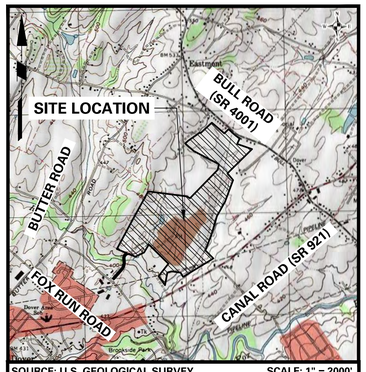
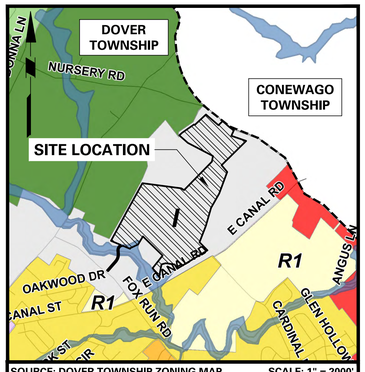
BULL ROAD LOGISTICS

DOVER TOWNSHIP, YORK COUNTY, PENNSYLVANIA
ZONING DISTRICT: INDUSTRIAL (I)
PRELIMINARY LAND DEVELOPMENT PLANS



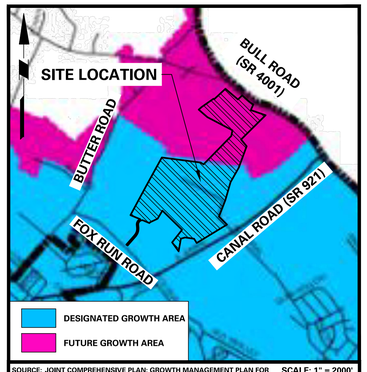
SOURCE: U.S. GEOLOGICAL SURVEY SCALE: 1" = 2000'

SITE LOCATION MAP



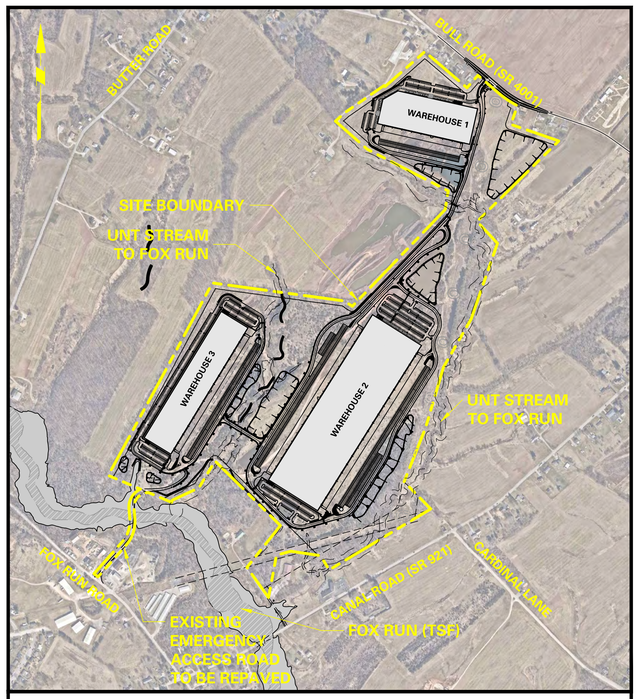
SOURCE: DOVER TOWNSHIP ZONING MAP SCALE: 1" = 2000'

ZONING MAP



SOURCE: JOINT COMPREHENSIVE PLAN: GROWTH MANAGEMENT PLAN FOR DOVER BOROUGH/DOVER TOWNSHIP REGION, JANUARY 2008 SCALE: 1" = 2000'

FUTURE GROWTH BOUNDARY MAP



SITE PLAN SCALE: 1" = 600'

DOVER TOWNSHIP ZONING TABLE
YORK INDUSTRIAL DEVELOPMENT (TMP# 24-000-LG-0074.00, 24-000-KG-0093.00, 24-000-KG-0094.00)
ZONING DISTRICT: I - INDUSTRIAL DISTRICT, AH - AIRPORT HAZARD OVERLAY[4]

ITEM	REQUIRED/PERMITTED PER I DISTRICT	PROPOSED SITE	ORDINANCE SECTION	COMPLIANCE
Permitted Land Use:	Heavy Industrial (Warehouse)[5]	Heavy Industrial (Warehouse)	Part 4, § 27-409.2	C
Lot Requirements:				
Min. Lot Area	20,000 SF	8,667,505 SF (198.979 AC)[12]	Part 4, § 27-409.5.A	C
Min. Lot Frontage and Width	100 FT	497 FT	Part 4, § 27-409.5.B	C
Building Requirements:				
Max. Building Height[4]:	45 FT	See Below	Part 4, § 27-409.5.E	C
Warehouse 1: 40' Side Yard Setback, Measured 177 FT to Property Line *(Height Limited by Airport Hazard Zone. See Section Below)*	65 FT *	65 FT	Part 4, § 27-409.5.E	C
Warehouse 2: 40' Side Yard Setback, Measured 196 FT to Property Line	97 FT	65 FT	Part 4, § 27-409.5.E	C
Warehouse 3: 40' Side Yard Setback, Measured 130 FT to Property Line	75 FT	65 FT	Part 4, § 27-409.5.E	C
Building Requirements (Per Airport Hazard Zone)[2]:				
Max. Building Height Zone A[3](Warehouse 2)	185 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Max. Building Height Zone H[3](Warehouse 3)	182 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Max. Building Height Zone T[3](Warehouse 1)	65 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Principal Building Setbacks:				
Min. Front Yard	50 FT	249.0 FT	Part 4, § 27-409.5.C(1)	C
Min. Side Yard	40 FT	105.6 FT	Part 4, § 27-409.5.C(2)	C
Min. Rear Yard	40 FT	235.0 FT	Part 4, § 27-409.5.C(3)	C
Min. Buffer Along Residential Uses	50 FT	50 FT	Part 6, § 27-664.2	C
Max. Lot Coverage (Entire Site)[6]	75%	47.7%	Part 4, § 27-409.5.D	C
Screening & Buffer Requirements:				
Min. Screen Buffer Berm	3 FT	3 FT	Part 3, § 22-1103.11.B	C
Min. Buffer Yard for Heavy Industrial Use (Warehousing) Along Residential Use, Residential District or Agriculture District	50 FT	50 FT	Part 6, §27-664.2	C
Parking & Loading Requirements:				
Parking Lot Setbacks:				
Min. Parking Setback (From Residential Properties)	15 FT	56.2 FT	Part 7, § 27-708	C
Min. Parking Setback (From All Other Property Lines/ROW)	10 FT	50.9 FT	Part 7, § 27-708	C
Loading Requirements[8]:				
Min. Number of Loading Space Dimensions	12 FT x 60 FT	12 FT x 60 FT	Part 7, § 27-711.1.A	C
Number of Loading Spaces	One space for a gross floor area of 5,000 to 25,000 SF and 1 space for each 10,000 SF of gross floor area in excess of 25,000 SF (183 Loading Spaces)	389 Loading Spaces	Part 7, § 27-711.1.C	C
Parking:				
Parking Space Dimensions (Non-Parallel Spaces):	10 FT x 20 FT	10 FT x 20 FT	Part 7, § 27-702.1	C
Min. Radius for Parking Areas:	5 FT	5 FT	SALDO Part 7, §22-707.2.B	C
Min. Number of Car Parking Spaces:	1,288 Total Car Spaces	1,347 Total Car Spaces		
Use: Warehousing	(1 Space/1 Employee on 2 largest shifts - See Parking Table)	(See Parking Table)	Part 7, § 27-703.1	C
Access Drives[11]:				
Min. Distance from Fire Hydrants[11]	10 FT	155 FT	SALDO Part 7, §22-709.1.C	C
Min. Distance from R.O.W. of Intersecting Streets	100 FT	900 FT	SALDO Part 7, §22-709.1.C	C
Aisles:				
Minimum Width:				
One-way Aisle with 90° parking	24 FT	24 FT	SALDO Part 7, §22-707.2.H	C
Two-way Aisle	24 FT	24 FT	SALDO Part 7, §22-707.2.H	C
Min. Sidewalk Width	5 FT	5 FT	SALDO Part 7, §22-710	C

Zoning Table Notes:
1. Ordinance sections are referenced from the Dover Township Zoning Ordinance, Chapter 27 and the Dover Township Subdivision and Land Development Ordinance, Chapter 22.
2. The property falls within the Airport Hazard Overlay for Lazy B Airport which is located north of Bull Road.
3. The existing use of the site is Heavy Industrial: Shallow resource recovery of shale and clay materials.
4. As stated in Section 27-409.E, 45 FT is the maximum building height allowed, however, this height may be increased one foot for each additional 3 FT that the proposed building setback exceeds the minimum required.
5. Warehouse 2 falls within the Approach Surface Zone of the Airport Hazard Overlay. No permit is required for structures less than 75 FT above ground, except where topographic features would extend structures above the height limits.
6. Warehouse 3 falls within the Horizontal Surface Zone of the Airport Hazard Overlay. No permit is required for structures less than 75 FT above ground, except where topographic features would extend structures above the height limits.
7. Warehouse 1 falls within the Transitional Zone of the Airport Hazard Overlay. No permit is required for structures less than 75 FT above the ground, except where topographic features would extend structures above the height limits.
8. The building area for each warehouse is listed below:
   Warehouse 1: +/- 326,643 SF
   Warehouse 2: +/- 1,089,840 SF
   Warehouse 3: +/- 450,000 SF
9. Per Section 27-711.1.B, all off-street loading facilities shall be paved with bituminous or cement paving material. See Drawing No. CP-101 "Pavement Plan".
10. Per Section 22-202, the proposed connections to external roads are defined as access drives not driveways since they provide access between public streets and a use other than a single-family or two-family dwelling.
11. The proposed distance from an existing fire hydrant is based on an existing hydrant on Fox Run Road. There are no existing fire hydrants on Bull Road.
12. Proposed lot area is based on the net lot area per a supplemental plan titled "Preliminary/Final Lot Consolidation Plan", prepared by Langan Engineering, last revised August 15, 2025. The net lot area includes the tract area up to the ultimate right-of-way.

PLAN PREPARER'S STATEMENTS

I, SHAUN F. HIGGINS, A REGISTERED SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE PLAN, PREPARED FROM A FIELD SURVEY DURING MARCH, 2022 CORRECTLY REPRESENTS THE PROPERTY BOUNDARY OF THE PROPOSED SUBDIVISION OR LAND DEVELOPMENT.

DATE — REGISTERED SURVEYOR'S SIGNATURE

2700 KELLY ROAD
SUITE 200
WARRINGTON PA, 18976 — SHAUN F. HIGGINS, PLS

ADDRESS — PRINTED NAME

I, KEITH S. OTTES, A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE ACCOMPANYING APPLICATION, PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND ACCURATE, TO THE BEST OF MY KNOWLEDGE.

DATE — PLAN PREPARER'S SIGNATURE

2700 KELLY ROAD
SUITE 200
WARRINGTON PA, 18976 — KEITH S. OTTES, PE

ADDRESS — PRINTED NAME

OWNER'S STATEMENT

WE, THE OWNERS OF THE LAND INVOLVING THE ACCOMPANYING PLANS, BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY WE ARE THE SOLE OWNERS OR ARE THE AUTHORIZED OFFICERS OF THE CORPORATION THAT IS THE SOLE OWNERS OF THIS PROPERTY IN PEACEFUL POSSESSION OF IT, AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF SAME, AND THAT WE ACKNOWLEDGE AND ENDORSE THE ACCOMPANYING PLANS, AND THAT ALL IMPROVEMENTS IDENTIFIED AS PROPOSED PUBLIC PROPERTY (NOT INCLUDING IMPROVEMENTS LABELED AS "NOT FOR DEDICATION") ARE PROPOSED FOR DEDICATION TO THE PUBLIC USE, AND THAT WE PROPOSE THE ATTACHED RECORD PLAN FOR RECORDING (AS APPLICABLE) AFTER RECEIVING ALL REQUIRED MUNICIPAL APPROVALS.

OWNER'S OR AUTHORIZED CORPORATE OFFICER'S SIGNATURE

DATE

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF _____

ON THE ____ DAY OF ____, 20 ____, BEFORE ME THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED THEMSELVES TO BE THE _____ OF BULL CANAL DOVER OWNER LLC, AND THAT AS SUCH _____, BEING AUTHORIZED TO DO SO, THEY EXECUTED THE FOREGOING PLAN BY SIGNING THAT THE SAID CORPORATION IS THE REGISTERED OWNER OF THE DESIGNATED LAND, THAT ALL NECESSARY APPROVALS OF THE PLAN HAVE BEEN OBTAINED AND IS ENDORSED THEREON, AND THAT THEY DESIRE THAT THE FOREGOING PLAN BE RECORDED ACCORDING TO LAW.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

(SEAL)

RECORDING INFORMATION

RECORDED IN THE YORK COUNTY RECORDER OF DEEDS OFFICE

IN VOL NO. ____, PAGE NO. ___ ON _____, 20 __.

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

APPROVAL/REVIEW:

DOVER TOWNSHIP PLANNING COMMISSION

REVIEWED BY THE DOVER TOWNSHIP PLANNING COMMISSION AT A MEETING HELD ON _____, 20____.

SIGNATURE

DOVER TOWNSHIP BOARD OF SUPERVISORS

APPROVED BY THE DOVER TOWNSHIP BOARD OF SUPERVISORS AT A MEETING HELD ON _____, 20____.

SIGNATURE

DOVER TOWNSHIP ENGINEER

_____ APPROVED BY THE DOVER TOWNSHIP ENGINEER ON _____, 20____.

SIGNATURE

OWNER'S STORMWATER BMP STATEMENT

WE, THE OWNERS OF THE LAND INVOLVING THE ACCOMPANYING PLANS, ACKNOWLEDGE THAT WE ARE AWARE OF AND WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES ON THE PROPERTY.

WE, THE UNDERSIGNED LAND OWNERS, HEREBY ACKNOWLEDGE THAT THE STORMWATER MANAGEMENT SYSTEM IS A PERMANENT FIXTURE, WHICH CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY THE TOWNSHIP AND THE OWNER IS RESPONSIBLE FOR PROPER MAINTENANCE.

OWNER'S OR AUTHORIZED CORPORATE OFFICER'S SIGNATURE

DATE

STAMP OF NOTARY PUBLIC

TOWNSHIP SWM SITE PLAN CERTIFICATION

I, KEITH S. OTTES, HEREBY CERTIFY THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DOVER TOWNSHIP CODE OF ORDINANCES CHAPTER 19, "STORMWATER MANAGEMENT".

DATE — PLAN PREPARER'S SIGNATURE

CARBONATE GEOLOGY CERTIFICATION

I, KEITH S. OTTES, HEREBY CERTIFY THAT THE PROPOSED STORMWATER MANAGEMENT FACILITY (CIRCLE ONE) IS/IS NOT UNDERLAIN BY CARBONATE GEOLOGY.

DATE — PLAN PREPARER'S SIGNATURE

CONTACTS

CABLE
COMCAST
15 SUMMIT PARK DRIVE
PITTSBURGH, PA 15275
PHONE: 814-380-0116

ELECTRIC
MET ED ELECTRIC
2800 POTTSVILLE PIKE
READING, PA 19605
PHONE: 610-921-6157

ADAMS ELECTRIC
200 TRINITY RD,
YORK, PA 17408
PHONE: 800-726-2324

TELECOMMUNICATIONS
VERIZON
31 S BEAVER STREET
YORK, PA 17401
PHONE: 717-771-5298

GAS
COLUMBIA GAS OF PENNSYLVANIA
1600 COLONY ROAD
YORK, PA 17408
PHONE: 717-676-2419

WATER
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

SEWER AUTHORITY
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

TOWNSHIP ENGINEER
C.S. DAVIDSON - YORK OFFICE
38 NORTH DUKE STREET
YORK, PA 17401
PHONE: 717-846-4805

LIST OF ANTICIPATED WAIVERS:

THE APPLICANT RESPECTFULLY REQUESTS WAIVERS FROM THE FOLLOWING SECTIONS OF THE DOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND STORMWATER MANAGEMENT ORDINANCE:

- **SECTION 19-306.11 & 19-306.18.(A).1 - THE REFERENCED SECTIONS REQUIRE THAT DETENTION AND/OR RETENTION BASINS BE DESIGNED WITH A MAXIMUM DEPTH OF 6-FEET, MEASURED FROM THE EMERGENCY SPILLWAY ELEVATION TO THE BASIN BOTTOM. A WAIVER IS REQUESTED TO EXCEED THIS VALUE WITH DETENTION BASIN 3B BY 7.5-FEET. WE NOTE THAT DETENTION BASIN 3B IS FOR DETENTION ONLY, WILL NOT PERMANENTLY HOLD WATER AND IS DESIGNED TO DEWATER WITHIN 72-HOURS. ADDITIONALLY, THE DEPTH OF THE BASIN IS INFLATED DUE TO REQUIREMENTS TO DISCHARGE/DEWATER THE EMERGENCY SPILLWAY VIA SHALLOW CONCENTRATED FLOW TO THE WESTERN UNNAMED TRIBUTARY TO THE FOX RUN. THE DESIGN DEPTH WITHIN THE BASIN FOR THE 100-YEAR STORM IS 8.5-FEET.**
- **SECTION 22-501.2.A & 22-601.2.A - THE REFERENCED SECTIONS REQUIRE A SHEET SIZE OF 24 INCHES X 36 INCHES. A WAIVER IS REQUESTED FROM THESE SECTIONS TO PERMIT A SHEET SIZE OF 30 INCHES X 42 INCHES, WHICH WILL ALLOW FOR THE PLAN SET TO SHOW A GREATER LEVEL OF DETAIL WHILE REDUCING THE TOTAL NUMBER OF SHEETS.**
- **SECTION 22-709.7 - MAXIMUM ACCESS DRIVE WIDTH - THE REFERENCED SECTION REQUIRES THAT ACCESS DRIVES FOR NONRESIDENTIAL USES NOT EXCEED A 35-FOOT WIDTH WITHIN 12-FEET OF A PUBLIC STREET RIGHT-OF-WAY. A WAIVER IS REQUESTED FROM THIS SECTION TO PERMIT AN INCREASED DRIVEWAY WIDTH TO MEET THE REQUIREMENTS FOR A FULL-ACCESS DRIVEWAY DESIGNED FOR ACCESS BY WB-67 TRUCKS. THIS REQUEST IS FOR THE FULL-ACCESS DRIVEWAY ON BULL ROAD AND THE EMERGENCY ACCESS ONLY DRIVEWAY ON FOX RUN ROAD.**
- **SECTION 22-1003.3 & 19-306.18.(A).3 - THE REFERENCED SECTIONS REQUIRE THE INTERIOR SLOPE OF DETENTION BASINS TO BE A MAXIMUM OF FOUR TO ONE (4:1) SLOPE. A WAIVER IS REQUESTED TO PERMIT THE INTERIOR SLOPE OF THE INFILTRATION BASIN TO BE THREE TO ONE (3:1). THE SLIGHTLY STEEPER SLOPES WILL ALLOW A GREATER VOLUME OF RUNOFF TO BE CAPTURED AND REUSED WITHIN THE PHYSICAL AND GEOTECHNICAL LIMITATIONS OF THE SITE TO COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.**

REQUIRED ON-SITE APPROVALS:

THE PROJECT REQUIRES THE FOLLOWING PERMITS AND APPROVALS:

DOVER TOWNSHIP
- **PRELIMINARY LAND DEVELOPMENT APPROVAL**
- **FINAL LAND DEVELOPMENT APPROVAL**

DOVER TOWNSHIP ENGINEER
- **STORMWATER MANAGEMENT PLAN APPROVAL**

YORK COUNTY CONSERVATION DISTRICT (YCCD)
- **EROSION AND SEDIMENT POLLUTION CONTROL CERTIFICATION - NPDES PERMIT**
  - **COMPLETENESS APPROVAL**
  - **TECHNICAL APPROVAL**

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP)
- **SEWAGE FACILITIES PLANNING MODULE**
- **USACE SECTION 404 / PADEP CHAPTER 105 INDIVIDUAL JOINT PERMIT**

MET-ED REVIEW
- **DESIGN AND CROSSING APPROVAL**

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THESE PLANS ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITIES PRIOR TO CONSTRUCTION. THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
MARKING DATE IN ADDITION
(10) WORKING DAYS NOTICE TO STAKE
=== STOP & CALL ===

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

DRAWING LIST

PAGE NO.	DRAWING NO.	DRAWING TABLE	SCALE	DATE REVISED
1	GI-001	**PRELIMINARY COVER SHEET (RECORD PLAN)***	N.T.S.	8/15/2025
2	CB-100	PRELIMINARY EXISTING RESOURCE MAP	1" = 250'	8/15/2025
3	CB-200	**PRELIMINARY MASTER EASEMENT PLAN (RECORD PLAN)***	1" = 250'	8/15/2025
4-7	CB-201-204	**PRELIMINARY EASEMENT PLAN (RECORD PLAN)***	1" = 100'	8/15/2025
8	CB-205	**PRELIMINARY EASEMENT PLAN (RECORD PLAN)***	N.T.S.	8/15/2025
9	CS-100	**PRELIMINARY MASTER SITE PLAN (RECORD PLAN)***	1" = 250'	8/15/2025
10-19	CS-101-110	**PRELIMINARY SITE PLAN (RECORD PLAN)***	1" = 50'	8/15/2025
20-24	CS-201-205	PRELIMINARY TRUCK TURN PLAN	1" = 50'	8/15/2025
25-26	CS-206-207	PRELIMINARY FIRE TRUCK TURN PLAN	1" = 50'	8/15/2025
27-29	CS-208-210	PRELIMINARY TRASH TRUCK TURN PLAN	1" = 50'	8/15/2025
30	CS-211	PRELIMINARY EMERGENCY ACCESS FIRE TRUCK TURNING PLAN	1" = 50'	8/15/2025
31-35	CS-301-305	ROADWAY PROFILES	AS SHOWN	8/15/2025
36	CS-501	PRELIMINARY SITE DETAILS	N.T.S.	8/15/2025
37	CP-101	PRELIMINARY PAVEMENT PLAN	1" = 250'	8/15/2025
38	CG-100	**PRELIMINARY MASTER GRADING PLAN (RECORD PLAN)***	1" = 250'	8/15/2025
39-48	CG-101-110	PRELIMINARY GRADING PLAN	1" = 50'	8/15/2025
49-61	CG-201-213	PRELIMINARY DRAINAGE PROFILES	AS SHOWN	8/15/2025
62-63	CG-214-215	STREAM RELOCATION PROFILES	AS SHOWN	8/15/2025
64	CG-300	**PRELIMINARY MASTER PCSM AND DRAINAGE PLAN (RECORD PLAN)***	1" = 250'	8/15/2025
65-74	CG-301-310	PRELIMINARY PCSM AND DRAINAGE PLAN	1" = 50'	8/15/2025
75-79	CG-401-405	PRELIMINARY DRAINAGE STRUCTURE TABLES	N.T.S.	8/15/2025
80-81	CG-406-407	PRELIMINARY DRAINAGE PIPE TABLES	N.T.S.	8/15/2025
82-84	CG-501-503	PRELIMINARY PCSM DETAILS	N.T.S.	8/15/2025
85	CU-100	**PRELIMINARY MASTER UTILITY PLAN (RECORD PLAN)***	1" = 250'	8/15/2025
86-95	CU-101-110	PRELIMINARY UTILITY PLAN	1" = 50'	8/15/2025
96-102	CU-201-207	PRELIMINARY UTILITY PROFILES	AS SHOWN	8/15/2025
103-104	CU-501-502	PRELIMINARY UTILITY DETAILS	N.T.S.	8/15/2025
105	LP-100	PRELIMINARY MASTER LANDSCAPE PLAN	1" = 250'	8/15/2025
106-115	LP-101-110	PRELIMINARY LANDSCAPE PLAN	1" = 50'	8/15/2025
116	LP-501	PRELIMINARY LANDSCAPE NOTES AND DETAILS	N.T.S.	8/15/2025
117	LL-100	PRELIMINARY MASTER LIGHTING PLAN	1" = 250'	8/15/2025
118-127	LL-101-110	PRELIMINARY LIGHTING PLAN	1" = 50'	8/15/2025
128	LL-501	PRELIMINARY LIGHTING NOTES AND DETAILS	N.T.S.	8/15/2025

*** PLAN TO BE RECORDED**

SUPPLEMENTAL PLANS:
1. BOUNDARY AND TOPOGRAPHIC INFORMATION BASED ON A PLAN TITLED "GLEN-GERY SITE - ALTA/NSPS LAND TITLE SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LAST REVISED DECEMBER 7, 2023.
2. "PRELIMINARY/FINAL LOT CONSOLIDATION PLAN", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LAST REVISED AUGUST 15, 2025.
3. "WATER EXTENSION HOP PLANS", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LAST REVISED AUGUST 15, 2025.
4. "HIGHWAY OCCUPANCY PERMIT PLANS", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LAST REVISED JUNE 18, 2024.

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 078076

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project: BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title: PRELIMINARY COVER SHEET (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By PLPH
Checked By SMH

Drawing No. GI-001
Sheet 1 of 128

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Date: 8/14/2025 Time: 14:05 User: bsoltys Style Table: Langan.stb Layout: GI-001 Document Code: 200164401-0301-GI001-0101

ON-SITE SOIL TYPE DESCRIPTIONS

Map Symbol	Soil	Hydrologic Soil Group	Hydric	Depth to Seasonal High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations	Resolutions
PeB	Penn loam, 3-25% Slopes	B	No	> 6.67'	> 1.67' to fragipan; > 3.33' to lithic	Well drained; Low available water capacity (about 3.9 in); low surface runoff; susceptible to sinkholes and to piping and seeping hazards	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards. Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet). Sinkholes shall be treated according to detail provided on E&S Detail Sheet)
PoB	Penn -Klinesville channery silt loams, 3-8% Slopes	C	No	> 6.67'	> 1.67' to fragipan; > 3.33' to lithic	Well drained; Low available water capacity (about 3.9 in); low surface runoff; susceptible to sinkholes and to piping and seeping hazards	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards. Sinkholes shall be treated according to detail provided on E&S Detail Sheet).
PoC	Penn -Klinesville channery silt loams, 8-15% Slopes	B	No	> 6.67'	> 1.67' to fragipan; > 3.33' to lithic	Well drained; Low available water capacity (about 3.9 in); low surface runoff; susceptible to sinkholes and to piping and seeping hazards	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards. Sinkholes shall be treated according to detail provided on E&S Detail Sheet).
Pt	Pits, Quarry	N/A	No	N/A	N/A	N/A	N/A
ReC	Readington Silt Loam, 3-8% Slopes	C	No	1.5' - 3.0'	> 1.67' to fragipan; > 3.33' to lithic	Moderately well drained; Moderate available water capacity (about 6.3 in); low surface runoff; susceptible to sinkholes and to piping and seeping hazards	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards. Sinkholes shall be treated according to detail provided on E&S Detail Sheet).
Rw	Rowland Silt Loam, 0-3% Slopes	C	No	1.0' - 3.0'	> 6.67'	Moderately well drained; Moderate available water capacity (about 7.7 in); low surface runoff; susceptible to sinkholes and to piping and seeping hazards	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards. Sinkholes shall be treated according to detail provided on E&S Detail Sheet).

***Soils information obtained from USDA-NRCS Web Soil Survey for York County, PA, Version 17, September 7, 2022.**

SLOPES TABLE

NUMBER	MIN. SLOPE	MAX. SLOPE	AREA (SF)	COLOR
1	15.0%	25.0%	537,892	
2	>25.0%		641,531	

TITLE EXCEPTIONS

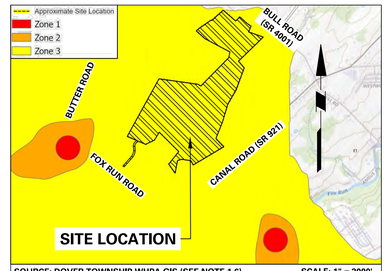
CHICAGO TITLE INSURANCE COMPANY
ORDER NO.: PIT220161
COMMITMENT DATE: MAY 2, 2022

SCHEDULE B, PART II EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

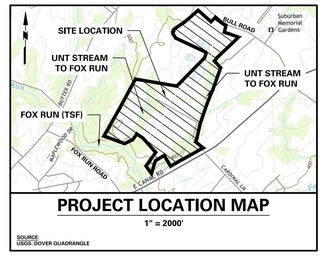
THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. UNRECORDED EASEMENTS, DISCREPANCIES OR CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA AND ENCROACHMENTS WHICH AN ACCURATE AND COMPLETE SURVEY WOULD DISCLOSE.
2. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.
3. REAL ESTATE TAXES FOR THE CURRENT AND PRIOR TAX YEARS WHICH MAY BE HEREAFTER ASSESSED, NOT YET DUE AND PAYABLE.
4. ANY LIEN OR RIGHT TO A LIEN FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
5. ALL CREEKS, STREAMS OR RUNS IN ANY WAY AFFECTING THE PREMISES.
6. THIS POLICY DOES NOT INSURE THE ACCURACY OF THE ACREAGE CONTENT OF THE LAND.
7. TERMS AND CONDITIONS OF CONTRACTUAL CONSENT OF LANDOWNER BY GLEN-GERY CORPORATION AND THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, DATED JULY 30, 1975 AND RECORDED IN RECORD BOOK 87-A, PAGE 705.
8. RIGHTS OF THE PUBLIC TO THAT PORTION OF THE PROPERTY DESCRIBED TO A SPIKE IN BULL ROAD, A/K/A LEGISLATIVE ROUTE NO. 66102.
9. RIGHTS OF THOSE ENTITLED TO A PRIVATE LANE THAT LIES WITHIN THE SUBJECT PROPERTY.
10. RIGHT OF WAY BY PAUL J. BINDER, ET UX., TO METROPOLITAN EDISON COMPANY, DATED AUGUST 26, 1955 AND RECORDED IN RECORD BOOK 43-J-511.
11. RIGHT OF WAY BY PAUL J. BINDER, ET UX., TO METROPOLITAN EDISON COMPANY, DATED NOVEMBER 22, 1963 AND RECORDED IN RECORD BOOK 55-K-105.
12. TERMS AND CONDITIONS OF CONTRACTUAL CONSENT OF LANDOWNER BY GLEN-GERY CORPORATION AND THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, DATED OCTOBER 7, 1996 AND REORDED IN RECORD BOOK 1274, PAGE 5564.
13. FRONTAGE ON A PUBLIC STREET IS NOT INSURED, BUT ACCESS TO A PUBLIC ROAD IS INSURED.
14. PROPORTIONATE COST FOR MAINTENANCE AND REPAIR OF THAT PRIVATE LANE FOR ACCESS TO THE PUBLIC ROAD BENEFITING THE PROPERTY.
15. AGREEMENT BY DAVID HENEISE AND DAVID MEISENHELTER FOR A TRENCH OR DITCH FOR WATER OVERFLOW, DATED JANUARY 21, 1879 AND RECORDED IN RECORD BOOK 6-K-75.
16. RIGHT OF WAY BY THOMAS C. MILLS, ET AL., TO DEFENSE PLANT CORPORATION, DATED JULY 29, 1943 AND RECORDED IN RECORD BOOK 29-W-672.
17. RIGHT OF WAY BY A. NELSON HORN, ET UX., TO METROPOLITAN EDISON COMPANY, DATED JULY 25, 1955 AND RECORDED IN RECORD BOOK 41-G-206; AS AS RE-RECORDED IN RECORD BOOK 43-F-175.
18. RIGHT OF WAY BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED MARCH 9, 1983 AND RECORDED IN RECORD BOOK 85-Q, PAGE 632.
19. RIGHT OF WAY BY GLEN-GERY SHALE BRICK CORP., N/K/A GLEN-GERY CORPORATION, AND TO DOVER SOLAR I, LLC, DATED APRIL 10, 2020 AND RECORDED IN RECORD BOOK 2569, PAGE 8140.
20. FRONTAGE ON A PUBLIC STREET IS NOT INSURED, BUT ACCESS TO A PUBLIC ROAD IS INSURED.
21. MATTERS SHOWN ON THE FINAL SUBDIVISION PLAN OF GLEN-GERY SHALE BRICK CORP., RECORDED IN PLAN BOOK RR-308.
22. MATTERS SHOWN ON THE REVISED FINAL SUBDIVISION PLAN OF GLEN-GERY SHALE BRICK CORP., RECORDED IN PLAN BOOK RR-567.
23. RIGHT OF WAY BY PAUL L. GROSS TO EDISON LIGHT AND POWER COMPANY, DATED MAY 16, 1938 AND RECORDED IN RECORD BOOK 27-H, PAGE 573.
24. RIGHT OF WAY BY PAUL L. GROSS, ET UX., TO DEFENSE PLANT CORPORATION, DATED DECEMBER 24, 1942 AND RECORDED IN RECORD BOOK 29-N, PAGE 629.
25. RIGHT OF WAY BY PAUL L. GROSS, ET UX., TO DEFENSE PLANT CORPORATION, DATED DECEMBER 24, 1942 AND RECORDED IN RECORD BOOK 29-N, PAGE 646.
26. RIGHT OF WAY BY WALTER J. KATHERMAN, JR., ET UX., TO YORK TELEPHONE AND TELEGRAPH COMPANY, DATED SEPTEMBER 7, 1954 AND RECORDED IN RECORD BOOK 39-P, PAGE 502.
27. RIGHT OF WAY BY WALTER H. KATHERMAN, JR., ET UX., TO METROPOLITAN EDISON COMPANY, DATED MAY 25, 1956 AND RECORDED IN RECORD BOOK 43-J, PAGE 180.
28. THE PROPORTIONATE COST FOR MAINTENANCE AND REPAIR OF AN EASEMENT FOR INGRESS, EGRESS AND REGRESS, AS SET FORTH IN AGREEMENT BY WALTER J. KATHERMAN, JR., ET UX., TO GLEN-GERY SHALE BRICK CORP., DATED AUGUST 7, 1956 AND RECORDED IN RECORD BOOK 70-I, PAGE 279.
29. RIGHT OF WAY BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED MARCH 9, 1983 AND RECORDED IN RECORD BOOK 85-Q, PAGE 632.
30. RIGHT OF WAY BY GLEN-GERY CORPORATION TO TEXAS EASTERN TRANSMISSION CORPORATION, DATED JUNE 30, 1987 AND RECORDED IN RECORD BOOK 100-Z, PAGE 216.
31. EASEMENT BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED FEBRUARY 18, 1992 AND RECORDED IN RECORD BOOK 386, PAGE 231.
32. RIGHT OF WAY BY GLEN-GERY SHALE BRICK CORP., N/K/A GLEN-GERY CORPORATION, AND TO DOVER SOLAR I, LLC, DATED APRIL 10, 2020 AND RECORDED IN RECORD BOOK 2569, PAGE 8140.



SOURCE: DOVER TOWNSHIP WHPA GIS (SEE NOTE 1.6) SCALE: 1" = 2000'

WELLHEAD PROTECTION AREA



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE

WELLHEAD PROTECTION AREA RESTRICTIONS

SOURCE PROHIBITIONS ZONE 3 PROTECTION AREAS
(PER § 26-213 OF THE DOVER TOWNSHIP SALDO)

1. THE FOLLOWING LAND USES, FACILITIES, AND/OR ACTIVITIES SHALL NOT BE PERMITTED IN ZONE 3 PROTECTION AREAS:
   - A. HAZARDOUS MATERIAL STORAGE, PROCESSING, AND DISPOSAL FACILITIES.
   - B. ROAD SALT STORAGE STOCKPILES.
   - C. QUARRIES AND MINING OPERATIONS.
   - D. ON-SITE FLOOR DRAINS.
   - E. LAND APPLICATION OF WASTEWATER OR WASTE SLUDGES, OR MANURE OR FERTILIZERS WITHOUT A NUTRIENT MANAGEMENT PLAN IN PLACE.
   - F. JUNK OR SALVAGE YARDS.
   - G. OPEN BURNING SITES AND DUMPS.
   - H. CONCENTRATED ANIMAL FEEDING OPERATIONS.

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
LOT LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

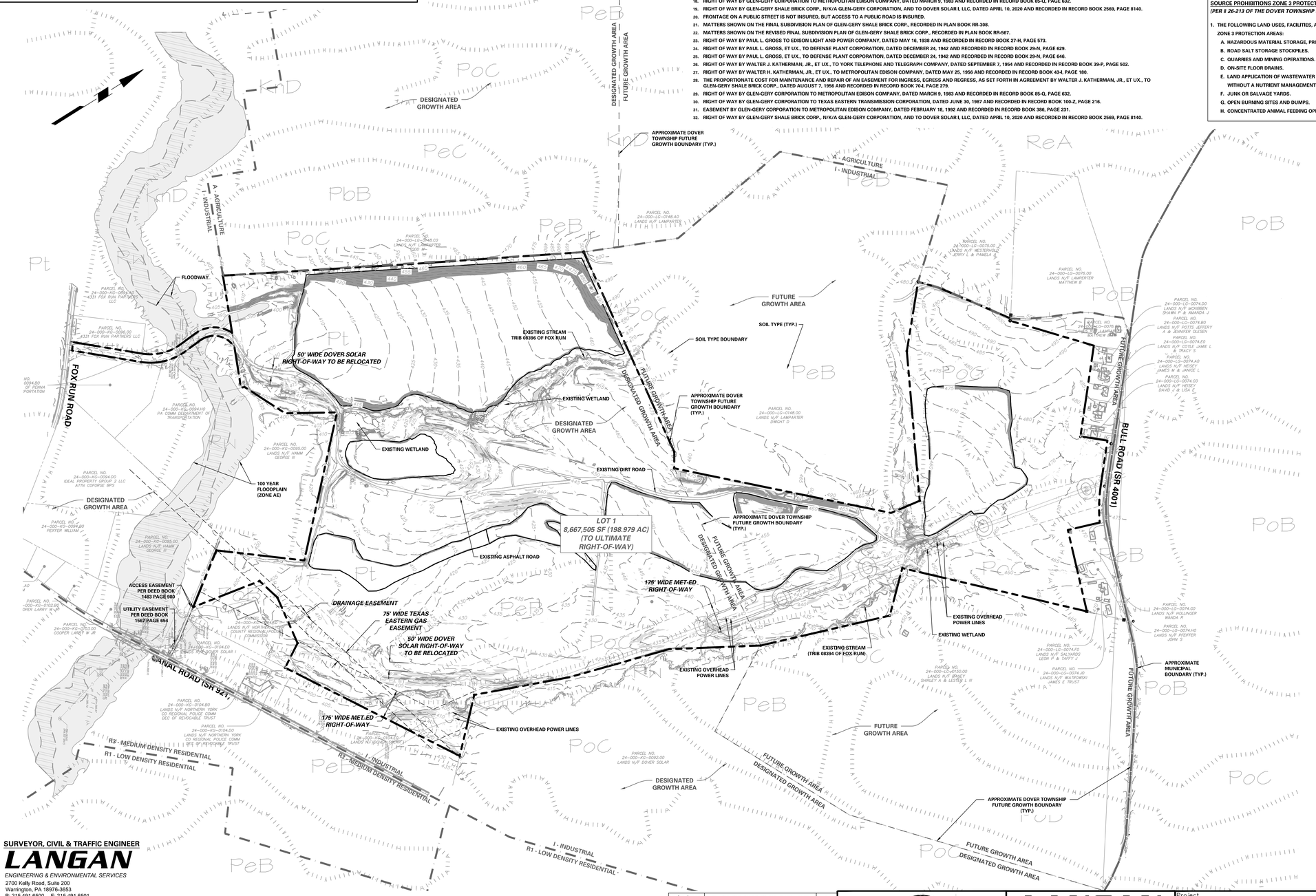
SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
DEPRESSED DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
TRR-66 DRIVEWAY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINES
EROSION CONTROL BLANKET

NATURAL FEATURES
STREAM/DITCH LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING FIRE HYDRANT
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING GATED BASIN
EXISTING OVERHEAD ELECTRIC
EXISTING WATER VALVE
PROPOSED STORM SEWER
EXISTING MANHOLE
PROPOSED SANITARY SEWER
EXISTING ELECTRIC POLE
PROPOSED GAS MAIN
PROPOSED HYDRANT
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
UTILITY POLE OFFSET
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN



HINES - YORK - GLEN-GERY SITE ADJACENT PROPERTY OWNERS LIST

UPI	OWNER	SITE ADDRESS	MAILING ADDRESS	DESCRIPTION/USE
24-000-LG-0076.00	WESTERHOLD JERRY L & PAMELA A	400 NURSERY ROAD DOVER, PA 17315	400 NURSERY ROAD DOVER, PA 17315	RESIDENTIAL - 8.00 AC
24-000-LG-0076.00	LAMPARTER MATTHEW B	4090 BULL ROAD DOVER, PA 17315	4090 BULL ROAD DOVER, PA 17315	FARM - 11.46 AC
24-000-LG-0074.00	MCKIBBEN SHAWN P & AMANDA J	4080 BULL ROAD DOVER, PA 17315	4080 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.41 AC
24-000-LG-0074.B0	POTTS JEFFERY A & JENNIFER OLESEN	4070 BULL ROAD DOVER, PA 17315	4070 BULL ROAD DOVER, PA 7315	RESIDENTIAL - 0.57 AC
24-000-LG-0074.E0	COYLE JAMIE L & TRACY S	4060 BULL ROAD DOVER, PA 17315	4060 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.32 AC
24-000-LG-0074.A0	HEISEY JAMES M & JANICE L	4040 BULL ROAD DOVER, PA 17315	4040 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.89 AC
24-000-LG-0074.C0	HEISEY DAVID J & LISA E	4020 BULL ROAD DOVER, PA 17315	4020 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.45 AC
24-000-LG-0074.D0	HOLLINGER WANDA R	3960 BULL ROAD DOVER, PA 17315	3960 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.26 AC
24-000-LG-0074.H0	PFEIFFER JOHN S	3940 BULL ROAD DOVER, PA 17315	3940 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.51 AC
24-000-LG-0074.J0	WIATROWSKI JAMES E TRUST	3187 BULL ROAD DOVER, PA 17315	2187 DEWEY ROAD YORK, PA 17408	RESIDENTIAL - 0.53 AC
24-000-LG-0074.F0	SALYARDS LEON P & TAFFY J	3920 BULL ROAD DOVER, PA 17315	3920 BULL ROAD DOVER, PA 17315	RESIDENTIAL - 0.56 AC
24-000-LG-0150.00	BANEY SHIRLEY A & LESTER L III	3870 BULL ROAD DOVER, PA 17315	3870 BULL ROAD DOVER, PA 17315	FARM - 69.00 AC
24-000-KG-0082.00	DOVER SOLAR I	1141 E CANAL ROAD DOVER, PA 17315	299 N MAIN STREET SPRING GROVE, PA 17362	FARM - 104.00 AC
21-000-KG-0106.E0	DOVER SOLAR I	1301 E CANAL ROAD DOVER, PA 17315	4061 NURSERY ROAD DOVER, PA 17315	FARM - 25.71 AC
24-000-KG-0104.D0	NORTHERN YORK CO REGIONAL POLICE COMM DEC OF REVOCABLE TRUST	1445 E CANAL ROAD DOVER, PA 17315	1445 E CANAL ROAD DOVER, PA 17315	N/A - 0.48 AC
24-000-KG-0104.B0	NORTHERN YORK CO REGIONAL POLICE COMM DEC OF REVOCABLE TRUST	CANAL ROAD DOVER, PA 17315	1445 E CANAL ROAD DOVER, PA 17315	N/A - 1.00 AC
24-000-KG-0095.00	HAMM GEORGE III	1501 E CANAL ROAD DOVER, PA 17315	PO BOX 220 DOVER PA 17315	FARM - 24.00 AC
24-000-KG-0094.H0	PA COMM DEPARTMENT OF TRANSPORTATION	FOX RUN ROAD DOVER, PA 17315	2140 HERR STREET HARRISBURG, PA 17105	N/A - 6.87 AC
24-000-KG-0094.A0	4331 FOX RUN PARTNERS LLC	FOX RUN ROAD DOVER, PA 17315	PO BOX 56 DOVER, PA 17315	FARM - 15.13 AC
24-000-LG-0148.C0	LAMPARTER TODD M	1341 BUTTER ROAD DOVER, PA 17315	1341 BUTTER ROAD DOVER, PA 17315	FARM - 83.00 AC
24-000-LG-0148.A0	LAMPARTER DORIS V	1251 BUTTER ROAD DOVER, PA 17315	1251 BUTTER ROAD DOVER, PA 17315	FARM - 52.10 AC
24-000-LG-0148.D0	LAMPARTER DWIGHT D	4000 BULL ROAD DOVER, PA 17315	4000 BULL ROAD DOVER, PA 17315	FARM - 71.40 AC

NOTES:

1. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCES:
   - 1.1. BOUNDARY AND TOPOGRAPHIC INFORMATION AND WETLAND LIMITS BASED ON THE ATLA/NSPS LAND TITLE SURVEY TITLED "GLEN-GERY SITE ", PREPARED BY LANGAN ENGINEERING, LAST REVISED DECEMBER 7, 2023.
   - 1.2. SOILS LINEWORK AND INFORMATION PROVIDED BY USDA NRCS WEB SOIL SURVEY WEBSITE.
   - 1.3. PER THE MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, YORK COUNTY PENNSYLVANIA PANEL 189 OF 701, MAP NUMBER 42133C0189F, REVISED DATE: DECEMBER 15M 2015." THE ENTIRE SUBJECT PROPERTY LIES WITHIN ZONE "X" AREAS OF MINIMAL FLOODING.
   - 1.4. ADJACENT PROPERTY INFORMATION OBTAINED FROM DOVER TOWNSHIP GIS PUBLIC ZONING MAP ON JUNE 6, 2022.
   - 1.5. ZONING AND MUNICIPAL BOUNDARIES OBTAINED FROM A PLAN TITLED "DOVER TOWNSHIP ZONING MAP" BY NATHAN W. STONE.
   - 1.6. WELLHEAD PROTECTION AREAS WERE OBTAINED FROM DOVER TOWNSHIP WHPA 2010 GEOGRAPHIC INFORMATION SYSTEM (GIS) MAP LAYER AS SHOWN ON A PLAN TITLED "WELL HEAD PROTECTION AREA", DATED JANUARY 11, 2023, BY AMO ENVIRONMENTAL DECISIONS.
   - 1.7. A REPORT TITLED "WETLAND DELINEATION AND STREAM IDENTIFICATION REPORT FOR YORK INDUSTRIAL DEVELOPMENT" PREPARED BY LANGAN ENGINEERING, DATED JUNE 6, 2023.
2. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE SOUTH, NAD 83.
3. VERTICAL DATUM IS BASED ON NAVD 88.
4. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL.
5. THE GRANT OF A PERMIT OR APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL OR EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.
6. PER THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT FORM DATED FEBRUARY 14, 2023, BY AMO ENVIRONMENTAL DECISIONS, THE SUBJECT PROPERTY LIES WITHIN ZONE 3 WELL HEAD PROTECTION AREA. THE PROPOSED DEVELOPMENT AND ASSOCIATED ACTIVITIES ARE NOT PROHIBITED UNDER THE CODE OF ORDINANCES OF THE TOWNSHIP OF DOVER AND ARE NOT ANTICIPATED TO IMPACT THE WELL HEAD PROTECTION AREAS. WATER SUPPLY, STORMWATER, AND WASTEWATER MANAGEMENT AT THE SITE WILL BE REQUIRED TO MEET APPLICABLE REGULATIONS.
7. THE LOT BOUNDARIES SHOWN ARE BASED ON A PLAN TITLED "LOT CONSOLIDATION PLAN" FOR THE YORK INDUSTRIAL DEVELOPMENT PREPARED BY LANGAN ENGINEERING, LAST REVISED 11/17/2023. THE LOT CONSOLIDATION PLAN IS CURRENTLY UNDER REVIEW BY DOVER TOWNSHIP AND UPON APPROVAL WILL BE RECORDED BY YORK COUNTY AND SHOWN AS AN EXISTING CONDITION ON THIS PLAN.

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF UNDERGROUND UTILITIES, CONTACT THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

250 0 125 250
SCALE: 1 INCH = 250 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project: BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title: PRELIMINARY EXISTING RESOURCE MAP

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CB-100
Sheet 2 of 128

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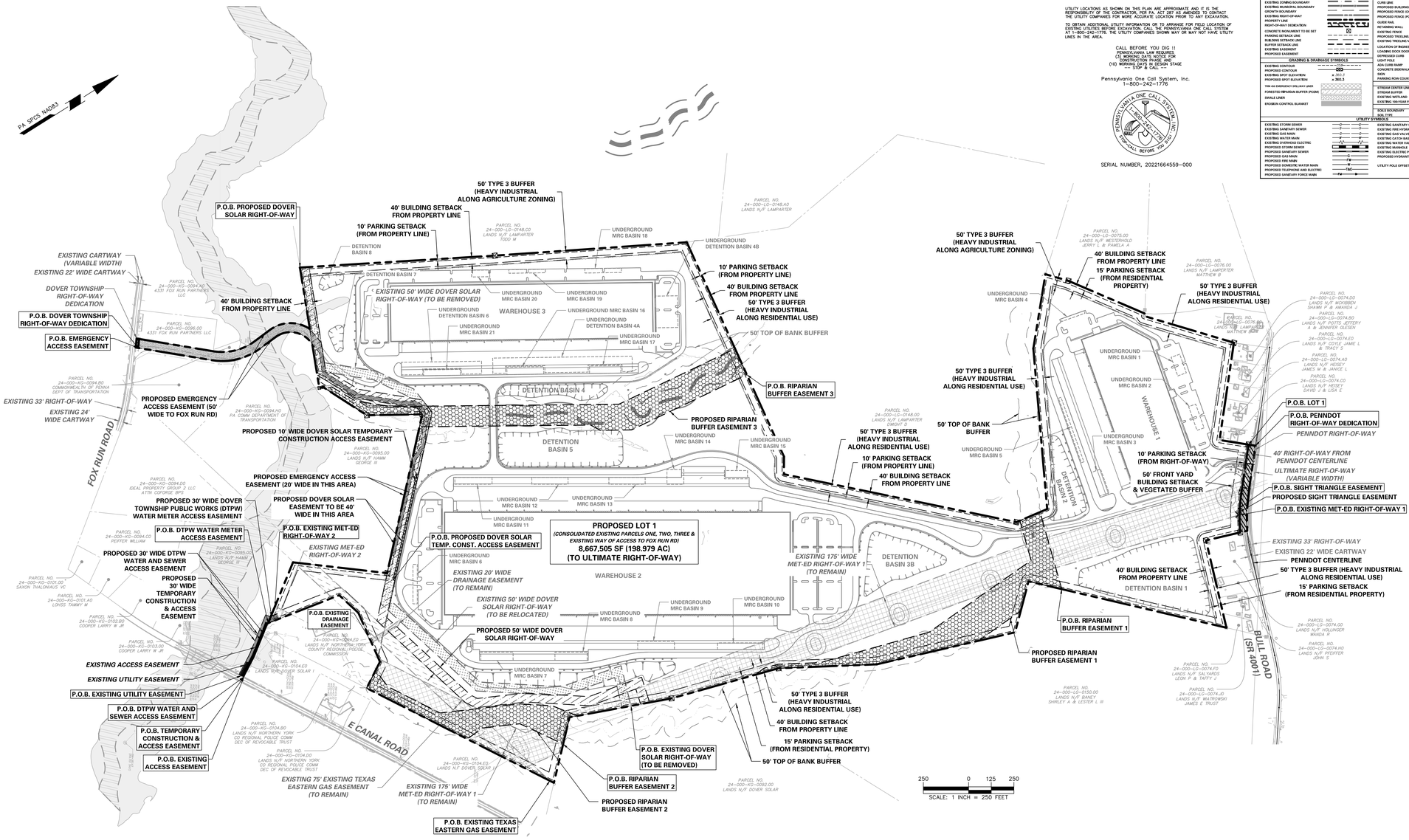
Date: 8/14/2025 Time: 14:06 User: bsollys Style Table: Langan.stb Layout: CB-100 Document Code: 200164401-0301:CB101-0101



ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

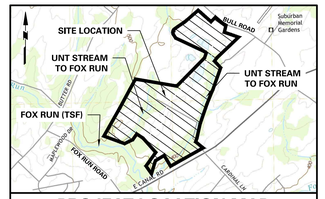
CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

LEGEND

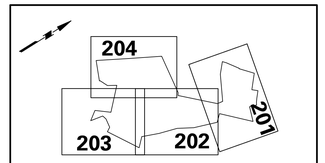
LOT SYMBOLS	SITE SYMBOLS
EXISTING ZONING BOUNDARY	CURB LINE
PROPOSED ZONING BOUNDARY	PROPOSED BUILDING LINE
GROWTH BOUNDARY	PROPOSED FENCE (CHAIN LINK)
EXISTING RIGHT-OF-WAY	PROPOSED FENCE (POST AND RAIL)
PROPERTY LINE	GUIDE RAIL
RIGHT-OF-WAY DEDICATION	RETAINING WALL
CONCRETE MONUMENT TO BE SET	EXISTING FENCE
PARKING SETBACK LINE	PROPOSED TREELINE/VEGETATIVE BUFFER
BUILDING SETBACK LINE	EXISTING TREELINE/VEGETATIVE BUFFER
BUFFER SETBACK LINE	LOCATION OF INGRESS/EGRESS
EXISTING EASEMENT	LOADING DOCK DOOR
PROPOSED EASEMENT	DEPRESSED CURB
GRADING & DRAINAGE SYMBOLS	LIGHT POLE
EXISTING CONTOUR	ADA CURB RAMP
PROPOSED CONTOUR	CONCRETE SIDEWALK
EXISTING SPOT ELEVATION	RAIN
PROPOSED SPOT ELEVATION	PARKING ROW COUNT
1984 AM EMERGENCY SPILLWAY LINER	**NATURAL FEATURES**
FORESTED RIPARIAN BUFFER (PCSM)	STREAM CENTER LINE
SWALE LINER	STREAM BUFFER
EROSION CONTROL BLANKET	EXISTING WETLAND
	EXISTING 100-YEAR FLOODPLAIN
	SOILS SYMBOLS
	SOILS BOUNDARY
	SOIL TYPE
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN	EXISTING GAS VALVE
EXISTING WATER MAIN	EXISTING CATCH BASIN
EXISTING OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
PROPOSED SANITARY SEWER	EXISTING ELECTRIC POLE
PROPOSED GAS MAIN	PROPOSED HYDRANT
PROPOSED FIRE MAIN	
PROPOSED DOMESTIC WATER MAIN	UTILITY POLE OFFSET
PROPOSED TELEPHONE AND ELECTRIC	
PROPOSED SANITARY FORCE MAIN	



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

NOTES:

1. PER SECTION 19-305.1. OF THE DOVER TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, "IN ORDER TO PROTECT AND IMPROVE WATER QUALITY, A RIPARIAN BUFFER EASEMENT SHALL BE CREATED AND RECORDED AS PART OF ANY SUBDIVISION OR LAND DEVELOPMENT. PER SECTION 19-305.2., "THE RIPARIAN BUFFER EASEMENT SHALL BE MEASURED TO BE THE GREATER OF THE LIMIT OF THE 100-YR FLOODPLAIN OR A MINIMUM OF 35 FT FROM THE TOP OF THE STREAMBANK (ON EACH SIDE)".

REFERENCE NOTES:

1. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCES:
   - A. DRAWING ENTITLED "ALTA/NSPS LAND TITLE SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., LAST REVISED DECEMBER 7, 2021.
   - B. DRAWING ENTITLED "PRELIMINARY/FINAL LOT CONSOLIDATION PLAN", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., LAST REVISED NOVEMBER 16, 2023.

EASEMENT AND RIGHT OF WAY DEDICATION LEGEND

MAP SYMBOL	DESCRIPTION	GRANTOR	GRANTEE	TOTAL AREA (ACRES)
	EXISTING DOVER SOLAR RIGHT-OF-WAY	TO BE RELINQUISHED	–	4.561
	PROPOSED DOVER SOLAR RIGHT-OF-WAY	BULL CANAL DOVER OWNER, LLC	DOVER SOLAR	4.741
	EXISTING MET-ED RIGHT-OF-WAY 1	BULL CANAL DOVER OWNER, LLC	MET-ED	18.612
	EXISTING MET-ED RIGHT-OF-WAY 2	BULL CANAL DOVER OWNER, LLC	MET-ED	0.112
	EXISTING TEXAS EASTERN GAS EASEMENT	BULL CANAL DOVER OWNER, LLC	TEXAS EASTERN	2.713
	EXISTING DRAINAGE EASEMENT	BULL CANAL DOVER OWNER, LLC	NORTHERN YORK COUNTY REGIONAL POLICE COMMISSION	0.090
	EXISTING UTILITY EASEMENT	HAMM GEORGE III	DOVER TOWNSHIP	0.019
	EXISTING ACCESS EASEMENT	HAMM GEORGE III/ NYCRPD	DOVER TOWNSHIP	0.112
	PROPOSED RIGHT-OF-WAY DEDICATION (BULL ROAD)	BULL CANAL DOVER OWNER, LLC	PENNDOT	0.442
	PROPOSED RIGHT-OF-WAY DEDICATION (FOX RUN ROAD)	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	0.015
	PROPOSED DTPW WATER METER ACCESS EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP PUBLIC WORKS	0.035
	PROPOSED DTPW WATER AND SEWER ACCESS EASEMENT	HAMM GEORGE III/ NYCRPD	DOVER TOWNSHIP, PUBLIC WORKS	0.249
	PROPOSED RIPARIAN BUFFER EASEMENT 1	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	5.012
	PROPOSED RIPARIAN BUFFER EASEMENT 2	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	2.795
	PROPOSED RIPARIAN BUFFER EASEMENT 3	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	6.162
	PROPOSED SIGHT TRIANGLE EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	0.022
	PROPOSED DOVER SOLAR TEMPORARY CONSTRUCTION & ACCESS EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER SOLAR	0.137
	PROPOSED EMERGENCY ACCESS EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	1.979
	PROPOSED TEMPORARY CONSTRUCTION & ACCESS EASEMENT	HAMM GEORGE III/ NYCRPD	BULL CANAL DOVER OWNER, LLC	0.249

NOTES:
1. DTPW = DOVER TOWNSHIP PUBLIC WORKS
2. NYCRPD = NORTHERN YORK COUNTY REGIONAL POLICE DEPARTMENT

TITLE EXCEPTIONS

CHICAGO TITLE INSURANCE COMPANY
ORDER NO.: PIT220161
COMMITMENT DATE: MAY 2, 2022

SCHEDULE B, PART II EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. UNRECORDED EASEMENTS, DISCREPANCIES OR CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA AND ENCROACHMENTS WHICH AN ACCURATE AND COMPLETE SURVEY WOULD DISCLOSE.
2. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.
3. REAL ESTATE TAXES FOR THE CURRENT AND PRIOR TAX YEARS WHICH MAY BE HEREAFTER ASSESSED, NOT YET DUE AND PAYABLE.
4. ANY LIEN OR RIGHT TO A LIEN FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
5. ALL CREEKS, STREAMS OR RUNS IN ANY WAY AFFECTING THE PREMISES.
6. THIS POLICY DOES NOT INSURE THE ACCURACY OF THE ACREAGE CONTENT OF THE LAND.
7. TERMS AND CONDITIONS OF CONTRACTUAL CONSENT OF LANDOWNER BY GLEN-GERY CORPORATION AND THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, DATED JULY 30, 1975 AND REORDED IN RECORD BOOK 87-A, PAGE 705.
8. RIGHTS OF THE PUBLIC TO THAT PORTION OF THE PROPERTY DESCRIBED TO A SPIKE IN BULL ROAD, A/K/A LEGISLATIVE ROUTE NO. 66102.
9. RIGHTS OF THOSE ENTITLED TO A PRIVATE LANE THAT LIES WITHIN THE SUBJECT PROPERTY.
10. RIGHT OF WAY BY PAUL J. BINDER, ET UX., TO METROPOLITAN EDISON COMPANY, DATED AUGUST 26, 1955 AND RECORDED IN RECORD BOOK 43-I-511.
11. RIGHT OF WAY BY PAUL J. BINDER, ET UX., TO METROPOLITAN EDISON COMPANY, DATED NOVEMBER 22, 1963 AND RECORDED IN RECORD BOOK 55-K-105.
12. TERMS AND CONDITIONS OF CONTRACTUAL CONSENT OF LANDOWNER BY GLEN-GERY CORPORATION AND THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, DATED OCTOBER 7, 1996 AND REORDED IN RECORD BOOK 1274, PAGE 5564.
13. FRONTAGE ON A PUBLIC STREET IS NOT INSURED, BUT ACCESS TO A PUBLIC ROAD IS INSURED.
14. PROPORTIONATE COST FOR MAINTENANCE AND REPAIR OF THAT PRIVATE LANE FOR ACCESS TO THE PUBLIC ROAD BENEFITING THE PROPERTY.
15. AGREEMENT BY DAVID HENEISE AND DAVID MEISENHELTER FOR A TRENCH OR DITCH FOR WATER OVERFLOW, DATED JANUARY 21, 1879 AND RECORDED IN RECORD BOOK 6-K-75.
16. RIGHT OF WAY BY THOMAS C. MILLS, ET AL., TO DEFENSE PLANT CORPORATION, DATED JULY 29, 1943 AND RECORDED IN RECORD BOOK 29-W-672.
17. RIGHT OF WAY BY A. NELSON HORN, ET UX., TO METROPOLITAN EDISON COMPANY, DATED JULY 25, 1955 AND RECORDED IN RECORD BOOK 41-G-206; AS AS RE-RECORDED IN RECORD BOOK 43-F-175.
18. RIGHT OF WAY BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED MARCH 9, 1983 AND RECORDED IN RECORD BOOK 85-Q, PAGE 632.
19. RIGHT OF WAY BY GLEN-GERY SHALE BRICK CORP., N/K/A GLEN-GERY CORPORATION, AND TO DOVER SOLAR I, LLC, DATED APRIL 10, 2020 AND RECORDED IN RECORD BOOK 2569, PAGE 8140.
20. FRONTAGE ON A PUBLIC STREET IS NOT INSURED, BUT ACCESS TO A PUBLIC ROAD IS INSURED.
21. MATTERS SHOWN ON THE FINAL SUBDIVISION PLAN OF GLEN-GERY SHALE BRICK CORP., RECORDED IN PLAN BOOK RR-308.
22. MATTERS SHOWN ON THE REVISED FINAL SUBDIVISION PLAN OF GLEN-GERY SHALE BRICK CORP., RECORDED IN PLAN BOOK RR-567.
23. RIGHT OF WAY BY PAUL L. GROSS TO EDISON LIGHT AND POWER COMPANY, DATED MAY 16, 1938 AND RECORDED IN RECORD BOOK 27-H, PAGE 573.
24. RIGHT OF WAY BY PAUL L. GROSS, ET UX., TO DEFENSE PLANT CORPORATION, DATED DECEMBER 24, 1942 AND RECORDED IN RECORD BOOK 29-N, PAGE 629.
25. RIGHT OF WAY BY PAUL L. GROSS, ET UX., TO DEFENSE PLANT CORPORATION, DATED DECEMBER 24, 1942 AND RECORDED IN RECORD BOOK 29-N, PAGE 646.
26. RIGHT OF WAY BY WALTER J. KATHERMAN, JR., ET UX., TO YORK TELEPHONE AND TELEGRAPH COMPANY, DATED SEPTEMBER 7, 1954 AND RECORDED IN RECORD BOOK 39-P, PAGE 502.
27. RIGHT OF WAY BY WALTER H. KATHERMAN, JR., ET UX., TO METROPOLITAN EDISON COMPANY, DATED MAY 25, 1956 AND RECORDED IN RECORD BOOK 43-I, PAGE 180.
28. THE PROPORTIONATE COST FOR MAINTENANCE AND REPAIR OF AN EASEMENT FOR INGRESS, EGRESS AND REGRESS, AS SET FORTH IN AGREEMENT BY WALTER J. KATHERMAN, JR., ET UX., TO GLEN-GERY SHALE BRICK CORP., DATED AUGUST 7, 1956 AND RECORDED IN RECORD BOOK 704, PAGE 279.
29. RIGHT OF WAY BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED MARCH 9, 1983 AND RECORDED IN RECORD BOOK 85-Q, PAGE 632.
30. RIGHT OF WAY BY GLEN-GERY CORPORATION TO TEXAS EASTERN TRANSMISSION CORPORATION, DATED JUNE 30, 1987 AND RECORDED IN RECORD BOOK 100-Z, PAGE 216.
31. EASEMENT BY GLEN-GERY CORPORATION TO METROPOLITAN EDISON COMPANY, DATED FEBRUARY 18, 1992 AND RECORDED IN RECORD BOOK 386, PAGE 231.
32. RIGHT OF WAY BY GLEN-GERY SHALE BRICK CORP., N/K/A GLEN-GERY CORPORATION, AND TO DOVER SOLAR I, LLC, DATED APRIL 10, 2020 AND RECORDED IN RECORD BOOK 2569, PAGE 8140.

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

LOT AREA TABLE

EXISTING GROSS LOT AREAS		PROPOSED GROSS LOT AREAS		PROPOSED NET LOT AREAS	
PARCEL ONE AREA TO TITLE LINES	1,737,091 SF 39,878 AC	LOT 1 *SEE NOTE 1	8,687,441 SF 199.436 AC	LOT 1 *SEE NOTE 2	8,667,505 SF 198.979 AC
PARCEL TWO	4,319,833 SF 99.170 AC			RIGHT-OF-WAY DEDICATION TO PENNDOT (BULL ROAD) *SEE NOTE 3	19,261 SF 0.442 AC
PARCEL THREE	2,579,346 SF 59.214 AC			RIGHT-OF-WAY DEDICATION TO DOVER TOWNSHIP (FOX RUN ROAD)	675 SF 0.015 AC
WAY OF ACCESS TO FOX RUN ROAD	51,171 SF 1.175 AC				
TOTAL	8,687,441 SF 199.436 AC	TOTAL	8,687,441 SF 199.436 AC	TOTAL	8,687,441 SF 199.436 AC

NOTES:
1. PROPOSED GROSS LOT AREA INCLUDES TOTAL LOT AREA UP TO EXISTING TITLE LINES (BEFORE RIGHT-OF-WAY DEDICATIONS).
2. PROPOSED NET LOT AREA INCLUDES LOT AREA UP TO ULTIMATE RIGHT-OF-WAY (AFTER RIGHT-OF-WAY DEDICATIONS).
3. BULL ROAD IS A STATE ROAD AND OWNED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT). THEREFORE, THE PENNDOT CENTERLINE WAS USED TO DETERMINE THE 40' RIGHT-OF-WAY TO BE OFFERED FOR DEDICATION TO PENNDOT. THE RIGHT-OF-WAY DEDICATION AREA AND ULTIMATE RIGHT-OF-WAY VARY WIDTH BECAUSE THE EXISTING PROPERTY TITLE LINES WITHIN BULL ROAD AND EXISTING RIGHT-OF-WAY LINES DO NOT FOLLOW THE PENNDOT CENTERLINE.

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL SHAUN S. HIGGINS LAND SURVEYOR No. 051088-E

Signature 8/15/2025 Date

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- PROPOSED ZONING BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

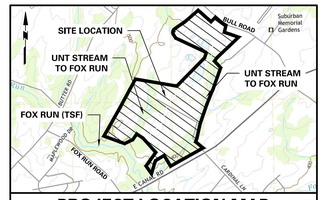
GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (▲ 360.3)
- PROPOSED SPOT ELEVATION (× 360.3)
- 1984 ASI EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- CURB RAS
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- RAIN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

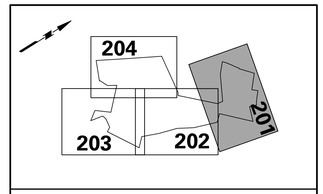
UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

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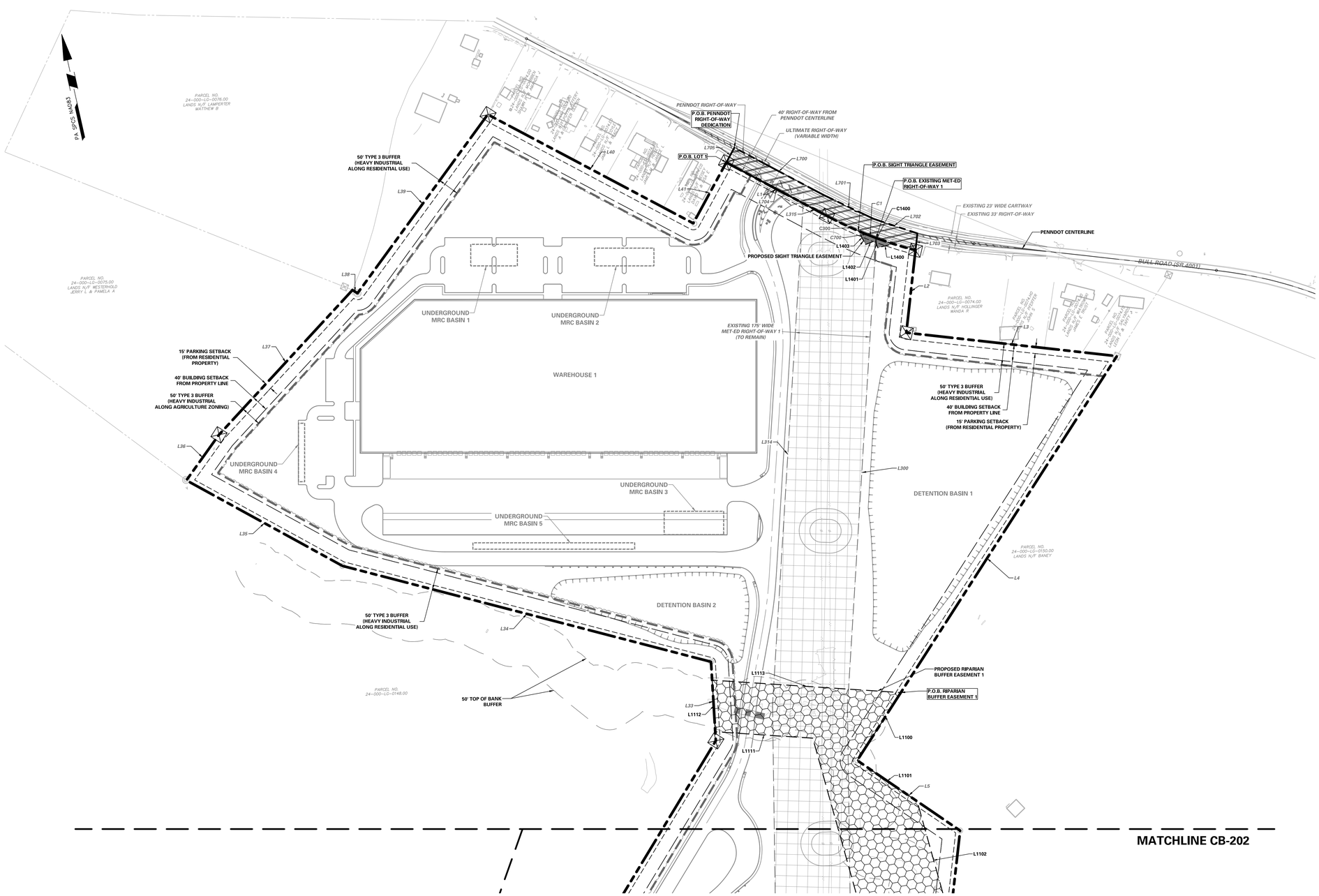
   - B. DRAWING ENTITLED "PRELIMINARY/FINAL LOT CONSOLIDATION PLAN", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., LAST REVISED AUGUST 24, 2023.

NOTES:

1. PER SECTION 19-305.1. OF THE DOVER TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, "IN ORDER TO PROTECT AND IMPROVE WATER QUALITY, A RIPARIAN BUFFER EASEMENT SHALL BE CREATED AND RECORDED AS PART OF ANY SUBDIVISION OR LAND DEVELOPMENT. PER SECTION 19-305.2., "THE RIPARIAN BUFFER EASEMENT SHALL BE MEASURED TO BE THE GREATER OF THE LIMIT OF THE 100-YR FLOODPLAIN OR A MINIMUM OF 25 FT FROM THE TOP OF THE STREAMBANK (ON EACH SIDE)".



MATCHLINE CB-202

EASEMENT AND RIGHT OF WAY DEDICATION LEGEND

MAP SYMBOL	DESCRIPTION	GRANTOR	GRANTEE	TOTAL AREA (ACRES)
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	EXISTING UTILITY EASEMENT	HAMM GEORGE III	DOVER TOWNSHIP	0.019
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NOTES:
1. DTPW = DOVER TOWNSHIP PUBLIC WORKS
2. NYCRPD = NORTHERN YORK COUNTY REGIONAL POLICE DEPARTMENT

100 0 50 100
SCALE: 1 INCH = 100 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL LAND SURVEYOR No. SU-051088-E SHAUN J. HIGGINS

Signature 8/15/2025 Date

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E

LANGAN
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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY EASEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 8/24/2023
Drawn By MR
Checked By SMH

Drawing No. CB-201
Sheet 4 of 128

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Date: 8/14/2025 Time: 14:07 User: bsoltys Style Table: Langan.stb Layout: CB-201 Document Code: 200164401-0301-CB201-0103

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- PROPOSED ZONING BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION — ▲ 360.3
- PROPOSED SPOT ELEVATION — + 360.3
- 1984 AM EMERGENCY SPILLWAY LIMIT
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
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- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
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- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
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- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- RAIN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
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- EXISTING MANHOLE
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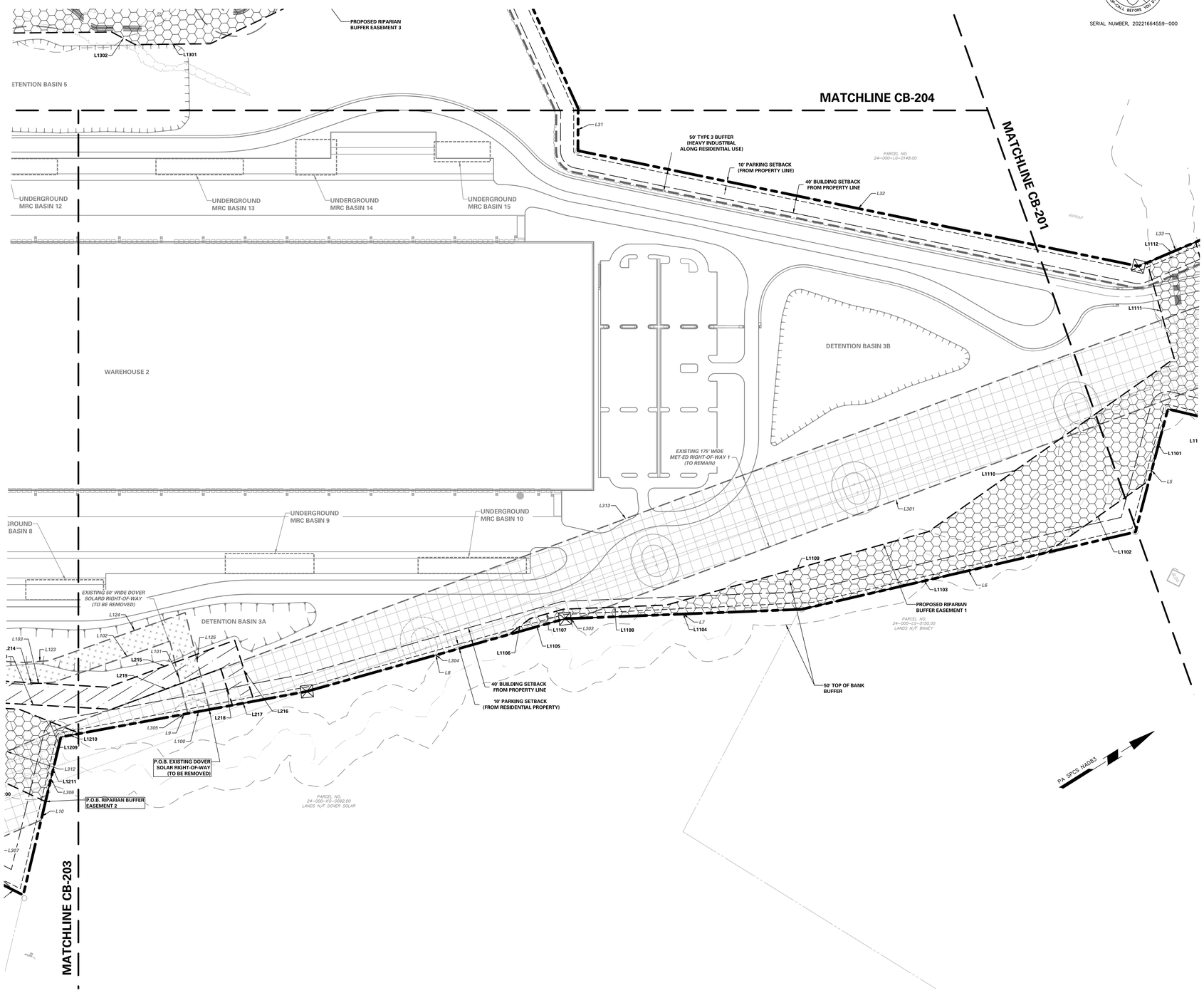

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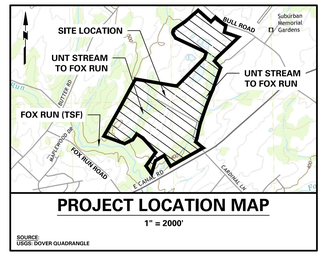
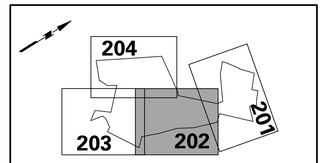
SCALE: 1 INCH = 100 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



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NOTES:

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EASEMENT AND RIGHT OF WAY DEDICATION LEGEND

MAP SYMBOL	DESCRIPTION	GRANTOR	GRANTEE	TOTAL AREA (ACRES)
	EXISTING DOVER SOLAR RIGHT-OF-WAY	TO BE RELINQUISHED	–	4.561
	PROPOSED DOVER SOLAR RIGHT-OF-WAY	BULL CANAL DOVER OWNER, LLC	DOVER SOLAR	4.741
	EXISTING MET-ED RIGHT-OF-WAY 1	BULL CANAL DOVER OWNER, LLC	MET-ED	18.612
	EXISTING MET-ED RIGHT-OF-WAY 2	BULL CANAL DOVER OWNER, LLC	MET-ED	0.112
	EXISTING TEXAS EASTERN GAS EASEMENT	BULL CANAL DOVER OWNER, LLC	TEXAS EASTERN	2.713
	EXISTING DRAINAGE EASEMENT	BULL CANAL DOVER OWNER, LLC	NORTHERN YORK COUNTY REGIONAL POLICE COMMISSION	0.090
	EXISTING UTILITY EASEMENT	HAMM GEORGE III	DOVER TOWNSHIP	0.019
	EXISTING ACCESS EASEMENT	HAMM GEORGE III/ NYCRPD	DOVER TOWNSHIP	0.112
	PROPOSED RIGHT-OF-WAY DEDICATION (BULL ROAD)	BULL CANAL DOVER OWNER, LLC	PENNDOT	0.442
	PROPOSED RIGHT-OF-WAY DEDICATION (FOX RUN ROAD)	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	0.015
	PROPOSED DTPW WATER METER ACCESS EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP PUBLIC WORKS	0.035
	PROPOSED DTPW WATER AND SEWER ACCESS EASEMENT	HAMM GEORGE III/ NYCRPD	DOVER TOWNSHIP PUBLIC WORKS	0.249
	PROPOSED RIPARIAN BUFFER EASEMENT 1	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	5.012
	PROPOSED RIPARIAN BUFFER EASEMENT 2	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	2.795
	PROPOSED RIPARIAN BUFFER EASEMENT 3	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	6.162
	PROPOSED SIGHT TRIANGLE EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER TOWNSHIP	0.022
	PROPOSED DOVER SOLAR TEMPORARY CONSTRUCTION & ACCESS EASEMENT	BULL CANAL DOVER OWNER, LLC	DOVER SOLAR	0.137
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Revisions		
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — SHAUN E. HIGGINS — LAND SURVEYOR — No. SU051088-E

Signature 8/15/2025 Date

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E

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Drawing No. CB-202
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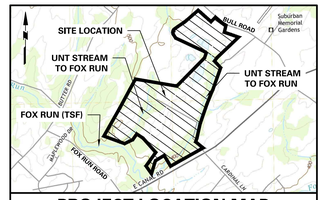

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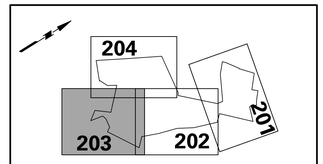

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Revisions

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E
Signature — 8/15/2025 Date

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100 0 50 100
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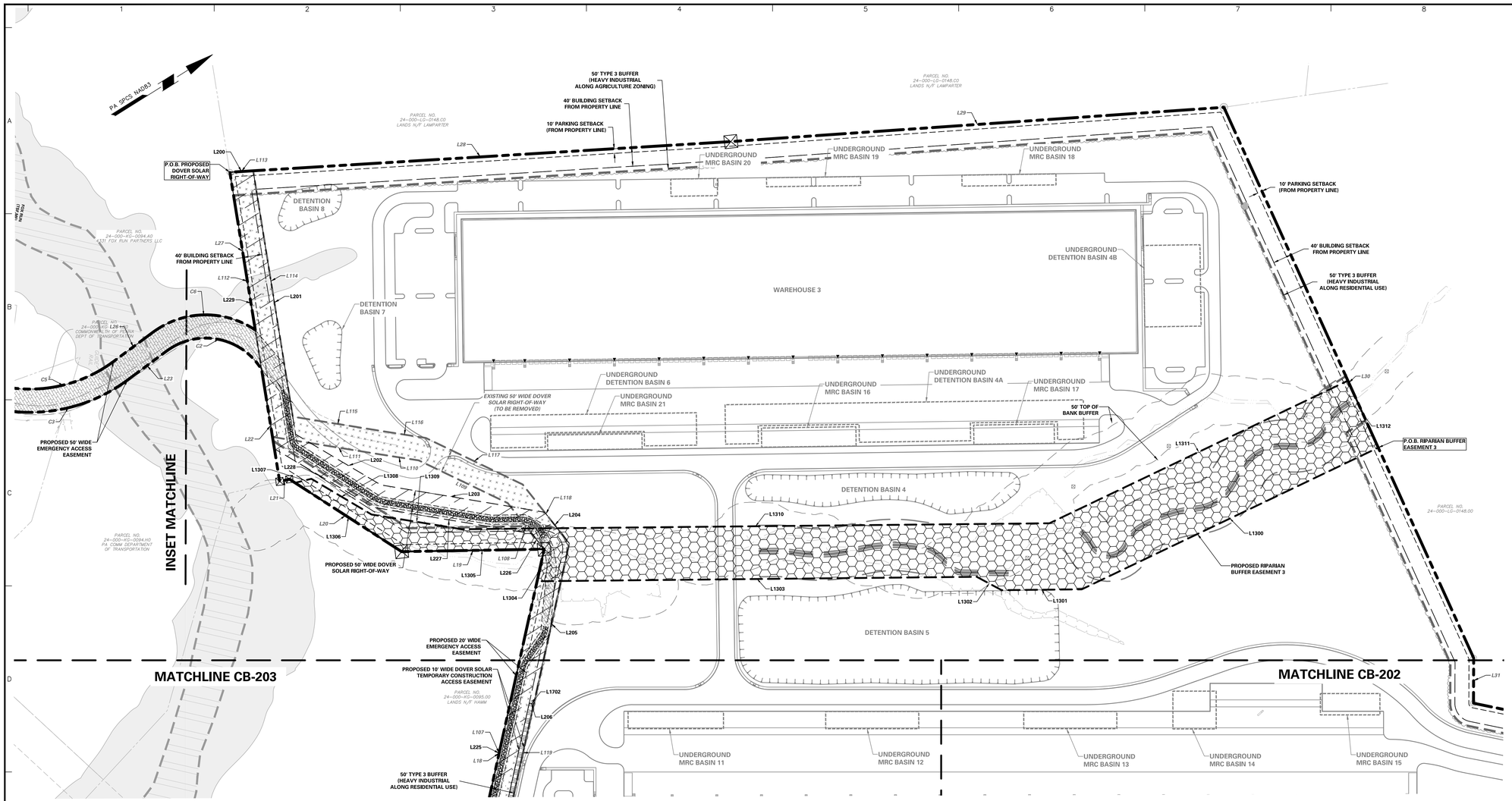

