PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

46-007-007, 46-007-007.001, AND 46-007-062-001

PROPOSED

ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

OWNER AND ACKNOWLEDGEMENT OF STORMWATER MANAGEMENT SYSTEMS

I (WE,)_____, THE OWNER(S), DO HEREBY ACKNOWLEDGE THAT THE STORMWATER MANAGEMENT SYSTEMS ARE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY THE MUNICIPALITY, WHICH SHALL BE RECORDED WITH THE RECORD PLAN AND WHICH SHALL BE APPLICABLE TO ALL FUTURE LANDOWNERS.

NAME:_____ TITLE:_____

APPROVAL OF THE TULLYTOWN BOROUGH COUNCIL

APPROVED BY THE TULLYTOWN BOROUGH COUNCIL ON THIS _____ DAY OF _____ , 2026.

_____ _____
SECRETARY (CHAIRPERSON OR PRESIDENT)

BOROUGH ENGINEER REVIEW

REVIEWED BY THE TULLYTOWN BOROUGH ENGINEER THIS _____ DAY OF _____ , 2026.

_____

NAME:_____ _____
BOROUGH ENGINEER DATE

BUCKS COUNTY PLANNING COMMISSION REVIEW

BCPC #13172

PROCESSED AND REVIEWED. REPORT PREPARED BY THE BUCKS COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE PA MUNICIPALITIES PLANNING CODE.

_____ _____
CERTIFIED THIS DATE EXECUTIVE DIRECTOR OR HIS/ HER DESIGNEES

LIST OF VARIANCES GRANTED FROM THE TULLYTOWN BOROUGH COUNCIL ON 12/03/2025

THE RELIEF SOUGHT BY THE APPLICANT IN THE APPLICATION TO THE BOARD DATED OCTOBER 10, 2025 IS APPROVED, SUBJECT TO ANY CONDITIONS ON THE RECORD.

SECTION 185-34 – A VARIANCE TO PERMIT 86.5% WOODLAND DISTURBANCE, WHERE 20.0% IS PERMITTED

SECTION 185-21 (TABLE 185-21)
A VARIANCE TO PERMIT A 27.1' FRONT YARD, WHERE 50.0' IS REQUIRED
A VARIANCE TO PERMIT A 19.1' SIDE YARD, WHERE 25.0' IS REQUIRED

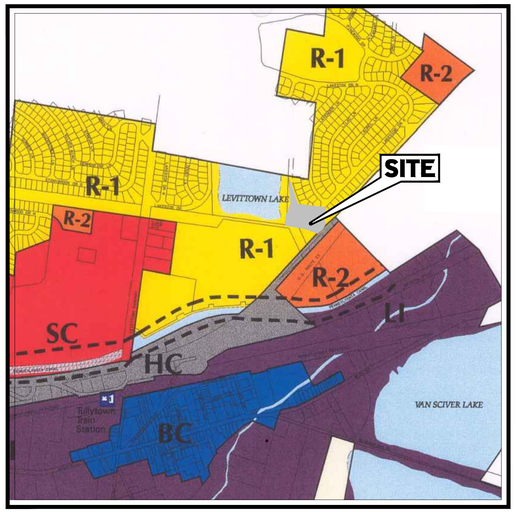
SECTION 185-54 – A VARIANCE TO PERMIT LESS THAN THE REQUIRED PLANTINGS FOR ALL APPLICABLE USE BUFFERS

SECTION 185-61.I - A VARIANCE TO PERMIT GREATER THAN 800 SF OF PARKING SPACES WITHIN THE FRONT YARD

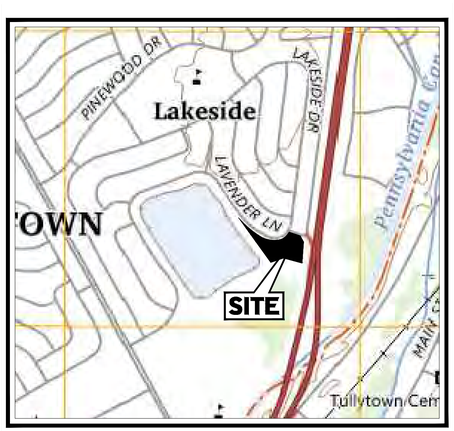
LIST OF WAIVERS GRANTED BY THE TULLYTOWN BOROUGH COUNCIL ON 9/8/26

1. A WAIVER FROM §153-604(A) NOTE 2. WHICH REQUIRES SIDEWALKS BE PROVIDED ALONG BOTH SIDES OF ALL STREETS.
2. A WAIVER FROM §153-611B.(3). WHICH REQUIRES A MINIMUM 3-FOOT PLANTING STRIP BETWEEN THE CURB AND SIDEWALK AND SPECIFIES SIDEWALK WIDTHS ALONG THE STREET RIGHT-OF-WAY.
3. A WAIVER FROM §153-611.B.(7). WHICH REQUIRES SIDEWALKS TO BE EXTENDED TO THE CURBLINE, RESULTING IN ADEQUATE APRON AREA FOR PEDESTRIAN TRAFFIC.
4. A WAIVER FROM §153-613.G. ALLOWING PARKING SPACE DIMENSIONS OF 9 FEET BY 18 FEET IN LIEU OF THE REQUIRED 10 FEET BY 20 FEET.
5. A WAIVER FROM §153-613.O. WHICH REQUIRES PARKING SPACES TO BE SET BACK AT LEAST 5 FEET FROM THE PROPERTY LINE.
6. A WAIVER FROM §153-503.A.1 WHICH REQUIRES THAT THE PRELIMINARY PLAN BE DRAWN AT 1" = 50' OR 1" = 100' SCALE.
7. A WAIVER FROM §153-504.A.1 WHICH REQUIRES THAT THE FINAL PLAN BE DRAWN AT 1" = 50' OR 1" = 100' SCALE.
8. A WAIVER FROM §153-608.C WHICH REQUIRES NOTHING OTHER THAN GRASS OR GROUND COVER BE PLACED, PLANTED OR SET WITHIN AN THE AREA OF AN EASEMENT, UNLESS NECESSARY FOR THE PURPOSE OF THE EASEMENT.
9. A WAIVER FROM §153-611B.1 WHICH REQUIRES SIDEWALKS BE PROVIDED ALONG ALL EXISTING AND PROPOSED STREETS.
10. A WAIVER FROM §153-612.D WHICH REQUIRES DRIVEWAYS TO BE LOCATED NOT LESS THAN 40' FROM THE NEAREST TANGENT POINT OF THE CURB RADIUS OF ANY INTERSECTION TO THE DRIVEWAY AND THAT ACCESS SHALL BE PROVIDED TO THE STREET OF LOWER CLASSIFICATION WHEN A CORNER LOT IS BOUNDED BY STREETS OF TWO DIFFERENT CLASSIFICATIONS.
11. A WAIVER FROM §153-613.F WHICH REQUIRES THAT NO LESS THAN 15 FEET OF OPEN SPACE BE PROVIDED BETWEEN THE CURBLINE OF ANY UNCOVERED PARKING AREA AND THE OUTSIDE WALL OF THE NEAREST BUILDING.
12. A WAIVER FROM §153-613.L WHICH REQUIRES A MINIMUM RADIUS OF CURVATURE OF 5' FOR ALL CURBLINES IN ALL PARKING AREAS.
13. A WAIVER FROM §153-613.M WHICH REQUIRES THAT ALL PARKING AREAS, EXCEPT AT ENTRANCE AND EXIT DRIVES, BE SET BACK FROM THE FUTURE RIGHT-OF-WAY LINE AS PROVIDED IN THE ZONING ORDINANCE OR AT LEAST 5 FEET, WHICHEVER IS GREATER AND THE DISTANCE BETWEEN THIS REQUIRED SETBACK LINE AND FUTURE RIGHT-OF-WAY SHALL BE PERMANENTLY MAINTAINED AS A PLANTING STRIP.
14. A WAIVER FROM §153-618.D.8 WHICH REQUIRES EDGES OF SLOPES TO BE A MINIMUM OF 5 FEET FROM PROPERTY OR RIGHT-OF-WAY LINES OF STREETS OR ALLEYS IN ORDER TO PERMIT THE NORMAL ROUNDING OF THE EDGE WITHOUT ENCROACHING ON THE ABUTTING PROPERTY.
15. A WAIVER FROM §153-702.H.11.(B).[3] REQUIRES ALL STORM PIPING SHALL BE CLASS III REINFORCED CONCRETE PIPE.
16. A WAIVER FROM §153-702.H.11.(B).[4] WHICH REQUIRES A MINIMUM PIPE SIZE OF 15 INCHES.
17. A WAIVER FROM §153-702.H.11.(B).[9] WHICH REQUIRES A MINIMUM VELOCITY OF 3.0 FEET PER SECOND WHEN FLOWING FULL.
18. A WAIVER FROM §153-702.H.11.(B).[17] WHICH REQUIRES THAT STORM SEWER STRUCTURES (I.E., ENDWALLS, INLETS, END SECTIONS, ETC.) MAY NOT BE LOCATED ON TOP OF OR WITHIN 10 FEET OF ELECTRIC, WATER, SANITARY SEWER, AND GAS SERVICES AND/OR MAINS, UNLESS APPROVAL IS RECEIVED FROM THE BOROUGH, AND FROM THE AUTHORITY OF UTILITY HAVING JURISDICTION OVER SAME.
19. A WAIVER FROM §153-702.H.11.(B).[18] WHICH REQUIRES STORM SEWER PIPES BE ORIENTED AT RIGHT ANGLES TO ELECTRIC, WATER, SANITARY SEWER, AND GAS UTILITIES WHEN CROSSING ABOVE OR BENEATH SAME.
20. A PARTIAL WAIVER FROM §153-703.C.2.(E) WHICH REQUIRES MAP(S) OF THE PROJECT AREA SHALL INCLUDE, BUT NOT BE LIMITED TO: THE LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, SANITARY SEWERS, AND WATER LINES WITHIN 50 FEET OF PROPERTY LINES.
21. A WAIVER FROM §153-615.A.(1)(C) TO PERMIT FEWER THAN THE REQUIRED STREET TREES ALONG LOW LANE.
22. A WAIVER FROM §153-615.B.(1) TO PERMIT FEWER THAN THE REQUIRED BUFFER PLANTING.
23. A WAIVER FROM §153-613.G. WHICH REQUIRES A MINIMUM PARKING STALL LENGTH OF 21 FEET FOR 60 DEGREE PARKING.
24. A PARTIAL WAIVER FROM §153-503.C.(3) AND §153-504.C.(3) REQUIRING THE LOCATION, NAMES, AND WIDTHS (RIGHT-OF-WAY AND CARTWAY) OF STREETS, THE LOCATION AND NAME OF RAILROADS, THE LOCATION OF SANITARY SEWERS, STORM SEWERS, STORM DRAINS, WATER MAINS, CULVERTS, PETROLEUM OR PETROLEUM PRODUCT LINES, GAS LINES, ELECTRIC AND TELEPHONE LINES, FIRE HYDRANTS, AND ALL OTHER UTILITIES OR SIGNIFICANT MAN-MADE FEATURES ON OR WITHIN 400 FEET OF ANY PART OF THE TRACT.
25. A WAIVER FROM §153-400.D. WHICH REQUIRES SEPARATE SUBMISSION OF A PRELIMINARY PLAN AND FINAL PLAN.
26. A WAIVER FROM §153-613.D. WHICH REQUIRES THAT THE LAYOUT OF EVERY PARKING AREA SHALL BE SUCH AS TO PROMOTE SAFE AND EFFICIENT INTERNAL CIRCULATION IN ACCORDANCE WITH ACCEPTED TRAFFIC ENGINEERING PRINCIPLES AND STANDARDS. THE WAIVER IS REQUESTED SPECIFICALLY FROM BOROUGH ENGINEER COMMENTS UNDER THIS SECTION AS FOLLOWS:
   - 26.a. IN THE FRONT OF THE SCHOOL, THE BUSES WILL BLOCK THE INGRESS/EGRESS OF HANDICAP PARKING AREA. RELOCATE THESE POTENTIALLY BLOCKED PROPOSED PARKING SPACES.
   - 26.b. THE PARENT DROP/PICKUP AREA MUST BE DESIGNED IN A MANNER TO ALLOW TRAFFIC CIRCULATION WHILE VEHICLES ARE WAITING TO PICKUP/DROP-OFF PASSENGERS. PROVIDE A BYPASS LANE TO ALLOW CONTINUOUS EGRESS OF TRAFFIC AND ACCESS TO THE PROPOSED PARKING AREAS. THE AREA SHOULD BE A MINIMUM 20' (12' ONE-LANE + PARKING LANE 8'). THE TWO LANES SHOULD BE SEPARATED BY A 6" WHITE LINE.
   - 26.c. CONSIDER A FULL ACCESS DRIVEWAY CONNECTION FORMING THE FOURTH LEG TO THE INTERSECTION OF OLD TULLYTOWN FALLSINGTON ROAD/ LOW LANE.

GENERAL NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.



ZONING MAP
SCALE: 1" = 1,500'
SOURCE: BUCKS COUNTY PLANNING COMMISSION



USGS MAP
SCALE: 1" = 800'
SOURCE: USGS



LOCATION MAP
SCALE: 1" = 2,000'
SOURCE: MICROSOFT

OFFICE OF THE RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN DOYLESTOWN, PENNSYLVANIA IN PLAN BOOK _____ ON THIS _____ DAY OF _____ , 2026.

BY:_____

NAME:_____

TITLE:_____

BOROUGH PLANNING COMMISSION APPROVAL

APPROVED BY THE TULLYTOWN BOROUGH PLANNING COMMISSION ON THIS _____ DAY OF _____ , 2026.

_____ _____
MEMBER MEMBER

OWNER

CENTER FOR STUDENT LEARNING
CHARTER SCHOOL AT PENNSBURY
345 LAKESIDE DRIVE, LEVITTOWN, PA 19054
215-269-7390

PREPARED BY

BOHLER

CONTACT: THOMAS KNAB, RLA

SURVEYOR CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL OTHER DRAWINGS WHICH ARE A PART OF THIS PLAN SET, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE TULLYTOWN BOROUGH SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION. THE EXISTING PERIMETER MONUMENTS SHOWN HEREON HAVE BEEN LOCATED AS PART OF THE SURVEY AND ALL OTHER PROPOSED PERIMETER MONUMENTS SHALL BE SET.

_____ _____ _____
PROFESSIONAL LAND SURVEYOR SIGNATURE DATE
LICENSE NUMBER

_____
SEAL OF SURVEYOR

ENGINEER CERTIFICATION

I, THOMAS R. KNAB, R.L.A., DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS, SPECIFICATIONS, AND REPORTS HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH CHAPTER 105 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, ENGINEERING, ZONING, BUILDING, SANITATION, AND OTHER APPLICABLE TULLYTOWN BOROUGH ORDINANCES AND REGULATIONS.

_____ _____
SIGNATURE OF DATE
THOMAS R. KNAB, R.L.A.
PENNSYLVANIA LICENSE No.: LA003352

_____
SEAL

DESIGN ENGINEER ACT 167 CERTIFICATION

I,THOMAS R. KNAB, R.L.A. , ON THIS_____DAY OF _____, 2026 HAS REVIEWED AND HEREBY CERTIFIES THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DELAWARE RIVER SOUTH WATERSHED ACT 167 STORMWATER MANAGEMENT ORDINANCE.

_____ _____
SIGNATURE OF DATE
THOMAS R. KNAB, R.L.A.
PENNSYLVANIA LICENSE No.: LA003352

_____
SEAL

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101*
GENERAL NOTES AND LEGEND	C-102*
JURISDICTIONAL NOTES	C-103*
EXISTING CONDITIONS/DEMOLITION PLAN	C-201
SITE PLAN	C-301*
STUDENT DROP-OFF / PICKUP CIRCULATION PLAN	C-302
FIRE TRUCK CIRCULATION PLAN	C-303
GARBAGE TRUCK CIRCULATION PLAN	C-304
DELIVERY TRUCK CIRCULATION PLAN	C-305
PEDESTRIAN ROUTE PLAN	C-306
AERIAL PLAN	C-307
GRADING PLAN	C-401
ADA GRADING PLAN	C-402, C-403, C-404
PRE DEVELOPMENT DRAINAGE AREA MAP	C-405
POST DEVELOPMENT DRAINAGE AREA MAP	C-406
INLET DRAINAGE AREA MAP	C-407
UTILITY PLAN	C-501
SANITARY PROFILES	C-601
STORM PROFILES	C-602
DRIVEWAY PLAN & PROFILES	C-701
EROSION AND SEDIMENT CONTROL PLAN STAGE 1	C-801
EROSION AND SEDIMENT CONTROL PLAN STAGE 2	C-802
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	C-803, C-804, C-805
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	C-806*
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS	C-807*, C-808*, C-809*, C-810*, C-811*
CONSTRUCTION DETAILS	C-901, C-902, C-903, C-904, C-905, C-906
LANDSCAPE PLAN	L-101
LANDSCAPE NOTES AND DETAILS	L-102, L-103
LIGHTING PLAN	L-201
LIGHTING NOTES AND DETAILS	L-202

* SHEETS C-101, C-102, C-103, C-301, C-806 THROUGH C-811, L-101, AND L-102 OF THIS PLAN SET WILL BE CONSIDERED A COMPLETE RECORD PLAN SET FOR FILING PURPOSES IN THE BUCKS COUNTY RECORDER OF DEEDS OFFICE. THE REMAINING PLAN SHEETS, WHICH ARE NOT BEING RECORDED, ON FILE AT BUCKS COUNTY SHALL BE CONSIDERED PART OF THE FINAL RECORD PLAN AS IF RECORDED WITH SAME.

CERTIFICATE OF OWNERSHIP & ACKNOWLEDGEMENT OF LAND DEVELOPMENT PLANS

TO ALL WHOM THESE PRESENTS MAY COME, I (WE) _____ SEND GREETINGS. KNOW YE THAT I (WE) HAVE LAID OUT UPON MY (OUR) LAND, SITUATE IN TULLYTOWN BOROUGH, BUCKS COUNTY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS HEREWITH INTENDED TO BE RECORDED. WITNESS MY (OUR) HAND AND SEAL THIS_____ DAY OF _____, 2026.

_____ _____
OWNER SIGNATURE DATE
NAME:
TITLE:

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF BUCKS, ON THE _____DAY OF _____, 2026, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF PROPERTY SHOWN THEREON, SITUATE IN THE BOROUGH OF TULLYTOWN, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO THE LAW.

_____ _____
NOTARY PUBLIC DATE

NOTARY COMMISSION EXPIRES: _____

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LIGHTING DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
THE INFORMATION, DESIGN AND CONTENT OF THESE PLANS IS COPYRIGHTED AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT DIRECT WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.
© 2026 BOHLER

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY
PROPOSED
ADDITIONS AND RENOVATIONS
345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
T.R. KNAB
LANDSCAPE ARCHITECT
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-101

REVISION 8 - 10/05/2026

Sep 26, 2026
P:\PA2025\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT: C-101 COVR
EL

GENERAL NOTES

(Rev. 1/2023)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER PA, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER , IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. PROFESSIONAL OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
18. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE PROFESSIONAL OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF PROFESSIONAL OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE PROFESSIONAL OF RECORD AND BOHLER , ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT PROFESSIONAL OF RECORD AND BOHLER SUFFER AND ANY AND ALL COSTS THAT PROFESSIONAL OF RECORD AND BOHLER INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER , AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNIFY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY PROFESSIONAL OF RECORD, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
22. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER, NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN PROFESSIONAL OF RECORD'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT PROFESSIONAL OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE PROFESSIONAL OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

DEMOLITION NOTES

(Rev. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE PROFESSIONAL OF RECORD AND BY BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:
    A. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE PROFESSIONAL OF RECORD AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
    B. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK.
    C. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED
    D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION.
    E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES.
    F. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
    G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE PROFESSIONAL OF RECORD'S OR BOHLER RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
    H. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
    I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER, PROFESSIONAL OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME.
11. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
13. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE PROFESSIONAL OF RECORD AND THE OWNER.
14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.
15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.
16. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

(Rev. 12/2024)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN AND CONTRACTOR MUST REFER TO THEM. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER OR JURISDICTIONAL AGENCY SO REQUIRES, TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM EXITING THE SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT STABILIZATION IS ESTABLISHED UNLESS INDICATED OTHERWISE IN LOCAL, STATE AND/OR FEDERAL PROJECT APPROVALS. THE COST OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.

SITE LAYOUT NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
4. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.
5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.

GRADING NOTES

(Rev. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
3. THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE PROFESSIONAL OF RECORD, BOHLER AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.
4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
6. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).
7. THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.

ACCESSIBILITY DESIGN GUIDELINES

(Rev. 1/2023)

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.
2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH INDUSTRY GUIDELINES.
3. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
   B. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY. UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED.
   C. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.
   D. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).
   E. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE).
   F. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES.
   G. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.
4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

DRAINAGE AND UTILITY NOTES

(Rev. 3/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE PROFESSIONAL OF RECORD AND BOHLER.
3. THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS, SIZE, AND MATERIAL OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS; GREASE TRAP REQUIREMENTS; AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS
8. DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE, IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLAN(S), WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
11. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
12. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

OUTSIDE SOURCE NOTES

(Rev. 11/2023)

ANY INFORMATION, DRAWINGS, DATA, PLANS, SPECIFICATIONS, MATERIALS, FIGURES, DOCUMENTATION, REPORTS, AND THE LIKE WHICH IS INDICATED TO HAVE BEEN PREPARED "BY OTHERS" (HEREIN, "BY OTHERS REPORTS, DOCUMENTS AND DETAILS") HAS BEEN OR WILL BE CREATED, DEVELOPED, PREPARED, PERFORMED, AND ANALYZED BY AN ENTITY OR PARTY OTHER THAN THE "BOHLER" ENTITY INVOLVED WITH THIS PROJECT. THE "BOHLER" ENTITY IS NOT IN ANY WAY RESPONSIBLE FOR THE BY OTHERS REPORTS, DOCUMENTS AND DETAILS EVEN IF/WHERE INCLUDED IN THE "BOHLER" ENTITY'S PLANS, REPORTS, ETC. SAME HAS BEEN INCLUDED ON THIS PLAN FOR THE CONVENIENCE, ONLY, OF THE PROJECT OWNER, DEVELOPERS, CONTRACTORS AND CONSULTANTS AND IN ORDER TO COORDINATE THE "BOHLER" ENTITY'S DESIGN WITH THAT OF "OTHERS". THE "BOHLER" ENTITY HAS ASSUMED, FOR PURPOSES OF THIS PLAN, THAT THE BY OTHERS REPORTS, DOCUMENTS AND DETAILS ARE CURRENT AND, IF APPLICABLE, PREPARED IN STRICT ACCORDANCE WITH ALL APPLICABLE COUNTY, STATE, FEDERAL AND OTHER STATUTES, LAWS, RULES, REGULATIONS, ORDINANCES AND THE LIKE. THE "BOHLER" ENTITY SPECIFICALLY DISCLAIMS ANY AND ALL LIABILITY AND RESPONSIBILITY FOR BY OTHERS REPORTS, DOCUMENTS AND DETAILS. THE ENTITY OR PERSON WHO CREATED THE INFORMATION CONTAINED IN THE BY OTHERS REPORTS, DOCUMENTS AND DETAILS (EXCLUDING INFORMATION AND/OR DETAILS SOLELY SUPPLIED BY A JURISDICTION AND/OR GOVERNING BODY) AGREES BY PARTICIPATING IN THIS PROJECT, RECEIVING, REVIEWING, USING AND/OR RELYING UPON THIS DOCUMENT, AND/OR BY AGREEING TO THE PROJECT OWNER/DEVELOPER'S CONTRACT DOCUMENTS, TO DEFEND, INDEMNIFY, PROTECT AND HOLD HARMLESS THE "BOHLER" ENTITY THAT PREPARED THIS DOCUMENT AND ITS EMPLOYEES FOR ANY AND ALL DAMAGES, INJURIES, COSTS, EXPENSES AND THE LIKE, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, WHICH THE "BOHLER" ENTITY AND/OR ITS EMPLOYEES SUFFER OR INCUR AS A RESULT OF INCLUDING ANY BY OTHERS REPORTS, DOCUMENTS AND DETAILS IN AND ON OR IN THIS PLAN. ANYONE OR ANY ENTITY WHO RECEIVED, RELIES UPON AND/OR USES THIS PLAN, AGREES TO HOLD THE "BOHLER" ENTITY AND ITS EMPLOYEES HARMLESS FROM ANY CLAIMS, DAMAGES, INJURIES, COSTS AND EXPENSES, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR ANY DAMAGES, INJURIES, COSTS, EXPENSES AND THE LIKE, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, WHICH IT OR THEY SUFFER OR INCUR AS A RESULT OF THE ANY BY OTHERS REPORTS, DOCUMENTS AND DETAILS INCORPORATED IN THE PLAN, AND EXPRESSLY CONFIRMS THAT BY RECEIVING, RELYING UPON AND/OR USING SAME, THE "BOHLER" ENTITY SHALL HAVE NO LIABILITY RELATED TO SAME. WITH RESPECT TO ALL BY OTHERS REPORTS, DOCUMENTS AND DETAILS, CONTRACTOR MUST VERIFY ALL INFORMATION CONTAINED IN THE SCOPE OF ALL PARTIES INVOLVED IN PREPARING THE BY OTHERS REPORTS, DOCUMENTS AND DETAILS PRIOR TO COMMENCING ANY CONSTRUCTION AND MUST VERIFY THAT THE INFORMATION IS THE LATEST, THE MOST RECENT AND THE MOST CURRENT REPORT, DOCUMENT AND DETAIL. REFERENCES ON THIS PLAN TO INFORMATION PREPARED OR CONTAINED IN BY OTHERS REPORTS, DOCUMENTS AND DETAILS DEPICTING AN OFF-SITE AREA WHERE NO DETAIL IS INCLUDED IS A REFERENCE TO AN AREA, DETAIL, SPECIFICATION OR DESIGN THAT HAS NOT BEEN DESIGNED OR CONSTRUCTED BY THE "BOHLER" ENTITY AND REGARDING WHICH THE "BOHLER" ENTITY HAS NO CONTROL OVER OR LIABILITY REGARDING, BUT IS ADDED TO THIS PLAN FOR INFORMATIONAL PURPOSES, ONLY.

STANDARD ABBREVIATIONS

FOR ENTIRE PLAN SET

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	ACRE / ACRES
AD	AREA DRAIN
ADA	ACCESSIBLE / AMERICANS WITH DISABILITIES ACT
AG	ABOVE GROUND
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ASSF	AREA SUBJECT TO STORMWATER FLOWAGE
ASSOC	ASSOCIATION
BC	BOTTOM OF CURB
BF	BASEMENT FLOOR
BIO	BIOGARDEN
BIT	BITUMINOUS
BK	BLOCK
BL	BASELINE
BLDG	BUILDING
BM	BENCH MARK
BRL	BUILDING RESTRICTION LINE
BVW	BORDERING VEGETATIVE WETLAND
CB	CATCH BASIN
CF	CUBIC FEET
CI	CURB INLET
CIT	CHANGE IN TYPE
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
C/O	CLEAN OUT
CONC	CONCRETE
CONN	CONNECTION
COORD	COORDINATE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DEC	DECORATIVE
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DET	DETENTION
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DOM	DOMESTIC
DOT	DEPARTMENT OF TRANSPORTATION
DP	DESIGN POINT
DWL	DASHED WHITE LINE
DYL	DOUBLE YELLOW LINE
EG	EXISTING GRADE
ELEC	ELECTRIC
ELEV	ELEVATION
EOR	ENGINEER OF RECORD
EP / EOP	EDGE OF PAVEMENT
ES / EOS	EDGE OF SHOULDER
EW	END WALL
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FES	FLARED END SECTION
FF	FINISH / FIRST FLOOR
FFE	FINISH / FIRST FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FM	FORCE MAIN
FO	FIBER OPTIC
G	GRADE
GC	GENERAL CONTRACTOR
GEO	GEOTECH/GEOTECHNICAL
GF / GFE	GARAGE FLOOR ELEVATION (AT DOOR)
GFA	GROSS FLOOR AREA
GH	GRADE HIGH (WALL)
GL	GRADE LOW (WALL)
GRT	GRATE
GT	GREASE TRAP
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HOR	HORIZONTAL
HP	HIGH POINT
HW	HEADWALL
ICS	INLET CONTROL STRUCTURE
INF	INFILTRATION
INT	INTERSECTION
INV	INVERT
LF	LINEAR FOOT
LOC	LIMIT OF CLEARING
LOD	LIMIT OF DISTURBANCE
LOS	LINE OF SIGHT
LOW	LIMIT OF WORK
LP	LOW POINT
LS	LANDSCAPE
LSA	LANDSCAPE AREA
MAX	MAXIMUM
ME	MATCH EXISTING
MEP	MECHANICAL, ELECTRICAL, AND PLUMBING
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NRCS	NATIONAL RESOURCE CONSERVATION SERVICE
O&M	OPERATIONS AND MAINTENANCE
OC	ON CENTER
OCS	OUTLET CONTROL STRUCTURE
OGS	OIL AND GRIT SEPARATOR
ORD	ORDINANCE
PA / POA	POINT OF ANALYSIS
PC	POINT OF CURVATURE
PCCR	POINT OF CURVATURE, CURB RETURN
PERF	PERFORATED
PG	PROPOSED GRADE
PI	POINT OF INTERSECTION
POG	POINT OF GRADE
PP	POLYPROPYLENE PIPE
PROP	PROPOSED
PT	POINT OF TANGENCY
PTCR	POINT OF TANGENCY, CURB RETURN
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS / RADII
R/W	RIGHT-OF-WAY / RIGHTS-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REGS	REGULATIONS
RELO	TO BE RELOCATED
REQ	REQUIRED
RET	RETENTION
RET WALL	RETAINING WALL
RETO	TO BE RETURNED TO OWNER
RG	RAIN GARDEN
S	SLOPE
SAN	SANITARY SEWER
SESC	SOIL EROSION AND SEDIMENT CONTROL
SF	SQUARE FEET
SHLO	STATE HIGHWAY LAYOUT
SMH	SANITARY MANHOLE
STA	STATION
STM	STORM WATER / STORM SEWER
SWL	SINGLE/SOLID WHITE LINE
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TBA	TO BE ABANDONED
TBR	TO BE REMOVED
TBV	TO BE VACATED
TC	TOP OF CURB
Tc	TIME OF CONCENTRATION
TD	TRENCH DRAIN
TELE	TELECOMMUNICATIONS / TELEDATA
TPF	TREE PROTECTION FENCE
TR	TO REMAIN
TRANS	TRANSITION
TYP	TYPICAL
UG	UNDERGROUND
UP	UTILITY POLE
USGS	UNITED STATES GEOLOGICAL SURVEY
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDE / WIDTH
W/L	WATER LINE
WM	WATER METER
WQU	WATER QUALITY UNIT
YD	YARD DRAIN
#	NUMBER
#:#	SLOPE EXPRESSED IN HORIZONTAL:VERTICAL IN FEET
±	PLUS OR MINUS
°	DEGREE
Ø	DIAMETER
'	FEET/FOOT
"	INCHES

REFERENCES AND CONTACTS

REFERENCES

♦ BOUNDARY & TOPOGRAPHIC SURVEY:
CONTROL POINT ASSOCIATES, INC.
NEW BRITAIN CORPORATE CENTER
1600 MANOR DRIVE SUITE 210
CHALFONT, PA 18914
DATED: 10/09/2025 (REV. 3)
FILE NUMBER: 02-240179-00

♦ GEOTECHNICAL INVESTIGATION REPORT:
WHITESTONE ASSOCIATES, INC.
NEW BRITAIN CORPORATE CENTER
1600 MANOR DRIVE SUITE 220
CHALFONT, PA 18914
DATED: 01/07/2026

♦ ARCHITECTURAL PLAN:
HECKENDORN SHILES ARCHITECTS
347 EAST CONESTOGA ROAD
WAYNE, PA 19087
DATED: 11/26/2025, LAST REVISED: 10/05/2026
PHONE: 610-994-3500

♦ STRUCTURAL ENGINEER
A.W. LOOKUP CORPORATION
500 FAYETTE ST., SUITE 100
CONSHOHOCKEN, PA, 19428
PHONE: 610-825-2600
DATED: 11/26/2025, LAST REVISED: 10/05/2026
PROJECT NUMBER: 24-014
SHEETS: S101 - S203

♦ MEP ENGINEER
SHILLER AND HERSH ASSOCIATES
636 SKIPPACK PIKE, SUITE 200
BLUE BELL, PA 19422
PHONE: 215-886-8947
DATED: 11/26/2025, LAST REVISED 10/05/2026
PROJECT NUMBER: 24-014
SHEETS: M001 - M502, E101 - E601, P001 -P201

♦ WETLAND REPORT:
WHITESTONE ASSOCIATES, INC.
NEW BRITAIN CORPORATE CENTER
1600 MANOR DRIVE SUITE 220
CHALFONT, PA 18914
DATED: 05/20/2026

♦ ENVIRONMENTAL REPORTS:
ANALYTICAL LABORATORY SERVICES, INC.
NEW BRITAIN CORPORATE CENTER
34 DOGWOOD LANE
MIDDLETOWN, PA 17057
PHONE: 717-944-5541
DATED: 04/10/2009
FILE NUMBER: 109467.0006

♦ STORMWATER REPORT:
BOHLER ENGINEERING
NEW BRITAIN CORPORATE CENTER
1600 MANOR DRIVE SUITE 200
CHALFONT, PA 18914
DATED: 03/06/2026
LAST REVISED: 10/05/2026

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2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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WWW.PA1CALL.ORG
#20260292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER// ™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
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T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

GENERAL NOTES AND LEGEND

SHEET NUMBER:

C-102

REVISION 8 - 10/05/2026

Sep 28, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A----->LAYOUT: C-102 NOTE
EL

ADDITIONAL NOTES

(Rev. 6/2025)

SITE NOTES:

1. PROPERTY OWNER:
   CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY
   345 LAKESIDE DR, LEVITTOWN, PA 19054
   215-269-7390
2. EXISTING PROPERTY INFORMATION:
   APN 46-007-007, 46-007-007.001, AND 46-007-062-001
   345 LAKESIDE DR, LEVITTOWN, PA 19054
   ZONED R-1
3. APPLICANT/ OWNER:
   CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY
   134 YARDLEY AVE, LEVITTOWN, PA 19054
   215-269-7390
4. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE SOUTH COORDINATES, NAD 83. VERTICAL DATUM IS NAVD 1988, BENCHMARK:
   TEMPORARY BENCHMARK A (TBM-A): 29.74'
   TEMPORARY BENCHMARK B (TBM-B): 30.30'
5. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 42017C0464K, EFFECTIVE 03/21/2017.
6. ALL CURB AND PAVEMENT RADII ARE 5', UNLESS OTHERWISE NOTED.
7. ALL PROPOSED PINS AND MONUMENTS SHALL BE PLACED AND CERTIFIED BY A LICENSED PENNSYLVANIA PROFESSIONAL SURVEYOR.
8. AS-BUILT PLANS SHALL BE SUBMITTED UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH SECTION 153-803. PLANS MUST ACCURATELY REFLECT ALL CONSTRUCTED STORMWATER MANAGEMENT FACILITIES, GRADING, AND RELATED IMPROVEMENTS, AND MUST BE CERTIFIED BY A LICENSED PROFESSIONAL.
9. AT EACH DRIVEWAY TO A PUBLIC STREET, A CLEAR SIGHT TRIANGLE OF 15 FEET, MEASURED FROM THE POINT OF INTERSECTION OF THE STREET AND THE ACCESS WAY, SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN 1.5 FEET ABOVE THE STREET LEVEL.
10. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPLACEMENT, AS NECESSARY, OF ALL EXISTING AND PROPOSED TREES LOCATED WITHIN AND/OR ABUTTING THE PUBLIC RIGHT-OF-WAY AND SHALL REMAIN RESPONSIBLE FOR SUCH MAINTENANCE IN PERPETUITY.

GRADING NOTES:

1. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIMUM SLOPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES, 1.5% MINIMUM IN ASPHALT (EXCEPT WHERE ADA LIMITS SLOPE), AND 2% IN LAWN AREAS. ANY LOCALIZED DEPRESSIONS MUST BE ELIMINATED.
3. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BUILDING ARE SCHEMATIC DUE TO A GENERIC BUILDING FOOTPRINT, THE GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE THE MINIMUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIMUM SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES, AND CODES.
4. WHERE SUBGRADE BUILDING AREAS ARE PROVIDED, THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED SUBGRADE BUILDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILDING AREA, APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTERING THE STRUCTURE(S). IF AND WHERE SUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUSING SURFACE RUNOFF EROSION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STABILIZATION MEASURES FOR ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.
6. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.
7. THE TOP AND BOTTOM OF WALL ELEVATIONS (GH & GL) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE TOP AND THE BOTTOM OF THE WALL AND DO NOT REPRESENT THE OVERALL HEIGHT OF THE WALL TO ITS EXTENTS (I.E. ANY CAP UNITS OR COURSES BELOW GRADE INCLUDING FOOTINGS ARE EXCLUDED). WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURE DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT THE WALLS SHOWN HEREON MUST BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER AND THAT SIGNED AND SEALED SHOP DRAWINGS ARE APPROVED BY THE MUNICIPALITY PRIOR TO THEIR CONSTRUCTION. ADDITIONALLY, THE CONTRACTOR SHALL ENSURE THAT FENCING, GUIDERAIL, UTILITIES, AND OTHER SITE FEATURES IN THE VICINITY OF THE WALL(S), SHALL BE CONSIDERED AND INCORPORATED INTO THE RETAINING WALL DESIGNS (BY OTHERS).
8. REMOVAL OF TOPSOIL IN NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.

DRAINAGE AND UTILITY NOTES:

1. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOMINAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES.
2. UNLESS OTHERWISE NOTED, ALL NEW UTILITIES/SERVICES, INCLUDING BUT NOT LIMITED TO ELECTRIC, TELEPHONE, TELECOM, GAS, ETC. MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDERS' INSTALLATION SPECIFICATIONS AND STANDARDS.
3. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS, MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.
4. VARIOUS ASPECTS OF THE UTILITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROVIDE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL, SERVICE PROVIDER, OR MANUFACTURER REQUIREMENTS IN ORDER TO ACHIEVE PROPER SITING, OPERATION, CONNECTIONS, SEPARATIONS, AND ACCESSES. THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL INTEGRAL COMPONENTS, SUCH AS TRASH RACKS, GATES, VALVES, INTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMPS, RESTRAINTS, STEPS, FRAMES AND GRATES, PIPE/CONDUIT CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR INCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD OR BOHLER IN WRITING.

SANITARY SEWER PIPE

5. SANITARY SEWER SERVICE SHALL BE PROVIDED BY LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY STANDARD SPECIFICATIONS.
6. THE CONTRACTOR MUST NOTIFY, IN WRITING, LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY AT LEAST THREE (3) BUSINESS DAYS PRIOR TO INSTALLATION OF THE SANITARY COMPONENTS. FAILURE TO HAVE SANITARY INSTALLATION AND TESTING OBSERVED BY LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY MAY REQUIRE RE-EXCAVATION OF THE SANITARY LINE(S), AND RE-TESTING, WHICH WILL BE DONE AT THE SOLE EXPENSE OF THE CONTRACTOR.
7. SANITARY SEWERS CROSSING STREAMS SHALL BE CONFIGURED TO BE NEARLY PERPENDICULAR TO THE STREAM AND SHALL BE PROVIDED WITH A CONCRETE ENCASEMENT FOR THE ENTIRE CROSSING. A MINIMUM OF THREE FEET (3') OF COVER SHALL BE PROVIDED TO THE TOP OF THE ENCASEMENT. IN OTHER WET AREAS, SUCH AS WETLANDS, FLOODPLAINS, OR ALLUVIAL AREAS, ADDITIONAL MEASURES MAY BE REQUIRED, SUCH AS CONCRETE ENCASEMENTS OR ANTI-SEEP COLLARS, AS SPECIFIED ON THE PLANS OR AS REQUIRED BY LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY.
8. UNLESS OTHERWISE NOTED, SANITARY MAIN SHALL BE SDR 35 PVC FOR NORMAL DEPTHS AND DUCTILE IRON PIPE (DIP) WHERE ANY PORTION OF A SEWER SEGMENT IS 16' IN DEPTH OR GREATER. SANITARY LATERALS SHALL BE SDR 35 PVC UNLESS INDICATED IN WRITING OTHERWISE.
9. ALL SEWER MAINS AND LATERALS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION.
10. CLEANOUTS SHALL BE PROVIDED FOR ALL LATERALS LONGER THAN 75' AND REGARDLESS OF LENGTH, SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION. CLEANOUTS SHALL BE THE SAME SIZE AS THE PIPING SERVED BY CLEANOUT, EXCEPT THAT CLEANOUTS FOR PIPING LARGER THAN FOUR INCHES (4") SHALL NOT NEED TO BE LARGER THAN FOUR INCHES (4").
11. SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORMWATER FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST TEN FEET (10') HORIZONTALLY. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNING AGENCY WITH JURISDICTION OVER SAME. WHERE APPROPRIATE SEPARATION IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DIP USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST TEN FEET (10') ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.
12. NO TREES SHALL BE LOCATED WITHIN TEN FEET (10') OF SANITARY SEWER MAINS OR LATERALS.

STORM DRAINAGE

13. UNLESS INDICATED OTHERWISE, MAINLINE (15" OR LARGER) STORM SEWER PIPE SHALL BE DUAL WALL, TYPE S, HIGH-DENSITY POLYETHYLENE (HDPE) OR POLYPROPYLENE (PP) PIPE WITH SMOOTH INTERIORS AND ANNULAR CORRUGATIONS WITH SOIL TIGHT JOINTS. FOR APPLICATIONS OUTSIDE OF STATE DOT ROADWAYS, DEPENDENT UPON COST AND AVAILABILITY, PRODUCTS USING RECYCLED RESIN ARE PREFERRED; WHEREAS IN STATE DOT APPLICATIONS, ONLY PRODUCTS WITH VIRGIN RESIN ARE TO BE USED, UNLESS OTHERWISE APPROVED BY THE STATE DOT. STORM PIPES SMALLER THAN 15", SUCH AS ROOF DRAINS AND UNDERDRAINS, SHALL BE HDPE, PP, AND PVC (SDR 35 OR SCHEDULE 40), UNLESS OTHERWISE NOTED. PIPE MUST CONFORM TO THE FOLLOWING: 4" TO 60" (VIRGIN RESIN) HDPE: AASHTO M252 (4" TO 12"), AASHTO M294 (12" TO 60"). 4" TO 60" (RECYCLED RESIN) HDPE: ASTM F2306 AND ASTM F2648. 12" TO 60" PP PIPE MUST CONFORM TO ASTM F2881 AND AASHTO M330. JOINT GASKETS MUST CONFORM TO ASTM F477. WATER-TIGHT JOINTS ADHERING TO ASTM D3212 SHALL BE PROVIDED WHEN RECOMMENDED BY A GEOTECHNICAL ENGINEER, AND/OR WHEN SITES ARE UNDERLAIN WITH KARST GEOLOGY, WHEN GROUNDWATER SEEPAGE SHOULD BE PREVENTED, AND WHERE THERE ARE ENVIRONMENTAL CONCERNS.
14. A MINIMUM OF FOUR FEET (4') OF HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN STORM STRUCTURES AND OTHER UTILITIES. A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER.
15. UNLESS SPECIFIC MUNICIPAL DETAILS DICTATE OTHERWISE, ALL STORM STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT REVISION OF PENNDOT PUBLICATION 408 - "SPECIFICATIONS", PUBLICATION 72M - "STANDARDS FOR ROADWAY CONSTRUCTION".
16. ALL INLETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.
17. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT.

WATER

18. WATER SERVICE SHALL BE PROVIDED BY THE LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY STANDARD SPECIFICATIONS.
19. THE WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER AUTHORITY. ABSENT SPECIFIC REQUIREMENTS, WATER MAIN PIPING SHALL BE CEMENT LINED DUCTILE IRON PIPE (DIP) WITH A MINIMUM THICKNESS CLASS 52. ALL PIPE AND APPURTENANCES SHALL COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
20. ALL WATER MAINS AND SERVICE LINES SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION.
21. WATER MAINS AND LATERALS SHALL BE HORIZONTALLY SEPARATED FROM STORM STRUCTURES BY A MINIMUM OF FOUR FEET (4'). A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER.
22. WATER JOINTS SHALL BE MECHANICAL JOINTS WITH THRUST BLOCKING AT ALL CHANGES IN DIRECTION, AND/OR AS DEFINED IN THE SPECIFICATIONS/DETAILS.

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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB — LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

JURISDICTIONAL NOTES

SHEET NUMBER:

C-103

REVISION 8 - 10/05/2026

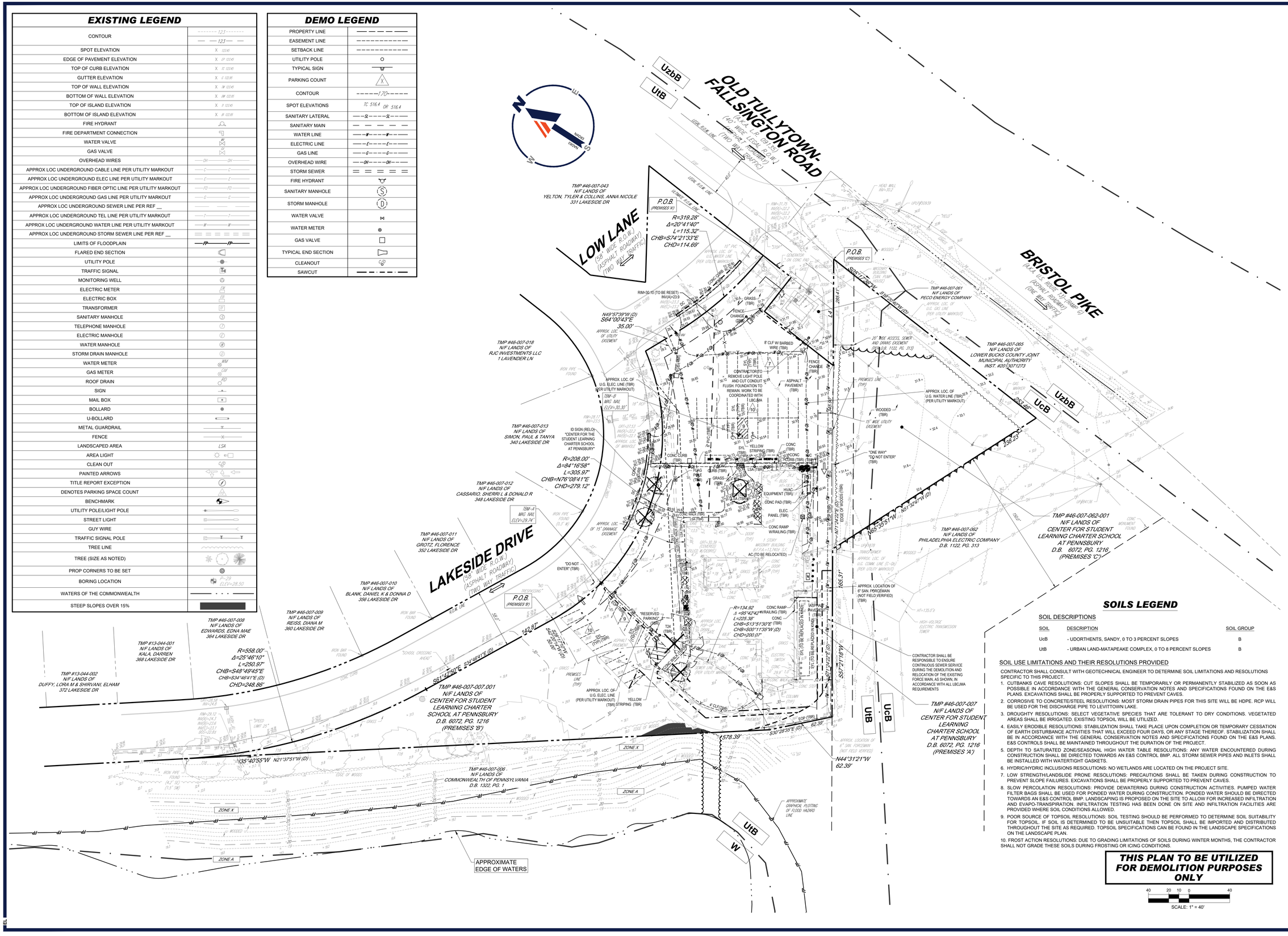
Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A.----:=LAYOUT: C-103 JURS
EL

EXISTING LEGEND

CONTOUR	123 / 123
SPOT ELEVATION	X 123.45
EDGE OF PAVEMENT ELEVATION	X EP 123.45
TOP OF CURB ELEVATION	X TC 123.45
GUTTER ELEVATION	X G 123.85
TOP OF WALL ELEVATION	X TW 123.45
BOTTOM OF WALL ELEVATION	X BW 123.85
TOP OF ISLAND ELEVATION	X TI 123.45
BOTTOM OF ISLAND ELEVATION	X BI 123.85
FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	
GAS VALVE	
OVERHEAD WIRES	OH
APPROX LOC UNDERGROUND CABLE LINE PER UTILITY MARKOUT	C
APPROX LOC UNDERGROUND ELEC LINE PER UTILITY MARKOUT	E
APPROX LOC UNDERGROUND FIBER OPTIC LINE PER UTILITY MARKOUT	FO
APPROX LOC UNDERGROUND GAS LINE PER UTILITY MARKOUT	G
APPROX LOC UNDERGROUND SEWER LINE PER REF __	
APPROX LOC UNDERGROUND TEL LINE PER UTILITY MARKOUT	T
APPROX LOC UNDERGROUND WATER LINE PER UTILITY MARKOUT	W
APPROX LOC UNDERGROUND STORM SEWER LINE PER REF __	
LIMITS OF FLOODPLAIN	FP FP
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	TF
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
MAIL BOX	
BOLLARD	
U-BOLLARD	
METAL GUARDRAIL	
FENCE	
LANDSCAPED AREA	LSA
AREA LIGHT	
CLEAN OUT	CO
PAINTED ARROWS	
TITLE REPORT EXCEPTION	
DENOTES PARKING SPACE COUNT	
BENCHMARK	
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	
TREE LINE	
TREE (SIZE AS NOTED)	
PROP CORNERS TO BE SET	
BORING LOCATION	P-29 ELEV=28.50
WATERS OF THE COMMONWEALTH	
STEEP SLOPES OVER 15%	

DEMO LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
UTILITY POLE	
TYPICAL SIGN	
PARKING COUNT	X
CONTOUR	170
SPOT ELEVATIONS	TC 516.4 OR 516.4
SANITARY LATERAL	S
SANITARY MAIN	
WATER LINE	W
ELECTRIC LINE	E
GAS LINE	G
OVERHEAD WIRE	OH
STORM SEWER	
FIRE HYDRANT	
SANITARY MANHOLE	S
STORM MANHOLE	D
WATER VALVE	
WATER METER	
GAS VALVE	
TYPICAL END SECTION	
CLEANOUT	
SAWCUT	



SOILS LEGEND

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	SOIL GROUP
UcB	- UDORTHENTS, SANDY, 0 TO 3 PERCENT SLOPES	B
UtB	- URBAN LAND-MATAPEAKE COMPLEX, 0 TO 8 PERCENT SLOPES	B

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT.

