECESSARY BY THE TOWNSHIP ENGINEER.

SET ONE SMART PHOTOCCELL TO CONTROL ALL OTHER SITE LIGHTING FIXTURES (DIMONOFF #RME-XBP).
PLEASE CONTACT INDEPENDENCE LIGHTING FOR PRICING:
KENT LAZOR
DIRECT: 610-363-5271

| LUMINAIRE SCHEDULE | | | | | | | |
|--------------------|--------|----------|--------------------------------------------------------------------|------------|----------|-----|-----|
| TYPE | SYMBOL | MOUNTING | MODEL | VOLTS | QUANTITY | LLD | LLF |
| SITE | | POLE | Isotek Electronics USA LLC, ART3-C02-W-W-30K-13-BK-120 | 120V 1P 2W | 12 | 0.9 | 0.9 |
| ORNAMENTAL | | POLE | Spryng City Electrical Manufacturing Co, CLW-LE100-2F2-30-OR3-YPLF | 120V 1P 2W | 4 | 0.9 | 0.9 |
| BOLLARD | | SURFACE | LIGMAN, MC-10013-W-W30 | 120V 1P 2W | 13 | 0.9 | 0.9 |
| FLOOD (FLAG POLE) | | SURFACE | LIGMAN, OD-50161-W-W-8040 | 120V 1P 2W | 3 | 0.9 | 0.9 |

LIGHTING PLAN/ NOTES

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

ChesterValley
ENGINEERS, INC.

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

F.B.
22096-2000

| | | | | |
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| SCALE 1"=40' | DATE 03/31/2025 | DRAWN BY ND | CHECKED BY AG | DRAWING |
|-----------------|--------------------|----------------|------------------|---------|

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WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CHESTER VALLEY ENGINEERS, INC. FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING OR RELYING UPON THESE PLANS FOR ANY PURPOSE, AND CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS SHOULD OCCUR UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY ENGINEERS. CHESTER VALLEY ENGINEERS, THEIR OFFICERS, EMPLOYEES AND REPRESENTATIVES SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM THE USER'S FAILURE TO OBTAIN CURRENT VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED ON THIS FILE TO THE USER OR ANY THIRD PARTY. THE USER ASSUMES ANY RISK OF ANY AND ALL PROPERTY OF FINANCIAL LOSS OR DAMAGES OF ANY KIND RESULTING FROM THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

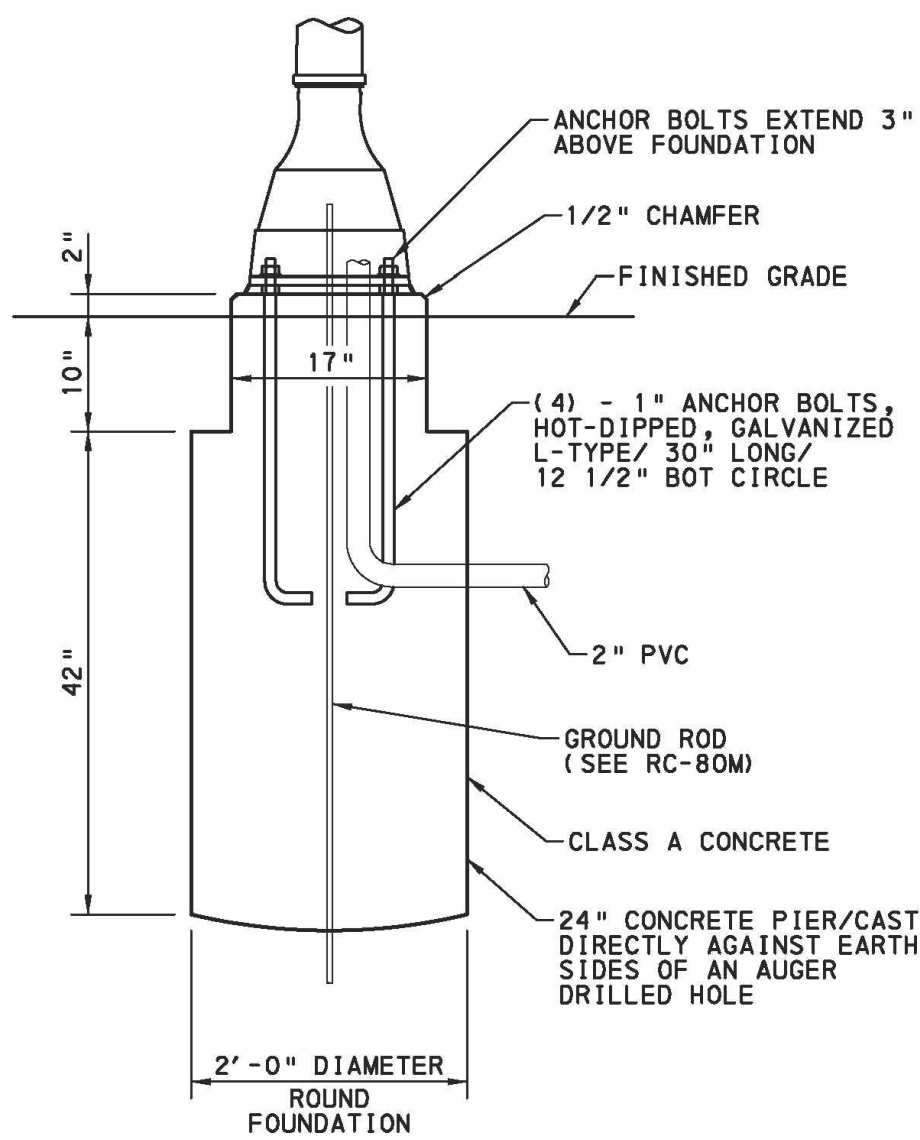
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 20243300770
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.
EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2201) SUBPART PP, PART 1025/1015 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2225) DATED 1989 (REVISED).

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

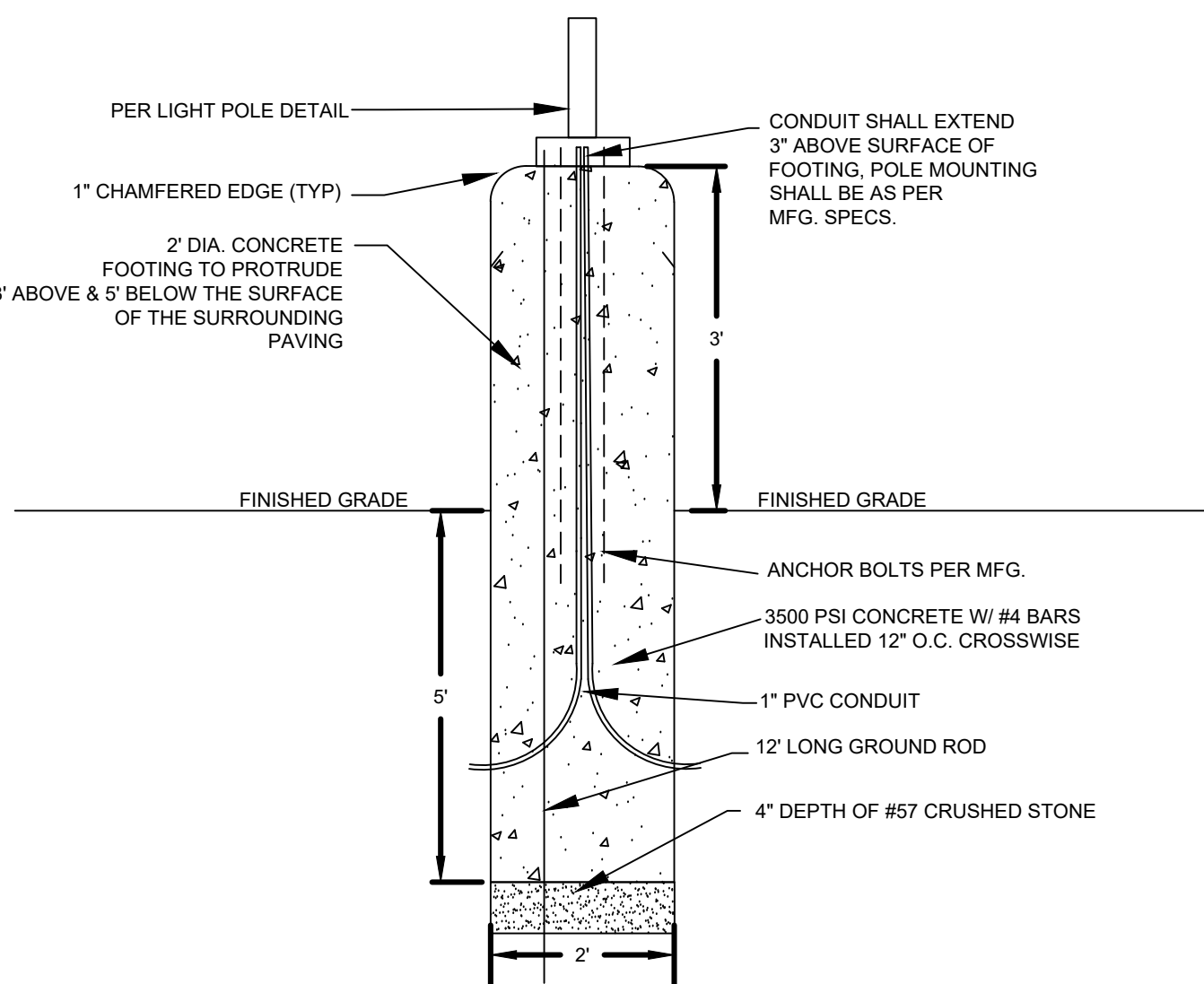
PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20243300770

