

ZONING TABLE ZONE: HC - HIGHWAY COMMERCIAL USE: AUTOMOBILE FILLING STATION, RETAIL SALE OF GOODS AND SERVICES APPLICANT/ OWNER INFORMATION 727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109 APPLICANT: 727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR PROPERTY OWNER:

			BOSTON, MA 02109	
BULK REQUIREMENTS				
ITEM	CODE	REQUIRED	EXISTING	PROPOSED
MIN. GROSS LOT AREA	§ 1282.04(a)	25 ACRES	127.50 ACRES	127.50 ACRES
NET BUILDABLE SITE AREA			120.97 ACRES	120.97 ACRES
MIN. LOT WIDTH	§ 1282.04(b)	1,000'	2,683'	2,683'
MIN. YARD SETBACKS				
FRONT YARD	§ 1282.05(a)	200'	480.9'	480.9'
SIDE YARD	§ 1282.05(a)	200'	N/A	N/A
REAR YARD	§ 1282.05(a)	200'	2.4'	2.4'
YARD ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.05(b)	400'	186.7'	186.7'
MAX. BUILDING COVERAGE	§ 1282.06(a)	20%	6.08% (7.362 AC.)	6.12% (7.407 AC.)
MAX. GROSS BUILDING FLOOR AREA COVERAGE	§ 1282.06(b)	40%	11.73% (14.19 AC.)	11.76% (14.23 AC.)
MAX. IMPERVIOUS COVERAGE	§ 1282.06(c)	40%	26.13% (31.61 AC.)	26.60% (32.18 AC.)
MAX. BUILDING HEIGHT	§ 1282.07	60', MAX OF 3 STORIES	< 60'	< 60'
MIN. PARKING SETBACKS				
FRONT, SIDE, REAR	§ 1282.08(b)	200'	2.4'	2.4'
ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.08(b)	300'	186.7'	186.7'
				EXISTING NON CONFORMITY

PARKING REQUIREMENTS

- 1294.01 REQUIRED OFF-STREET PARKING:
 (10) OFFICE BUILDING. ONE SPACE FOR EVERY 250 SQUARE FEET OF OFFICE RENTAL SPACE, EXCLUDING HALLS AND LAVATORIES IN COMMON USAGE, SHAFTS, ELEVATORS, STAIRS AND UTILITY ROOMS.
 (12) LABORATORY OR INDUSTRIAL ESTABLISHMENT. ONE PARKING SPACE FOR EVERY EMPLOYEE ON THE TWO LARGEST SHIFTS, BUT NOT LESS THAN ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA; AND
 (13) OTHER COMMERCIAL BUILDINGS. ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA OR FRACTION THEREOF, EXCEPT WHEN
- OTHERWISE AUTHORIZED AS A SPECIAL EXCEPTION CONSISTENT WITH THE REQUIREMENTS OF THIS SECTION FOR COMPARABLE ESTABLISHMENTS.

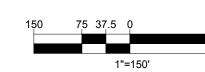
219,467 SF TOTAL OFFICE OCCUPANT AREA / 1000 *4 = 878 SPACES 238,819 SF TOTAL LAB OCCUPANT AREA / 1000*1 = 239 SPACES 1,117 TOTAL SPACES REQUIRED

EXISTING 1,324 SPACES

<u>PROPOSED</u> 1,361 TOTAL SPACES PROVIDED (47 NEW - 10 TBR = 37 NET INCREASE)

LEG	END
PROP	OSED
BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	-00000
SIDEWALK	250000

LEGEND		
EXISTING		
PROPERTY LINE		
R.O.W. LINE		
ADJACENT PROPERTY LINE		
EASEMENT LINE		
SETBACK LINE		
EXISTING WETLANDS		



	REVISIONS			
V	DATE	COMMENT	DRAWN BY	



Know what's **below. Call** before you dig. PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-242-1776

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTIC DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: DRAWN BY: CHECKED BY: DATE: CAD I.D.: 6/28/2023 PAA230019.03-LDVP-0A

PROJECT:

CONDITIONAL USE PLANS

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

BOHLER

1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914

Phone: (215) 996-9100

Fax: (215) 996-9102

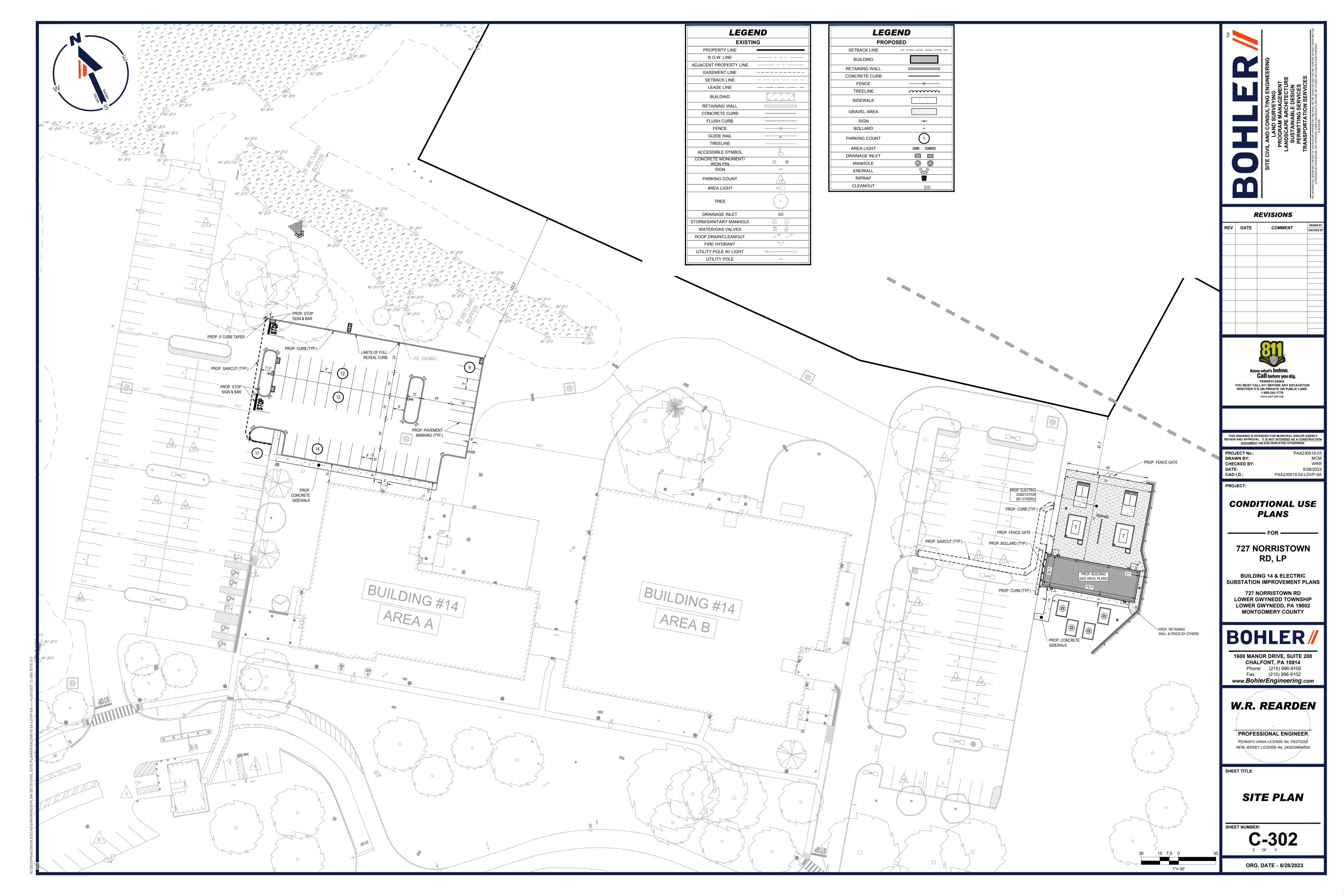
www.BohlerEngineering.com

W.R. REARDEN

PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE No. PE073243 NEW JERSEY LICENSE No. 24GE04694500

OVERALL SITE PLAN

C-301





DEVELOPER CERTIFICATION ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP, AND A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE TOWNSHIP AND MONTGOMERY COUNTY CONSERVATION DISTRICT FOR APPROVAL, IF APPLICABLE. **OWNER CERTIFICATION OF INTENT PARCEL# 39-00-02959-008** I, SEAN BYARS, SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP, UNDERSIGNED, HAS LAID OUT UPON ITS LAND SITUATE IN THE TOWNSHIP OF LOWER GWYNEDD TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN IMPROVEMENTS ACCORDING TO THE ACCOMPANYING PLAN WITNESS MY HAND AND SEAL THIS _____ DAY OF DECEMBER, 2023, SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP OWNER CERTIFICATION OF ACKNOWLEDGEMENT COMMONWEALTH OF PENNSYLVANIA: COUNTY OF MONTGOMERY DAY OF DECEMBER, 2023 BEFORE ME, A NOTARY PUBLIC IN AND FOR THE ABOVE STATE AND COUNTY, THE UNDERSIGNED OFFICER. PERSONALLY APPEARED SEAN BYARS. WHO ACKNOWLEDGED HIMSELF TO BE THE SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP (OWNERS OF RECORD) AND OWNER OF THE PROPERTY SITUATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, THAT HE BEING AUTHORIZED DO TO SO, EXECUTED THIS PLAN FOR THE PURPOSE THEREIN CONTAINED, WITH THE INTENTION THAT THIS PLAN OF SUBDIVISION OR DEVELOPMENT SITUATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, AND DESIRED THAT SAID PLAN BE RECORDED ACCORDING TO LAW. WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND YEAR AFORESAID. SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP NOTARY COMMISSION EXPIRES:

ENGINEER'S CERTIFICATION

I. WILLIAM R. REARDEN. ON THIS DATE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (DEP'S) REGULATIONS AND THIS ORDINANCE.

WILLIAM R. REARDEN, P.E. PROFESSIONAL ENGINEER LICENSE No. PE073243

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LOWER GWYNEDD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP.

WILLIAM R. REARDEN, PA #PE073243

CERTIFICATE OF REVIEW BY THE TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER ON THE DAY OF

TOWNSHIP ENGINEER

CERTIFICATE OF REVIEW BY THE PLANNING COMMISSION

REVIEWED BY THE LOWER GWYNEDD TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF ___

PLANNING COMMISSION CHAIRMAN

CERTIFICATION OF TOWNSHIP APPROVAL

AT THE MEETING HELD ON X/XX/2023, THE BOARD OF SUPERVISORS OF LOWER GWYNEDD TOWNSHIP BY RESOLUTION DULY ENACTED AND APPROVED THE PRELIMINARY/FINAL LAND DEVELOPMENT PLAN OF THE PROPERTY OF THE XXXXXX AS SHOWN HEREON.

CHAIRMAN OF THE BOARD OF SUPERVISORS

TOWNSHIP SECRETARY

Montgomery Cour	REVIEWED. Report prepared by nty Planning Commission the Municipalities Planning Coc
Certified this dat	te
Montgomery C	County Planning Commission

CERTIFICATION OF THE COUNTY RECORDER OF DEEDS

RECORDED IN THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 2023.

RECORDER OF DEEDS

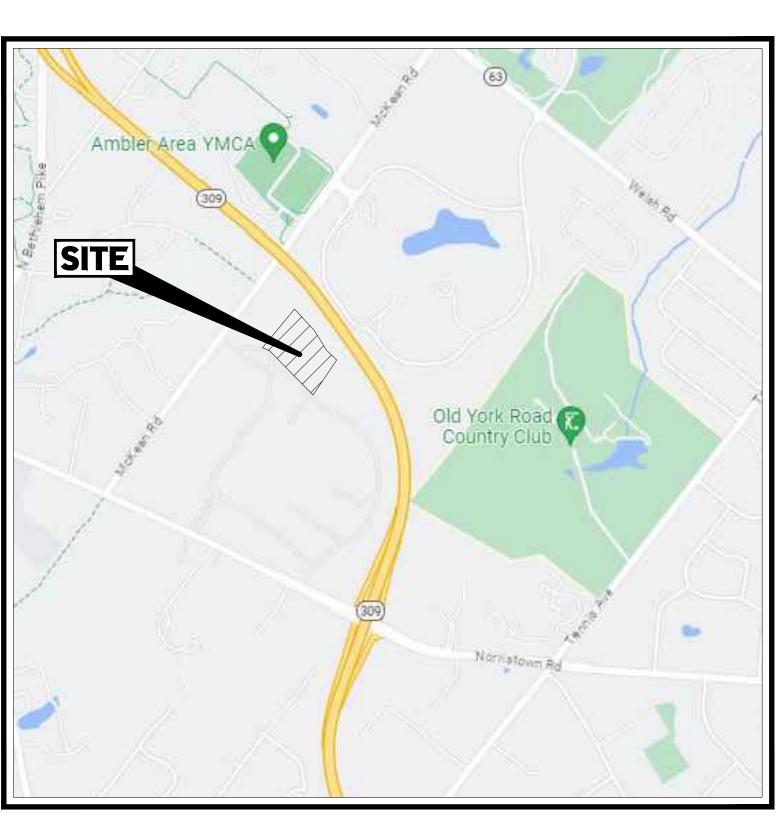
PRELIMINARY I FINAL LAND DEVELOPMENT PLANS

727 NORRISTOWN RD, LP SPRINGHOUSE INNOVATION PARK

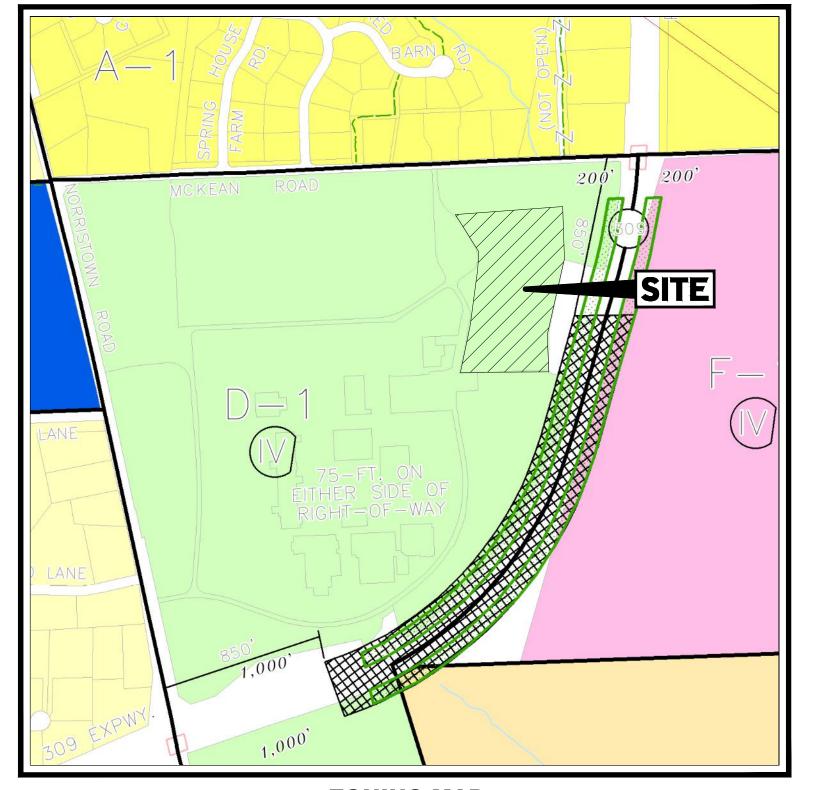
PROPOSED

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

LOCATION OF SITE 727 NORRISTOWN ROAD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY, PENNSYLVANIA APN #39-00-02959-008







ZONING MAP SOURCE: LOWER GWYNEDD TOWNSHIP

DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET*	C-101 (1 OF 20)
GENERAL NOTES SHEET*	C-102 (2 OF 20)
EXISTING CONDITIONS/DEMOLITION PLAN	C-201 (3 OF 20)
NATURAL RESOURCES PROTECTION PLAN	C-202 (4 OF 20)
OVERALL SITE PLAN*	C-301 (5 OF 20)
SITE PLAN*	C-302 (6 OF 20)
GRADING PLAN	C-401 (7 OF 20)
UTILITY PLAN	C-501 (8 OF 20)
SOIL EROSION AND SEDIMENT POLLUTION CONTROL PLAN	C-601 (9 OF 20)
SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES & DETAILS	C-602, C-603, C-604 (10-12 OF 20)
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN*	C-605 (13 OF 20)
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS*	C-606, C-607 (14 & 15 OF 20)
LIGHTING PLAN	C-701 (16 OF 20)
LANDSCAPE PLAN	C-702 (17 OF 20)
LANDSCAPE AND LIGHTING DETAILS	C-703 (18 OF 20)
PROFILES	C-801 (19 OF 20)
DETAILS SHEET	C-901 (20 OF 20)

* SHEETS C-101, C-102, C-301, C-302, C-605, C-606 & C-607 OF THIS PLAN SET WILL BE CONSIDERED A COMPLETE BE CONSIDERED PART OF THE FINAL RECORD PLAN AS IF RECORDED WITH SAME.