1. CUTBANKS CAVE RESOLUTIONS: CUT SLOPES SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
2. CORROSIVE TO CONCRETE/STEEL RESOLUTIONS: MOST STORM DRAIN PIPES FOR THIS SITE WILL BE HDPE. RCP WILL BE USED FOR THE DISCHARGE PIPE TO LEVITTOWN LAKE.
3. DROUGHTY RESOLUTIONS: SELECT VEGETATIVE SPECIES THAT ARE TOLERANT TO DRY CONDITIONS. VEGETATED AREAS SHALL BE IRRIGATED. EXISTING TOPSOIL WILL BE UTILIZED.
4. EASILY ERODIBLE RESOLUTIONS: STABILIZATION SHALL TAKE PLACE UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES THAT WILL EXCEED FOUR DAYS, OR ANY STAGE THEREOF. STABILIZATION SHALL BE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. E&S CONTROLS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
5. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE RESOLUTIONS: ANY WATER ENCOUNTERED DURING CONSTRUCTION SHALL BE DIRECTED TOWARDS AN E&S CONTROL BMP. ALL STORM SEWER PIPES AND INLETS SHALL BE INSTALLED WITH WATERTIGHT GASKETS.
6. HYDRIC/HYDRIC INCLUSIONS RESOLUTIONS: NO WETLANDS ARE LOCATED ON THE PROJECT SITE.
7. LOW STRENGTH/LANDSLIDE PRONE RESOLUTIONS: PRECAUTIONS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT SLOPE FAILURES. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
8. SLOW PERCOLATION RESOLUTIONS: PROVIDE DEWATERING DURING CONSTRUCTION ACTIVITIES. PUMPED WATER FILTER BAGS SHALL BE USED FOR PONDED WATER DURING CONSTRUCTION. PONDED WATER SHOULD BE DIRECTED TOWARDS AN E&S CONTROL BMP. LANDSCAPING IS PROPOSED ON THE SITE TO ALLOW FOR INCREASED INFILTRATION AND EVAPO-TRANSPIRATION. INFILTRATION TESTING HAS BEEN DONE ON SITE AND INFILTRATION FACILITIES ARE PROVIDED WHERE SOIL CONDITIONS ALLOWED.
9. POOR SOURCE OF TOPSOIL RESOLUTIONS: SOIL TESTING SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOPSOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED. TOPSOIL SPECIFICATIONS CAN BE FOUND IN THE LANDSCAPE SPECIFICATIONS ON THE LANDSCAPE PLAN.
10. FROST ACTION RESOLUTIONS: DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY

40 20 10 0 40
SCALE: 1" = 40'

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8	10/05/2026	BID ISSUE	EL / TK

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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-SITE

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY
PROPOSED
ADDITIONS AND RENOVATIONS
345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
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COMMONWEALTH OF PENNSYLVANIA
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:
EXISTING CONDITIONS/ DEMOLITION PLAN
SHEET NUMBER:
C-201
REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-SITE-PAA240163.00-8A-----\LAYOUT: C-201 EXDM
EL

ZONING TABLE

ZONE: R1 - RESIDENTIAL
USE: INSTITUTIONAL, RECREATIONAL, AND EDUCATIONAL LAND USES. (SCHOOL)
TMP #'S 46-007-007, 46-007-007.001 & 46-007-062-001

BULK REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN LOT AREA	§ 185-21	20,000 SF (0.459 AC)	131,339 SF (3.015 AC)*	131,339 SF (3.015 AC)*
MIN LOT WIDTH	§ 185-21	100.0'	448.84'	448.84'
MIN YARD SETBACKS				
FRONT YARD	§ 185-21	50.0' FROM STREET R/W	38.7' (ENC)	27.1'
SIDE YARD	§ 185-21	25.0' FROM SIDE LOT LINE	49.7'	19.8'
REAR YARD	§ 185-21	35.0' FROM REAR LOT LINE	28.3' (ENC)	28.3' (ENC)
MAX PERMITTED HEIGHT	§ 185-21	24.0' (2 STORIES)	<24 (1 STORY)	<24 (1 STORY)
MAX LOT COVERAGE**	§ 185-21	70.0%	38.4% (41,283 SF)	51.3% (56,735 SF)
MAX BUILDING COVERAGE**	§ 185-21	30.0%	12.6% (13,913 SF)	26.2% (28,966 SF)
BUFFER YARDS				
CLASS 'A' BUFFER	§ 185-54	5.0' FROM PROPERTY LINE	0.0' (ENC)	0.0' (ENC)
CLASS 'B' BUFFER	§ 185-54	5.0' FROM PROPERTY LINE	0.0' (ENC)	0.0' (ENC)
CLASS 'C' BUFFER	§ 185-54	5.0' FROM PROPERTY LINE	0.0' (ENC)	0.0' (ENC)
			(ENC) DENOTES EXISTING NON-CONFORMITY	VARIANCE GRANTED

*LOT AREA IS TOTAL OF LOT CONSOLIDATION.

** COVERAGE BASED ON BASE SITE AREA.

PARKING REQUIREMENTS

ITEM	CODE	REQUIRED	EXISTING	PROPOSED
MIN NUMBER OF STALLS	§ 185-19.B(3)	76	45	76

SCHOOL, TRADE OR COMMERCIAL:
REQUIRED = 1 SPACE PER TEACHER/STAFF, PLUS 1 PER 4 STUDENTS
31 STAFF + 180 STUDENTS = 31 + (180/4=45) = 76 (INCLUDING 3 ADA SPACES)

SITE CAPACITY CALCULATIONS

A. BASE SITE AREA PER §185-44.A:

TOTAL SITE AREA:	3.015 AC.
SUBTRACT FUTURE ROAD RIGHTS-OF-WAY, EXISTING UTILITY RIGHTS-OF-WAY, NON-CONTIGUOUS LAND OR LAND SEPARATED FROM THE PARCEL BY ROAD, RAILROAD OR STREAM, AND LAND PREVIOUSLY RESERVED FOR OPEN SPACE:	- 0.474 AC.
EQUALS BASE SITE AREA:	110,642 SF (2.54 AC.)

B. CALCULATED PROTECTED AREA PER §185-44.B AND TABLE 185-44:

RESOURCES:	(A) OPEN SPACE PERCENTAGE	(B) ACRES OF LAND IN RESOURCES	(C) RESOURCE PROTECTION LAND	(D) ACRES OF LAND TO BE DISTURBED
FLOODPLAIN:	100%	0.00	0.00	0.00
FLOODPLAIN SOILS:	100%	0.00	0.00	0.00
STEEP SLOPES 15%-25%:	70%	0.00	0.00	0.00
25% OR MORE:	85%	0.00	0.00	0.00
ENVIRONMENTALLY SENSITIVE WOODLANDS:	80%	0.470	0.376	0.397
OTHER WOODLANDS:	50%	0.00	0.00	0.00
LAKES OR PONDS:	100%	0.00	0.00	0.00
WATERCOURSES OR STREAMS:	100%	0.00	0.00	0.00
WETLANDS:	100%	0.00	0.00	0.00
		LAND WITH RESOURCE RESTRICTIONS = 0.376 AC.		TOTAL LAND IN RESOURCES TO BE DISTURBED = 0.397 AC.*

C. MINIMUM OPEN SPACE 185-44.C:

(a) NET BUILDABLE SITE AREA:	
BASE SITE AREA:	2.54 AC.*
SUBTRACT TOTAL RESOURCE PROTECTION AREA:	- (0.470 - 0.397) AC.
TOTAL NET BUILDABLE SITE AREA:	2.47 AC.*

* VARIANCE GRANTED. REFER TO COVER SHEET.

SITE FEATURE KEY

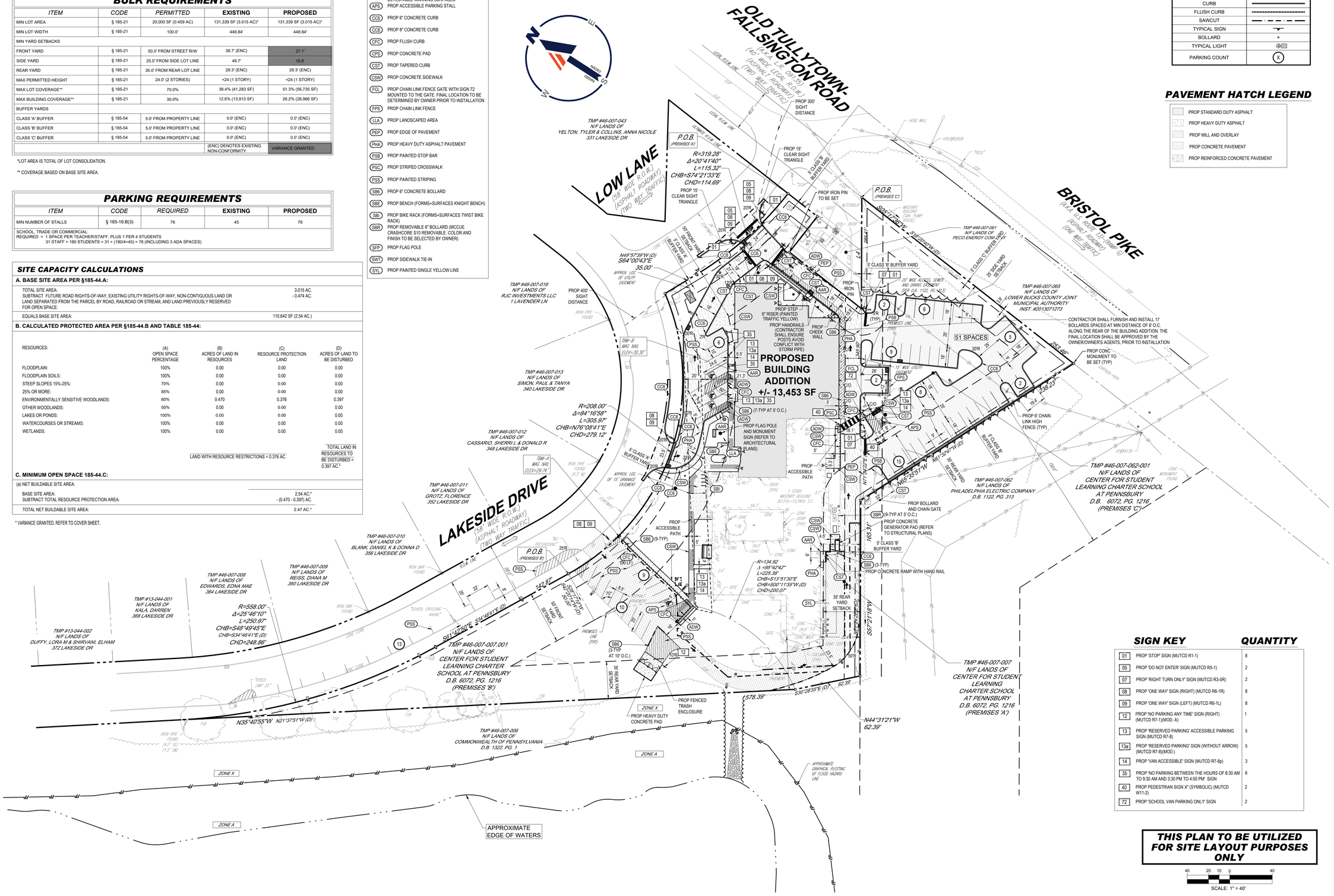
AAR	PROP ACCESSIBLE RAMP
ADW	PROP TRUNCATED DOME PATTERN FOR ADA DETECTABLE WARNING SURFACES
APS	PROP ACCESSIBLE PARKING STALL
CC6	PROP 6" CONCRETE CURB
CC8	PROP 8" CONCRETE CURB
CFC	PROP FLUSH CURB
CPS	PROP CONCRETE PAD
CST	PROP TAPERED CURB
CSW	PROP CONCRETE SIDEWALK
FCL	PROP CHAIN LINK FENCE GATE WITH SIGN 72 MOUNTED TO THE GATE. FINAL LOCATION TO BE DETERMINED BY OWNER PRIOR TO INSTALLATION
FPS	PROP CHAIN LINK FENCE
LLA	PROP LANDSCAPED AREA
PEP	PROP EDGE OF PAVEMENT
PHA	PROP HEAVY DUTY ASPHALT PAVEMENT
PSB	PROP PAINTED STOP BAR
PSC	PROP STRIPED CROSSWALK
PSS	PROP PAINTED STRIPING
SB6	PROP 6" CONCRETE BOLLARD
SBE	PROP BENCH (FORMS+SURFACES KNIGHT BENCH)
SBI	PROP BIKE RACK (FORMS+SURFACES TWIST BIKE RACK)
SBR	PROP REMOVABLE 6" BOLLARD (MCCUE CRASHCORE S10 REMOVABLE. COLOR AND FINISH TO BE SELECTED BY OWNER)
SFP	PROP FLAG POLE
SWT	PROP SIDEWALK TIE-IN
SYL	PROP PAINTED SINGLE YELLOW LINE

PROP SITE LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
CURB	
FLUSH CURB	
SAWCUT	
TYPICAL SIGN	
BOLLARD	
TYPICAL LIGHT	
PARKING COUNT	X

PAVEMENT HATCH LEGEND

- PROP STANDARD DUTY ASPHALT
- PROP HEAVY DUTY ASPHALT
- PROP MILL AND OVERLAY
- PROP CONCRETE PAVEMENT
- PROP REINFORCED CONCRETE PAVEMENT



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PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
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DATE:	11/21/2025
CAD I.D.:	P-CIVIL-SITE

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB — 1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

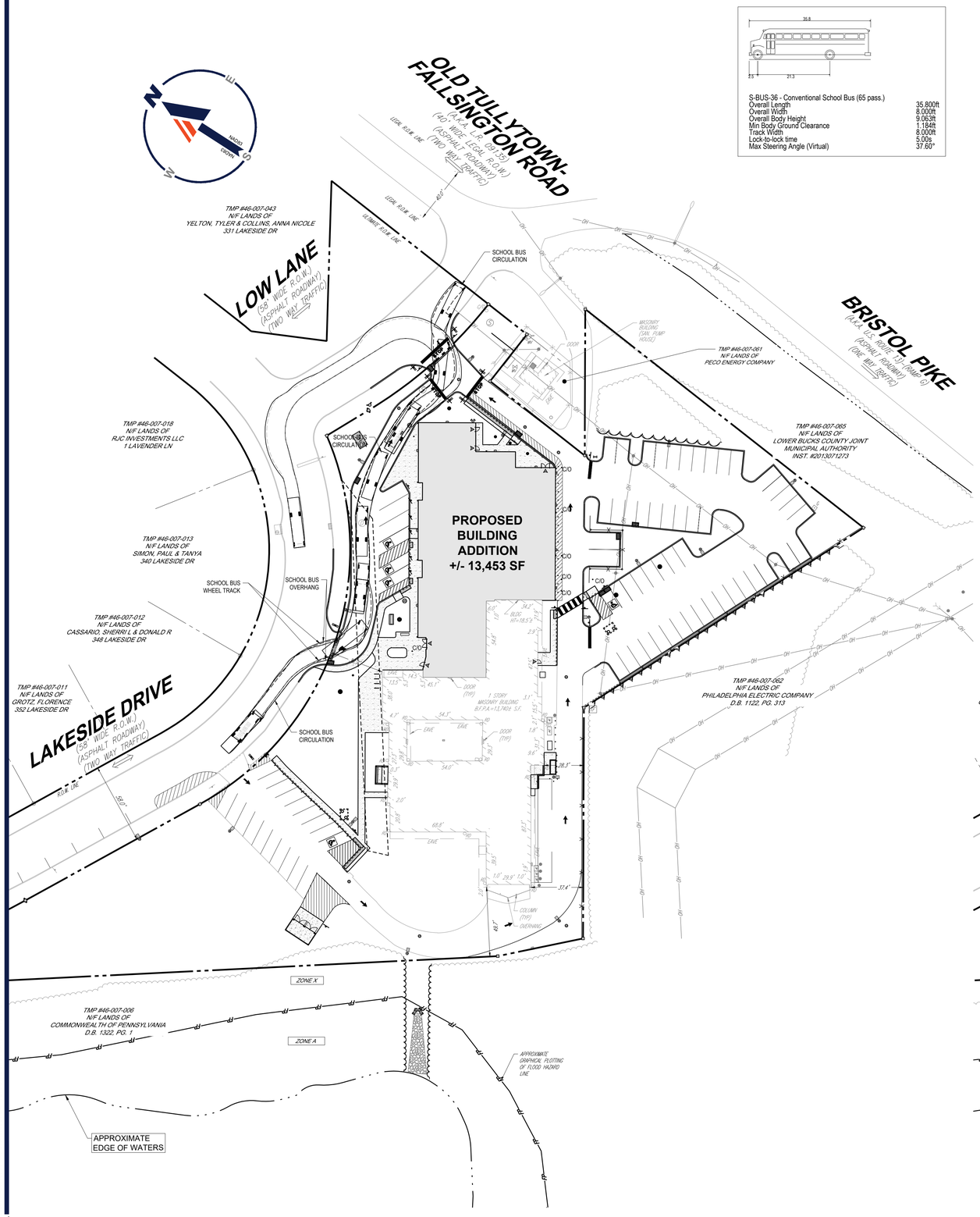
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C-301

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-PAA240163.00.3A-----3A-LAYOUT C-301 SITE
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PENNSYLVANIA LICENSE No. LA003352

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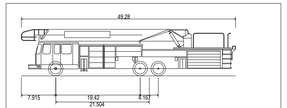
STUDENT DROP-OFF / PICKUP CIRCULATION PLAN

SHEET NUMBER:

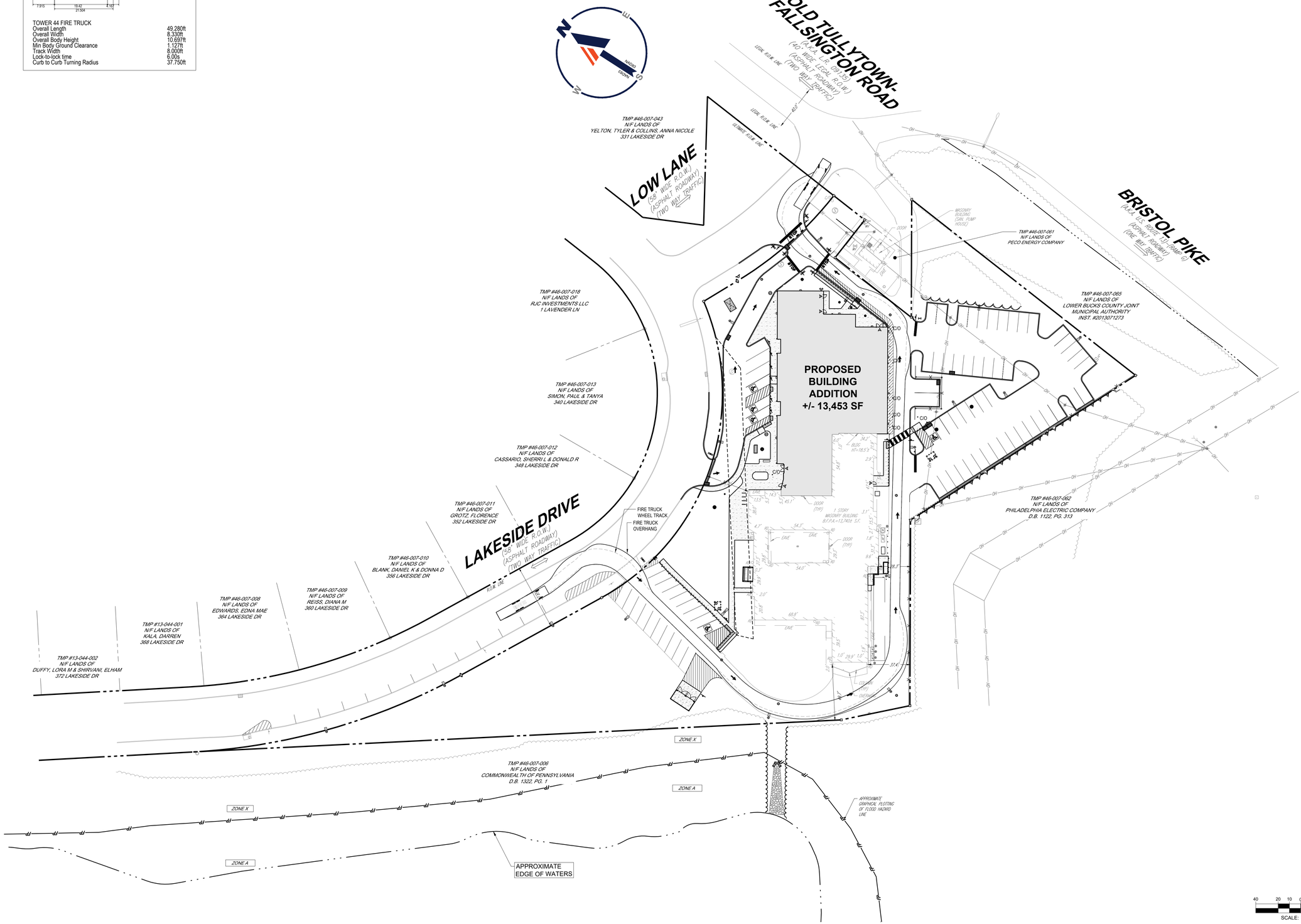
C-302

REVISION 8 - 10/05/2026

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EL



TOWER 44 FIRE TRUCK	
Overall Length	49.280ft
Overall Width	8.330ft
Overall Body Height	10.697ft
Min Body Ground Clearance	1.127ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	37.750ft



Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-PAA240163.00-8A-----LAYOUT: C-303 VEHC
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PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
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DATE:	11/21/2025
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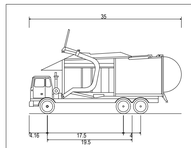
SHEET TITLE:

FIRE TRUCK CIRCULATION PLAN

SHEET NUMBER:

C-303

REVISION 8 - 10/05/2026



35' FRONT LOAD GARBAGE TRUCK

Overall Length	35.000ft
Overall Width	8.080ft
Overall Body Height	19.398ft
Min Body Ground Clearance	1.648ft
Track Width	6.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	35.00°

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-PAA240163.00-8A-----LAYOUT C-304 VEHC
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2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS. LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-SITE

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

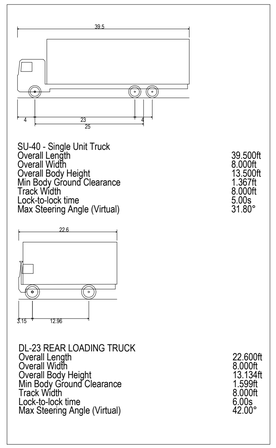
SHEET TITLE:

GARBAGE TRUCK CIRCULATION PLAN

SHEET NUMBER:

C-304

REVISION 8 - 10/05/2026



SU-40 - Single Unit Truck

Overall Length	39.500ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

DL-23 REAR LOADING TRUCK

Overall Length	22.600ft
Overall Width	8.000ft
Overall Body Height	13.134ft
Min Body Ground Clearance	1.599ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	42.00°

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REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

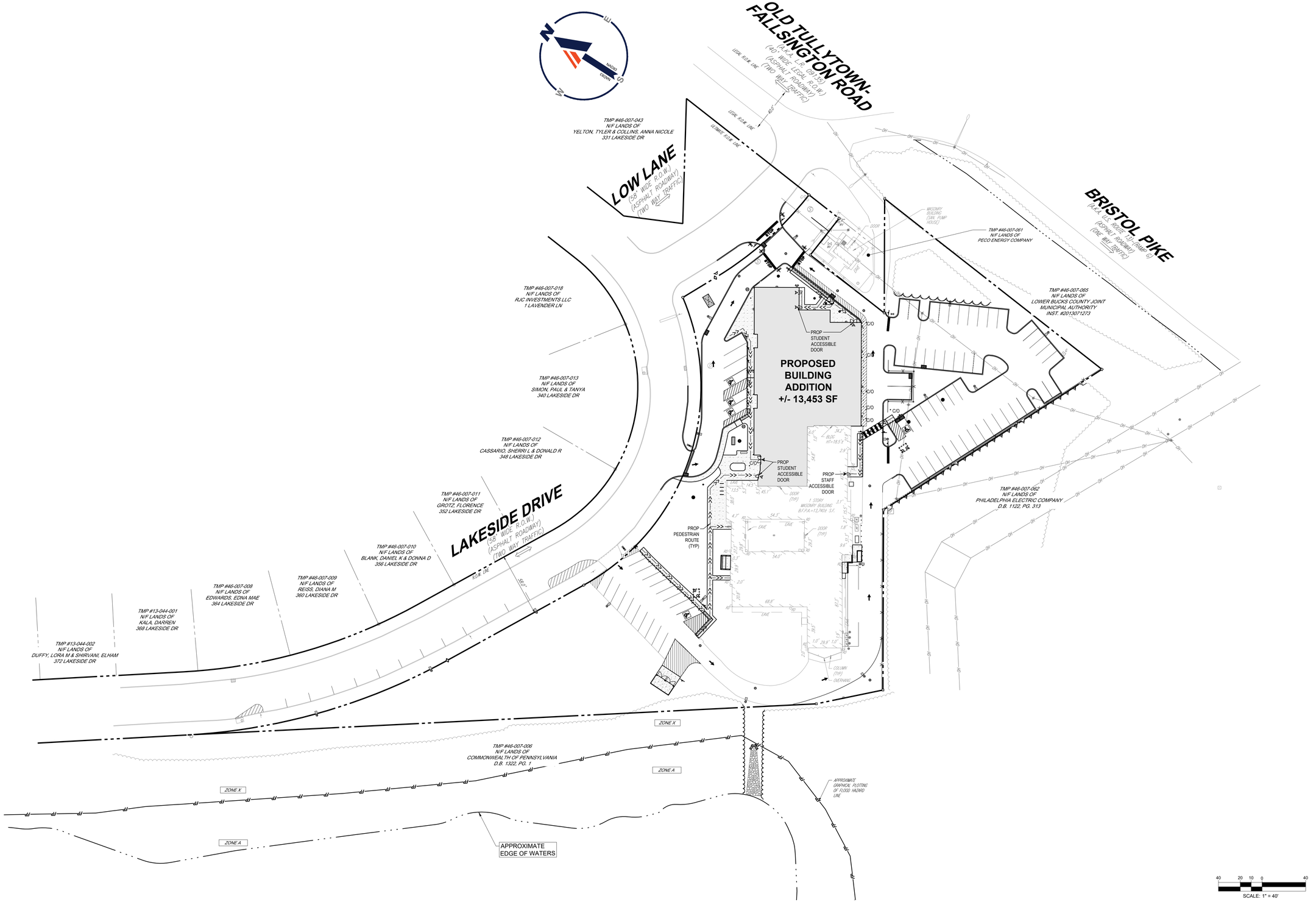
DELIVERY TRUCK CIRCULATION PLAN

SHEET NUMBER:

C-305

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-PAA240163.00-8A.----\LAYOUT: C-305 VEHC
EL



Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-SITE-PAA240163.00-8A-----LAYOUT: C-306 PEDS
EL

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PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
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CAD I.D.:	P-CIVL-SITE

PROJECT:

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FOR

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PROPOSED ADDITIONS AND RENOVATIONS

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REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

PEDESTRIAN ROUTE PLAN

SHEET NUMBER:

C-306

REVISION 8 - 10/05/2026



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7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
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PROJECT No.:	PAA240163.00-8A
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CAD I.D.:	P-CIVIL-SITE

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T.R. KNAB

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

AERIAL PLAN

SHEET NUMBER:

C-307

REVISION 8 - 10/05/2026

80 40 20 0 80
SCALE: 1" = 80'

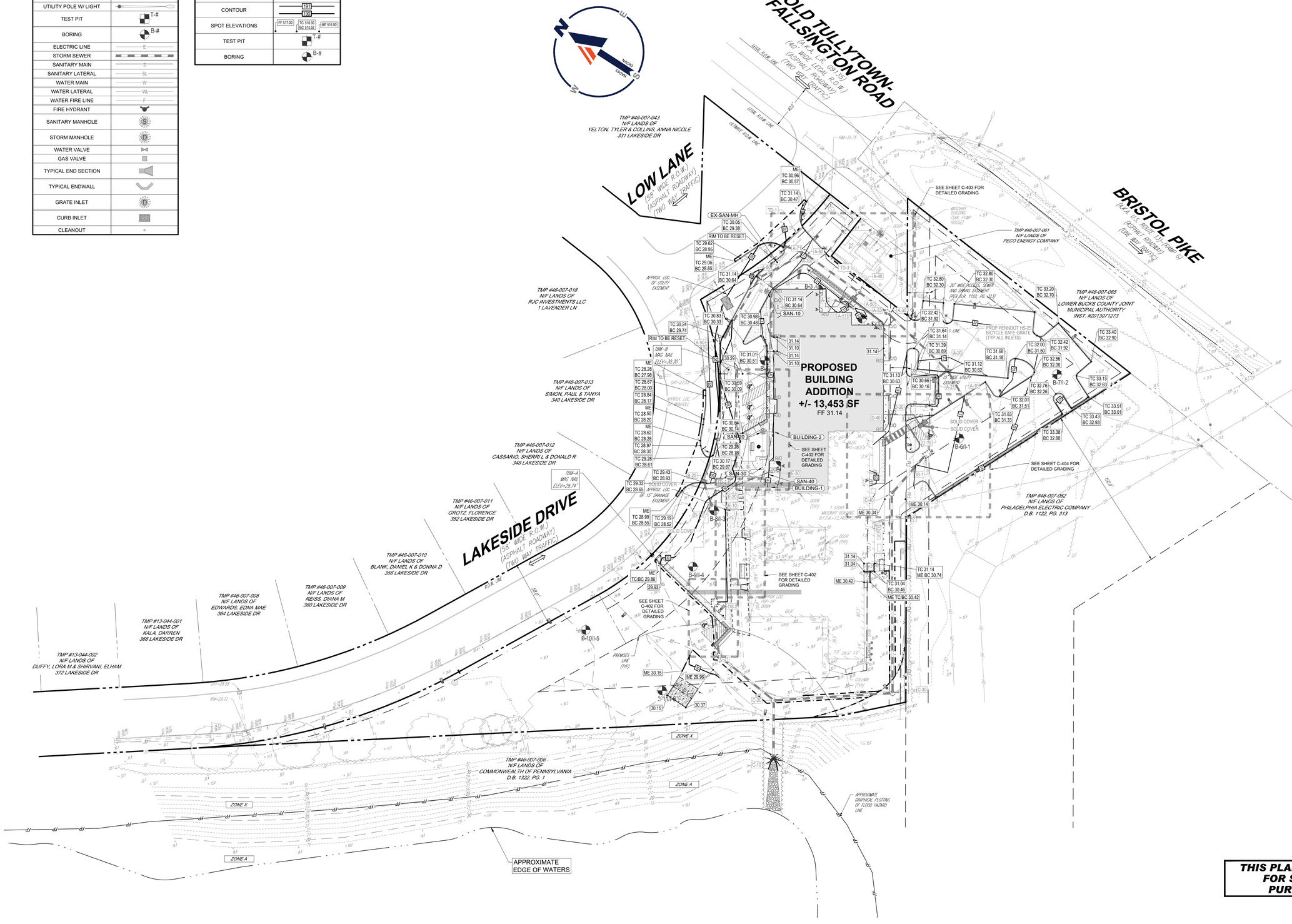
Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\08AWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-PAA240163.00-8A-----3-LAYOUT C-307 AERIL
EL

PROP UTILITY LEGEND

PROPERTY LINE	
EASEMENT LINE	
SAWCUT LINE	
UTILITY POLE	
UTILITY POLE W/ LIGHT	
TEST PIT	T-#
BORING	B-#
ELECTRIC LINE	E
STORM SEWER	
SANITARY MAIN	S
SANITARY LATERAL	SL
WATER MAIN	W
WATER LATERAL	WL
WATER FIRE LINE	F
FIRE HYDRANT	
SANITARY MANHOLE	S
STORM MANHOLE	D
WATER VALVE	
GAS VALVE	
TYPICAL END SECTION	
TYPICAL ENDWALL	
GRATE INLET	D
CURB INLET	
CLEANOUT	

PROP GRADING LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
SAWCUT LINE	
CONTOUR	191 / 190
SPOT ELEVATIONS	FF 517.00 / TC 516.00 BC 515.55 / ME 516.00
TEST PIT	T-#
BORING	B-#



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

40 20 10 0 40
SCALE: 1" = 40'

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-GDGL-PAA240163.00-8A-----LAYOUT: C-401 GRAD
EL

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8	10/05/2026	BID ISSUE	EL / TK

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BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-GDGL

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

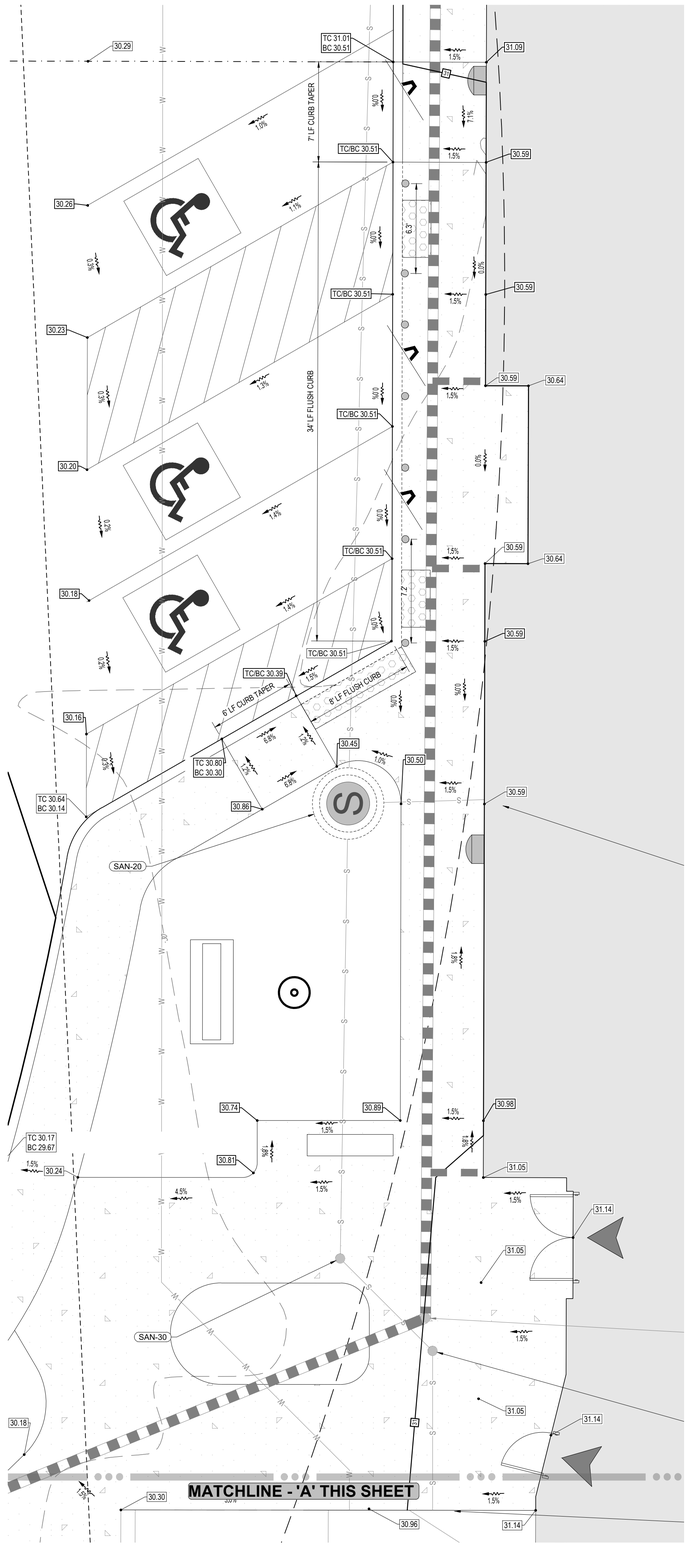
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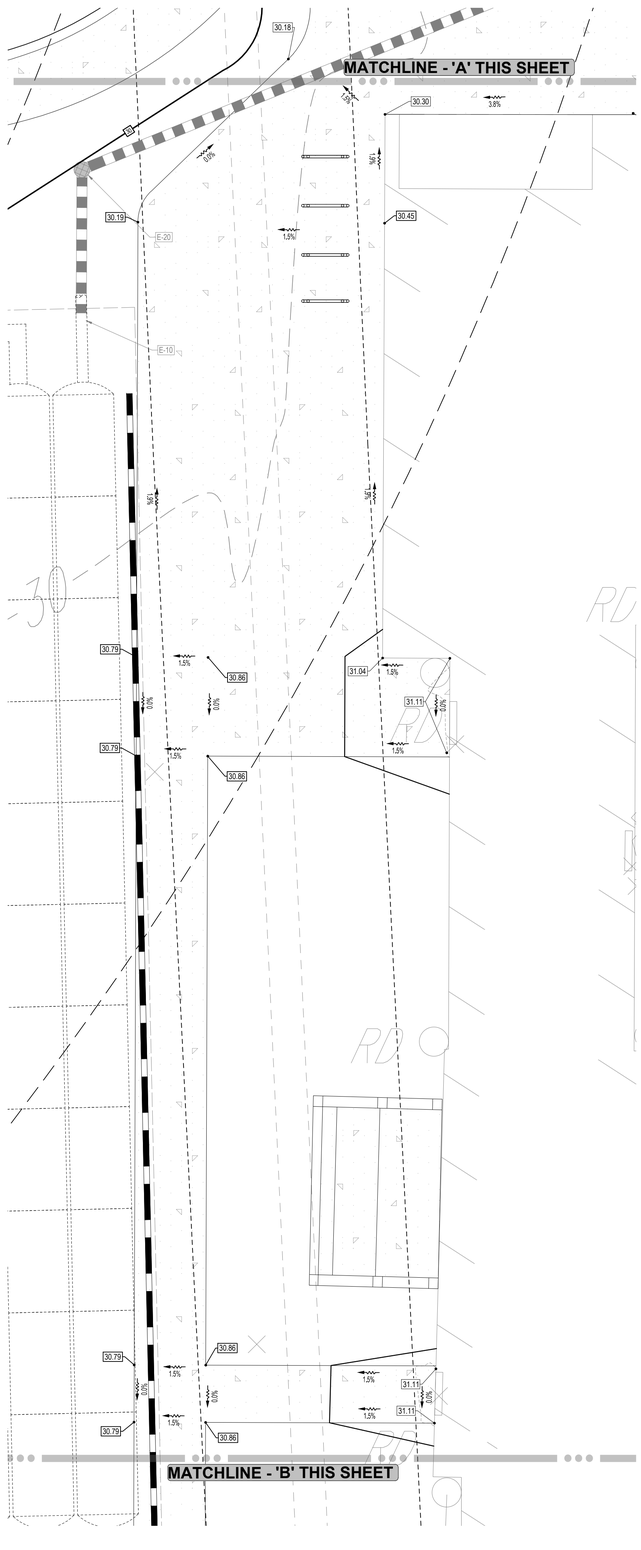
GRADING PLAN

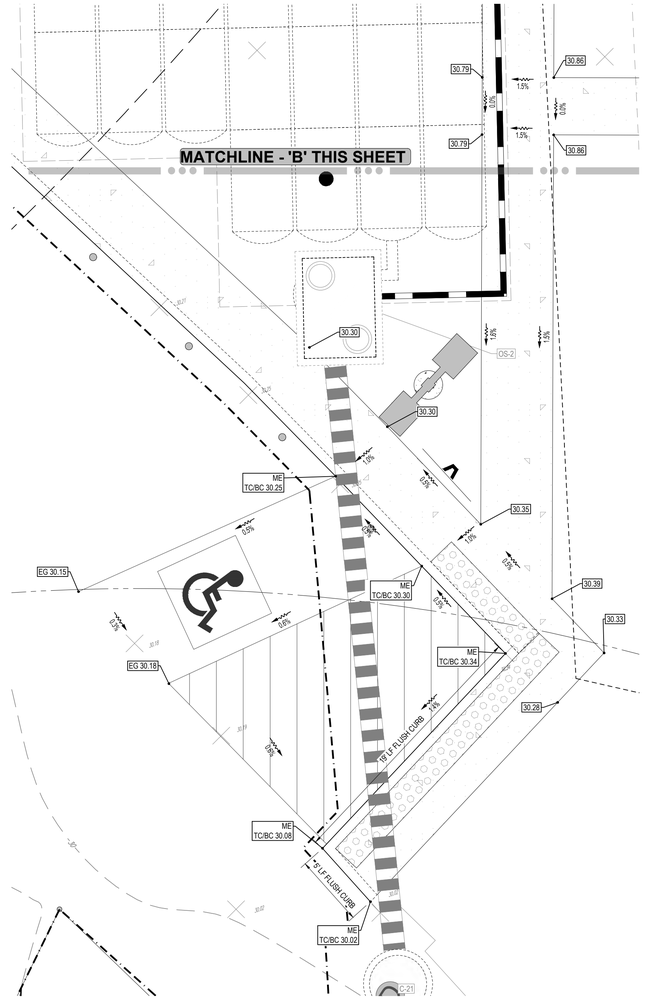
SHEET NUMBER:

C-401

REVISION 8 - 10/05/2026







PROP GRADING LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
SAWCUT LINE	
CONTOUR	191 / 190
SPOT ELEVATIONS	FF 517.00 / TC 516.00 BC 515.50 / ME 516.00

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

5 2.5 1.25 0 5

SCALE: 1" = 5'

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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-GDUL

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

**345 LAKESIDE DRIVE
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BUCKS COUNTY
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED — T.R. KNAB — LANDSCAPE ARCHITECT — SEAL

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

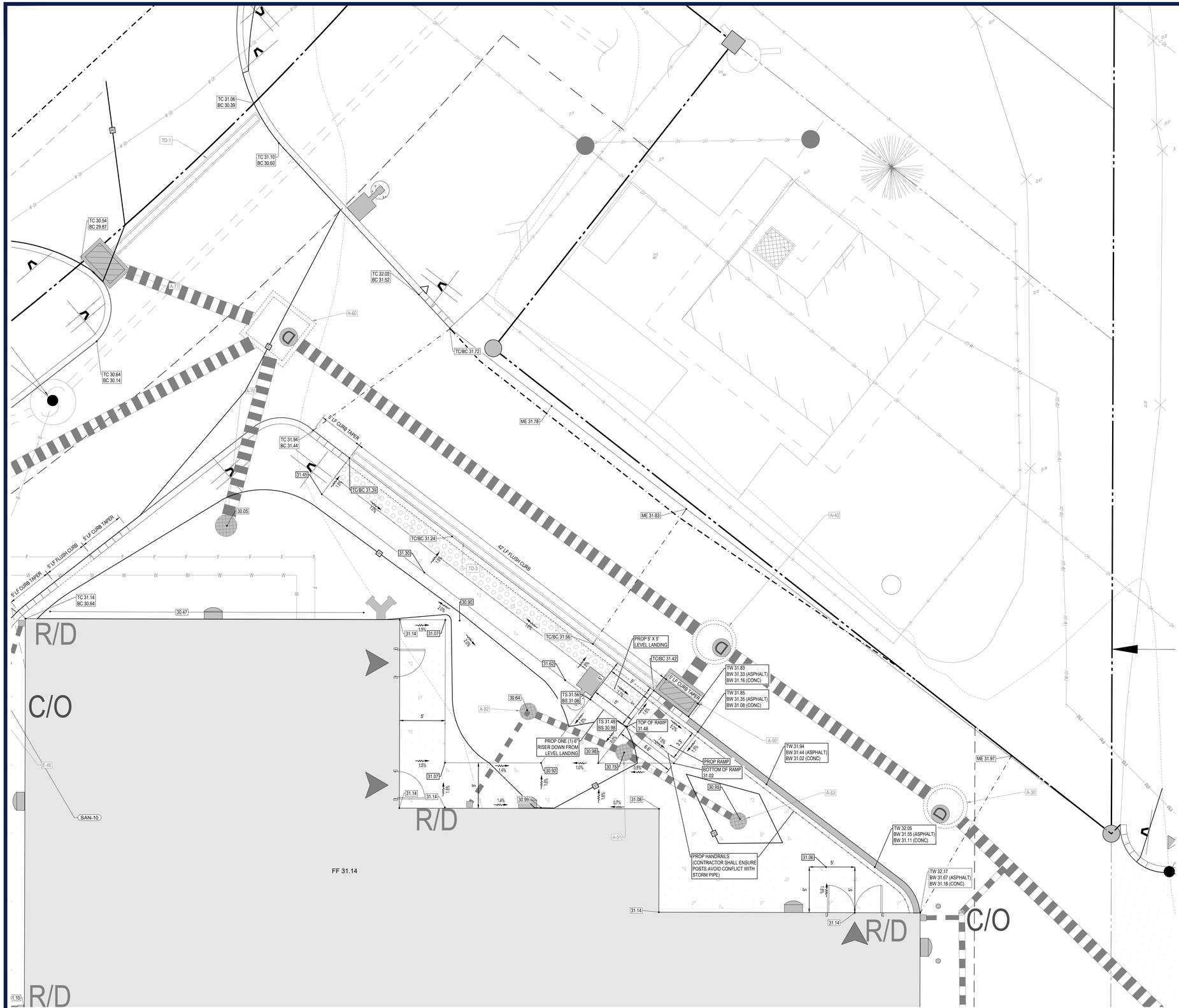
ADA GRADING PLAN

SHEET NUMBER:

C-402

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-GDUL-PAA240163.00-8A-----LAYOUT C-402 ADA GRAD
EL



PROP GRADING LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
SAWCUT LINE	
CONTOUR	101 / 100
SPOT ELEVATIONS	FF 517.00 · TC 516.00 BC 515.50 · ME 516.00

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

5 2.5 1.25 0 5

SCALE: 1" = 5'

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-GDUL-PAA240163.00-8A.-----\LAYOUT(C-403 ADA GRAD
EL

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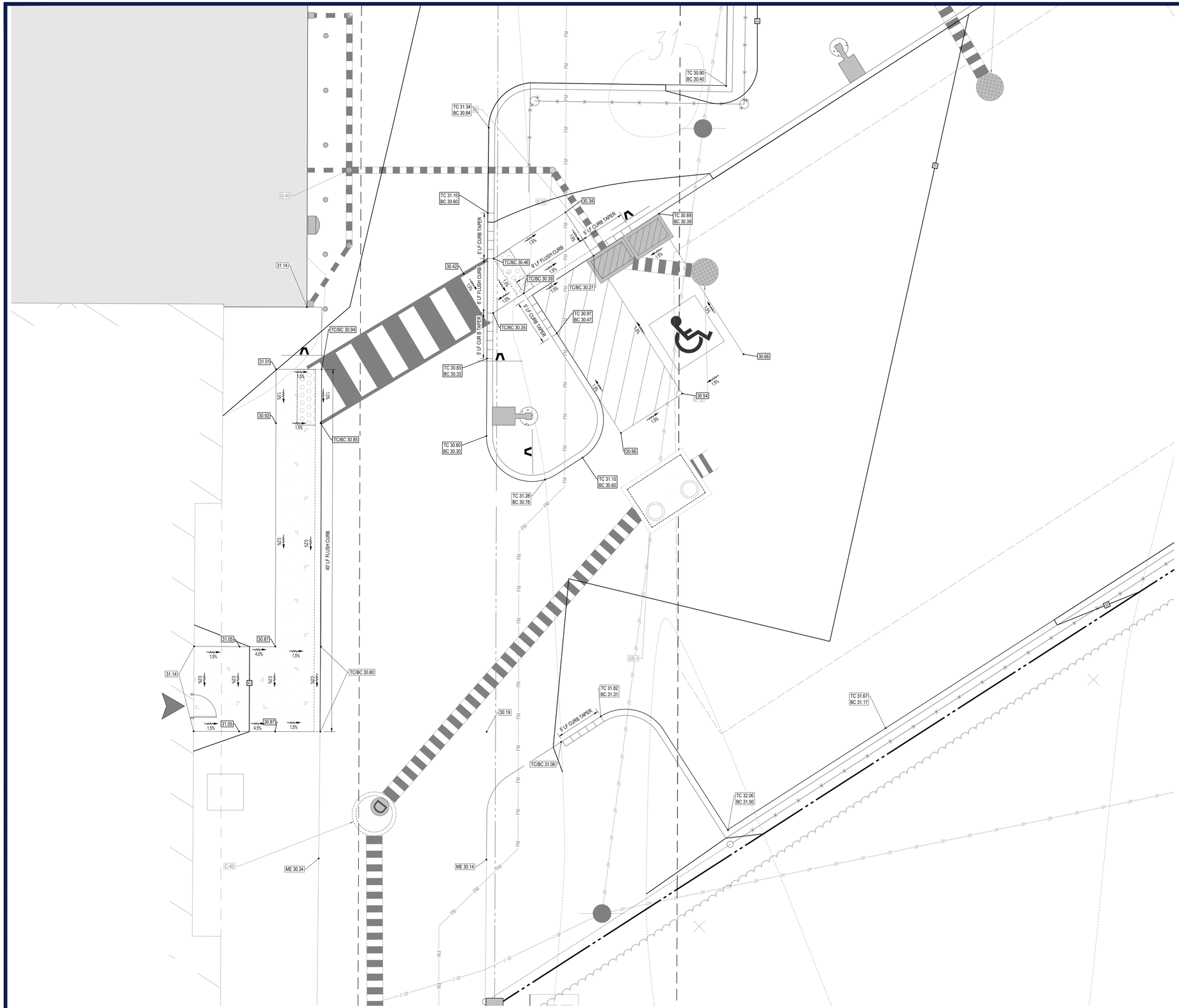
SHEET TITLE:

ADA GRADING PLAN

SHEET NUMBER:

C-403

REVISION 8 - 10/05/2026



PROP GRADING LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
SAWCUT LINE	
CONTOUR	191 / 190
SPOT ELEVATIONS	FF 517.00 · TC 516.00 BC 515.55 · ME 516.00

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

5 2.5 1.25 0 5

SCALE: 1" = 5'

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-GDUL-PAA240163.00-8A-----LAYOUT: C-404 ADA GRAD
EL

BOHLER™

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABILITY DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
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3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PAT.CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-GDUL

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

ADA GRADING PLAN

SHEET NUMBER:

C-404

REVISION 8 - 10/05/2026

PRE DEVELOPMENT DRAINAGE AREA	
LIMIT OF DISTURBANCE/ PROJECT SITE BOUNDARY	LOD/PSB
DRAINAGE AREA BOUNDARY	
Tc PATH	
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB

EXISTING IMPERVIOUS COVERAGE: 38.4% (41,283 SF)
(AS CALCULATED THROUGH ZONING SITE CAPACITY CALCULATIONS)

OLD TULLYTOWN-FALLSINGTON ROAD (A.K.A. U.S. ROUTE 13) (40' WIDE LEGAL R.O.W.) (ASPHALT ROADWAY) (TWO WAY TRAFFIC)

LOW LANE (50' WIDE R.O.W.) (ASPHALT ROADWAY) (TWO WAY TRAFFIC)

LAKESIDE DRIVE (50' WIDE R.O.W.) (ASPHALT ROADWAY) (TWO WAY TRAFFIC)

BRISTOL PIKE (A.K.A. U.S. ROUTE 13) (ONE WAY TRAFFIC)

TMP #46-007-043 N/F LANDS OF YELTON, TYLER & COLLINS, ANNA NICOLE 331 LAKESIDE DR

TMP #46-007-018 N/F LANDS OF RJC INVESTMENTS LLC 1 LAVENDER LN

TMP #46-007-013 N/F LANDS OF SIMON, PAUL & TANYA 340 LAKESIDE DR

TMP #46-007-012 N/F LANDS OF CASSARIO, SHERRY L & DONALD R 348 LAKESIDE DR

TMP #46-007-011 N/F LANDS OF GROTZ, FLORENCE 352 LAKESIDE DR

TMP #46-007-010 N/F LANDS OF BLANK, DANIEL K & DONNA D 356 LAKESIDE DR

TMP #46-007-009 N/F LANDS OF REISS, DIANA M 360 LAKESIDE DR

TMP #46-007-008 N/F LANDS OF EDWARDS, EDNA MAE 364 LAKESIDE DR

TMP #13-044-001 N/F LANDS OF KALA, DARREN 368 LAKESIDE DR

TMP #13-044-002 N/F LANDS OF DUFFY, LORA M & SHIRVANI, ELHAM 372 LAKESIDE DR

TMP #46-007-007.001 N/F LANDS OF CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY D.B. 6072, PG. 1216 (PREMISES 'B')

TMP #46-007-007 N/F LANDS OF CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY D.B. 6072, PG. 1216 (PREMISES 'A')

TMP #46-007-062-001 N/F LANDS OF CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY D.B. 6072, PG. 1216 (PREMISES 'C')

TMP #46-007-062 N/F LANDS OF PHILADELPHIA ELECTRIC COMPANY D.B. 1122, PG. 313

TMP #46-007-065 N/F LANDS OF LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY INST. #2007071273

TMP #46-007-066 N/F LANDS OF COMMONWEALTH OF PENNSYLVANIA D.B. 1322, PG. 1

TMP #46-007-067 N/F LANDS OF PECO ENERGY COMPANY

DA-1E (A)
DA-1E (B)
DA-1E (UNMANAGED A)
DA-1E (UNMANAGED B)
DA-1E (UNMANAGED C)
DA-1E (UNMANAGED D)

DP001 (APPROX LOC. OF EX PIPE DISCHARGE)
DP002
POA001

APPROXIMATE EDGE OF WATERS

SCALE: 1" = 40'

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
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4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA REGISTERED T.R. KNAB LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:

PRE DEVELOPMENT DRAINAGE AREA MAP

SHEET NUMBER:

C-404

REVISION 8 - 10/05/2026

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Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-ERHY-PAA240163.00-8A-----LAYOUT C-404 FRED
EL

POST DEVELOPMENT DRAINAGE AREA	
LIMIT OF DISTURBANCE/ PROJECT SITE BOUNDARY	LOD/PSB
DRAINAGE AREA BOUNDARY	
DRAINAGE SUB AREA	
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB