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

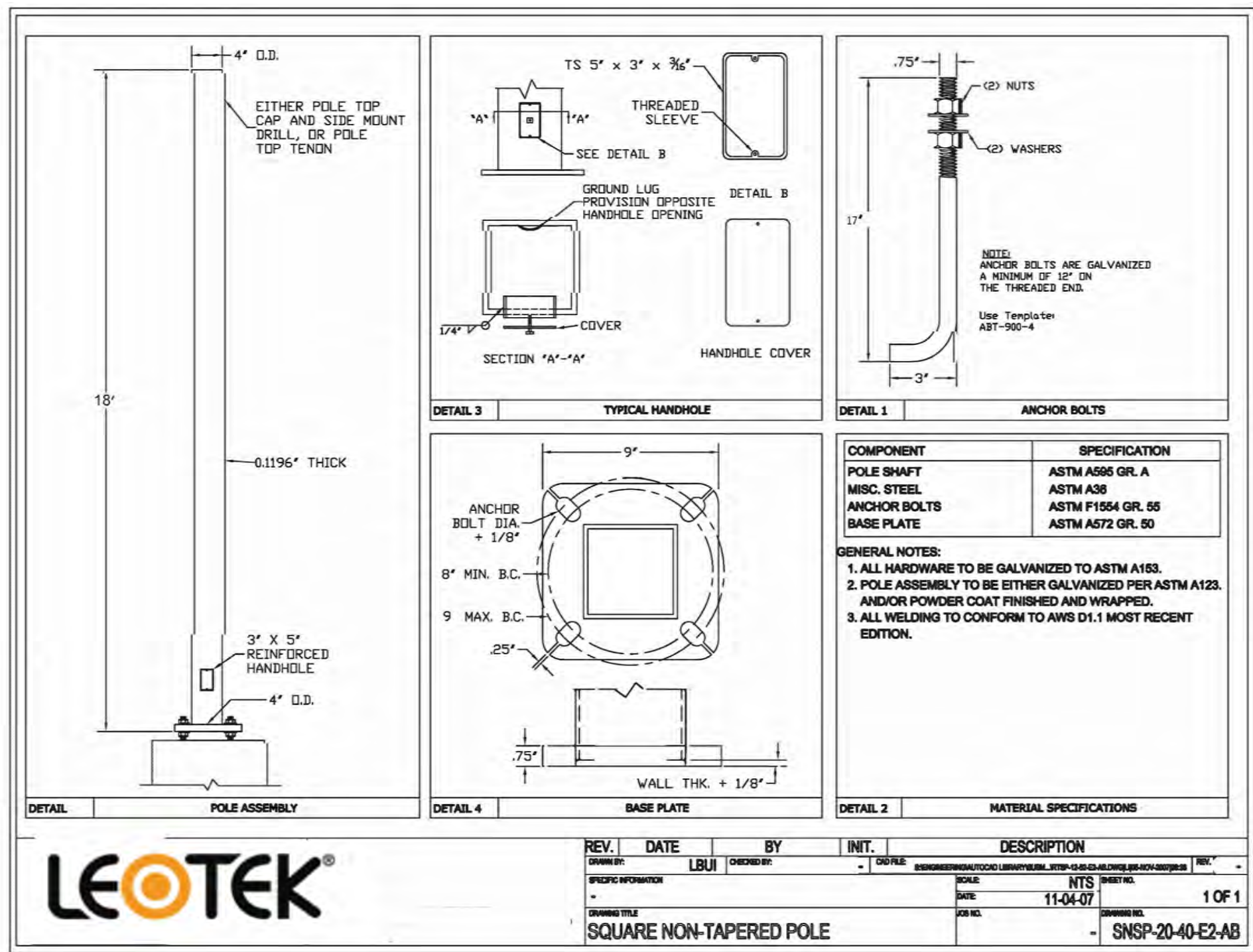
SHEET 19 OF 23



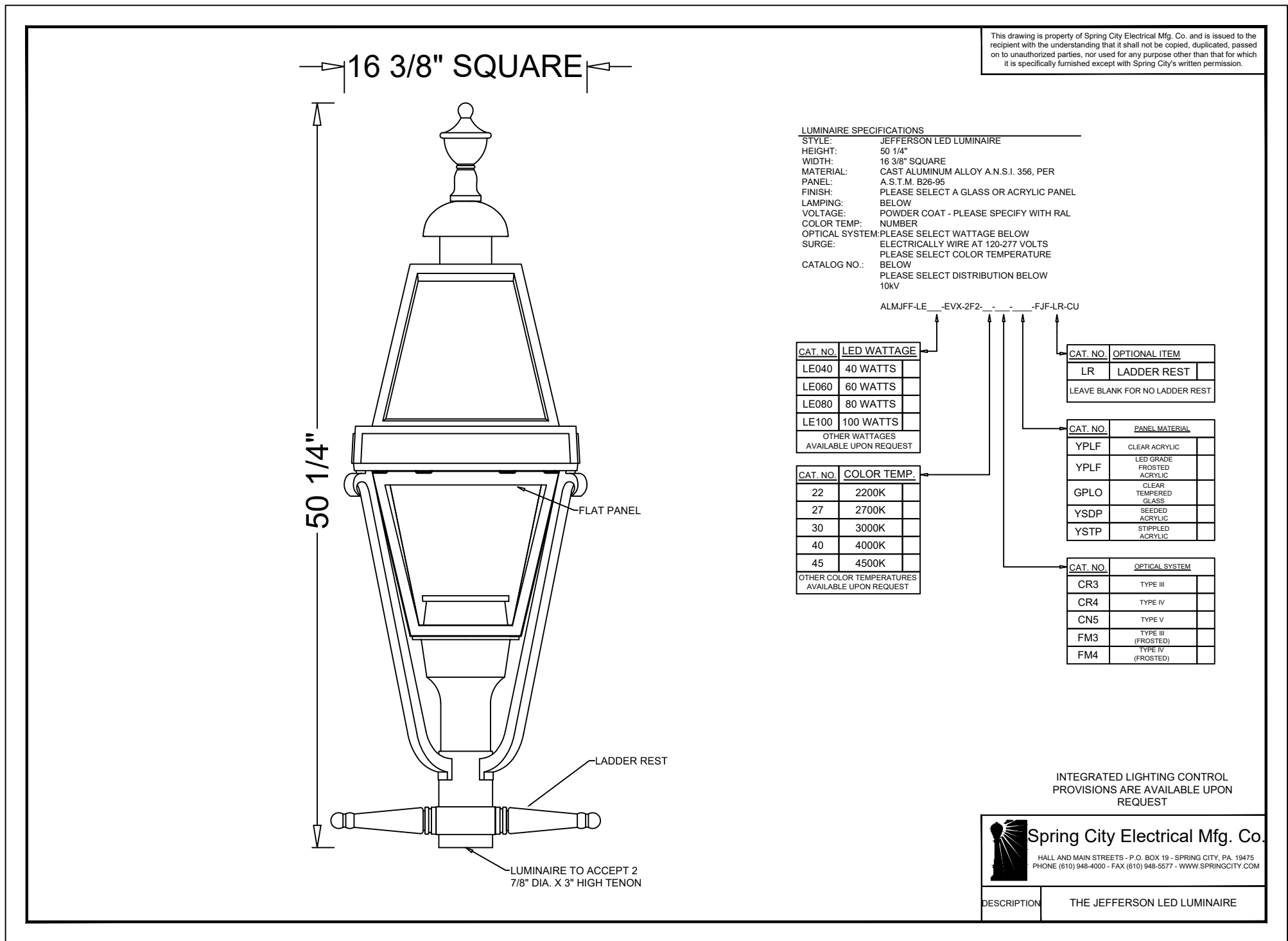
ORNAMENTAL LIGHT POLE
FOOTING DETAIL
N.T.S.



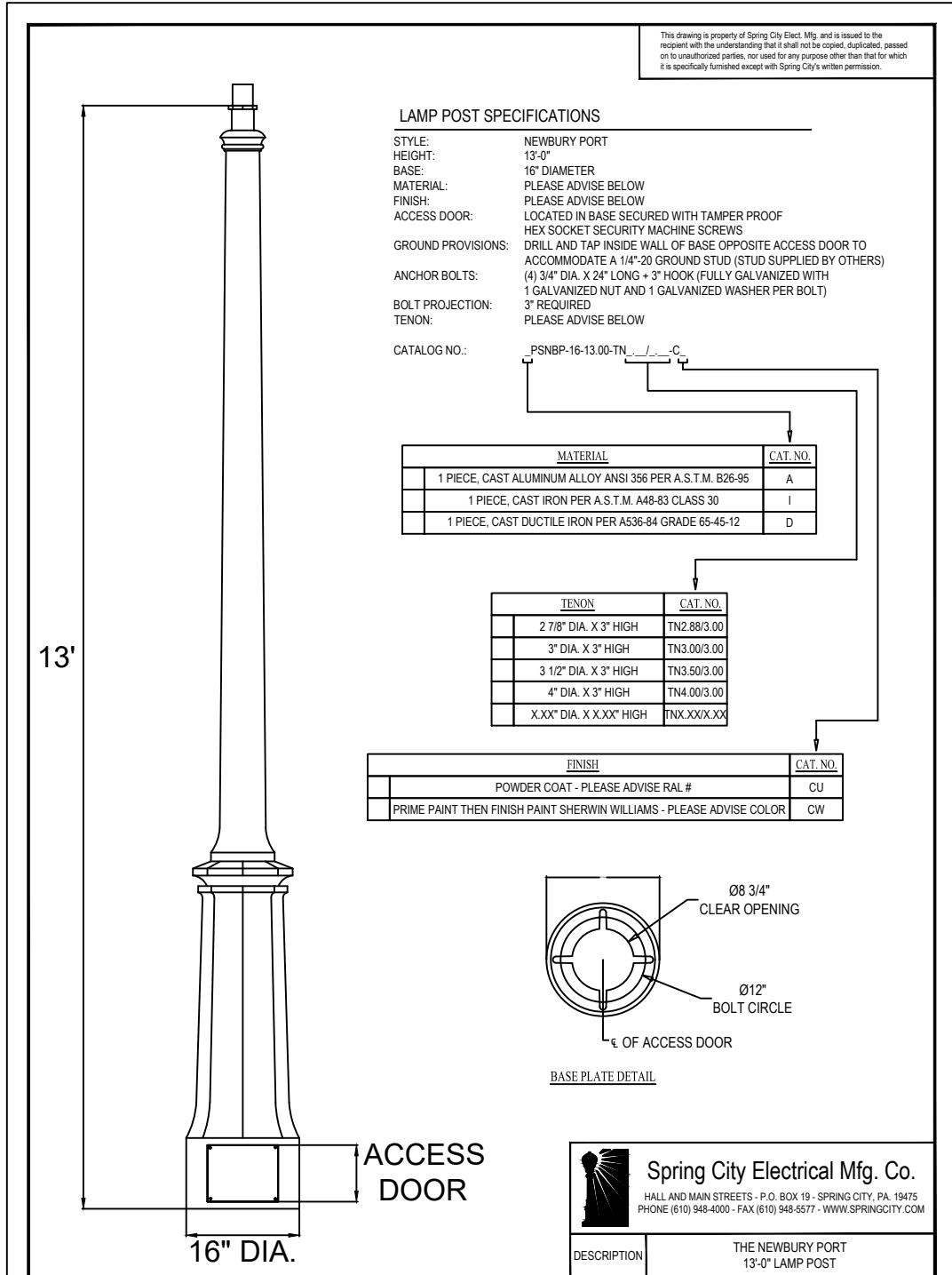
PARKING LIGHT POLE FOOTING DETAIL
N.T.S.



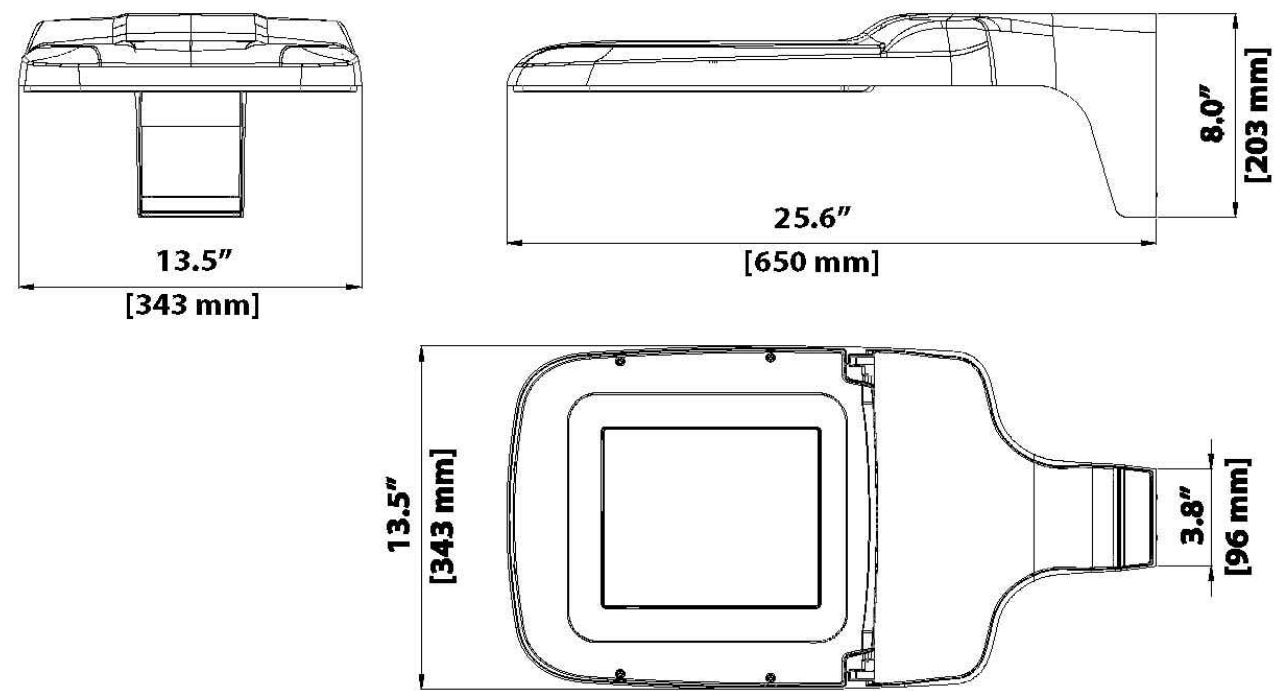
PARKING LIGHT POLE DETAILS
N.T.S.