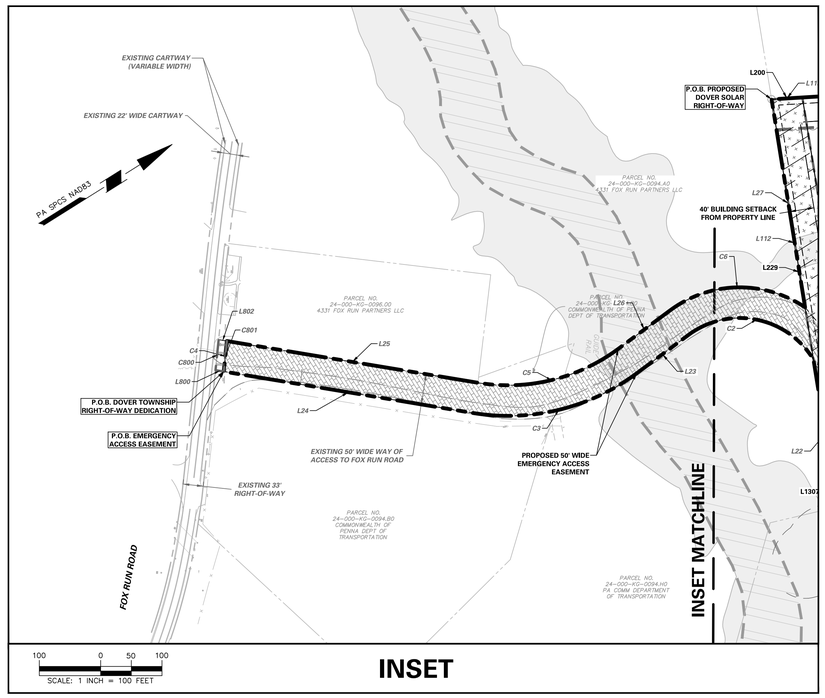

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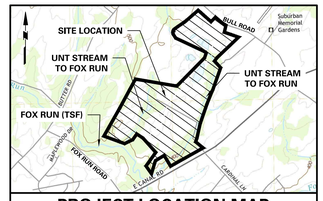

PROJECT LOCATION MAP

1" = 2000'

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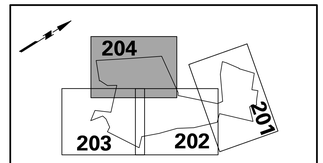

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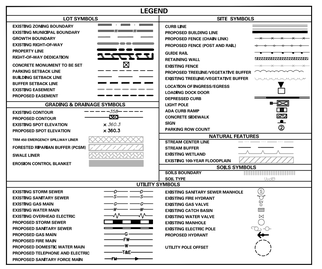

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SERIAL NUMBER, 20221664559-000

No.	Revisions	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — SHAUN S. HIGGINS — LAND SURVEYOR — No. 051088-E

Signature 8/15/2025 Date

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project: BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title: PRELIMINARY EASEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 8/24/2023
Drawn By MR
Checked By SMH

Drawing No. CB-204
Sheet 7 of 128

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LOT 1

Parcel Line and Curve Table
LOT 1

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L1	266.25	S49° 22' 13"E			
C1	222.36	S56° 08' 49"E	940.00	940.000	13°33'12"
L2	193.86	S19° 00' 02"W			
L3	495.00	S70° 59' 58"E			
L4	1122.64	S45° 21' 42"W			
L5	291.00	S43° 03' 04"E			
L6	784.21	S19° 07' 36"W			
L7	542.89	S29° 52' 51"W			
L8	613.80	S16° 27' 06"W			
L9	572.90	S21° 39' 22"W			
L10	371.87	S44° 25' 12"E			
L11	1158.47	S58° 59' 33"W			
L12	162.92	N31° 00' 27"W			
L13	295.38	N81° 39' 44"W			
L14	143.91	S74° 56' 20"W			
L15	422.01	S10° 43' 09"W			
L16	362.64	N35° 33' 57"W			
L17	523.63	N38° 41' 48"E			
L18	898.08	N45° 23' 12"W			
L19	306.43	S31° 10' 48"W			
L20	287.07	S65° 01' 18"W			
L21	21.46	S18° 57' 03"W			
L22	243.23	N66° 58' 57"W			
C2	234.12	S43° 22' 42"W	140.41	140.410	95°32'06"

Parcel Line and Curve Table
LOT 1

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L23	105.48	S4° 24' 48"E			
C3	281.87	S18° 35' 46"W	350.94	350.940	46°01'09"
L24	411.81	S41° 36' 21"W			
C4	50.01	N51° 58' 12"W	33571.55	33571.553	0°05'07"
L25	414.92	N41° 36' 21"E			
C5	241.71	N18° 35' 47"E	300.94	300.940	46°01'08"
L26	105.48	N4° 24' 48"W			
C6	234.64	N30° 53' 21"E	190.41	190.410	70°36'18"
L27	343.47	N66° 58' 57"W			
L28	1078.69	N28° 40' 03"E			
L29	1062.17	N28° 11' 22"E			
L30	1299.76	S82° 13' 27"E			
L31	97.03	S57° 34' 30"E			
L32	1310.76	N43° 48' 30"E			
L33	184.83	N9° 10' 30"E			
L34	889.66	N62° 45' 38"W			
L35	415.89	N48° 36' 18"W			
L36	130.87	N48° 13' 42"E			
L37	459.87	N55° 20' 33"E			
L38	14.03	S45° 16' 22"E			
L39	516.76	N48° 43' 33"E			
L40	543.30	S49° 26' 18"E			
L41	161.81	N41° 08' 22"E			

EXISTING EASEMENTS TO REMAIN

Parcel Line and Curve Table
EXISTING MET-ED RIGHT-OF-WAY 1

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L300	1098.24	N16° 09' 11"E			
L301	1560.43	N11° 50' 10"E			
L303	27.27	N29° 52' 51"E			
L304	613.80	N16° 27' 06"E			
L305	572.90	N21° 39' 22"E			
L306	195.33	N44° 25' 12"W			
L307	222.54	N8° 29' 18"E			
L308	975.97	N58° 59' 33"E			
L309	162.92	S31° 00' 27"E			
L310	19.05	S81° 39' 44"E			
L311	908.16	S58° 59' 33"W			
L312	262.76	S8° 29' 18"W			
L313	2765.43	S11° 50' 10"W			
L314	1175.26	S16° 09' 12"W			
L315	62.93	N49° 22' 13"W			
C300	125.90	N53° 12' 26"W	940.00	940.000	7°40'26"

Parcel Line Table
EXISTING MET-ED RIGHT-OF-WAY 2

Line #	Length	Direction
L400	97.38	S58° 59' 33"W
L401	134.30	N10° 43' 09"E
L402	100.55	S35° 33' 57"E

Parcel Line and Curve Table
EXISTING ACCESS EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L2200	15.00	S59° 36' 30.9"W			
L2201	125.38	N30° 23' 12.6"W			
L2202	199.51	N35° 37' 05.6"W			
L2203	15.00	N54° 22' 54.4"E			
L2204	200.19	S35° 37' 05.6"E			
L2205	126.07	S30° 23' 12.6"E			

Parcel Line Table
EXISTING TEXAS EASTERN GAS EASEMENT

Line #	Length	Direction
L500	272.99	S58° 59' 33"W
L501	1056.73	S74° 56' 20"W
L502	94.43	N81° 39' 44"W
L503	143.91	S74° 56' 20"W
L504	41.64	S10° 43' 09"W
L505	288.57	S74° 56' 20"W
L506	126.86	N38° 41' 48"E
L507	1754.15	N74° 56' 20"E

Parcel Line Table
EXISTING DRAINAGE EASEMENT

Line #	Length	Direction
L600	22.56	N81° 39' 44"W
L601	34.50	N13° 25' 16"E
L602	26.88	N1° 42' 38"E
L603	37.06	N0° 09' 21"E
L604	11.22	N6° 00' 50"W
L605	38.82	N4° 14' 11"W
L606	50.68	N5° 04' 00"W
L607	6.49	N58° 59' 33"E
L608	34.41	S31° 00' 27"E
L609	105.52	S3° 13' 17"E
L610	25.15	S1° 34' 59"W
L611	39.41	S7° 14' 30"W
L612	5.62	S16° 46' 56"W

Parcel Line and Curve Table
EXISTING UTILITY EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L1900	80.62	N30° 23' 12.6"W			
L1901	10.00	N59° 36' 47.4"E			
L1902	80.61	S30° 23' 12.6"E			
L1903	10.00	S59° 36' 30.9"W			

RIGHT-OF-WAY

Parcel Line and Curve Table
PENNDOT RIGHT-OF-WAY (BULL ROAD) DEDICATION

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L700	236.19	N49° 23' 58"W			
L701	129.40	N51° 53' 38"W			
L702	107.59	N58° 58' 31"W			
L703	39.72	N19° 00' 02"E			
C700	222.36	S56° 08' 49"E	940.00	940.000	13°33'12"
L704	266.25	S49° 22' 13"E			
L705	39.33	S41° 08' 22"W			

Parcel Line and Curve Table
DOVER TOWNSHIP RIGHT-OF-WAY (FOX RUN ROAD) DEDICATION

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L800	13.53	S41° 36' 21"W			
C800	50.01	N51° 58' 17"W	33558.06	33558.056	0°05'07"
L802	13.53	N41° 36' 21"E			
C801	50.01	S51° 58' 12"E	33571.55	33571.552	0°05'07"

PROPOSED EASEMENTS

Parcel Line Table
PROPOSED RIPARIAN BUFFER EASEMENT 1

Line #	Length	Direction
L1100	188.41	S45° 21' 42"W
L1101	169.39	S43° 02' 17"E
L1102	285.88	S2° 58' 17"E
L1103	576.12	S19° 07' 36"W
L1104	542.89	S29° 52' 51"W
L1105	132.83	S16° 27' 06"W
L1106	60.57	N4° 54' 52"W
L1107	79.01	N16° 27' 06"E
L1108	236.33	N29° 52' 51"E
L1109	622.88	N16° 30' 55"E
L1110	687.95	N2° 58' 17"W
L1111	228.19	N73° 34' 15"W
L1112	120.82	N9° 10' 30"E
L1113	441.81	S73° 34' 15"E

Parcel Line Table
PROPOSED RIPARIAN BUFFER EASEMENT 2

Line #	Length	Direction
L1200	263.95	N57° 18' 48"E
L1201	207.57	N25° 36' 24"E
L1202	103.88	N3° 24' 26"W
L1203	622.15	N58° 59' 33"E
L1204	110.60	S31° 00' 27"E
L1205	111.78	S85° 54' 25"W
L1206	323.18	S58° 59' 33"W
L1207	441.25	S25° 36' 24"W
L1208	181.77	S35° 28' 41"W
L1209	150.14	S53° 54' 02"W
L1210	44.40	N21° 39' 22"E
L1211	151.85	N44° 25' 12"W

Parcel Line and Curve Table
PROPOSED TEMPORARY CONSTRUCTION & ACCESS EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction
L2300	30.00	S59° 36' 31"W
L2301	124.71	N30° 23' 13"W
L2302	235.93	N35° 37' 06"W
L2303	30.00	N54° 22' 54"E
L2304	237.30	S35° 37' 06"E
L2305	126.07	S30° 23' 13"E

Parcel Line and Curve Table
PROPOSED DTPW WATER AND SEWER ACCESS EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction
L2100	30.00	S59° 36' 31"W
L2101	124.71	N30° 23' 13"W
L2102	235.93	N35° 37' 06"W
L2103	30.00	N54° 22' 54"E
L2104	237.30	S35° 37' 06"E
L2105	126.07	S30° 23' 13"E

Parcel Line Table
PROPOSED DOVER SOLAR EASEMENT

Line #	Length	Direction
L200	50.24	N28° 40' 03"E
L201	573.62	S66° 58' 57"E
L202	213.48	N62° 51' 33"E
L203	356.35	N41° 37' 23"E
L204	85.44	N83° 51' 05"E
L205	353.62	S45° 23' 12"E
L206	10.00	S44° 36' 48"W
L207	568.06	S45° 23' 12"E
L208	29.88	S45° 43' 22"E
L209	10.00	N44° 16' 38"E
L210	210.90	S45° 43' 22"E
L211	628.19	N74° 56' 20"E
L212	43.26	N58° 59' 33"E
L213	266.21	N25° 36' 24"E
L214	352.52	N35° 28' 41"E
L215	309.36	N11° 50' 10"E
L216	146.36	S75° 33' 36"E
L217	50.40	S21° 39' 22"W
L218	87.70	N75° 33' 36"W
L219	267.50	S11° 50' 10"W
L220	358.66	S35° 28' 41"W
L221	276.89	S25° 36' 24"W
L222	65.26	S58° 59' 33"W
L223	663.68	S74° 56' 20"W
L224	269.39	N45° 43' 22"W
L225	898.08	N45° 23' 12"W
L226	42.41	S83° 51' 05"W
L227	346.41	S41° 37' 23"W
L228	246.25	S62° 51' 33"W
L229	601.97	N66° 58' 57"W

Parcel Line and Curve Table
PROPOSED RIPARIAN BUFFER 3

Line #/Curve #	Length	Bearing
L1300	706.36	S6°37'30"W
L1301	172.05	S31°35'14"W
L1302	60.82	S60°18'53"W
L1303	944.77	S31°35'14"W
L1304	70.61	N45°23'12"W
L1305	306.43	S31°10'48"W
L1306	272.50	S65°01'18"W
L1307	36.10	N18°13'46"E
L1308	150.42	N62°51'33"E
L1309	196.70	N41°24'32"E
L1310	1262.72	N31°35'14"E
L1311	710.82	N6°37'30"E
L1312	158.03	S82°13'27"E

Parcel Line and Curve Table
PROPOSED DTPW WATER METER ACCESS EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
L1000	41.51	N35° 33' 57.2"W			
L1001	36.33	N10° 43' 08.8"E			
L1002	30.00	S79° 16' 51.2"E			
L1003	65.01	S10° 43' 08.8"W			

EXISTING EASEMENT TO BE RELINQUISHED

Parcel Line Table
EXISTING DOVER SOLAR EASEMENT TBR

Line #	Length	Direction
L100	50.09	N21° 39' 22"E
L101	170.61	S71° 48' 51"E
L102	282.05	N12° 40' 33"E
L103	68.70	N28° 16' 13"E
L104	430.21	N35° 28' 41"E
L105	715.27	N74° 33' 58"E
L106	172.10	S45° 43' 22"E
L107	898.08	S45° 23' 12"E
L108	126.13	N83° 51' 05"E
L109	212.05	N57° 49' 37"E
L110	85.52	N41° 02' 41"E
L111	233.00	N41° 21' 47"E
L112	576.30	S66° 58' 57"E

Parcel Line Table
EXISTING DOVER SOLAR EASEMENT TBR

Line #	Length	Direction
L113	50.24	S28° 40' 03"W
L114	535.26	N66° 58' 57"W
L115	196.76	S41° 21' 47"W
L116	92.76	S41° 02' 41"W
L117	230.98	S57° 49' 37"W
L118	161.41	S83° 51' 05"W
L119	921.65	N45° 23' 12"W
L120	143.26	N45° 43' 22"W
L121	668.82	S74° 33' 58"W
L122	409.31	S35° 28' 41"W
L123	58.70	S28° 16' 13"W
L124	330.26	S12° 40' 33"W
L125	228.69	N71° 48' 51"W

Parcel Line Table
PROPOSED DOVER SOLAR TEMPORARY CONSTRUCTION & ACCESS EASEMENT

Line #	Length	Direction
L1700	29.88	N45° 43' 22"W
L1701	568.06	N45° 23' 12"W
L1702	10.00	N44° 36' 48"E
L1703	568.03	S45° 23' 12"E
L1704	29.85	S45° 43' 22"E
L1705	10.00	S44° 16' 38"W

Parcel Line and Curve Table
PROPOSED SIGHT TRIANGLE EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
C1400	87.65	N56° 59' 25"W	940.00	940.000	5°20'34"
L1400	37.92	N89° 05' 57"E			
L1401	17.24	S6° 15' 16"E			
L1402	24.20	N81° 20' 16"E			
L1403	36.18	S15° 38' 45"E			

Parcel Line and Curve Table
PROPOSED EMERGENCY ACCESS EASEMENT

Line #/Curve #	Length	Bearing/Chord Direction	Chord Length	Radius	Delta
C1800	50.01	S51° 58' 12"E	33571.55	33571.554	0°05'07"
L1800	414.92	S41° 36' 21"W			
C1801	241.71	S18° 35' 47"W	300.94	300.940	46°01'08"
L1801	105.48	S4° 24' 48"E			
C1802	234.64	S30° 53' 21"W	190.41	190.410	70°36'18"
L1802	97.22	S82° 03' 59"W			
L1803	169.66	N66° 58' 57"W			
L1804	214.87	S65° 01' 18"W			
L1805	241.01	S41° 37' 23"W			
L1806	72.35	S31° 10' 48"W			
L1807	40.76	S59° 52' 27"W			
L1808	54.56	N83° 41' 05"W			
L1809	40.82	N68° 04' 54"W			
L1810	150.72	N52° 21' 40"W			
L1811	82.43	N22° 57' 39"W			
L1812	542.23	N45° 23' 12"W			
L1813	20.00	N44° 36' 43"E			
L1814	546.19	S45° 23' 12"E			
L1815	81.15	S22° 57' 39"E			
L1816	142.71	S52° 21' 40"E			
L1817	35.32	S68° 04' 54"E			
L1818	45.24	S83° 41' 05"E			
L1819	29.06	N59° 52' 27"E			
L1820	69.06	N31° 10' 48"E			
L1821	246.98	N41° 37' 23"E			
L1822	227.92	N65° 01' 18"E			
L1823	125.41	S66° 58' 57"E			
L1824	58.33	N82° 03' 59"E			
L1825	0.00	???			
C1803	234.12	N43° 22' 42"E	140.41	140.410	95°32'06"
L1826	105.48	N4° 24' 48"W			
C1804	281.87	N18° 35' 46"E	350.94	350.940	46°01'09"
L1827	411.81	N41° 36' 21"E			

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL SHAUN S. HIGGINS LAND SURVEYOR No.051088-E

Signature 8/15/2025 Date

SHAUN HIGGINS
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY EASEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CB-205
Sheet 8 of 128

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Date: 8/14/2025 Time: 14:10 User: bsoltys Style Table: Langan.stb Layout: CB-201 Document Code: 200164401-0301-CB201-0102

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REGARDED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

SITE NOTES:

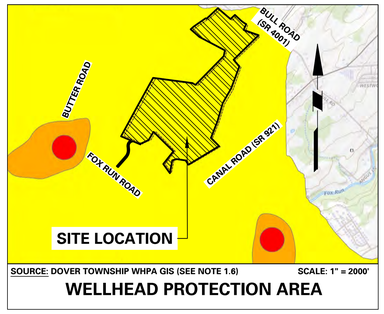
1. THIS PLAN IS NOT VALID UNLESS EMBOSSED OR STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON ARE BASED ON ALTA/NSPS LAND TITLE SURVEY FOR HINES - YORK, TITLED "GLEN-GERY SITE", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., LAST REVISED DECEMBER 7, 2023.
3. IT IS IMPERATIVE THAT THE UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND / OR CONSTRUCTION. CALL 1-800-242-1776 TO ORDER UTILITY MARK OUTS.
4. CONTRACTOR SHALL PROVIDE WRITTEN REQUESTS FOR INFORMATION TO THE OWNER AND OWNER'S ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM IF ANY SPECIFIC SITEWORK ITEM DEPICTED ON THE PLANS WARRANTS ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION AND IS NOT RELATED TO MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFIC SITE WORK ITEMS INSTALLED DIFFERENTLY THAN INTENDED AS DEPICTED ON THE PLANS IN THE ABSENCE OF SUBMITTING AND ADDRESSING WRITTEN REQUESTS FOR INFORMATION.
5. MERIDIAN IS REFERENCED TO PA SPCS NAD83.
6. VERTICAL DATA SHOWN IS BASED ON NAVD88 DATUM.
7. THE PROPOSED USES OF THE DEVELOPMENT INCLUDE HEAVY INDUSTRIAL.
8. THE PROPOSED DEVELOPMENT IS TO BE SERVICED BY PUBLIC WATER AND SANITARY SEWER SERVICE.
9. SEWAGE DISPOSAL SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARDS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
10. THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF DRAINAGE SWALES.
11. ALL CURB RAMPS SHALL MEET CURRENT PENNDOT ADA STANDARDS.
12. PRIOR TO ANY WORK WITHIN THE RIGHT-OF-WAY, PERMITS MUST BE OBTAINED FROM PENNDOT.
13. WATER TO BE PROVIDED TO THE SITE THROUGH AN EXTENSION OF THE EXISTING WATER MAIN WITHIN FOX RUN ROAD. SANITARY SEWER TO BE PROVIDED THROUGH AN EXTENSION OF THE EXISTING SEWER MAIN RUNNING WITHIN BULL ROAD.
14. THIS PROJECT WILL MEET SANITARY SEWER PRE-TREATMENT REQUIREMENTS OF THE PADEP.
15. ALL CONSTRUCTION OF STORM SEWERAGE SYSTEMS AND ALL CONSTRUCTION WITHIN TOWNSHIP RIGHTS-OF-WAY ARE TO BE IN ACCORDANCE WITH THE TOWNSHIP STANDARD CONSTRUCTION DOCUMENTS.
16. THE TOWNSHIP'S STANDARD CONSTRUCTION DETAILS ARE A MINIMUM STANDARD FOR ALL CONSTRUCTION WITHIN THE TOWNSHIP. INCORPORATION OF PORTIONS OR ALL OF THEM ON THE PLAN CONSTITUTES AN ACCEPTANCE AND ENDORSEMENT OF THOSE STANDARDS BY THE DEVELOPER AND THE DEVELOPER'S ENGINEER.
17. ELECTRIC POWER, TELEPHONE, AND NATURAL GAS DISTRIBUTION LINES WILL BE PLACED UNDERGROUND.
18. BASED ON FEMA FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 42133C0159F, EFFECTIVE DATE DECEMBER 15, 2015, THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X, AN AREA OF MINIMAL FLOOD HAZARD.
19. NO STORAGE OF TRASH, GARBAGE, REFUSE, HIGHLY EXPLOSIVE OR FLAMMABLE MATERIALS, HAZARDOUS OR HIGHLY TOXIC SUBSTANCES, ANIMALS, ANIMAL CARCASSES OR SIMILAR ITEMS SHALL BE PERMITTED.
20. NO OUTDOOR STORAGE SHALL BE PERMITTED.
21. ANY FUTURE EXTERIOR SOLID WASTE CONTAINERS SHALL BE SCREENED IN ACCORDANCE WITH THE TOWNSHIP'S ZONING ORDINANCE.
22. THE LOCATION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE DEVELOPER/DESIGN ENGINEER AND THE LOCATIONS OF SUCH FACILITIES HAVE NOT BEEN REVIEWED BY THE TOWNSHIP. THE DEVELOPER/DESIGN ENGINEER IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UTILITIES AND TO AVOID CONFLICTS OF THE SAME WITH PROPOSED IMPROVEMENTS. SIGNIFICANT EFFORTS TO RESOLVE SUCH CONFLICTS, INCLUDING BUT NOT NECESSARILY LIMITED TO REDESIGN, CONSTRUCTION DELAYS, UTILITY RELOCATIONS, ETC., MAY RESULT IF CONFLICTS WITH EXISTING UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION.
23. THE HOURS OF OPERATION FOR THE DEVELOPMENT WILL BE 24 HOURS A DAY, SEVEN DAYS A WEEK, AND WILL ULTIMATELY VARY PENDING THE REQUIREMENTS OF FUTURE TENANTS.
24. ANY STREET IMPROVEMENTS PROPOSED TO BE INSTALLED SHALL BE FUNDED BY THE APPLICANT.
25. THE SIGHT TRIANGLES AS SHOWN SHALL BE GRADED AND SHALL BE KEPT FREE OF SIGHT OBSTRUCTIONS BETWEEN THE GROUND LEVEL AND A HEIGHT OF 10 FEET ABOVE THE CENTER-LINE GRADE OF THE INTERSECTING STREETS, INCLUDING STRUCTURES, NONTRANSPARENT FENCES, VEGETATION AND SIGNS (BUT NOT INCLUDING MOWED GRASS, POSTS OF OPTICAL SIGNS WHICH MUST BE LOCATED IN THE SIGHT TRIANGLE BECAUSE OF THEIR FUNCTION OR THE TRUNKS OF EXISTING TREES WHOSE BRANCHES ARE KEPT CLEAR OF THE SIGHT TRIANGLE).
26. THE OWNER SHALL NOT CONSTRUCT, PLANT, OR MAINTAIN ANY STRUCTURES, FENCES, TREES, SHRUBBERY, ETC. WITHIN THE SANITARY SEWER, STORMWATER OR UTILITY RIGHT-OF-WAY/EASEMENT IN ORDER TO ENSURE A FREE AND CLEAR ACCESS TO ALL FACILITIES. BITUMINOUS PAVING, COMMINGLING OF SANITARY SEWER, STORMWATER OR UTILITIES, OR A CHANGE IN GROUND CONTOURS WITHIN THE RIGHT-OF-WAY/EASEMENT WILL BE PERMITTED ONLY WITHIN CONSENT OF THE TOWNSHIP.
27. CONCRETE CURBS AND SIDEWALKS SHALL BE INSTALLED IN ACCORDANCE WITH THE DOVER TOWNSHIP CONSTRUCTION AND MATERIALS SPECIFICATIONS BY THE OWNER, HEIRS, OR ASSIGNS, WITHIN SIX MONTHS AFTER RECEIPT OF WRITTEN NOTICE FROM DOVER TOWNSHIP.
28. A PADOT HIGHWAY OCCUPANCY PERMIT IS REQUIRED IS PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW"; BEFORE DRIVEWAY ACCESS TO A STATE HIGHWAY IS PERMITTED.
29. ALL PUBLIC IMPROVEMENT CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE DOVER TOWNSHIP CONSTRUCTION SPECIFICATIONS, UNLESS SPECIFIC WAIVERS ARE GRANTED.
30. A KNOX BOX SYSTEM SHALL BE PROVIDED FOR ACCESS BY EMERGENCY PERSONNEL.
31. IF ANY NON-CONFORMITY IS DESTROYED BY REASON OF WINDSTORM, FIRE, EXPLOSION OR OTHER ACT OF GOD OR A PUBLIC ENEMY, TO AN EXTENT OF MORE THAN SEVENTY-FIVE PERCENT (75%) OF THE MARKET VALUE OF THE STRUCTURE, THEN SUCH DESTRUCTION SHALL BE DEEMED COMPLETE DESTRUCTION AND THE NONCONFORMITY MAY NOT BE REBUILT, RESTORED OR REPAIRED. NOTHING IN THIS ORDINANCE SHALL PREVENT THE STRENGTHENING OR RESTORING TO A SAFE CONDITION ANY WALL, FLOOR OR ROOF WHICH HAS BEEN DECLARED UNSAFE.
32. DEPARTMENT OF LABOR AND INDUSTRY APPROVAL MUST BE OBTAINED PRIOR TO ISSUANCE OF A BUILDING PERMIT.
33. NO CONSTRUCTION SHALL BEGIN UNTIL AFTER THE PRECONSTRUCTION MEETING BETWEEN THE DEVELOPER, CONTRACTOR, TOWNSHIP ENGINEER/INSPECTOR, AND OTHERS AS MAY BE REQUESTED TO ATTEND.STREET TREES SHALL NOT BE PLACED ON PROPERTY LINES.
34. NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS AND APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMERALS AND ALPHABET LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCHES.
35. IF AT ANY TIME LEVEL 3 SCREENING IS NOT BEING MET, THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SCREENING AS REQUIRED BY ZONING ORDINANCE SECTION 27-664.2.

DRAINAGE COVENANT

THE OWNER(S) FOR THEMSELVES, THEIR HEIRS, EXECUTORS, ADMINISTRATORS AND SUCCESSORS AND ASSIGNS DO HEREBY COVENANT TO BIND THEMSELVES, THEIR HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS AND ASSIGNS AND THE LANDS DESCRIBED IN THE PLAN ENTITLED "YORK INDUSTRIAL DEVELOPMENT" TO FAITHFULLY PERFORM ALL OF THE FOLLOWING REQUIREMENTS:

THE OWNER(S) SHALL BE RESPONSIBLE FOR STABILIZATION AND RECONSTRUCTION (TO APPROVED DESIGN GRADES AND SPECIFICATIONS) OF ALL DRAINAGE SWALES AND DETENTION BASINS WITHIN AN OWNER'S LOT WHICH, BECAUSE OF CONSTRUCTION ACTIVITIES, GRADING OR STRIPPING OF VEGETATION ON THE OWNER'S LOT, HAS CAUSED DAMAGE TO SAID PUBLIC IMPROVEMENTS.

1. ALL DRAINAGE AND DETENTION BASIN EASEMENTS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A GRASSED OR OTHERWISE IMPROVED CONDITION, IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED DEVELOPMENT PLANS FOR THIS PROJECT. ALL THESE EASEMENTS SHALL BE KEPT FREE OF ALL OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO SUCH OBSTRUCTIONS AS FILL, TEMPORARY OR PERMANENT STRUCTURES AND PLANTS (OTHER THAN GRASS). FENCES MAY BE CONSTRUCTED WITHIN THESE EASEMENTS, WITHIN THE REQUIREMENTS OF OTHER TOWNSHIP ORDINANCES, PROVIDED THAT THE FENCE IS OF A TYPE AND LOCATION THAT WILL NOT IMPEDE THE FLOW OF STORMWATER, AND PROVIDED THAT THE OWNER(S) SHALL BE BOUND TO REMOVE SUCH FENCE AT THE OWNER(S) EXPENSE AND WITHOUT COMPENSATION TO THE OWNER(S) IF DETERMINED BY THE TOWNSHIP TO BE NECESSARY TO ALLOW WORK WITHIN THE EASEMENT. THE MAINTENANCE OF ALL SUCH EASEMENTS SHALL BE THE RESPONSIBILITY OF THE CURRENT LOT OWNER(S) AT ANY POINT IN TIME, INCLUDING FUTURE OWNER(S).
2. WHENEVER SEDIMENTATION IS CAUSED BY STRIPPING VEGETATION, GRADING OR OTHER EARTHMOVING ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE OWNER(S) TO REMOVE THE SEDIMENTATION FROM ALL ADJOINING SURFACES, DRAINAGE SYSTEMS AND WATERCOURSES AND TO REPAIR ANY DAMAGE AT THE OWNER(S)'S EXPENSE.
3. THE OWNER(S) SHALL MAKE PROVISION FOR AND BE PERSONALLY RESPONSIBLE FOR STRICT COMPLIANCE WITH ALL OF THE AFORESAID COVENANTS AND ANY OTHER AGREEMENT CONTAINED IN ANY AND ALL AGREEMENTS WITH THE TOWNSHIP. UPON FAILURE BY THE OWNER(S) TO COMPLY WITHIN THE TIME PERIOD SPECIFIED BY ORAL OR WRITTEN NOTICE OR IN THE EVENT THE TOWNSHIP, IN ITS SOLE AND ABSOLUTE DISCRETION, DETERMINES THE WORK TO BE OF AN EMERGENCY NATURE, THE TOWNSHIP MAY PERFORM SUCH WORK AS MAY BE NECESSARY, IN ITS SOLE AND ABSOLUTE DISCRETION, TO BRING THE OWNER(S) INTO COMPLIANCE AT THE OWNER(S)' EXPENSE, AND THE OWNER(S) SHALL BE CHARGED FOR SAID EXPENSE, PLUS A TWENTY-PERCENT SURCHARGE FOR THE TOWNSHIP'S ADMINISTRATIVE EXPENSES, PLUS ANY COSTS EXPENDED BY THE TOWNSHIP IF A MUNICIPAL LIEN OR SUIT IN ASSUMPSIT OR EQUITY IS FILED, WHICH EXPENSE THE OWNER(S) HEREBY AGREE TO ASSUME AND PAY.



SOURCE: DOVER TOWNSHIP WHPA GIS (SEE NOTE 1.6) SCALE: 1" = 2000'

WELLHEAD PROTECTION AREA

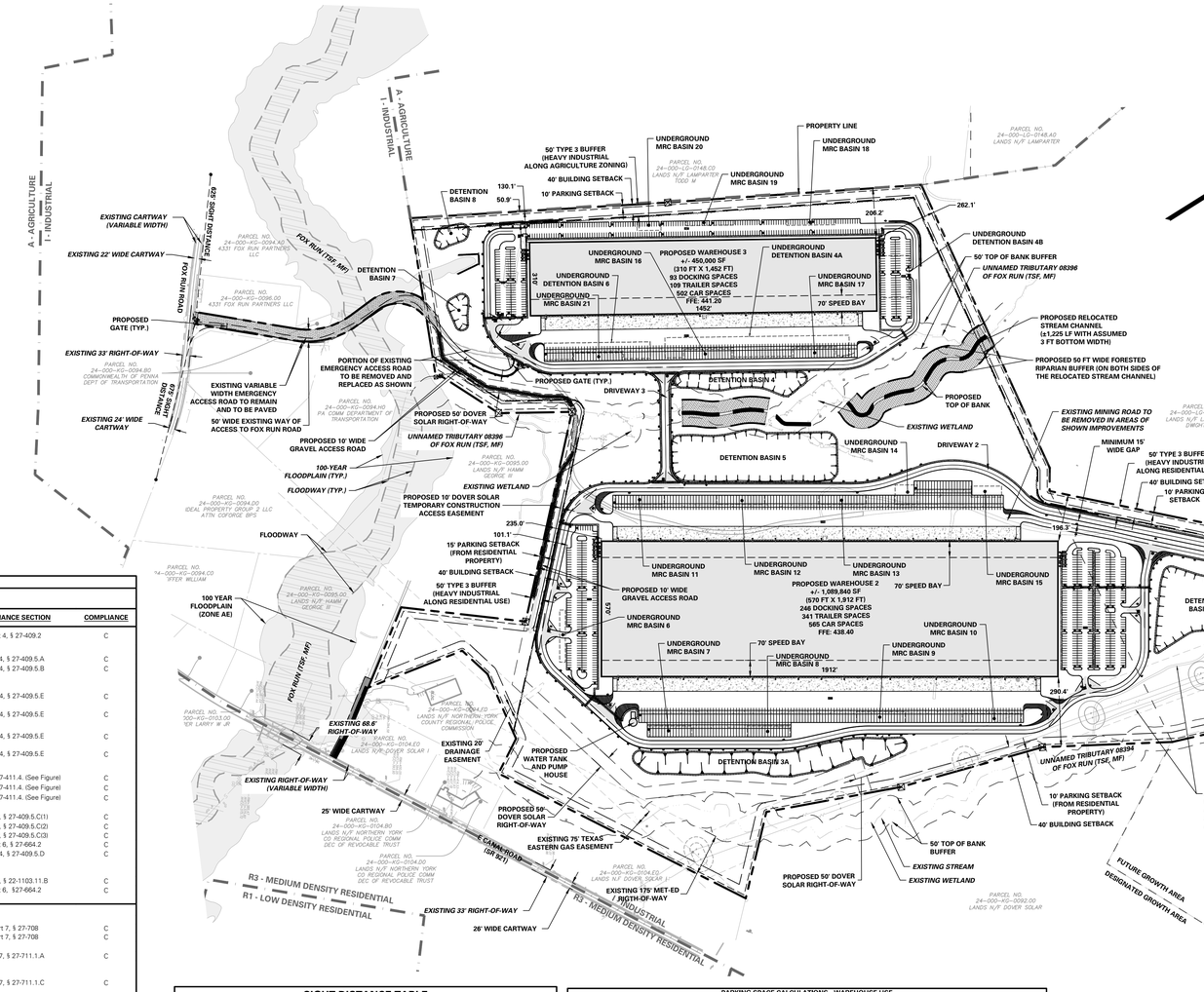
WELLHEAD PROTECTION AREA RESTRICTIONS

SOURCE PROHIBITIONS ZONE 3 PROTECTION AREAS

(PER § 26-213 OF THE DOVER TOWNSHIP SALDO)

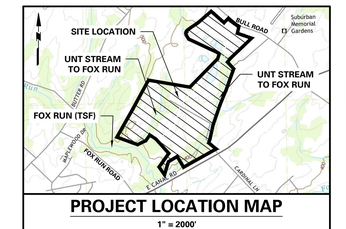
*SEE DRAWING NO. CB-100 FOR WELLHEAD PROTECTION MAP.

1. THE FOLLOWING LAND USES, FACILITIES, AND/OR ACTIVITIES SHALL NOT BE PERMITTED IN ZONE 3 PROTECTION AREAS:
   - A. HAZARDOUS MATERIAL STORAGE, PROCESSING, AND DISPOSAL FACILITIES.
   - B. ROAD SALT STORAGE STOCKPILES.
   - C. QUARRIES AND MINING OPERATIONS.
   - D. ON-SITE FLOOR DRAINS.
   - E. LAND APPLICATION OF WASTEWATER OR WASTE SLUDGES, OR MANURE OR FERTILIZERS WITHOUT A NUTRIENT MANAGEMENT PLAN IN PLACE.
   - F. JUNK OR SALVAGE YARDS.
   - G. OPEN BURNING SITES AND DUMPS.
   - H. CONCENTRATED ANIMAL FEEDING OPERATIONS.



250 0 125 250

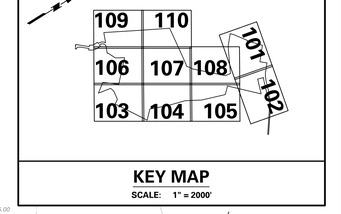
SCALE: 1 INCH = 250 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION TRADE, AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —!!

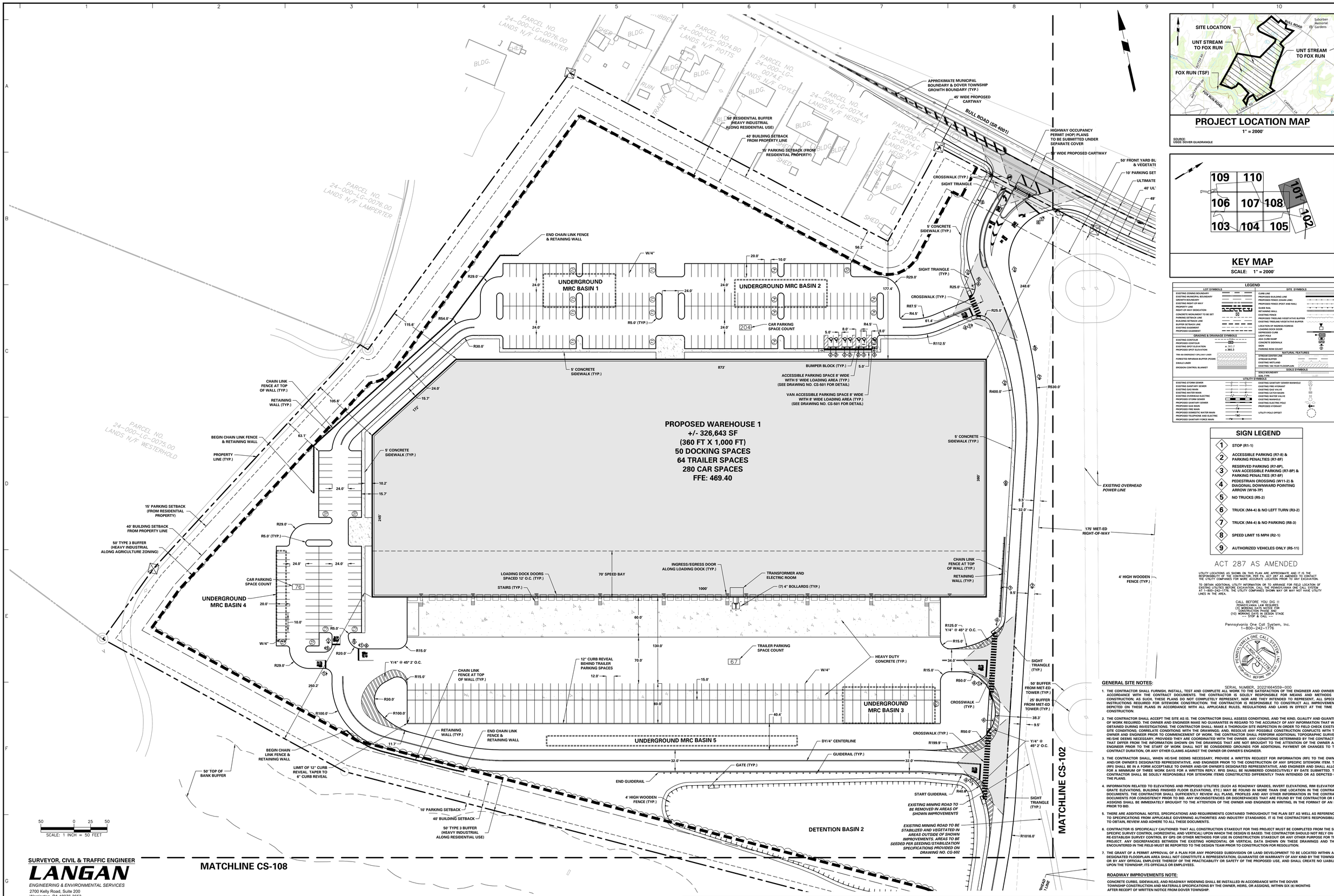
Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559~000

DOVER TOWNSHIP ZONING TABLE

YORK INDUSTRIAL DEVELOPMENT (TMP# 24-000-LG-0074.00, 24-000-KG-0093.00, 24-000-KG-0094.00)
ZONING DISTRICT: I - INDUSTRIAL DISTRICT, AH - AIRPORT HAZARD OVERLAY[2]

ITEM	REQUIRED/PERMITTED PER I DISTRICT	PROPOSED SITE	ORDINANCE SECTION	COMPLIANCE
Permitted Land Use:	Heavy Industrial (Warehouse)[3]	Heavy Industrial (Warehouse)	Part 4, § 27-409.2	C
Lot Requirements:				
Min. Lot Area	20,000 SF	8,667,505 SF (198.979 AC)[12]	Part 4, § 27-409.5.A	C
Min. Lot Frontage and Width	100 FT	497 FT	Part 4, § 27-409.5.B	C
Building Requirements:				
Max. Building Height[4]:	45 FT	See Below	Part 4, § 27-409.5.E	C
Warehouse 1: 40' Side Yard Setback, Measured 177 FT to Property Line *(Height Limited by Airport Hazard Zone. See Section Below)*	65 FT *	65 FT	Part 4, § 27-409.5.E	C
Warehouse 2: 40' Side Yard Setback, Measured 196 FT to Property Line	97 FT	65 FT	Part 4, § 27-409.5.E	C
Warehouse 3: 40' Side Yard Setback, Measured 130 FT to Property Line	75 FT	65 FT	Part 4, § 27-409.5.E	C
Building Requirements (Per Airport Hazard Zone)[2]:				
Max. Building Height Zone A[5](Warehouse 2)	185 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Max. Building Height Zone H[6](Warehouse 3)	182 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Max. Building Height Zone T[7](Warehouse 1)	65 FT	65 FT	Part 4, § 27-411.4. (See Figure)	C
Principal Building Setbacks:				
Min. Front Yard	50 FT	249.0 FT	Part 4, § 27-409.5.C(1)	C
Min. Side Yard	40 FT	105.6 FT	Part 4, § 27-409.5.C(2)	C
Min. Rear Yard	40 FT	235.0 FT	Part 4, § 27-409.5.C(3)	C
Min. Buffer Along Residential Uses	50 FT	50 FT	Part 6, § 27-664.2	C
Max. Lot Coverage (Entire Site)[8]	75%	47.7%	Part 4, § 27-409.5.D	C
Screening & Buffer Requirements:				
Min. Screen Buffer Berm	3 FT	3 FT	Part 3, § 22-1103.11.B	C
Min. Buffer Yard for Heavy Industrial Use (Warehousing) Along Residential Use, Residential District or Agriculture District	50 FT	50 FT	Part 6, §27-664.2	C
Parking & Loading Requirements:				
Parking Lot Setbacks:				
Min. Parking Setback (From Residential Properties)	15 FT	56.2 FT	Part 7, § 27-708	C
Min. Parking Setback (From All Other Property Lines/ROW)	10 FT	50.9 FT	Part 7, § 27-708	C
Loading Requirements[9]:				
Min. Number of Loading Space Dimensions	12 FT x 60 FT	12 FT x 60 FT	Part 7, § 27-711.1.A	C
Number of Loading Spaces	One space for a gross floor area of 5,000 to 25,000 SF and 1 space for each 10,000 SF of gross floor area in excess of 25,000 SF (183 Loading Spaces)	389 Loading Spaces	Part 7, § 27-711.1.C	C
Parking:				
Parking Space Dimensions (Non-Parallel Spaces):	10 FT x 20 FT	10 FT x 20 FT	Part 7, § 27-702.1	C
Min. Radius for Parking Areas:		5 FT	SALDO Part 7, §22-707.2.B	C
Min. Number of Car Parking Spaces: Use: Warehousing	1,288 Total Car Spaces (1 Space/1 Employee on 2 largest shifts - See Parking Table)	1,347 Total Car Spaces (See Parking Table)	Part 7, § 27-703.1	C
Access Drives[10]:				
Min. Distance from Fire Hydrants[11]	10 FT	155 FT	SALDO Part 7, §22-709.1.C	C



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE

KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 1994 100-YEAR/24HOUR SPILLWAY LIMIT
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- PARKING
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOILS LABEL

- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

SIGN LEGEND

1. STOP (R1-1)
2. ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
3. RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
4. PEDESTRIAN CROSSING (W11-2) & DIAGONAL DOWNWARD POINTING ARROW (W16-7P)
5. NO TRUCKS (R5-2)
6. TRUCK (M4-4) & NO LEFT TURN (R3-2)
7. TRUCK (M4-4) & NO PARKING (R8-3)
8. SPEED LIMIT 15 MPH (R2-1)
9. AUTHORIZED VEHICLES ONLY (R5-11)

ACT 287 AS AMENDED

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CONSTRUCTION PHASE, AND
(10) WORKING DAYS IN DESIGN STAGE.
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER: 20221664559-000

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

ROADWAY IMPROVEMENTS NOTE:

CONCRETE CURBS, SIDEWALKS, AND ROADWAY WIDENING SHALL BE INSTALLED IN ACCORDANCE WITH THE DOVER TOWNSHIP CONSTRUCTION AND MATERIALS SPECIFICATIONS BY THE OWNER, HEIRS, OR ASSIGNS, WITHIN SIX (6) MONTHS AFTER RECEIPT OF WRITTEN NOTICE FROM DOVER TOWNSHIP.

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES

2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — KEITH S. OTTES — PROFESSIONAL ENGINEER — PROFESSIONAL

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY **PENNSYLVANIA**

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. **CS-101**

Sheet 10 of 128

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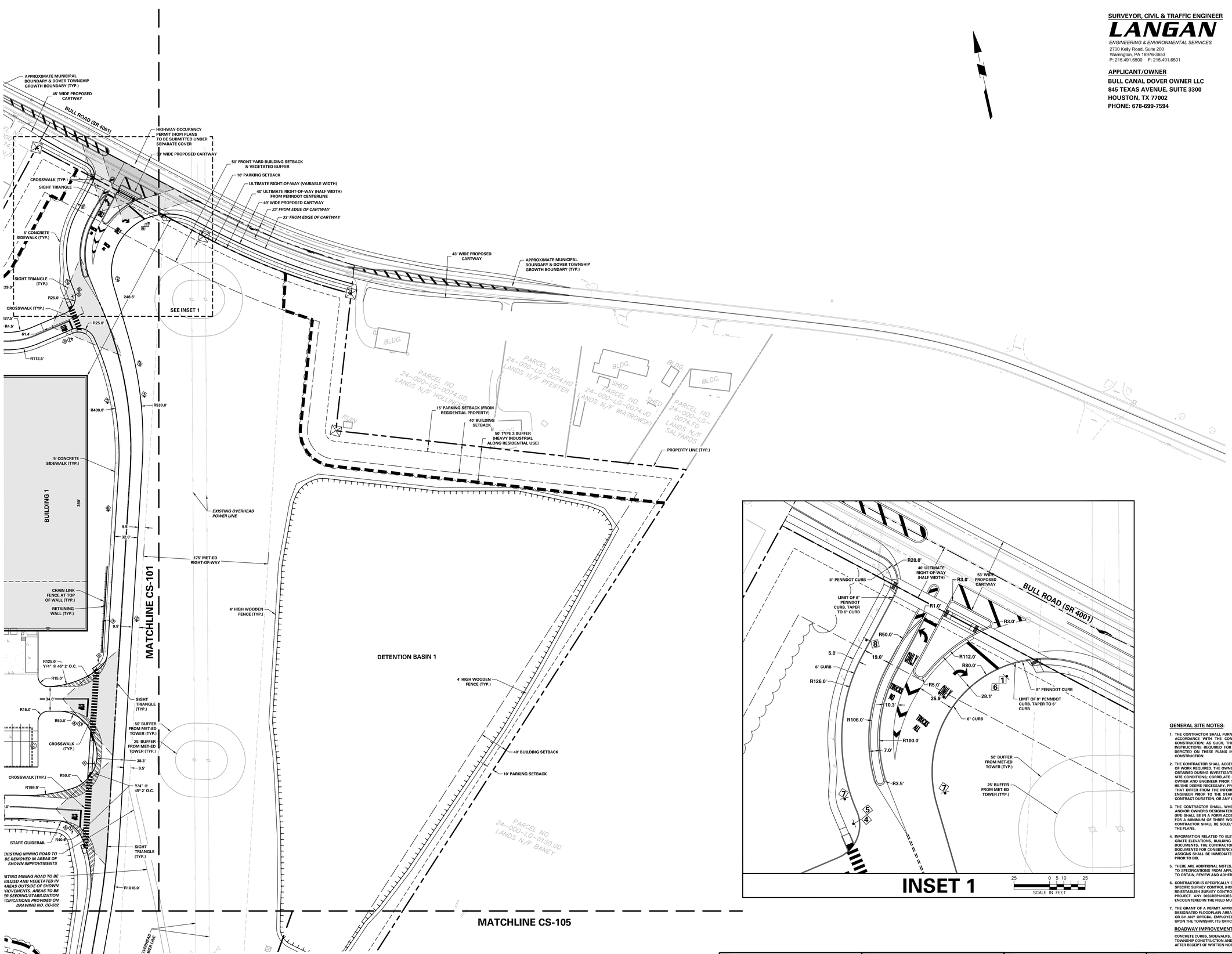
Date: 8/14/2025 Time: 22:04 User: mrynn Style Table: Langan.stb Layout: CS-101 Document Code: 200164401-0301-CS101-0102



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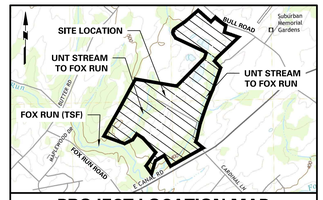
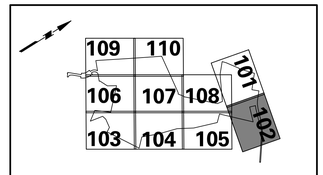


PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
EXISTING FENCE
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
TWA 484 EMERGENCY SPILLWAY LIMIT
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
DEPRESSED CURB
UTILITY POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING TELEPHONE AND ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

SIGN LEGEND

1. STOP (R1-1)
2. ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
3. RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
4. PEDESTRIAN CROSSING (W11-2) & DIAGONAL DOWNWARD POINTING ARROW (W16-7P)
5. NO TRUCKS (R5-2)
6. TRUCK (M4-4) & NO LEFT TURN (R3-2)
7. TRUCK (M4-4) & NO PARKING (R8-3)
8. SPEED LIMIT 15 MPH (R2-1)
9. AUTHORIZED VEHICLES ONLY (R5-11)

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
THREE WORKING DAYS NOTICE
CONSTRUCTION STAKE OUT
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
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ROADWAY IMPROVEMENTS NOTE:

CONCRETE CURBS, SIDEWALKS, AND ROADWAY WIDENING SHALL BE INSTALLED IN ACCORDANCE WITH THE DOVER TOWNSHIP CONSTRUCTION AND MATERIALS SPECIFICATIONS BY THE OWNER, HEIRS, OR ASSIGNS, WITHIN SIX (6) MONTHS AFTER RECEIPT OF WRITTEN NOTICE FROM DOVER TOWNSHIP.

No.	Revisions	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — ENGINEER — PE 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CS-102
Sheet 11 of 128

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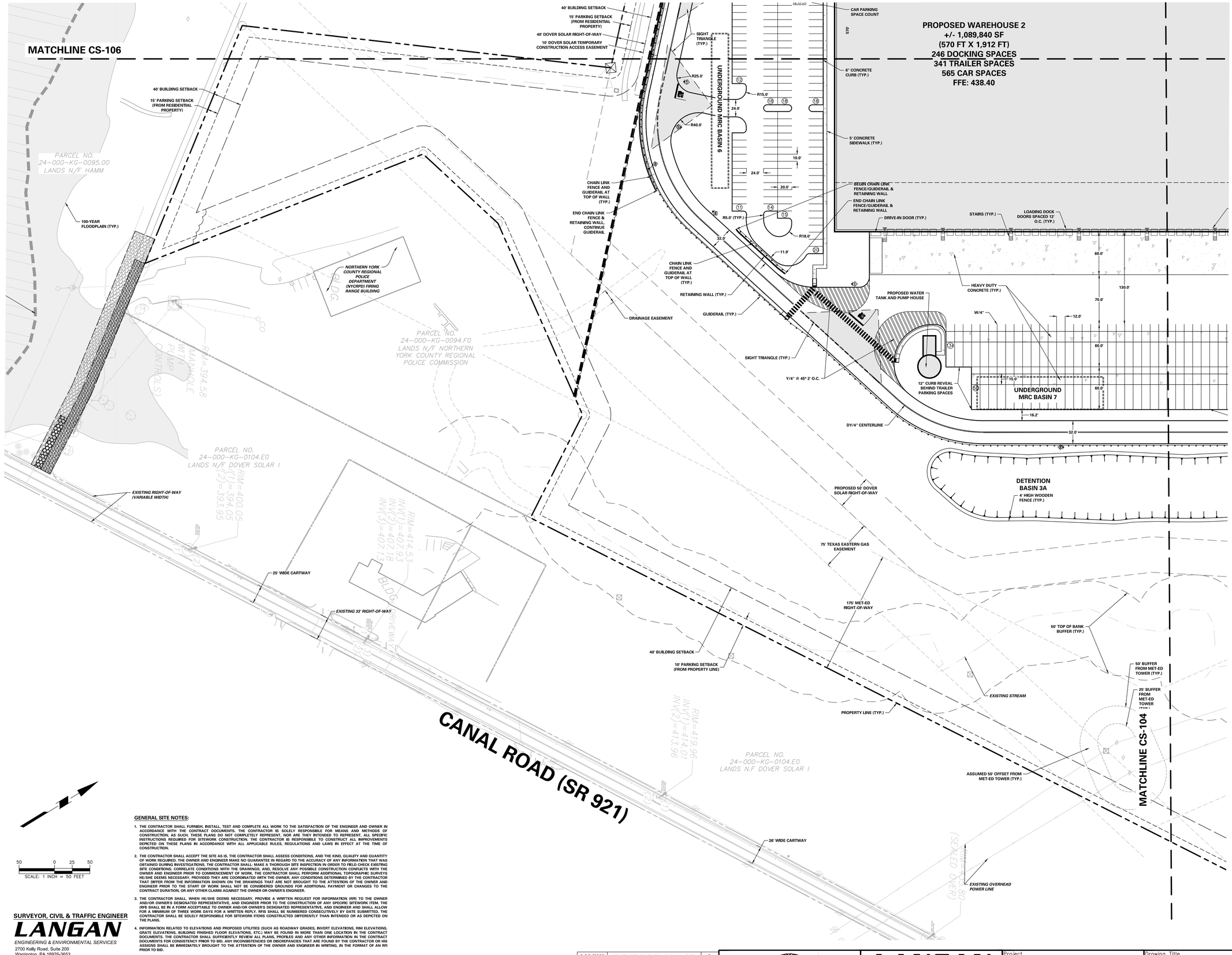
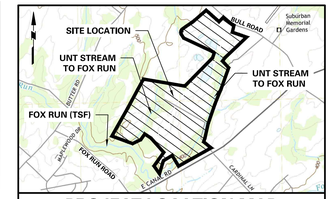
Date: 8/14/2025 Time: 14:12 User: bsoltys Style Table: Langan.stb Layout: CS-102 Document Code: 200164401-0301-CS101-0106

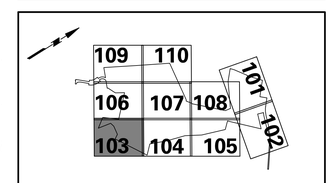




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION — × 360.2
- PROPOSED SPOT ELEVATION — × 360.3
- TRM-RR EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

SIGN LEGEND

1	STOP (R1-1)
2	ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
3	RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
4	PEDESTRIAN CROSSING (W11-2) & DIAGONAL DOWNWARD POINTING ARROW (W16-7P)
5	NO TRUCKS (R5-2)
6	TRUCK (M4-4) & NO LEFT TURN (R3-2)
7	TRUCK (M4-4) & NO PARKING (R8-3)
8	SPEED LIMIT 15 MPH (R2-1)
9	AUTHORIZED VEHICLES ONLY (R5-11)

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
THREE (3) WORKING DAYS NOTICE
FOR CONSTRUCTION PHASE AND
TEN (10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

GENERAL SITE NOTES:

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3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
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SURVEYOR, CIVIL & TRAFFIC ENGINEER

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APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — PE 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY **PENNSYLVANIA**

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. **200164401**
Date **6/7/2023**
Drawn By **MR**
Checked By **SMH**

Drawing No. **CS-103**
Sheet **12** of **128**

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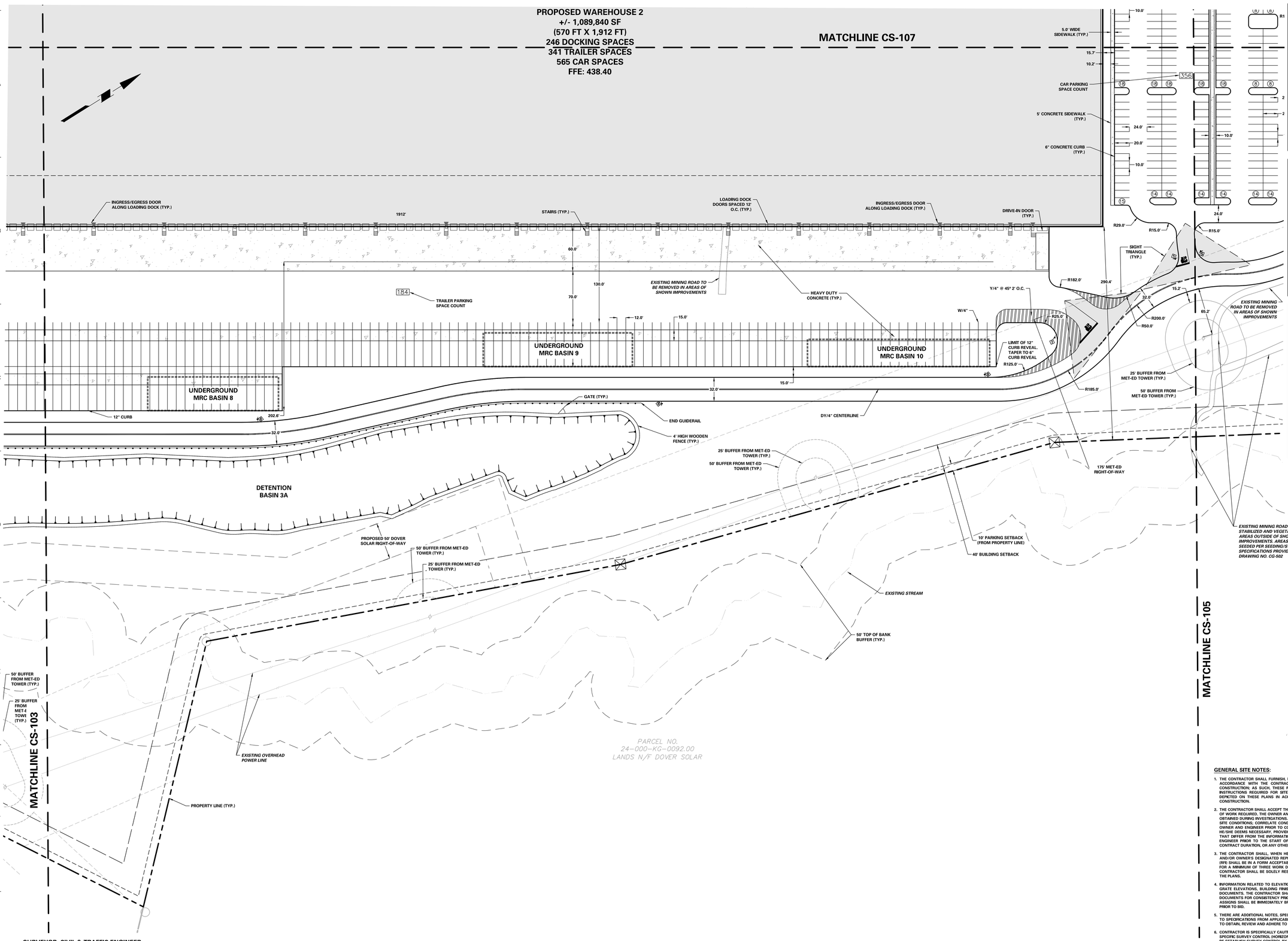
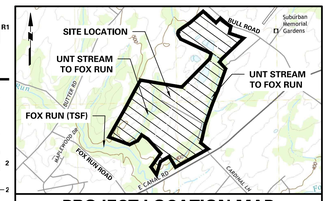
Date: 8/14/2025 Time: 14:13 User: bsoltys Style Table: Langan.stb Layout: CS-102 Document Code: 200164401-0301-CS101-0103

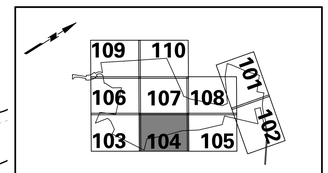




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- EXISTING MONUMENT TO BE SET
- FUNCTIONAL SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.5)
- PROPOSED SPOT ELEVATION (x 360.5)
- TRM 4A EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- EXISTING TREELINE
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING INLET
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING INLET
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

SIGN LEGEND

1. STOP (R1-1)
2. ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
3. RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
4. PEDESTRIAN CROSSING (W11-2) & DIAGONAL DOWNWARD POINTING ARROW (W16-7P)
5. NO TRUCKS (R5-2)
6. TRUCK (M4-4) & NO LEFT TURN (R3-2)
7. TRUCK (M4-4) & NO PARKING (R8-3)
8. SPEED LIMIT 15 MPH (R2-1)
9. AUTHORIZED VEHICLES ONLY (R5-11)

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS NOTICE FOR DESIGN STAGE
STOP & CALL!!!

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES

2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

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SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project: BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title: PRELIMINARY SITE PLAN (RECORD PLAN)

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. CS-104

Sheet 13 of 128

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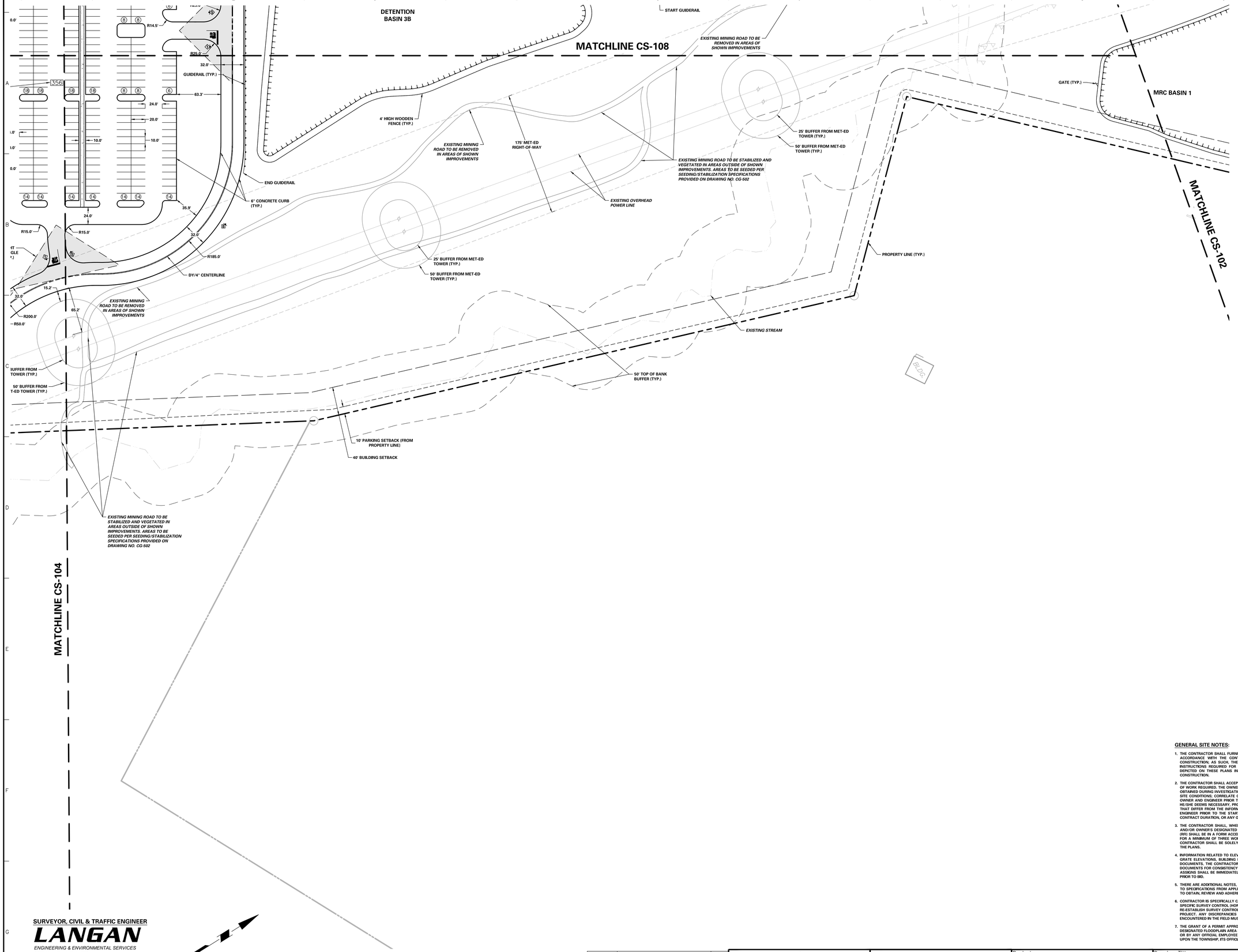
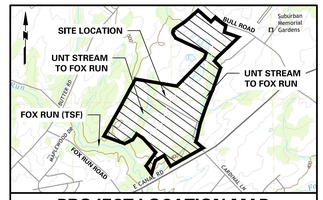
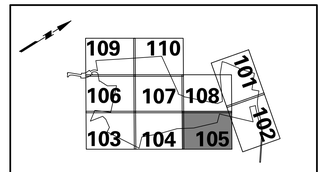




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TRM-400 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
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- RETAINING WALL
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- PROPOSED TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
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SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
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- EXISTING GAS MAIN
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- PROPOSED GAS MAIN
- PROPOSED WATER MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
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SIGN LEGEND

1	STOP (R1-1)
2	ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
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5	NO TRUCKS (R5-2)
6	TRUCK (M4-4) & NO LEFT TURN (R3-2)
7	TRUCK (M4-4) & NO PARKING (R8-3)
8	SPEED LIMIT 15 MPH (R2-1)
9	AUTHORIZED VEHICLES ONLY (R5-11)

AS-2 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
TWO (2) WORKING DAYS NOTICE FOR
CONSTRUCTION PLANS AND
TEN (10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

GENERAL SITE NOTES:

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7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

SURVEYOR, CIVIL & TRAFFIC ENGINEER

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P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

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Checked By SMH

Drawing No. CS-105
Sheet 14 of 128

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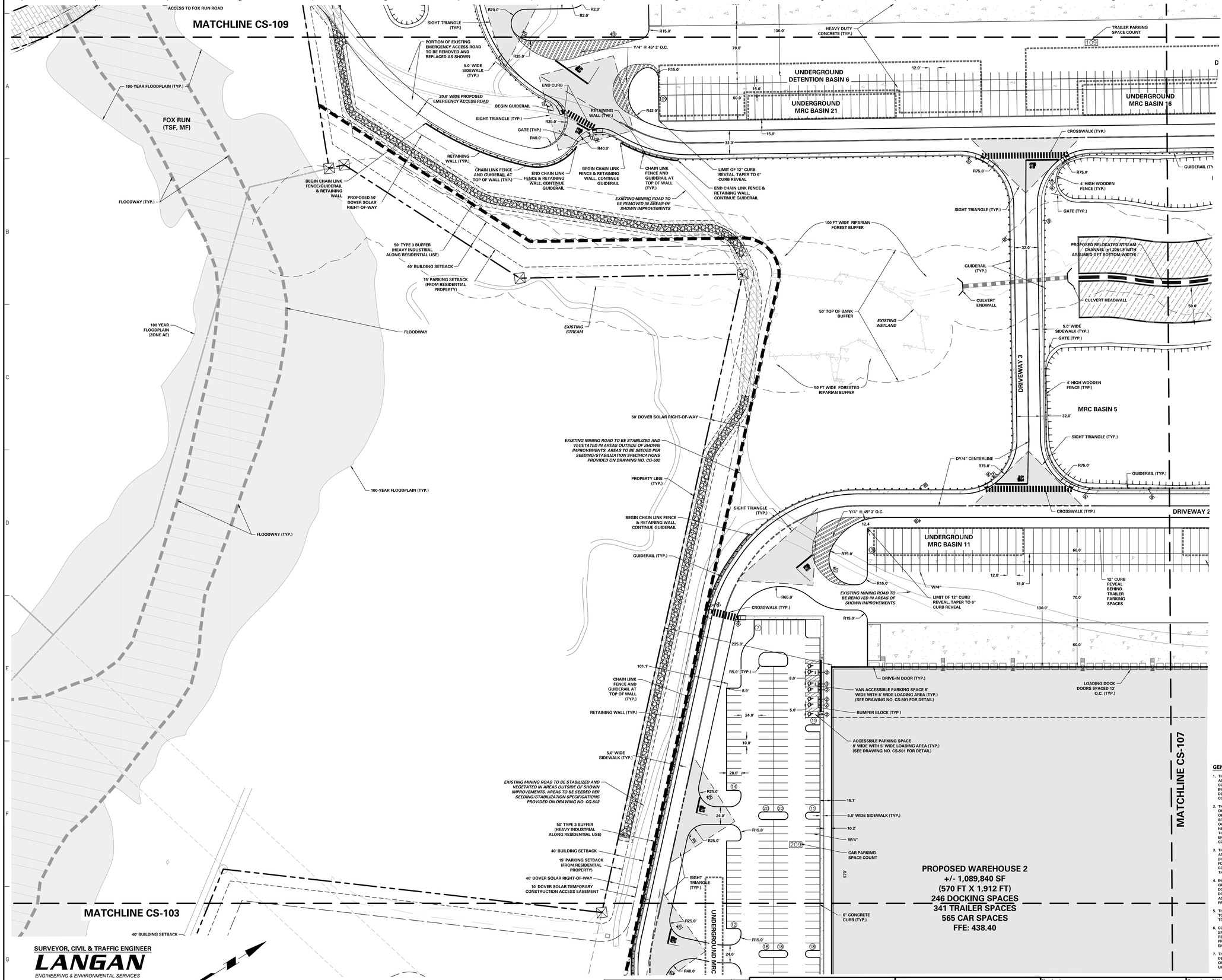
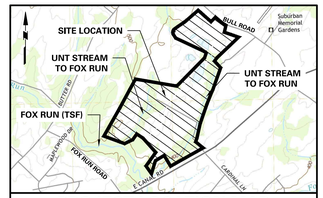
Date: 8/14/2025 Time: 14:14 User: bsoltys Style Table: Langan.stb Layout: CS-104 Document Code: 200164401-0301-CS101-0105

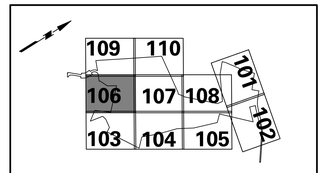


PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE





KEY MAP

SCALE: 1" = 2000'

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LOCATION OF INGRESS/EGRESS
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LIGHT POLE
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CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

SIGN LEGEND

1. STOP (R1-1)
2. ACCESSIBLE PARKING (R7-8) & PARKING PENALTIES (R7-8F)
3. RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
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5. NO TRUCKS (R5-2)
6. TRUCK (M4-4) & NO LEFT TURN (R3-2)
7. TRUCK (M4-4) & NO PARKING (R8-3)
8. SPEED LIMIT 15 MPH (R2-1)
9. AUTHORIZED VEHICLES ONLY (R5-11)

ACT 287 AS AMENDED

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CALL BEFORE YOU DIG !!
PA1 DESIGNATION LAYOUT
(10 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
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No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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LANGAN
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50 0 25 50
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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH
Drawing No. CS-106
Sheet 15 of 128

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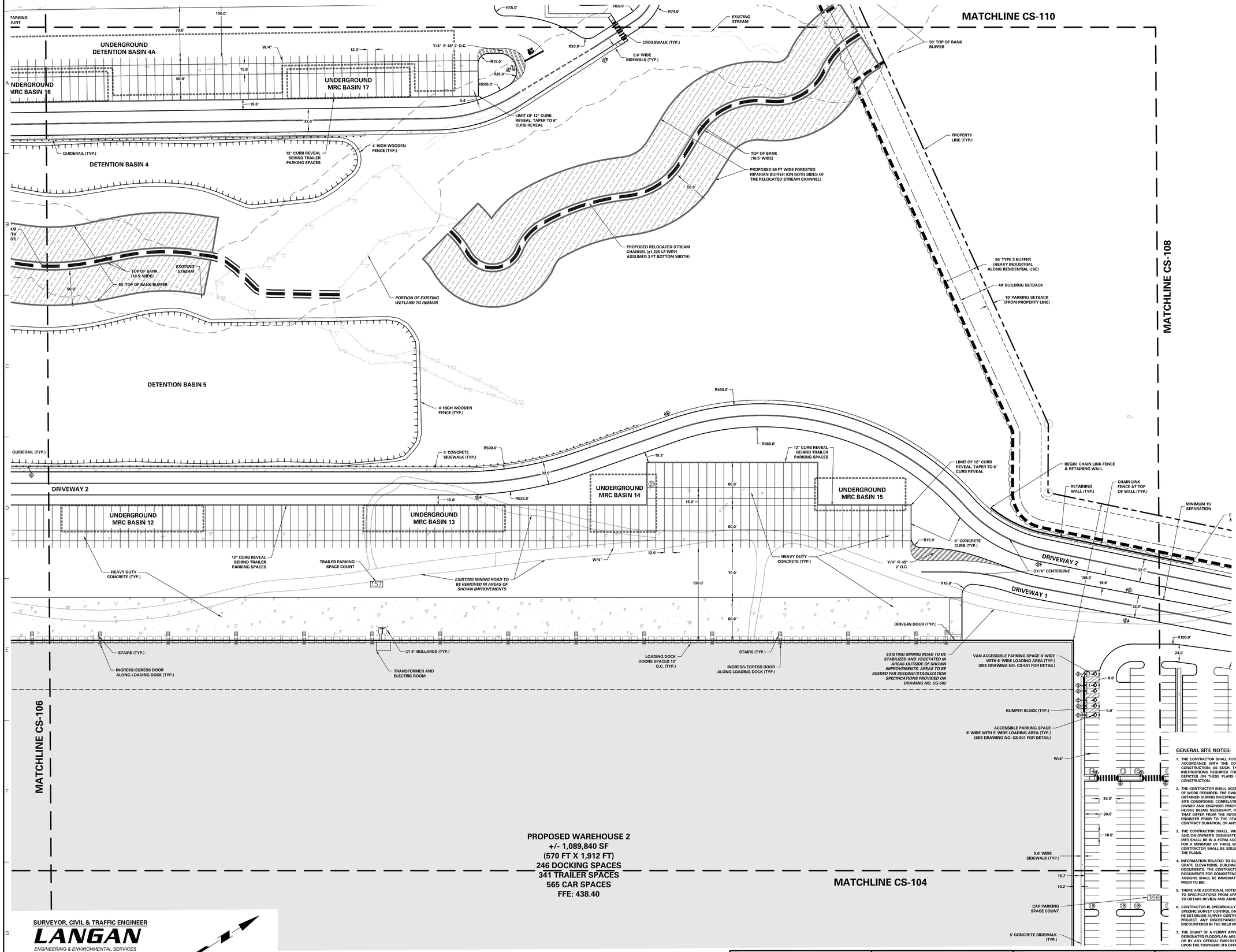
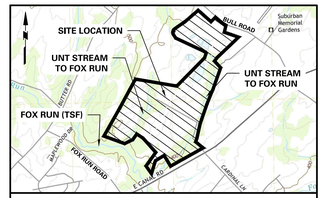
Date: 8/14/2025 Time: 14:15 User: bsoltys Style Table: Langan.stb Layout: CS-106 Document Code: 200164401-0301-CS101-0107

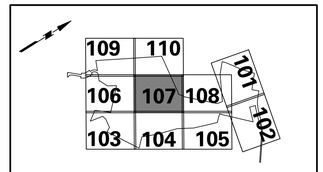




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.3)
- PROPOSED SPOT ELEVATION (x 360.3)
- 75M-400 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
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- PROPOSED SANITARY FORCE MAIN
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SERIAL NUMBER, 20221664559-000

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PHONE: 678-699-7594

SCALE: 1 INCH = 50 FEET

No.	Description	Date
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Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — ENGINEER — PENNSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH
Drawing No.	CS-107
Sheet	16 of 128

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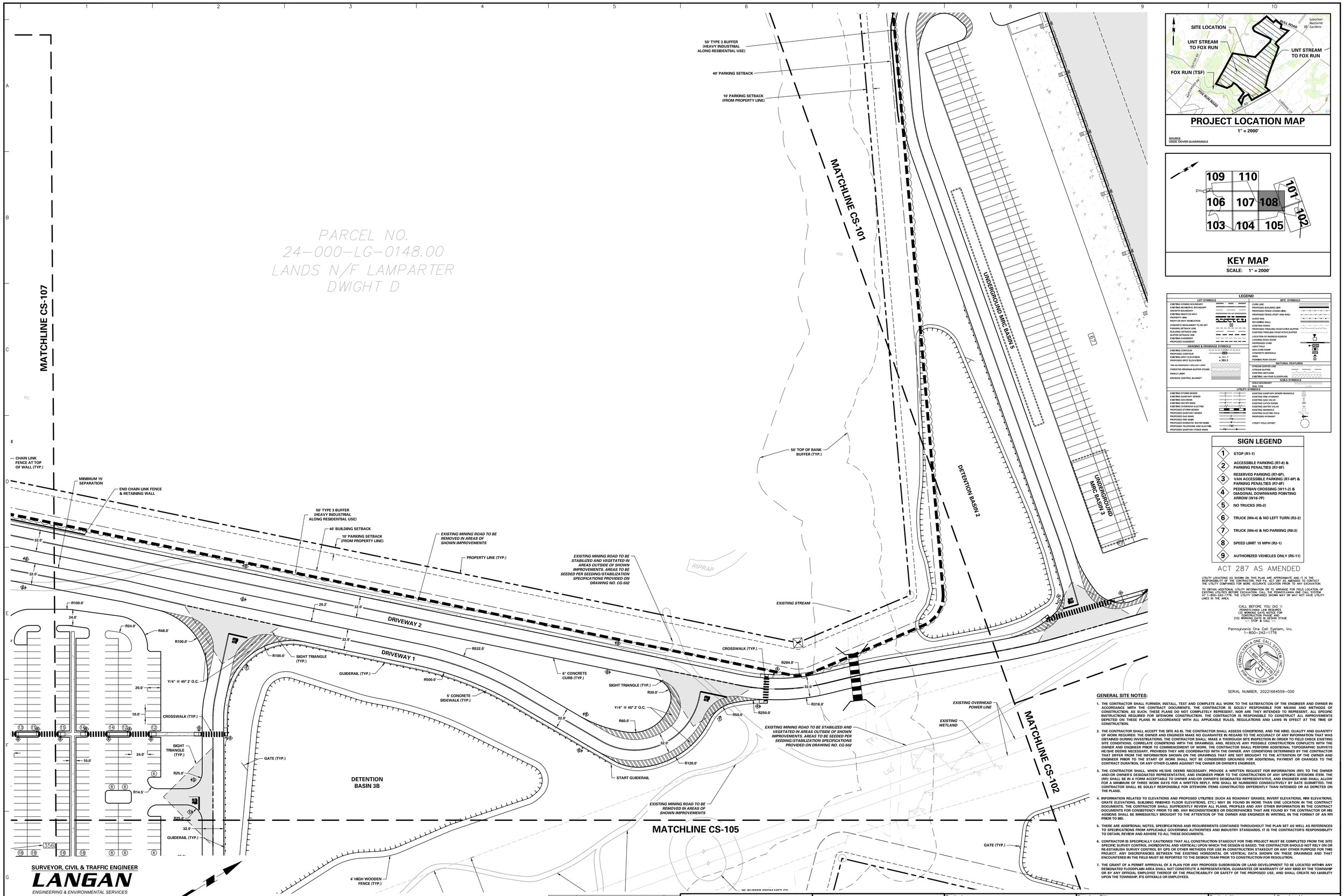
Date: 8/14/2025 Time: 14:16 User: bsoltys Style Table: Langan.stb Layout: CS-107 Document Code: 200164401-0301-CS101-0108



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE

KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

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- EXISTING MUNICIPAL BOUNDARY
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- RIGHT-OF-WAY DEDICATION
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- PARKING SETBACK LINE
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SERIAL NUMBER, 20221664559-000

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4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
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SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN
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2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CS-108
Sheet 17 of 128

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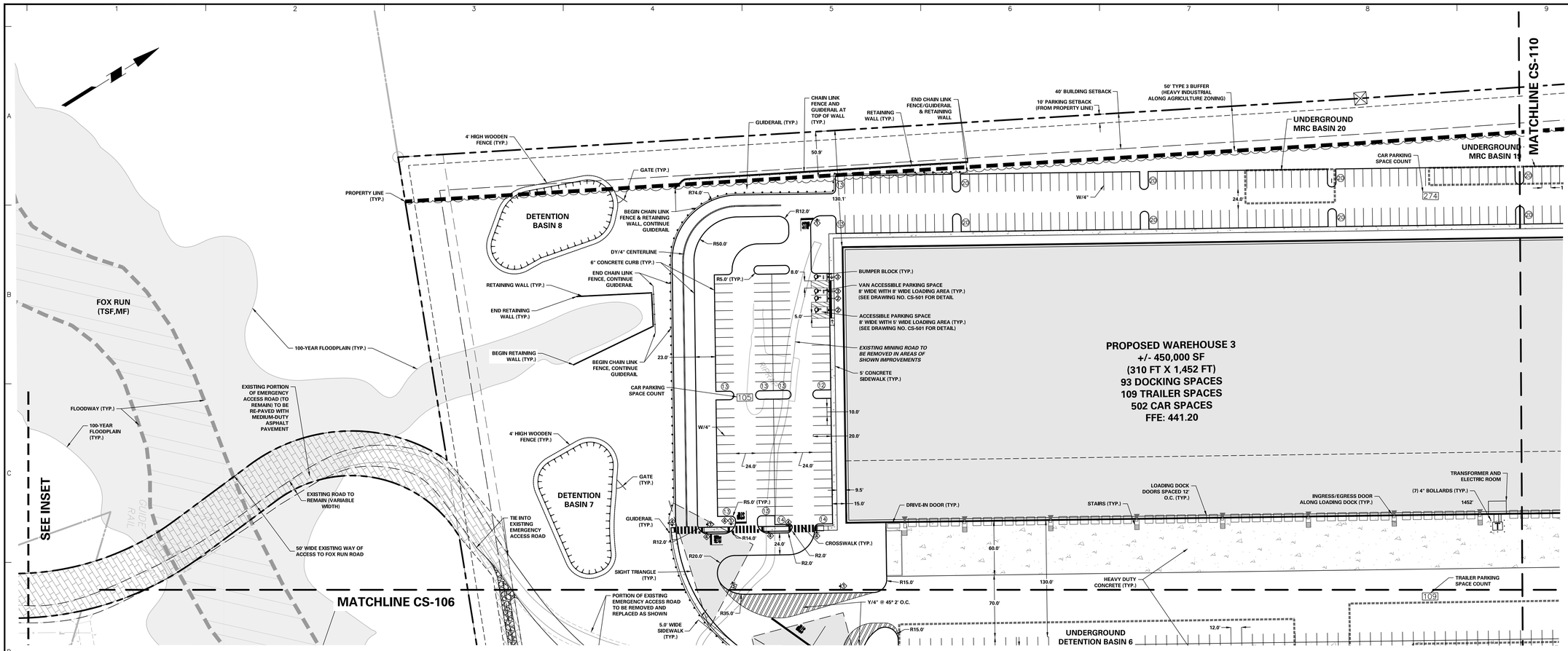
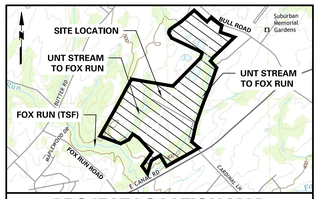
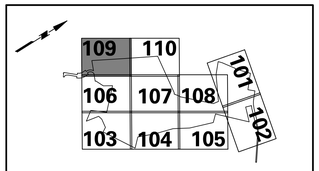




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- PROPOSED ZONING BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.3)
- PROPOSED SPOT ELEVATION (× 360.3)
- 10MM ASI EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
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- EXISTING GAS VALVE
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- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