PROPOSED IMPERVIOUS COVERAGE: 51.3% (56,735 SF)
(AS CALCULATED THROUGH ZONING SITE CAPACITY CALCULATIONS)

OLD TULLYTOWN-FALLSINGTON ROAD
(A.K.A. U.S. ROUTE 13 (PA RAMP 1))
(40' WIDE LEGAL R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

LOW LANE
(56' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

BRISTOL PIKE
(A.K.A. U.S. ROUTE 13 (PA RAMP 1))
(ASPHALT ROADWAY)
(ONE WAY TRAFFIC)

LAKESIDE DRIVE
(56' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

TMP #46-007-043
N/F LANDS OF
YELTON, TYLER & COLLINS, ANNA NICOLE
331 LAKESIDE DR

TMP #46-007-018
N/F LANDS OF
RJC INVESTMENTS LLC
1 LAVENDER LN

TMP #46-007-013
N/F LANDS OF
SIMON, PAUL & TANYA
340 LAKESIDE DR

TMP #46-007-012
N/F LANDS OF
CASSARIO, SHERRI L & DONALD R
348 LAKESIDE DR

TMP #46-007-011
N/F LANDS OF
GROTZ, FLORENCE
352 LAKESIDE DR

TMP #46-007-010
N/F LANDS OF
BLANK, DANIEL K & DONNA D
356 LAKESIDE DR

TMP #46-007-009
N/F LANDS OF
REISS, DIANA M
360 LAKESIDE DR

TMP #46-007-008
N/F LANDS OF
EDWARDS, EDNA MAE
364 LAKESIDE DR

TMP #13-044-001
N/F LANDS OF
KALA, DARREN
368 LAKESIDE DR

TMP #13-044-002
N/F LANDS OF
DUFFY, LORA M & SHIRVANI, ELHAM
372 LAKESIDE DR

TMP #46-007-007.001
N/F LANDS OF
CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY
D.B. 6072, PG. 1216
(PREMISES 'B')

TMP #46-007-006
N/F LANDS OF
COMMONWEALTH OF PENNSYLVANIA
D.B. 1322, PG. 1

TMP #46-007-065
N/F LANDS OF
LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY
INST. #2007071273

TMP #46-007-062-001
N/F LANDS OF
CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY
D.B. 6072, PG. 1216
(PREMISES 'C')

TMP #46-007-062
N/F LANDS OF
PHILADELPHIA ELECTRIC COMPANY
D.B. 1122, PG. 313

TMP #46-007-007
N/F LANDS OF
CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY
D.B. 6072, PG. 1216
(PREMISES 'A')

DA-1P (UNMANAGED C)
DA-2P (OFFSITE B TO SCM 1)
DA-2P (SCM 1)
PROPOSED BUILDING ADDITION +/- 13,453 SF
DA-2P (SCM 2)
DA-1P (BYPASS B)
DA-2P (OFFSITE A TO SCM 1)
DA-1P (UNMANAGED A)
DA-1P (BYPASS A)
DA-1P (UNMANAGED B)
DA-1P (UNMANAGED D)
DP001 (APPROX LOC. OF EX PIPE DISCHARGE)
DP002
POA001
APPROXIMATE EDGE OF WATERS

UzbB
UtB
UcB
UtB
W

ZONE X
ZONE A

40 20 10 0 40
SCALE: 1" = 40'

BOHLER
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PROGRAM MANAGEMENT
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LIGHTING AND ELECTRICAL DESIGN
PERMITTING SERVICES
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4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
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WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:

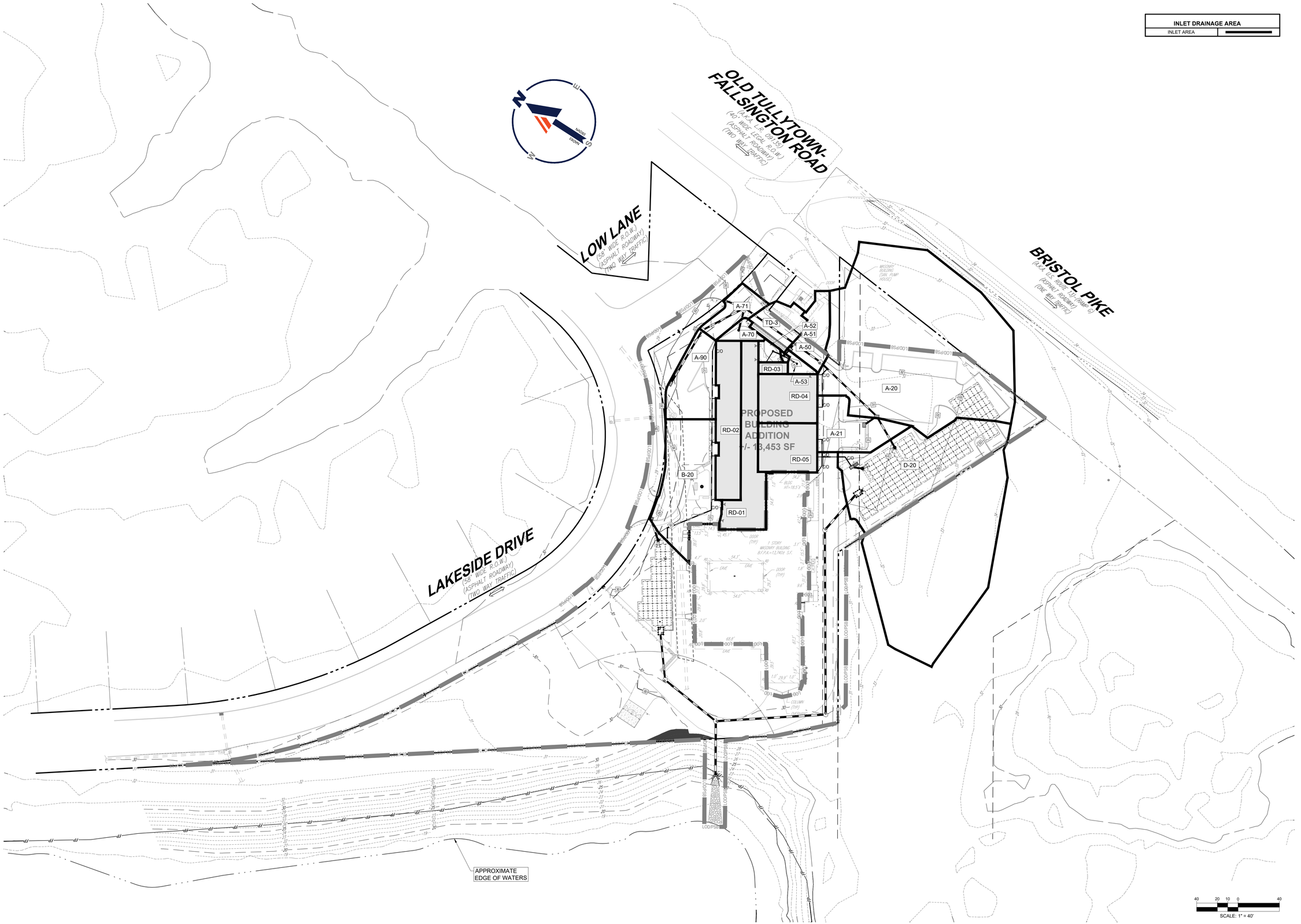
POST DEVELOPMENT DRAINAGE AREA MAP

SHEET NUMBER:

C-405

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-ERHY-PAA240163.00-8A-----LAYOUT: C-405 PSTD
EL



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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
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TRANSPORTATION SERVICES

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8	10/05/2026	BID ISSUE	EL / TK

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WWW.PAONECALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
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DATE:	11/21/2025
CAD I.D.:	P-CIVL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB — ROBERT — SEAL — LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

INLET DRAINAGE AREA MAP

SHEET NUMBER:

C-406

REVISION 8 - 10/05/2026

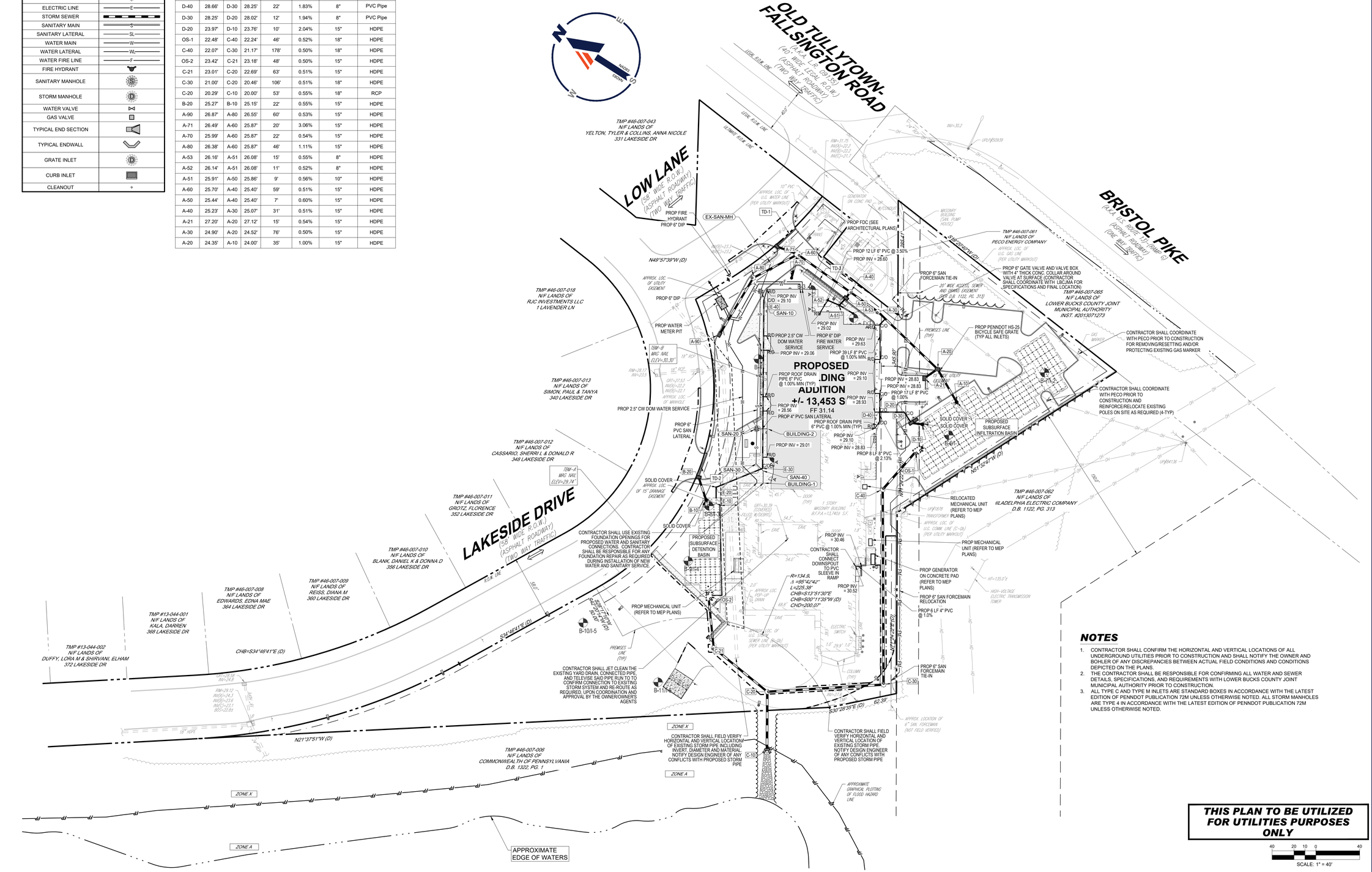
Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-ERHY-PAA240163.00-8A——LAYOUT C-406 INLD
EL

PROP UTILITY LEGEND

PROPERTY LINE	
EASEMENT LINE	
SAWCUT LINE	
UTILITY POLE	
UTILITY POLE W/ LIGHT	
TEST PIT	T-#
BORING	B-#
ELECTRIC LINE	E
STORM SEWER	
SANITARY MAIN	S
SANITARY LATERAL	SL
WATER MAIN	W
WATER LATERAL	WL
WATER FIRE LINE	F
FIRE HYDRANT	
SANITARY MANHOLE	
STORM MANHOLE	
WATER VALVE	
GAS VALVE	
TYPICAL END SECTION	
TYPICAL ENDWALL	
GRATE INLET	
CURB INLET	
CLEANOUT	

STORM PIPE SCHEDULE

FROM	FROM INV	TO	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL
C-50	23.59'	OS-1	23.59'	8'	0.00%	24"	HDPE
E-40	28.90'	E-30	28.13'	154'	0.50%	8"	PVC Pipe
E-30	28.13'	E-20	27.68'	46'	0.98%	8"	PVC Pipe
E-20	24.44'	E-10	24.33'	10'	1.06%	8"	PVC Pipe
D-40	28.66'	D-30	28.25'	22'	1.83%	8"	PVC Pipe
D-30	28.25'	D-20	28.02'	12'	1.94%	8"	PVC Pipe
D-20	23.97'	D-10	23.76'	10'	2.04%	15"	HDPE
OS-1	22.48'	C-40	22.24'	46'	0.52%	18"	HDPE
C-40	22.07'	C-30	21.17'	178'	0.50%	18"	HDPE
OS-2	23.42'	C-21	23.18'	48'	0.50%	15"	HDPE
C-21	23.01'	C-20	22.69'	63'	0.51%	15"	HDPE
C-30	21.00'	C-20	20.46'	106'	0.51%	18"	HDPE
C-20	20.29'	C-10	20.00'	53'	0.55%	18"	RCP
B-20	25.27'	B-10	25.15'	22'	0.55%	15"	HDPE
A-90	26.87'	A-80	26.55'	60'	0.53%	15"	HDPE
A-71	26.49'	A-60	25.87'	20'	3.06%	15"	HDPE
A-70	25.99'	A-60	25.87'	22'	0.54%	15"	HDPE
A-80	26.38'	A-60	25.87'	46'	1.11%	15"	HDPE
A-53	26.16'	A-51	26.08'	15'	0.55%	8"	HDPE
A-52	26.14'	A-51	26.08'	11'	0.52%	8"	HDPE
A-51	25.91'	A-50	25.86'	9'	0.56%	10"	HDPE
A-60	25.70'	A-40	25.40'	59'	0.51%	15"	HDPE
A-50	25.44'	A-40	25.40'	7'	0.60%	15"	HDPE
A-40	25.23'	A-30	25.07'	31'	0.51%	15"	HDPE
A-21	27.20'	A-20	27.12'	15'	0.54%	15"	HDPE
A-30	24.90'	A-20	24.52'	76'	0.50%	15"	HDPE
A-20	24.35'	A-10	24.00'	35'	1.00%	15"	HDPE



NOTES

1. CONTRACTOR SHALL CONFIRM THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE OWNER AND BOHLER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND CONDITIONS DEPICTED ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING ALL WATER AND SEWER DETAILS, SPECIFICATIONS, AND REQUIREMENTS WITH LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY PRIOR TO CONSTRUCTION.
3. ALL TYPE C AND TYPE M INLETS ARE STANDARD BOXES IN ACCORDANCE WITH THE LATEST EDITION OF PENNDOT PUBLICATION 72M UNLESS OTHERWISE NOTED. ALL STORM MANHOLES ARE TYPE 4 IN ACCORDANCE WITH THE LATEST EDITION OF PENNDOT PUBLICATION 72M UNLESS OTHERWISE NOTED.

THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
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REVISIONS

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1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
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4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVIL-GDUL

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

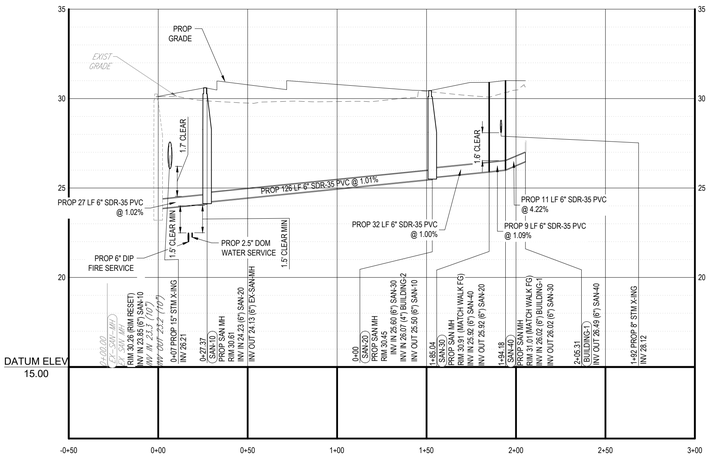
COMMONWEALTH OF PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT T.R. KNAB SEAL
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C-501

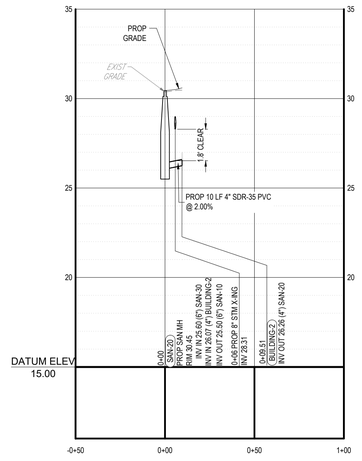
REVISION 8 - 10/05/2026

Sep 30, 2026
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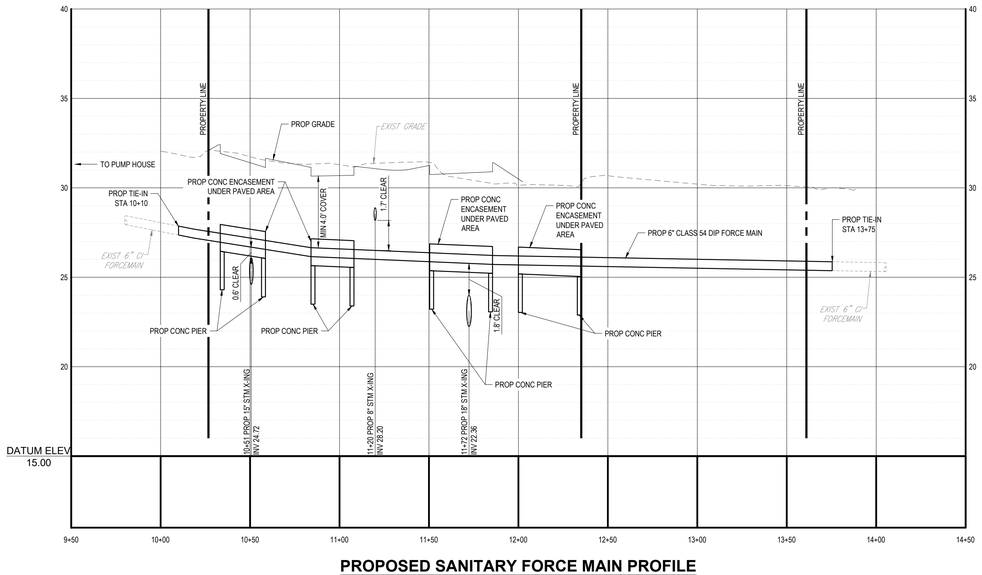
PROPOSED SAN PROFILE (EX-SAN-MH TO BUILDING-1)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED SAN PROFILE (SAN-20 TO BUILDING-2)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED SANITARY FORCE MAIN PROFILE

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-PROF-PAA240163.00-8A-----LAYOUT: C-601 PSAN
EL

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABILITY DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-PROF

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED
T.R. KNAB
LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

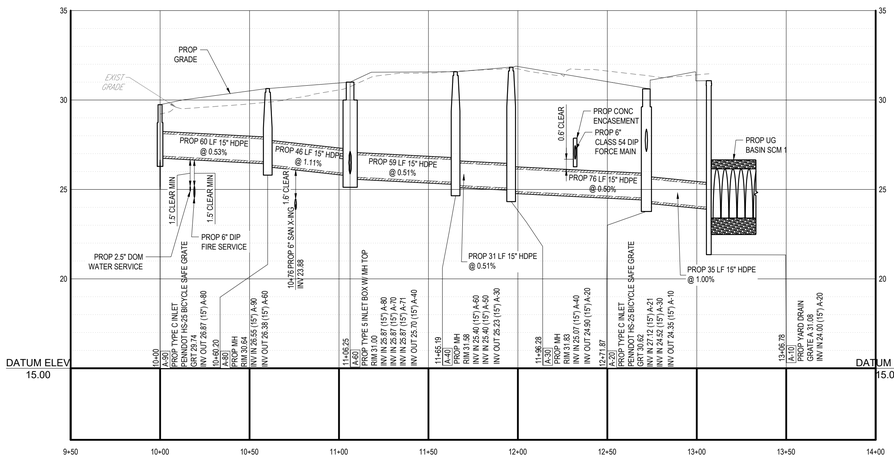
SHEET TITLE:

SANITARY PROFILES

SHEET NUMBER:

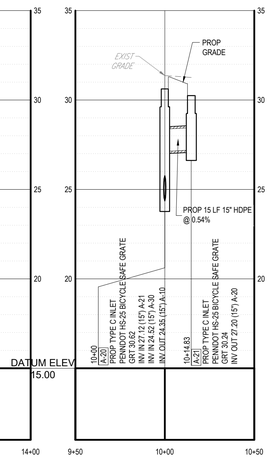
C-601

REVISION 8 - 10/05/2026



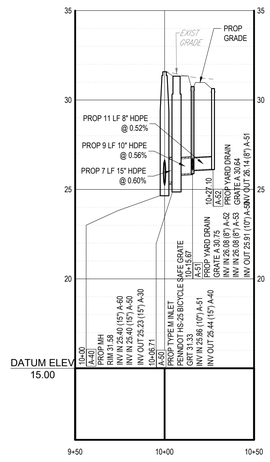
PROPOSED STM PROFILE (A-90 TO A-10)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



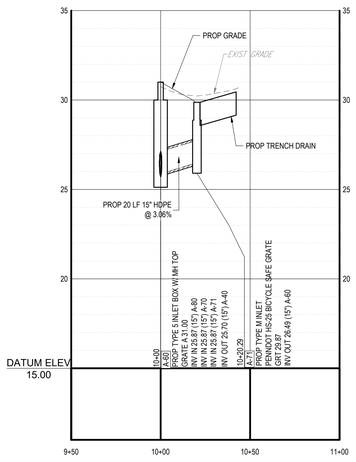
PROPOSED STM PROFILE (A-20 TO A-21)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



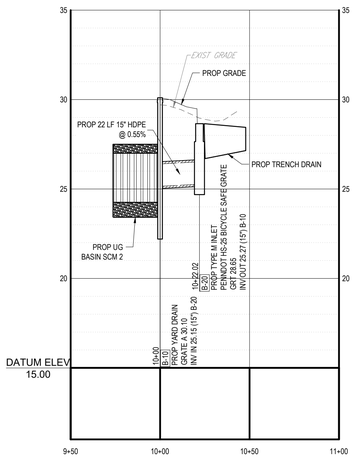
PROPOSED STM PROFILE (A-40 TO A-52)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



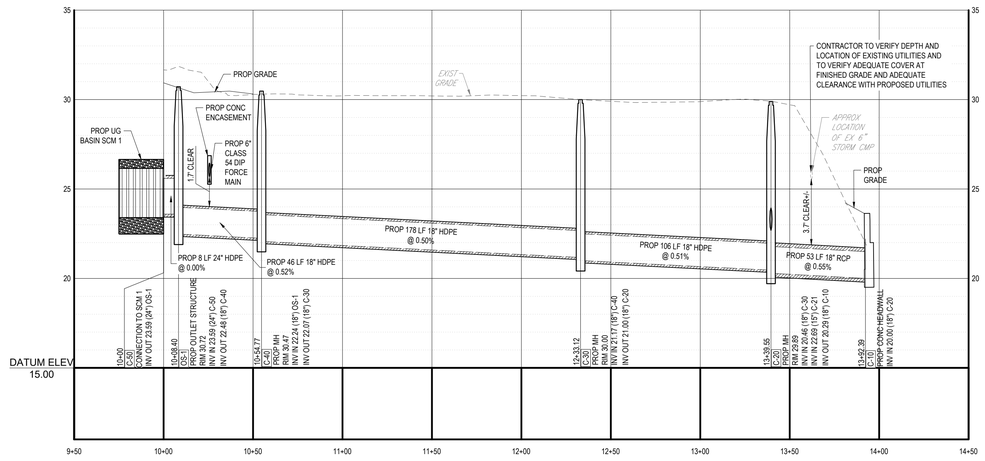
PROPOSED STM PROFILE (A-60 TO A-71)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



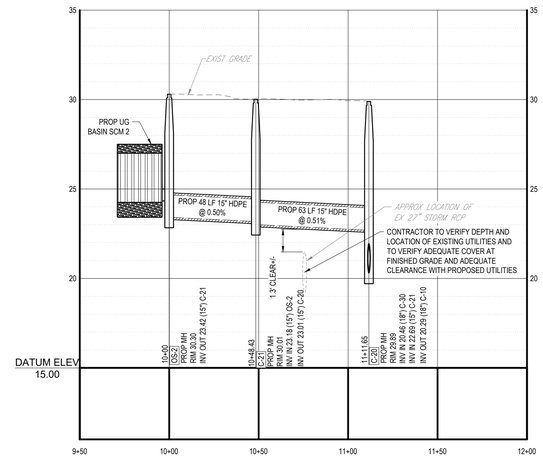
PROPOSED STM PROFILE (B-10 TO B-20)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



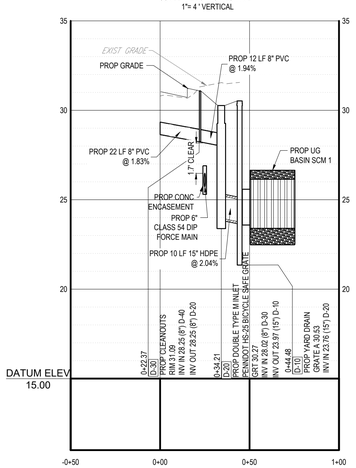
PROPOSED STM PROFILE (OS-1 TO C-10)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



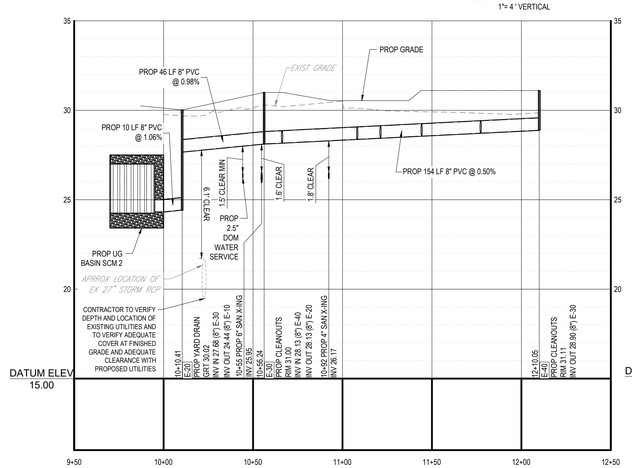
PROPOSED STM PROFILE (OS-2 TO C-20)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



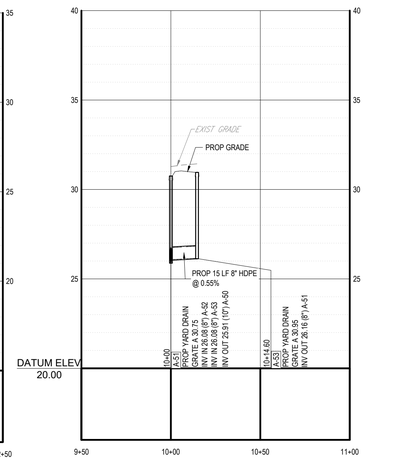
PROPOSED STM PROFILE (D-40 TO D-10)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



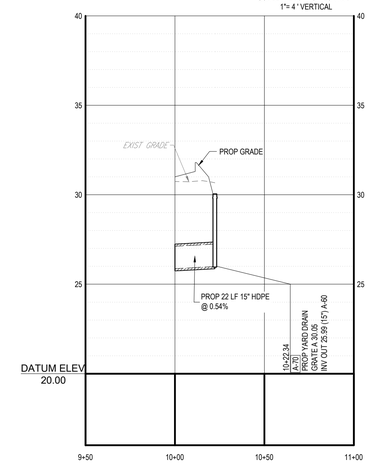
PROPOSED STORM PROFILE (E-10 - E-40)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED STM PROFILE (A-51 TO A-53)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED STM PROFILE (A-60 TO A-70)

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLAN\SP-CIVIL-PROF-PAA240163.00-8A-----3-LAYOUT C-602 PSTM

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BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-PROF

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB — SEAL — LANDSCAPE ARCHITECT

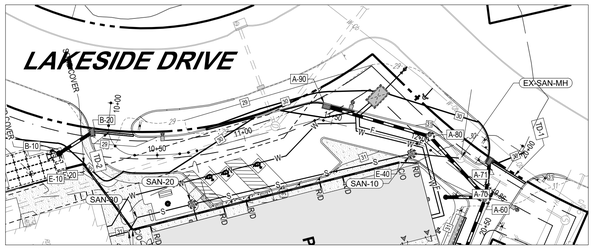
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:
STORM PROFILES

SHEET NUMBER:
C-602

REVISION 8 - 10/05/2026

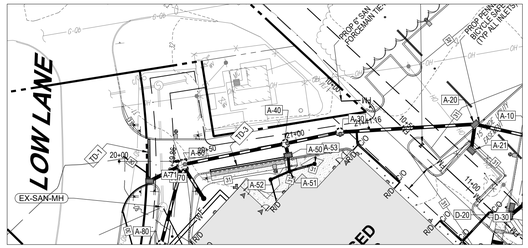




PLAN VIEW LAKESIDE DRIVE ENTRANCE

SCALE: 1" = 40'



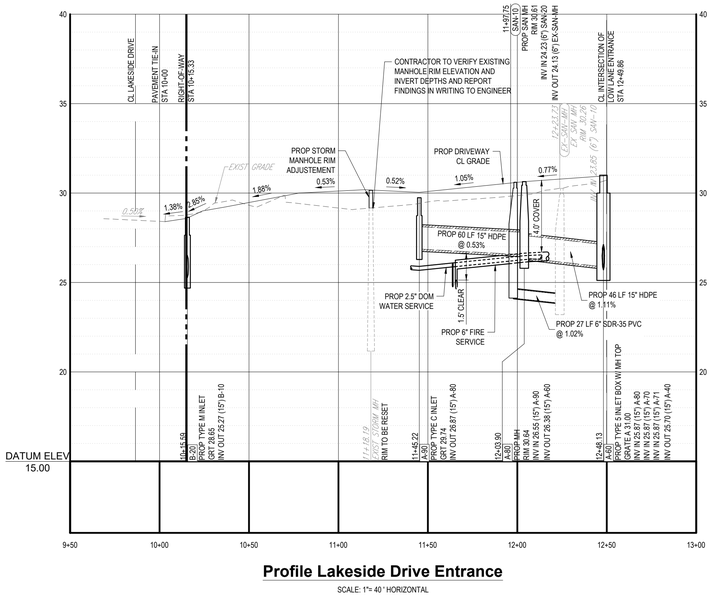


PLAN VIEW LOW LANE ENTRANCE

SCALE: 1" = 40'

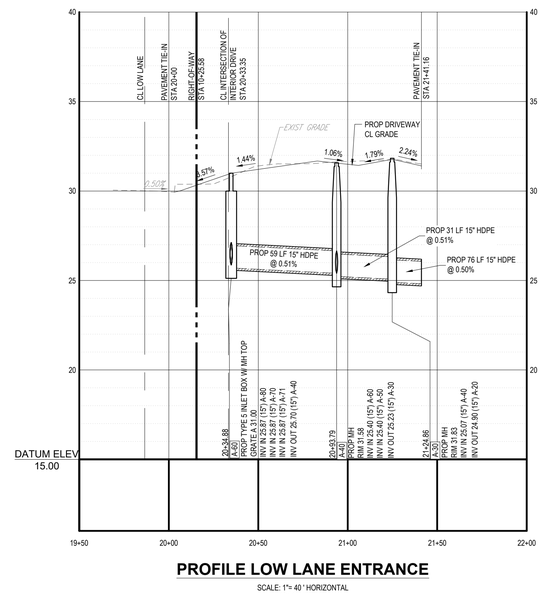
40 20 10 0 40

SCALE: 1" = 40'



Profile Lakeside Drive Entrance

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROFILE LOW LANE ENTRANCE

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

Sep 28, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-PROF-PAA240163.00-8A-----LAYOUT C-701 PROD
EL

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BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-PROF

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

**345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA**

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED
T.R. KNAB
LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:

DRIVEWAY PLAN & PROFILES

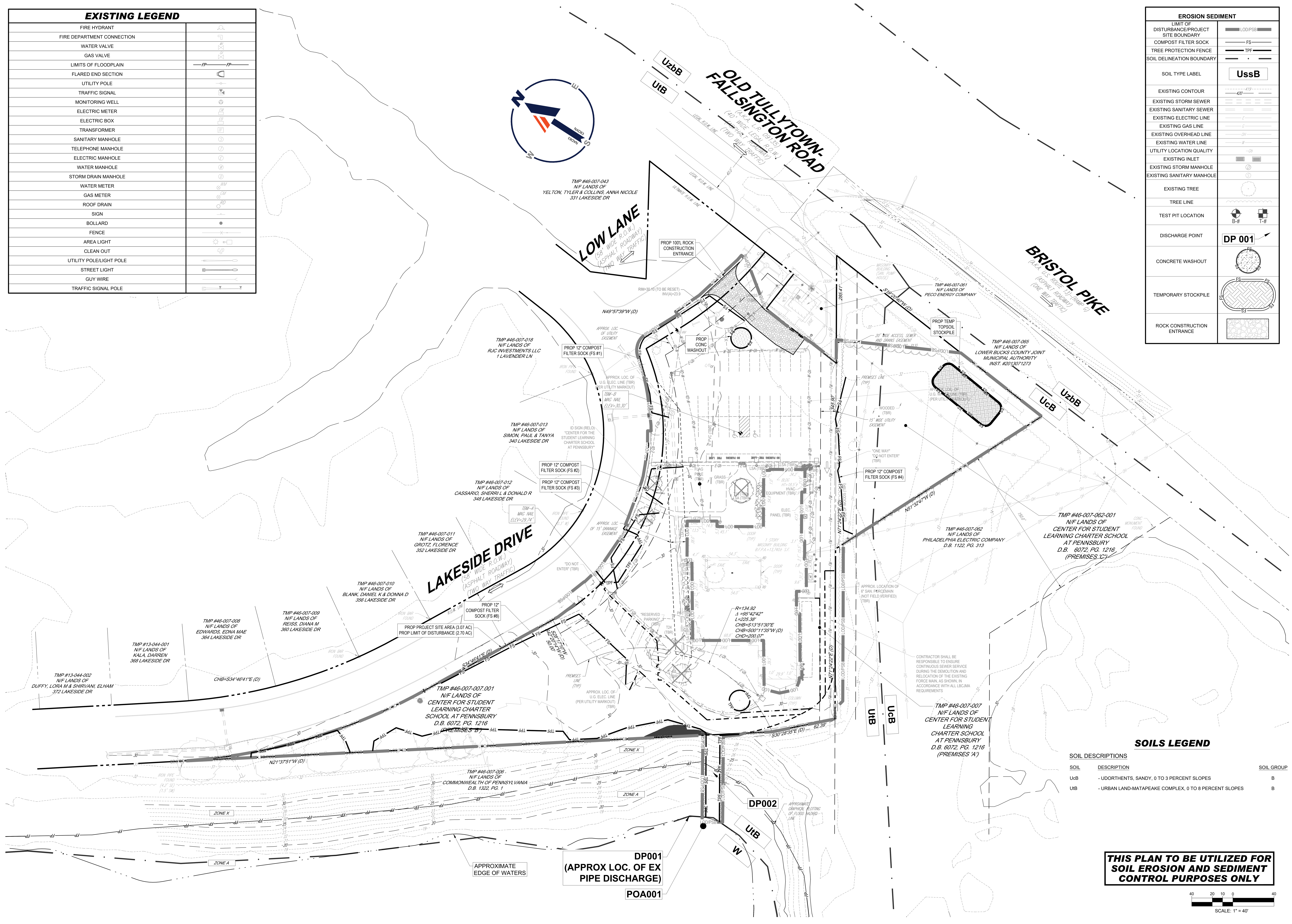
SHEET NUMBER:

C-701

REVISION 8 - 10/05/2026

EXISTING LEGEND

FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	WV
GAS VALVE	GV
LIMITS OF FLOODPLAIN	FP FP
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	TF
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
BOLLARD	
FENCE	
AREA LIGHT	
CLEAN OUT	C/O
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	



EROSION SEDIMENT

LIMIT OF DISTURBANCE/PROJECT SITE BOUNDARY	LOD/PSB
COMPOST FILTER SOCK	FS
TREE PROTECTION FENCE	TPF
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB
EXISTING CONTOUR	419 420
EXISTING STORM SEWER	
EXISTING SANITARY SEWER	
EXISTING ELECTRIC LINE	E
EXISTING GAS LINE	G
EXISTING OVERHEAD LINE	OH
EXISTING WATER LINE	W
UTILITY LOCATION QUALITY	-Qb
EXISTING INLET	
EXISTING STORM MANHOLE	D
EXISTING SANITARY MANHOLE	S
EXISTING TREE	
TREE LINE	
TEST PIT LOCATION	B-# T-#
DISCHARGE POINT	DP 001
CONCRETE WASHOUT	FS
TEMPORARY STOCKPILE	FS
ROCK CONSTRUCTION ENTRANCE	

SOILS LEGEND

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	SOIL GROUP
UcB	- UDORTHENTS, SANDY, 0 TO 3 PERCENT SLOPES	B
UtB	- URBAN LAND-MATAPEAKE COMPLEX, 0 TO 8 PERCENT SLOPES	B

THIS PLAN TO BE UTILIZED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY

40 20 10 0 40
SCALE: 1" = 40'

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SITE CIVIL AND CONSULTING ENGINEERING
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SUSTAINABLE DESIGN
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PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

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WWW.PA1CALL.ORG
#20260292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
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T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

EROSION AND SEDIMENT CONTROL PLAN STAGE 1

SHEET NUMBER:

C-801

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-ERHY-PAA240163.00-8A----->LAYOUT: C-801 ERO1
EL

EROSION SEDIMENT

LIMIT OF DISTURBANCE/PROJECT SITE BOUNDARY	LOD/PSB
COMPOST FILTER SOCK	FS
TREE PROTECTION FENCE	TPF
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB
EXISTING CONTOUR	419 / 420
EXISTING STORM SEWER	
EXISTING SANITARY SEWER	
EXISTING ELECTRIC LINE	E
EXISTING GAS LINE	G
EXISTING OVERHEAD LINE	OH
EXISTING WATER LINE	W
UTILITY LOCATION QUALITY	QL
EXISTING INLET	
EXISTING STORM MANHOLE	
EXISTING SANITARY MANHOLE	
EXISTING TREE	
SANITARY LATERAL	S
STORM SEWER	
WATER LINE	W
FIRE LINE	F
CONTOUR LINE	190 / 187
TREE LINE	
SANITARY MANHOLE	S
STORM SEWER MANHOLE	D
STORM SEWER INLET	
TEST PIT LOCATION	B-#
DISCHARGE POINT	DP 001
INLET TO BE BLOCKED	
CONCRETE WASHOUT	FS
TEMPORARY STOCKPILE	FS / SS
ROCK CONSTRUCTION ENTRANCE	
NAG SC-150 MATTING	

EXISTING LEGEND

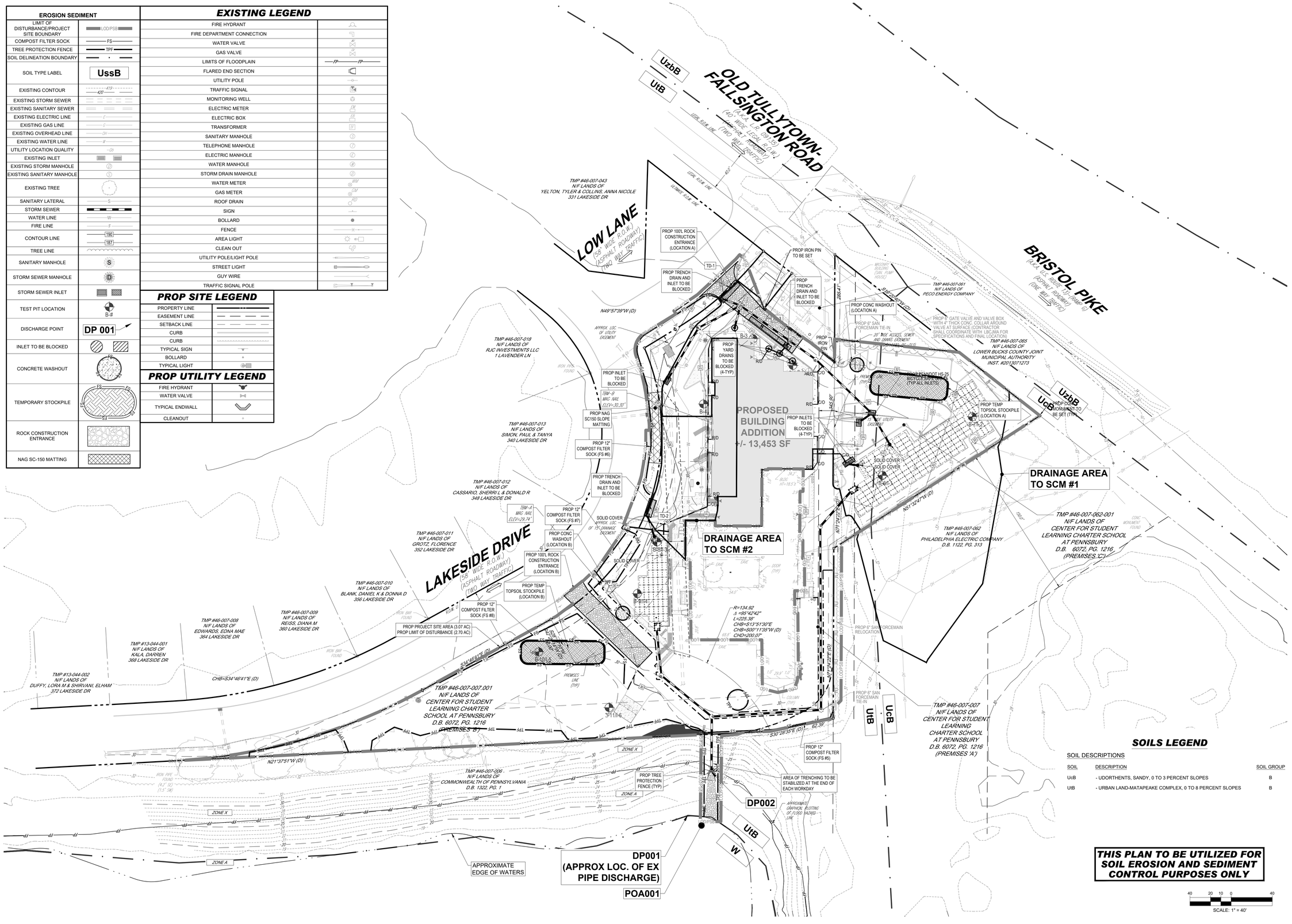
FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	
GAS VALVE	
LIMITS OF FLOODPLAIN	FP / FP
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	TF
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
BOLLARD	
FENCE	
AREA LIGHT	
CLEAN OUT	CO
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	

PROP SITE LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
CURB	
CURB	
TYPICAL SIGN	
BOLLARD	
TYPICAL LIGHT	

PROP UTILITY LEGEND

FIRE HYDRANT	
WATER VALVE	
TYPICAL ENDWALL	
CLEANOUT	



SOILS LEGEND

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	SOIL GROUP
UcB	- UDORTHENTS, SANDY, 0 TO 3 PERCENT SLOPES	B
UtB	- URBAN LAND-MATAPEAKE COMPLEX, 0 TO 8 PERCENT SLOPES	B

THIS PLAN TO BE UTILIZED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY

40 20 10 0 40

SCALE: 1" = 40'

BOHLER™

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER

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COMMONWEALTH OF PENNSYLVANIA — T.R. KNAB — REGISTERED LANDSCAPE ARCHITECT — LICENSE No. LA002352

SHEET TITLE:

EROSION AND SEDIMENT CONTROL PLAN STAGE 2

SHEET NUMBER:

C-802

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\SC\CIVIL SITE PLAN\SP-CIVIL-ERHY-PAA240163.00-8A---LAYOUT: C-802 ERO2
EL

SOIL EROSION GENERAL NOTES

(Rev. 6/2024)

1. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES. ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR THE COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.
2. THE OWNER/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROLS AND SITE STABILIZATION. THE OWNER SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.
3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.
4. ANY DRY FILL HAULED OFFSITE MUST BE TAKEN TO A LOCATION WITH AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH HAS BEEN REVIEWED BY THE COUNTY CONSERVATION DISTRICT FOR ADEQUACY
5. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN TRIBUTARY AREAS OF THOSE CONTROLS.
6. STOCKPILES MUST BE STABILIZED IMMEDIATELY.
7. NO GRADING, EXCAVATING, REMOVAL OR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER OF THE LAND SHALL BE COMMENCED WITHIN A PROPOSED SUBDIVISION OR LAND DEVELOPMENT TRACT UNTIL SUCH TIME THAT A PLAN FOR SEDIMENTATION CONTROL AND MINIMIZING EROSION HAS BEEN REVIEWED AND FOUND SATISFACTORY BY THE COUNTY CONSERVATION DISTRICT AND REVIEWED AND APPROVED BY THE TOWNSHIP, OR THERE HAS BEEN A DETERMINATION BY THE TOWNSHIP, UPON RECOMMENDATION BY THE COUNTY CONSERVATION DISTRICT, THAT SUCH PLANS ARE NOT NECESSARY.
8. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE COUNTY CONSERVATION DISTRICT.
9. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
10. CONTRACTOR SHALL USE TREADED MACHINERY AND MINIMIZE SOIL COMPACTION WHEREVER POSSIBLE.

DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

(Rev. 5/2024)

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

1. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
2. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
3. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
4. ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.

RECYCLING OR DISPOSAL OF MATERIAL

(Rev. 5/2024)

§102.4(b)(5)(xi)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:
- CONCRETE CURB AND SIDEWALK
- ASPHALT
- E&S BMP - COMPOST FILTER SOCKS
- E&S BMP - EROSION CONTROL MATTING
- E&S BMP - INLET PROTECTION

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 Pa. CODE 260.1 ET SEQ, 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. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

1. DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.
2. SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.
3. SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.
4. WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.
5. CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

E&S PLAN DESIGNED AND IMPLEMENTED TO BE CONSISTENT WITH PCSM PLAN

(Rev. 5/2024)

§102.4(b)(5)(xiv)

REGARDING THE LOCATIONS OF EXISTING RIPARIAN BUFFERS RELATIVE TO THE LIMIT OF DISTURBANCE AND WHETHER PROPOSED INFILTRATION FACILITIES ARE OUTSIDE OF PROPOSED GRADING AREAS, NOTE THE FOLLOWING:
- THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS.
- THERE ARE NO PROPOSED INFILTRATION BMPs OUTSIDE OF PROPOSED GRADING AREAS.

LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93

(Rev. 5/2024)

§102.4(b)(5)(v)

THE SUBJECT SITE DRAINS TO LEVITTOWN LAKE, WHICH HAS A WWF, MF CHAPTER 93 CLASSIFICATION.

RECEIVING SURFACE WATERS

(Rev. 5/2024)

§102.8(f)(5)

1. THE SUBJECT SITE DRAINS TO LEVITTOWN LAKE, WHICH HAS A WWF, MF CHAPTER 93 CLASSIFICATION.
2. THE DEVELOPMENT IS IN NEITHER AN HQ NOR AN EV WATERSHED AND THEREFORE, NO BOUNDARIES ARE SHOWN.
3. THERE ARE NO WETLANDS LOCATED ON THE PROJECT SITE.

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION

(Rev. 5/2024)

§102.4(b)(5)(xii)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

CRITICAL STAGES

(Rev. 5/2024)

- INSTALLATION OF SCM 1 INFILTRATION BASIN
- INSTALLATION OF SCM 2 DRY EXTENDED DETENTION BASIN
- INSTALLATION OF SCM 3 WATER QUALITY FILTERS AND HYDRODYNAMIC DEVICES

OVERALL SITE CONSTRUCTION SEQUENCE

(Rev. 06/2025)

§102.8(f)(7)

A. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
B. REFERENCES TO 'CONSERVATION DISTRICT' USED THROUGHOUT THIS SEQUENCE ARE MEANT TO REFER TO THE BUCKS COUNTY CONSERVATION DISTRICT.
C. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.
D. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
E. THE TERM 'PERMANENT STABILIZATION' USED THROUGHOUT THIS SEQUENCE IS MEANT TO DESCRIBE THE PROPER PLACING, GRADING, CONSTRUCTING, REINFORCING, LINING, AND COVERING OF SOIL, ROCK OR EARTH TO ENSURE THEIR PERMANENT RESISTANCE TO EROSION, SLIDING OR OTHER MOVEMENT. FOR AN EARTH DISTURBANCE TO BE PERMANENTLY STABILIZED, THE DISTURBED AREA SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; OR AN ACCEPTABLE BMP THAT PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
F. FOR EACH OF THE 'CRITICAL STAGES' SPECIFIED BELOW, THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SAID BMP, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
G. SEDIMENT CONTROL FACILITIES, SUCH AS BASINS AND TRAPS, MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER ALSO TO THE MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED HEREIN FOR ADDITIONAL REQUIREMENTS DURING CONSTRUCTION.
H. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

STAGE 1

1. STAKE OUT LIMIT OF DISTURBANCE.
2. INSTALL CONSTRUCTION ENTRANCE ON LOW LANE AS DESIGNATED ON THE PLANS.
3. INSTALL ALL PERIMETER CONTROLS (COMPOST FILTER SOCKS #1 THROUGH #4) WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
4. CLEAR WOODED AREA AS DELINEATED ON THE PLANS. CONTRACTOR TO COORDINATE WITH PECO FOR WORK AROUND EXISTING OVERHEAD WIRES AND POLES. CONTRACTOR TO MAINTAIN ACCESS TO NORTHEAST PARKING LOT ON LAKESIDE DRIVE FOR SCHOOL PARKING OPERATIONS.

STAGE 2

5. MAINTAIN CONSTRUCTION ACCESS, WASHOUT, AND STOCKPILE IN DESIGNATED "A" LOCATIONS.
6. COMMENCE CONSTRUCTION OF THE EASTERN PARKING LOT AND PROPOSED DRIVEWAY ACCESS ON LOW LANE. CONTRACTOR TO COORDINATE WITH PECO FOR WORK AROUND EXISTING OVERHEAD WIRES AND POLES. CONTRACTOR TO MAINTAIN ACCESS TO THE NORTHEAST PARKING LOT FOR SCHOOL PARKING OPERATIONS.
7. INITIATE THE NECESSARY EARTHWORK TO REACH THE PARKING LOT GRADES INDICATED ON THE PLANS.
   a. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE.
   b. THE CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE.
   c. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
8. INSTALL COMPOST FILTER SOCK #5 AND TREE PROTECTION FENCE.
9. CRITICAL STAGE - INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN (SCM #1)

INITIATE INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN
   a. INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN SHALL INCLUDE THE INSTALLATION OF THE OUTFALL SYSTEM (FR ENDWALL C-10 TO OS -1). STUB STORM PIPE CONNECTION FOR C-20 TO OS-2. INSTALL STORM PIPES D-10 TO D-20, A-10 TO A-90, A-21 TO A-20, AND A-71 TO A-70. STABILIZE PIPE TRENCHING AREAS AT THE END OF EACH WORKDAY. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SANITARY FORCEMAIN AND NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED STORM PIPE CROSSINGS.
   b. REFER TO THE ADDITIONAL INFILTRATION FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS.
   c. PRIOR TO INITIATING CONSTRUCTION, THE CONTRACTOR IS TO PERFORM INFILTRATION TESTING AT THE SUBGRADE ELEVATION TO CONFIRM INFILTRATION RATES. THE RESULTS OF THE TESTING ARE TO BE GIVEN TO THE ENGINEER PROVIDING OVERSIGHT, WHO WILL THEN MAKE A DETERMINATION IF BASIN CONSTRUCTION SHOULD COMMENCE.
   d. INLETS DISCHARGING TO SUBSURFACE INFILTRATION BASINS MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE INFILTRATION BASIN.
   e. UPON INSTALLATION OF THE SUBSURFACE BASIN, THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S SPECIFICATIONS REGARDING THE APPROPRIATE AMOUNT AND TYPE OF COVER THAT SHALL BE PLACED OVER TOP OF THE BASIN DURING CONSTRUCTION ACTIVITIES AND PRIOR TO THE BASIN AREA RECEIVING PERMANENT COVER.
10. CONTINUE WITH THE BALANCE OF EARTHWORK IN THE PARKING LOT AND DRIVEWAY ACCESS AREA.
11. INSTALL THE STONE SUBBASE FOR CURB AND INSTALL CURBING AND CRUSHED AGGREGATE BASE COURSE FOR PAVING IN THE PARKING LOT AND DRIVEWAY ACCESS AREA.