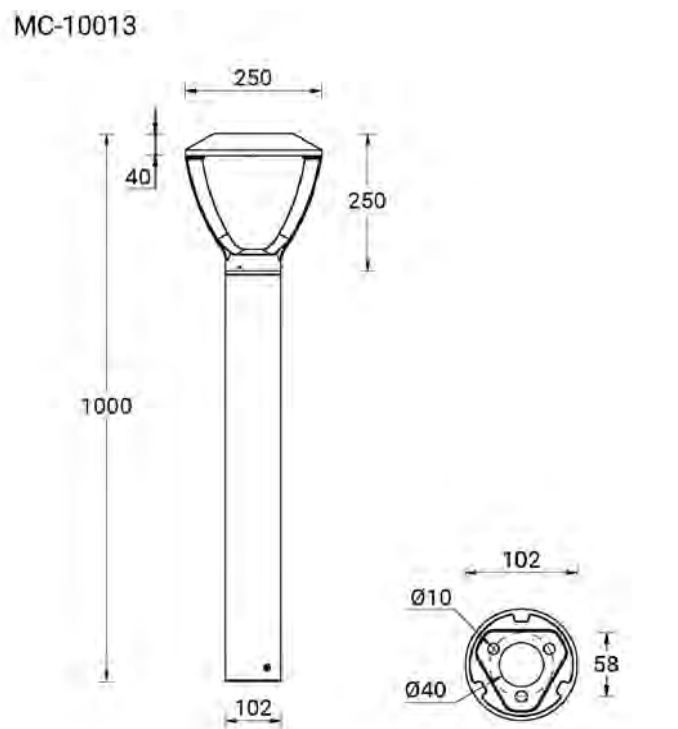
ORNAMENTAL LIGHT FIXTURE DETAIL
N.T.S.



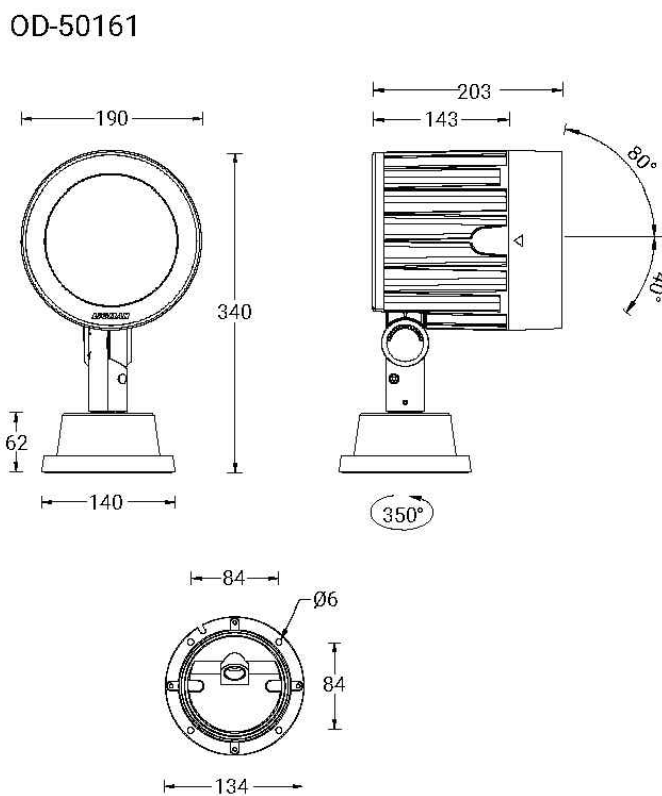
ORNAMENTAL LIGHT POLE DETAIL
N.T.S.



PARKING LIGHT FIXTURE DETAIL
N.T.S.



BOLLARD LIGHT DETAIL
N.T.S.



FLOOD LIGHT
(FLAG POLE)
DETAIL
N.T.S.

PARKING LOT LUMINAIRE SPECIFICATIONS

- LEOTEK ARIETA LUMINAIRE
- MODEL: (SEE LUMINAIRE SCHEDULE)
- IES FULL CUTOFF
- DISTRIBUTION TYPE (SEE LUMINAIRE SCHEDULE)
- COLOR: BRONZE
- QTY: 12
- OPTIONS: DIMONOFF PHOTOCELL & RWL-S SURGE DEVICE

