

#### ACT 287 LIST OF UTILITIES

NOTIFICATION OF UTILITIES BEFORE EXCAVATION IN CONTRACT AREA. THE ONE UNDERGROUND UTILITIES LOCATION CALL NUMBER IS 1-800-242-1776. DESIGN SERIAL NUMBER IS 20231515029, SUBMITTED ON 05/31/2023.

100 GETTYSBURG PIKE MECHANICSBURG, PA. 17055 CONTACT: KODI HOCKENBERRY EMAIL: KHOCKENBERRY@UATWP.ORG VERIZON PENNSYLVANIA LLC

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# PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

# PROPOSED K CARE - UA (GENIUS KIDS) OLD SCHOOLHOUSE LANE

PARCEL ID 42-26-0243-045

# UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, **PENNSYLVANIA**

PREPARED FOR:



K CARE - UA LLC C/O MR. KIRAN GUDOOR, 1802 SILVER PINE CIRCLE, MECHANICSBURG, PA 17050 PREPARED BY:



2601 Market Place, Suite 350 Harrisburg, PA 17110 (717) 651-9850 (717) 651-9858 Fax

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CARBONATE GEOLOGY C	<u>CERTIFICATION</u>
I,, CERTIFY THAT THE ARE NOT UNDERLAIN BY CARBONAT	E PROPOSED STORMWATER MANAGEMENT FACILITIES TE GEOLOGY.
STORM DRAINAGE PLAN	CERTIFICATION
	, HEREBY CERTIFY THAT THE STORMWATER SIGN STANDARDS AND CRITERIA OF THE UPPER NAGEMENT ORDINANCE.
	DATE:
ALARIC J. BUSHER REG. NO. PE 60320	
RECORDER OF DEEDS CE	EDTIFIC ATE
RECORDED IN THE OFFICE FOR REC PENNSYLVANIA, IN INSTRUMENT #_ THIS DAY OF	CORDING OF DEEDS IN AND FOR CUMBERLAND COUNTY, WITNESS MY HAND AND SEAL OF OFFICE, 20

#### CERTIFICATION OF ACCURACY

, HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, OR REGISTERED ENGINEER IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT THIS PLAN CORRECTLY REPRESENTS A SURVEY COMPLETED BY ME ON \_ MONUMENTS SHOWN THEREON ACTUALLY EXIST; AND THAT THEIR LOCATION, SIZE, TYPE AND MATERIAL ARE ACCURATELY SHOWN.

GREGORY L. CONDON, P.L.S. REG. NO. PLS SU32480E

#### WAIVERS AND MODIFICATIONS REQUESTED

APPROVAL DATE

THE FOLLOWING WAIVERS HAVE BEEN GRANTED AS PART OF THIS PLAN TO THE BOARD OF COMMISSIONERS.

220-5.3.B (5) SIDEWALK LOCATED WITHIN THE STREET RIGHT-OF-WAY 220-5.4.B.(3)(g). ACCESS DRIVE TANGENTIAL ARC OF 30 FEET MINIMUM

#### PLAN PURPOSE

THE PURPOSE OF THIS PLAN IS TO DESIGN A ±8,500 SF DAY CARE CENTER ALONG WITH ASSOCIATED SITE IMPROVEMENTS SITUATED ON AN APPROX. 1-ACRE PARCEL.

# LOCATION VICINITY MAP

CERTIFICATE OF OWNERSHIP, ACKNOWLEDGEMENT OF PLAN, AND OFFER OF DEDICATION CORPORATION

#### COMMONWEALTH OF PENNSYLVANIA:

COUNTY OF CUMBERLAND:

UNDERSIGNED OFFICER, PERSONALLY APPEARED NAME OF THE CORPORATION BY HIMSELF AS PRESIDENT OR VICE PRESIDENT

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL

Y COM	MISSION EXPIRES:	

CUMBERLAND COUNTY PLANNING DEPARTMENT'S REVIEW CERTIFICATE

REVIEWED BY	CUMBERLAND	COUNTY	PLANNING	DEPARTMENT,	THIS	DAY OF	•
, 2	0						

NOTARY PUBLIC

#### UPPER ALLEN TOWNSHIP COMMISSIONERS

DIRECTOR OF PLANNING

CONDITIONALLY APPROVED BY THE BOARD OF COMMISSIONERS UPPER ALLEN TOWNSHIP, THIS \_\_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_. THE CONDITIONS OF APPROVAL WERE SATISFIED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

> PRESIDENT SECRETARY

#### UPPER ALLEN TOWNSHIP PLANNING COMMISSION

REVIEWED BY THE PLANNING COMMISSION OF UPPER ALLEN TOWNSHIP, THIS \_\_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_.

**SECRETARY** CHAIRMAN

#### LANDOWNER ACKNOWLEDGEMENT OF STORMWATER MANAGEMENT SYSTEM

DO HEREBY ACKNOWLEDGE THE STORMWATER MANAGEMENT SYSTEM TO BE A PERMANENT FIXTURE THAT CAN BE ALTERED OR REMOVED ONLY AFTER TOWNSHIP APPROVAL OF A REVISED PLAN.

LAST REVISED:

OWNER **DEVELOPER** K CARE - UA LLC K CARE - UA LLC C/O MR. KIRAN GUDOOR C/O MR. KIRAN GUDOOR 1802 SILVER PINE CIRCLE, MECHANICSBURG, PA 17050

1802 SILVER PINE CIRCLE, MECHANICSBURG, PA 17050

DATES **ISSUE DATE:** JULY 31, 2023

SEPTEMBER 29, 2023

CV-1 No. 01 of 19

- 1. ALL CONSTRUCTION SHALL COMPLY WITH OWNER STANDARDS, UPPER ALLEN TOWNSHIP STANDARDS, PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
- 2. REFER TO OTHER PLANS BY MEISTER-COX ARCHITECTS, DETAILS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE AND BUILDING CONDITIONS IN THE FIELD AND CONTACT THE CIVIL ENGINEER AND ARCHITECT IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS, SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO
- 3. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- 4. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
- . CONTRACTOR SHALL SUBMIT AN AS-BUILT TOPOGRAPHIC SURVEY PREPARED AND STAMPED BY A LICENSED ENGINEER TO DESIGN ENGINEER AT THE COMPLETION OF CONSTRUCTION. AS-BUILT SURVEY SHALL COMPLY WITH ALL NPDES NOTICE OF TERMINATION REQUIREMENTS, MUNICIPAL ORDINANCE REQUIREMENTS AND INCLUDE ALL SITE ELEMENTS, TOPOGRAPHY, STORM WATER MANAGEMENT FACILITY STRUCTURES/BASINS AND LANDSCAPE ELEMENTS. CONTRACTOR SHALL SUBMIT THE AS-BUILT SURVEY IN BOTH PDF AND AUTOCAD DWG FILE FORMAT TO DESIGN ENGINEER.
- 6. THE ARCHITECT OR ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR to supervise safety and does not voluntarily assume any such duty or responsibility.
- 7. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION, TRENCHING, AND TRENCH PROTECTION REQUIREMENTS.
- 8. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL OR COUNTY OR STATE RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT PENNSYLVANIA811 72 HOURS BEFORE COMMENCEMENT OF WORK AT (800) 242-1776 OR AT 811 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROPOSED UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
- 9. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
- 10. SHOULD CONFLICTING INFORMATION BE FOUND WITHIN THE CONTRACT DOCUMENTS. IT IS INCUMBENT UPON THE CONTRACTOR TO REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK. FOR BUDGETING PURPOSES. THE CONTRACTOR SHALL CARRY THE COST OF THE HIGHER QUALITY/QUANTITY OF WORK UNTIL SUCH TIME THAT A CLARIFICATION IS RENDERED.
- 11. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS OR PLAN SET ELECTRONIC POSTINGS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS OR COMPLETE PLAN SET ELECTRONIC POSTINGS FOR USE IN BIDDING AND CONSTRUCTION.
- 12. ALL NOTES AND DIMENSION DESIGNATED AS "TYPICAL" OR "TYP" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
- 13. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
- 14. BL COMPANIES WILL PREPARE FINAL CONSTRUCTION DOCUMENTS SUITABLE FOR BIDDING AND CONSTRUCTION. PROGRESS SETS OF THESE DOCUMENTS ARE NOT SUITABLE FOR THOSE PURPOSES. IF CLIENT ELECTS TO SOLICIT BIDS OR ENTER INTO CONSTRUCTION CONTRACTS UTILIZING CONSTRUCTION DOCUMENTS THAT ARE NOT YET FINAL, CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY COSTS OR DELAY ARISING AS A RESULT.
- 15. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
- 16. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT AND OBTAIN ALL COUNTY AND TOWNSHIP CONSTRUCTION PERMITS, INCLUDING ANY SEWER AND WATER CONNECTION PERMITS, AND ROADWAY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- 17. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS PER PLANS AND SPECIFICATIONS TO THE OWNER AND CIVIL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- 18. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SEDIMENT AND EROSION CONTROL PLAN.
- 19. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, AND THE RAISED CONCRETE SIDEWALKS, LANDINGS, RAMPS, AND STAIRS.
- 20. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- 21. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING AS APPLICABLE UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
- 22. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS. BARRIERS, SIGNS, LIGHTS, FENCES, TEMPORARY WALKWAYS, TRAFFIC CONTROLLERS AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED OR AS ORDERED By the engineer or as required by the local governing authorities or as required by permit stipulations or as required by the OWNER. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS FOR USE AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY IS GRANTED.
- 23. TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
- 24. REFER TO DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
- 25. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
- 26. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAVEMENT MARKING PAINT MIXTURE PRIOR TO STRIPING.
- 27. PAVEMENT MARKING KEY:
  - 4" SYDL 4" SOLID YELLOW DOUBLE LINE 4" SYL 4" SOLID YELLOW LINE
  - 4" SWL 4" SOLID WHITE LINE
  - 12" SWSB 12" SOLID WHITE STOP BAR 4" BWL 4" BROKEN WHITE LINE 10' STRIPE 30' SPACE
- 28. PARKING SPACES SHALL BE STRIPED WITH 4" SWL; HATCHED AREA SHALL BE STRIPED WITH 4" SWL AT A 45' ANGLE, 2' ON CENTER. HATCHING, SYMBOLS, AND STRIPING FOR HANDICAPPED SPACES SHALL BE PAINTED WHITE. OTHER MARKINGS SHALL BE PAINTED WHITE OR AS NOTED.
- 29. ALL PAVEMENT MARKINGS SHALL HAVE TWO COATS OF PAVEMENT MARKINGS APPLIED TO STRIPING.
- 30. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH STATE DOT SPECIFICATIONS.
- THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, SWALE, PAVEMENT MARKINGS, OR SIGNAGE DISTURBED DURING DEMOLITION AND/OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE CIVIL ENGINEER, AND TO THE SATISFACTION OF THE OWNER AND UPPER ALLEN TOWNSHIP.
- 32. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON DRAWING TITLED "EXISTING CONDITIONS PLAN"; SCALE 1"=20', DATED 06/06/2023, BY BISCON.
- 33. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, CIVIL ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
- 34. NO PART OF THE PROJECT PARCEL IS LOCATED WITHIN ANY FEMA DESIGNATED FLOOD HAZARD AREAS.
- 35. THERE ARE NO WETLANDS LOCATED ON THE SITE AS INDICATED BY NATIONAL WETLANDS INVENTORY (NWI) MAPPING.
- 36. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE DISTRICT FIRE MARSHAL.
- 37. THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN THE ROADWAY BY METHOD APPROVED BY THE AUTHORITY HAVING JURISDICTION OR DOT AS APPLICABLE FOR THE LOCATION OF THE WORK.
- 38. ALL ADA DESIGNATED PARKING STALLS, ACCESS AISLES AND PEDESTRIAN WALKWAYS SHALL CONFORM TO THE CURRENT VERSION OF THE AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN AND ANSI STANDARDS AND AS MAY BE SUPERCEDED BY THE STATE
- 39. CONSTRUCTION OCCURRING ON THIS SITE SHALL COMPLY WITH NFPA 241 STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS, AND CHAPTER 16 OF NFPA 1 UNIFORM FIRE CODE.
- 40. ALL BUILDINGS, INCLUDING FOUNDATION WALLS AND FOOTINGS AND BASEMENT SLABS INDICATED ON THE DEMOLITION PLAN ARE TO BE REMOVED FROM THE SITE. CONTRACTOR SHALL SECURE ANY PERMITS, PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
- 41. SEDIMENT AND EROSION CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND/OR DEMOLITION PLAN SHALL BE INSTALLED BY THE DEMOLITION CONTRACTOR PRIOR TO START OF DEMOLITION AND CLEARING AND GRUBBING OPERATIONS.
- 42. REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, STAIRS, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL, BY AN APPROVED HAULER. HAULER SHALL COMPLY WITH ALL REGULATORY REQUIREMENTS.
- 43. THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIAL TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF ALL BUILDING DEMOLITION DEBRIS IN AN APPROVED OFF-SITE LANDFILL.
- 44. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL ABATEMENT CONTRACTOR.
- 45. THE CONTRACTOR SHALL PREPARE ALL MANIFEST DOCUMENTS AS REQUIRED PRIOR TO COMMENCEMENT OF DEMOLITION. 46. THE CONTRACTOR SHALL CUT AND PLUG OR ARRANGE FOR THE APPROPRIATE UTILITY PROVIDER TO CUT AND PLUG ALL SERVICE PIPING AT THE
- STREET LINE OR AT THE MAIN, AS REQUIRED BY THE UTILITY PROVIDER, OR AS OTHERWISE NOTED OR SHOWN ON THE CONTRACT DRAWINGS. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED. THE CONTRACTOR SHALL PAY ALL UTILITY PROVIDER FEES FOR ABANDONMENTS AND REMOVALS.
- 47. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, AND OR PROPERTY CORNERS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

- 48. THE DEMOLITION CONTRACTOR SHALL STABILIZE THE SITE AND KEEP EROSION CONTROL MEASURES IN PLACE UNTIL THE COMPLETION OF HIS WORK OR UNTIL THE COMMENCEMENT OF WORK BY THE SITE CONTRACTOR, WHICHEVER OCCURS FIRST, AS REQUIRED OR DEEMED NECESSARY BY THE ENGINEER OR OWNER'S REPRESENTATIVE. THE SITE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF EXISTING EROSION AND SEDIMENTATION CONTROLS AND FOR INSTALLATION OF ANY NEW SEDIMENT AND EROSION CONTROLS AS PER THE SEDIMENT AND EROSION CONTROL
- 49. THE CONTRACTOR SHALL PUMP OUT BUILDING FUEL AND WASTE OIL TANKS (IF ANY ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY A LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH STATE REQUIREMENTS.
- 50. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
- 51. EXISTING WATER SERVICES SHALL BE DISCONNECTED AND CAPPED AT MAIN IN ACCORDANCE WITH THE REQUIREMENTS OF THE WATER UTILITY PROVIDER. REMOVE EXISTING ONSITE WATER PIPING TO BE ABANDONED TO RIGHT OF WAY LINE UNLESS OTHERWISE SHOWN ON DEMOLITION PLANS OR AS REQUIRED BY THE WATER UTILITY PROVIDER TO BE REMOVED TO MAIN.
- 52. DOMESTIC GAS SERVICES SHALL BE CAPPED AND SERVICE LINES PURGED OF RESIDUAL GAS IN ACCORDANCE WITH THE GAS UTILITY PROVIDER REQUIREMENTS. WORK TO BE COORDINATED BY AND PAID FOR BY THE CONTRACTOR. REMOVE EXISTING SERVICE PIPING ON SITE. ANY PROPANE TANKS SHALL BE PURGED OF RESIDUAL GAS BY PROPANE SUPPLIER. CONTRACTOR SHALL COORDINATE THIS WORK AND PAY NECESSARY FEES.
- 53. THE CONTRACTOR SHALL PROVIDE DISCONNECT NOTIFICATION TO THE MUNICIPALITY ENGINEERING DEPARTMENT. TELECOMMUNICATIONS UTILITY PROVIDER, GAS UTILITY PROVIDER, ELECTRIC UTILITY PROVIDER, SANITARY UTILITY PROVIDER, AND WATER UTILITY PROVIDER AT LEAST THREE WEEKS PRIOR TO BEGINNING DEMOLITION.
- 54. THE CONTRACTOR IS RESPONSIBLE FOR SECURING A DEMOLITION PERMIT FROM UPPER ALLEN TOWNSHIP BUILDING DEPARTMENT AND MUST FURNISH THE REQUIRED APPLICATION MATERIAL AND PAY ALL FEES.
- 55. BACK FILL DEPRESSIONS, FOUNDATION HOLES AND REMOVED DRIVEWAY AREAS IN LOCATIONS NOT SUBJECT TO FURTHER EXCAVATION WITH SOIL MATERIAL APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER AND COMPACT, FERTILIZE, SEED AND MULCH DISTURBED AREAS NOT SUBJECT TO FURTHER SITE CONSTRUCTION, DEMOLISHED BUILDING FOUNDATION AREA AND BASEMENT IF PRESENT TO BE BACKFILLED WITH GRAVEL FILL OR MATERIAL SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT IN LIFT THICKNESS SPECIFIED IN THE GEOTECHNICAL REPORT. COMPACT TO 95% MAX. DRY DENSITY PER ASTM D1557 AT MOISTURE CONTENT SPECIFIED IN GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATION. EMPLOY WATERING EQUIPMENT FOR DUST CONTROL.
- 56. THE CONTRACTOR SHALL REPAIR PAVEMENTS BY INSTALLING TEMPORARY AND PERMANENT PAVEMENTS IN PUBLIC RIGHTS OF WAYS AS REQUIRED BY LOCAL GOVERNING AUTHORITIES AND THE MUNICIPALITY AND PER PERMIT REQUIREMENTS DUE TO DEMOLITION AND PIPE REMOVAL ACTIVITIES.
- 57. THE CONTRACTOR SHALL CUT AND REMOVE AT LUMINARE AND SIGN LOCATIONS ANY PROTRUDING CONDUITS TO 24" BELOW GRADE. THE CONTRACTOR SHALL REMOVE ALL CABLE AND CONDUCTORS FROM REMAINING LIGHTING AND SIGNING CONDUITS TO BE ABANDONED. ANY REMAINING LIGHTING TO REMAIN IN PLACE SHALL BE RECIRCUITED OR REWIRED AS NECESSARY TO REMAIN IN OPERATION.
- 58. NO WORK ON THIS SITE SHALL BE INITIATED BY THE CONTRACTOR UNTIL A PRE-CONSTRUCTION MEETING WITH OWNER AND THE CIVIL ENGINEER IS PERFORMED. THE CONTRACTOR SHOULD BE AWARE OF ANY SITE INFORMATION AVAILABLE SUCH AS GEOTECHNICAL AND ENVIRONMENTAL REPORTS. THE CONTRACTOR SHALL HAVE PENNSYLVANIA811 MARK OUTS OF EXISTING UTILITIES COMPLETED PRIOR TO MEETING
- 59. THE CONTRACTOR SHALL ARRANGE FOR AND INSTALL TEMPORARY OR PERMANENT UTILITY CONNECTIONS WHERE INDICATED ON PLAN OR AS REQUIRED. MAINTAIN UTILITY SERVICES TO BUILDINGS OR TO SERVICES TO REMAIN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS FOR INSTALLATION AND PAY UTILITY PROVIDER FEES.
- 60. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OR UTILITY DISCONNECTIONS UNTIL AUTHORIZED TO DO SO BY THE OWNER.
- 61. THE CONTRACTOR OR DEMOLITION CONTRACTOR SHALL INSTALL TEMPORARY SHEETING OR SHORING AS NECESSARY TO PROTECT EXISTING AND NEW BUILDINGS, STRUCTURES AND UTILITIES DURING CONSTRUCTION AND DEMOLITION. SHEETING OR SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THIS STATE AND EVIDENCE OF SUCH SUBMITTED TO THE OWNER PRIOR TO INSTALLATION.
- 62. NO SALVAGE SHALL BE PERMITTED UNLESS PAID TO THE OWNER AS A CREDIT.
- 63. ANY EXISTING POTABLE WELL AND ANY EXISTING SEPTIC TANKS/ABSORPTION AREAS SHALL BE ABANDONED AND REMOVED PER THE PA DEP AND HEALTH CODE REQUIREMENTS.
- 64. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO SEDIMENT AND EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND EROSION CONTROL NOTES.
- 65. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
- 66. SUBGRADE SHALL BE FORMED WITH REMOVAL AND REPLACEMENT OF FILL AND REMOVAL AND REPLACEMENT OF UNSUITABLE AND SOFT SUBGRADE MATERIAL AS REQUIRED BY THE GEOTECHNICAL ENGINEER. SEE GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATIONS FOR FURTHER DESCRIPTION.
- 67. THE CONTRACTOR SHALL COMPACT FILL IN LIFT THICKNESS PER THE GEOTECHNICAL REPORT UNDER ALL PARKING, BUILDING, DRIVE, AND STRUCTURE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST), OR AS REQUIRED BY THE GEOTECHNICAL
- 68. UNDERDRAINS SHALL BE ADDED, IF DETERMINED NECESSARY IN THE FIELD BY THE OWNER/GEOTECHNICAL ENGINEER, AFTER SUBGRADE IS ROUGH
- 69. HORIZONTAL DATUM IS NAVD 88 PA SOUTH GRID AND VERTICAL DATUM IS NAVD 88.

EXISTING UTILITY OR PIPE CONNECTION POINT.

- 70. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE CUMBERLAND COUNTY CONSERVATION DISTRICT (BCCD) AGENT PRIOR TO THE START OF WORK ON THE SITE.
- 71. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS OF THE PADEP AND THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, LATEST EDITION, IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE SEDIMENT AND EROSION CONTROL PLAN COUNTY CONSERVATION DISTRICT (BCCD) WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
- 72. ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK SHALL CONFORM TO HE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN LIFT THICKNESSES PER THE PROJECT GEOTECHNICAL REPORT TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT MOISTURE CONTENT INDICATED IN PROJECT GEOTECHNICAL REPORT.
- 73. ALL DISTURBANCE INCURRED TO MUNICIPAL, COUNTY, AND STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE MUNICIPALITY, COUNTY AND STATE AS APPLICABLE FOR THE LOCATION OF THE WORK.
- 74. ALL CONSTRUCTION WITHIN A DOT RIGHT OF WAY SHALL COMPLY WITH ALL DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS. 75. THE UTILITY PLAN DETAILS SITE INSTALLED PIPES UP TO 5' FROM THE BUILDING FACE. REFER TO DRAWINGS BY MEISTER-COX ARCHITECTS FOR BUILDING CONNECTIONS. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT
- 76. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROPOSED SANITARY SEWERS AND WHERE PROPOSED STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
- 77. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
- 78. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
- 79. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
- 80. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE OWNER
- 81. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- 82. SANITARY LATERAL SHALL MAINTAIN (10' MIN. HORIZONTAL 1.5' VERTICAL MIN.) SEPARATION DISTANCE FROM WATER LINES, OR ADDITIONAL PROTECTION MEASURES WILL BE REQUIRED WHERE PERMITTED, WHICH SHALL INCLUDE CONCRETE ENCASEMENT OF PIPING UNLESS OTHERWISE DIRECTED BY THE UTILITY PROVIDERS AND CIVIL ENGINEER.
- 83. RELOCATION OF UTILITY PROVIDER FACILITIES SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
- 84. THE CONTRACTOR SHALL COMPACT THE PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
- 85. CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS. 86. BUILDING UTILITY PENETRATIONS AND LOCATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE BUILDING
- MEP, STRUCTURAL, AND ARCHITECTURAL DRAWINGS AND WITH THE OWNER'S CONSTRUCTION MANAGER.
- 87. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS. 88. A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER WITH A CONCRETE ENCASEMENT. AN 18-INCH
- 89. GRAVITY SANITARY SEWER PIPING AND PRESSURIZED WATERLINES SHALL BE LOCATED IN SEPARATE TRENCHES AT LEAST 10 FEET APART WHENEVER POSSIBLE. WHEN INSTALLED IN THE SAME TRENCH, THE WATER PIPE SHALL BE LAID ON A TRENCH BENCH AT LEAST 18 INCHES ABOVE THE TOP OF

THE SANITARY SEWER PIPE AND AT LEAST 12 INCHES (PREFERABLY 18 INCHES) FROM THE SIDE OF THE SANITARY SEWER PIPE TRENCH.

TO 6-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROPOSED

- 90. SITE CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC., AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING STUB OUTS, INCLUDING ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
- 91. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE RIMS AND VALVE COVERS TO BE RAISED OR LOWERED FLUSH WITH FINAL GRADE AS NECESSARY.
- 92. SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES FOR SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR. 93. CONTRACTOR SHALL COORDINATE INSTALLATION FOR ELECTRICAL SERVICES TO PYLON SIGNS AND SITE LIGHTING WITH THE BUILDING ELECTRICAL
- 94. THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE

CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY

- 95. ELECTRIC, AND TELECOMMUNICATIONS SERVICES SHALL BE INSTALLED UNDERGROUND. THE CONTRACTOR SHALL PROVIDE AND INSTALL AND BACKFILL 2-4" PVC CONDUITS FOR TELECOMMUNICATIONS SERVICE, 2-4" PVC CONDUITS FOR ELECTRIC SERVICE PRIMARY, PVC CONDUITS FOR ELECTRICAL SECONDARY PER BUILDING ELECTRICAL PLANS, (SCHEDULE 80 UNDER PAVEMENT, SCHEDULE 40 IN NON PAVEMENT AREAS). SERVICES MAY BE INSTALLED IN A COMMON TRENCH WITH 12" CLEAR SPACE BETWEEN. MINIMUM COVER IS 36" ON ELECTRIC CONDUITS, AND 24" ON TELECOMMUNICATIONS CONDUITS. SERVICES SHALL BE MARKED WITH MAGNETIC LOCATOR TAPE AND SHALL BE BEDDED, INSTALLED, AND BACKFILLED IN ACCORDANCE WITH ELECTRIC UTILITY PROVIDER, AND TELECOMMUNICATIONS COMPANY STANDARDS. GALVANIZED STEEL ELECTRICAL CONDUIT SHALL BE USED AT POLE AND TRANSFORMER LOCATIONS. INSTALL HANDHOLES AS REQUIRED TO FACILITATE INSTALLATION AND AS REQUIRED BY UTILITY PROVIDER. INSTALL TRAFFIC LOAD QUALIFIED HANDHOLES IN VEHICULAR AREAS. INSTALL CONCRETE ENCASEMENT ON PRIMARY ELECTRIC CONDUITS IF
- 98. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED
- 99. THE CONTRACTOR MAY SUBSTITUTE MASONRY STRUCTURES FOR PRECAST STRUCTURES IF APPROVED BY THE CIVIL ENGINEER AND ALLOWED BY THE GOVERNING AUTHORITY ENGINEER OR OTHER GOVERNING AUTHORITY.
- OF PIPE LAYING. 101. POLYVINYL CHLORIDE PIPE (PVCP) FOR STORM PIPING SHALL HAVE BUILT-IN RUBBER GASKET JOINTS. PVCP SHALL CONFORM TO ASTM D-3034
- MANUFACTURERS RECOMMENDED PROCEDURE.
- 103. HIGH DENSITY POLYETHYLENE (HDPE) STORM SEWER 12" OR GREATER IN DIAMETER SHALL BE DUAL WALLED N—12 AS MANUFACTURED BY ADS, OR APPROVED EQUAL HDPE PIPE SHALL HAVE SMOOTH INTERIOR AND CORRUGATED EXTERIOR AND SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S. PIPE SECTIONS SHALL BE JOINED WITH BELL-AND-SPIGOT JOINT MEETING THE REQUIREMENTS OF AASHTO M294. THE BELL SHALL BE AN INTEGRAL PART OF THE PIPE AND PROVIDE A MINIMUM PULL—APART STRENGTH OF 400 POUNDS. THE JOINT SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. GASKETS SHALL BE MADE OF POLYISOPRENE MEETING THE REQUIREMENTS OF ASTM F477. ALTERNATIVE HDPE PIPE MAY BE USED IF APPROVED BY THE ENGINEER AND OWNER'S CONSTRUCTION MANAGER PRIOR TO ORDERING. ALL HIGH DENSITY POLYETHYLENE (HDPES) PIPES SHALL BE SMOOTH LINED.
- 104. HIGH DENSITY POLYETHYLENE (HDPE) STORM SEWER LESS THAN 12" IN DIAMETER SHALL BE DUAL WALLED N-12 AS MANUFACTURED BY ADS. OR APPROVED EQUAL. HDPE PIPE SHALL HAVE SMOOTH INTERIOR AND CORRUGATED EXTERIOR AND SHALL MEET THE REQUIREMENTS OF AASHTO 252, TYPE S. PIPE SECTIONS SHALL BE JOINED WITH COUPLING BANDS OR EXTERNAL SNAP COUPLERS COVERING AT LEAST 2 FULL CORRUGATIONS ON REQUIREMENTS OF AASHTO D1056 GRADE 2A2. GASKETS SHALL BE INSTALLED ON THE CONNECTION BY THE PIPE MANUFACTURER. ALTERNATIVE HDPE PIPE MAY BE USED IF APPROVED BY THE ENGINEER AND OWNER'S CONSTRUCTION MANAGER PRIOR TO ORDERING. ALL HIGH DENSITY
- 105. COPPER PIPE SHALL BE TYPE K TUBING WITH COMPRESSION FITTINGS.
- 106. GAS PIPE MATERIAL SHALL BE PER GAS COMPANY REQUIREMENTS.
- 107. POLYVINYL CHLORIDE PIPE (PVCP) FOR SANITARY PIPING SHALL HAVE BUILT-IN RUBBER GASKET JOINTS. PVCP SHALL CONFORM TO ASTM D3034 (SDR35) WITH COMPRESSION JOINTS AND MOLDED FITTINGS. PVCP SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS, ASTM D2321 AND MANUFACTURER'S RECOMMENDED PROCEDURE.
- 108. DUCTILE IRON PIPE SHALL CONFORM TO LOCAL JURISDICTION OR AWWA C151 FOR CLASS 52 WITH CEMENT LINING IN ACCORDANCE WITH ANSI A21.4 FOR WATER MAINS AND SERVICES 3" ID AND LARGER. JOINTS SHALL BE MADE WITH CONCRETE THRUST BLOCKS OR WITH MEGAULUG RETAINER GLANDS OR WITH RODDING IN ACCORDANCE WITH PROJECT MANUAL SPECIFICATIONS AND IN ACCORDANCE WITH WATER UTILITY PROVIDER REQUIREMENTS TO EXTEND A MINIMUM OF 2 PIPE LENGTHS IN EITHER DIRECTION FROM FITTINGS AND ELBOWS (40 FT MINIMUM). ALL OTHER JOINTS SHALL BE PUSH-ON WITH RUBBER GASKETS (TYTON). USE OF OTHER TYPES OF RETAINER GLANDS SHALL REQUIRE USE WITH CLASS 53 OR GREATER DUCTILE IRON PIPE.
- 111. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF AN EASEMENT OR PLANTING STRIP THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR PLANTING STRIP OR CONFLICT WITH AN EASEMENT AGREEMENT. NO STRUCTURES SHALL BE PLACED IN ANY
- 112. ALL SANITARY SEWER CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD CONSTRUCTION AND
- 113. ALL BITUMINOUS ROADWAY RESTORATION FOR WORK WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE TOWNSHIP STREET CUT ORDINANCE AND
- 114. SITE IS SERVICED BY PUBLIC WATER
- 115. SITE IS SERVICED BY PUBLIC WATER

- 96. ALL WATER LINES TO HAVE A MINIMUM COVER OF 54". ALL LINES SHALL BE BEDDED IN 6" SAND AND INITIALLY BACKFILLED WITH 12" SAND.
- 97. ALL WATER MAINS, WATER SERVICES AND SANITARY SEWER LATERALS SHALL CONFORM TO THE APPLICABLE WATER UTILITY PROVIDER SPECIFICATIONS, AND TO THE APPLICABLE SANITARY SEWER PROVIDER SPECIFICATIONS. AS WELL AS TO OTHER APPLICABLE INDUSTRY CODES (AWWA) AND PROJECT SPECIFICATIONS FOR POTABLE WATER SYSTEMS, AND FOR SANITARY SEWER SYSTEMS.
- TO DISCONNECT BY THE OWNERS, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.
- 100. PIPING SHALL BE LAID FROM DOWNGRADIENT END OF PIPE RUN IN AN UPGRADIENT DIRECTION WITH BELL END FACING UPGRADE IN THE DIRECTION
- (SDR35) WITH COMPRESSION JOINTS AND MOLDED FITTINGS. PVCP SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS; ASTM-D2321 AND
- 102. MANHOLE SECTIONS AND CONSTRUCTION SHALL CONFORM TO ASTM C-478.
- EACH END OF THE PIPE. SILT-TIGHT (GASKET) CONNECTIONS SHALL INCORPORATE A CLOSED SYNTHETIC EXPANDED RUBBER GASKET. MEETING THE POLYETHYLENE (HDPE) PIPES SHALL BE SMOOTH LINED.