SIGN LEGEND

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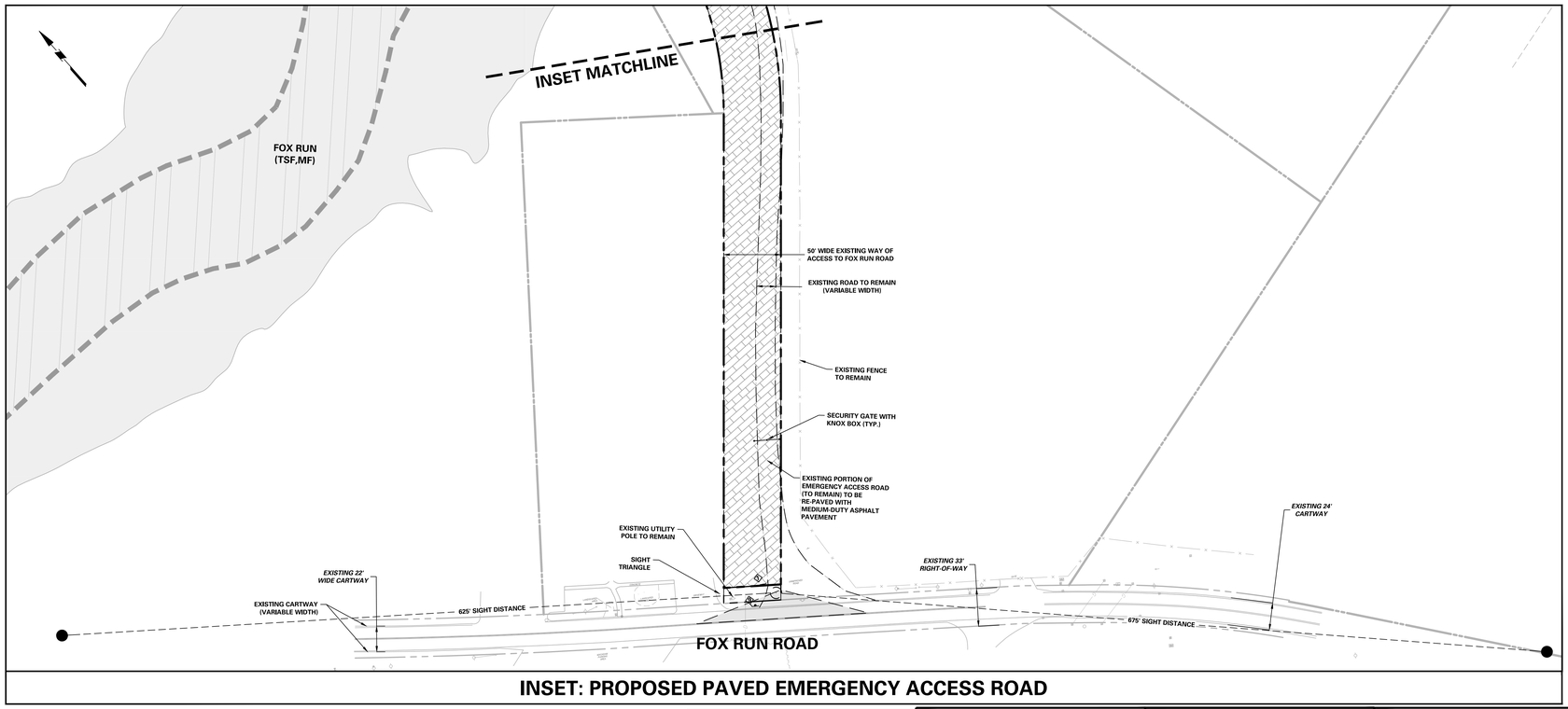
3. RESERVED PARKING (R7-8P), VAN ACCESSIBLE PARKING (R7-8P) & PARKING PENALTIES (R7-8F)
4. PEDESTRIAN CROSSING (W11-2) & DIAGONAL DOWNWARD POINTING ARROW (W16-7P)
5. NO TRUCKS (R5-2)
6. TRUCK (M4-4) & NO LEFT TURN (R3-2)
7. TRUCK (M4-4) & NO PARKING (R8-3)
8. SPEED LIMIT 15 MPH (R2-1)
9. AUTHORIZED VEHICLES ONLY (R5-11)



INSET: PROPOSED PAVED EMERGENCY ACCESS ROAD

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS IN CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

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PHONE: 678-699-7594

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Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CS-109
Sheet 18 of 128

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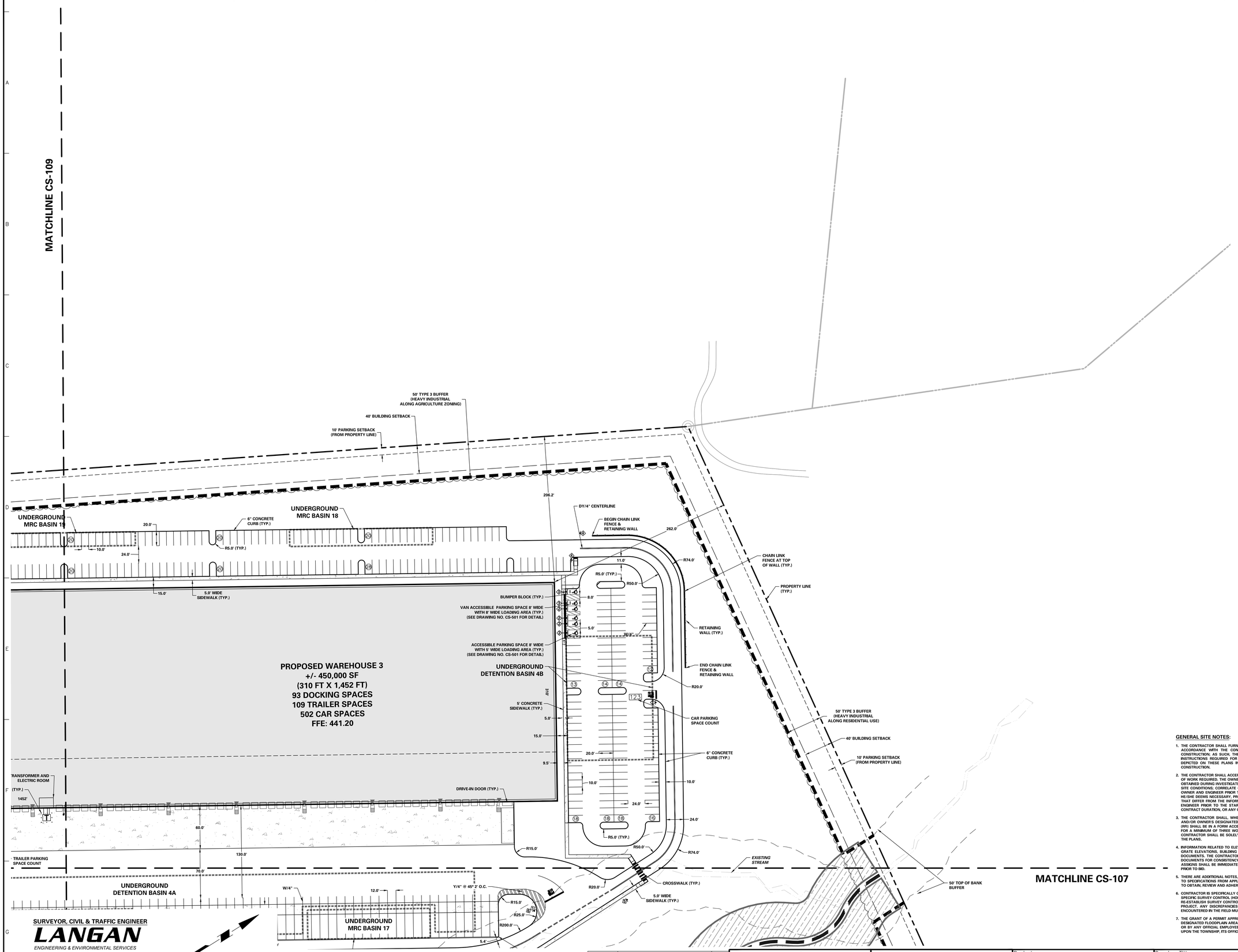
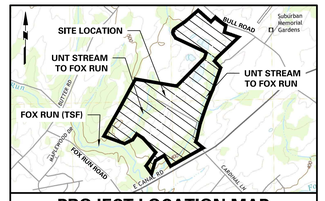
Date: 8/14/2025 Time: 14:17 User: bsoltys Style Table: Langan.stb Layout: CS-109 Document Code: 200164401-0301-CS101-0110

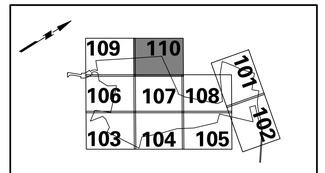




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING BOUNDARY LINE
- GROWTH BOUNDARY
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- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
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- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

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- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
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- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

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NATURAL FEATURES

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- STREAM BUFFER
- EXISTING WETLAND
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- SOIL TYPE

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ACT 287 AS AMENDED

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PENNSYLVANIA LAW REQUIRES
THREE (3) WORKING DAYS IN
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Pennsylvania One Call System, Inc.
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SERIAL NUMBER, 20221664559-000

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5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
7. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES

2700 Kelly Road, Suite 200
Warrington, PA, 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 078074E

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY SITE PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CS-110
Sheet 19 of 128

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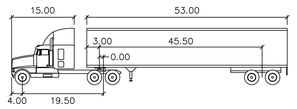
Date: 8/14/2025 Time: 14:18 User: bsoltys Style Table: Langan.stb Layout: CS-110 Document Code: 200164401-0301-CS101-0111

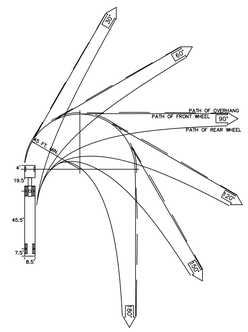


WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

WB-67 PROFILE
NOT TO SCALE



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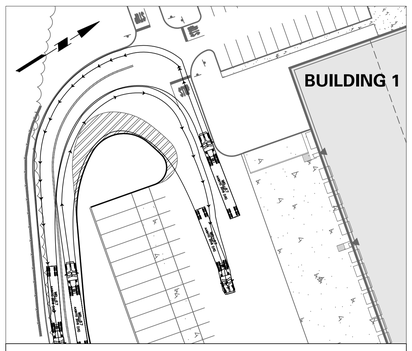
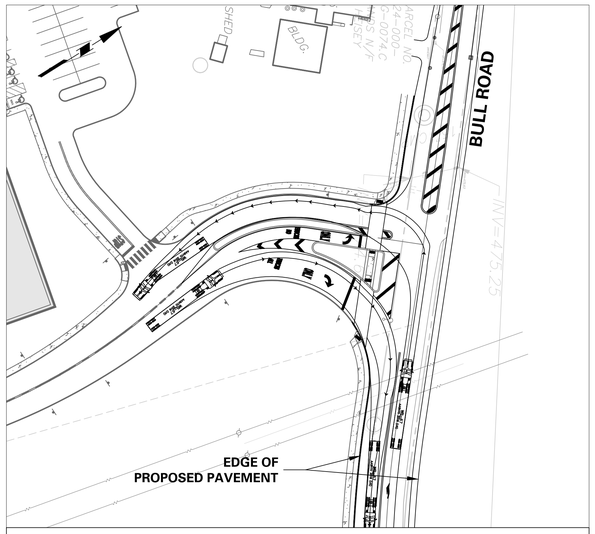
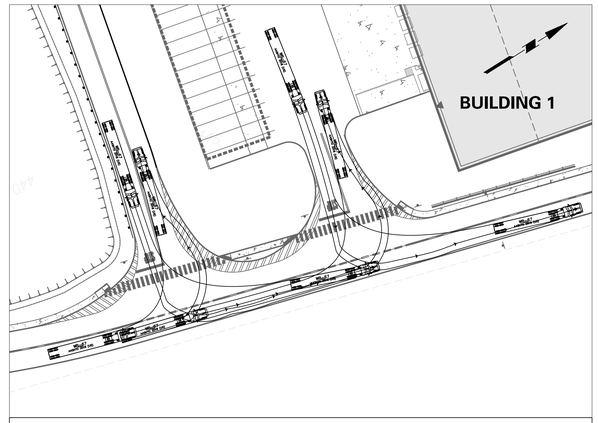


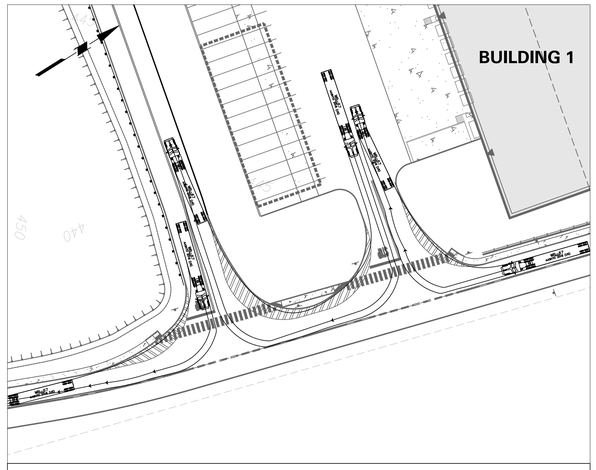
BUILDING 1 - WEST TRAILER COURT ENTRANCE
RIGHT TURN INTO AND LEFT TURN OUT OF BUILDING 1 TRAILER COURT
SCALE: 1" = 50'



SITE ENTRANCE
LEFT TURN INTO SITE FROM BULL ROAD AND RIGHT TURN FROM SITE ONTO BULL ROAD EAST OF BUILDING 1
SCALE: 1" = 50'



BUILDING 1 - EAST TRAILER COURT ENTRANCE
LEFT TURN INTO AND OUT OF BUILDING 1 TRAILER COURT AND LEFT TURN INTO AND OUT OF LOOP ROAD SOUTH OF BUILDING 1
SCALE: 1" = 50'



BUILDING 1 - EAST TRAILER COURT ENTRANCE
RIGHT TURN INTO AND OUT OF BUILDING 1 TRAILER COURT AND RIGHT TURN INTO AND OUT OF LOOP ROAD SOUTH OF BUILDING 1
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-201
Sheet 20 of 128

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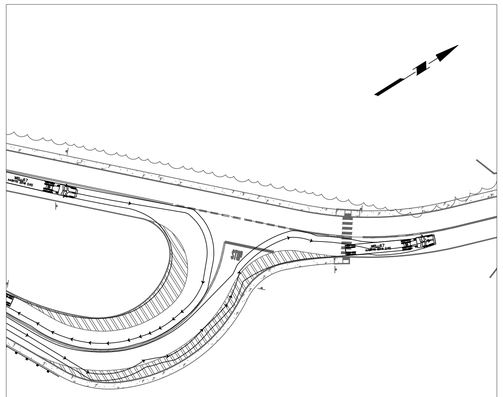
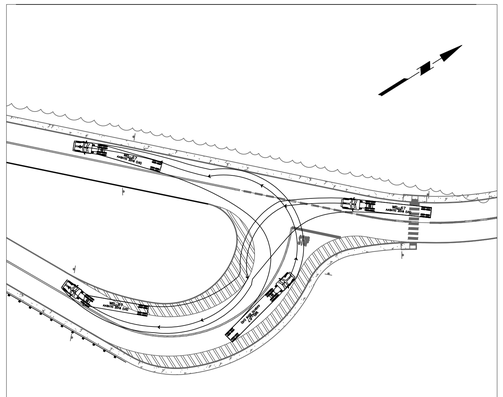
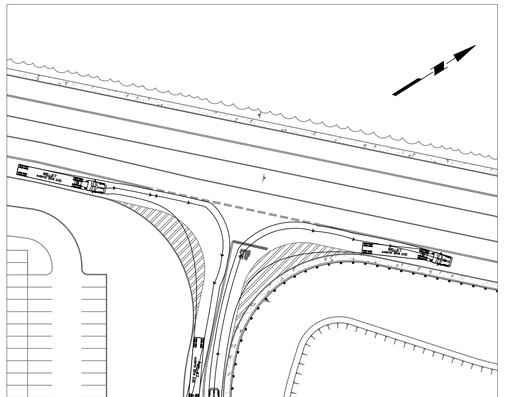
Date: 8/14/2025 Time: 14:18 User: bsollys Style Table: Langan.stb Layout: CS-201 Document Code: 200164401-0301-CS102-0101



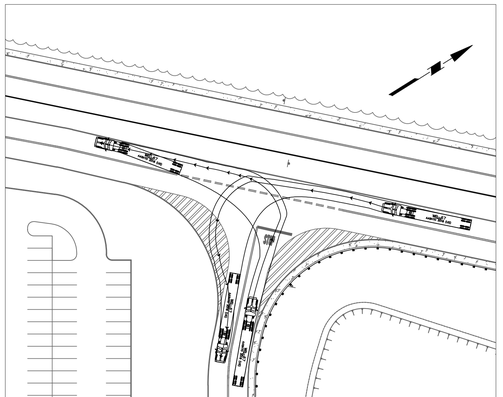
BYPASS ROAD - BETWEEN BUILDING 1 & 2
RIGHT TURN ONTO BYPASS ROAD AND RIGHT TURN FROM BYPASS ROAD ONTO DRIVE AISLE NORTH OF BUILDING 2
SCALE: 1" = 50'



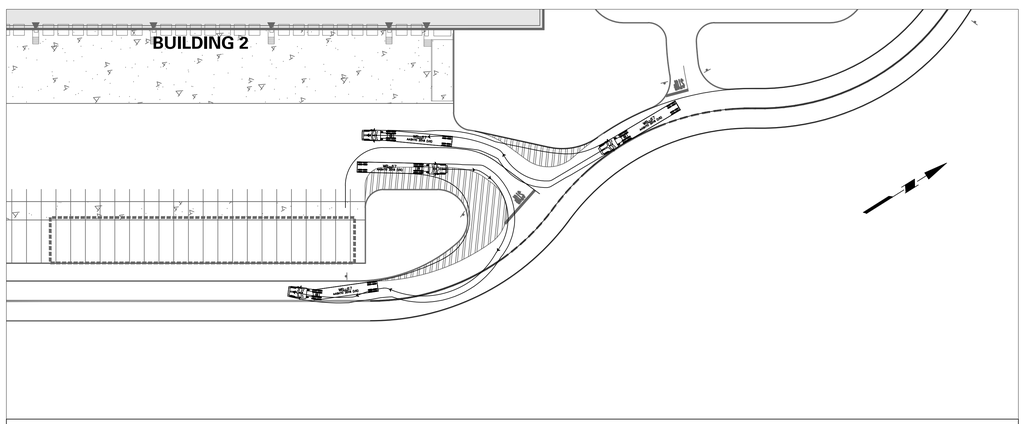
BYPASS ROAD - BETWEEN BUILDING 1 & 2
LEFT TURN ONTO BYPASS ROAD AND LEFT TURN FROM BYPASS ROAD ONTO DRIVE AISLE NORTH OF BUILDING 2
SCALE: 1" = 50'



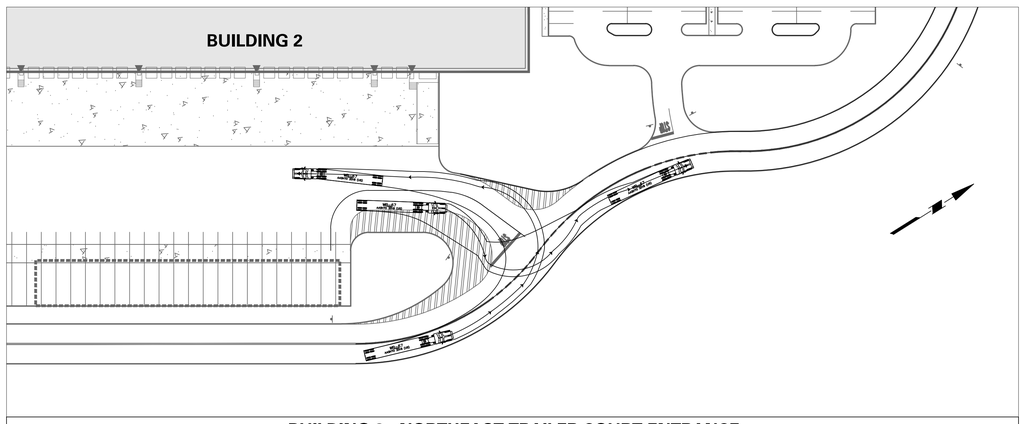
BUILDING 2 - LOOP ROAD
RIGHT TURN ONTO BUILDING 2 LOOP ROAD AND RIGHT TURN FROM BUILDING 2 LOOP ROAD ONTO DRIVE AISLE NORTH OF BUILDING 2
SCALE: 1" = 50'



BUILDING 2 - LOOP ROAD
LEFT TURN ONTO BUILDING 2 LOOP ROAD AND LEFT TURN FROM BUILDING 2 LOOP ROAD ONTO DRIVE AISLE NORTH OF BUILDING 2
SCALE: 1" = 50'



BUILDING 2 - NORTHEAST TRAILER COURT ENTRANCE
RIGHT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'



BUILDING 2 - NORTHEAST TRAILER COURT ENTRANCE
LEFT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-202
Sheet 21 of 128

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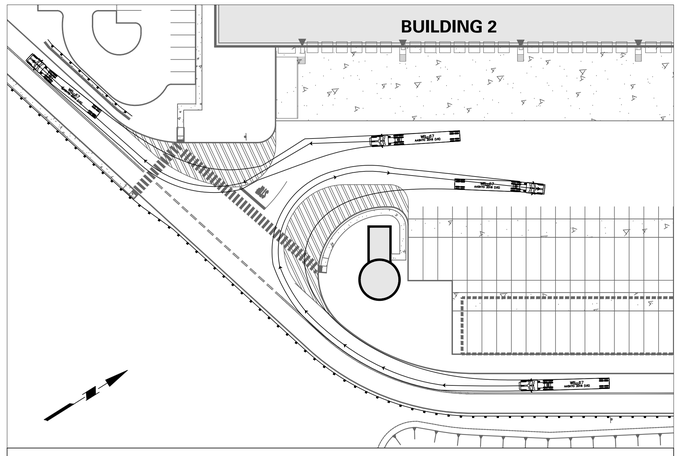
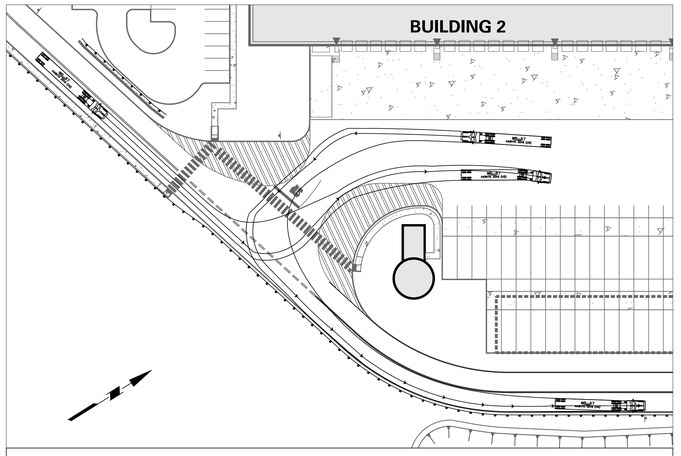
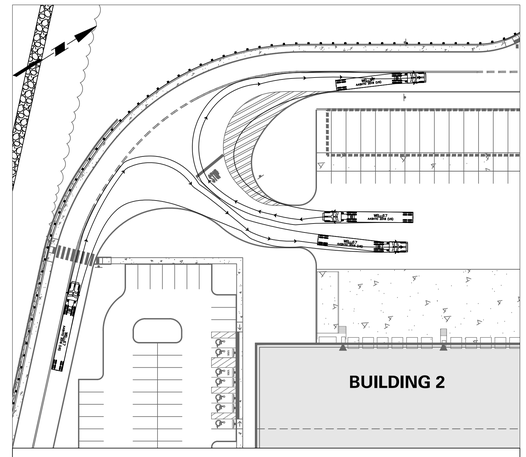
Date: 8/14/2025 Time: 19:56 User: mrynn Style Table: Langan.stb Layout: CS-202 Document Code: 200164401-0301-CS102-0103



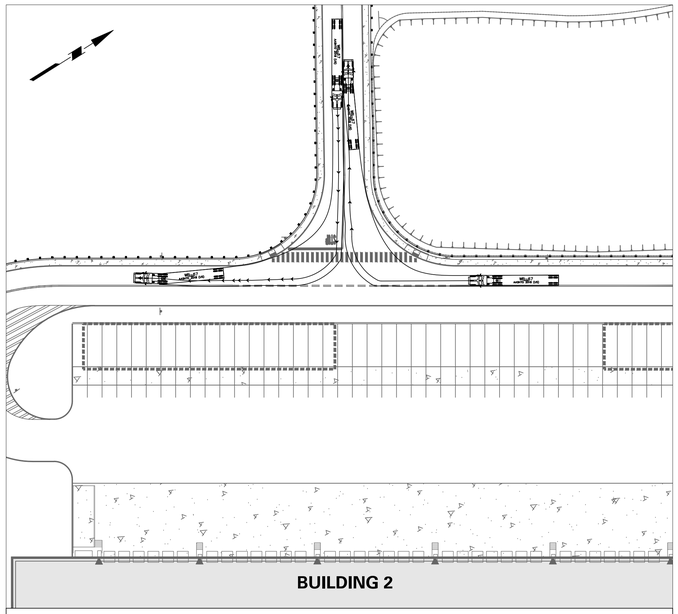
BUILDING 2 - SOUTHEAST TRAILER COURT ENTRANCE
RIGHT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'



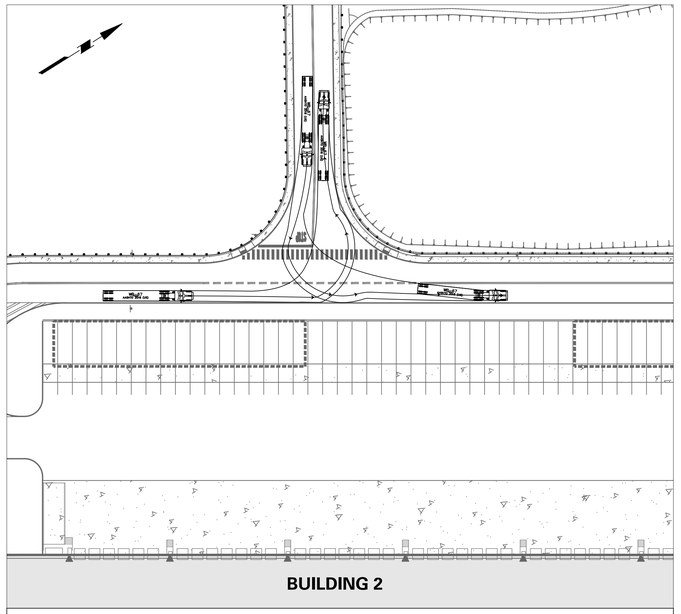
BUILDING 2 - SOUTHEAST TRAILER COURT ENTRANCE
LEFT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'



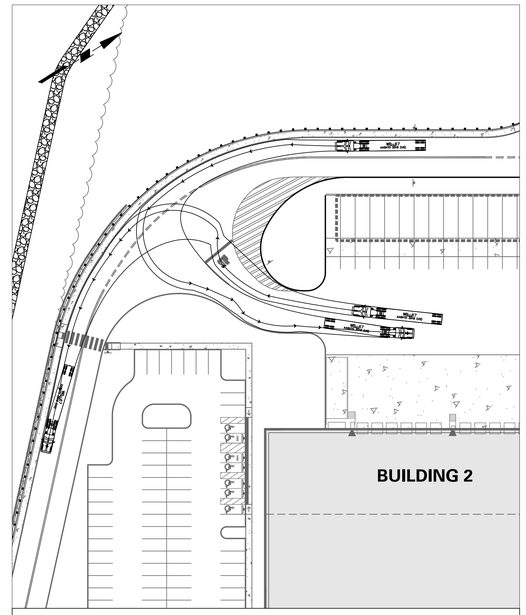
BUILDING 2 - SOUTHWEST TRAILER COURT ENTRANCE
RIGHT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'



BUILDING 2 & 3 DRIVE AISLE CONNECTION -
RIGHT TURN ONTO DRIVE AISLE AND RIGHT TURN FROM DRIVE AISLE ONTO LOOP ROAD WEST OF BUILDING 2
SCALE: 1" = 50'



BUILDING 2 & 3 DRIVE AISLE CONNCETION -
LEFT TURN ONTO DRIVE AISLE AND LEFT TURN FROM DRIVE AISLE ONTO LOOP ROAD WEST OF BUILDING 2
SCALE: 1" = 50'



BUILDING 2 - SOUTHWEST TRAILER COURT ENTRANCE
LEFT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-203
Sheet 22 of 128

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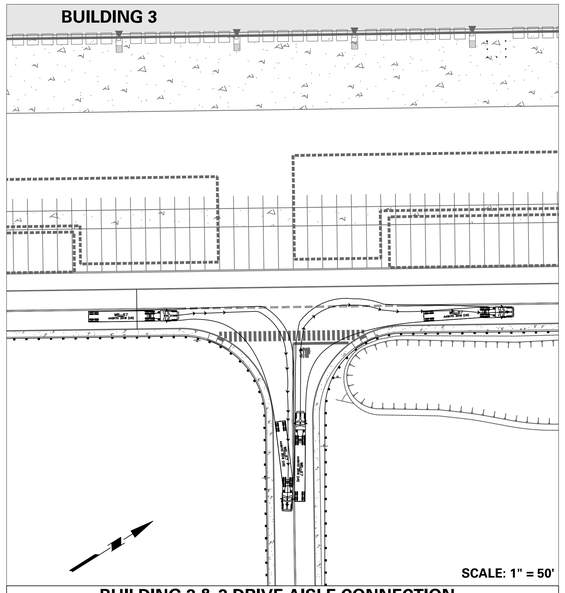
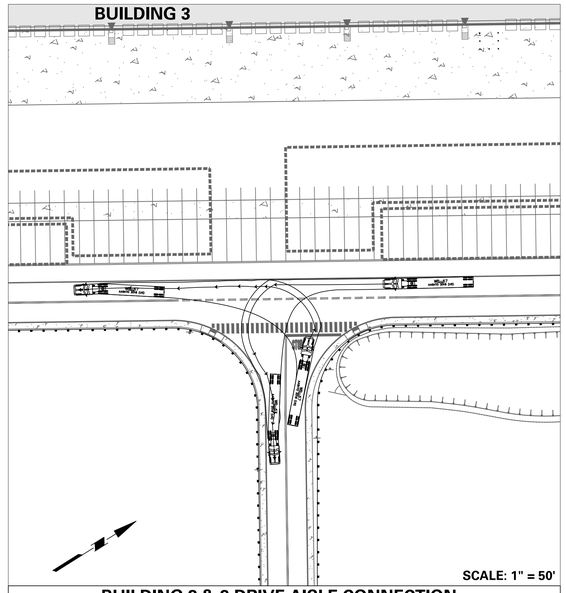
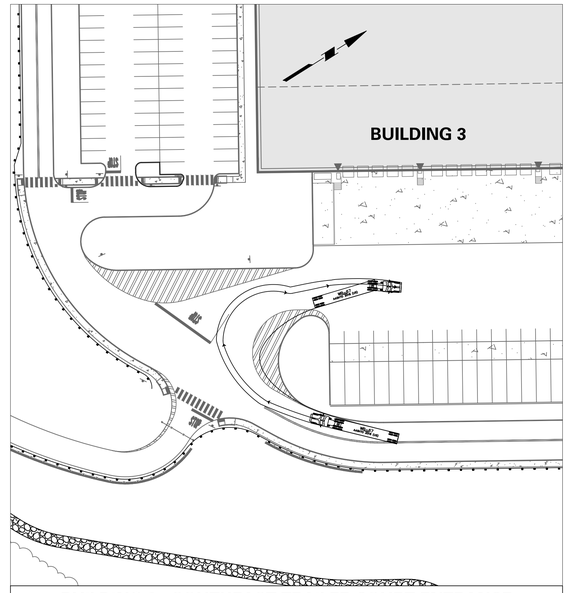
Date: 8/14/2025 Time: 14:19 User: bsoltys Style Table: Langan.stb Layout: CS-203 Document Code: 200164401-0301-CS102-0104



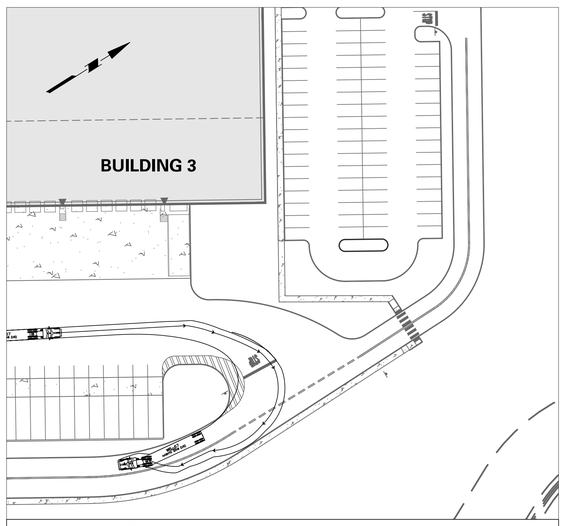
BUILDING 2 & 3 DRIVE AISLE CONNECTION -
RIGHT TURN ONTO DRIVE AISLE AND RIGHT TURN FROM DRIVE AISLE ONTO LOOP ROAD EAST OF BUILDING 3



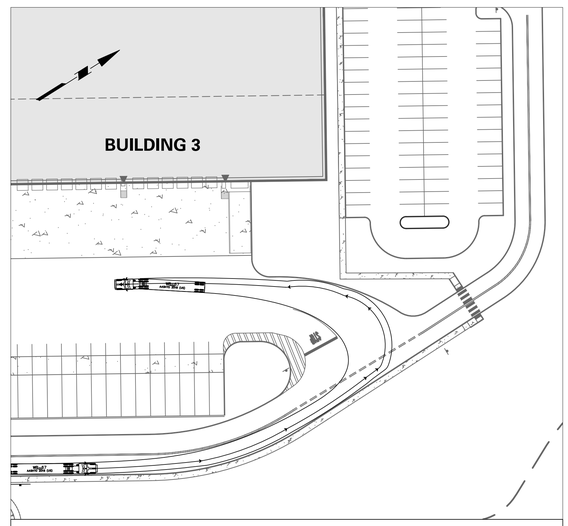
BUILDING 2 & 3 DRIVE AISLE CONNECTION -
LEFT TURN ONTO DRIVE AISLE AND LEFT TURN FROM DRIVE AISLE ONTO LOOP ROAD EAST OF BUILDING 3



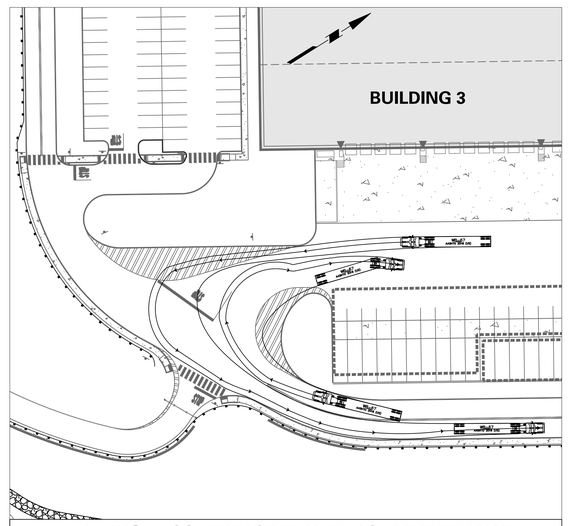
BUILDING 3 - SOUTHEAST TRAILER COURT ENTRANCE
RIGHT TURN INTO TRAILER COURT
SCALE: 1" = 50'



BUILDING 3 - NORTHEAST TRAILER COURT ENTRANCE
RIGHT TURN OUT OF TRAILER COURT
SCALE: 1" = 50'



BUILDING 3 - NORTHEAST TRAILER COURT ENTRANCE
LEFT TURN INTO TRAILER COURT
SCALE: 1" = 50'



BUILDING 3 - SOUTHEAST TRAILER COURT ENTRANCE
LEFT TURN INTO AND OUT OF TRAILER COURT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-204

Sheet 23 of 128

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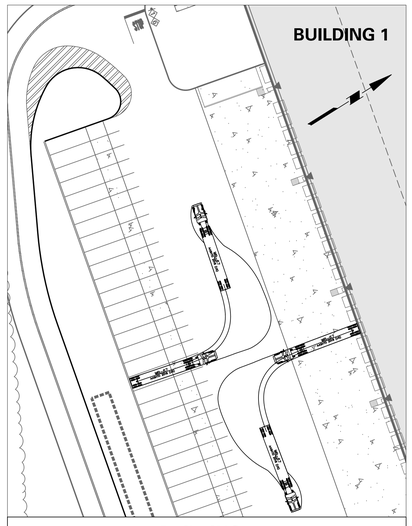
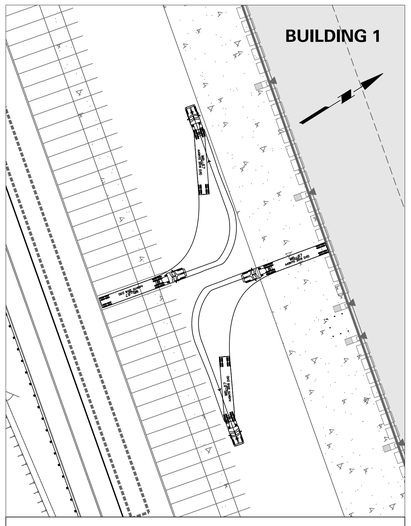
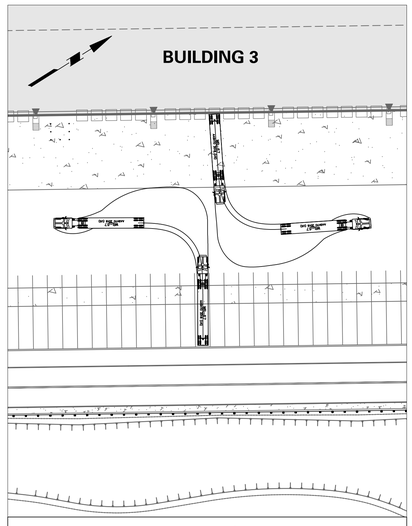
Date: 8/14/2025 Time: 14:20 User: bsoltys Style Table: Langan.stb Layout: CS-204 Document Code: 200164401-0301-CS102-0105



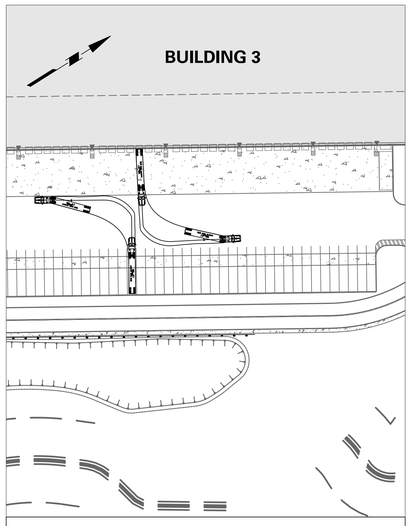
BUILDING 1 SCALE: 1" = 50'
BACKING INTO TRAILER PARKING SPOT AND BACKING INTO LOADING DOCK



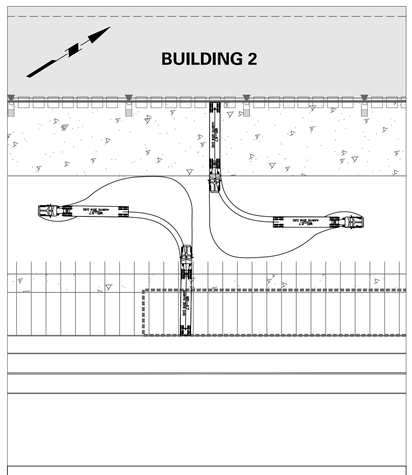
BUILDING 1 SCALE: 1" = 50'
LEFT TURN OUT OF TRAILER PARKING SPOT AND LEFT TURN OUT OF LOADING DOCK



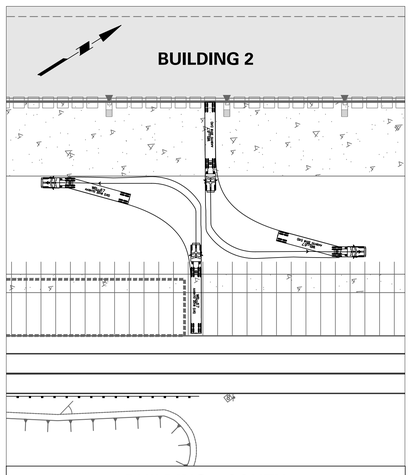
BUILDING 3 SCALE: 1" = 50'
BACKING INTO TRAILER PARKING SPOT AND BACKING INTO LOADING DOCK



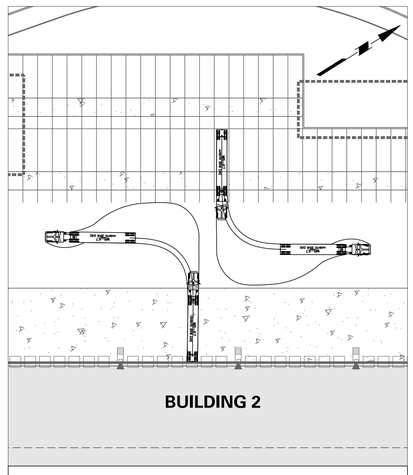
BUILDING 3 SCALE: 1" = 50'
LEFT TURN OUT OF TRAILER PARKING SPOT AND LEFT TURN OUT OF LOADING DOCK



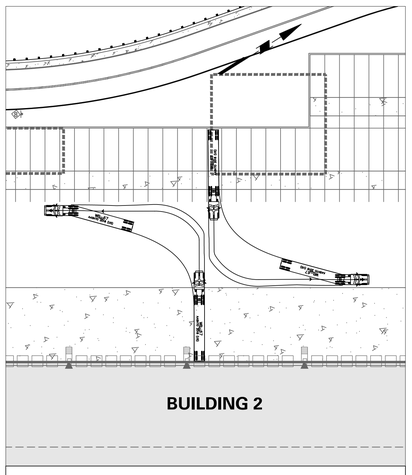
BUILDING 2 SOUTH SCALE: 1" = 50'
BACKING INTO TRAILER PARKING SPOT AND BACKING INTO LOADING DOCK



BUILDING 2 SOUTH SCALE: 1" = 50'
LEFT TURN OUT OF TRAILER PARKING SPOT AND LEFT TURN OUT OF LOADING DOCK



BUILDING 2 NORTH SCALE: 1" = 50'
BACKING INTO TRAILER PARKING SPOT AND BACKING INTO LOADING DOCK



BUILDING 2 NORTH SCALE: 1" = 50'
LEFT TURN OUT OF TRAILER PARKING SPOT AND LEFT TURN OUT OF LOADING DOCK

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-205
Sheet 24 of 128

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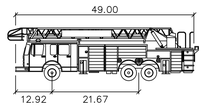
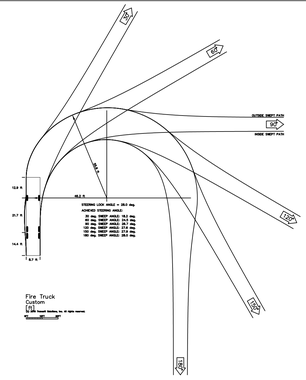
Date: 8/14/2025 Time: 14:20 User: bsollys Style Table: Langan.stb Layout: CS-205 Document Code: 200164401-0301-CS102-0106



Fire Truck

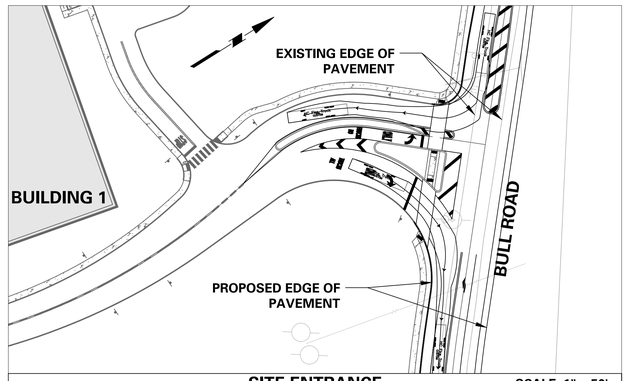
	feet
Width	: 8.67
Track	: 8.25
Lock to Lock Time	: 5.0
Steering Angle	: 39.0

FIRE TRUCK PROFILE
NOT TO SCALE

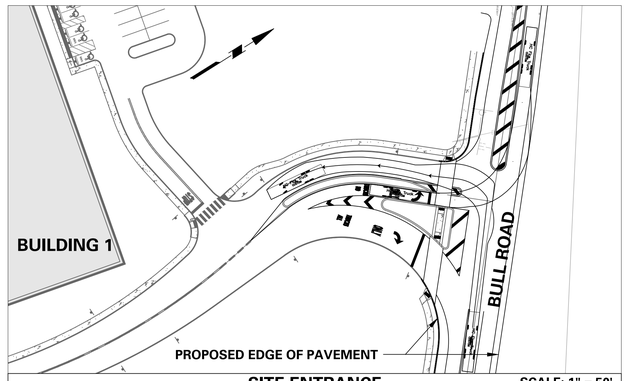


FIRE TRUCK TURNING TEMPLATE
NOT TO SCALE

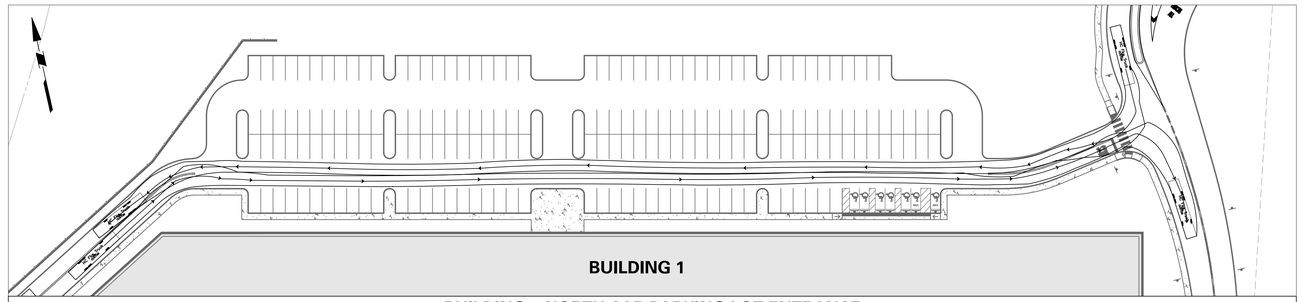
NOTE:
1. FIRE TRUCK TURNING TEMPLATE AND PROFILE WERE PRODUCED USING LANGA'S SUBSCRIPTION TO AUTOTURN SOFTWARE DEVELOPED BY TRANSOFT SOLUTIONS, INC.



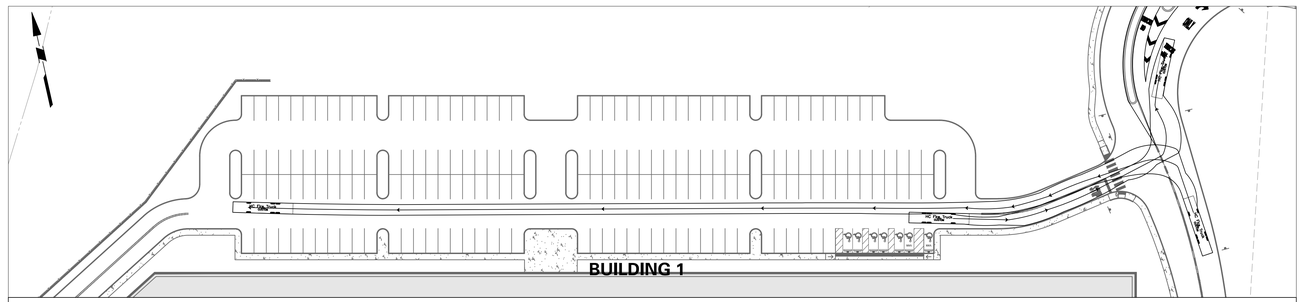
SITE ENTRANCE SCALE: 1" = 50'
RIGHT TURN INTO SITE FROM BULL ROAD AND RIGHT TURN FROM SITE ONTO BULL ROAD EAST OF BUILDING 1



SITE ENTRANCE SCALE: 1" = 50'
LEFT TURN INTO SITE FROM BULL ROAD AND LEFT TURN FROM SITE ONTO BULL ROAD EAST OF BUILDING 1



BUILDING 1 NORTH CAR PARKING LOT ENTRANCE
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 1 NORTH CAR PARKING LOT ENTRANCE
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

Signature 8/15/2025 Date
KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY FIRE TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-206
Sheet 25 of 128

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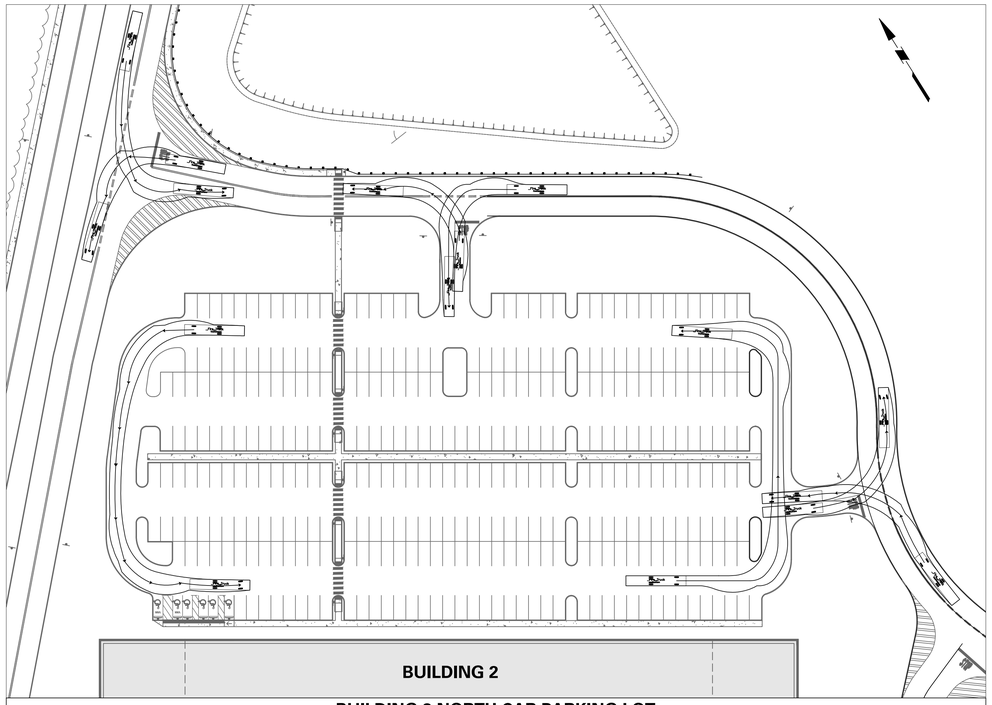
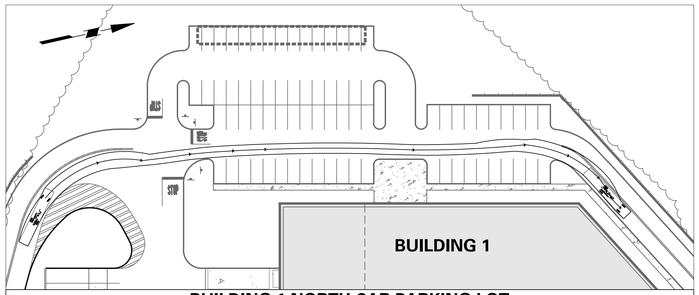
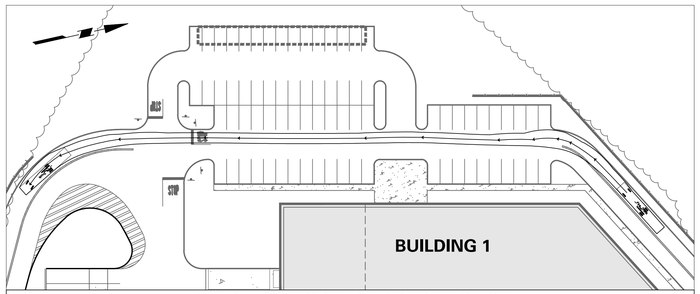
Date: 8/14/2025 Time: 14:21 User: bsoltys Style Table: Langan.stb Layout: CS-206 Document Code: 200164401-0301-CS102-0102



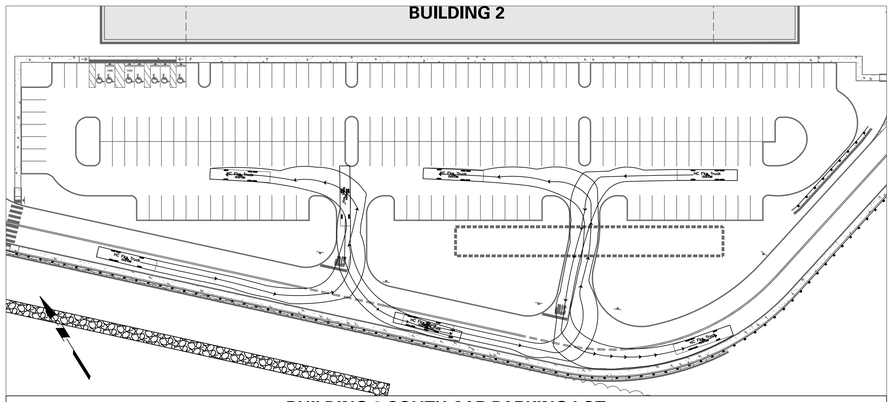
BUILDING 2 NORTH CAR PARKING LOT
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



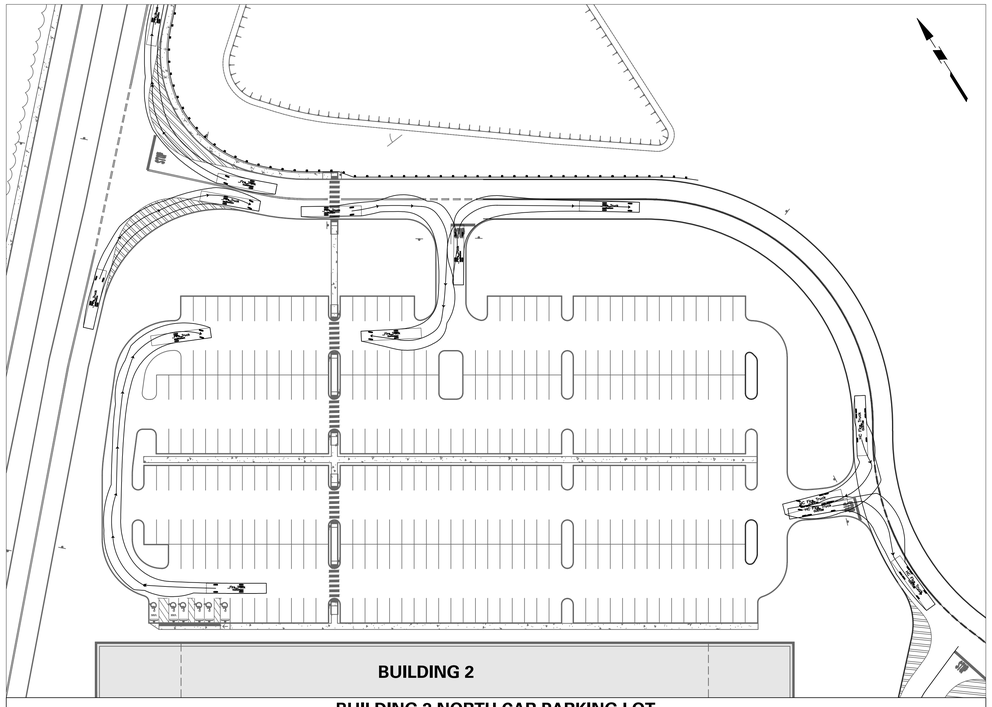
BUILDING 1 NORTH CAR PARKING LOT
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



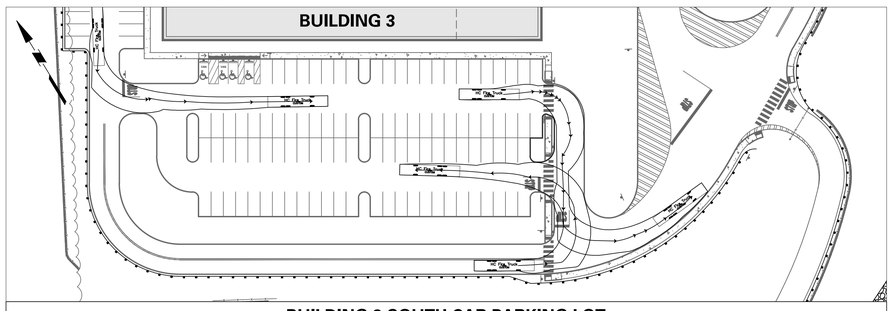
BUILDING 1 NORTH CAR PARKING LOT
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 2 SOUTH CAR PARKING LOT
LEFT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 2 NORTH CAR PARKING LOT
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 3 SOUTH CAR PARKING LOT
LEFT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER POLICY

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY FIRE TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-207
Sheet 26 of 128

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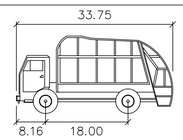
Date: 8/14/2025 Time: 20:01 User: mrynn Style Table: Langan.stb Layout: CS-207 Document Code: 200164401-0301-CS102-0107

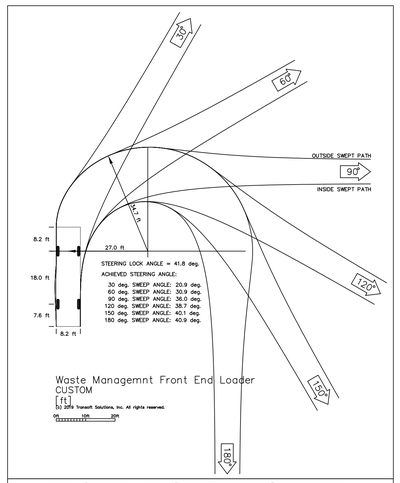


Waste Managemnt Front End Loader

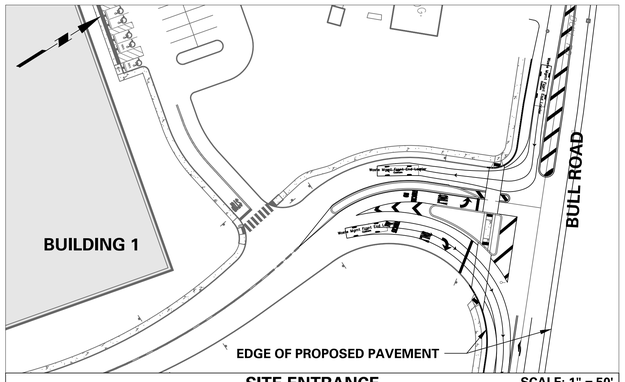
feet

Width	: 8.20
Track	: 7.84
Lock to Lock Time	: 6.0
Steering Angle	: 41.8

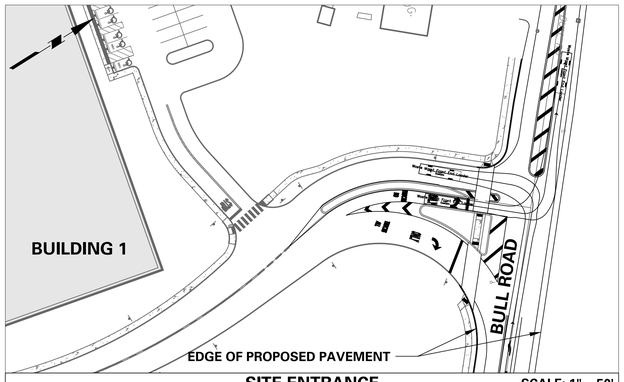
WASTE MANAGEMENT FRONT END LOADER PROFILE
NOT TO SCALE



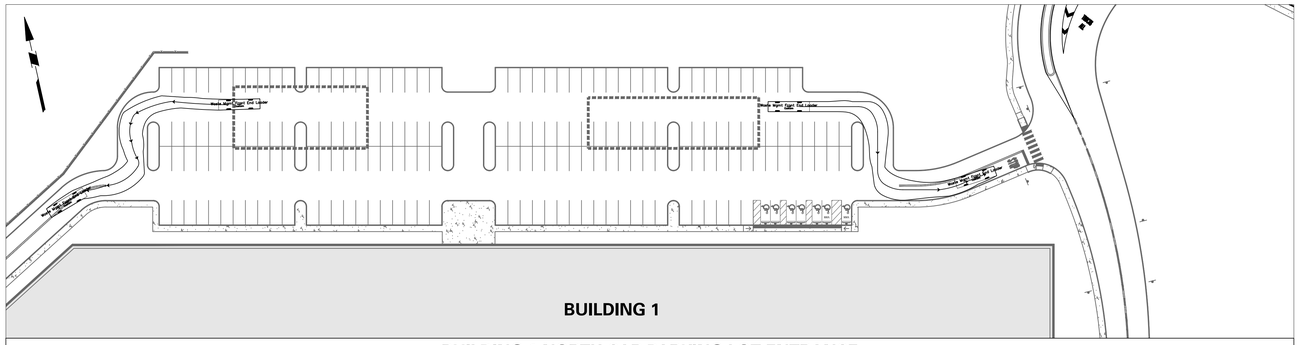
WASTE MANAGEMENT FRONT END LOADER TURNING TEMPLATE
NOT TO SCALE



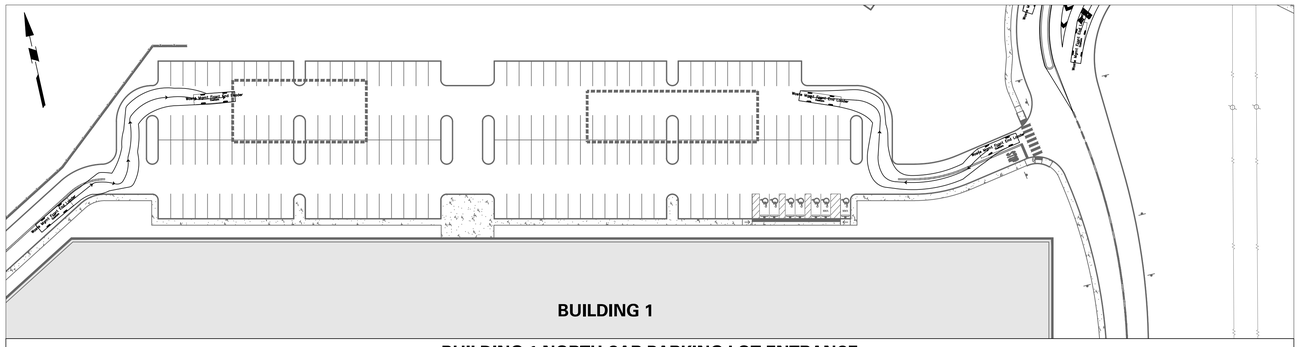
SITE ENTRANCE SCALE: 1" = 50'
RIGHT TURN INTO SITE FROM BULL ROAD AND RIGHT TURN FROM SITE ONTO BULL ROAD EAST OF BUILDING 1



SITE ENTRANCE SCALE: 1" = 50'
LEFT TURN INTO SITE FROM BULL ROAD AND LEFT TURN FROM SITE ONTO BULL ROAD EAST OF BUILDING 1



BUILDING 1 NORTH CAR PARKING LOT ENTRANCE
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 1 NORTH CAR PARKING LOT ENTRANCE
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRASH TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CS-208
Sheet 27 of 128

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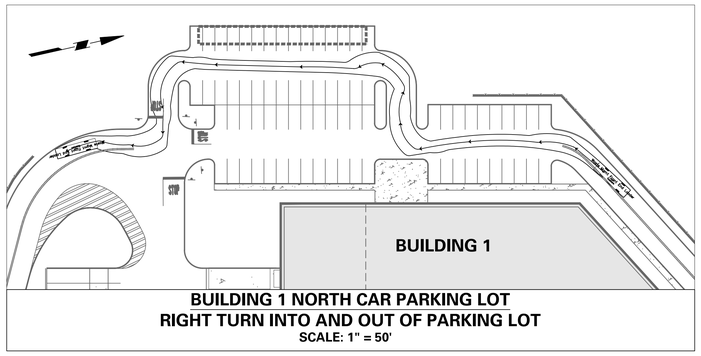
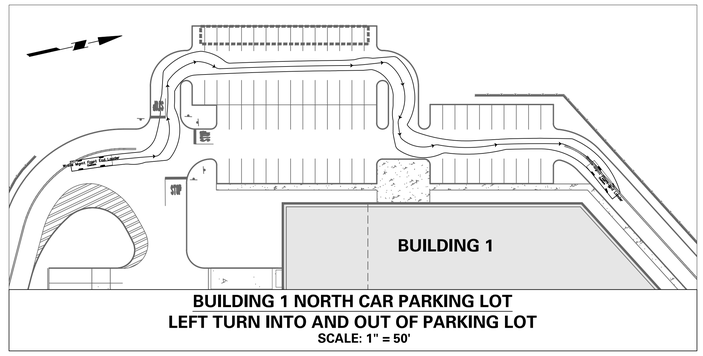
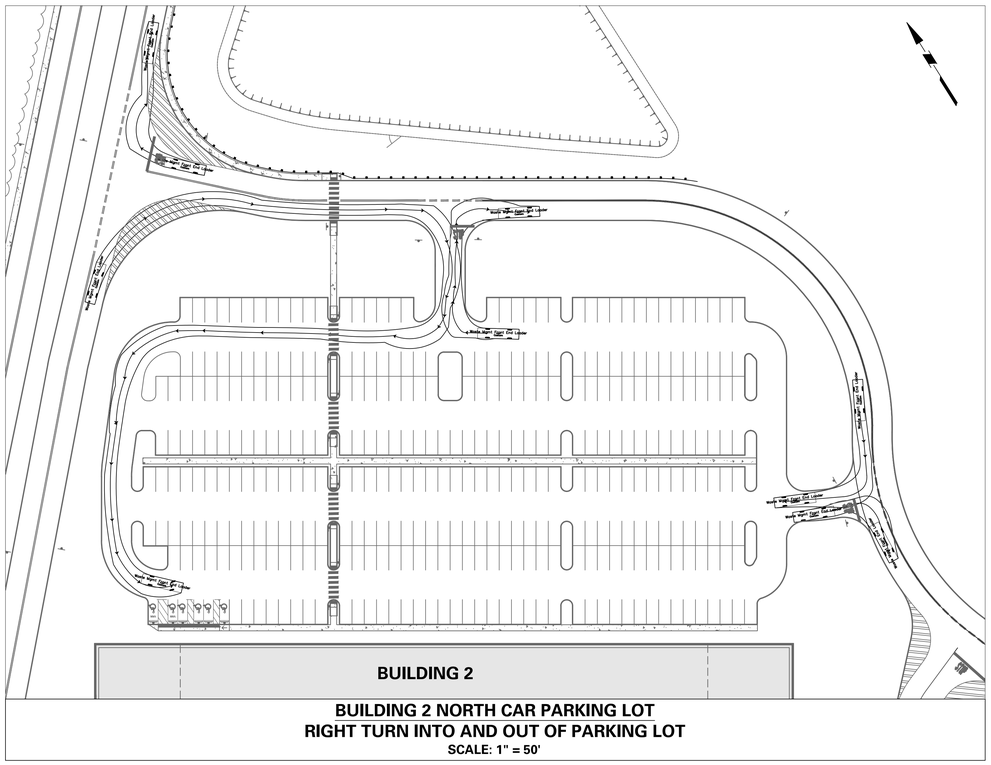
Date: 8/14/2025 Time: 14:22 User: bsoltys Style Table: Langan.stb Layout: CS-209 Document Code: 200164401-0301-CS102-0109



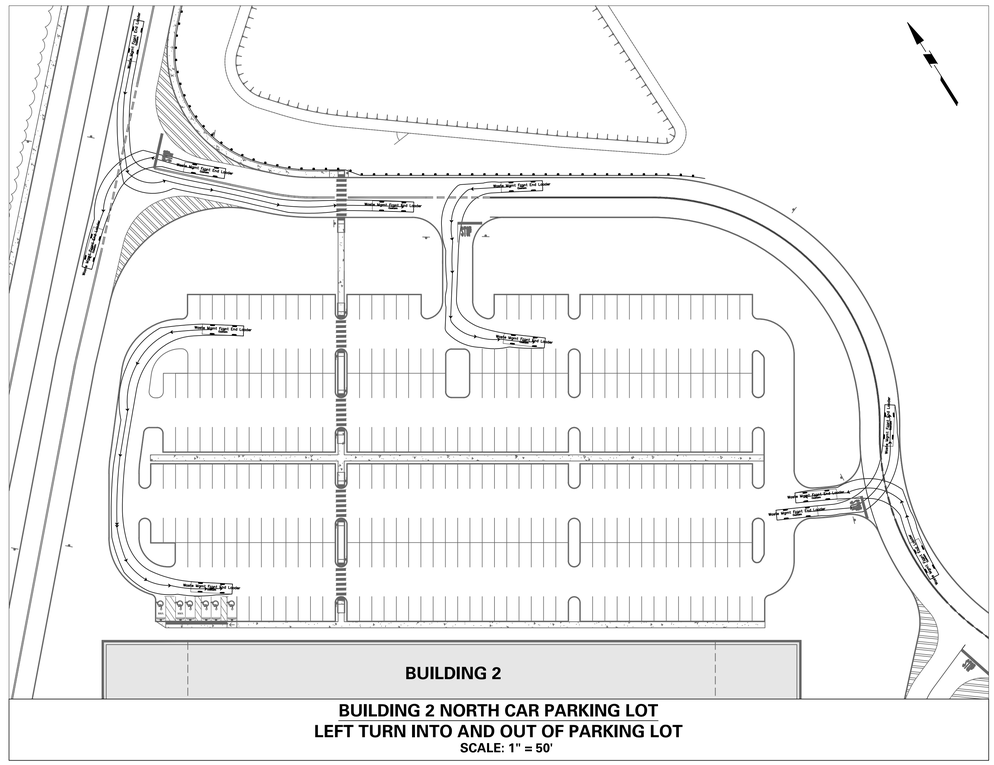
BUILDING 1 NORTH CAR PARKING LOT
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 1 NORTH CAR PARKING LOT
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 2 NORTH CAR PARKING LOT
RIGHT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 2 NORTH CAR PARKING LOT
LEFT TURN INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENNSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY TRASH TRUCK TURNING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-209
Sheet 28 of 128

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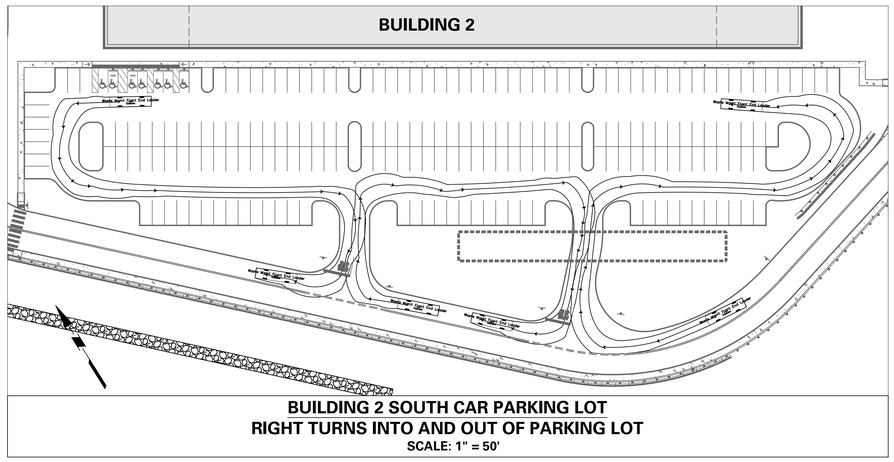
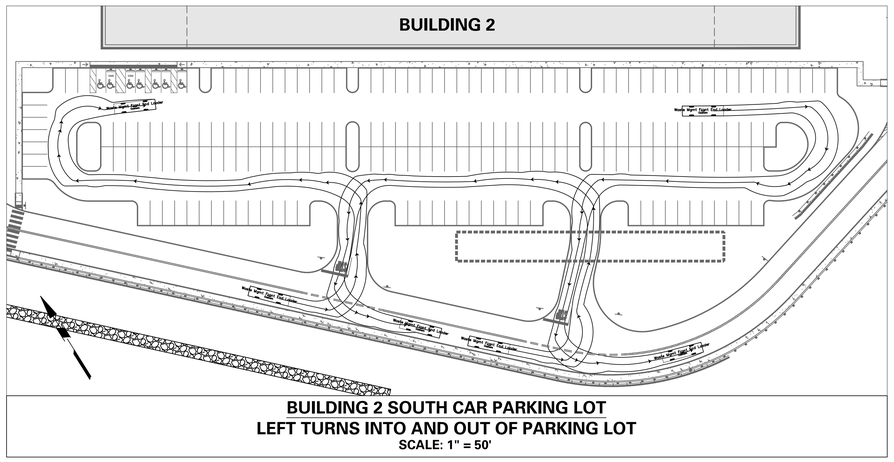
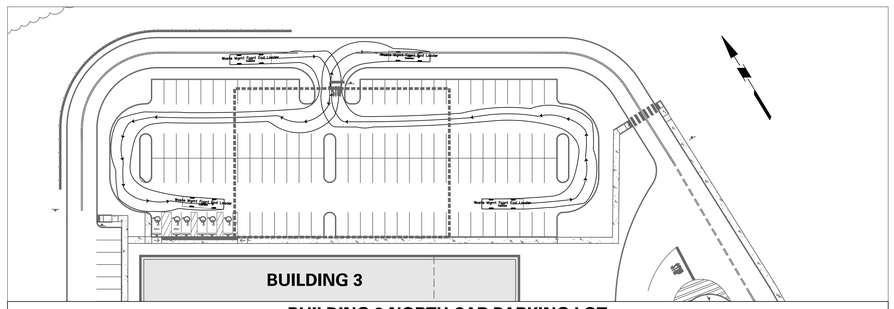
Date: 8/14/2025 Time: 14:22 User: bsoltys Style Table: Langan.stb Layout: CS-210 Document Code: 200164401-0301-CS102-0110



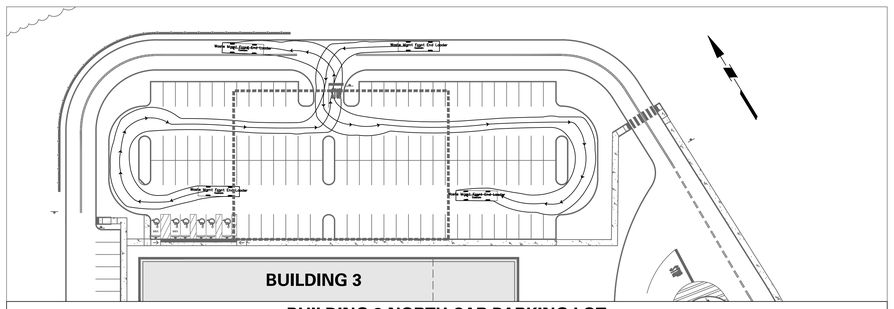
BUILDING 2 SOUTH CAR PARKING LOT
RIGHT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



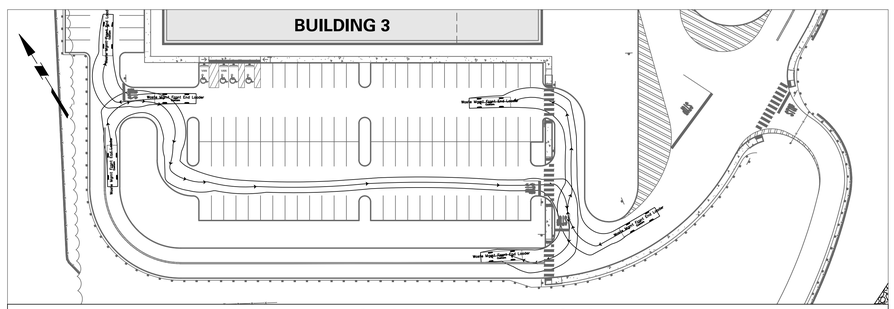
BUILDING 2 SOUTH CAR PARKING LOT
LEFT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



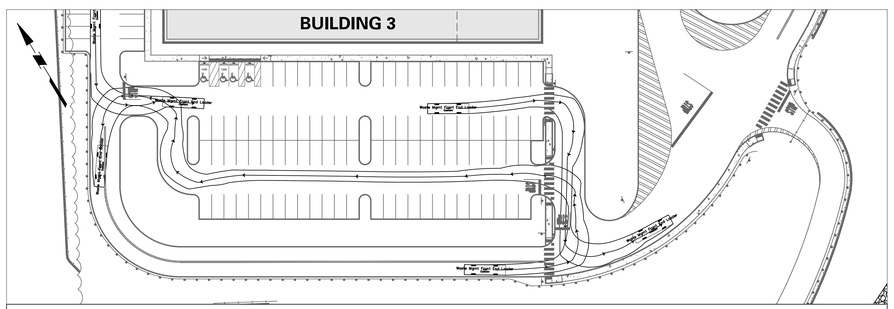
BUILDING 3 NORTH CAR PARKING LOT
RIGHT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 3 NORTH CAR PARKING LOT
LEFT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 3 SOUTH CAR PARKING LOT
RIGHT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'



BUILDING 3 SOUTH CAR PARKING LOT
LEFT TURNS INTO AND OUT OF PARKING LOT
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENSILVANIA

Signature 8/15/2025 Date

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PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Date 6/7/2023
Drawn By BCD
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Drawing No. CS-210
Sheet 29 of 128

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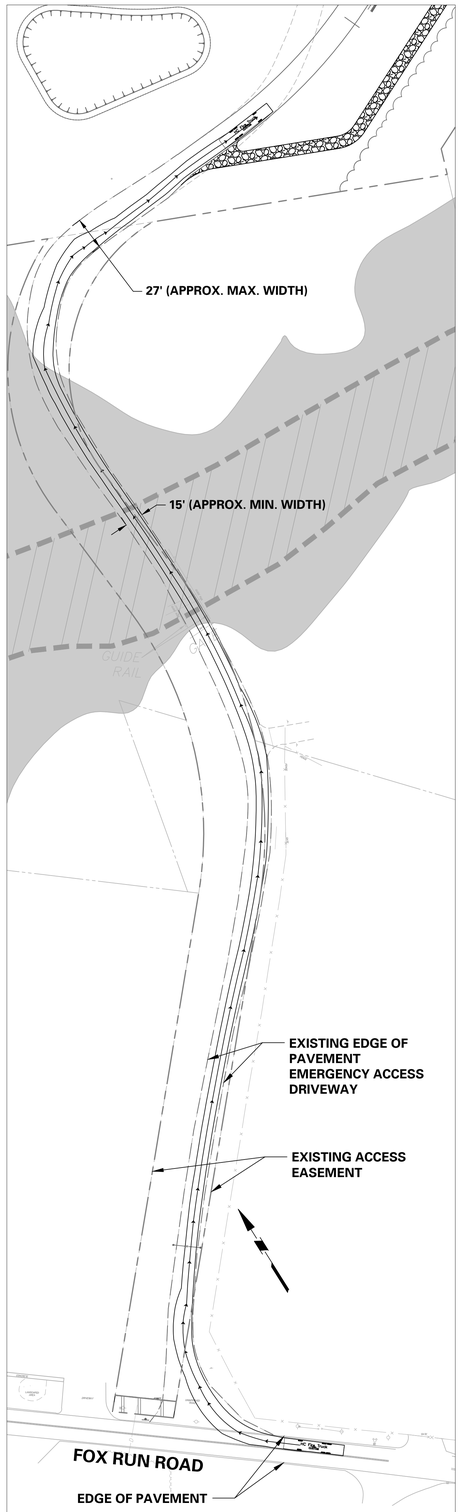
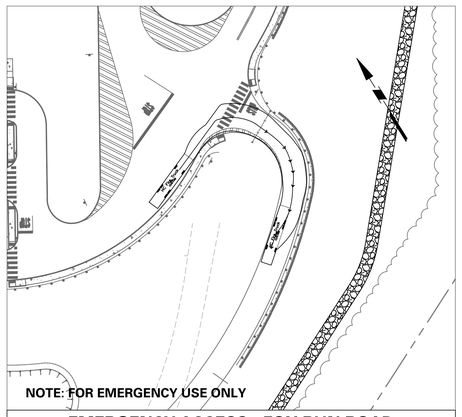


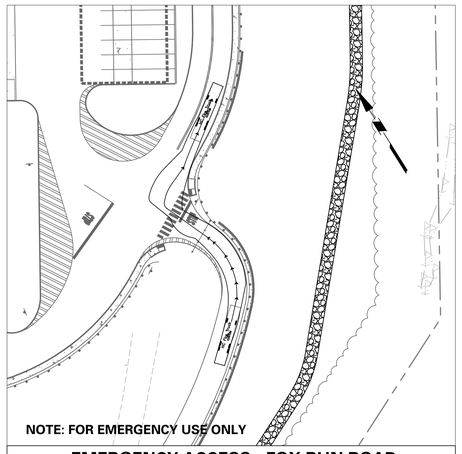
NOTE: FOR EMERGENCY USE ONLY

EXISTING EMERGENCY ACCESS - FOX RUN ROAD
RIGHT TURN ONTO EXISTING EMERGENCY ACCESS ROAD FROM FOX RUN ROAD
SCALE: 1" = 50'



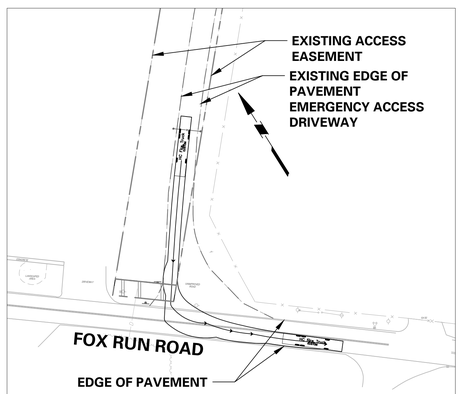
NOTE: FOR EMERGENCY USE ONLY

EMERGENCY ACCESS - FOX RUN ROAD
RIGHT TURN ONTO EMERGENCY ACCESS ROAD FROM SITE
SCALE: 1" = 50'



NOTE: FOR EMERGENCY USE ONLY

EMERGENCY ACCESS - FOX RUN ROAD
RIGHT TURN FROM EMERGENCY ACCESS ROAD INTO SITE
SCALE: 1" = 50'



NOTE: FOR EMERGENCY USE ONLY

EXISTING EMERGENCY ACCESS - FOX RUN ROAD
LEFT TURN FROM EXISTING EMERGENCY ACCESS ROAD ONTO FOX RUN ROAD
SCALE: 1" = 50'

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
~~8/15/2025~~	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 074526 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY EMERGENCY ACCESS FIRE TRUCK TURNING PLAN

Project No. 200164401
Date 12/7/2023
Drawn By BPS
Checked By SMH

Exhibit
CS-211

Sheet 30 of 128

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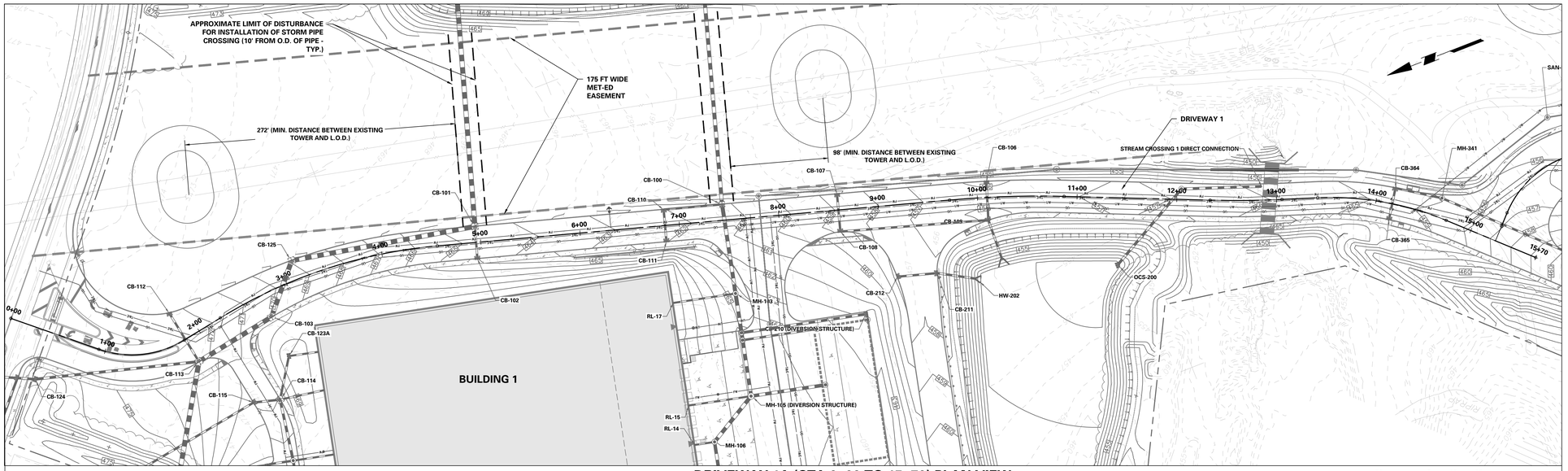

DRIVEWAY 1A (STA 0+00 TO 15+70) PLAN VIEW
SCALE: 1" = 50'