BOLLARD LIGHT SPECIFICATIONS

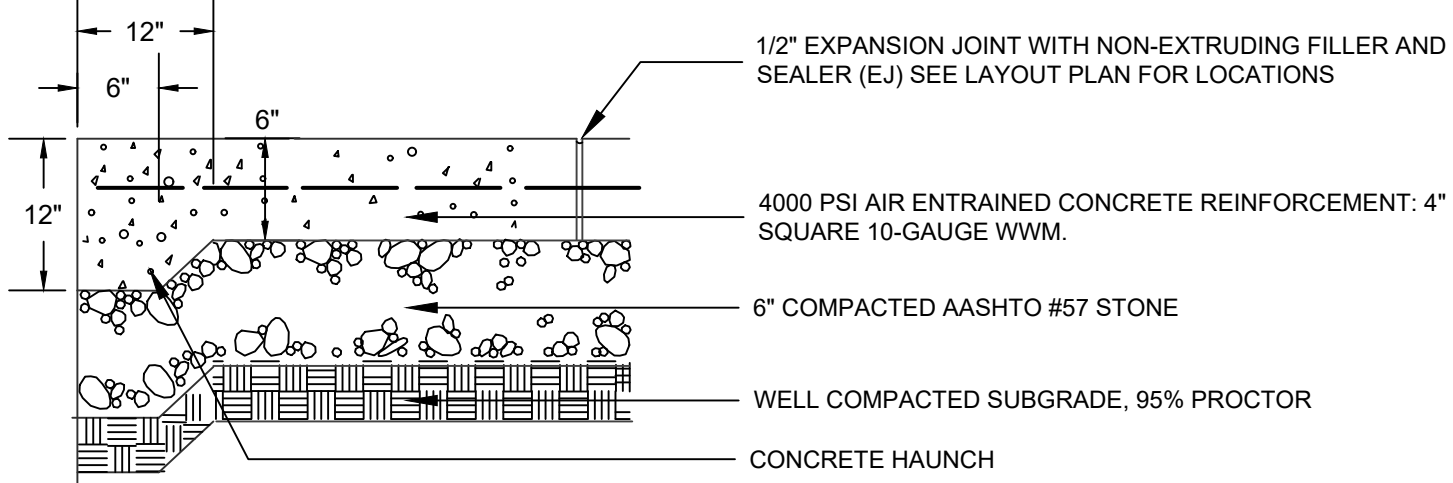
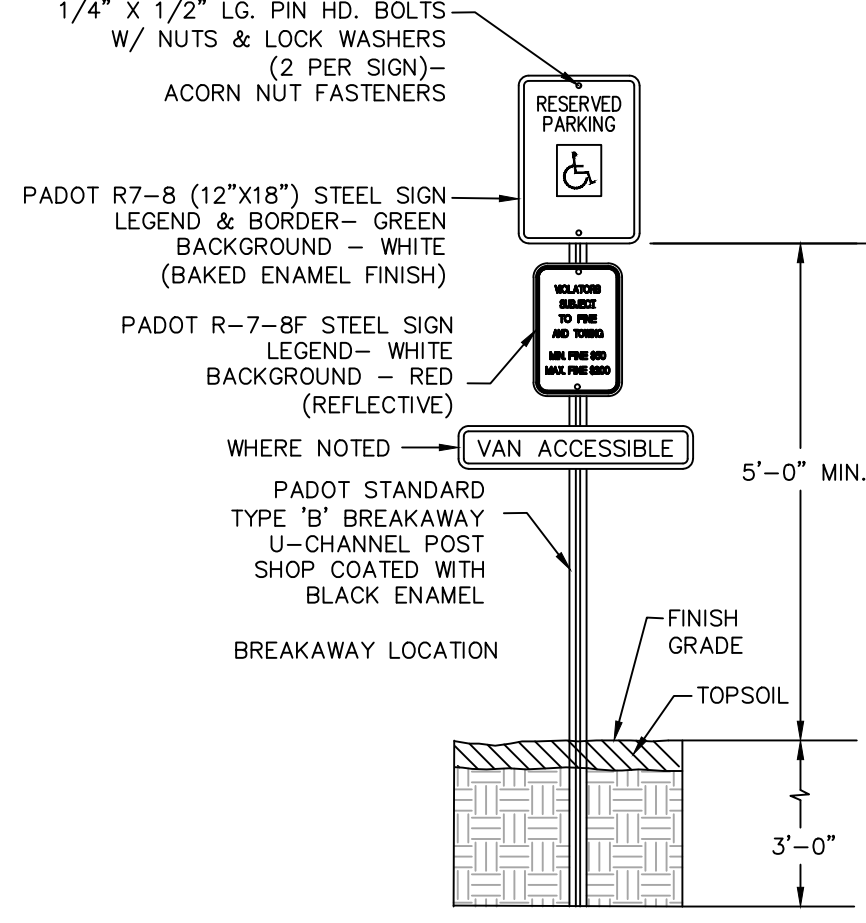
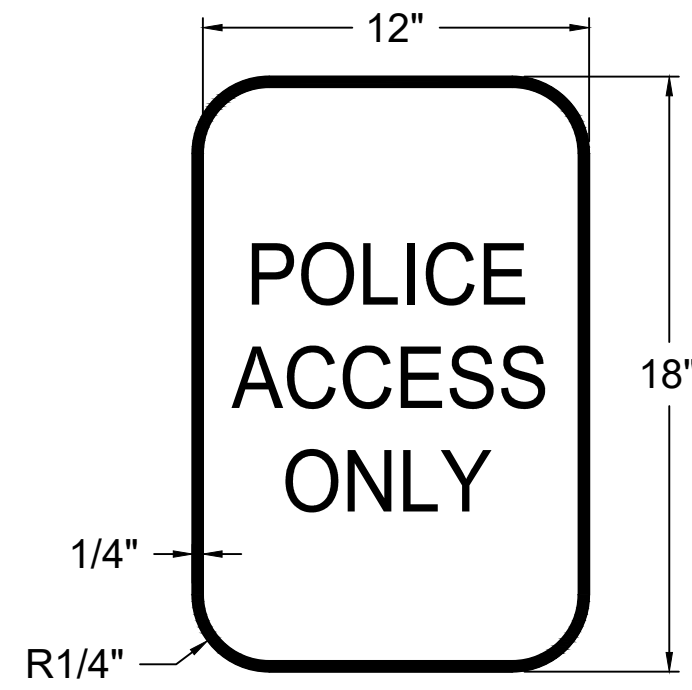
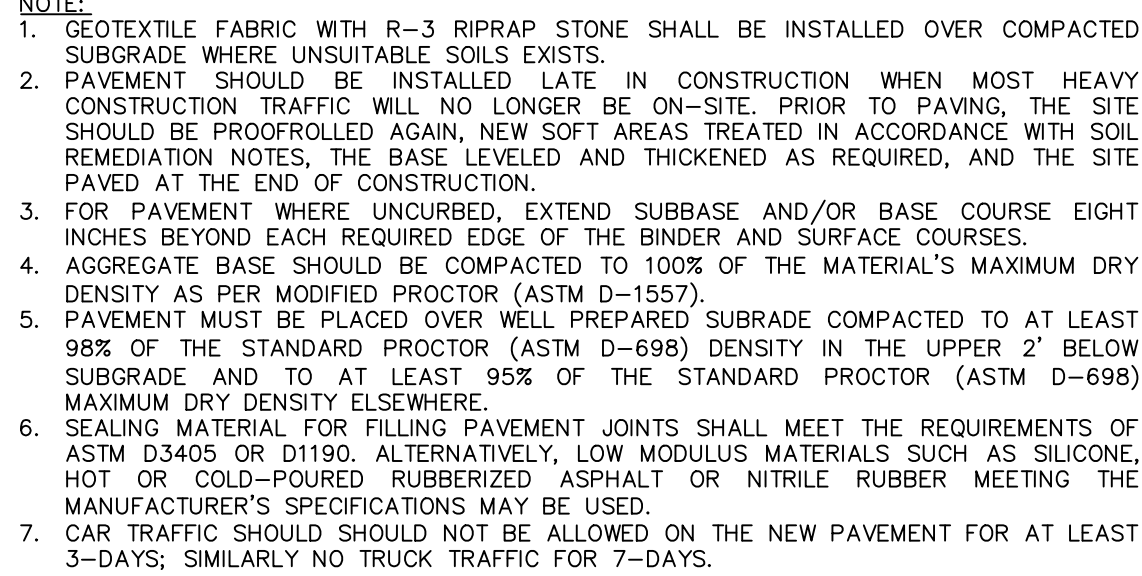
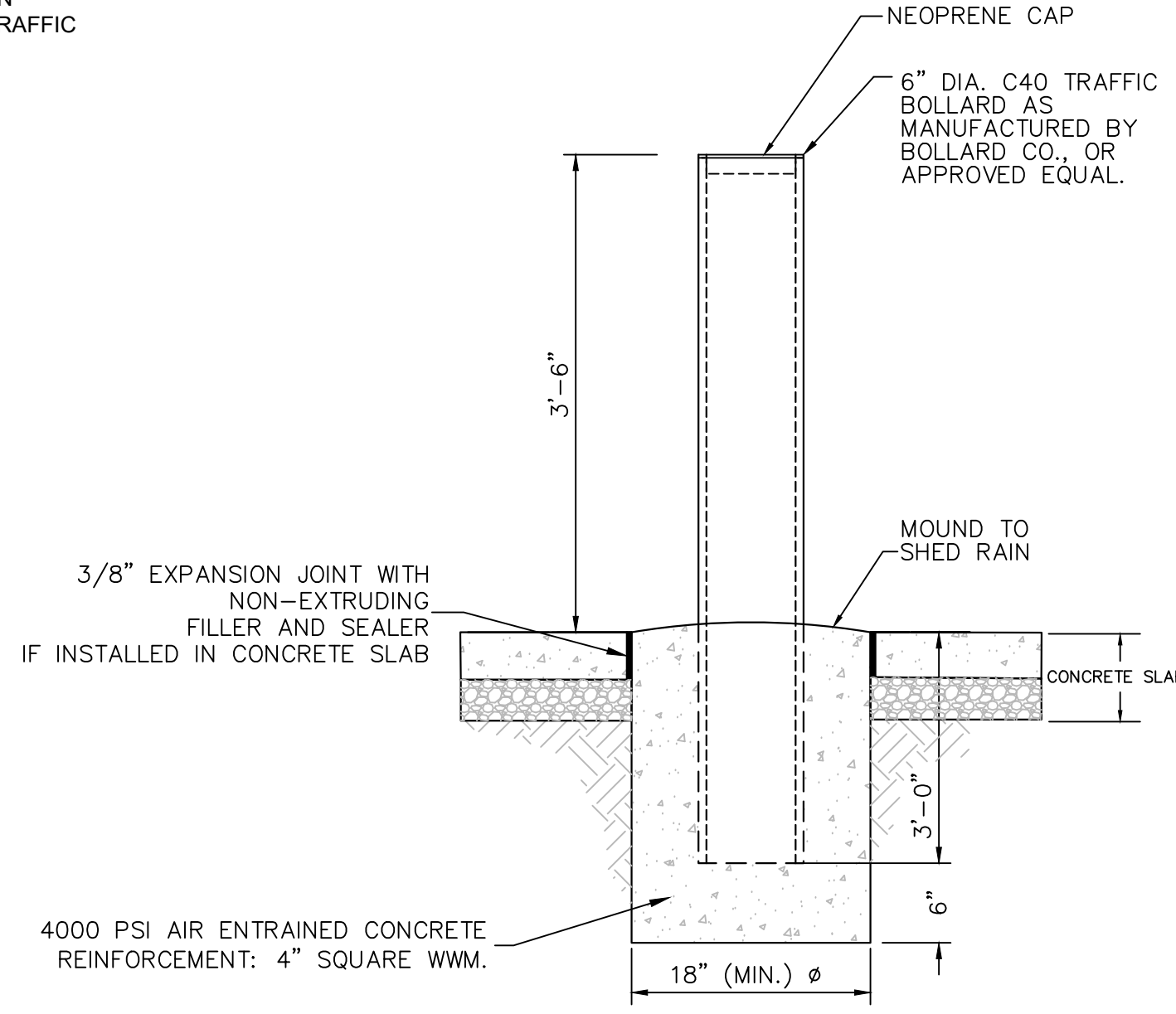
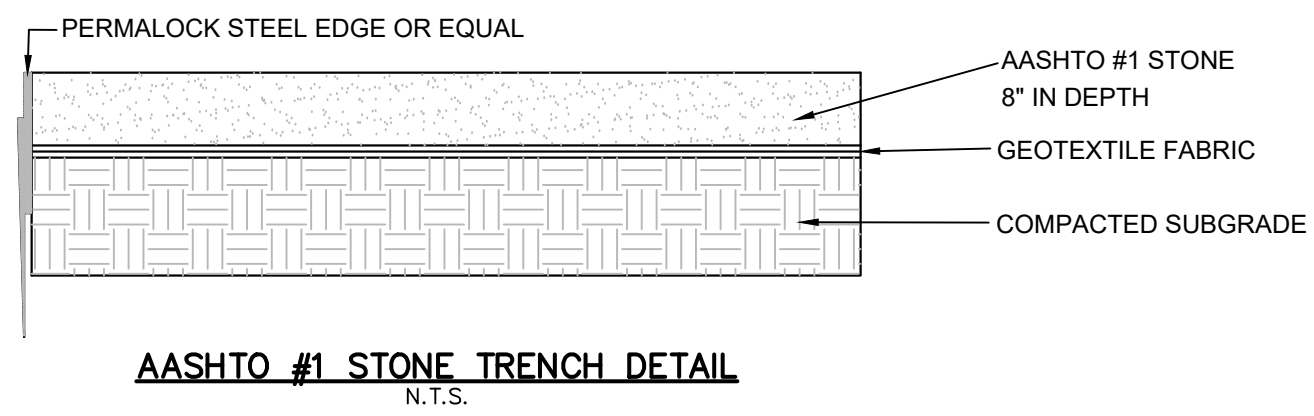
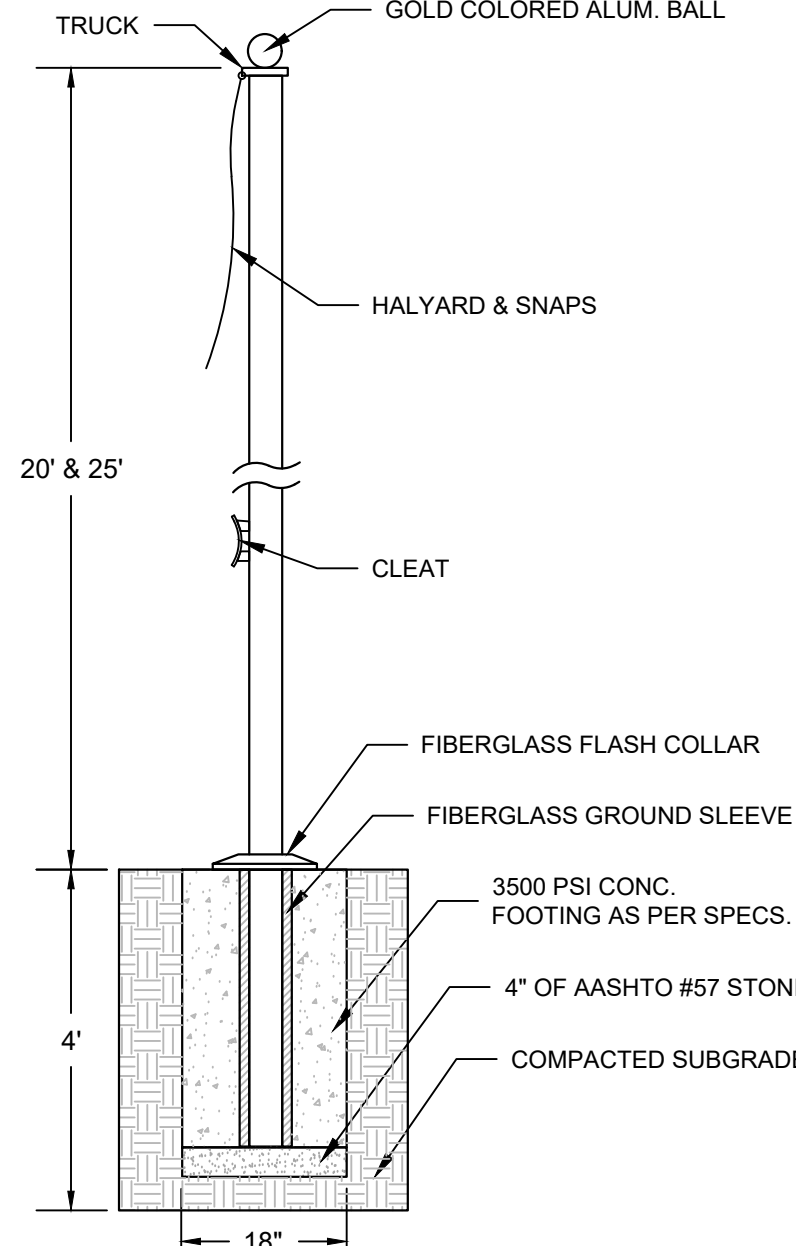
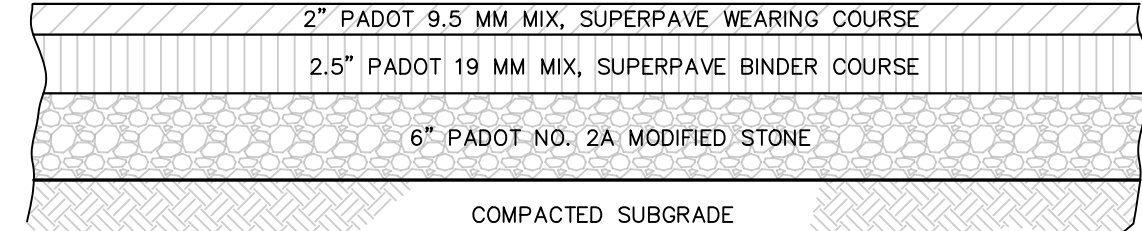
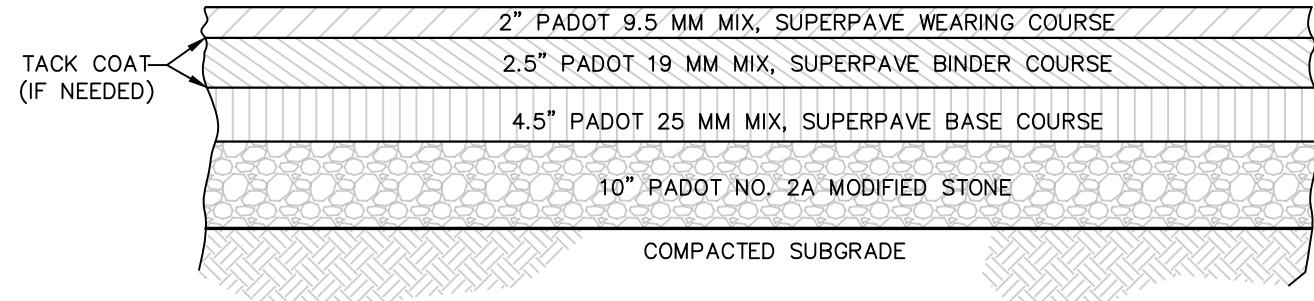
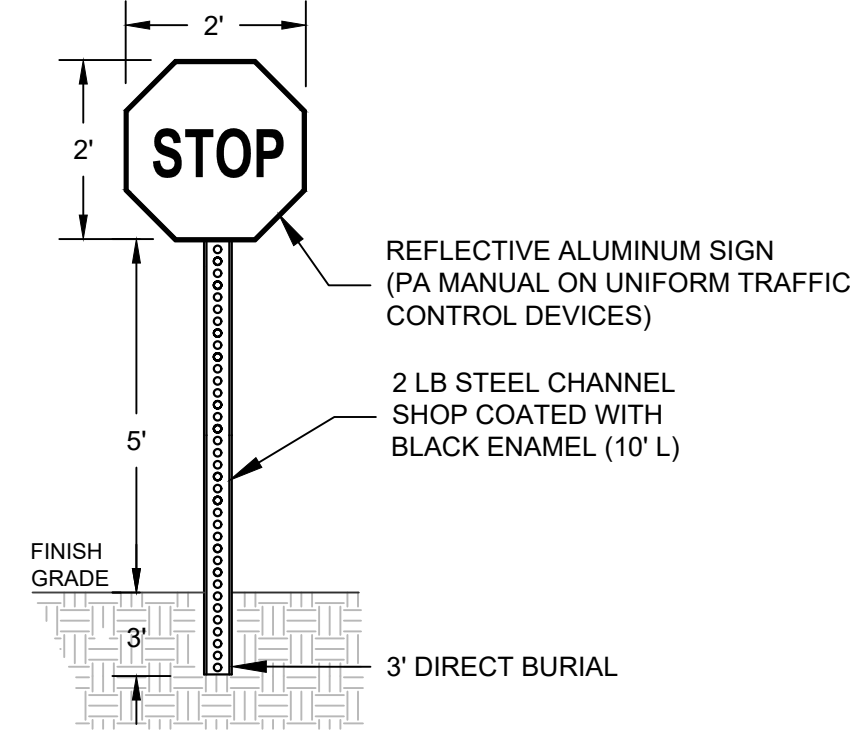
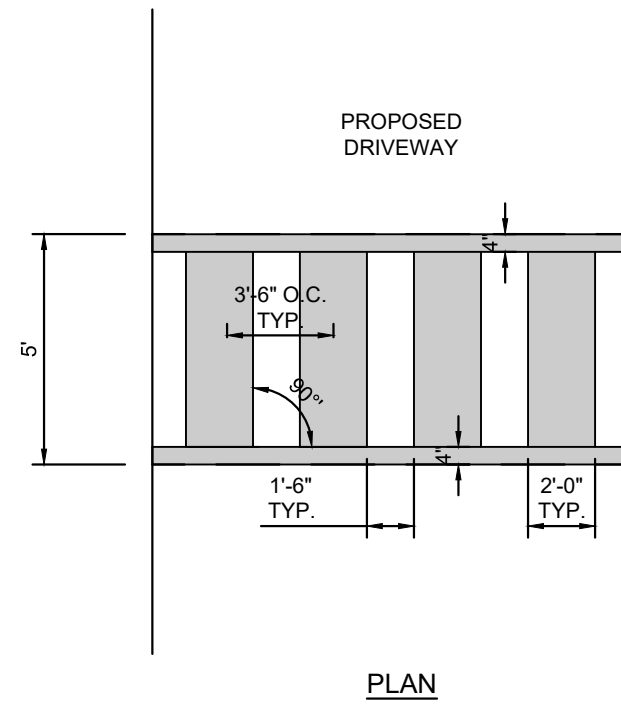
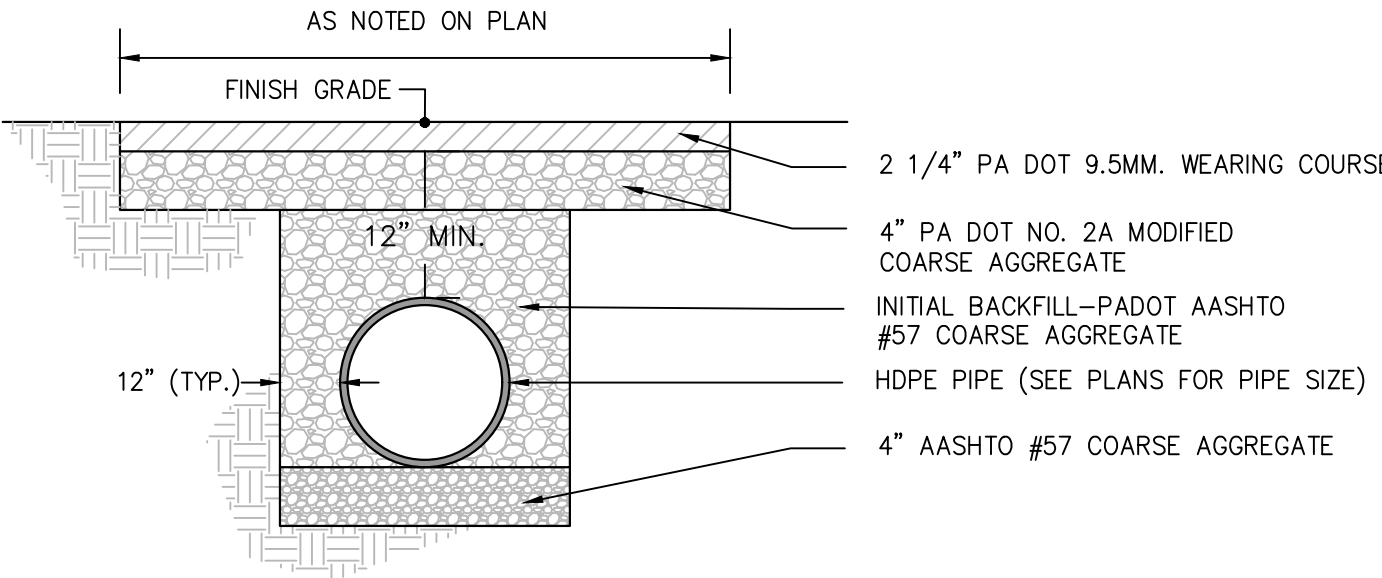
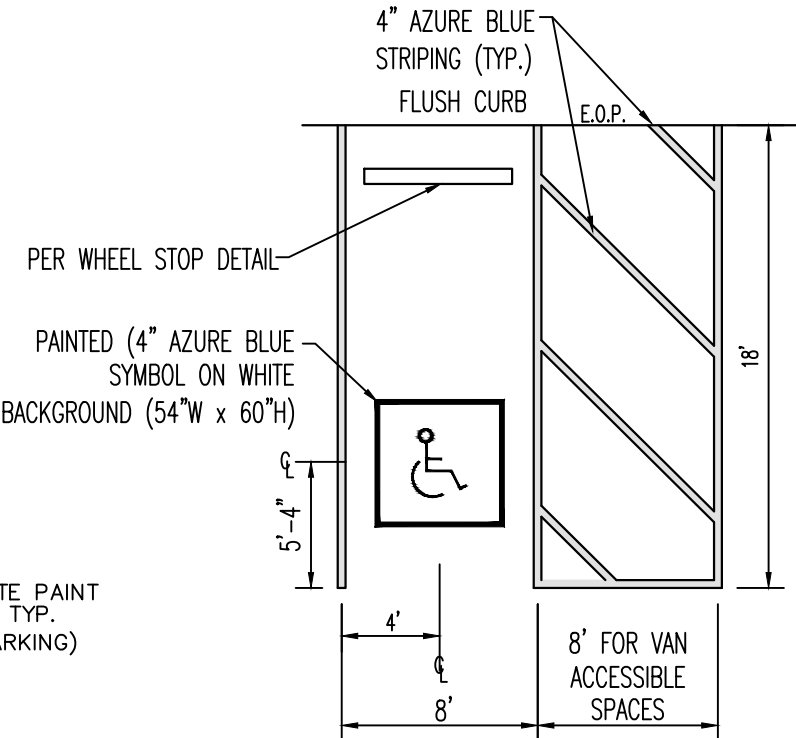
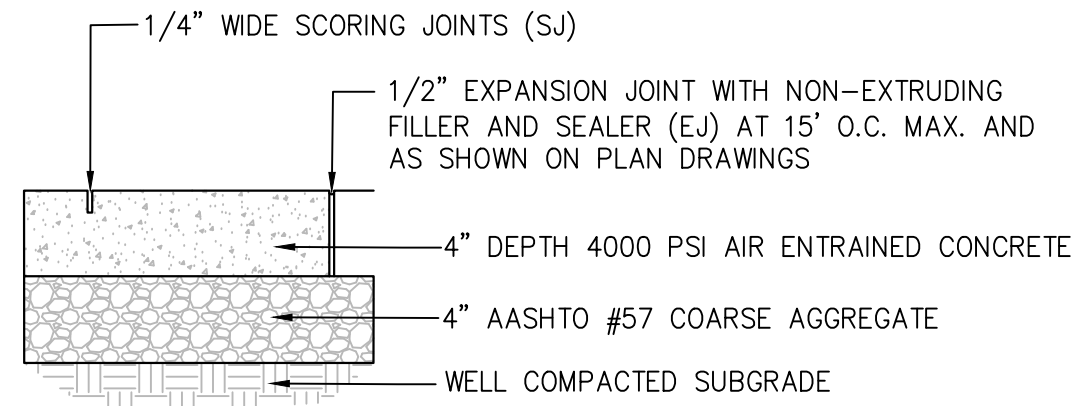
- LIGMAN - MACARON 5 BOLLARD LIGHT
- MODEL: (SEE LUMINAIRE SCHEDULE)
- IES FULL CUTOFF
- DISTRIBUTION TYPE (SEE LUMINAIRE SCHEDULE)
- COLOR: BRONZE
- QTY: 13
- OPTIONS: DIMONOFF PHOTOCELL & RWL-S SURGE DEVICE