RECORD PLAN SET FOR FILING PURPOSES IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE. THE REMAINING PLAN SHEETS, WHICH ARE NOT BEING RECORDED, ON FILE AT LOWER GWYNEDD TOWNSHIP SHALL

PREPARED BY



	REVISIONS			
EV	DATE	COMMENT	DRAWN BY	
	DAIL	COMMENT	CHECKED BY	



PERMIT SET

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PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC

SUBSTATION IMPROVEMENT PLANS 727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP

LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100

Fax: (215) 996-9102 www.BohlerEngineering.com



COVER SHEET

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 HE 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 INDEMNIEY 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 I'HE 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 RUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS RULES. STATUTES, CODES AND

ILL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S NSATION INSURANCE. EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (JMBRELLA 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 INDEMNITY 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 FILLEST 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

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

ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

NATURE OR TYPE FITHER EXPRESSED OR IMPLIED UNDER ANY CIRCUMSTANCES.

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 . 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 THI 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. . WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR FAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA,

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 IMMEDIATEL' 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.

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

. 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. 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 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

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 OI RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE 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

RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE

THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS 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 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

COSTS THAT PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE. 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

PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND

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. 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

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'

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.

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

JNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS. 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.

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

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 REPAIR CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR RETTER CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE

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. 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. 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 PROJEC NY 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. 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 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. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED

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. 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 LITILITY NOTIFICATION SYSTEM TO LOCATE ALL LINDERGROUND LITILITIES. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION

ACTIVITIES 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 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. 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 AND PROFESSIONAL OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. 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.

2. 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 MUS' 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 SUBMI 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.

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 O

15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE

EXCAVATION, STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO. THE PUBLIC 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

CONTRACTOR MILET EMPT 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

WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE

GRADING NOTES

. 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' 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 THI GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE

JURISDICTION OVER THIS PROJECT 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 AND THE OWNER PRIOR TO HE CONTRACTOR COMMENCING ANY WORK 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, IN WRITING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL LINSUITABLE MATERIALS WITH SLIITABLE 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 SEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREA: 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 FEFECT 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 OMPACTED 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 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, IN WRITING, OF ANY 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.

PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED. 9. 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. 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. 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 FROSION 2. 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

ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATION 14. THE TOP AND BOTTOM OF WALL ELEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE WALL AND DO NOT REPRESENT THE FLEVATION OF THE PROPOSED WALL WHICH MAY INCLUDE CAP UNITS AND FOOTINGS. WALL FOOTINGS/FOUNDATION FLEVATIONS 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 HAT 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,

RETAINING WALL DESIGNS (BY OTHERS) 15. ALL DISTURBED TOPSOIL ON THE SITE IS TO BE REDISTRIBUTED ON SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. REMOVAL OF TOPSOIL IS NOT ALLOWED, UNLESS OTHERWISE SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.

GUIDERAIL, UTILITIES, AND OTHER SITE FEATURES IN THE VICINITY OF THE WALL(S), SHALL BE CONSIDERED AND INCORPORATED INTO THE

ACCESSIBILITY DESIGN GUIDELINES

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 THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH

INDUSTRY GUIDELINES 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 BUIDELINES AND REQUIREMENTS WHICH INCLUDE. BUT ARE NOT LIMITED TO THE FOLLOWING ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION

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. 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

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 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%).

OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN

DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS

ANDING 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). 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, 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

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, 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 . 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

BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES.

(Rev. 1/2023)

(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 LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE. AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL LITHLITY 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

DMISSIONS IN WRITING, TO THE PROFESSIONAL OF RECORD. 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.

POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND

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 OF

SAME BASED UPON FINAL ARCHITECTURAL PLANS. 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 DETERMINI 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, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME. 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. PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH

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 JPON THE COMPLETION OF WORK.

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.

1. 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. 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

(Rev. 1/2023)

13. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOMINAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES 14. 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

15. 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

6. 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.

UNLESS INDICATED OTHERWISE, STORM MAINS MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SOIL TIGHT JOINTS. WHEN HIGH DENSITY POLYETHYLENE PIPE (HDPE) IS SPECIFIED, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND BE TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SOIL TIGHT JOINTS. PIPE FOR ROOF DRAINS SHALL BE HDPE, SDR 35 PVC, OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS SHALL BE PROVIDED AND CONFORM TO 18. 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 19. 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" 20. ALL INLETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.

21. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT

SITE SPECIFIC NOTES

EXISTING PROPERTY INFORMATION: APN #39-00-02959-008 727 NORRISTOWN ROAD LOWER GWYNEDD PA 19002

ZONED D-1 SPECIAL USE DISTRICT

OWNER/APPLICANT: 727 NORRISTOWN RD. LP C/O BEACON CAPITAL PARTNERS, LLC 200 STATE STREET, 5TH FLOOR, BOSTON, MA 02109

HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE SOUTH COORDINATES, NAD 83. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).

EMPORARY BENCH MARKS SE TBM-A: MAG NAIL SET IN ASPHALT ELEVATION=213.25

> TBM-B: MAG NAIL SET IN CONCRETE ELEVATION=218.16

4. THE WETLANDS AND WATERS DELINEATION FLAGS WERE PLACED IN THE FIELD BY VALLEY ENVIRONMENTAL SERVICES, INC. IN APRIL 2023.

. BY GRAPHIC PLOTTING ONLY, PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER FEMA FIRM MAP NO. 42091C0279G, 42091C0286G, AND 42091C0287G

ALL CURB AND PAVEMENT RADII ARE 5', UNLESS OTHERWISE NOTED

ALL PROPOSED PINS AND MONUMENTS SHALL BE PLACED AND CERTIFIED BY A LICENSED PENNSYLVANIA PROFESSIONAL SURVEYOR.

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'

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. 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 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

SITE LAYOUT NOTES

THE ENTITY WITH JURISDICTION OVER THE PROJECT. . 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

REFERENCES AND CONTACT INFORMATION

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING

DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS BY OTHERS

PLANS BY CONTROL POINT ASSOCIATES, INC.

ELECTRIC CONDUIT INSTALLATION PLANS:

PLANS BY BOHLER ENGINEERING

DATED: 02/14/2023 SHEETS 1-5 OF 5

PLANS BY BOHLER ENGINEERING

BUILDING 14 IMPROVEMENT PLANS

PLANS BY BOHLER ENGINEERING

SHIP CAMPUS ELECTRICAL SERVICE UPGRADE

DATED: 07/18/2021, LAST REVISED 03/10/2023

FILE NO: 02-130121-01

PROJECT: PAA220018.00

PROJECT: PAA220018.00

PROJECT: PC211349

PCSM REPORT:

DATED: 04/24/2023

SHEETS 1-14 OF 14

1600 MANOR DRIVE, SUITE 210, CHALFONT, PA 18914

1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

ENTITLED: "BUILDING 14 IMPROVEMENT PLANS"

DATED: 08/11/2022, LAST REVISED 02/23/2023

ENTITLED: "SHIP CAMPUS ELECTRICAL SERVICE UPGRADE"

ENTITLED: "ELECTRIC CONDUIT INSTALLATION PLANS"

ENTITLED: "BOUNDARY & TOPOGRAPHIC SURVEY"

A REPORT BY BOHLER ENGINEERING

MANAGEMENT REPORT"

PROJECT: PAA230019.03

DATED 6/28/2023

1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

ENTITLED: "POST CONSTRUCTION STORMWATER

(Rev. 1/2020)

REVISIONS REV DATE COMMENT



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PROJECT No.: PAA230019.0 DRAWN BY: CHECKED BY: CAD I.D.: PAA230019.03-CNDS-0

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT **PLANS**

727 NORRISTOWN

RD, LP

BUILDING 14 & ELECTRIC

SUBSTATION IMPROVEMENT PLANS

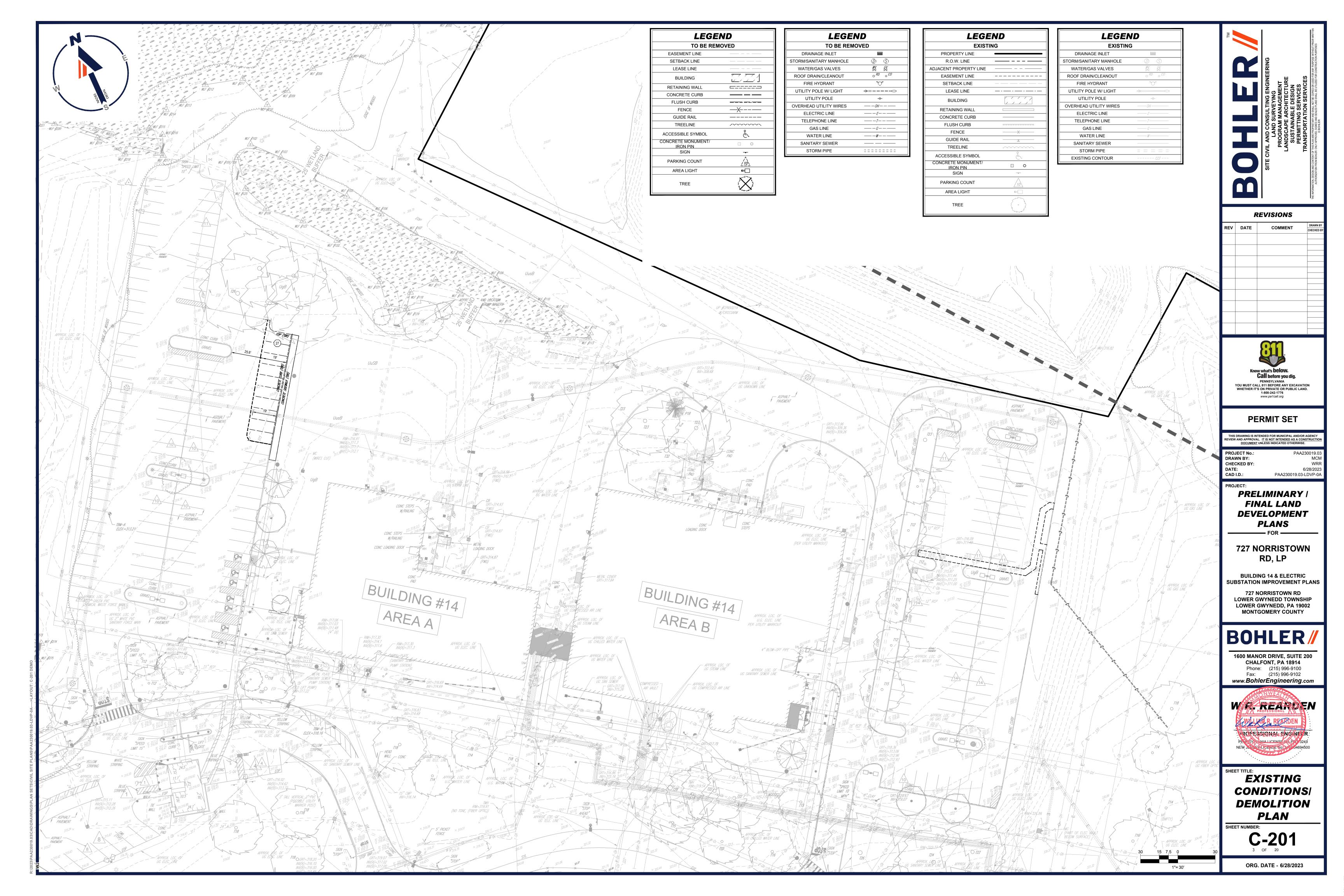
727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002** MONTGOMERY COUNTY

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

W.B. REARDEN ROKESSIONAL ENGINE

SHEET TITLE:

GENERAL

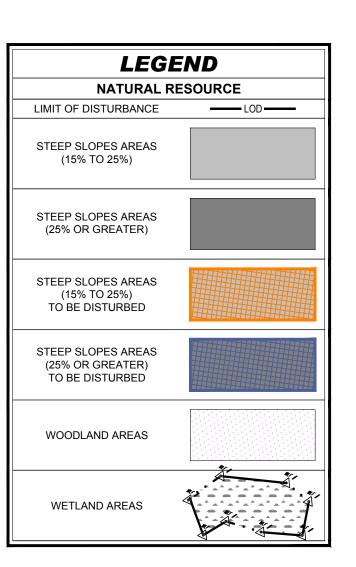




NATURAL RE	SOURCE	PROTECTION	ON
RESOURCE	TOTAL AREA (AC.)	AREA OF PROPOSED DISTURBANCE (AC.)	MAXIMUM ALLOWABLE DISTURBANCE OF RESOURCE
STEEP SLOPES 15% TO 25%	5.773	0.088 (1.52%)	30%
STEEP SLOPES 25% OR GREATER	5.185	0.028 (0.54%)	20%
WOODLAND AREAS	SEE NOTE 1	0.000 (0%)	75%
WETLANDS	3.201	0.000 (0%)	0%

1.) NO WOODLAND AREAS EXIST WITHIN THE PROPOSED LIMIT OF DISTURBANCE OF THE PROJECT, THEREFORE THIS APPLICATION PROPOSES NO DISTURBANCE TO ANY WOODLAND AREA.