- 109. PVC WATER MAIN PIPING SHALL CONFORM TO AWWA C900.
- 110. PE WATER PIPING SHALL CONFORM TO AWWA C901.
- EASEMENT OR PLANTING STRIP UNLESS OTHERWISE NOTED IN AN AGREEMENT.
- MATERIAL SPECIFICATIONS FOR SANITARY SEWER SYSTEMS, UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PENNSYLVANIA.
- THE STANDARD CONSTRUCTION AND MATERIALS SPECIFICATIONS.

<u>DEFINITIONS</u>

- MUNICIPALITY SHALL MEAN UPPER ALLEN
- COUNTY SHALL MEAN CUMBERLAND STATE SHALL MEAN PENNSYLVANIA
- WATER UTILITY PROVIDER SHALL MEAN VEOLIA PENNSYLVANIA LLC
- SANITARY UTILITY PROVIDER SHALL MEAN <u>UPPER ALLEN TOWNSHIP SEWER DEPT</u>
- GAS UTILITY PROVIDER SHALL MEAN <u>UGI UTILITES INC</u>
- TELECOMMUNICATIONS UTILITY PROVIDER SHALL MEAN COMCAST ELECTRIC UTILITY PROVIDER SHALL MEAN PPL ELECTRIC UTILITIES CORPORATION



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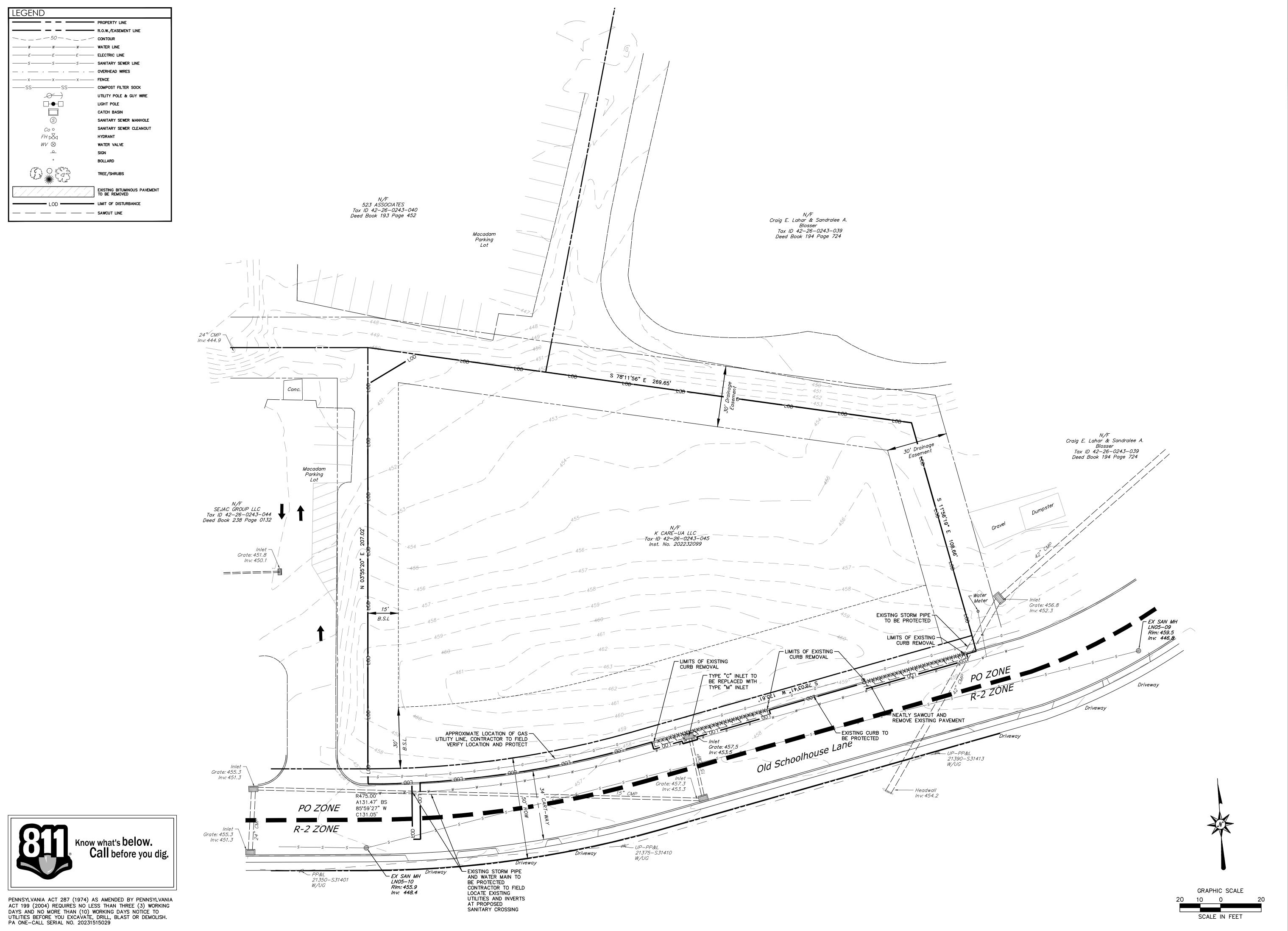
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GENERAL NOTES

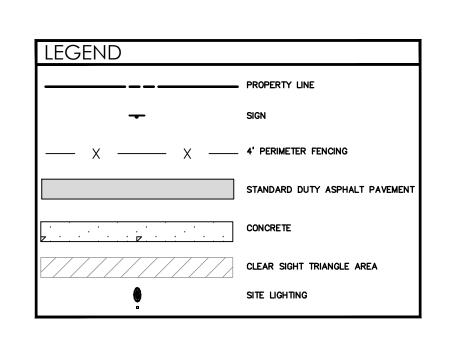
023 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES. FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION



2601 Market Place Suite 350 Harrisburg, PA 17110 (717) 943-1665 PLAN KIDS) PRELIMINA! PROPOSEI C.L.H. Designed N.M. Drawn A.J.B. Reviewed 1" = 20' Scale 2202027 Project No. 07/31/23 Date CAD File: EX220202701 EXISTING CONDTIONS & DEMOLITION PLAN Sheet No.

No.03of 19

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION



Tax ID 42-26-0243-040 Deed Book 193 Page 452

IRON PIN-TO BE SET

R-2 ZONE

Existing —

IRON PIN \
TO BE SET

30, Drainage Easement

#### SIGN LEGEND

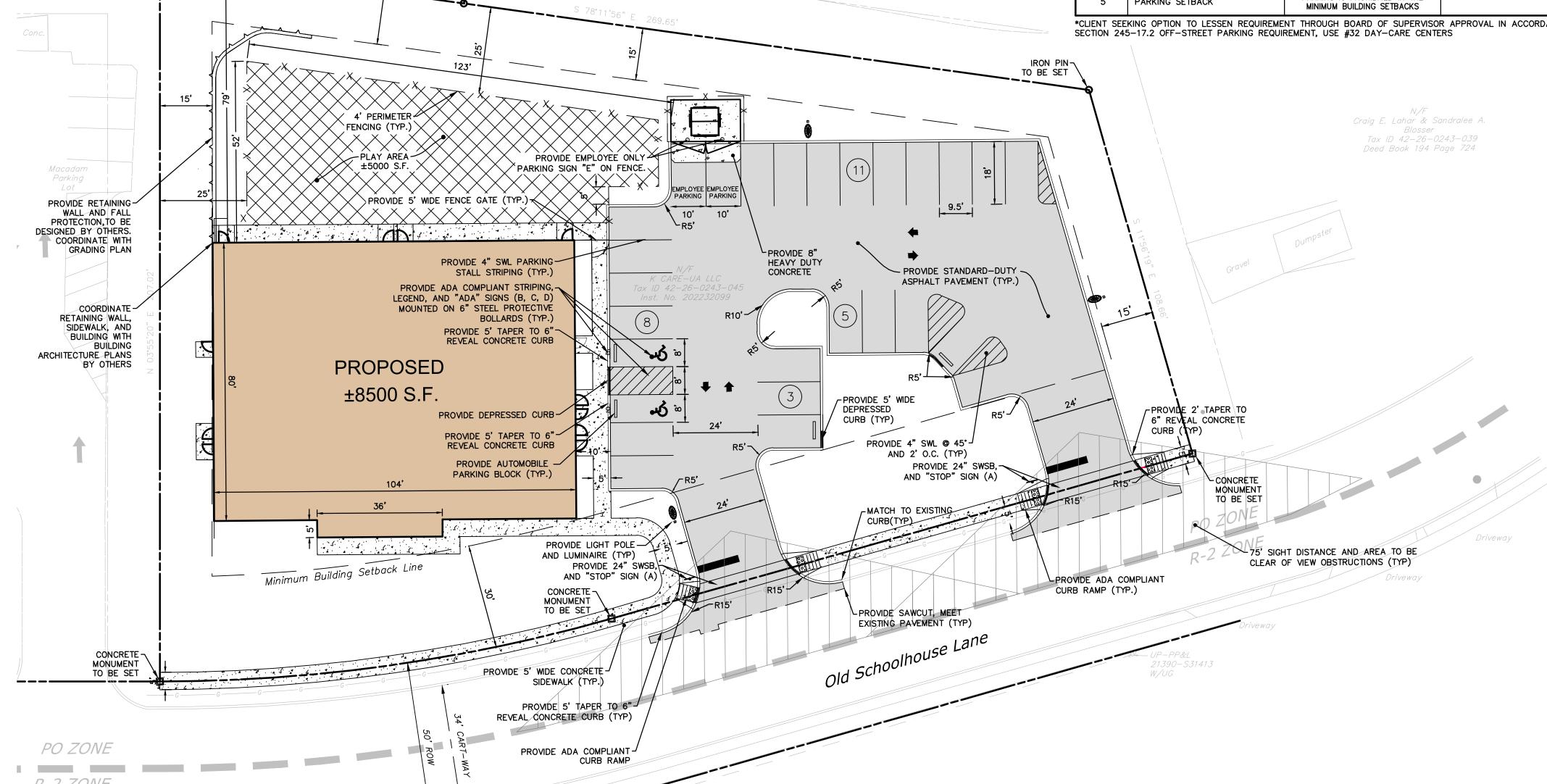
ZO.	DOT NO./ SIGN SIZE	LEGEND
4	R1-1 24"x24"	STOP
В	R7-8D 12"x18"	RESERVED PARRING
С	R7-8A 6"x12"	VAN ACCESSIBLE
D	R7-8F 12"x18"	VICLATORS SUBJECT TO FINE AND TOWNIG  MIN, FINE 800 MAX, FINE 800
Е	R7-8F 18"x12"	Employee Parking

#### ZONING INFORMATION

ZONE: PROFESSIONAL OFFICE (PO)							
USE: COMMERCIAL - DAY CARE (PERMITTED USE)							
ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE			
1	MINIMUM LOT AREA	NONE REQUIRED	±1.06 ACRES	NO			
2	MINIMUM LOT WIDTH	150 FEET	±295 FEET	NO			
3	MINIMUM LOT DEPTH	NONE REQUIRED	±150 FEET	NO			
4	MINIMUM FRONT SETBACK	30 FEET	>30 FEET	NO			
5	MINIMUM SIDE SETBACK	15 FEET	>15 FEET	NO			
6	MINIMUM REAR SETBACK	15 FEET	>15 FEET	NO			
7	MAXIMUM BUILDING HEIGHT	35 FEET	15 FEET	NO			
8	MAXIMUM BUILDING COVERAGE	30 PERCENT	±18.4 PERCENT	NO			
9	MAXIMUM LOT COVERAGE	60 PERCENT	±51 PERCENT	NO			
10	MAXIMUM LOT COVERAGE (SF)	±1.06 ACRES x 60% = 27,660 SF	23,498 SF	NO			

#### PARKING INFORMATION

ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	BUILDING SIZE	NONE REQUIRED	±8,500 S.F.	NO
2	PARKING REQUIRED BY TOWNSHIP	1 SPACE FOR EVERY EMPLOYEE ON THE LARGEST SHIFT, + 1 SPACE FOR EVERY 6 STUDENTS, AND OFF-STREET WAITING SPACES TO ACCOMMODATE AT LEAST SIX AUTO.  10 EMP. + 22 (ASSUME 140 STUDENTS) = 32 SPACES	27 SPACES*	NO
3	MINIMUM PARKING DIMENSIONS	9.5 FEET X 18 FEET	9.5 FEET X 18 FEET	NO
4	MINIMUM AISLE WIDTH	24 FEET	24 FEET	NO
5	PARKING SETBACK	PARKING IS PROHIBITED IN THE MINIMUM BUILDING SETBACKS		NO



PROFESSIONAL OFFICE ZONE - (PO)

Craig E. Lahar & Sandralee A.
Blosser
Tax ID 42-26-0243-039 Deed Book 194 Page 724



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH. PA ONE—CALL SERIAL NO. 20231515029

GRAPHIC SCALE 20 10 0

SCALE IN FEET

Sheet No.

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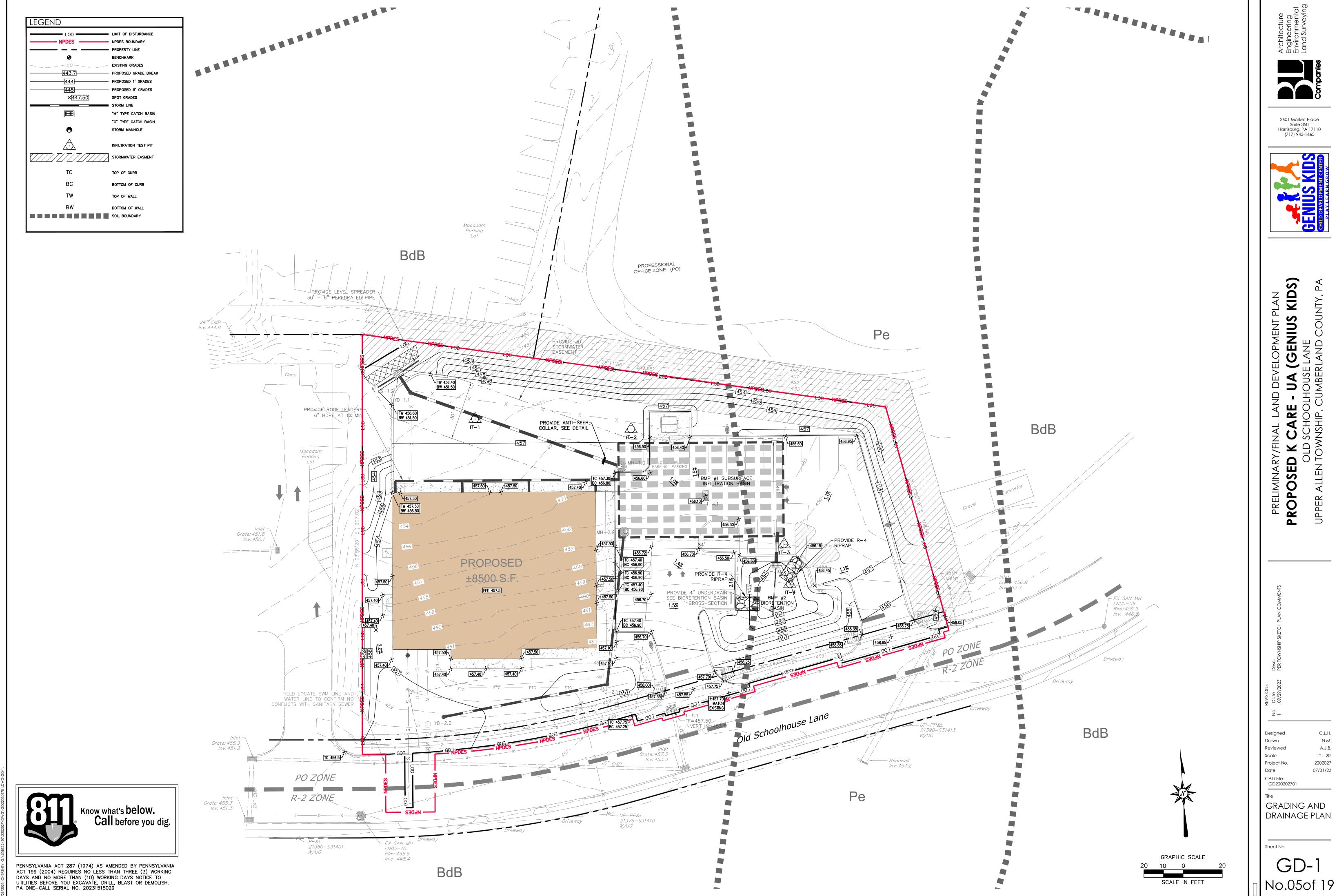
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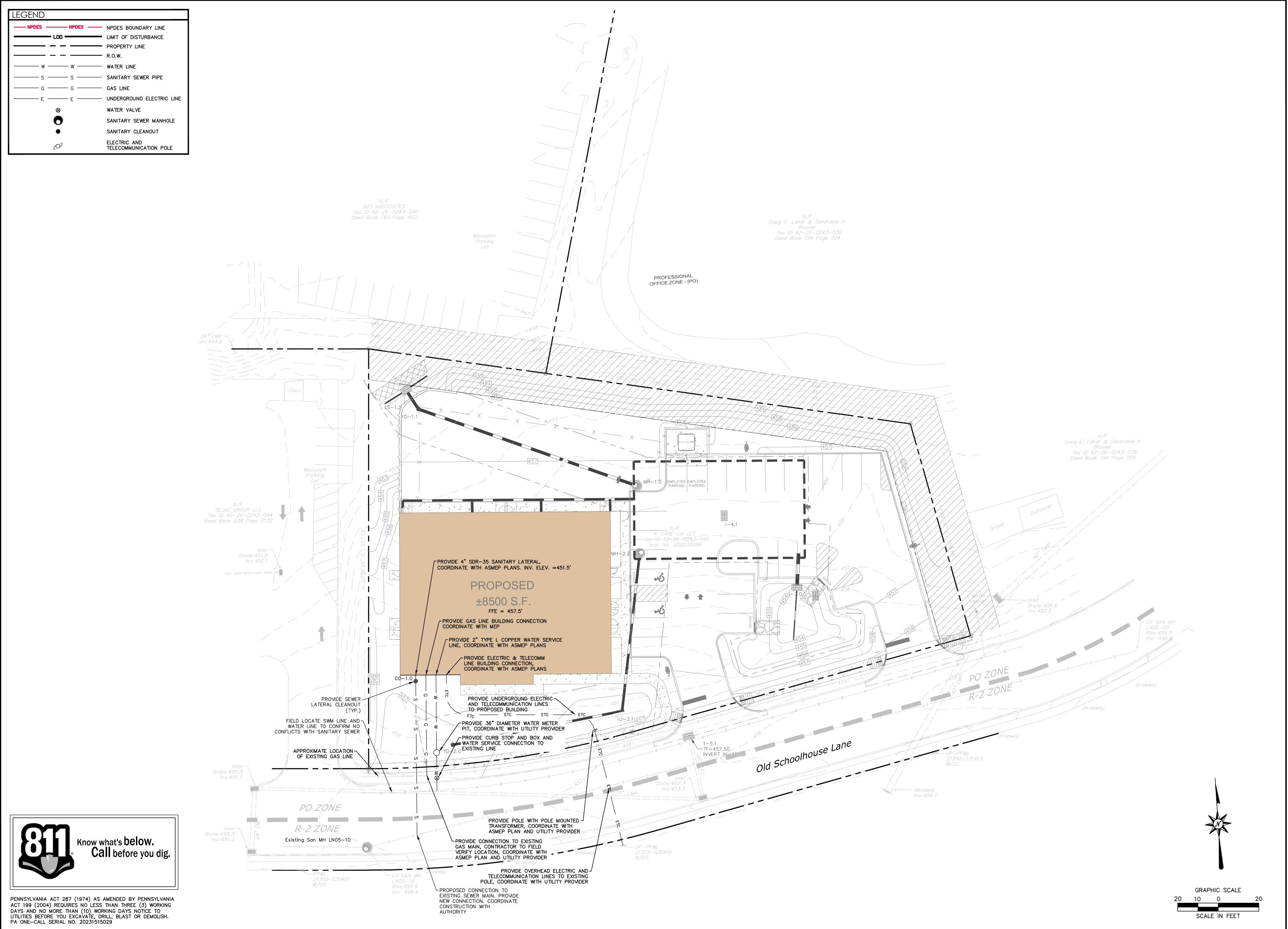
SITE PLAN

No.04of 19



C.L.H. N.M. A.J.B. 1" = 20' 2202027 07/31/23

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION



ELOPMENT PLAN

ELOPMENT PLAN

Architecture
Engineering
Environmental
Land Surveying

CAMPANE

RAND COUNTY, PA

ELANE

RAND COUNTY, PA

ELANE

RAND COUNTY, PA

PRELIMINARY/FINAL LAND DEVELOPMEN

PROPOSED K CARE - UA (GENIL

OLD SCHOOLHOUSE LANE

Desc. 223 PER TOWNSHIP SKETCH PLAN COMMENTS

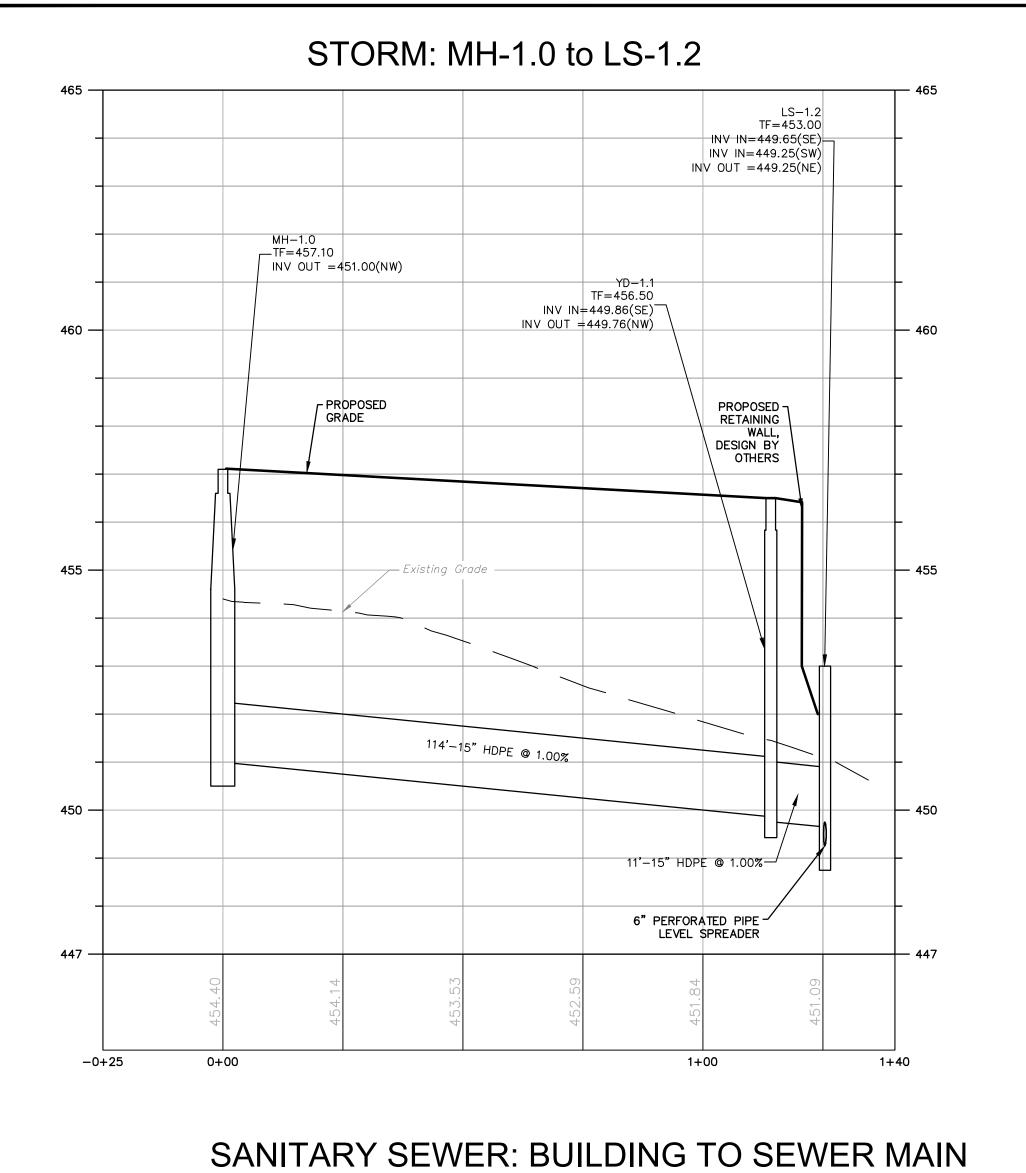
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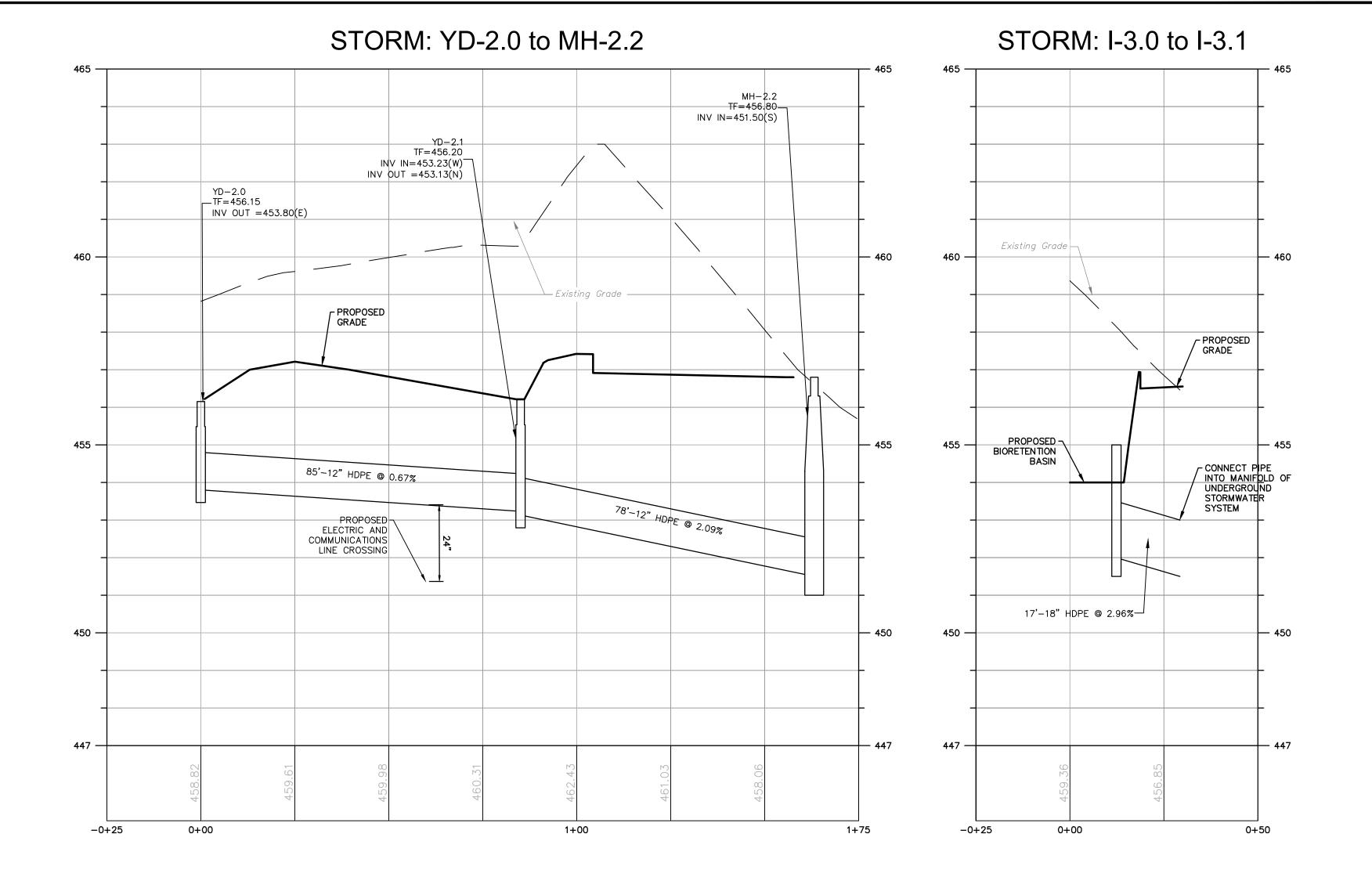
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Project No. 2202
Date 07/31
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SU220202701
Title