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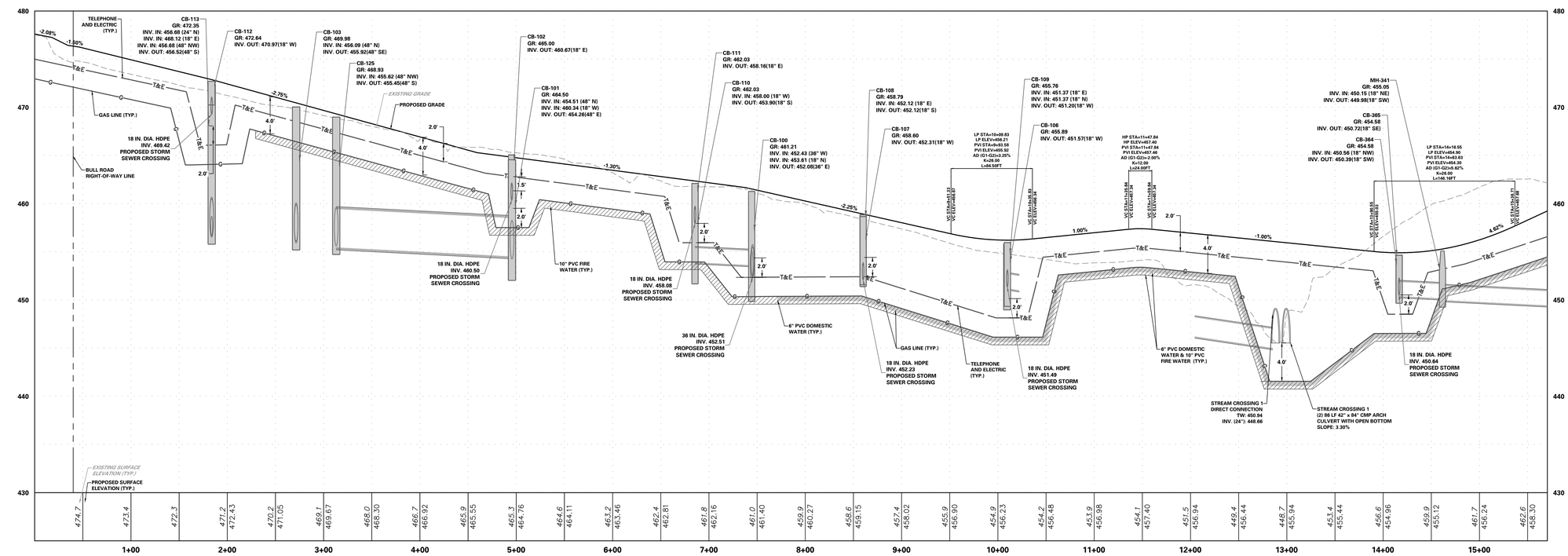
HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 1A PROFILE

5 0 2.5 5
VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — PE-074526 — ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
ROADWAY PROFILES

Project No.	200164401
Date	8/18/2023
Drawn By	OAC
Checked By	SMH
Drawing No.	CS-301
Sheet	31 of 128

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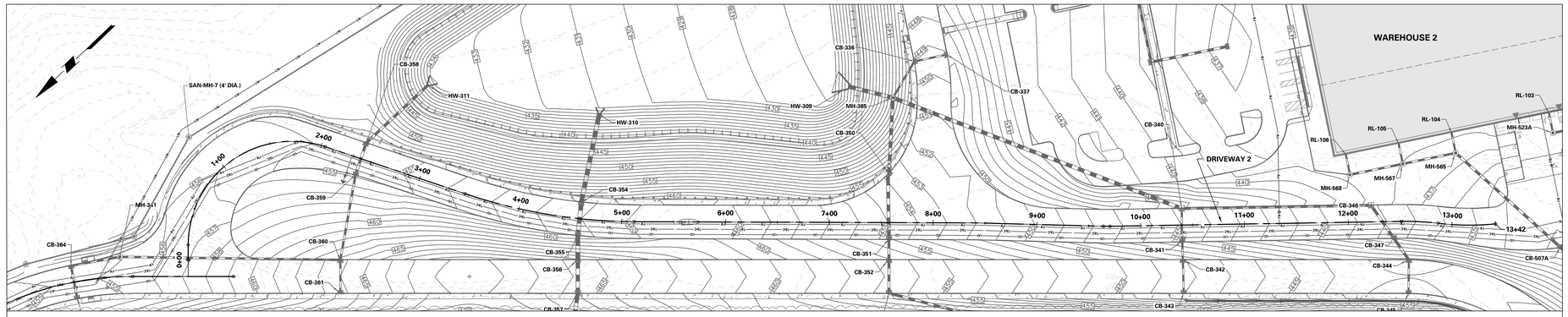

DRIVEWAY 1B (STA 0+00 TO 13+42) PLAN VIEW
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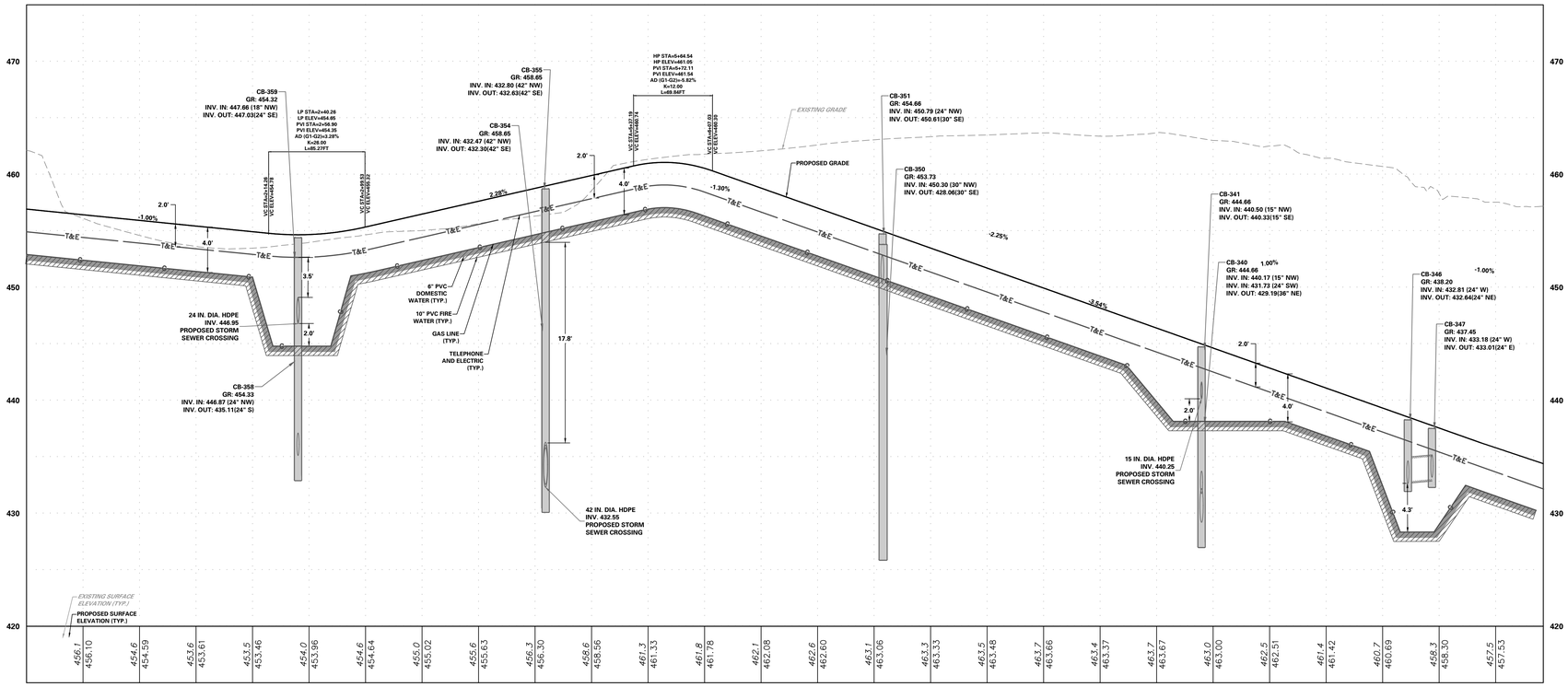
HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 1B PROFILE

5 0 2.5 5
VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
ROADWAY PROFILES

Project No. 200164401
Date 8/18/2023
Drawn By OAC
Checked By SMH

Drawing No. CS-302
Sheet 32 of 128

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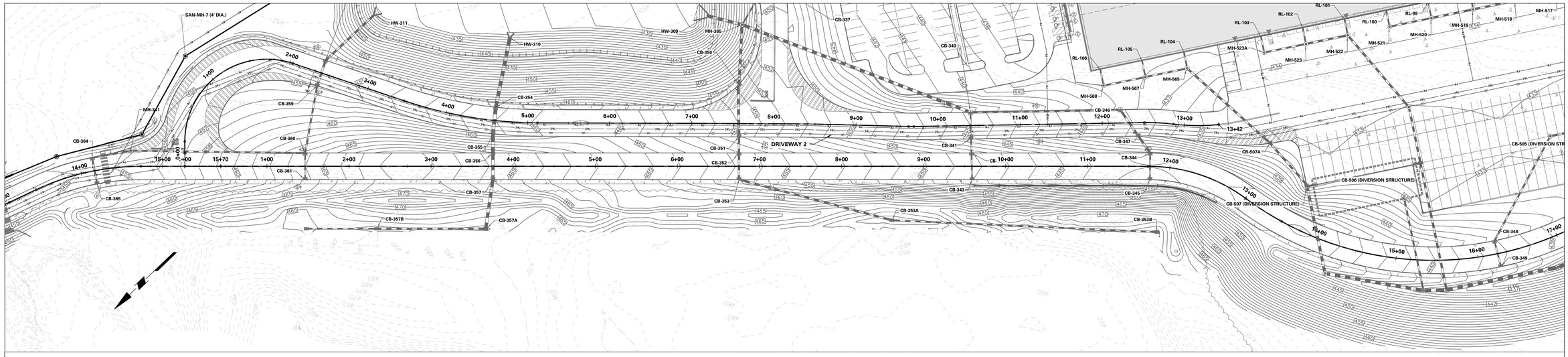

DRIVEWAY 2 (STA 0+00 TO STA 18+00) PLAN VIEW
SCALE: 1" = 50'

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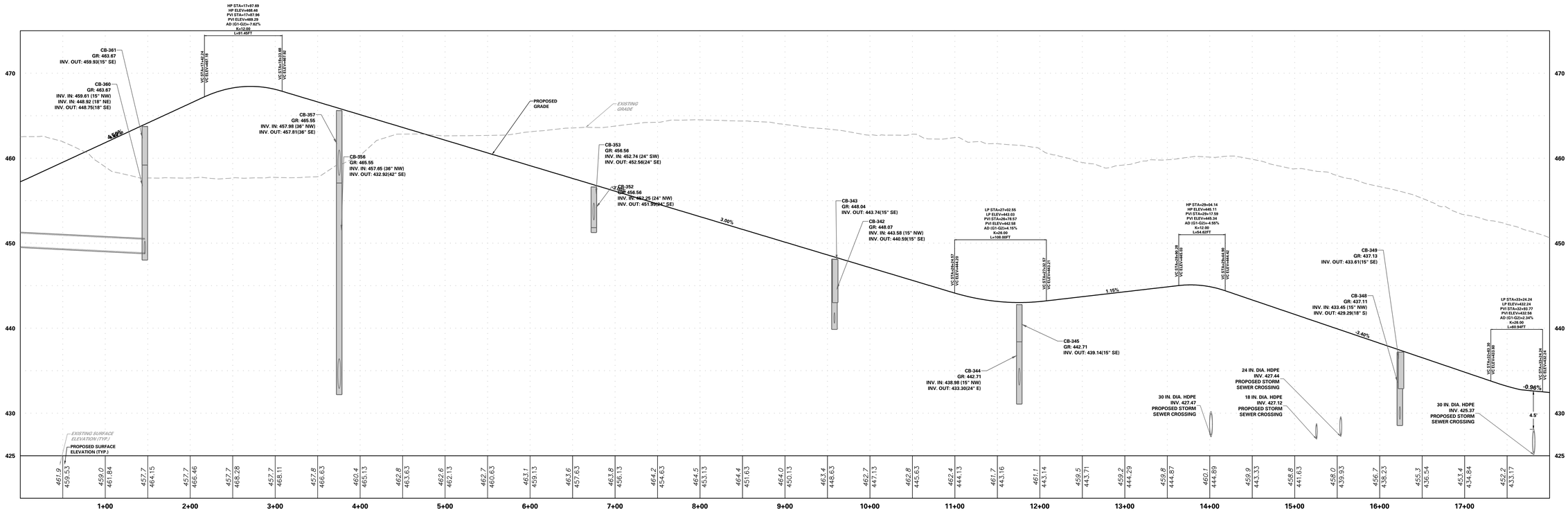
HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 2 (STA 0+00 TO STA 18+00) PROFILE

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VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — KEITH S. OTTES — PROFESSIONAL ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
ROADWAY PROFILES

Project No. 200164401
Date 8/18/2023
Drawn By OAC
Checked By SMH

Drawing No. CS-303
Sheet 33 of 128

Date: 8/14/2025 Time: 22:22 User: bsoltys Style Table: Langan.stb Layout: CS-303 Document Code: 200164401-0301-CS301-0103

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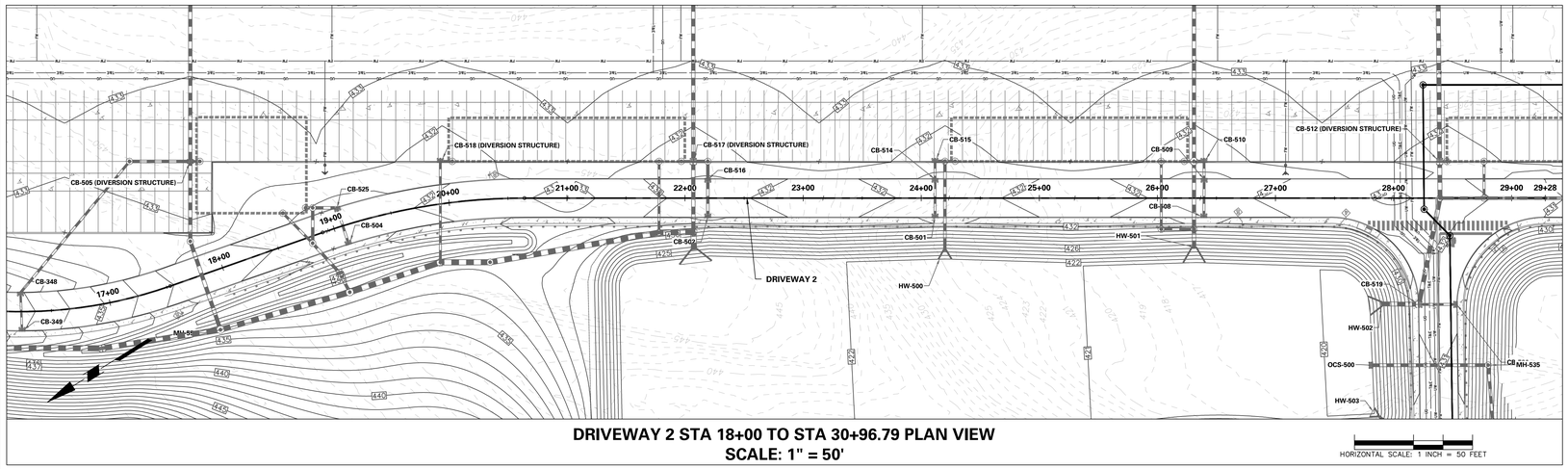
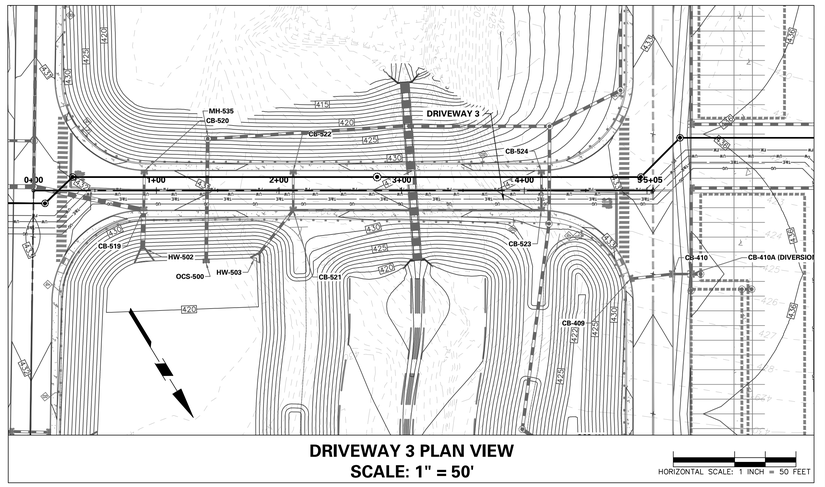


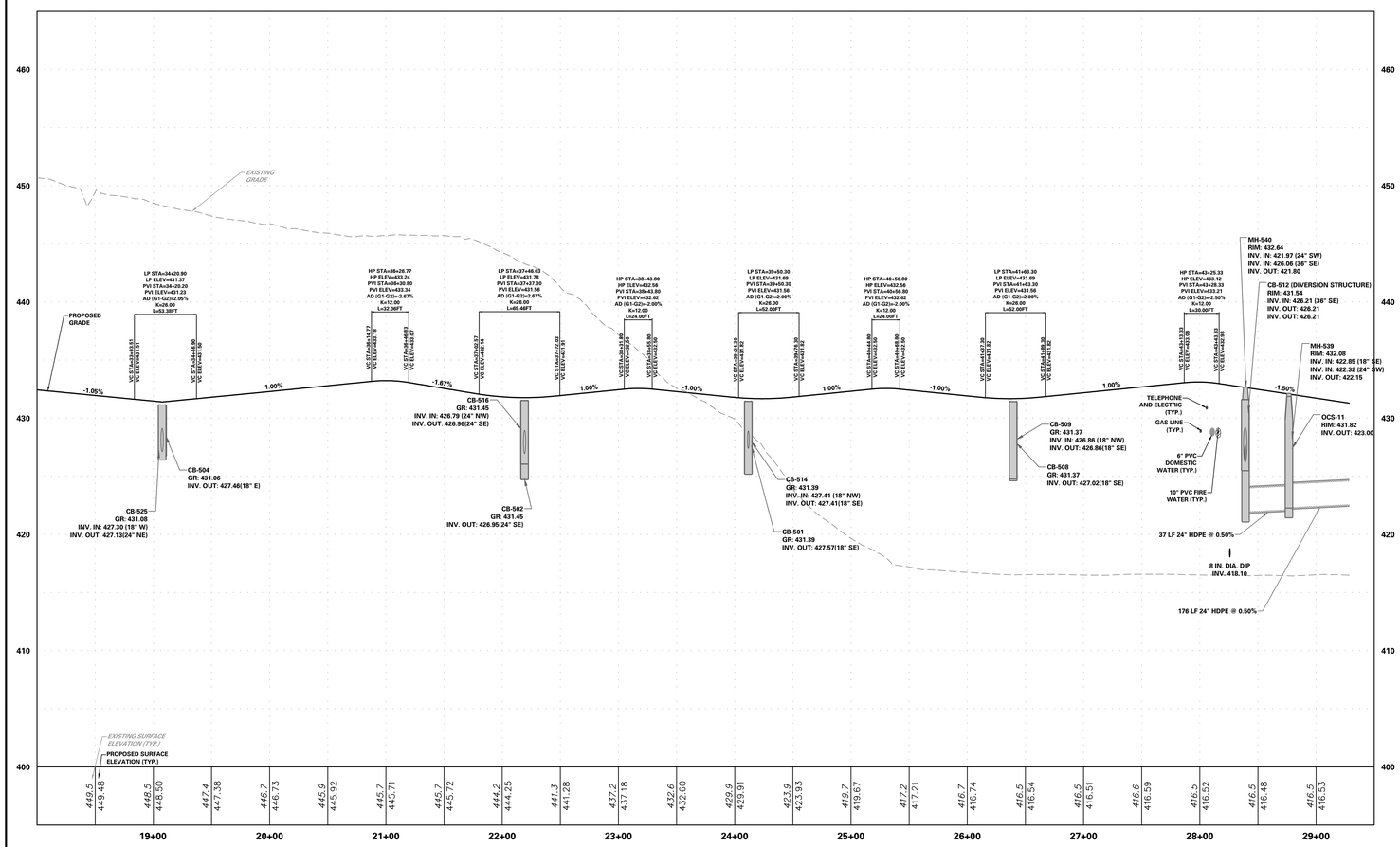
DRIVEWAY 2 STA 18+00 TO STA 30+96.79 PLAN VIEW
SCALE: 1" = 50'

HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 3 PLAN VIEW
SCALE: 1" = 50'

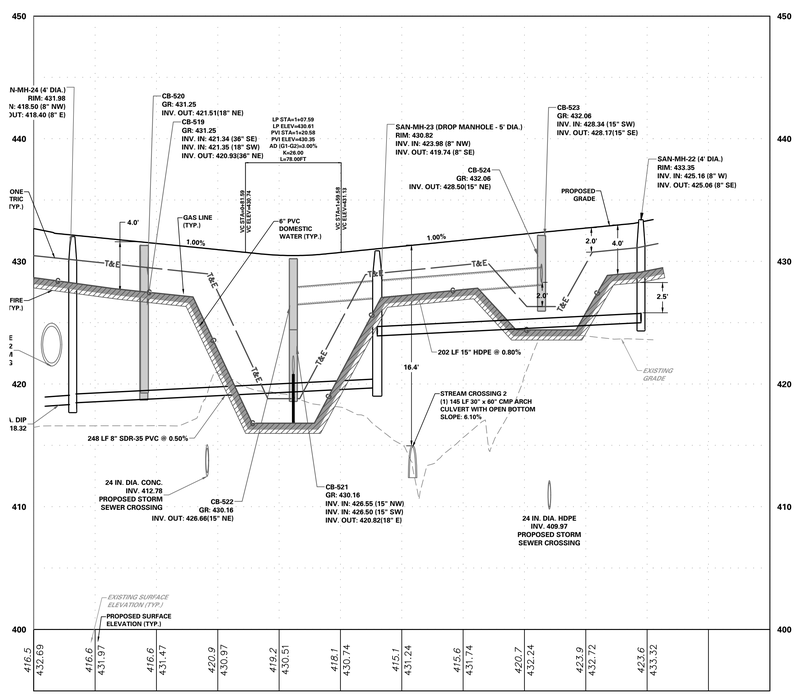
HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 2 (STA. 18+00 TO STA. 30+96.79) PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET



DRIVEWAY 3 PROFILE

No.	Description	Date
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4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

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T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
ROADWAY PROFILES

Project No. 200164401
Date 8/18/2023
Drawn By OAC
Checked By SMH

Drawing No. CS-304
Sheet 34 of 128

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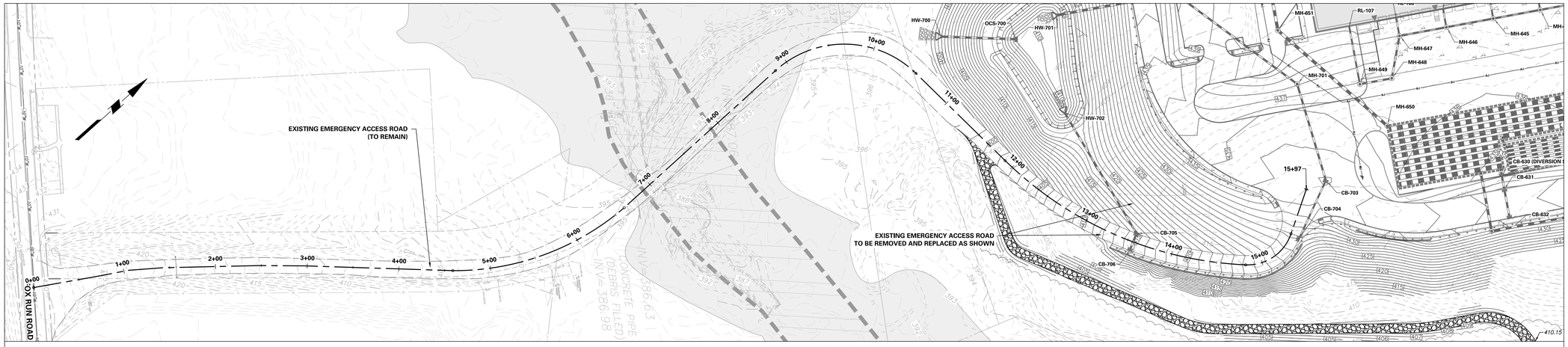
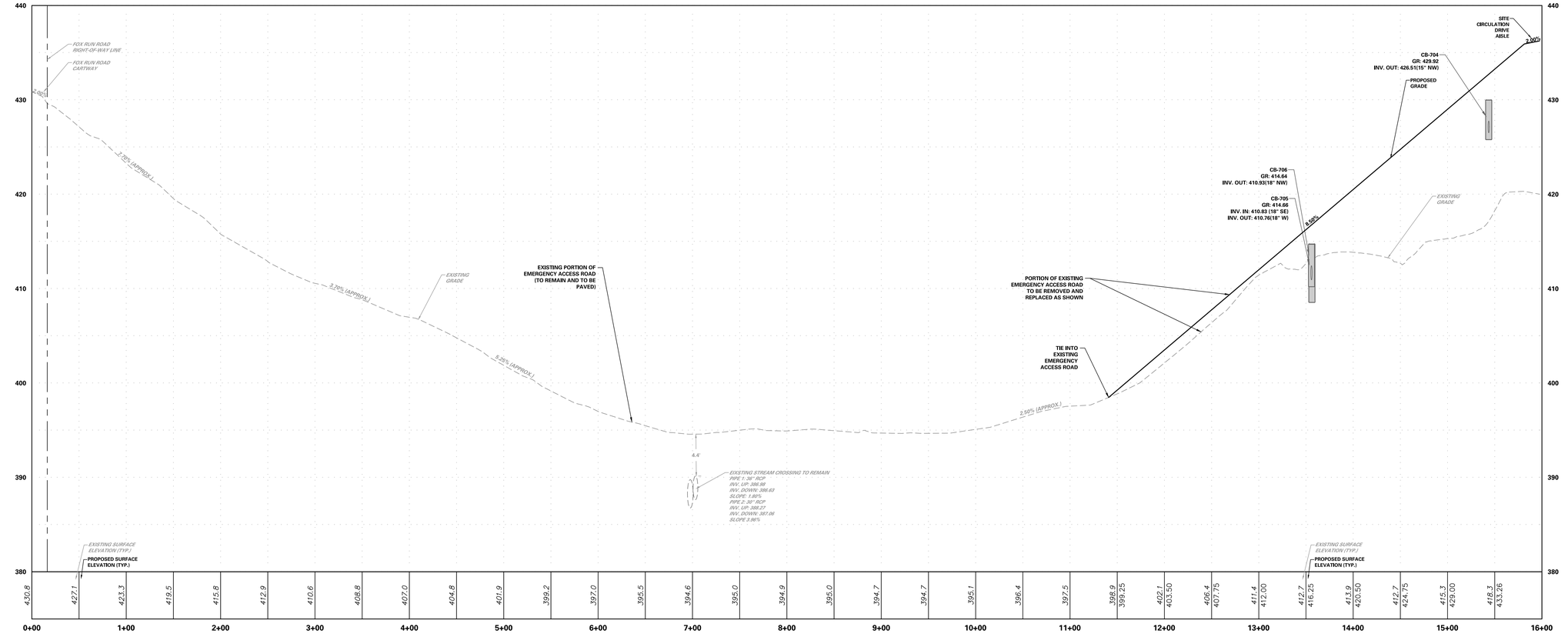
Date: 8/14/2025 Time: 22:26 User: bsoltys Style Table: Langan.stb Layout: CS-304 Document Code: 200164401-0301-CS301-0104



EMERGENCY ACCESS ROAD PLAN VIEW
SCALE: 1" = 50'



EMERGENCY ACCESS ROAD PROFILE

5 0 2.5 5
VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

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Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
ROADWAY PROFILES

Project No. 200164401
Date 8/18/2023
Drawn By OAC
Checked By SMH

Drawing No. CS-305
Sheet 35 of 128

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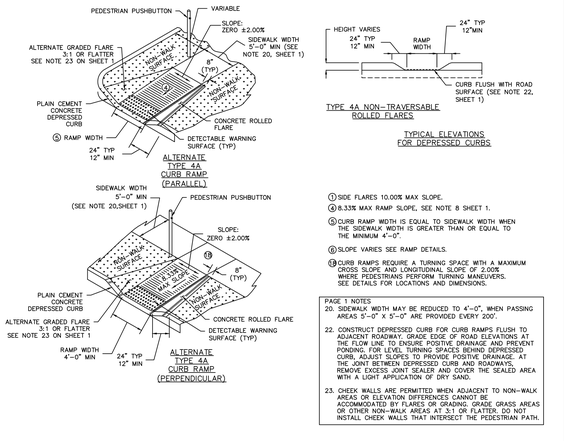
Date: 8/14/2025 Time: 14:30 User: bsoltys Style Table: Langan.stb Layout: CS-305 Document Code: 200164401-0301-CS301-0105



ALTERNATE TYPE 4A CURB RAMP (PARALLEL)

TYPE 4A NON-TRAVERSABLE ROLLED FLARES

TYPICAL ELEVATIONS FOR DEPRESSED CURBS

ALTERNATE TYPE 4A CURB RAMP (PERPENDICULAR)

① SIDE FLARES 10.00% MAX SLOPE.

④ 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.

⑤ CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO THE MINIMUM 4'-0".

⑥ SLOPE VARIES SEE RAMP DETAILS.

⑨ CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

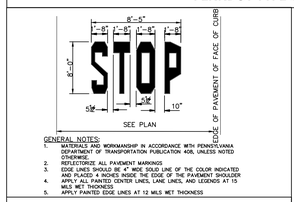
PAGE 1 NOTES

20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.

22. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. AT THE JOINT BETWEEN DEPRESSED CURB AND ROADWAYS, REMOVE EXISTING JOINT SEALER AND COVER THE SEALED AREA WITH A LIGHT APPLICATION OF DRY SAND.

23. CHECK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. IN CASE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER, DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.

PENNDOT TYPE 4A CURB RAMPS

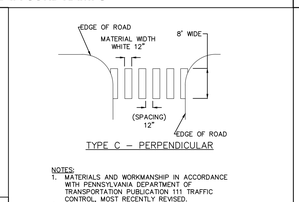


GENERAL NOTES:
1. MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, UNLESS NOTED OTHERWISE.
2. USE REFLORIZE ALL PAVEMENT MARKINGS
3. EDGE LINES SHOULD BE 4" WIDE SOLID LINE OF THE COLOR INDICATED AND PLACED 4 INCHES INSIDE THE EDGE OF THE PAVEMENT SHOULDER
4. APPLY ALL PAINTED CENTER LINES, LANE LINES, AND LEGENDS AT 15 MILS WET THICKNESS
5. APPLY PAINTED EDGE LINES AT 12 MILS WET THICKNESS

STOP LEGEND DETAIL



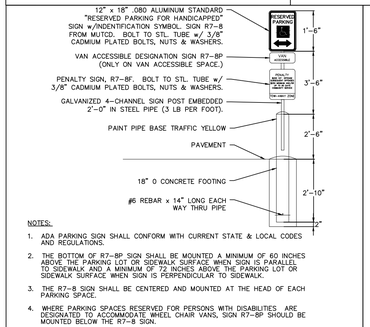
STOP BAR



TYPE C – PERPENDICULAR

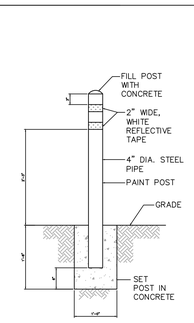
NOTES:
1. MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 111 TRAFFIC CONTROL, MOST RECENTLY REVISED.
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED.
3. APPLY ALL PAINTED CENTER LINES, LANE LINES AND LEGENDS AT 15 MILS WET THICKNESS.
4. CROSSWALK MARKING GEOMETRY AND PAINT SPECIFICATIONS TO COMPLY WITH ALL PADOT REQUIREMENTS AS WELL AS PUB. 111 TRAFFIC CONTROL, MOST RECENTLY REVISED JUNE 2013.

CROSSWALK MARKING

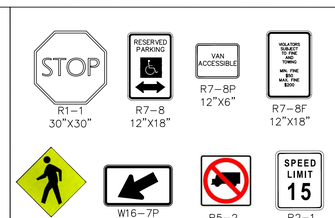


NOTES:
1. ADA PARKING SIGN SHALL CONFORM WITH CURRENT STATE & LOCAL CODES AND REGULATIONS.
2. THE BOTTOM OF R7-8P SIGN SHALL BE MOUNTED A MINIMUM OF 60 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE. WHEN SIGN IS PARALLEL TO SIDEWALK AND A MINIMUM OF 72 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN SIGN IS PERPENDICULAR TO SIDEWALK.
3. THE R7-8 SIGN SHALL BE CENTERED AND MOUNTED AT THE HEAD OF EACH PARKING SPACE.
4. WHERE PARKING SPACES RESERVED FOR PERSONS WITH DISABILITIES ARE DESIGNATED TO ACCOMMODATE WHEEL CHAIR VANS, SIGN R7-8P SHOULD BE MOUNTED BELOW THE R7-8 SIGN.
5. WHERE SIGN R7-8P SIGNS ARE REQUIRED, THE BOTTOM OF THE SIGN SHALL BE MOUNTED A MINIMUM OF 60 INCHES ABOVE THE PARKING LOT SURFACE.
6. SIGNS MAY NOT PROJECT MORE THAN 4 INCHES FROM TEN POST PER ICC A117.1 SECTION 307.3 IF LOCATED BETWEEN 27 INCHES AND 80 INCHES ABOVE THE SIDEWALK.

ADA ACCESSIBLE PARKING SIGN



BOLLARD DETAIL

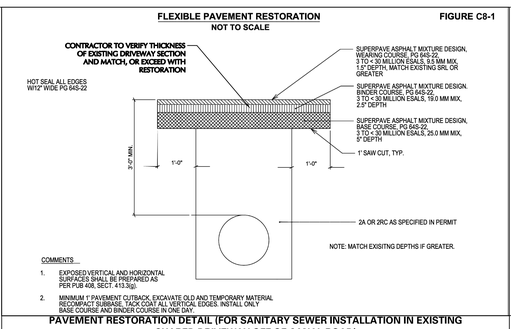


NOTES:
1. ALL TRAFFIC SIGNS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF PENNDOT PUBLICATION 236, "HANDBOOK OF APPROVED SIGNS"
2. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123–78 (OR LATEST REVISED).
3. POSTS MAY BE STEEL, ALUMINUM, OR TWO–PIECE U–POST.
4. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
5. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
6. ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.
7. ALL SIGNS SHALL BE HI–INTENSITY.

TRAFFIC CONTROL SIGNS

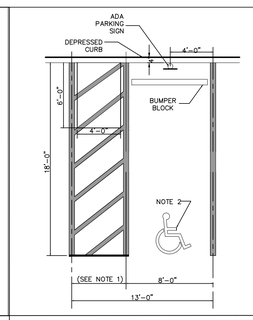
FLEXIBLE PAVEMENT RESTORATION
NOT TO SCALE

FIGURE C8-1



COMMENTS
1. EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS PER PUB 408, SECT. 413.3(g).
2. MINIMUM 1" PAVEMENT OUTBACK. EXCAVATE OLD AND TEMPORARY MATERIAL BEYOND LIMITS OF NEW PAVEMENT. BACK-COAT ALL VERTICAL EDGES. INSTALL ONLY BASE COURSE AND BINDER COURSE IN ONE DAY.

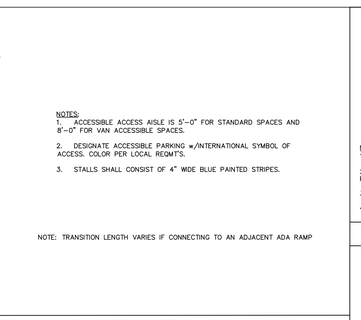
PAVEMENT RESTORATION DETAIL (FOR SANITARY SEWER INSTALLATION IN EXISTING SHARED DRIVEWAY OFF OF CANAL ROAD)



NOTES:
1. ACCESSIBLE ACCESS AISLE IS 5'–0" FOR STANDARD SPACES AND 8'–0" FOR VAN ACCESSIBLE SPACES.
2. DESIGNATE ACCESSIBLE PARKING w/INTERNATIONAL SYMBOL OF ACCESS. COLOR PER LOCAL REQMT'S.
3. STALLS SHALL CONSIST OF 4" WIDE BLUE PAINTED STRIPES.

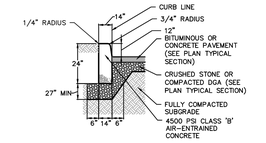
NOTE: TRANSITION LENGTH VARIES IF CONNECTING TO AN ADJACENT ADA RAMP

ACCESSIBLE PARKING STALL DETAIL



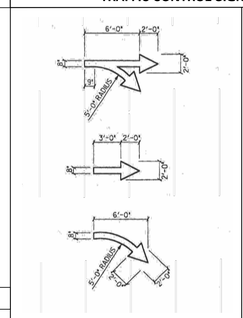
NOTES:
1. CONCRETE TO TEST 4,500 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 5% TO 7%, SLUMP TO BE 3" ± 1"
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
3. EXPOSED CONCRETE SURFACE IS TO BE RUBBED TO PROVIDE SMOOTH FINISHED SURFACE.
4. ALL SUBSOIL SHALL BE FULLY COMPACTED TO 95% OF MODIFIED PROCTOR DRY DENSITY PER ASTM D1557.

CONCRETE CURB DETAIL (8-INCH)



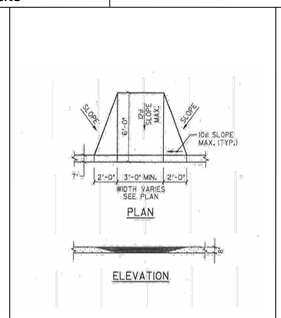
NOTES:
1. CONCRETE TO TEST 4,500 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 5% TO 7%, SLUMP TO BE 3" ± 1"
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
3. EXPOSED CONCRETE SURFACE IS TO BE RUBBED TO PROVIDE SMOOTH FINISHED SURFACE.
4. ALL SUBSOIL SHALL BE FULLY COMPACTED TO 95% OF MODIFIED PROCTOR DRY DENSITY PER ASTM D1557.
5. FOR USE BEHIND TRUCK TRAILER PARKING SPACES ONLY. SEE PAVEMENT PLAN.

CONCRETE CURB DETAIL (12-INCH)



NOTES:
– NOT TO SCALE
– DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP DIRECTIONAL ARROWS



NOTES:
– NOT TO SCALE
– DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP FLUSH CURB

NOTES:
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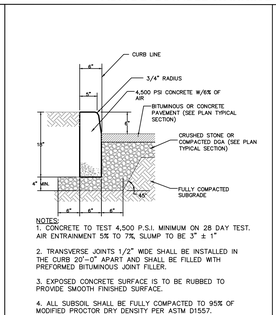
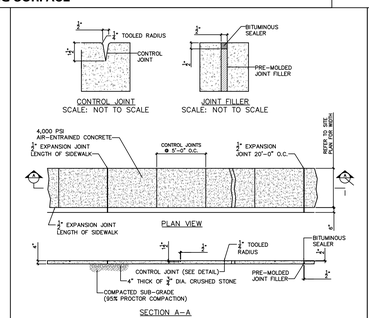
6" CONCRETE CURB DETAIL



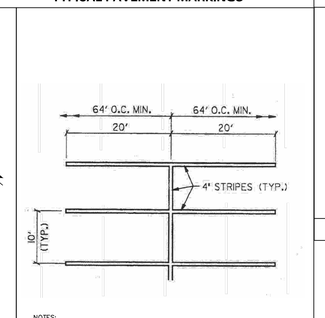
NOTES:
1. CONCRETE TO TEST 4,500 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 5% TO 7%, SLUMP TO BE 3" ± 1"
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
3. EXPOSED CONCRETE SURFACE IS TO BE RUBBED TO PROVIDE SMOOTH FINISHED SURFACE.
4. ALL SUBSOIL SHALL BE FULLY COMPACTED TO 95% OF MODIFIED PROCTOR DRY DENSITY PER ASTM D1557.

TYPICAL CONCRETE SIDEWALK



NOTES:
– NOT TO SCALE
– ALL SIDEWALKS SHALL BE FLOATED, TOOLED, AND SOFT BROOM BRUSHED.

DOVER TOWNSHIP 90 DEGREE PARKING



NOTES:
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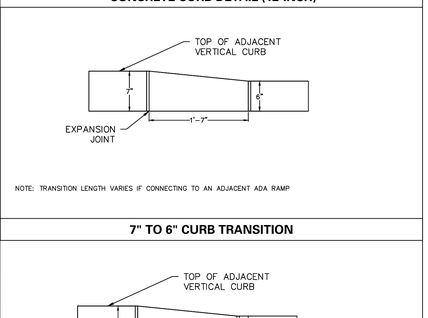
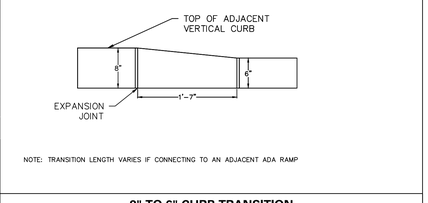
TYPICAL PAVEMENT MARKINGS



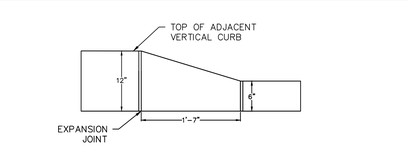
NOTE: TRANSITION LENGTH VARIES IF CONNECTING TO AN ADJACENT ADA RAMP

7" TO 6" CURB TRANSITION



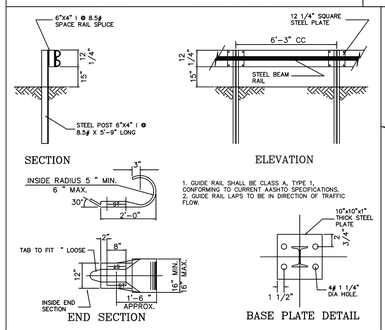
NOTE: TRANSITION LENGTH VARIES IF CONNECTING TO AN ADJACENT ADA RAMP

8" TO 6" CURB TRANSITION

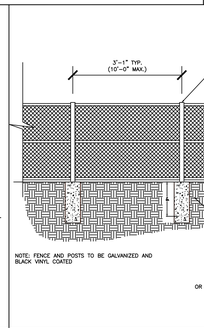


NOTE: TRANSITION LENGTH VARIES IF CONNECTING TO AN ADJACENT ADA RAMP

12" TO 6" CURB TRANSITION



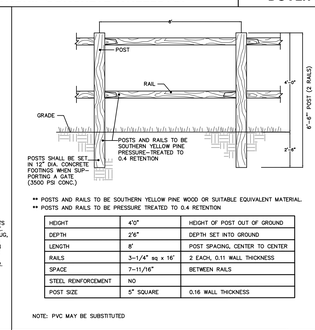
STEEL GUIDERAIL DETAIL



NOTE: FENCE AND POSTS TO BE GALVANIZED AND BLACK VINYL COATED

OR APPROVED EQUAL

CHAIN LINK FENCE



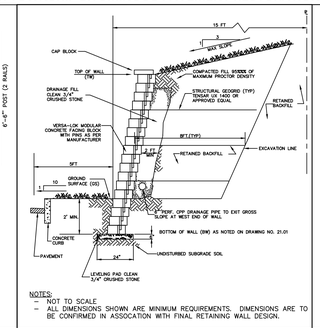
** POSTS AND RAILS TO BE SOUTHERN YELLOW PINE WOOD OR SUITABLE EQUIVALENT MATERIAL.
** POSTS AND RAILS TO BE PRESSURE TREATED TO 0.4 RETENTION

HEIGHT	4'0"
DEPTH	2'6"
LENGTH	8'
RAILS	3–1/4" sq x 16'
SPACE	7–11/16"
STEEL REINFORCEMENT	NO
POST SIZE	5" SQUARE

HEIGHT OF POST OUT OF GROUND	4'0"
DEPTH SET INTO GROUND	2'6"
POST SPACING, CENTER TO CENTER	8'
2 EACH, 0.11 WALL THICKNESS	
BETWEEN RAILS	
0.16 WALL THICKNESS	

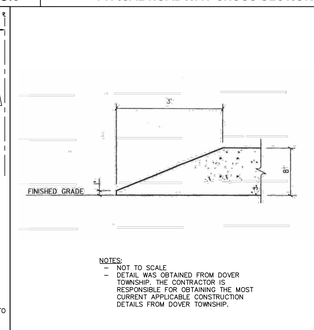
NOTE: PVC MAY BE SUBSTITUTED

POST AND RAIL FENCE



NOTES:
– NOT TO SCALE
– ALL DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS. DIMENSIONS ARE TO BE CONFIRMED IN ASSOCIATION WITH FINAL RETAINING WALL DESIGN.

CONCRETE BLOCK RETAINING WALL



NOTES:
– NOT TO SCALE
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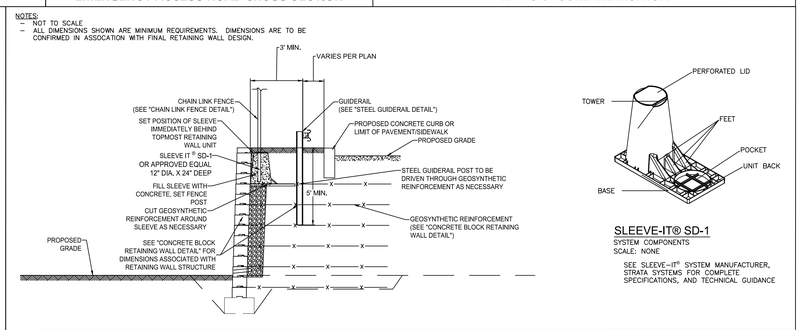
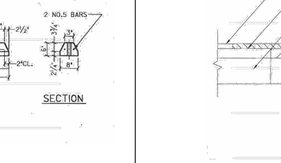
DOVER TOWNSHIP CURB TERMINUS



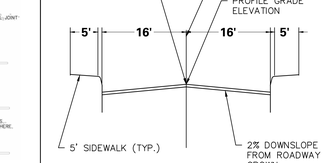
NOTES:
– NOT TO SCALE
– ALL DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS. DIMENSIONS ARE TO BE CONFIRMED IN ASSOCIATION WITH FINAL RETAINING WALL DESIGN.

FENCE/GUIDERAIL ABOVE RETAINING WALL DETAIL

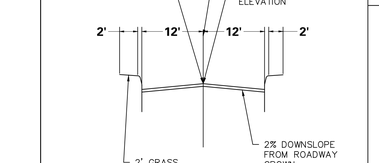


NOTES:
– NOT TO SCALE
– DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.
– AS NEEDED FOR BULL ROAD AND FOX RUN ROAD

DOVER TOWNSHIP BITUMINOUS PAVEMENT RESTORATION



TYPICAL ROADWAY CROSS SECTION



EMERGENCY ACCESS ROAD CROSS SECTION

NOTE: TRANSITION LENGTH VARIES IF CONNECTING TO AN ADJACENT ADA RAMP

12" TO 6" CURB TRANSITION

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PROFESSIONAL ENGINEER PE 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE–074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY SITE DETAILS

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CS-501
Sheet 36 of 128

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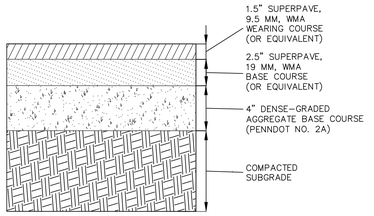
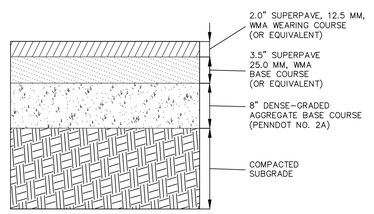
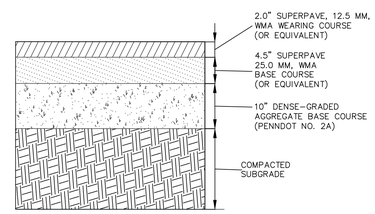


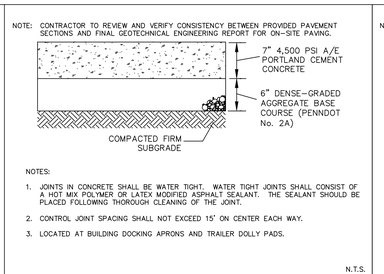
LIGHT DUTY ASPHALT PAVEMENT DETAIL



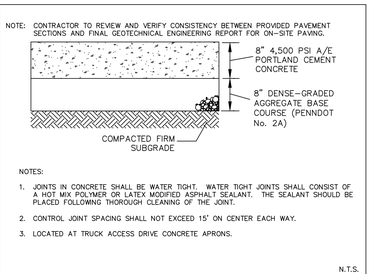
MEDIUM DUTY ASPHALT PAVEMENT DETAIL



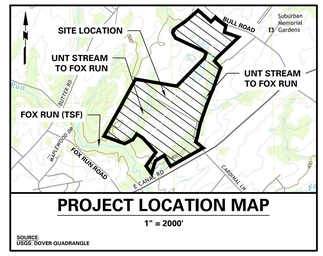
HEAVY DUTY ASPHALT PAVEMENT DETAIL



MEDIUM-DUTY CONCRETE PAVEMENT DETAIL



HEAVY-DUTY CONCRETE PAVEMENT DETAIL



PROJECT LOCATION MAP

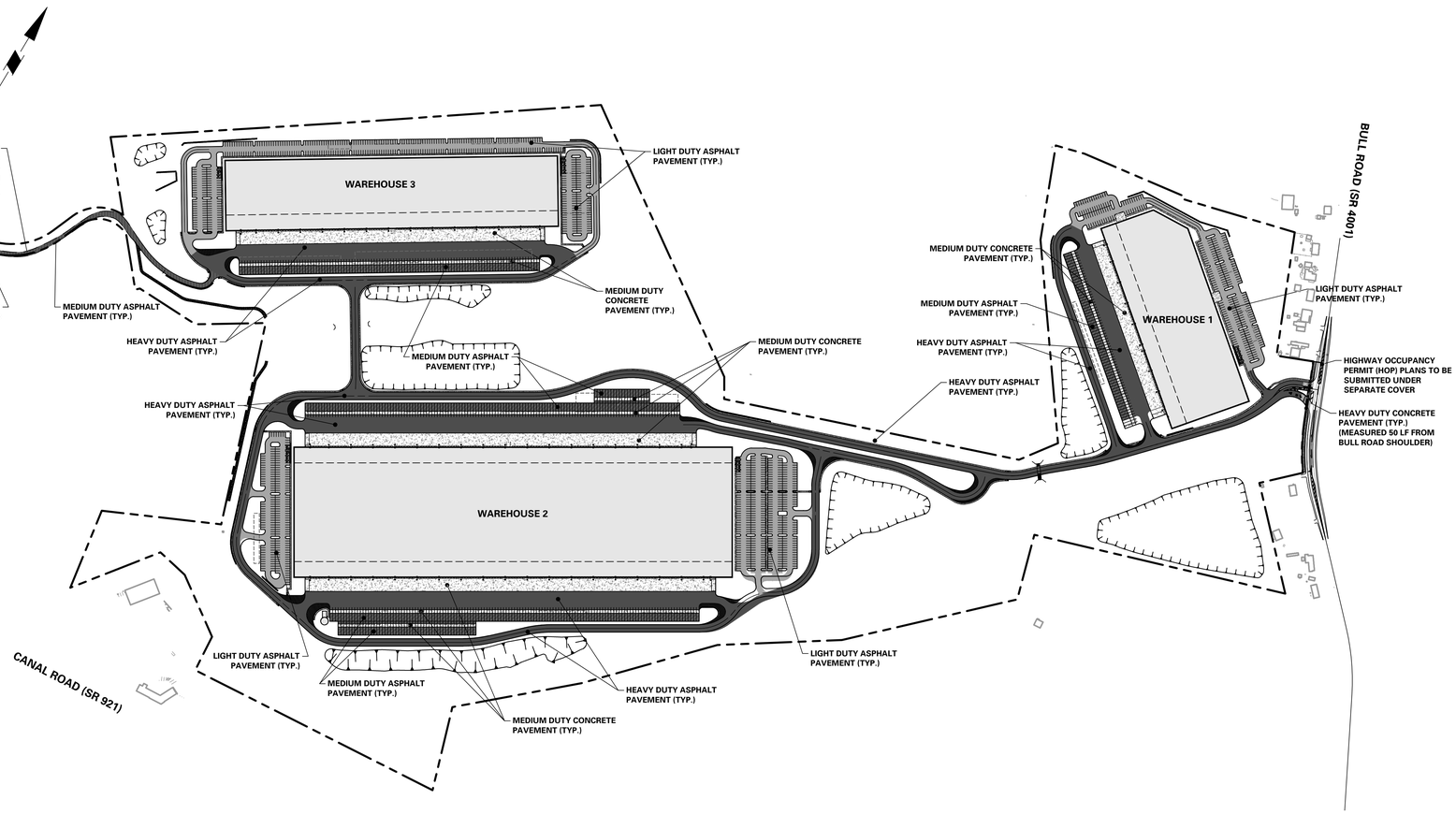
1" = 2000'

SOURCE: USGS DOVER QUADRANGLE

NOTE:
CONTRACTOR SHALL CONFIRM PAVEMENT SECTIONS WITH GEOTECHNICAL REPORT.

PAVEMENT LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED MEDIUM DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED MEDIUM DUTY CONCRETE PAVEMENT
- PROPOSED HEAVY DUTY CONCRETE PAVEMENT



250 0 125 250
SCALE: 1 INCH = 250 FEET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITIES AND TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE, AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY PAVEMENT PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CP-101
Sheet 37 of 128

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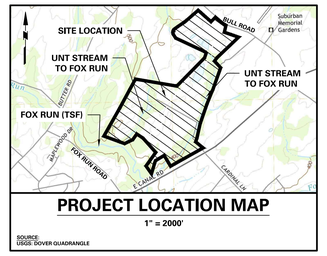
Date: 8/14/2025 Time: 21:52 User: mrynn Style Table: Langan.stb Layout: CP-101 Document Code: 200164401-0301-CP101-0101

GRADING AND DRAINAGE PLAN NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
3. HDPE = HIGH DENSITY POLYETHYLENE PIPE
   RCP = REINFORCED CONCRETE PIPE
   HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
4. ALL STORM DRAINAGE PIPING TO UTILIZE WATER TIGHT JOINTS AND CONNECTIONS.
5. SEE DETAIL DRAWINGS FOR ALL PROPOSED STRUCTURE DETAILS.
6. ALL STORM DRAINAGE FACILITIES SHALL CONFORM TO THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AS LATEST REVISED.
7. COMPACTION CRITERIA FOR FILL PLACEMENT SHALL MEET THE REQUIREMENTS SET FORTH BY THE GEOTECHNICAL ENGINEER OF RECORD.
8. PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
9. REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THAN BEST SUBGRADE MATERIAL ONSITE, SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
10. ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4,000 PSI.
11. THE PROPERTY OWNER WILL BE RESPONSIBLE FOR LONG TERM MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING THE INFILTRATION BASINS AND DRAINAGE SWALES.
12. CUT AND FILL SOIL SLOPES SHALL NOT BE STEEPER THAN 3:1.
13. CONTRACTOR SHALL PROVIDE LOW PROFILE INLETS/GRATES WHERE CALLED OUT ON THE PLANS AND WHERE NECESSARY DUE TO LIMITED COVER CONDITIONS.
14. THE PADEP BMP MANUAL REQUIRES THAT THE PROJECT PROVIDE INFILTRATION VOLUME EQUAL TO THE DIFFERENCE BETWEEN THE EXISTING 2-YEAR AND PROPOSED 2-YEAR STORM EVENTS. THEREFORE, THE GRADING PLAN DEPICTS INFILTRATION BASINS AT VARIOUS LOCATIONS ON-SITE.
15. MAXIMUM SLOPES IN THE GRASS AREAS ARE 3 HORIZONTAL TO 1 VERTICAL.
16. CONTRACTOR TO VERIFY ALL PIPE MATERIAL AND PIPE BURIAL DEPTHS PRIOR TO ORDERING AND INSTALLATION OF THE STORM CONVEYANCE SYSTEM.
17. ALL STORM CATCH BASINS SHALL BE STANDARD TYPE BOXES UNLESS OTHERWISE NOTED.
18. ALL OWNERS OF LOTS/LAND ON THIS PLAN ARE ADVISED THAT THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) MAY REVISE THE STORMWATER REQUIREMENTS FOR SAID LOTS/LAND IN THE FUTURE. ALL OWNERS OF LOTS/LAND ON THIS PLAN SHALL BE REQUIRED TO COMPLY WITH THE REVISED DEP REGULATIONS, EVEN THOUGH SAID REGULATIONS MAY BE DIFFERENT THAN THE REGULATIONS CURRENTLY IN EFFECT.
19. THE INSPECTOR FOR DOVER TOWNSHIP'S ENGINEERING FIRM MUST BE PRESENT AT THE PRE-CONSTRUCTION MEETING AND FOR THE INSTALLATION OF STORMWATER CONTROLS AND BMPS. CONSTRUCTION MAY NOT COMMENCE OR PROCEED WITHOUT THEM.
20. THE FOLLOWING STORMWATER DISCHARGES AND CONNECTIONS ARE PROHIBITED:
    - 20.1. STORMWATER DISCHARGES INTO THE TOWNSHIP'S SEPARATE STORM SEWER SYSTEM WHICH ARE NOT COMPOSED ENTIRELY OF STORMWATER AS INDICATED IN SECTION 13.2 AND DISCHARGES ALLOWED UNDER A STATE OR FEDERAL PERMIT.
    - 20.2. ANY CONNECTIONS TO THE STORM DRAIN SYSTEM FROM INDOOR DRAINS AND SINKS.
    - 20.3. ANY DRAIN OR CONVEYANCE CONNECTED FROM A NON-RESIDENTIAL LAND USE TO THE SEPARATE STORM SYSTEM WHICH HAS NOT BEEN DOCUMENTED IN PLANS, MAPS OR EQUIVALENT RECORDS, AND APPROVED BY THE MUNICIPALITY.
21. THE FOLLOWING APPLIES TO ALL ROOF DRAINS:
    - 21.1. ROOF DRAINS SHALL NOT BE CONNECTED TO STREETS, SANITARY OR STORM SEWERS OR ROADSIDE DITCHES, EXCEPT AS BELOW.
    - 21.2. WHEN IT IS MORE ADVANTAGEOUS TO CONNECT DIRECTLY TO STREETS OR STORM SEWERS, CONNECTIONS OF ROOF DRAINS TO STREETS OR ROADSIDE DITCHES MAY BE PERMITTED BY THE MUNICIPALITY.
    - 21.3. ROOF DRAINS SHALL DISCHARGE TO INFILTRATION AREAS OR VEGETATIVE BMPS TO THE MAX EXTENT POSSIBLE.
22. THE TOWNSHIP IS GRANTED ACCESS TO INSPECT ALL FACILITIES IN THE EVENT OF MALFUNCTION.
23. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER ANY EXISTING STORMWATER BMP, UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.
24. DURING ALL STAGES OF CONSTRUCTION, THE OWNER, DEVELOPER AND/OR CONTRACTOR SHALL ENSURE THAT STORMWATER RUNOFF IS EFFECTIVELY MANAGED PRIOR TO DISCHARGING FROM THE PROPERTY THROUGH COLLECTION AND CONVEYANCE THROUGH APPROVED ON SITE STORMWATER AND EROSION AND SEDIMENT POLLUTION CONTROL FACILITIES. DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE JOINTLY AND SEVERALLY LIABLE FOR ENSURING THAT THE STORMWATER RUNOFF IS EFFECTIVELY MANAGED PRIOR TO DISCHARGING ONTO OTHER PROPERTY.
25. EMBANKMENT MATERIAL SHALL MEET THE FOLLOWING CRITERIA:
    - 25.1. FREE OF ORGANIC MATERIAL, ASH CINDERS AND DEMOLITION DEBRIS.
    - 25.2. WELL GRADED PARTICLE SIZE DISTRIBUTION.
    - 25.3. PLASTICITY INDEX LESS THAN 10, LIQUID LIMIT LESS THAN 30.
    - 25.4. LESS THAN 15% BY WEIGHT ROCK FRAGMENTS LARGER THAN 3", LESS THAN 30% BY WT. LARGER THAN ¾" AND LESS THAN 30% SMALLER THAN NO. 200 SIEVE.
    - 25.5. TOP WIDTH OF BASIN EMBANKMENTS SHALL NOT BE LESS THAN 6 FT.
26. INFILTRATION BMPS SHALL BE CONSTRUCTED IN VIRGIN SOIL. NOT FILL. AFTER ALL SITE WORK IS COMPLETED AND THE CONTRIBUTING DRAINAGE AREA HAS RECEIVED FINAL STABILIZATION.
27. IF BEDROCK IS ENCOUNTERED DURING EXCAVATION OF INFILTRATION BMPS, THE INFILTRATION BMP SHALL BE OVEREXCAVATED BY 2 FEET BELOW THE PROPOSED BOTTOM OF BASIN ELEVATION AND BACKFILLED WITH AMENDED SOILS.
28. THE MAINTENANCE OF STORMWATER FACILITIES ON THE SUBJECT SITE SHALL BE THE OWNER'S RESPONSIBILITY. THE OWNER'S DEED, AND THE DEED TO ANY SUBSEQUENT OWNER, SHALL NOTE THAT THE OWNER SHALL ACCEPT THE MAINTENANCE RESPONSIBILITIES. DOVER TOWNSHIP SHALL BE PERMITTED TO INSPECT THE STORMWATER FACILITIES ON AT LEAST AN ANNUAL SCHEDULE TO ENSURE THAT ANY NECESSARY CORRECTIVE WORK IS PERFORMED IN A TIMELY MANNER. THE BLANKET EASEMENT AS IT IS RELATED TO STORMWATER FACILITIES PROVIDES FOR THE FLOW OF STORMWATER ACROSS PROPERTIES, AND MAY NOT BE ALTERED WITHOUT THE WRITTEN PERMISSION OF THE TOWNSHIP ENGINEER. EXCAVATION AND THE PLACING OF FILL OR STRUCTURES AND ANY OTHER ALTERATIONS THAT MAY ADVERSELY AFFECT THE FLOW OF STORMWATER WITHIN ANY PORTION OF THE EASEMENT ARE PROHIBITED. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES WITHOUT SUFFICIENT PROVISION FOR THE PASSAGE OF STORMWATER, AND ANY SUCH PROPOSED PROVISION SHALL BE PERMITTED UNLESS APPROVED IN WRITING BY THE TOWNSHIP ENGINEER.
29. THE GRANT OF A PERMIT APPROVAL OF A PLAN FOR ANY PROPOSED SUBDIVISION OR LAND DEVELOPMENT TO BE LOCATED WITHIN ANY DESIGNATED FLOODPLAIN AREA SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR BY ANY OFFICIAL EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND SHALL CREATE NO LIABILITY UPON THE TOWNSHIP, ITS OFFICIALS OR EMPLOYEES.

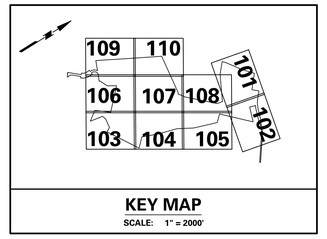
BULDING SUMMARY TABLE		
	FINISHED FLOOR ELEVATION (FFE)	DOCK ELEVATION
WAREHOUSE 1	471.70	467.70
WAREHOUSE 2	438.40	434.40
WAREHOUSE 3	444.00	440.00



PROJECT LOCATION MAP

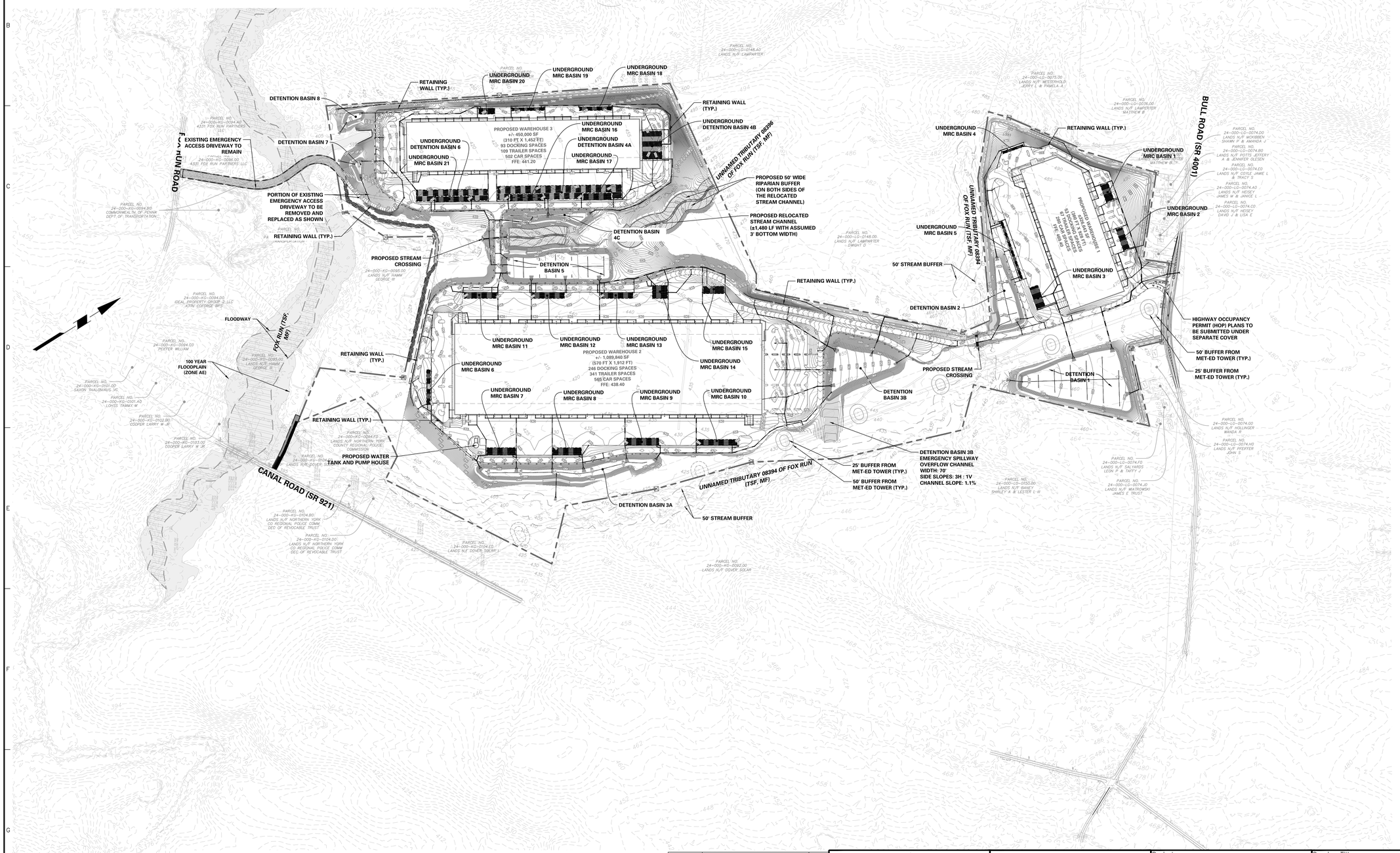
1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'



250 0 125 250
SCALE: 1 INCH = 250 FEET

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
10M-66 EMERGENCY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXIST'NG 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING UTILITY POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
EMERGENCY EXCAVATIONS
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

Revisions		
Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY MASTER GRADING & DRAINAGE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CG-100
Sheet 38 of 128

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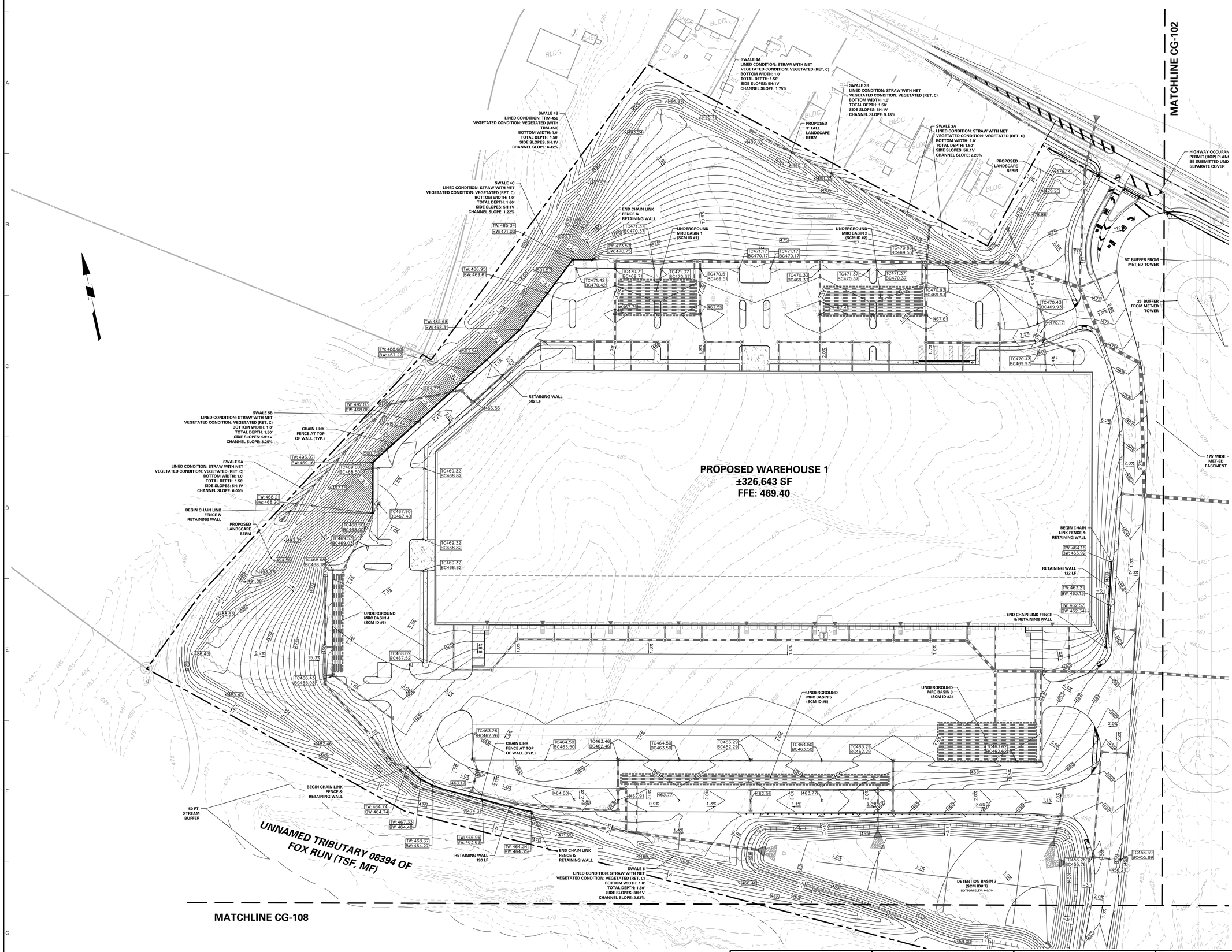
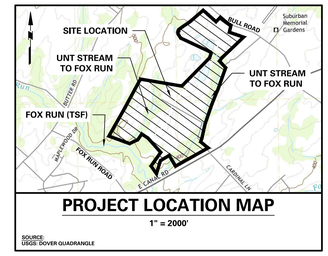
Date: 8/14/2025 Time: 19:32 User: bsoltys Style Table: Langan.stb Layout: CG-100 Document Code: 200164401-0301-CG101-0101

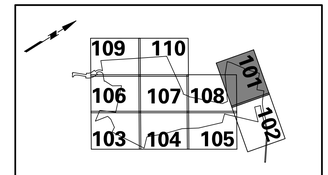




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.5)
- PROPOSED SPOT ELEVATION (× 360.5)
- TRM-450 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDERAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS-EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL ID

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

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PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
NON-EMERGENCY EXCAVATION
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — ENGINEER — PENNSYLVANIA

Signature — 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY **PENNSYLVANIA**

Drawing Title
PRELIMINARY GRADING PLAN

Project No. **200164401**
Date **6/7/2023**
Drawn By **MR**
Checked By **SMH**

Drawing No. **CG-101**
Sheet **39** of **128**

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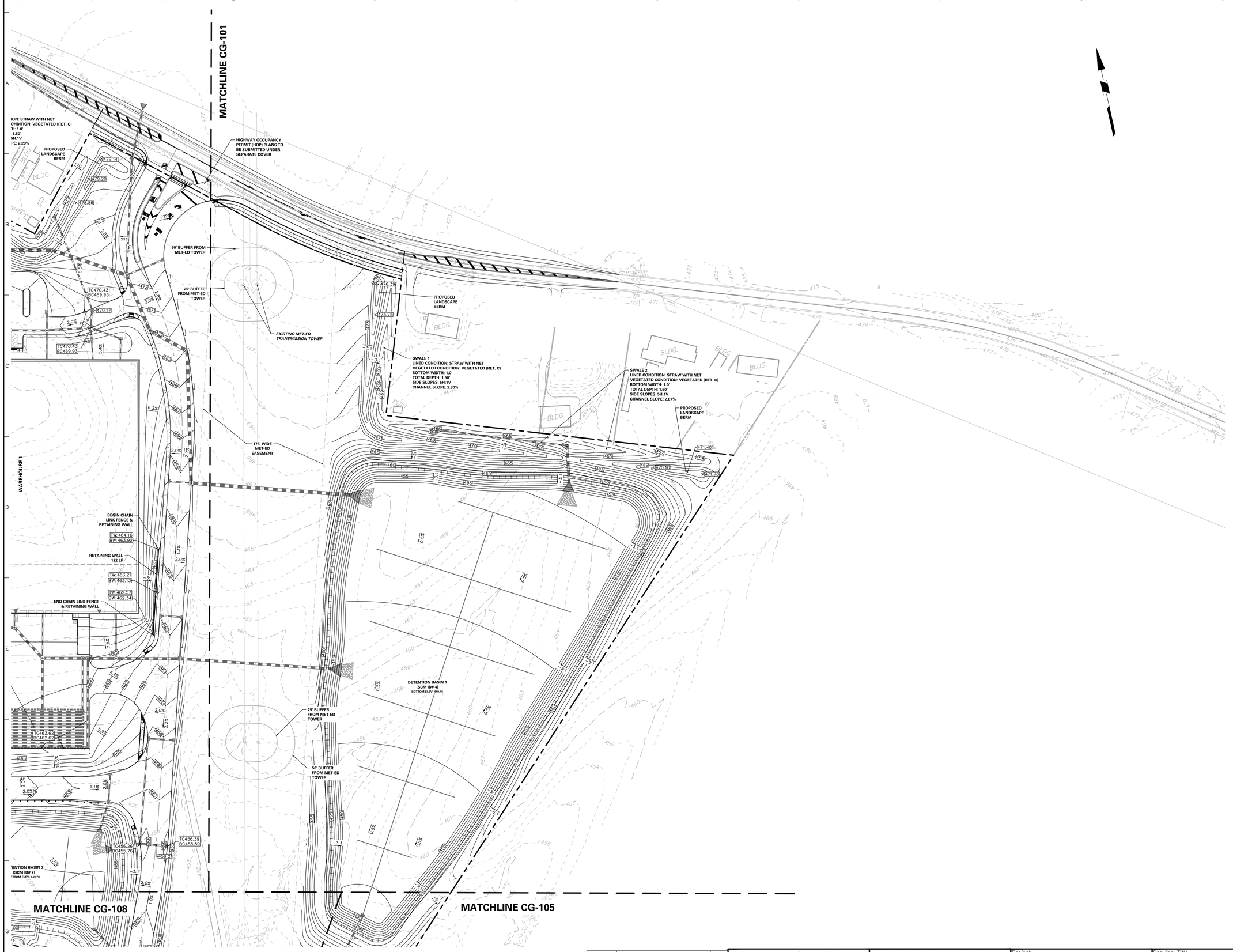
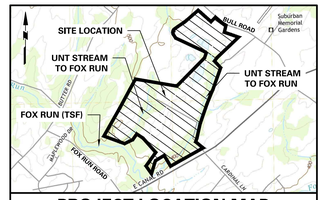
Date: 8/14/2025 Time: 19:34 User: bsoltys Style Table: Langan.stb Layout: CG-101 Document Code: 200164401-0301-CG101-0102

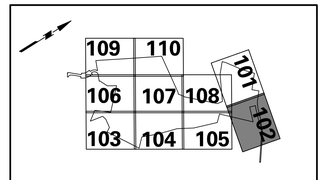




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.2)
- PROPOSED SPOT ELEVATION (× 360.3)
- 75ft AS5 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDERAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS-EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES

- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS

- SOILS BOUNDARY
- Soil Type

UTILITY SYMBOLS

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET (OFF 6' ↑ 468)

ACT 287 AS AMENDED

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
ONE WORKING DAY NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

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8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.
Date	Description	No.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY **PENNSYLVANIA**

Drawing Title
PRELIMINARY GRADING PLAN

Project No. **200164401**
Date **6/7/2023**
Drawn By **MR**
Checked By **SMH**

Drawing No. **CG-102**
Sheet **40** of **128**

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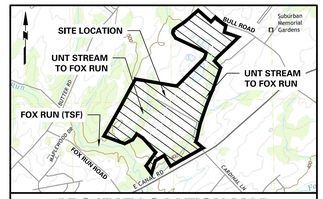
Date: 8/14/2025 Time: 19:34 User: bsoltys Style Table: Langan.stb Layout: CG-102 Document Code: 200164401-0301-CG101-0111

MATCHLINE CG-106

PROPOSED WAREHOUSE 2
±1,089,840 SF
FFE: 438.40

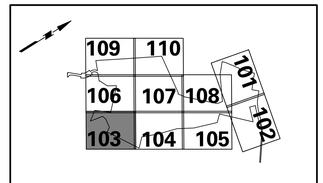
40' DOVER SOLAR RIGHT-OF-WAY
10' DOVER SOLAR TEMPORARY CONSTRUCTION ACCESS EASEMENT
CHAIN LINK FENCE AND GUIDERAIL AT TOP OF WALL (TYP.)
RETAINING WALL 727 LF
UNDERGROUND MRC BASIN 6 (SCM ID #8)
END CHAIN LINK FENCE & RETAINING WALL, CONTINUE GUIDERAIL
BEGIN CHAIN LINK FENCE/GUIDERAIL & RETAINING WALL
CHAIN LINK FENCE AND GUIDERAIL AT TOP OF WALL (TYP.)
RETAINING WALL 94 LF
END CHAIN LINK FENCE/GUIDERAIL & RETAINING WALL
DRAINAGE EASEMENT
WATER TANK AND PUMP HOUSE FFE: 434.00
UNDERGROUND MRC BASIN 7 (SCM ID #9)
DETENTION BASIN 3A (SCM ID# 3)
BOTTOM ELEV: 420.00
PROPOSED 50' DOVER SOLAR RIGHT-OF-WAY
75' TEXAS EASTERN GAS EASEMENT
175' MET-ED RIGHT-OF-WAY
50 FT. STREAM BUFFER
UNNAMED TRIBUTARY 08394 OF FOX RUN (TSF, MF)
25' BUFFER FROM MET-ED TOWER
50' BUFFER FROM MET-ED TOWER
MATCHLINE CG-104



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
PROPOSED ZONING BOUNDARY
GROUPED BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
10ft# 4ch EMERGENCY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
RAILROAD
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED GAS MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENNSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CG-103
Sheet 41 of 128

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MATCHLINE CG-107

PROPOSED WAREHOUSE 2
±1,089,840 SF
FFE: 438.40

UNDERGROUND MRC BASIN 8 (SCM ID #10)

UNDERGROUND MRC BASIN 9 (SCM ID #11)

UNDERGROUND MRC BASIN 10 (SCM ID #12)

DETENTION BASIN 3A (SCM ID# 13)
BOTTOM ELEV: 420.00

25' BUFFER FROM MET-ED TOWER

50' BUFFER FROM MET-ED TOWER

175' MET-ED RIGHT-OF-WAY

PROPOSED 50' DOVER SOLAR RIGHT-OF-WAY

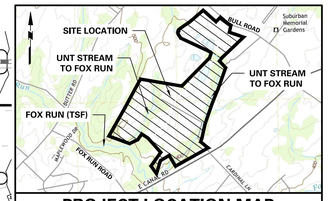
UNNAMED TRIBUTARY 08394 OF FOX RUN (TSF, MF)

50 FT. STREAM BUFFER

MATCHLINE CG-103

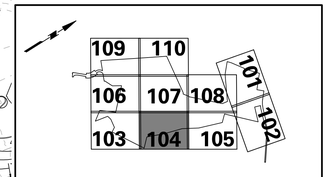
MATCHLINE CG-105

SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP
1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP
SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPOSED LOT LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION — × 360.3
- PROPOSED SPOT ELEVATION — × 360.3
- TRM-RO EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- DEPRESSED CURB
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
=== STOP & CALL ===

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

Revisions		
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.
Date	Description	No.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — KEITH S. OTTES — PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY — DOVER TOWNSHIP — PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. **CG-104**
Sheet 42 of 128

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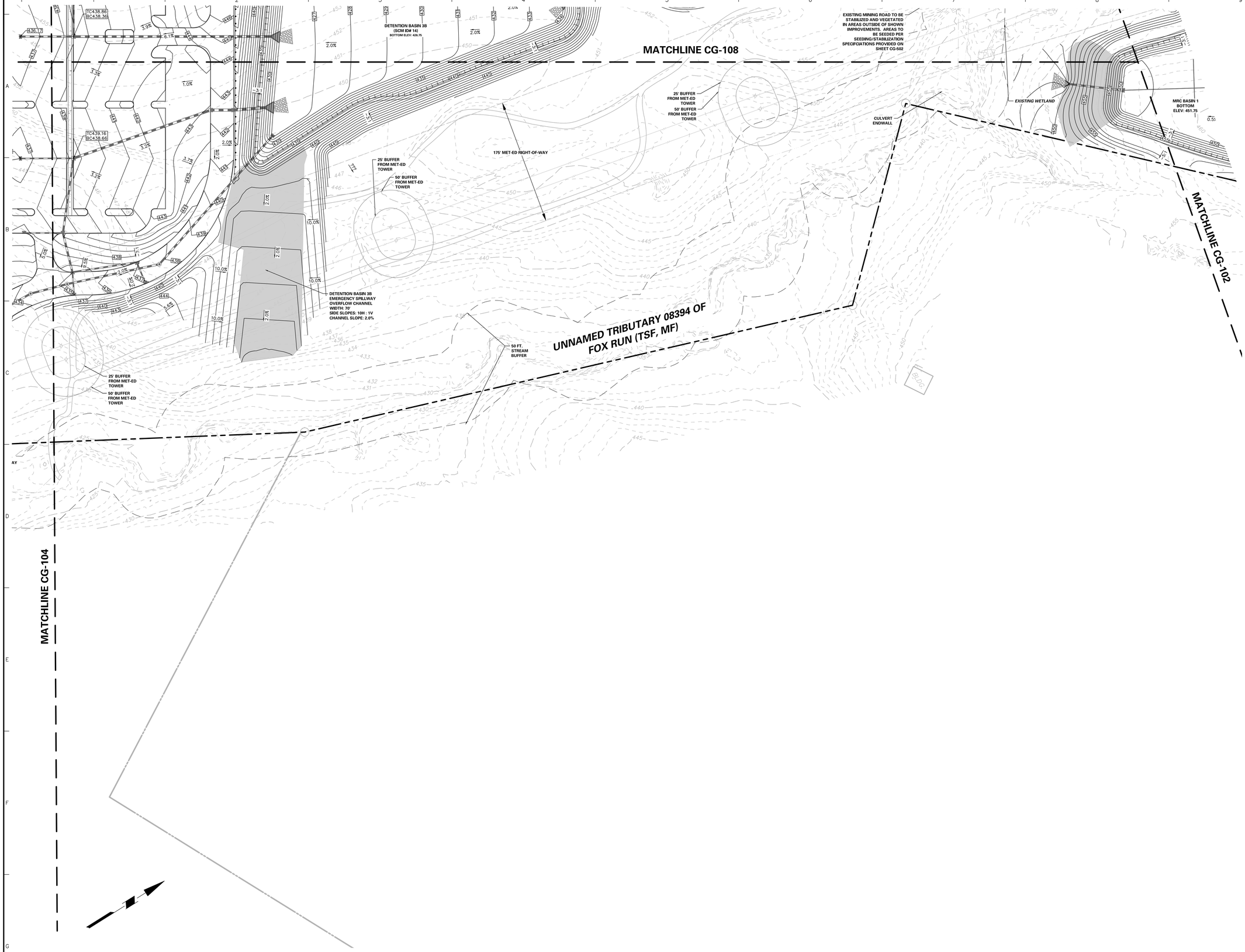
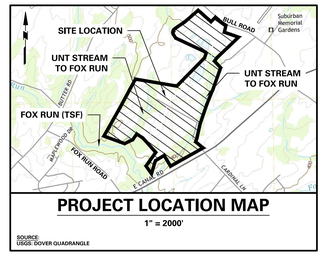
Date: 8/14/2025 Time: 19:36 User: bsoltys Style Table: Langan.stb Layout: CG-103 Document Code: 200164401-0301-CG101-0104

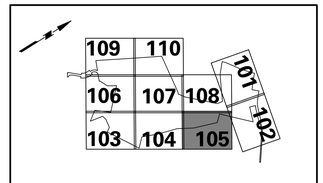




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- IRON PIN TO BE SET
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 75M-400 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS-EGRESS
- LOCATION OF ROCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

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TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF UNDERGROUND UTILITIES, CONTACT THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
MARKOUT OF UTILITIES
(10) WORKING DAYS IN DESIGN STAGE
STOP & CALL