	Slopes Table				
Number	Minimum Slope	Maximum Slope	Color	Area (SF)	Area (Ac.)
1	15.00%	25.00%		251,486	5.773
2	25.00%	100.00%		225,869	5.185



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ĒV	DATE	COMMENT	DRAWN BY	
			CHECKED BY	



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PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

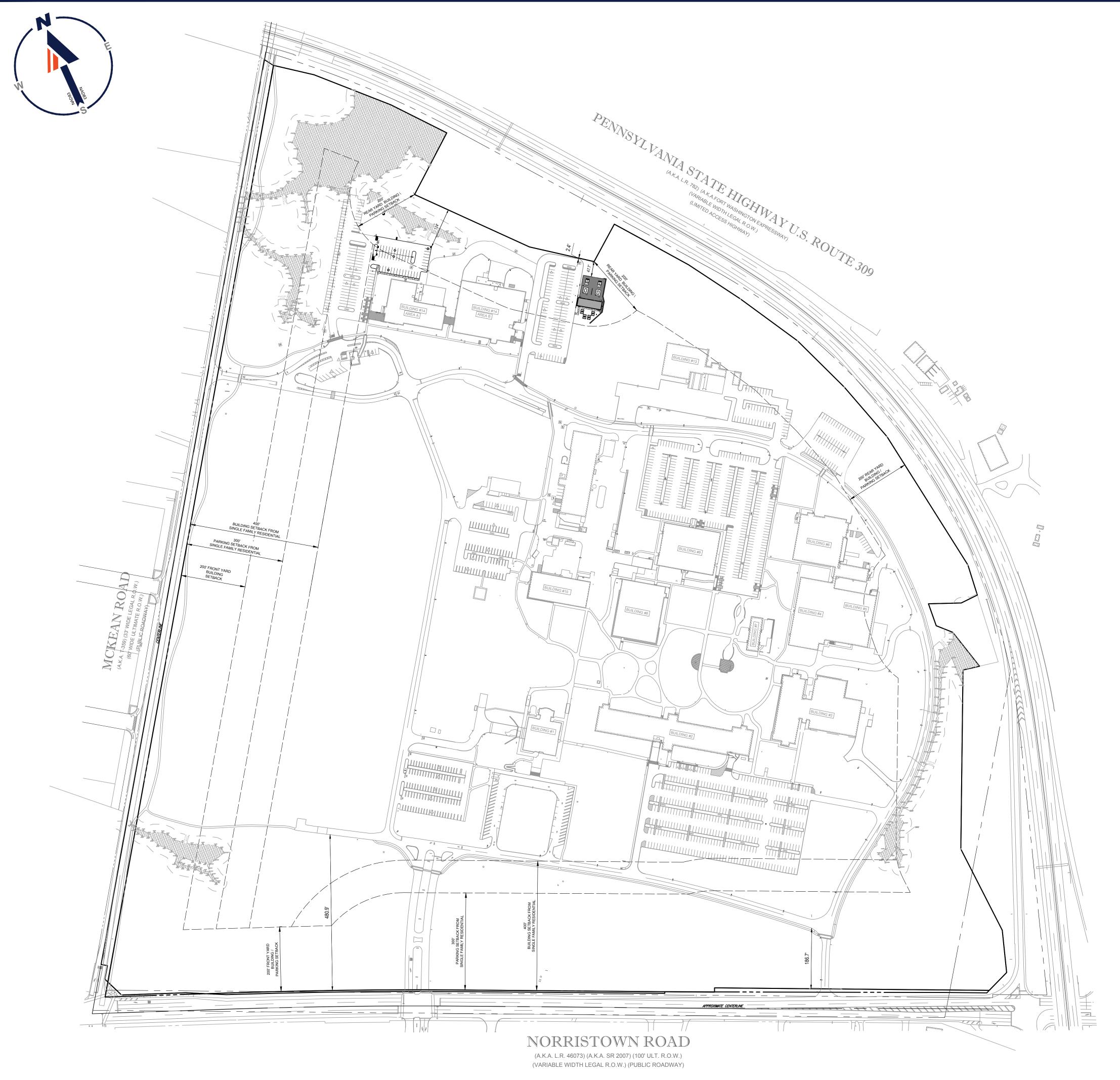
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SHEET TITLE: NATURAL RESOURCES **PROTECTION** PLAN

C-202



ZONING TABLE ZONE: HC - HIGHWAY COMMERCIAL USE: AUTOMOBILE FILLING STATION, RETAIL SALE OF GOODS AND SERVICES APPLICANT/ OWNER INFORMATION 727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109 APPLICANT: 727 NORRISTOWN RD, LP PROPERTY OWNER: 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109

			<u> </u>	
BULK REQUIREMENTS				
ITEM	CODE	REQUIRED	EXISTING	PROPOSED
MIN. GROSS LOT AREA	§ 1282.04(a)	25 ACRES	127.50 ACRES	127.50 ACRES
NET BUILDABLE SITE AREA			120.97 ACRES	120.97 ACRES
MIN. LOT WIDTH	§ 1282.04(b)	1,000'	2,683'	2,683'
MIN. YARD SETBACKS				
FRONT YARD	§ 1282.05(a)	200'	480.9'	480.9'
SIDE YARD	§ 1282.05(a)	200'	N/A	N/A
REAR YARD	§ 1282.05(a)	200'	2.4'	2.4'
YARD ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.05(b)	400'	186.7'	186.7'
MAX. BUILDING COVERAGE	§ 1282.06(a)	20%	6.08% (7.362 AC.)	6.12% (7.407 AC.)
MAX. GROSS BUILDING FLOOR AREA COVERAGE	§ 1282.06(b)	40%	11.73% (14.19 AC.)	11.76% (14.23 AC.)
MAX. IMPERVIOUS COVERAGE	§ 1282.06(c)	40%	26.13% (31.61 AC.)	26.60% (32.18 AC.)
MAX. BUILDING HEIGHT	§ 1282.07	60', MAX OF 3 STORIES	< 60'	< 60'
MIN. PARKING SETBACKS				
FRONT, SIDE, REAR	§ 1282.08(b)	200'	2.4'	2.4'
ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.08(b)	300'	186.7'	186.7'
		•		EXISTING NON CONFORMITY

PARKING REQUIREMENTS

- 1294.01 REQUIRED OFF-STREET PARKING:
 (10) OFFICE BUILDING. ONE SPACE FOR EVERY 250 SQUARE FEET OF OFFICE RENTAL SPACE, EXCLUDING HALLS AND LAVATORIES IN COMMON USAGE, SHAFTS, ELEVATORS, STAIRS AND UTILITY ROOMS.
 (12) LABORATORY OR INDUSTRIAL ESTABLISHMENT. ONE PARKING SPACE FOR EVERY EMPLOYEE ON THE TWO LARGEST SHIFTS, BUT NOT LESS THAN ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA; AND
 (13) OTHER COMMERCIAL BUILDINGS. ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA OR FRACTION THEREOF, EXCEPT WHEN
- OTHERWISE AUTHORIZED AS A SPECIAL EXCEPTION CONSISTENT WITH THE REQUIREMENTS OF THIS SECTION FOR COMPARABLE ESTABLISHMENTS.

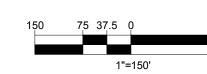
219,467 SF TOTAL OFFICE OCCUPANT AREA / 1000 *4 = 878 SPACES 238,819 SF TOTAL LAB OCCUPANT AREA / 1000*1 = 239 SPACES 1,117 TOTAL SPACES REQUIRED

EXISTING 1,324 SPACES

<u>PROPOSED</u> 1,361 TOTAL SPACES PROVIDED (47 NEW - 10 TBR = 37 NET INCREASE)

LEG	END
PROP	OSED
BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	-0000
SIDEWALK	25006

LEGEND						
EXISTING						
PROPERTY LINE						
R.O.W. LINE						
ADJACENT PROPERTY LINE						
EASEMENT LINE						
SETBACK LINE						
EXISTING WETLANDS						





REVISIONS								
DATE	COMMENT	DRAWN BY						
DA.L	30mm2rt1	CHECKED BY						



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DRAWN BY: CHECKED BY: DATE: CAD I.D.: 6/28/2023 PAA230019.03-LDVP-0A

PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN

RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

BOHLER/

1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914

Phone: (215) 996-9100

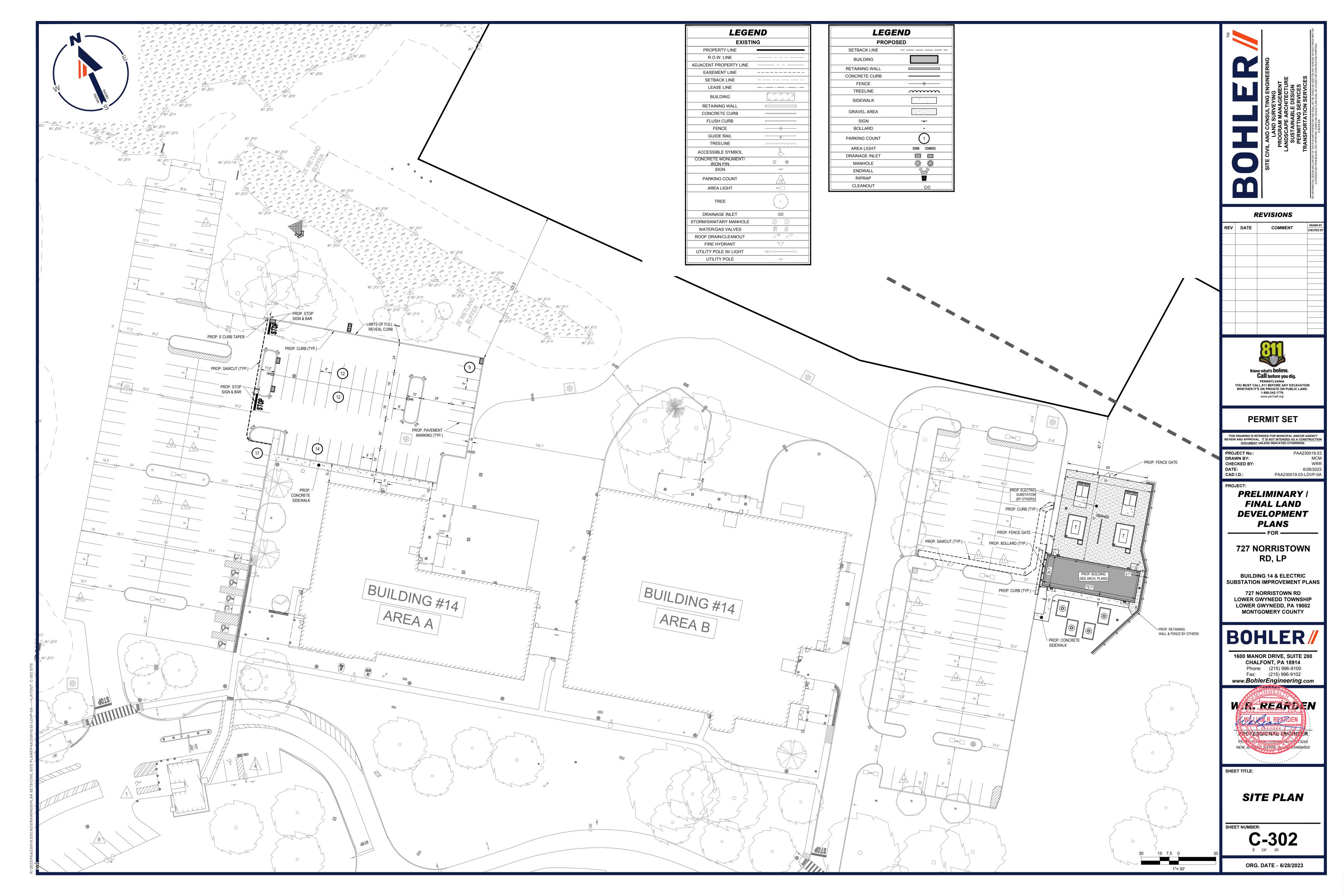
Fax: (215) 996-9102

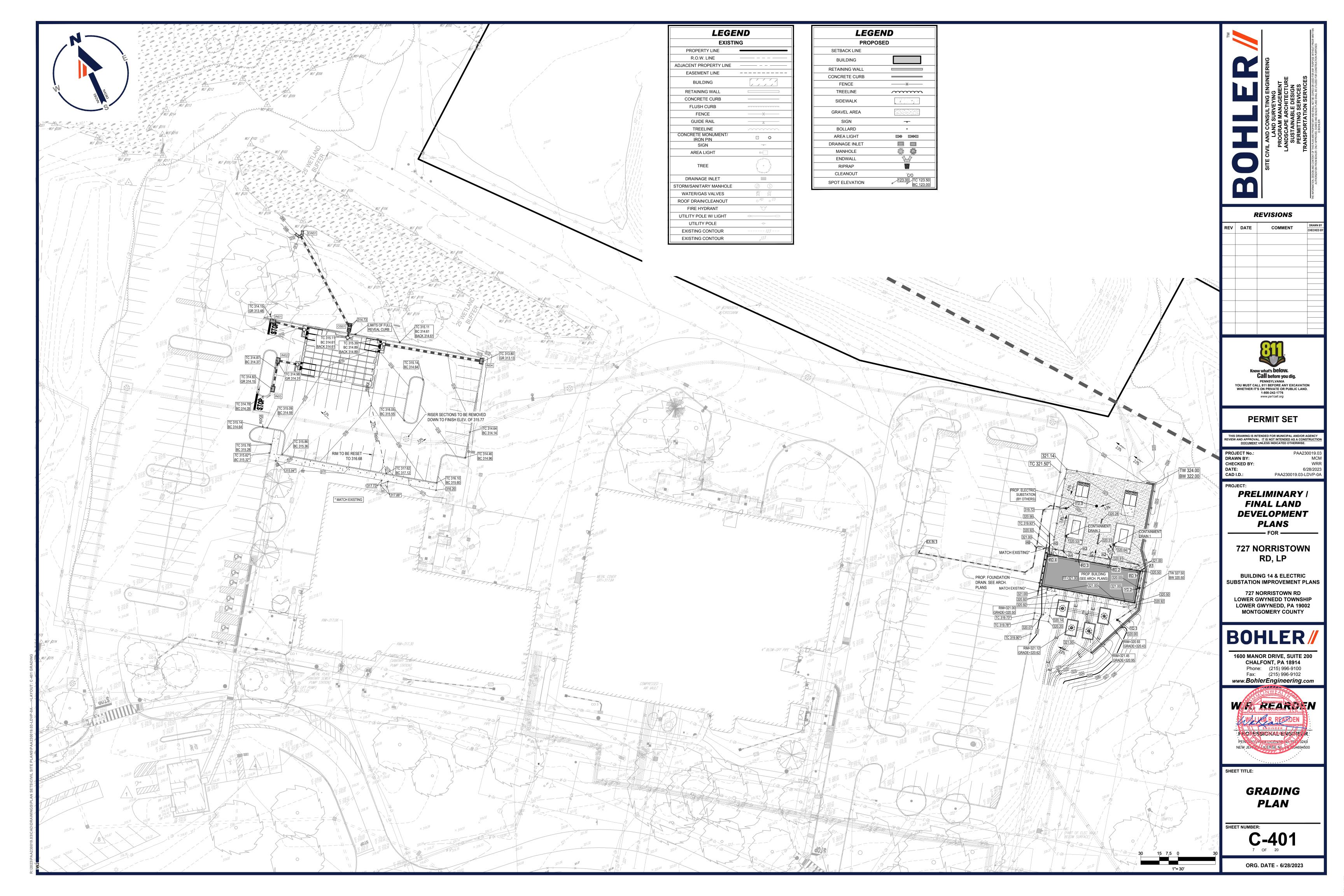
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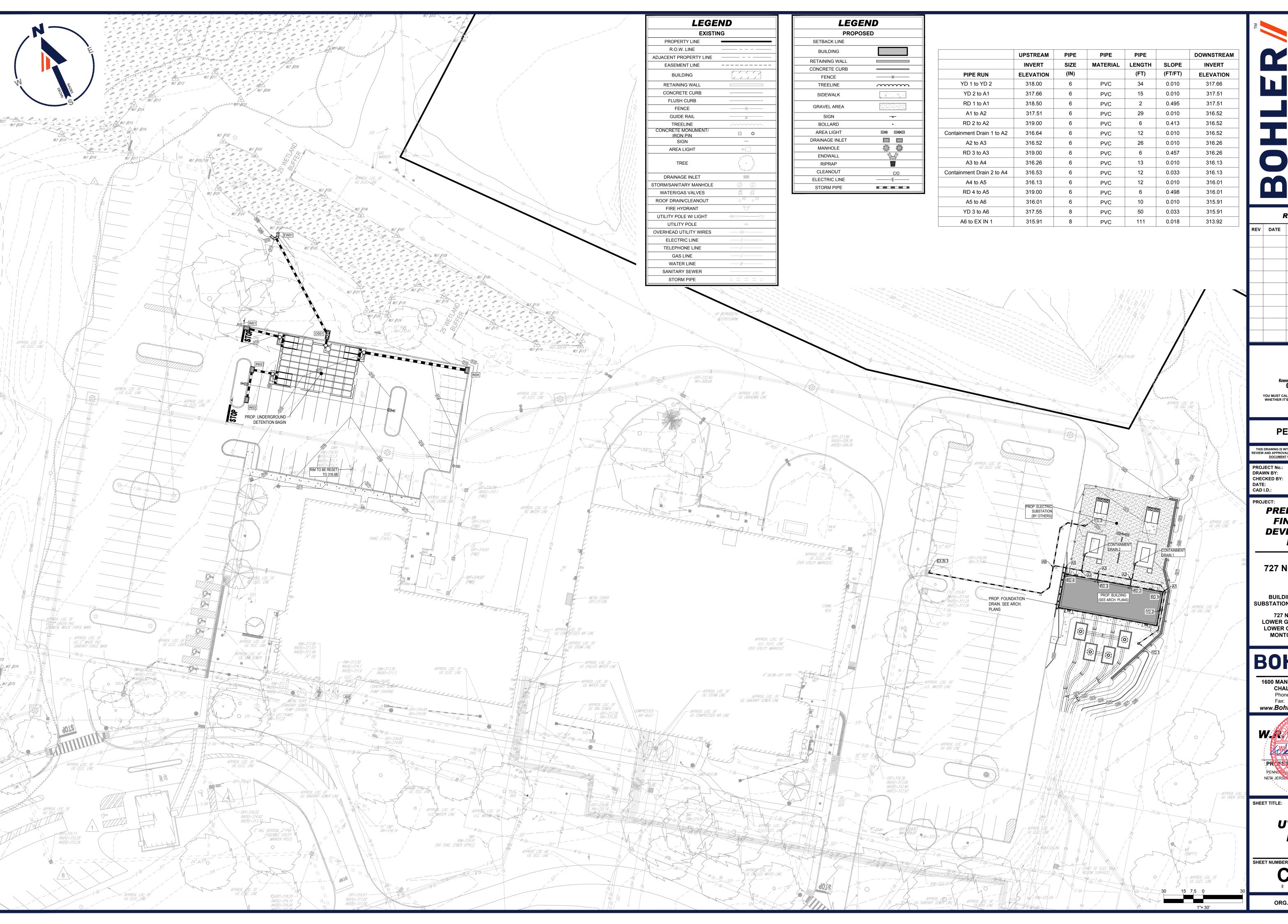
W.R. REARISM