FLOOD LIGHT (FLAG POLE) SPECIFICATIONS

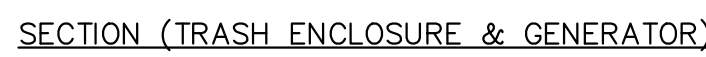
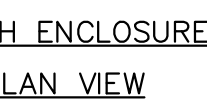
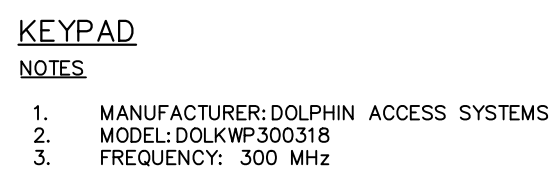
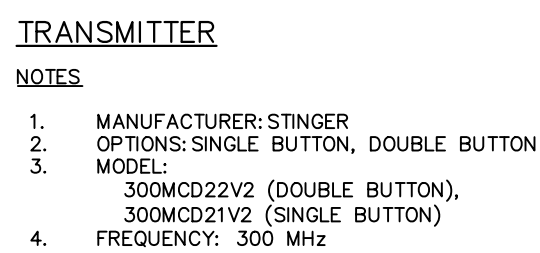
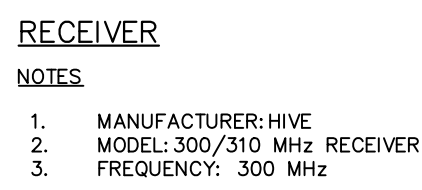
- LIGMAN - ODESSA 14 OUTDOOR FLOODLIGHT
- MODEL: (SEE LUMINAIRE SCHEDULE)
- HIGH EFFICIENCY PMMA LENS
- DISTRIBUTION TYPE: VN
- COLOR: BRONZE
- QTY: 3
- OPTIONS: ANTI GLARE VISOR (A54431)