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SCALE: 1 INCH = 50 FEET

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CG-105
Sheet 43 of 128

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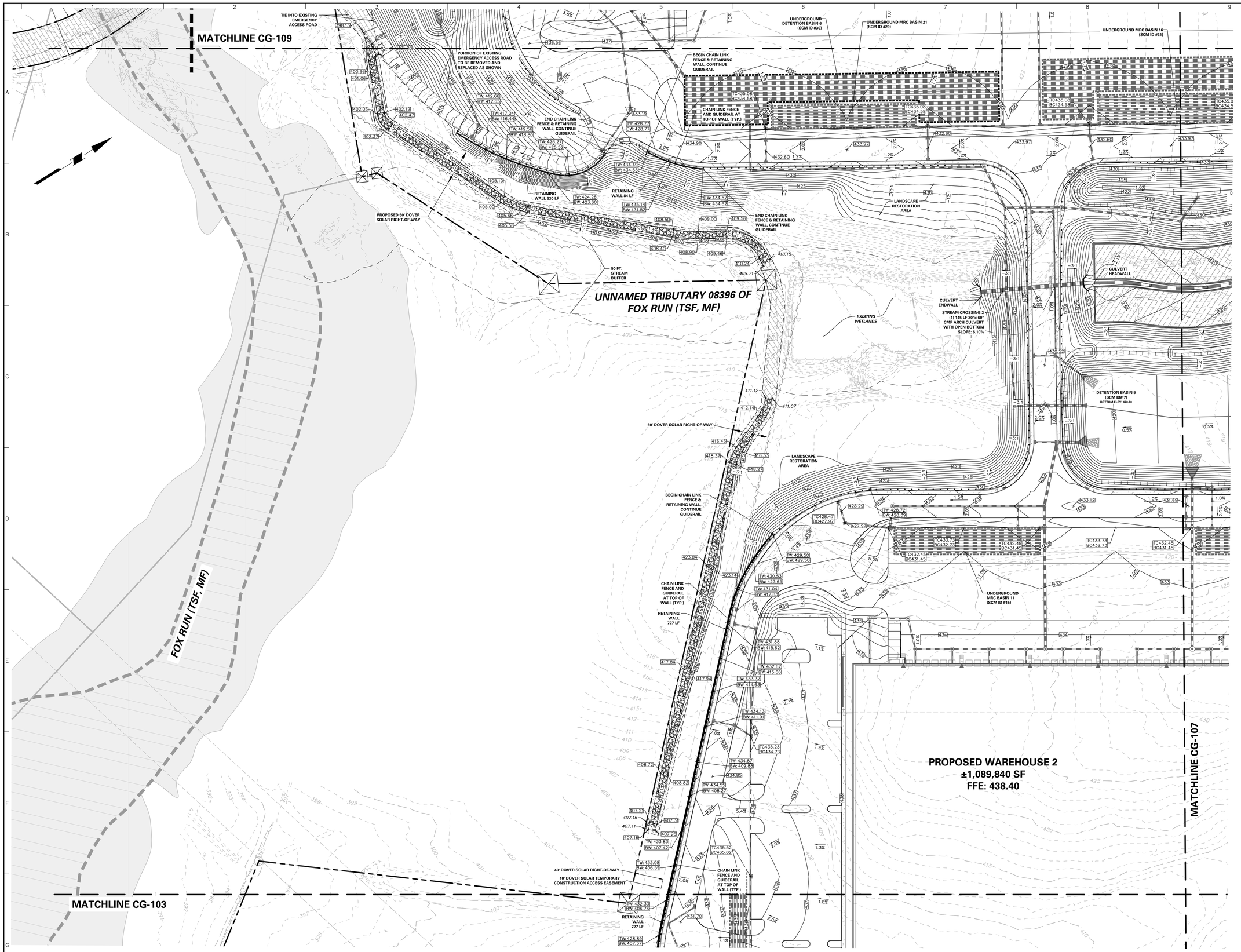
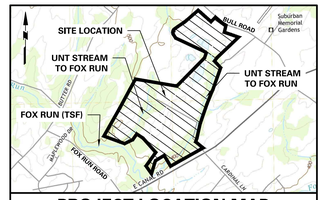
Date: 8/14/2025 Time: 19:37 User: bsoltys Style Table: Langan.stb Layout: CG-104 Document Code: 200164401-0301-CG101-0105

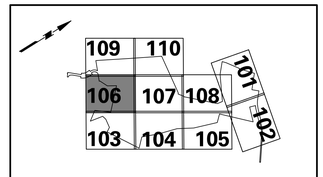




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- IRON PIN TO BE SET
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.3)
- PROPOSED SPOT ELEVATION (× 360.3)
- TRM-4M EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS-EGRESS
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
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- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER VALVE
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- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
NON-EMERGENCY EXCAVATION
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

50 0 25 50
SCALE: 1 INCH = 50 FEET

SURVEYOR, CIVIL & TRAFFIC ENGINEER
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Date	Description	No.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PE 074526 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. CG-106

Sheet 44 of 128

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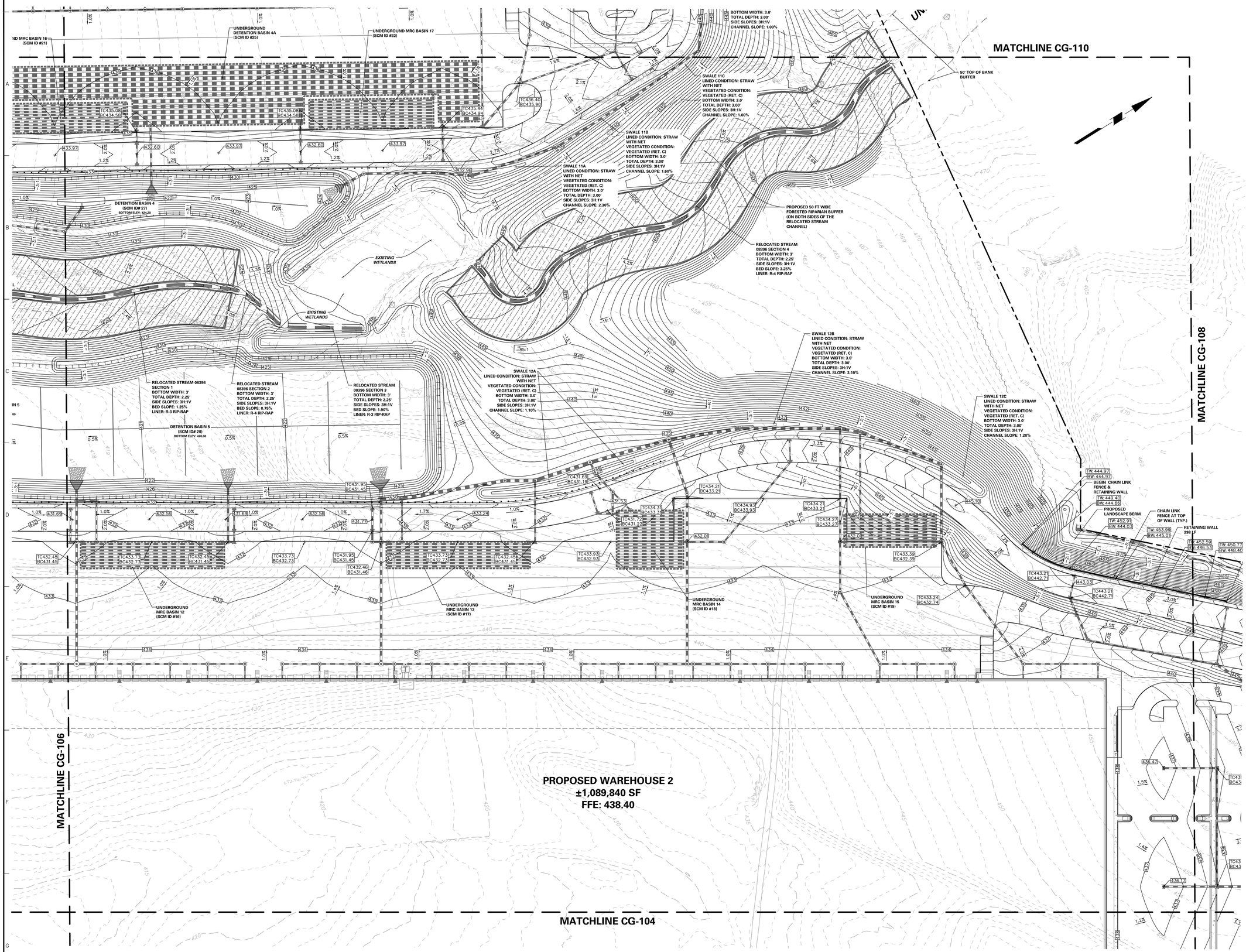
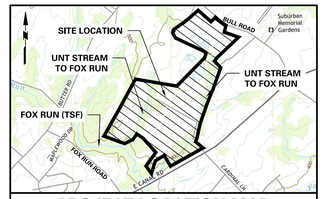
Date: 8/14/2025 Time: 19:38 User: bsollys Style Table: Langan.stb Layout: CG-106 Document Code: 200164401-0301-CG101-0112

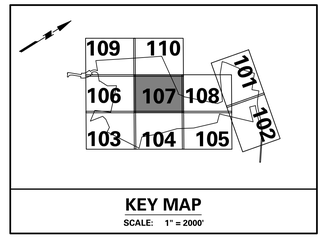




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- IRON PIN TO BE SET
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.2)
- PROPOSED SPOT ELEVATION (x 360.2)
- 75M 400 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS-EGRESS
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY LATERAL
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SCALE: 1 INCH = 50 FEET

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. CG-107

Sheet 45 of 128

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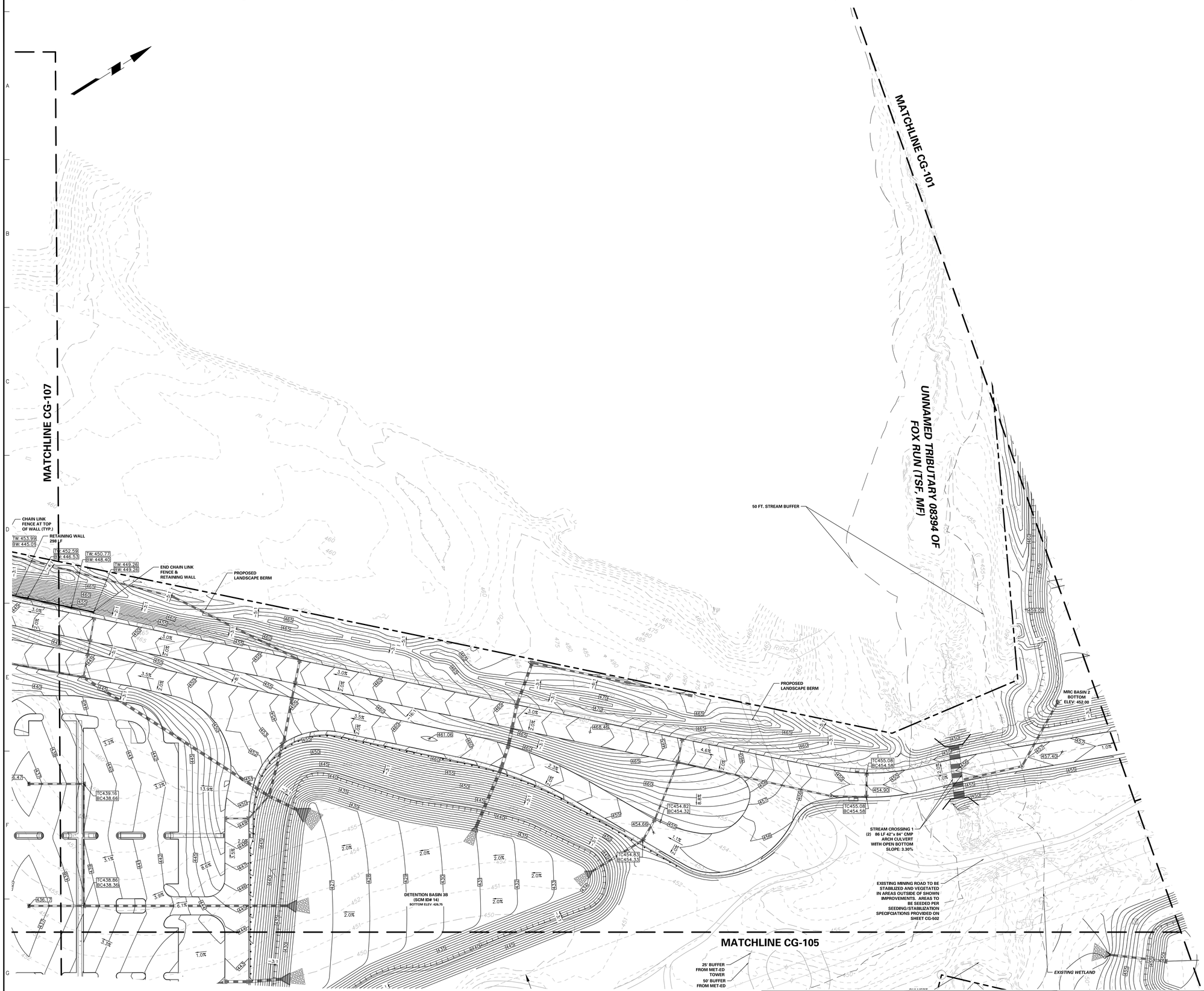
Date: 8/14/2025 Time: 19:40 User: bsoltys Style Table: Langan.stb Layout: CG-107 Document Code: 200164401-0301-CG101-0113



50 0 25 50
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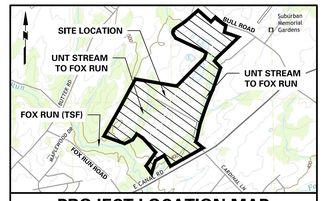
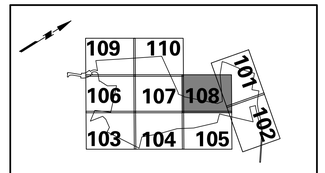


PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

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GROWTH BOUNDARY
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RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
IRON PIN TO BE SET
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
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SWALE LINER
EROSION CONTROL BLANKET

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LOCATION OF INGRESS-EGRESS
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CONCRETE SIDEWALK
SIGN
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SOIL TYPE

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EXISTING GAS MAIN
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(3) WORKING DAYS NOTICE FOR
NORMAL EXCAVATION
(10) WORKING DAYS IN DESIGN STAGE
STOP & CALL

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 078526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN

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Project
BULL ROAD LOGISTICS
YORK COUNTY **DOVER TOWNSHIP** **PENNSYLVANIA**

Drawing Title
PRELIMINARY GRADING PLAN

Project No. **200164401**
Date **6/7/2023**
Drawn By **MR**
Checked By **SMH**

Drawing No. **CG-108**
Sheet **46** of **128**

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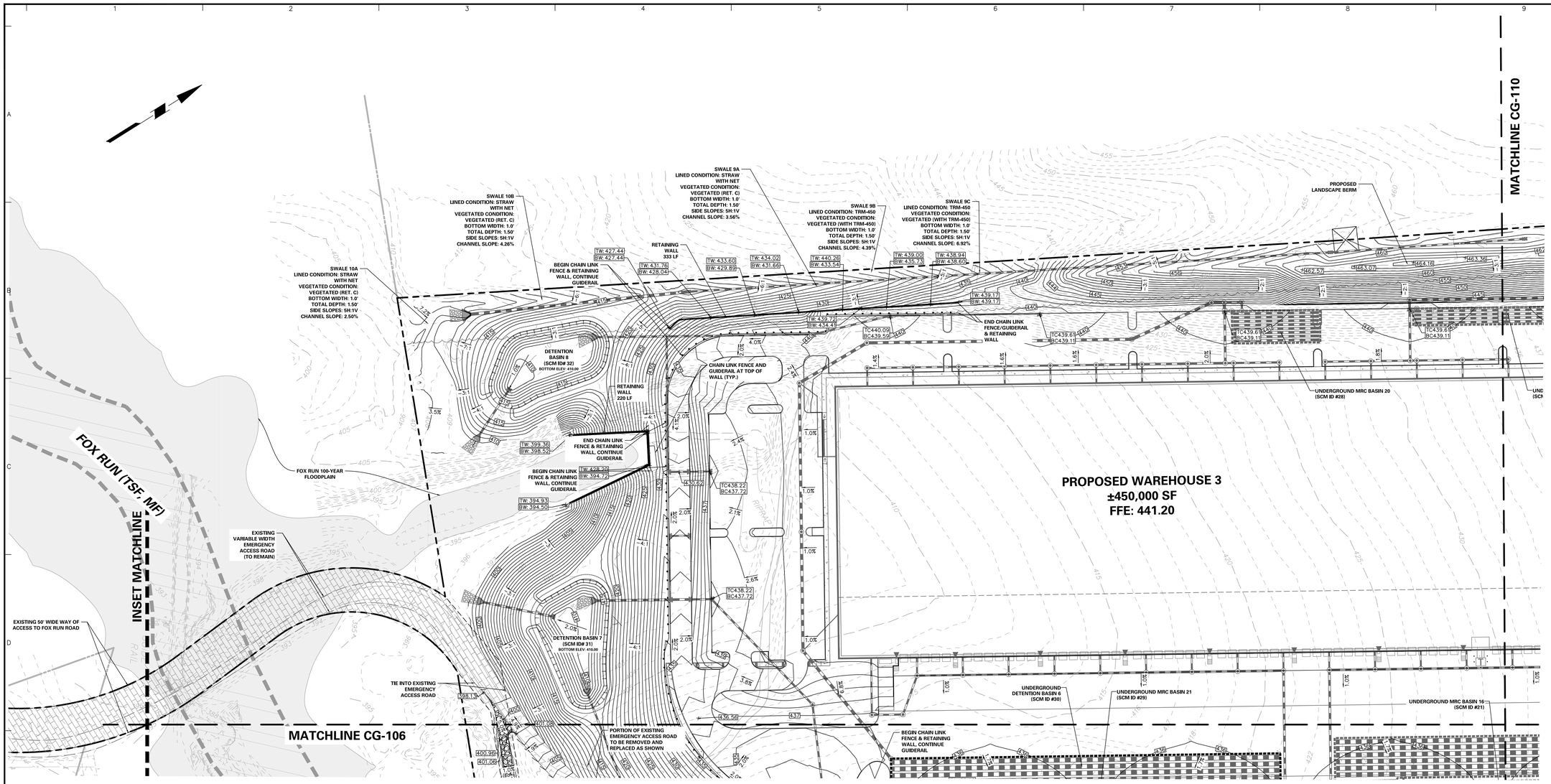
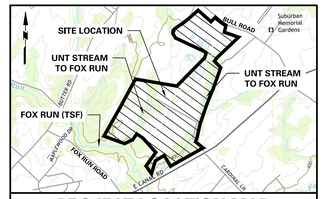
Date: 8/14/2025 Time: 19:40 User: bsoltys Style Table: Langan.stb Layout: CG-108 Document Code: 200164401-0301-CG101-0114

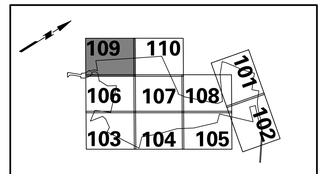




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
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EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
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PROPOSED SPOT ELEVATION
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FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
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PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS-EGRESS
LOCATION OF KNOX DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
PROPOSED STORM SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
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CALL BEFORE YOU DIG PRIOR
CONSTRUCTION PHASE AND
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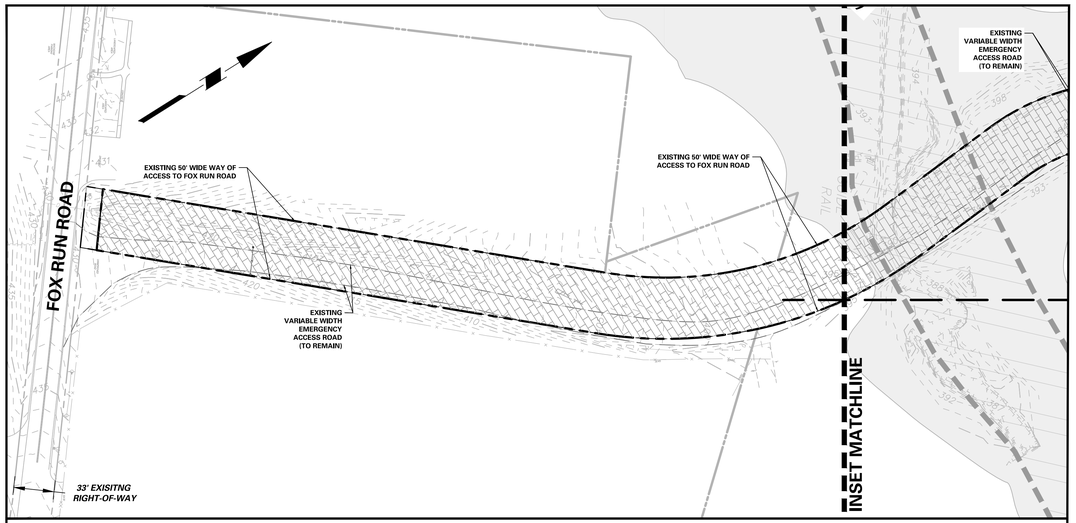
Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000



INSET: POTENTIAL EMERGENCY ACCESS DRIVEWAY

50 0 25 50
SCALE: 1 INCH = 50 FEET

SURVEYOR, CIVIL & TRAFFIC ENGINEER
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PHONE: 678-699-7594

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
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2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — 078526 — ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CG-109
Sheet 47 of 128

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Date: 8/14/2025 Time: 19:42 User: bsoltys Style Table: Langan.stb Layout: CG-109 Document Code: 200164401-0301-CG101-0115

MATCHLINE CG-109

SWALE 8A
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 2.57%

SWALE 8B
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 5.73%

SWALE 8C
LINED CONDITION: TRM-450
VEGETATED CONDITION: VEGETATED (WITH TRM-450)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 11.20%

SWALE 7C
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 1.50%

SWALE 7B
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 1.90%

SWALE 7A
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 1.0'
TOTAL DEPTH: 1.50'
SIDE SLOPES: 5H:1V
CHANNEL SLOPE: 7.82%

SWALE 11D
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 3.0'
TOTAL DEPTH: 3.00'
SIDE SLOPES: 3H:1V
CHANNEL SLOPE: 1.00%

SWALE 11C
LINED CONDITION: STRAW WITH NET
VEGETATED CONDITION: VEGETATED (RET. C)
BOTTOM WIDTH: 3.0'
TOTAL DEPTH: 3.00'

BEGIN CHAIN LINK FENCE & RETAINING WALL

CHAIN LINK FENCE AT TOP OF WALL (TYP.)

RETAINING WALL 282 LF

END CHAIN LINK FENCE & RETAINING WALL

50' TOP OF BANK BUFFER

PROPOSED WAREHOUSE 3
±450,000 SF
FFE: 441.20

UNDERGROUND MRC BASIN 19 (SCM ID #24)

UNDERGROUND MRC BASIN 18 (SCM ID #23)

UNDERGROUND DETENTION BASIN 4B (SCM ID #26)

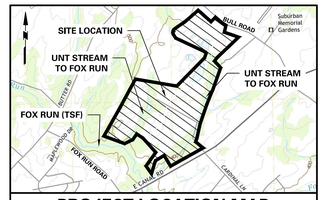
UNDERGROUND DETENTION BASIN 4A (SCM ID #25)

UNDERGROUND MRC BASIN 17 (SCM ID #22)

UND MRC BASIN 16 (SCM ID #21)

UNNAMED TRIBUTARY 08396 OF FOX RUN (TSF, MF)

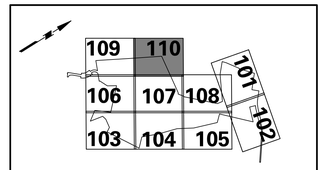
MATCHLINE CG-107



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

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GRADING & DRAINAGE SYMBOLS
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PROPOSED SPOT ELEVATION
TRM-450 EMERGENCY SPILLWAY LINER
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SERIAL NUMBER, 20221664559-000

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2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY GRADING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CG-110
Sheet 48 of 128

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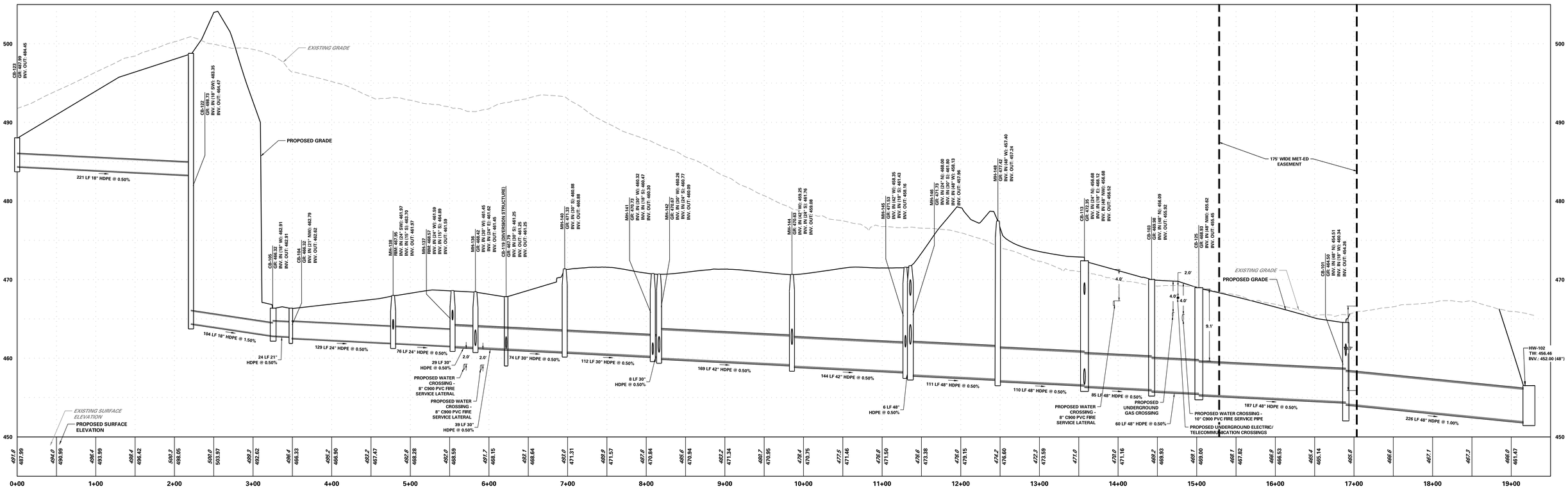
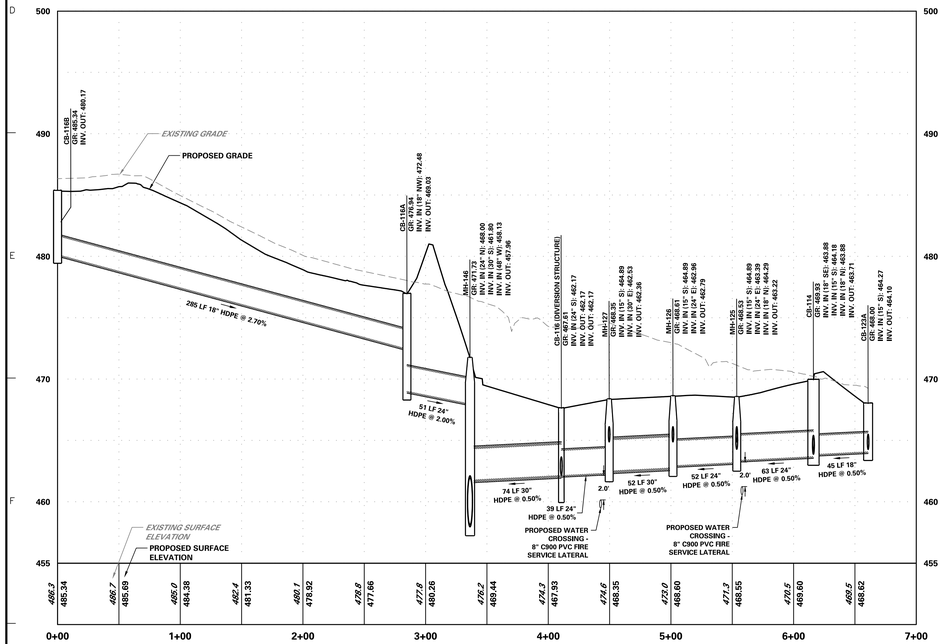
Date: 8/14/2025 Time: 19:43 User: bsoltys Style Table: Langan.stb Layout: CG-110 Document Code: 200164401-0301-CG101-0116



CB-123 TO HW-102 PROFILE



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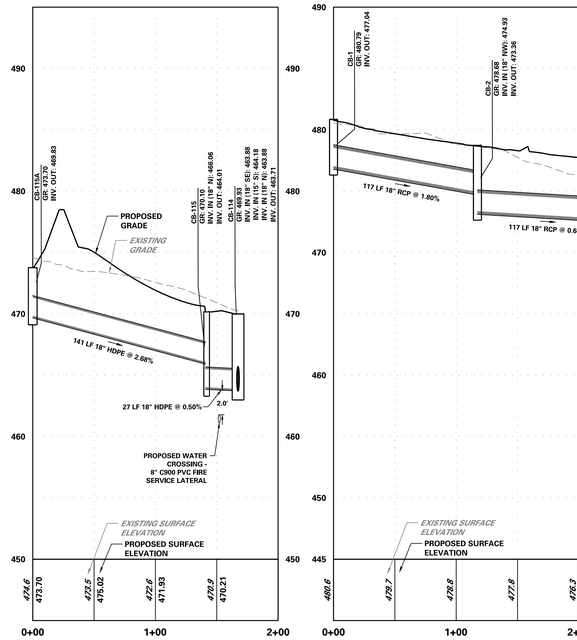

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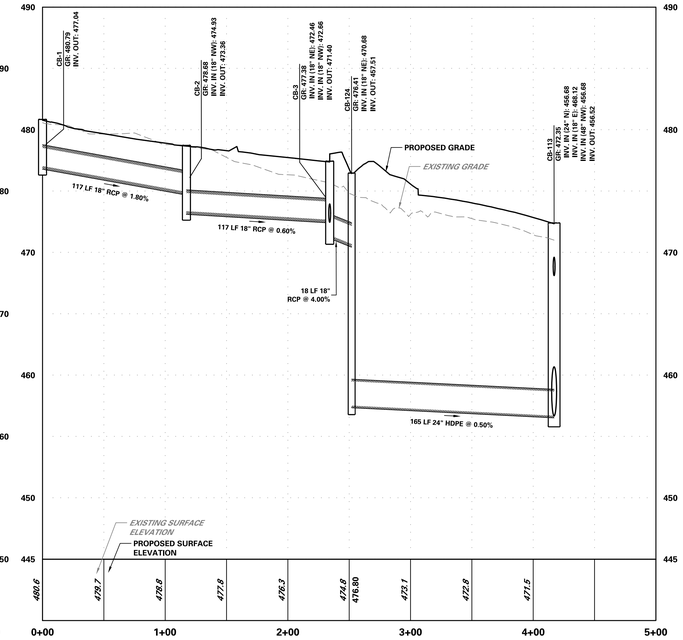
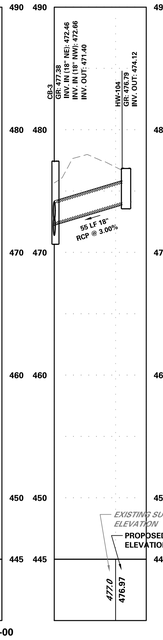
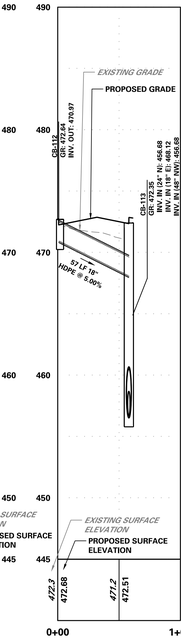


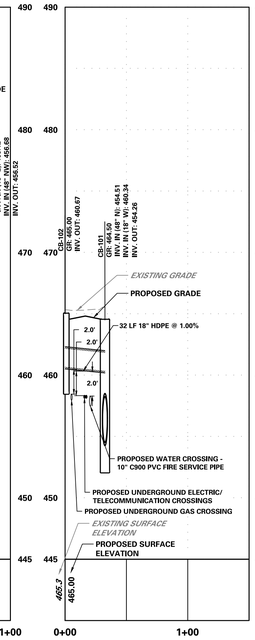
CB-1 TO CB-113 PROFILE



HW-104 TO CB-3 PROFILE



CB-112 TO CB-113 PROFILE



CB-102 TO CB-101 PROFILE

HW-104 TO CB-3 PROFILE

CB-112 TO CB-113 PROFILE

CB-102 TO CB-101 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-201
Sheet 49 of 128

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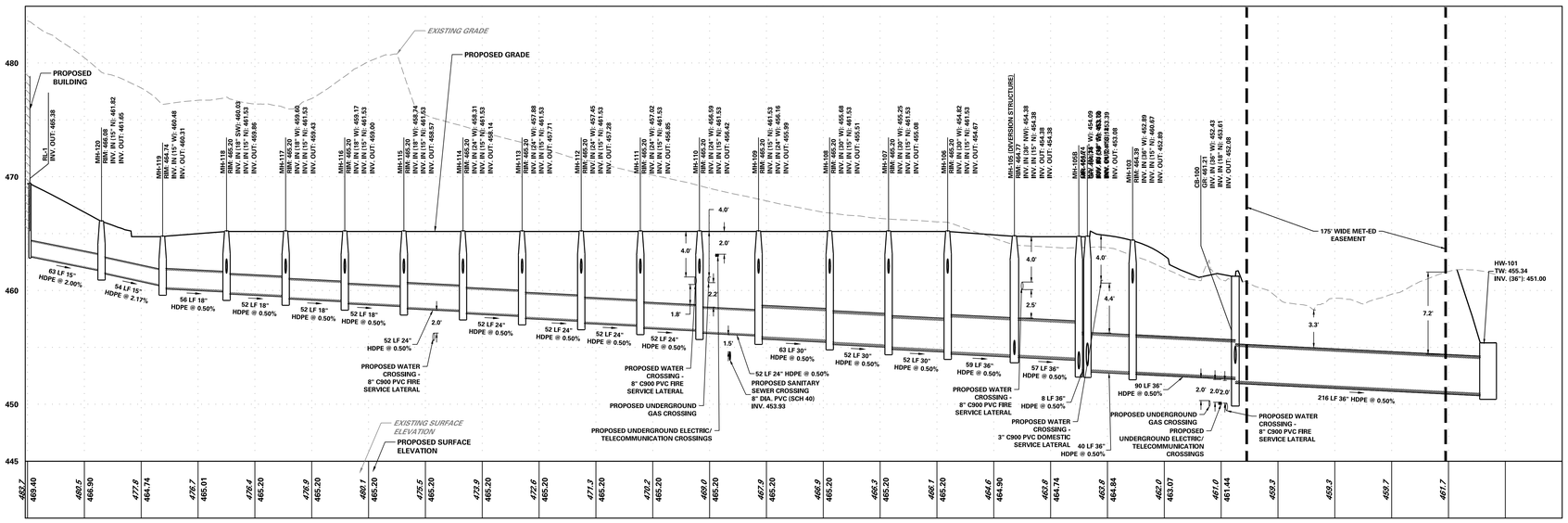
Date: 8/14/2025 Time: 21:29 User: mrynn Style Table: Langan.stb Layout: CG-200 Document Code: 200164401-0301-CG201-0101



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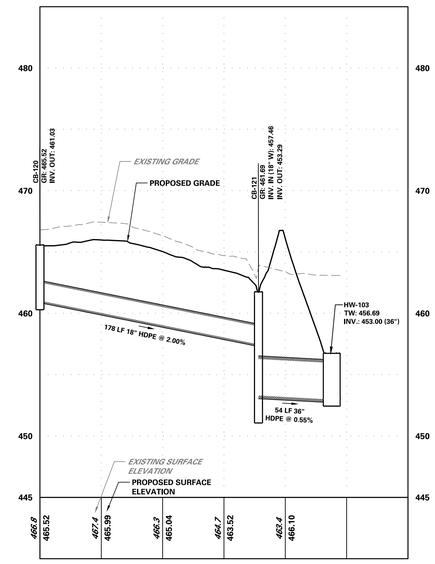

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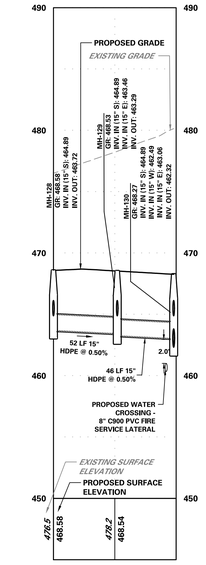
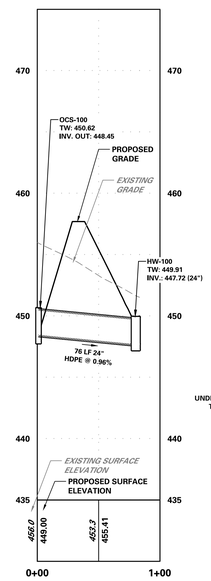
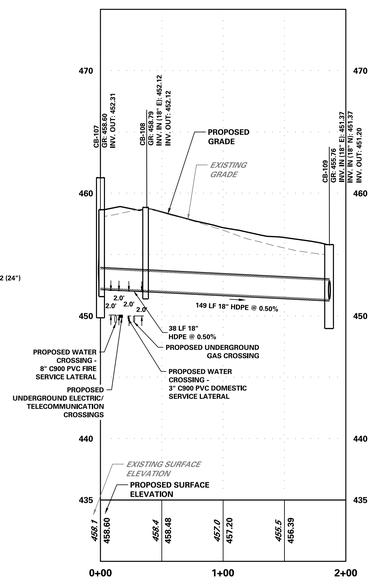


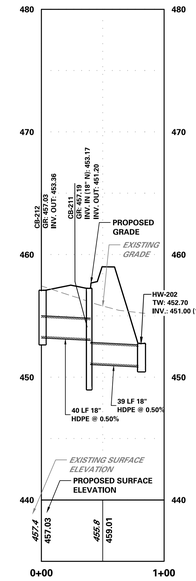
MH-128 TO MH-130 PROFILE



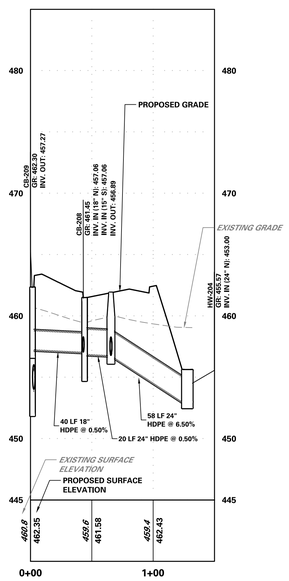
OCS-100 TO HW-100 PROFILE



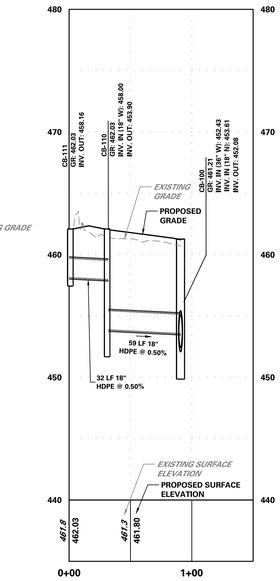
CB-107 TO CB-109 PROFILE



CB-212 TO HW-202 PROFILE



CB-209 TO HW-204 PROFILE



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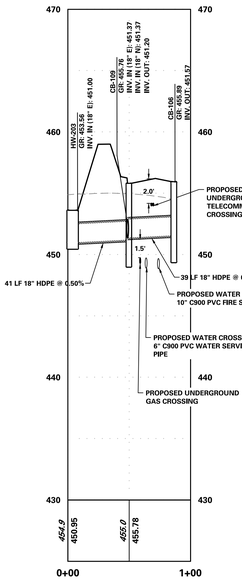

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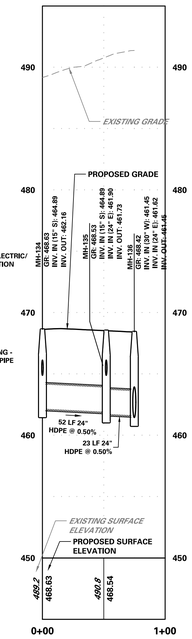
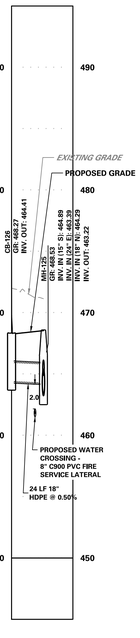
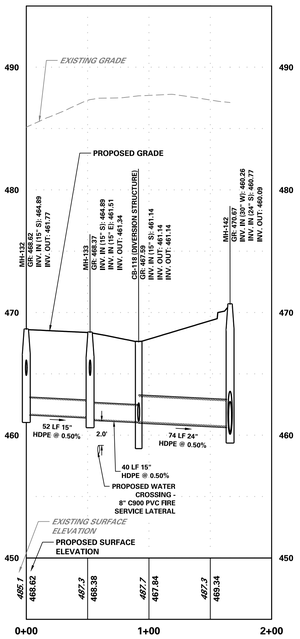


MH-134 TO MH-136 PROFILE



CB-126 TO MH-125 PROFILE



MH-132 TO MH-142 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES DOVER YORK COUNTY

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No.	200164401
Date	6/7/2023
Drawn By	ALM
Checked By	SMH

Drawing No. CG-202

Sheet 50 of 128

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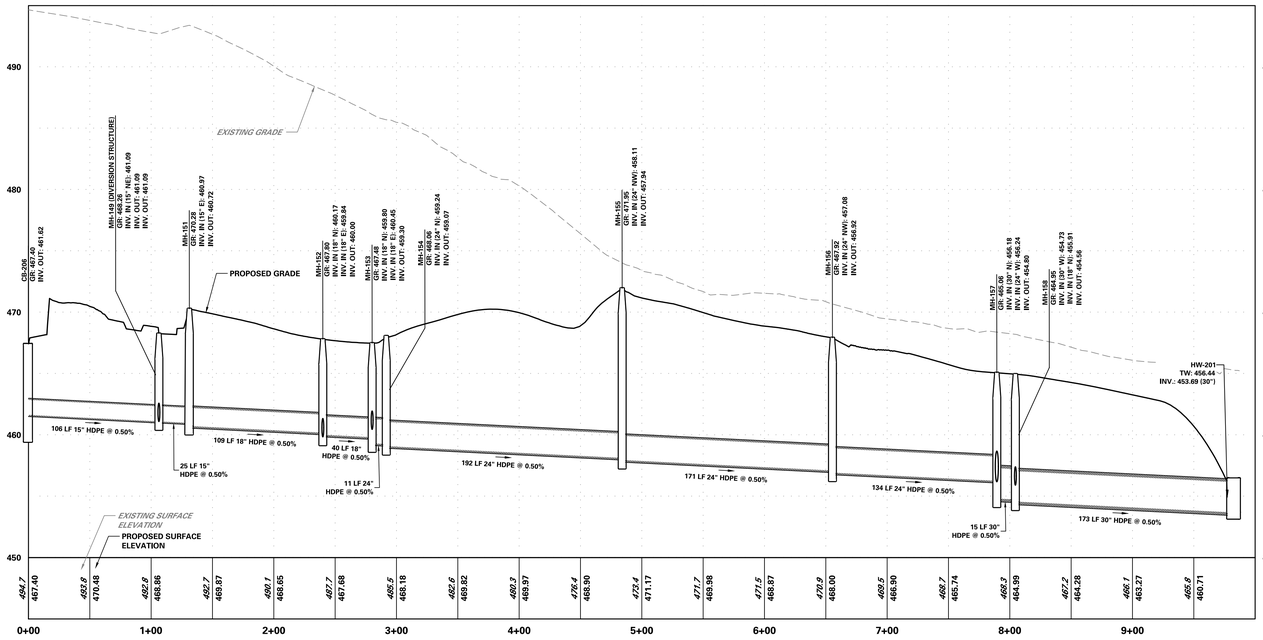
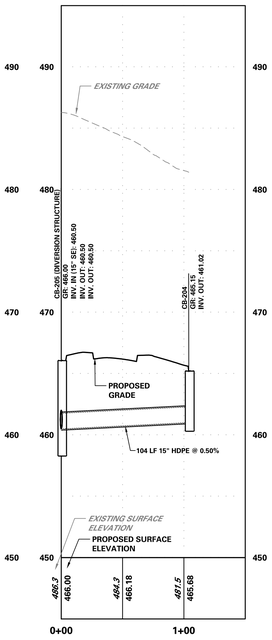
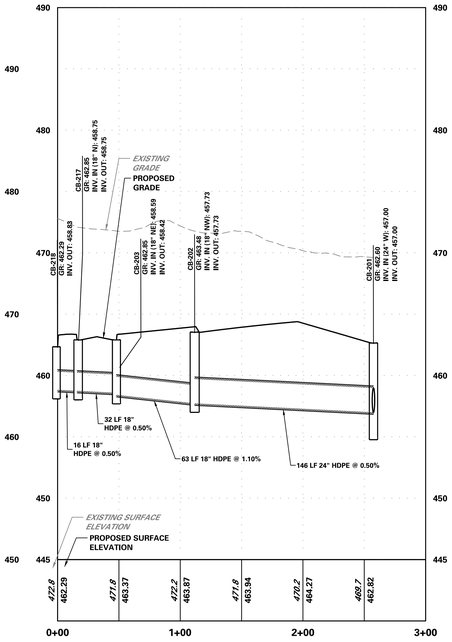
Date: 8/14/2025 Time: 21:29 User: mrynn Style Table: Langan.stb Layout: CG-202 Document Code: 200164401-0301-CG201-0102



CB-206 TO HW-201 PROFILE



CB-205 TO CB-204 PROFILE



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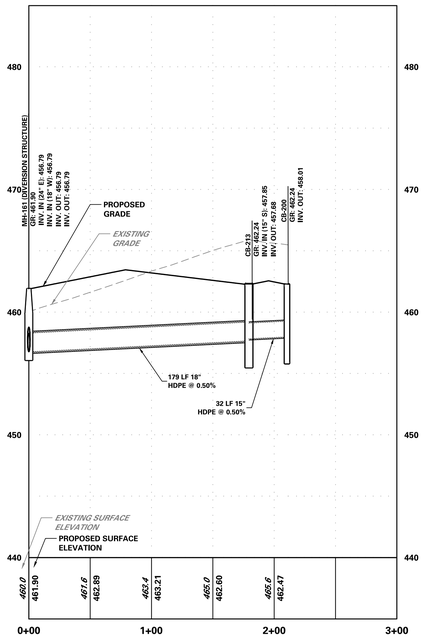
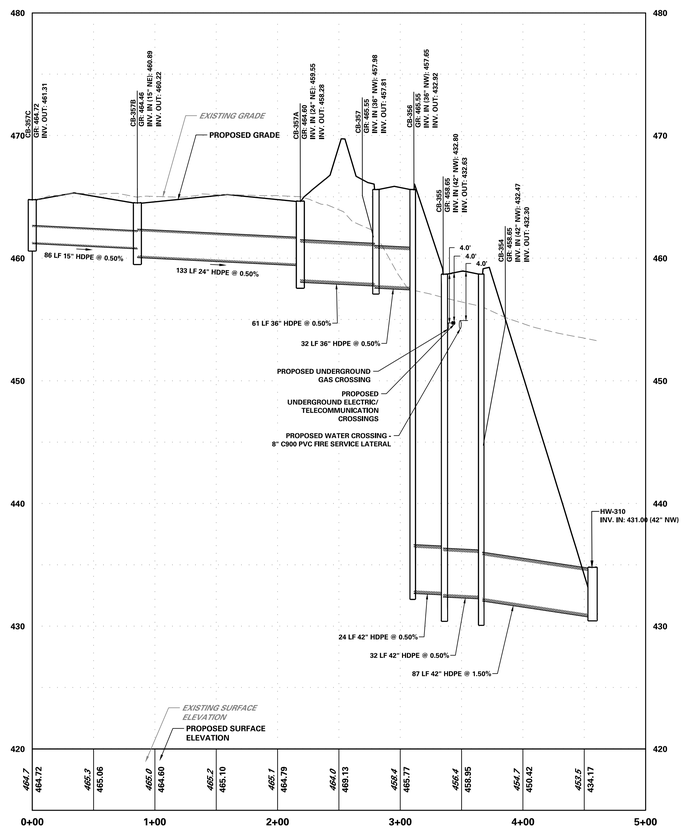


CB-200 TO MH-161 PROFILE

OCS-200 TO MH-104 PROFILE

CB-365 TO HW-311 PROFILE

CB-361 TO CB-360 PROFILE



CB-357C TO HW-310 PROFILE

CB-216 TO CB-201 PROFILE

MH-131 TO MH-144 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER SEAL

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-203
Sheet 51 of 128

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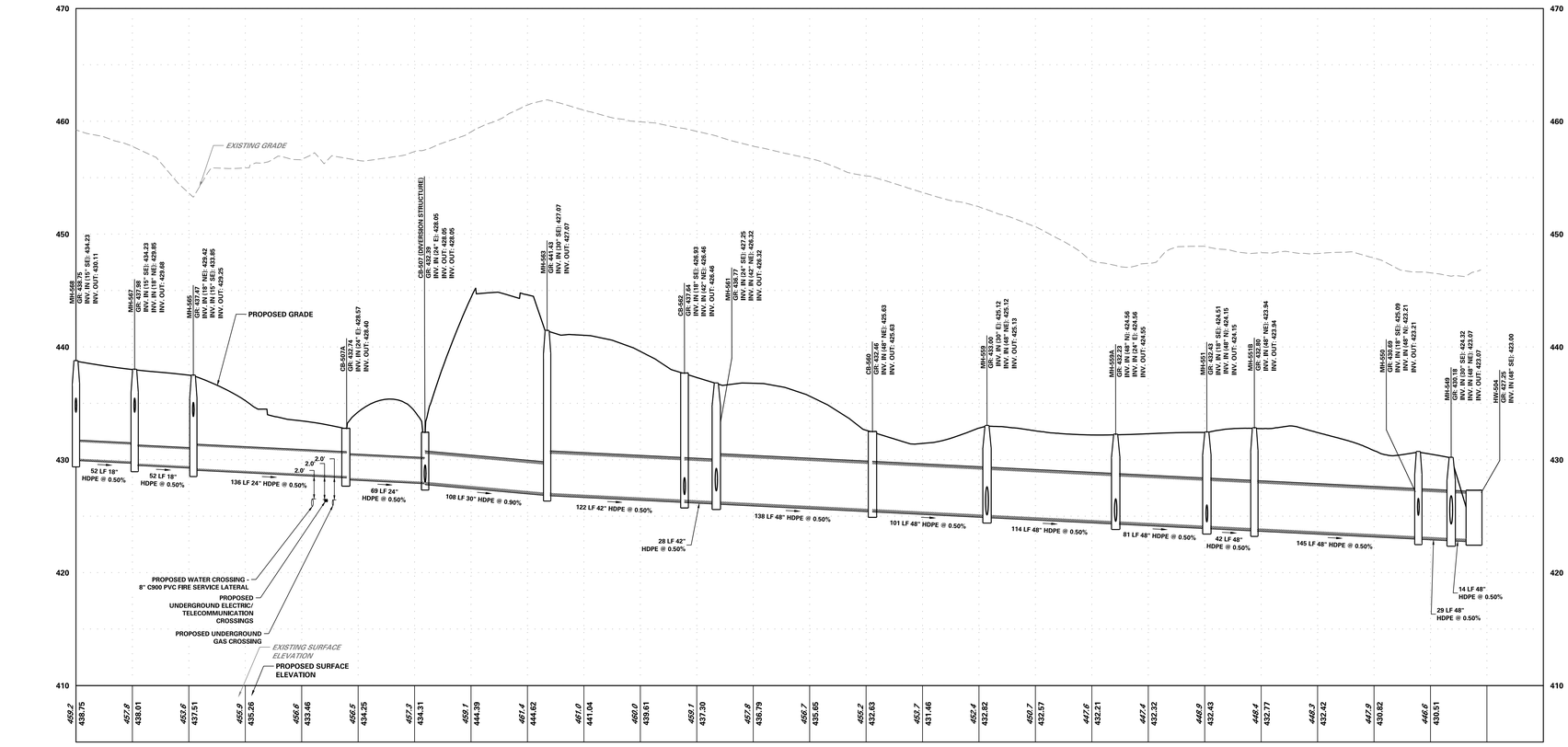
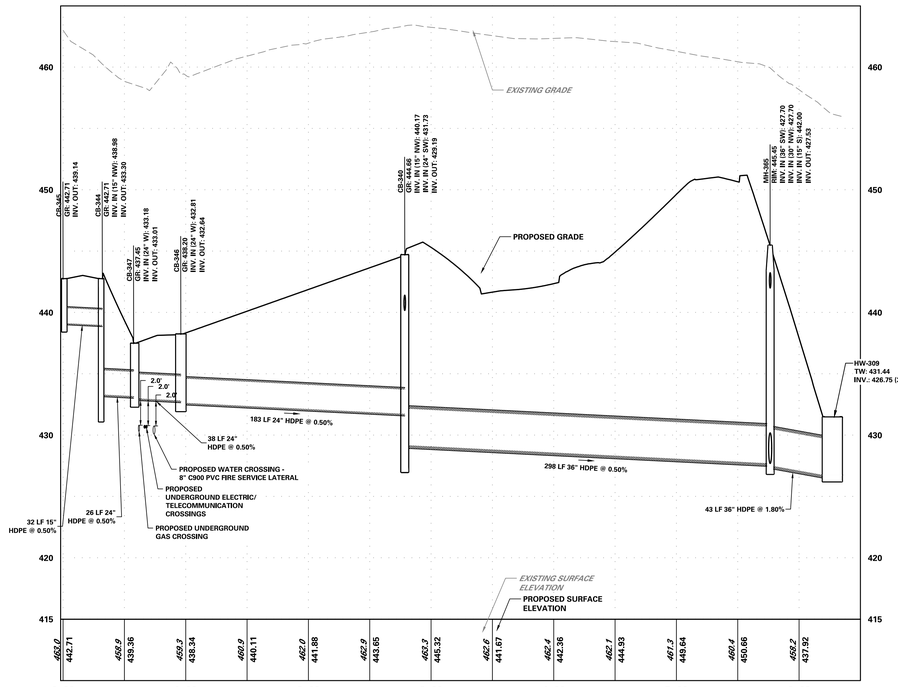
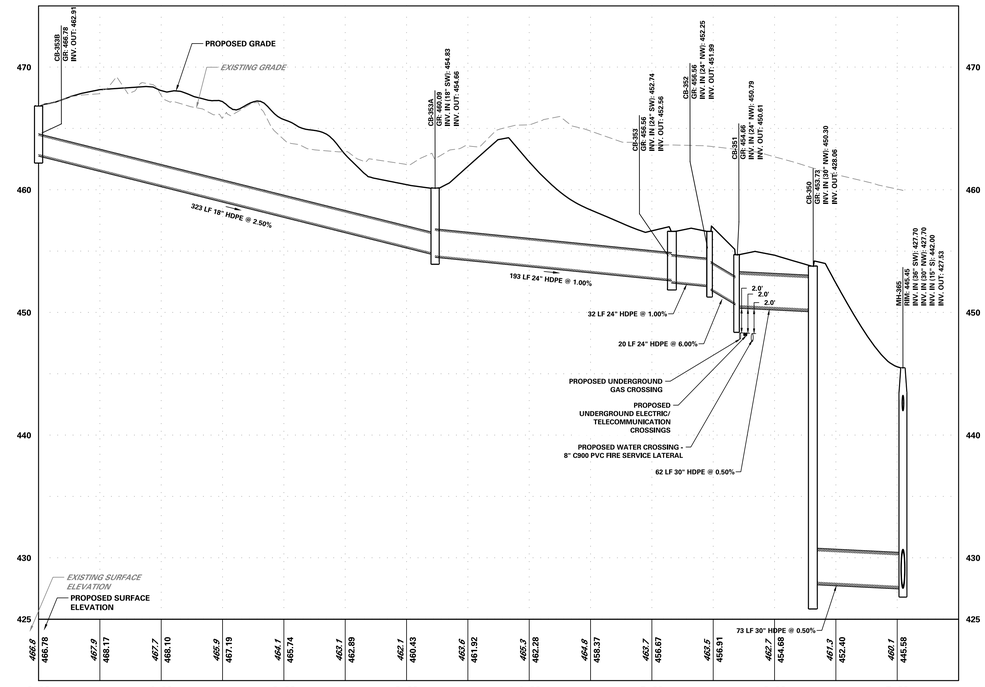


MH-568 TO HW-504 PROFILE



CB-345TO HW-309 PROFILE



CB-353B TO MH-365 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PROFESSIONAL ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-204
Sheet 52 of 128

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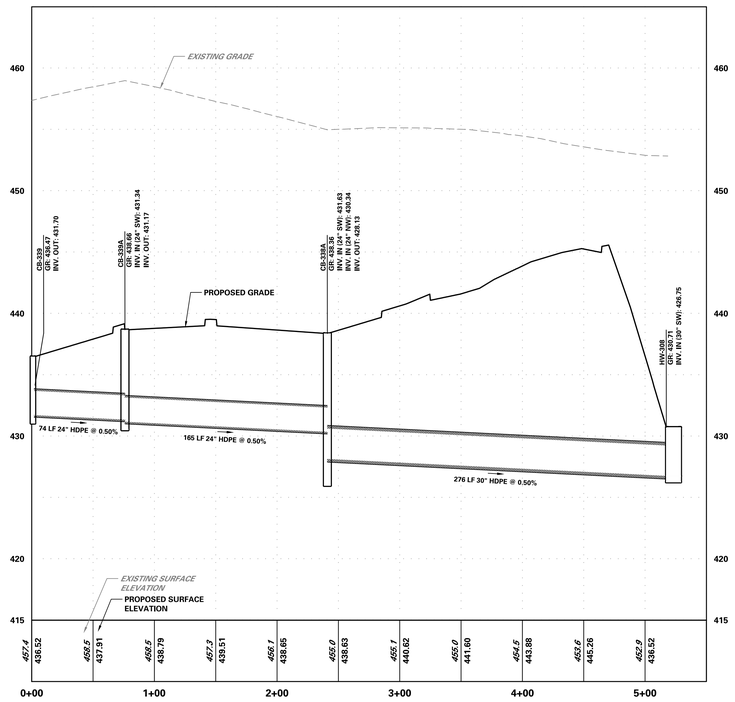
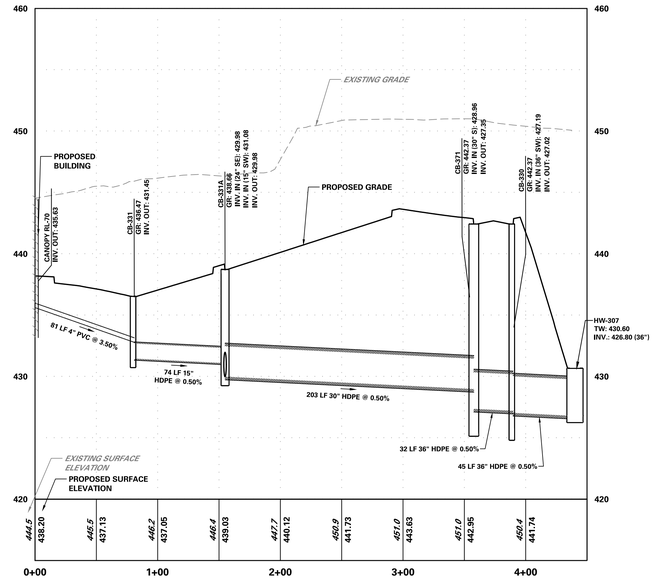
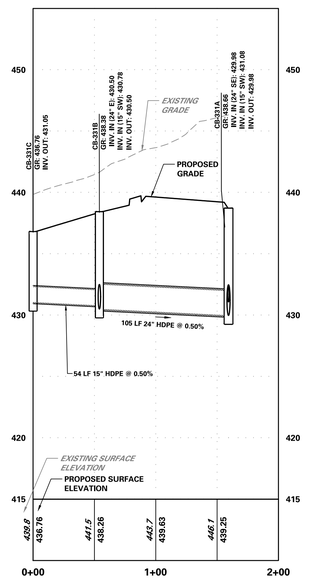
Date: 8/14/2025 Time: 21:30 User: mrynn Style Table: Langan.stb Layout: CG-204 Document Code: 200164401-0301-CG201-0104



CB-339 TO HW-308 PROFILE



CANOPY RL-70 TO HW-307 PROFILE



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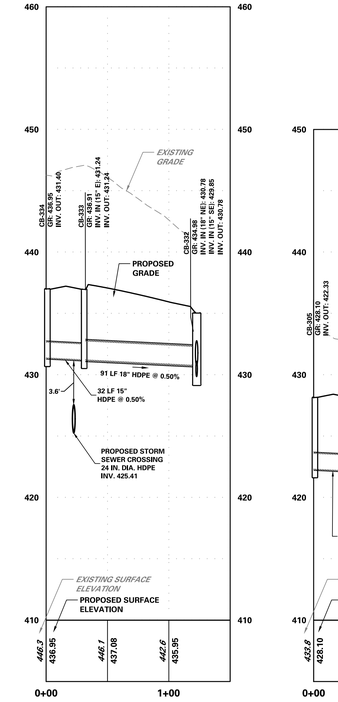

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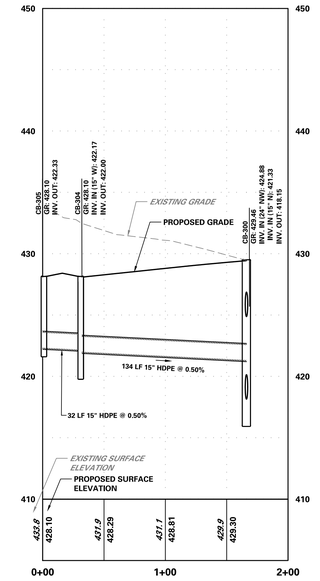
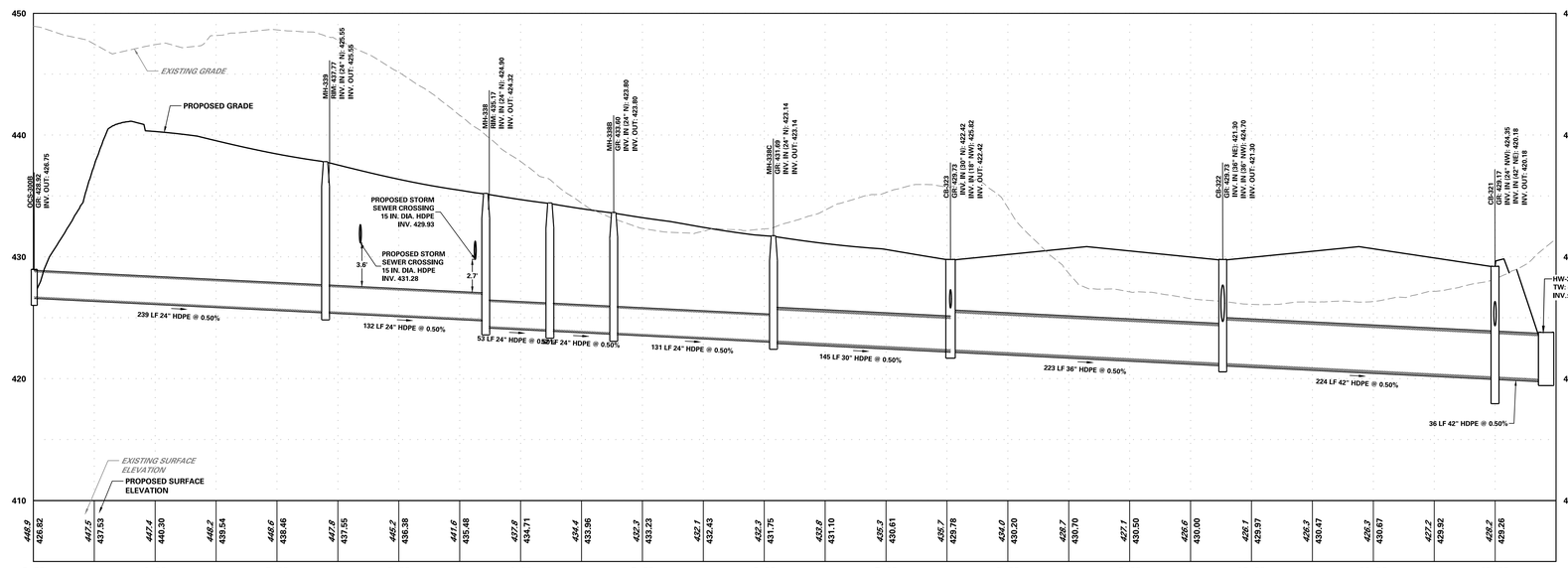
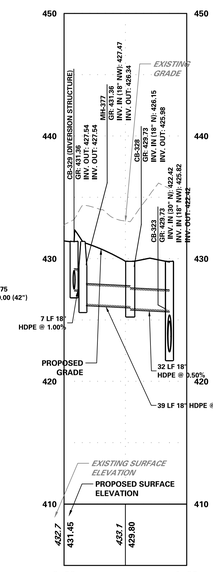


CB-305 TO CB-300 PROFILE



OCS-300B TO HW-305 PROFILE



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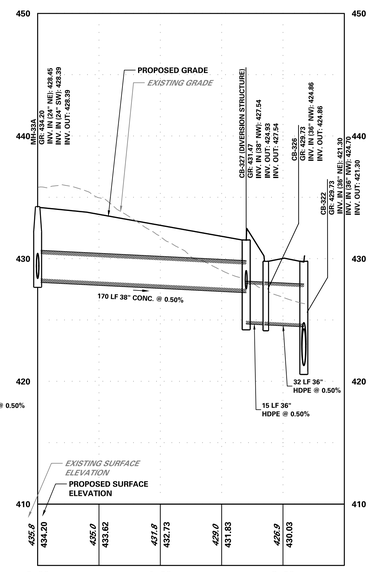
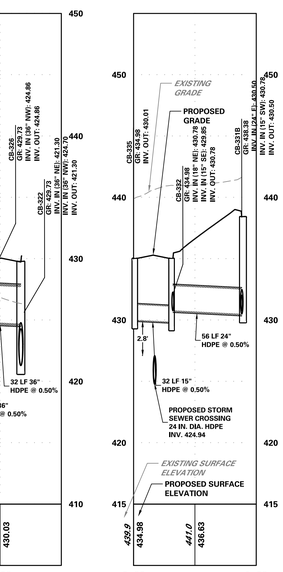


MH-33A TO CB-322 PROFILE



CB-335 TO CB-331B PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Date	Description
5.	8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS
4.	3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS
3.	12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS
2.	11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS
1.	8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS

Revisions

Signature — 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
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DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
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Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-205
Sheet 53 of 128

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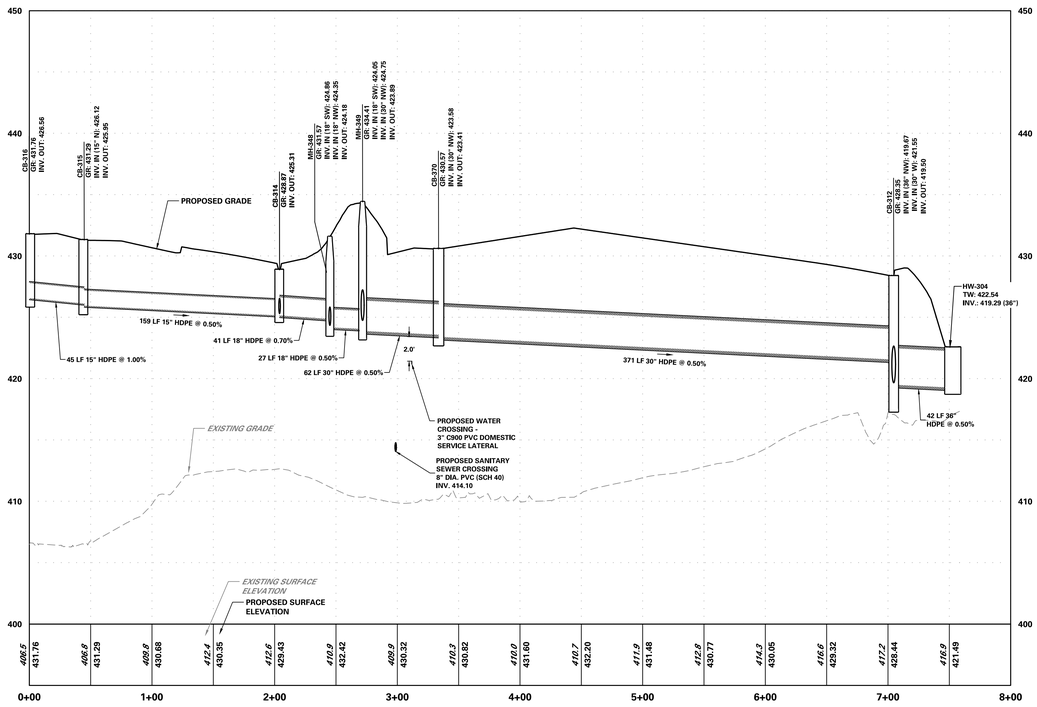
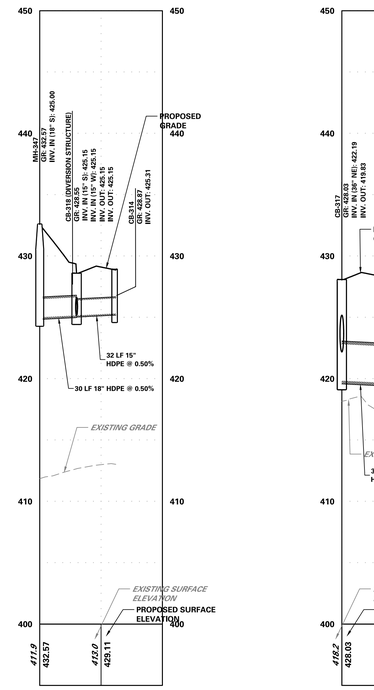
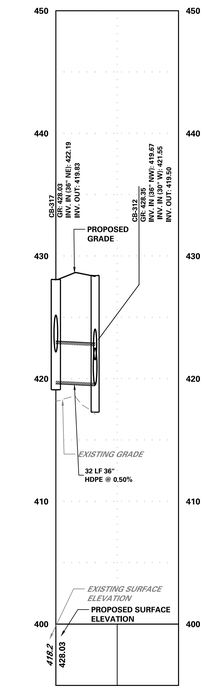
Date: 8/14/2025 Time: 21:30 User: mrynn Style Table: Langan.stb Layout: CG-205 Document Code: 200164401-0301-CG201-0105



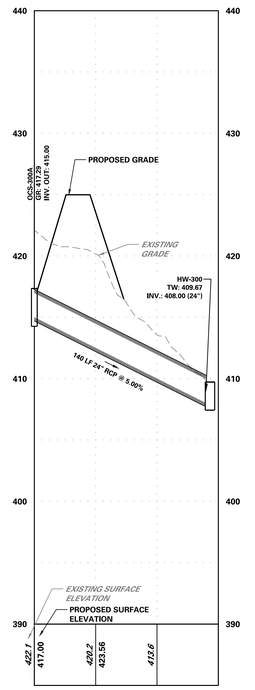
CB-316 TO HW-304 PROFILE



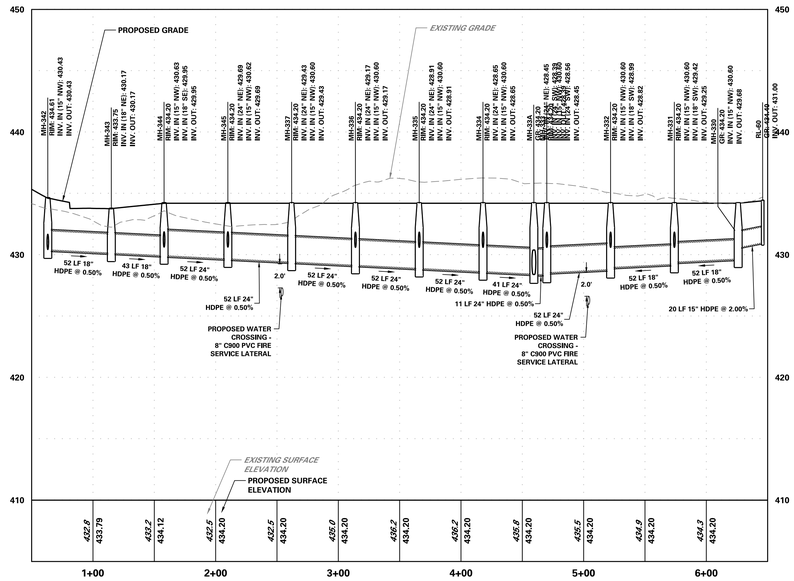
MH-347 TO CB-314 PROFILE



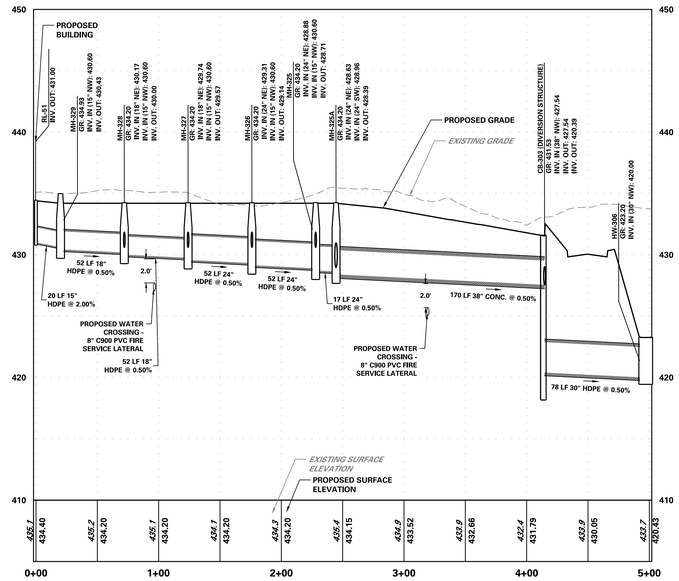
CB-317 TO CB-312 PROFILE



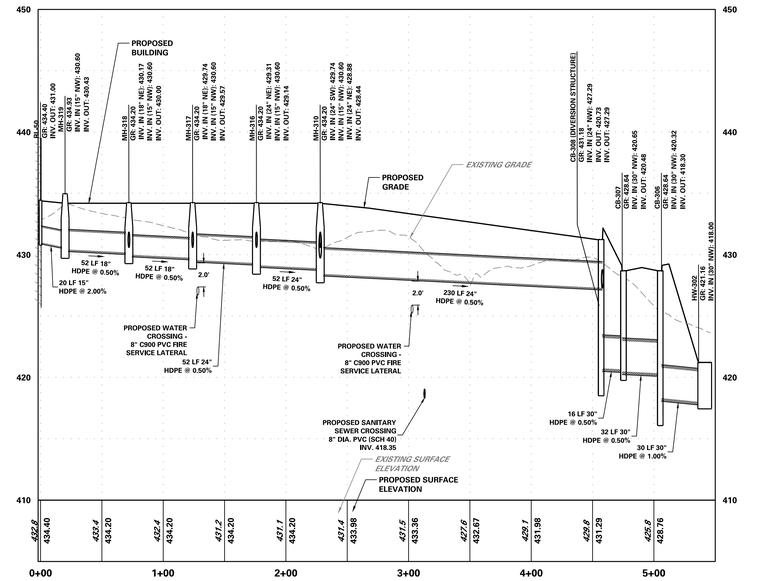
OCS-300A TO HW-300 PROFILE



RL-60 TO MH-342 PROFILE



RL-51 TO HW-306 PROFILE



RL-50 TO HW-302 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

Commonwealth of Pennsylvania — Registered Professional — Keith S. Ottes — Engineer — Seal

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No.	200164401
Date	6/7/2023
Drawn By	BGD
Checked By	SMH

Drawing No. CG-206

Sheet 54 of 128

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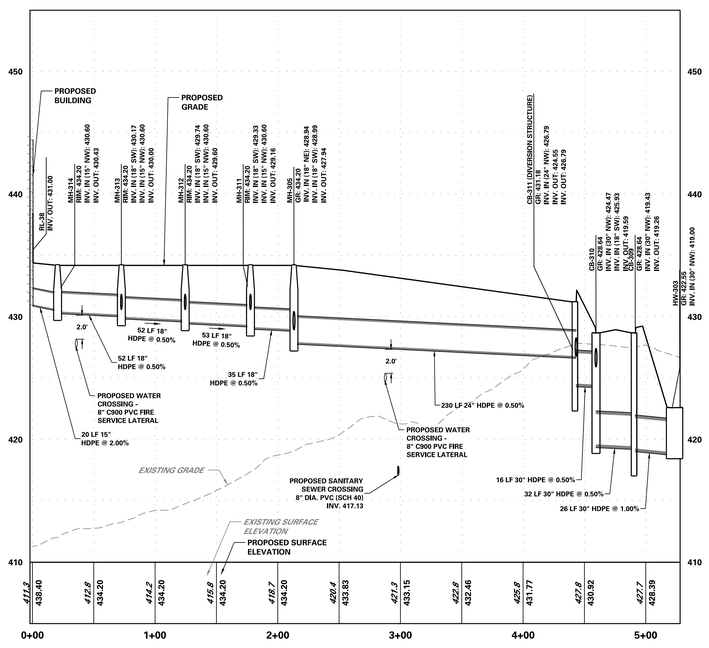
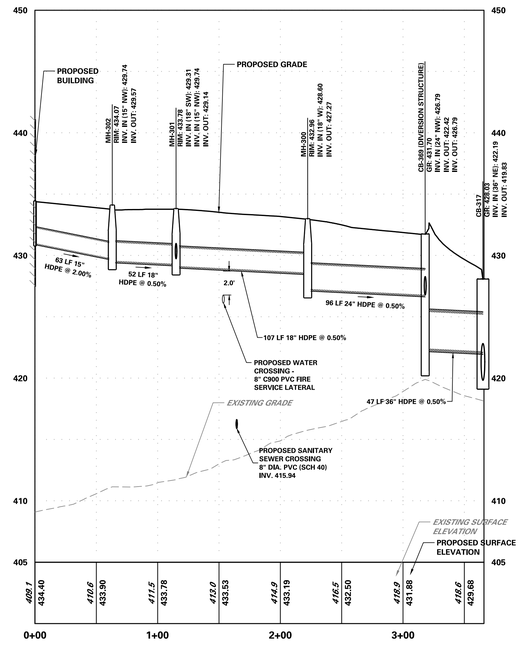
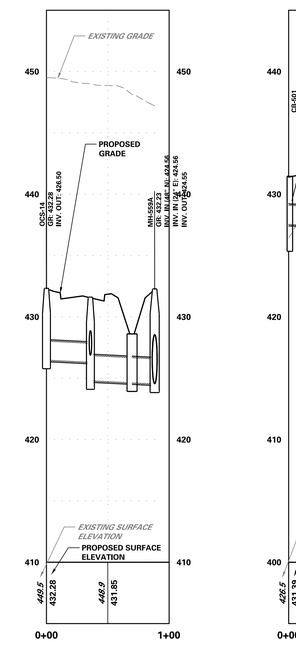
Date: 8/14/2025 Time: 21:31 User: mrynn Style Table: Langan.stb Layout: CG-206 Document Code: 200164401-0301-CG201-0106



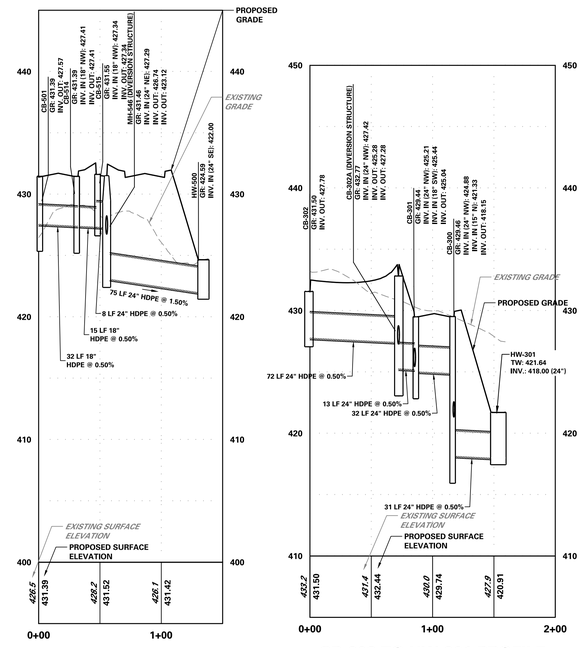
RL-38 TO HW-303 PROFILE



RL-36 TO CB-317 PROFILE

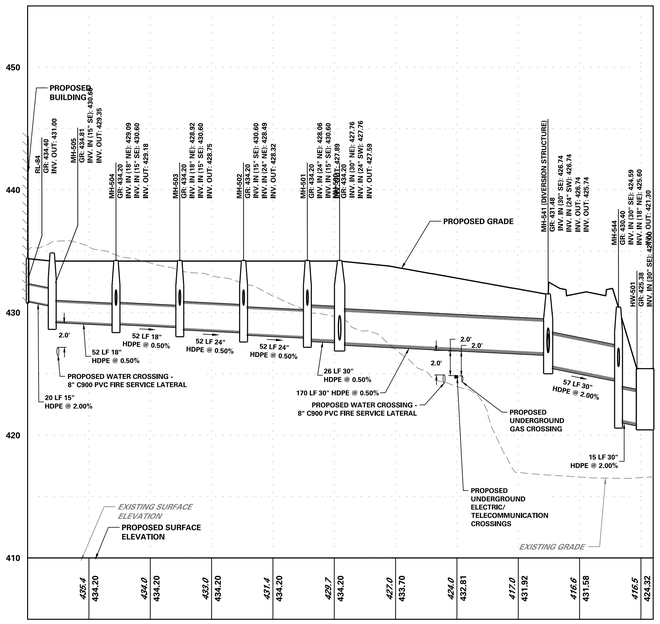


OCS-14 TO MH-559A PROFILE

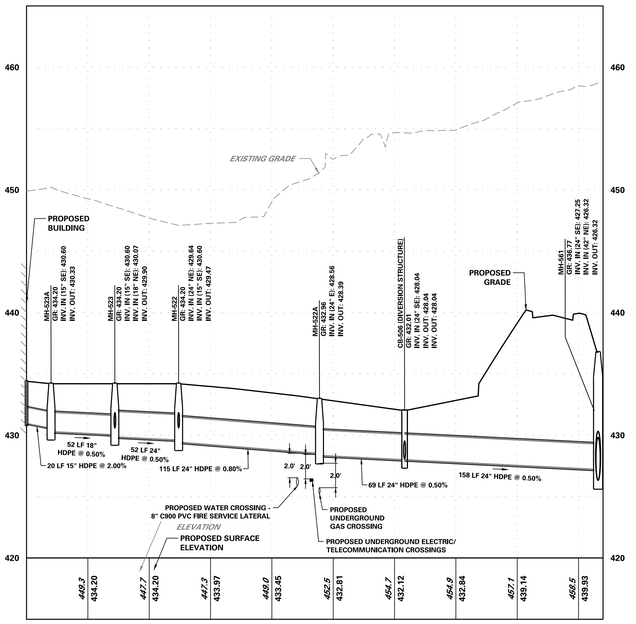


CB-501 TO HW-500 PROFILE

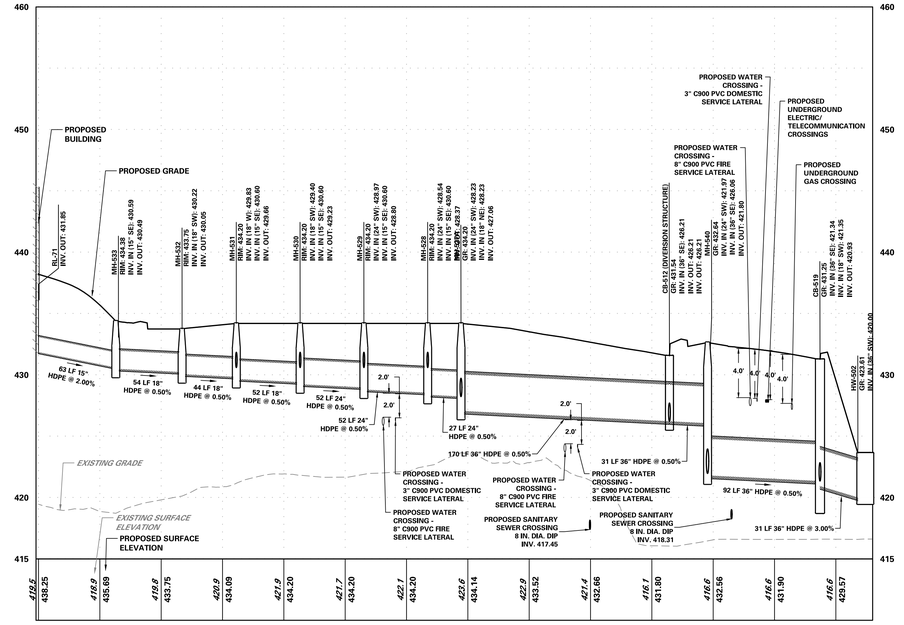
CB-302 TO HW-301 PROFILE



RL-84 TO HW-501 PROFILE



RL-103 TO MH-561 PROFILE



RL-71 TO HW-502 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Date	Description
5.	8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS
4.	3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS
3.	12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS
2.	11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS
1.	8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 074526 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-207
Sheet 55 of 128