12. INSTALL REMAINING PERIMETER CONTROLS (COMPOST FILTER SOCKS #6 THROUGH #8).
13. RELOCATE CONSTRUCTION ENTRANCE, WASHOUT, AND STOCKPILE TO DESIGNATED "B" LOCATIONS.
14. DEMOLISH EXISTING NORTHEAST PARKING LOT AS INDICATED ON THE PLANS.
15. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING PAD CONSTRUCTION CAN COMMENCE CONCURRENTLY WITH ON-SITE IMPROVEMENTS. NOTE THAT BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER.
   f. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE.
   g. THE CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE.
   h. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
16. INITIATE SANITARY SEWER INSTALLATION, BEGINNING WITH THE CONNECTION AT THE EXISTING MANHOLE AND WORKING UP-SLOPE.
17. CRITICAL STAGE - INSTALLATION OF THE SUBSURFACE DRY EXTENDED DETENTION BASIN (SCM #2)

INITIATE INSTALLATION OF THE SUBSURFACE DRY EXTENDED DETENTION BASIN
   a. INSTALLATION OF THE SUBSURFACE BASIN(S) SHALL INCLUDE THE INSTALLATION OF THE OUTFALL SYSTEM (FR C-20 TO OS-2).
   b. REFER TO THE ADDITIONAL DETENTION BASIN FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS.
   c. INLETS DISCHARGING TO SUBSURFACE BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DRY EXTENDED DETENTION BASIN.
   d. UPON INSTALLATION OF THE SUBSURFACE BASIN, THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S SPECIFICATIONS REGARDING THE APPROPRIATE AMOUNT AND TYPE OF COVER THAT SHALL BE PLACED OVER TOP OF THE BASIN DURING CONSTRUCTION ACTIVITIES AND PRIOR TO THE BASIN AREA RECEIVING PERMANENT COVER.
18. CONTINUE WITH THE INSTALLATION OF THE REMAINING STORM DRAINAGE (A-51 TO A-50 AND B-20 TO B-10).
19. CONTINUE WITH THE BALANCE OF EARTHWORK.
20. INSTALL UTILITIES (WATER, ELECTRIC, TELEPHONE, CABLE, ETC.)
21. INSTALL THE STONE SUBBASE FOR CURB AND INSTALL CURBING AND CRUSHED AGGREGATE BASE COURSE FOR PAVING.
22. FINAL GRADE AND PLACE TOPSOIL IN ALL LANDSCAPE AREAS.
23. CRITICAL STAGE - INSTALL THE INLET WATER QUALITY DEVICES (SCM #3) ON DESIGNATED INLETS, YARD DRAINS, AND TRENCH DRAINS.
24. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
25. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
26. UPON PERMANENT STABILIZATION AND NOTIFICATION TO THE CONSERVATION DISTRICT, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL FACILITIES. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
27. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ, 271.1 ET SEQ THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
28. DEMOBILIZE.
29. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

(Rev. 10/2024)

I. GENERAL INFORMATION

A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
B. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
C. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
D. DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.
E. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
F. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
H. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
I. CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
J. ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
K. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY; IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.
L. NPDES PERMIT REQUIRES THAT A VISUAL SITE INSPECTION REPORT USING THE CURRENT PADEP FORM BE COMPLETED BY A QUALIFIED SITE INSPECTOR AT THE FOLLOWING FREQUENCY:
   L.1. WEEKLY,
   L.2. AFTER RAINFALL EVENTS OF AT LEAST 0.25 INCH IN A 24-HOUR PERIOD, AND
   L.3. AS A FOLLOW-UP TO DEFICIENCIES FOUND.
M. THE PERMITTEE MUST TAKE COLOR PHOTOGRAPHS OF E&S BMPS AND PCSM SCMS ON THE PROJECT SITE AT LEAST MONTHLY, UNLESS OTHERWISE APPROVED IN WRITING BY DEP/CCD, AND WHEN DEFICIENCIES IN BMPS AND SCMS ARE IDENTIFIED. THE PHOTOGRAPHS MUST HAVE A DATE AND TIME STAMP AND BE MADE AVAILABLE FOR DEP/CCD REVIEW UPON REQUEST.
N. WITHIN 30 DAYS FOLLOWING COMPLETION OF A STRUCTURAL PCSM SCM, AS DEFINED IN THE REISSUED PAG-02 GENERAL PERMIT, THE PERMITTEE MUST SUBMIT THE SCM CONSTRUCTION CERTIFICATION FORM (3800-FM-BCW0271J) TO DEP/CCD, SIGNED BY THE PERMITTEE AND A LICENSED PROFESSIONAL.
O. BEGINNING DECEMBER 8, 2025, THE PERMITTEE MUST COMPLETE CONFIRMATION TESTING FOR INFILTRATION CAPACITY TO VERIFY THAT INFILTRATION SCMS WILL PERFORM AS DESIGNED. TESTING IS REQUIRED FOR BOTH THE SUBGRADE PREPARATION AND POST CONSTRUCTION CONDITION.
P. UPON THE REDUCTION, LOSS, OR FAILURE OF ANY BMP OR PCSM SCM, THE PERMITTEE AND CO-PERMITTEE(S) MUST INITIATE THE REPAIR OR REPLACEMENT OF THE BMP SCM AS FOLLOWS:
   P.1. IMMEDIATELY UPON DISCOVERY IF THE REDUCTION, LOSS, OR FAILURE OF A BMP OR SCM HAS RESULTED IN OR IS LIKELY TO RESULT IN SEDIMENT OR OTHER POLLUTANTS FLOWING OFF THE PROJECT SITE AND/OR DISCHARGING TO SURFACE WATERS. COMPLETION OF THE REPAIR OR REPLACEMENT OF THE BMP OR SCM MUST OCCUR WITHIN 24 HOURS UNLESS OTHERWISE REQUIRED BY DEP/CCD.
   P.2. WHEN FAILURE OF A BMP OR SCM IS NOT LIKELY TO CAUSE POLLUTION, THE PERMITTEE MUST INITIATE REPAIR OR REPLACEMENT WITHIN 24 HOURS OF DISCOVERY AND COMPLETE THE REPAIR OR REPLACEMENT WITHIN 7 DAYS, UNLESS OTHERWISE REQUIRED BY DEP/CCD.
Q. IF SOIL CONTAMINATION OR GROUNDWATER CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION THE PERMITTEE IS TO NOTIFY DEP AND CCD OF NEWLY DISCOVERED ON-SITE SOIL OR GROUNDWATER CONTAMINATION. NOTIFICATION IS TO BE PROVIDED WITHIN 24 HOURS OF RECEIVING THE SAMPLING RESULTS INDICATING THE CONTAMINATION.
R. BY DECEMBER 7 OF EACH YEAR, THE PERMITTEE MUST SUBMIT AN ANNUAL REPORT (3800-PM-BCW0405E) TO THE OFFICE OF DEP/CCD THAT APPROVED GENERAL PERMIT COVERAGE TO REPORT ON THE STATUS OF EARTH DISTURBANCE ACTIVITIES. THE FIRST ANNUAL REPORT FOR EXISTING PERMITTEES IS DUE DECEMBER 7, 2025.
S. RESIDENTIAL ONLY - WHENEVER A LOT OR PARCEL CONTAINING A PCSM SCM IS SOLD DURING THE TERM OF GENERAL PERMIT COVERAGE, THE PERMITTEE MUST PROVIDE THE NEW PROPERTY OWNER WITH 1) RECORD DRAWINGS OR OTHER PLANS IDENTIFYING THE SCM; 2) A LONG-TERM OPERATION AND MAINTENANCE (O&M) PLAN FOR THE SCM; AND 3) A COMPLETED NEW PROPERTY OWNER NOTIFICATION FORM (3800-FM-BCW00271I). THE PERMITTEE MUST SUBMIT COPIES OF COMPLETED NEW PROPERTY OWNER NOTIFICATION FORMS TO DEP/CCD AND TO THE MUNICIPALITY WHERE THE SCM IS LOCATED WITHIN 30 DAYS OF THE DATE OF TRANSFER OF THE PROPERTY.

II. STANDARD FOR LAND GRADING

A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
   A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES.
   A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
B. INSTALLATION REQUIREMENTS
   B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
   B.2. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
   B.3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
   B.4. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
   B.5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
B. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
C. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
D. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
E. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
F. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
   A.1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
   A.2. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
   A.3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
   A.4. PROTECTIVE MATERIALS TO BE USED:
      A.4.a. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      A.4.b. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.

B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED
   B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
   B.2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
   B.3. SEEDBED PREPARATION FOR TEMPORARY SEEDING
      B.3.A. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
      B.3.B. APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE
      B.3.C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE
      B.3.D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
   A.1. SITE PREPARATION
      A.1.a. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
      A.1.b. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
      A.1.c. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
   A.2. APPLYING TOPSOIL
      A.2.a. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
      A.2.b. REMOVAL OF TOPSOIL IS NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.
   A.3. SEEDBED PREPARATION
      A.3.a. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
      A.3.b. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
      A.3.c. SOIL MODIFICATIONS:
         A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
         A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
      A.3.d. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
      A.3.e. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
      A.3.f. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
   A.4. SEEDING: SEE SEEDING SPECIFICATIONS
   A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN

B. STANDARD FOR PERMANENT STABILIZATION WITH SOD
   B.1. METHODS AND MATERIALS
      B.1.a. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
      B.1.b. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
      B.1.c. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
      B.1.d. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
      B.1.e. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
      B.1.f. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
   B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
   B.3. SOD PLACEMENT
      B.3.a. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
      B.3.b. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
      B.3.c. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
      B.3.d. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
      B.3.e. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
      B.3.f. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
   B.4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

CONSTRUCTION SEQUENCE FOR SUBSURFACE INFILTRATION BASIN (SCM 1)

1. PRIOR TO AND DURING CONVERSION OF A SEDIMENT FACILITY TO AN INFILTRATION BASIN, THE FACILITY AREA SHALL BE SURROUNDED BY FILTER SOCK TO PREVENT SILT AND EROSION UNTIL THE FACILITY AND THE CONTRIBUTING DRAINAGE AREA ARE FULLY STABILIZED.
2. INITIATE CONVERTING THE SEDIMENT FACILITY TO AN INFILTRATION BASIN REMOVE ALL TEMPORARY E&S CONTROLS WITHIN THE BASIN EXCEPT FOR TEMPORARY E&S CONTROLS ON THE OUTLET STRUCTURE.
3. THE FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. ALL SEDIMENT-LADEN SOILS SHALL BE REMOVED FROM THE FACILITY. THE CONTRACTOR MUST TAKE CARE NOT TO COMPACT THE IN-SITU SOILS.
4. ONCE THE AREA IS EXCAVATED TO SUBGRADE ELEVATIONS, A QUALIFIED SOIL ENGINEER/SCIENTIST SHALL CONDUCT INFILTRATION TESTING TO DETERMINE IF THE DESIGN INFILTRATION RATES AS SPECIFIED CAN BE ACHIEVED. THE INFILTRATION RATES SHALL BE PROVIDED TO THE ENGINEER PROVIDING OVERSIGHT.
5. SUBSOILS IN THE ENTIRE BASIN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED. SCARIFYING MUST BE DONE WITH A TOOTHED BACKHOE.
6. COMPLETE FINAL GRADING TO ACHIEVE DESIGN GRADE.
7. REMOVE TEMPORARY E&S CONTROLS ON THE OUTLET STRUCTURE.
8. PLANT BASIN FACILITY WORKING FROM THE BOTTOM OF THE FACILITY UP THE SIDES, PER THE LANDSCAPE PLAN.
9. ALL PROTECTION MEASURES INSTALLED AT THE BEGINNING OF CONSTRUCTION (SEE STEP 1 ABOVE) SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL THE FACILITY AND ADJACENT AREAS ARE FULLY STABILIZED.

CONSTRUCTION SEQUENCE FOR SUBSURFACE DRY EXTENDED DETENTION BASIN (SCM 2)

1. UTILIZE A UNIFORMLY GRADED CRUSHED STONE (PENNDOT 2B AGGREGATE), PROVIDED THAT THE STONE IS PROPERLY CLEANED AND THAT A MINIMUM VOID RATIO OF 40% IS PROVIDED. HIGHER VOID THE RATIOS MAY BE SELECTED BY THE DESIGN ENGINEER, AND IF SO, THE DESIGN VOID RATIO SHALL GOVERN. IN ORDER TO INSURE THAT THE STONE USED IS PROPERLY CLEANED, IN ADDITION TO AASHTO DESIGNATION: M43-88 GRADATION, THE PERCENT PASSING THE NO. 200 SIEVE SHALL NOT EXCEED 0.2%
2. A CERTIFICATION FROM THE MANUFACTURER DOCUMENTING THE FULL GRADATION AND VOID RATIO SHALL BE OBTAINED.
3. WHEN IN THE OPINION OF THE TOWNSHIP INSPECTOR OR THE GEOTECHNICAL ENGINEER THE STONE IS NOT CONSISTENT WITH THE APPROVED SAMPLE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE STONE RETESTED AND CERTIFIED BEFORE ANY ADDITIONAL STONE IS INSTALLED OR DELIVERED.
4. ALL STONE SAMPLES AND CERTIFICATIONS SHALL BE SUBMITTED TO THE TOWNSHIP 14 DAYS PRIOR TO THE START OF STORMWATER DETENTION BASIN CONSTRUCTION.
5. THE BOTTOM OF THE EXCAVATION SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF AGGREGATE.
6. ONLY CLEAN AGGREGATE, FREE OF DEBRIS, SHALL BE ALLOWED.
7. THE TOP AND SIDES OF THE BEDS SHALL BE COVERED WITH CONTINUOUS NON-WOVEN GEOTEXTILE, MIRAFI 140N, AMOCO 4547, GEOTEX 451, OR APPROVED EQUIVALENT.
8. CONSTRUCTION OF THE FACILITY SHALL PREVENT SILT FROM CLOGGING THE AGGREGATE BACKFILL.
9. CONTRACTOR TO REVIEW AND IMPLEMENT CHAMBER BEDDING AND BACKFILL REQUIREMENTS RECOMMENDED BY THE SPECIFIC CHAMBER MANUFACTURER.
10. THE BEDS SHALL BE BACKFILLED WITH CLEAN WASHED AGGREGATE AND SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS CONTAMINATED THESE ITEMS, THE MATERIALS SHALL BE REPLACED AND/OR CLEANED AS NECESSARY.

CONSTRUCTION SEQUENCE FOR WATER QUALITY FILTERS (SCM 3)

1. STABILIZE ALL CONTRIBUTING AREAS BEFORE INSTALLING AND CONNECTING PIPES TO THESE INLETS.
2. FOLLOW MANUFACTURER'S GUIDELINES FOR INSTALLATION. DO NOT USE WATER QUALITY INSERTS DURING CONSTRUCTION UNLESS PRODUCT IS DESIGNED PRIMARILY FOR SEDIMENT REMOVAL. (SOME PRODUCTS HAVE ADSORPTION COMPONENTS THAT SHOULD BE INSTALLED POST-CONSTRUCTION.)

BOHLER™

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS TRK
3	03/16/2026	PER NPDES SUBMISSION	EL TRK
4	05/20/2026	PER PECO SUBMISSION	JHT EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS TRK
6	06/11/2026	95% CD ISSUE	EL TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT EL
8	10/05/2026	BID ISSUE	EL TK

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20260292016

BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
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T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:
C-803

REVISION 8 - 10/05/2026

Sep 28, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A----->LAYOUT: C-803 EROD
EL

BUCKS COUNTY SOIL CONSERVATION DISTRICT E&S NOTES

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET; STOCKPILE SLOPES MUST NOT EXCEED 2:1.
2. THE OPERATOR/RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE O/RP SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
4. THE O/RP SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED AND APPROVED BY THE BUCKS COUNTY CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOILS AND/OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
5. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER AN UNDISTURBED AREA.
6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
7. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.
8. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING THE REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.
9. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, THE O/RP SHALL INVITE ALL CONTRACTORS INVOLVED IN THAT ACTIVITY, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN DESIGNER AND THE BUCKS COUNTY CONSERVATION DISTRICT TO A PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED IN THAT ACTIVITY SHALL NOTIFY THE PENNSYLVANIA ONE-CALL SYSTEM INC. AT 1-800-242-1776 TO DETERMINE ANY UNDERGROUND UTILITIES LOCATIONS.
10. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY CEASES, THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS.
11. DISTURBED AREAS THAT ARE AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
12. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
13. UPON THE INSTALLATION OF TEMPORARY SEDIMENT BASIN RISER(S), A QUALIFIED SITE REPRESENTATIVE SHALL CONDUCT AN IMMEDIATE INSPECTION OF THE RISER(S), WHEREUPON THE BUCKS COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED (WATERTIGHT).
14. AT STREAM CROSSINGS, A 50-FOOT BUFFER SHALL BE MAINTAINED. ON BUFFERS, CLEARINGS, SOD DISTURBANCES AND EXCAVATIONS, EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITY SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGED RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE AVOIDED WITHIN BUFFER ZONES.
15. UNTIL A SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION CONTROL BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, RE-MULCHING AND RE0NETTING 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.
16. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN SOIL STOCKPILES AND STABILIZED.
17. ALL BUILDING MATERIAL AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED IN ACCORDANCE WITH DEP'S SOLID WASTE REGULATIONS (25 PA CODE 260.1 ET SEQ, 271.1 ET SEQ, AND 287.1 ET SEQ) AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

SEEDING SPECIFICATIONS

1. SEEDING DATES
   A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH.
   B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
   A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:
      ANNUAL RYE (40 POUNDS / ACRE PLS)
      OR SPRING OATS (96 POUNDS / ACRE PLS)
      OR WINTER RYE (168 POUNDS / ACRE PLS)
      (REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)
   B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
      I. NURSE CROP (SELECT ONE):
      ANNUAL RYE (10 POUNDS / ACRE PLS)
      OR SPRING OATS (64 POUNDS / ACRE PLS)
      OR WINTER RYE (56 POUNDS / ACRE PLS)
      (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #1)
      II. PERMANENT SEED MIX:
      FINE FESCUE (35 POUNDS / ACRE PLS)
      OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS)
      OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS)
      (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #2)
      PER PADEP: TALL FESCUES ARE NOT TO BE USED DUE TO THEIR INVASIVE STATUS, DESPITE THE MENTION OF TALL FESCUES WITHIN THE E&S MANUAL.
3. PURE LIVE SEED: MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE ADJUSTED BASED ON THE PLS RATING OF THE SEED.
   A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
   B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ((%PURE X %GERMINATION) / 100)
   C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
   A. SEEDING SHALL TAKE PLACE DURING TIMEFRAME NOTED IN THE SEEDING DATES SECTION ABOVE.
   B. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
   C. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
      I. DRILL SEEDING
      II. BROADCAST SEEDING (TWO DIRECTIONS)
      III. HYDROSEEDING (TWO DIRECTIONS)
   D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
      I. TEMPORARY STABILIZATION WITH STRAW:
         1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST).
         2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE SPECIFIED):
         1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
         2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER INSTALLATION.
         3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION.
   E. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED
5. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF ¼" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	3 mil HDPE	Multi-filament Polypropylene (MFPP)	Heavy Duty Multi-filament Polypropylene (MFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting			Two-ply systems; Continously wound; Fusion-welded junctures; 3/4" x 3/4" Max. aperture size		
Outer Filtration Mesh			Composite Polypropylene Fabric (woven layer and non-woven fleece mechanically fuesed via needle punch); 3/16" Max. aperture size		
Sock fabrics composed of burlap may be used on projects lasting 6 months or less					

TABLE 4.2
Compost Standards

Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50%% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

MAINTENANCE, MONITORING AND INSPECTION PROGRAM

(Rev. 5/2024)

§102.4(b)(5)(x)

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS TO ENSURE THEIR EFFECTIVE AND EFFICIENT OPERATION. SEE EROSION AND SEDIMENT DETAILS FOR ADDITIONAL INSPECTION AND MAINTENANCE REQUIREMENTS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IF STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.

GRASSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 70 PERCENT DENSITY OR GREATER IN ACCORDANCE WITH PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED, FERTILIZED, AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT.

ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

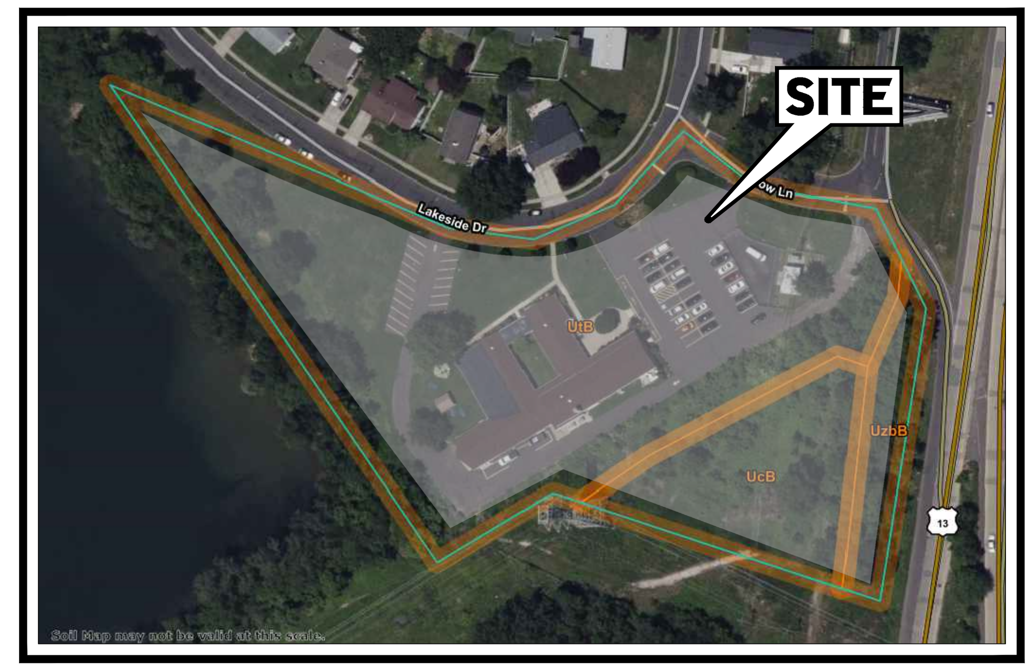
VISUAL INSPECTIONS
THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPs AND PCSM BMPs ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:
1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING
WHERE E&S, PCSM OR PPC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO_PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
1. ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;
2. THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;
3. STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND
4. THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

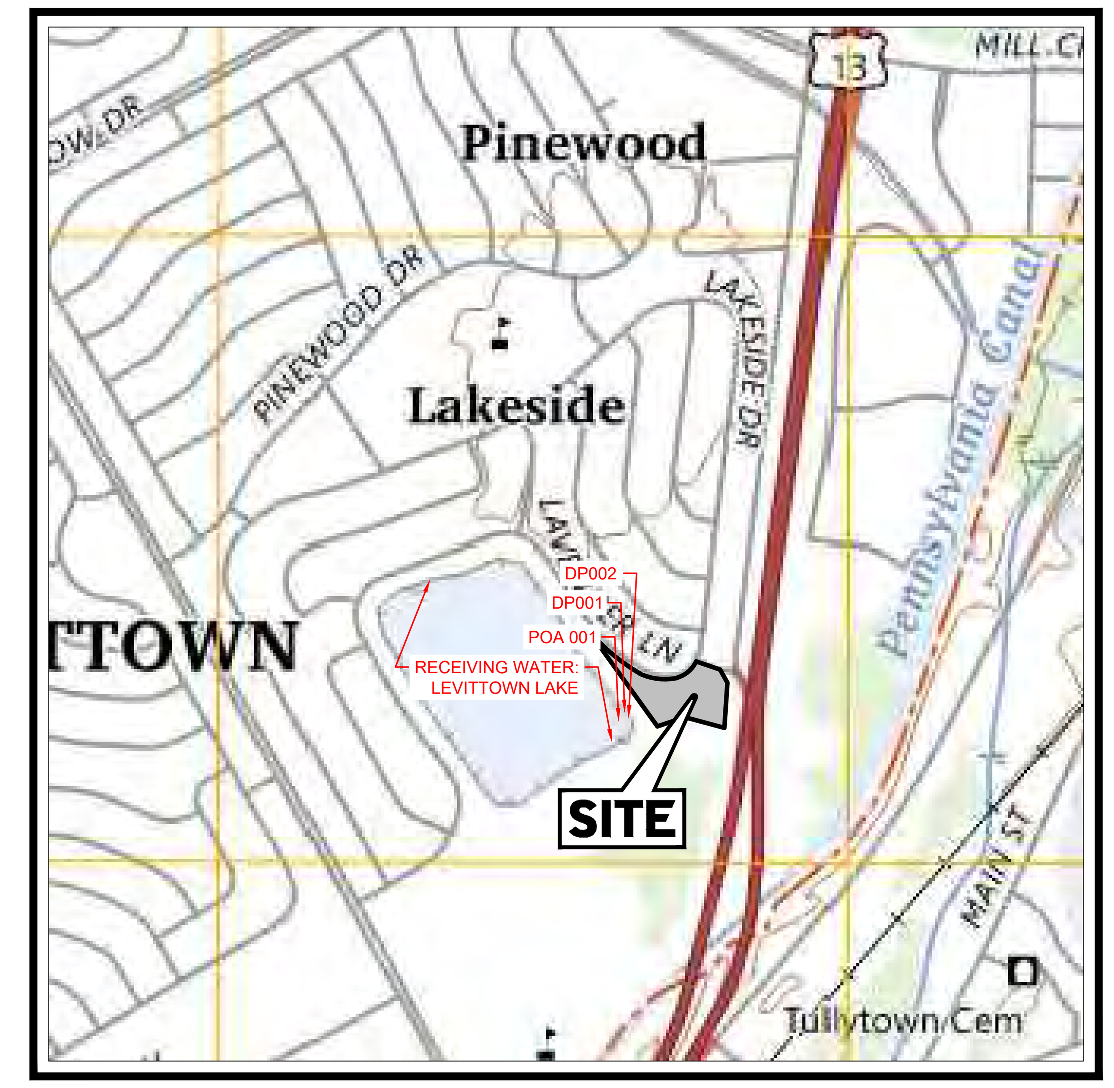
REDUCTION, LOSS, OR FAILURE OF THE BMPs
UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO_PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPs OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

TERMINATION OF COVERAGE
NOT: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPs IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO_PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPs AND PCSM BMPs ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

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



SOIL MAP
SCALE: 1" = 150'
SOURCE: WEB SOIL SURVEY



USGS MAP
SCALE: 1" = 800'
SOURCE: USGS

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS

§102.4(b)(5)(ii)

SOIL DESCRIPTIONS

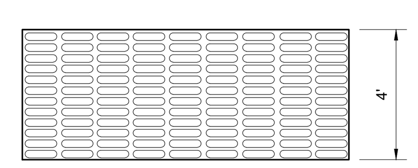
SOIL	DESCRIPTION	SOIL GROUP
UcB	- UDORTHENTS, SANDY, 0 TO 3 PERCENT SLOPES	B
UtB	- URBAN LAND-MATAPEAKE COMPLEX, 0 TO 8 PERCENT SLOPES	B

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT.
1. CUTBANKS CAVE RESOLUTIONS: CUT SLOPES SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
2. CORROSIVE TO CONCRETE/STEEL RESOLUTIONS: MOST STORM DRAIN PIPES FOR THIS SITE WILL BE HDPE. RCP WILL BE USED FOR THE DISCHARGE PIPE TO LEVITTOWN LAKE.
3. DROUGHTY RESOLUTIONS: SELECT VEGETATIVE SPECIES THAT ARE TOLERANT TO DRY CONDITIONS. VEGETATED AREAS SHALL BE IRRIGATED. EXISTING TOPSOIL WILL BE UTILIZED.
4. EASILY ERODIBLE RESOLUTIONS: STABILIZATION SHALL TAKE PLACE UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES THAT WILL EXCEED FOUR DAYS, OR ANY STAGE THEREOF. STABILIZATION SHALL BE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. E&S CONTROLS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
5. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE RESOLUTIONS: ANY WATER ENCOUNTERED DURING CONSTRUCTION SHALL BE DIRECTED TOWARDS AN E&S CONTROL BMP. ALL STORM SEWER PIPES AND INLETS SHALL BE INSTALLED WITH WATERTIGHT GASKETS.
6. HYDRIC/HYDRIC INCLUSIONS RESOLUTIONS: NO WETLANDS ARE LOCATED ON THE PROJECT SITE.
7. LOW STRENGTH/LANDSLIDE PRONE RESOLUTIONS: PRECAUTIONS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT SLOPE FAILURES. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
8. SLOW PERCOLATION RESOLUTIONS: PROVIDE DEWATERING DURING CONSTRUCTION ACTIVITIES. PUMPED WATER FILTER BAGS SHALL BE USED FOR PONDED WATER DURING CONSTRUCTION. PONDED WATER SHOULD BE DIRECTED TOWARDS AN E&S CONTROL BMP. LANDSCAPING IS PROPOSED ON THE SITE TO ALLOW FOR INCREASED INFILTRATION AND EVAPO-TRANSPIRATION. INFILTRATION TESTING HAS BEEN DONE ON SITE AND INFILTRATION FACILITIES ARE PROVIDED WHERE SOIL CONDITIONS ALLOWED.
9. POOR SOURCE OF TOPSOIL RESOLUTIONS: SOIL TESTING SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOPSOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED. TOPSOIL SPECIFICATIONS CAN BE FOUND IN THE LANDSCAPE SPECIFICATIONS ON THE LANDSCAPE PLAN.
10. FROST ACTION RESOLUTIONS: DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.

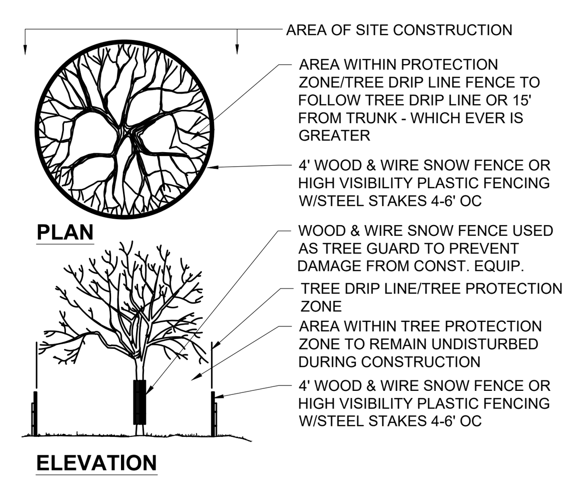
LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTRURBANCE PROJECTS

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/ STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH/ LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
MATAPEAKE	X	C/S		X			X	X	X			X				
UDORTHENTS	X	C/S	X	X				X	X		X	X				
URBANA						X						X				

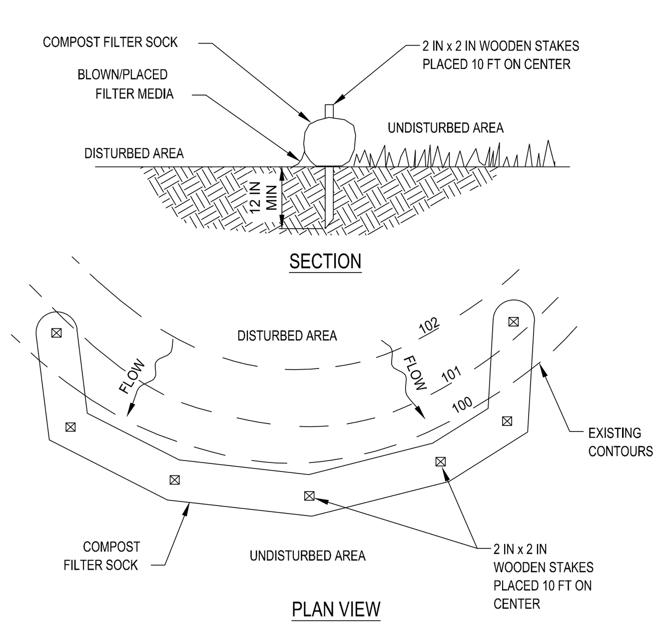


NOTES:
1. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME THE FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWN CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION. 1
2. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 3 OF THE HEIGHT OF THE POST. FOR EXAMPLE A 6 FOOT POST SHOULD BE AT LEAST 2 FEET IN THE GROUND.
3. SPACE POSTS EVERY 6 TO 8 FEET.
4. SECURE FENCING TO POSTS WITH NYLON CABLE TIES. WOOD STRIPS MAY ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

VISI PERIMETER FENCE (WOODLAND PROTECTION)
NOT TO SCALE (PA-O030201 - 09/2023)

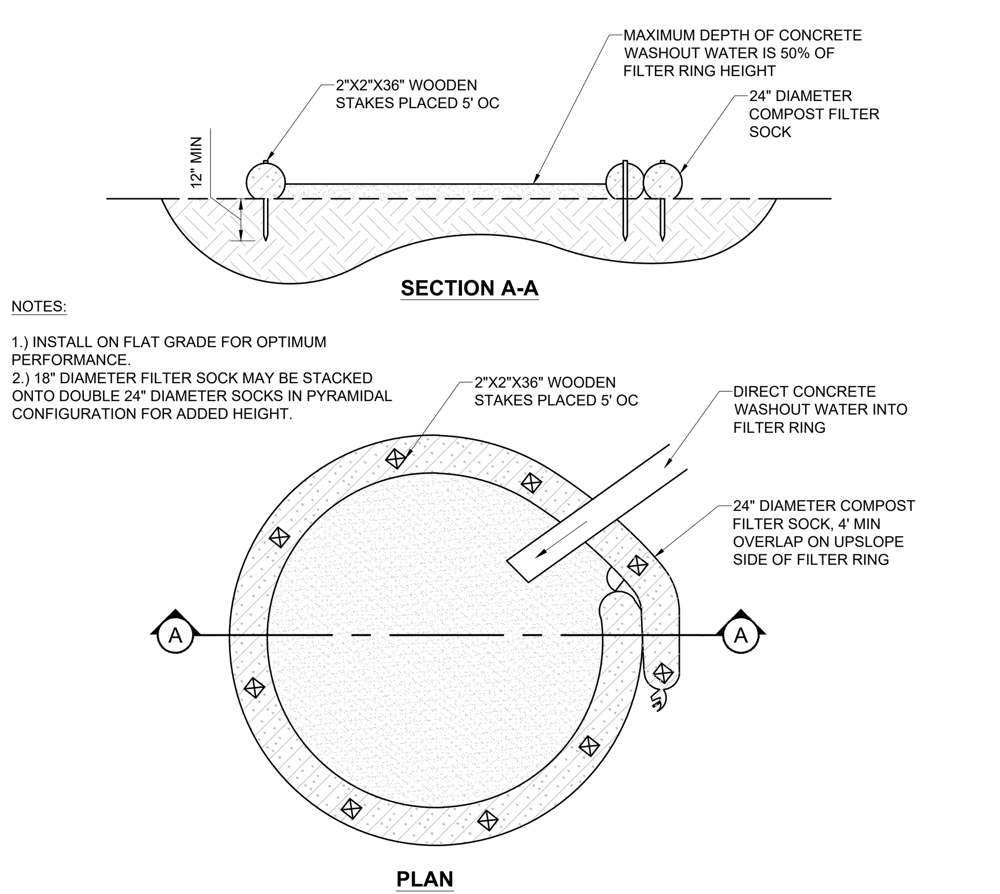


TREE PROTECTION DURING SITE CONSTRUCTION
NOT TO SCALE (PA-O030202 - 09/2023)



FILTREXX
NOTES:
- SOCK MATERIAL SHALL MEET THE STANDARDS OF PA DEP EROSION CONTROL MANUAL TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF PA DEP EROSION CONTROL MANUAL TABLE 4.2
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST EIGHT (8) FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT (PA DEP EROSION CONTROL MANUAL FIGURE 4.1). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON PA DEP EROSION CONTROL MANUAL FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- 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 FILTER SOCKS SHALL BE REPLACED AFTER SIX (6) MONTHS, PHOTODEGRADABLE SOCKS AFTER ONE (1) YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 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.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK
NOT TO SCALE (PADEP - MARCH 2012)



NOTES:

1.) INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2.) 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

CONCRETE WASHOUT NOTES:
-UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS.
-WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS.
-SHOULD BE A MINIMUM OF 10 FEET WIDE AND PROVIDE AT LEAST 12 INCHES OF FREEBOARD ABOVE THE LIQUID AND SOLID WASTE ANTICIPATED BETWEEN CLEANOUT INTERVALS. -THE PIT SHOULD BE LINED WITH PLASTIC SHEETING OF AT LEAST 10-MIL THICKNESS (WITH NO HOLES OR TEARS) TO PREVENT LEACHING OF LIQUIDS INTO THE GROUND. -ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. -ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY. -PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

TYPICAL COMPOST SOCK WASHOUT INSTALLATION
NOT TO SCALE (PA-O020201 - 09/2023)

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1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
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6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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#20260292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
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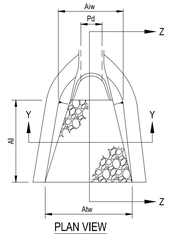
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:
C-804

REVISION 8 - 10/05/2026

Sep 28, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A----->LAYOUT: C-804 EROD
EL



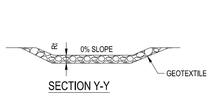
PLAN VIEW

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-_	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
C-10	18	3	9	46	4.5	13.5

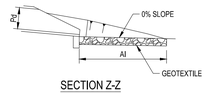
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



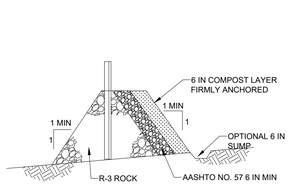
SECTION Y-Y



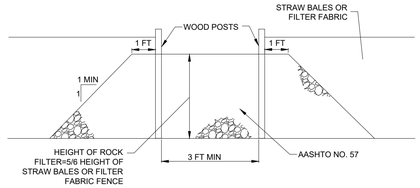
SECTION Z-Z

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE (PADEP - MARCH 2012)



OUTLET CROSS-SECTION



UP-SLOPE FACE

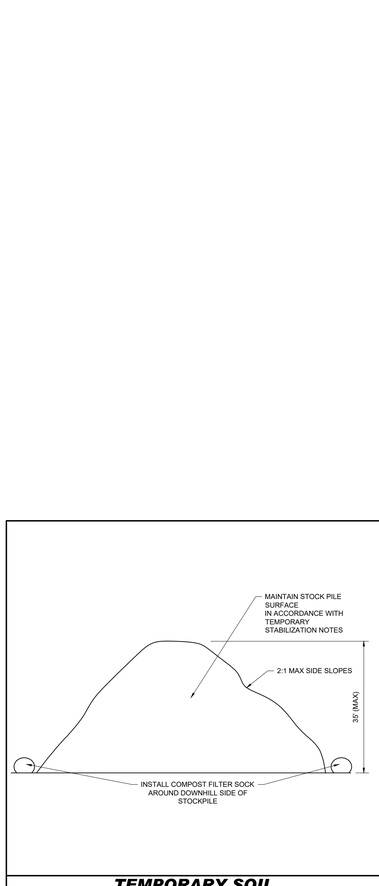
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ, EV AND IMPAIRED WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

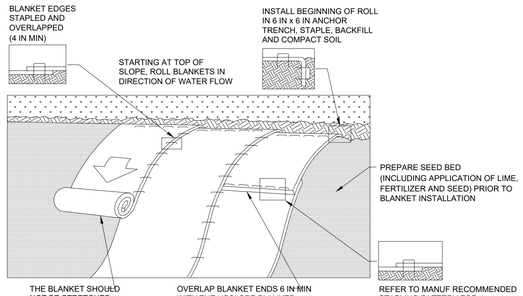
STANDARD CONSTRUCTION DETAIL #4-6
(ABACT) ROCK FILTER OUTLET WITH COMPOST LAYER

NOT TO SCALE (PADEP - MARCH 2012)



TEMPORARY SOIL STOCKPILE

NOT TO SCALE (PA-O060101 - 09/2023)



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

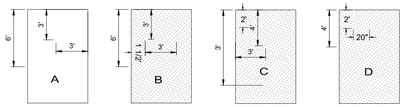
PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

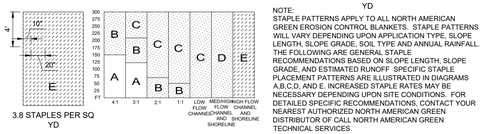
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.



.7 STAPLES PER SQ YD 1.2 STAPLES PER SQ YD 1.75 STAPLES PER SQ YD 3.5 STAPLES PER SQ YD



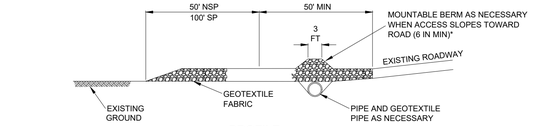
3.8 STAPLES PER SQ YD

NOTE:
STAPLE PATTERNS APPLY TO ALL NORTH AMERICAN GREEN EROSION CONTROL BLANKETS. STAPLE PATTERNS WILL VARY DEPENDING UPON APPLICATION TYPE, SLOPE LENGTH, SLOPE GRADE, SOIL TYPE AND ANNUAL RAINFALL. THE FOLLOWING ARE GENERAL STAPLE RECOMMENDATIONS BASED ON SLOPE LENGTH, SLOPE GRADE, AND ESTIMATED RUNOFF. SPECIFIC STAPLE PLACEMENT PATTERNS ARE ILLUSTRATED IN DIAGRAMS A,B,C,D, AND E. INCREASED STAPLE RATES MAY BE NECESSARY DEPENDING UPON SITE CONDITIONS. FOR DETAILED SPECIFIC RECOMMENDATIONS, CONTACT YOUR NEAREST AUTHORIZED NORTH AMERICAN GREEN DISTRIBUTOR OF CALL NORTH AMERICAN GREEN TECHNICAL SERVICES.

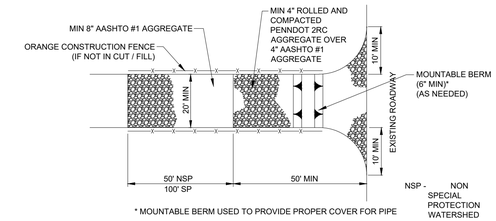
EROSION CONTROL BLANKET STAPLE PATTERN GUIDE

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE (PADEP - MARCH 2012)



PROFILE



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

PLAN VIEW

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

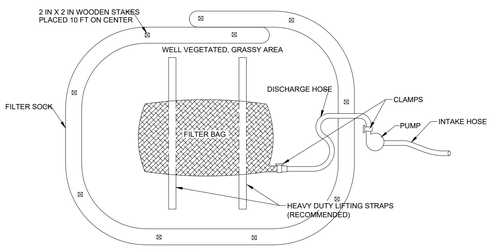
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

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

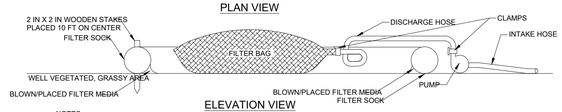
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE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

STANDARD CONSTRUCTION DETAIL #3-1 (ABACT)
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE (PADEP - MARCH 2012)



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

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

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

AS THE PROPOSED DEVELOPMENT IS WITHIN AN IMPAIRED WATERSHED, ALL FILTER BAGS MUST BE SURROUNDED BY A COMPOST FILTER SOCK RING OR OPERATED IN CONJUNCTION WITH A SUMP PIT.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16 (ABACT) PUMPED WATER FILTER BAG

NOT TO SCALE (PADEP - MARCH 2012)

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8	10/05/2026	BID ISSUE	EL / TK

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CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB — LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:

C-805

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT: C-805 ERODI
EL

OWNER ACKNOWLEDGEMENT

I, _____, ACKNOWLEDGE THIS _____ DAY OF _____, 2026 THAT THE STORMWATER MANAGEMENT SYSTEM IS TO BE A PERMANENT FIXTURE THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY THE MUNICIPALITY, WHICH SHALL BE RECORDED WITH THE RECORD PLAN AND WHICH SHALL BE APPLICABLE TO ALL FUTURE LANDOWNERS.

SIGNATURE OF DESIGN OWNER

_____

ENGINEER ACKNOWLEDGEMENT

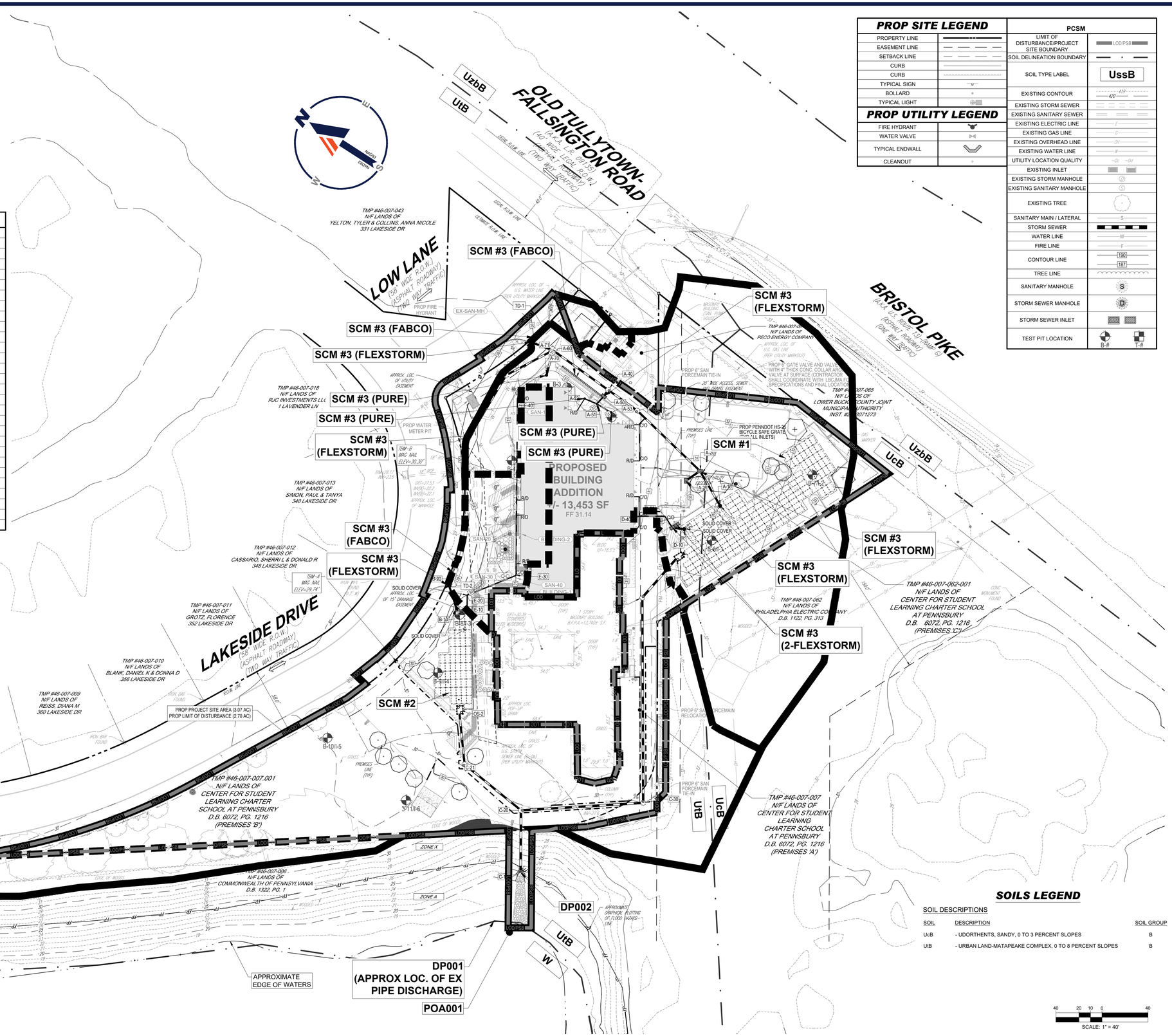
ON THIS _____ DAY OF _____, 2026, THOMAS R. KNAB, R.L.A. HAS REVIEWED AND HEREBY CERTIFIES THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DELAWARE RIVER SOUTH WATERSHED ACT 167 STORMWATER MANAGEMENT ORDINANCE.

_____ _____

SIGNATURE OF DATE
THOMAS R. KNAB, R.L.A.
PENNSYLVANIA LICENSE No.: LA003352

EXISTING LEGEND

FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	
GAS VALVE	
LIMITS OF FLOODPLAIN	-FP- -FP-
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	EP
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
BOLLARD	
FENCE	
AREA LIGHT	
CLEAN OUT	
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	



PROP SITE LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
CURB	
CURB	
TYPICAL SIGN	
BOLLARD	
TYPICAL LIGHT	

PROP UTILITY LEGEND

FIRE HYDRANT	
WATER VALVE	
TYPICAL ENDWALL	
CLEANOUT	

PCSM

LIMIT OF DISTURBANCE/PROJECT SITE BOUNDARY	LOD/PSB
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB
EXISTING CONTOUR	412 / 420
EXISTING STORM SEWER	
EXISTING SANITARY SEWER	
EXISTING ELECTRIC LINE	E
EXISTING GAS LINE	G
EXISTING OVERHEAD LINE	OH
EXISTING WATER LINE	W
UTILITY LOCATION QUALITY	-QL- -QL-
EXISTING INLET	
EXISTING STORM MANHOLE	D
EXISTING SANITARY MANHOLE	S
EXISTING TREE	
SANITARY MAIN / LATERAL	S
STORM SEWER	
WATER LINE	W
FIRE LINE	F
CONTOUR LINE	190 / 187
TREE LINE	
SANITARY MANHOLE	S
STORM SEWER MANHOLE	D
STORM SEWER INLET	
TEST PIT LOCATION	B-# T-#

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-ERHY

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

**345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA**

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

SHEET NUMBER:

C-806

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-ERHY-PAA240163.00-8A-----1A1YOUT C-806 PCSM
EL

PCSM - GENERAL SCM NOTES

(Rev. 01/2025)

1. A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT IS REQUIRED PRIOR TO THE REMOVAL OR CONVERSION OF SEDIMENT BASINS AND TRAPS.
2. BOHLER ENGINEERING SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND SCM CONSTRUCTION SCHEDULE.
3. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED SCM BOTTOMS.
4. REFER TO THE SCM CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT SCMs.
5. REFER TO THE PCSM PLAN AND DETAILS FOR SPECIFIC SCM CONSTRUCTION GUIDELINES.
6. AS-BUILT PLANS OF THE STORMWATER SCMs FOR EACH PROJECT PHASE SHALL BE PROVIDED BY THE CONTRACTOR WITHIN FOURTEEN DAYS FOLLOWING THE COMPLETION OF EACH PHASE. THIS IS TO ENSURE THAT THE CERTIFICATION FORM CAN BE COMPLETED WITHIN THIRTY DAYS OF CONSTRUCTION COMPLETION. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL SURVEYOR.
7. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER SCMs.

DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

(Rev. 5/2024)

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

1. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
2. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
3. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
4. ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.

RECYCLING OR DISPOSAL OF MATERIALS

(Rev. 01/2025)

§102.8(f)(11)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL PCSM WASTES THAT MAY EXIST ON-SITE:
- TRASH (CANS, BOTTLES, ETC.)
- YARD WASTE (LEAVES, GRASS CLIPPINGS, ETC.)
- DEBRIS COLLECTED IN INLETS
- SEDIMENT CAPTURED IN ANY PCSM SCM

ALL PCSM WASTES SHALL BE RECYCLED OR DISPOSED OF IN ACCORDANCE WITH LOCAL REQUIREMENTS.

LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93

(Rev. 5/2024)

§102.4(b)(5)(v)

THE SUBJECT SITE DRAINS TO LEVITTOWN LAKE, WHICH HAS A WWF, MF CHAPTER 93 CLASSIFICATION.

RECEIVING SURFACE WATERS

(Rev. 5/2024)

§102.8(f)(5)

1. THE SUBJECT SITE DRAINS TO LEVITTOWN LAKE, WHICH HAS A WWF, MF CHAPTER 93 CLASSIFICATION.
2. THE DEVELOPMENT IS IN NEITHER AN HQ NOR AN EV WATERSHED AND THEREFORE, NO BOUNDARIES ARE SHOWN.
3. THERE ARE NO WETLANDS LOCATED ON THE PROJECT SITE.