LIGHTING DETAILS

| | | | | | |
|----------------------------------------------------------------------------------------|--------------------|----------------|------------------|---------------------------|--|
| NO. | | DATE | | REVISION | |
| CONSTRUCTION PLANS FOR UPPER POTTSVILLE MUNICIPAL COMPLEX | | | | | |
| UPPER POTTSVILLE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | | | | |
| ChesterValley ENGINEERS, INC. | | | | PROJECT NO. 22096-2000 | |
| 112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chestervalley.com | | | | F.B. | |
| SCALE As Noted | DATE 03/31/2025 | DRAWN BY ND | CHECKED BY AG | DRAWING | |



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| CONSTRUCTION DETAILS | | | | | | | | | |
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| NO. | DATE | | | REVISION | | | | | |
| CONSTRUCTION PLANS FOR UPPER POTTS GROVE MUNICIPAL COMPLEX | | | | | | | | | |
| UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA | | | | | | | | | |
|  ChesterValley ENGINEERS, INC. 112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chester.com | | | | | | | | PROJECT NO. | |
| | | | | | | | | 22096-2000 | |
| SCALE | | DATE | | DRAWN BY | | CHECKED BY | | DRAWING | |
| As Noted | | 03/31/2025 | | HL | | AG | | | |



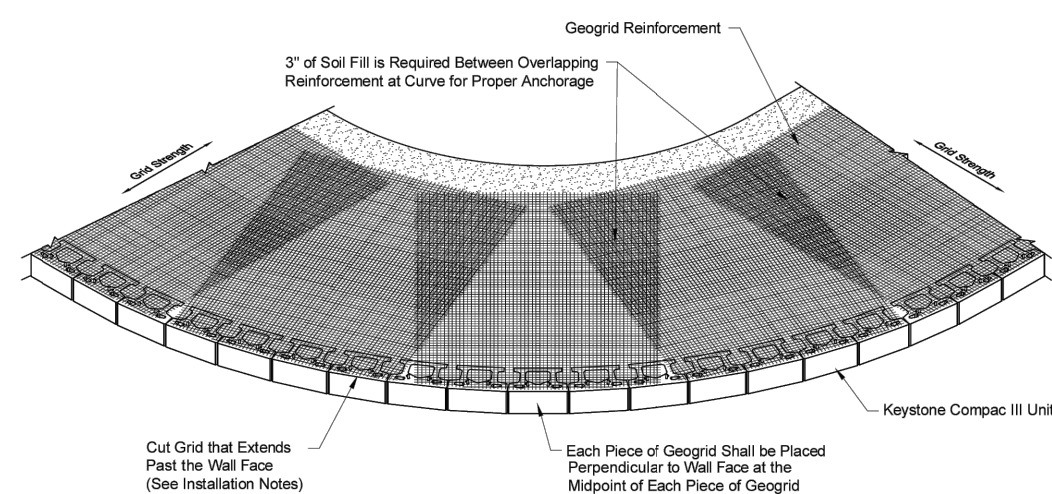
| CRITICAL DIMENSION CHART | | |
|--------------------------|---------------------------------|-------------|
| A | CLEAR OPENING | A |
| B | COUNTERBALANCE POST SPACING C/C | (A/2) - 11" |
| C | OVERALL GATE LENGTH | A x 1.5 |
| D | COUNTERBALANCE LENGTH | A x 0.5 |
| E | NOMINAL GATE HEIGHT | E |
| F | POST HEIGHT | E + 1'-6" |
| G | FABRIC HEIGHT | E - 1'-0" |

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| NO. | DATE | REVISION |

ChesterValley
ENGINEERS, INC.

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|------------------|---------|
| 112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 www.chesterv.com | | | | F.B. |
| SCALE As Noted | DATE 03/31/2025 | DRAWN BY HL | CHECKED BY AG | DRAWING |

C:17 - TYPICAL OUTSIDE CURVE GEOGRID PLAN

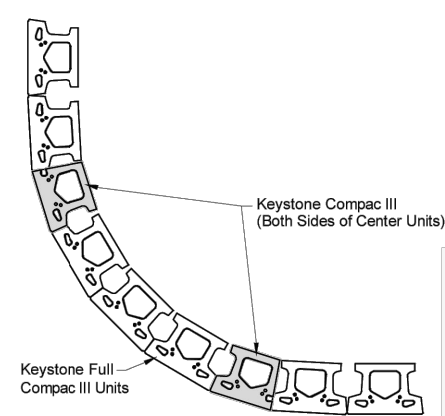


- Drainage zone and bacfill material should be placed and compacted up to the geogrid elevation prior to geogrid being installed at the geogrid elevation. The geogrid should be placed and compacted at the geogrid strength design elevation.
- Measure, cut and orient the geogrid, as per the engineer's design, in the correct stretch direction.
- Place the geogrid over the Keystone units within 1-inch of the front back face, then place next course units over grid to hold grid in place. Next, tension the geogrid by pulling it back away from the wall. Place a stake through the geogrid at the back to tension the geogrid.
- Proceed with placement of additional Keystone units, then drainage zone and bacfill material. Starting at the wall and moving away from the wall, place the drainage zone and bacfill materials over the geogrid to hold the geogrid in place under tension.
- Compact the bacfill material in 8-inch lifts up to the next reinforcement elevation.
- Measure and cut the beyond crown wall face 1-inch from the geogrid. The geogrid length must match design length.
- Where geogrids overlap naturally, overlap 3-inches or rock or soil between the overlapping layers.

Keystone units can be easily interted with multiple curves within the same wall. However, convex curves require attention to details during construction. Every wall system has a minimum radius that can be built before the tails of the units come into contact with each other. This minimum radius is unique to the shape of each individual block system. In convex curves, the tightest radius will always be the top course of the wall. This means that the radius at the base course of a convex curve wall will be larger than the desired radius at the top of the wall. Care should be taken when laying out a wall horizontal location in the field given these wall batter and radius relationships.

The minimum radius of an outside curve should not be less than 5-feet. When constructing an outside curve, we recommend performing the following steps to maintain running bond configuration. It is recommended to construct the wall into the curve, maintaining a running bond pattern in the straight sections of the wall on either side of the curve. (See Figure C-15, below) Due to the unit setback, the radius change in a curved wall will cause the units to migrate off from running bond. When this occurs, it will be necessary to cut a block to maintain running bond; cut unit width shall be no smaller than 6-inches. Use exterior grade concrete adhesive to secure the partial unit. When coming out of the radius, do not stack cut units. Cutting of another block may be required to maintain a more precise running bond on the straight wall extending away from the curve.

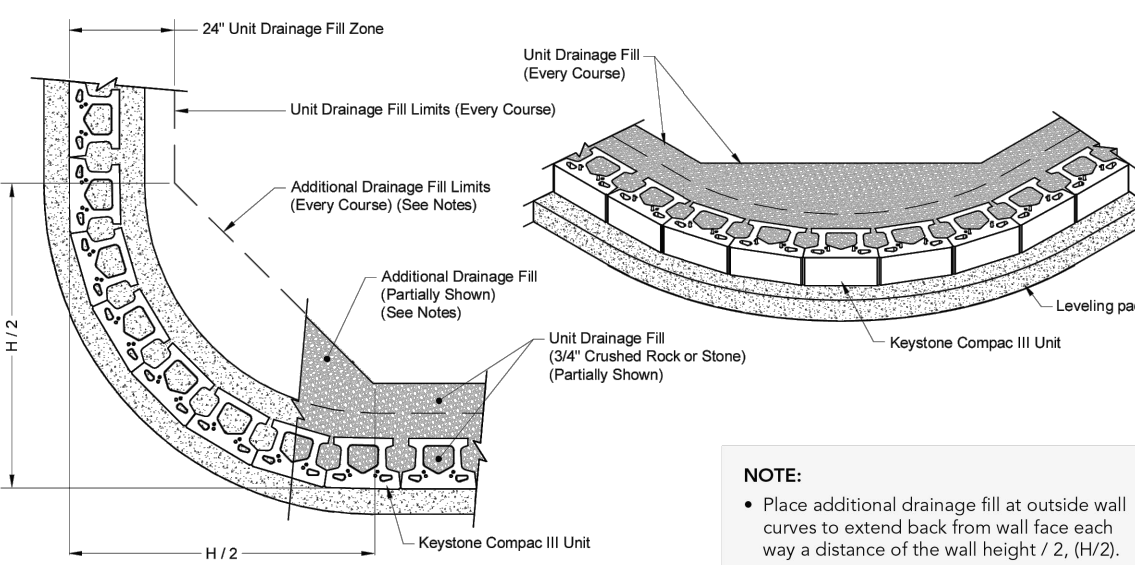
C:15 - OUTSIDE CURVE RUNNING BOND



NOTES:

- Full uncut units to be used for the base course and as indicated in the details.
- Verify actual cut widths for each course as wall is constructed.
- Cut units shall not be less than 6-inches in width.
- Do not stack cut units.

C-16 - OUTSIDE CURVE ADDITIONAL DRAINAGE FIL



NOTE

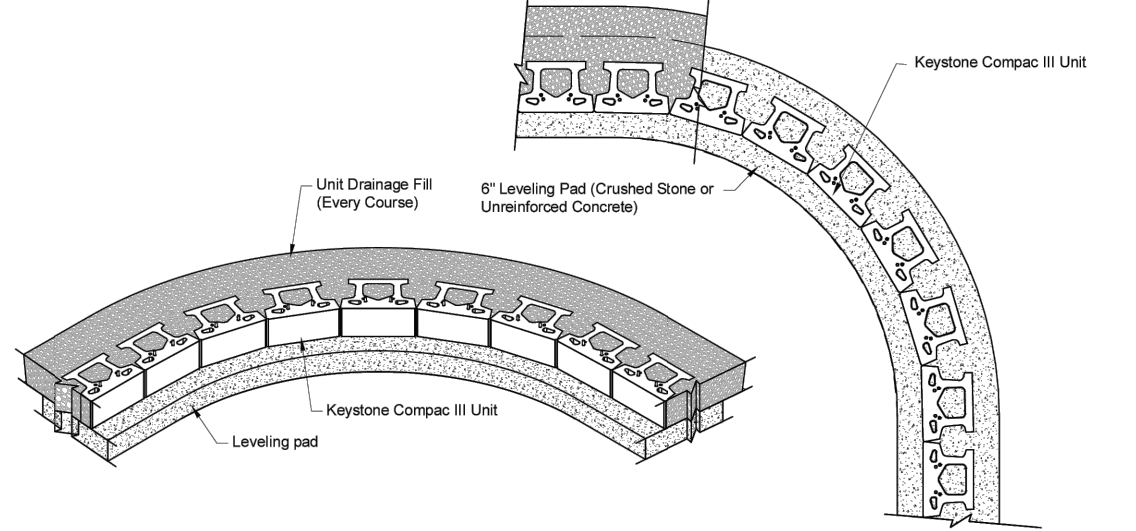
- Place additional drainage fill at outside wall curves to extend back from wall face each way a distance of the wall height / 2, (H/2)

Inside curves for moderately tall Keystone walls are more difficult to construct than a straight wall due to the complex geometry resulting from a battered wall face in a curve. Inside curves allow good access for compaction and the wall face units tend to support each other like an arch when the soil strain associated with the active earth pressure condition develops. As the wall gets taller, inside curves will result in the top of the wall becoming longer than the base. For wall systems to maintain the desired running bond configuration, gaps between units tend to form.

The following is an outline to a process of constructing inside curves in taller walls. See the illustrations below.

1. Units can be moved laterally to remove gapping. Eventually, cutting partial units will be necessary to get the coursing back on the running bond pattern.
2. The minimum inside radius at the base of the wall course should not be less than 6 feet.