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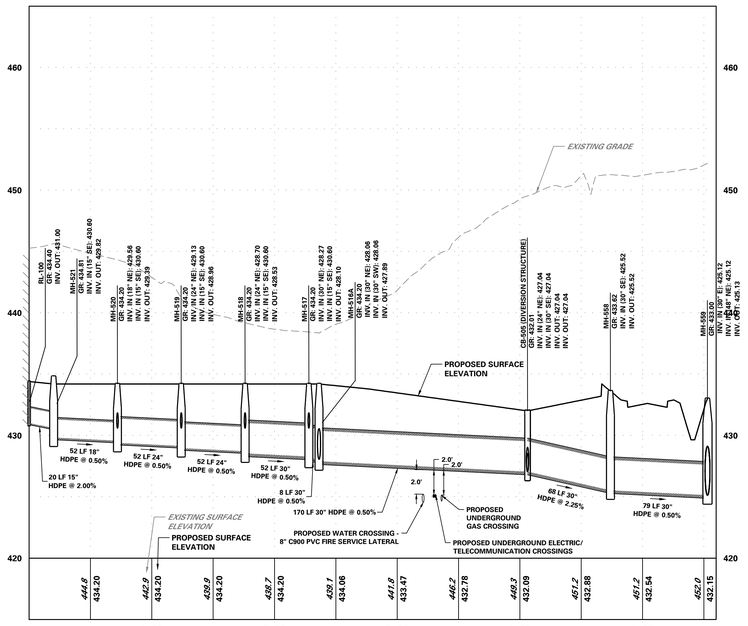
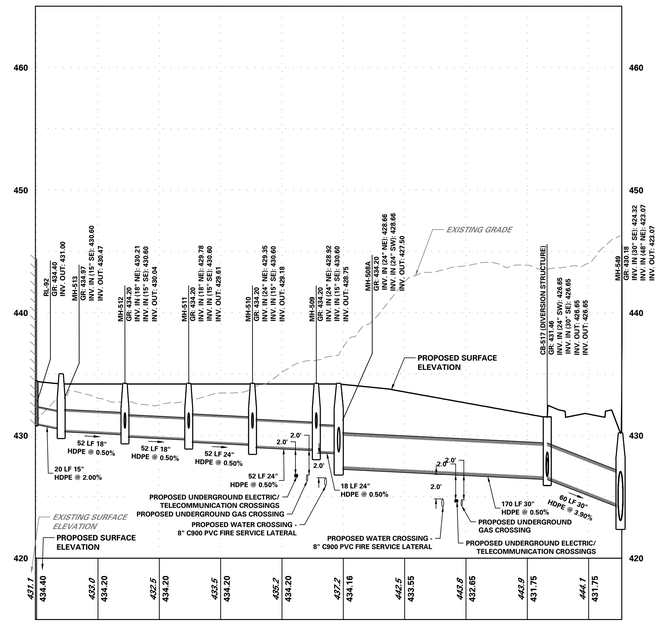
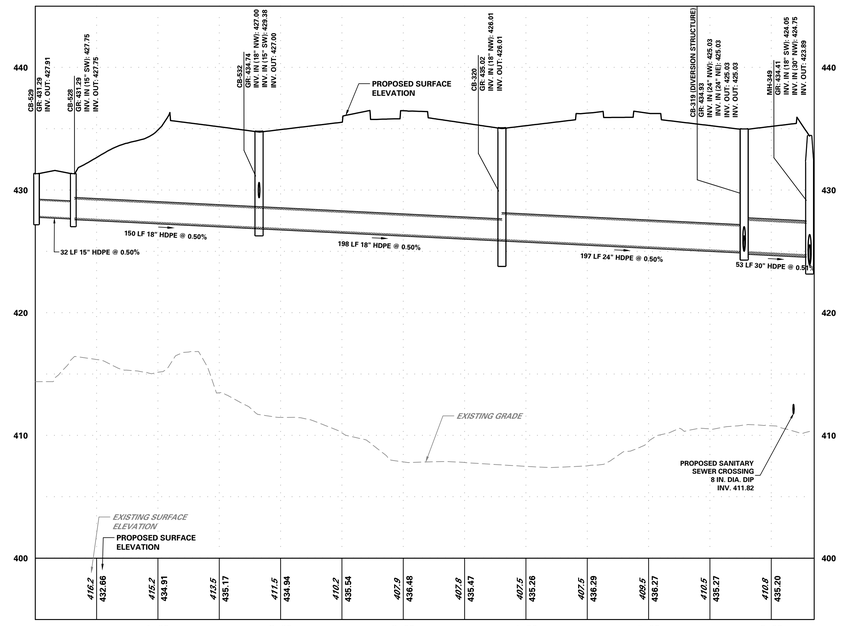
Date: 8/14/2025 Time: 21:31 User: mrynn Style Table: Langan.stb Layout: CG-207 Document Code: 200164401-0301-CGZ01-0107



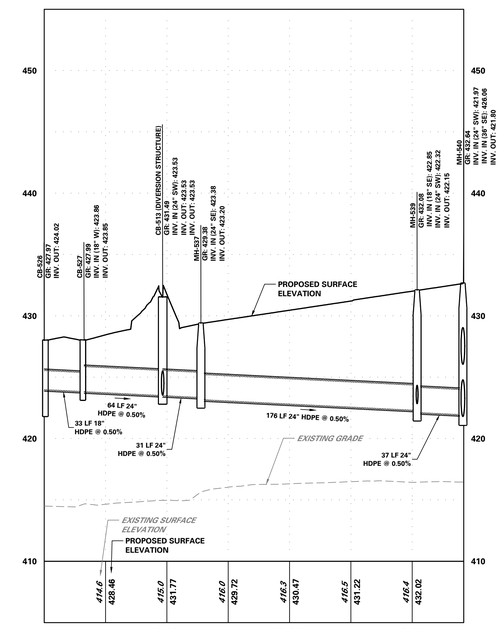
RL-100 TO MH-559 PROFILE



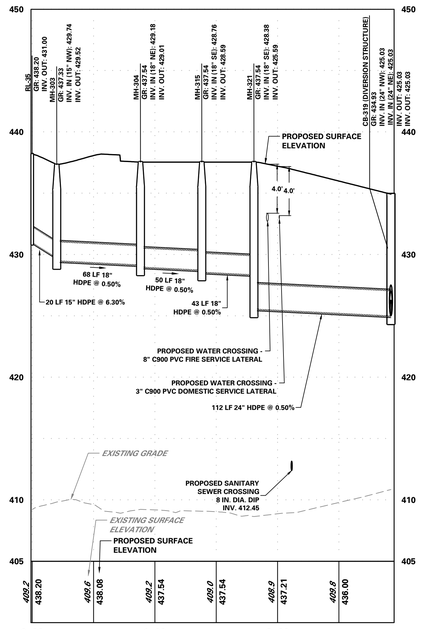
RL-92 TO MH-549 PROFILE



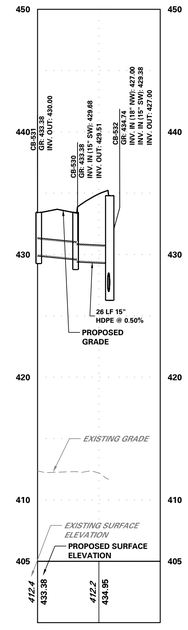
CB-529 TO MH-349 PROFILE



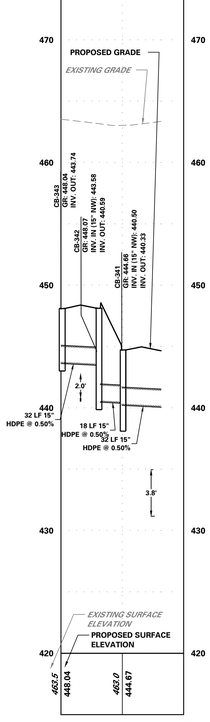
CB-526 TO MH-540 PROFILE



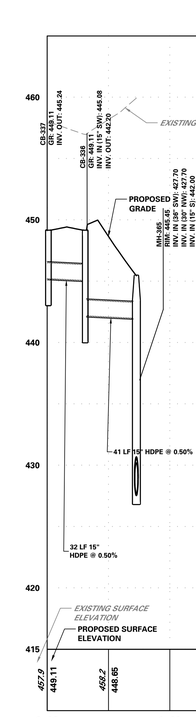
RL-35 TO CB-319 PROFILE



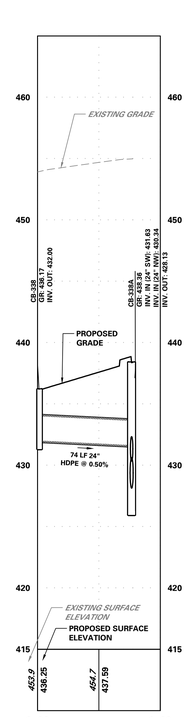
CB-532 TO CB-531 PROFILE



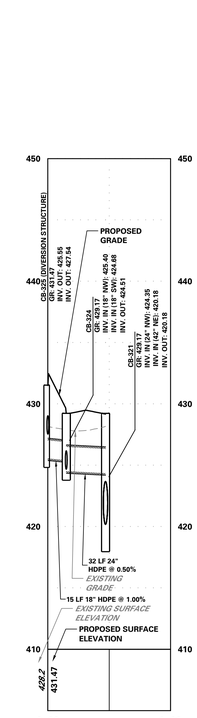
CB-343 TO CB-340 PROFILE



CB-337 TO MH-365 PROFILE



CB-338 TO CB-338A PROFILE



CB-325 TO CB-321 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CG-208
Sheet 56 of 128

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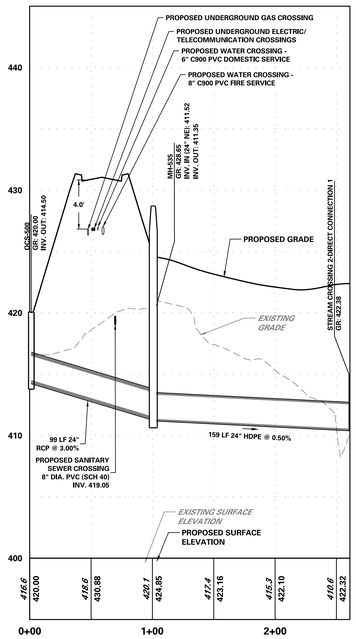
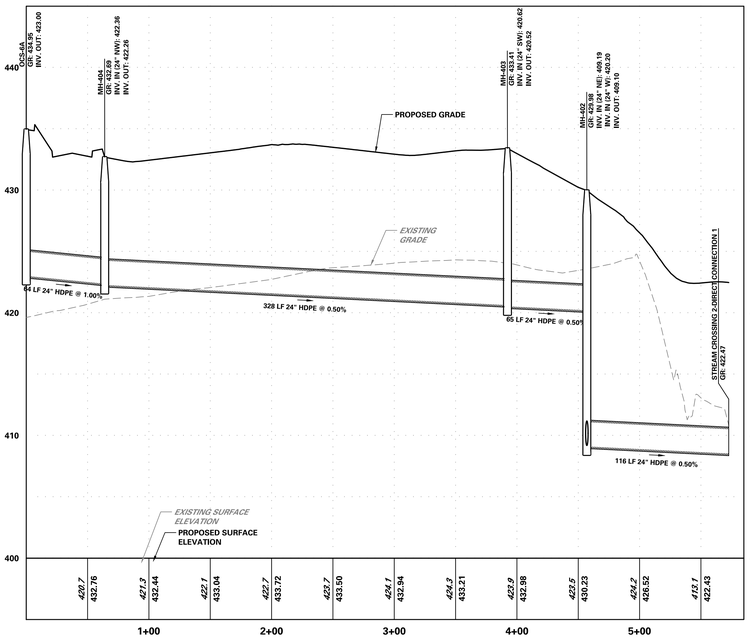
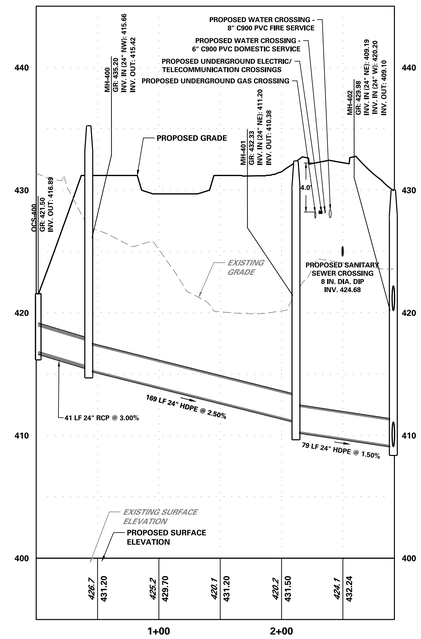
Date: 8/14/2025 Time: 22:17 User: mrynn Style Table: Langan.stb Layout: CG-208 Document Code: 200164401-0301-CG201-0108



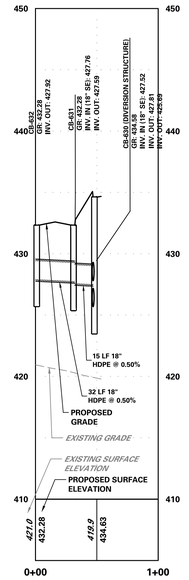
OCS-500 TO STREAM CROSSING 2 DIRECT CONNECTION 1 PROFILE



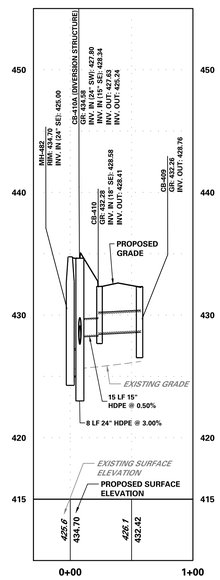
OCS-6A TO STREAM CROSSING 2-DIRECT CONNECTION 2 PROFILE



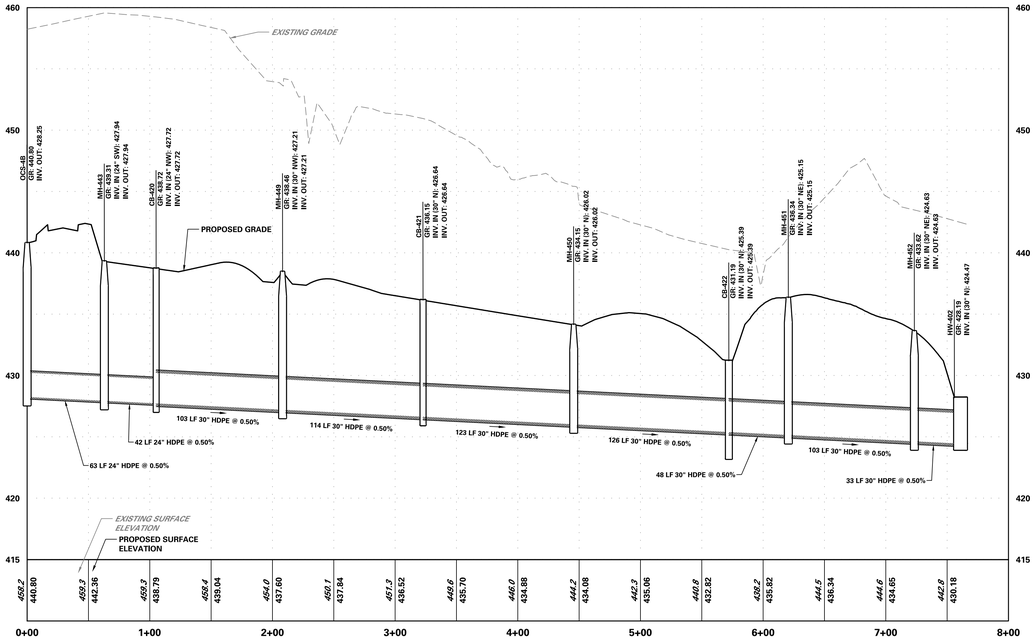
OCS-400 TO MH-402 PROFILE



CB-632 TO CB-630 PROFILE



CB-410 TO MH-480 PROFILE



OCS-4B TO HW-402 PROFILE

5 0 2.5 5
VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PE 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CG-209
Sheet 57 of 128

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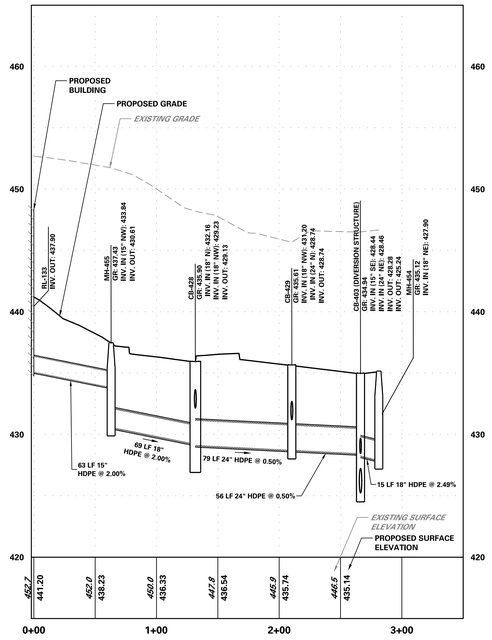
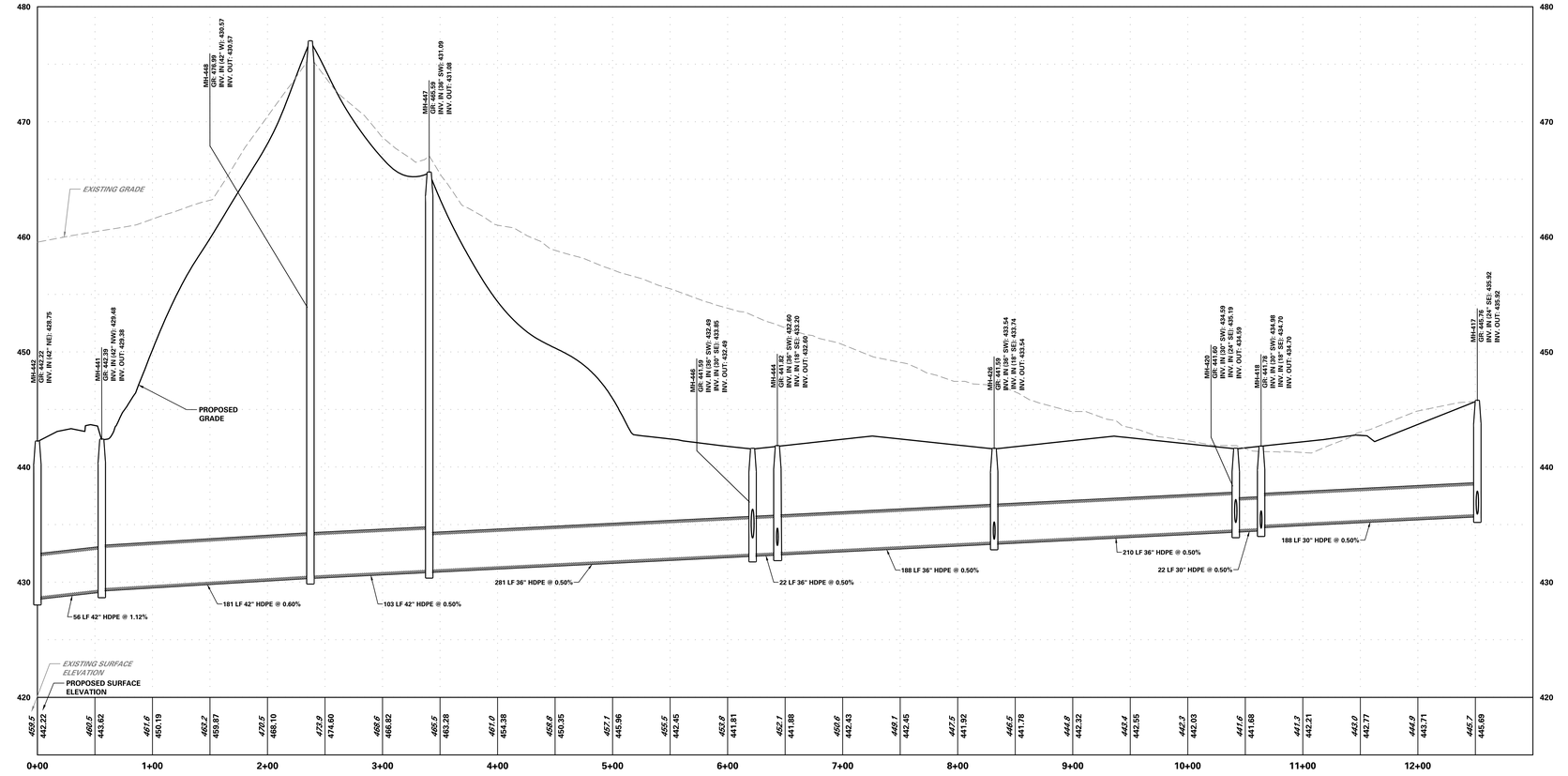
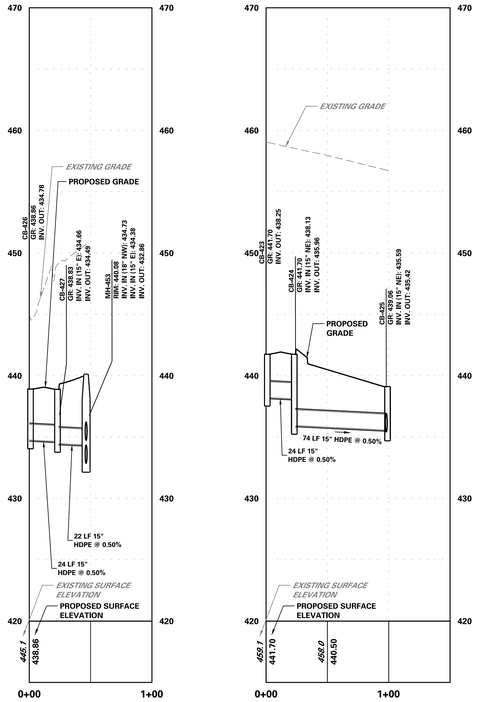
Date: 8/14/2025 Time: 21:32 User: mrynn Style Table: Langan.stb Layout: CG-209 Document Code: 200164401-0301-CG201-0109



RL-133 TO MH-615 PROFILE

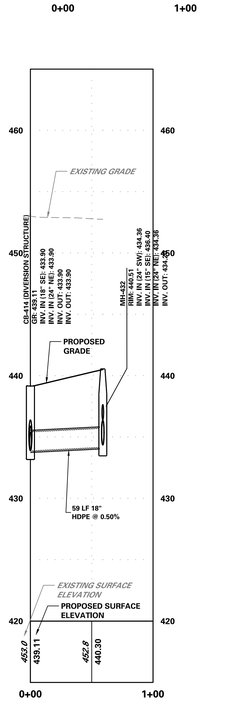


CB-623 TO CB-617 PROFILE

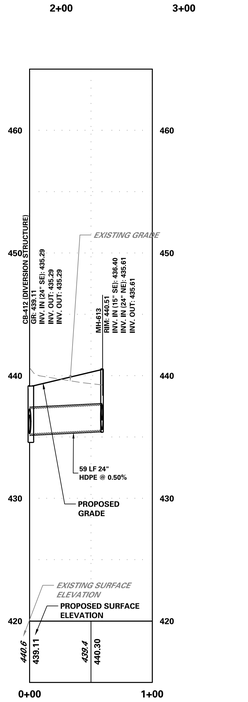


CB-426 TO MH-453 PROFILE

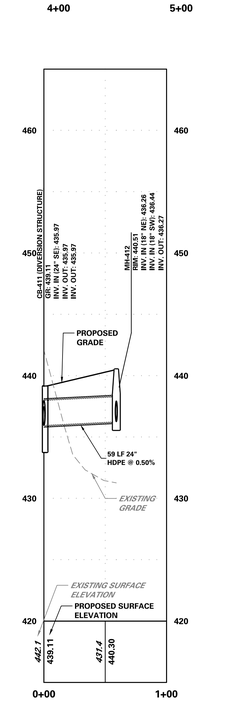
CB-423 TO CB-425 PROFILE



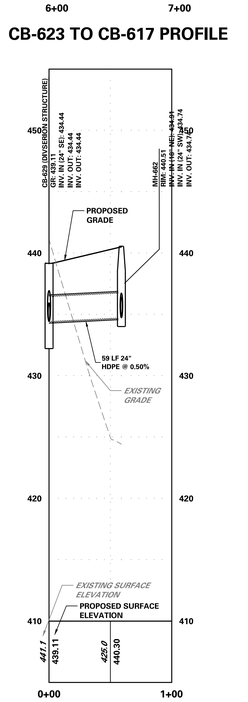
CB-414 TO MH-432 PROFILE



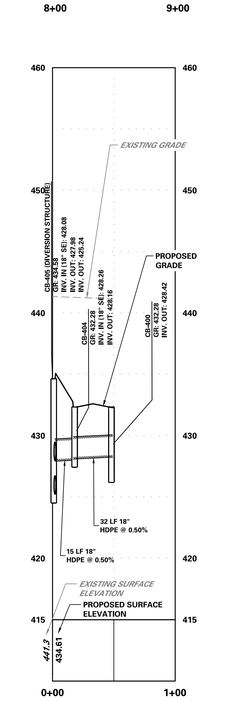
CB-412 TO MH-613 PROFILE



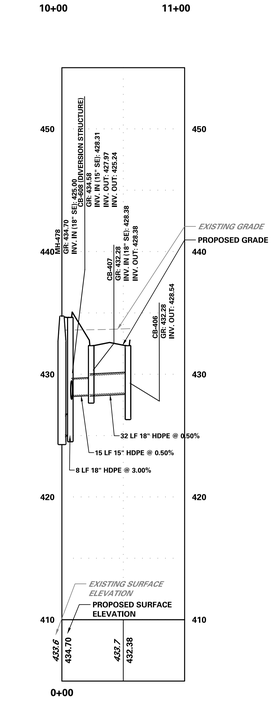
CB-411 TO MH-412 PROFILE



CB-629 TO MH-662 PROFILE



CB-405 TO CB-400 PROFILE



CB-406 TO MH-478 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET
HORIZONTAL SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-210
Sheet 58 of 128

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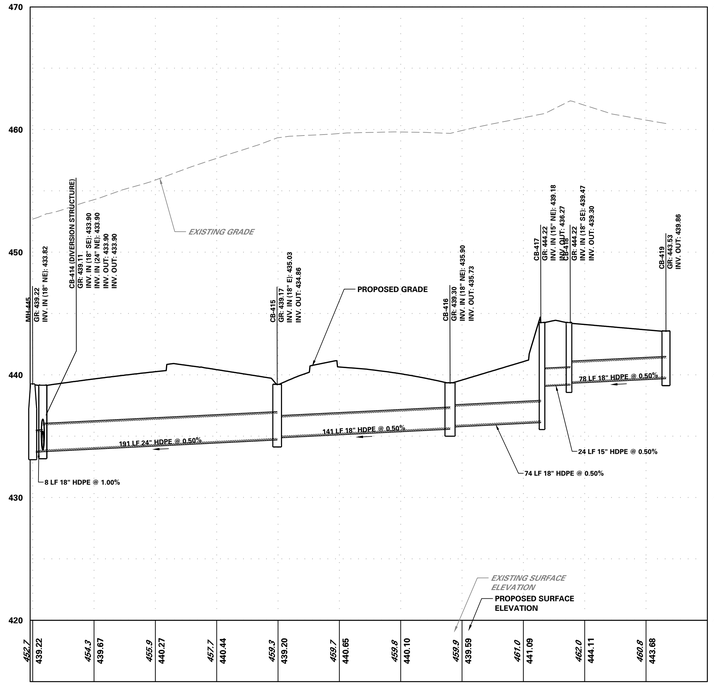
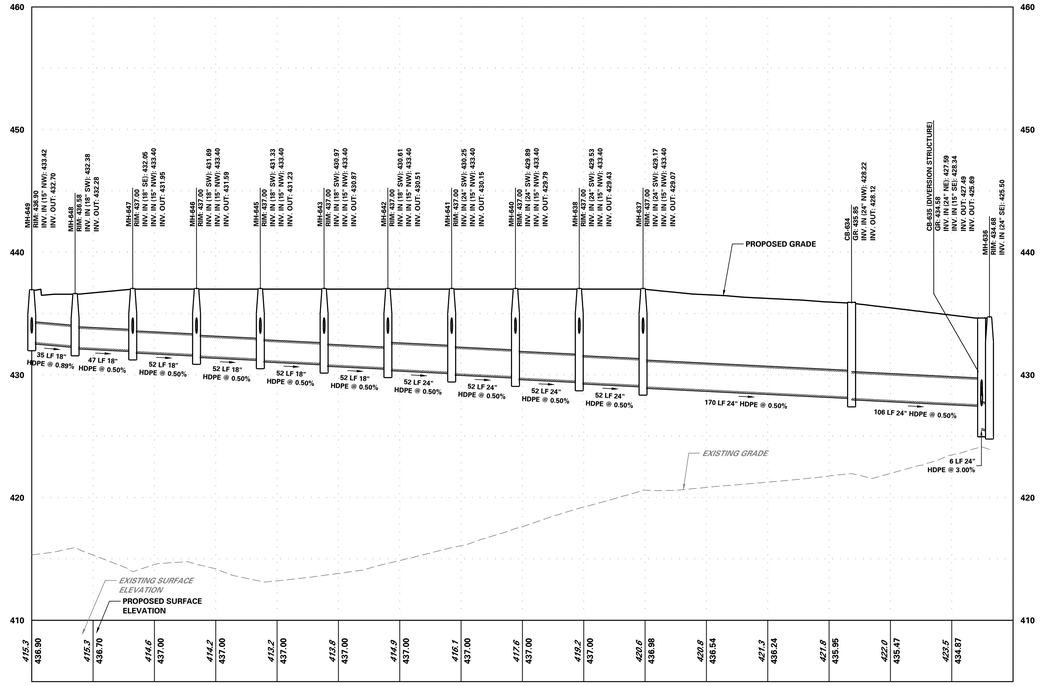
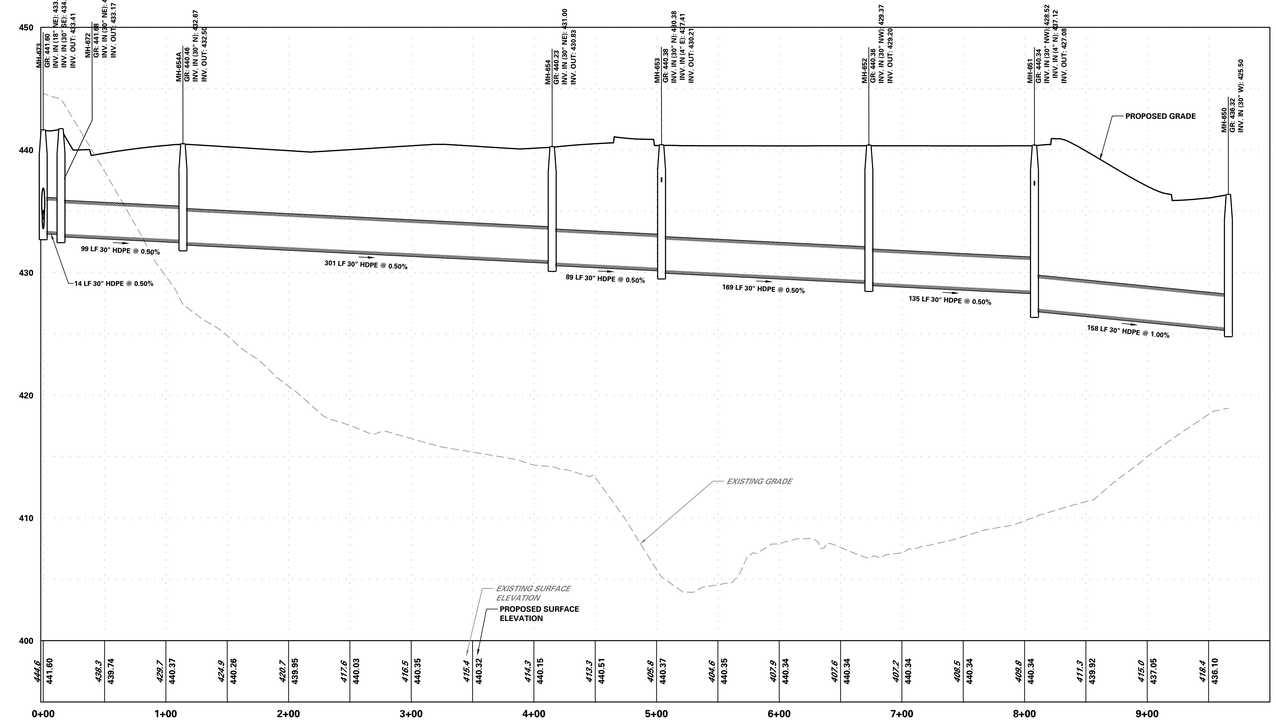
Date: 8/14/2025 Time: 21:32 User: mrynn Style Table: Langan.stb Layout: CG-210 Document Code: 200164401-0301-CG201-0110



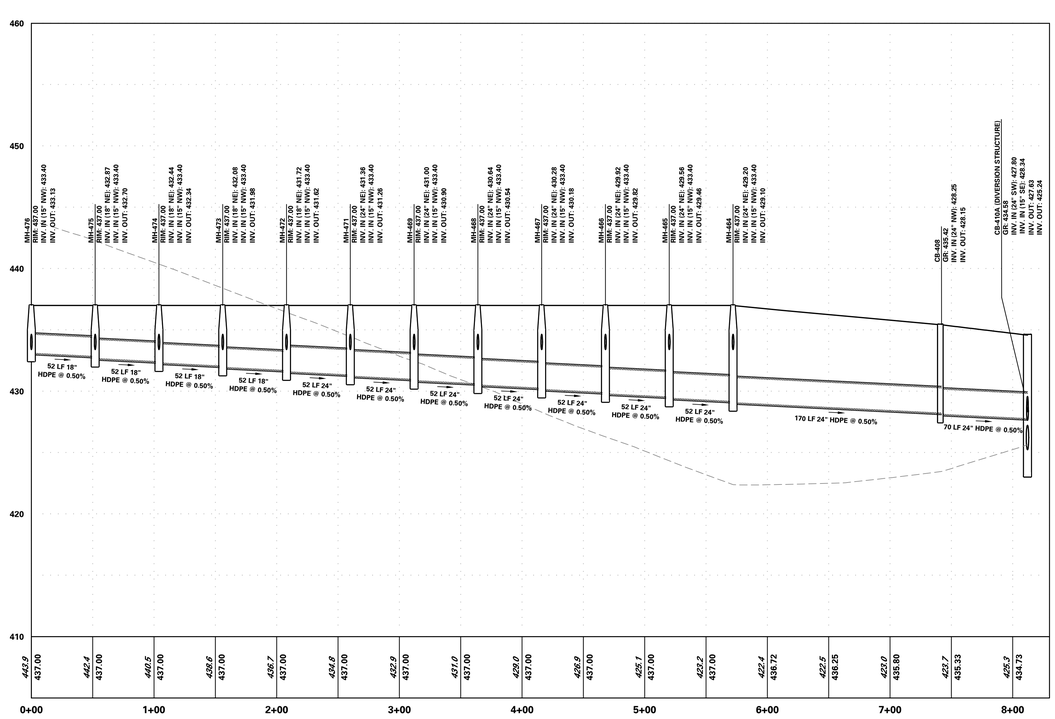
MH-445 TO CB-419 PROFILE



MH-649 TO MH-636 PROFILE



MH-673 TO MH-650 PROFILE



MH-476 TO CB-410A2 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526 SURVEYOR

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CG-211
Sheet 59 of 128

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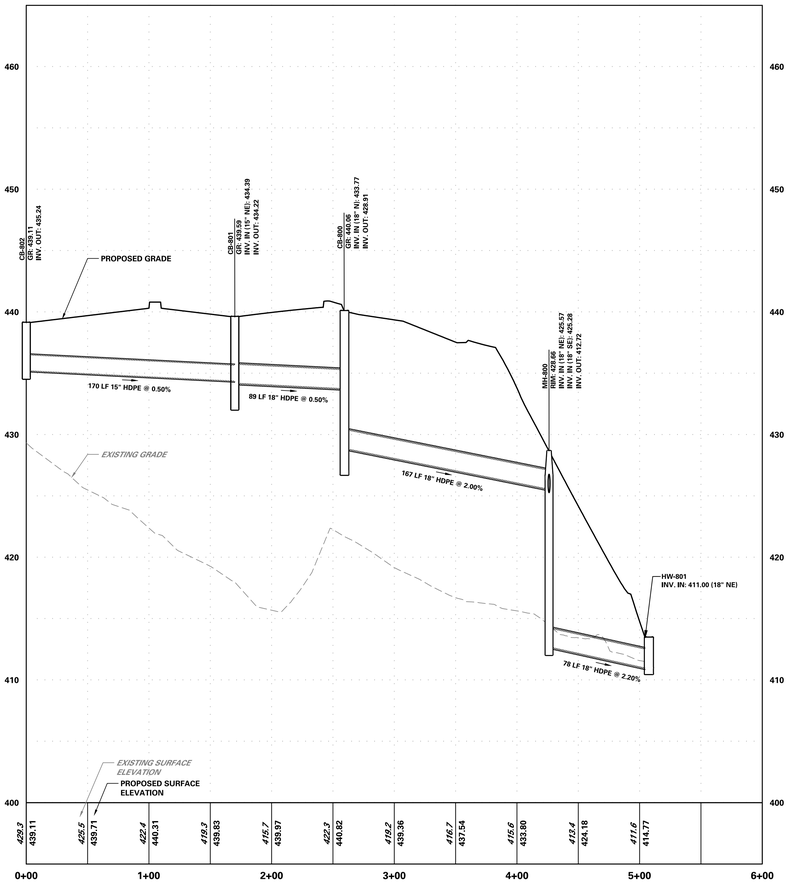
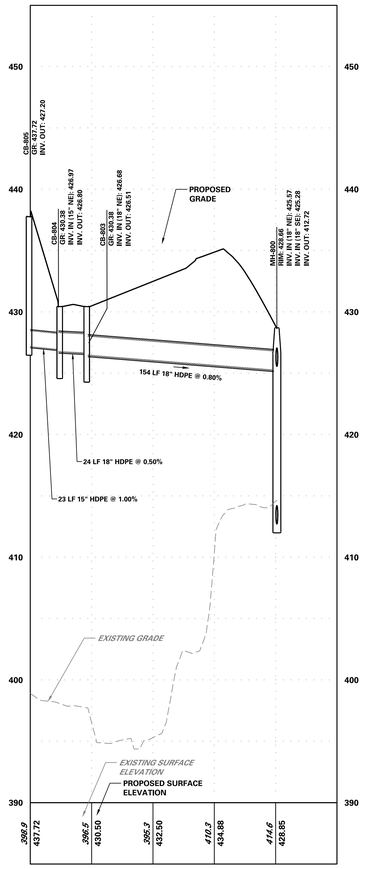
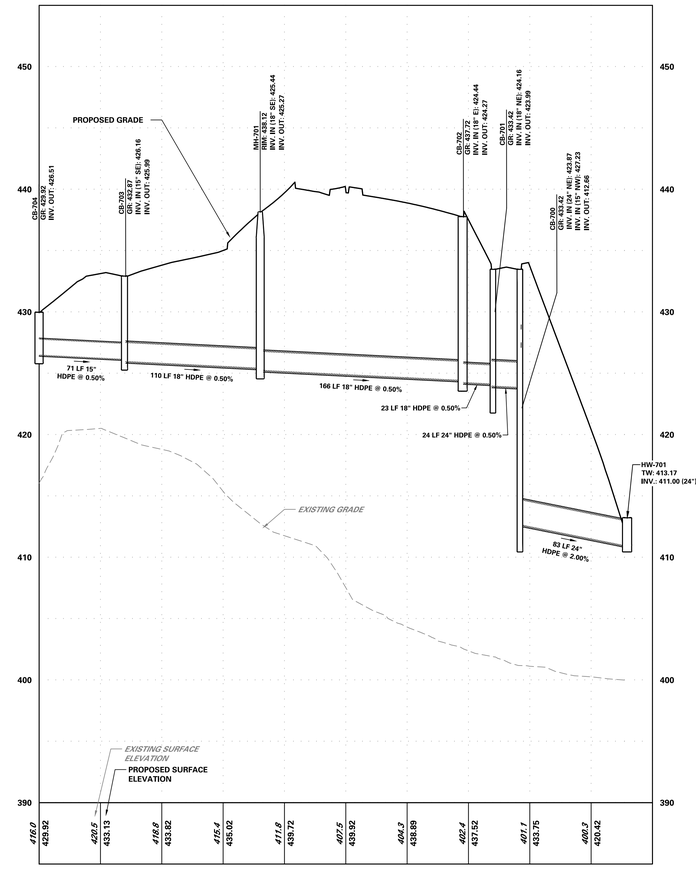
Date: 8/14/2025 Time: 22:16 User: mrynn Style Table: Langan.stb Layout: CG-211 Document Code: 200164401-0301-CG201-0111



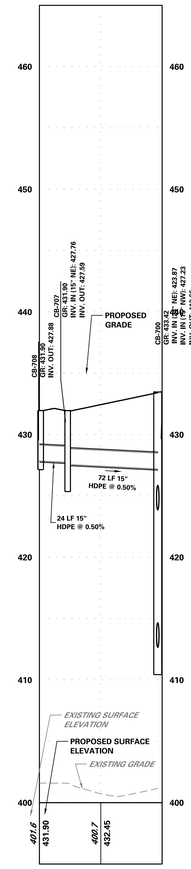
CB-802 TO HW-801 PROFILE



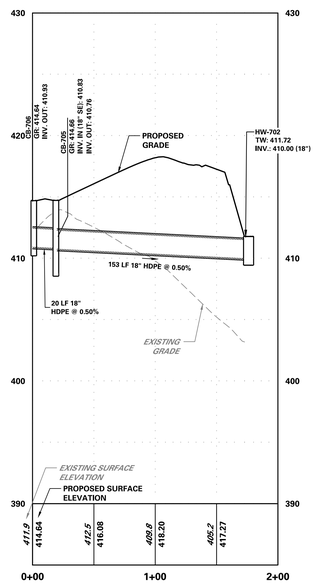
CB-805 TO MH-800 PROFILE



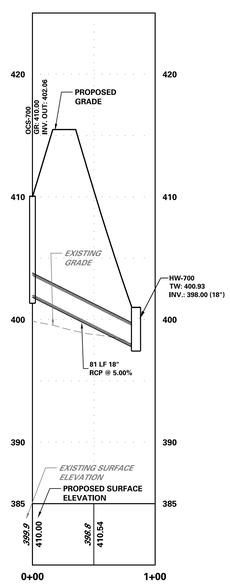
CB-704 TO HW-701 PROFILE



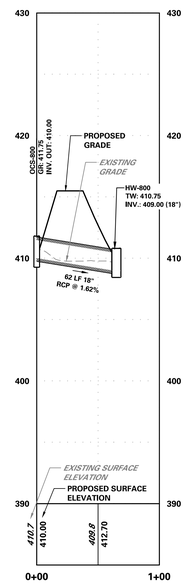
CB-708 TO CB-700 PROFILE



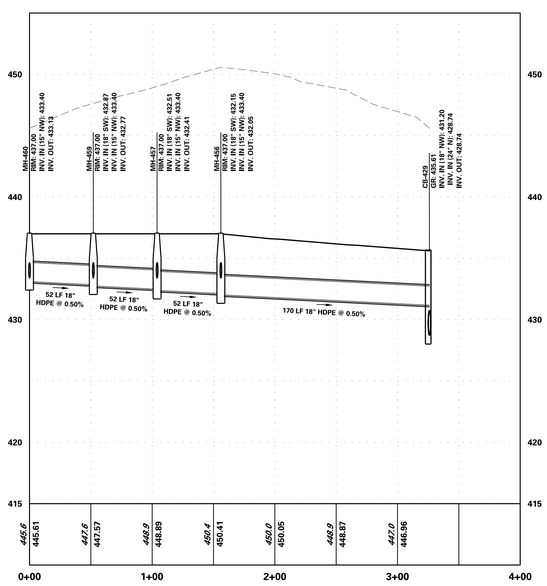
CB-706 TO HW-702 PROFILE



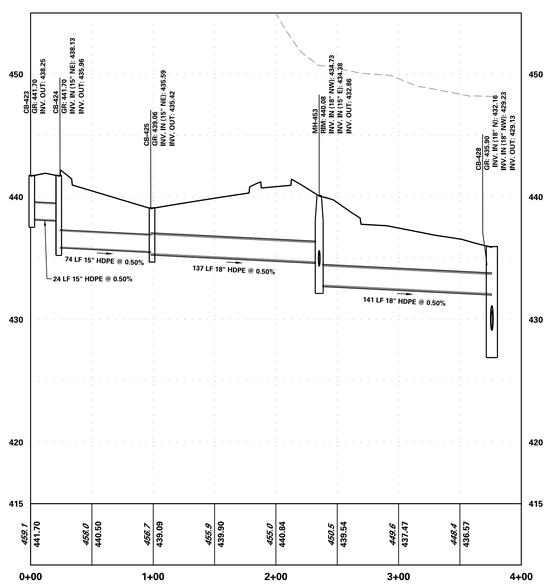
OCS-700 TO HW-700 PROFILE



OCS-800 TO HW-800 PROFILE



MH-460 TO CB-429 PROFILE



CB-424 TO CB-4284 PROFILE

5 0 2.5 5
VERTICAL SCALE: 1 INCH = 5 FEET
50 0 25 50
HORIZONTAL SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER KEITH S. OTTES 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No.	200164401
Date	6/7/2023
Drawn By	BCD
Checked By	SMH

Drawing No. CG-212
Sheet 60 of 128

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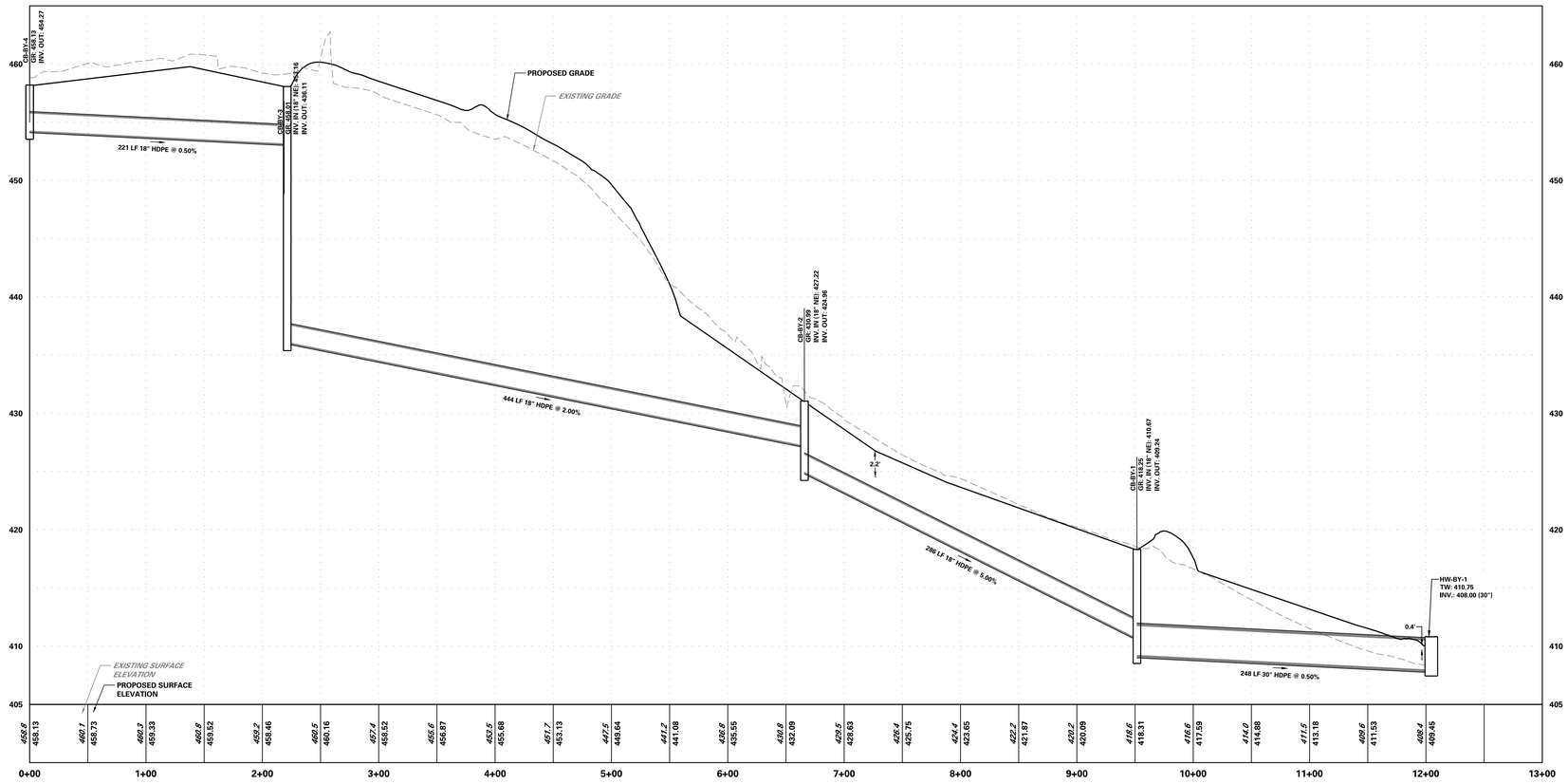
Date: 8/14/2025 Time: 21:33 User: mrynn Style Table: Langan.stb Layout: CG-212 Document Code: 200164401-0301-CG201-0112



CB-BY-4 TO HW-BY-1 PROFILE

VERTICAL SCALE: 1 INCH = 5 FEET

HORIZONTAL SCALE: 1 INCH = 50 FEET

Revisions		
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.
Date	Description	No.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY DRAINAGE PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CG-213
Sheet 61 of 128

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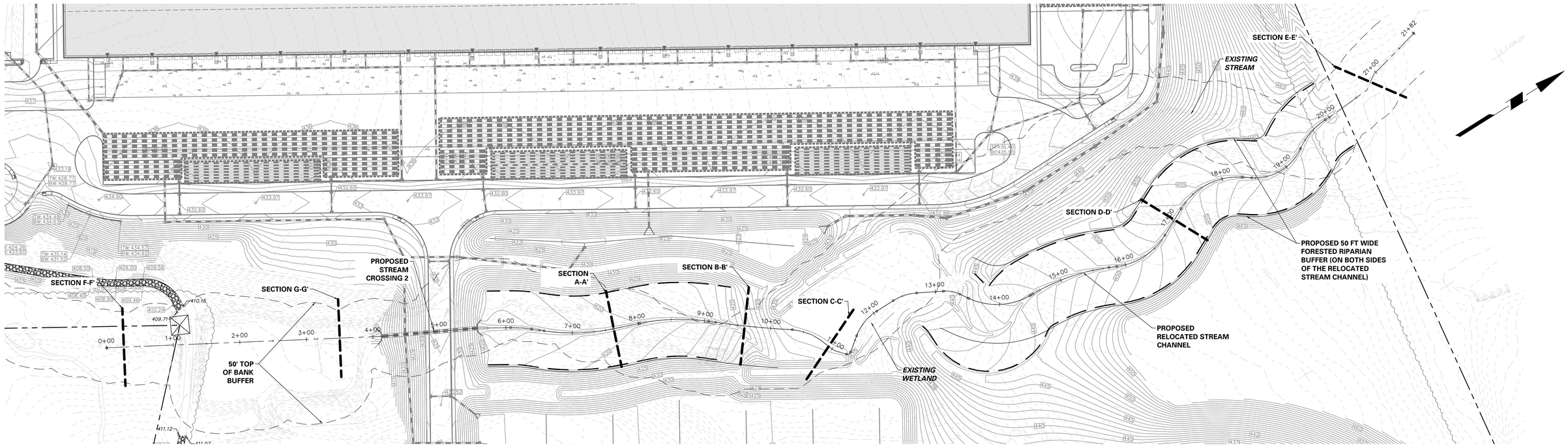
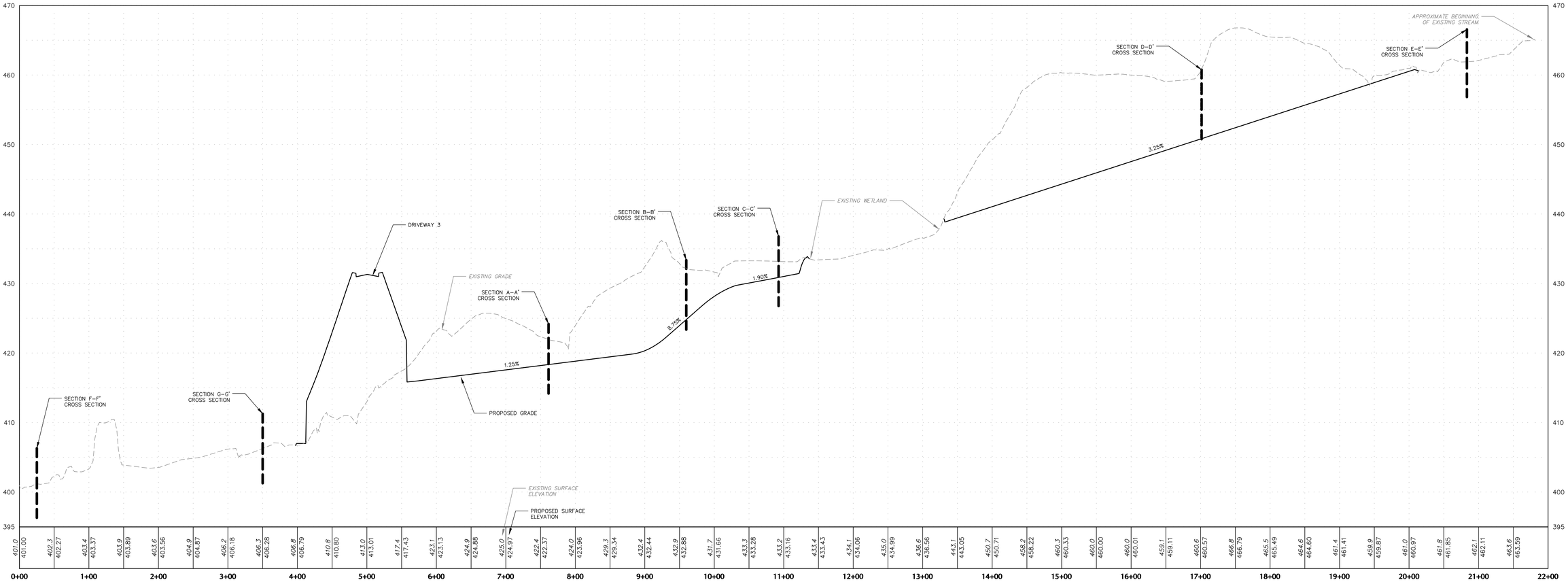
Date: 8/14/2025 Time: 21:34 User: mrynn Style Table: Langan.stb Layout: CG-213 Document Code: 200164401-0301-CG201-0113



SCALE: 1 INCH = 60 FEET



VERTICAL SCALE: 1 INCH = 6 FEET

HORIZONTAL SCALE: 1 INCH = 60 FEET

STREAM RELOCATION PROFILE

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526 8/15/2025

Signature Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY STREAM RELOCATION PROFILES

Project No.	200164401
Date	6/7/2023
Drawn By	BGD
Checked By	SMH

Drawing No. CG-214

Sheet 62 of 128

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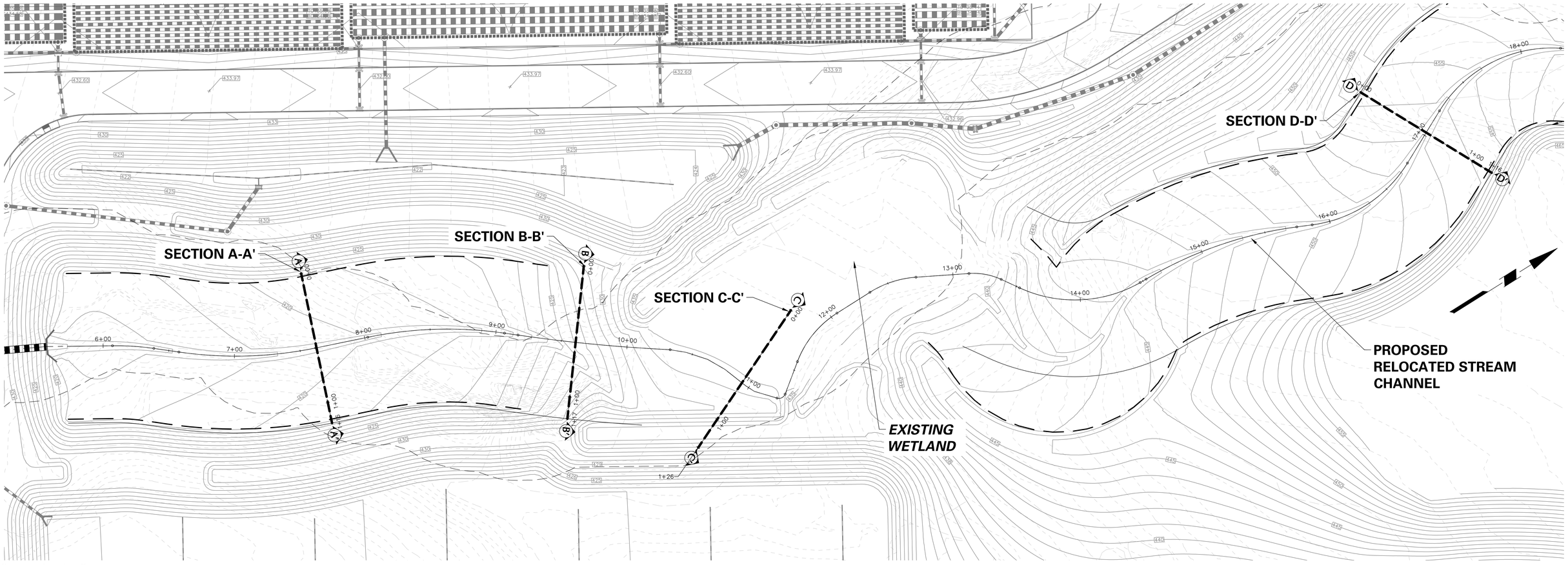
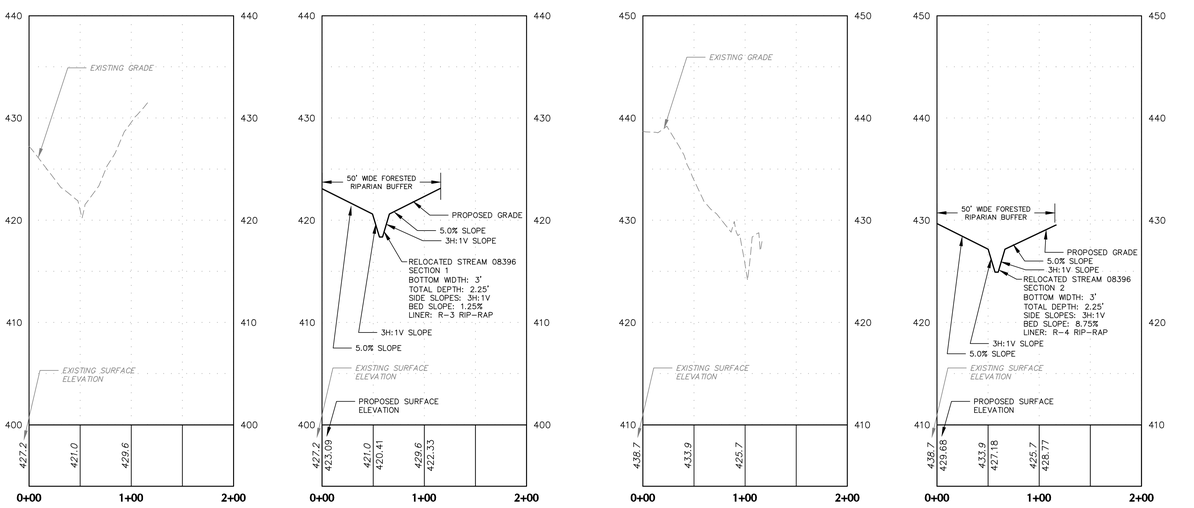
Date: 8/14/2025 Time: 22:12 User: mrynn Style Table: Langan.stb Layout: CG-214 Document Code: 200164401-0301-CG201-0114



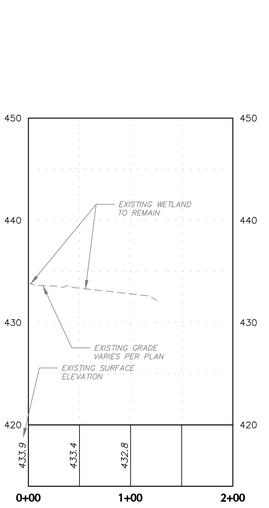


EXISTING SECTION A-A' PROFILE

PROPOSED SECTION A-A' PROFILE

EXISTING SECTION B-B' PROFILE

PROPOSED SECTION B-B' PROFILE



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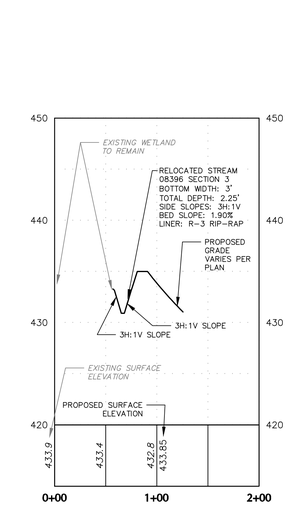
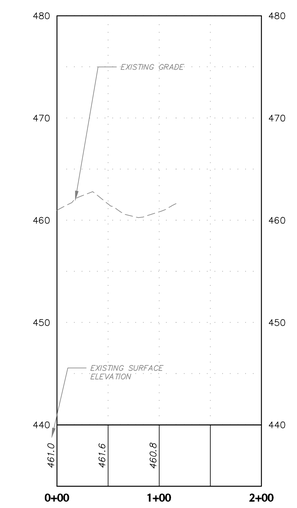


PROPOSED SECTION C-C' PROFILE



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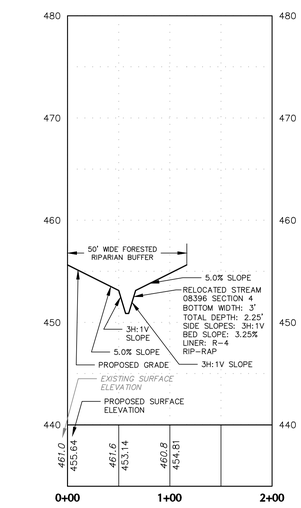

PROPOSED SECTION D-D' PROFILE

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET
60 0 30 60
HORIZONTAL SCALE: 1 INCH = 60 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

8/15/2025
Signature Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY STREAM RELOCATION PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CG-215
Sheet 63 of 128

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Date: 8/14/2025 Time: 22:11 User: mrynn Style Table: Langan.stb Layout: CG-215 Document Code: 200164401-0301-CG201-0115

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES AND THE NOT UTILITY COMPANIES FOR MORE ACCURATE FIELD LOCATIONS PRIOR TO EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(1) WORKING DAYS NOTICE FOR
EXCAVATION OR DEMOLITION
(10) WORKING DAYS IS GIVEN WHEN
DESIGNING

Pennsylvania One Call System, Inc.
1-800-242-1776

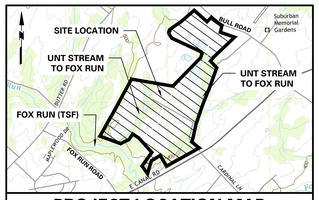
SERIAL NUMBER, 20221664559~000

SCM ID		INCREMENTAL AREA (AC*)	TOTAL IMPERVIOUS (SF)	RECEIVING WATER & CLASSIFICATION	INSPECTION/MAINTENANCE FREQUENCY (SEE DRAWING CG-502)	PERSON/ORGANIZATION RESPONSIBLE FOR MAINTENANCE (AT TIME OF PLAN APPROVAL)
1	MRC BASIN 1	4.515	117,873.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
2	MRC BASIN 2	4.254	135,559.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
3	MRC BASIN 3	3.977	172,628.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
5	MRC BASIN 4	2.073	32,104.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
6	MRC BASIN 5	4.896	164,875.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
8	MRC BASIN 6	4.023	134,905.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
9	MRC BASIN 7	4.676	203,251.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
10	MRC BASIN 8	4.756	207,171.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
11	MRC BASIN 9	5.000	217,800.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
12	MRC BASIN 10	5.000	214,489.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
15	MRC BASIN 11	4.949	198,154.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
16	MRC BASIN 12	4.833	203,730.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
17	MRC BASIN 13	4.858	211,615.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
18	MRC BASIN 14	4.808	194,016.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
19	MRC BASIN 15	4.565	165,484.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
21	MRC BASIN 16	4.716	198,154.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
22	MRC BASIN 17	4.932	187,961.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
23	MRC BASIN 18	4.999	123,865.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
24	MRC BASIN 19	3.166	109,074.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
28	MRC BASIN 20	2.508	96,573.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
29	MRC BASIN 21	4.429	185,478.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
4	DETENTION BASIN 1	12.217	104,588.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
7	DETENTION BASIN 2	2.372	7,928.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
13	DETENTION BASIN 3A	7.067	103,237.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
14	DETENTION BASIN 3B	15.568	318,730.00	Unnamed Trib 08394	After runoff events >1", min. 4 times per year	Property Owner
25	DETENTION BASIN 4A	SCM 21/22	SCM 21/22	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
26	DETENTION BASIN 4B	SCM 23/24	SCM 23/24	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
27	DETENTION BASIN 4C	3.390	0.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
20	DETENTION BASIN 5	7.082	27,791.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
30	DETENTION BASIN 6	SCM 28/29	SCM 28/29	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
31	DETENTION BASIN 7	2.464	55,539.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
32	DETENTION BASIN 8	2.148	54,014.00	Unnamed Trib 08396	After runoff events >1", min. 4 times per year	Property Owner
33	WATER QUALITY INLETS/SNOUT	N/A	N/A	N/A	After runoff events >1", min. 4 times per year	Property Owner
34	STREET SWEEPING	N/A	N/A	N/A	Quarterly (Minimum)	Property Owner

*Includes ONLY area directly tributary to basin. Does not include areas from SCMs in series.

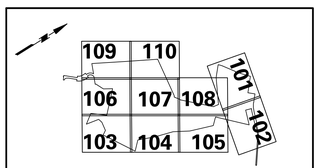
Map Symbol	Soil	Hydrologic Soil Group	Hydric	Depth to Seasonal High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations	Resolutions
PeB	Penn loam, 3-25% Slopes	B	No	> 6.67'	> 1.67' to Paralithic > 2.25' to lithic	Well drained; Low available water capacity (about 3.9 in); low surface runoff; very low to moderately high capacity of most limiting layer to transmit water (0.00 to 0.28 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)
PoB	Penn -Klinesville channery silt loams, 3-8% Slopes	C	No	> 6.67'	> 1.67' to paralithic > 2.25' to lithic	Well drained; Low available water capacity (about 3.9 in); low surface runoff; moderately low to moderately high capacity of most limiting layer to transmit water (0.14 to 1.28 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)
PoC	Penn -Klinesville channery silt loams, 8-15% Slopes	B	No	> 6.67'	> 1.67' - 3.33 to lithic	Well drained; Low available water capacity (about 4.6 in); low surface runoff; moderately low to moderately high capacity of most limiting layer to transmit water (0.01 to 0.28 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)
Pt	Pits, Quarry	N/A	No	N/A	N/A	N/A	N/A
ReB	Readington Silt Loam, 3-8% Slopes	C	No	1.5' - 3.0'	> 1.67' to fragipan; > 3.33' to lithic	Moderately well drained; Moderate available water capacity (about 6.3 in); low surface runoff; very low capacity of most limiting layer to transmit water (0.00 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)
RwB	Rowland Silt Loam	C	No	1.0' - 3.0'	> 6.67'	Moderately well drained; Moderate available water capacity (about 7.7 in); low surface runoff; moderately high to high capacity of most limiting layer to transmit water (0.20 to 2.00 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)
KnD	Klinesville Channery Silt Loam, 15-25% Slopes	D	No	> 6.67'	0.83' - 1.67'	Somewhat excessively drained; very low available water capacity (about 1.1 inches); high surface runoff; moderately high to high capacity of the most limiting layer to transmit water (0.20 to 2.00 in/hr)	Anti-seep collars for basin outlet pipes shall be used to prevent seeping hazards; Sediment Filter bags shall be utilized to properly drain the area (Detail Provided on E&S Detail Sheet)

*Soils information obtained from USDA-NRCS Web Soil Survey for York County, PA, Version 17, September 7, 2022.

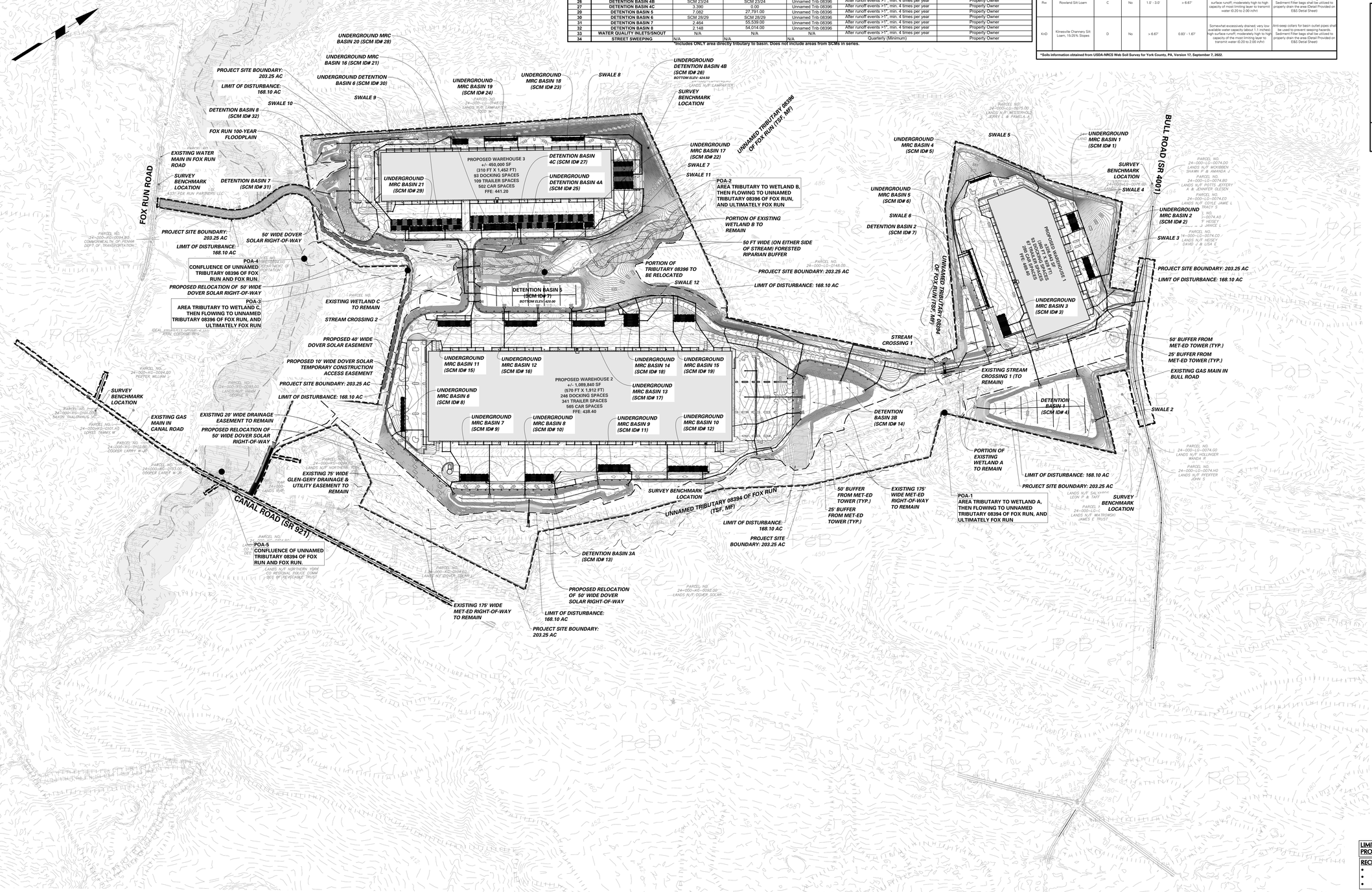


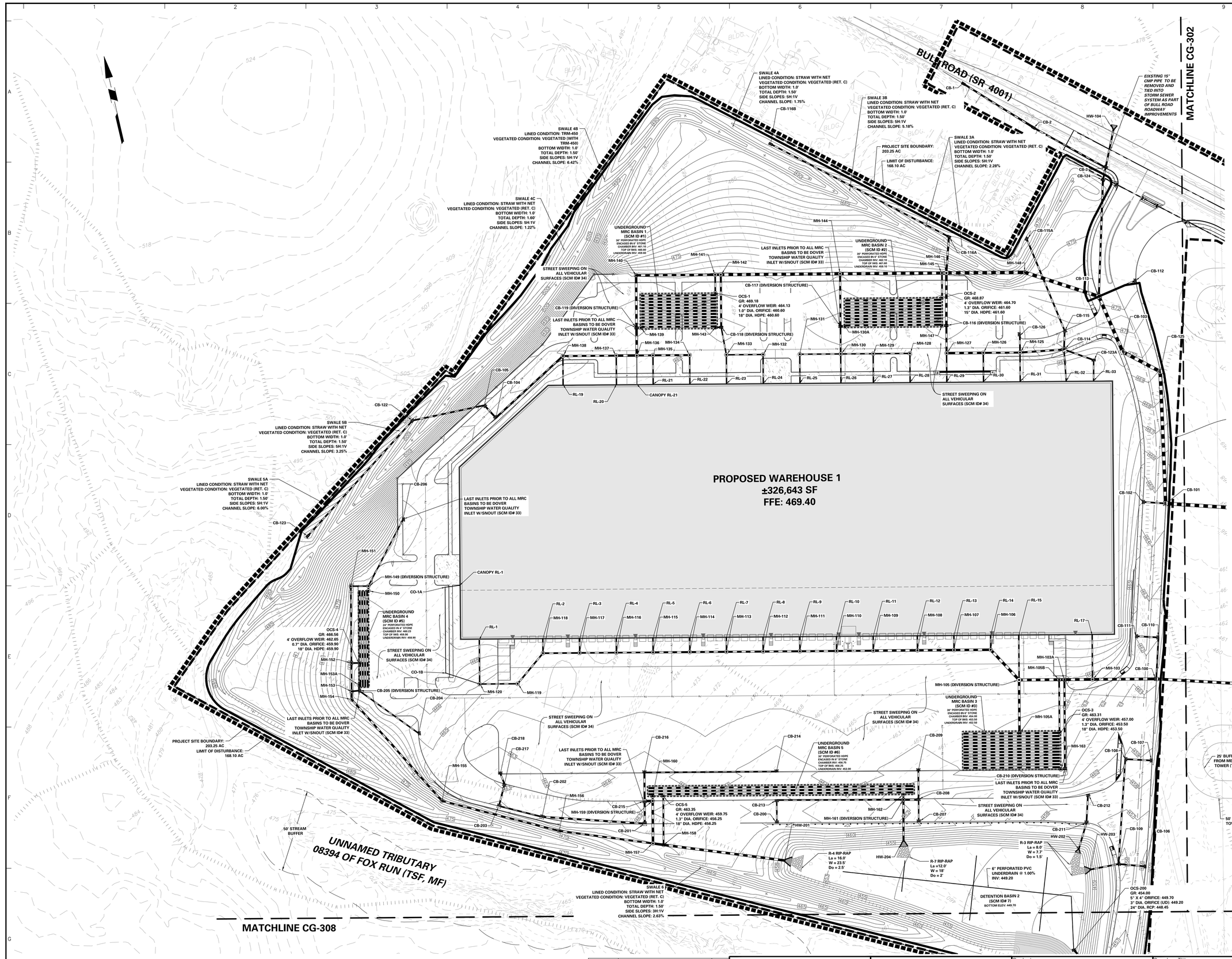
PROJECT LOCATION MAP
1" = 2000'

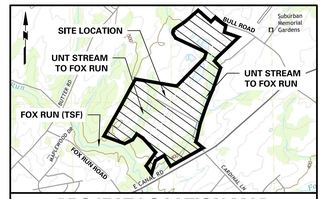
SOURCE:
USGS DOVER QUADRANGLE



KEY MAP
SCALE: 1" = 2000'


UNDERGROUND MRC BASIN 20 (SCM ID# 28)
UNDERGROUND MRC BASIN 16 (SCM ID# 21)
UNDERGROUND DETENTION BASIN 6 (SCM ID# 30)
PROJECT SITE BOUNDARY: 203.25 AC
LIMIT OF DISTURBANCE: 168.10 AC
SWALE 10
SWALE 9
DETENTION BASIN 8 (SCM ID# 32)
FOX RUN 100-YEAR FLOODPLAIN
EXISTING WATER MAIN IN FOX RUN ROAD
SURVEY BENCHMARK LOCATION
DETENTION BASIN 7 (SCM ID# 31)
FOX RUN ROAD
PROJECT SITE BOUNDARY: 203.25 AC
LIMIT OF DISTURBANCE: 168.10 AC
50' WIDE DOVER SOLAR RIGHT-OF-WAY
POA-4
CONFLUENCE OF UNNAMED TRIBUTARY 08396 OF FOX RUN AND FOX RUN
PROPOSED RELOCATION OF 50' WIDE DOVER SOLAR RIGHT-OF-WAY
POA-3
AREA TRIBUTARY TO WETLAND C, THEN FLOWING TO UNNAMED TRIBUTARY 08396 OF FOX RUN, AND ULTIMATELY FOX RUN
EXISTING WETLAND C TO REMAIN
STREAM CROSSING 2
PROPOSED 40' WIDE DOVER SOLAR EASEMENT
PROPOSED 10' WIDE DOVER SOLAR TEMPORARY CONSTRUCTION ACCESS EASEMENT
PROJECT SITE BOUNDARY: 203.25 AC
LIMIT OF DISTURBANCE: 168.10 AC
SURVEY BENCHMARK LOCATION
EXISTING GAS MAIN IN CANAL ROAD
EXISTING 20' WIDE DRAINAGE EASEMENT TO REMAIN
PROPOSED RELOCATION OF 50' WIDE DOVER SOLAR RIGHT-OF-WAY
EXISTING 75' WIDE GLEN-GERY DRAINAGE & UTILITY EASEMENT TO REMAIN
CANAL ROAD (SR 921)
POA-5
CONFLUENCE OF UNNAMED TRIBUTARY 08394 OF FOX RUN AND FOX RUN.
EXISTING 175' WIDE MET-ED RIGHT-OF-WAY TO REMAIN
PROPOSED WAREHOUSE 3
+/- 450,000 SF
(310 FT X 1,452 FT)
93 DOCKING SPACES
109 TRAILER SPACES
502 CAR SPACES
FFE: 441.20
DETENTION BASIN 4C (SCM ID# 27)
UNDERGROUND MRC BASIN 21 (SCM ID# 29)
UNDERGROUND DETENTION BASIN 4A (SCM ID# 25)
DETENTION BASIN 5
(SCM ID# 7)
BOTTOM ELEV: 420.00
UNDERGROUND MRC BASIN 19 (SCM ID# 24)
UNDERGROUND MRC BASIN 18 (SCM ID# 23)
SWALE 8
UNDERGROUND DETENTION BASIN 4B (SCM ID# 26)
BOTTOM ELEV: 424.50
SURVEY BENCHMARK LOCATION
UNDERGROUND MRC BASIN 17 (SCM ID# 22)
SWALE 7
SWALE 11
UNNAMED TRIBUTARY 08396 OF FOX RUN (TSF, MF)
POA-2
AREA TRIBUTARY TO WETLAND B, THEN FLOWING TO UNNAMED TRIBUTARY 08396 OF FOX RUN, AND ULTIMATELY FOX RUN
PORTION OF EXISTING WETLAND B TO REMAIN
50 FT WIDE (ON EITHER SIDE OF STREAM) FORESTED RIPARIAN BUFFER
PORTION OF TRIBUTARY 08396 TO BE RELOCATED
SWALE 12
PROJECT SITE BOUNDARY: 203.25 AC
LIMIT OF DISTURBANCE: 168.10 AC
UNDERGROUND MRC BASIN 11 (SCM ID# 15)
UNDERGROUND MRC BASIN 12 (SCM ID# 16)
UNDERGROUND MRC BASIN 14 (SCM ID# 18)
UNDERGROUND MRC BASIN 15 (SCM ID# 19)
UNDERGROUND MRC BASIN 6 (SCM ID# 8)
PROPOSED WAREHOUSE 2
+/- 1,089,840 SF
(570 FT X 1,912 FT)
246 DOCKING SPACES
341 TRAILER SPACES
565 CAR SPACES
FFE: 438.40
UNDERGROUND MRC BASIN 13 (SCM ID# 17)
UNDERGROUND MRC BASIN 7 (SCM ID# 9)
UNDERGROUND MRC BASIN 8 (SCM ID# 10)
UNDERGROUND MRC BASIN 9 (SCM ID# 11)
UNDERGROUND MRC BASIN 10 (SCM ID# 12)
SURVEY BENCHMARK LOCATION
UNNAMED TRIBUTARY 08394 OF FOX RUN (TSF, MF)
LIMIT OF DISTURBANCE: 168.10 AC
PROJECT SITE BOUNDARY: 203.25 AC
DETENTION BASIN 3A (SCM ID# 13)
PROPOSED RELOCATION OF 50' WIDE DOVER SOLAR RIGHT-OF-WAY
LIMIT OF DISTURBANCE: 168.10 AC
PROJECT SITE BOUNDARY: 203.25 AC
EXISTING 175' WIDE MET-ED RIGHT-OF-WAY TO REMAIN
50' BUFFER FROM MET-ED TOWER (TYP.)
25' BUFFER FROM MET-ED TOWER (TYP.)
STREAM CROSSING 1
EXISTING STREAM CROSSING 1 (TO REMAIN)
DETENTION BASIN 3B (SCM ID# 14)
PORTION OF EXISTING WETLAND A TO REMAIN
LIMIT OF DISTURBANCE: 168.10 AC
PROJECT SITE BOUNDARY: 203.25 AC
POA-1
AREA TRIBUTARY TO WETLAND A, THEN FLOWING TO UNNAMED TRIBUTARY 08394 OF FOX RUN, AND ULTIMATELY FOX RUN
SURVEY BENCHMARK LOCATION
SWALE 5
UNDERGROUND MRC BASIN 4 (SCM ID# 5)
UNDERGROUND MRC BASIN 5 (SCM ID# 6)
SWALE 6
DETENTION BASIN 2 (SCM ID# 7)
UNNAMED TRIBUTARY 08394 OF FOX RUN (TSF, MF)
PROPOSED WAREHOUSE 1
+/- 1,089,840 SF
(570 FT X 1,912 FT)
246 DOCKING SPACES
341 TRAILER SPACES
565 CAR SPACES
FFE: 438.40
UNDERGROUND MRC BASIN 3 (SCM ID# 3)
DETENTION BASIN 1 (SCM ID# 4)
SWALE 2
50' BUFFER FROM MET-ED TOWER (TYP.)
25' BUFFER FROM MET-ED TOWER (TYP.)
EXISTING GAS MAIN IN BULL ROAD
BULL ROAD (SR 4001)
UNDERGROUND MRC BASIN 1 (SCM ID# 1)
SURVEY BENCHMARK LOCATION
SWALE 4
UNDERGROUND MRC BASIN 2 (SCM ID# 2)
SWALE 3
PROJECT SITE BOUNDARY: 203.25 AC
LIMIT OF DISTURBANCE: 168.10 AC
PARCEL NO. 24-000-LO-0074.00 LANDS N/F MCKIBBEN SHAWN P. & AMANDA
PARCEL NO. 24-000-LO-0074.B0 LANDS N/F POTTS JEFFERY A. & JENNIFER OLESON
PARCEL NO. 24-000-LO-0074.D0 LANDS N/F COYLE JAMIE L.
PARCEL NO. 24-000-LO-0074.00 LANDS N/F HESEY DAVID J. & LISA E.
PARCEL NO. 24-000-LO-0074.G0 LANDS N/F HOLLINGER WANDA R
PARCEL NO. 24-000-LO-0074.H0 LANDS N/F PFEIFFER JOHN S
PARCEL NO. 24-000-LO-0074.J0 LANDS N/F WALTHOUR LEON P. & TAFT
PARCEL NO. 24-000-LO-0074.K0 LANDS N/F WATROWSKI JAMES F. TRUST
PARCEL NO. 24-000-KG-0004.00 PEIFFER WILLIAM J
PARCEL NO. 24-000-KG-0105.00 SAVOY THALONDA L.
PARCEL NO. 24-000-KG-0107.A0 LOPES TAMMY M
PARCEL NO. 24-000-KG-0102.00 COOPER LARRY W JR
PARCEL NO. 24-000-KG-0103.00 COOPER LARRY W JR
PARCEL NO. 24-000-KG-0105.00 GEORGE
PARCEL NO. 24-000-KG-0106.00 LANDS N/F DOVER SOLAR

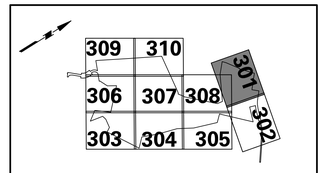




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (×360.5)
- PROPOSED SPOT ELEVATION (360.5)
- 75ft AS5 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOILS ID#

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND,
(10) WORKING DAYS IN DESIGN STAGE
~~ STOP & CALL ~~