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION

(Rev. 5/2024)

§102.4(b)(5)(xii)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION AFTER EARTH DISTURBANCE ACTIVITIES ARE COMPLETED.

CRITICAL STAGES

(Rev. 5/2024)

- INSTALLATION OF SCM 1 INFILTRATION BASIN
- INSTALLATION OF SCM 2 DRY EXTENDED DETENTION BASIN
- INSTALLATION OF SCM 3 WATER QUALITY FILTERS AND HYDRODYNAMIC DEVICES

CONSTRUCTION SEQUENCE FOR SUBSURFACE INFILTRATION BASIN (SCM 1)

1. PRIOR TO AND DURING CONVERSION OF A SEDIMENT FACILITY TO AN INFILTRATION BASIN, THE FACILITY AREA SHALL BE SURROUNDED BY FILTER SOCK TO PREVENT SILT AND EROSION UNTIL THE FACILITY AND THE CONTRIBUTING DRAINAGE AREA ARE FULLY STABILIZED.
2. INITIATE CONVERTING THE SEDIMENT FACILITY TO AN INFILTRATION BASIN REMOVE ALL TEMPORARY E&S CONTROLS WITHIN THE BASIN EXCEPT FOR TEMPORARY E&S CONTROLS ON THE OUTLET STRUCTURE.
3. THE FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. ALL SEDIMENT-LADEN SOILS SHALL BE REMOVED FROM THE FACILITY. THE CONTRACTOR MUST TAKE CARE NOT TO COMPACT THE IN-SITU SOILS.
4. ONCE THE AREA IS EXCAVATED TO SUBGRADE ELEVATIONS, A QUALIFIED SOIL ENGINEER/SCIENTIST SHALL CONDUCT INFILTRATION TESTING TO DETERMINE IF THE DESIGN INFILTRATION RATES AS SPECIFIED CAN BE ACHIEVED. THE INFILTRATION RATES SHALL BE PROVIDED TO THE ENGINEER PROVIDING OVERSIGHT.
5. SUBSOILS IN THE ENTIRE BASIN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED. SCARIFYING MUST BE DONE WITH A TOOTHED BACKHOE.
6. COMPLETE FINAL GRADING TO ACHIEVE DESIGN GRADE.
7. REMOVE TEMPORARY E&S CONTROLS ON THE OUTLET STRUCTURE.
8. PLANT BASIN FACILITY WORKING FROM THE BOTTOM OF THE FACILITY UP THE SIDES, PER THE LANDSCAPE PLAN.
9. ALL PROTECTION MEASURES INSTALLED AT THE BEGINNING OF CONSTRUCTION (SEE STEP 1 ABOVE) SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL THE FACILITY AND ADJACENT AREAS ARE FULLY STABILIZED.

CONSTRUCTION SEQUENCE FOR SUBSURFACE DRY EXTENDED DETENTION BASIN (SCM 2)

1. UTILIZE A UNIFORMLY GRADED CRUSHED STONE (PENNDOT 2B AGGREGATE), PROVIDED THAT THE STONE IS PROPERLY CLEANED AND THAT A MINIMUM VOID RATIO OF 40% IS PROVIDED. HIGHER VOID THE RATIOS MAY BE SELECTED BY THE DESIGN ENGINEER, AND IF SO, THE DESIGN VOID RATIO SHALL GOVERN. IN ORDER TO INSURE THAT THE STONE USED IS PROPERLY CLEANED, IN ADDITION TO AASHTO DESIGNATION: M43-88 GRADATION, THE PERCENT PASSING THE NO. 200 SIEVE SHALL NOT EXCEED 0.2%
2. A CERTIFICATION FROM THE MANUFACTURER DOCUMENTING THE FULL GRADATION AND VOID RATIO SHALL BE OBTAINED.
3. WHEN IN THE OPINION OF THE TOWNSHIP INSPECTOR OR THE GEOTECHNICAL ENGINEER THE STONE IS NOT CONSISTENT WITH THE APPROVED SAMPLE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE STONE RETESTED AND CERTIFIED BEFORE ANY ADDITIONAL STONE IS INSTALLED OR DELIVERED.
4. ALL STONE SAMPLES AND CERTIFICATIONS SHALL BE SUBMITTED TO THE TOWNSHIP 14 DAYS PRIOR TO THE START OF STORMWATER DETENTION BASIN CONSTRUCTION.
5. THE BOTTOM OF THE EXCAVATION SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF AGGREGATE.
6. ONLY CLEAN AGGREGATE, FREE OF DEBRIS, SHALL BE ALLOWED.
7. THE TOP AND SIDES OF THE BEDS SHALL BE COVERED WITH CONTINUOUS NON-WOVEN GEOTEXTILE, MIRAFI 140N, AMOCO 4547, GEOTEX 451, OR APPROVED EQUIVALENT.
8. CONSTRUCTION OF THE FACILITY SHALL PREVENT SILT FROM CLOGGING THE AGGREGATE BACKFILL.
9. CONTRACTOR TO REVIEW AND IMPLEMENT CHAMBER BEDDING AND BACKFILL REQUIREMENTS RECOMMENDED BY THE SPECIFIC CHAMBER MANUFACTURER.
10. THE BEDS SHALL BE BACKFILLED WITH CLEAN WASHED AGGREGATE AND SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS CONTAMINATED THESE ITEMS, THE MATERIALS SHALL BE REPLACED AND/OR CLEANED AS NECESSARY.

CONSTRUCTION SEQUENCE FOR WATER QUALITY FILTERS (SCM 3)

1. STABILIZE ALL CONTRIBUTING AREAS BEFORE INSTALLING AND CONNECTING PIPES TO THESE INLETS.
2. FOLLOW MANUFACTURER'S GUIDELINES FOR INSTALLATION. DO NOT USE WATER QUALITY INSERTS DURING CONSTRUCTION UNLESS PRODUCT IS DESIGNED PRIMARILY FOR SEDIMENT REMOVAL. (SOME PRODUCTS HAVE ADSORPTION COMPONENTS THAT SHOULD BE INSTALLED POST-CONSTRUCTION.)

OVERALL SITE CONSTRUCTION SEQUENCE

(Rev. 06/2025)

§102.8(f)(7)

A. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
B. REFERENCES TO 'CONSERVATION DISTRICT' USED THROUGHOUT THIS SEQUENCE ARE MEANT TO REFER TO THE BUCKS COUNTY CONSERVATION DISTRICT.
C. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.
D. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
E. THE TERM 'PERMANENT STABILIZATION' USED THROUGHOUT THIS SEQUENCE IS MEANT TO DESCRIBE THE PROPER PLACING, GRADING, CONSTRUCTING, REINFORCING, LINING, AND COVERING OF SOIL, ROCK OR EARTH TO ENSURE THEIR PERMANENT RESISTANCE TO EROSION, SLIDING OR OTHER MOVEMENT. FOR AN EARTH DISTURBANCE TO BE PERMANENTLY STABILIZED, THE DISTURBED AREA SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; OR AN ACCEPTABLE BMP THAT PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
F. FOR EACH OF THE 'CRITICAL STAGES' SPECIFIED BELOW, THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SAID BMP, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
G. SEDIMENT CONTROL FACILITIES, SUCH AS BASINS AND TRAPS, MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER ALSO TO THE MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED HEREIN FOR ADDITIONAL REQUIREMENTS DURING CONSTRUCTION.
H. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

STAGE 1

1. STAKE OUT LIMIT OF DISTURBANCE.
2. INSTALL CONSTRUCTION ENTRANCE ON LOW LANE AS DESIGNATED ON THE PLANS.
3. INSTALL ALL PERIMETER CONTROLS (COMPOST FILTER SOCKS #1 THROUGH #4) WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
4. CLEAR WOODED AREA AS DELINEATED ON THE PLANS. CONTRACTOR TO COORDINATE WITH PECO FOR WORK AROUND EXISTING OVERHEAD WIRES AND POLES. CONTRACTOR TO MAINTAIN ACCESS TO NORTHEAST PARKING LOT ON LAKESIDE DRIVE FOR SCHOOL PARKING OPERATIONS.

STAGE 2

5. MAINTAIN CONSTRUCTION ACCESS, WASHOUT, AND STOCKPILE IN DESIGNATED "A" LOCATIONS.
6. COMMENCE CONSTRUCTION OF THE EASTERN PARKING LOT AND PROPOSED DRIVEWAY ACCESS ON LOW LANE. CONTRACTOR TO COORDINATE WITH PECO FOR WORK AROUND EXISTING OVERHEAD WIRES AND POLES. CONTRACTOR TO MAINTAIN ACCESS TO THE NORTHEAST PARKING LOT FOR SCHOOL PARKING OPERATIONS.
7. INITIATE THE NECESSARY EARTHWORK TO REACH THE PARKING LOT GRADES INDICATED ON THE PLANS.
   a. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE.
   b. THE CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE.
   c. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
8. INSTALL COMPOST FILTER SOCK #5 AND TREE PROTECTION FENCE.
9. CRITICAL STAGE - INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN (SCM #1)

INITIATE INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN
   a. INSTALLATION OF THE SUBSURFACE INFILTRATION BASIN SHALL INCLUDE THE INSTALLATION OF THE OUTFALL SYSTEM (FR ENDWALL C-10 TO OS -1). STUB STORM PIPE CONNECTION FOR C-20 TO OS-2. INSTALL STORM PIPES D-10 TO D-20, A-10 TO A-90, A-21 TO A-20, AND A-71 TO A-70. STABILIZE PIPE TRENCHING AREAS AT THE END OF EACH WORKDAY. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SANITARY FORCEMAIN AND NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED STORM PIPE CROSSINGS.
   b. REFER TO THE ADDITIONAL INFILTRATION FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS.
   c. PRIOR TO INITIATING CONSTRUCTION, THE CONTRACTOR IS TO PERFORM INFILTRATION TESTING AT THE SUBGRADE ELEVATION TO CONFIRM INFILTRATION RATES. THE RESULTS OF THE TESTING ARE TO BE GIVEN TO THE ENGINEER PROVIDING OVERSIGHT, WHO WILL THEN MAKE A DETERMINATION IF BASIN CONSTRUCTION SHOULD COMMENCE.
   d. INLETS DISCHARGING TO SUBSURFACE INFILTRATION BASINS MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE INFILTRATION BASIN.
   e. UPON INSTALLATION OF THE SUBSURFACE BASIN, THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S SPECIFICATIONS REGARDING THE APPROPRIATE AMOUNT AND TYPE OF COVER THAT SHALL BE PLACED OVER TOP OF THE BASIN DURING CONSTRUCTION ACTIVITIES AND PRIOR TO THE BASIN AREA RECEIVING PERMANENT COVER.
10. CONTINUE WITH THE BALANCE OF EARTHWORK IN THE PARKING LOT AND DRIVEWAY ACCESS AREA.
11. INSTALL THE STONE SUBBASE FOR CURB AND INSTALL CURBING AND CRUSHED AGGREGATE BASE COURSE FOR PAVING IN THE PARKING LOT AND DRIVEWAY ACCESS AREA.

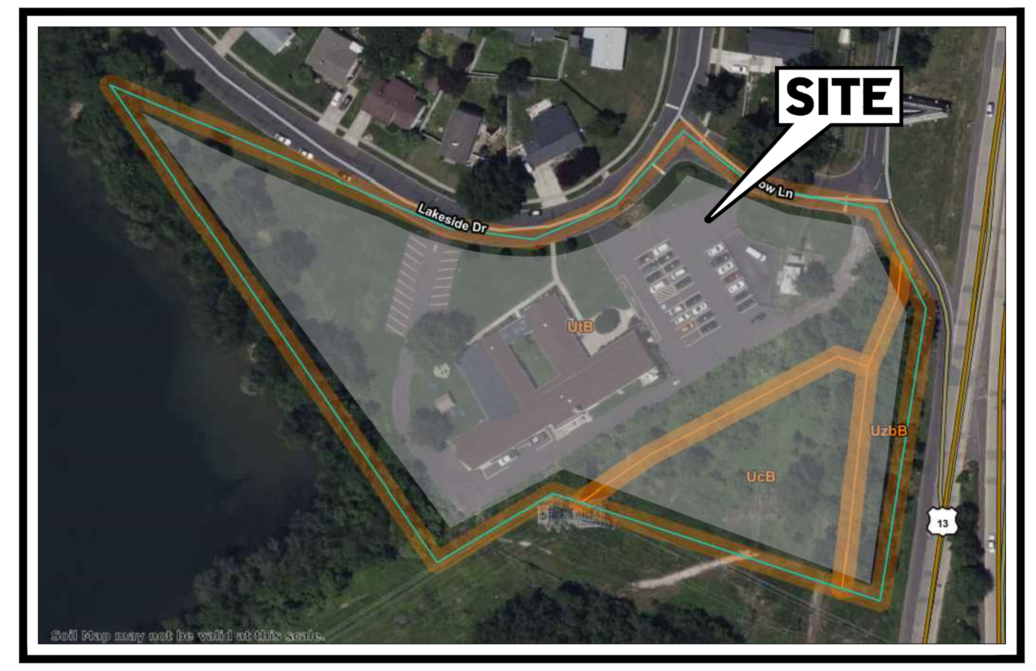
12. INSTALL REMAINING PERIMETER CONTROLS (COMPOST FILTER SOCKS #6 THROUGH #8).
13. RELOCATE CONSTRUCTION ENTRANCE, WASHOUT, AND STOCKPILE TO DESIGNATED "B" LOCATIONS.
14. DEMOLISH EXISTING NORTHEAST PARKING LOT AS INDICATED ON THE PLANS.
15. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING PAD CONSTRUCTION CAN COMMENCE CONCURRENTLY WITH ON-SITE IMPROVEMENTS. NOTE THAT BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER.
   f. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE.
   g. THE CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE.
   h. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
16. INITIATE SANITARY SEWER INSTALLATION, BEGINNING WITH THE CONNECTION AT THE EXISTING MANHOLE AND WORKING UP-SLOPE.
17. CRITICAL STAGE - INSTALLATION OF THE SUBSURFACE DRY EXTENDED DETENTION BASIN (SCM #2)

INITIATE INSTALLATION OF THE SUBSURFACE DRY EXTENDED DETENTION BASIN
   a. INSTALLATION OF THE SUBSURFACE BASIN(S) SHALL INCLUDE THE INSTALLATION OF THE OUTFALL SYSTEM (FR C-20 TO OS-2).
   b. REFER TO THE ADDITIONAL DETENTION BASIN FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS.
   c. INLETS DISCHARGING TO SUBSURFACE BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DRY EXTENDED DETENTION BASIN.
   d. UPON INSTALLATION OF THE SUBSURFACE BASIN, THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S SPECIFICATIONS REGARDING THE APPROPRIATE AMOUNT AND TYPE OF COVER THAT SHALL BE PLACED OVER TOP OF THE BASIN DURING CONSTRUCTION ACTIVITIES AND PRIOR TO THE BASIN AREA RECEIVING PERMANENT COVER.
18. CONTINUE WITH THE INSTALLATION OF THE REMAINING STORM DRAINAGE (A-51 TO A-50 AND B-20 TO B-10).
19. CONTINUE WITH THE BALANCE OF EARTHWORK.
20. INSTALL UTILITIES (WATER, ELECTRIC, TELEPHONE, CABLE, ETC.)
21. INSTALL THE STONE SUBBASE FOR CURB AND INSTALL CURBING AND CRUSHED AGGREGATE BASE COURSE FOR PAVING.
22. FINAL GRADE AND PLACE TOPSOIL IN ALL LANDSCAPE AREAS.
23. CRITICAL STAGE - INSTALL THE INLET WATER QUALITY DEVICES (SCM #3) ON DESIGNATED INLETS, YARD DRAINS, AND TRENCH DRAINS.
24. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
25. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
26. UPON PERMANENT STABILIZATION AND NOTIFICATION TO THE CONSERVATION DISTRICT, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL FACILITIES. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
27. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ, 271.1 ET SEQ THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
28. DEMOBILIZE.
29. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

INFILTRATION TESTING SUMMARY TABLE

§102.8(f)(2)

TEST PIT NUMBER	EXISTING GROUND ELEVATION (FT)	ROCK		WATER		LIMITING ZONE ELEV	INFILTRATION TESTING			FACTOR OF SAFETY	DESIGN RATE (IN/HR)
		DEPTH (FT)	ELEVATION (FT)	DEPTH (FT)	ELEVATION (FT)		DEPTH (FT)	ELEVATION (FT)	RATE (IN/HR)		
I-1 @ B-6	31.5	-	-	-	-	-	9.7	21.9	8.0	3.00	2.67
I-2 @ B-7	33.0	-	-	-	-	-	11.3	21.9	8.0	3.00	2.67
I-3 @ B-8	30.0	-	-	-	-	-	8.7	21.0	8.0	3.00	2.67
I-4 @ B-9	30.0	-	-	-	-	-	9.2	21.0	10.0	3.00	3.33
I-5 @ B-10	30.0	-	-	-	-	-	9.0	21.0	9.0	3.00	3.00
I-6 @ B-11	30.0	-	-	-	-	-	9.0	21.0	8.0	3.00	2.67



N

SOIL MAP

SCALE: 1" = 150'
SOURCE: WEB SOIL SURVEY

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS

§102.4(b)(5)(ii)

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	SOIL GROUP
UcB	- UDORTHENTS, SANDY, 0 TO 3 PERCENT SLOPES	B
UtB	- URBAN LAND-MATAPEAKE COMPLEX, 0 TO 8 PERCENT SLOPES	B

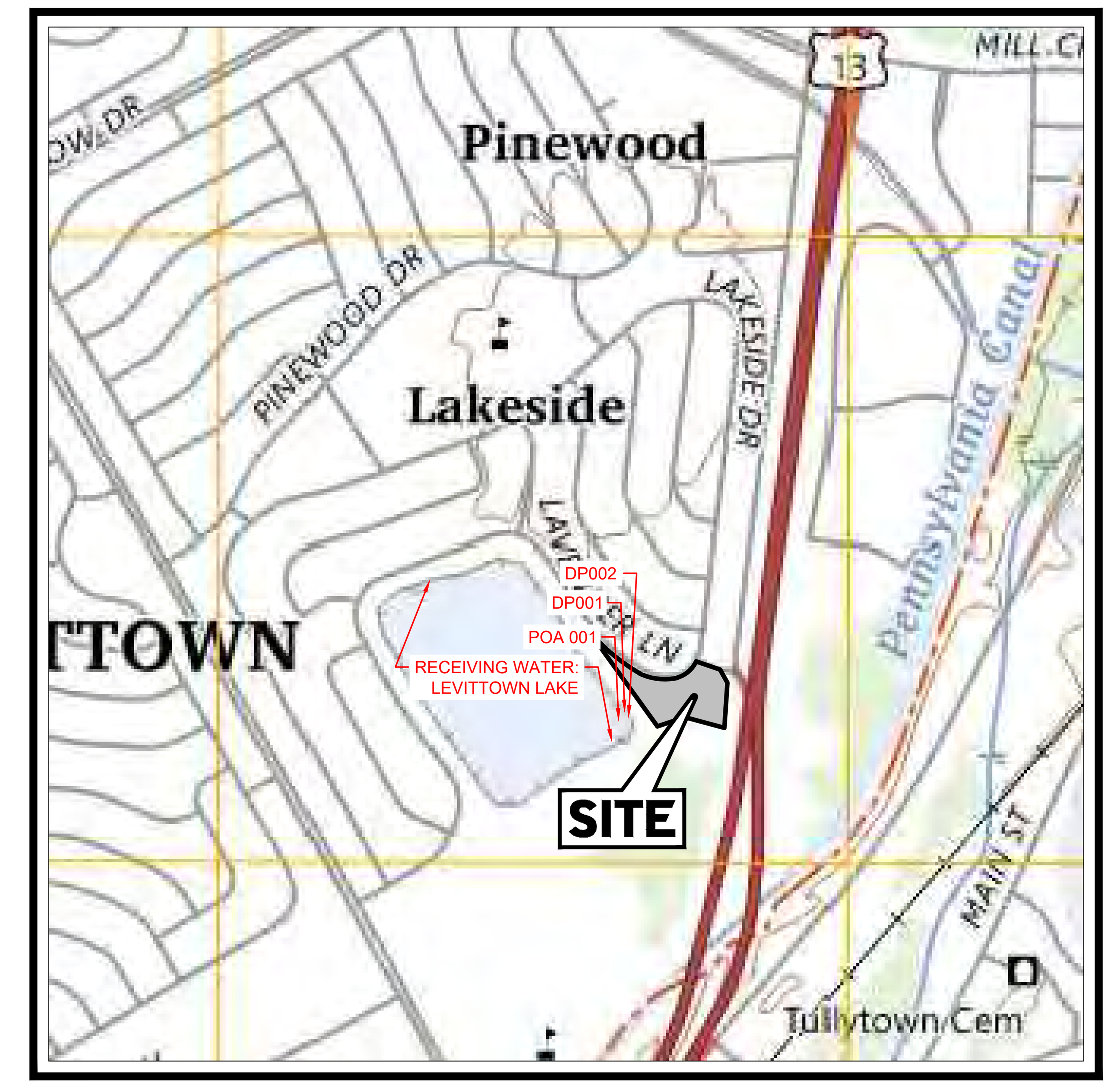
SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT.

1. CUTBANKS CAVE RESOLUTIONS: CUT SLOPES SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
2. CORROSIVE TO CONCRETE/STEEL RESOLUTIONS: MOST STORM DRAIN PIPES FOR THIS SITE WILL BE HDPE. RCP WILL BE USED FOR THE DISCHARGE PIPE TO LEVITTOWN LAKE.
3. DROUGHTY RESOLUTIONS: SELECT VEGETATIVE SPECIES THAT ARE TOLERANT TO DRY CONDITIONS. VEGETATED AREAS SHALL BE IRRIGATED. EXISTING TOPSOIL WILL BE UTILIZED.
4. EASILY ERODIBLE RESOLUTIONS: STABILIZATION SHALL TAKE PLACE UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES THAT WILL EXCEED FOUR DAYS, OR ANY STAGE THEREOF. STABILIZATION SHALL BE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS. E&S CONTROLS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
5. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE RESOLUTIONS: ANY WATER ENCOUNTERED DURING CONSTRUCTION SHALL BE DIRECTED TOWARDS AN E&S CONTROL BMP. ALL STORM SEWER PIPES AND INLETS SHALL BE INSTALLED WITH WATERTIGHT GASKETS.
6. HYDRIC/HYDRIC INCLUSIONS RESOLUTIONS: NO WETLANDS ARE LOCATED ON THE PROJECT SITE.
7. LOW STRENGTH/LANDSLIDE PRONE RESOLUTIONS: PRECAUTIONS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT SLOPE FAILURES. EXCAVATIONS SHALL BE PROPERLY SUPPORTED TO PREVENT CAVES.
8. SLOW PERCOLATION RESOLUTIONS: PROVIDE DEWATERING DURING CONSTRUCTION ACTIVITIES. PUMPED WATER FILTER BAGS SHALL BE USED FOR PONDED WATER DURING CONSTRUCTION. PONDED WATER SHOULD BE DIRECTED TOWARDS AN E&S CONTROL BMP. LANDSCAPING IS PROPOSED ON THE SITE TO ALLOW FOR INCREASED INFILTRATION AND EVAPO-TRANSPIRATION. INFILTRATION TESTING HAS BEEN DONE ON SITE AND INFILTRATION FACILITIES ARE PROVIDED WHERE SOIL CONDITIONS ALLOWED.
9. POOR SOURCE OF TOPSOIL RESOLUTIONS: SOIL TESTING SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOPSOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED. TOPSOIL SPECIFICATIONS CAN BE FOUND IN THE LANDSCAPE SPECIFICATIONS ON THE LANDSCAPE PLAN.
10. FROST ACTION RESOLUTIONS: DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.

LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTRURBANCE PROJECTS

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
MATAPEAKE	X	C/S		X			X	X	X			X				
UDORTHENTS	X	C/S	X	X				X	X		X	X				
URBANA						X						X				



N

USGS MAP

SCALE: 1" = 800'
SOURCE: USGS

LONG-TERM OPERATION AND MAINTENANCE SCHEDULE

(Rev. 01/2025)

§102.8(f)(10)

1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL SCMs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL SCMs AS SPECIFIED. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
2. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
3. SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS, THE SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS AND STORMWATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.
4. HEAVY CONSTRUCTION VEHICLES SHALL NOT BE PARKED ON OR DRIVEN OVER SCM FACILITIES AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY EQUIPMENT, INCLUDING MOWERS.
5. INSPECT INFILTRATION FACILITIES AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SIGNS OF EROSION.
6. REMOVE ACCUMULATED SEDIMENT FROM THE FACILITIES AS REQUIRED. RESTORE ORIGINAL CROSS-SECTION IF NECESSARY. PROPERLY DISPOSE OF SEDIMENT AS SPECIFIED. FOR ABOVE-GROUND INFILTRATION FACILITIES, REMOVE AND REPLACE SAND/STONE LAYER AS NECESSARY IF FACILITY DEWATERING TIME EXCEEDS 72 HOURS.

CENTER FOR STUDENT LEARNING CHARTER SCHOOL AT PENNSBURY IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SCMs AS DESCRIBED HEREIN

LONG-TERM OPERATION AND MAINTENANCE SCHEDULE

SCM	QUANTITY	SCHEDULE	INSPECTION TASK	MAINTENANCE	FAILURE INDICATORS
SCM 6.4.3 SUBSURFACE INFILTRATION BED (SCM #1)	1	AFTER EACH STORM >3"	- INSPECT STRUCTURES - CONFIRM DEWATERING WITHIN 72 HOURS	ACCUMULATED LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE SEDIMENT AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. ANY AREA DISTURBED DURING MAINTENANCE SHALL BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.	FAILURE INDICATORS INCLUDE THE FACILITY NOT DEWATERING WITHIN 72 HOURS. UPON OBSERVING A FAILURE INDICATOR A QUALIFIED INDIVIDUAL SUCH AS AN ENGINEER OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF FAILURE. UPON FURTHER INVESTIGATION PERFORMED BY THE QUALIFIED INDIVIDUAL A REMEDIATION PLAN SHALL BE IMPLEMENTED TO RESTORE THE BASIN TO ITS ORIGINAL DESIGN CAPACITIES, THIS INCLUDES PERFORMING ADDITIONAL INFILTRATION TESTING TO DETERMINE WHETHER THE FACILITY HAS BEEN BROUGHT BACK TO ITS ORIGINAL DESIGN CAPACITIES.
SCM 6.6.3 DRY EXTENDED DETENTION BASIN (SCM #2)	1	AFTER EACH STORM >1"	- INSPECT WATER DRAWDOWN TIME TO BE WITHIN 72 HOURS	ACCUMULATED DEBRIS AND SEDIMENT IN INLETS OR YARD DRAINS SHOULD BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.	IF ANY DRY EXTENDED DETENTION BASIN IS OBSERVED TO FAIL TO DEWATER WITHIN THE ALLOWABLE 72 HOURS THE OWNER SHALL NOTIFY THE ENGINEER OF RECORD OR QUALIFIED GEOTECHNICAL ENGINEER TO DEVELOP A PLAN TO ADDRESS THE DEFICIENCY
		4 TIMES PER YEAR	- INSPECT FOR ANY PONDING WATER		
		2 TIMES PER YEAR	- INSPECT STRUCTURES - INSPECT FOR SEDIMENT ACCUMULATION - INSPECT VEGETATIVE COVER CONDITION		
		ANNUALLY	- INSPECT FOR INVASIVE PLANT SPECIES		
SCM 6.6.4 WATER QUALITY FILTERS & HYDRODYNAMIC DEVICES (SCM #3)	15	4 TIMES PER YEAR, AS WELL AS BEFORE AND AFTER THE SNOWFALL SEASON	- INSPECT OPERATION OF DEVICE - INSPECT FOR ACCUMULATION OF COLLECTED MATERIALS - INSPECT FOR RIPPED FILTER BAG	NEEDED MAINTENANCE SHALL BE PERFORMED IMMEDIATELY AFTER THE INSPECTION. ACCUMULATION OF SEDIMENT/DEBRIS SHALL BE REMOVED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS/RECOMMENDATIONS. THE SEDIMENT/DEBRIS SHALL BE REMOVED, RECYCLED OR DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. IF UPON INSPECTION THE FILTER BAG IS FOUND TO BE TORN OR PUNCTURED TO 1/2" DIAMETER OR GREATER ON LOWER HALF OF BAG, IT SHALL BE REPLACED IMMEDIATELY.	SIGNS OF FAILURE IN WATER QUALITY FILTER BAGS INCLUDE SEDIMENT/DEBRIS LADEN RUNOFF FLOWING OUT OF THE INLET, INLETS OVERFLOWING OR RUNOFF BYPASSING THE INLET. MAINTENANCE SHALL BE PERFORMED IMMEDIATELY IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.

BOHLER // ™
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS TRK
3	03/16/2026	PER NPDES SUBMISSION	EL TRK
4	05/20/2026	PER PECO SUBMISSION	JHT EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS TRK
6	06/11/2026	95% CD ISSUE	EL TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT EL
8	10/05/2026	BID ISSUE	EL TK

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20260292016

BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER //
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:

C-807

REVISION 8 - 10/05/2026

Sep 28, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT: C-807 PCSD
EL

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM ADS, DATED 4/27/21. REFER TO NOTES THIS SHEET.

SCM #3

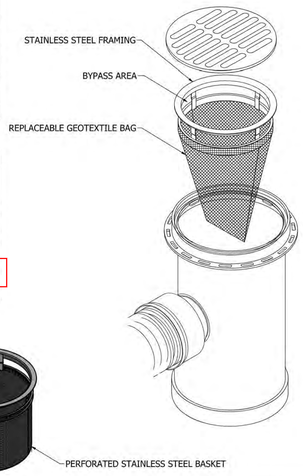
OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

ADS PURE INLET FILTERS FOR NYLOPLAST FRAME & GRATES

PURE NYLOPLAST FILTERS WITH FX/FXP BAG					
CASTING SIZE	BAG CAPACITY (FT^3)	FLOW RATE (CFS)	TOTAL BYPASS (CFS)	ADS FX BAG P/N	ADS FXP BAG P/N
8" ROUND	0.2	0.9	1.6	6208NYFX	N/A
10" ROUND	0.6	1.7	2.0	6210NYFX	N/A
12" ROUND	0.3	1.4	2.8	6212NYFX	6212NYFXP
15" ROUND	0.6	1.7	3.1	6215NYFX	6215NYFXP
18" ROUND	0.9	2.1	4.1	6218NYFX	6218NYFXP
24" ROUND	1.6	2.8	5.4	6224NYFX	6224NYFXP
30" ROUND	2.8	3.6	6.1	6230NYFX	6230NYFXP

PURE NYLOPLAST FILTERS WITH PC/PCP BAG					
CASTING SIZE	BAG CAPACITY (FT^3)	FLOW RATE (CFS)	TOTAL BYPASS (CFS)	ADS PC BAG P/N	ADS PCP BAG P/N
8" ROUND	0.2	0.4	1.6	6208NYPC	N/A
10" ROUND	0.2	0.5	2.0	6210NYPC	N/A
12" ROUND	0.3	0.6	2.8	6212NYPC	6212NYPCP
15" ROUND	0.6	0.8	3.1	6215NYPC	6215NYPCP
18" ROUND	0.9	1.1	4.1	6218NYPC	6218NYPCP
24" ROUND	1.6	1.4	5.4	6224NYPC	6224NYPCP
30" ROUND	2.8	1.7	6.1	6230NYPC	6230NYPCP

PURE NYLOPLAST FILTERS FOR FULL TRASH CAPTURE				
CASTING SIZE	BAG CAPACITY (FT^3)	FLOW RATE (CFS)	TOTAL BYPASS (CFS)	ADS FX BAG P/N
12" ROUND	0.7	1.4	2.8	6212NYFTC
15" ROUND	1.1	1.7	3.1	6215NYFTC
18" ROUND	1.7	2.1	4.1	6218NYFTC
24" ROUND	3.0	2.8	5.4	6224NYFTC
30" ROUND	4.4	3.6	6.1	6230NYFTC



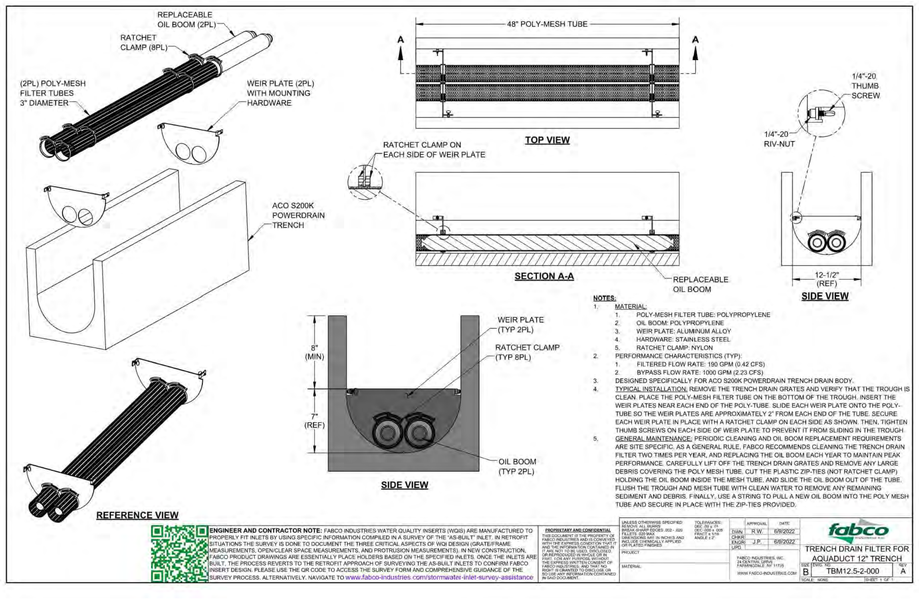
NOTE 1: FILTER BAGS ARE 22" DEEP, FTC BASKETS ARE 12" DEEP
NOTE 2: FXP AND PCP BAGS INCLUDE A HYDROCARBON ABSORBENT CLEARTEC POUCH
NOTE 3: TRANSITION PLATES MAY BE REQUIRED

DRAWN: Tyler.Langel	4/27/2021	ADS INLET FILTERS
CHECKED		TITLE: PURE NYLOPLAST SUBMITTAL
QA		
MFG		
APPROVED		SIZE: C; DWG NO: Pure Nyloplast Submittal; REV
		SCALE: 0.1; SHEET 1 OF 1

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM FABCO, DATED 6/9/22. REFER TO NOTES THIS SHEET.

SCM #3

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER



NOTES:
1. MATERIAL:
   1. POLY-MESH FILTER TUBE: POLYPROPYLENE
   2. OIL BOOM: POLYPROPYLENE
   3. WEIR PLATE: ALUMINUM ALLOY
   4. HARDWARE: STAINLESS STEEL
   5. RATCHET CLAMP: NYLON
2. PERFORMANCE CHARACTERISTICS (TYP):
   1. FILTERED FLOW RATE: 190 GPM (0.42 CFS)
   2. BYPASS FLOW RATE: 1000 GPM (2.23 CFS).
3. DESIGNED SPECIFICALLY FOR ACO S200K POWERDRAIN TRENCH DRAIN BODY.
4. TYPICAL INSTALLATION: REMOVE THE TRENCH DRAIN GRATES AND VERIFY THAT THE TROUGH IS CLEAN. PLACE THE POLY-MESH FILTER TUBE ON THE BOTTOM OF THE TROUGH. INSERT THE WEIR PLATES NEAR EACH END OF THE POLY-TUBE. SLIDE EACH WEIR PLATE ONTO THE POLY-TUBE SO THE WEIR PLATES ARE APPROXIMATELY 2" FROM EACH END OF THE TUBE. SECURE EACH WEIR PLATE IN PLACE WITH A RATCHET CLAMP ON EACH SIDE AS SHOWN. THEN, TIGHTEN THUMB SCREWS ON EACH SIDE OF WEIR PLATE TO PREVENT IT FROM SLIDING IN THE TROUGH.
5. GENERAL MAINTENANCE: PERIODIC CLEANING AND OIL BOOM REPLACEMENT REQUIREMENTS ARE SITE SPECIFIC. AS A GENERAL RULE, FABCO RECOMMENDS CLEANING THE TRENCH DRAIN FILTER TWO TIMES PER YEAR, AND REPLACING THE OIL BOOM EACH YEAR TO MAINTAIN PEAK PERFORMANCE. CAREFULLY LIFT OFF THE TRENCH DRAIN GRATES AND REMOVE ANY LARGE DEBRIS COVERING THE POLY MESH TUBE. CUT THE PLASTIC ZIP-TIES (NOT RATCHET CLAMP) HOLDING THE OIL BOOM INSIDE THE MESH TUBE, AND SLIDE THE OIL BOOM OUT OF THE TUBE. FLUSH THE TROUGH AND MESH TUBE WITH CLEAN WATER TO REMOVE ANY REMAINING SEDIMENT AND DEBRIS. FINALLY, USE A STRING TO PULL A NEW OIL BOOM INTO THE POLY MESH TUBE AND SECURE IN PLACE WITH THE ZIP-TIES PROVIDED.

ENGINEER AND CONTRACTOR NOTE: FABCO INDUSTRIES WATER QUALITY INSERTS (WQIS) ARE MANUFACTURED TO PROPERLY FIT INLETS BY USING SPECIFIC INFORMATION COMPILED IN A SURVEY OF THE "AS-BUILT" INLET. IN RETROFIT SITUATIONS THE SURVEY IS DONE TO DOCUMENT THE THREE CRITICAL ASPECTS OF WQI DESIGN (GRATE/FRAME MEASUREMENTS, OPEN/CLEAR SPACE MEASUREMENTS, AND PROTRUSION MEASUREMENTS). IN NEW CONSTRUCTION, FABCO PRODUCT DRAWINGS ARE ESSENTIALLY PLACE HOLDERS BASED ON THE SPECIFIED INLETS. ONCE THE INLETS ARE BUILT, THE PROCESS REVERTS TO THE RETROFIT APPROACH OF SURVEYING THE AS-BUILT INLETS TO CONFIRM FABCO INSERT DESIGN. PLEASE USE THE QR CODE TO ACCESS THE SURVEY FORM AND COMPREHENSIVE GUIDANCE OF THE SURVEY PROCESS. ALTERNATIVELY, NAVIGATE TO www.fabco-industries.com/stormwater-inlet-survey-assistance

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UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS. TOLERANCES: DEC .XX ± .10 FRACT ± 1/16 ANGLE ± 2°

MATERIAL:

APPROVAL	DATE
DRAWN: R.W.	6/9/2022
CHECK: J.P.	6/9/2022
ENGR: LPS	
QUAL:	
PROJ:	

FABCO INDUSTRIES, INC. 75 ENTERPRISE DR. ANNVILLE, PA 17003 www.FABCO-INDUSTRIES.COM

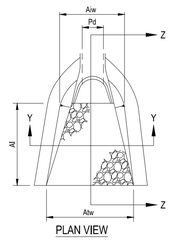
fabco

TRENCH DRAIN FILTER FOR AQUADUCT 12" TRENCH

SIZE: B; DWG NO: TBM12.5-2-000; REV: A
SCALE: NONE; SHEET 1 OF 1

NOTES REGARDING DETAILS BY OTHERS:
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DETAILS BY OTHERS DISCLAIMER



PLAN VIEW

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-_	RIPRAP THICK. Rt (IN)	APRON LENGTH Ai (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
C-10	18	3	9	46	4.5	13.5

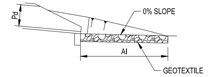
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



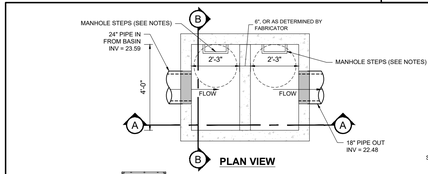
SECTION Y-Y



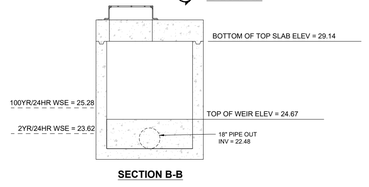
SECTION Z-Z

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

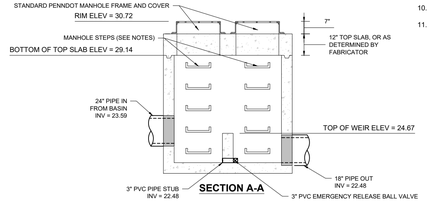
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PLAN VIEW



SECTION B-B

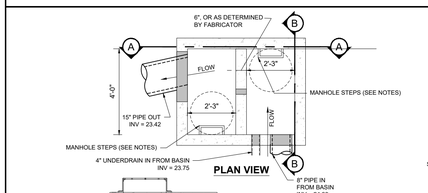


SECTION A-A

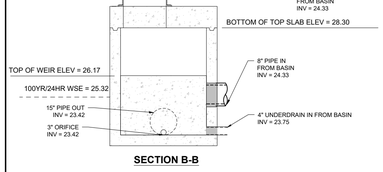
NOTES:
1. PRECAST BOX SHALL COMPLY WITH LATEST PENNDOT PUBLICATION 72M & PUBLICATION 408 STANDARDS.
2. BUTYL RESIN MASTIC SEAL SHALL BE PLACED WITHIN ALL JOINTS OF THE OUTLET STRUCTURE WHEN ASSEMBLED AND BETWEEN THE MANHOLE FRAME AND TOP OF STRUCTURE TO ENSURE A WATER TIGHT SEAL.
3. FURNISH OUTLET BOX WITH STEPS MEETING PADOT PUB 408 SECTION 605.2(c).
4. ANY DRILLED ORIFICE INTO THE OUTLET STRUCTURE SHALL BE SANDED, FREE OF BURRS AND IRREGULARITIES.
5. DIMENSIONS AND CONFIGURATION SHOWN ARE SUBJECT TO CHANGE BASED ON FINAL DESIGNS AS PREPARED BY THE FABRICATOR.
6. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW TO BOHLER ENGINEERING PA, LLC PRIOR TO FABRICATION.
7. FURNISH OUTLET BOX WITH COPOLYMER PROPYLENE STEPS.
8. ALL JOINTS WITHIN OUTLET STRUCTURE TO BE WATERTIGHT.
9. IF THE STRUCTURE IS NOT MONOLITHIC, PROVIDE CONSTRUCTION JOINTS OR KEYS FOR RISER SECTIONS AND PRECAST COVER ADJUSTMENT SLABS.
10. A 24" MINIMUM INTERIOR CLEAR OPENING SHALL BE REQUIRED IN THE COVER ADJUSTMENT SLAB.
11. WEIR WALL TO BE ATTACHED TO INLET BOX WITH A WATER TIGHT SEAL IF NOT MONOLITHICALLY POURED.

UNDERGROUND INFILTRATION BASIN OUTLET CONTROL STRUCTURE (SCM #1)

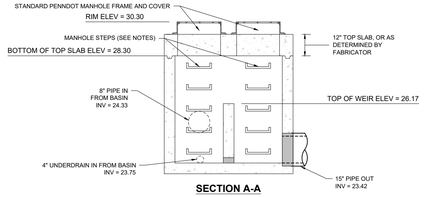
NOT TO SCALE (PA-U010404 - 04/2024)



PLAN VIEW



SECTION B-B



SECTION A-A

NOTES:
1. PRECAST BOX SHALL COMPLY WITH LATEST PENNDOT PUBLICATION 72M & PUBLICATION 408 STANDARDS.
2. BUTYL RESIN MASTIC SEAL SHALL BE PLACED WITHIN ALL JOINTS OF THE OUTLET STRUCTURE WHEN ASSEMBLED AND BETWEEN THE MANHOLE FRAME AND TOP OF STRUCTURE TO ENSURE A WATER TIGHT SEAL.
3. FURNISH OUTLET BOX WITH STEPS MEETING PADOT PUB 408 SECTION 605.2(c).
4. ANY DRILLED ORIFICE INTO THE OUTLET STRUCTURE SHALL BE SANDED, FREE OF BURRS AND IRREGULARITIES.
5. DIMENSIONS AND CONFIGURATION SHOWN ARE SUBJECT TO CHANGE BASED ON FINAL DESIGNS AS PREPARED BY THE FABRICATOR.
6. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW TO BOHLER ENGINEERING PA, LLC PRIOR TO FABRICATION.
7. UNDERDRAIN SHALL BE PERFORATED PIPE WITHIN BASIN SURROUNDING STONE LIMITS. UNDERDRAIN SHALL SWITCH TO SOLID PIPE ONCE THE UNDERDRAIN IS OUTSIDE OF BASIN SURROUNDING STONE LIMITS.
8. FURNISH OUTLET BOX WITH COPOLYMER PROPYLENE STEPS.
9. ALL JOINTS WITHIN OUTLET STRUCTURE TO BE WATERTIGHT.
10. IF THE STRUCTURE IS NOT MONOLITHIC, PROVIDE CONSTRUCTION JOINTS OR KEYS FOR RISER SECTIONS AND PRECAST COVER ADJUSTMENT SLABS.
11. A 24" MINIMUM INTERIOR CLEAR OPENING SHALL BE REQUIRED IN THE COVER ADJUSTMENT SLAB.
12. WEIR WALL TO BE ATTACHED TO INLET BOX WITH A WATER TIGHT SEAL IF NOT MONOLITHICALLY POURED.

UNDERGROUND DETENTION BASIN OUTLET CONTROL STRUCTURE (#2)

NOT TO SCALE (PA-U010403 - 04/2024)

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PAONECALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:

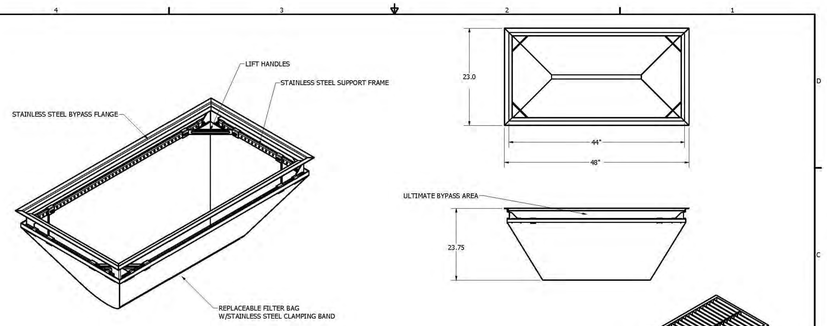
C-808

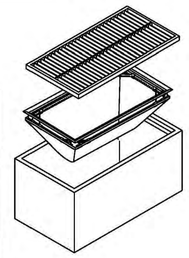
REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A.---LAYOUT: C-808 PCSD
EL

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS
AND IS FROM ADS.

SCM #3





FLEXSTORM INLET FILTERS - PRODUCT SELECTION FOR PENNDOT TYPE M,C INLETS

FLEXSTORM PENNDOT TYPE M/C INLET FILTERS	Base Part Number	FX Bag (Woven)	FX+ Bag (FX Bag with Cleartec Skimmer Pouch)	PC Bag (Adsorb-it lined)	PC+ Bag (PC bag with Cleartec Skimmer Pouch)	FXO Bag (FX Bag with 3" dia oil boom)
Stainless Steel Framing	62PENNMHD	62PENNMHDFX	62PENNMHDFXP	62PENNMHDPC	62PENNMHDPCP	62PENNMHDFXO
RATINGS	*Ultimate Bypass*	**** Framing Bypass flow calculated using Orifice Flow Equation, Coefficient of discharge=.67. Q=CA(2gd)$^{.5}$				
Standard 2" Bypass "62PENNMHD"	6.9 CFS	**Bypass flow rating using Orifice flow equation**** with 2 inches water depth over grate				
Standard 2" Bypass "62PENNMHD"	8.1 CFS	**Bypass flow rating using Orifice flow equation**** with 5 inches water depth over grate				
Solids Storage Capacity:		**7.1 cubic ft**				
Maximum Bag Flow Rate CFS		6.1	6.1	4.1	4.1	6.1
Total Oil Absorption Oz (if applicable):		NA	89	168	256	256
*Filtration Efficiency:		82%	82%			82%
**TSS (Total Suspended Solids) Removal:				99%	99%	
***TPH (Total Petroleum Hydrocarbon) Removal:				97%	97%	

* Filtration Efficiency determined in 3rd part testing per ASTM D 7351, Standard Test Method for Determination of Sediment Retention Device Effectiveness ins Sheet Flow Applications using 7% USDA Sandy Loam
** TSS conducted in large scale, 3rd party testing with US Silica OK-110 sand at 1750 mg/L and 90 GPM measured per SM 2540D.
** TPH conducted in large scale, 3rd party testing with used motor oil at 243 mg/L and 90 GPM measured using EPA Method 1664A.

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC A DIVISION OF ADS, INC.
WWW.INLETFILTERS.COM
(866) 297-8655 PH
(630) 355-3477 FX
INFO@INLETFILTERS.COM

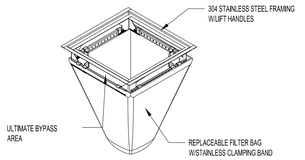
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C	FLEXSTORM_PENNDOT_SS	A
SCALE:	SHEET 1 OF 1	

NOTES REGARDING DETAILS BY OTHERS:

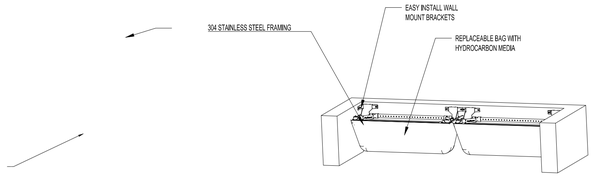
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DETAILS BY OTHERS DISCLAIMER

FLEXSTORM PURE FILTERS FOR PERMANENT INLET PROTECTION
PRODUCT SELECTION AND SPECIFICATION DRAWING



FLEXSTORM PURE INLET FILTERS FOR RECTANGULAR OPENINGS WITH GRATES



FLEXSTORM HDWM WALL MOUNT INLET FILTERS FOR OPEN THROAT GUTTERS

Product selection for FLEXSTORM PURE Filters (Permanent Inlet Protection)

Descrip	Inlet Type	Grate Size	Opening Size	Bag Cap (ft^2)	Flow Ratings (CFS)					
					FX/FX+	PC/PC+	Bypass	FX	FX+	PC	PC+
2' x 2' Frame and Grate	Square/Rect (SQ)	24 x 24	22 x 22	3.3	1.8	1.6	4.8	62MHD22FX	62MHD22FXP	62MHD22PC	62MHD22PCP
2' x 4' Penndot Type M & C	Square/Rect (SQ)	26.5 x 48	24 x 44.5	6.3	3.1	2.2	9.5	62PENNMHDFX	62PENNMHDFXP	62PENNMHDPC	62PENNMHDPCP
2' x 6' Frame and Grate	Concrete Box (HD4)	26.5 x 75	24 x 72	10.0	4.8	4.1	13.0	62PENNHD2x6FX	62PENNHD2x6FXP	62PENNHD2x6PC	62PENNHF2x6PCP
3 x 3 Frame and Grate	Square/Rect (SQ)	37.5 x 37.5	36 x 36	7.2	4.4	3.2	9.6	62HDXLFX	62HDXLFXP	62HDXLPC	62HDXLPCP
48" Open Throat Curb Inlet	Wall Mount (WM)	N/A	48	3.3	2.5	4.2	N/A*	62HDWM48FX	62HDWM48FXP	62HDWM48PC	62HDWM48PCP

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

*FLOW RATINGS SHOWN ARE 50% MAXIMUM

NOTES:

1. ALL FRAMING IS CONSTRUCTED OF 304 STAINLESS STEEL FOR 25 YEAR SERVICE LIFE RATING
2. TOTAL BYPASS CAPACITY WILL VARY WITH EACH SIZED DRAINAGE STRUCTURE. FLEXSTORM DESIGNS FRAMING BYPASS TO MEET OR EXCEED THE DESIGN FLOW OF THE PARTICULAR DRAINAGE STRUCTURE.
3. UPON ORDERING ADS P/N CONFIRMATION OF THE DOT CALLOUT, FLEXSTORM ITEM CODE, CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED.
4. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

INSTALLATION:

1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE

   REPLACE GRATE
3.



PROJECT INFORMATION

ENGINEERED PRODUCT MANAGER:	KIEL FORTNER 484-602-7199 KIEL.FORTNER@ADSPIPE.COM
ADS SALES REP:	BILL HINES 610-442-8058 BILL.HINES@ADSPIPE.COM
PROJECT NO:	S517195

Advanced Drainage Systems, Inc.