OVERALL SITE PLAN

C-301









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PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

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BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002

MONTGOMERY COUNTY

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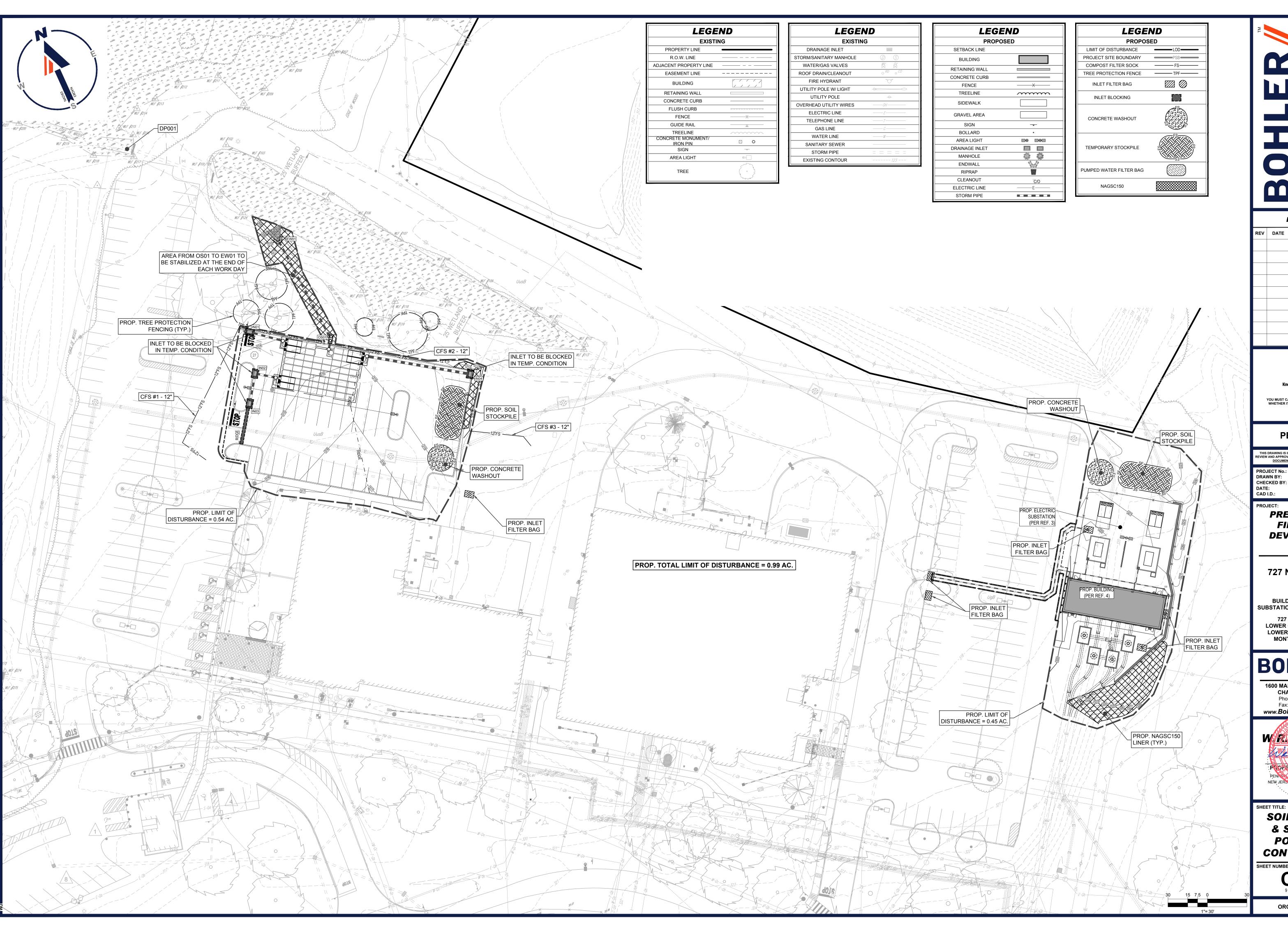
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SHEET TITLE:

UTILITY PLAN

C-501



REV DATE COMMENT

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PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD

LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002** MONTGOMERY COUNTY

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W.F. REARDEN

PROFESSIONALENCATER

SOIL EROSION & SEDIMENT **POLLUTION CONTROL PLAN**

C-601

E&S - GENERAL NOTES:

I. 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

3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY

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

AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

7. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND. 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 APPROVED BY THE TOWNSHIP.

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

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

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 §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

- E&S BMP - COMPOST FILTER SOCKS

- F&S BMP - FROSION 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

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

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING:

EXISTING PROPOSED RIPARIAN FOREST BUFFERS

§102.4(b)(5)(xv)

FROM THE SITE.

THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE

MAINTENANCE, MONITORING & INSPECTION PROGRAM

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

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.

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:

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

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.

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.

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

SEEDING SPECIFICATIONS

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. 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) FERENCE: 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 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:

TALL FESCUES (60 POUNDS / ACRE PLS) OR FINE FESCUE (35 POUNDS / ACRE PLS)

OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS) OR PERENNIAL RYEGRASS (15 POLINDS / ACRE PLS)

(REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL LATEST EDITION TABLE 11.4. SEED MIX #2)

PURE LIVE SEED: MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE ADJUSTED BASED ON THE PLS RATING OF 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 THI 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 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 BETWEEN MARCH 15 - OCTOBER 15. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.

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

IL BROADCAST SEEDING (TWO DIRECTIONS) III. HYDROSEEDING (TWO DIRECTIONS)

WELL ESTABLISHED (A MINIMUM OF 75% COVER).

D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:

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 1/2" TWICE A DAY, UNTIL VEGETATION IS

SEQUENCE OF BMP INSTALLATION AND REMOVAL

IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION

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

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 LOWER GWYNEDD TOWNSHIP 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.

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 LOWER GWYNEDD TOWNSHIP. 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

- 1. ALL CONSTRUCTION TRAFFIC MUST ENTER THE SITE FROM NORRISTOWN ROAD. CONSTRUCTION TRAFFIC WILL NOT BE PERMITTED
- 2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION 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.
- 3. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. ALL EXCAVATED MATERIAL FROM TRENCHES TO BE PLACED ON THE UP-SLOPE SIDE OF OF THE EXPOSED TRENCH. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. 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.
- 4. INITIATE STORM SEWER AND SUBSURFACE BASIN INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION BASIN SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASIN, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT INLETS DISCHARGING TO SUBSURFACE DETENTION BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASIN. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASIN TO AVOID DAMAGING THE SUBSURFACE BASIN OR OVER-COMPACTING THE SUBSURFACE SOILS.

5. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION WHERE APPLICABLE.

6. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS. 7. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE. THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. 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

8. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.

9. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.

10.UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE LOWER GWYNEDD TOWNSHIP, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING COMPOST FILTER SOCKS, TREE PROTECTION FENCING. AND INLET PROTECTION. AT THIS TIME. ALL CAPPED INLETS DISCHARGING TO THE UNDERGROUND DETENTION BASIN SHALL BECOME FUNCTIONAL. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.

11.CRITICAL STAGE: INSTALL ALL WATER QUALITY INSERTS PER NOTES PROVIDED ON THE PCSM DETAIL SHEETS. THE INSTALLATION OF THE FILTER INSERTS SHALL BE IN ACCORDANCE WITH THE DIRECTION AND RECOMMENDATIONS FROM THE MANUFACTURER. THE OWNER SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE INSTALLATION OF THE WATER QUALITY FILTERS. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND INSTALLATION OF THE WATER QUALITY INSERTS PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT

12.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. 13. DEMOBILIZE

LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER

§102.4(b)(5)(v)

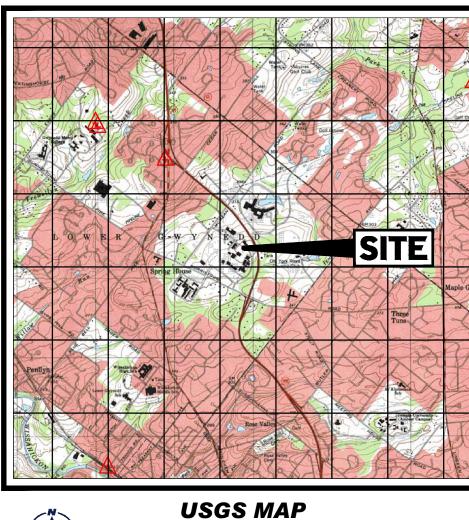
THE SUBJECT SITE DRAINS TO WILLOW RUN, WHICH HAS A TSF (TROUT STOCKING) & MF (MIGRATORY FISHES) CHAPTER 93

CRITICAL STAGES

NOTES AND SPECIFICATIONS.

• SUBSURFACE DETENTION BASIN INSTALLATION (A LICENSED PROFESSIONAL WILL OVERSEE THE BMP INSTALLATION FROM SUBGRADE PREPARATION TO COMPLETION)

WATER QUALITY INSERTS INSTALLATION





SCALE: 1" = 1,000'





NOT TO SCALE

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

§102.4(b)(5)(ii) SOIL DESCRIPTIONS

DESCRIPTION SOIL GROUP - URBAN LAND. 0 TO 8 PERCENT SLOPES - URBAN LAND-UDORTHENTIS, SHALE AND

SANDSTONE COMPLEX. 0 TO 8 PERCENT SLOPES SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

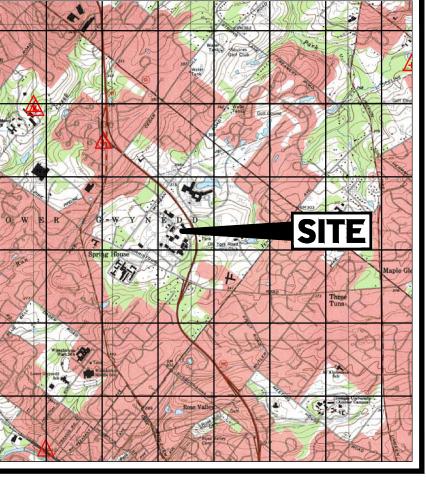
LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTRURBANCE PROJECTS

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 PERCOLATI ON	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK- SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
UDORTHENTS	X	C/S	Х	Х				Х	Х		Х	Χ				
URBANA						Х						Х				

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

§102.4(b)(5)(xii)

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







THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENC EVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC

Call before you dig

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REVISIONS

COMMENT

REV DATE

DOCUMENT UNLESS INDICATED OTHERWISE PROJECT No. PAA230019.0 DRAWN BY: **CHECKED BY:** CAD I.D.: PAA230019.03-CNDS-0

PROJECT:

PRELIMINARY / FINAL LAND DEVELOPMENT **PLANS**

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC

SUBSTATION IMPROVEMENT PLANS 727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002**

MONTGOMERY COUNTY

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

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SOIL EROSION & SEDIMENT **POLLUTION CONTROL NOTES** & DETAILS

I. GENERAL INFORMATION

- THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
- NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY
- DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, FITHER 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. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
- 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. 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-MULICHING 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. 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.
- 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. 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 SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE

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

- . 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.
- 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
- 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.

III. STANDARD FOR UTILITY TRENCH EXCAVATION

- 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 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. 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.
- 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.
- 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. 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.
- PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING. 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.
- 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. 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.

SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

- A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER 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) 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.a. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE. A.2.b. ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF
- TOPSOIL IS ALLOWED UNLESS APPROVED BY THE LOWER GWYNEDD TOWNSHIP. UNIFORM APPLICATION TO A DEPTH OF 6-8 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE. 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.

ABOVE.

A 2 APPLYING TOPSOIL

- 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 A 3 c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POLINDS PER 1000 SOLIARE 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
- 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.

STANDARD FOR PERMANENT STABILIZATION WITH SOD

FERTILIZATION OR LIMING IS NEEDED.

- 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
- 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 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.

FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT

APPROVAL AT ITS DISCRETION.

SHALL BE 2H:1V OR FLATTER

FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL

INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

DRAWINGS. SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN

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

SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

PERMANENT STABILIZATION SPECIFICATIONS.

SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO

MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

HE FOLLOWING NOTES SHOULD BE ADDED TO PLAN DRAWINGS AS APPLICABLE.

OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO

IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND

OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN

PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A

2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR

3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE

4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION

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

6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION

7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE

8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE

9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT

10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE

11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT

12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY

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

14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD

15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY, MAINTENANCE SHALL INCLUDE INSPECTIONS

16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL

17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK

19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES- 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR

20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS, FILL

22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD

25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR

26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK

27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL

28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE

29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE

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

31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED. TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO

32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR

33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR

1. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER

2. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE

3. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL

PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED

FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL

PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN

STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN

ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS

COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED FROSION CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO

AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN

DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN.

STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE

AREAS NOT AT FINISHED GRADE WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORAR

TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING

INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR

DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY

BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION

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

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

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

REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

OF ALL FROSION AND SEDIMENT BMPS AFTER FACH RUNOFF EVENT AND ON A WEEKLY BASIS ALL PREVENTATIVE AND REMEDIAL MAINTENANCE

WORK INCLUDING CLEAN OUT REPAIR REPLACEMENT REGRADING RESEEDING REMULCHING AND RENETTING MUST BE PERFORMED

IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE

THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL

SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES

POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND

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

PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.

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

SEQUENCE, GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL

THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN

FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO

PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

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

VISI PERIMETER FENCE DETAIL

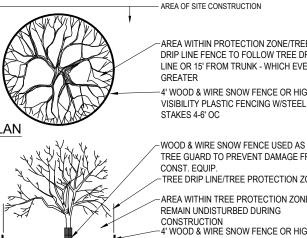
(WOODLAND PROTECTION)

OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION. 2. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF OF THE HEIGHT OF THE POST. FOR EXAMPLE A 6 FOOT POST SHOULD BE AT LEAST 2 FEET IN THE GROUND.

X-10

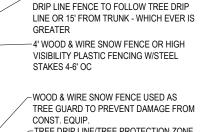
EVENTS AND CROWN CONTROL INSTALLATIONS. METAL "T" POSTS

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.



ELEVATION

X-11



TREE DRIP LINE/TREE PROTECTION ZONE -AREA WITHIN TREE PROTECTION ZONE TO CONSTRUCTION -4' WOOD & WIRE SNOW FENCE OR HIGH VISIBILITY PLASTIC FENCING W/STEEL STAKES 4-6' OC

TREE PROTECTION DURING SITE CONSTRUCTION

STANDARD CONSTRUCTION DETAIL #4-1 #4-1 COMPOST FILTER SOCK

UNDISTURBED AREA

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

IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.

OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED FI SEWHERE IN THE PLAN

TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

<u>PLAN VIEW</u>

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

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE GROUND HEIGHT

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

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

BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER SIX (6) MONTHS, PHOTODEGRADABLE

SOCKS AFTER ONE (1) YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO

FILTER BAG INLET PROTECTION - TYPE C INLET

1 IN REBAR FOR - FXPANSION RESTRAIN BAG REMOVAL FROM (1/4 IN. NYLON ROPE) −2 IN X 2 IN. X 3/4 IN. RUBBER BLOCK INSTALLATION DETAIL EARTHEN BERM TO BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATION STORM \ INLET SECTION VIEW PLAN VIEW

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

-MAINTAIN STOCK PILE SURFACE

-2:1 MAX. SIDE SLOPES

STABILIZATION NOTES

— 2 IN. x 2 IN. WOODEN STAKES

WOODEN STAKES

CENTER

PLACED 10 FT ON

PLACED 10 FT ON CENTER

UNDISTURBED AREA

-INSTALL COMPOST FILTER SOCK-

COMPOST FILTER SOCK -

BLOWN/PLACED

DISTURBED AREA

FILTER SOCK

MANUFACTURER'S RECOMMENDATIONS.

AROUND DOWNHILL SIDE OF STOCKPILE

TEMPORARY SOIL STOCKPILE DETAIL

IN ACCORDANCE WITH TEMPORARY

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

SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY

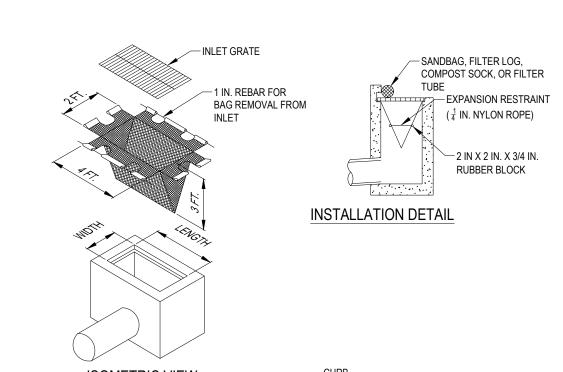
PASSING A NO. 40 SIEVE. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR

PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT

BYPASSING OF THE INLET, DAMAGED OR CLOGGED BAGS SHALL BE REPLACED, A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-16 FILTER BAG INLET PROTECTION - TYPE M INLET



EXTEND BERM OVER CURB IF RUNOFF IS BYPASSING INLET ON LANDWARD SIDE STORM \ INLET SECTION VIEW

#4-15

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

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

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT

PASSING A NO. 40 SIEVE INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF

ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

STANDARD CONSTRUCTION DETAIL #4-15

REVISIONS REV DATE COMMENT



PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENC EVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC DOCUMENT UNLESS INDICATED OTHERWISE

PAA230019.03-CNDS-0

PROJECT No. PAA230019.0 DRAWN BY: **CHECKED BY:**

CAD I.D.:

PROJECT: PRELIMINARY / FINAL LAND **DEVELOPMENT**

727 NORRISTOWN

RD, LP

PLANS

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD

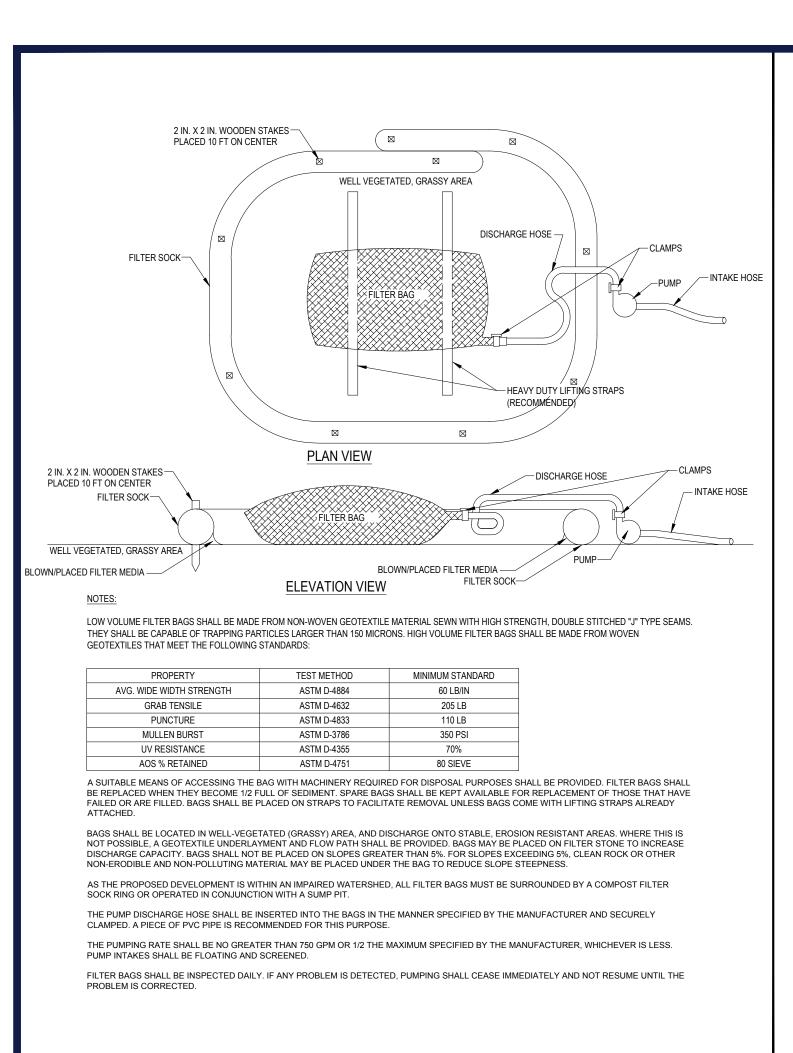
LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002** MONTGOMERY COUNTY

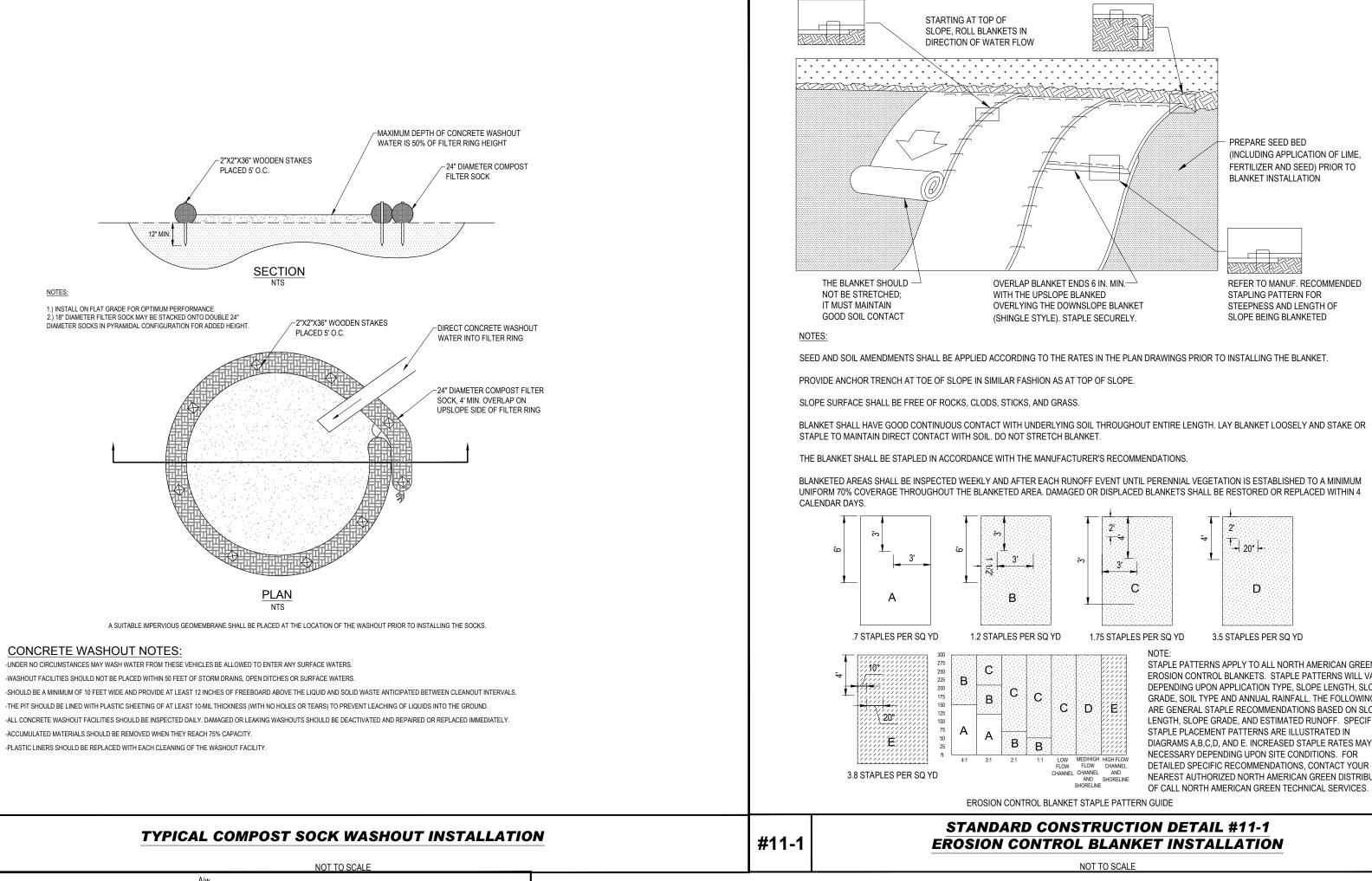
1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914

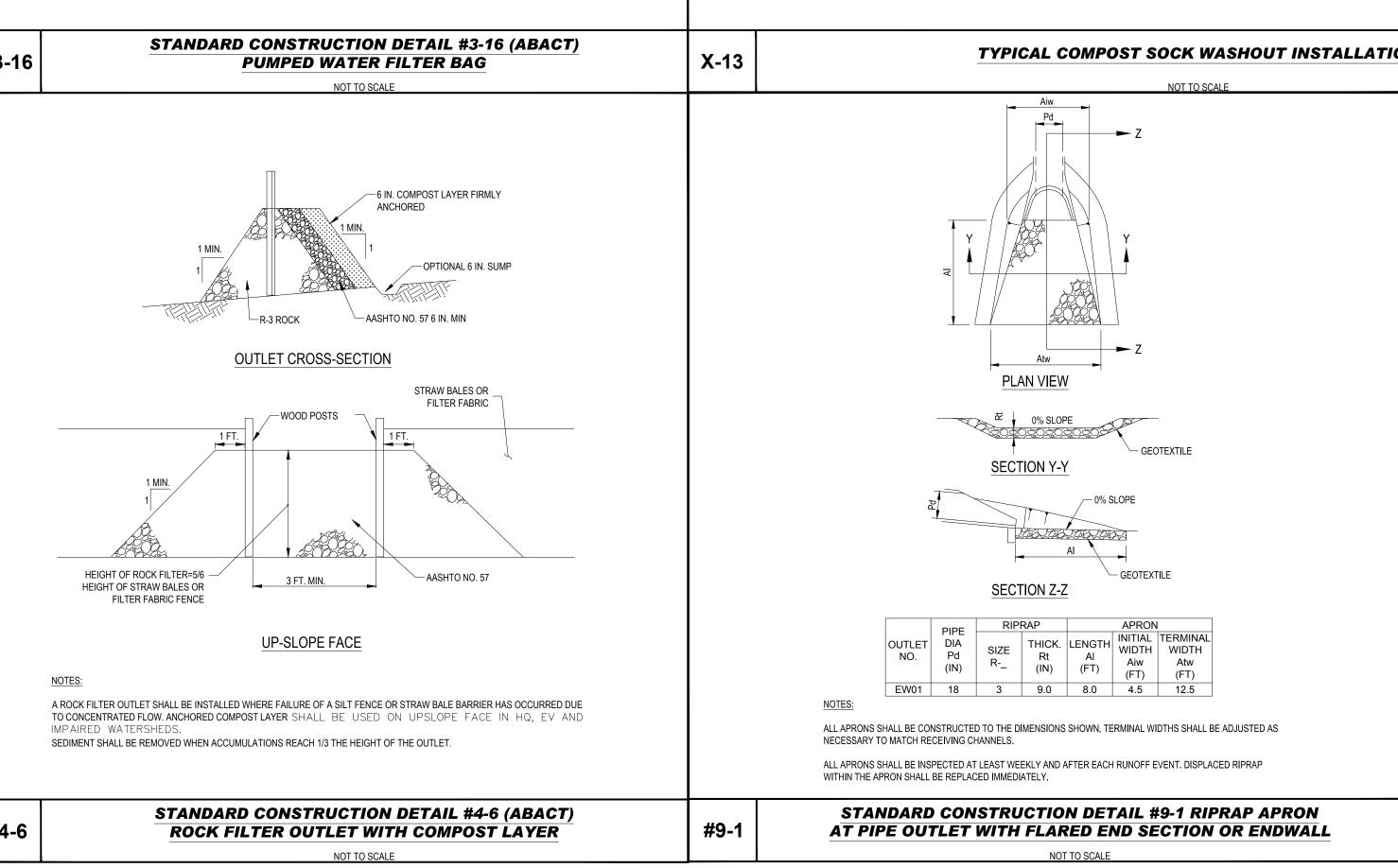
Phone: (215) 996-9100 Fax: (215) 996-9102 www.BohlerEngineering.com