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-301
Sheet 65 of 128

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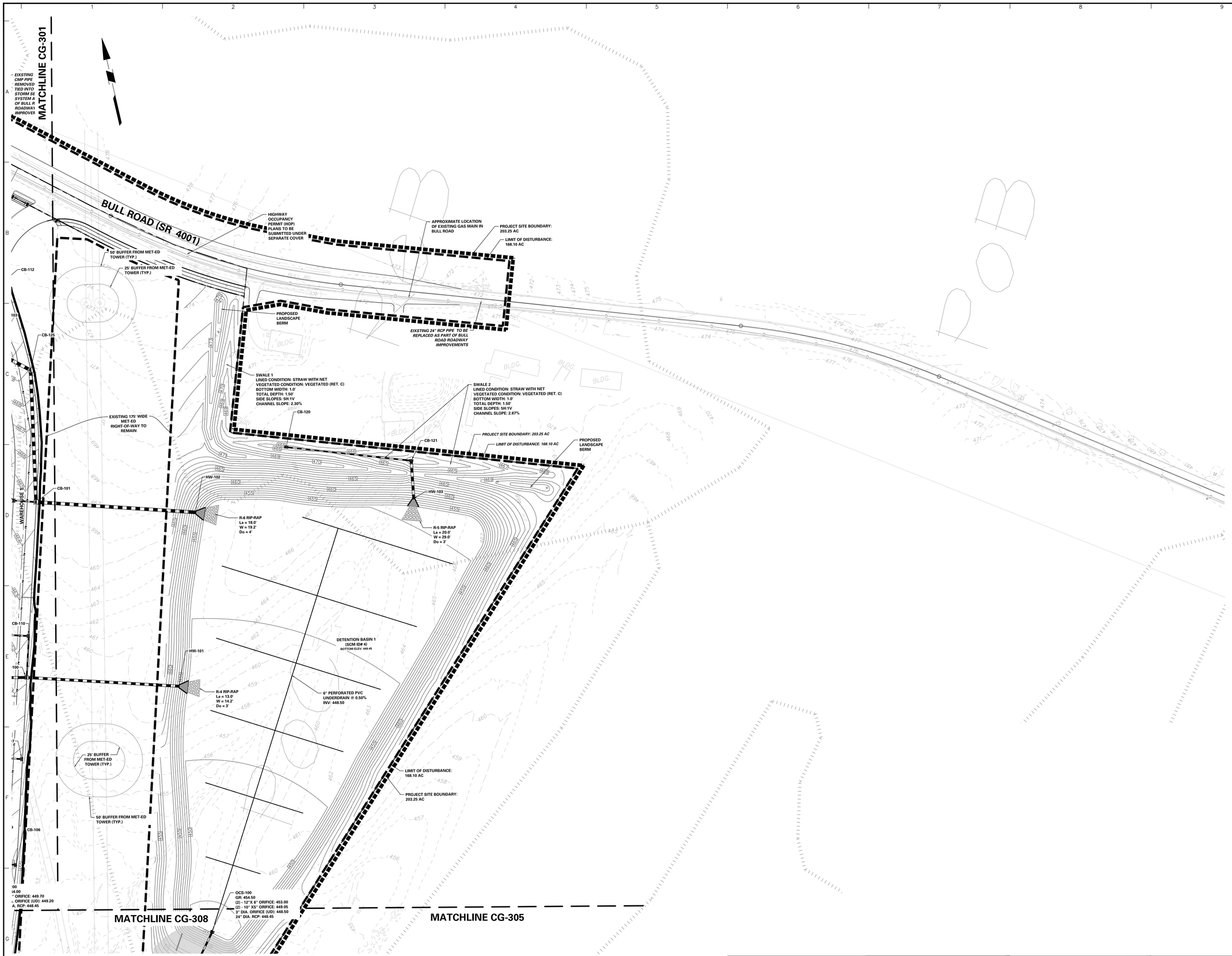
Date: 8/14/2025 Time: 14:58 User: bsoltys Style Table: Langan.stb Layout: CG-301 Document Code: 200164401-0301-CG301-0102



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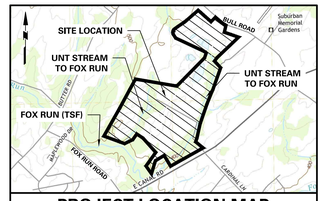
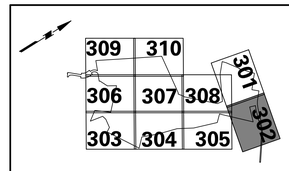
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.5)
- PROPOSED SPOT ELEVATION (+ 360.5)
- 1566 AVE EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOILS TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANIFOLD
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
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- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

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SERIAL NUMBER, 20221664559-000

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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER SEAL

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-302
Sheet 66 of 128

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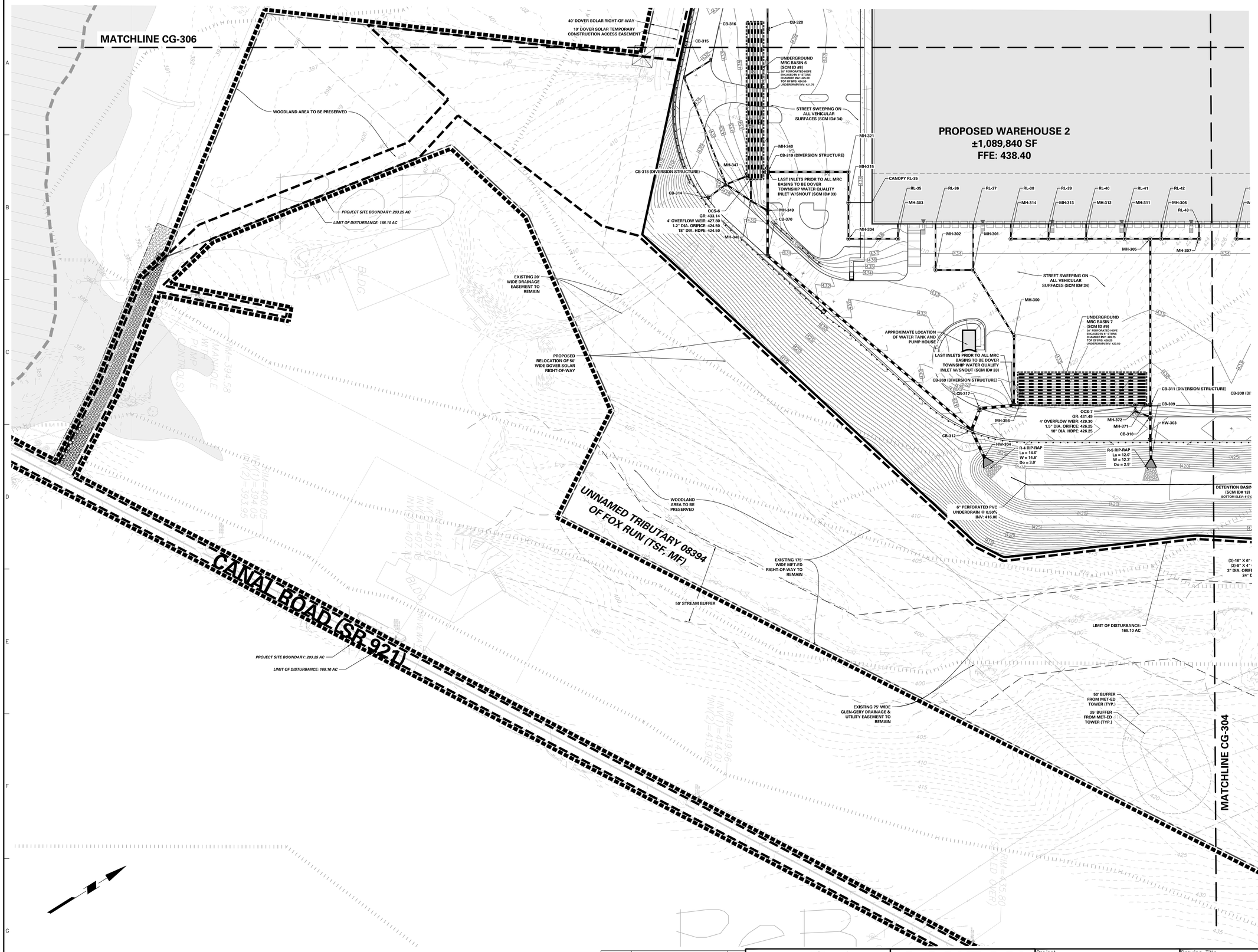
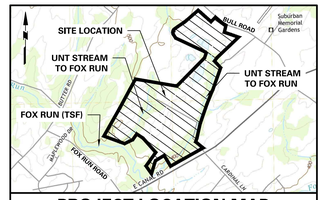
Date: 8/14/2025 Time: 15:00 User: bsoltys Style Table: Langan.stb Layout: CG-302 Document Code: 200164401-0301-CG301-0106

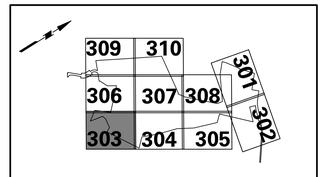




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- LOADING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.5)
- PROPOSED SPOT ELEVATION (x 360.5)
- TRM-AS EMERGENCY SPILLWAY LINER
- FOREST/RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- ELECTRIC RACK
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED WATER MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION, PHASE AND
(10) WORKING DAYS NOTICE FOR DESIGN STAGE
STOP & CALL 811

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER: 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 24GE04626 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-303
Sheet 67 of 128

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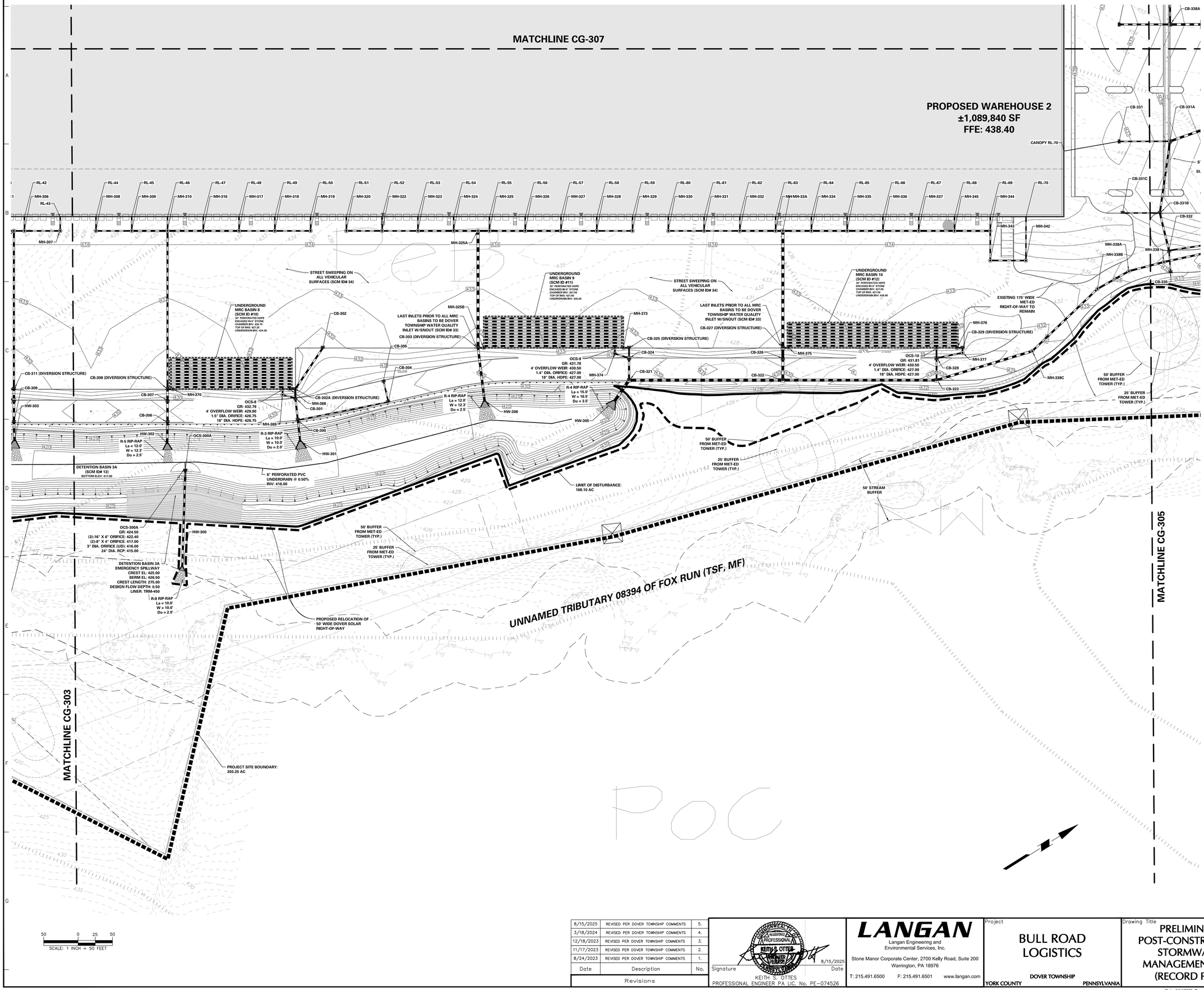
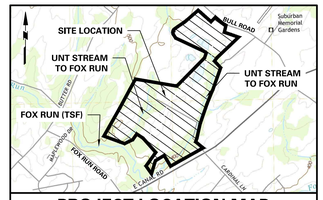
Date: 8/14/2025 Time: 15:01 User: bsollys Style Table: Langan.stb Layout: CG-302 Document Code: 20016401-0301-CG301-0103

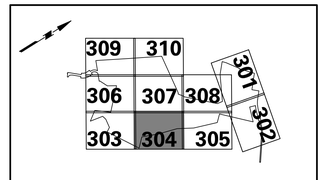




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
TRANSFORMER
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION x 360.5
PROPOSED SPOT ELEVATION x 363.5
1996-AD EMERGENCY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLANDS
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING WATER METER
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

ACT 287 AS AMENDED

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PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
== STOP & CALL ==

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENNSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-304
Sheet 68 of 128

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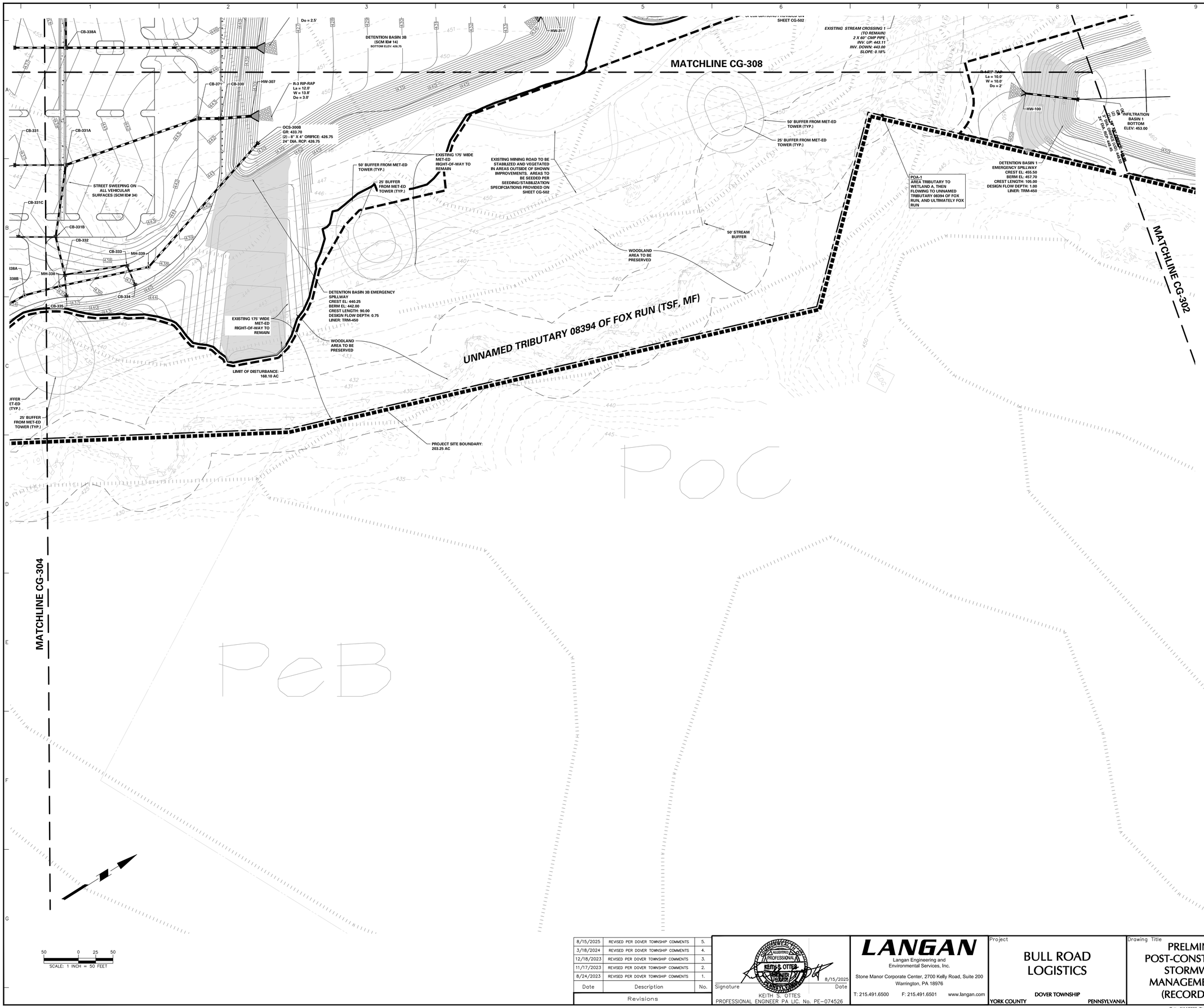
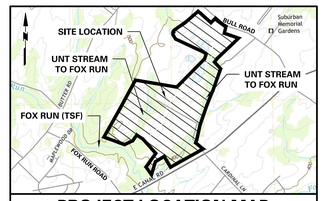
Date: 8/14/2025 Time: 15:02 User: bsollys Style Table: Langan.stb Layout: CG-303 Document Code: 200164401-0301-CG301-0104

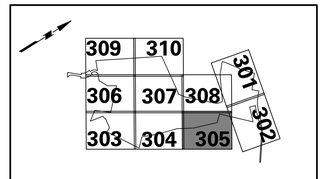




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TRM-450 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

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PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS NOTICE FOR DESIGN STAGE
-- STOP & CALL --

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Revisions		
Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 074526 ENGINEER YORK PA SURVEYOR

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and
Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD
LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELMINARY
POST-CONSTRUCTION
STORMWATER
MANAGEMENT PLAN
(RECORD PLAN)

Project No.	200164401
Date	6/7/2023
Drawn By	BPS
Checked By	SMH

Drawing No. CG-305

Sheet 69 of 128

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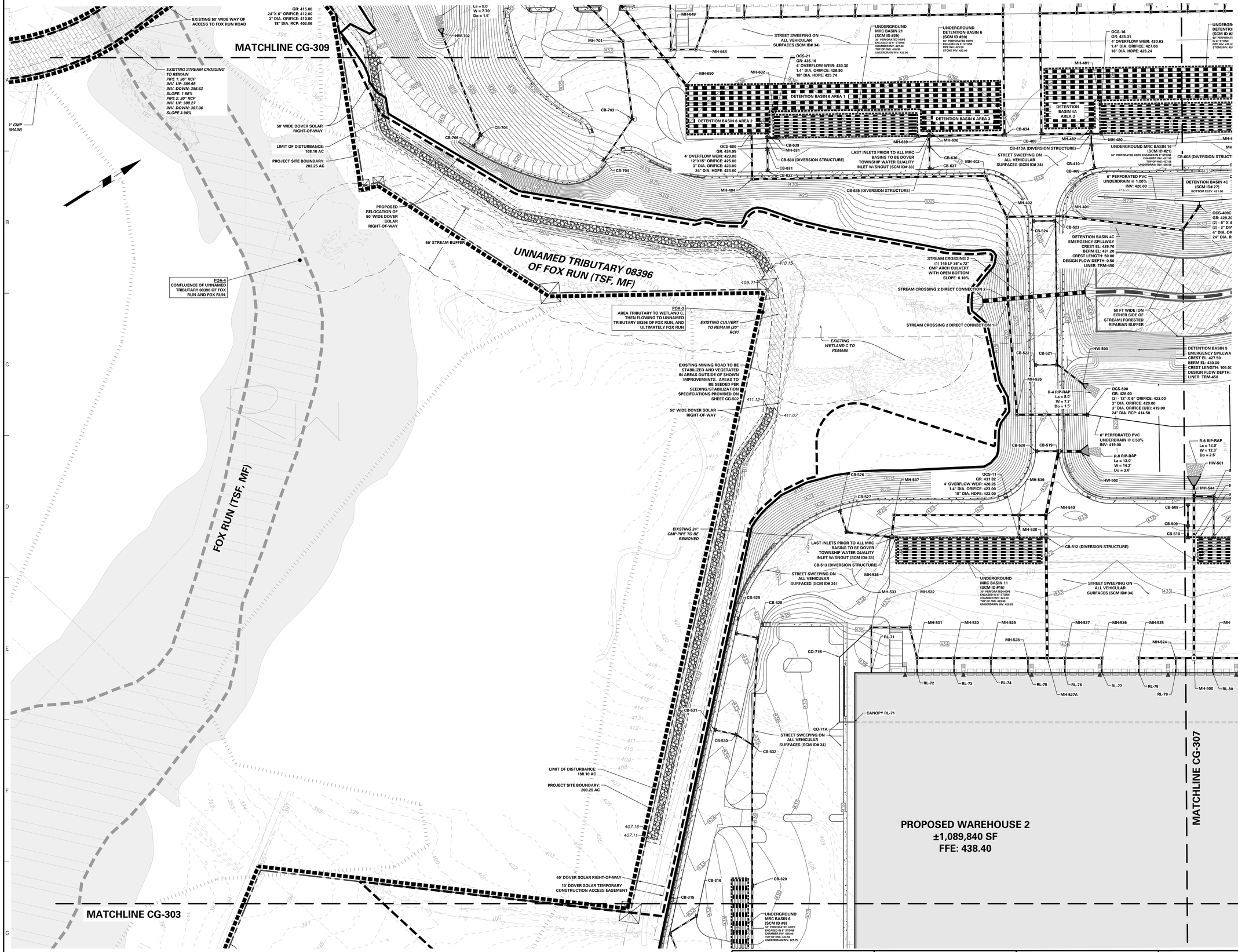
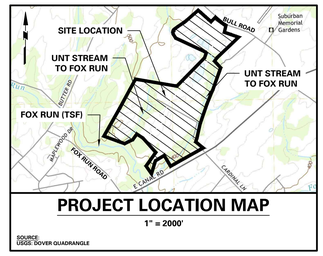
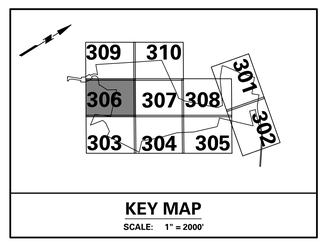
Date: 8/14/2025 Time: 15:04 User: bsoltys Style Table: Langan.stb Layout: CG-304 Document Code: 200164401-0301-CG301-0105







LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
TRM-450 EMERGENCY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING LIGHT POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

ACT 287 AS AMENDED

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION, PHASE, AND
(10) WORKING DAYS NOTICE FOR DESIGN STAGE
STOP & CALL !!!

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
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T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-306
Sheet 70 of 128

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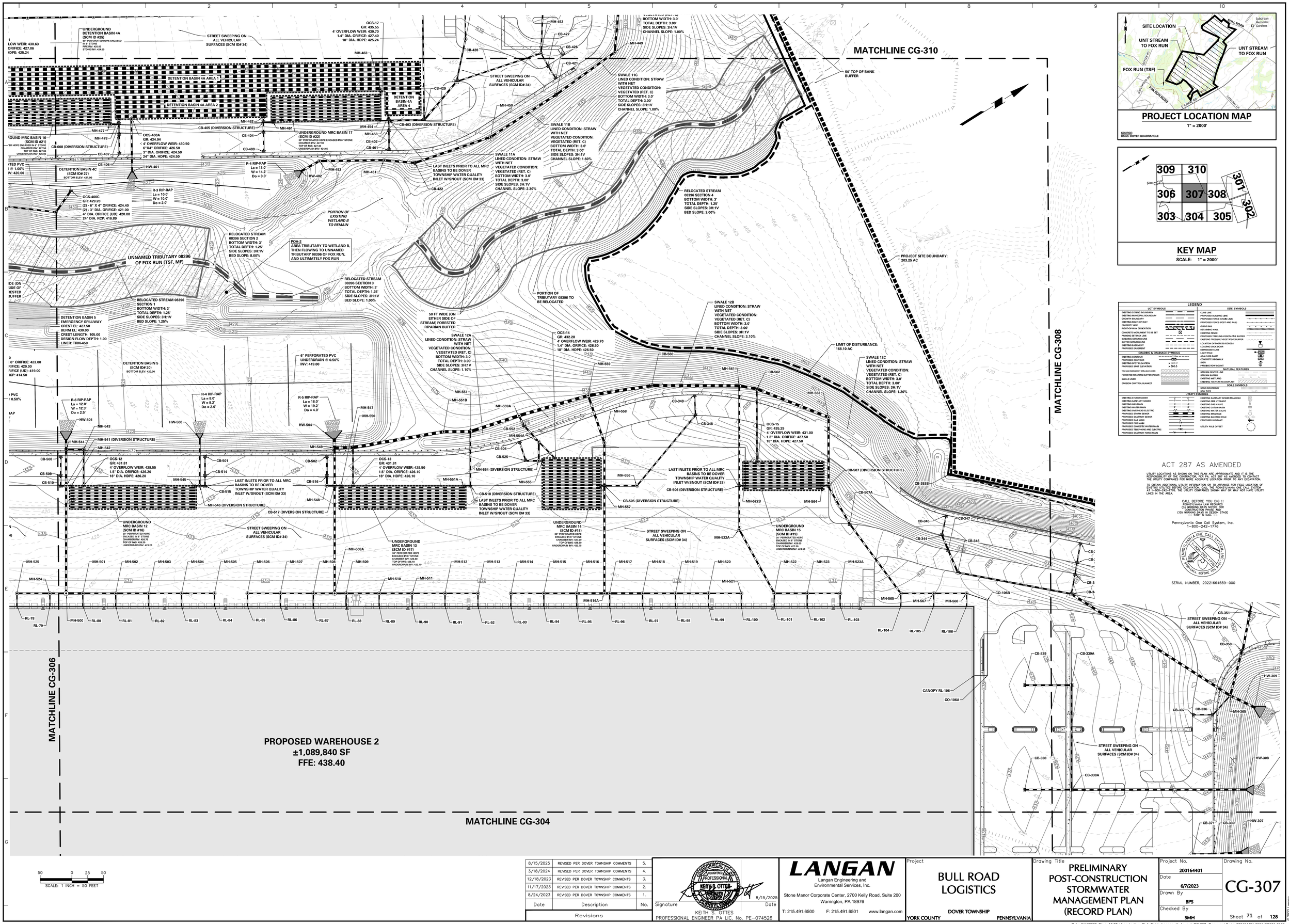
Date: 8/14/2025 Time: 20:55 User: bsoltys Style Table: Langan.stb Layout: CG-306 Document Code: 200164401-0301-CG301-0107



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE

KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
EXISTING IRON PIN
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
TRM-450 EMERGENCY SPILLWAY LINER
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
LOADING DOCK DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
STREAM BUFFER
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
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EXISTING MANHOLE
EXISTING UTILITY POLE
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UTILITY POLE OFFSET

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PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
=== STOP & CALL ===

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

50 0 25 50
SCALE: 1 INCH = 50 FEET

Revisions		
Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
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8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-307
Sheet 71 of 128

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Date: 8/14/2025 Time: 15:07 User: bsoltys Style Table: Langan.stb Layout: CG-307 Document Code: 200164401-0301-CG301-0108



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE

KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TRM-450 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES

- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS

- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA — KEITH S. OTTES — PROFESSIONAL ENGINEER — 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-308
Sheet 72 of 128

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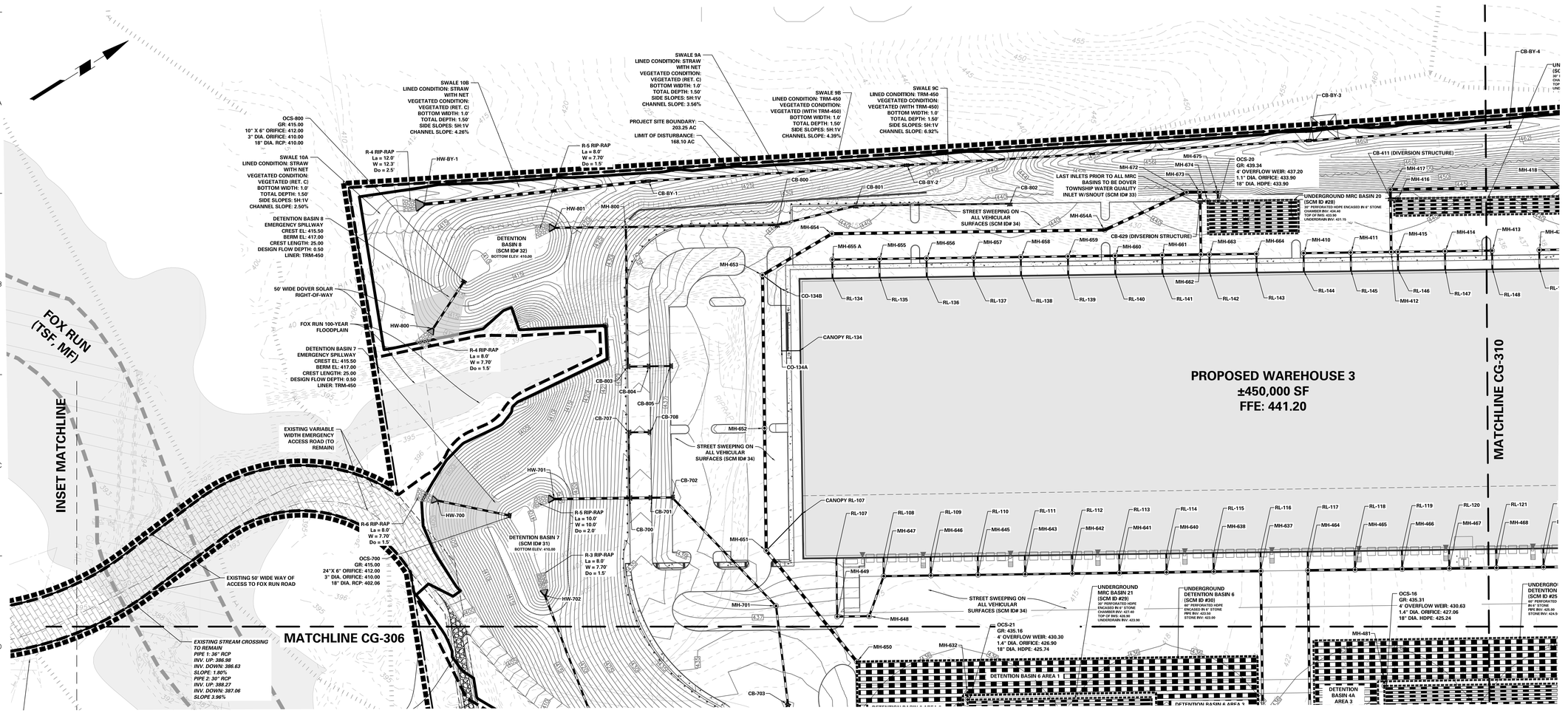
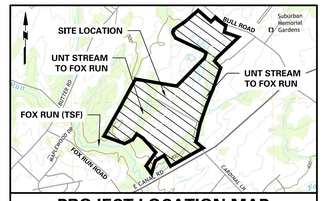
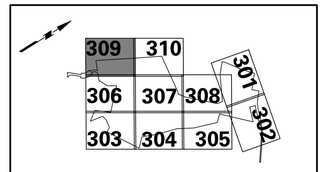




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TRM-450 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
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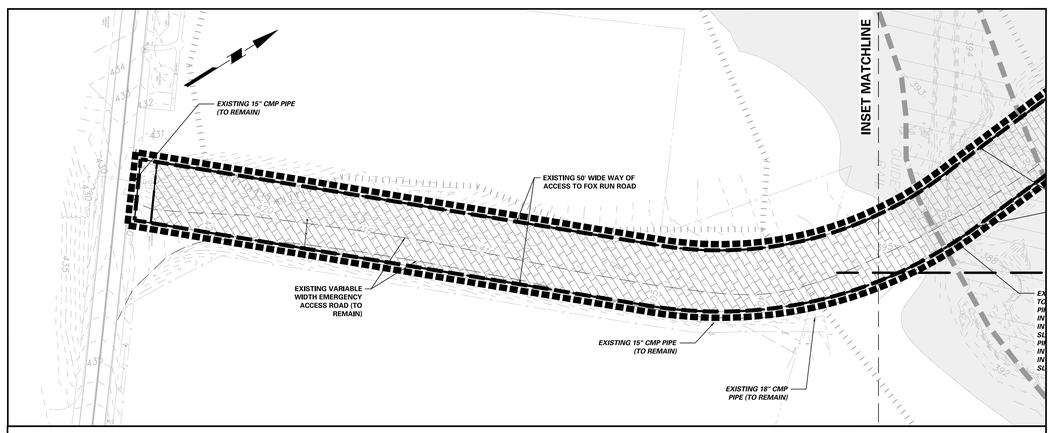

INSET

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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YORK COUNTY PENNSYLVANIA

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Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-309
Sheet 73 of 128

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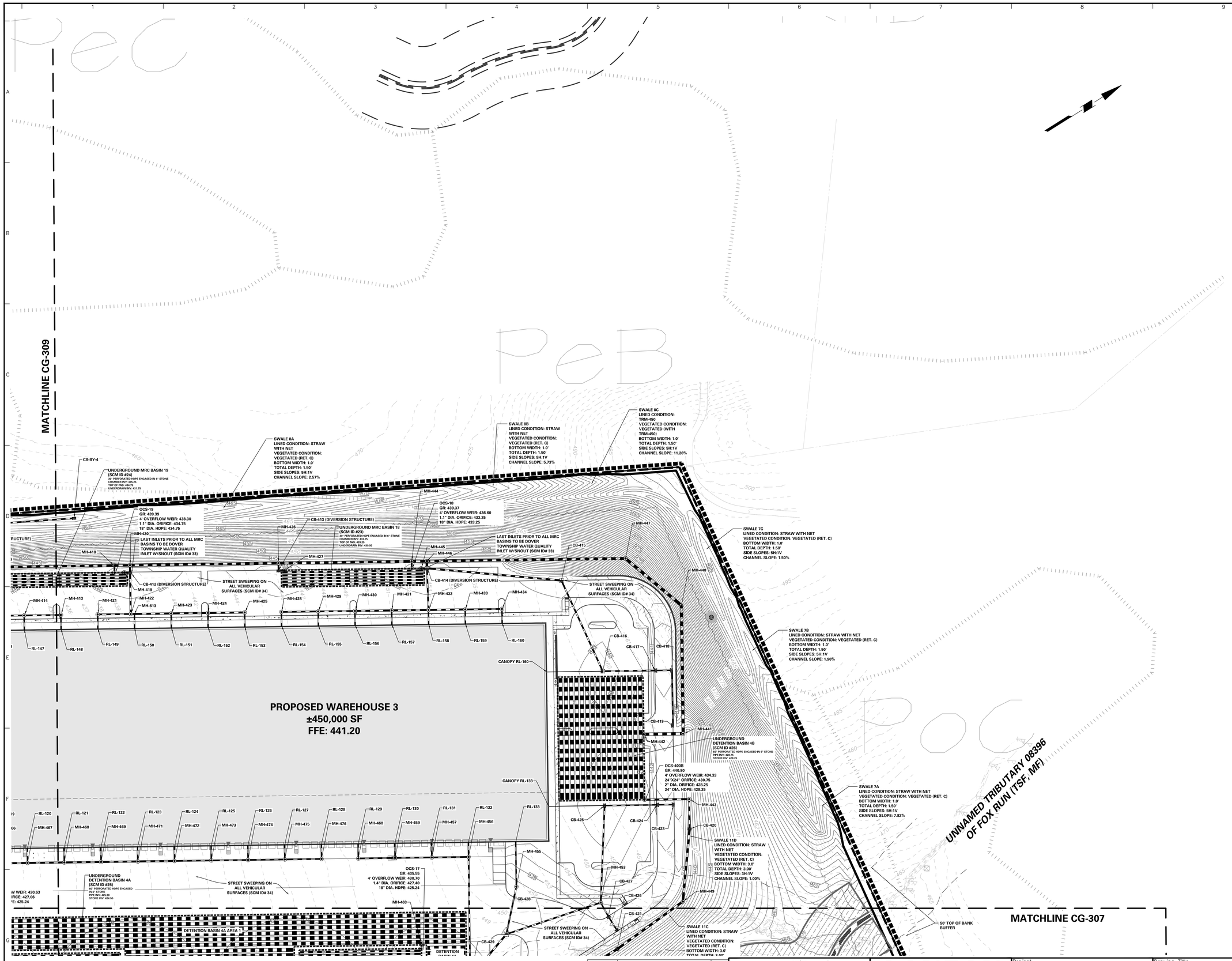

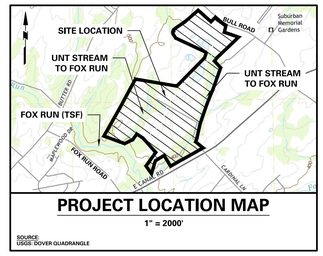

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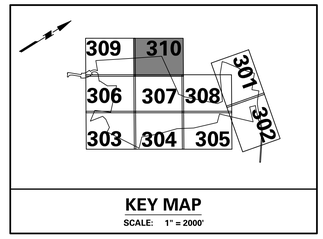

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- PROPOSED SPOT ELEVATION (+ 360.3)
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KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526
Signature 8/15/2025 Date

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BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By BPS
Checked By SMH

Drawing No. CG-310
Sheet 74 of 128

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PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CANOPY RL-1	10IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 466.85
CANOPY RL-21	BUILDING CONNECTION (SEE SHEET CS502) RIM: 469.40 INV OUT: 466.85
CANOPY RL-35	BUILDING CONNECTION (SEE SHEET CS502) RIM: 438.20 INV OUT: 435.65
CANOPY RL-70	BUILDING CONNECTION (SEE SHEET CS502) RIM: 438.20 INV OUT: 435.63
CANOPY RL-71	BUILDING CONNECTION (SEE SHEET CS502) RIM: 438.20 INV OUT: 435.65
CANOPY RL-106	BUILDING CONNECTION (SEE SHEET CS502) RIM: 438.20 INV OUT: 435.63
CANOPY RL-107	10IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 438.65
CANOPY RL-133	BUILDING CONNECTION (SEE SHEET CS502) RIM: 441.20 INV OUT: 438.65
CANOPY RL-134	10IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 438.65
CANOPY RL-160	BUILDING CONNECTION (SEE SHEET CS502) RIM: 441.20 INV OUT: 438.65
CB-1	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 480.79 INV OUT: 477.04
CB-2	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 478.68 INV IN (18" IN): 474.93 INV OUT: 473.36
CB-3	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 477.38 INV IN (18" IN): 472.46 INV IN (18" IN): 472.66 INV OUT: 471.40
CB-100	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 461.21 INV IN (36" IN): 452.43 INV IN (18" IN): 453.61 INV OUT: 452.08
CB-101	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 464.50 INV IN (48" IN): 454.51 INV IN (18" IN): 460.34 INV OUT: 454.26
CB-102	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 465.00 INV OUT: 460.67
CB-103	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 469.98 INV IN (48" IN): 456.09 INV OUT: 455.92
CB-104	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 466.32 INV IN (21" IN): 462.79 INV OUT: 462.62
CB-105	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 466.32 INV IN (18" IN): 462.91 INV OUT: 462.91
CB-106	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 455.89 INV OUT: 451.57
CB-107	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 458.60 INV OUT: 452.31
CB-108	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 458.79 INV IN (18" IN): 452.12 INV OUT: 452.12
CB-109	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 455.76 INV IN (18" IN): 451.37 INV IN (18" IN): 451.37 INV OUT: 451.20

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-110	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.03 INV IN (18" IN): 458.00 INV OUT: 453.90
CB-111	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.03 INV OUT: 458.16
CB-112	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 472.64 INV OUT: 470.97
CB-113	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 472.35 INV IN (24" IN): 456.68 INV IN (18" IN): 468.12 INV IN (48" IN): 456.68 INV OUT: 456.52
CB-114	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 469.93 INV IN (18" IN): 463.88 INV IN (15" IN): 464.18 INV IN (18" IN): 463.88 INV OUT: 463.71
CB-115	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 470.10 INV IN (18" IN): 466.06 INV OUT: 464.01
CB-115A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 473.70 INV OUT: 469.83
CB-116 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 467.61 INV IN (24" IN): 462.17 INV OUT: 462.17 INV OUT: 462.17
CB-116A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 476.94 INV IN (18" IN): 472.48 INV OUT: 469.03
CB-116B	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 485.34 INV OUT: 480.17
CB-117 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 467.41 INV IN (18" IN): 462.13 INV OUT: 462.13
CB-118 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 467.59 INV IN (15" IN): 461.14 INV OUT: 461.14 INV OUT: 461.14
CB-119 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 467.79 INV IN (30" IN): 461.25 INV OUT: 461.25 INV OUT: 461.25
CB-120	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 465.52 INV OUT: 461.03
CB-121	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 461.69 INV IN (18" IN): 457.46 INV OUT: 453.29
CB-122	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 498.73 INV IN (18" IN): 483.35 INV OUT: 464.47
CB-123	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 487.99 INV OUT: 484.45
CB-123A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 468.00 INV IN (15" IN): 464.27 INV OUT: 464.10
CB-124	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 476.41 INV IN (18" IN): 470.68 INV OUT: 457.51
CB-125	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 468.93 INV IN (48" IN): 455.62 INV OUT: 455.45
CB-126	CB 2X4 - STANDARD_SNAPRIGHT (SEE SHEET CS502) RIM: 468.27 INV OUT: 464.41
CB-200	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.24 INV OUT: 458.01
CB-201	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 462.60 INV IN (24" IN): 457.00 INV OUT: 457.00

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-202	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 463.48 INV IN (18" IN): 457.73 INV OUT: 457.73
CB-203	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 462.85 INV IN (18" IN): 458.59 INV OUT: 458.42
CB-204	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 465.15 INV OUT: 461.02
CB-205 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 466.00 INV IN (15" IN): 460.50 INV OUT: 460.50 INV OUT: 460.50
CB-206	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 467.40 INV OUT: 461.62
CB-207	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 461.45 INV OUT: 457.22
CB-208	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 461.45 INV IN (18" IN): 457.06 INV IN (15" IN): 457.06 INV OUT: 456.89
CB-209	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.30 INV OUT: 457.27
CB-210 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 462.22 INV OUT: 454.03 INV OUT: 454.03
CB-211	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 457.19 INV IN (18" IN): 453.17 INV OUT: 451.20
CB-212	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 457.03 INV OUT: 453.36
CB-213	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 462.24 INV IN (15" IN): 457.85 INV OUT: 457.68
CB-214	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.29 INV OUT: 458.43
CB-215	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 462.60 INV IN (24" IN): 457.12 INV IN (24" IN): 456.84 INV OUT: 456.84
CB-216	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.47 INV IN (18" IN): 457.49 INV OUT: 457.32
CB-217	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.85 INV IN (18" IN): 458.75 INV OUT: 458.75
CB-218	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 462.29 INV OUT: 458.83
CB-300	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 429.46 INV IN (24" IN): 424.88 INV IN (15" IN): 421.33 INV OUT: 418.15
CB-301	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 429.44 INV IN (24" IN): 425.21 INV IN (18" IN): 425.44 INV OUT: 425.04
CB-302	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.50 INV OUT: 427.78
CB-302A (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 432.77 INV IN (24" IN): 427.42 INV OUT: 425.28 INV OUT: 427.28
CB-303 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.53 INV IN (38" IN): 427.54 INV OUT: 427.54 INV OUT: 420.39
CB-304	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 428.10 INV IN (15" IN): 422.17 INV OUT: 422.00

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-305	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 428.10 INV OUT: 422.33
CB-306	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 428.64 INV IN (30" IN): 420.32 INV OUT: 418.30
CB-307	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 428.64 INV IN (30" IN): 420.65 INV OUT: 420.48
CB-308 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.18 INV IN (24" IN): 427.29 INV OUT: 420.73 INV OUT: 427.29
CB-309	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 428.64 INV IN (30" IN): 419.43 INV OUT: 419.26
CB-310	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 428.64 INV IN (30" IN): 424.47 INV IN (18" IN): 425.93 INV OUT: 419.59
CB-311 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.18 INV IN (24" IN): 426.79 INV OUT: 424.55 INV OUT: 426.79
CB-312	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 428.35 INV IN (36" IN): 419.67 INV IN (30" IN): 421.55 INV OUT: 419.50
CB-314	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 428.87 INV OUT: 425.31
CB-315	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.29 INV IN (15" IN): 426.12 INV OUT: 425.95
CB-316	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.76 INV OUT: 426.56
CB-317	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 428.03 INV IN (36" IN): 422.19 INV OUT: 419.83
CB-318 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 428.55 INV IN (15" IN): 425.15 INV IN (15" IN): 425.15 INV OUT: 425.15 INV OUT: 425.15
CB-319 (DIVERSION STRUCTURE)	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 434.93 INV IN (24" IN): 425.03 INV IN (24" IN): 425.03 INV OUT: 425.03 INV OUT: 425.03
CB-320	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 435.02 INV IN (18" IN): 426.01 INV OUT: 426.01
CB-321	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 429.17 INV IN (24" IN): 424.35 INV IN (42" IN): 420.18 INV OUT: 420.18
CB-322	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 429.73 INV IN (36" IN): 421.30 INV IN (36" IN): 424.70 INV OUT: 421.30
CB-323	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 429.73 INV IN (30" IN): 422.42 INV IN (18" IN): 425.82 INV OUT: 422.42
CB-324	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 429.17 INV IN (18" IN): 425.40 INV IN (18" IN): 424.68 INV OUT: 424.51
CB-325 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.47 INV OUT: 425.55 INV OUT: 427.54
CB-326	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 429.73 INV IN (36" IN): 424.86 INV OUT: 424.86
CB-327 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.47 INV IN (38" IN): 427.54 INV OUT: 424.93 INV OUT: 427.54
CB-328	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 429.73 INV IN (18" IN): 426.15 INV OUT: 425.98

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-329 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.36 INV OUT: 427.54 INV OUT: 427.54
CB-330	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 442.37 INV IN (36" IN): 427.19 INV OUT: 427.02
CB-331	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.47 INV OUT: 431.45
CB-331A	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 438.66 INV IN (24" IN): 429.98 INV IN (15" IN): 431.08 INV OUT: 429.98
CB-331B	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 438.38 INV IN (24" IN): 430.50 INV IN (15" IN): 430.78 INV OUT: 430.50
CB-331C	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.76 INV OUT: 431.05
CB-332	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 434.98 INV IN (18" IN): 430.78 INV IN (15" IN): 429.85 INV OUT: 430.78
CB-333	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.91 INV IN (15" IN): 431.24 INV OUT: 431.24
CB-334	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.95 INV OUT: 431.40
CB-335	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 434.98 INV OUT: 430.01
CB-336	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 449.11 INV IN (15" IN): 445.08 INV OUT: 442.20
CB-337	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 449.11 INV OUT: 445.24
CB-338	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.17 INV OUT: 432.00
CB-338A	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 438.36 INV IN (24" IN): 431.63 INV IN (24" IN): 430.34 INV OUT: 428.13
CB-339	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.47 INV OUT: 431.70
CB-339A	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 438.66 INV IN (24" IN): 431.34 INV OUT: 431.17
CB-340	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 444.66 INV IN (15" IN): 440.17 INV IN (24" IN): 431.73 INV OUT: 429.19
CB-341	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 444.66 INV IN (15" IN): 440.50 INV OUT: 440.33
CB-342	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 448.07 INV IN (15" IN): 443.58 INV OUT: 440.59
CB-343	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 448.04 INV OUT: 443.74
CB-344	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 442.71 INV IN (15" IN): 438.98 INV OUT: 433.30
CB-345	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 442.71 INV OUT: 439.14
CB-346	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 438.20 INV IN (24" IN): 432.81 INV OUT: 432.64

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-347	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 437.45 INV IN (24" IN): 433.18 INV OUT: 433.01
CB-348	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 437.11 INV IN (15" IN): 433.45 INV OUT: 429.29
CB-349	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 437.13 INV OUT: 433.61
CB-350	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 453.73 INV IN (30" IN): 450.30 INV OUT: 428.06
CB-351	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 454.66 INV IN (24" IN): 450.79 INV OUT: 450.61
CB-352	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 456.56 INV IN (24" IN): 452.25 INV OUT: 451.99
CB-353	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 456.56 INV IN (24" IN): 452.74 INV OUT: 452.56
CB-353A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 460.09 INV IN (18" IN): 454.83 INV OUT: 454.66
CB-353B	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 466.78 INV OUT: 462.91
CB-354	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 458.65 INV IN (42" IN): 432.47 INV OUT: 432.30
CB-355	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 458.65 INV IN (42" IN): 432.80 INV OUT: 432.63
CB-356	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 465.55 INV IN (36" IN): 457.65 INV OUT: 432.92
CB-357	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 465.55 INV IN (36" IN): 457.98 INV OUT: 457.81
CB-357A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 464.60 INV IN (24" IN): 459.55 INV OUT: 458.28
CB-357B	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 464.46 INV IN (15" IN): 460.89 INV OUT: 460.22
CB-357C	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 464.72 INV OUT: 461.31
CB-358	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 454.33 INV IN (24" IN): 446.87 INV OUT: 435.11
CB-359	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 454.32 INV IN (18" IN): 447.66 INV OUT: 447.03
CB-360	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 463.67 INV IN (15" IN): 459.61 INV IN (18" IN): 448.92 INV OUT: 448.75
CB-361	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 463.67 INV OUT: 459.93
CB-364	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 454.58 INV IN (18" IN): 450.56 INV OUT: 450.39
CB-365	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 454.58 INV OUT: 450.72
CB-369 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.70 INV IN (24" IN): 426.79 INV OUT: 422.42 INV OUT: 426.79

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-370	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 430.57 INV IN (30" IN): 423.58 INV OUT: 423.41
CB-371	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 442.37 INV IN (30" IN): 428.96 INV OUT: 427.35
CB-400	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV OUT: 428.42
CB-401	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.64 INV OUT: 428.85
CB-402	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.64 INV IN (18" IN): 428.69 INV OUT: 428.52
CB-403 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.94 INV IN (15" IN): 428.44 INV IN (24" IN): 428.46 INV OUT: 428.28 INV OUT: 425.24
CB-404	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV IN (18" IN): 428.26 INV OUT: 428.16
CB-405 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.58 INV IN (18" IN): 428.08 INV OUT: 427.98 INV OUT: 425.24
CB-406	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV OUT: 428.54
CB-407	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV IN (18" IN): 428.38 INV OUT: 428.38
CB-408	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 435.42 INV IN (24" IN): 428.25 INV OUT: 428.15
CB-409	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.26 INV OUT: 428.76
CB-410	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV IN (18" IN): 428.58 INV OUT: 428.41
CB-410A (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.58 INV IN (24" IN): 427.80 INV IN (15" IN): 428.34 INV OUT: 427.63 INV OUT: 425.24
CB-411 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 439.11 INV IN (24" IN): 435.97 INV OUT: 435.97 INV OUT: 435.97
CB-412 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 439.11 INV IN (24" IN): 435.29 INV OUT: 435.29 INV OUT: 435.29
CB-413 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 439.11 INV OUT: 433.79 INV OUT: 433.79
CB-414 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 439.11 INV IN (18" IN): 433.90 INV IN (24" IN): 433.90 INV OUT: 433.90 INV OUT: 433.90
CB-415	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 439.17 INV IN (18" IN): 435.03 INV OUT: 434.86
CB-416	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 439.30 INV IN (18" IN): 435.90 INV OUT: 435.73
CB-417	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 444.22 INV IN (15" IN): 439.18 INV OUT: 436.27
CB-418	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 444.22 INV IN (18" IN): 439.47 INV OUT: 439.30
CB-419	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 443.53 INV OUT: 439.86

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE STRUCTURE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-401
Sheet 75 of 128

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PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-420	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 438.72 INV IN (24" IN): 427.72 INV OUT: 427.72
CB-421	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 436.15 INV IN (30" IN): 426.64 INV OUT: 426.64
CB-422	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.19 INV IN (30" IN): 425.39 INV OUT: 425.39
CB-423	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 441.70 INV OUT: 438.25
CB-424	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 441.70 INV IN (15" IN): 438.13 INV OUT: 435.96
CB-425	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 439.06 INV IN (15" IN): 435.59 INV OUT: 435.42
CB-426	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 438.86 INV OUT: 434.78
CB-427	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 438.83 INV IN (15" IN): 434.66 INV OUT: 434.49
CB-428	CB 5X5 - CONCENTRIC (SEE SHEET CS502) RIM: 435.90 INV IN (18" IN): 432.16 INV IN (18" IN): 429.23 INV OUT: 429.13
CB-429	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 435.61 INV IN (18" IN): 431.20 INV IN (24" IN): 428.74 INV OUT: 428.74
CB-501	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.39 INV OUT: 427.57
CB-502	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.45 INV OUT: 426.95
CB-504	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.06 INV OUT: 427.46
CB-505 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 432.01 INV IN (24" IN): 427.04 INV IN (30" IN): 427.04 INV OUT: 427.04 INV OUT: 427.04
CB-506 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 432.01 INV IN (24" IN): 428.04 INV OUT: 428.04 INV OUT: 428.04
CB-507 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 432.39 INV IN (24" IN): 428.05 INV OUT: 428.05 INV OUT: 428.05
CB-507A	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.74 INV IN (24" IN): 428.57 INV OUT: 428.40
CB-508	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.37 INV OUT: 427.02
CB-509	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.37 INV IN (18" IN): 426.86 INV OUT: 426.86
CB-510	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.53 INV IN (18" IN): 426.78 INV OUT: 426.78
CB-512 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.54 INV IN (36" IN): 426.21 INV OUT: 426.21 INV OUT: 426.21
CB-513 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.49 INV IN (24" IN): 423.53 INV OUT: 423.53 INV OUT: 423.53
CB-514	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.39 INV IN (18" IN): 427.41 INV OUT: 427.41

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-515	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.55 INV IN (18" IN): 427.34 INV OUT: 427.34
CB-516	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.45 INV IN (24" IN): 426.79 INV OUT: 426.96
CB-517 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.46 INV IN (24" IN): 426.65 INV IN (30" IN): 426.65 INV OUT: 426.65 INV OUT: 426.65
CB-518 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.47 INV OUT: 427.35 INV OUT: 427.35
CB-519	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.25 INV IN (36" IN): 421.34 INV IN (18" IN): 421.35 INV OUT: 420.93
CB-520	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.25 INV OUT: 421.51
CB-521	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 430.16 INV IN (15" IN): 426.55 INV IN (15" IN): 426.50 INV OUT: 420.82
CB-522	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 430.16 INV OUT: 426.66
CB-523	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.06 INV IN (15" IN): 428.34 INV OUT: 428.17
CB-524	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.06 INV OUT: 428.50
CB-525	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 431.08 INV IN (18" IN): 427.30 INV OUT: 427.13
CB-526	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 427.97 INV OUT: 424.02
CB-527	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 427.99 INV IN (18" IN): 423.86 INV OUT: 423.85
CB-528	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.29 INV IN (15" IN): 427.75 INV OUT: 427.75
CB-529	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.29 INV OUT: 427.91
CB-530	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 433.38 INV IN (15" IN): 429.68 INV OUT: 429.51
CB-531	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 433.38 INV OUT: 430.00
CB-532	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 434.74 INV IN (18" IN): 427.00 INV IN (15" IN): 429.38 INV OUT: 427.00
CB-552	YD 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 428.55 INV IN (24" IN): 424.65 INV OUT: 424.65
CB-560	YD 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 432.46 INV IN (48" IN): 425.63 INV OUT: 425.63
CB-562	YD 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 437.64 INV IN (18" IN): 426.93 INV IN (42" IN): 426.46 INV OUT: 426.46
CB-608 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.58 INV IN (15" IN): 428.31 INV OUT: 427.97 INV OUT: 425.24
CB-629 (DIVSERION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 439.11 INV IN (24" IN): 434.44 INV OUT: 434.44 INV OUT: 434.44

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-630 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.58 INV IN (18" IN): 427.52 INV OUT: 427.81 INV OUT: 425.69
CB-631	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV IN (18" IN): 427.76 INV OUT: 427.59
CB-632	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV OUT: 427.92
CB-634	CB 4X4 - CONCENTRIC (SEE SHEET CS502) RIM: 435.85 INV IN (24" IN): 428.22 INV OUT: 428.12
CB-635 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 434.58 INV IN (24" IN): 427.59 INV IN (15" IN): 428.34 INV OUT: 427.49 INV OUT: 425.69
CB-636	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV IN (15" IN): 428.59 INV OUT: 428.42
CB-637	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.28 INV OUT: 428.75
CB-639	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.75 INV IN (18" IN): 427.40
CB-700	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 433.42 INV IN (24" IN): 423.87 INV IN (15" IN): 427.23 INV OUT: 412.66
CB-701	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 433.42 INV IN (18" IN): 424.16 INV OUT: 423.99
CB-702	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 437.72 INV IN (18" IN): 424.44 INV OUT: 424.27
CB-703	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 432.87 INV IN (15" IN): 426.16 INV OUT: 425.99
CB-704	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 429.92 INV OUT: 426.51
CB-705	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 414.66 INV IN (18" IN): 410.83 INV OUT: 410.76
CB-706	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 414.64 INV OUT: 410.93
CB-707	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.90 INV IN (15" IN): 427.76 INV OUT: 427.59
CB-708	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 431.90 INV OUT: 427.88
CB-800	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 440.06 INV IN (18" IN): 433.77 INV OUT: 428.91
CB-801	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 439.59 INV IN (15" IN): 434.39 INV OUT: 434.22
CB-802	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 439.11 INV OUT: 435.24
CB-803	(DOVER TOWNSHIP WATER QUALITY INLET - 1.5' SUMP) (SEE SHEET CS502) RIM: 430.38 INV IN (18" IN): 426.68 INV OUT: 426.51
CB-804	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 430.38 INV IN (15" IN): 426.97 INV OUT: 426.80
CB-805	CB 2X4 - STANDARD (SEE SHEET CS502) RIM: 437.72 INV OUT: 427.20

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
CB-BY-1	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 418.25 INV IN (18" IN): 410.67 INV OUT: 409.24
CB-BY-2	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 430.99 INV IN (18" IN): 427.22 INV OUT: 424.96
CB-BY-3	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 458.01 INV IN (18" IN): 453.16 INV OUT: 436.11
CB-BY-4	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 458.13 INV OUT: 454.27
CO-1A	10IN CLEANOUT (SEE SHEET CS502) RIM: 468.80 INV IN (4" IN): 466.09 INV OUT: 465.65
CO-1B	10IN CLEANOUT (SEE SHEET CS502) RIM: 467.59 INV IN (4" IN): 465.04 INV OUT: 465.04
CO-71A	10IN CLEANOUT (SEE SHEET CS502) RIM: 437.60 INV IN (4" IN): 434.89 INV OUT: 434.89
CO-71B	10IN CLEANOUT (SEE SHEET CS502) RIM: 437.49 INV IN (4" IN): 434.43 INV OUT: 434.43
CO-106A	10IN CLEANOUT (SEE SHEET CS502) RIM: 437.57 INV IN (4" IN): 434.87 INV OUT: 434.87
CO-106B	10IN CLEANOUT (SEE SHEET CS502) RIM: 438.90 INV IN (4" IN): 434.28 INV OUT: 434.28
CO-134A	10IN CLEANOUT (SEE SHEET CS502) RIM: 440.58 INV IN (4" IN): 437.88 INV OUT: 437.88
CO-134B	10IN CLEANOUT (SEE SHEET CS502) RIM: 441.04 INV IN (4" IN): 437.54 INV OUT: 437.54
HW-100	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 449.91 INV IN (24" IN): 447.72
HW-101	42" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 455.34 INV IN (36" IN): 451.00
HW-102	42" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 456.46 INV IN (48" IN): 452.00
HW-103	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 456.69 INV IN (36" IN): 453.00
HW-104	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 476.79 INV OUT: 474.12
HW-201	30" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 456.44 INV IN (30" IN): 453.69
HW-202	15" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 452.70 INV IN (18" IN): 451.00
HW-203	24" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 453.56 INV IN (18" IN): 451.00
HW-204	24" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 455.57 INV IN (24" IN): 453.00
HW-300	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 409.67 INV IN (24" IN): 408.00
HW-301	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 421.64 INV IN (24" IN): 418.00

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
HW-302	30" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 421.16 INV IN (30" IN): 418.00
HW-303	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 422.55 INV IN (30" IN): 419.00
HW-304	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 422.54 INV IN (36" IN): 419.29
HW-305	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 423.75 INV IN (42" IN): 420.00
HW-306	30" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 423.20 INV IN (30" IN): 420.00
HW-307	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 430.60 INV IN (36" IN): 426.80
HW-308	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 430.71 INV IN (30" IN): 426.75
HW-309	48" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 431.44 INV IN (36" IN): 426.75
HW-310	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 434.75 INV IN (42" IN): 431.00
HW-311	24" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 436.87 INV IN (24" IN): 434.70
HW-401	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 425.67 INV IN (24" IN): 421.65
HW-402	30" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 428.19 INV IN (30" IN): 424.47
HW-500	24" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 424.59 INV IN (24" IN): 422.00
HW-501	42" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 425.38 INV IN (30" IN): 421.00
HW-502	36" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 423.61 INV IN (36" IN): 420.00
HW-503	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 421.67 INV IN (18" IN): 420.00
HW-504	48" CONCRETE HEADWALL @ 45DEG FLARE (SEE SHEET CS502) RIM: 427.25 INV IN (48" IN): 423.00
HW-700	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 400.93 INV IN (18" IN): 398.00
HW-701	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 412.67 INV IN (24" IN): 411.00
HW-702	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 411.72 INV IN (18" IN): 410.00
HW-800	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 410.75 INV IN (18" IN): 409.00
HW-801	18" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 413.44 INV IN (18" IN): 411.00
HW-BY-1	30" CONCRETE HEADWALL @ 30DEG FLARE (SEE SHEET CS502) RIM: 410.75 INV IN (30" IN): 408.00

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-33A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.45 INV IN (24" IN): 428.39 INV OUT: 428.39
MH-103	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.39 INV IN (36" IN): 452.89 INV IN (15" IN): 460.67 INV OUT: 452.89
MH-103A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.74 INV IN (36" IN): 453.09 INV IN (24" IN): 453.39 INV OUT: 453.08
MH-104	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 456.69 INV IN (24" IN): 447.45 INV OUT: 446.20
MH-105 (DIVERSION STRUCTURE)	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.77 INV IN (36" IN): 454.38 INV IN (15" IN): 454.38 INV OUT: 454.38 INV OUT: 454.38
MH-105A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 463.70 INV IN (30" IN): 454.00
MH-105B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.74 INV IN (36" IN): 454.09 INV IN (18" IN): 453.12 INV OUT: 453.12
MH-106	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (30" IN): 454.82 INV IN (15" IN): 461.53 INV OUT: 454.67
MH-107	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (30" IN): 455.25 INV IN (15" IN): 461.53 INV OUT: 455.08
MH-108	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (30" IN): 455.68 INV IN (15" IN): 461.53 INV OUT: 455.51
MH-109	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (15" IN): 461.53 INV IN (24" IN): 456.16 INV OUT: 455.99
MH-110	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (24" IN): 456.59 INV IN (15" IN): 461.53 INV OUT: 456.42
MH-111	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (24" IN): 457.02 INV IN (15" IN): 461.53 INV OUT: 456.85
MH-112	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (24" IN): 457.45 INV IN (15" IN): 461.53 INV OUT: 457.28
MH-113	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (24" IN): 457.88 INV IN (15" IN): 461.53 INV OUT: 457.71
MH-114	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (24" IN): 458.31 INV IN (15" IN): 461.53 INV OUT: 458.14
MH-115	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (18" IN): 458.74 INV IN (15" IN): 461.53 INV OUT: 458.57
MH-116	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (18" IN): 459.17 INV IN (15" IN): 461.53 INV OUT: 459.00
MH-117	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (18" IN): 459.60 INV IN (15" IN): 461.53 INV OUT: 459.43
MH-118	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.20 INV IN (18" IN): 460.03 INV IN (15" IN): 461.53 INV OUT: 459.86
MH-119	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.74 INV IN (15" IN): 460.48 INV OUT: 460.31
MH-120	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 466.08 INV IN (15" IN): 461.82 INV OUT: 461.65
MH-125	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.53 INV IN (15" IN): 464.89 INV IN (24" IN): 463.39 INV IN (18" IN): 464.29 INV OUT: 463.22

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-126	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.61 INV IN (15" IN): 464.89 INV IN (24" IN): 462.96 INV OUT: 462.79
MH-127	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.35 INV IN (15" IN): 464.89 INV IN (30" IN): 462.53 INV OUT: 462.36
MH-128	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.58 INV IN (15" IN): 464.89 INV OUT: 463.72
MH-129	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.53 INV IN (15" IN): 464.89 INV IN (15" IN): 463.46 INV OUT: 463.29
MH-130	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.27 INV IN (15" IN): 464.89 INV IN (15" IN): 462.49 INV IN (15" IN): 463.06 INV OUT: 462.32
MH-130A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.50 INV IN (18" IN): 462.10
MH-131	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 469.09 INV IN (15" IN): 464.89 INV OUT: 462.78
MH-132	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.62 INV IN (15" IN): 464.89 INV OUT: 461.77
MH-133	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.37 INV IN (15" IN): 464.89 INV IN (15" IN): 461.51 INV OUT: 461.34
MH-134	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.63 INV IN (15" IN): 464.89 INV OUT: 462.16
MH-135	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.53 INV IN (15" IN): 464.89 INV IN (24" IN): 461.90 INV OUT: 461.73
MH-136	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.42 INV IN (30" IN): 461.45 INV IN (24" IN): 461.62 INV OUT: 461.45
MH-137	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.57 INV IN (24" IN): 461.59 INV IN (15" IN): 464.89 INV OUT: 461.59
MH-138	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.95 INV IN (24" IN): 461.97 INV IN (15" IN): 463.70 INV OUT: 461.97
MH-139	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.86 INV IN (18" IN): 461.10
MH-140	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 471.33 INV IN (30" IN): 460.88 INV OUT: 460.88
MH-141	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 470.73 INV IN (30" IN): 460.32 INV IN (18" IN): 460.47 INV OUT: 460.30
MH-142	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 470.67 INV IN (30" IN): 460.26 INV IN (24" IN): 460.77 INV OUT: 460.09
MH-143	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.72 INV IN (18" IN): 461.10
MH-144	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 470.63 INV IN (42" IN): 459.25 INV IN (24" IN): 461.76 INV OUT: 459.08
MH-145	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 471.53 INV IN (42" IN): 458.35 INV IN (18" IN): 461.43 INV OUT: 458.16
MH-146	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 471.73 INV IN (24" IN): 468.00 INV IN (30" IN): 461.80 INV IN (48" IN): 458.13 INV OUT: 457.96
MH-147	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.68 INV IN (18" IN): 462.10

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE STRUCTURE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-402
Sheet 76 of 128

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PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-148	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 477.42 INV IN (48" IN): 457.40 INV OUT: 457.24
MH-149 (DIVERSION STRUCTURE)	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.26 INV IN (15" IN): 461.09 INV OUT: 461.09 INV OUT: 461.09
MH-150	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.17 INV IN (18" IN): 461.02
MH-151	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 470.28 INV IN (15" IN): 460.97 INV OUT: 460.72
MH-152	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.80 INV IN (18" IN): 460.17 INV IN (18" IN): 459.84 INV OUT: 460.00
MH-153	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.48 INV IN (18" IN): 459.80 INV IN (18" IN): 460.45 INV OUT: 459.30
MH-153A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 466.09 INV IN (18" IN): 460.46
MH-154	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.06 INV IN (24" IN): 459.24 INV OUT: 459.07
MH-155	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 471.95 INV IN (24" IN): 458.11 INV OUT: 457.94
MH-156	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 467.92 INV IN (24" IN): 457.08 INV OUT: 456.92
MH-157	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.06 INV IN (30" IN): 456.18 INV IN (24" IN): 456.24 INV OUT: 454.80
MH-158	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 464.95 INV IN (30" IN): 454.73 INV IN (18" IN): 455.91 INV OUT: 454.56
MH-159 (DIVERSION STRUCTURE)	(DOVER TOWNSHIP WATER QUALITY INLET W/ SNOUT - 1.5' SUMP) (SEE SHEET CS502) RIM: 462.70 INV IN (30" IN): 456.78 INV OUT: 456.78 INV OUT: 456.78
MH-160	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 463.17 INV IN (18" IN): 456.75
MH-161 (DIVERSION STRUCTURE)	(SEE SHEET CS502) RIM: 461.90 INV IN (24" IN): 456.79 INV IN (18" IN): 456.79 INV OUT: 456.79 INV OUT: 456.79
MH-162	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 462.49 INV IN (18" IN): 456.75
MH-163	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 462.29 INV IN (18" IN): 454.00
MH-300	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.96 INV IN (18" IN): 428.60 INV OUT: 427.27
MH-301	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.78 INV IN (18" IN): 429.31 INV IN (15" IN): 429.74 INV OUT: 429.14
MH-302	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.07 INV IN (15" IN): 429.74 INV OUT: 429.57
MH-303	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.33 INV IN (15" IN): 429.74 INV OUT: 429.52
MH-304	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.54 INV IN (18" IN): 429.18 INV OUT: 429.01
MH-305	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 428.94 INV IN (18" IN): 428.99 INV OUT: 427.94

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-306	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.19 INV IN (15" IN): 430.60 INV OUT: 429.02
MH-307	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.11 INV IN (15" IN): 430.90 INV OUT: 429.45
MH-308	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 430.43
MH-309	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 430.17 INV OUT: 430.00
MH-310	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.74 INV IN (15" IN): 430.60 INV IN (24" IN): 428.88 INV OUT: 428.44
MH-311	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.33 INV IN (15" IN): 430.60 INV OUT: 429.16
MH-312	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.74 INV IN (15" IN): 430.60 INV OUT: 429.60
MH-313	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 430.17 INV IN (15" IN): 430.60 INV OUT: 430.00
MH-314	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 430.43
MH-315	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.54 INV IN (18" IN): 428.76 INV OUT: 428.59
MH-316	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.31 INV IN (15" IN): 430.60 INV OUT: 429.14
MH-317	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.74 INV IN (15" IN): 430.60 INV OUT: 429.57
MH-318	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 430.17 INV IN (15" IN): 430.60 INV OUT: 430.00
MH-319	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.93 INV IN (15" IN): 430.60 INV OUT: 430.43
MH-320	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 430.43
MH-321	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.54 INV IN (18" IN): 428.38 INV OUT: 425.59
MH-322	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 430.17 INV OUT: 430.00
MH-323	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 429.74 INV OUT: 429.57
MH-324	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (24" IN): 429.31 INV OUT: 429.14
MH-325	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.88 INV IN (15" IN): 430.60 INV OUT: 428.71
MH-325A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.63 INV IN (24" IN): 428.96 INV OUT: 428.39
MH-325B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.66 INV IN (18" IN): 427.50
MH-326	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.31 INV IN (15" IN): 430.60 INV OUT: 429.14

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-327	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.74 INV IN (15" IN): 430.60 INV OUT: 429.57
MH-328	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 430.17 INV IN (15" IN): 430.60 INV OUT: 430.00
MH-329	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.93 INV IN (15" IN): 430.60 INV OUT: 430.43
MH-330	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 429.68
MH-331	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 429.42 INV OUT: 429.25
MH-332	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 428.99 INV OUT: 428.82
MH-333	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (24" IN): 428.56 INV OUT: 428.45
MH-334	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.65 INV IN (15" IN): 430.60 INV OUT: 428.65
MH-335	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.91 INV IN (15" IN): 430.60 INV OUT: 428.91
MH-336	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.17 INV IN (15" IN): 430.60 INV OUT: 429.17
MH-337	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.43 INV IN (15" IN): 430.60 INV OUT: 429.43
MH-338	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.17 INV IN (24" IN): 424.90 INV OUT: 424.32
MH-338A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.39 INV IN (24" IN): 424.06 INV OUT: 424.06
MH-338B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.60 INV IN (24" IN): 423.80 INV OUT: 423.80
MH-338C	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.69 INV IN (24" IN): 423.14 INV OUT: 423.14
MH-339	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.77 INV IN (24" IN): 425.55 INV OUT: 425.55
MH-340	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.53 INV IN (15" IN): 425.00
MH-341	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 455.05 INV IN (18" IN): 450.15 INV OUT: 449.98
MH-342	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.61 INV IN (15" IN): 430.43 INV OUT: 430.43
MH-343	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.75 INV IN (18" IN): 430.17 INV OUT: 430.17
MH-344	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.63 INV IN (18" IN): 429.95 INV OUT: 429.95
MH-345	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.69 INV IN (15" IN): 430.62 INV OUT: 429.69
MH-347	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.57 INV IN (18" IN): 425.00

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-348	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.57 INV IN (18" IN): 424.86 INV IN (18" IN): 424.35 INV OUT: 424.18
MH-349	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.41 INV IN (18" IN): 424.05 INV IN (30" IN): 424.75 INV OUT: 423.89
MH-356	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.82 INV IN (18" IN): 426.75
MH-365	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 445.45 INV IN (36" IN): 427.70 INV IN (30" IN): 427.70 INV IN (15" IN): 442.00 INV OUT: 427.53
MH-368	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.78 INV IN (18" IN): 427.25
MH-369	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.73 INV IN (18" IN): 426.71 INV OUT: 425.54
MH-370	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.28 INV IN (18" IN): 427.25
MH-371	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.30 INV IN (18" IN): 426.75
MH-372	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 430.92 INV IN (18" IN): 426.21 INV OUT: 426.04
MH-373	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.60 INV IN (18" IN): 427.50
MH-374	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.22 INV IN (18" IN): 426.96 INV OUT: 424.79
MH-375	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.60 INV IN (18" IN): 427.50
MH-376	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.45 INV IN (18" IN): 427.50
MH-377	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.36 INV IN (18" IN): 427.47 INV OUT: 426.34
MH-400	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.20 INV IN (24" IN): 415.66 INV OUT: 415.42
MH-401	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.33 INV IN (24" IN): 411.20 INV OUT: 410.38
MH-402	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 429.98 INV IN (24" IN): 409.19 INV IN (24" IN): 420.20 INV OUT: 409.10
MH-403	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.41 INV IN (24" IN): 420.62 INV OUT: 420.52
MH-404	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.69 INV IN (24" IN): 422.36 INV OUT: 422.26
MH-410	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.60 INV IN (15" IN): 436.40 INV OUT: 437.09
MH-411	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.55 INV IN (18" IN): 436.83 INV IN (15" IN): 436.40 INV OUT: 436.66
MH-412	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.51 INV IN (18" IN): 436.26 INV IN (18" IN): 436.44 INV OUT: 436.27
MH-413	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.60 INV IN (15" IN): 436.40 INV OUT: 436.82

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-414	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (18" IN): 436.56 INV IN (15" IN): 436.40 INV OUT: 436.56
MH-415	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.51 INV IN (18" IN): 436.30 INV IN (15" IN): 436.40 INV OUT: 436.30
MH-416	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.21 INV IN (18" IN): 435.64
MH-417	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 445.76 INV IN (24" IN): 435.92 INV OUT: 435.92
MH-418	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.78 INV IN (18" IN): 434.98 INV IN (18" IN): 434.70 INV OUT: 434.70
MH-419	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.22 INV IN (18" IN): 435.25
MH-420	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.60 INV IN (30" IN): 434.59 INV IN (24" IN): 435.19 INV OUT: 434.59
MH-421	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.55 INV IN (15" IN): 436.40 INV OUT: 435.82
MH-422	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.51 INV IN (18" IN): 435.59 INV IN (24" IN): 435.59 INV OUT: 435.59
MH-423	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (15" IN): 436.40 INV IN (24" IN): 435.87 INV OUT: 435.87
MH-424	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.10 INV IN (15" IN): 436.40 INV IN (24" IN): 436.13 INV OUT: 436.13
MH-425	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.55 INV IN (15" IN): 436.40 INV OUT: 436.39
MH-426	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.59 INV IN (36" IN): 433.54 INV IN (18" IN): 433.74 INV OUT: 433.54
MH-427	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.21 INV IN (18" IN): 433.75
MH-428	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.61 INV IN (15" IN): 436.40 INV OUT: 435.92
MH-429	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (18" IN): 435.66 INV IN (15" IN): 436.40 INV OUT: 435.48
MH-430	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.10 INV IN (18" IN): 435.22 INV IN (15" IN): 436.40 INV OUT: 435.06
MH-431	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (24" IN): 434.80 INV IN (15" IN): 436.40 INV OUT: 434.62
MH-432	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.51 INV IN (24" IN): 434.36 INV IN (15" IN): 436.40 INV IN (24" IN): 434.36 INV OUT: 434.20
MH-433	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (15" IN): 436.40 INV IN (18" IN): 434.80 INV OUT: 434.63
MH-434	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.09 INV IN (15" IN): 436.40 INV OUT: 435.06
MH-441	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 442.39 INV IN (42" IN): 429.48 INV OUT: 429.38
MH-442	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 442.22 INV IN (42" IN): 428.75

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-443	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.31 INV IN (18" IN): 427.94 INV OUT: 427.94
MH-444	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.82 INV IN (36" IN): 432.60 INV IN (18" IN): 433.20 INV OUT: 432.60
MH-445	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.22 INV IN (18" IN): 433.82
MH-446	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.59 INV IN (36" IN): 432.49 INV IN (30" IN): 433.85 INV OUT: 432.49
MH-447	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 465.59 INV IN (36" IN): 431.09 INV OUT: 431.08
MH-448	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 476.99 INV IN (42" IN): 430.57 INV OUT: 430.57
MH-449	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 438.46 INV IN (30" IN): 427.21 INV OUT: 427.21
MH-450	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.15 INV IN (30" IN): 426.02 INV OUT: 426.02
MH-451	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 436.34 INV IN (30" IN): 425.15 INV OUT: 425.15
MH-452	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.62 INV IN (30" IN): 424.63 INV OUT: 424.63
MH-453	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.08 INV IN (18" IN): 434.73 INV IN (15" IN): 434.38 INV OUT: 432.86
MH-454	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.12 INV IN (18" IN): 427.90
MH-455	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.43 INV IN (15" IN): 433.84 INV OUT: 430.61
MH-456	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.15 INV IN (15" IN): 433.40 INV OUT: 432.05
MH-457	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.51 INV IN (15" IN): 433.40 INV OUT: 432.41
MH-458	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.04 INV IN (24" IN): 425.00
MH-459	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.87 INV IN (15" IN): 433.40 INV OUT: 432.77
MH-460	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (15" IN): 433.40 INV OUT: 433.13
MH-461	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.77 INV IN (18" IN): 427.90
MH-462	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.70 INV IN (18" IN): 425.00
MH-463	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.65 INV IN (18" IN): 425.00
MH-464	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.56 INV IN (24" IN): 429.20 INV IN (15" IN): 433.40 INV OUT: 429.10
MH-465	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 429.56 INV IN (15" IN): 433.40 INV OUT: 429.46

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-466	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 429.92 INV IN (15" IN): 433.40 INV OUT: 429.82
MH-467	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 430.28 INV IN (15" IN): 433.40 INV OUT: 430.18
MH-468	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 430.64 INV IN (15" IN): 433.40 INV OUT: 430.54
MH-469	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 431.00 INV IN (15" IN): 433.40 INV OUT: 430.90
MH-471	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 431.36 INV IN (15" IN): 433.40 INV OUT: 431.26
MH-472	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 431.72 INV IN (15" IN): 433.40 INV OUT: 431.62
MH-473	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.08 INV IN (15" IN): 433.40 INV OUT: 431.98
MH-474	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.44 INV IN (15" IN): 433.40 INV OUT: 432.34
MH-475	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.87 INV IN (15" IN): 433.40 INV OUT: 432.70
MH-476	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (15" IN): 433.40 INV OUT: 433.13
MH-477	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.75 INV IN (18" IN): 427.56
MH-478	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.70 INV IN (18" IN): 425.00
MH-480	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.75 INV IN (18" IN): 427.56
MH-481	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.43 INV IN (18" IN): 425.00
MH-482	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.70 INV IN (24" IN): 425.00
MH-500	72 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (30" IN): 427.76 INV IN (24" IN): 427.76 INV OUT: 427.59
MH-501	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.06 INV IN (15" IN): 430.60 INV OUT: 427.89
MH-502	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (24" IN): 428.49 INV OUT: 428.32
MH-503	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 428.92 INV IN (15" IN): 430.60 INV OUT: 428.75
MH-504	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.09 INV IN (15" IN): 430.60 INV OUT: 429.18
MH-505	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.81 INV IN (15" IN): 430.60 INV OUT: 429.35
MH-506	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 429.69
MH-507	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 429.43 INV OUT: 429.26

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 074526 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE STRUCTURE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-403
Sheet 77 of 128

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PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-508	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 429.00 INV OUT: 428.83
MH-508A	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.66 INV IN (24" IN): 428.66 INV OUT: 427.50
MH-509	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.92 INV IN (15" IN): 430.60 INV OUT: 428.75
MH-510	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.35 INV IN (15" IN): 430.60 INV OUT: 429.18
MH-511	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.78 INV IN (15" IN): 430.60 INV OUT: 429.61
MH-512	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 430.21 INV IN (15" IN): 430.60 INV OUT: 430.04
MH-513	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.97 INV IN (15" IN): 430.60 INV OUT: 430.47
MH-514	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 429.14
MH-515	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 428.88 INV OUT: 428.71
MH-516	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (24" IN): 428.45 INV OUT: 428.28
MH-516A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (30" IN): 428.06 INV IN (30" IN): 428.06 INV OUT: 427.89
MH-517	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (30" IN): 428.27 INV IN (15" IN): 430.60 INV OUT: 428.10
MH-518	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.70 INV IN (15" IN): 430.60 INV OUT: 428.53
MH-519	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.13 INV IN (15" IN): 430.60 INV OUT: 428.96
MH-520	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.56 INV IN (15" IN): 430.60 INV OUT: 429.39
MH-521	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.81 INV IN (15" IN): 430.60 INV OUT: 429.82
MH-522	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 429.64 INV IN (15" IN): 430.60 INV OUT: 429.47
MH-522A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.96 INV IN (24" IN): 428.56 INV OUT: 428.39
MH-522B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.06 INV IN (18" IN): 428.00
MH-523	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 430.07 INV OUT: 429.90
MH-523A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 430.33
MH-524	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.06 INV IN (15" IN): 430.60 INV OUT: 427.89
MH-525	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.81 INV IN (15" IN): 430.60 INV OUT: 428.32

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-526	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV OUT: 428.79
MH-527	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (15" IN): 430.60 INV IN (18" IN): 428.53 INV OUT: 428.36
MH-527A	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.23 INV IN (18" IN): 428.23 INV OUT: 427.06
MH-528	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.54 INV IN (15" IN): 430.60 INV OUT: 428.37
MH-529	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (24" IN): 428.97 INV IN (15" IN): 430.60 INV OUT: 428.80
MH-530	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.40 INV IN (15" IN): 430.60 INV OUT: 429.23
MH-531	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.20 INV IN (18" IN): 429.83 INV IN (15" IN): 430.60 INV OUT: 429.66
MH-532	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 433.75 INV IN (18" IN): 430.22 INV OUT: 430.05
MH-533	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 434.38 INV IN (15" IN): 430.59 INV OUT: 430.49
MH-535	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 428.65 INV IN (24" IN): 411.52 INV OUT: 411.35
MH-536	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.56 INV IN (24" IN): 423.50
MH-537	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 429.38 INV IN (24" IN): 423.38 INV OUT: 423.20
MH-538	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.46 INV IN (18" IN): 426.15
MH-539	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 432.08 INV IN (18" IN): 422.85 INV IN (24" IN): 422.32 INV OUT: 422.15
MH-540	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 432.64 INV IN (24" IN): 421.97 INV IN (36" IN): 426.06 INV OUT: 421.80
MH-541 (DIVERSION STRUCTURE)	60 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.48 INV IN (30" IN): 426.74 INV IN (24" IN): 426.74 INV OUT: 426.74 INV OUT: 425.74
MH-542	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.58 INV IN (18" IN): 426.70
MH-543	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 430.65 INV IN (18" IN): 425.91 INV OUT: 425.74
MH-544	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 430.40 INV IN (30" IN): 424.59 INV IN (18" IN): 425.60 INV OUT: 421.30
MH-545	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.56 INV IN (18" IN): 426.70
MH-546 (DIVERSION STRUCTURE)	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.46 INV IN (24" IN): 427.29 INV OUT: 426.74 INV OUT: 423.12
MH-547	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.58 INV IN (18" IN): 426.60
MH-548	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 431.61 INV IN (24" IN): 426.88 INV OUT: 426.71