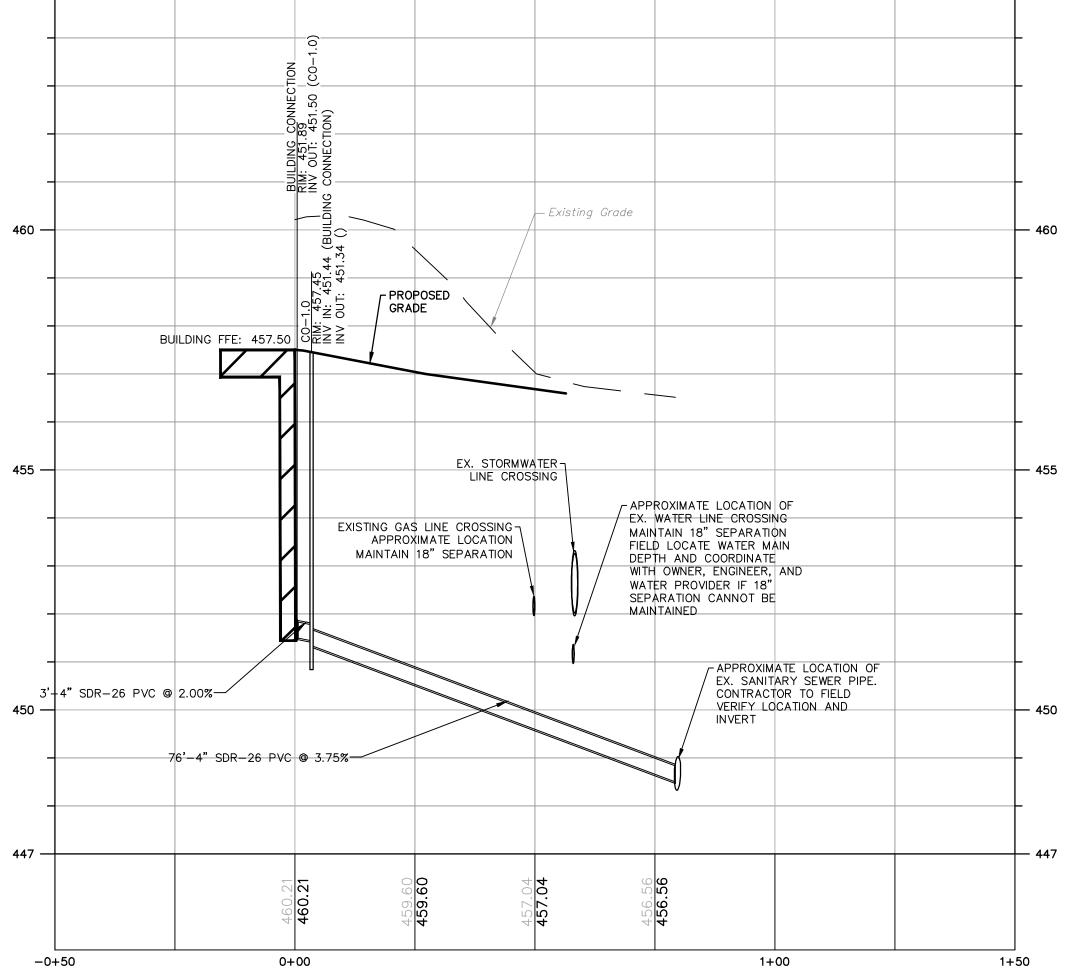
SITE UTILITIES PLAN

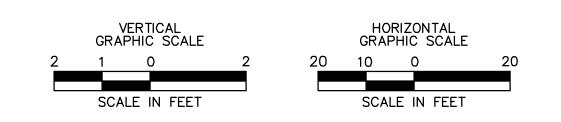
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GENIUS KIDS

PLAN KIDS)

AND DEVELOPMENT PLE - UA (GENIUS IN OLHOUSE LANE), CUMBERLAND COUN ARY/FINAL LA

D K CARE

OLD SCHOC

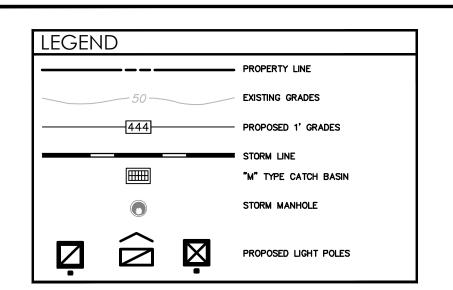
TOWNSHIP, PRELIMINA! PROPOSEI

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PROFILES

Sheet No.

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. Readings shown are based on a total LLF of as shown at grade. Data references the extrapolated performance projections in a 25c ambient based on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11). 2. Please refer to the "luminaire locations" table for mounting heights. 3. Product information can be obtained at www.Acuity Brands.com

> Please note this analysis does comply with IESNA RP-8-20 levels for parking and pedestrian safety.

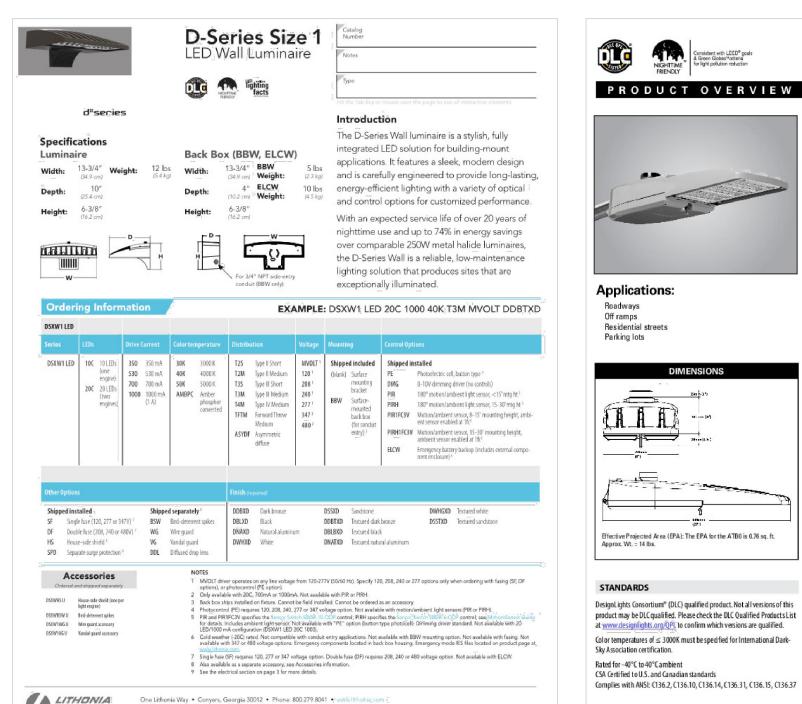
> > any resulting derived radiation dose calculation may be adversely affected.

Schedule

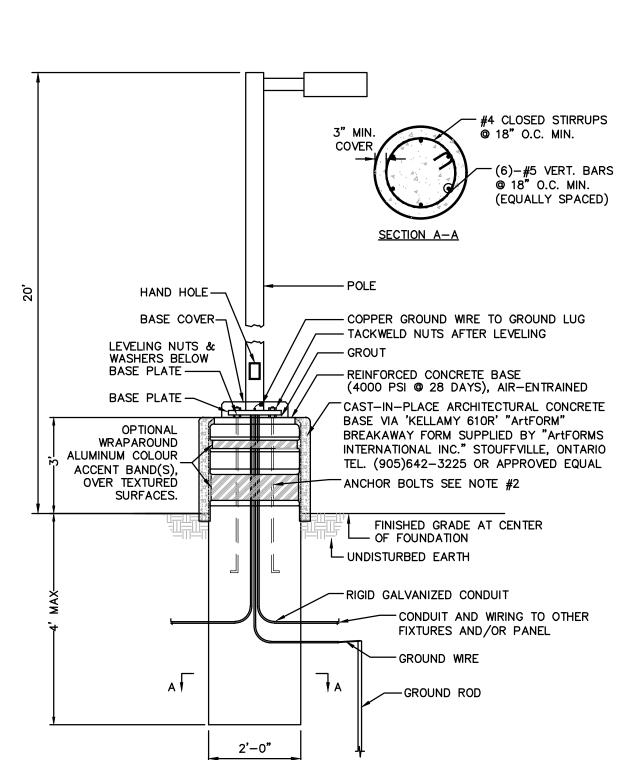
Symbol

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Label







Effective Projected Area (EPA): The EPA for the ATB0 is 0.76 sq. ft. Approx. Wt. = 14 lbs.

product may be DLC qualified. Please check the DLC Qualified Products List

Color temperatures of  $\leq 3000 \text{K}$  must be specified for International Dark-

Note: Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.

CSA Certified to U.S. and Canadian standards

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PA ONE-CALL SERIAL NO. 20231515029

- CONTRACTOR SHALL FURNISH DETAILED DRAWINGS WITH DESIGN CALCULATIONS FOR THE PROPOSED FOUNDATION PRIOR TO CONSTRUCTION AND ORDERING FOUNDATION MATERIALS. DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PENNSYLVANIA REGISTERED ENGINEER.
- 2. ANCHOR BOLTS FURNISHED WITH POLE. BOLT PATTERN, SIZE AND LENGTH AS
- SPECIFIED BY MANUFACTURER. 3. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND WIRING PER NEC
- REQUIREMENTS 4. FORM RELEASE AGENT HAS BEEN FACTORY-APPLIED TO INSIDE SURFACE OF

TYPICAL LIGHT POLE AND BASE DETAIL

N.T.S

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conditions. When using the far-field photometric/rodiometric data, the Visual software applies certian generallizing assuptions to approximate near-field performance.. These assumptions may result in significant inaccuracies in individual calculated luminous and/or radiant power quantities in areas where a source is in close proximity to a particular surface or pont. The modeling of radiant flux exchange used in the Visual software requires a uniform exitance accross each reflecting surface. The Visual software approximates the uniform surface exitance condition by adaptively subdividing surfaces with non-uniform exitance

Far-field photometric/radiometric data may have been used to perform one or more calculations. Photometric/radiometric data is typically collected under far-field measurement conditions; far-field data is generally not representitive of near-field geometric

into subsurfaces with sufficently uniform exitance gradiant. Practical restrictions, due to computer hardware limitations, may prevent the subdivision procedure from subdividing surfaces with high exitance gradients into subsurfaces with sufficiently uniform exitance gradients, introducing potential discretization error into the calculated values.

Calulations performed by Visual softwarw assume that all reflected flux is reflected in a perfectly diffuse(Lambertian) and spectrally uniform manner accross the spectral range being analyzed. If actual reflectance characteristics differ from these assumptions, observed luminous and/or radiant power quantities may differ from the predicted quantities. As a result of the computional limitations and simplifying modeling assumptions described above, and/or variations in actual product performance from tested product samples, the accuracy of calculated outut values identifying expected radiometric quantities and

In addition, the accuracy of the application design may be adversely affected if information about the physical space provided to Acuity Brands Lighting is incomplete, inaccurate, outdated or not in the required format (includiing but not limited to floor plans, space layout, reflected ceiling plans, physical structures, electrical design or specifications) if incorrect assumptions are made because such are not appropriate for the space. Furthermore, actual actual field performance may differ from performance calculated using laboratory measurement as a result of miscalculations related to defiiciencies in the information provided about the physical space, degregation factors in the end-user enviroment(including, but not limited to, voltage variation and dirt accumulation), or other possible variations in field conditions. Finially, lamp lumen depriciation and/or depriciation in lamp radiant intensity may result in performance over time that differs performance calculated using a new lamp. Light loss factors may have

Description

Autobahn Small P205

Package Roadway Type IV

4000K/5000K House side

Number

Filename

SS.ies

ATB0\_P205\_R4\_4K\_5K\_H

Lumens Per Lamp

11421

Light Loss Factor

Wattage

102

been used in the application design to estimate such depreciation, but flaws in these estimates may also result in performance over time that differ from the calculated performance. It is the obligation of the end-user to consult with appropriately qualified Proffesional Engineer (s) to determine whether this application design meets the applicable requirements for performance, code compliance, safety, suitabilty and effectiveness for use in a particular application. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this design.

Catalog Number

ATB0 P205 R4 4K/5K HSS

Quantity Manufacturer

The Autobahn's new molded silicone optics provide exceptional performance. Silicone optics a superior to other polymeric materials in the areas of; optical efficiency, ther mal performance, and reduction in dirt accumulation, all of which can lead to long term lumen degradation and	442			3 Lithonia Lighting DSXW1 LED 10		1 DSXW1_LED_10C_350_40	1448	0.9	13.3
shift in optical distribution. Also, because silicone allows for the molding of fine details as wel thick sections, it produces the most crisp, clean and well-defined lighting distributions availab Silicone optics paired with modern LED's allow the Autobahn to take full advantage of both	Statistics	Symbol Avg Max Min Max/Min Avg/Min	В	T2M MVOLT	LED LIGHT ENGINES, TYPE T2M OPTIC, 4000K, @ 350mA.	K_T2M_MVOLT.ies			
technologies.  Same Light: Performance is comparable to 100 - 400W HPS roadway luminaires.  White Light: Correlated color temperature - 4000K, or optional 2700K, 3000K or 5000K, all 70:	PARKING LOT	X   1.7 fc   4.3 fc   0.5 fc   8.6:1   3.4:1	C	2 American Electric Lighting ATB0 P205 R4	K Autobahn Small P205 Package Roadway Type IV	1 ATB0_P205_R4_4K.ies	13829	0.9	102
write Light: Correlated Color temperature - 4000K, or optional 2700K, 3000K or 50000K, all 70 min imum.  Unique IP66 rated LED light engines provided 0% uplight and restrict backlight to within side depth, providing optimal application coverage and optimal pole spacing. Available in Type II,	SITE CALCULATIONS	+ 0.5 fc 4.3 fc 0.0 fc N/A N/A			4000K/5000K				
depth, providing optimal application coverage and optimal pole spacing. Available in Type II, IV, and V roadway distributions.  ELECTRICAL					Craig E. Lahar & Sand Blosser				
Expected Life: LED light engines are rated >100,000 hours at 25 °C, L70. Electronic driver has a expected life of 100,000 hours at a 25 °C ambient.	an	Macadam Parking			Tax ID 42-26-024. Deed Book 194 Page				
Lower Energy: Saves an expected of 40-60% over comparable HID luminaires.  Robust Surge Protection: Two different surge protection options provide a min imum of ANSI		Lot							
C136.2 10kV/5kA protection. 20kV/10kA protection is also available.  Luminaire is continuous and step dimming capable via AO option or controls installed on P7 photocontrol receptacle option.									
MECHANICAL				PROFESSIONAL OFFICE ZONE - (PO)			to to to.0 to.0	†0.0 †0.0 †0.0	<sup>†</sup> 0.0
Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal blo and quick disconnects. Bubble level located inside the electrical compartment for easily leveling at installation.	ing /			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	to.0 to.0 to.0 to.0	†o.0 †o.0 †o.0 0.0	0.0	ta to 0 to 0.0	j <sup>†</sup> 0.0
Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 7 (per ASTM D1654) after over 5000 hours exposure to sal fog chamber (operated per ASTM B117).			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	to.0 to.0 to.0 to.0 to.0	0 †0.0 †0.0 †0.0 †0.0 0 †0.0 †0.0 †0.0 †	†o.0 †o.0 †o.0 †o.0	†o.0 †o.0 †o.0	0.0	
Mast arm mount is adjustable for arms from 1–1/4" to 2" (1–5/8" to 2-3/8"O.D.) diameter.  Provides a 3G vibration rating per ANSI C136.31	†0.0 †0.0 †0.0	0.0 0.0 0.0 0.0 0.0	448	†0.0 †0.0 †0.0 †0.0 †0.0 †0.0 †0.0 †0.0	0 0.0 0.0 0.0	†0.0 †0.0 †0.0 †0.0	†o.0 †o.0 †o.0	, †o.o †o.o †o.	0.0
Wildlife shield is cast into the housing (not a separate piece).  CONTROLS	449	†0.0 †0.0 †0.0 †0.0	$\frac{448}{0.0}$ $\frac{1}{0.0}$ $\frac{1}{0.0}$ $\frac{1}{0.0}$ $\frac{1}{0.0}$	+ + + + + + + + + + + + + + + + + + + +	1.1 0.1 0.0 0.0	0.0		0 0.0 0.0 0	).O <sup>†</sup> 0.0
NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 7 pin receptacle optionally available.	0.0	0.0	5.0 to -to.0 to.0 to.0	0.0 0.0	† † † †	†o.0 †o.0 †o.0 †o.0			4
Premium solid state locking style photocontrol - PCSS (10 year rated life) Extreme long life sol state locking style photocontrol - PCLL (20 year rated life).  Optional onboard Adjustable Output module allows the light output and input wattage to be	t <sub>0.0</sub> t <sub>0.0</sub> t <sub>0.0</sub>	0.0 $0.0$ $0.0$ $0.0$ $0.0$	452 + \$0 0	0.1 0.1 0.1	0.1 0.1 0.1	†0.1 †0.0 †0.0	0.0 0.0	.0 †0.0 †0.0	0.0
modified to meet site specific requirements, and also can all ow a single fixture to be flexibly applied in many different applications.		0.0 0.0 453 ±0.0 ±0.0 ±0.0	t.0 0.0 0.0 S	78°11′56" E 269.65′th 1 th.2 th.2	0.2 0.2 0.1	0.1	+ 7	0.0 0.0 0.0	<sup>†</sup> 0.0
ta result of end-us or environment and application.  America Electrustics Uighti	†0.0	455	10.0 ±0.0 ±0.0 ±0.0	.0 0.1	†0.5 †0.4 †0.3 45.2 †0.5 †0.4 †0.3 45.2	†0.2 †0.1 †0.1 †0.1			
Lighti	-ting	0.0 to.0 to.0 to.0	to to to to	0.1 0.1 0.2 0.3 0.5	454	<b>-</b> <del>+</del> <del>0.2</del> <del>0.1</del> <del>0</del> <del>0.1</del>	1 0.0 +0.0	to.0 to.0 to.0	
	0.0	$\downarrow_{0.0} \times \downarrow_{0.0} \times \downarrow_{0.0} \downarrow_{0.0} \downarrow_{0.0} \downarrow_{0.0} \downarrow_{0.0}$	X 00 453	+ + 1	1.5	+ +	0.1	†o.0 †o.0 †o.0	<sup>+</sup> 0.0
	0.0	† † † 0 † † 0.0 † 0.0 † 0.0	0.0 †0.0 †0.0 *0.0 *0.0	0.0 × 0.1 0.2 0.3 × 1.4	$\frac{1}{2.9}$ $\frac{1}{2.4}$ $\frac{1}{1.2}$ $\frac{1}{0.9}$ $\frac{1}{0.6}$			†0.0 †0.0 †0.0	†0.0 †0.0 <i>Cro</i>
	† <sub>0.0</sub>	0.0	†00 †00 †0.0 †0.1	0.1 0.2 0.3 0.5 0.5	C-6 @ 20'		0.2 $10.1$ $0.1$	†0.0 0.0 0.0 —	+
	Macadam 0.0 0.0	\$500 TO.0 TO.0 TO.0	0.0 457	0.3 0.5 1.0 1.4 2.5	3.6 2.2 2.0 1.7		0.2 †0.1 \	<sup>†</sup> 0.1 <sup>†</sup> 0.0 <sup>†</sup> 0.0	†0.0 °0.0
	Parking Lot		0.6 0.4 0.3 0.2 0.2	EMPLOYEE EMPLOYEE PARKING 2.4	*3.1 *2.9 *2.4 *2.3 *2.	0 *1.7 *1.5	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ <sup>†</sup> 0.1	<sup>†</sup> 0.0
#4 CLOSED STIRRUPS © 18" O.C. MIN.	0.0	0.0	† <sub>1.5</sub> † <sub>0.7</sub> † <sub>0.5</sub> † <sub>0.3</sub> † <sub>0.2</sub>	0.3		.2 2.1 1.9 1.6	0.6 0.8 0.2		to 0 100
(6)-#5 VERT. BARS	\$ 70.0	0.1 0.2 0.5 0.8	B45 @ 10*	1.4 *1.8 *2.2 *1.0 *1.4 *1.8 *2.2	2.4	* 22 \ Z.1 \\	†0.7 †0.3	0.1 0.0	Dumpster \
@ 18" O.C. MIN. (EQUALLY SPACED)	+ 1/2 15/1			*1.5 *1.6	* % 18 5		1.0	to.2 to.1 to.0	0.0 0.0
N A-A	70.65			Tax 10 42=26-0243-045	*12 1.2 1.0	2.0 2.5 2.7 3.7		to 100	†o.0 †o.0
	† <sub>0.0</sub> † <sub>0.0</sub>			Inst. No. 202232099 *1.1		*1.6 *2.2 *2.8 *4.3	1.3 0.5 0.5	0.2	
	200 de 20		=	7 *0.8 0.9 *0.9 *1.0 4 1.	0.9 0.8 0.8 1.0	457 34 3.1	2.5 0.9 0.5	0.2 0.1 0.0	0.0
OUND WRE TO GROUND LUG NUTS AFTER LEVELING	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PROPOS	SED	*12 *1.1 *1	0 0.9 0.7 0.6	*1.2	†a	0.2 0.1	0.0
CONCRETE BASE	†.o. †.o.	±8500 S		1.2 1.2 1.1	0.6 5 0.4 0.5	0.9 *1.5 *2.0 A20	*1.7 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- Water	10 10
⊉ 28 DAYS), AIR-ENTRAINED ACE ARCHITECTURAL CONCRETE	0.0	10300 3	D.I .	1.6 *1.6 *1.4	.1 0.8 0.6	0.750 1.2	*1.3 \\ \\ \0.6 \\ \\ \0.6	2 0.1	.0.0
ELLAMY 610R' "ArtFORM" FORM SUPPLIED BY "ArtFORMS AL INC." STOUFFVILLE, ONTARIO			- -		1.3 0.8 0.3 0.4		10.5	01, 00	0.0 0.0
2-3225 OR APPROVED EQUAL			<u>.</u>	2.2 2.3	† <sub>1</sub> 0.9 † <sub>0.5</sub> 0.3 † <sub>0.3</sub>	0.5 0.9 0.9	4501.0 0.5 0	6	† 0 † 0.0 † 0.0
TS SEE NOTE #2		0		2.3 2.9 2.8 2.1 1.	1.9	†0.4 †0.6 †0.7 †0.0 °0.0 °0.0 °0.0 °0.0 °0.0 °0.0 °0.0	0.6 0.3	0.00 W	0.0
D GRADE AT CENTER NDATION				3.6 2.0 1.6	1.2 0.7 0.4 0.257 0.2		-0 -W-0.2	0.1 +0.0 NE	†0.0 †0.0 v.0
D EARTH	45 8 8 8 8 8	B-3 @ 10'	B-2 @ 10'	3.9 3.6 2.0 *1.6 1.74 2.4 2.0 *0.7	†03 †02 †01 *** 01	0.4 0.4 0 459 W	459/	PO ZOITE	-\$-0.0 †0.0 †0.0
NIZED CONDUIT NDUIT AND WIRING TO OTHER	0.3	0.7	-46 -46 -47 -1.3 -40 -46	1.5 1.8 3.1 2.6 1.2 0.7	6 701	†0.2 †0.2 †0.2	0.2 0.1/	R-2 ZONE	+ + + 0 0
TURES AND/OR PANEL		$     \begin{array}{c cccccccccccccccccccccccccccccccc$	0.6 0.7 4	0.9	0.1 0.1	+ + +	5 7 / ± 0.0 —	-to.o to.o to.o	0.0
OUND WIRE		†0.1 †0.1 †0.1	0.2 0.3 0.4 0.6 0.6	457	†0.1 †0.1 †0.1 †0.1	0.1 0.1		†00 †0.0	† <del>0.0</del> †0.0 †0.0
OUND ROD	01	0.1 0.2 0.1	0.1 0.2 0.2	0.5 0.6 0.5	458	1 0.1 0.1 0.1	0.1 / 0.0	Driveway	/
	478	-to.0 to.0 to.0 to.0 to.0	0.0	$     \begin{array}{ccccccccccccccccccccccccccccccccc$	10.1 0.1 0.1 0.1 0.1	Larie		-	
		100 00 00 00 00 00 00 00 00 00 00 00 00	0.0 0.0 0.1	Ni S S S S S S S S S S S S S S S S S S S	old Schoolhouse				
WITH DESIGN CALCULATIONS RUCTION AND ORDERING	00	0.0; 0.0 G	W W 451	5			/		
RUCTION AND ORDERING TONS MUST BE SIGNED AND R.			5						
ERN, SIZE AND LENGTH AS	PO ZONE	5							
IT AND WIRING PER NEC		S							
ED TO INSIDE SURFACE OF	R-2 ZONE	5_5							•
LE LO MONE OUT AVE OF	-ssss		Driveway	- be					GRAPHIC SCALE
BASE DETAIL			Driveway					20	10 0

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C.L.H. Designed N.M. Drawn A.J.B. Reviewed 1" = 20' Scale 2202027 Project No. 07/31/23 Date CAD File: LP220202701

LIGHTING PLAN

Sheet No. P-| No.08of 19

SCALE IN FEET

DI ANT COUEDIN						
PLANT SCHEDUI CANOPY TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
+	AG	4	ACER GINNALA	AMUR MAPLE	2-2.5" CAL.	В&В
+	AR	3	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2-2.5" CAL.	B&B
+ k	CA	1	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2-2.5" CAL.	В&В
+	GT	2	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE'	IMPERIAL®HONEY LOCUST	2-2.5" CAL.	В&В
++	NS	1	NYSSA SYLVATICA	BLACK GUM	2"-2.5" CAL.	В&В
+	zs	3	ZELKOVA SERRATA 'JFS-KW1'	CITY SPRITE®JAPANESE ZELKOVA	2-2.5" CAL.	В&В
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
Ex. 1.3	PG	6	PICEA PUNGENS 'GLAUCA'	BLUE COLORADO SPRUCE	6-7° HT.	B&B
3 + C	PS	5	PINUS STROBUS	EASTERN WHITE PINE	6'-7' нт.	B&B
+	то	23	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6'-7' HT.	B&B
ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
+	AGA	3	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	2" CAL, 6' HT MIN	B&B
SHRUBS AND GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
+	AGL	13	ABELIA X GRANDIFLORA 'LITTLE RICHARD'	LITTLE RICHARD GLOSSY ABELIA	18"-24" HT.	CONT.
+	АМ	6	ARONIA MELANOCARPA 'LOWSCAPE MOUND'	LOWSCAPE MOUND ARONIA	12"-24" HT.	CONT.
(+)	cs	15	CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE®RED TWIG DOGWOOD	18"-24" HT.	CONT.
£	н٧	3	HAMAMELIS VERNALIS	OZARK WITCHHAZEL	18"-24" HT.	CONT.
<del>(</del> )	IGS	19	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	18"-24" HT.	CONT.
+	IV	27	ILEX VERTICILLATA	WINTERBERRY	18"-24" HT.	CONT.
(+)	IVH	12	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	18"-24" HT.	CONT.
+	MP	8	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18"-24" HT.	CONT.
+	PA	14	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	2 GAL.	CONT.
(+)	RM		RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	18"-24" HT. AND SPREAD	
GROUNDCOVER	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	Al	18	ASCLEPIAS INCARNATA	SWAMP MILKWEED	1 GAL.	CONT.
- - - - - - - - - - - -	LM	68	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	CONT.
-	MD	45	MONARDA DIDYMA	BEE BALM	1 GAL.	CONT.
	RH	54	RUDBECKIA HIRTA	BLACK-EYED SUSAN	1 GAL.	CONT.