SiteAssist™ FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR WEBSITE

CSL CHARTER SCHOOL AT PENNSBURY 345 LAKESIDE DR

TULLYTOWN BOROUGH, PA

SC-800 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-800.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. 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.
6. CHAMBERS SHALL BE DESIGNED 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 TRUCK.
7. 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 SHALL BE GREATER THAN OR EQUAL TO 700 LBS/FT/% . THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418, 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.
8. 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 FOLLOWS:
   - 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 THERMOPLASTIC 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.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-800 SYSTEM

1. STORMTECH SC-800 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE SC-310/DC-780/SC-800".
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 - 3" (75 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
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 RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE SC-310/DC-780/SC-800".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-800 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 INSTALLATION GUIDE SC-310/DC-780/SC-800".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH INSTALLATION GUIDE SC-310/DC-780/SC-800".
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.

ADDITIONAL INSTRUCTIONS OR FOR SITE SPECIFIC DEVIATIONS FROM THESE GUIDELINE CAN BE OBTAINED DIRECTLY FROM YOUR LOCAL ADS REPRESENTATIVE OR BY LOGGING ON TO WWW.ADSPIPE.COM.

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

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LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
INDUSTRIAL DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS:
LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PAONECALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE TULLYTOWN BOROUGH BUCKS COUNTY COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:
C-809

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A.----LAYOUT: C-809 PCSD
EL

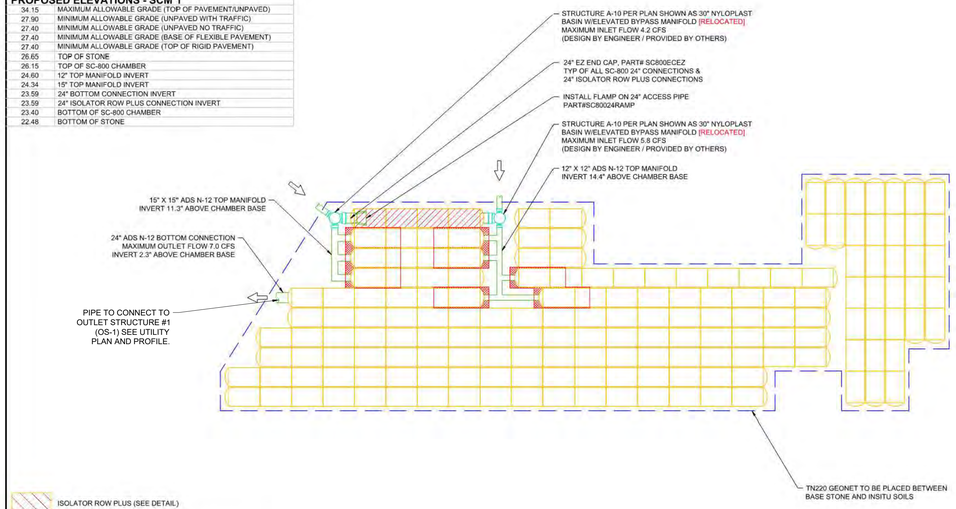
PROPOSED LAYOUT - SCM 1

169	STORMTECH SC-800 CHAMBERS
44	STORMTECH SC-800 END CAPS
6	STONE ABOVE (in)
11	STONE BELOW (in)
40	% STONE VOID
16,245	**INSTALLED SYSTEM VOLUME (CF)(PERIMETER STONE INCLUDED)**
6613	SYSTEM AREA (ft²)
466	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS - SCM 1

34.15	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
27.90	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
27.40	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
27.40	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
27.40	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
26.65	TOP OF STONE
26.15	TOP OF SC-800 CHAMBER
24.60	12" TOP MANIFOLD INVERT
24.34	15" TOP MANIFOLD INVERT
23.59	24" BOTTOM CONNECTION INVERT
23.59	24" ISOLATOR ROW PLUS CONNECTION INVERT
23.40	BOTTOM OF SC-800 CHAMBER
22.48	BOTTOM OF STONE

DESIGN INFILTRATION RATE = 2.67 IN/HR, WHERE A FS OF 3 WAS USED.



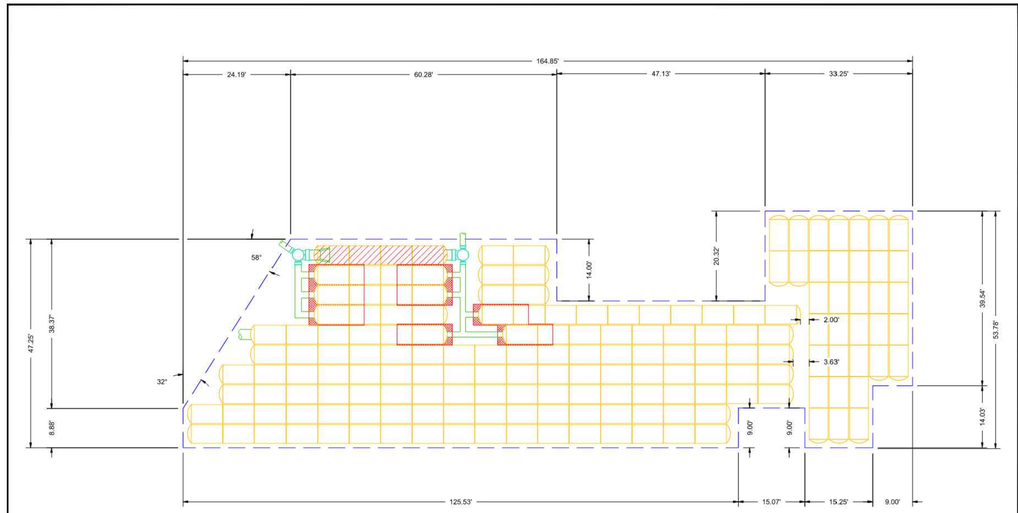
SCM #1

CSL CHARTER SCHOOL AT PENNSBURY
345 LAKESIDE DR
TULLYTOWN BOROUGH, PA.
DATE: 04/07/26 | DRAWN: WCM | CHECKED: JPR | PROJECT # 5317165

DATE	DWN	CHK
4/27/2026	NAL	JPR
5/7/2026	DHH	JPR

StormTech® Chamber System
WWW.ADSPIPE.COM
30 15 0

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SCM #1

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OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

NOTES REGARDING DETAILS BY OTHERS:

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2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON THE GENERAL NOTES AND LEGEND SHEET.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

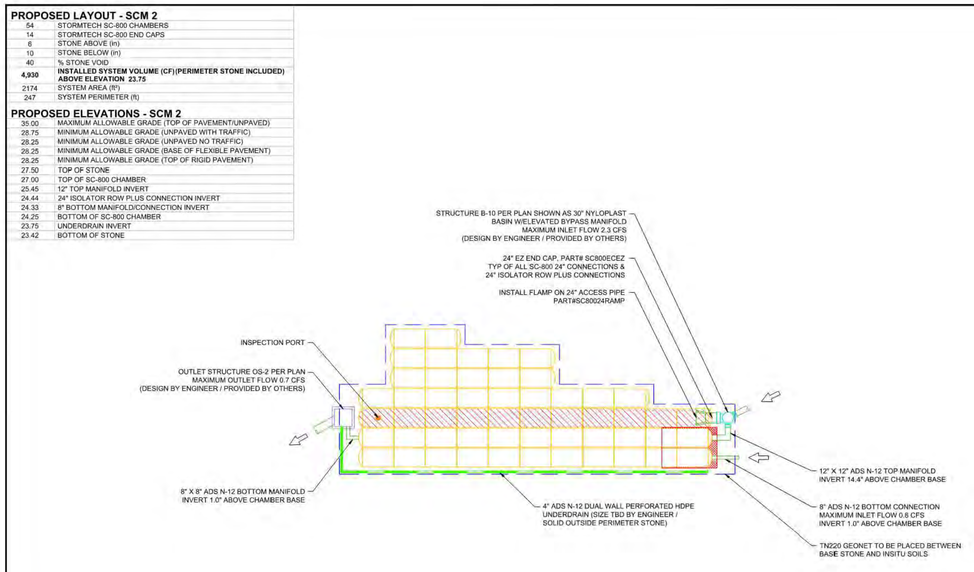
DETAILS BY OTHERS DISCLAIMER

PROPOSED LAYOUT - SCM 2

54	STORMTECH SC-800 CHAMBERS
14	STORMTECH SC-800 END CAPS
6	STONE ABOVE (in)
10	STONE BELOW (in)
40	% STONE VOID
4,930	**INSTALLED SYSTEM VOLUME (CF)(PERIMETER STONE INCLUDED) ABOVE ELEVATION 23.75**
2174	SYSTEM AREA (ft²)
247	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS - SCM 2

35.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
28.75	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
28.25	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
28.25	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
28.25	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
27.50	TOP OF STONE
27.00	TOP OF SC-800 CHAMBER
25.45	12" TOP MANIFOLD INVERT
24.44	24" ISOLATOR ROW PLUS CONNECTION INVERT
24.33	8" BOTTOM MANIFOLD CONNECTION INVERT
24.25	BOTTOM OF SC-800 CHAMBER
23.75	UNDERDRAIN INVERT
23.42	BOTTOM OF STONE

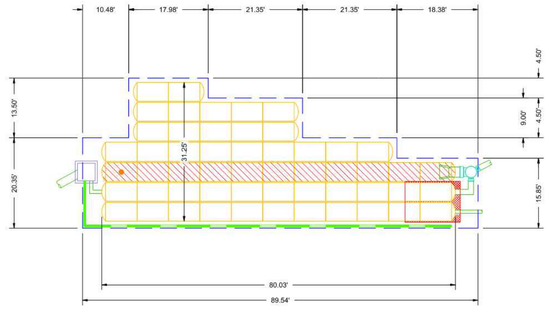


SCM #2

CSL CHARTER SCHOOL AT PENNSBURY
345 LAKESIDE DR
TULLYTOWN BOROUGH, PA.
DATE: 04/07/26 | DRAWN: WCM | CHECKED: JPR | PROJECT # 5317165

DATE	DWN	CHK
4/27/2026	NAL	JPR
5/7/2026	DHH	JPR

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30 15 0



SCM #2

CSL CHARTER SCHOOL AT PENNSBURY
345 LAKESIDE DR
TULLYTOWN BOROUGH, PA.
DATE: 04/07/26 | DRAWN: WCM | CHECKED: JPR | PROJECT # 5317165

DATE	DWN	CHK
4/27/2026	NAL	JPR
5/7/2026	DHH	JPR

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
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8	10/05/2026	BID ISSUE	EL / TK

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#20250292016

BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE TULLYTOWN BOROUGH BUCKS COUNTY COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
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COMMONWEALTH OF PENNSYLVANIA
ROBERT
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352
REGISTERED LANDSCAPE ARCHITECT

SHEET TITLE:
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:
C-810

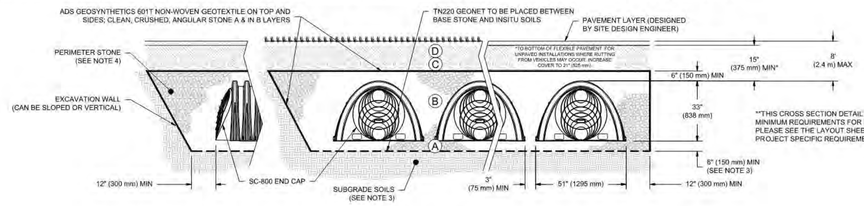
REVISION 8 - 10/05/2026

Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-SA-----LAYOUT, C-810 PCSD
EL

ACCEPTABLE FILL MATERIALS: STORMTECH SC-800 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.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 15" (375 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[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 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).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE[2,3]

PLEASE NOTE:
1. 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".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD 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.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



CSL CHARTER SCHOOL AT PENNSBURY - SPECIFIC CROSS SECTION

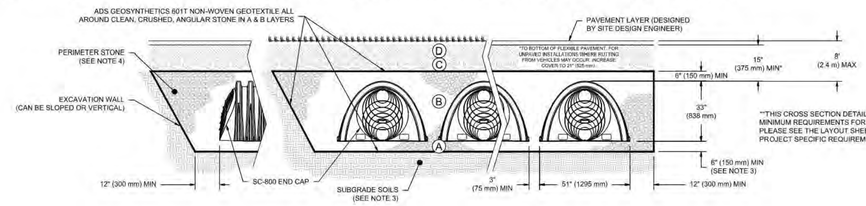
NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-800 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER 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. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
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" (50 mm).
   - 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 700 LBS/FT/%, 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.

SCM #1

ACCEPTABLE FILL MATERIALS: STORMTECH SC-800 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.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 15" (375 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[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 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).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE[2,3]

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2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD 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.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



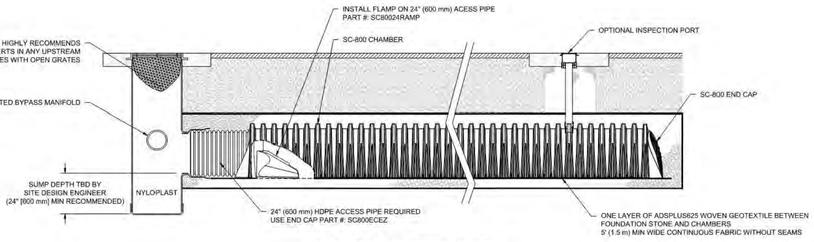
NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-800 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER 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. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
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" (50 mm).
   - 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 700 LBS/FT/%. 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.

SCM #2

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

NOTES REGARDING DETAILS BY OTHERS:
1. DETAILS PREPARED BY OTHERS ARE IDENTIFIED AS SUCH BY WAY OF A TITLE BLOCK, REFERENCE, LOGO, OR OTHER NOTATION.
2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON THE GENERAL NOTES AND LEGEND SHEET.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

DETAILS BY OTHERS DISCLAIMER



SC-800 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

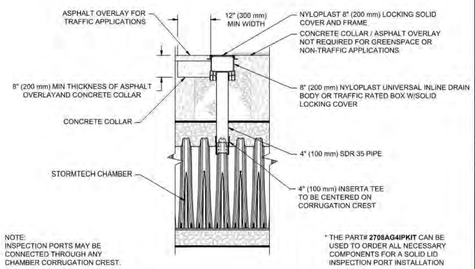
STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - 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 rad) OR MORE IS PREFERRED
- 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.

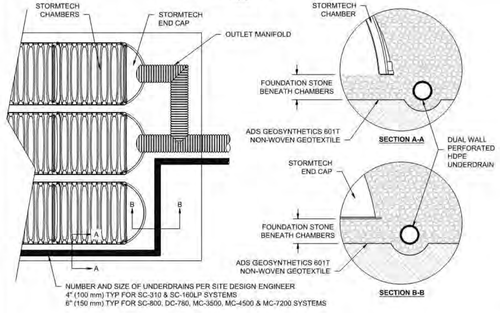
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES
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.

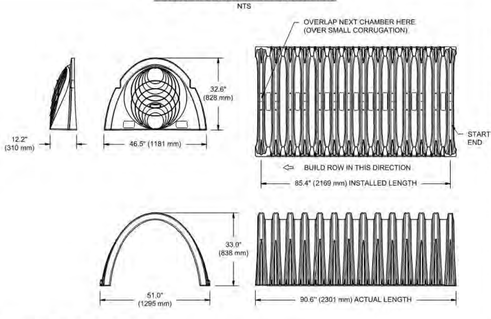


4" (100 mm) PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)
NTS

UNDERDRAIN DETAIL
NTS



SC-800 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 33.0" X 85.4"	(1295 mm X 838 mm X 2169 mm)
CHAMBER STORAGE	50.6 CUBIC FEET	(1.43 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.22 m³)
WEIGHT	81.8 lbs.	(37.1 kg)

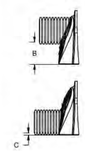
NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	46.5" X 32.6" X 10.5"	(1181 mm X 828 mm X 267 mm)
END CAP STORAGE	3.4 CUBIC FEET	(0.09 m³)
MINIMUM INSTALLED STORAGE**	14.7 CUBIC FEET	(0.42 m³)
WEIGHT	15.7 lbs.	(7.1 kg)

* ASSUMES 6" (150 mm) STONE ABOVE AND BELOW CHAMBER, 3" (75 mm) BETWEEN CHAMBERS
**ASSUMES 6" (150 mm) STONE ABOVE AND BELOW END CAPS, 3" (75 mm) BETWEEN ROWS, 12" (300 mm) BEYOND END CAPS

PRE-CORED HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "BPC"
PRE-CORED HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "TPC"

PART #	STUB	B	C
SC800EPE06TPC	6" (150 mm)	21.4" (544 mm)	---
SC800EPE06BPC		---	0.5" (23 mm)
SC800EPE08TPC	8" (200 mm)	19.2" (488 mm)	---
SC800EPE08BPC		---	1.0" (25 mm)
SC800EPE10TPC	10" (250 mm)	17.0" (432 mm)	---
SC800EPE10BPC		---	1.2" (30 mm)
SC800EPE12TPC	12" (300 mm)	14.4" (366 mm)	---
SC800EPE12BPC		---	1.6" (41 mm)
SC800EPE15TPC	15" (375 mm)	11.3" (287 mm)	---
SC800EPE15BPC		---	1.7" (43 mm)
SC800EPE18TPC	18" (450 mm)	8.0" (203 mm)	---
SC800EPE18BPC		---	2.0" (51 mm)
SC800ECEZ	24" (600 mm)	---	2.3" (58 mm)



NOTE: ALL DIMENSIONS ARE NOMINAL

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
INDUSTRIAL DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE THE PROPERTY OF BOHLER AND SHALL NOT BE LOANED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED AND SIGNED PLANS SHALL BE UTILIZED OR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF THE SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE TULLYTOWN BOROUGH BUCKS COUNTY COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB — REGISTERED LANDSCAPE ARCHITECT — PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:
C-811

REVISION 8 - 10/05/2026

CSL CHARTER SCHOOL AT PENNSBURY — 345 LAKESIDE DR — TULLYTOWN BOROUGH, PA — DATE: 04/07/26 — PROJECT #: 53171165 — DRAWN: WCM — CHECKED: JPR
DATE: 4/27/2026 NO.: 1 DRN: JPR; 5/7/2026 1 DRN: JPR

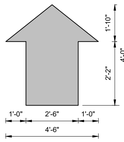
STANDARD CROSS SECTION SC-800 CHAMBER — DATE: 08/04/25 — DRAWING #: 721-820 — DRAWN: SMW — CHECKED: BJM
REVISIONS: 3/4/26 A.M. CHAMBER SPACING MAY 6" (150 mm)

StormTech® Chamber System — WWW.ADSPIPE.COM — ADS

4640 TRUEMAN BLVD HILLIARD, OH 43026

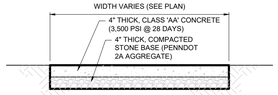
THE CONTENTS OF THIS DRAWING ARE THE PROPERTY OF ADVANCED DRAINAGE SYSTEMS, INC. AND SHALL NOT BE REPRODUCED, COPIED, OR ASSIGNED TO ANY THIRD PARTY WITHOUT THE EXPRESS WRITTEN PERMISSION OF ADVANCED DRAINAGE SYSTEMS, INC. THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ADVANCED DRAINAGE SYSTEMS, INC. ANY REUSE, DISCLOSURE, ADAPTATION, OR MODIFICATION OF THESE DRAWINGS WITHOUT THE EXPRESS WRITTEN CONSENT OF ADVANCED DRAINAGE SYSTEMS, INC. IS PROHIBITED AND WILL BE VIEWED AS AN ACT OF COPYRIGHT INFRINGEMENT. ALL RIGHTS RESERVED UNDER COPYRIGHT LAWS.

Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT: C-811 PCSD
EL



WHITE PAINTED TRAFFIC ARROW

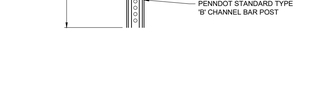
NOT TO SCALE (PA-S050301 - 09/2023)



EXPANSION JOINTS 1/2" WIDE PREMOULDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS. CONTRACTION JOINTS TO BE SPACED AT EQUAL INTERVALS, 5' MAXIMUM LENGTH.

CONCRETE SIDEWALK

NOT TO SCALE (PA-S030201 - 09/2023)



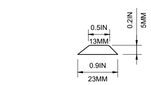
TAPERED CURB

NOT TO SCALE (PA-S020203 - 09/2023)



PAVEMENT TIE-IN

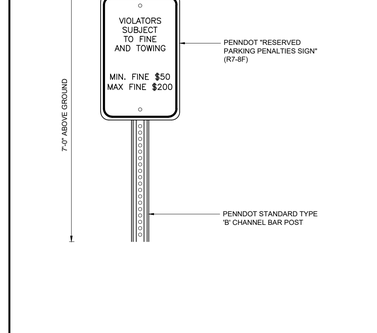
NOT TO SCALE (PA-S019901 - 09/2023)



NOTES:
1. DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR-TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.
2. CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS TO BE UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.

TRUNCATED DOME PATTERN FOR ADA DETECTABLE WARNING SURFACES (FOR USE IN DOT ROADWAYS)

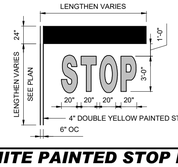
NOT TO SCALE (PA-S030501 - 09/2023)



NOTES:
1. CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED PASSENGER LOADING ZONE.
2. FOR VAN ACCESSIBLE PARKING SPACES, AN 8.0' WIDE PASSENGER LOADING ZONE IS REQUIRED ON THE PASSENGER SIDE OF EACH VAN ACCESSIBLE SPACE.
3. CURB RAMPS, PAVEMENT MARKINGS, AND APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

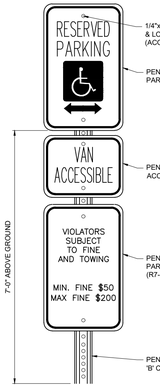
60° ANGLED ADA ACCESSIBLE PARKING SPACE STRIPING

NOT TO SCALE (PA-S050103 - 09/2023)



WHITE PAINTED STOP BAR AND "STOP" LETTERING

NOT TO SCALE (PA-S059902 - 09/2023)



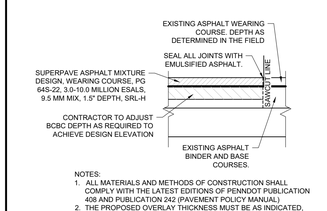
NOTES:
1. POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PENNDOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN
2. SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PENNDOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B, AS AMENDED.
3. SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES). SIGNS SHALL CONFORM TO THE PENNDOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.
4. SIGNS SHALL BE SETBACK 2.0' FROM CURB LINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.
5. RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA STANDARDS FOR ACCESSIBLE DESIGN" AS AMENDED.
6. ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

RESERVED PARKING SPACE WITH PENALTIES AND VAN ACCESSIBLE SIGNS

NOT TO SCALE (PA-S060101 - 09/2023)

RESERVED PARKING SPACE AND PENALTIES SIGNS

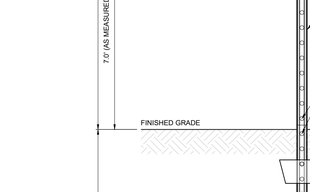
NOT TO SCALE (PA-S060102 - 09/2023)



NOTES:
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITIONS OF PENNDOT PUBLICATION 408 AND PUBLICATION 242 (PAVEMENT POLICY MANUAL).
2. THE PROPOSED OVERLAY THICKNESS MUST BE AS INDICATED, OR MATCH THE EXISTING AS FOUND IN THE FIELD, WHICHEVER IS GREATER. A LESSER WEARING COURSE THICKNESS IS NOT PERMITTED, UNLESS OTHERWISE DEEMED ACCEPTABLE BY STATE OR LOCAL AUTHORITIES.

MILL AND OVERLAY

NOT TO SCALE (PA-S010401 - 09/2023)



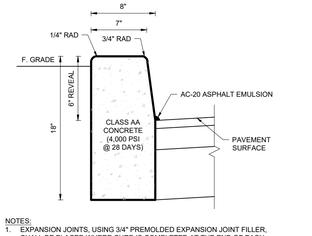
NOTES:
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITIONS OF PENNDOT PUBLICATION 408 AND 242 (PAVEMENT POLICY MANUAL).
2. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PAVEMENT DESIGN RECOMMENDATIONS. IN CASE OF ANY DISCREPANCIES, THE GEOTECHNICAL REPORT RECOMMENDATIONS SHALL SUPERSEDE.

STANDARD ASPHALT PAVEMENT

NOT TO SCALE (PA-S010101 - 06/2025)

STANDARD POLE MOUNTED SIGN INSTALLATION

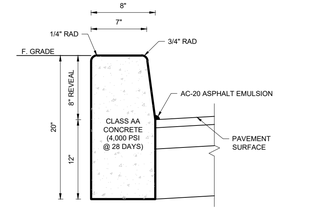
NOT TO SCALE (PA-S060201 - 09/2023)



NOTES:
1. EXPANSION JOINTS, USING 3/4" PREMOLDED EXPANSION JOINT FILLER, SHALL BE PLACED WHERE CURB IS COMPLETED AT THE END OF EACH WORKDAY OR MEETS STRUCTURES, WHICHEVER IS SHORTER.
2. CONTRACTION JOINTS SHALL BE SPACED IN UNIFORM LENGTHS AND NO MORE THAN 20' APART. CONTRACTION JOINTS SHALL BE RECESSED 2" FROM THE TOP AND FRONT OF THE CURB.

TYPICAL 6" CONCRETE CURB

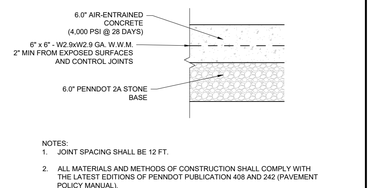
NOT TO SCALE (PA-S020201 - 10/2024)



NOTES:
1. EXPANSION JOINTS, USING 3/4" PREMOLDED EXPANSION JOINT FILLER, SHALL BE PLACED WHERE CURB IS COMPLETED AT THE END OF EACH WORKDAY OR MEETS STRUCTURES, WHICHEVER IS SHORTER.
2. CONTRACTION JOINTS SHALL BE SPACED IN UNIFORM LENGTHS AND NO MORE THAN 20' APART. CONTRACTION JOINTS SHALL BE RECESSED 2" FROM THE TOP AND FRONT OF THE CURB.

TYPICAL CONCRETE CURB 8" REVEAL

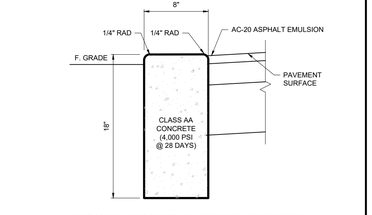
NOT TO SCALE (PA-S020206 - 12/2024)



NOTES:
1. JOINT SPACING SHALL BE 12 FT.
2. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITIONS OF PENNDOT PUBLICATION 408 AND 242 (PAVEMENT POLICY MANUAL).
3. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT PAVEMENT DESIGN RECOMMENDATIONS. IN CASE OF ANY DISCREPANCIES, THE GEOTECHNICAL REPORT RECOMMENDATIONS SHALL SUPERSEDE.

REINFORCED CONCRETE PAVEMENT

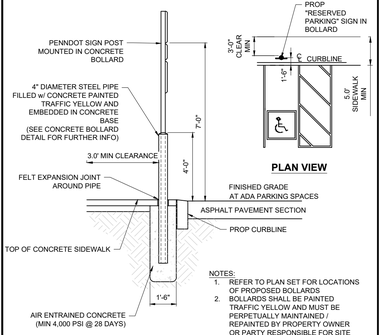
NOT TO SCALE (BE-S010203 - 03/2024)



CONTRACTION JOINTS 2" DEEP AND 3/4" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH PREMOLDED EXPANSION JOINT FILLER MATERIAL AS SPECIFIED RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

TYPICAL FLUSH CONCRETE CURB

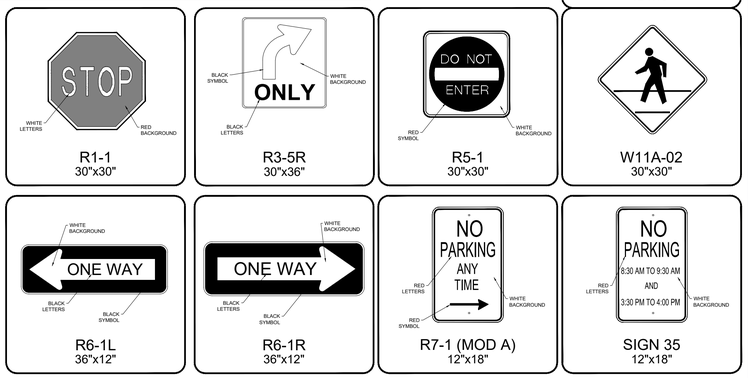
NOT TO SCALE (PA-S020202 - 03/2024)



NOTES:
1. REFER TO PLAN SET FOR LOCATIONS OF PROPOSED BOLLARDS
2. BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE

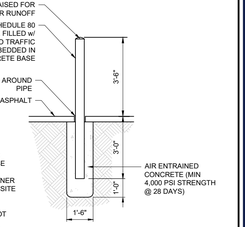
RESERVED PARKING SIGN WITHIN BOLLARD

NOT TO SCALE (PA-S060103 - 09/2023)



HEAVY DUTY ASPHALT PAVEMENT

NOT TO SCALE (PA-S010102 - 03/2024)



NOTES:
1. BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.
2. THIS BOLLARD DETAIL IS NOT CRASH TEST RATED AND IS NOT INTENDED TO MEET THE PERFORMANCE STANDARDS OF ASTM F-3016 OF ASTM F-2656. IT IS INTENDED TO BE A VISUAL DETERRENT TO HELP PREVENT INCURSION OF VEHICLES INTO NON-VEHICULAR AREAS.

BOLLARD

NOT TO SCALE (PA-S070101 - 06/2025)

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LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
INDUSTRIAL DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

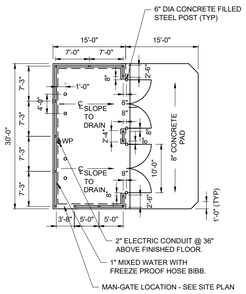
CONSTRUCTION DETAILS

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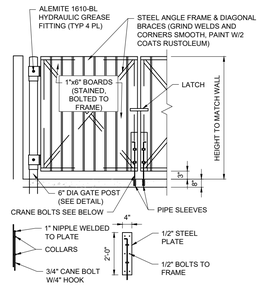
C-901

REVISION 8 - 10/05/2026

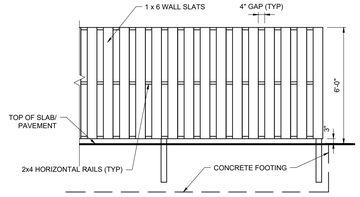
Sep 29, 2026
P:\PA2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT: C-901 DETL
EL



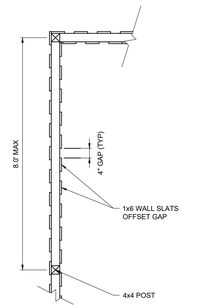
CORRAL LAYOUT



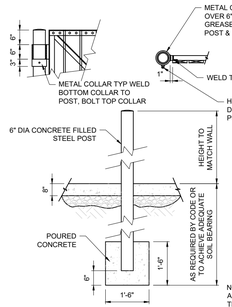
TRASH ENCLOSURE GATE & MOUNTING



TYPICAL ELEVATION

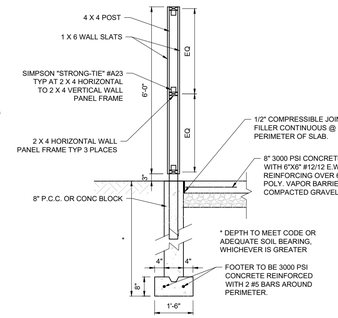


TYPICAL PLAN ELEVATION



NOTE:
ALL WOOD MEMBERS OF TRASH CORRAL ARE TO BE PRESSURE TREATED. ALL FASTENERS ARE TO BE GALVANIZED.

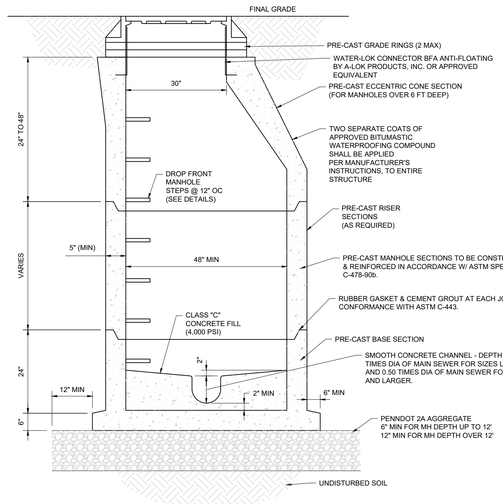
GATE POST DETAILS



WALL SECTION

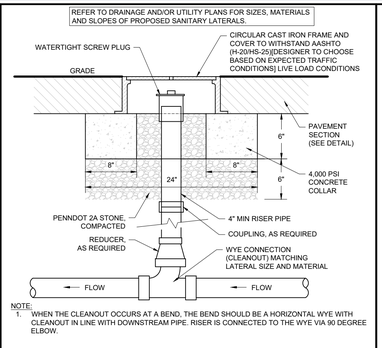
15'-0" X 30'-0" WOODEN TRASH ENCLOSURE

NOT TO SCALE (PA-S100101 - 09/2023)



PRECAST SANITARY MANHOLE

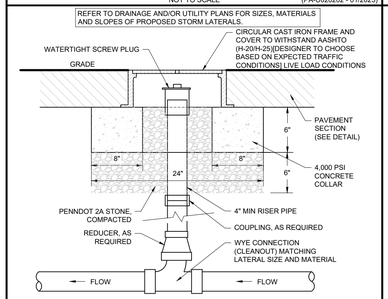
NOT TO SCALE (PA-U020101 - 09/2023)



NOTE:
1. WHEN THE CLEANOUT OCCURS AT A BEND, THE BEND SHOULD BE A HORIZONTAL WYE WITH CLEANOUT IN LINE WITH DOWNSTREAM PIPE. RISER IS CONNECTED TO THE WYE VIA 90 DEGREE ELBOW.

SANITARY CLEANOUT IMPERVIOUS SURFACES

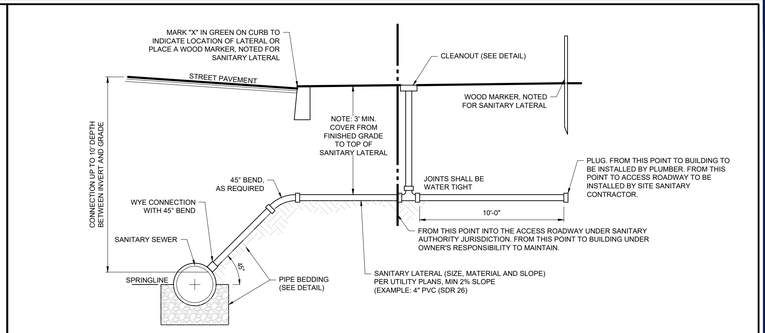
NOT TO SCALE (PA-U020202 - 01/2025)



NOTE:
1. WHEN THE CLEANOUT OCCURS AT A BEND, THE BEND SHOULD BE A HORIZONTAL WYE WITH CLEANOUT IN LINE WITH DOWNSTREAM PIPE. RISER IS CONNECTED TO THE WYE VIA 90 DEGREE ELBOW.

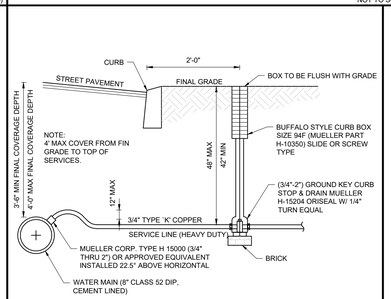
ROOF DRAIN CLEANOUT IMPERVIOUS SURFACES

NOT TO SCALE (PA-U010302 - 01/2025)



TYPICAL SANITARY SEWER LATERAL

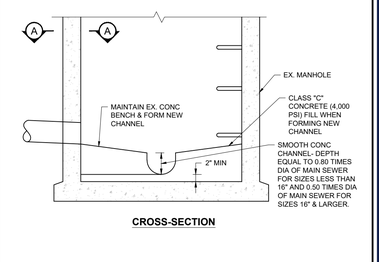
NOT TO SCALE (PA-U020403 - 01/2025)



NOTE:
PENNDOT 2A AGGREGATE (8" LIFTS) SHALL BE PLACED WHEN BACKFILLING WATER SERVICE CONNECTION FROM MAIN TO BEHIND CURB.

TYPICAL WATER SERVICES CONNECTION

NOT TO SCALE (PA-U030401 - 07/2025)



CROSS-SECTION

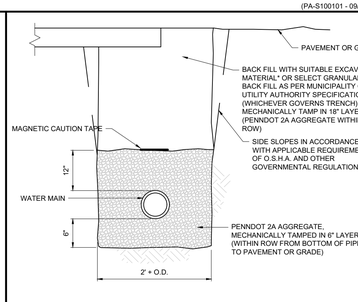


NOTE: CLEAN & LUBRICATE A-LOK CONNECTOR AND THE PIPE END WHICH WILL BE INSERTED INTO A-LOK PRIOR TO MAKING CONNECTION.

SECTION A-A

SANITARY PIPE CONNECTION TO EXISTING MANHOLE

NOT TO SCALE (PA-U020401 - 09/2023)

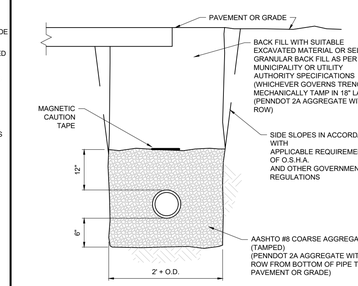


EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE LOCAL PERMITTING AGENCY, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED. (MINIMUM = 90 DAYS, MAXIMUM = 120 DAYS)

THIS DETAIL IS NOT FOR USE WITHIN A STATE RIGHT-OF-WAY. REFER TO THE LATEST APPROVED DOT SPECIFICATIONS FOR TRENCH BEDDING WITHIN A STATE RIGHT-OF-WAY.

TRENCH BEDDING CLASSIFICATION (WATER MAIN)

NOT TO SCALE (PA-U050201 - 09/2023)

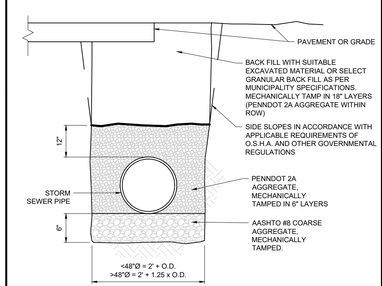


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TRENCH BEDDING CLASSIFICATION (SANITARY MAIN)

NOT TO SCALE (PA-U050202 - 09/2023)

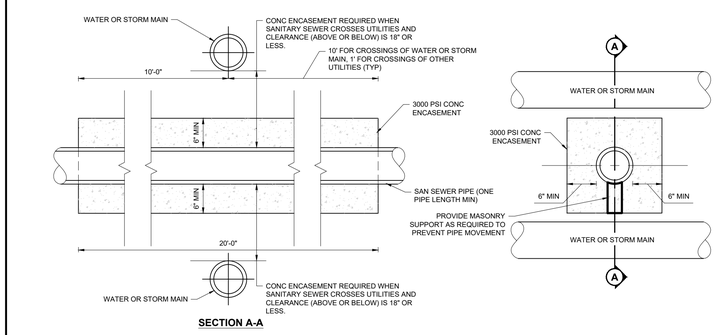


EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE LOCAL PERMITTING AGENCY, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED. (MINIMUM = 90 DAYS, MAXIMUM = 120 DAYS)

THIS DETAIL IS NOT FOR USE WITHIN A STATE RIGHT-OF-WAY. REFER TO THE LATEST APPROVED DOT SPECIFICATIONS FOR TRENCH BEDDING WITHIN A STATE RIGHT-OF-WAY.

TRENCH BEDDING CLASSIFICATION (STORM)

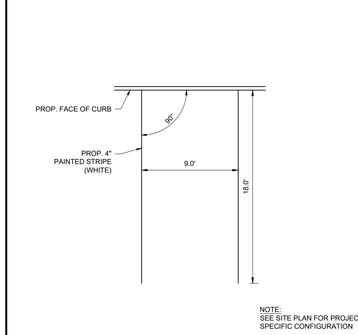
NOT TO SCALE (PA-U050203 - 09/2023)



SECTION A-A

SANITARY CONCRETE ENCASEMENT

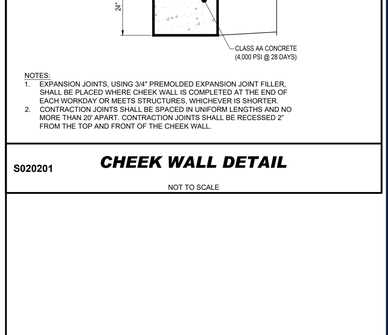
NOT TO SCALE (BE-U029901 - 04/2024)



NOTE:
SEE SITE PLAN FOR PROJECT SPECIFIC CONFIGURATION

PARKING SPACE STRIPING DETAIL

NOT TO SCALE



NOTES:
1. EXPANSION JOINTS, USING 3/4" PREMOLDED EXPANSION JOINT FILLER, SHALL BE PLACED WHERE CHEEK WALL IS COMPLETED AT THE END OF EACH WORKDAY OR MEETS STRUCTURES, WHICHEVER IS SHORTER.
2. CONTRACTION JOINTS SHALL BE SPACED IN UNIFORM LENGTHS AND NO MORE THAN 20' APART. CONTRACTION JOINTS SHALL BE RECESSED 2" FROM THE TOP AND FRONT OF THE CHEEK WALL.

S020201

CHEEK WALL DETAIL

NOT TO SCALE

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
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WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE TULLYTOWN BOROUGH BUCKS COUNTY COMMONWEALTH OF PENNSYLVANIA

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T.R. KNAB
COMMONWEALTH OF PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:

C-902

REVISION 8 - 10/05/2026

Sep 26, 2026
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EL

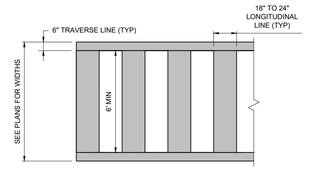
LIST OF APPLICABLE PENNDOT DETAILS & STANDARDS

ALL PAVEMENT MARKINGS SHOULD BE IN ACCORDANCE WITH PENNDOT PUBLICATION 111, TC-8600 & TC-8700 STANDARDS, LATEST EDITION.

SIGNAGE: PENNDOT PUBLICATION 236
"STOP" SIGN - R1-1 (24" x 24")
"DO NOT ENTER" SIGN - R5-1 (30" x 30")

ADDITIONAL DETAILS ASSOCIATED WITH PENNDOT ROAD IMPROVEMENTS ARE ON THE FOLLOWING STANDARD DETAILS FROM THE LATEST EDITION OF PENNDOT PUBLICATION 72M:
(THE PERMITTEE IS REQUIRED TO PROVIDE THE CONTRACTOR WITH COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS)

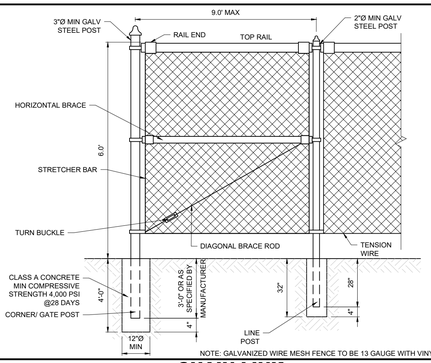
STANDARD DRAWING NUMBER	DRAWING NAME
RC - 33M	END SECTIONS FOR PIPE CULVERTS
RC - 39M	STORMWATER MANHOLES
RC - 45M	INLET TOPS, GRATES AND FRAMES
RC - 46M	INLET BOXES
RC - 67M	CURB RAMPS AND SIDEWALKS



NOTES:
1. THIS TYPE OF MARKING SHOULD BE USED AT LOCATIONS WHERE SUBSTANTIAL NUMBERS OF PEDESTRIANS CROSS WITHOUT ANY OTHER TRAFFIC CONTROL DEVICE. AT LOCATIONS WHERE PHYSICAL CONDITIONS ARE SUCH THAT ADDED VISIBILITY OF THE CROSSWALK IS NECESSARY, OR AT PLACES WHERE PEDESTRIANS MIGHT NOT BE EXPECTED;
2. ALL CROSSWALKS SHALL COMPLY WITH THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AS AMENDED.
3. TRAVERSE AND LONGITUDINAL LINES SHALL EXTEND ACROSS THE FULL WIDTH OF PAVEMENT OR TO THE EDGE OF THE INTERSECTING CROSSWALK TO DISCOURAGE DIAGONAL WALKING BETWEEN CROSSWALKS.
4. ALL CROSSWALK TRAVERSE LINES SHALL BE WHITE THERMOPLASTIC, LONGITUDINAL LINES SHALL BE PAINTED WHITE. ALL LINES AND NEUTRAL AREAS SHALL BE OF EQUAL WIDTHS.
5. WARNING SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH MUTCD, AS AMENDED.

HIGH VISIBILITY CROSSWALK WITH BORDER (PERPENDICULAR TO INTERSECTION)

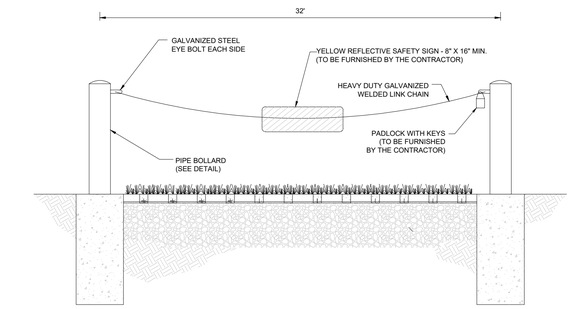
NOT TO SCALE (PA-S050401 - 09/2023)



NOTE: GALVANIZED WIRE MESH FENCE TO BE 13 GAUGE WITH VINYL COATING.

CHAIN LINK FENCE

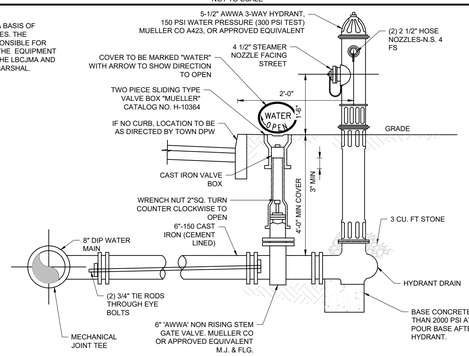
NOT TO SCALE (PA-S080201 - 09/2023)



BOLLARD AND CHAIN

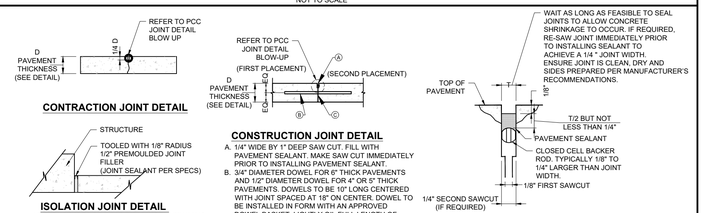
NOT TO SCALE

NOTES:
1. THIS DETAIL IS PROVIDED AS A BASIS OF DESIGN FOR BIDDING PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND PROVIDING THE EQUIPMENT SPECIFICALLY REQUIRED BY THE LBCJMA AND TULLYTOWN BOROUGH FIRE MARSHAL.



TYPICAL HYDRANT AND VALVE INSTALLATION

NOT TO SCALE (PA-U030101 - 09/2023)



NOTES:

SEE ARCHITECTURAL SPECIFICATION FOR COMPLETE DETAILS

CONTROL JOINT SPACING IS 12'-0" MAXIMUM PARALLEL TO PARKING STALLS AND A SINGLE CONTROL AT THE CENTERLINE PERPENDICULAR TO PARKING STALLS.

ISOLATION JOINTS ARE REQUIRED AT THE INTERFACE OF THE BUILDING AND THE SIDEWALK AND ANY CURBED ISLANDS.

A CONSTRUCTION JOINT IS REQUIRED AT THE INTERFACE BETWEEN THE SIDEWALK AND PARKING AREA.

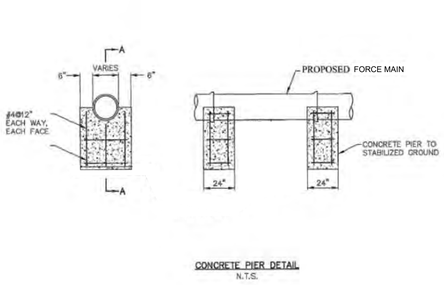
CONCRETE JOINTS

NOT TO SCALE (PA-S010201 - 09/2023)

NOTES REGARDING DETAILS BY OTHERS:
1. DETAILS PREPARED BY OTHERS ARE IDENTIFIED AS SUCH BY WAY OF A TITLE BLOCK, REFERENCE, LOGO, OR OTHER NOTATION.
2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON THE GENERAL NOTES AND LEGEND SHEET.
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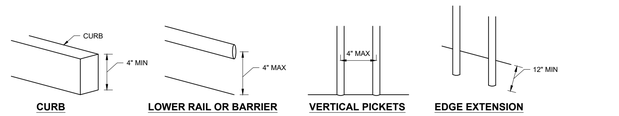
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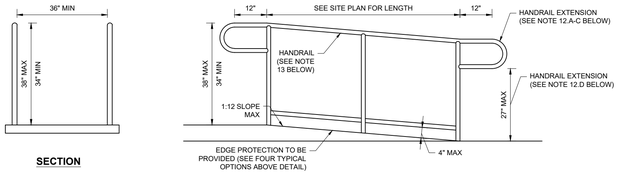


CONCRETE PIER DETAIL
N.T.S.

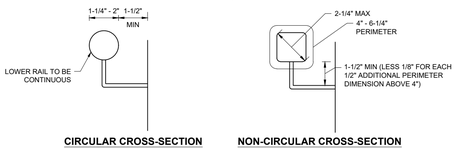
NOTES:
1. NO CONCRETE CRADLE REQUIRE FOR SEPARATION GREATER THAN 12".
2. ALL PIPE BENDS SHALL BE LOCATED OUT OF CONCRETE CRADLE.
3. THIS DETAIL SERVES AS THE BASIS OF DESIGN. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS FOR LBCJMA REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE PLACEMENT OF PIERS WITH LBCJMA PRIOR TO CONSTRUCTION.