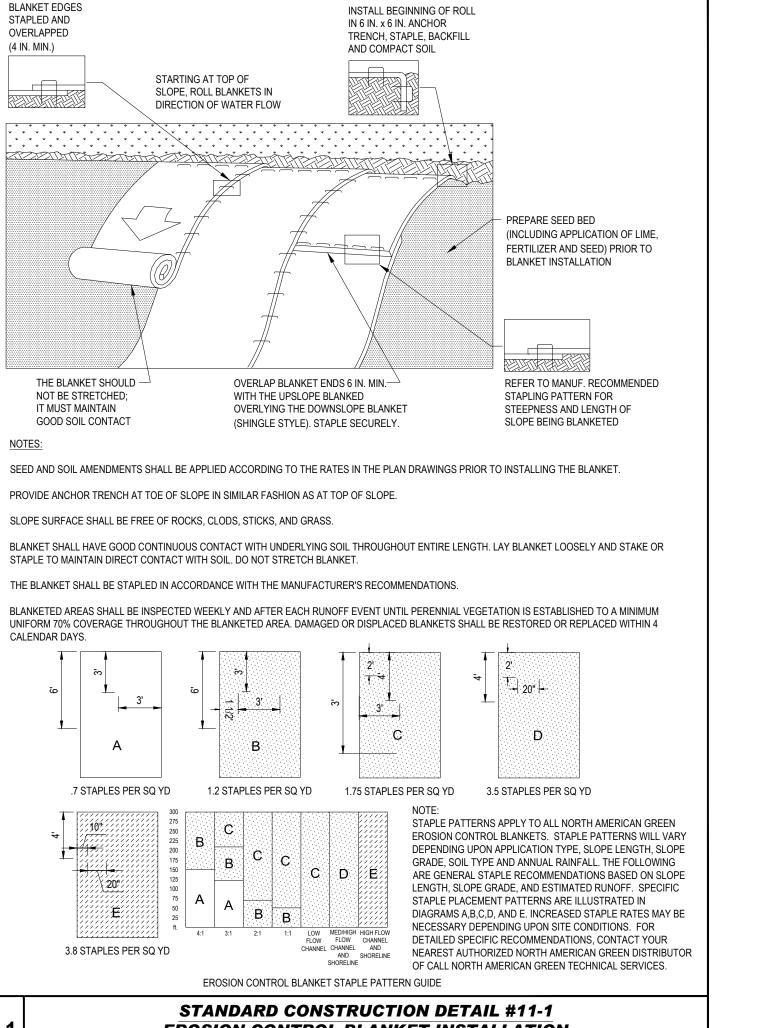
W.K. REARDEN ROPESSIONAL ENGINEER

SOIL EROSION & SEDIMENT **POLLUTION CONTROL NOTES** & DETAILS











REVISIONS REV DATE COMMENT



PERMIT SET

REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCT DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: DRAWN BY: **CHECKED BY:** DATE: CAD I.D.: PAA230019.03-CNDS-0A

PROJECT:

PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

— FOR — **727 NORRISTOWN**

RD, LP

BUILDING 14 & ELECTRIC

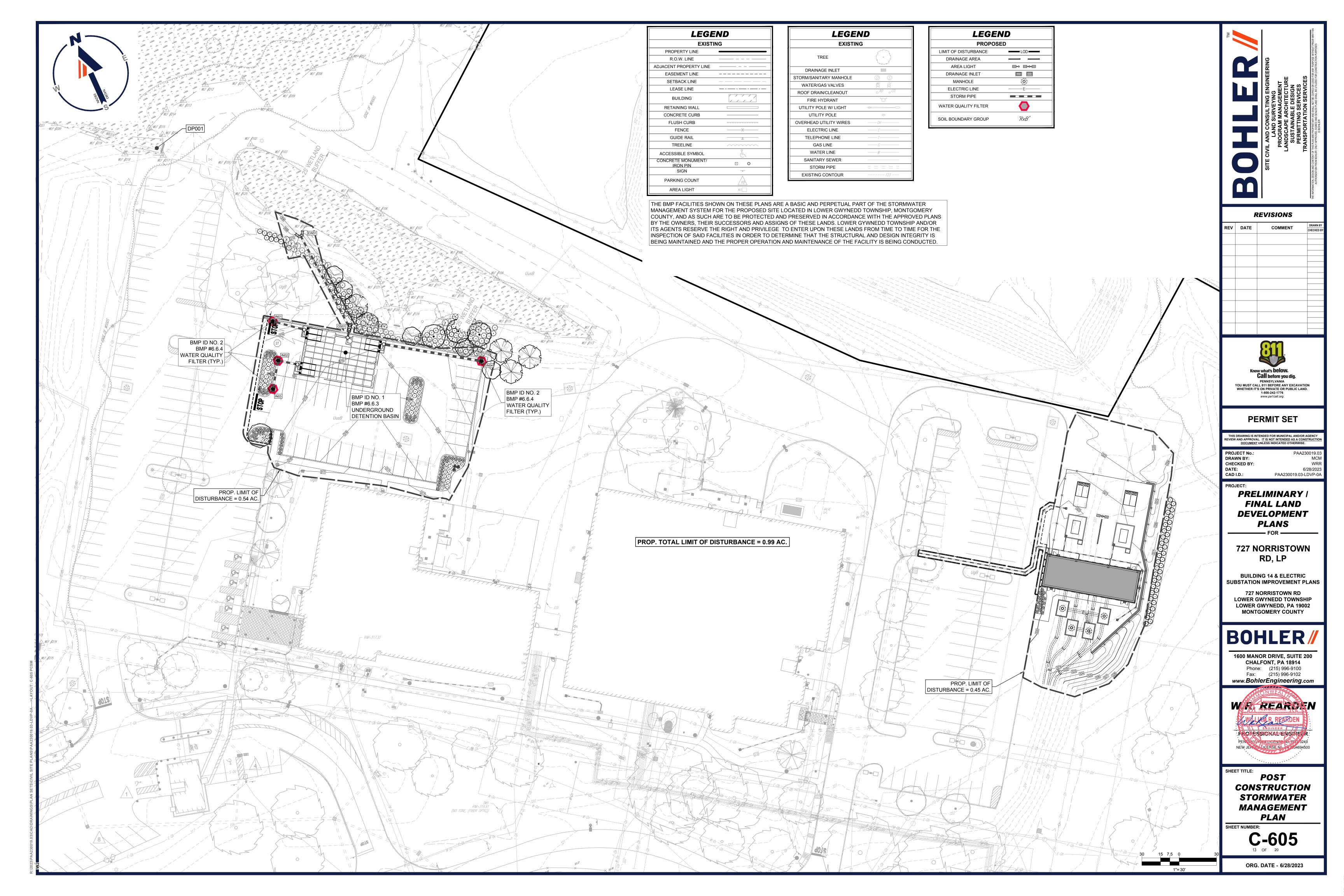
SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

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



SOIL EROSION & SEDIMENT **POLLUTION CONTROL NOTES** & DETAILS



PCSM - GENERAL BMP NOTES

1. A SITE INSPECTION AND APPROVAL BY THE TOWNSHIP IS REQUIRED PRIOR TO THE REMOVAL OF SEDIMENT CONTROLS.

2. BOHLER ENGINEERING SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE.

3. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED BMP BOTTOMS.

4. REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT BMPs.

5. REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES.

6. AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL SURVEYOR.

LONG-TERM OPERATION AND MAINTENANCE SCHEDULE

§102.8(f)(10)

- . UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs 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.
- . 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
- I. HEAVY CONSTRUCTION VEHICLES SHALL NOT BE PARKED ON OR DRIVEN OVER BMP FACILITIES AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY EQUIPMENT, INCLUDING MOWERS.
- . AFTER RUNOFF EVENTS. 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 AND PROPERLY DISPOSE OF SEDIMENT AS SPECIFIED.

727 NORRISTOWN RD, LP IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT BMPs AS DESCRIBED HEREIN.

RIPARIAN FOREST BUFFER MANAGEMENT PLAN

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING: • THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR

RECYCLING OR DISPOSAL OF MATERIALS

§102.8(f)(11)

- THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST
- YARD WASTE (LEAVES, GRASS CLIPPINGS, ETC.)

- ANTI-ICING MATERIALS

 DEBRIS COLLECTED IN INLETS SEDIMENT CAPTURED IN ANY PCSM BMP

1.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS, 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. 2.) COMPOSTING - MATERIALS SUCH AS YARD WASTE THAT ARE BIO-DEGRADABLE CAN BE COMPOSTED AND USED ON SITE TO RESTORE SOIL NUTRIENTS FOR THE VEGETATION.

LO	LONG-TERM OPERATION AND MAINTENANCE SCHEDULE									
ВМР	SCHEDULE	INSPECTION TASK	MAINTENANCE	FAILURE INDICATORS						
	AFTER EACH STORM >3"	- INSPECT STRUCTURES	ACCUMULATED LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE SEDIMENT AND LITTLE SHALL							
STORMWATER MANAGEMENT BASIN	4 TIMES PER YEAR	- INSPECT STRUCTURES - INSPECT FOR EROSION - INSPECT FOR SEDIMENT ACCUMULATION - INSPECT VEGETATIVE COVER CONDITION	BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES							
	ANNUALLY	- INSPECT FOR INVASIVE PLANT SPECIES	AND SPECIFICATIONS.							
BMP 6.6.3 SUBSURFACE DRY EXTENDED DETENTION BASIN	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 OF THE UNDERGROUND STORMWATER BASINS INCLUDE WHEN THE BASIN DOES NOT DEWATER OR SURCHARGING OF INLETS UPSTREAM OF THE BASIN OCCURS. A QUALIFIED INDIVIDUAL SUCH AS THE BASIN MANUFACTURER SHALL PERFORM AN INVESTIGATION IN ORDER TO DETERMINE THE CAUSE OF FAILURE. REMEDIATION SHALL BE IN ACCORDANCE WITH THE QUALIFIED INDIVIDUAL'S RECOMMENDATION BASED ON THEIR INVESTIGATION.						
BMP 6.6.4 WATER QUALITY FILTERS & HYDRODYNAMIC DEVICES	2 TIMES PER YEAR	- INSPECT OPERATION OF DEVICE - INSPECT FOR ACCUMULATION OF COLLECTED MATERIALS - INSPECT FOR RIPPED MEBRANE IN THE CARTRIDGE/TENTACLE.	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 MEMBRANE FROM ANY CARTRIDGE/TENTACLE IS FOUND TO BE TORN, THE ENTIRE CATRIDGE/TENTACLE SHALL BE REPLACED IMMEDIATELY. THE CARTRIDGE/TENTACLE SHALL BE REPLACED EVERY 3 YEARS REGARDLESS OF CONDITION.	SIGNS OF FAILURE IN A JELLYFISH INCLUDE SEDIMENT/DEBRIS LADEN RUNOFF FLOWING OUT OF THE FILTER. MAINTENANCE SHALL BE PERFORMED IMMEDIATELY IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.						
BMP 6.7.2 LANDSCAPE RESTORATION	ANNUALLY	- INSPECT FOR DYING/DEAD PLANT MATERIAL - INSPECT FOR INVASIVE SPECIES	LANDSCAPING THAT IS POOR CONDITION SHALL BE REPLACED AS SOON AS POSSIBLE. TREES THAT ARE NOT TO BE REMOVED UNLESS ONE IS PROPOSED TO REPLACE IT SOMEWHERE ELSE WITHIN THE DRAINAGE AREA. PRUNING IS ALLOWED HOWEVER, EXCESSIVE BRANCH REMOVAL SHOULD BE AVOIDED.	FAILURE INDICATORS INCLUDE PLANT MATERIALS THAT FAILS TO ESTABLISH OR DIES OFF OR EXCESSIVE QUANTITY OF INVASIVE SPECIES. UPON OBSERVING A FAILURE CONDITION A QUALIFIED INDIVIDUAL SUCH AS A LANDSCAPE ARCHITECT SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF FAILURE. REMEDIATION SHALL BE IN ACCORDANCE WITH THE QUALIFIED INDIVIDUALS RECOMMENDATIONS BASED ON THEIR INVESTIGATION.						

SEQUENCE OF BMP INSTALLATION AND REMOVAL

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

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 LOWER GWYNEDD TOWNSHIP 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.

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 LOWER GWYNEDD TOWNSHIP. 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 FROSION AND/OR SEDIMENT POLLUTION THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT

- 1. ALL CONSTRUCTION TRAFFIC MUST ENTER THE SITE FROM NORRISTOWN ROAD. CONSTRUCTION TRAFFIC WILL NOT BE PERMITTED
- 2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION 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.
- 3. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. ALL EXCAVATED MATERIAL FROM TRENCHES TO BE PLACED ON THE UP-SLOPE SIDE OF OF THE EXPOSED TRENCH. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. 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.
- 4. INITIATE STORM SEWER AND SUBSURFACE BASIN INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION BASIN SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASIN. PREFERABLY THE DESIGN ENGINEER. SHALL CONDUCT THE OVERSIGHT INLETS DISCHARGING TO SUBSURFACE DETENTION BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASIN. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASIN TO AVOID DAMAGING THE SUBSURFACE BASIN OR OVER-COMPACTING THE SUBSURFACE SOILS.
- 5. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION WHERE APPLICABLE.
- 6. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
- 7. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE. THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. 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.
- 8. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
- 9. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
- 10.UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE LOWER GWYNEDD TOWNSHIP, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION. AT THIS TIME, ALL CAPPED INLETS DISCHARGING TO THE UNDERGROUND DETENTION BASIN SHALL BECOME FUNCTIONAL. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
- 11.CRITICAL STAGE: INSTALL ALL WATER QUALITY INSERTS PER NOTES PROVIDED ON THE PCSM DETAIL SHEETS. THE INSTALLATION OF THE FILTER INSERTS SHALL BE IN ACCORDANCE WITH THE DIRECTION AND RECOMMENDATIONS FROM THE MANUFACTURER. THE OWNER SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE INSTALLATION OF THE WATER QUALITY FILTERS. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND INSTALLATION OF THE WATER QUALITY INSERTS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
- 12.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. 13.DEMOBILIZE.