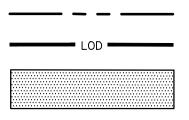
NOTES:

1) ALL SUBSTITUTIONS MUST RECEIVE APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO SITE.

2) PROVIDE AND INSTALL ALL PLANTS SHOWN ON THE PLANTING PLAN DRAWINGS; THE QUANTITIES IN THE PLANT LIST ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE LARGER QUANTITY SHALL APPLY.

3) IF THERE IS A DISCREPANCY BETWEEN BOTANICAL AND COMMON NAME, BOTANICAL NAME PREVAILS.

## LANDSCAPE PLAN LEGEND



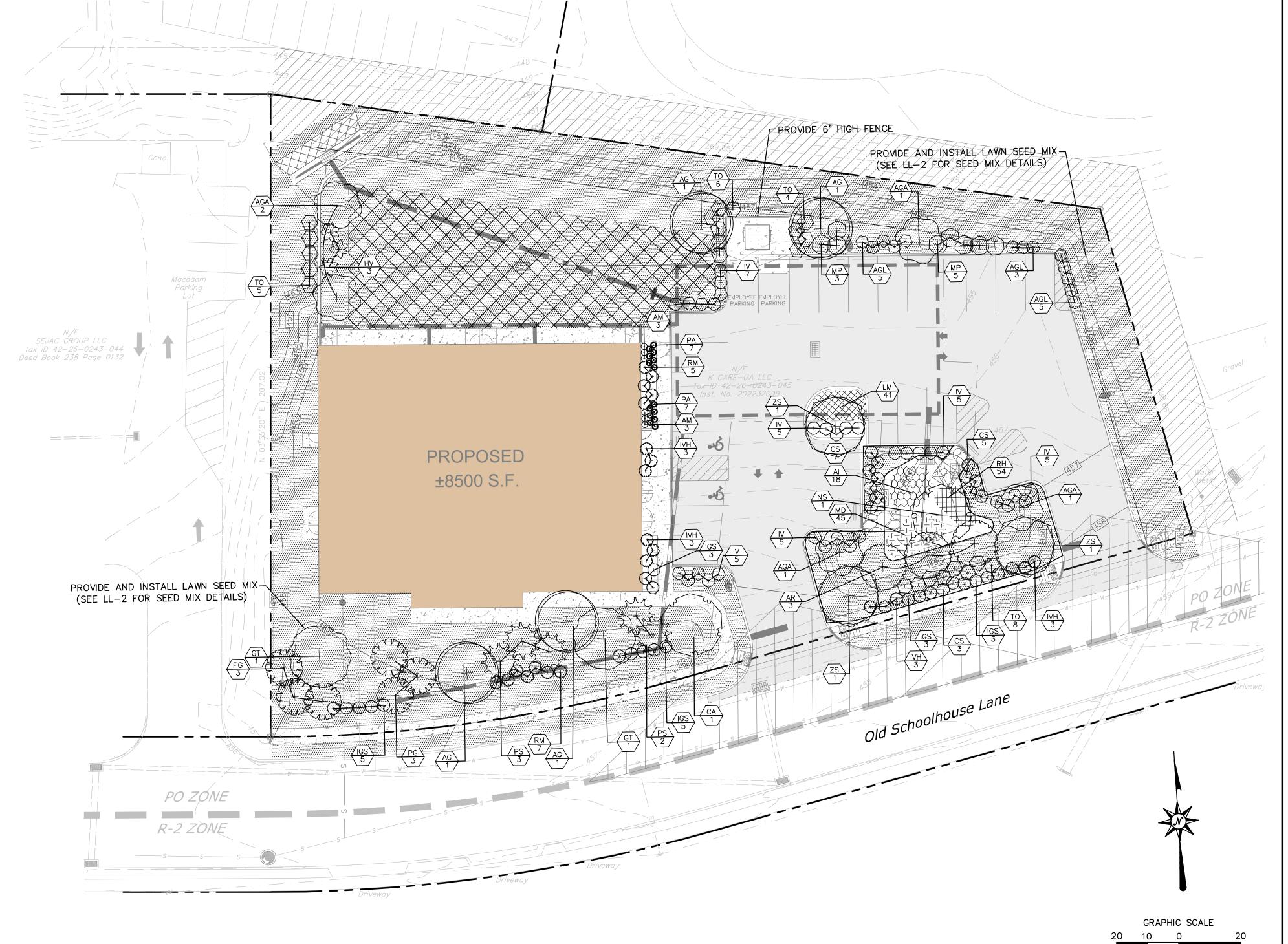
PROPERTY LINE

LIMITS OF DISTURBANCE LINE

PROVIDE AND INSTALL LAWN SEED MIX (SEE LL-2 FOR SEED MIX DETAILS)

#### ORDINANCE REQUIREMENTS - SALDO

SECTION:	\$220-5.13	REQUIRED	PROPOSED	WAIVER
220-5.13	In residential subdivisions of 10 or more units, all commercial and industrial subdivisions and land developments with greater than 10 parking spaces, the developer shall provide buffer yards and landscaping in accordance with this section. For commercial and industrial subdivisions and land developments, a minimum of 10% of the developed area shall be landscaped or in buffer yards.	10% of developed area should be landscaped 1.06 Acres x 10% = 4,627.3 S.F.	>10%	No
B(1)	Buffer Yard Type 2: One shade tree per 40 linear feet and one evergreen tree per 30 linear feet of buffer yard screen and one deciduous or evergreen shrub per 20 linear feet of buffer yard screen At least 60% of shrub plantings shall be of the evergreen type.	305' Along Old Schoolhouse Lane One shade tree per 40 linear feet = 8 One evergreen tree per 30 linear feet = 11 One deciduous or evergreen shrub per 20 linear feet = 16 (10+ evergreen)	30' buffer along Old Schoolhouse Lane, 8 shade trees, 11 evergreen trees, 24 shurbs proposed	No
B(1)e	All dumpsters, transformers, fuel storage tanks and unsightly utilities shall meet the following screening requirements regardless of location or district: one shade tree per 40 linear feet and one evergreen tree per five linear feet of visibility. In addition, all trash disposal areas shall be effectively screened with no less than a six-foot solid fence so as not to be visible from parking areas, roadways or adjacent properties. Refuse collection systems shall also be in accordance with § 220-5.17 of this chapter.	48 L.F. of fence around dumpster One shade tree per 40 linear feet = 2 One evergreen tree per 5 linear feet = 10	6' solid fence and 2 shade tree and 10 evergreen tree around dumpseter	No
B(1)g.[5]	Landscape buffering and screening techniques shall be required for stormwater management facilities that are adjacent to dissimilar adjoining properties and public and private roads.  Buffer Yard Type 3: One shade tree per 30 linear feet and one evergreen tree per 10 linear feet and one deciduous or evergreen shrub per 10 linear feet of buffer yard screen. At least 70% of shrub plantings shall be of the evergreen type	78' Along Old Schoolhouse Lane One shade tree per 30 linear feet = 3 one evergreen tree per 10 linear feet = 8 one shrub per 10 linear feet = 8(5+ evergreen)	3 shade tree and 8 evergreen tree, 9 shrubs proposed	No
B(2)b	Landscaping Islands: Each required planting island shall contain at least one shade or canopy tree, chosen from the list of approved plantings in Subsection D(7)(a)[1] herein.	1 landscaping island = 1 shade or canopy tree	1 canopy tree in landscape island	No
D(7)	A minimum of two canopy trees shall be provided for every 100 feet of public right-of-way. Street trees shall be placed a minimum of 40 feet apart along the right-of-way and shall be located so as to maximize the growth potential of the plant material, minimize the potential for root interference with public infrastructure, and enhance the quality of the development.	Old Schoolhouse Lane = 305 feet 6 canopy trees along public right-of-way	6 canopy trees within bufferyard area along public right-of-way	No





PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH. PA ONE—CALL SERIAL NO. 20231515029

SCALE IN FEET

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KIDS)

C.L.H. Designed N.M. A.J.B. Reviewed Scale 1" = 20' 2202027 Project No. 07/31/23 Date CAD File: LL220202701

LANDSCAPING PLAN

No.09of 19

THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO THE SITE PLAN, GRADING AND DRAINAGE PLAN, SITE UTILITIES PLAN, LIGHTING PLAN AND DEMOLITION PLAN FOR ALL OTHER INFORMATION.

2. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.

THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS FOR THE REVIEW, ADJUSTMENT, AND APPROVAL BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

4. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR OR JUNE 1ST OF THE YEAR FOLLOWING INSTALLATION, WHICHEVER IS LONGER, AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. REPLACEMENT PLANTS SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE GUARANTEE PERIOD. DURING THE LANDSCAPE MAINTENANCE PERIOD (GUARANTEE) THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY SITE CONSTRAINTS (PHYSICAL, ENVIRONMENT, ETC.) OR MAINTENANCÉ DEFICIENCIES THAT MAY AFFECT LANDSCAPE VEGETATION ESTABLISHMENT.

THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWNGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.

6. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES, CULTIVAR (IF APPLICABLE), PLANT COMMON NAME, NAME OF SOURCE NURSERY, AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.

NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR

8. FINAL GRADES SHALL BLEND SMOOTHLY WITH EXISTING GRADES, AND TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED.

9. ALL TREE AND SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 3". ANNUAL AND PERENNIAL BEDS SHALL BE MULCHED TO A DEPTH OF 2". MULCH SHALL BE UNCOLORED TRIPLE-SHREDDED HARDWOOD BARK MULCH, AGED AT LEAST 6 MONTHS.

10. IF TREE STAKING IS PROPOSED, TREE STAKING MUST BE COMPLETED THE SAME DAY AS THE TREE IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL.

11. LANDSCAPE PLANTING AREAS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, DEAD OR DYING PLANT MATERIAL, BLASTED ROCK, STONES GREATER THAN 1" IN DIAMETER, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT SHALL BE REMOVED FROM AREAS TO BE LANDSCAPED AS REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.

DEPTH: PLANTING SOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4" OR AS NOTED IN THE LANDSCAPE DETAILS. PLANTING SOIL SHALL BE UTILIZED IN ALL PLANTING AREAS INCLUDING SEEDED AREAS.

TESTING: CONTRACTOR SHALL SUBMIT (2) SOIL SAMPLES PER SOIL STOCKPILE TO A CERTIFIED TESTING LABORATORY TO DETERMINE ACIDITY, ORGANIC CONTENT, MECHANICAL ANALYSIS, AVAILABLE NUTRIENTS (N,P,K,Ca,Mg,S,Fe,Mn,Zn,Cu,B,AI,Pb) AND NECESSARY AMENDMENTS TO SOIL. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. TEST RESULTS SHALL RECOMMEND AMENDMENTS THAT WILL ALTER THE SOIL CHARACTERISTICS SUCH THAT THE CHARACTERISTICS DESCRIBED BELOW ARE ACHIEVED AND THE SPECIFIED PLANTS (CONTRACTOR TO PROVIDE LIST TO TESTING LABORATORY) WILL ACHIEVE PROPER GROWTH THAT IS NEITHER DEFICIENT NOR EXCESSIVE. THE CONTRACTOR SHALL INCORPORATE THESE AMENDMENTS AT NO INCREASE IN CONTRACT PRICE.

CHARACTERISTICS: PLANTING SOIL MAY CONSIST OF EXISTING ON-SITE SOILS, AMENDED ON-SITE SOILS, OR IMPORTED SOILS MEETING THE FOLLOWING

- A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, AND WELL DRAINING. ALL PLANTING SOIL SHALL BE FREE OF ANY SUBSOIL EARTH CLODS, SODS, STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER DELETERIOUS MATERIAL. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE.
- B. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE

ORGANIC CONTENT 3% - 6% FOR LAWN OR GRASS AREAS. 4% - 8% FOR TREE AND SHRUB PLANTERS. 8%-16% FOR RETENTION OR DETENTION BASINS. (BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)

- C. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF PLANTS TO BE INSTALLED.
- SOIL SHALL BE COMPACTED TO A SURFACE PENETRATION RESISTANCE OF 75-125 LBS/SQ.IN. E. SOIL MAY BE TREATED FOR WEEDS WITH PRE-EMERGENT OR POST-EMERGENT HERBICIDE, AS NEEDED AND AS APPROPRIATE FOR THE APPLICATION SEASON OR LOCATION, OR ELIMINATE GROWTH OF UNWANTED PLANT MATERIAL. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. HERBICIDE APPLICATOR MUST BE LICENSED IN THE STATE OF PENNSYLVANIA, AND PERFORM APPLICATIONS IN ACCORDANCE WITH LOCAL REQUIREMENTS, PERMITTING STIPULATIONS, AND ANY OTHER RESTRICTIONS INCLUDING AND IN EXCESS OF STATE AND FEDERAL REGULATIONS.
- F. PROPOSED TOPSOIL SHALL MEET THE USDA SOILS TEXTURAL PERCENTAGES OF SAND, SILT, AND CLAY FOR FOLLOWING CLASSIFICATIONS:
  - SANDY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS NOT LESS THAN 5%. - SANDY CLAY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS LESS THAN 28%
- G. BIORETENTION SOILS: SOIL TO BE INSTALLED IN RETENTION BASINS, PONDS, OR OTHER STORMWATER MANAGEMENT ENVIRONS SHALL MEET THE ABOVE DESCRIBED CHARACTERISTICS AND AS FOLLOWS: SOIL SHALL NOT CONTAIN MORE THAN 20% CLAY AND LESS THAN 40% SILT.
- SOIL SHALL HAVE AN INFILTRATION RATE BETWEEN 1/2" AND 3" PER HOUR. H. MODIFICATION TO THE PLANTING SOIL CHARACTERISTICS DESCRIBED ABOVE MAY BE SUBMITTED FOR APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR MUST DEMONSTRATE PROPOSED CHARACTERISTICS ARE EQUAL TO OR SUPERIOR TO THE SPECIFIED CHARACTERISTICS WITH RESPECT TO SUPPORTING PLANT GROWTH, AND STORMWATER MANAGEMENT.

APPLY FERTILIZER AND OTHER AMENDMENTS AS RECOMMENDED FOR EACH PLANTING AREA BY SOIL ANALYSIS. APPLY AMENDMENTS IN A MANNER CONSISTENT WITH MANUFACTURER'S RECOMMENDATIONS. ANY ORGANIC AMENDMENTS SHALL HAVE A PH BETWEEN 4.5 AND 5.5 UNLESS OTHERWISE

13. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 200 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL BE HEALTHY, SYMMETRICAL, EVENLY AND DENSELY BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE OWNER OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED, BUT THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 3" INCHES OR GREATER, ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.

ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE OR PLACE OF GROWTH. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON A SCHEDULE FOR SOURCE VISITS AND ACCOMPANY THE OWNER OR LANDSCAPE ARCHITECT FOR ALL SOURCE INSPECTIONS. CERTIFICATES OF COMPLIANCE ARE REQUIRED FOR ALL PLANT MATERIALS. PHOTOGRAPHIC REVIEW OF PLANT MATERIAL IS ACCEPTABLE IF APPROVED BY LANDSCAPE ARCHITECT. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND VARIETY TO ALLOW LANDSCAPE ARCHITECT SUFFICIENT INFORMATION TO MAKE A REASONABLE DETERMINATION AS TO THE PLANTS' QUALITY. OWNER AND LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANT MATERIAL DELIVERED TO THE SITE BUT PREVIOUSLY ACCEPTED IF DAMAGED OR NOT PROPERLY MAINTAINED DURING THE DELIVERY PROCESS.

15. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT) <u>FALL</u> SEPTEMBER 1 TO OCTOBER 15 **PLANTINGS** 

16. SEEDING MIXTURES: REFER TO SEED MIX NOTES. SEEDED AREA SHALL BE ACCEPTED WHEN SEED AREA ACHIEVES 90% COVERAGE.

17. ALL SLOPES STEEPER THAN 3:1 RECEIVING A SEED MIX SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING.

18. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREELINES SHALL EQUAL CLEARING AND GRUBBING LIMIT FOR CONSTRUCTION.

19. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE LAWN SEED MIX.

#### SEED MIX NOTES

A. LAWN SEEDING MIX:

15 % PERENNIAL RYEGRASS (BLEND OF 3 IMPROVED HYBRIDS)

25 % FINE LEAF OR CREEPING FESCUE (BLEND OF 3 IMPROVED HYBRIDS) 60 % KENTUCKY BLUEGRASS (BLEND OF 3 IMPROVED HYBRIDS)

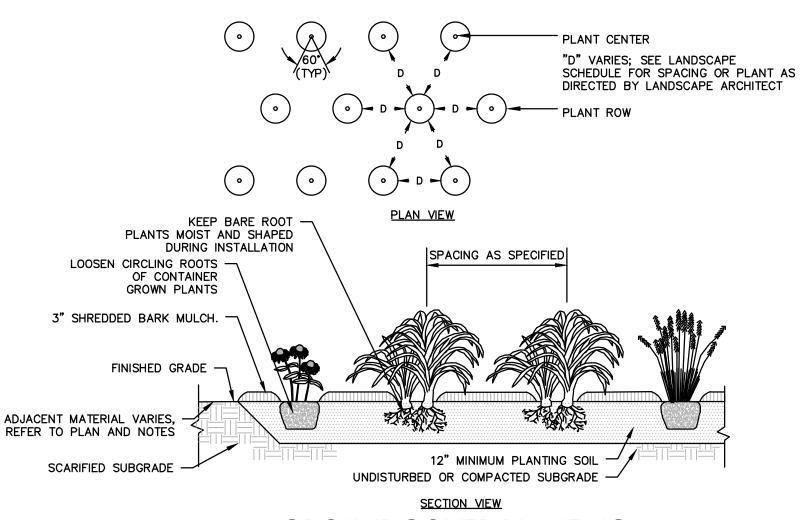
SEEDING RATE: 5 LBS/1,000 S.F.

SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

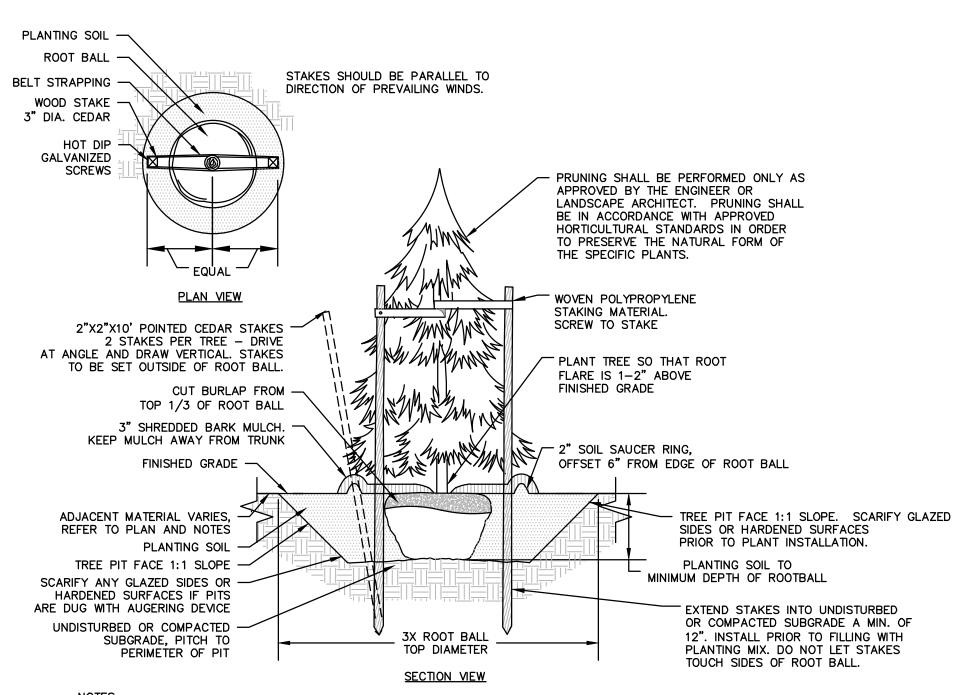
PLANTING SOIL -ROOT BALL -STAKES SHOULD BE PARALLEL TO BELT STRAPPING -DIRECTION OF PREVAILING WINDS. WOOD STAKE 3" DIA. CEDAR GALVANIZED PRUNING SHALL BE PERFORMED ONLY AS SCREWS APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT. PRUNING SHALL BE IN ACCORDANCE WITH APPROVED HORTICULTURAL STANDARDS IN ORDER TO PRESERVE THE NATURAL FORM OF THE SPECIFIC PLANTS. TREE WRAP IF REQUIRED BY WOVEN POLYPROPYLENE LANDSCAPE ARCHITECT STAKING MATERIAL. SCREW TO STAKE PLANT TREE SO THAT ROOT FLARE IS 1-2" ABOVE FINISHED GRADE 3" SHREDDED BARK MULCH. 2"X2"X10' POINTED CEDAR STAKES KEEP MULCH AWAY FROM TRUNK. 2 STAKES PER TREE - DRIVE AT ANGLE AND DRAW VERTICAL, STAKES TO BE SET OUTSIDE OF ROOT BALL. - 2" SOIL SAUCER RING FINISHED GRADE OFFSET 6" FROM EDGE OF ROOT BALL TREE PIT FACE 1:1 SLOPE . SCARIFY GLAZED SIDES OR HARDENED SURFACES PRIOR TO PLANT INSTALLATION. ADJACENT MATERIAL VARIES, - UNDISTURBED OR COMPACTED SUBGRADE REFER TO PLAN AND NOTES EXTEND STAKES INTO UNDISTURBED OR UNDISTURBED OR COMPACTED SUBGRADE A MIN. OF 12". INSTALL COMPACTED SUBGRADE, PRIOR TO FILLING WITH PLANTING MIX. DO NOT PITCH TO PERIMETER OF PIT 3X ROOT BALL LET STAKES TOUCH SIDES OF ROOT BALL. TOP DIAMETER SECTION VIEW

- 1. STAKING FOR TREES ON 4:1 SLOPES OR LESS THAN 3" CALIPER TO BE PERFORMED AT CONTRACTORS DISCRETION.
- 2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
- BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

#### DECIDUOUS TREE PLANTING



GROUNDCOVER PLANTING



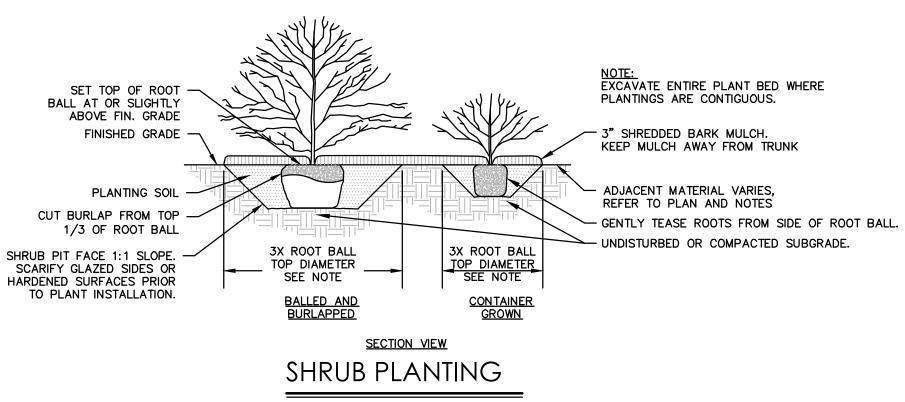
1. STAKING FOR TREES ON 4:1 SLOPES OR LESS TO BE PERFORMED AT CONTRACTOR'S DISCRETION.