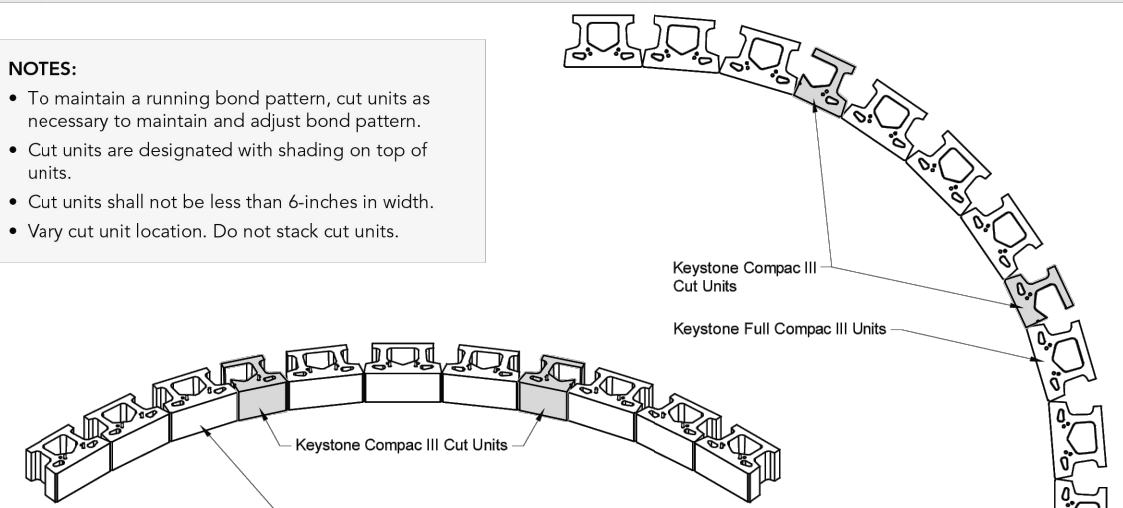
C:11 - TYPICAL UNIT INSTALLATION FOR INSIDE CURVE



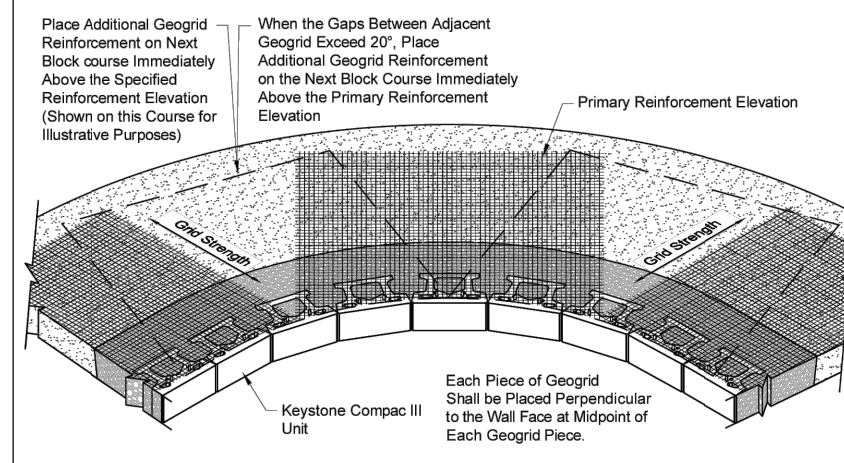
C-12 - IN CURVE CUT UNITS EXAMPLE COURSE

NOTES

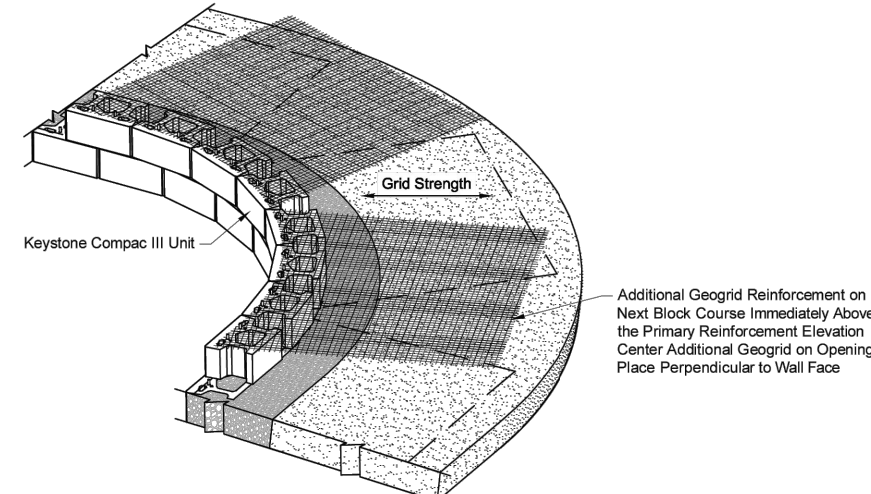
- To maintain a running bond pattern, cut units as necessary to maintain and adjust bond pattern.
- Cut units are designated with shading on top of units.
- Cut units shall not be less than 6-inches in width.
- Vary cut unit location. Do not stack cut units.



C:13 - INSIDE CURVE GEOGRID INSTALLATION (PRIMARY ELEVATION)

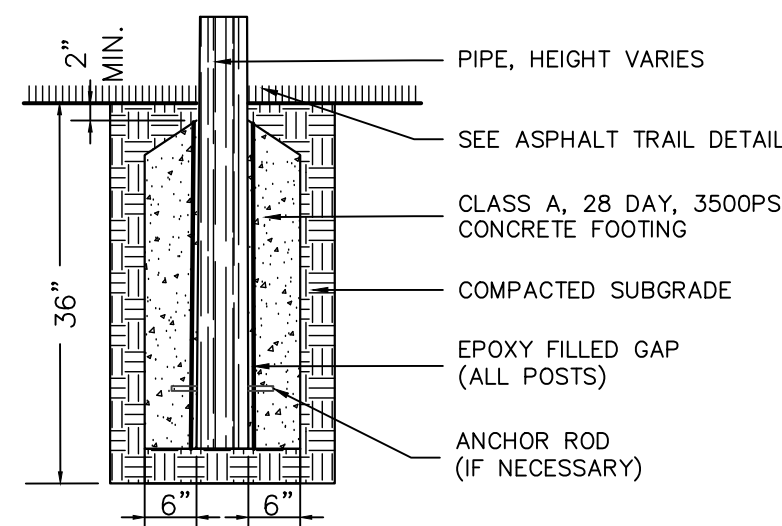


C:14 - INSIDE CURVE TYPICAL GEOGRID INSTALLATION (SECONDARY ELEVATION)



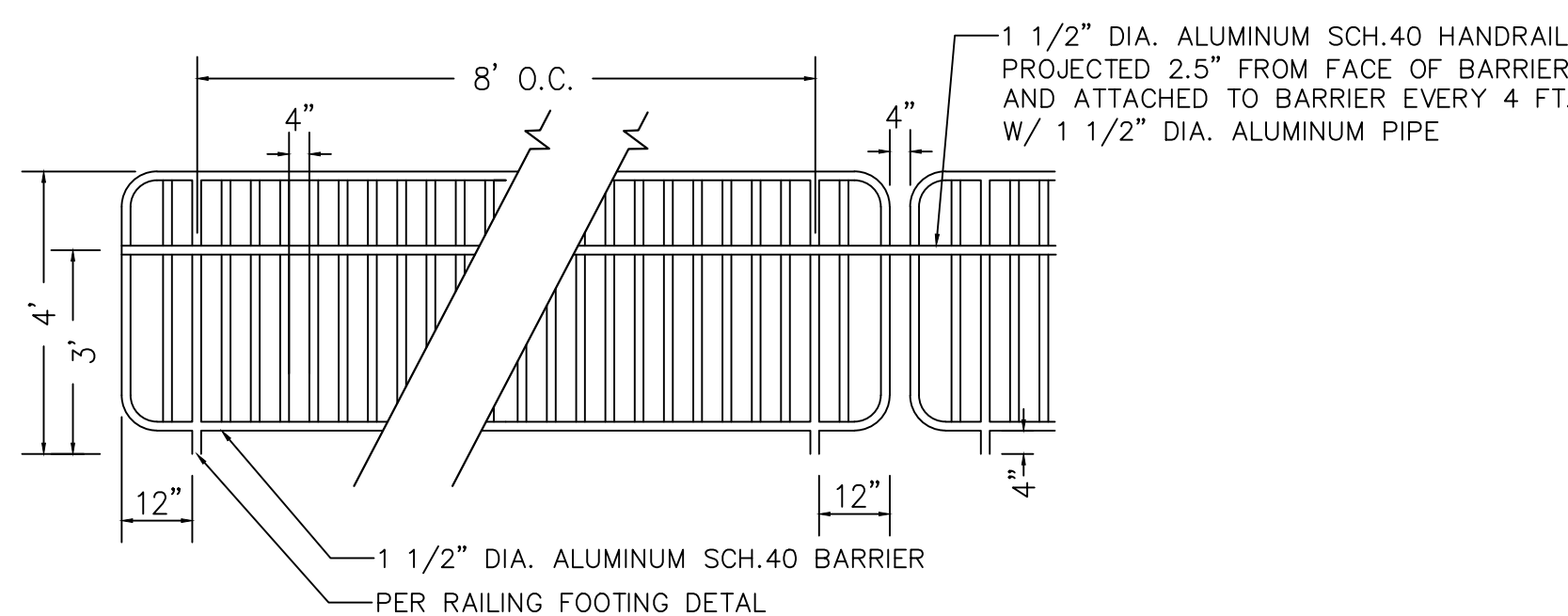
NOTES

- Proceed with placement of additional Keystone units and unit drainage fill. Start backfilling nearest the Keystone units and then move away from the wall placing backfill materials over the geogrid.
- Compact the backfill materials in 8-inch lifts up to the next reinforcement elevation.
- If the radius of the wall creates a gap between adjacent primary elevation geogrid layers (see Figure C-13, above) of greater than 20 inches, place a secondary elevation geogrid layer on the crease above the primary elevation geogrid, with the middle of the secondary elevation geogrid centered on the mark made in the center of the gapped geogrid below.
- The use of 12-foot wide rolls of geogrid will not be possible in walls with anything tighter than a gradual inside radius curve. Very tight inside radius curves may even require cutting the width of the roll to maintain the geogrid being as perpendicular as possible to the wall units.

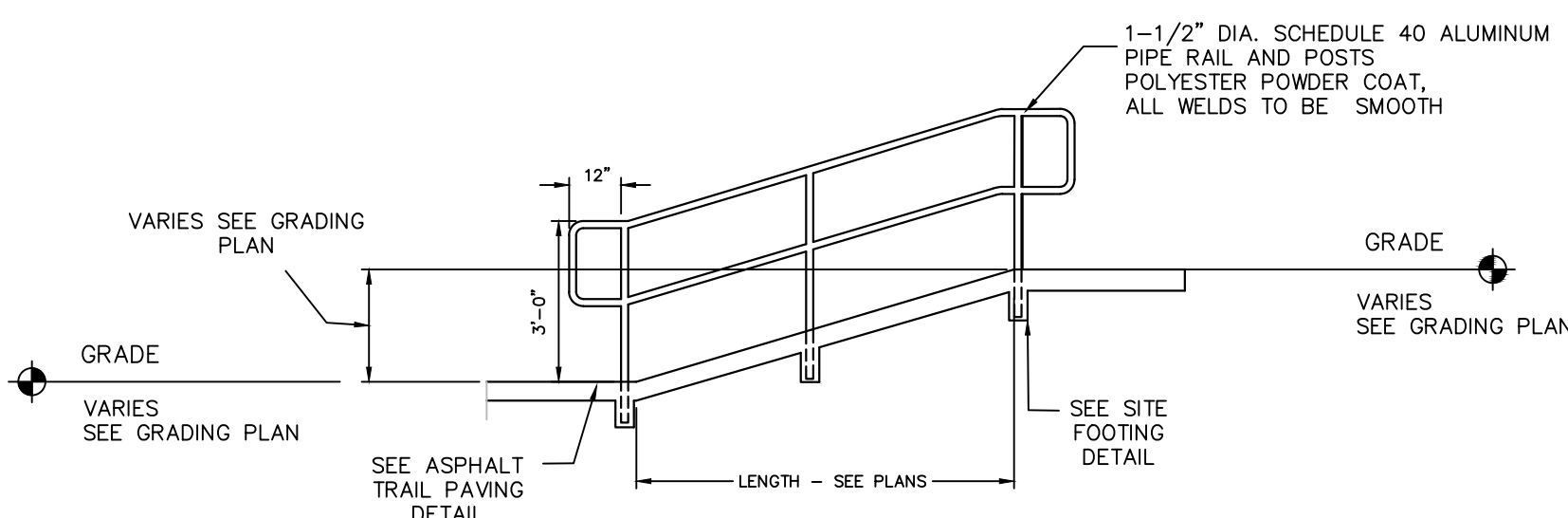


NOTE:
THIS DETAIL SHALL BE USED WHEN INSTALLING
RAILING BEYOND WALL AREAS.