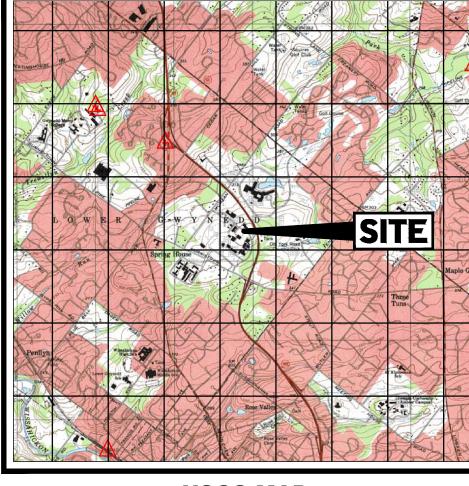
LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER

§102.4(b)(5)(v)

THE SUBJECT SITE DRAINS TO WILLOW RUN, WHICH HAS A TSF (TROUT STOCKING) & MF (MIGRATORY FISHES) CHAPTER 93

CRITICAL STAGES

- SUBSURFACE DETENTION BASIN INSTALLATION (A LICENSED PROFESSIONAL WILL OVERSEE THE
- BMP INSTALLATION FROM SUBGRADE PREPARATION TO COMPLETION) WATER QUALITY INSERTS INSTALLATION





USGS MAP





NOT TO SCALE

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS §102.4(b)(5)(ii)

SOIL DESCRIPTIONS

DESCRIPTION SOIL GROUP - URBAN LAND, 0 TO 8 PERCENT SLOPES - URBAN LAND-UDORTHENTIS, SHALE AND

SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTRURBANCE PROJECTS

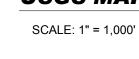
SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/ STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH/ LANDSLIDE PRONE	SLOW PERCOLATI ON	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK- SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS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

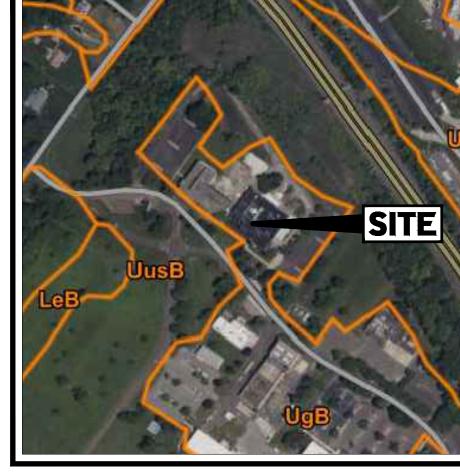
GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION

§102.4(b)(5)(xii)

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









SOIL MAP

CAD I.D.: PAA230019.03-CNDS-0. PROJECT:

PROJECT No.:

CHECKED BY:

DRAWN BY:

PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

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PAA230019.0

REVISIONS

COMMENT

REV DATE

727 NORRISTOWN RD, LP

— FOR —

BUILDING 14 & ELECTRIC

SUBSTATION IMPROVEMENT PLANS

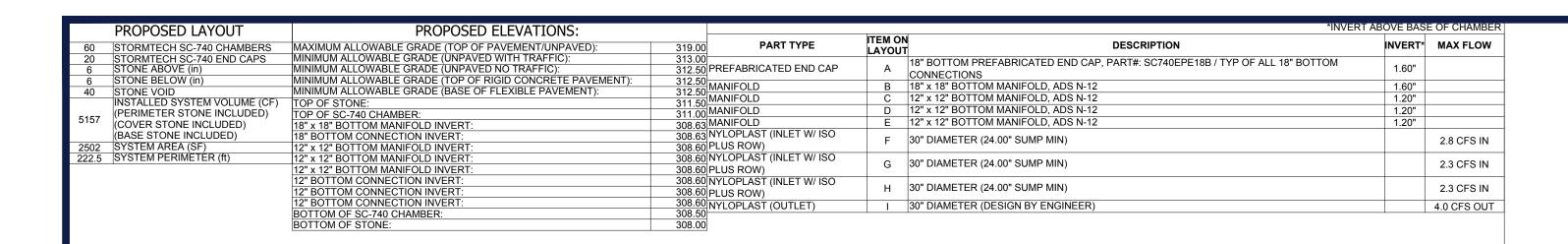
727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002** MONTGOMERY COUNTY

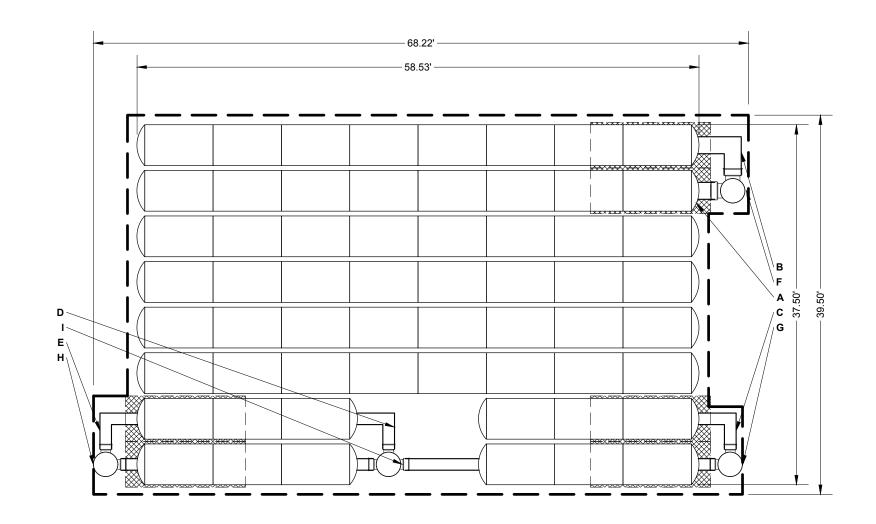
1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102



SHEET TITLE: POST

CONSTRUCTION STORMWATER **MANAGEMENT NOTES & DETAILS**





PLACE MINIMUM 12.50' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL

CHAMBER INLET ROWS

Perimeter

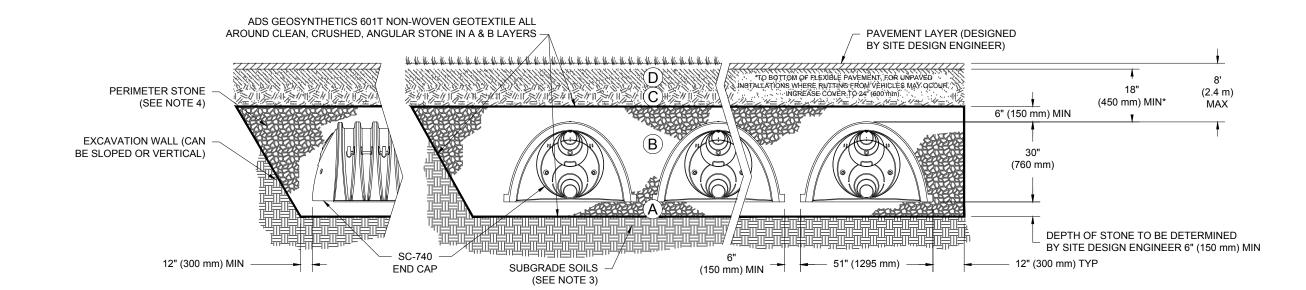
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
 DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
 THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
 THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR
- HE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS NOT FOR CONSTRUCTION: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.
- BASIN MANUFACTURER SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO PROCUREMENT OF MATERIALS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 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).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

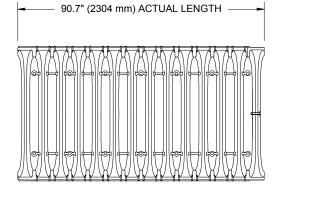
PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

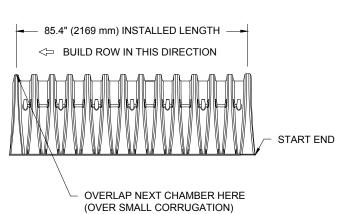
STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS. 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.

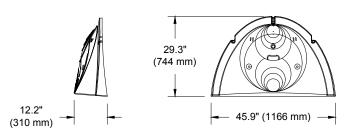


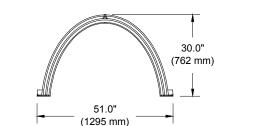
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 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. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 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 550 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.

SC-740 TECHNICAL SPECIFICATION









NOMINAL CHAMBER SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH) CHAMBER STORAGE MINIMUM INSTALLED STORAGE* WEIGHT	51.0" X 30. 45.9 CUBIO 74.9 CUBIO 75.0 lbs.	C FEET (1.30	m³)	- - A -	-
*ASSUMES 6" (152 mm) STONE ABOVE PRE-FAB STUB AT BOTTOM OF END OF PRE-FAB STUBS AT BOTTOM OF END PRE-FAB STUBS AT TOP OF END CAP PRE-CORED END CAPS END WITH "PO	CAP WITH FLAMP EN CAP FOR PART NU FOR PART NUMBE	ND WITH "BR" MBERS ENDING WI	=	c i	
PART#	STUB	Α	В	С	
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)		
SC740EPE06B / SC740EPE06BPC	0 (130 111111)	10.8 (277 111111)		0.5" (13 mm)	
SC740EPE08T /SC740EPE08TPC			16 5" (419 mm)		

PART#	STUB	Α	В	С
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	
SC740EPE06B / SC740EPE06BPC	0 (150 11111)	10.9 (211 11111)		0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	
SC740EPE08B / SC740EPE08BPC	0 (200 11111)	12.2 (31011111)		0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	
SC740EPE10B / SC740EPE10BPC	10 (230 11111)	13.4 (340 11111)		0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	
SC740EPE12B / SC740EPE12BPC	12 (300 11111)	14.7 (3/3/11111)		1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	
SC740EPE15B / SC740EPE15BPC	10 (070 11111)	10.4 (407 11111)		1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	
SC740EPE18B / SC740EPE18BPC	10 (430 11111)	13.7 (300 11111)		1.6" (41 mm)
007405057*	24" (600 mm)	10 E" (470 mm)		0 1" /2 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL. NOTE: ALL DIMENSIONS ARE NOMINAL

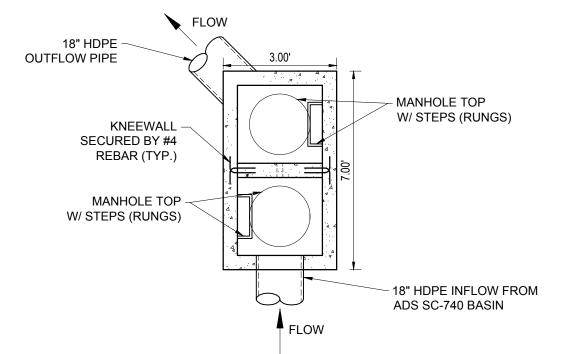
STAINLESS STEEL -STAINLESS STEEL FRAMING **—23.0**— FLEXSTORM PENNDOT FTC SPECIFICATIONS Ultimate Bypass Storage Volume Flow Rate When Flow Rate When Cap. (CFS) (FT^3) Empty (CFS) 50% Full (CFS) 62PENNMHDFTC 7.1 41.6 8.0 FRAME+BASKET#: 62PENNMHDFTC -INLET FILTERS ARE TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS ADS-FLEXSTORM -PC+ (PCP FLEXSTORM INLET FILTER BAGS) MUST BE USED TO ENSURE OIL PENNDOT 2' X 4' STAINLESS STEEL BASKET 62PENNMHDFTC PENNDOT SS BASKET SUBMITT UNDERGROUND BASIN TABLE

-5 MM OPENING PERFORATED

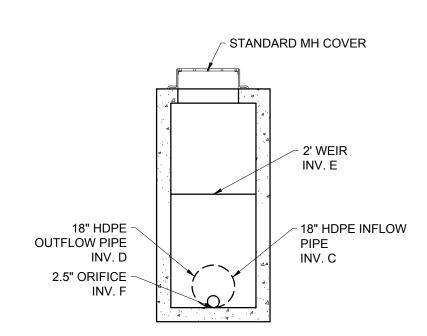
STAINLESS STEEL BASKET

-ULTIMATE BYPASS AREA

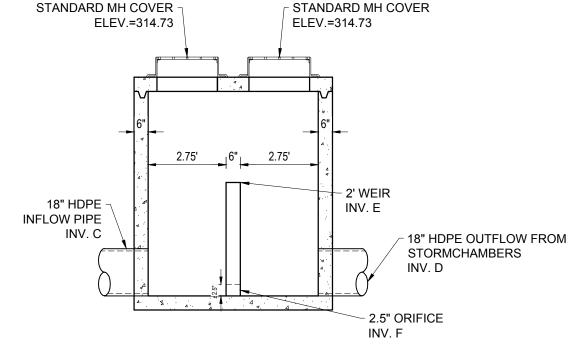
OUTLET STRUCTURE	INFLOW INV. 'C'	OUTFLOW INV. 'D'	TOP OF WEIR ELEV. 'E'	2.5" ORIFICE ELEV. 'F'
0S-01	308.50	308.50	310.50	308.50



PLAN VIEW (UNDERGROUND BASIN) (OS01)



FRONT VIEW (UNDERGROUND BASIN) (OS01)



CROSS SECTIONAL VIEW (UNDERGROUND BASIN) (OS01)

REVISIONS

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PAA230019.03-CNDS-0

CAD I.D.:

PROJECT: PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN

BUILDING 14 & ELECTRIC

RD, LP

SUBSTATION IMPROVEMENT PLANS 727 NORRISTOWN RD

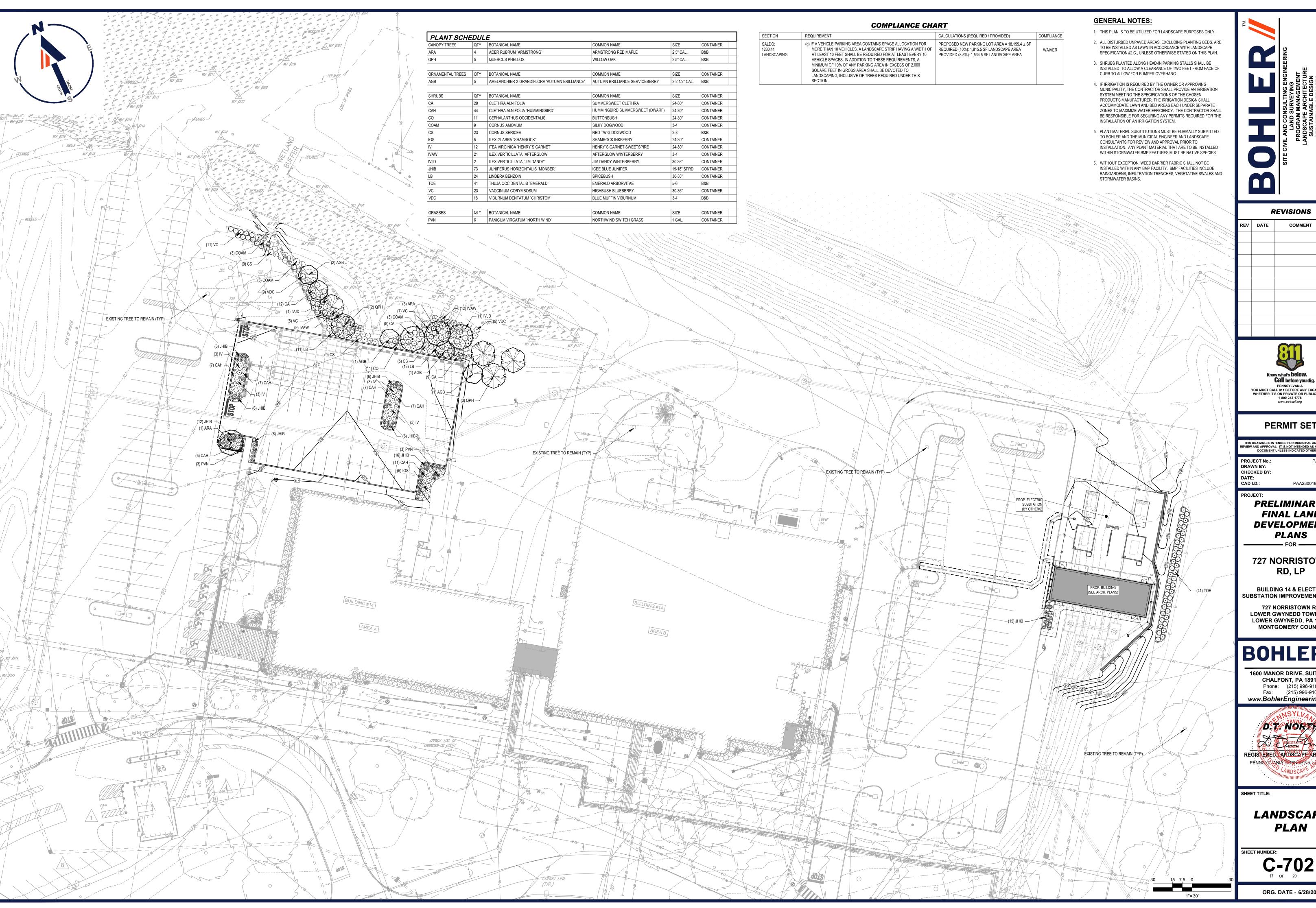
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1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102 www.BohlerEngineering.com