CURB | LOWER RAIL OR BARRIER | VERTICAL PICKETS | EDGE EXTENSION



SECTION



CIRCULAR CROSS-SECTION AND CLEARANCE DETAIL | NON-CIRCULAR CROSS-SECTION AND CLEARANCE DETAIL

NOTES:
1. REFER TO "ACCESSIBILITY NOTES" PROVIDED HEREIN FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.
2. THE CONFIGURATION OF THE RAMP, LANDING, RAILING, GUARDS, AND OTHER ASSOCIATED ELEMENTS SHOWN IN THE DETAILS ARE MEANT TO DEPICT THE VARIOUS REQUIREMENTS. REFER TO THE PLANS HEREIN FOR SPECIFIC CONFIGURATIONS.
3. MATERIALS: SCHEDULE 40 ALUMINUM OR STEEL PIPE (OR APPROVED EQUAL). OWNER TO APPROVE FINAL MATERIALS AND COLOR VIA SHOP DRAWING REVIEW.
4. SIZES: RAILINGS SHALL BE 1.25" OR 1.5" O.D. VERTICAL RAILS SHALL BE 1/2" MIN. HANDRAILS WITH A CIRCULAR CROSS-SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25" MIN. AND 2" MAX. IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER OF NOT LESS THAN 4" AND NOT GREATER THAN 6.25".
5. FINISH: NATURAL OR HARDCOAT BLACK ANODIZED OR SEMI GLOSS BLACK PAINTED (OR APPROVED EQUIVALENT).
6. ALL WELDS SHALL BE GROUND SMOOTH.
7. THIS DETAIL IS NOT APPLICABLE FOR APPLICATIONS INVOLVING STAIRS OR WHERE FALL PROTECTION IS REQUIRED. IN THOSE INSTANCES, REFER TO THE APPROPRIATE DETAILS.
8. RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
9. RAMPS, HANDRAILS, & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.
10. RAMP RUNS SHALL HAVE A MAXIMUM RISE OF 30 INCHES BEFORE A LEVEL LANDING AREA. RAMPS & LANDINGS SHALL BE DESIGNED AND CONSTRUCTED TO PREVENT WATER ACCUMULATION WITHIN THE RAMP.
11. EXTENSIONS:
    A. 12" LONG MIN. IN THE SAME DIRECTION OF TRAVEL ARE REQUIRED AT THE TOP AND BOTTOM OF RUNS (EXCEPT FOR INSIDE RAIL OF SWITCHBACK RAMPS) TO PROVIDE SUPPORT BEFORE ENTERING OR EXITING RAMPS.
    B. THE 12" MIN. DIMENSION IS MEASURED TO THE START OF THE RETURN RADIUS.
    C. EXTENSIONS MUST RETURN TO GUARD, WALL, OR FLOOR.
    D. EXTENSIONS WITH A LEADING EDGE 27" HIGH MAX. CAN EXTEND ANY AMOUNT FROM POSTS. THOSE WITH A LEADING EDGE HIGHER THAN 72" ARE LIMITED TO A 12" PROTRUSION FROM POSTS. THE SLOPING PORTION OF HANDRAILS ARE NOT REQUIRED TO COMPLY WITH REQUIREMENTS FOR PROTRUDING OBJECTS.
13. HANDRAILS:
    A. THESE MUST BE CONTINUOUS THE FULL LENGTH OF RUN AND TOPS AND SIDES OF GRIPPING SURFACE CANNOT BE OBSTRUCTED. THE BOTTOM GRIPPING SURFACE CAN BE OBSTRUCTED UP TO 20% OF THE LENGTH. (A TYPICAL OBSTRUCTION IS THE PRESENCE OF A VERTICAL POST TO SUPPORT THE RAIL.)
    B. THESE CAN TURN OR WRAP WHERE HANDRAILS ARE CONTINUOUS AT THE INSIDE TURN OF DOGLEG OR SWITCHBACK RAMPS.
14. LOCATIONS: HANDRAILS ARE REQUIRED ON BOTH SIDES OF RAMPS (NON-CURB RAMPS) WITH A RISE GREATER THAN 6".
15. EDGE PROTECTION: IT IS REQUIRED ALONG ALL RAMPS, EXCEPT IN THE FOLLOWING SITUATIONS:
    - RAMPS NO HIGHER THAN 6" THAT HAVE SIDE FLARES
    - RAMP LANDINGS SERVING AN ADJOINING RUN OR STAIRWAY
    - SIDES OF RAMP LANDINGS WITH VERTICAL DROP-OFFS NOT EXCEEDING 1/2" WITHIN 10" OF THE MINIMUM LANDING AREA.
16. CONTRACTOR TO PROVIDE ENGINEERED SHOP DRAWINGS TO OWNER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

FREESTANDING HANDRAIL

NOT TO SCALE (PS-S020205 - 02/2020)

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
INDUSTRIAL ENGINEERING
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
T.R. KNAB
LANDSCAPE ARCHITECT
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
C-903

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A-----LAYOUT C-903 DETL
EL

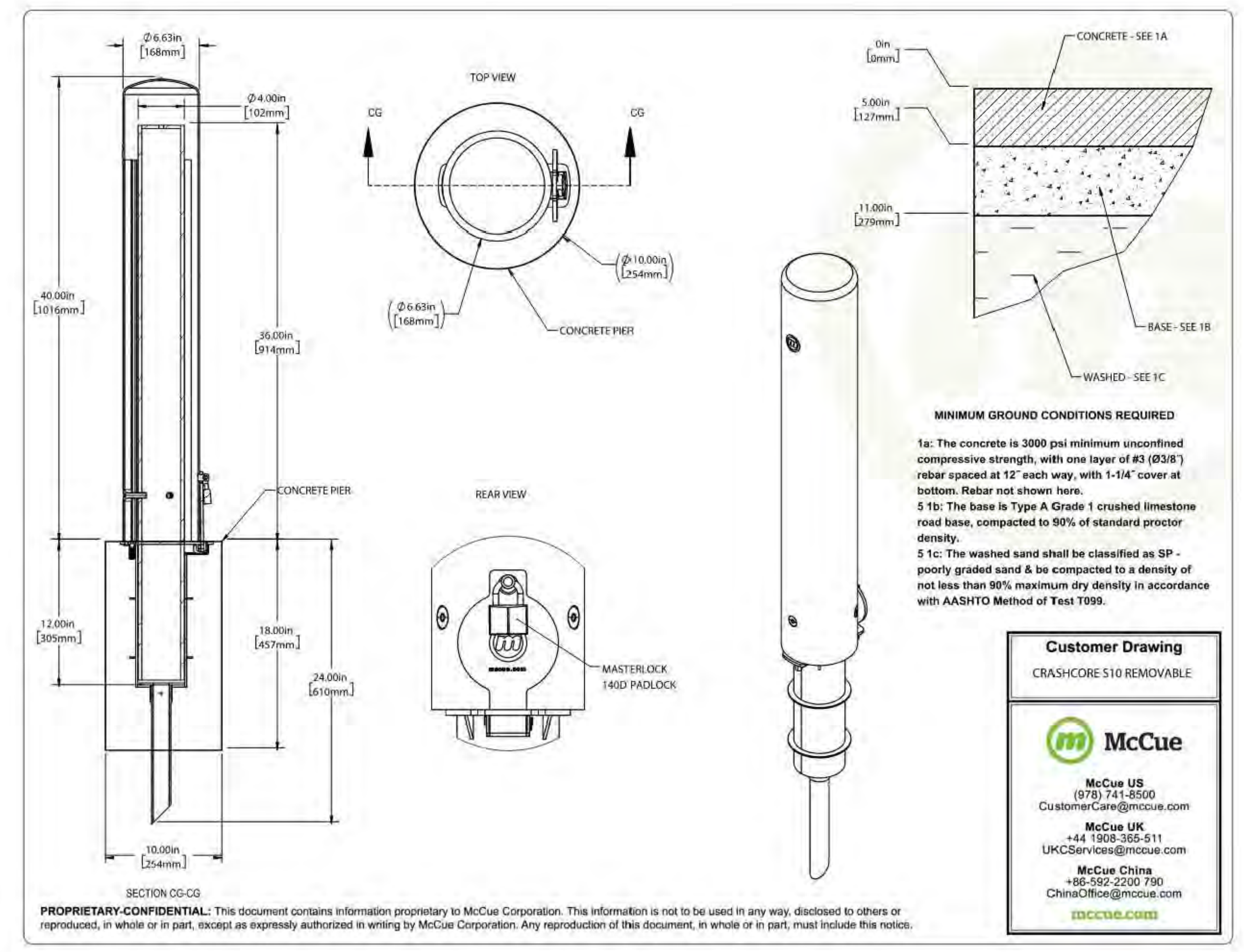
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DETAILS BY OTHERS DISCLAIMER

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REFER TO NOTES THIS SHEET.

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER



MINIMUM GROUND CONDITIONS REQUIRED

1a: The concrete is 3000 psi minimum unconfined compressive strength, with one layer of #3 (Ø3/8") rebar spaced at 12" each way, with 1-1/4" cover at bottom. Rebar not shown here.
5 1b: The base is Type A Grade 1 crushed limestone road base, compacted to 90% of standard proctor density.
5 1c: The washed sand shall be classified as SP - poorly graded sand & be compacted to a density of not less than 90% maximum dry density in accordance with AASHTO Method of Test T099.

Customer Drawing
CRASHCORE S10 REMOVABLE

McCue
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McCue China +86-592-2200 790 ChinaOffice@mccue.com
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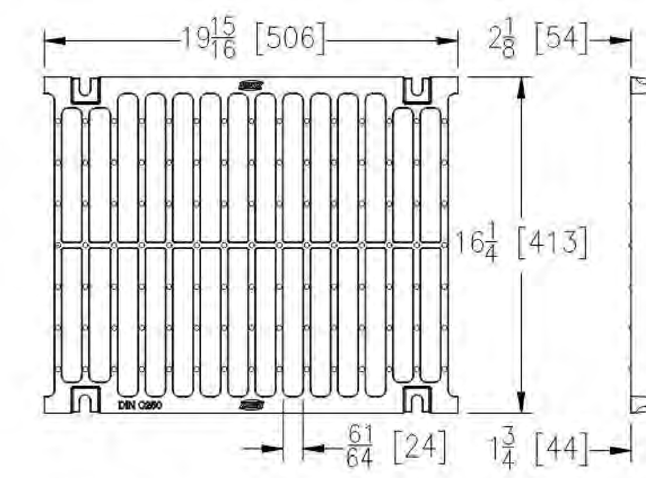
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ZURN **P874-12-DGC**
12[305] Wide Throat Grate

Design and Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice

Back to Index

Please Check ✓	Item No.	Part Number	Item I.D.
	4	67599	P874-12-DGC



DGC GRATE ENGINEERING SPECIFICATION: The Zurn P874-12-DGC Slotted Grate, Ductile Iron, is 16-1/4" [413mm] wide by 19-15/16" [506mm] long, weighing 28 lbs per linear foot[41.4 kg/m]. The grate has an open area of 118 square inches per linear foot[2497 cm2/m], DIN Rating of C, ANSI Rating of Heavy-Duty, H-20 Load Rated. Ductile Iron Conforms to ASTM Specification A536, Grade 80-55-06.

DGC -Ductile Iron	
Material:	Ductile Iron
DIN Rating:	Class C
Weight:	28 lbs/ft. [41.4 kg/m]
Open Area:	118 in²/ft. [2497 cm²/m]
ANSI Rating:	Heavy-Duty
Application:	Vehicle & Truck
Slot Width/Hole Size:	61/64" [24mm]
ADA:	No
H-20:	Yes
FAA:	No

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

Page 4 of 17

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA 16502, Ph. 855.663.9876

In Canada | Zurn Industries Limited
7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, Ph. 877.892.5216

www.zurn.com

Rev. J
Date: 04/10/23
C.N. No. 145234
Form # FT797

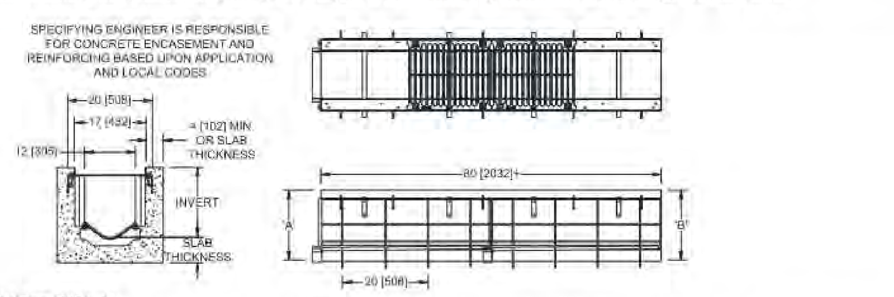
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ZURN **Z874-12**
12 [305] WIDE THROAT TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG **TD-1**

Design and Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: Zurn Z874-12
Channels shall be 80" [2032mm] long, 17" [432mm] wide reveal and have a 12" [305mm] wide throat. Modular channel sections shall be made of 0% water absorbent High Density Polyethylene (HDPE). Shall have a positive mechanical connection between channel sections that will not separate during the installation and shall mechanically lock into the concrete surround every 10" [254mm]. Channels shall weigh less than 6.6 lbs. per linear foot [9.8 kg/m], have smooth 3.5" [89mm] radiused self cleaning bottom with a Manning's coefficient of .009 and 1.00% or neutral 0% built-in slope. Channels are available with inverts ranging from 9.25" [235mm] to 34.21" [869mm]. Channel shall have all grates locked down. Channels come with clips attached to the frame to accommodate vertical re-bar for positioning and anchoring purposes. Shall be provided with the standard DGC grate, Zurn 16-1/4" [413mm] wide Ductile Iron Slotted Grate, which locks down to the frame with 4 individual bolt anchors per grate. Ductile Iron conforms to ASTM specification A536-84, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN1433 top load classifications. Supplied in 20" [508 mm] nominal lengths with 13/16" [21mm] wide slots, and 1-3/4" [44mm] bearing depth. Grate has an open area of 118 sq. in. per ft. [249779] sq. mm per meter]. The 1/4" [6mm] thick Carbon Steel Frame Assembly conforms to ASTM specification A36 with 10 - 4" [102mm] long concrete anchors per 80" [2032mm]. The frame is supplied with a powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames shall be produced in the USA.

PREFIX OPTIONS (Check/specify appropriate options)
X -Z 80 [2032] High Density Polyethylene Channel, Heavy-Duty Frame with Anchor Studs*

SUFFIX OPTIONS (Check/specify appropriate options)
Outlet Adapters Add/Each
-E1 Closed End Cap
-E4 4" [102] No-Hub End Outlet
-E6 6" [152] No-Hub End Outlet
-E8 8" [203] No Hub End Outlet
X -E10 10" [254] No Hub End Outlet
-U4 4" [102] No-Hub Bottom Outlet
-U6 6" [152] No-Hub Bottom Outlet
-U8 8" [203] No-Hub Bottom Outlet
-U12 12" [305] No Hub Bottom Outlet

Grate Options (Load Classifications are per DIN EN1433)
-BDC Black Acid Ductile Iron Slotted Grate - Class C
-BDF Black Acid Ductile Iron Slotted Grate - Class F
-DCC Ductile Iron Solid Cover - Class C
-DCF Ductile Iron Solid Cover - Class F
X -DGC Ductile Iron Slotted Grate - Class C*
-DGF Ductile Iron Slotted Grate - Class F
-GDC Galvanized Ductile Iron Slotted Grate - Class C
-GDF Galvanized Ductile Iron Slotted Grate - Class F
-GG Fiberglass Grate
-GHPD Galvanized Heel-Proof Longitudinal Ductile Grate - Class C
-HPD Heel-Proof Longitudinal Ductile Grate - Class C
-SBG Stainless Steel Bar Grate - Class C

MADE in the U.S.A.
-ADA-USA Ductile ADA Slotted Grate - Class C (Meets Americans w/ Disabilities Act Requirements)
-DGC-USA Ductile Iron Slotted Grate - Class C
-DGF-USA Ductile Iron Slotted Grate – Class F
-GADA-USA Galvanized Ductile ADA Slotted Grate - Class C
-GDC-USA Galvanized Ductile Iron Slotted Grate - Class C
-GDF-USA Galvanized Ductile Iron Slotted Grate – Class F

MADE in the U.S.A. Misellaneous Options
-CBF Black Acid Resistant Coated Frame
-DB Bottom Dome Strainer
-HDS Type 304 Stainless Steel Top Frame

Misellaneous Options
-RC Rebar Clips (Set of 2)
-VP Vandal-Proof Lockdown

* Regularly furnished unless otherwise specified

Trench #	'A' Shallow Invert		'B' Deep Invert		(Flow)		
	Inches	mm	Inches	mm	(gpm)	(lps)	(cfs)
1201P	9.250	235	10.082	256	1475	93	3.31
1202P	10.082	256	10.914	277	1758	111	3.94
1203P	10.914	277	11.746	298	2046	129	4.59
1204P	11.746	298	12.578	319	2341	148	5.25
1205P	12.578	319	13.410	341	2639	166	5.91
1205NP	13.410	341	13.410	341	-	-	-
1206P	13.410	341	14.242	362	2939	185	6.59
1207P	14.242	362	15.074	383	3243	205	7.27
1208P	15.074	383	15.906	404	3548	224	7.95
1209P	15.906	404	16.738	425	3855	243	8.64
1210P	16.738	425	17.570	446	4164	263	9.33
1211P	17.570	446	18.402	467	4474	282	10.03
1212P	18.402	467	19.234	489	4785	302	10.73
1213P	19.234	489	20.066	510	5098	322	11.43
1214P	20.066	510	20.898	531	5411	341	12.13
1215P	20.898	531	21.730	552	5725	361	12.83
1215NP	21.730	552	21.730	552	-	-	-
1216P	21.730	552	22.562	573	6040	381	13.54
1217P	22.562	573	23.394	594	6355	401	14.24
1218P	23.394	594	24.226	615	6671	421	14.95
1219P	24.226	615	25.058	636	6988	441	15.66
1220P	25.058	636	25.890	658	7304	461	16.37
1221P	25.890	658	26.722	679	7622	481	17.08
1222P	26.722	679	27.554	700	7940	501	17.80
1223P	27.554	700	28.386	721	8258	521	18.51
1224P	28.386	721	29.218	742	8576	541	19.22
1225P	29.218	742	30.050	763	8895	561	19.94
1225NP	30.050	763	30.050	763	-	-	-
1226P	30.050	763	30.882	784	9214	581	20.65
1227P	30.882	784	31.714	806	9533	601	21.37
1228P	31.714	806	32.546	827	9852	622	22.08
1229P	32.546	827	33.378	848	10172	642	22.80
1230P	33.378	848	34.210	869	10492	662	23.52

Note: Stainless Steel Frames and Grates are supplied with Type 304SS. (Type 316SS available upon request.)

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⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

Zurn Industries, LLC | Flo-Thru Division
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In Canada | Zurn Industries Limited
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www.zurn.com

Rev. U
Date: 04/07/2023
C.N. No. 145234
Prod. | Dwg. No. Z874-12

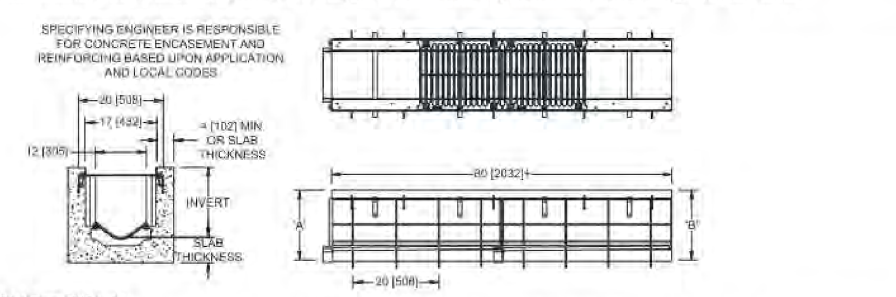
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ZURN **Z874-12**
12 [305] WIDE THROAT TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG **TD-2**

Design and Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: Zurn Z874-12
Channels shall be 80" [2032mm] long, 17" [432mm] wide reveal and have a 12" [305mm] wide throat. Modular channel sections shall be made of 0% water absorbent High Density Polyethylene (HDPE). Shall have a positive mechanical connection between channel sections that will not separate during the installation and shall mechanically lock into the concrete surround every 10" [254mm]. Channels shall weigh less than 6.6 lbs. per linear foot [9.8 kg/m], have smooth 3.5" [89mm] radiused self cleaning bottom with a Manning's coefficient of .009 and 1.00% or neutral 0% built-in slope. Channels are available with inverts ranging from 9.25" [235mm] to 34.21" [869mm]. Channel shall have all grates locked down. Channels come with clips attached to the frame to accommodate vertical re-bar for positioning and anchoring purposes. Shall be provided with the standard DGC grate, Zurn 16-1/4" [413mm] wide Ductile Iron Slotted Grate, which locks down to the frame with 4 individual bolt anchors per grate. Ductile Iron conforms to ASTM specification A536-84, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN1433 top load classifications. Supplied in 20" [508 mm] nominal lengths with 13/16" [21mm] wide slots, and 1-3/4" [44mm] bearing depth. Grate has an open area of 118 sq. in. per ft. [249779] sq. mm per meter]. The 1/4" [6mm] thick Carbon Steel Frame Assembly conforms to ASTM specification A36 with 10 - 4" [102mm] long concrete anchors per 80" [2032mm]. The frame is supplied with a powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames shall be produced in the USA.

PREFIX OPTIONS (Check/specify appropriate options)
X -Z 80 [2032] High Density Polyethylene Channel, Heavy-Duty Frame with Anchor Studs*

SUFFIX OPTIONS (Check/specify appropriate options)
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-E4 4" [102] No-Hub End Outlet
-E6 6" [152] No-Hub End Outlet
-E8 8" [203] No Hub End Outlet
X -E10 10" [254] No Hub End Outlet
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-HPD Heel-Proof Longitudinal Ductile Grate - Class C
-SBG Stainless Steel Bar Grate - Class C

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-DGF-USA Ductile Iron Slotted Grate – Class F
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-GDC-USA Galvanized Ductile Iron Slotted Grate - Class C
-GDF-USA Galvanized Ductile Iron Slotted Grate – Class F

MADE in the U.S.A. Misellaneous Options
-CBF Black Acid Resistant Coated Frame
-DB Bottom Dome Strainer
-HDS Type 304 Stainless Steel Top Frame

Misellaneous Options
-RC Rebar Clips (Set of 2)
-VP Vandal-Proof Lockdown

* Regularly furnished unless otherwise specified

Trench #	'A' Shallow Invert		'B' Deep Invert		(Flow)		
	Inches	mm	Inches	mm	(gpm)	(lps)	(cfs)
1201P	9.250	235	10.082	256	1475	93	3.31
1202P	10.082	256	10.914	277	1758	111	3.94
1203P	10.914	277	11.746	298	2046	129	4.59
1204P	11.746	298	12.578	319	2341	148	5.25
1205P	12.578	319	13.410	341	2639	166	5.91
1205NP	13.410	341	13.410	341	-	-	-
1206P	13.410	341	14.242	362	2939	185	6.59
1207P	14.242	362	15.074	383	3243	205	7.27
1208P	15.074	383	15.906	404	3548	224	7.95
1209P	15.906	404	16.738	425	3855	243	8.64
1210P	16.738	425	17.570	446	4164	263	9.33
1211P	17.570	446	18.402	467	4474	282	10.03
1212P	18.402	467	19.234	489	4785	302	10.73
1213P	19.234	489	20.066	510	5098	322	11.43
1214P	20.066	510	20.898	531	5411	341	12.13
1215P	20.898	531	21.730	552	5725	361	12.83
1215NP	21.730	552	21.730	552	-	-	-
1216P	21.730	552	22.562	573	6040	381	13.54
1217P	22.562	573	23.394	594	6355	401	14.24
1218P	23.394	594	24.226	615	6671	421	14.95
1219P	24.226	615	25.058	636	6988	441	15.66
1220P	25.058	636	25.890	658	7304	461	16.37
1221P	25.890	658	26.722	679	7622	481	17.08
1222P	26.722	679	27.554	700	7940	501	17.80
1223P	27.554	700	28.386	721	8258	521	18.51
1224P	28.386	721	29.218	742	8576	541	19.22
1225P	29.218	742	30.050	763	8895	561	19.94
1225NP	30.050	763	30.050	763	-	-	-
1226P	30.050	763	30.882	784	9214	581	20.65
1227P	30.882	784	31.714	806	9533	601	21.37
1228P	31.714	806	32.546	827	9852	622	22.08
1229P	32.546	827	33.378	848	10172	642	22.80
1230P	33.378	848	34.210	869	10492	662	23.52

Note: Stainless Steel Frames and Grates are supplied with Type 304SS. (Type 316SS available upon request.)

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

Zurn Industries, LLC | Flo-Thru Division
1801 Pittsburgh Avenue, Erie, PA 16502, Ph. 855.663.9876

In Canada | Zurn Industries Limited
7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, Ph. 877.892.5216

www.zurn.com

Rev. U
Date: 04/07/2023
C.N. No. 145234
Prod. | Dwg. No. Z874-12

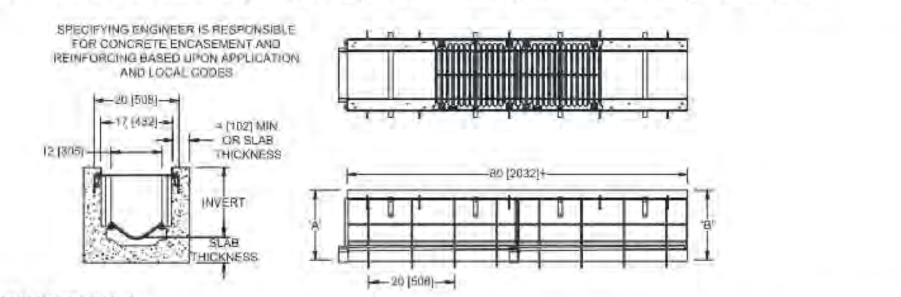
DETAIL REFERENCE:
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ZURN **Z874-12**
12 [305] WIDE THROAT TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG **TD-3**

Design and Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



ENGINEERING SPECIFICATION: Zurn Z874-12
Channels shall be 80" [2032mm] long, 17" [432mm] wide reveal and have a 12" [305mm] wide throat. Modular channel sections shall be made of 0% water absorbent High Density Polyethylene (HDPE). Shall have a positive mechanical connection between channel sections that will not separate during the installation and shall mechanically lock into the concrete surround every 10" [254mm]. Channels shall weigh less than 6.6 lbs. per linear foot [9.8 kg/m], have smooth 3.5" [89mm] radiused self cleaning bottom with a Manning's coefficient of .009 and 1.00% or neutral 0% built-in slope. Channels are available with inverts ranging from 9.25" [235mm] to 34.21" [869mm]. Channel shall have all grates locked down. Channels come with clips attached to the frame to accommodate vertical re-bar for positioning and anchoring purposes. Shall be provided with the standard DGC grate, Zurn 16-1/4" [413mm] wide Ductile Iron Slotted Grate, which locks down to the frame with 4 individual bolt anchors per grate. Ductile Iron conforms to ASTM specification A536-84, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN1433 top load classifications. Supplied in 20" [508 mm] nominal lengths with 13/16" [21mm] wide slots, and 1-3/4" [44mm] bearing depth. Grate has an open area of 118 sq. in. per ft. [249779] sq. mm per meter]. The 1/4" [6mm] thick Carbon Steel Frame Assembly conforms to ASTM specification A36 with 10 - 4" [102mm] long concrete anchors per 80" [2032mm]. The frame is supplied with a powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames shall be produced in the USA.

PREFIX OPTIONS (Check/specify appropriate options)
X -Z 80 [2032] High Density Polyethylene Channel, Heavy-Duty Frame with Anchor Studs*

SUFFIX OPTIONS (Check/specify appropriate options)
Outlet Adapters Add/Each
-E1 Closed End Cap
-E4 4" [102] No-Hub End Outlet
-E6 6" [152] No-Hub End Outlet
-E8 8" [203] No Hub End Outlet
X -E10 10" [254] No Hub End Outlet
-U4 4" [102] No-Hub Bottom Outlet
-U6 6" [152] No-Hub Bottom Outlet
-U8 8" [203] No-Hub Bottom Outlet
-U12 12" [305] No Hub Bottom Outlet

Grate Options (Load Classifications are per DIN EN1433)
-BDC Black Acid Ductile Iron Slotted Grate - Class C
-BDF Black Acid Ductile Iron Slotted Grate - Class F
-DCC Ductile Iron Solid Cover - Class C
-DCF Ductile Iron Solid Cover - Class F
X -DGC Ductile Iron Slotted Grate - Class C*
-DGF Ductile Iron Slotted Grate - Class F
-GDC Galvanized Ductile Iron Slotted Grate - Class C
-GDF Galvanized Ductile Iron Slotted Grate - Class F
-GG Fiberglass Grate
-GHPD Galvanized Heel-Proof Longitudinal Ductile Grate - Class C
-HPD Heel-Proof Longitudinal Ductile Grate - Class C
-SBG Stainless Steel Bar Grate - Class C

MADE in the U.S.A.
-ADA-USA Ductile ADA Slotted Grate - Class C (Meets Americans w/ Disabilities Act Requirements)
-DGC-USA Ductile Iron Slotted Grate - Class C
-DGF-USA Ductile Iron Slotted Grate – Class F
-GADA-USA Galvanized Ductile ADA Slotted Grate - Class C
-GDC-USA Galvanized Ductile Iron Slotted Grate - Class C
-GDF-USA Galvanized Ductile Iron Slotted Grate – Class F

MADE in the U.S.A. Misellaneous Options
-CBF Black Acid Resistant Coated Frame
-DB Bottom Dome Strainer
-HDS Type 304 Stainless Steel Top Frame

Misellaneous Options
-RC Rebar Clips (Set of 2)
-VP Vandal-Proof Lockdown

* Regularly furnished unless otherwise specified

Trench #	'A' Shallow Invert		'B' Deep Invert		(Flow)		
	Inches	mm	Inches	mm	(gpm)	(lps)	(cfs)
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1228P	31.714	806	32.546	827	9852	622	22.08
1229P	32.546	827	33.378	848	10172	642	22.80
1230P	33.378	848	34.210	869	10492	662	23.52

Note: Stainless Steel Frames and Grates are supplied with Type 304SS. (Type 316SS available upon request.)

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C.N. No. 145234
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
C-904

REVISION 8 - 10/05/2026

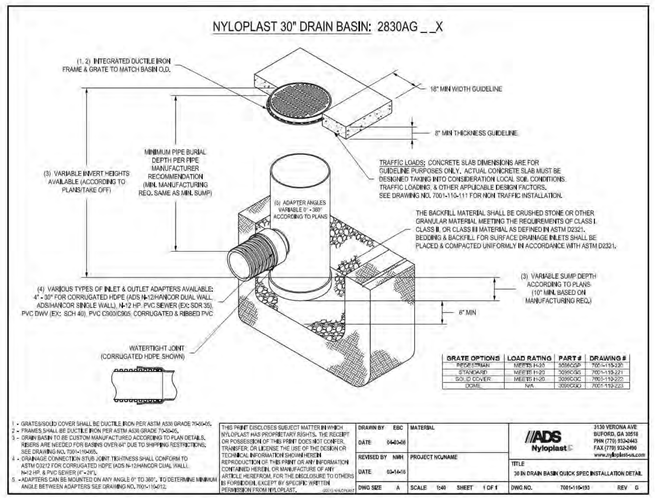
Sep 28, 2026 P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-8A----->LAYOUT: C-904 DETL
EL

STRUCTURE NAME	DIAMETER (INCHES)	NYLOPLAST COVER
A-10	30"	SOLID AASHTO H-20
A-51	18"	PEDESTRIAN AASHTO H-10
A-52	18"	PEDESTRIAN AASHTO H-10
A-53	18"	PEDESTRIAN AASHTO H-10
A-70	24"	STANDARD GRATE AASHTO H-20
B-10	30"	SOLID AASHTO H-20
D-10	30"	SOLID AASHTO H-20
E-20	10"	SOLID LIGHT DUTY

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NYLOPLAST 30" DRAIN BASIN: 2830AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-20	3836CGP	7001-115-231
STANDARD	MEETS H-20	3836CGP	7001-115-231
SOLID COVER	MEETS H-20	3836SOC	7001-115-232
DOME	N/A	3836DOC	7001-115-233

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DWG SIZE	A	SCALE 1:40 SHEET 1 OF 1

ADS Nyloplast
3126 VERONA AVE
BUFORD, GA 30518
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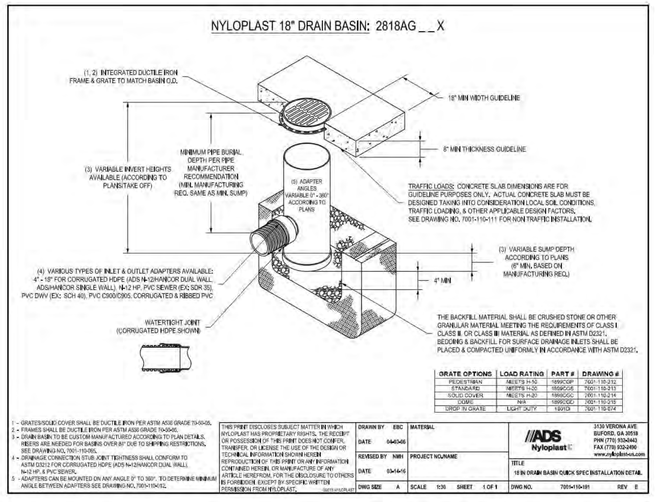
TITLE: 30 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-030 REV G

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NYLOPLAST 18" DRAIN BASIN: 2818AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	3818CGP	7001-110-231
STANDARD	MEETS H-20	3818CGP	7001-110-231
SOLID COVER	MEETS H-20	3818SOC	7001-110-214
DOME	N/A	3818DOC	7001-110-215
DROP IN GRATE	LIGHT DUTY	1818DI	7001-116-674

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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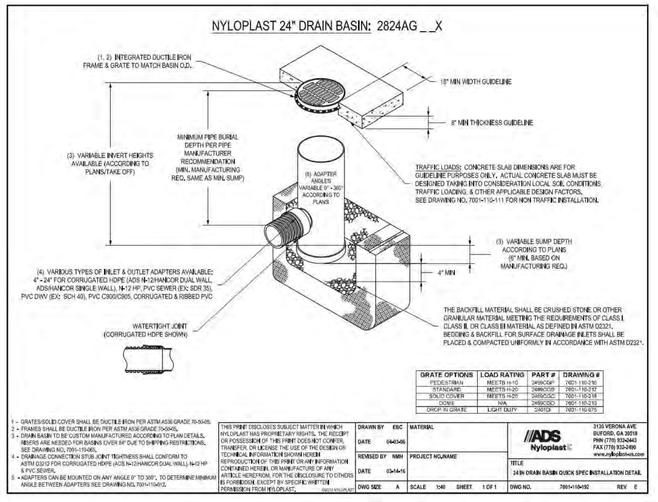
TITLE: 18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-031 REV E

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NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	3496CGP	7001-110-241
STANDARD	MEETS H-20	3496CGP	7001-110-241
SOLID COVER	MEETS H-20	3496SOC	7001-110-242
DOME	N/A	3496DOC	7001-110-243
DROP IN GRATE	LIGHT DUTY	2418DI	7001-116-675

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DWG SIZE	A	SCALE 1:40 SHEET 1 OF 1

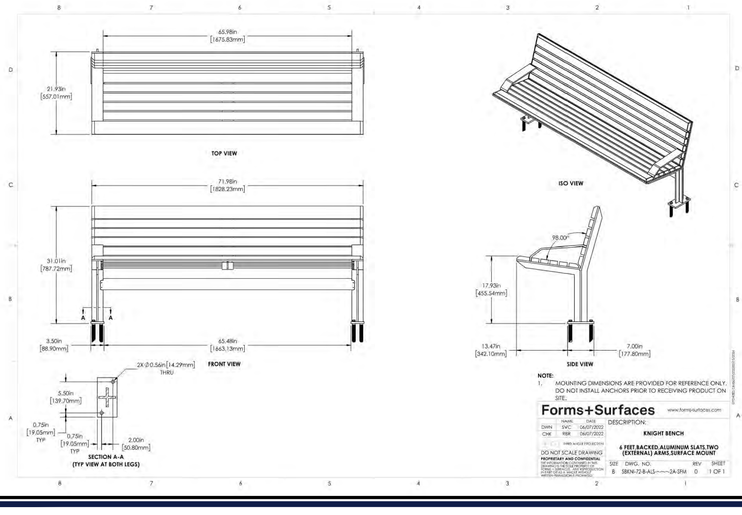
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TITLE: 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-032 REV E

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CHK: RBR	04/07/2022

DESCRIPTION: KNIGHT BENCH

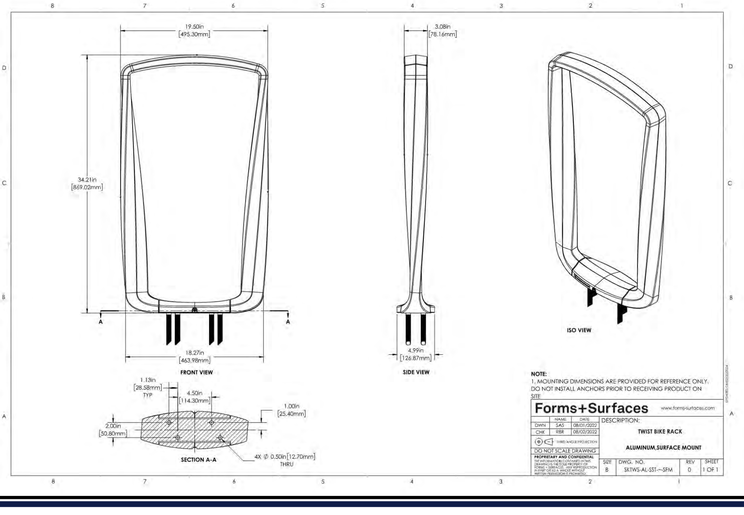
6 FEET BACKED ALUMINUM SLATS,TWO (EXTERNAL) ARMS,SURFACE MOUNT

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SIZE	DWG. NO.	REV	SHEET
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Forms+Surfaces
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DRAWN	DATE
DWN: EAC	08/01/2022
CHK: RBR	08/02/2022

DESCRIPTION: TWIST BIKE RACK

ALUMINUM,SURFACE MOUNT

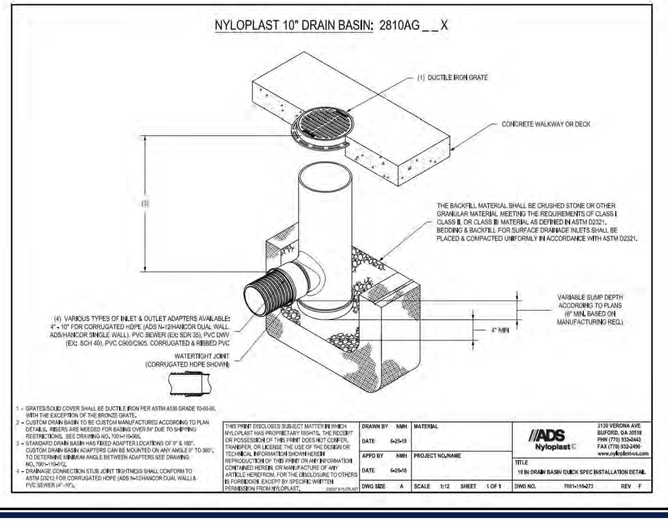
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SIZE	DWG. NO.	REV	SHEET
B	BKTWS-ALGST---SPM	0	1 OF 1

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS
AND IS FROM ADS, DATED 6/25/18.
REFER TO NOTES THIS SHEET.

OR EQUIVALENT FOUND ACCEPTABLE BY BOHLER AND/OR OWNER

NYLOPLAST 10" DRAIN BASIN: 2810AG _ _X



1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-45-05. WITH THE EXCEPTION OF THE BRONZE GRATE.
2. CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
3. STANDARD DRAIN BASIN WAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER (4"-10").

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DRAWN BY	MIH	MATERIAL
DATE	6/25/18	
APPD BY	MIH	PROJECT NO./NAME
DATE	6/25/18	
DWG SIZE	A	SCALE 1:12 SHEET 1 OF 1

ADS Nyloplast
3126 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2496
www.nyloplastinlets.com

TITLE: 10 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-116-673 REV F

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DETAILS BY OTHERS DISCLAIMER

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SITE CIVIL AND CONSULTING ENGINEERING
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS / TRK
3	03/16/2026	PER NPDES SUBMISSION	EL / TRK
4	05/20/2026	PER PECO SUBMISSION	JHT / EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS / TRK
6	06/11/2026	95% CD ISSUE	EL / TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

PENNSYLVANIA ONE CALL SYSTEM, INC. SERIAL NUMBER 20250529016
ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 50 OF 2017, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK.
WWW.PAOCALL.ORG

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED
ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002352

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
C-905

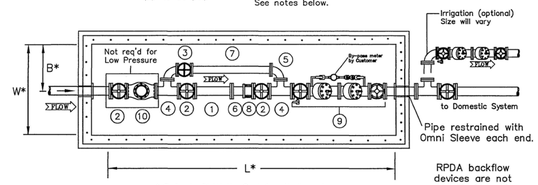
REVISION 8 - 10/05/2026

Sep 26, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-CNDS-PAA240163.00-8A.----LAYOUT C-905 DETL

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM AQUA, DATED 3/6/2014. REFER TO NOTES THIS SHEET.

DOMESTIC SERVICE – 3" through 10" METERS

__ LOW PRESSURE (up to 80 psi) __ HIGH PRESSURE (over 80 psi) See notes below.



RPDA backflow devices are not permitted in pits.

* Refer to PLAN No. D-4 for pit dimensions.

	DESCRIPTION					
1	Meter	3"	4"	6"	8"	10"
	Meter Length (flange to flange)	33.25"	33.25"	36.5"	53"	68"
2	R.S. Gate Valve, OS&Y, Flg (mainline)	3"	4"	6"	8"	10"
3	R.S. Gate Valve, OS&Y, Flg (by-pass)	3"	3"	4"	6"	6"
4	By-pass Tee	3" x 3"	4" x 3"	6" x 4"	8" x 6"	10" x 6"
5	Long Radius 90o Bend	3"	3"	4"	6"	6"
6	Spool Piece, Flg x PE (for exp. cpl'g.) PIT ONLY	1'- 0" MINIMUM w/ 1" traverse gap in exp cpl'g				
7	Spool Piece, Flg x Flg (for by-pass)	LENGTH AS NEEDED				
8	Flanged Coupling Adaptor - PIT ONLY	Ford - Style FFCA or Smith-Blair - Style 912				
9	Backflow device - DCDA or RPDA	3"	4"	6"	8"	10"
	as req'd by the Water Company.					
10	Pressure Reducing Valve (PRV)	SIZED BY CUSTOMER				

Notes:

A. It is the CUSTOMER's responsibility to address THERMAL EXPANSION before the installation of a PRV or backflow device.

B. A pressure vacuum breaker must be installed on all hose–bib connections.

C. Water Company Rules & Regulations require that all of the specifications are met and a meter is set before water service is turned on.

D. It is the CUSTOMER's responsibility to size the pressure reducing valve(s) to fit their flow needs. Two–stage reduction may be needed where there is a wide variation between the initial pressure and the reduced pressure. Parallel installation may be needed where there is a wide variation of reduced pressure requirements, where it is vital to maintain a continuous water supply, or other reasons for improved performance.

E. Incoming service size should equal meter size. If the meter size is approved to be smaller than the service size, the meter space shall be replaced with a spacer for the approved meter size and concentric reducers on each side of the meter spacer. The length of the meter pit may increase.

F. Each part must be NSF/ANSI 61 (Annex F & G) compliant. Entire unit must be NSF/ANSI 372 compliant.

AQUA			
Domestic Service - 3" to 10"			
rev. 3–13–14		Plan No.	D-1

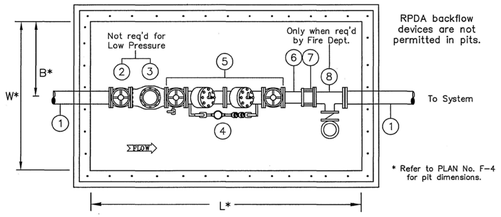
FIRE SERVICE LINES – 4", 6", 8", and 10"

"Closed System" has no fire hydrants

Residential __ LOW PRESSURE (up to 100 psi) __ HIGH PRESSURE (over 100 psi) See notes below.

Non-Residential __ LOW PRESSURE (up to 150 psi) __ HIGH PRESSURE (where pressure may exceed 150 psi) See note below.

RPZA for systems with chemical additives (anti–freeze systems)
DCVA for systems with no chemical additives



* Refer to PLAN No. F–4 for pit dimensions.

	ITEM				
1	Line Size (Cement–lined D.I.P.) as approved by Aqua	4"	6"	8"	10"
2	R.S. Gate Valve, O.S.&Y., Flanged	4"	6"	8"	10"
3	Pressure Reducing Valve (PRV)	SIZED BY CUSTOMER			
4	Meter (by Aqua)	5/8 x 3/4"	5/8 x 3/4"	5/8 x 3/4"	5/8 x 3/4"
5	Backflow Device Assembly – DCDA or RPDA	4"	6"	8"	10"
6	Spool Piece, Flg x Flg – Length = 12 in. (min.)	4"	6"	8"	10"
7	Flanged Coupling Adapter	Ford Style FFCA or Smith–Blair Style 913			
8	Tee for FDC, only if req'd by local Fire Dept.	4"	6"	8"	10"
	Branchline sized by local Fire Department if required.	SIZED BY LOCAL FIRE DEPARTMENT			

Notes:

A. It is the CUSTOMER's responsibility to address THERMAL EXPANSION before the installation of a PRV or backflow device. All Fire systems should have a Pressure Relief Valve.

B. Water Company Rules & Regulations require that all of the specifications are met and a meter is set before water service is turned on.

C. It is the CUSTOMER's responsibility to size the pressure reducing valve(s) to fit their flow needs. Two–stage reduction may be needed where there is a wide variation between the initial pressure and the reduced pressure. Parallel installation may be needed where there is a wide variation of reduced pressure requirements, where it is vital to maintain a continuous water supply, or other reasons for improved performance.

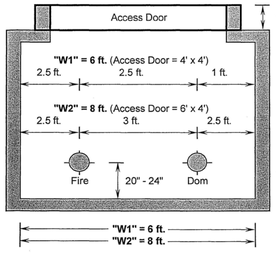
D. Each part must be NSF/ANSI 61 (Annex F & G) compliant. Entire unit must be NSF/ANSI 372 compliant.

E. DCDA & RPDA Assemblies must be UL & FM approved.

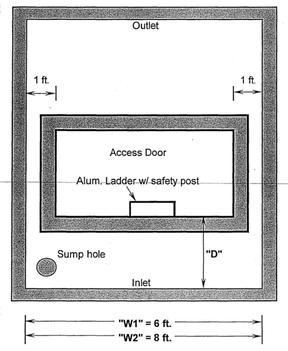
AQUA			
"Closed" Fire Lines 4" to 10"			
rev. 06–10–13		Plan No.	F–1

DUAL SERVICE PIT DIMENSIONS

FRONT VIEW



TOP VIEW



For: Domestic lines up to 6"
Fire lines up to 10"

"A" (Riser Height) = **6 in. min.** = **12 in. max.**

"H" (Height) = **7 ft.**

"L" (Length) obtained using these steps:
1.) Determine the length of the pit needed for the Domestic service. Refer to Plan No. D-4.
2.) Determine the length of the pit needed for the Fire service. Refer to Plan No. F-4.
3.) Select the longer dimension from #1 & 2 above. This is the Length of the Dual Service Pit.

"W1" (Width) = **6 ft.** for Domestic services 2" & smaller Access Door = **4 ft. x 4 ft.**

"W2" (Width) = **8 ft.** for Domestic services 3" & larger Access Door = **6 ft. x 4 ft.**

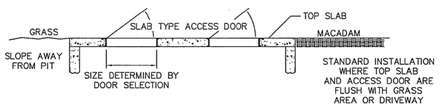
"D" (Inside wall to door opening) Use Single Service dimensions of Fire line. See Plan F-4. (Assumes inlet flange is 9" from wall)

* Aluminum ladder w/ safety post to be centered between Fire & Dom lines on the inlet side of the pit.
* Doors must be centered directly over the FIRE meter.
* Doors may be recessed in the top of the pit or mounted on top of the pit.
* Grade must be sloped away from pit in all directions.
* Pipe restrained with Omni Sleeve in each end of pit wall.

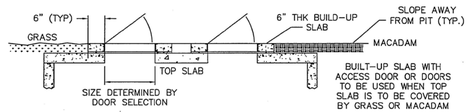
AQUA			
DUAL SERVICE PIT DIMENSIONS			
Ck'd by MJF	3/6/2014	Plan No.	DS-1

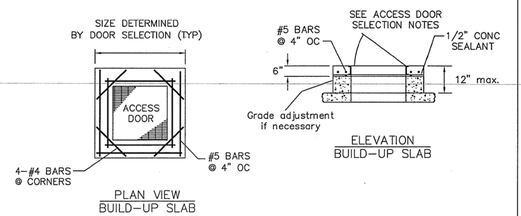
METER PIT DOOR DETAILS

ACCESS TO PIT (OPTION #1)



ACCESS TO PIT (OPTION #2)





AQUA			
Access Door Detail			
rev. 06–10–13	ck'd by MJF	Plan No.	D–1

WATER METER PIT DETAIL

NOTE:
PER LBCJMA REQUIREMENTS, DOMESTIC LINES SHALL HAVE RPZ INSIDE THE BUILDING WHERE THE LINE ENTERS THE BUILDING. CONTRACTOR SHALL CONFIRM WITH THE FIRE MARSHAL THE TYPE OF BACKFLOW PREVENTER REQUIRED FOR THE FIRE SERVICE LINE WITHIN THE METER PIT.

THIS DETAIL SERVES AS THE BASIS OF DESIGN FOR BIDDING PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY FOR REVIEW AND APPROVAL OF THE ENGINEERING SHOP DRAWING OF THE METER PIT IN ACCORDANCE WITH LBCJMA REQUIREMENTS.