- 2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
- 3. BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICENT, COMPLETELY REMOVE IT FROM ROOT BALL

#### **EVERGREEN TREE PLANTING**

N.T.S

N.T.S



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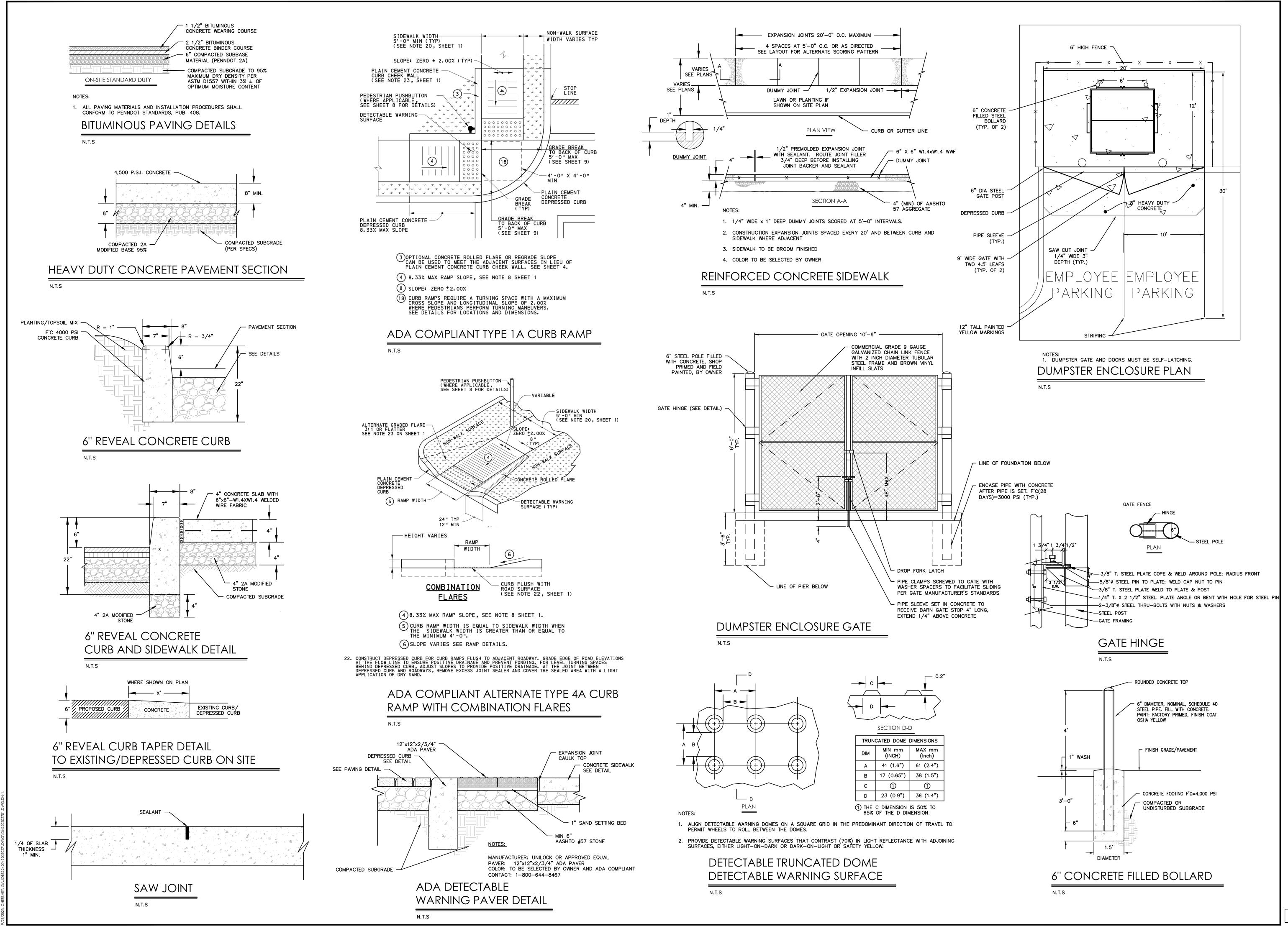
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C.L.H. Designed N.M Reviewed A.J.B. 1" = 20' Scale Project No. 2202027 07/31/23

CAD File: LL220202701 LANDSCAPING NOTES AND

**DETAILS** 



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Suite 350 Harrisburg, PA 17110 (717) 943-1665 KIDS

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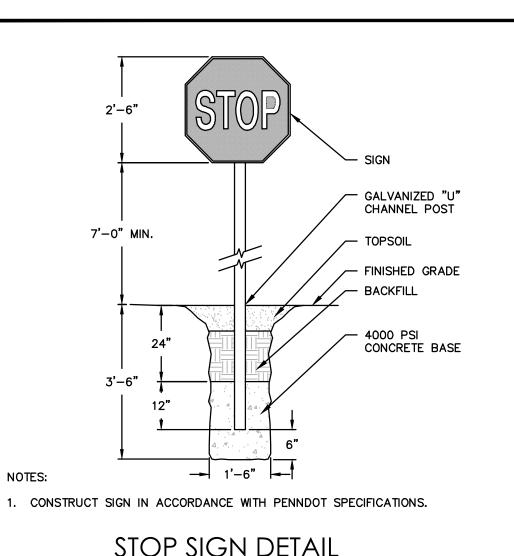
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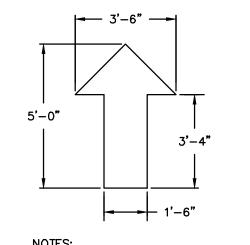
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DETAIL SHEET

**DN-1** No.11of 19



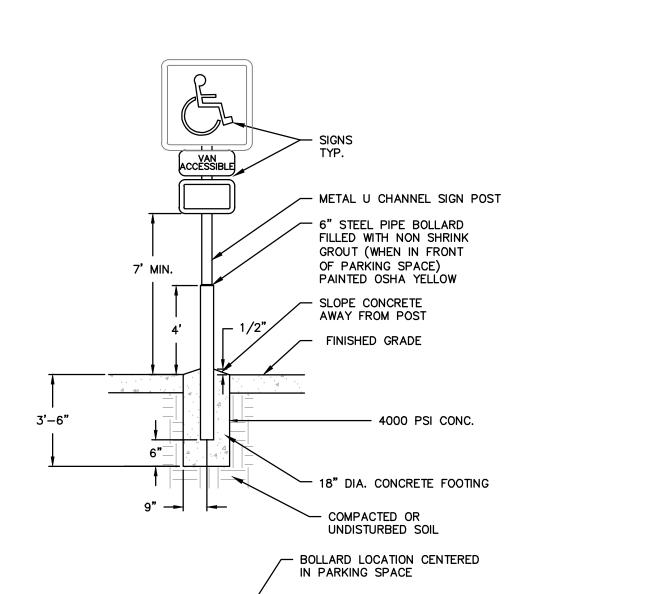


NOTES: 1. WHITE (ARROWS TO BE CENTERED IN TRAVEL LANE)

PAINTED TRAFFIC ARROW DETAIL

STOP SIGN DETAIL

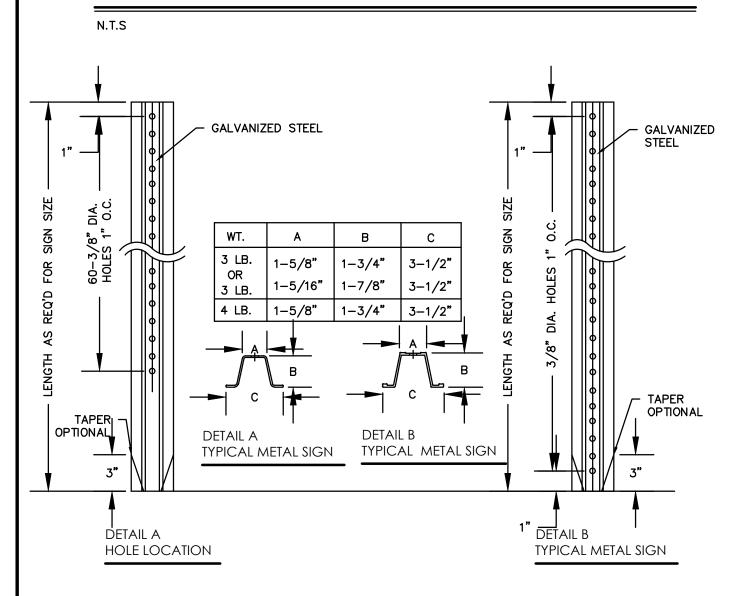
N.T.S



CONCRETE CURB

## 6" CONCRETE-FILLED STEEL PIPE SIGN POST

CONCRETE CURB



1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM AI-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF "30 LBS OR GREATER PER LINEAR FOOT.

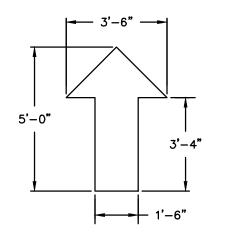
2. AFTER FABRICATION ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM  $A\!-\!123$ .

3. SIGN MOUNTING HEIGHT TO BE PER MUTCD REQUIREMENTS.

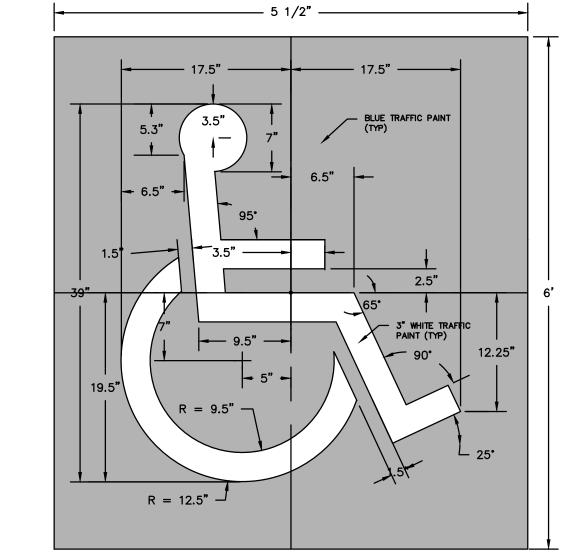
4. ALL SIGN POSTS SHALL HAVE "BREAK AWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS". THE "BREAK AWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGN SHOWN ON THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

TYPICAL METAL SIGN POST

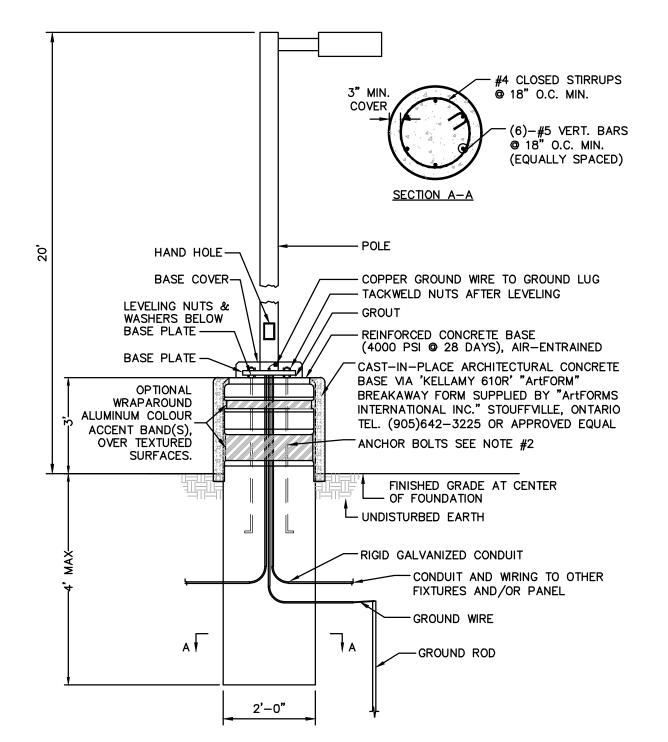
N.T.S



N.T.S



SEE SITE PLAN FOR LOCATIONS ADA ACCESSIBLE SYMBOL N.T.S

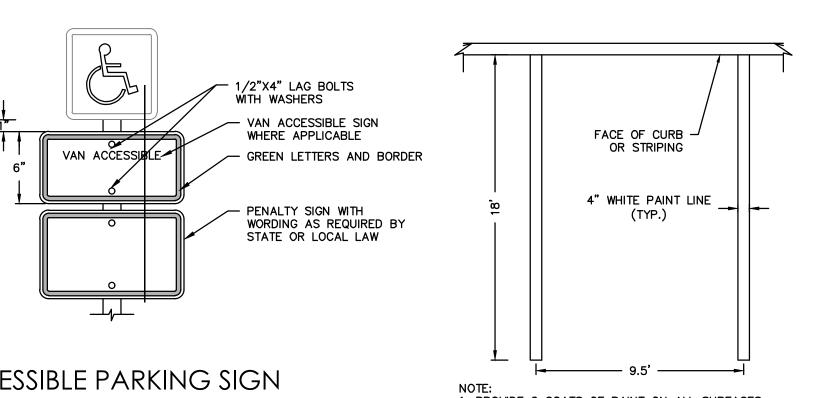


NOTES:
1. CONTRACTOR SHALL FURNISH DETAILED DRAWINGS WITH DESIGN CALCULATIONS FOR THE PROPOSED FOUNDATION PRIOR TO CONSTRUCTION AND ORDERING FOUNDATION MATERIALS. DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PENNSYLVANIA REGISTERED ENGINEER.

- 2. ANCHOR BOLTS FURNISHED WITH POLE. BOLT PATTERN, SIZE AND LENGTH AS SPECIFIED BY MANUFACTURER.
- 3. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND WIRING PER NEC REQUIREMENTS
- 4. FORM RELEASE AGENT HAS BEEN FACTORY-APPLIED TO INSIDE SURFACE OF

TYPICAL LIGHT POLE AND BASE DETAIL

N.T.S



ACCESSIBLE PARKING SIGN

N.T.S

1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES. 2. SEE PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.

TYPICAL PARKING SPACE DETAIL

LINE (TYP.) -- INTERNATIONAL SYMBOL OF ACCESSIBILITY (WHITE SYMBOL W/ BLUE BACKGROUND) VAN ACCESSIBLE STALL

NOTE: LAYOUT SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS, SECTION 4.30. & 2010 ADA

TYPICAL ADA PARKING SPACE DETAIL

N.T.S

N.T.S

PROPOSED ±8500 S.F.

## AUTOTURN UPPER ALLEN TOWNSHIP FIRETRUCK

2'-6" - PARKING STALL STRIPE OPENING FOR 1/2" X 8" LAG BOLT.

N.T.S

INSTALL PER MANUFACTURER'S SPECIFICATIONS. SEE SITE PLAN FOR PARKING SPACE SIZE AND FOR PARKING BLOCK LOCATIONS. [PARKING BLOCKS SHALL BE AS MANUFACTURED BY DURABLE CORPORATION,

> AUTOMOBILE PARKING BLOCK N.T.S

NORWALK OHIO (OR APPROVED EQUAL) AND SHALL BE COLOR BLUE FEDERAL

NOTES:

STANDARD 595B

-FLAT POST CAP -PANEL BRACKET ~1−7/16" X 1−1/16" ALUM. FORERUNNER RAIL 2" SQ. 0.080" ALUMINUM POST. 3/4" SQ-ALUMINUM PICKET. 3-15/16" -POST SET FENCE SECTION ELEVATION IN CONC. FOOTING NOTES:

1. PRODUCT TO BE MASTER HALCO ECHELOW PLUS MAGESTIC FENCE, OR APPROVED EQUAL

2. SPECIFICATIONS SHOWN CAN BE CHANGED BY 12**"** MASTER HALCO ONLY 3. FOOTING WIDTH TO BE (4)X POST WIDTH. MINIMUM

96" CTR TO CTR NOM

N.T.S

DEPTH 36" [914 MM] 4" PERIMETER FENCING

NOM HEIGHT (H) 4'-0" [1219MM]

No.12of 19

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

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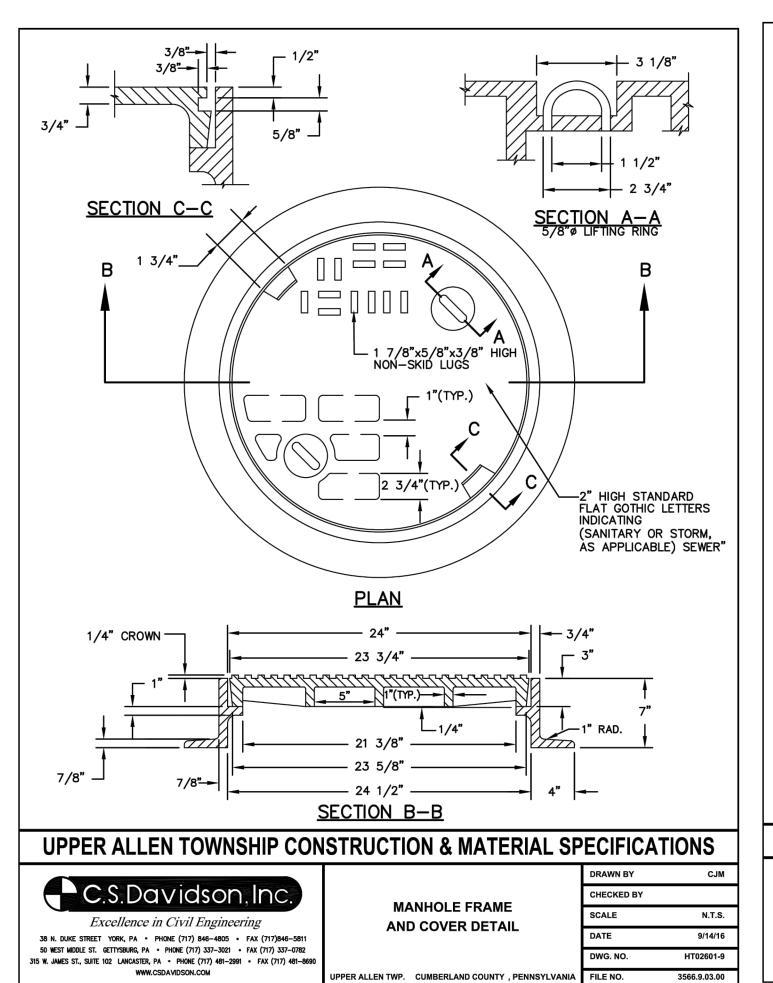
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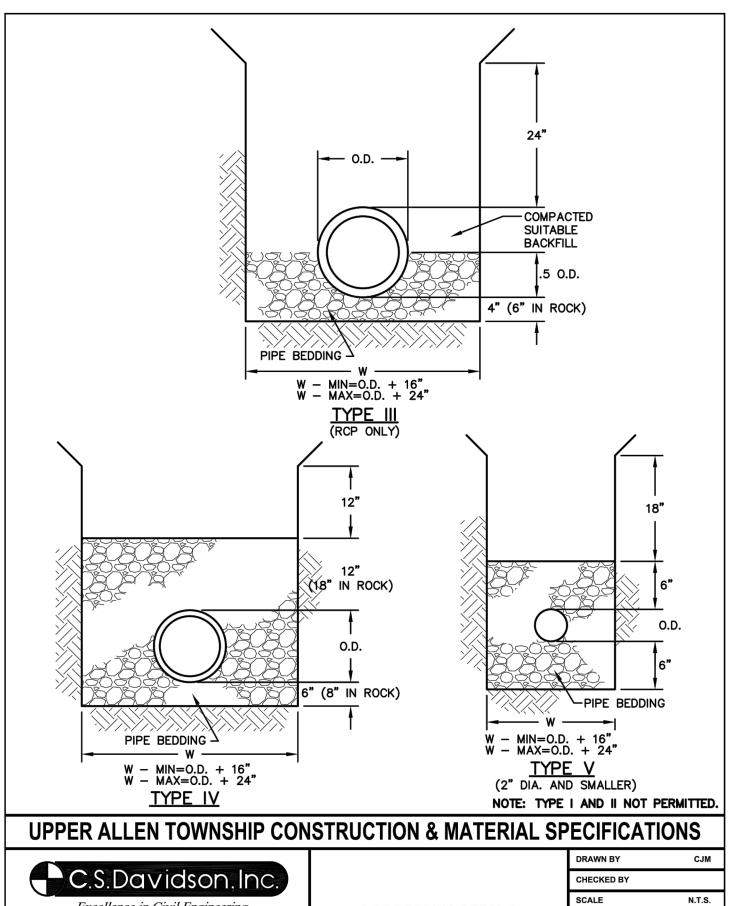
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07/31/23 CAD File: DN220202701 **DETAIL SHEET** 

Sheet No.





PIPE BEDDING DETAILS

UPPER ALLEN TWP. CUMBERLAND COUNTY, PENNSYLVANIA FILE NO.

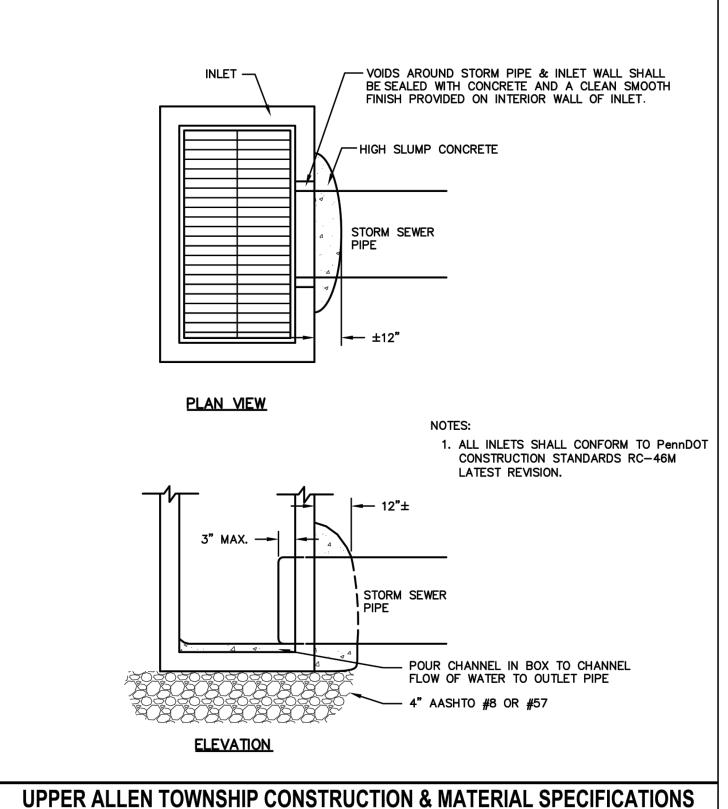
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INLET/STORM PIPE

INSTALLATION DETAIL

JPPER ALLEN TWP. CUMBERLAND COUNTY, PENNSYLVANI

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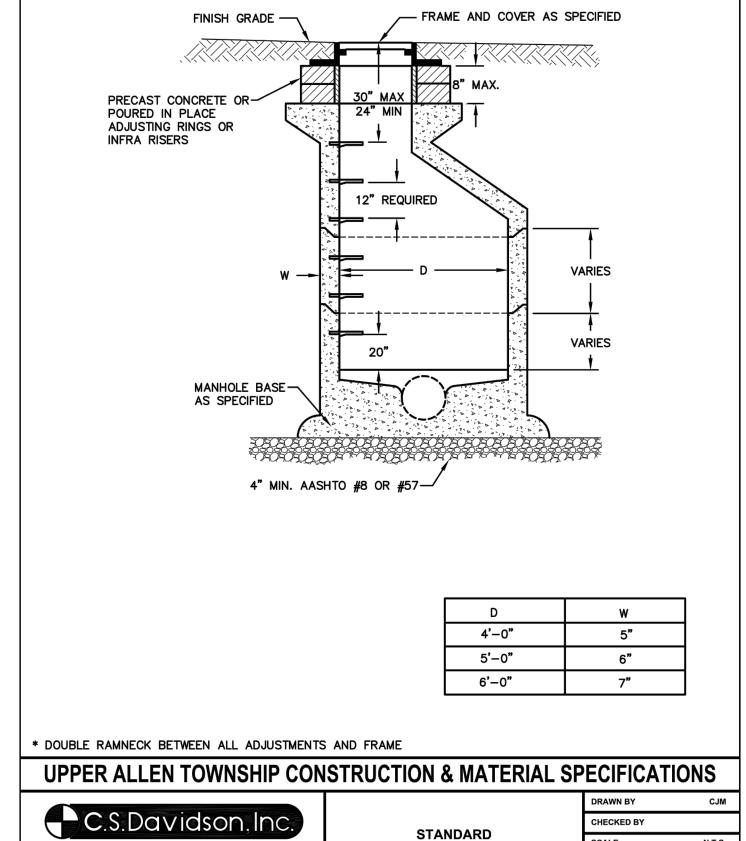
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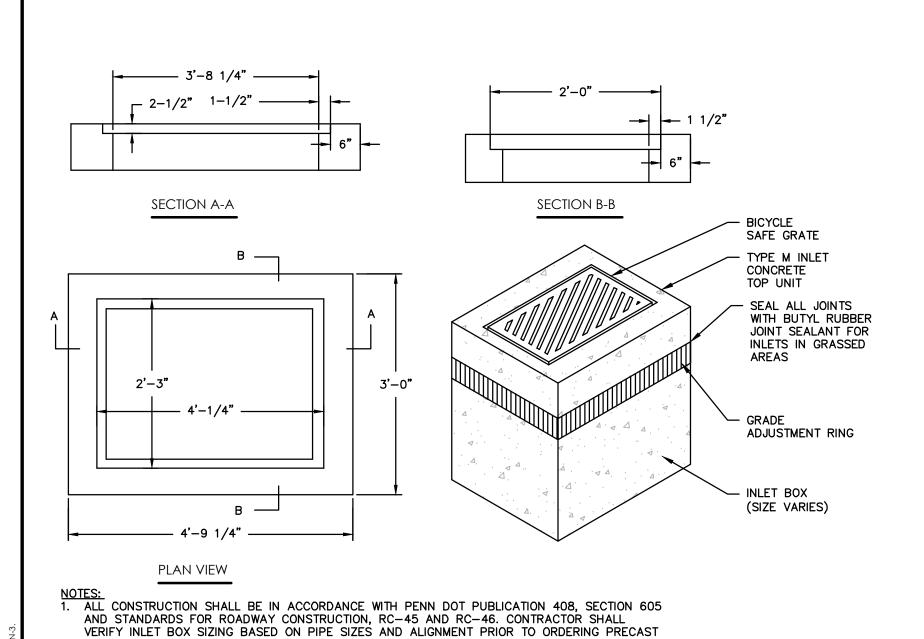
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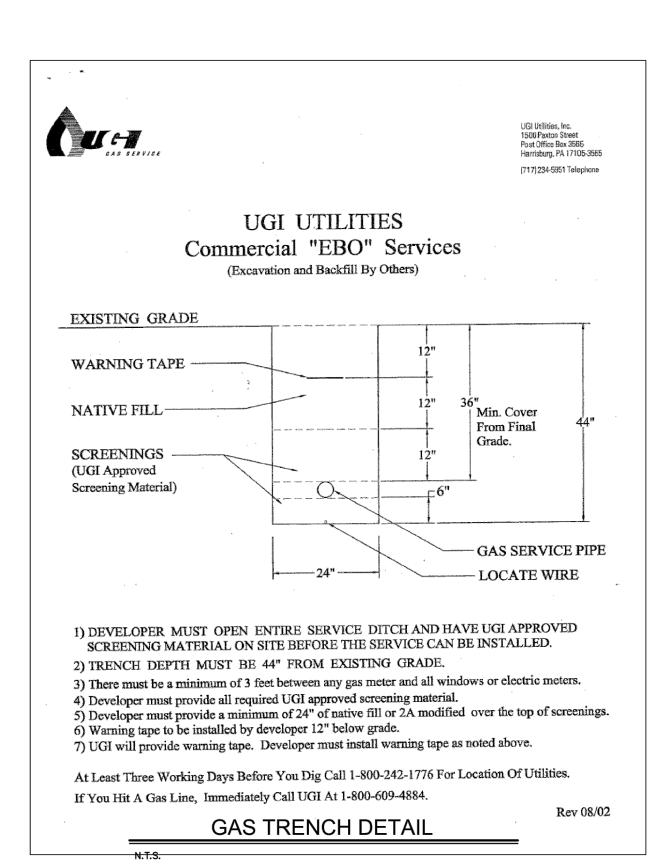
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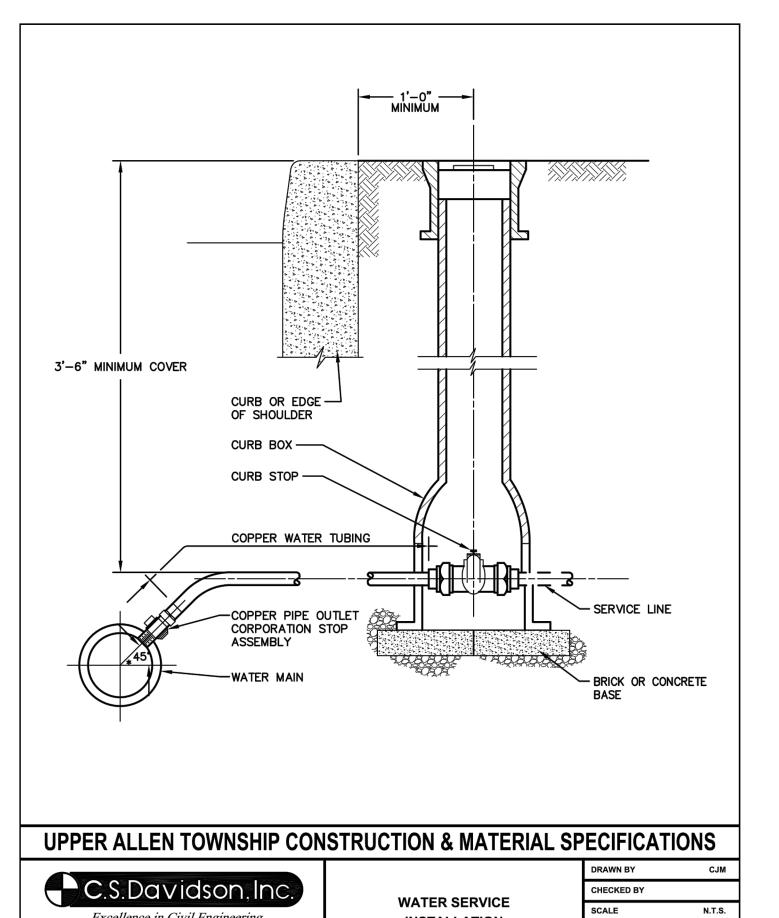


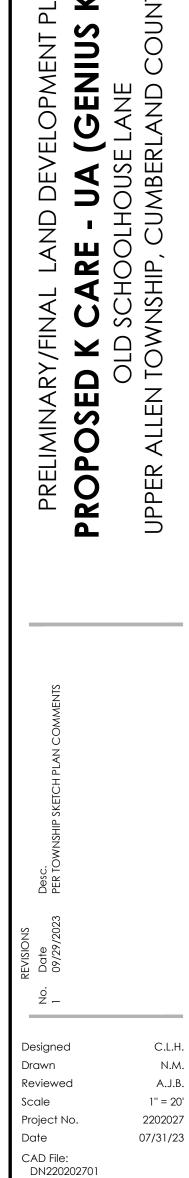
**MANHOLE DETAIL** 

UPPER ALLEN TWP. CUMBERLAND COUNTY, PENNSYLVANIA FILE NO.









N.M.

A.J.B.

DETAIL SHEET

Sheet No.