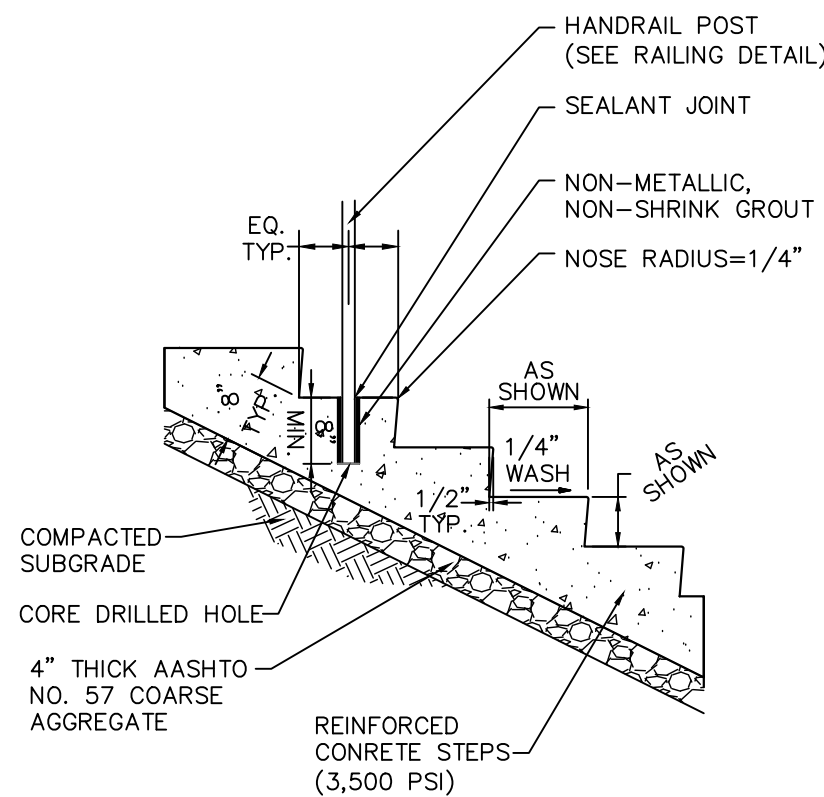
RAILING FOOTING DETAIL
N.T.S.



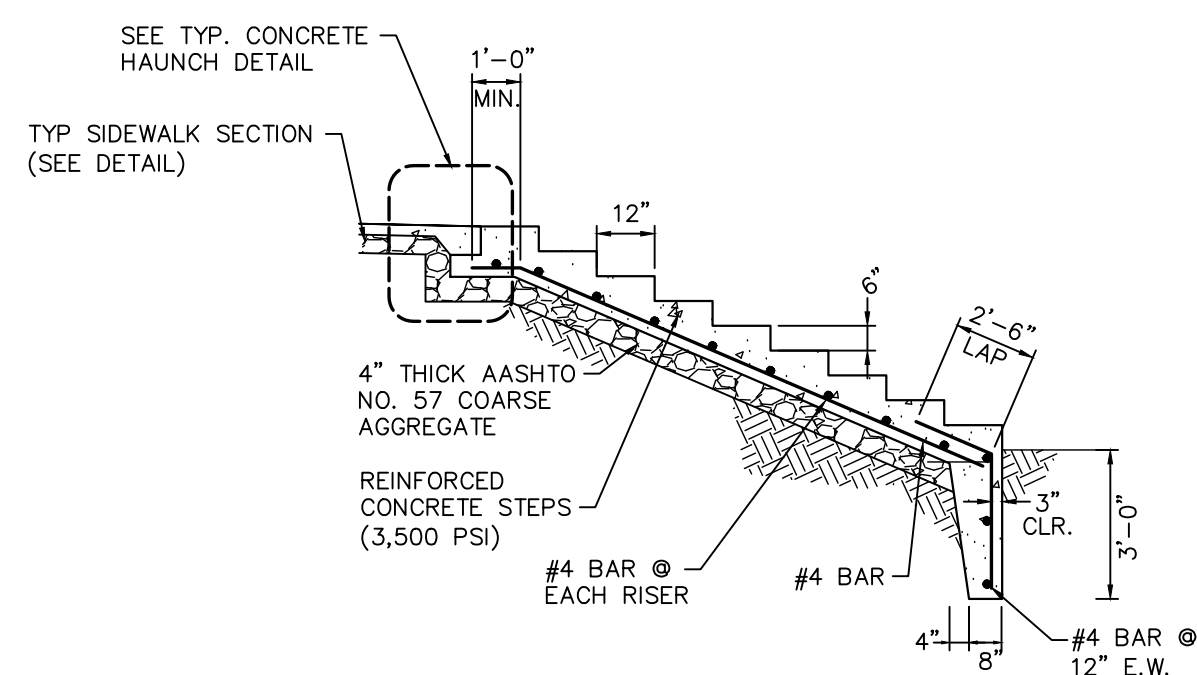
ADA ALUMINUM BARRIER AND HANDRAIL DETAIL
N.T.S.



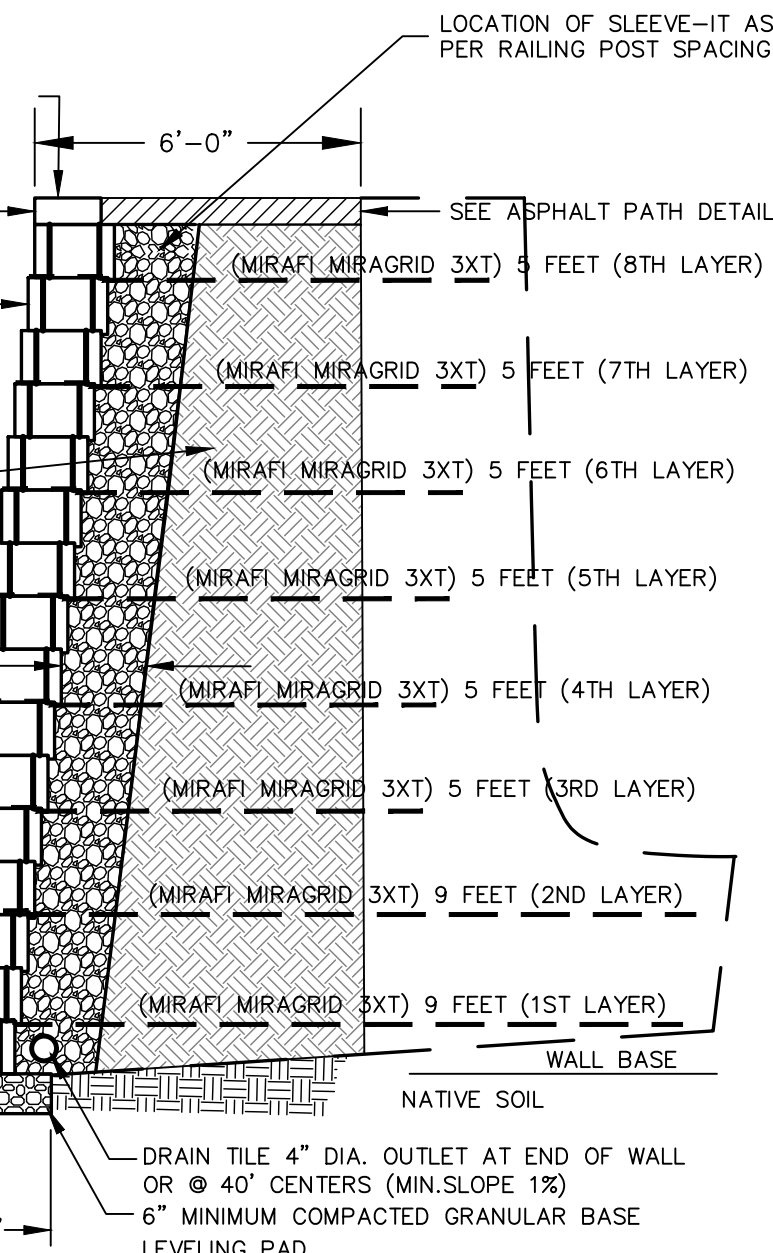
TYPICAL HC RAMP & RAILING DETAIL
N.T.S.



TYPICAL HANDRAIL POST DETAIL
N.T.S.

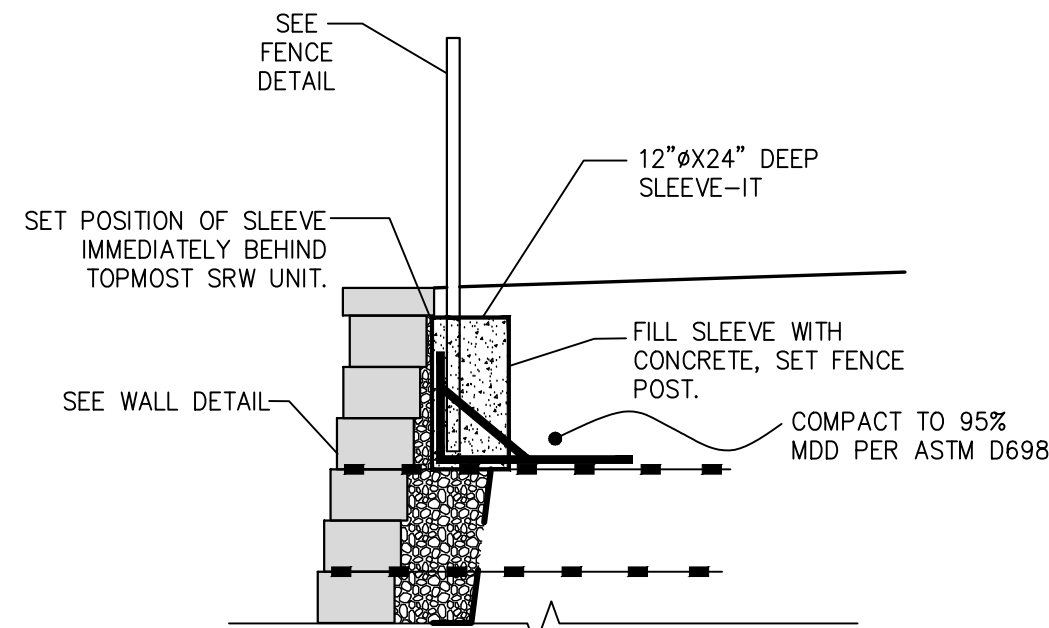


TYPICAL STEPS STRUCTURAL DETAIL
N.T.S.



NOTE:
CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (SIGNED & SEALED BY
REGISTERED ENGINEER) FOR REVIEW APPROVAL PRIOR TO INSTALLING PROPOSED
WALLS. DETAILS SHALL INCLUDE THE PROPOSED SLEEVE AT ANCHORING SYSTEM

KEYSTONE RETAINING WALL COMPACT III UNIT DETAIL
N.T.S.



NOTES:

1. FENCING SYSTEMS APPROVED FOR USE WITH SLEEVE-IT ARE LIMITED TO THE FOLLOWING HEIGHTS: CHAIN LINK - UP TO 8-FT, PRIVACY - UP TO 6-FT (WOODEN, PVC, METAL). POST SIZE 4"x4" MAX.
2. THIS DETAIL SHALL BE USED FOR FENCE/RAILING INSTALLED BEHIND RETAINING WALL.

FENCE SLEEVE-IT DETAIL
N.T.S.

CONSTRUCTION DETAILS

[illegible]