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Oct 01, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-PAA240163.00-SA-----LAYOUT, C-906 DETL

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
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8	10/05/2026	BID ISSUE	EL / TK

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#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
C-906

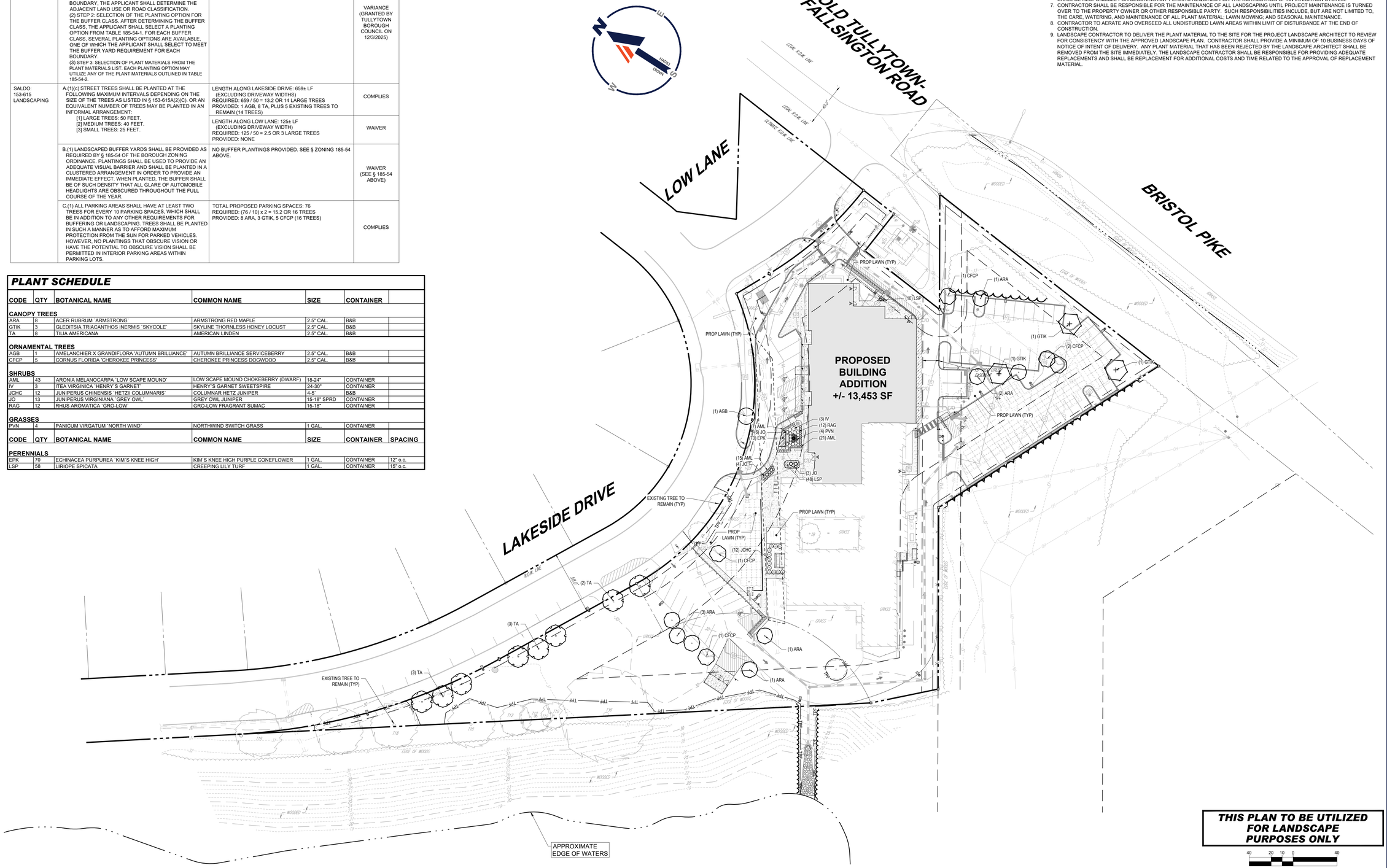
REVISION 8 - 10/05/2026

LANDSCAPE COMPLIANCE CHART

SECTION	REQUIREMENT	CALCULATIONS (REQUIRED / PROVIDED)	COMPLIANCE
ZONING: 185-34 WOODLANDS	A. WOODLANDS IN ENVIRONMENTALLY SENSITIVE AREAS. NO MORE THAN 20% OF WOODLANDS LOCATED IN ENVIRONMENTALLY SENSITIVE AREAS SHALL BE ALTERED, REGRADED, CLEARED, OR BUILT UPON. ENVIRONMENTALLY SENSITIVE AREA SHALL INCLUDE FLOODPLAINS, FLOODPLAIN SOILS, STEEP SLOPES, WETLANDS, AND LAKE OR POND SHORELINES.	REQUIRED: 20% WOODLAND DISTURBANCE PROVIDED: 85.6% WOODLAND DISTURBANCE	VARIANCE (GRANTED BY TULLYTOWN BOROUGH COUNCIL ON 12/3/2025)
185-54 BUFFER YARDS	D. TO DETERMINE THE REQUIRED BUFFER YARD AND PLANTING SCHEDULE, A THREE-STEP PROCEDURE SHALL BE FOLLOWED: (1) STEP 1: SITE ANALYSIS AND DETERMINATION OF BUFFER YARD CLASS. FOR EACH PROPERTY BOUNDARY, THE APPLICANT SHALL DETERMINE THE ADJACENT LAND USE OR ROAD CLASSIFICATION. (2) STEP 2: SELECTION OF THE PLANTING OPTION FOR THE BUFFER CLASS. AFTER DETERMINING THE BUFFER CLASS, THE APPLICANT SHALL SELECT A PLANTING OPTION FROM TABLE 185-54-1. FOR EACH BUFFER CLASS, SEVERAL PLANTING OPTIONS ARE AVAILABLE, ONE OF WHICH THE APPLICANT SHALL SELECT TO MEET THE BUFFER YARD REQUIREMENT FOR EACH BOUNDARY. (3) STEP 3: SELECTION OF PLANT MATERIALS FROM THE PLANT MATERIALS LIST. EACH PLANTING OPTION MAY UTILIZE ANY OF THE PLANT MATERIALS OUTLINED IN TABLE 185-54-2.	NO BUFFER YARD PLANTINGS PROVIDED.	VARIANCE (GRANTED BY TULLYTOWN BOROUGH COUNCIL ON 12/3/2025)
SALDO: 153-615 LANDSCAPING	A.(1)(c) STREET TREES SHALL BE PLANTED AT THE FOLLOWING MAXIMUM INTERVALS DEPENDING ON THE SIZE OF THE TREES AS LISTED IN § 153-615A(2)(C), OR AN EQUIVALENT NUMBER OF TREES MAY BE PLANTED IN AN INFORMAL ARRANGEMENT: [1] LARGE TREES: 50 FEET. [2] MEDIUM TREES: 40 FEET. [3] SMALL TREES: 25 FEET.	LENGTH ALONG LAKESIDE DRIVE: 659± LF (EXCLUDING DRIVEWAY WIDTHS) REQUIRED: 659 / 50 = 13.2 OR 14 LARGE TREES PROVIDED: 1 AGB, 8 TA, PLUS 5 EXISTING TREES TO REMAIN (14 TREES)	COMPLIES
		LENGTH ALONG LOW LANE: 125± LF (EXCLUDING DRIVEWAY WIDTH) REQUIRED: 125 / 50 = 2.5 OR 3 LARGE TREES PROVIDED: NONE	WAIVER
	B.(1) LANDSCAPED BUFFER YARDS SHALL BE PROVIDED AS REQUIRED BY § 185-54 OF THE BOROUGH ZONING ORDINANCE. PLANTINGS SHALL BE USED TO PROVIDE AN ADEQUATE VISUAL BARRIER AND SHALL BE PLANTED IN A CLUSTERED ARRANGEMENT IN ORDER TO PROVIDE AN IMMEDIATE EFFECT. WHEN PLANTED, THE BUFFER SHALL BE OF SUCH DENSITY THAT ALL GLARE OF AUTOMOBILE HEADLIGHTS ARE OBSCURED THROUGHOUT THE FULL COURSE OF THE YEAR.	NO BUFFER PLANTINGS PROVIDED. SEE § ZONING 185-54 ABOVE.	WAIVER (SEE § 185-54 ABOVE)
	C.(1) ALL PARKING AREAS SHALL HAVE AT LEAST TWO TREES FOR EVERY 10 PARKING SPACES, WHICH SHALL BE IN ADDITION TO ANY OTHER REQUIREMENTS FOR BUFFERING OR LANDSCAPING. TREES SHALL BE PLANTED IN SUCH A MANNER AS TO AFFORD MAXIMUM PROTECTION FROM THE SUN FOR PARKED VEHICLES. HOWEVER, NO PLANTINGS THAT OBSCURE VISION OR HAVE THE POTENTIAL TO OBSCURE VISION SHALL BE PERMITTED IN INTERIOR PARKING AREAS WITHIN PARKING LOTS.	TOTAL PROPOSED PARKING SPACES: 76 REQUIRED: (76 / 10) x 2 = 15.2 OR 16 TREES PROVIDED: 8 ARA, 3 GTIK, 5 CFCP (16 TREES)	COMPLIES

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
CANOPY TREES						
ARA	8	ACER RUBRUM `ARMSTRONG`	ARMSTRONG RED MAPLE	2.5" CAL.	B&B	
GTIK	3	GLEDITSIA TRIACANTHOS INERMIS `SKYCOLE`	SKYLINE THORNLESS HONEY LOCUST	2.5" CAL.	B&B	
TA	8	TILIA AMERICANA	AMERICAN LINDEN	2.5" CAL.	B&B	
ORNAMENTAL TREES						
AGB	1	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2.5" CAL.	B&B	
CFCP	5	CORNUS FLORIDA 'CHEROKEE PRINCESS'	CHEROKEE PRINCESS DOGWOOD	2.5" CAL.	B&B	
SHRUBS						
AML	43	ARONIA MELANOCARPA `LOW SCAPE MOUND`	LOW SCAPE MOUND CHOKEBERRY (DWARF)	18-24"	CONTAINER	
IV	3	ITEA VIRGINICA `HENRY`S GARNET`	HENRY`S GARNET SWEETSPIRE	24-30"	CONTAINER	
JCHC	12	JUNIPERUS CHINENSIS `HETZII COLUMNARIS`	COLUMNAR HETZ JUNIPER	4-5`	B&B	
JO	13	JUNIPERUS VIRGINIANA `GREY OWL`	GREY OWL JUNIPER	15-18" SPRD	CONTAINER	
RAG	12	RHUS AROMATICA `GRO-LOW`	GRO-LOW FRAGRANT SUMAC	15-18"	CONTAINER	
GRASSES						
PVN	4	PANICUM VIRGATUM `NORTH WIND`	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER	
CODE	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**SPACING**
PERENNIALS						
EPK	70	ECHINACEA PURPUREA `KIM`S KNEE HIGH`	KIM`S KNEE HIGH PURPLE CONEFLOWER	1 GAL.	CONTAINER	12" o.c.
LSP	58	LIRIOPE SPICATA	CREEPING LILY TURF	1 GAL.	CONTAINER	15" o.c.



GENERAL LANDSCAPE NOTES:

1. THESE LANDSCAPE PLANS ARE TO BE READ IN CONJUNCTION WITH THE LANDSCAPE SPECIFICATIONS, AND ASSOCIATED DETAILS FOUND ON THE LANDSCAPE DETAILS SHEET. THE GENERAL NOTES, FOUND ON THE NOTES PAGE OF THIS PLAN SET, ARE CONSIDERED PART OF LANDSCAPE PLANS. THE CONTRACTOR MUST REFER TO, AND FULLY COMPLY WITH, ALL NOTES, SPECIFICATIONS AND DETAILS DESCRIBED HEREIN, ON THE LANDSCAPE PLANS AND IN THE LANDSCAPE DETAILS SHEET.
2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH "MATERIALS" SECTION OF THE LANDSCAPE SPECIFICATIONS, UNLESS OTHERWISE SPECIFICALLY STATED ON THIS PLAN.
3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
4. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER AND THE MUNICIPALITY'S ENGINEERING AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
5. WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY STORMWATER FACILITY, INCLUDING RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.
6. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING UNTIL PROJECT MAINTENANCE IS TURNED OVER TO THE PROPERTY OWNER OR OTHER RESPONSIBLE PARTY. SUCH RESPONSIBILITIES INCLUDE, BUT ARE NOT LIMITED TO, THE CARE, WATERING, AND MAINTENANCE OF ALL PLANT MATERIAL; LAWN MOWING; AND SEASONAL MAINTENANCE.
8. CONTRACTOR TO AERATE AND OVERSEED ALL UNDISTURBED LAWN AREAS WITHIN LIMIT OF DISTURBANCE AT THE END OF CONSTRUCTION.
9. LANDSCAPE CONTRACTOR TO DELIVER THE PLANT MATERIAL TO THE SITE FOR THE PROJECT LANDSCAPE ARCHITECT TO REVIEW FOR CONSISTENCY WITH THE APPROVED LANDSCAPE PLAN. CONTRACTOR SHALL PROVIDE A MINIMUM OF 10 BUSINESS DAYS OF NOTICE OF INTENT OF DELIVERY. ANY PLANT MATERIAL THAT HAS BEEN REJECTED BY THE LANDSCAPE ARCHITECT SHALL BE REMOVED FROM THE SITE IMMEDIATELY. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE REPLACEMENTS AND SHALL BE REPLACEMENT FOR ADDITIONAL COSTS AND TIME RELATED TO THE APPROVAL OF REPLACEMENT MATERIAL.

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REVISIONS

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1	01/06/2026	PER INTERNAL REVISIONS	EL/AS TRK
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6	06/11/2026	95% CD ISSUE	EL TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT EL
8	10/05/2026	BID ISSUE	EL TK

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WWW.PA1CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVIL-LLGT

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

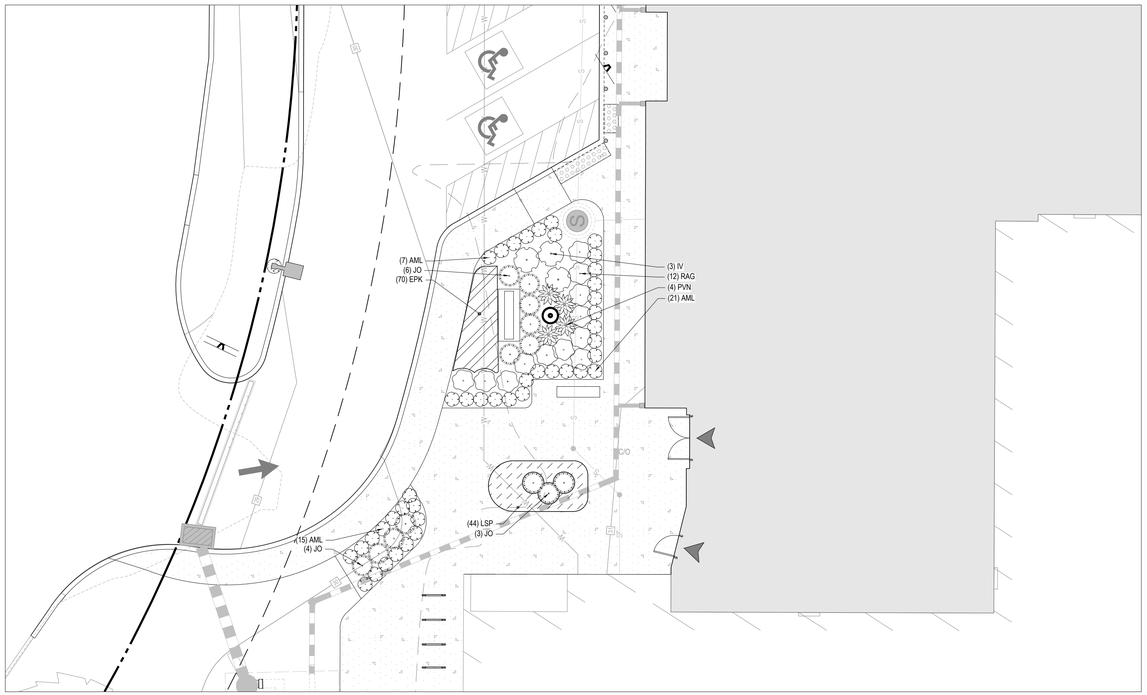
LANDSCAPE PLAN

SHEET NUMBER:

L-101

REVISION 8 - 10/05/2026

Sep 30, 2026
P:\PA2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-LLGT-PAA240163.00-8A-----3-LAYOUT-L-101 LSCP
EL



ENTRY PLAZA PLANTING ENLARGEMENT

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

10 5 2.5 0 10

SCALE: 1" = 10'

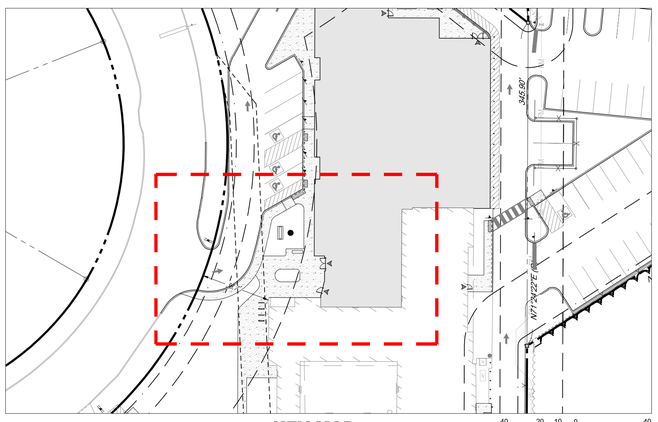
PLANT SCHEDULE ENTRY PLAZA

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
SHRUBS						
AML	43	ARONIA MELANOCARPA `LOW SCAPE MOUND`	LOW SCAPE MOUND CHOKEBERRY (DWARF)	18-24"	CONTAINER	
IV	3	ITEA VIRGINICA `HENRY`S GARNET`	HENRY`S GARNET SWEETSPIRE	24-30"	CONTAINER	
JO	13	JUNIPERUS VIRGINIANA `GREY OWL`	GREY OWL JUNIPER	15-18" SPRD	CONTAINER	
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GRASSES						
PVN	4	PANICUM VIRGATUM `NORTH WIND`	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER	
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PERENNIALS						
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LSP	48	LIRIOPE SPICATA	CREEPING LILY TURF	1 GAL.	CONTAINER	15" o.c.

ALL PLANT MATERIAL LISTED IN THIS SCHEDULE ALSO INCLUDED IN PLANT SCHEDULE ON SHEET L-101.

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KEY MAP

40 20 10 0 40

SCALE: 1" = 40'

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-LLGT-PAA240163.00-8A---LAYOUT L-102 LSCP
EL

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BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVL-LLGT

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — T.R. KNAB

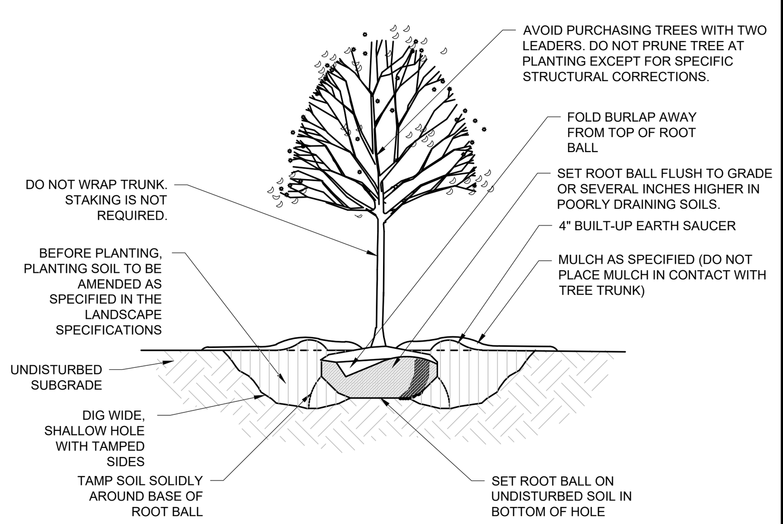
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
ENTRY PLAZA LANDSCAPE PLAN

SHEET NUMBER:
L-102

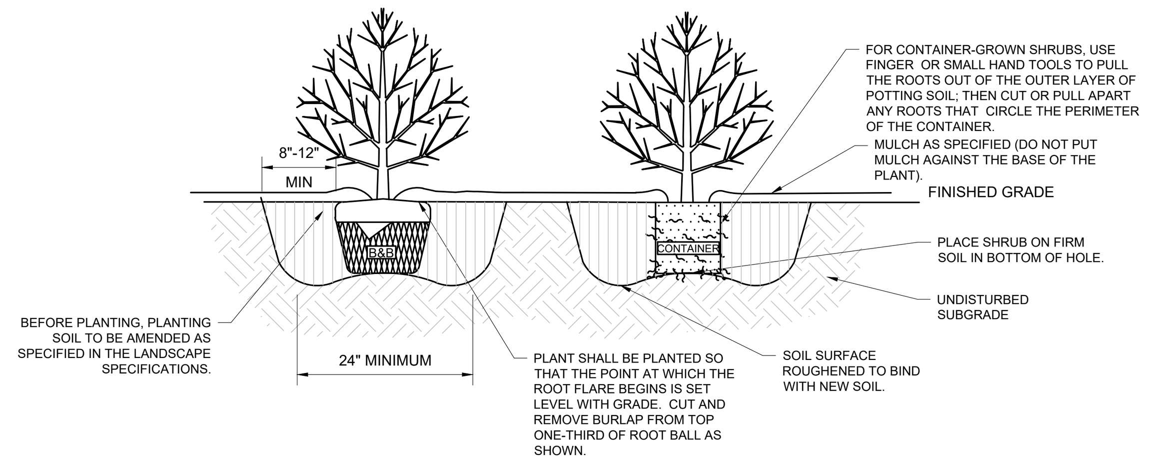
REVISION 8 - 10/05/2026

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD OR CUT BURLAP BACK FROM TOP 1/3 OF ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE SCARIFIED TO AVOID MATTING OF SOIL.
6. THE MINIMUM DIAMETER OF THE TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL.



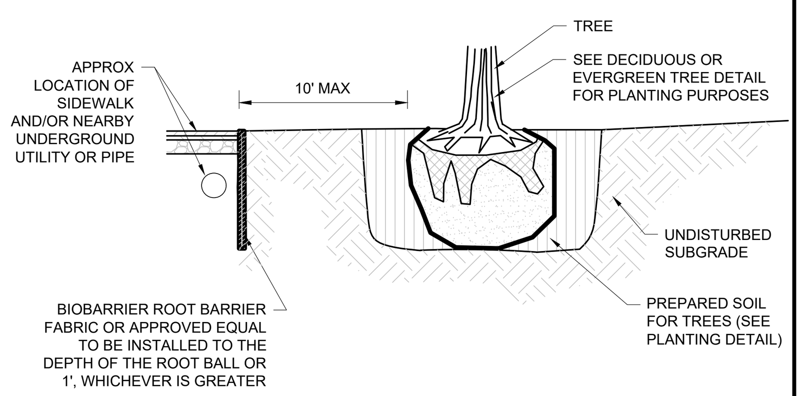
DECIDUOUS TREE PLANTING

NOT TO SCALE (PA-L040101 - 11/2023)



SHRUB PLANTING

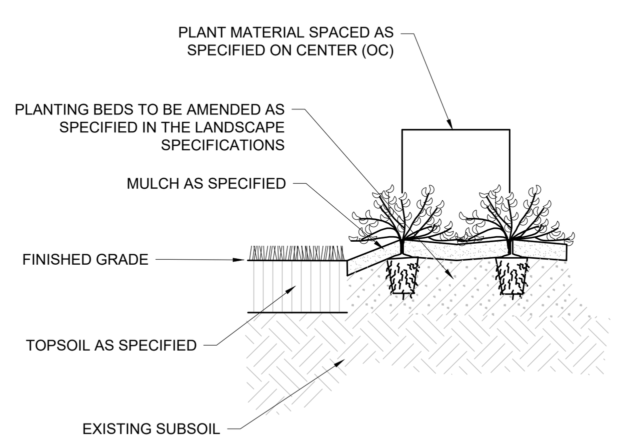
NOT TO SCALE (PA-L040108 - 11/2023)



NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT OF NEW CONCRETE SIDEWALKS AND/OR NEARBY UNDERGROUND UTILITY OR PIPE SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

BIOBARRIER ROOT BARRIER

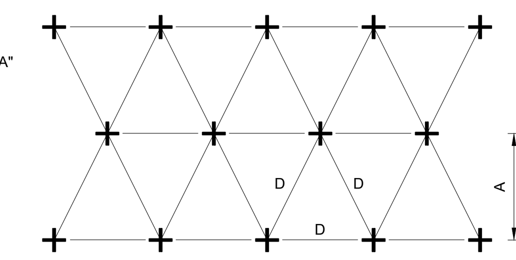
NOT TO SCALE (PA-L049903 - 11/2023)



PERENNIAL AND GROUND PLANTING

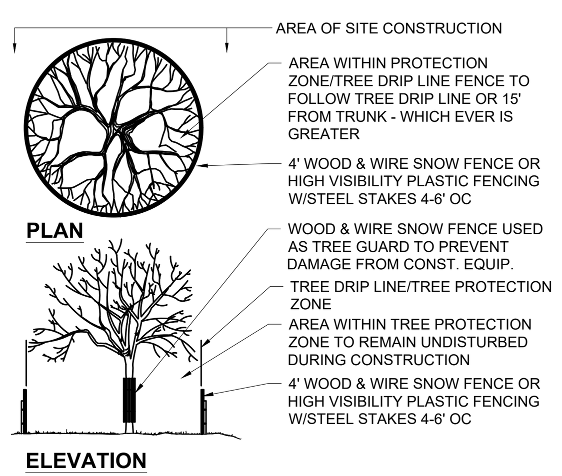
NOT TO SCALE (PA-L040111 - 11/2023)

SPACING "D"	ROW "A"
6" OC	5.20"
8" OC	6.93"
10" OC	8.66"
12" OC	10.40"
15" O.C	13.00"
18" OC	15.60"
24" OC	20.80"
30" OC	26.00"
36" OC	30.00"



GROUNDCOVER & ANNUAL SPACING

NOT TO SCALE (PA-L040112 - 11/2023)



TREE PROTECTION DURING SITE CONSTRUCTION

NOT TO SCALE (PA-O030202 - 09/2023)

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 5.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
C. LAWN - LAWN AREAS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO ITEM 8 BELOW.
- LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
- SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
E. FERTILIZER
- FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
- FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
F. PLANT MATERIAL
- ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.2), LATEST EDITION, AS PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION).
- IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
- PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
- TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
- CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
- SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
- TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
B. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS.
C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
- TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
- TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
- MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
D. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]):
- 20 POUNDS 'GRO-POWER' OR APPROVED EQUAL SOIL CONDITIONER/FERTILIZER
- 20 POUNDS 'NITRO-FORM' (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
D. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
- PLANTS: MARCH 15TH TO DECEMBER 15TH
- LAWN AND MEADOW SEED MIXES: MARCH 1ST TO MAY 15TH OR BETWEEN AUGUST 15TH AND OCTOBER 15TH
PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELREUTERIA	QUERCUS VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES

H. PLANTING PITS SHALL BE DUG WITH LEVEL OR CONVEX BOTTOMS, WITH THE WIDTH THREE TIMES THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART PEAT MOSS
- 1 PART COMPOSTED COW MANURE BY VOLUME
- 3 PARTS TOPSOIL BY VOLUME
- 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
-- 2 TABLETS PER 1 GALLON PLANT
-- 3 TABLETS PER 5 GALLON PLANT
-- 4 TABLETS PER 15 GALLON PLANT
-- LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK
I. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
J. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
K. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. NO PRUNING SHALL BE CONDUCTED WITHIN THE FIRST YEAR OF PLANTING.
L. GROUND COVER AREAS SHALL RECEIVE A ¼" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)
A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. (SEE SPECIFICATION 2.F. ABOVE)
B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10TH AND JUNE 30TH.
D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE
A. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF EIGHTEEN (18) MONTHS FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE OWNER, OWNER'S AGENTS, AND APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION. A PLANT SHALL BE CONSIDERED "DEAD OR DYING" IF MORE THAN 30% OF ITS BRANCHES ARE DEAD.
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER TO THE OWNER/OPERATOR. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
D. LAWNS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER TO THE OWNER/OPERATOR THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

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1	01/06/2026	PER INTERNAL REVISIONS	EL/AS / TRK
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7	07/27/2026	PER TOWNSHIP COMMENTS	JHT / EL
8	10/05/2026	BID ISSUE	EL / TK

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PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
CAD I.D.:	P-CIVL-LLGT

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

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REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:
LANDSCAPE NOTES AND DETAILS

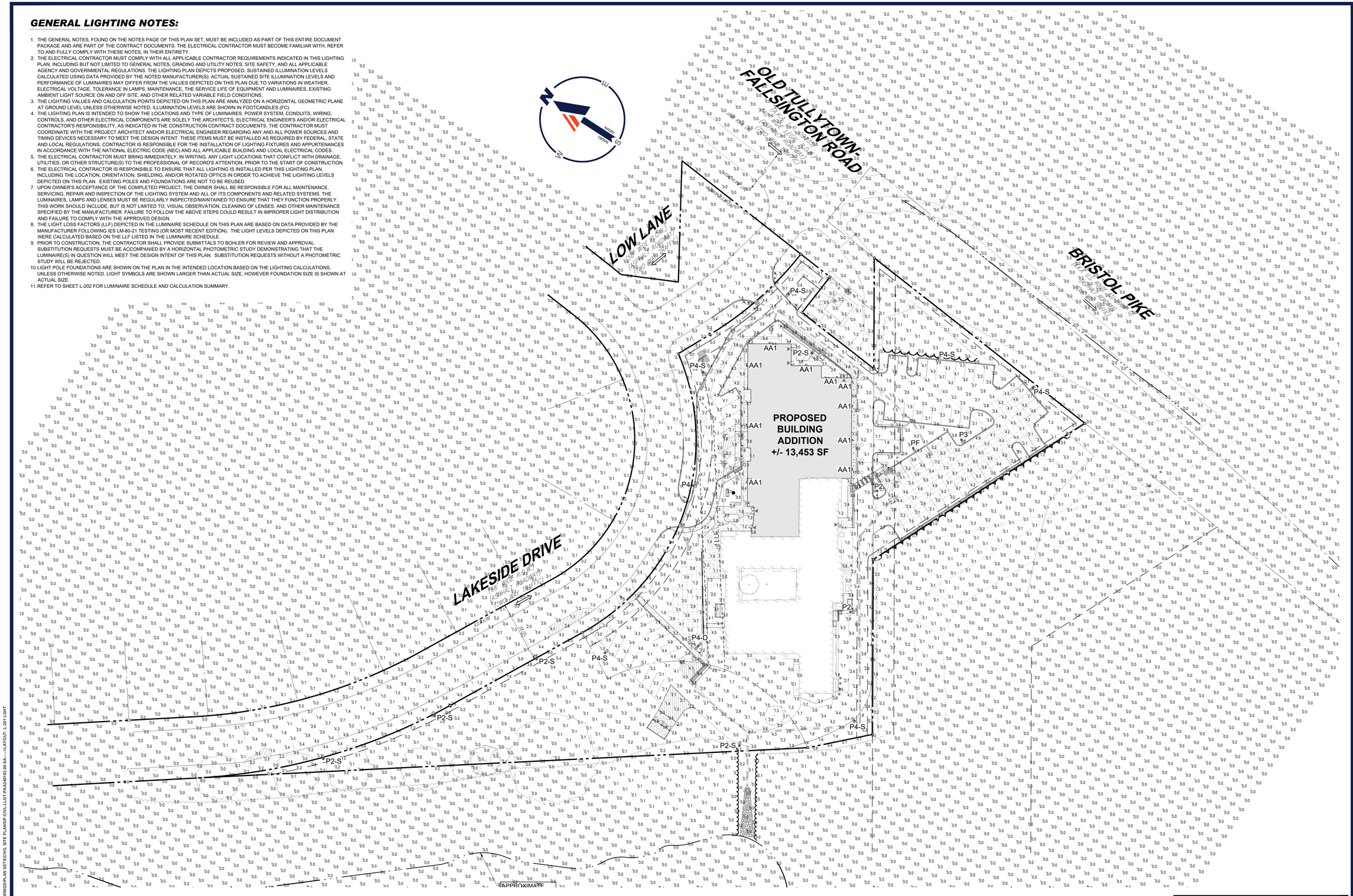
SHEET NUMBER:
L-103

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-LLGT-PAA240163.00-8A----->LAYOUT: L-103 LSCD
EL

GENERAL LIGHTING NOTES:

1. THE GENERAL NOTES, FOUND ON THE NOTES PAGE OF THIS PLAN SET, MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE ELECTRICAL CONTRACTOR MUST BECOME FAMILIAR WITH, REFER TO AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY.
2. THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THIS LIGHTING PLAN, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL APPLICABLE AGENCY AND GOVERNMENTAL REGULATIONS. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY DIFFER FROM THE VALUES DEPICTED ON THIS PLAN DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, MAINTENANCE, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES, EXISTING AMBIENT LIGHT SOURCE ON AND OFF SITE, AND OTHER RELATED VARIABLE FIELD CONDITIONS.
3. THE LIGHTING VALUES AND CALCULATIONS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOTCANDLES (FC).
4. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING, CONTROLS, AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, ELECTRICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY FEDERAL, STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) AND ALL APPLICABLE BUILDING AND LOCAL ELECTRICAL CODES.
5. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE PROFESSIONAL OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL LIGHTING IS INSTALLED PER THIS LIGHTING PLAN, INCLUDING THE LOCATION, ORIENTATION, SHIELDING, AND/OR ROTATED OPTICS IN ORDER TO ACHIEVE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. EXISTING POLES AND FOUNDATIONS ARE NOT TO BE REUSED.
7. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND OTHER MAINTENANCE SPECIFIED BY THE MANUFACTURER. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN.
8. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-21 TESTING (OR MOST RECENT EDITION). THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO BOHLER FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
10. LIGHT POLE FOUNDATIONS ARE SHOWN ON THE PLAN IN THE INTENDED LOCATION BASED ON THE LIGHTING CALCULATIONS, UNLESS OTHERWISE NOTED. LIGHT SYMBOLS ARE SHOWN LARGER THAN ACTUAL SIZE, HOWEVER FOUNDATION SIZE IS SHOWN AT ACTUAL SIZE.
11. REFER TO SHEET L-202 FOR LUMINAIRE SCHEDULE AND CALCULATION SUMMARY.



THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

40 20 10 0 40
SCALE: 1" = 40'

Sep 30, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-LLGT-PAA240163.00.dwg——LAYOUT: L-201 LIGHT
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PROJECT No.:	PAA240163.00-8A
DRAWN BY:	JHT
CHECKED BY:	TRK
DATE:	11/21/2025
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PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
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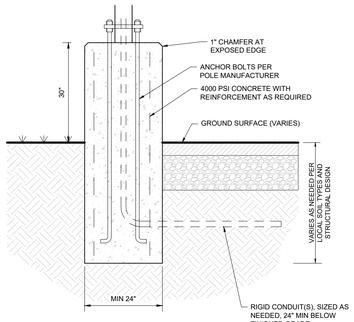
SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

L-201

REVISION 8 - 10/05/2026



NOTE:
THIS DETAIL SERVES AS A GUIDELINE ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS, AND SITE-SPECIFIC SOIL PARAMETERS. SOME SITE LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING ASIDE FROM THE LIGHT FIXTURE INCLUDING (BUT NOT LIMITED TO) CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.

CONCRETE LIGHT POLE BASE

NOT TO SCALE

(BE-L020101 - 01/2025)

LIGHTING COMPLIANCE CHART

SECTION	REQUIREMENT	COMPLIANCE
ZONING: 185-50 GLARE	NO USE SHALL PRODUCE A STRONG, DAZZLING LIGHT OR A REFLECTION OF A STRONG, DAZZLING LIGHT BEYOND ITS LOT LINES	COMPLIES
SALDO: 153-613 AUTOMOBILE PARKING FACILITIES	Q. ALL PUBLIC PARKING AREAS SHALL BE ADEQUATELY ILLUMINATED DURING AFTER-DARK OPERATING HOURS. LIGHTING SHALL BE ARRANGED SO THAT GLARE DOES NOT AFFECT NEIGHBORING PROPERTIES OR STREETS. IN OUTDOOR LOTS, LIGHTING STANDARDS SHALL BE LOCATED ON THE RAISED PARKING ISLANDS AND NOT ON THE PARKING SURFACE. IN GARAGES, LIGHTING STANDARDS SHALL BE LOCATED ON THE WALLS AND/OR CEILINGS AND NOT ON THE PARKING SURFACE.	COMPLIES
153-614 LIGHTING	A. ALL PARKING AREAS AND WALKWAYS THERETO AND APPURTENANT PASSAGEWAYS AND DRIVEWAYS SERVING APARTMENTS, TOWNHOUSES OR COMMERCIAL, INDUSTRIAL, OR OTHER SIMILAR LAND DEVELOPMENT HAVING COMMON OFF-STREET PARKING AND/OR LOADING AREAS, AND BUILDING COMPLEXES REQUIRING AREA LIGHTING SHALL BE ADEQUATELY ILLUMINATED.	COMPLIES
	B. THE LIGHTING PLAN IN AND AROUND THE PARKING AREAS SHALL PROVIDE FOR NONGLARE LIGHTS FOCUSED DOWNWARD. THE INCIDENT LIGHT INTENSITY PROVIDED AT GROUND LEVEL SHALL BE A MINIMUM OF ONE FOOTCANDLE ANYWHERE IN THE AREA TO BE ILLUMINATED. LIGHTING SHALL BE PROVIDED BY FIXTURES WITH A MOUNTING HEIGHT OF NOT MORE THAN 25 FEET OR THE HEIGHT OF THE BUILDING.	COMPLIES
	C. ANY OTHER OUTDOOR LIGHTING SUCH AS BUILDING AND SIDEWALK ILLUMINATION, DRIVEWAYS WITH NO ADJACENT PARKING, AND ORNAMENTAL LIGHTING SHALL BE SHOWN ON THE LIGHTING PLAN IN SUFFICIENT DETAIL TO ALLOW DETERMINATION OF THE EFFECTS TO ADJACENT PROPERTIES, TRAFFIC SAFETY AND OVERHEAD SKY GLOW. THE OBJECTIVE OF THESE SPECIFICATIONS IS TO MINIMIZE UNDESIRABLE OFF-PREMISES EFFECTS. NO LIGHT SHALL SHINE DIRECTLY INTO WINDOWS OR ONTO STREETS AND DRIVEWAYS IN SUCH MANNER AS TO INTERFERE WITH OR DISTRACT DRIVER VISION.	COMPLIES

LUMINAIRE SCHEDULE

LABEL	QTY	MOUNTING HEIGHT	ARRANGEMENT	LUMINAIRE LUMENS	LLF	BUG RATING	DESCRIPTION	POLE
AA1*	10	7'-6" AFF	SINGLE	3271	0.900	B1-U0-G1	ANP LIGHTING, SITELINE WALL MOUNT LED LUMINAIRE, ZERO UP-LIGHT (SLW19-E030LDS-T2-40K-x-x)	----
P2	2	25'-0" AFG	SINGLE	25064	0.900	B4-U0-G3	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 2, ZERO UP-LIGHT (MRM-LED-24L-SIL-2-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 2, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T2U-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 2, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-2-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
P2-S	5	25'-0" AFG	SINGLE	14954	0.900	B1-U0-G2	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 2 WITH INTEGRAL LOUVER, ZERO UP-LIGHT (MRM-LED-24L-SIL-2-x-x-x-40-70CRI-x-IL) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 2 WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T2U-SA-x-HSS) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 2 WITH INTERNAL HOUSE SIDE SHIELD, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-2-x-HIS-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
P3	1	25'-0" AFG	SINGLE	25955	0.900	B3-U0-G3	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 3, ZERO UP-LIGHT (MRM-LED-24L-SIL-3-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 3, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T3-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 3, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-3-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
P4	1	25'-0" AFG	SINGLE	25601	0.900	B3-U0-G5	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (MRM-LED-24L-SIL-4-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 4W, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T4W-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-4-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
P4-D	1	25'-0" AFG	BACK-BACK	25601	0.900	B3-U0-G5	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (MRM-LED-24L-SIL-4-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 4W, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T4W-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-4-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-D180-x) (OR APPROVED ALTERNATE)
P4-S	6	25'-0" AFG	SINGLE	15913	0.900	B1-U0-G3	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 4 WITH INTEGRAL LOUVER, ZERO UP-LIGHT (MRM-LED-24L-SIL-4-x-x-x-40-70CRI-x-IL) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 4W WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T4W-SA-x-HSS) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 4 WITH INTERNAL HOUSE SIDE SHIELD, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-4-x-HIS-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
P5	1	25'-0" AFG	SINGLE	25256	0.900	B5-U0-G3	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE 5W, ZERO UP-LIGHT (MRM-LED-24L-SIL-5W-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 5WQ, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-5WQ-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 5W, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-5W-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)
PF	1	25'-0" AFG	SINGLE	25948	0.900	B3-U0-G3	PRIMARY: LSI INDUSTRIES, MIRADA MEDIUM (MRM) OUTDOOR LED AREA LUMINAIRE, TYPE FT, ZERO UP-LIGHT (MRM-LED-24L-SIL-FT-x-x-x-40-70CRI-x) APPROVED ALTERNATE: COOPER LIGHTING SOLUTIONS, PREVAIL DISCRETE XL LED AREA LUMINAIRE, TYPE 4W, ZERO UP-LIGHT (PRV-XL-PA3A-740-x-T4W-SA-x) APPROVED ALTERNATE: GARDCO BY SIGNIFY, ECOFORM SMALL LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (ECF-S-64L-1A-NW-G2-AR-4-x-x)	LSI INDUSTRIES, ROUND STRAIGHT STEEL POLE, 22'-6" LENGTH (5RP-B3-S11G-22'6"-S-x) (OR APPROVED ALTERNATE)

* REFER TO ARCHITECTURAL DRAWINGS FOR FINAL MOUNTING LOCATIONS AND PRIMARY AND ALTERNATE SPECIFICATIONS

CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
ALL POINTS	ILLUMINANCE	Fc	0.25	11.0	0.0	N.A.	N.A.
ACCESS DRIVE	ILLUMINANCE	Fc	4.16	10.7	1.2	3.47	8.92
PARKING - FRONT	ILLUMINANCE	Fc	3.05	5.2	1.1	2.77	4.73
PARKING - LOWER	ILLUMINANCE	Fc	3.66	5.7	1.3	2.82	5.38
PARKING - REAR	ILLUMINANCE	Fc	3.72	7.5	1.0	3.72	7.50
PARKING - STREET	ILLUMINANCE	Fc	3.74	5.7	1.4	2.67	4.07

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	01/06/2026	PER INTERNAL REVISIONS	EL/AS TRK
2	03/06/2026	PER LD SUBMISSION	EL/AS TRK
3	03/16/2026	PER NPDES SUBMISSION	EL TRK
4	05/20/2026	PER PECO SUBMISSION	JHT EL
5	06/02/2026	PER BOROUGH AND BCCD COMMENTS	EL/AS TRK
6	06/11/2026	95% CD ISSUE	EL TRK
7	07/27/2026	PER TOWNSHIP COMMENTS	JHT EL
8	10/05/2026	BID ISSUE	EL TK

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WWW.PA751ALL.ORG
#20250292016

BID DRAWING

PROJECT No.: PAA240163.00-8A
DRAWN BY: JHT
CHECKED BY: TRK
DATE: 11/21/2025
CAD I.D.: P-CIVIL-LLGT

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA — T.R. KNAB — REGISTERED LANDSCAPE ARCHITECT

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

LIGHTING NOTES AND DETAILS

SHEET NUMBER:

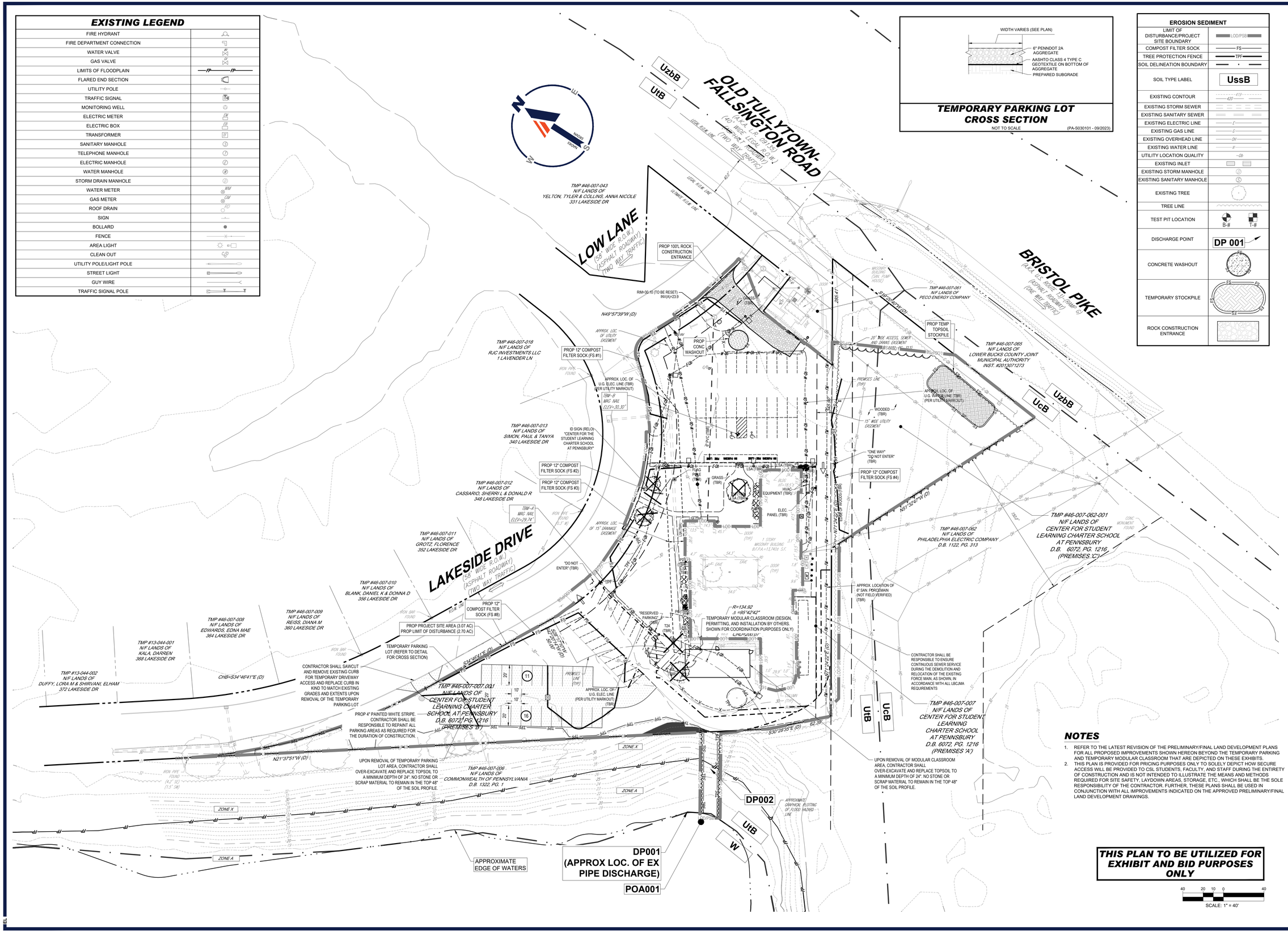
L-202

REVISION 8 - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-LLGT-PAA240163.00-8A-----\LAYOUT L-202 LGHD
EL

EXISTING LEGEND

FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	
GAS VALVE	
LIMITS OF FLOODPLAIN	FP FP
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	TF
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
BOLLARD	
FENCE	
AREA LIGHT	
CLEAN OUT	CO
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	



TEMPORARY PARKING LOT CROSS SECTION

NOT TO SCALE (PA-S030101 - 09/2023)

EROSION SEDIMENT

LIMIT OF DISTURBANCE/PROJECT SITE BOUNDARY	LOD/PSB
COMPOST FILTER SOCK	FS
TREE PROTECTION FENCE	TPF
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB
EXISTING CONTOUR	415 / 420
EXISTING STORM SEWER	
EXISTING SANITARY SEWER	
EXISTING ELECTRIC LINE	E
EXISTING GAS LINE	G
EXISTING OVERHEAD LINE	OH
EXISTING WATER LINE	W
UTILITY LOCATION QUALITY	-QL-
EXISTING INLET	
EXISTING STORM MANHOLE	
EXISTING SANITARY MANHOLE	S
EXISTING TREE	
TREE LINE	
TEST PIT LOCATION	B-# T-#
DISCHARGE POINT	DP 001
CONCRETE WASHOUT	CW
TEMPORARY STOCKPILE	FS S3
ROCK CONSTRUCTION ENTRANCE	

NOTES

1. REFER TO THE LATEST REVISION OF THE PRELIMINARY/FINAL LAND DEVELOPMENT PLANS FOR ALL PROPOSED IMPROVEMENTS SHOWN HEREON BEYOND THE TEMPORARY PARKING AND TEMPORARY MODULAR CLASSROOM THAT ARE DEPICTED ON THESE EXHIBITS.
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40 20 10 0 40
SCALE: 1" = 40'

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WWW.PAT.CALL.ORG
#20250292016

BID DRAWING

PROJECT No.:	PAA240163.00-0A
DRAWN BY:	EEL
CHECKED BY:	TRK
DATE:	10/05/2026
CAD I.D.:	P-CNSP-SESC

PROJECT:

EXHIBIT

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE TULLYTOWN BOROUGH BUCKS COUNTY COMMONWEALTH OF PENNSYLVANIA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

STAGE 1 CONSTRUCTION ACCESS PLAN

SHEET NUMBER:

X-1

ORG. DATE - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CONSTRUCTION PLAN\P-CNSP-SESC-PAA240163.00-0A.----\LAYOUT: X-1 STG1
EEL

EROSION SEDIMENT

LIMIT OF DISTURBANCE/PROJECT SITE BOUNDARY	LOD/PSB
COMPOST FILTER SOCK	FS
TREE PROTECTION FENCE	TPF
SOIL DELINEATION BOUNDARY	
SOIL TYPE LABEL	UssB
EXISTING CONTOUR	419 / 420
EXISTING STORM SEWER	
EXISTING SANITARY SEWER	
EXISTING ELECTRIC LINE	E
EXISTING GAS LINE	G
EXISTING OVERHEAD LINE	OH
EXISTING WATER LINE	W
UTILITY LOCATION QUALITY	QB
EXISTING INLET	
EXISTING STORM MANHOLE	
EXISTING SANITARY MANHOLE	
EXISTING TREE	
SANITARY LATERAL	S
STORM SEWER	
WATER LINE	W
FIRE LINE	F
CONTOUR LINE	190 / 187
TREE LINE	
SANITARY MANHOLE	S
STORM SEWER MANHOLE	D
STORM SEWER INLET	
TEST PIT LOCATION	B-#
DISCHARGE POINT	DP 001
INLET TO BE BLOCKED	
CONCRETE WASHOUT	FS, CW
TEMPORARY STOCKPILE	FS, SP
ROCK CONSTRUCTION ENTRANCE	
NAG SC-150 MATTING	

EXISTING LEGEND

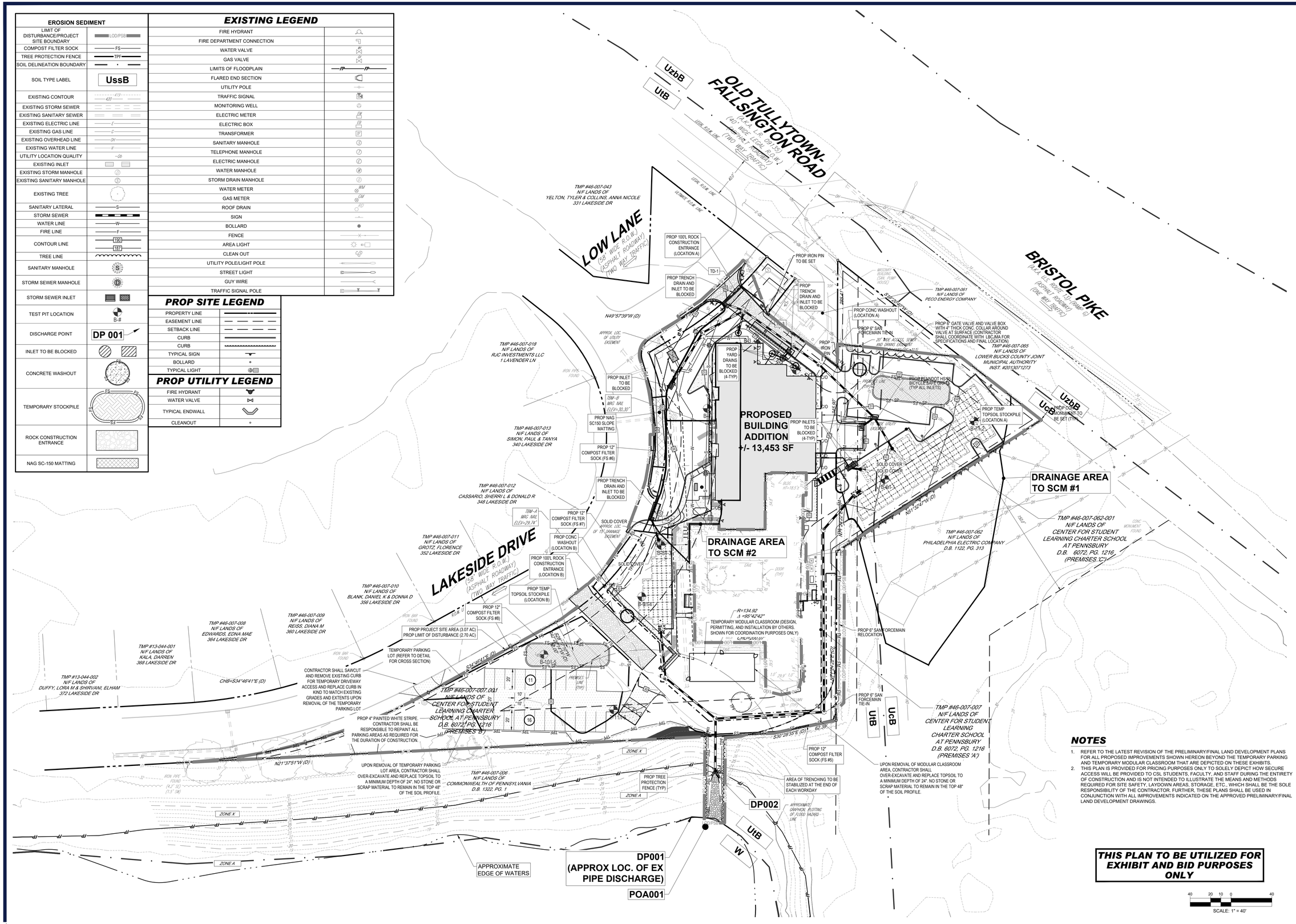
FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION	
WATER VALVE	
GAS VALVE	
LIMITS OF FLOODPLAIN	FP
FLARED END SECTION	
UTILITY POLE	
TRAFFIC SIGNAL	
MONITORING WELL	
ELECTRIC METER	EM
ELECTRIC BOX	EB
TRANSFORMER	TF
SANITARY MANHOLE	S
TELEPHONE MANHOLE	T
ELECTRIC MANHOLE	E
WATER MANHOLE	W
STORM DRAIN MANHOLE	D
WATER METER	WM
GAS METER	GM
ROOF DRAIN	RD
SIGN	
BOLLARD	
FENCE	
AREA LIGHT	
CLEAN OUT	CO
UTILITY POLE/LIGHT POLE	
STREET LIGHT	
GUY WIRE	
TRAFFIC SIGNAL POLE	

PROP SITE LEGEND

PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
CURB	
CURB	
TYPICAL SIGN	
BOLLARD	
TYPICAL LIGHT	

PROP UTILITY LEGEND

FIRE HYDRANT	
WATER VALVE	
TYPICAL ENDWALL	
CLEANOUT	



NOTES

1. REFER TO THE LATEST REVISION OF THE PRELIMINARY/FINAL LAND DEVELOPMENT PLANS FOR ALL PROPOSED IMPROVEMENTS SHOWN HEREON BEYOND THE TEMPORARY PARKING AND TEMPORARY MODULAR CLASSROOM THAT ARE DEPICTED ON THESE EXHIBITS.
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40 20 10 0 40
SCALE: 1" = 40'

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BID DRAWING

PROJECT No.:	PAA240163.00-0A
DRAWN BY:	EEL
CHECKED BY:	TRK
DATE:	10/05/2026
CAD I.D.:	P-CNSP-SESC

PROJECT:

EXHIBIT

FOR

CSL CHARTER SCHOOL AT PENNSBURY

PROPOSED ADDITIONS AND RENOVATIONS

345 LAKESIDE DRIVE
TULLYTOWN BOROUGH
BUCKS COUNTY
COMMONWEALTH OF PENNSYLVANIA

BOHLER™
1600 MANOR DRIVE, SUITE 200
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T.R. KNAB
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA003352

SHEET TITLE:

STAGE 2 CONSTRUCTION ACCESS PLAN

SHEET NUMBER:

X-2

ORG. DATE - 10/05/2026

Sep 29, 2026
P:\PA\2024\PAA240163.00\CAD\DRAWINGS\PLAN SETS\CONSTRUCTION PLAN\P-CNSP-SESC-PAA240163.00-0A.----\LAYOUT: X-2 STG2
EEL