9/14/16

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Suite 350

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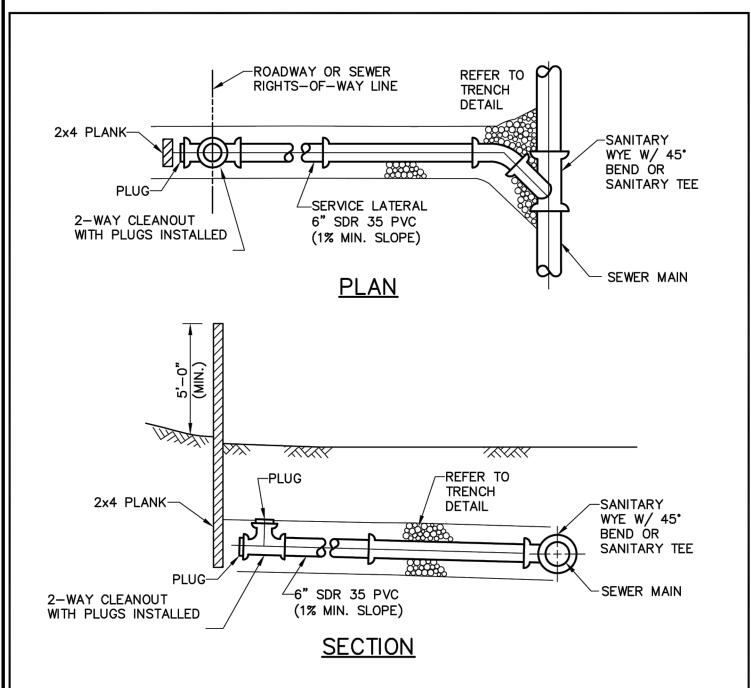
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2. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.

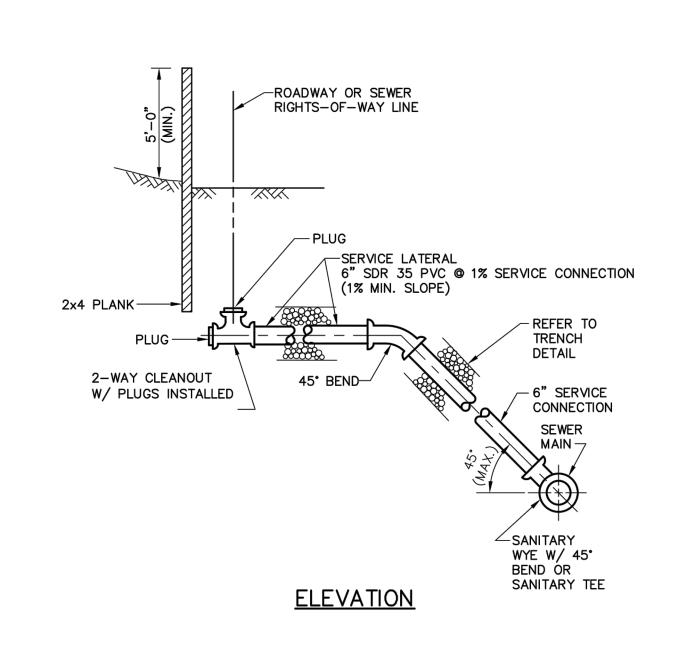
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N.T.S



- . 2-WAY CLEANOUT NOT TO BE LOCATED IN SIDEWALK OR BENEATH OTHER CURB LINE UTILITIES. 2. THERE SHALL BE A 10 FOOT HORIZONTAL SEPARATION BETWEEN THE WATER SERVICE
- AND THE SERVICE LATERAL/BUILDING SEWER. 3. 2-WAY CLEANOUT TO BE LOCATED ON TOWNSHIP R/W LINE AND LOCATION TO BE SITE SPECIFIC WITH
- RESPECT TO CURB AND SIDEWALK. . WHERE 2—WAY CLEANOUT IS NOT REQUIRED, SERVICE CONNECTION SHALL BE EXTENDED TO THE
- RIGHTS-OF-WAY LINE AND PLUGGED. 5. DETECTION TAPE REQUIRED IN PIPE TRENCH AT A DEPTH OF NO MORE THAN 12-INCHES BELOW
- FINAL SURFACE GRADE OR PAVEMENT SUBGRADE. 2-WAY CLEANOUTS MAY ALSO BE USED FOR TESTING AND OBSERVATION.

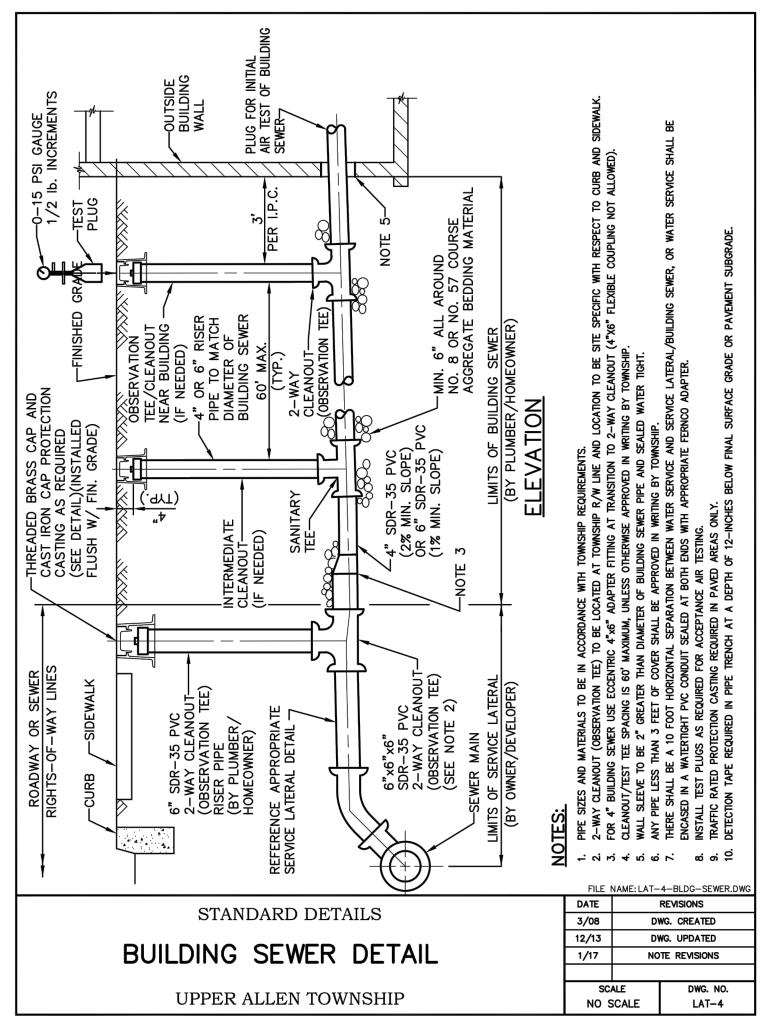
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OPPER ALLEN TOWNSHIP			LAT-1

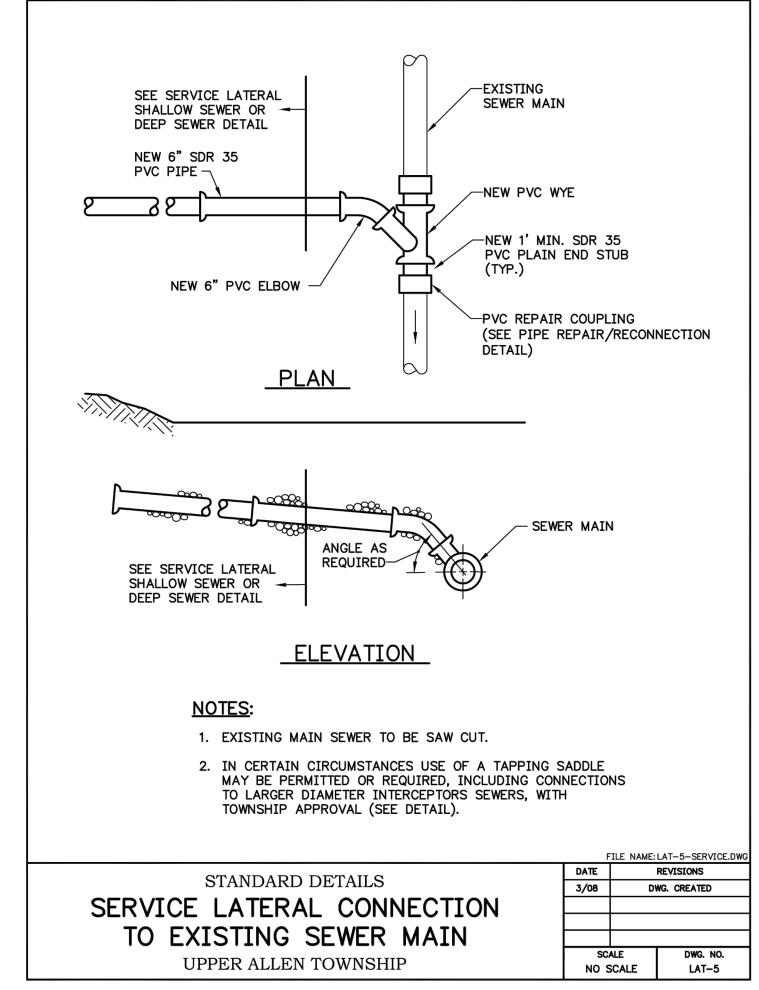


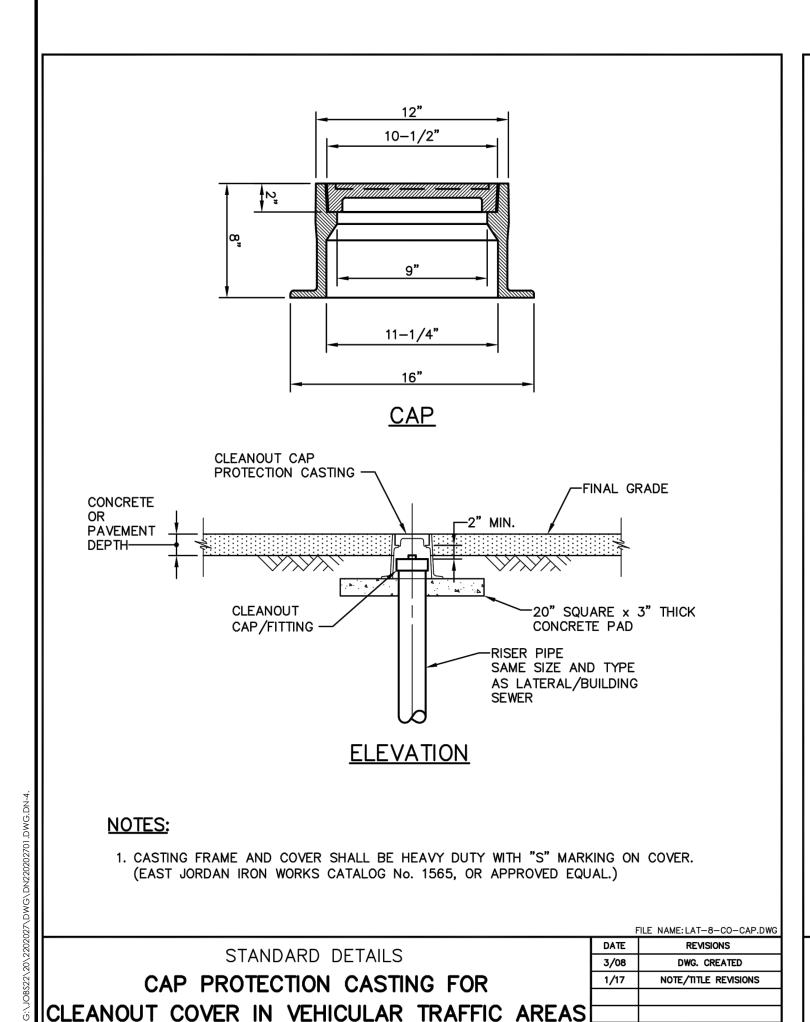
#### NOTES:

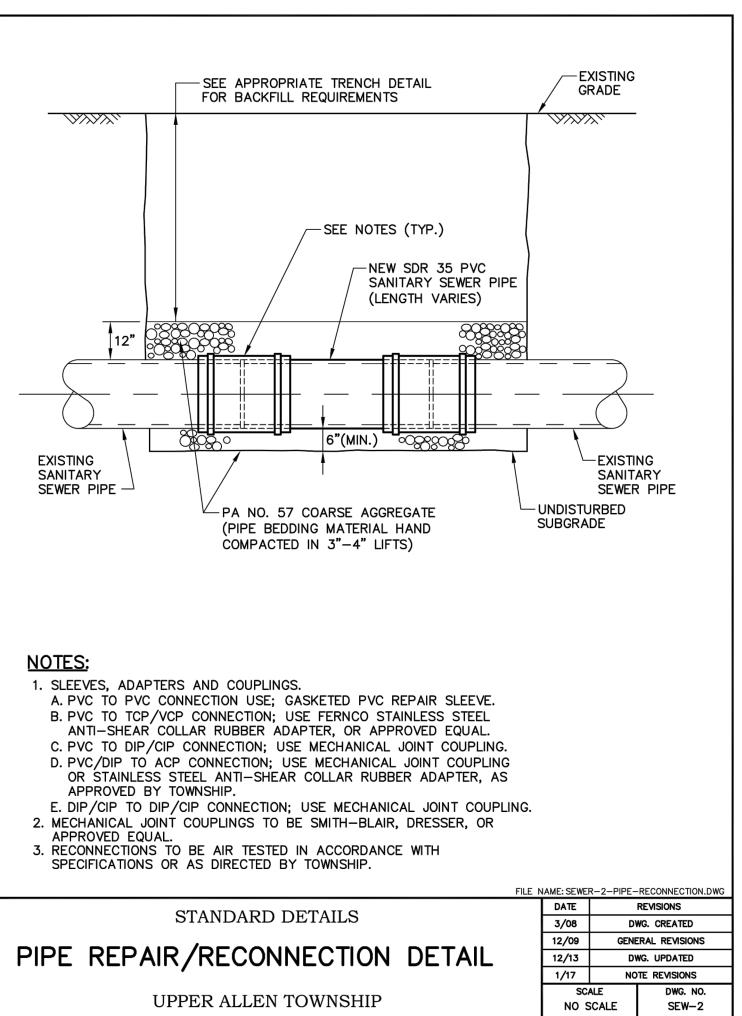
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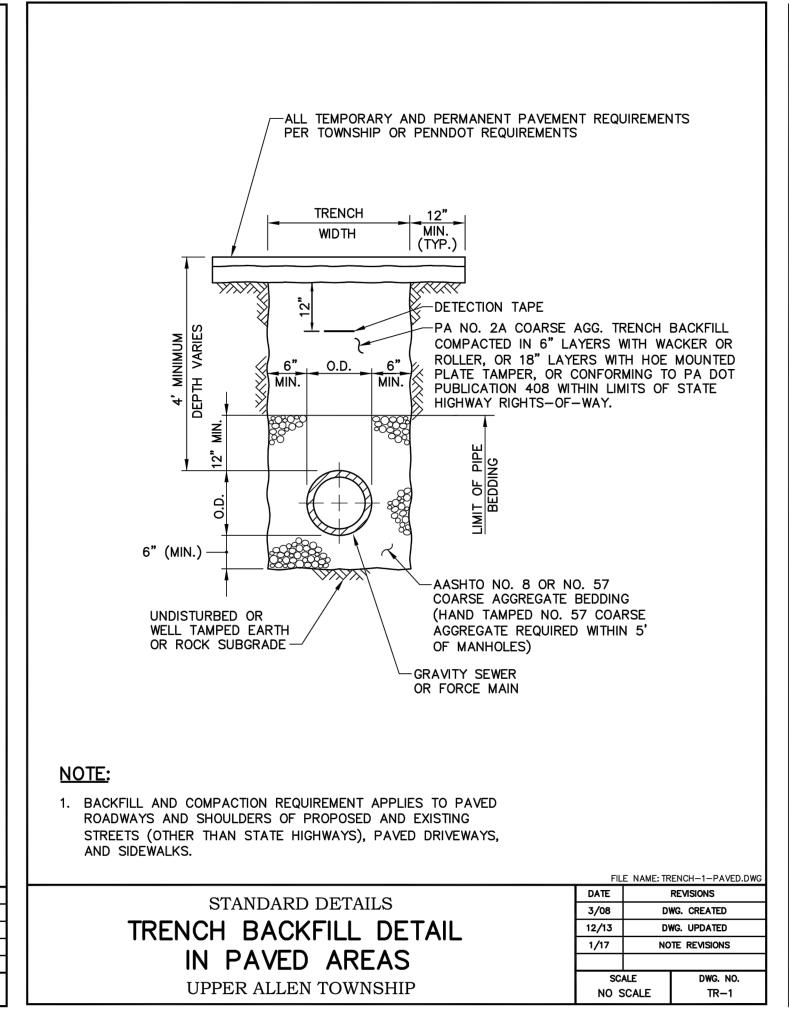
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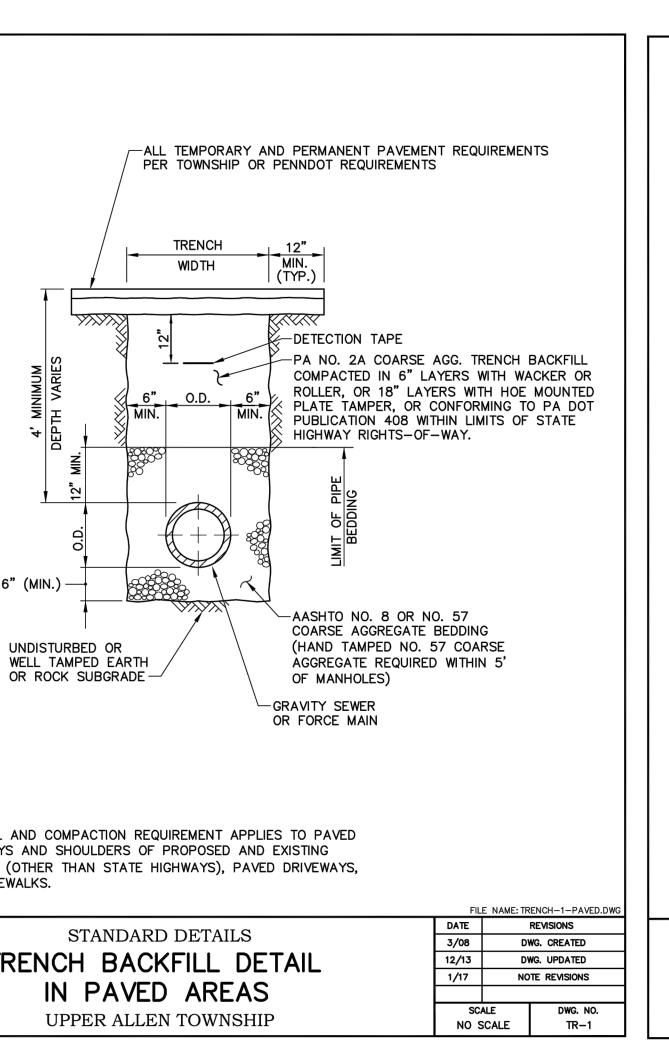


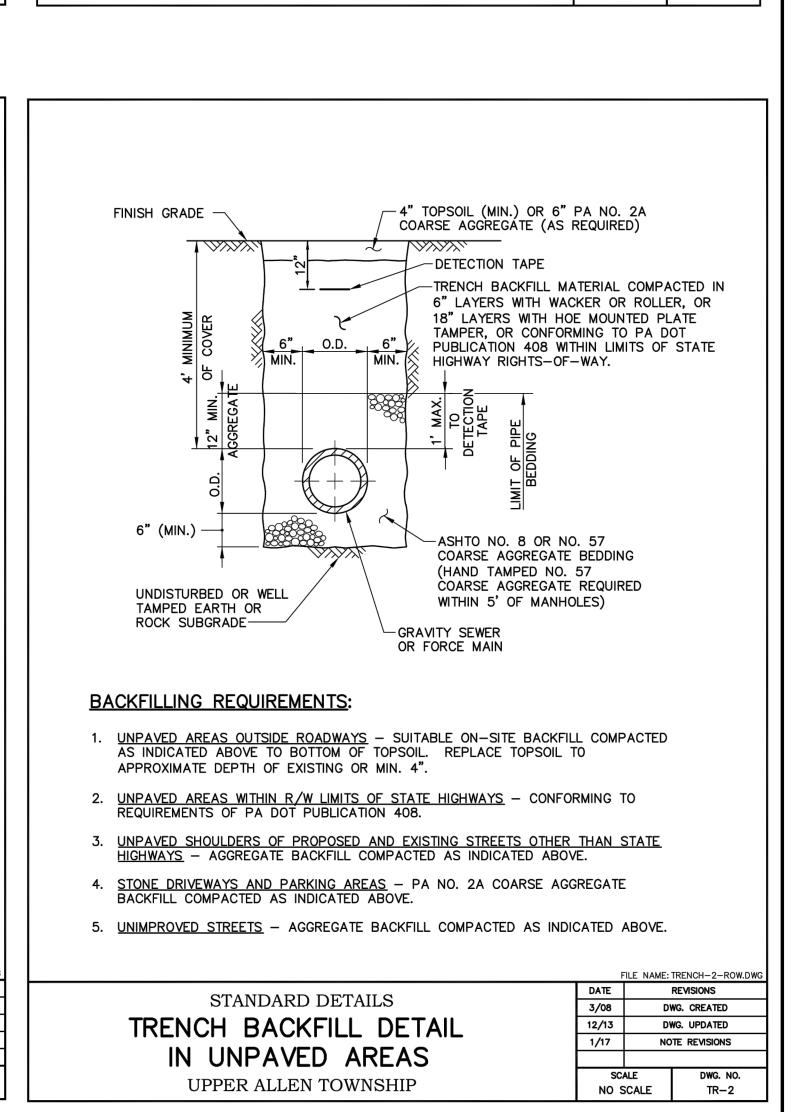












C.L.H.

A.J.B.

1" = 20'

2202027

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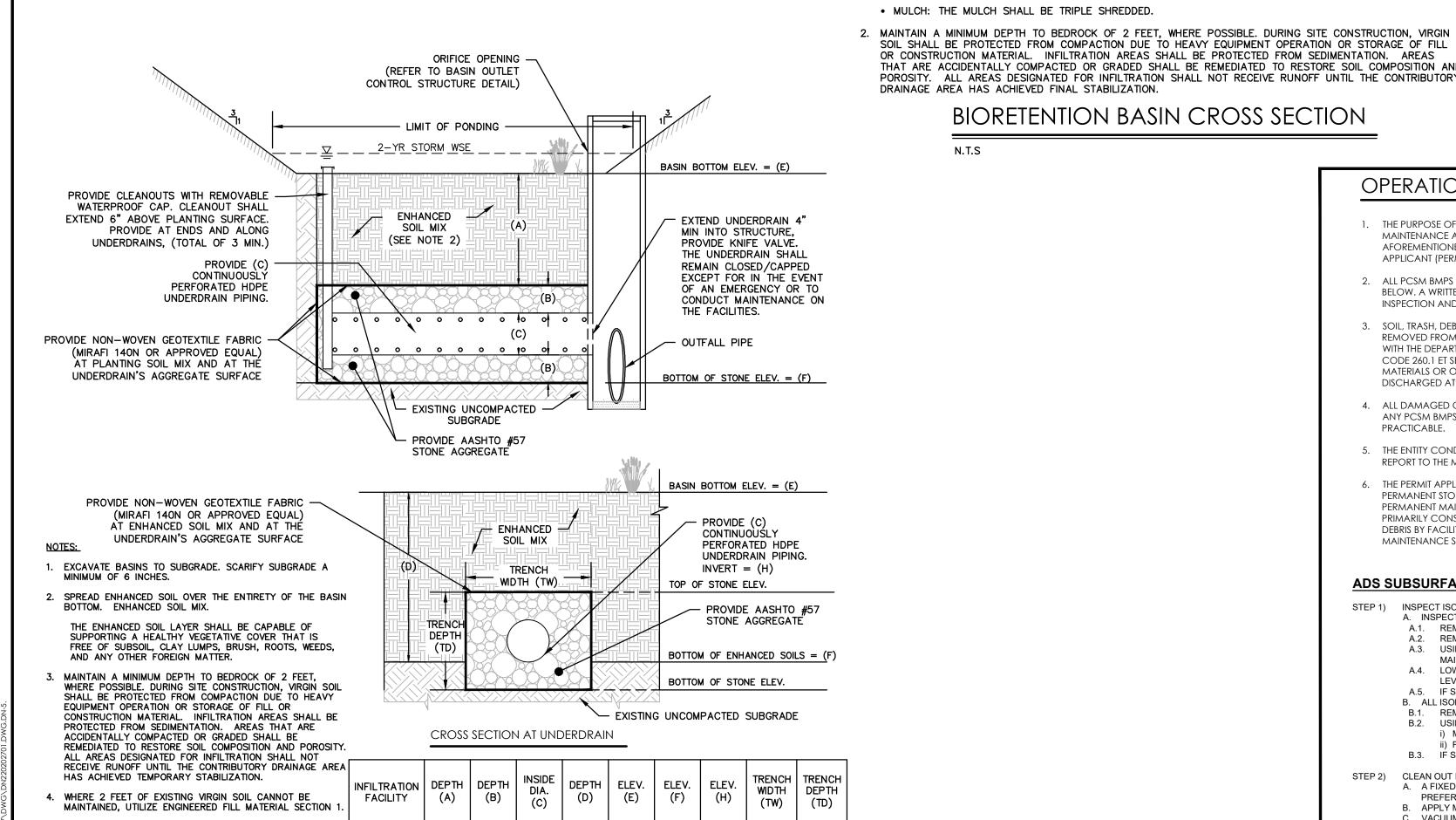
UPPER ALLEN TOWNSHIP

SCALE NO SCALE

LAT-8

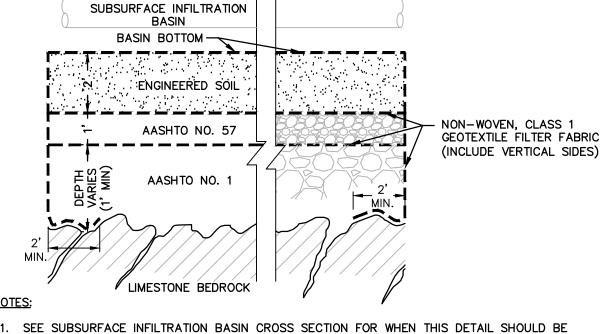
#### SUBSURFACE INFILTRATION BASIN OUTLET CONTROL STRUCTURE (OCS)

N.T.S



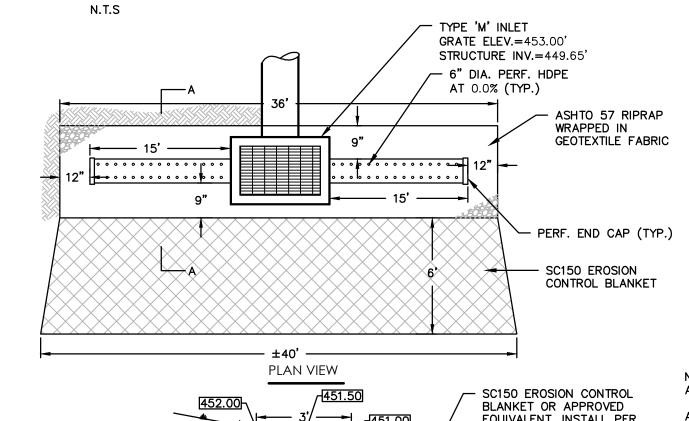
BASIN 1 | 6" | 2" | 4" | 12" | 454.00 | 453 | 453 | 12" |

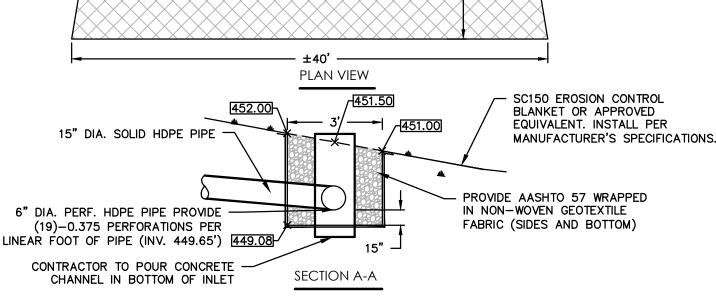
BIORETENTION BASIN CROSS-SECTION



- 1. SEE SUBSURFACE INFILTRATION BASIN CROSS SECTION FOR WHEN THIS DETAIL SHOULD BE
- 2. OVER-EXCAVATE A MINIMUM 48 INCHES BELOW THE BASIN BOTTOM. THE INSTALLATION OF THE GEOTEXTILE FABRIC AND THE STONE SHOULD BE COMPLETED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER OF RECORD.
- 3. THE ENGINEERED SOIL LAYER SHALL BE A LOAM THAT IS FREE OF SUBSOIL, CLAY LUMPS, BRUSH, ROOTS, WEEDS, AND ANY OTHER FOREIGN MATTER MIXED 50/50 WITH SAND. A MAXIMUM CLAY CONTENT OF 10% IS PERMITTED IN THE ENGINEERED FILL MIX. THE SAND SHALL BE ASTM C-33 (OR AASHTO M-6) SIZE (0.02" - 0.04"), CONCRETE SAND, CLEAN,

#### ENGINEERED FILL MATERIAL SECTION





## — OUTLET BARREL CEMENT WATERPROOF PIPE DIAM. JOINT - REINFORCED CONCRETE

COLLAR DESIGNATI ON	X (IN)	NO. OF COLLARS	SPACING OF COLLARS	DIST OF COLLAR FROM OUTLET STRUCTURE (FT)
BASIN 1	45	1	N/A	7

#### NOTES:

- 1. MIN. CONCRETE COMPRESSIVE STRENGTH = 4,000 P.S.I.
- 2. REINFORCEMENT SHALL BE 6x6 W4.0xW4.0 OR #3 REBAR SPACED 12" EACH WAY, CENTERED WITHIN COLLAR, 3" MIN. COVER.
- 3. SEE BASIN EMBANKMENT DETAIL FOR LOCATION.