SHEET TITLE: POST CONSTRUCTION STORMWATER MANAGEMENT **NOTES& DETAILS**





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PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP **LOWER GWYNEDD, PA 19002** MONTGOMERY COUNTY

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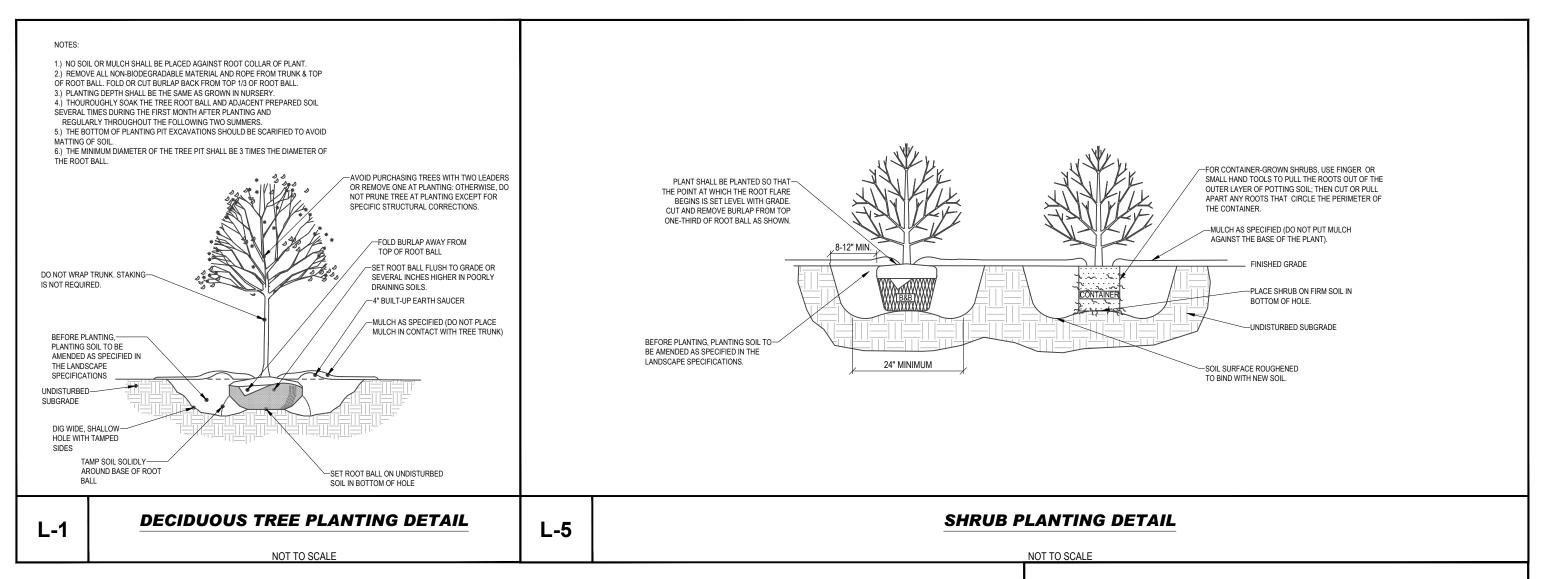
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Fax: (215) 996-9102 www.BohlerEngineering.com

D.T. NORZE



LANDSCAPE PLAN

C-702



REMOVE PAINT & SECURELY -WITH 3/16" STOVE BOLT INSIDE POLE TO POLE BODY, OR HANDHOLE REINFORCING RING (DO NOT GROUND TO COVER STRANDED BARE COPPER WIRE,-ATTACH TO LUG AND CLAMP HANDHOLE W/ COVER COPPER GROUND CLAMP-ATTACHED TO CONDUIT WHEN POLES ARE EQUIPPED W/~ -LEVELING NUTS TO HAVE FINISH TO MATCH POLE 3'-0" MIN ADJ TO 1-2" CHAMFER ON TOP EDGE-ANCHOR BOLTS PER POLE-MANUFACTURER RIGID CONDUIT (SIZED AS-NEEDED) 24" MIN. BELOW FINISHED GRADE REINFORCEMENT AS NECESSARY-NOTES: 1. THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS, SITE SPECIFIC SOIL PARAMETERS. 2. ALL REBAR SHALL HAVE A YIELD STRENGTH OF 60ksi, AND MAINTAIN A 3" MIN. CLEARANCE FROM SURFACES. 30" LIGHT POLE FOUNDATION DETAIL **I-3**

LANDSCAPE SPECIFICATIONS:

1. SCOPE OF WORK:
THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE

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,

I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED. II. 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.

I. 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 II. 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

I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION) II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL. III. 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.

IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1%, 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. V. 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.
VI. 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.

VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.

VIII. 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.

A REFORE 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.

3. 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 REE 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 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

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE. <u>6. SOIL MODIFICATIONS</u> A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING.

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. I TO INCREASE A SANDY SOIL'S ARII ITY TO RETAIN WATER AND NI ITRIENTS. THOROLIGHLY TII 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 FREI OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH

HIGHER THAN 7.5. II 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. III. 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 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

O. 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 ISEE SPECIFICATION 6.A.I): 20 POUNDS 'GRO-POWER' OR APPROVED EQUAL SOIL CONDITIONER/FERTILIZER II. 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.

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

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. THI PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING

I. PLANTS: MARCH 15TH TO DECEMBER 15TH II. 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

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: BETULA VARIETIES POPULUS 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 I. 1 PART PEAT MOSS II. 1 PART COMPOSTED COW MANURE BY VOLUME III. 3 PARTS TOPSOIL BY VOLUME

IV. 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS: A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT C) 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

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 K, ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED

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 $\frac{1}{2}$ " 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

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 ATERING SPECIFICATIONS AS LISTED HEREIN.

M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM

RANSPLANTING (WHEN REQUIRED)
LL 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 WINI 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.

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 BACKEILL 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

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 ONE (1) YEAR FROM APPROVAL OF

LANDSCAPE INSTALLATION BY THE 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.

B. ANY DEAD OF THIS PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTIE PERSON.

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

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 B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER

REV DATE COMMENT

REVISIONS



PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY VIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAA230019.0 DRAWN BY: CHECKED BY: CAD I.D.: PAA230019.03-LLGT-0A

PROJECT:

PRELIMINARY / FINAL LAND **DEVELOPMENT PLANS**

727 NORRISTOWN RD, LP

— FOR —

BUILDING 14 & ELECTRIC

SUBSTATION IMPROVEMENT PLANS 727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002

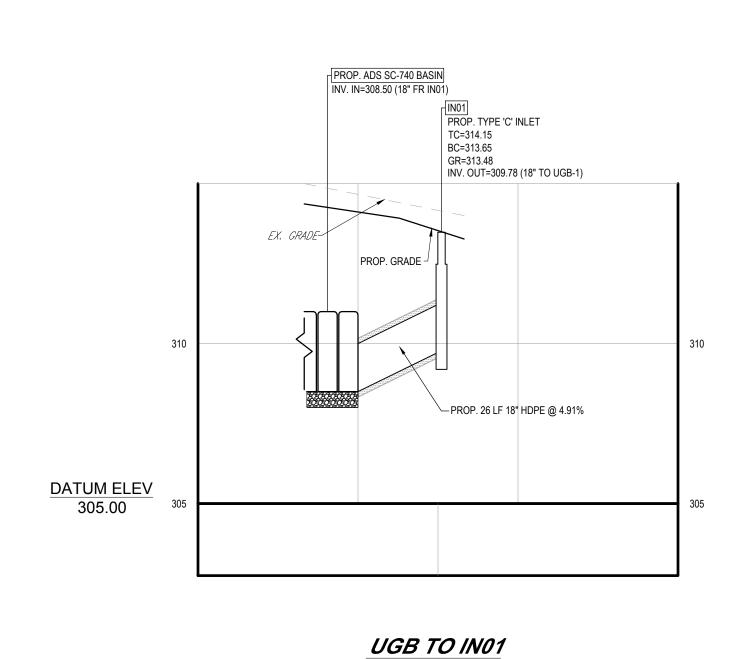
MONTGOMERY COUNTY

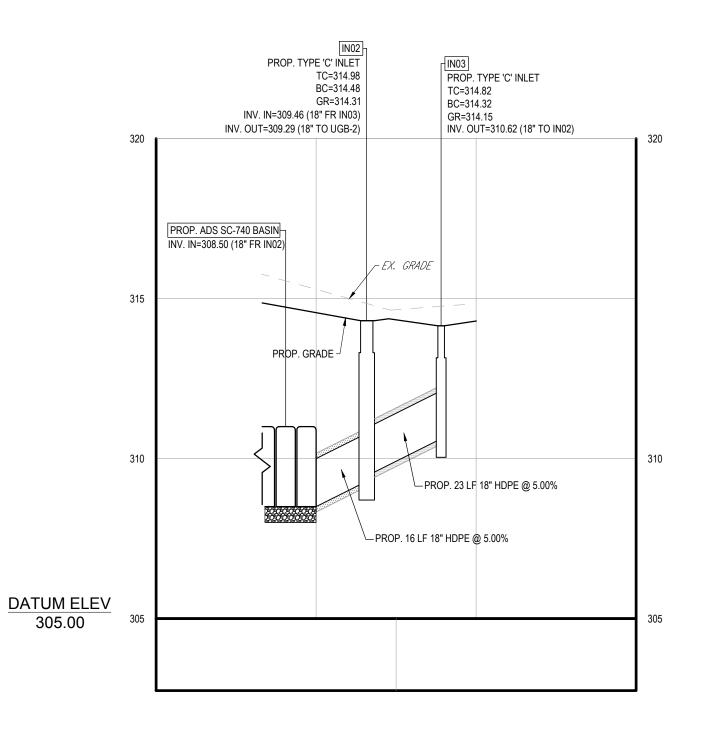
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1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102



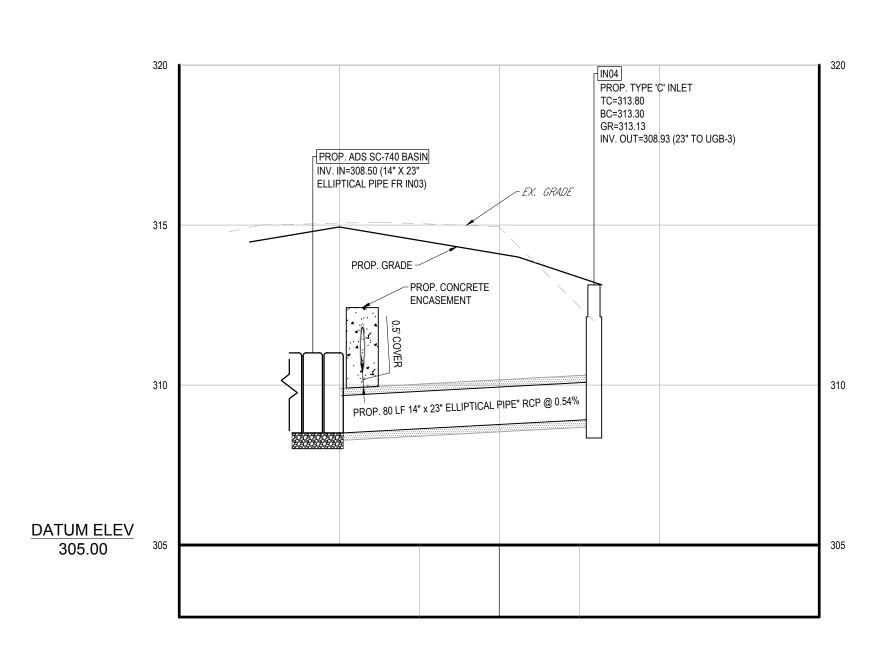
LANDSCAPE & **LIGHTING DETAILS**





UGB TO IN03

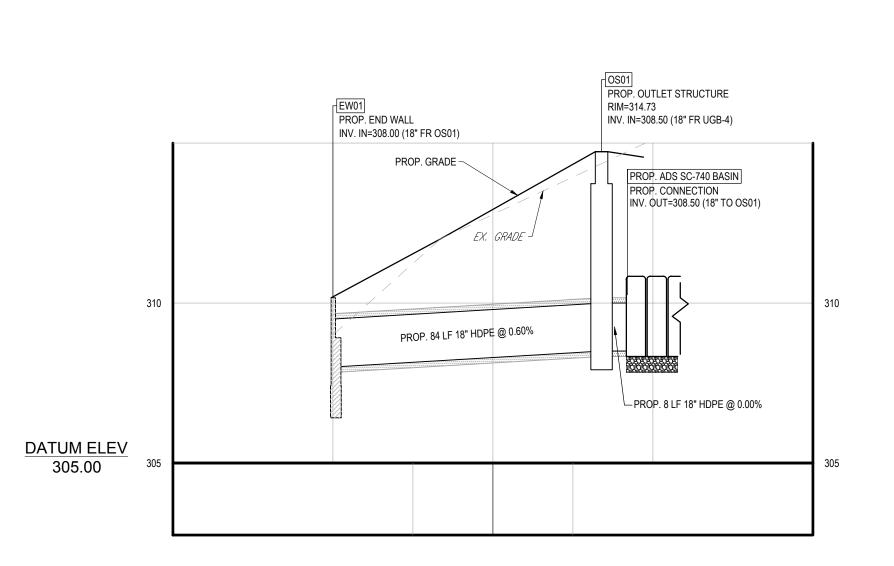
SCALE: 1"= 30 ' HORIZONTAL 1"= 3 ' VERTICAL



UGB TO IN04

SCALE: 1"= 30 ' HORIZONTAL 1"= 3 ' VERTICAL

SCALE: 1"= 30 ' HORIZONTAL 1"= 3 ' VERTICAL



EW01 TO UNDERGROUND BASIN

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL

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

	REVISIONS									
REV	DATE	DRAWN BY CHECKED BY								



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PROJECT No.: PAA230019.03
DRAWN BY: MCM
CHECKED BY: WRR
DATE: 6/28/2023
CAD I.D.: PAA230019.03-Z-PIPE-LDVP

PROJECT:

PRELIMINARY | FINAL LAND DEVELOPMENT PLANS

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

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



SHEET TITLE:

PROFILES PLAN

SHEET NUMBER

C-801