#### CONCRETE ANTI-SEEP COLLAR

COMPACTED COMPACTED RCP HDPE CONCRETE POURED IN PLACE NEAT TO GROUND 3,000 PSI (MIN) VIRGIN GROUND CROSS-SECTION AT OUTLET BARREL

NOTE: A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS

ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN. FILTER DIAPHRAGM LOCATION (LOC.) SHALL BE AS SHOWN IN FIGURE 7.8 FOUND IN PENNSYLVANIA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.

### CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL DETAIL

PADEP-7-17

#### LEVEL SPREADER DETAIL N.T.S

#### OPERATION & MAINTENANCE PROGRAM FOR BMPs

1. THE PURPOSE OF THESE INSTRUCTIONS IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED BMPS. THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE PERMIT

TOP OF EMBANKMENT

OUTLET

ELEV BOE

(FT)

449.65

(BOE)

CONCRETE

LENGTH BI

(FT)

- ANTI-SEEP

ELEV BIE

(FT)

453.00

(BIE)

(IN)

**EMBANKMENT** 

TOP WIDTH

NOTES:

1. THE ENHANCED SOIL LAYER SHALL BE A MIX OF MAX. 75% TOPSOIL/ MIN. 25% MULCH/ MAX. 10% CLAY.

SOIL LAYER SHALL ALSO HAVE A CLAY CONTENT OF LESS THAN 10%.

• TOPSOIL: THE TOPSOIL SHALL BE A LOAM CAPABLE OF SUPPORTING A HEALTHY VEGETATIVE COVER THAT IS FREE OF SUBSOIL, CLAY LUMPS, BRUSH, ROOTS, WEEDS, AND ANY OTHER FOREIGN MATTER. THE

SOIL SHALL BE PROTECTED FROM COMPACTION DUE TO HEAVY EQUIPMENT OPERATION OR STORAGE OF FILL

THAT ARE ACCIDENTALLY COMPACTED OR GRADED SHALL BE REMEDIATED TO RESTORE SOIL COMPOSITION AND

POROSITY. ALL AREAS DESIGNATED FOR INFILTRATION SHALL NOT RECEIVE RUNOFF UNTIL THE CONTRIBUTORY

OR CONSTRUCTION MATERIAL. INFILTRATION AREAS SHALL BE PROTECTED FROM SEDIMENTATION. AREAS

BIORETENTION BASIN CROSS SECTION

ETW (FT)

TOP

(FT)

456.00

| (FT) | ELEV ETE |

454

• MULCH: THE MULCH SHALL BE TRIPLE SHREDDED.

DRAINAGE AREA HAS ACHIEVED FINAL STABILIZATION.

N.T.S

COLLARWATERTIGHT

SEALS ALL JOINTS

OUTLET BARREL

MAT'L

ELEVATION (ETE)

BASIN BOTTOM -

EXISTING VIRGIN SOIL -

DECOMPACT SUBGRADE TO A MINIMUM 8".

PLACE ENHANCED SOIL (SEE NOTE 1) AND

BIORETENTION PLANTINGS, SEÉ LL-1-

- 2. ALL PCSM BMPS WILL BE INSPECTED ACCORDING TO THE SCHEDULES LISTED BELOW. A WRITTEN REPORT MUST BE COMPLETED DOCUMENTING EACH INSPECTION AND ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.
- 3. SOIL, TRASH, DEBRIS OR OTHER MATERIALS REMOVED FROM PCSM BMPS SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO WASTES, UNUSED BUILDING MATERIALS OR OTHER MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- 4. ALL DAMAGED OR NON-FUNCTIONAL BMPS SHALL BE REPAIRED IMMEDIATELY. ANY PCSM BMPS THAT CANNOT BE REPAIRED MUST BE REPLACED AS SOON AS PRACTICABLE
- 5. THE ENTITY CONDUCTING THE INSPECTION SHALL BE REQUIRED TO SUBMIT A REPORT TO THE MUNICIPALITY ANNUALLY BY JUNE 1ST OF EACH YEAR.
- 6. THE PERMIT APPLICANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PERMANENT STORMWATER FACILITIES LOCATED ON THE SUBJECT PROPERTY. PERMANENT MAINTENANCE OF THE STORM SYSTEM AFTER ACCEPTANCE WILL PRIMARILY CONSIST OF ROUTINE CLEANING OF ACCUMULATED SEDIMENT AND DEBRIS BY FACILITY STAFF OR PRIVATE CONTRACTORS. THE SPECIFIC MAINTENANCE STEPS AND SCHEDULE ARE AS FOLLOWS:

#### ADS SUBSURFACE BASIN INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT A. INSPECTION PORTS (IF PRESENT)

- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON
- MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3. B. ALL ISOLATOR PLUS ROWS B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3. STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS. STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.
- I. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

STORMWATER COLLECTION/CONVE	/ANCE
OPERATION & MAINTENANCE PROCEDU	RES
ACTIVITY	SCHEDULE
INLETS & CATCH BASINS SHOULD BE CLEANED OF DEBRIS. REPAIRS SHOULD BE MADE AS SOON AS PROBLEMS ARISE.	CLEAN ONCE PER YEAR & REPAIR AS NEEDED
INSPECT OUTFALL STRUCTURES QUARTERLY DURING 1ST YEAR & ONCE PER YEAR THEREAFTER	QUARTERLY & ONCE PER YEAR
COLLECTION/CONVEYANCE SYSTEMS SHOULD BE INSPECTED FOR DEBRIS, TRASH, AND SEDIMENT ACCUMULATION TWICE PER YEAR MINIMUM AND AFTER STORM EVENTS OF 1" OR GREATER.	TWICE PER YEAR & AFTER 1" STORMS OR GREATER
GENERAL MAINTENANCE NOTES:  1. VACTOR TRUCKS MAY BE AN EFFICIENT CLEANING ME  2. CATCH BASINS SHOULD BE CLEANED BEFORE HALF FU	

SUBSURFACE INFILTRATION BASIN	
OPERATION & MAINTENANCE PROCEDURES	S
ACTIVITY	SCHEDULE
ALL INLETS AND MANHOLES CONTRIBUTING TO THE SUBSURFACE FACILITY SHOULD BE VISUALLY INSPECTED FOR TRASH AND DEBRIS. IF TRASH OR DEBRIS IS FOUND, REMOVE FROM SYSTEM AND DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE STATE AND FEDERAL REGULATIONS. VACTOR TRUCKS OR SIMILAR EQUIPMENT MAY BE NECESSARY TO ENSURE ALL TRASH AND DEBRIS IS REMOVED FROM THE INLETS, MANHOLES AND/OR SUBSURFACE INFILTRATION FACILITY.	MONTHLY
THE SUBSURFACE SYSTEM SHALL BE VISUALLY INSPECTED VIA THE FACILITY'S MANHOLES FOR EVIDENCE OF STANDING WATER (LONGER THAN 72-HOURS AFTER A 2-YEAR 24-HOUR, 2.90 INCH, OR GREATER RAINFALL EVENT). IF STANDING WATER IS OBSERVED, THE OWNER SHALL CONTACT A LICENSED PROFESSIONAL ENGINEER TO PREPARE. A CORRECTIVE ACTION PLAN. THE OWNER AND LICENSED PROFESSIONAL ENGINEER WILL BE RESPONSIBLE FOR SECURING ANY REQUIRED PERMIT MODIFICATIONS FROM CCCD AND PADEP PRIOR TO REMEDIATION.	AS NEEDED AND TWICE PER YEAR
VISUALLY INSPECT THE SUBSURFACE SYSTEM VIA THE FACILITY'S MANHOLES FOR SALT OR OTHER CORROSIVE SUBSTANCE ACCUMULATIONS WITHIN THE SYSTEM. IF EVIDENCE IS FOUND, RINSE THE SYSTEM BY USE OF WATER AND VACTOR TRUCKS TO FLUSH OUT AND REMOVE ANY DEBRIS/POLLUTANTS FOUND IN THE SYSTEM. ALL DEBRIS/POLLUTANTS THAT ARE REMOVED FROM THE SYSTEM DURING FLUSHING SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE STATE AND FEDERAL REGULATIONS.	ONCE PER YEAR IN LATE SPRING AFTER FINAL SNOW-MELT

ENSURE THAT DESIGN INFILTRATION RATE IS BEING ACHIEVED. BASIN 1: 0.25 TO 10.00 IN/HR	INFILTRATION FACILITY
FIRST GROWING SEASON: WHENEVER VEGETATION REACHES A HEIGHT OF 18-24", TRIM TO A HEIGHT OF 8". HAND PULL UNWANTED VEGETATION AND INVASIVE SPECIES.  SECOND GROWING SEASON: PRIOR TO NEW SPRING GROWTH REACHING A HEIGHT OF 2', TRIM ALL VEGETATION DOWN TO 6". HAND PULL UNWANTED VEGETATION AND INVASIVE SPECIES.	FIRST AND SECOND GROWING SEASONS, AND AS NEEDED
REMOVE LITTER AND DEBRIS, INSPECT FOR SEDIMENT BUILDUP, EROSION, AND VEGETATIVE CONDITIONS. STABILIZE ERODED BANKS, REPAIR UNDERCUT AND ERODED AREAS AT INFLOW AND OUTFLOW STRUCTURES, AND RESEED AS NECESSARY TO ENSURE STABILIZATION. CONTACT QUALIFIED PROFESSIONAL IF SIGNIFICANT SEDIMENT BUILDUP (I.E. POND VOLUME HAS BEEN REDUCED BY 10%) OR EROSION HAS OCCURRED.	MONTHLY
INSPECT FACILITY FOR SIGNS OF WETNESS OR DAMAGE TO STRUCTURES. NOTE ERODED AREAS. IF DEAD OR DYING GRASS ON THE BOTTOM IS OBSERVED, CHECK TO ENSURE THAT WATER IS PERCOLATING WITHIN THE DESIGN DEWATERING TIME (SEE BELOW).	TWICE PER YEAR
IF AFTER A 2-YEAR STORM EVENT, WATER HAS NOT INFILTRATED WITHIN THE DESIGN DEWATERING TIME (SEE BELOW), WAIT UNTIL AFTER THE NEXT 2-YEAR STORM EVENT TO SEE IF DESIGN DEWATERING TIME HAS BEEN ACHIEVED. IF THE BASIN IS STILL NOT DEWATERING APPROPRIATELY, CONTACT A QUALIFIED PROFESSIONAL TO EVALUATE THE BMP AND IMMEDIATELY CORRECT THE DETERMINED MALFUNCTION TO ACHIEVE DEWATERING TIMES AS FOLLOWS:	TWICE PER YEAR FOR FIRST THREE YEARS
1. VEGETATION ALONG THE SURFACE OF THE BASIN BOTTOM SHOUN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SC 2. VEGETATIVE COVER SHALL BE MAINTAINED AT A MINIMUM OF 9 3. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON BASIN BOTTO COMPACTION. 4. DURING PERIODS OF EXTENDED DROUGHT, INFILTRATION AREA WATERING.	OON AS POSSIBLE. 5%. DM, AVOID

**BIORETENTION FACILITY / RAIN GARDEN** 

OPERATION & MAINTENANCE PROCEDURES

DECOMPACT THE BASIN BOTTOM TO A DEPTH OF 8". SEED

WITH PLANTING MIX SHOWN ON APPROVED PLANS.

ENSURE THAT DESIGN INFILTRATION RATE IS BEING

QUALIFIED PROFESSIONAL OR THEIR DESIGNEE SHALL

SCHEDULE

CONSTRUCTION

OF PERMANENT

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C.L.H. Designed N.M. Reviewed A.J.B. 1" = 20' Scale Project No. 2202027 07/31/23

CAD File: DN220202701

**DETAIL SHEET** 

Sheet No.

5. PLACEMENT OF STONE OVER AND AROUND UNDERDRAIN

SPREAD MANUALLY TO AVOID DAMAGE.

MUST BE DONE WITH EXTREME CARE AND SHOULD BE





#### DC-780 STORMTECH CHAMBER SPECIFICATIONS

- 1. CHAMBERS SHALL BE STORMTECH DC-780.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN
- REQUIREMENTS FOR HANDLING AND INSTALLATION:

STORMTECH HIGHLY RECOMMENDS

ELEVATED BYPASS MANIFOLD

SUMP DEPTH TBD BY

SITE DESIGN ENGINEER

(24" [600 mm] MIN RECOMMENDED)

FLEXSTORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES

- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER
- JOINT SHALL NOT BE LESS THAN 2". • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS
- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPI ASTIC PIPE
- THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE

8' (2.4 m) MIN WIDE

CATCH BASIN

OR MANHOLE

## IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE DC-780

- 1. STORMTECH DC-780 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH DC-780 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- 3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS STORMTECH RECOMMENDS 3 BACKFILL METHODS:
- STONESHOOTER LOCATED OFF THE CHAMBER BED. BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
- BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR. 4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- 5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- 6. MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2"
- 8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- 9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE

#### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH DC-780 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- 2. THE USE OF CONSTRUCTION EQUIPMENT OVER DC-780 CHAMBERS IS LIMITED: NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL
  - DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE" WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- 3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT

OPTIONAL INSPECTION PORT

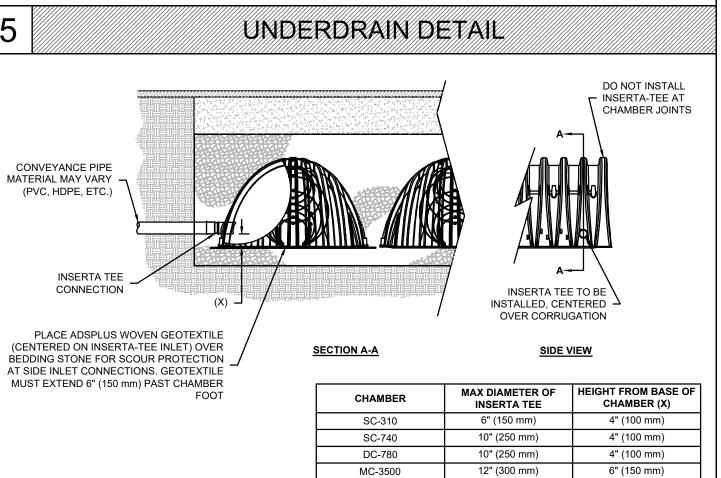
ONE LAYER OF ADSPLUS125 WOVEN GEOTEXTILE BETWEEN

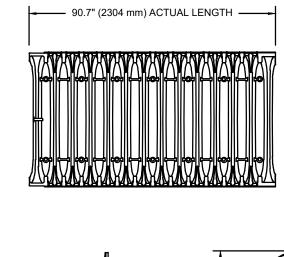
5' (1.5 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

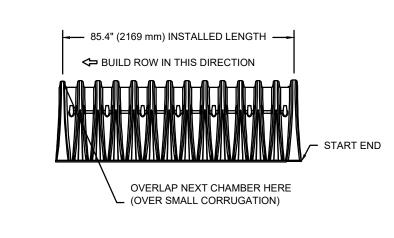
FOUNDATION STONE AND CHAMBERS

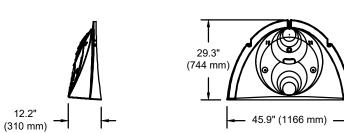
DC-780/SC-740 END CAP

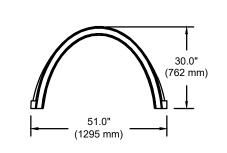
#### STORMTECH CHAMBERS STORMTECH END CAP OUTLET MANIFOLD FOUNDATION STONE BENEATH CHAMBERS ADS GEOSYNTHETICS 601T SECTION A-A NON-WOVEN GEOTEXTILE DUAL WALL PERFORATE STORMTECH UNDERDRAIN END CAP **FOUNDATION STONE** BENEATH CHAMBERS ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER 4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS SECTION B-B 6" (150 mm) TYP FOR SC-740, DC-780, MC-3500 & MC-4500 SYSTEMS











NOMINAL CHAMBER SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH CHAMBER STORAGE MINIMUM INSTALLED STORAGE

51.0" X 30.0" X 85.4" (1295 mm X 762 mm X 2169 mm) 46.2 CUBIC FEET (1.30 m<sup>3</sup>) 78.4 CUBIC FEET (2.20 m<sup>3</sup>) 75.0 lbs. (33.6 kg)

\*ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS

PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR" PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"

PRE-FAB STUBS AT TOP OF END CAP F PRE-CORED END CAPS END WITH "PC"	OR PART NUMBER	S ENDING WITH "T"	' Ť	СЪ
PART #	STUB	Α	В	С
SC740EPE06T / SC740EPE06TPC	6" (1E0 mm)	10.0" (277 mm)	18.5" (470 mm)	
SC740EPE06B / SC740EPE06BPC	6" (150 mm)	10.9" (277 mm)		0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	0!! (000)	40.0" (040)	16.5" (419 mm)	
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)		0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	40" (050)	40.4" (0.40)	14.5" (368 mm)	
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)		0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	40" (200 ====)	44.7" (272)	12.5" (318 mm)	
SC740EPE12B / SC740EPE12BPC	12" (300 mm)	14.7" (373 mm)		1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	
SC740EPE15B / SC740EPE15BPC	15 (3/5111111)	10.4 (407 11111)		1.3" (33 mm)
SC740EPE18T/ SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	
SC740EPE18B / SC740EPE18BPC	16 (450 111111)	19.7 (300 11111)		1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)		0.1" (3 mm)
SC740EPE24BR*	24" (600 mm)	18.5" (470 mm)		0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24BR ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT

FOR THE SC740EPE24B/SC740EPE24BR THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL. NOTE: ALL DIMENSIONS ARE NOMINAL

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS.

CONTACT STORMTECH FOR MORE INFORMATION.

## INSERTA-TEE SIDE INLET DETAIL

## DC-780 TECHNICAL SPECIFICATIONS

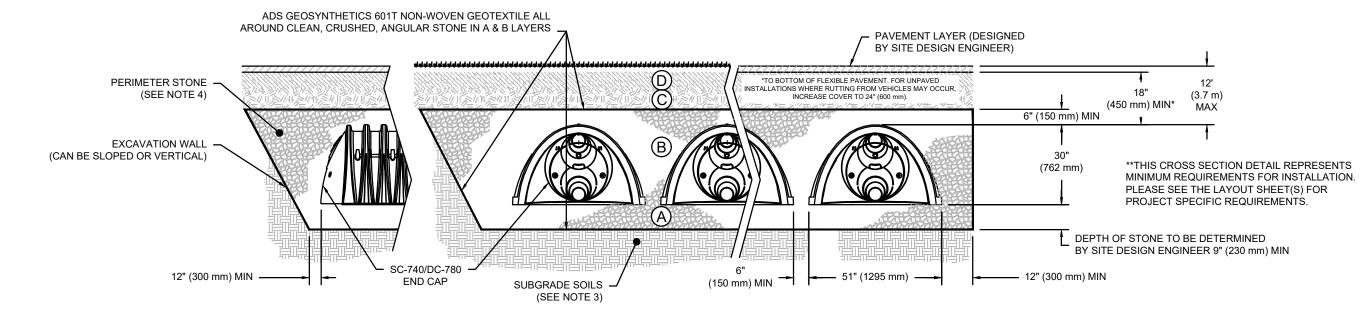
## ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3  OR  AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS

4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



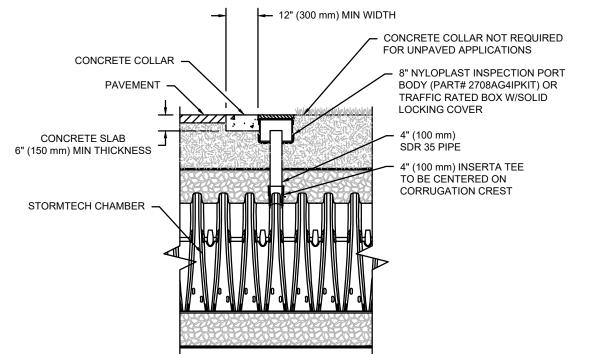
- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" 2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS
- 4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 5. REQUIREMENTS FOR HANDLING AND INSTALLATION: TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2" • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW

## DC-780 ISOLATOR ROW PLUS DETAIL

4" (600 mm) HDPE ACCESS PIPE REQUIRED

USE FACTORY PRE-FABRICATED END CAP

WITH FLAMP PART #: SC740EPE24BR



INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

#### **INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT A. INSPECTION PORTS (IF PRESENT) REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL) A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
  - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED 3. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS. STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

C. VACUUM STRUCTURE SUMP AS REQUIRED

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY

#### 4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)

DC-780 CROSS SECTION DETAIL

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

2601 Market Place Harrisburg, PA 17110 (717) 943-1665

S

07/31/23 CAD File: DN220202701

C.L.H.

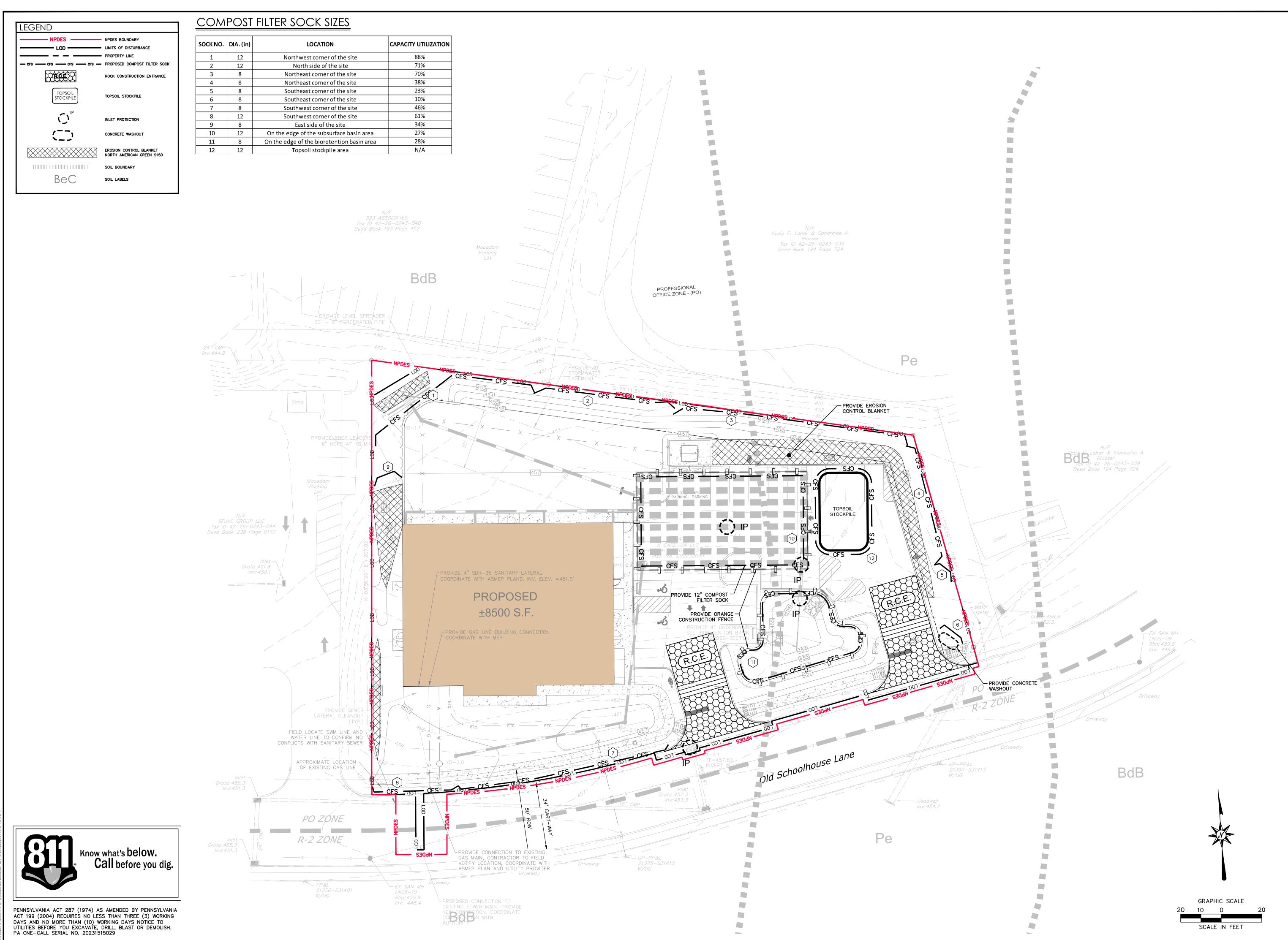
A.J.B.

1" = 20'

2202027

**DETAIL SHEET** 

SHEET



Architecture
Engineering
Environmental
Land Surveying

2601 Market Place Suite 350 Harrisburg, PA 17110 (717) 943-1665



SY/FINAL LAND DEVELOPMENT PLAN

O K CARE - UA (GENIUS KID

OLD SCHOOLHOUSE LANE

PROPOSE

S

Desc. 23 PER TOWNSHIP SKETCH PLAN COMMENTS

Designed C.L.H.

Drawn N.M.

Reviewed A.J.B.

Scale 1" = 20'

Project No. 2202027

Date 07/31/23

CAD File: EC220202701 Title EROSION & SEDIMENT

SEDIMENT CONTROL PLAN

EC-1 No.17of 19 2. 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, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

> CUMBERLAND COUNTY CONSERVATION DISTRICT 310 ALLEN ROAD, SUITE 301 CARLISLE, PA 17013 PHONE (717) 240-7812

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.

2. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF 8. BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR

IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.

TYPICAL CONSTRUCTION WASTES ARE ANTICIPATED I.E. CONCRETE, ASPHALT, REBAR, LUMBER, BUILDING MATERIALS, ETC. THE CONTRACTOR SHALL DISPOSE OF WASTE MATERIALS OBTAINED FROM DEMOLITION ACTIVITIES IN A LEGAL MANNER, AND SHALL RECYCLE AS MUCH OF THE WASTE MATERIAL AS POSSIBLE, IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT SPECIFICATIONS. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS, WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

9. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

10. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

12. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

13. A LOG SHOWNG DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

15. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

16. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES — 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

17. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

18. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

19. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

20. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO

21. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

22. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

23. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

24. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT. THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

25. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

26. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OF

27. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.

28. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

29. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL

30. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

31. INFILTRATION BMP AREAS SHALL BE PROTECTED FROM COMPACTION DURING CONSTRUCTION.

32. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.

#### SEQUENCE OF CONSTRUCTION

UNDERLINED PORTIONS OF THE SEQUENCE OF CONSTRUCTION INDICATE THAT THIS SECTION IS A CRITICAL STAGE OF PCSM HOURS PRIOR TO BEGINNING STEP IDENTIFIED.

1. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED TO THE ELEMENTS.

2. FOLLOW THE CONSTRUCTION/EROSION CONTROL IMPLEMENTATION PLAN AS OUTLINED ON THE DRAWINGS.

3. IMPLEMENT CONTROL MEASURES AS SPECIFIED; HOWEVER, THE CONTRACTOR MAY INSERT ADDITIONAL CONSTRUCTION PHASES IN ORDER TO EXPEDITE HIS WORK.

THE CONTRACTOR IS REQUIRED TO PERFORM CONTINUOUS MAINTENANCE ON ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.

5. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED HEREON. DEVIATION FROM THIS SEQUENCE MUST BE APPROVED IN WRITING FROM THE CUMBERLAND COUNTY CONSERVATION DISTRICT OR BY

6. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMPS TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE CUMBERLAND COUNTY CONSERVATION DISTRICT AND/OR THE

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE CUMBERLAND COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, 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.

OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CUMBERLAND COUNTY CONSERVATION DISTRICT.

9. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE CHAPTER 260, §\$260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

10. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE CUMBERLAND COUNTY CONSERVATION DISTRICT OR DEP FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND TO DEVELOP A PLAN THAT MEETS THE CONDITIONS OF CHAPTER 102, NPDES PERMIT CONDITIONS, AND/OR OTHER STATE AND FEDERAL REGULATIONS.

CONSTRUCTION SEQUENCE FOR IMPROVEMENTS ARE AS FOLLOWS:

THE LIMIT OF DISTURBANCE AND CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY UPPER ALLEN TOWNSHIP AND THE CUMBERLAND COUNTY CONSERVATION DISTRICT PRIOR TO THE START OF WORK ON THE SITE.

2. CONSTRUCT THE ROCK CONSTRUCTION ENTRANCES AS SHOWN ON THE PLAN WITH DESIGNATED CONCRETE WASHOUT

3. INSTALL COMPOST FILTER SOCKS AS SHOWN ON EC-1, AND INSTALL FILTER BAG INLET PROTECTION ON ALL EXISTING INLETS AS SHOWN ON THE PLANS.

PERFORM DEMOLITION AS SHOWN ON EX-1. CLEAR AND GRUB SITE TO LIMIT OF DISTURBANCE.

PERFORM BULK GRADING OF THE SITE

6. INSTALL ORANGE CONSTRUCTION FENCE AT BMP #1 BIORETENTION BASIN AND BMP #2 SUBSURFACE INFILTRATION BASIN

7. BRING THE PROPOSED BUILDING PAD AND ALL OTHER SITE IMPROVEMENTS TO SUB-GRADE AND PREPARE PAD FOR

CONSTRUCT ALL STORM SEWER, SANITARY SEWER, WATER LINES, GAS LINES, ELECTRIC LINES, AND OTHER UTILITIES OUTLINED ON THE PLANS. PERMANENTLY STABILIZE SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING. INSTALL STREET PLATES ON TRENCHES THROUGH OR NEAR THE CONSTRUCTION ENTRANCES AND PUBLIC ROADS. PLACE SPOIL MATERIAL ON THE UP SLOPE SIDE OF THE TRENCH. IMMEDIATELY STABILIZE IF BACKFILL IS NOT USED WITHIN THE SAME DAY. INSTALL INLET PROTECTION AS INDICATED ON EC-1.

INSTALL BMP #2 SUBSURFACE INFILTRATION BASIN. SEE SEPARATE SEQUENCE OF CONSTRUCTION. COMPLETE ALL ITEMS UNDER SEPARATE SEQUENCE OF CONSTRUCTION FOR SUBSURFACE INFILTRATION BASIN BEFORE PROCEEDING TO THE NEXT

INSTALL BMP #1 BIORETENTION BASIN. SEE SEPARATE SEQUENCE OF CONSTRUCTION. COMPLETE CONSTRUCTION FOR INFILTRATION BASIN BEFORE PROCEEDING TO THE NEXT STEP.

12. INSTALL COMPOST FILTER SOCKS NUMBER 10 AS SHOWN ON EC-1.

13. FINISH GRADING AND INSTALL CURBS, PAVEMENT STRUCTURES, PAVEMENT MARKINGS, SIDEWALKS, SIGNAGE, SITE AMENITIES, AND LANDSCAPING AS OUTLINED ON THE PLANS.

14. PERMANENTLY STABILIZE ALL DISTURBED AREAS NOT RECEIVING PAVEMENT OR CONCRETE SURFACE. IN AREAS DESIGNATED AS LAWN, TILL THE FIRST 6" OF SOIL, PLACE SOIL AMENDMENTS AS NECESSARY, AND SEED ALL AREAS OF PERMANENT LAWN AND PERVIOUS OPEN SPACE IN ACCORDANCE WITH THE LAWN SEEDING MIX. TILLING SHOULD BE PERFORMED ON DRY

15. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES HAS OCCURRED, INCLUDING PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER SHALL CONTACT THE CUMBERLAND COUNTY CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.

16. AN AS-BUILT SURVEY OF THE FACILITIES SHALL BE PROVIDED TO THE OWNER AND LICENSED PROFESSIONAL.

17. REMOVE AND PROPERLY DISPOSE/ RECYCLE E&S BMPS, INCLUDING ROCK CONSTRUCTION ENTRANCES WITH WASH RACKS, INLET PROTECTION, AND COMPOST FILTER SOCK. REPAIR AND PERMANENTLY STABILIZE AFFECTED BMP REMOVAL AREAS.

STABILIZATION - CURRENT REGULATIONS STATE:

(A) UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION. (B) EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL THE PERMANENT STABILIZATION

IS COMPLETED. (C) FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION.

(2) AN ACCEPTABLE BMP THAT PERMANENTLY MINIMIZES ACCELERATED EROSION SEDIMENTATION.

PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

#### SUBSURFACE INFILTRATION BASIN

BMP SEQUENCE OF CONSTRUCTION

I. REMOVE TEMPORARY ORANGE CONSTRUCTION FENCE FOR ACCESS, AS NECESSARY. MAINTAIN INLET PROTECTION WITHIN ALL INSTALLED INLETS.

. EXCAVATE INFILTRATION BASIN FOOTPRINT. MAINTAIN A MINIMUM DEPTH TO BEDROCK OF 2 FEET. IF 2 FEET CANNOT BE MAINTAINED, UTILIZE ENGINEERED FILL MATERIAL SECTION. THE EXISTING SUBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT. AREAS THAT ARE ACCIDENTALLY COMPACTED OR GRADED SHALL BE DECOMPACTED A MINIMUM OF 20 INCHES TO RESTORE SOIL COMPOSITION AND POROSITY AT NO ADDITIONAL COST TO HE OWNER. STRIP TOPSOIL AND PLACE ENGINEERED FILL SECTION IN FILL AREAS.

A QUALIFIED PROFESSIONAL SHALL TEST THE INFILTRATION RATES OF THE BASIN'S BOTTOM TO ENSURE THAT AN ACCEPTABLE INFILTRATION RATE IS ACHIEVED (0.10 IN/HR TO 10.0 IN/HR). IF MEASURED INFILTRATION RATE IS OUTSIDE OF THE RANGE, CONTACT OWNER AND ENGINEER FOR ADDITIONAL RECOMMENDATIONS

IF BED IS EXPOSED FOR MORE THAN 3 DAYS OR IF RAIN IS FORECAST PRIOR TO PLACEMENT OF GEOTEXTILE FABRIC AND/OR STONE, INSTALL COMPOST FILTER SOCK AROUND THE UPSLOPE PERIMETER OF THE BASIN FOOTPRINT IN ORDER TO PREVENT SEDIMENTATION OF THE BASIN BOTTOM.

WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE.

. GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. <u>INSTALL GEOTEXTILE FABRIC</u>, GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHOULD OVERLAP A MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF BED IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND/OR VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG BED EDGES CAN BE CUT BACK TO THE EDGE OF THE BED.

7. INSTALL INFILTRATION BASIN PIPING. STONE. STORAGE CHAMBERS, CLEANOUTS, AND OUTLET CONTROL STRUCTURE CLEAN—WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8—INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM AS MUCH AS

8. STABILIZE SURFACE OVER BED AREA.

9. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS PERMANENTLY STABILIZED.

#### TEMPORARY SEEDING FOR SOIL STABILIZATION

1. SEEDING MIXTURE TYPE ANNUAL RYEGRASS (70%) (TOPSOIL STOCKPILES) SPECIES: PERENNIAL RYEGRASS (30%) % PURE LIVE SEED 4LBS./MSF APPLICATION RATE: FERTILIZER TYPE: 10-10-10 FERT. APPLICATION RATE 12.5 LBS/1,000 SF 40 LBS/1,000 SF LIMING RATE: MULCH TYPE: 140 LBS/1,000 SF MULCH RATE: ANCHOR MATERIAL EC3000 COPOLYMER TACKIFIER ANCHORING METHOD: SLURRY, MIX AND SPRAY ANCHORING RATE OF APPLICATION: 3 LBS/ACRE SEEDING DATE: AS REQUIRED

#### SOIL LIMITATIONS AND RESOLUTIONS

BdB: BERKS CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES (NON-HYDRIC); HYDROLOGIC SOIL GROUP B Pe: PENLAW SILT LOAM, 0 TO 3 PERCENT SLOPES (NON-HYDRIC); HYDROLOGIC SOIL GROUP C/D

LIMITATIONS: CUTBANKS CAVE

DROUGHTY

- CORROSION TO CONCRETE/STEEL

EASILY ERODIBLE

- DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE HYDRIC/HYDRIC INCLUSIONS

- LOW STRENGTH/LANDSIDE PRONE SLOW PERCOLATION

PIPING - POOR SOURCE OF TOPSOIL

 MODERATE POTENTIAL FOR FROST ACTION - MODERATE POTENTIAL FOR SINK HOLE

- EXCAVATIONS WILL BE PROPERLY SUPPORTED BY SHEETING AND SHORING TO PREVENT CAVES. - NO UNPROTECTED STEEL IS EXPECTED TO BE IN DIRECT CONTACT WITH SOILS.

- NO WETLANDS ARE PRESENT IN THE DEVELOPMENT AREA.

- A MAXIMUM OF 3:1 SLOPES ARE PROPOSED. - EROSION CONTROL MATTING AND IMMEDIATE STABILIZATION WILL BE USED ON ALL STEEP SLOPES TO LIMIT EROSION - A FIELD INVESTIGATION OF PERCOLATION RATES AT THE INFILTRATION AREAS WAS PERFORMED TO VERIFY THE SOILS

PERCOLATION CAPACITY. - WATERTIGHT PIPE AND SUBSURFACE BASINS WILL BE USED TO MINIMIZE THE DANGER OF PIPING

- EXISTING TOPSOIL, WHICH HAS PROVEN TO BE SUITABLE WILL BE REUSED ON THE SITE PAVEMENT SUBBASE WILL BE PROVIDED TO MINIMIZE FROST AFFECTS.

- IN THE UNLIKELY EVENT OF SINKHOLE DISCOVERY; REPAIR SINKHOLE UNDER SUPERVISION AND DIRECTION OF A PA LICENSED GEOTECHNICAL ENGINEER.

- PROVIDE POSITIVE DRAINAGE ACROSS THE SITE.

#### LIME AND FERTILIZER APPLICATION RATES

TABLE 11.2						
	SOIL AMENDMENT APPLICATION RATE EQUIVALENTS					
	PER	MANENT SEEDING APPLIC	ATION RATE			
SOIL AMENDMENT	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	NOTES		
AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS		
10–10–20 FERTILIZER	1,000 LB.	25 LB.	210 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS		
TEMPORARY SEEDING APPLICATION RATE						
			TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES			
10–10–10 FERTILIZER	500 LB.	12.5 LB.	100. LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES		
ADAPTED FROM PENN STATE "FROSION CONTROL AND CONSERVATION PLANTINGS ON NONCROPLAND"						

ADAPTED FROM PENN STATE, "EROSION CONTROL AND CONSERVATION PLANTINGS ON NONCROPLAND"
NOTE: A COMPOST BLANKET WHICH MEETS THE STANDARDS OF THIS CHAPTER MAY BE SUBSTITUTED FOR THE SOIL AMENDMENT SHOWN IN TABLE 11.2

#### UTILITY TRENCH WORK NOTES

1. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH SO AS TO ALLOW THE TRENCH TO INTERCEPT ALL SILT LADEN RUNOFF.

2. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH UTILITY TRENCH WORK AS CAN BE COMPLETED, BACKFILLED AND

STABILIZED IN ONE DAY SO AS TO LIMIT THE AMOUNT OF OPEN, DISTURBED TRENCHING.

#### **ADDITIONAL NOTES**

CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTION LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH

SEDIMENT TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.

ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.

UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE

EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.

#### BIORETENTION BASIN

BMP SEQUENCE OF CONSTRUCTION

1. ALL AREAS DESIGNATED FOR INFILTRATION SHALL NOT RECEIVE UNTREATED RUNOFF UNTIL THE CONTRIBUTORY DRAINAGE AREA HAS ACHIEVED FINAL STABILIZATION.

2. REMOVE EXISTING FENCE FOR ACCESS, AS NECESSARY.

7. SEED AND STABILIZE SOIL IN BASIN WITH BASIN PLANTING MIX.

. INSTALL ANTI-SEEP COLLARS

4. EXCAVATE BIORETENTION BASIN TO BOTTOM OF BASIN AND OVEREXCAVATE 12 INCHES. MAINTAIN A MINIMUM DEPTH TO BEDROCK OF 2 FEET WHERE POSSIBLE. IF 2 FEET CANNOT BE MAINTAINED, CONTACT ENGINEER OF RECORD. DURING SITE CONSTRUCTION, VIRGIN SOIL SHALL BE PROTECTED FROM COMPACTION DUE TO HEAVY EQUIPMENT OPERATION OR STORAGE OF FILL OR CONSTRUCTION MATERIAL. AREAS THAT ARE ACCIDENTALLY COMPACTED OR GRADED SHALL BE DECOMPACTED A MINIMUM OF 20 INCHES TO RESTORE SOIL COMPOSITION AND POROSITY. ANY REMEDIATION WORK REQUIRED AS A RESULT OF UNAUTHORIZED COMPACTION SHALL BE AT THE CONTRACTORS EXPENSE.

5. INSTALL OUTLET CONTROL STRUCTURE CONFIGURATION AS NEEDED PER PLANS AND DETAILS.

. INSTALL COMPOST FILTER SOCK AT TOP OF BASIN. SOILS IMPACTED BY SEDIMENTATION SHALL BE REMOVED (MINIMUM DEPTH OF 12 INCHES) AND REPLACED WITH ENGINEERED SOIL TO BASIN BOTTOM ELEVATION. ANY REMEDIATION WORK REQUIRED AS A RESULT OF UNAUTHORIZED COMPACTION OR SEDIMENTATION SHALL BE AT THE CONTRACTOR'S EXPENSE.

8. ONCE ALL UPSTREAM AREAS ARE STABILIZED, REMOVE TEMPORARY COMPOST FILTER SOCK WITHIN BASIN.

#### SEED FORMULAS

12. SEEDING MIXTURES: GRASS SEEDING MIXTURES FOR PERMANENT SOIL STABILIZATION SHALL CONFORM TO THE PENNSYLVANIA SEED ACT OF 1965, AS AMENDED

LAWN SEEDING MIXTURE: 50% KENTUCKY BLUEGRASS (POA PRATENSIS) 30% PENNLAWN RED FESCUE (FESTUCA RUBRA) 10% PERENNIAL RYEGRASS (LOLIUM PERENNE) 10% ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) % PURE LIVE SEED: VARIÈS WITH SEEDING MIXTURE - MINIMUM 95% APPLICATION RATE: 4LBS/MSF FERTILIZER TYPE: 10-20-20 FERTILIZER APPLICATION RATE: 1000LBS/ACRE LIMING RATE: 6000 LBS/ACRE MULCH TYPE: WOOD CELLULOSE FIBERS MULCH RATE: 1200 LBS/ACRE ANCHOR MATERIAL: EC3000 COPOLYMER TACKIFIER ANCHORING METHOD: SLURRY, MIX AND SPRAY ANCHORING RATE OF APPLICATION: 3 LBS/ACRE

SEEDING DATES: MARCH 15-MAY 30 AND AUGUST 15-OCTOBER 15

#### MAINTENENCE PROGRAM

THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS AND STABILIZATION MEASURES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED ONCE EVERY SEVEN DAYS AND AFTER EACH RUNOFF EVENT. A WRITTEN REPORT MUST ALSO BE COMPLETED DOCUMENTING EACH INSPECTION AND ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.

ALL TEMPORARY SEDIMENT CONTROLS SHALL BE CLEANED AND REMOVED AT THE END OF CONSTRUCTION FOLLOWING STABILIZATION OF UPLAND AREAS. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS MUST BE MAINTAINED PROPERLY. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

3. PERIMETER BMPS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, DAMAGE, ETC., TO ENSURE THE MEASURE IS IN PROPER WORKING ORDER, AND THAT ANY POSTS/WOOD STAKES ARE SECURELY IN THE GROUND.

TEMPORARY AND PERMANENT SEEDING, AND OTHER STABILIZATION MEASURES, WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

5. DISTURBED AREAS AND MATERIALS STORAGE AREAS WILL BE INSPECTED FOR EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORMWATER.

ANY MUD TRACKED ONTO PAVED ROADS MUST BE CLEANED UP AFTER EVERY WORKDAY.

UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE OPERATOR SHALL ASSURE THAT THE BMPS ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO THE CCCD, COMPLETE WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, RE-GRADING, AND RE-STABILIZATION SHALL BE PERFORMED

8. ANY DEBRIS ACCUMULATED AT SILT BARRIERS WILL BE REMOVED AND PROPERLY DISPOSED IN A RESPONSIBLE MANNER. BARRIERS SHALL BE CHECKED AND REALIGNED OR RESET AS REQUIRED. ANY DEBRIS OR SOLID WASTE MATERIAL ACCUMULATED FROM CONSTRUCTION ACTIVITIES SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED LANDFILL. CONSTRUCTION WASTE SHALL NOT BE BURIED ON THE SUBJECT SITE.

9. VEGETATIVE STABILIZATION WILL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING WILL BE PROMPTLY RESEEDED. AREAS THAT SHOW SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEEDED, AND RE-MULCHED AS SOON AS POSSIBLE.

10. MISCELLANEOUS ADJUSTMENTS AND CORRECTIONS SHALL BE MADE TO ANY EROSION CONTROL STRUCTURE AS DEEMED NECESSARY BY THE ENGINEER, MUNICIPAL OFFICIAL, OR COUNTY REPRESENTATIVE IN ORDER TO CORRECT UNFORESEEN PROBLEMS CAUSED BY STORMS PRIOR TO STABILIZATION.

HEIGHT OF THE SILT SOCK. 12. INLET PROTECTION: BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW

11. COMPOST FILTER SOCKS: SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH HALF THE EFFECTIVE

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 ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

13. ROCK CONSTRUCTION ENTRANCE: ROCK CONSTRUCTION ENTRANCES SHOULD BE MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK WHEN NECESSARY AT THE END OF EACH WORKDAY. A STOCKPILE OF ROCK MATERIAL SHOULD BE MAINTAINED ON SITE FOR THIS PURPOSE.

14. ROCK FILTERS: SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ½ THE HEIGHT OF THE FILTERS.

15. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMPS TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

16. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES, AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.

17. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN(S) WILL BE AVAILABLE ON THE SITE AT ALL 18. WHEN ANY EROSION CONTROL MEASURES ARE INSTALLED, THE MAINTENANCE AND INSPECTION PROCEDURES ABOVE

SHALL BEGIN. THE CONTRACTOR SHOULD BE AWARE THAT THE INSPECTION FORMS BECOME AN INTEGRAL PART OF

THE ESCP AND SHALL BE MADE READILY AVAILABLE TO THE GOVERNMENT INSPECTION OFFICIALS, THE PROJECT

MATERIALS, WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT

OWNER'S ENGINEER, AND THE PROJECT OWNER FOR REVIEW UPON REQUEST DURING VISITS TO THE PROJECT SITE 19. TYPICAL CONSTRUCTION WASTES ARE ANTICIPATED I.E. CONCRETE, ASPHALT, REBAR, LUMBER, BUILDING MATERIALS, ETC. THE CONTRACTOR SHALL DISPOSE OF WASTE MATERIALS OBTAINED FROM DEMOLITION ACTIVITIES IN A LEGAL MANNER, AND SHALL RECYCLE AS MUCH OF THE WASTE MATERIAL AS POSSIBLE. IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT SPECIFICATIONS. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING

MULCHES SHOULD BE APPLIED AT THE RATES SHOWN IN TABLE 11.6 STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS

POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH. AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45°F ARE TYPICALLY REQUIRED. APPLICATION SHOULD GENERALLY BE HEAVIEST AT EDGES OF SEEDED AREAS AND AT CRESTS OF RIDGES AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHOULD HAVE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.

SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND

MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM.

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	MULCH APPLICATION RATES					
MULCH TYPE		APPLICATION RATE (MIN.)		NOTES		
MOLCH TIFE	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	NOTES		
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW, FRE OF WEEDS, NOT CHOPPED OR FINEL BROKEN		
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED CLOVER AND TIMOTH OR OTHER NATIVE FORAGE GRASSE		
WOOD CHIPS	4-6 TONS	185-275 LB.	1,650-2,500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES		
HYDROMULCH	1 TON	47 LB.	415 LB.	SEE LIMITATIONS ABOVE		

2601 Market Place Suite 350 Harrisburg, PA 17110 (717) 943-1665



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C.L.H. Designed Reviewed 1" = 20' Scale Project No 2202027 07/31/23

A.J.B.

**E&S NOTES** 

CAD File

DN220202701

023 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIE FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE

LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE

OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

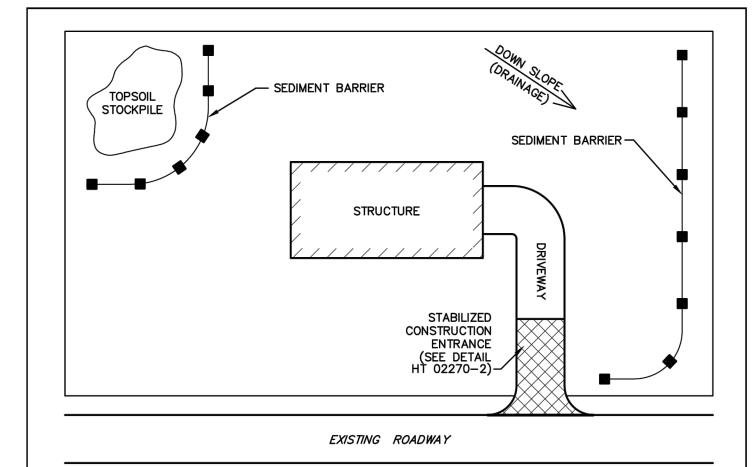
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

#### **UPPER ALLEN TOWNSHIP CONSTRUCTION & MATERIAL SPECIFICATIONS**

(	C.S.Davidson,Inc.
	Excellence in Civil Engineering
38	N. DUKE STREET YORK, PA • PHONE (717) 846-4805 • FAX (717)846-5811
	WEST MIDDLE ST. GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 W	. JAMES ST., SUITE 102 LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690

	DRAWN BY	C1
COMPOST FILTER	CHECKED BY	
COMPOST FILTER SOCK DETAIL	SCALE	N.T.
SOCK DETAIL	DATE	9/14/
	DWG. NO.	HT02270
JPPER ALLEN TWP. CUMBERLAND COUNTY, PENNSYLVANIA	FILE NO.	3566.9.03.0



#### TYPICAL CONSTRUCTION SEQUENCE

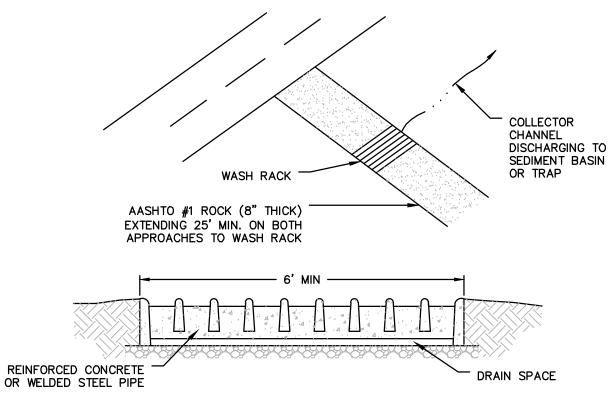
- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- 2. INSTALL ACCEPTABLE SEDIMENT BARRIERS ALONG THE DOWNSLOPE EDGE OF THE PROPERTY.
- 3. STRIP TOPSOIL AND STOCKPILE ON UPSLOPE PORTIONS OF THE AREA.
- 4. ROUGH GRADE THE AREA.
- 5. SEED AND MULCH ALL DISTURBED AREAS. TEMPORARY COVER SHALL BE ANNUAL RYE GRASS APPLIED AT A SEEDING RATE OF 10 POUNDS PER 1000 SQUARE YARDS.
- 6. INSPECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS ON A REGULAR BASIS. EROSION AND SEDIMENTATION CONTROLS SHALL NOT BE REMOVED UNTIL THE DISTURBED AREAS ARE STABILIZED.
- 7. ENSURE ALL VEHICLES LEAVING THE SITE HAVE MUD REMOVED FROM TIRES AND UNDERCARRIAGES.

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CHECKED BY **GENERAL SOIL EROSION CONTROL FOR** RESIDENTIAL SITES PPER ALLEN TWP. CUMBERLAND COUNTY, PENNSYLVANIA



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

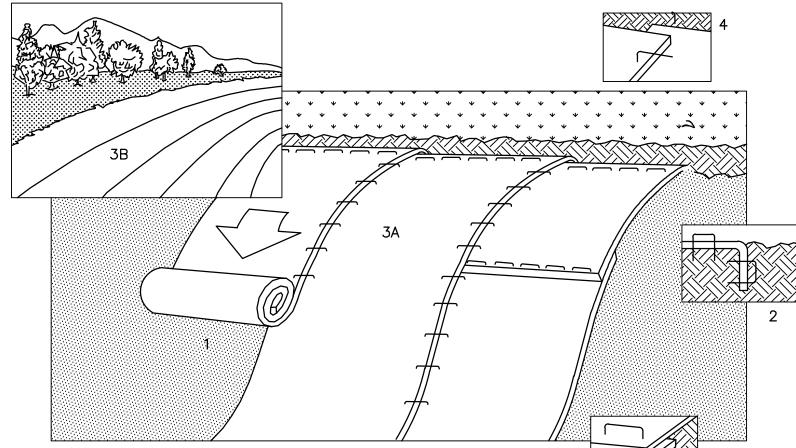
WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR

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.

#### ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL

N.T.S PADEP-3-2



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
- 5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

#### SLOPE STABILIZATION DETAIL

N.T.S

DIRECTION OF RUN-OFF

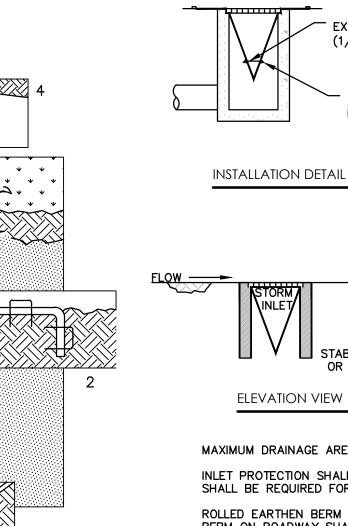
SOIL/AGGREGATE STOCKPILE OF EXISTING SITE MATERIAL TO BE

REUSED AND/OR NEW MATERIAL TO BE INSTALLED IN THE WORK

FLOW (TYP.)

SILT FENCE OR COMPOST FILTER SOCK

DOWNHILL OF STOCKPILE



MAXIMUM DRAINAGE AREA = 1/2 ACRE. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

EARTHEN BERM TO BI

TABILIZED WITH TEMPORARY

OR PERMANENT VEGETATION

**ELEVATION VIEW** 

EXPANSION RESTRAINT (1/4" NYLON ROPE)

RUBBER BLOCK

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

" REBAR FOR BAG REMOVAL FROM INLET

ISOMETRIC VIEW

PLAN VIEW

\_\_ 2 MIN. : 1

N.T.S.

9/14/16

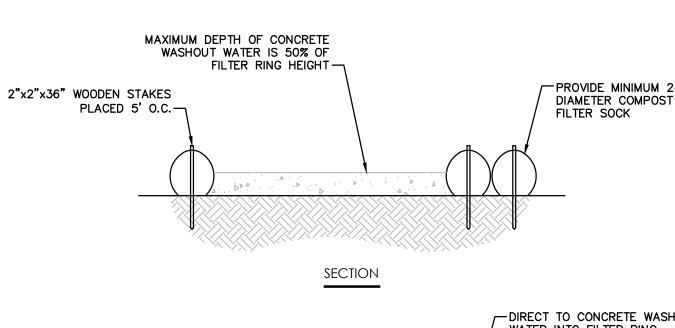
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

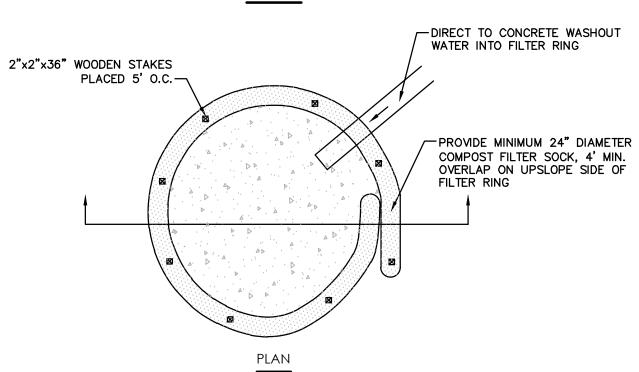
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED 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.

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

## FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL

N.T.S





1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.

- 2. 18" DIAMETER FILTER SOCKS MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
- 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS. 4. ALL COMPOST SOCK WASHOUTS SHALL BE REMOVED FROM THE SITE AND THE AREA PERMANENTLY STABILIZED UPON COMPLETION OF THE JOB.

N.T.S

COMPOST SOCK WASHOUT

DN220202701 **E&S DETAILS** |No.19of 19

C.L.H.

A.J.B.

1" = 20'

2202027 07/31/23

Designed

Project No.

CAD File:

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Harrisburg, PA 17110 (717) 943-1665

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1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE

3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.

4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.

SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.

TOPSOIL STOCKPILE DETAIL