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-549	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 430.18 INV IN (30" IN): 424.32 INV IN (48" IN): 423.07 INV OUT: 423.07
MH-550	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 430.69 INV IN (18" IN): 425.09 INV IN (48" IN): 423.21 INV OUT: 423.21
MH-551	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.43 INV IN (18" IN): 424.51 INV IN (48" IN): 424.15 INV OUT: 424.15
MH-551A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.56 INV IN (18" IN): 427.30
MH-551B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.80 INV IN (48" IN): 423.94 INV OUT: 423.94
MH-554 (DIVERSION STRUCTURE)	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.92 INV IN (24" IN): 427.03 INV OUT: 427.03 INV OUT: 427.03
MH-554A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.56 INV IN (24" IN): 426.88 INV IN (18" IN): 426.32 INV OUT: 424.82
MH-555	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.06 INV IN (18" IN): 427.00
MH-556	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.36 INV IN (18" IN): 428.56 INV OUT: 427.30
MH-557	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.06 INV IN (18" IN): 427.00
MH-558	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.62 INV IN (30" IN): 425.52 INV OUT: 425.52
MH-559	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.00 INV IN (30" IN): 425.12 INV IN (48" IN): 425.12 INV OUT: 425.13
MH-559A	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.23 INV IN (48" IN): 424.56 INV IN (24" IN): 424.56 INV OUT: 424.55
MH-561	60 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 436.77 INV IN (24" IN): 427.25 INV IN (42" IN): 426.32 INV OUT: 426.32
MH-563	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.43 INV IN (30" IN): 427.07 INV OUT: 427.07
MH-564	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.49 INV IN (18" IN): 428.00
MH-565	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.47 INV IN (18" IN): 429.42 INV IN (15" IN): 433.85 INV OUT: 429.25
MH-567	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.98 INV IN (15" IN): 434.23 INV IN (18" IN): 429.85 INV OUT: 429.68
MH-568	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 438.75 INV IN (15" IN): 434.23 INV OUT: 430.11
MH-613	12IN CLEANOUT (SEE SHEET CS502) RIM: 440.51 INV IN (15" IN): 436.40 INV IN (24" IN): 435.61 INV OUT: 435.61
MH-631	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.68 INV IN (18" IN): 425.50
MH-632	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.27 INV IN (18" IN): 425.50
MH-636	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.68 INV IN (24" IN): 425.50

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-637	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 429.17 INV IN (15" IN): 433.40 INV OUT: 429.07
MH-638	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 429.53 INV IN (15" IN): 433.40 INV OUT: 429.43
MH-639	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.76 INV IN (18" IN): 427.40
MH-640	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 429.89 INV IN (15" IN): 433.40 INV OUT: 429.79
MH-641	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (24" IN): 430.25 INV IN (15" IN): 433.40 INV OUT: 430.15
MH-642	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 430.61 INV IN (15" IN): 433.40 INV OUT: 430.51
MH-643	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 430.97 INV IN (15" IN): 433.40 INV OUT: 430.87
MH-645	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 431.33 INV IN (15" IN): 433.40 INV OUT: 431.23
MH-646	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 431.69 INV IN (15" IN): 433.40 INV OUT: 431.59
MH-647	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 437.00 INV IN (18" IN): 432.05 INV IN (15" IN): 433.40 INV OUT: 431.95
MH-648	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 436.58 INV IN (18" IN): 432.38 INV OUT: 432.28
MH-649	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 436.90 INV IN (15" IN): 433.42 INV OUT: 432.70
MH-650	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 436.32 INV IN (30" IN): 425.50
MH-651	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.34 INV IN (30" IN): 428.52 INV IN (4" IN): 437.12 INV OUT: 427.08
MH-652	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.36 INV IN (30" IN): 429.37 INV OUT: 429.20
MH-653	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.38 INV IN (30" IN): 430.38 INV IN (4" IN): 437.41 INV OUT: 430.21
MH-654	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.23 INV IN (30" IN): 431.00 INV OUT: 430.83
MH-654A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.46 INV IN (30" IN): 432.67 INV OUT: 432.50
MH-655	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.57 INV IN (18" IN): 436.51 INV IN (15" IN): 436.40 INV OUT: 436.51
MH-655 A	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 440.57 INV IN (15" IN): 436.40 INV OUT: 436.77
MH-656	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.60 INV IN (18" IN): 436.25 INV IN (15" IN): 436.40 INV OUT: 436.25
MH-657	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.55 INV IN (18" IN): 435.99 INV IN (15" IN): 436.40 INV OUT: 435.99
MH-658	48 INCH DIA CONCENTRIC MANNHOLE (SEE SHEET CS502) RIM: 440.52 INV IN (18" IN): 435.73 INV IN (15" IN): 436.40 INV OUT: 435.73

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
MH-659	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.57 INV IN (18" IN): 435.47 INV IN (15" IN): 436.40 INV OUT: 435.47
MH-660	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.60 INV IN (24" IN): 435.21 INV IN (15" IN): 436.40 INV OUT: 435.21
MH-661	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.55 INV IN (24" IN): 434.95 INV IN (15" IN): 436.40 INV OUT: 434.95
MH-662	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.51 INV IN (18" IN): 434.91 INV IN (24" IN): 434.74 INV OUT: 434.74
MH-663	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.52 INV IN (18" IN): 435.12 INV IN (15" IN): 436.40 INV OUT: 434.95
MH-664	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.61 INV IN (15" IN): 436.40 INV OUT: 435.38
MH-672	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.68 INV IN (30" IN): 433.34 INV OUT: 433.17
MH-673	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.60 INV IN (18" IN): 433.58 INV IN (30" IN): 434.39 INV OUT: 433.41
MH-674	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.22 INV IN (18" IN): 434.40
MH-675	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 441.78 INV IN (18" IN): 433.85 INV OUT: 433.68
MH-701	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 438.12 INV IN (18" IN): 425.44 INV OUT: 425.27
MH-800	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 428.66 INV IN (18" IN): 425.57 INV IN (18" IN): 425.28 INV OUT: 412.72
OCS-1	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 469.17 INV OUT: 460.60
OCS-2	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 468.87 INV OUT: 461.60
OCS-3	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 463.31 INV OUT: 453.50
OCS-4	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 466.56 INV OUT: 459.90
OCS-4A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.94 INV OUT: 424.50
OCS-4B	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 440.80 INV OUT: 428.25
OCS-5	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 463.35 INV OUT: 456.25
OCS-6	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 433.14 INV OUT: 424.50
OCS-6A	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 434.95 INV OUT: 423.00
OCS-7	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.49 INV OUT: 426.25
OCS-8	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.79 INV OUT: 426.75

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
OCS-9	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.78 INV OUT: 427.00
OCS-10	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.81 INV OUT: 427.00
OCS-11	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.82 INV OUT: 423.00
OCS-12	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.81 INV OUT: 426.20
OCS-13	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 431.81 INV OUT: 426.10
OCS-14	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 432.28 INV OUT: 426.50
OCS-15	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.29 INV OUT: 427.50
OCS-16	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.31 INV OUT: 425.24
OCS-17	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.55 INV OUT: 425.24
OCS-18	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.37 INV OUT: 433.25
OCS-19	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.39 INV OUT: 434.75
OCS-20	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 439.34 INV OUT: 433.90
OCS-21	48 INCH DIA CONCENTRIC MANHOLE (SEE SHEET CS502) RIM: 435.16 INV OUT: 425.74
OCS-100	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 450.62 INV OUT: 448.45
OCS-200	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 450.62 INV OUT: 448.45
OCS-300A	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 417.29 INV OUT: 415.00
OCS-300B	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 428.92 INV OUT: 426.75
OCS-400	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 421.50 INV OUT: 416.89
OCS-500	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 420.00 INV OUT: 414.50
OCS-700	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 410.00 INV OUT: 402.06
OCS-800	YD 2X4 - STANDARD (SEE SHEET CS502) RIM: 411.75 INV OUT: 410.00
RL-1	10IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 463.08
RL-2	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93

PROPOSED STORM STRUCTURES

STRCT. ID	STRUCTURE DETAILS
RL-3	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-4	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-5	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-6	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-7	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-8	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-9	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-10	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-11	12IN CLEANOUT (SEE SHEET CS502) RIM: 467.05 INV OUT: 461.93
RL-12	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 461.93
RL-13	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 461.93
RL-14	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 461.93
RL-15	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 455.64
RL-17	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 461.93
RL-19	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-20	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-21	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-22	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-23	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-24	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-25	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-26	BUILDING CONNECTION (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-27	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA — ENGINEER — PROFESSIONAL — KEITH S. OTTES — PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE STRUCTURE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-404
Sheet 78 of 128

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Date: 8/14/2025 Time: 15:13 User: bsoltys Style Table: Langan.stb Layout: CG-101 Document Code: 200164401-0301-CG401-0104

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-28	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-29	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-30	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-31	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.70
RL-32	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 465.09
RL-33	12IN CLEANOUT (SEE SHEET CS502) RIM: 469.40 INV OUT: 464.86
RL-35	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.20 INV OUT: 431.00
RL-36	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-37	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-38	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-39	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-40	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-41	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-42	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-43	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.00 INV OUT: 431.00
RL-44	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-45	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-46	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-47	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-48	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-49	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-50	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-51	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-52	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-53	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-54	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-55	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-56	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-57	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-58	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-59	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-60	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-61	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-62	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-63	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-64	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-65	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-66	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-67	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-68	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.02
RL-69	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.02
RL-70	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.20 INV OUT: 431.69
RL-71	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.25 INV OUT: 431.85
RL-72	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-73	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-74	12IN CLEANOUT (SEE SHEET CS502) RIM: 435.00 INV OUT: 431.00

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-75	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-76	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-77	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-78	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-79	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-80	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-81	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-82	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-83	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-84	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-85	12IN CLEANOUT (SEE SHEET CS502) RIM: 435.00 INV OUT: 431.00
RL-86	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-87	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-88	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-89	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-90	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-91	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-92	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-93	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-94	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-95	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-96	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-97	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-98	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-99	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-100	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-101	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-102	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-103	12IN CLEANOUT (SEE SHEET CS502) RIM: 434.40 INV OUT: 431.00
RL-104	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.20 INV OUT: 434.63
RL-105	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.20 INV OUT: 434.63
RL-106	12IN CLEANOUT (SEE SHEET CS502) RIM: 438.20 INV OUT: 434.63
RL-107	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 434.70
RL-108	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-109	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-110	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-111	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-112	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-113	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-114	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-115	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-116	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-117	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-118	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-119	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-120	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-121	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-122	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-123	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-124	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-125	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-126	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-127	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-128	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-129	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-130	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-131	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-132	12IN CLEANOUT (SEE SHEET CS502) RIM: 437.20 INV OUT: 433.80
RL-133	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 435.10
RL-134	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-135	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-136	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-137	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-138	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-139	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-140	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-141	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-142	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-143	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20

PROPOSED STORM STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
RL-144	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-145	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-146	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-147	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-148	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-149	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-150	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-151	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-152	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-153	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-154	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-155	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-156	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-157	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-158	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-159	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
RL-160	12IN CLEANOUT (SEE SHEET CS502) RIM: 441.20 INV OUT: 437.20
STREAM CROSSING 1 DIRECT CONNECTION	10IN CLEANOUT (SEE SHEET CS502) RIM: 455.81 INV IN (24" IN): 445.00
STREAM CROSSING 2 DIRECT CONNECTION 1	10IN CLEANOUT (SEE SHEET CS502) RIM: 422.38
STREAM CROSSING 2 DIRECT CONNECTION 2	12IN CLEANOUT (SEE SHEET CS502) RIM: 422.47

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 078821 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE STRUCTURE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-405
Sheet 79 of 128

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PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
CANOPY RL-1 TO CO-1A	21 LF 4" PVC @ 3.65%%
CANOPY RL-21 TO MH-136	41 LF 4" PVC @ 3.68%%
CANOPY RL-35 TO MH-315	32 LF 4" PVC @ 1.01%%
CANOPY RL-70 TO CB-331	81 LF 4" PVC @ 3.50%%
CANOPY RL-71 TO CO-71A	21 LF 4" PVC @ 3.67%%
CANOPY RL-106 TO CO-106A	21 LF 4" PVC @ 3.67%%
CANOPY RL-107 TO MH-651	57 LF 4" PVC @ 2.70%%
CANOPY RL-133 TO CB-425	79 LF 4" PVC @ 3.82%%
CANOPY RL-134 TO CO-134A	20 LF 4" PVC @ 3.82%%
CANOPY RL-160 TO CB-416	79 LF 4" PVC @ 2.41%%
CB-1 TO CB-2	117 LF 18" RCP @ 1.80%%
CB-2 TO CB-3	117 LF 18" RCP @ 0.60%%
CB-3 TO CB-124	18 LF 18" RCP @ 4.00%%
CB-100 TO HW-101	216 LF 36" HDPE @ 0.50%%
CB-101 TO HW-102	226 LF 48" HDPE @ 1.00%%
CB-102 TO CB-101	32 LF 18" HDPE @ 1.00%%
CB-103 TO CB-125	60 LF 48" HDPE @ 0.50%%
CB-104 TO MH-138	129 LF 24" HDPE @ 0.50%%
CB-105 TO CB-104	24 LF 21" HDPE @ 0.50%%
CB-106 TO CB-109	39 LF 18" HDPE @ 0.50%%
CB-108 TO CB-107	38 LF 18" HDPE @ 0.50%%
CB-108 TO CB-109	149 LF 18" HDPE @ 0.50%%
CB-109 TO HW-203	41 LF 18" HDPE @ 0.50%%
CB-110 TO CB-100	59 LF 18" HDPE @ 0.50%%
CB-111 TO CB-110	32 LF 18" HDPE @ 0.50%%
CB-112 TO CB-113	57 LF 18" HDPE @ 5.00%%
CB-113 TO CB-103	85 LF 48" HDPE @ 0.50%%
CB-114 TO MH-125	63 LF 24" HDPE @ 0.50%%
CB-115 TO CB-114	27 LF 18" HDPE @ 0.50%%
CB-115A TO CB-115	141 LF 18" HDPE @ 2.68%%
CB-116 (DIVERSION STRUCTURE) TO MH-146	74 LF 30" HDPE @ 0.50%%
CB-116 (DIVERSION STRUCTURE) TO MH-147	6 LF 18" HDPE @ 1.20%%
CB-116A TO MH-146	51 LF 24" HDPE @ 2.00%%
CB-116B TO CB-116A	285 LF 18" HDPE @ 2.70%%
CB-117 (DIVERSION STRUCTURE) TO MH-130A	6 LF 18" HDPE @ 0.50%%
CB-117 (DIVERSION STRUCTURE) TO MH-144	75 LF 24" HDPE @ 0.50%%
CB-118 (DIVERSION STRUCTURE) TO MH-142	74 LF 24" HDPE @ 0.50%%
CB-118 (DIVERSION STRUCTURE) TO MH-143	8 LF 18" HDPE @ 0.50%%
CB-119 (DIVERSION STRUCTURE) TO MH-139	6 LF 18" HDPE @ 2.60%%
CB-119 (DIVERSION STRUCTURE) TO MH-140	74 LF 30" HDPE @ 0.50%%
CB-120 TO CB-121	178 LF 18" HDPE @ 2.00%%
CB-121 TO HW-103	54 LF 36" HDPE @ 0.55%%
CB-122 TO CB-105	104 LF 18" HDPE @ 1.50%%
CB-123 TO CB-122	221 LF 18" HDPE @ 0.50%%
CB-123A TO CB-114	45 LF 18" HDPE @ 0.50%%
CB-124 TO CB-113	165 LF 24" HDPE @ 0.50%%
CB-125 TO CB-101	187 LF 48" HDPE @ 0.50%%
CB-126 TO MH-125	24 LF 18" HDPE @ 0.50%%
CB-200 TO CB-213	32 LF 15" HDPE @ 0.50%%
CB-201 TO CB-215	32 LF 24" HDPE @ 0.50%%
CB-202 TO CB-201	146 LF 24" HDPE @ 0.50%%
CB-203 TO CB-202	63 LF 18" HDPE @ 1.10%%
CB-204 TO CB-205 (DIVERSION STRUCTURE)	104 LF 15" HDPE @ 0.50%%
CB-205 (DIVERSION STRUCTURE) TO MH-153	11 LF 18" HDPE @ 0.50%%
CB-205 (DIVERSION STRUCTURE) TO MH-153A	8 LF 18" HDPE @ 0.50%%
CB-206 TO MH-149 (DIVERSION STRUCTURE)	106 LF 15" HDPE @ 0.50%%
CB-207 TO CB-208	32 LF 15" HDPE @ 0.50%%
CB-208 TO MH-161	20 LF 24" HDPE @ 0.50%%
CB-209 TO CB-208	40 LF 18" HDPE @ 0.50%%
CB-210 (DIVERSION STRUCTURE) TO MH-103A	127 LF 24" HDPE @ 0.50%%
CB-210 (DIVERSION STRUCTURE) TO MH-163	6 LF 18" HDPE @ 0.50%%
CB-211 TO HW-202	39 LF 18" HDPE @ 0.50%%
CB-212 TO CB-211	40 LF 18" HDPE @ 0.50%%
CB-213 TO MH-161	179 LF 18" HDPE @ 0.50%%
CB-214 TO CB-216	187 LF 18" HDPE @ 0.50%%
CB-215 TO MH-159 (DIVERSION STRUCTURE)	11 LF 30" HDPE @ 0.50%%
CB-216 TO CB-215	40 LF 24" HDPE @ 0.50%%
CB-217 TO CB-203	32 LF 18" HDPE @ 0.50%%
CB-218 TO CB-217	16 LF 18" HDPE @ 0.50%%
CB-300 TO HW-301	31 LF 24" HDPE @ 0.50%%
CB-301 TO CB-300	32 LF 24" HDPE @ 0.50%%
CB-302 TO CB-302A (DIVERSION STRUCTURE)	72 LF 24" HDPE @ 0.50%%
CB-302A (DIVERSION STRUCTURE) TO CB-301	13 LF 24" HDPE @ 0.50%%
CB-302A (DIVERSION STRUCTURE) TO MH-368	9 LF 18" HDPE @ 0.34%%
CB-303 (DIVERSION STRUCTURE) TO HW-306	78 LF 30" HDPE @ 0.50%%
CB-303 (DIVERSION STRUCTURE) TO MH-325B	8 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
CB-304 TO CB-300	134 LF 15" HDPE @ 0.50%%
CB-305 TO CB-304	32 LF 15" HDPE @ 0.50%%
CB-306 TO HW-302	30 LF 30" HDPE @ 1.00%%
CB-307 TO CB-306	32 LF 30" HDPE @ 0.50%%
CB-308 (DIVERSION STRUCTURE) TO CB-307	16 LF 30" HDPE @ 0.50%%
CB-308 (DIVERSION STRUCTURE) TO MH-370	8 LF 18" HDPE @ 0.50%%
CB-309 TO HW-303	26 LF 30" HDPE @ 1.00%%
CB-310 TO CB-309	32 LF 30" HDPE @ 0.50%%
CB-311 (DIVERSION STRUCTURE) TO CB-310	16 LF 30" HDPE @ 0.50%%
CB-311 (DIVERSION STRUCTURE) TO MH-371	8 LF 18" HDPE @ 0.50%%
CB-312 TO HW-304	42 LF 36" HDPE @ 0.50%%
CB-314 TO CB-318 (DIVERSION STRUCTURE)	32 LF 15" HDPE @ 0.50%%
CB-315 TO CB-318 (DIVERSION STRUCTURE)	159 LF 15" HDPE @ 0.50%%
CB-316 TO CB-315	45 LF 15" HDPE @ 1.00%%
CB-317 TO CB-312	32 LF 36" HDPE @ 0.50%%
CB-318 (DIVERSION STRUCTURE) TO MH-347	30 LF 18" HDPE @ 0.50%%
CB-318 (DIVERSION STRUCTURE) TO MH-348	41 LF 18" HDPE @ 0.70%%
CB-319 (DIVERSION STRUCTURE) TO MH-340	5 LF 15" HDPE @ 0.50%%
CB-319 (DIVERSION STRUCTURE) TO MH-349	53 LF 30" HDPE @ 0.51%%
CB-320 TO CB-319 (DIVERSION STRUCTURE)	197 LF 24" HDPE @ 0.50%%
CB-321 TO HW-305	36 LF 42" HDPE @ 0.50%%
CB-322 TO CB-321	224 LF 42" HDPE @ 0.50%%
CB-323 TO CB-322	223 LF 36" HDPE @ 0.50%%
CB-324 TO CB-321	32 LF 24" HDPE @ 0.50%%
CB-325 (DIVERSION STRUCTURE) TO CB-324	15 LF 18" HDPE @ 1.00%%
CB-325 (DIVERSION STRUCTURE) TO MH-373	8 LF 18" HDPE @ 0.50%%
CB-326 TO CB-322	32 LF 36" HDPE @ 0.50%%
CB-327 (DIVERSION STRUCTURE) TO CB-326	15 LF 36" HDPE @ 0.50%%
CB-327 (DIVERSION STRUCTURE) TO MH-375	8 LF 18" HDPE @ 0.50%%
CB-328 TO CB-323	32 LF 18" HDPE @ 0.50%%
CB-329 (DIVERSION STRUCTURE) TO MH-376	8 LF 18" HDPE @ 0.50%%
CB-329 (DIVERSION STRUCTURE) TO MH-377	7 LF 18" HDPE @ 1.00%%
CB-330 TO HW-307	45 LF 36" HDPE @ 0.50%%
CB-331 TO CB-331A	74 LF 15" HDPE @ 0.50%%
CB-331A TO CB-371	203 LF 30" HDPE @ 0.50%%
CB-331B TO CB-331A	105 LF 24" HDPE @ 0.50%%
CB-331C TO CB-331B	54 LF 15" HDPE @ 0.50%%
CB-332 TO CB-331B	56 LF 24" HDPE @ 0.50%%
CB-333 TO CB-332	91 LF 18" HDPE @ 0.50%%
CB-334 TO CB-333	32 LF 15" HDPE @ 0.50%%
CB-335 TO CB-332	32 LF 15" HDPE @ 0.50%%
CB-336 TO MH-365	41 LF 15" HDPE @ 0.50%%
CB-337 TO CB-336	32 LF 15" HDPE @ 0.50%%
CB-338 TO CB-338A	74 LF 24" HDPE @ 0.50%%
CB-338A TO HW-308	276 LF 30" HDPE @ 0.50%%
CB-339 TO CB-339A	74 LF 24" HDPE @ 0.50%%
CB-339A TO CB-338A	165 LF 24" HDPE @ 0.50%%
CB-340 TO MH-365	298 LF 36" HDPE @ 0.50%%
CB-341 TO CB-340	32 LF 15" HDPE @ 0.50%%
CB-342 TO CB-341	18 LF 15" HDPE @ 0.50%%
CB-343 TO CB-342	32 LF 15" HDPE @ 0.50%%
CB-344 TO CB-347	26 LF 24" HDPE @ 0.50%%
CB-345 TO CB-344	32 LF 15" HDPE @ 0.50%%
CB-346 TO CB-340	183 LF 24" HDPE @ 0.50%%
CB-347 TO CB-346	38 LF 24" HDPE @ 0.50%%
CB-348 TO MH-556	144 LF 18" HDPE @ 0.50%%
CB-349 TO CB-348	32 LF 15" HDPE @ 0.50%%
CB-350 TO MH-365	73 LF 30" HDPE @ 0.50%%
CB-351 TO CB-350	62 LF 30" HDPE @ 0.50%%
CB-352 TO CB-351	20 LF 24" HDPE @ 6.00%%
CB-353 TO CB-352	32 LF 24" HDPE @ 1.00%%
CB-353A TO CB-353	193 LF 24" HDPE @ 1.00%%
CB-353B TO CB-353A	323 LF 18" HDPE @ 2.50%%
CB-354 TO HW-310	87 LF 42" HDPE @ 1.50%%
CB-355 TO CB-354	32 LF 42" HDPE @ 0.50%%
CB-356 TO CB-355	24 LF 42" HDPE @ 0.50%%
CB-357 TO CB-356	32 LF 36" HDPE @ 0.50%%
CB-357A TO CB-357	61 LF 36" HDPE @ 0.50%%
CB-357B TO CB-357A	133 LF 24" HDPE @ 0.50%%
CB-357C TO CB-357B	86 LF 15" HDPE @ 0.50%%
CB-358 TO HW-311	81 LF 24" HDPE @ 0.50%%
CB-359 TO CB-358	32 LF 24" HDPE @ 0.50%%
CB-360 TO CB-359	83 LF 18" HDPE @ 1.30%%
CB-361 TO CB-360	32 LF 15" HDPE @ 1.00%%
CB-364 TO MH-341	48 LF 18" HDPE @ 0.50%%
CB-365 TO CB-364	32 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
CB-369 (DIVERSION STRUCTURE) TO CB-317	47 LF 36" HDPE @ 0.50%%
CB-369 (DIVERSION STRUCTURE) TO MH-356	8 LF 18" HDPE @ 0.50%%
CB-370 TO CB-312	371 LF 30" HDPE @ 0.50%%
CB-371 TO CB-330	32 LF 36" HDPE @ 0.50%%
CB-400 TO CB-404	32 LF 18" HDPE @ 0.50%%
CB-401 TO CB-402	32 LF 18" HDPE @ 0.50%%
CB-402 TO CB-403 (DIVERSION STRUCTURE)	15 LF 15" HDPE @ 0.50%%
CB-403 (DIVERSION STRUCTURE) TO MH-454	15 LF 18" HDPE @ 2.49%%
CB-403 (DIVERSION STRUCTURE) TO MH-458	8 LF 24" HDPE @ 3.00%%
CB-404 TO CB-405 (DIVERSION STRUCTURE)	15 LF 18" HDPE @ 0.50%%
CB-405 (DIVERSION STRUCTURE) TO MH-461	15 LF 18" HDPE @ 0.50%%
CB-405 (DIVERSION STRUCTURE) TO MH-462	8 LF 18" HDPE @ 3.00%%
CB-406 TO CB-407	32 LF 18" HDPE @ 0.50%%
CB-407 TO CB-608 (DIVERSION STRUCTURE)	15 LF 15" HDPE @ 0.50%%
CB-408 TO CB-410A	70 LF 24" HDPE @ 0.50%%
CB-409 TO CB-410	35 LF 18" HDPE @ 0.50%%
CB-410 TO CB-410A	15 LF 15" HDPE @ 0.50%%
CB-410A TO MH-480	14 LF 18" HDPE @ 0.50%%
CB-410A TO MH-482	8 LF 24" HDPE @ 3.00%%
CB-411 (DIVERSION STRUCTURE) TO MH-416	8 LF 18" HDPE @ 4.00%%
CB-411 (DIVERSION STRUCTURE) TO MH-417	10 LF 24" HDPE @ 0.50%%
CB-412 (DIVERSION STRUCTURE) TO MH-419	8 LF 18" HDPE @ 0.50%%
CB-412 (DIVERSION STRUCTURE) TO MH-420	10 LF 24" HDPE @ 1.00%%
CB-413 (DIVERSION STRUCTURE) TO MH-426	10 LF 18" HDPE @ 0.50%%
CB-413 (DIVERSION STRUCTURE) TO MH-427	8 LF 18" HDPE @ 0.50%%
CB-414 (DIVERSION STRUCTURE) TO MH-445	8 LF 18" HDPE @ 1.00%%
CB-414 (DIVERSION STRUCTURE) TO MH-446	10 LF 30" HDPE @ 0.50%%
CB-415 TO CB-414 (DIVERSION STRUCTURE)	191 LF 24" HDPE @ 0.50%%
CB-416 TO CB-415	141 LF 18" HDPE @ 0.50%%
CB-417 TO CB-416	74 LF 18" HDPE @ 0.50%%
CB-418 TO CB-417	24 LF 15" HDPE @ 0.50%%
CB-419 TO CB-418	78 LF 18" HDPE @ 0.50%%
CB-420 TO MH-449	103 LF 30" HDPE @ 0.50%%
CB-421 TO MH-450	123 LF 30" HDPE @ 0.50%%
CB-422 TO MH-451	48 LF 30" HDPE @ 0.50%%
CB-423 TO CB-424	24 LF 15" HDPE @ 0.50%%
CB-424 TO CB-425	74 LF 15" HDPE @ 0.50%%
CB-425 TO MH-453	137 LF 18" HDPE @ 0.50%%
CB-426 TO CB-427	24 LF 15" HDPE @ 0.50%%
CB-427 TO MH-453	22 LF 15" HDPE @ 0.50%%
CB-428 TO CB-429	79 LF 24" HDPE @ 0.50%%
CB-429 TO CB-403 (DIVERSION STRUCTURE)	56 LF 24" HDPE @ 0.50%%
CB-501 TO CB-514	32 LF 18" HDPE @ 0.50%%
CB-502 TO CB-516	32 LF 24" HDPE @ 0.50%%
CB-504 TO CB-525	32 LF 18" HDPE @ 0.50%%
CB-505 (DIVERSION STRUCTURE) TO MH-557	8 LF 18" HDPE @ 0.50%%
CB-505 (DIVERSION STRUCTURE) TO MH-558	68 LF 30" HDPE @ 2.25%%
CB-506 (DIVERSION STRUCTURE) TO MH-522B	8 LF 18" HDPE @ 0.50%%
CB-506 (DIVERSION STRUCTURE) TO MH-561	158 LF 24" HDPE @ 0.50%%
CB-507 (DIVERSION STRUCTURE) TO MH-563	108 LF 30" HDPE @ 0.90%%
CB-507 (DIVERSION STRUCTURE) TO MH-564	10 LF 18" HDPE @ 0.50%%
CB-507A TO CB-507 (DIVERSION STRUCTURE)	69 LF 24" HDPE @ 0.50%%
CB-509 TO CB-508	32 LF 18" HDPE @ 0.50%%
CB-510 TO CB-509	15 LF 18" HDPE @ 0.50%%
CB-510 TO MH-541 (DIVERSION STRUCTURE)	9 LF 24" HDPE @ 0.50%%
CB-512 (DIVERSION STRUCTURE) TO MH-538	6 LF 18" HDPE @ 1.00%%
CB-512 (DIVERSION STRUCTURE) TO MH-540	31 LF 36" HDPE @ 0.50%%
CB-513 (DIVERSION STRUCTURE) TO MH-536	6 LF 24" HDPE @ 0.50%%
CB-513 (DIVERSION STRUCTURE) TO MH-537	31 LF 24" HDPE @ 0.50%%
CB-514 TO CB-515	15 LF 18" HDPE @ 0.50%%
CB-515 TO MH-546 (DIVERSION STRUCTURE)	8 LF 24" HDPE @ 0.50%%
CB-516 TO MH-548	15 LF 24" HDPE @ 0.50%%
CB-517 (DIVERSION STRUCTURE) TO MH-547	10 LF 18" HDPE @ 0.50%%
CB-517 (DIVERSION STRUCTURE) TO MH-549	60 LF 30" HDPE @ 3.90%%
CB-518 (DIVERSION STRUCTURE) TO MH-551	85 LF 18" HDPE @ 3.33%%
CB-518 (DIVERSION STRUCTURE) TO MH-551A	10 LF 18" HDPE @ 0.50%%
CB-519 TO HW-502	31 LF 36" HDPE @ 3.00%%
CB-520 TO CB-519	32 LF 18" HDPE @ 0.50%%
CB-521 TO HW-503	45 LF 18" HDPE @ 1.80%%
CB-522 TO CB-521	32 LF 15" HDPE @ 0.50%%
CB-523 TO CB-521	202 LF 15" HDPE @ 0.80%%
CB-524 TO CB-523	32 LF 15" HDPE @ 0.50%%
CB-525 TO MH-554 (DIVERSION STRUCTURE)	21 LF 24" HDPE @ 0.50%%
CB-526 TO CB-527	33 LF 18" HDPE @ 0.50%%
CB-527 TO CB-513 (DIVERSION STRUCTURE)	64 LF 24" HDPE @ 0.50%%
CB-528 TO CB-532	150 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
CB-529 TO CB-528	32 LF 15" HDPE @ 0.50%%
CB-530 TO CB-532	26 LF 15" HDPE @ 0.50%%
CB-531 TO CB-530	32 LF 15" HDPE @ 1.00%%
CB-532 TO CB-320	198 LF 18" HDPE @ 0.50%%
CB-552 TO MH-559A	18 LF 24" HDPE @ 0.50%%
CB-560 TO MH-559	101 LF 48" HDPE @ 0.50%%
CB-562 TO MH-561	28 LF 42" HDPE @ 0.50%%
CB-608 (DIVERSION STRUCTURE) TO MH-477	14 LF 18" HDPE @ 3.00%%
CB-608 (DIVERSION STRUCTURE) TO MH-478	8 LF 18" HDPE @ 3.00%%
CB-629 (DIVSERION STRUCTURE) TO MH-673	10 LF 30" HDPE @ 0.50%%
CB-629 (DIVSERION STRUCTURE) TO MH-674	8 LF 18" HDPE @ 0.50%%
CB-630 (DIVERSION STRUCTURE) TO CB-631	15 LF 18" HDPE @ 0.50%%
CB-630 (DIVERSION STRUCTURE) TO CB-639	14 LF 18" HDPE @ 3.00%%
CB-630 (DIVERSION STRUCTURE) TO MH-631	6 LF 18" HDPE @ 3.00%%
CB-631 TO CB-632	32 LF 18" HDPE @ 0.50%%
CB-634 TO CB-635 (DIVERSION STRUCTURE)	106 LF 24" HDPE @ 0.50%%
CB-635 (DIVERSION STRUCTURE) TO MH-636	6 LF 24" HDPE @ 3.00%%
CB-635 (DIVERSION STRUCTURE) TO MH-639	15 LF 18" HDPE @ 0.60%%
CB-636 TO CB-635 (DIVERSION STRUCTURE)	15 LF 15" HDPE @ 0.50%%
CB-637 TO CB-636	32 LF 15" HDPE @ 0.50%%
CB-700 TO HW-701	83 LF 24" HDPE @ 2.00%%
CB-701 TO CB-700	24 LF 24" HDPE @ 0.50%%
CB-702 TO CB-701	23 LF 18" HDPE @ 0.50%%
CB-703 TO MH-701	110 LF 18" HDPE @ 0.50%%
CB-704 TO CB-703	71 LF 15" HDPE @ 0.50%%
CB-705 TO HW-702	153 LF 18" HDPE @ 0.50%%
CB-706 TO CB-705	20 LF 18" HDPE @ 0.50%%
CB-707 TO CB-700	72 LF 15" HDPE @ 0.50%%
CB-708 TO CB-707	24 LF 15" HDPE @ 0.50%%
CB-800 TO MH-800	167 LF 18" HDPE @ 2.00%%
CB-801 TO CB-800	89 LF 18" HDPE @ 0.50%%
CB-802 TO CB-801	170 LF 15" HDPE @ 0.50%%
CB-803 TO MH-800	154 LF 18" HDPE @ 0.80%%
CB-804 TO CB-803	24 LF 18" HDPE @ 0.50%%
CB-805 TO CB-804	23 LF 15" HDPE @ 1.00%%
CB-BY-1 TO HW-BY-1	248 LF 30" HDPE @ 0.50%%
CB-BY-2 TO CB-BY-1	286 LF 18" HDPE @ 5.00%%
CB-BY-3 TO CB-BY-2	444 LF 18" HDPE @ 2.00%%
CB-BY-4 TO CB-BY-3	221 LF 18" HDPE @ 0.50%%
CO-1A TO CO-1B	121 LF 4" PVC @ 0.50%%
CO-1B TO MH-120	51 LF 4" PVC @ 2.94%%
CO-71A TO CO-71B	91 LF 4" PVC @ 0.50%%
CO-71B TO MH-533	61 LF 4" PVC @ 4.33%%
CO-106A TO CO-106B	119 LF 4" PVC @ 0.50%%
CO-106B TO MH-568	34 LF 4" PVC @ 0.80%%
CO-134A TO CO-134B	69 LF 4" PVC @ 0.50%%
CO-134B TO MH-653	25 LF 4" PVC @ 0.50%%
HW-104 TO CB-3	55 LF 18" RCP @ 3.00%%
MH-33A TO CB-327 (DIVERSION STRUCTURE)	170 LF 38" CONC. @ 0.50%%
MH-103 TO CB-100	90 LF 36" HDPE @ 0.50%%
MH-103A TO MH-103	40 LF 36" HDPE @ 0.50%%
MH-104 TO STREAM CROSSING 1 DIRECT CONNECTION	80 LF 24" HDPE @ 1.50%%
MH-105 (DIVERSION STRUCTURE) TO MH-105A	75 LF 30" HDPE @ 0.50%%
MH-105 (DIVERSION STRUCTURE) TO MH-105B	57 LF 36" HDPE @ 0.50%%
MH-105B TO MH-103A	8 LF 36" HDPE @ 0.50%%
MH-106 TO MH-105 (DIVERSION STRUCTURE)	59 LF 36" HDPE @ 0.50%%
MH-107 TO MH-106	52 LF 30" HDPE @ 0.50%%
MH-108 TO MH-107	52 LF 30" HDPE @ 0.50%%
MH-109 TO MH-108	63 LF 30" HDPE @ 0.50%%
MH-110 TO MH-109	52 LF 24" HDPE @ 0.50%%
MH-111 TO MH-110	52 LF 24" HDPE @ 0.50%%
MH-112 TO MH-111	52 LF 24" HDPE @ 0.50%%
MH-113 TO MH-112	52 LF 24" HDPE @ 0.50%%
MH-114 TO MH-113	52 LF 24" HDPE @ 0.50%%
MH-115 TO MH-114	52 LF 24" HDPE @ 0.50%%
MH-116 TO MH-115	52 LF 18" HDPE @ 0.50%%
MH-117 TO MH-116	52 LF 18" HDPE @ 0.50%%
MH-118 TO MH-117	52 LF 18" HDPE @ 0.50%%
MH-119 TO MH-118	56 LF 18" HDPE @ 0.50%%
MH-120 TO MH-119	54 LF 15" HDPE @ 2.17%%
MH-125 TO MH-126	52 LF 24" HDPE @ 0.50%%
MH-126 TO MH-127	52 LF 30" HDPE @ 0.50%%
MH-127 TO CB-116 (DIVERSION STRUCTURE)	39 LF 24" HDPE @ 0.50%%
MH-128 TO MH-129	52 LF 15" HDPE @ 0.50%%
MH-129 TO MH-130	46 LF 15" HDPE @ 0.50%%
MH-130 TO CB-117 (DIVERSION STRUCTURE)	39 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
MH-131 TO MH-130	58 LF 15" HDPE @ 0.50%%
MH-132 TO MH-133	52 LF 15" HDPE @ 0.50%%
MH-133 TO CB-118 (DIVERSION STRUCTURE)	40 LF 15" HDPE @ 0.50%%
MH-134 TO MH-135	52 LF 24" HDPE @ 0.50%%
MH-135 TO MH-136	23 LF 24" HDPE @ 0.50%%
MH-136 TO CB-119 (DIVERSION STRUCTURE)	39 LF 30" HDPE @ 0.50%%
MH-137 TO MH-136	29 LF 30" HDPE @ 0.50%%
MH-138 TO MH-137	76 LF 24" HDPE @ 0.50%%
MH-140 TO MH-141	112 LF 30" HDPE @ 0.50%%
MH-141 TO MH-142	8 LF 30" HDPE @ 0.50%%
MH-142 TO MH-144	169 LF 42" HDPE @ 0.50%%
MH-144 TO MH-145	144 LF 42" HDPE @ 0.50%%
MH-145 TO MH-146	6 LF 48" HDPE @ 0.50%%
MH-146 TO MH-148	111 LF 48" HDPE @ 0.50%%
MH-148 TO CB-113	110 LF 48" HDPE @ 0.50%%
MH-149 (DIVERSION STRUCTURE) TO MH-150	7 LF 18" HDPE @ 1.00%%
MH-149 (DIVERSION STRUCTURE) TO MH-151	25 LF 15" HDPE @ 0.50%%
MH-151 TO MH-152	109 LF 18" HDPE @ 0.50%%
MH-152 TO MH-153	40 LF 18" HDPE @ 0.50%%
MH-153 TO MH-154	11 LF 24" HDPE @ 0.50%%
MH-154 TO MH-155	192 LF 24" HDPE @ 0.50%%
MH-155 TO MH-156	171 LF 24" HDPE @ 0.50%%
MH-156 TO MH-157	134 LF 24" HDPE @ 0.50%%
MH-157 TO MH-158	15 LF 30" HDPE @ 0.50%%
MH-158 TO HW-201	173 LF 30" HDPE @ 0.50%%
MH-159 (DIVERSION STRUCTURE) TO MH-157	60 LF 30" HDPE @ 1.00%%
MH-159 (DIVERSION STRUCTURE) TO MH-160	7 LF 18" HDPE @ 0.50%%
MH-161 (DVIERSION STRUCTURE) TO HW-204	58 LF 24" HDPE @ 6.50%%
MH-161 TO MH-162	7 LF 18" HDPE @ 0.50%%
MH-300 TO CB-369 (DIVERSION STRUCTURE)	96 LF 24" HDPE @ 0.50%%
MH-301 TO MH-300	107 LF 18" HDPE @ 0.50%%
MH-302 TO MH-301	52 LF 18" HDPE @ 0.50%%
MH-303 TO MH-304	68 LF 18" HDPE @ 0.50%%
MH-304 TO MH-315	50 LF 18" HDPE @ 0.50%%
MH-305 TO CB-311 (DIVERSION STRUCTURE)	230 LF 24" HDPE @ 0.50%%
MH-306 TO MH-305	15 LF 18" HDPE @ 0.50%%
MH-307 TO MH-306	52 LF 18" HDPE @ 0.50%%
MH-308 TO MH-309	52 LF 18" HDPE @ 0.50%%
MH-309 TO MH-310	52 LF 24" HDPE @ 0.50%%
MH-310 TO CB-308 (DIVERSION STRUCTURE)	230 LF 24" HDPE @ 0.50%%
MH-311 TO MH-305	35 LF 18" HDPE @ 0.50%%
MH-312 TO MH-311	53 LF 18" HDPE @ 0.50%%
MH-313 TO MH-312	52 LF 18" HDPE @ 0.50%%
MH-314 TO MH-313	52 LF 18" HDPE @ 0.50%%
MH-315 TO MH-321	43 LF 18" HDPE @ 0.50%%
MH-316 TO MH-310	52 LF 24" HDPE @ 0.50%%
MH-317 TO MH-316	52 LF 24" HDPE @ 0.50%%
MH-318 TO MH-317	52 LF 18" HDPE @ 0.50%%
MH-319 TO MH-318	52 LF 18" HDPE @ 0.50%%
MH-320 TO MH-322	52 LF 18" HDPE @ 0.50%%
MH-321 TO CB-319 (DIVERSION STRUCTURE)	112 LF 24" HDPE @ 0.50%%
MH-322 TO MH-323	52 LF 18" HDPE @ 0.50%%
MH-323 TO MH-324	52 LF 24" HDPE @ 0.50%%
MH-324 TO MH-325A	35 LF 24" HDPE @ 0.50%%
MH-325 TO MH-325A	17 LF 24" HDPE @ 0.50%%
MH-325A TO CB-303 (DIVERSION STRUCTURE)	170 LF 38" CONC. @ 0.50%%
MH-326 TO MH-325	52 LF 24" HDPE @ 0.50%%
MH-327 TO MH-326	52 LF 24" HDPE @ 0.50%%
MH-328 TO MH-327	52 LF 18" HDPE @ 0.50%%
MH-329 TO MH-328	52 LF 18" HDPE @ 0.50%%
MH-330 TO MH-331	52 LF 18" HDPE @ 0.50%%
MH-331 TO MH-332	52 LF 18" HDPE @ 0.50%%
MH-332 TO MH-333	52 LF 24" HDPE @ 0.50%%
MH-333 TO MH-33A	11 LF 24" HDPE @ 0.50%%
MH-334 TO MH-33A	41 LF 24" HDPE @ 0.50%%
MH-335 TO MH-334	52 LF 24" HDPE @ 0.50%%
MH-336 TO MH-335	52 LF 24" HDPE @ 0.50%%
MH-337 TO MH-336	52 LF 24" HDPE @ 0.50%%
MH-338 TO MH-338A	53 LF 24" HDPE @ 0.50%%
MH-338A TO MH-338B	52 LF 24" HDPE @ 0.50%%
MH-338B TO MH-338C	131 LF 24" HDPE @ 0.50%%
MH-338C TO CB-323	145 LF 30" HDPE @ 0.50%%
MH-339 TO MH-338	132 LF 24" HDPE @ 0.50%%
MH-341 TO CB-360	212 LF 18" HDPE @ 0.50%%
MH-342 TO MH-343	52 LF 18" HDPE @ 0.50%%
MH-343 TO MH-344	43 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
MH-344 TO MH-345	52 LF 24" HDPE @ 0.50%%
MH-345 TO MH-337	52 LF 24" HDPE @ 0.50%%
MH-348 TO MH-349	27 LF 18" HDPE @ 0.50%%
MH-349 TO CB-370	62 LF 30" HDPE @ 0.50%%
MH-365 TO HW-309	43 LF 36" HDPE @ 1.80%%
MH-369 TO CB-301	19 LF 18" HDPE @ 0.50%%
MH-372 TO CB-310	22 LF 18" HDPE @ 0.50%%
MH-374 TO CB-324	22 LF 18" HDPE @ 0.50%%
MH-377 TO CB-328	39 LF 18" HDPE @ 0.50%%
MH-400 TO MH-401	169 LF 24" HDPE @ 2.50%%
MH-401 TO MH-402	79 LF 24" HDPE @ 1.50%%
MH-402 TO STREAM CROSSING 2 DIRECT CONNECTION 2	116 LF 24

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
MH-511 TO MH-510	52 LF 24" HDPE @ 0.50%%
MH-512 TO MH-511	52 LF 18" HDPE @ 0.50%%
MH-513 TO MH-512	52 LF 18" HDPE @ 0.50%%
MH-514 TO MH-515	52 LF 18" HDPE @ 0.50%%
MH-515 TO MH-516	52 LF 24" HDPE @ 0.50%%
MH-516 TO MH-516A	44 LF 30" HDPE @ 0.50%%
MH-516A TO CB-505 (DIVERSION STRUCTURE)	170 LF 30" HDPE @ 0.50%%
MH-517 TO MH-516A	8 LF 30" HDPE @ 0.50%%
MH-518 TO MH-517	52 LF 30" HDPE @ 0.50%%
MH-519 TO MH-518	52 LF 24" HDPE @ 0.50%%
MH-520 TO MH-519	52 LF 24" HDPE @ 0.50%%
MH-521 TO MH-520	52 LF 18" HDPE @ 0.50%%
MH-522 TO MH-522A	115 LF 24" HDPE @ 0.80%%
MH-522A TO CB-506 (DIVERSION STRUCTURE)	69 LF 24" HDPE @ 0.50%%
MH-523 TO MH-522	52 LF 24" HDPE @ 0.50%%
MH-523A TO MH-523	52 LF 18" HDPE @ 0.50%%
MH-524 TO MH-500	26 LF 24" HDPE @ 0.50%%
MH-525 TO MH-524	52 LF 24" HDPE @ 0.50%%
MH-526 TO MH-527	52 LF 18" HDPE @ 0.50%%
MH-527 TO MH-527A	25 LF 18" HDPE @ 0.50%%
MH-527A TO CB-512 (DIVERSION STRUCTURE)	170 LF 36" HDPE @ 0.50%%
MH-528 TO MH-527A	27 LF 24" HDPE @ 0.50%%
MH-529 TO MH-528	52 LF 24" HDPE @ 0.50%%
MH-530 TO MH-529	52 LF 24" HDPE @ 0.50%%
MH-531 TO MH-530	52 LF 18" HDPE @ 0.50%%
MH-532 TO MH-531	44 LF 18" HDPE @ 0.50%%
MH-533 TO MH-532	54 LF 18" HDPE @ 0.50%%
MH-535 TO STREAM CROSSING 2 DIRECT CONNECTION 1	159 LF 24" HDPE @ 0.50%%
MH-537 TO MH-539	176 LF 24" HDPE @ 0.50%%
MH-539 TO MH-540	37 LF 24" HDPE @ 0.50%%
MH-540 TO CB-519	92 LF 36" HDPE @ 0.50%%
MH-541 (DIVERSION STRUCTURE) TO MH-542	8 LF 18" HDPE @ 0.50%%
MH-541 (DIVERSION STRUCTURE) TO MH-544	57 LF 30" HDPE @ 2.00%%
MH-543 TO MH-544	28 LF 18" HDPE @ 0.50%%
MH-544 TO HW-501	15 LF 30" HDPE @ 2.00%%
MH-546 (DIVERSION STRUCTURE) TO HW-500	75 LF 24" HDPE @ 1.50%%
MH-546 (DIVERSION STRUCTURE) TO MH-545	9 LF 18" HDPE @ 0.50%%
MH-548 TO CB-517 (DIVERSION STRUCTURE)	12 LF 24" HDPE @ 0.50%%
MH-549 TO HW-504	14 LF 48" HDPE @ 0.50%%
MH-550 TO MH-549	29 LF 48" HDPE @ 0.50%%
MH-551 TO MH-551B	42 LF 48" HDPE @ 0.50%%
MH-551B TO MH-550	145 LF 48" HDPE @ 0.50%%
MH-554 (DIVERSION STRUCTURE) TO MH-554A	30 LF 24" HDPE @ 0.50%%
MH-554 (DIVERSION STRUCTURE) TO MH-555	6 LF 18" HDPE @ 0.50%%
MH-554A TO CB-552	34 LF 24" HDPE @ 0.50%%
MH-556 TO CB-505 (DIVERSION STRUCTURE)	51 LF 24" HDPE @ 0.50%%
MH-558 TO MH-559	79 LF 30" HDPE @ 0.50%%
MH-559 TO MH-559A	114 LF 48" HDPE @ 0.50%%
MH-559A TO MH-551	81 LF 48" HDPE @ 0.50%%
MH-561 TO CB-560	138 LF 48" HDPE @ 0.50%%
MH-563 TO CB-562	122 LF 42" HDPE @ 0.50%%
MH-565 TO CB-507A	136 LF 24" HDPE @ 0.50%%
MH-567 TO MH-565	52 LF 18" HDPE @ 0.50%%
MH-568 TO MH-567	52 LF 18" HDPE @ 0.50%%
MH-613 TO MH-422	5 LF 24" HDPE @ 0.50%%
MH-637 TO CB-634	170 LF 24" HDPE @ 0.50%%
MH-638 TO MH-637	52 LF 24" HDPE @ 0.50%%
MH-640 TO MH-638	52 LF 24" HDPE @ 0.50%%
MH-641 TO MH-640	52 LF 24" HDPE @ 0.50%%
MH-642 TO MH-641	52 LF 24" HDPE @ 0.50%%
MH-643 TO MH-642	52 LF 18" HDPE @ 0.50%%
MH-645 TO MH-643	52 LF 18" HDPE @ 0.50%%
MH-646 TO MH-645	52 LF 18" HDPE @ 0.50%%
MH-647 TO MH-646	52 LF 18" HDPE @ 0.50%%
MH-648 TO MH-647	47 LF 18" HDPE @ 0.50%%
MH-649 TO MH-648	35 LF 18" HDPE @ 0.89%%
MH-651 TO MH-650	158 LF 30" HDPE @ 1.00%%
MH-652 TO MH-651	135 LF 30" HDPE @ 0.50%%
MH-653 TO MH-652	169 LF 30" HDPE @ 0.50%%
MH-654 TO MH-653	89 LF 30" HDPE @ 0.50%%
MH-654A TO MH-654	301 LF 30" HDPE @ 0.50%%
MH-655 TO MH-656	52 LF 18" HDPE @ 0.50%%
MH-655A TO MH-655	52 LF 18" HDPE @ 0.50%%
MH-656 TO MH-657	52 LF 18" HDPE @ 0.50%%
MH-657 TO MH-658	52 LF 18" HDPE @ 0.50%%
MH-658 TO MH-659	52 LF 18" HDPE @ 0.50%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
MH-659 TO MH-660	52 LF 24" HDPE @ 0.50%%
MH-660 TO MH-661	52 LF 24" HDPE @ 0.50%%
MH-661 TO MH-662	43 LF 24" HDPE @ 0.50%%
MH-662 TO CB-629 (DIVSERION STRUCTURE)	59 LF 24" HDPE @ 0.50%%
MH-663 TO MH-662	9 LF 18" HDPE @ 0.50%%
MH-664 TO MH-663	52 LF 18" HDPE @ 0.50%%
MH-672 TO MH-654A	99 LF 30" HDPE @ 0.50%%
MH-673 TO MH-672	14 LF 30" HDPE @ 0.50%%
MH-675 TO MH-673	20 LF 18" HDPE @ 0.50%%
MH-701 TO CB-702	166 LF 18" HDPE @ 0.50%%
MH-800 TO HW-801	78 LF 18" HDPE @ 2.20%%
OCS-1 TO MH-141	26 LF 18" HDPE @ 0.50%%
OCS-2 TO MH-145	35 LF 18" HDPE @ 0.50%%
OCS-3 TO MH-105B	75 LF 18" HDPE @ 0.50%%
OCS-4 TO MH-152	12 LF 18" HDPE @ 0.50%%
OCS-4A TO HW-401	83 LF 24" HDPE @ 3.42%%
OCS-4B TO MH-443	63 LF 24" HDPE @ 0.50%%
OCS-5 TO MH-158	69 LF 18" HDPE @ 0.50%%
OCS-6 TO MH-348	30 LF 18" HDPE @ 0.50%%
OCS-6A TO MH-404	64 LF 24" HDPE @ 1.00%%
OCS-7 TO MH-372	8 LF 18" HDPE @ 0.50%%
OCS-8 TO MH-369	8 LF 18" HDPE @ 0.50%%
OCS-9 TO MH-374	8 LF 18" HDPE @ 0.50%%
OCS-10 TO CB-328	15 LF 18" HDPE @ 5.70%%
OCS-11 TO MH-539	31 LF 18" HDPE @ 0.50%%
OCS-12 TO MH-543	57 LF 18" HDPE @ 0.50%%
OCS-13 TO MH-550	60 LF 18" HDPE @ 1.67%%
OCS-14 TO MH-554A	36 LF 18" HDPE @ 0.50%%
OCS-15 TO CB-562	114 LF 18" HDPE @ 0.50%%
OCS-16 TO MH-481	8 LF 18" HDPE @ 3.00%%
OCS-17 TO MH-463	8 LF 18" HDPE @ 3.00%%
OCS-18 TO MH-444	10 LF 18" HDPE @ 0.50%%
OCS-19 TO MH-418	10 LF 18" HDPE @ 0.50%%
OCS-20 TO MH-675	10 LF 18" HDPE @ 0.50%%
OCS-21 TO MH-632	8 LF 18" HDPE @ 3.00%%
OCS-100 TO HW-100	76 LF 24" HDPE @ 0.96%%
OCS-200 TO MH-104	100 LF 24" HDPE @ 1.00%%
OCS-300A TO HW-300	140 LF 24" RCP @ 5.00%%
OCS-300B TO MH-339	239 LF 24" HDPE @ 0.50%%
OCS-400 TO MH-400	41 LF 24" RCP @ 3.00%%
OCS-500 TO MH-535	99 LF 24" RCP @ 3.00%%
OCS-700 TO HW-700	81 LF 18" RCP @ 5.00%%
OCS-800 TO HW-800	62 LF 18" RCP @ 1.62%%
RL-1 TO MH-120	63 LF 15" HDPE @ 2.00%%
RL-2 TO MH-118	20 LF 15" HDPE @ 2.00%%
RL-3 TO MH-117	20 LF 15" HDPE @ 2.00%%
RL-4 TO MH-116	20 LF 15" HDPE @ 2.00%%
RL-5 TO MH-115	20 LF 15" HDPE @ 2.00%%
RL-6 TO MH-114	20 LF 15" HDPE @ 2.00%%
RL-7 TO MH-113	20 LF 15" HDPE @ 2.00%%
RL-8 TO MH-112	20 LF 15" HDPE @ 2.00%%
RL-9 TO MH-111	20 LF 15" HDPE @ 2.00%%
RL-10 TO MH-110	20 LF 15" HDPE @ 2.00%%
RL-11 TO MH-109	20 LF 15" HDPE @ 2.00%%
RL-12 TO MH-108	20 LF 15" HDPE @ 2.00%%
RL-13 TO MH-107	20 LF 15" HDPE @ 2.00%%
RL-14 TO MH-106	20 LF 15" HDPE @ 2.00%%
RL-15 TO MH-105 (DIVERSION STRUCTURE)	63 LF 15" HDPE @ 2.00%%
RL-17 TO MH-103	63 LF 15" HDPE @ 2.00%%
RL-19 TO MH-138	41 LF 15" HDPE @ 4.92%%
RL-20 TO MH-137	41 LF 15" HDPE @ 2.00%%
RL-21 TO MH-135	41 LF 15" HDPE @ 2.00%%
RL-22 TO MH-134	41 LF 15" HDPE @ 2.00%%
RL-23 TO MH-133	41 LF 15" HDPE @ 2.00%%
RL-24 TO MH-132	41 LF 15" HDPE @ 2.00%%
RL-25 TO MH-131	41 LF 15" HDPE @ 2.00%%
RL-26 TO MH-130	41 LF 15" HDPE @ 2.00%%
RL-27 TO MH-129	41 LF 15" HDPE @ 2.00%%
RL-28 TO MH-128	41 LF 15" HDPE @ 2.00%%
RL-29 TO MH-127	41 LF 15" HDPE @ 2.00%%
RL-30 TO MH-126	41 LF 15" HDPE @ 2.00%%
RL-31 TO MH-125	41 LF 15" HDPE @ 2.00%%
RL-32 TO CB-114	45 LF 15" HDPE @ 2.05%%
RL-33 TO CB-123A	29 LF 15" HDPE @ 2.00%%
RL-35 TO MH-303	20 LF 15" HDPE @ 6.30%%
RL-36 TO MH-302	63 LF 15" HDPE @ 2.00%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
RL-37 TO MH-301	63 LF 15" HDPE @ 2.00%%
RL-38 TO MH-314	20 LF 15" HDPE @ 2.00%%
RL-39 TO MH-313	20 LF 15" HDPE @ 2.00%%
RL-40 TO MH-312	20 LF 15" HDPE @ 2.00%%
RL-41 TO MH-311	20 LF 15" HDPE @ 2.01%%
RL-42 TO MH-306	20 LF 15" HDPE @ 2.00%%
RL-43 TO MH-307	20 LF 15" HDPE @ 0.50%%
RL-44 TO MH-308	20 LF 15" HDPE @ 2.00%%
RL-45 TO MH-309	20 LF 15" HDPE @ 2.00%%
RL-46 TO MH-310	20 LF 15" HDPE @ 2.00%%
RL-47 TO MH-316	20 LF 15" HDPE @ 2.00%%
RL-48 TO MH-317	20 LF 15" HDPE @ 2.00%%
RL-49 TO MH-318	20 LF 15" HDPE @ 2.00%%
RL-50 TO MH-319	20 LF 15" HDPE @ 2.00%%
RL-51 TO MH-320	20 LF 15" HDPE @ 2.00%%
RL-52 TO MH-322	20 LF 15" HDPE @ 2.00%%
RL-53 TO MH-323	20 LF 15" HDPE @ 2.00%%
RL-54 TO MH-324	20 LF 15" HDPE @ 2.00%%
RL-55 TO MH-325	20 LF 15" HDPE @ 2.00%%
RL-56 TO MH-326	20 LF 15" HDPE @ 2.00%%
RL-57 TO MH-327	20 LF 15" HDPE @ 2.00%%
RL-58 TO MH-328	20 LF 15" HDPE @ 2.00%%
RL-59 TO MH-329	20 LF 15" HDPE @ 2.00%%
RL-60 TO MH-330	20 LF 15" HDPE @ 2.00%%
RL-61 TO MH-331	20 LF 15" HDPE @ 2.00%%
RL-62 TO MH-332	20 LF 15" HDPE @ 2.00%%
RL-63 TO MH-333	20 LF 15" HDPE @ 2.00%%
RL-64 TO MH-334	20 LF 15" HDPE @ 2.00%%
RL-65 TO MH-335	20 LF 15" HDPE @ 2.00%%
RL-66 TO MH-336	20 LF 15" HDPE @ 2.00%%
RL-67 TO MH-337	20 LF 15" HDPE @ 2.00%%
RL-68 TO MH-345	20 LF 15" HDPE @ 2.00%%
RL-69 TO MH-344	20 LF 15" HDPE @ 2.00%%
RL-70 TO MH-342	63 LF 15" HDPE @ 2.00%%
RL-71 TO MH-533	63 LF 15" HDPE @ 2.00%%
RL-72 TO MH-531	20 LF 15" HDPE @ 2.00%%
RL-73 TO MH-530	20 LF 15" HDPE @ 2.00%%
RL-74 TO MH-529	20 LF 15" HDPE @ 2.00%%
RL-75 TO MH-528	20 LF 15" HDPE @ 2.00%%
RL-76 TO MH-527	20 LF 15" HDPE @ 2.00%%
RL-77 TO MH-526	20 LF 15" HDPE @ 2.00%%
RL-78 TO MH-525	20 LF 15" HDPE @ 2.00%%
RL-79 TO MH-524	20 LF 15" HDPE @ 2.00%%
RL-80 TO MH-501	20 LF 15" HDPE @ 2.00%%
RL-81 TO MH-502	20 LF 15" HDPE @ 2.00%%
RL-82 TO MH-503	20 LF 15" HDPE @ 2.00%%
RL-83 TO MH-504	20 LF 15" HDPE @ 2.00%%
RL-84 TO MH-505	20 LF 15" HDPE @ 2.00%%
RL-85 TO MH-506	20 LF 15" HDPE @ 2.00%%
RL-86 TO MH-507	20 LF 15" HDPE @ 2.00%%
RL-87 TO MH-508	20 LF 15" HDPE @ 2.00%%
RL-88 TO MH-509	20 LF 15" HDPE @ 2.00%%
RL-89 TO MH-510	20 LF 15" HDPE @ 2.00%%
RL-90 TO MH-511	20 LF 15" HDPE @ 2.00%%
RL-91 TO MH-512	20 LF 15" HDPE @ 2.00%%
RL-92 TO MH-513	20 LF 15" HDPE @ 2.00%%
RL-93 TO MH-514	20 LF 15" HDPE @ 2.00%%
RL-94 TO MH-515	20 LF 15" HDPE @ 2.00%%
RL-95 TO MH-516	20 LF 15" HDPE @ 2.00%%
RL-96 TO MH-517	20 LF 15" HDPE @ 2.00%%
RL-97 TO MH-518	20 LF 15" HDPE @ 2.00%%
RL-98 TO MH-519	20 LF 15" HDPE @ 2.00%%
RL-99 TO MH-520	20 LF 15" HDPE @ 2.00%%
RL-100 TO MH-521	20 LF 15" HDPE @ 2.00%%
RL-101 TO MH-522	20 LF 15" HDPE @ 2.00%%
RL-102 TO MH-523	20 LF 15" HDPE @ 2.00%%
RL-103 TO MH-523A	20 LF 15" HDPE @ 2.00%%
RL-104 TO MH-565	20 LF 15" HDPE @ 3.90%%
RL-105 TO MH-567	20 LF 15" HDPE @ 2.00%%
RL-106 TO MH-568	20 LF 15" HDPE @ 2.00%%
RL-107 TO MH-649	64 LF 15" HDPE @ 2.00%%
RL-108 TO MH-647	20 LF 15" HDPE @ 2.00%%
RL-109 TO MH-646	20 LF 15" HDPE @ 2.00%%
RL-110 TO MH-645	20 LF 15" HDPE @ 2.00%%
RL-111 TO MH-643	20 LF 15" HDPE @ 2.00%%
RL-112 TO MH-642	20 LF 15" HDPE @ 2.00%%

PROPOSED STORM PIPES	
PIPE ID	PIPE DETAILS
RL-113 TO MH-641	20 LF 15" HDPE @ 2.00%%
RL-114 TO MH-640	20 LF 15" HDPE @ 2.00%%
RL-115 TO MH-638	20 LF 15" HDPE @ 2.00%%
RL-116 TO MH-637	20 LF 15" HDPE @ 2.00%%
RL-117 TO MH-464	20 LF 15" HDPE @ 2.00%%
RL-118 TO MH-465	20 LF 15" HDPE @ 2.00%%
RL-119 TO MH-466	20 LF 15" HDPE @ 2.00%%
RL-120 TO MH-467	20 LF 15" HDPE @ 2.00%%
RL-121 TO MH-468	20 LF 15" HDPE @ 2.00%%
RL-122 TO MH-469	20 LF 15" HDPE @ 2.00%%
RL-123 TO MH-471	20 LF 15" HDPE @ 2.00%%
RL-124 TO MH-472	20 LF 15" HDPE @ 2.00%%
RL-125 TO MH-473	20 LF 15" HDPE @ 2.00%%
RL-126 TO MH-474	20 LF 15" HDPE @ 2.00%%
RL-127 TO MH-475	20 LF 15" HDPE @ 2.00%%
RL-128 TO MH-476	20 LF 15" HDPE @ 2.00%%
RL-129 TO MH-460	20 LF 15" HDPE @ 2.00%%
RL-130 TO MH-459	20 LF 15" HDPE @ 2.00%%
RL-131 TO MH-457	20 LF 15" HDPE @ 2.00%%
RL-132 TO MH-456	20 LF 15" HDPE @ 2.00%%
RL-133 TO MH-455	63 LF 15" HDPE @ 2.00%%
RL-134 TO MH-655 A	20 LF 15" HDPE @ 4.00%%
RL-135 TO MH-655	20 LF 15" HDPE @ 4.00%%
RL-136 TO MH-656	20 LF 15" HDPE @ 4.00%%
RL-137 TO MH-657	20 LF 15" HDPE @ 4.00%%
RL-138 TO MH-658	20 LF 15" HDPE @ 4.00%%
RL-139 TO MH-659	20 LF 15" HDPE @ 4.00%%
RL-140 TO MH-660	20 LF 15" HDPE @ 4.00%%
RL-141 TO MH-661	20 LF 15" HDPE @ 4.00%%
RL-142 TO MH-663	20 LF 15" HDPE @ 4.00%%
RL-143 TO MH-664	20 LF 15" HDPE @ 4.00%%
RL-144 TO MH-410	20 LF 15" HDPE @ 4.00%%
RL-145 TO MH-411	20 LF 15" HDPE @ 4.00%%
RL-146 TO MH-415	20 LF 15" HDPE @ 4.00%%
RL-147 TO MH-414	20 LF 15" HDPE @ 4.00%%
RL-148 TO MH-413	20 LF 15" HDPE @ 4.00%%
RL-149 TO MH-421	20 LF 15" HDPE @ 4.00%%
RL-150 TO MH-613	20 LF 15" HDPE @ 4.00%%
RL-151 TO MH-423	20 LF 15" HDPE @ 4.00%%
RL-152 TO MH-424	20 LF 15" HDPE @ 4.00%%
RL-153 TO MH-425	20 LF 15" HDPE @ 4.00%%
RL-154 TO MH-428	20 LF 15" HDPE @ 4.00%%
RL-155 TO MH-429	20 LF 15" HDPE @ 4.00%%
RL-156 TO MH-430	20 LF 15" HDPE @ 4.00%%
RL-157 TO MH-431	20 LF 15" HDPE @ 4.00%%
RL-158 TO MH-432	20 LF 15" HDPE @ 4.00%%
RL-159 TO MH-433	20 LF 15" HDPE @ 4.00%%
RL-160 TO MH-434	20 LF 15" HDPE @ 4.00%%

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES 074526 ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE PIPE TABLES

Project No. 200164401
Date 8/12/2024
Drawn By MR
Checked By SMH

Drawing No. CG-407
Sheet 81 of 128

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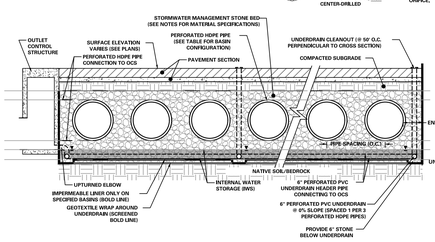
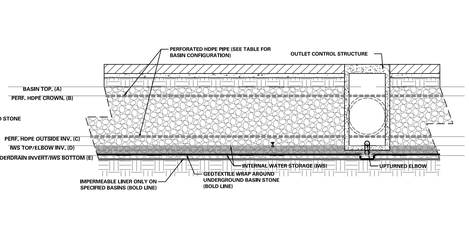
NOTES:
1. DETAIL ADAPTED FROM VERSION 1.1 OF "MANAGED RELEASE CONCEPT" PUBLISHED BY PA DEP ON MAY 15, 2015.
2. REFER TO "SCM OPERATION AND MAINTENANCE PLAN" FOR MANAGED RELEASE BASIN OPERATION AND MAINTENANCE SCHEDULE.





MRC UNDERDRAIN CAP:

THE ORIFICE SHOULD BE CLEAN, SMOOTH AND SANDED SO THAT NO BURS OR IRREGULARITIES ARE PRESENT. THE ORIFICE SHOULD BE ON A PLATE OR CAP OF SUFFICIENT THICKNESS, AND THE EDGES OF THE ORIFICE SHOULD BE GROUND SO THAT FLOW THROUGH THE ORIFICE IS SMOOTH. ORIFICES SHOULD BE VERTICAL. THE ORIFICE PLATE AND OTHER CONNECTIONS SHOULD BE WATER-TIGHT AND ACCESSIBLE FOR MAINTENANCE. CONTROL VALVES CANNOT BE SUBSTITUTED FOR AN ORIFICE.



SCM #	STORAGE SYSTEM TYPE	A	B	C	D	E	PIPE DIA. (IN)	PIPE LENGTH/ROW (FT)	NO. ROWS	PIPE SPACING (O.C.) (IN)	END STONE (IN)	ENCASEMENT DEPTH (A-B AND C-D) (IN)	IWS DEPTH (D-E) (FT)	IMPERMEABLE LINER? (Y/N)
MRC BASIN 1 (SCM ID #1)	ADS N-12 30"	464.60	464.10	461.10	460.60	459.60	30	106	11	53.1	18	6	1.00	Y
MRC BASIN 2 (SCM ID #2)	ADS N-12 30"	465.60	465.10	462.10	461.60	459.10	30	136	9	53.1	18	6	2.50	N
MRC BASIN 3 (SCM ID#3)	ADS N-12 30"	457.50	457.00	454.00	453.50	452.50	30	136	12	53.1	18	6	1.00	Y
MRC BASIN 4 (SCM ID#5)	ADS N-12 24"	462.90	462.56	460.23	459.90	458.90	24	135	4	41.4	10	4	1.00	Y
MRC BASIN 5 (SCM ID#6)	ADS N-12 30"	460.25	459.75	456.75	456.25	453.00	30	375	3	53.1	18	6	3.25	N
MRC BASIN 6 (SCM ID#8)	ADS N-12 30"	428.50	428.00	425.00	424.50	421.75	30	215	5	53.1	18	6	2.75	N
MRC BASIN 7 (SCM ID#9)	ADS N-12 30"	430.25	429.75	426.75	426.25	423.50	30	175	10	53.1	18	6	2.75	N
MRC BASIN 8 (SCM ID#10)	ADS N-12 30"	430.75	430.25	427.25	426.75	424.00	30	175	10	53.1	18	6	2.75	N
MRC BASIN 9 (SCM ID#11)	ADS N-12 30"	431.00	430.50	427.50	427.00	426.00	30	200	10	53.1	18	6	1.00	Y
MRC BASIN 10 (SCM ID#12)	ADS N-12 30"	431.00	430.50	427.50	427.00	426.00	30	245	8	53.1	18	6	1.00	Y
MRC BASIN 11 (SCM ID#15)	ADS N-12 30"	427.00	426.50	423.50	423.00	420.25	30	202	8	53.1	18	6	2.75	N
MRC BASIN 12 (SCM ID#16)	ADS N-12 30"	430.20	429.70	426.70	426.20	423.20	30	197	8	53.1	18	6	3.00	N
MRC BASIN 13 (SCM ID#17)	ADS N-12 30"	430.10	429.60	426.60	426.10	423.10	30	197	8	53.1	18	6	3.00	N
MRC BASIN 14 (SCM ID#18)	ADS N-12 30"	430.50	430.00	427.00	426.50	423.75	30	90	18	53.1	18	6	2.75	N
MRC BASIN 15 (SCM ID#19)	ADS N-12 30"	431.25	431.00	428.00	427.50	424.50	30	125	10	53.1	18	6	3.00	N
MRC BASIN 16 (SCM ID#21)	ADS N-12 30"	431.06	430.56	427.56	427.06	426.06	30	200	9	53.1	18	6	1.00	Y
MRC BASIN 17 (SCM ID#22)	ADS N-12 30"	431.40	430.90	427.90	427.40	424.65	30	170	9	53.1	18	6	2.75	N
MRC BASIN 18 (SCM ID#23)	ADS N-12 30"	437.25	436.75	433.75	433.25	430.50	30	199	5	53.1	18	6	2.75	N
MRC BASIN 19 (SCM ID#24)	ADS N-12 30"	438.75	438.25	435.25	434.75	431.75	30	199	4	53.1	18	6	3.00	N
MRC BASIN 20 (SCM ID#28)	ADS N-12 30"	437.90	437.40	434.40	433.90	431.15	30	97	8	53.1	18	6	2.75	N
MRC BASIN 21 (SCM ID#29)	ADS N-12 30"	430.90	430.40	427.40	426.90	423.90	30	200	7	53.1	18	6	3.00	N

PLEASE SEE SCM-SPECIFIC NOTES ON CG-502 FOR ADDITIONAL INFORMATION

UNDERGROUND BASIN NOTES:

1. STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO #3 PER AASHTO SPECIFICATIONS, PART I, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/ CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.
3. THE MANUFACTURER'S STORMWATER SYSTEM SHALL MEET ALL APPLICABLE DESIGN STANDARDS - ASTM F2787 AND AASHTO LRFD FOR BRIDGE DESIGN SPECS FOR THERMOPLASTIC PIPE.
4. REFERENCE STANDARDS FOR CREEP TESTING OF PLASTIC STORMWATER STRUCTURES SHALL INCLUDE ASTM D2990, ASTM D6992 AND ASTM D7361.

NOT TO SCALE

TYPICAL MANAGED RELEASE CONCEPT (MRC) STORAGE SYSTEM BASIN CROSS SECTIONS (SCM ID#1-3,5-6, 8-12, 15-19, 21-24, 28-29)

(NOT TO SCALE)

SCM #	STORAGE SYSTEM TYPE	A	B	C	D	PIPE DIA. (IN)	PIPE LENGTH/ROW (FT)	NO. ROWS	PIPE SPACING (O.C.) (IN)	END STONE (IN)	ENCASEMENT DEPTH (A-B AND C-D) (IN)
DETENTION BASIN 4A AREA 1 (SCM ID#25)	ADS N-12 60"	431.08	430.58	425.00	424.50	60	767	6	90	18	6
DETENTION BASIN 4A AREA 2 (SCM ID#25)	ADS N-12 60"	431.08	430.58	425.00	424.50	60	236	5	90	18	6
DETENTION BASIN 4A AREA 3 (SCM ID#25)	ADS N-12 60"	431.08	430.58	425.00	424.50	60	67	5	90	18	6
DETENTION BASIN 4A AREA 4 (SCM ID#25)	ADS N-12 60"	431.08	430.58	425.00	424.50	60	53	5	90	18	6
DETENTION BASIN 4B (SCM ID#26)	ADS N-12 60"	434.83	434.33	428.75	428.25	60	172	16	90	18	6
DETENTION BASIN 6 AREA 1 (SCM ID#30)	ADS N-12 60"	429.58	429.08	423.50	423.00	60	438	5	90	18	6
DETENTION BASIN 6 AREA 2 (SCM ID#30)	ADS N-12 60"	429.58	429.08	423.50	423.00	60	113	4	90	18	6
DETENTION BASIN 6 AREA 3 (SCM ID#30)	ADS N-12 60"	429.58	429.08	423.50	423.00	60	109	4	90	18	6

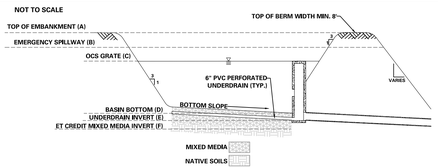
UNDERGROUND BASIN NOTES:

1. STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO #3 PER AASHTO SPECIFICATIONS, PART I, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/ CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.
3. THE MANUFACTURER'S STORMWATER SYSTEM SHALL MEET ALL APPLICABLE DESIGN STANDARDS - ASTM F2787 AND AASHTO LRFD FOR BRIDGE DESIGN SPECS FOR THERMOPLASTIC PIPE.
4. REFERENCE STANDARDS FOR CREEP TESTING OF PLASTIC STORMWATER STRUCTURES SHALL INCLUDE ASTM D2990, ASTM D6992 AND ASTM D7361.

PLEASE SEE SCM-SPECIFIC NOTES ON CG-502 FOR ADDITIONAL INFORMATION

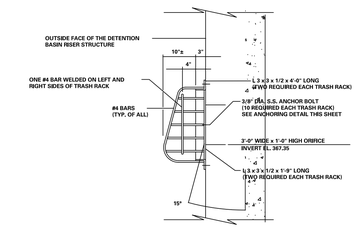
NOT TO SCALE

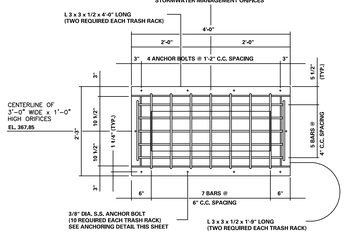
SUBSURFACE DETENTION BASIN CROSS SECTION (SCM ID# 25, 26, 30)



SCM #	A	B	C	D	E	F	A-B FREEBOARD (FT)	B-C FREEBOARD (FT)	ET MEDIA DEPTH (E-F) (FT)	BOTTOM SLOPE (%)
DETENTION BASIN 1 (SCM ID#4)	457.70	455.50	454.50	449.00	448.50	447.50	2.20	1.00	1.00	0.50
DETENTION BASIN 2 (SCM ID#7)	459.00	456.50	454.00	449.70	449.20	448.20	2.50	2.50	1.00	1.00
DETENTION BASIN 3A (SCM ID#13)	426.00	425.00	424.50	417.00	416.00	415.00	1.50	0.50	1.00	0.50
DETENTION BASIN 3B (SCM ID#14)	442.00	440.25	433.70	426.75	N/A	425.75	1.75	6.55	1.00	2.00
DETENTION BASIN 4C (SCM ID#27)	431.20	429.70	429.20	421.00	420.00	419.00	1.5	0.5	1	1.00
DETENTION BASIN 5 (SCM ID#20)	430.00	427.50	426.00	420.00	419.00	418.00	2.5	1.5	1	0.50
DETENTION BASIN 7 (SCM ID#31)	417.00	415.50	415.00	410.00	N/A	N/A	1.5	0.5	N/A	1.00
DETENTION BASIN 8 (SCM ID#32)	417.00	415.50	415.00	410.00	N/A	N/A	1.5	0.5	N/A	1.00

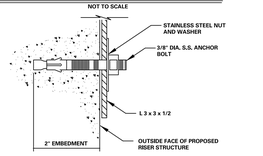
SURFACE DETENTION BASIN CROSS SECTION (SCM ID# 4, 7, 13, 14, 20, 27, 31, 32)





DETENTION BASIN TRASH RACK DETAIL

NOT TO SCALE



ANCHOR BOLT DETAIL FOR TRASH RACK

NOT TO SCALE

TRASH RACK NOTES:

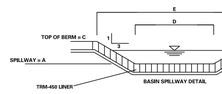
TRASH RACK TO BE GALVANIZED. WELDING AND DRILLING OF BOLT HOLES TO BE PERFORMED PRIOR TO GALVANIZING.

PROVIDE STAINLESS STEEL ANCHOR BOLTS AND LOCK WASHERS.

THREE TRASH RACKS REQUIRED. PROVIDE ONE TRASH RACK OVER EACH OF THE THREE UPPER 3'-0" WIDE x 1'-0" HIGH ORIFICES.

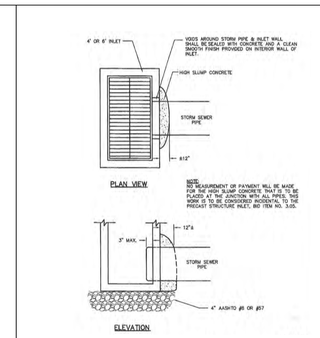
TRASH RACK DETAILS

NOTE:
1. BASIN OUTLET PIPES SHALL BE "O" RING REINFORCED CONCRETE PIPE WITH WATER TIGHT JOINTS.
2. BASIN BERM TO BE PLACED IN 6 INCH LIFTS AND COMPACTED TO 95% OF MODIFIED DRY DENSITY AS ESTABLISHED BY ASTMD-1557 PRIOR TO PROCEEDING TO THE NEXT LIFT.



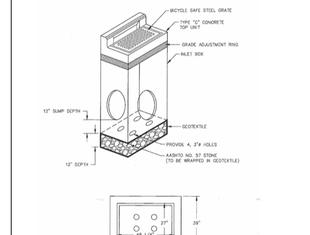
SCM #	A (FT)	B (FT)	C (FT)	D (FT)	E (FT)
DETENTION BASIN 1 (SCM ID#4)	455.50	456.50	457.70	105.00	118.20
DETENTION BASIN 2 (SCM ID#7)	456.50	457.00	459.00	105.00	120.00
DETENTION BASIN 3A (SCM ID#13)	425.00	425.50	426.50	275.00	284.00
DETENTION BASIN 3B (SCM ID#14)	440.25	441.00	442.00	90.00	100.50
DETENTION BASIN 4C (SCM ID#27)	429.70	430.20	431.20	50.00	59.00
DETENTION BASIN 5 (SCM ID#20)	427.50	428.50	430.00	105.00	120.00
DETENTION BASIN 7 (SCM ID# 31)	415.50	416.00	417.00	25.00	34.00
DETENTION BASIN 8 (SCM ID# 32)	415.50	416.00	417.00	25.00	34.00

EMERGENCY SPILLWAY



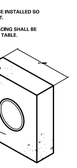
NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP INLET/STORM PIPE INSTALLATION

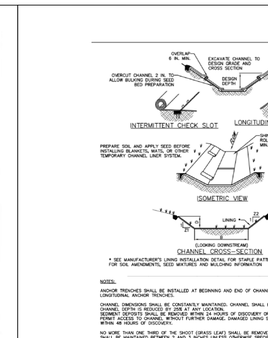


NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP WATER QUALITY INLET (SCM ID# 33)



ANTI-SEEP COLLAR



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL DEPTH BECOMES 1.5 TIMES THE DESIGN DEPTH OR GREATER.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

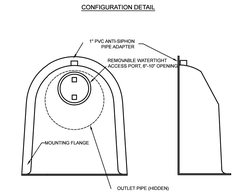
NO MORE THAN ONE THIRD OF THE TOTAL GRASS LEAFY SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED AT 4 TO 6 INCHES. ALL CLIPPINGS AND OTHER DEBRIS FROM VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

CHANNEL NO.	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINED CONDITION	VEGETATED CONDITION
SWALE 1	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 2	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 3A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 3B	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 4A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 4B	1.00	1.50	16.00	5.00	5.00	TRM-450	VEGETATED (WITH TRM-450)
SWALE 4C	1.00	1.50	17.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 5A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 5B	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 6	1.00	1.50	10.00	3.00	3.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 7A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 7B	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 7C	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 8A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 8B	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 8C	1.00	1.50	16.00	5.00	5.00	TRM-450	VEGETATED (WITH TRM-450)
SWALE 9A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 9B	1.00	1.50	16.00	5.00	5.00	TRM-450	VEGETATED (WITH TRM-450)
SWALE 9C	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 10A	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 10B	1.00	1.50	16.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 11A	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 11B	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 11C	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 12A	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 12B	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)
SWALE 12C	3.00	3.00	21.00	5.00	5.00	STRAW WITH NET	VEGETATED (REF. C)

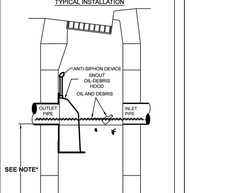
VEGETATED CHANNEL DETAIL

CONFIGURATION DETAIL



SNOUT OIL-WATER-DEBRIS SEPARATOR

TYPICAL INSTALLATION



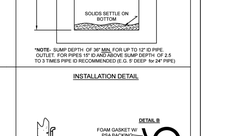
*NOTE: SUMP DEPTH OF 36" MIN. FOR UP TO 12" Ø PIPE OUTLET. FOR PIPES 18"-Ø AND ABOVE SUMP DEPTH OF 2.5 TO 3 TIMES PIPE Ø RECOMMENDED (I.E. 5.5' DEEP for 24" PIPE)

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
9 MATTHEWS DRIVE, UNIT A1-A2
EAST HADDAM, CT 06423
TOLL FREE: (800) 504-7238 OR (888) 434-0277, FAX: (877) 434-3197
WEB SITE: www.bmpinc.com
OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH ¾" STAINLESS STEEL BOLTS AND CR-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. PRE-CUT GASKET OF CLOSED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6126817, 7951294, 7857966, 8512556
Canada Patent # 2265146, 2690156, 2690156 others pending

INSTALLATION DETAIL



INSTALLATION NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A MINIMUM DISTANCE OF ½ PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/18	NONE
	DRAWING NUMBER	SP-SN

SNOUT DETAIL (SCM ID# 33)

NOTES:
1. ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY BY MANUFACTURER.
2. STRUCTURE SHALL BE DESIGNED TO MEET H-20 LOADING.
3. ALL JOINTS SHALL BE WATERTIGHT.
4. ALL REINFORCED CONCRETE SHALL BE CLASS A, 4000 PSI.
5. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
6. ALL CONCRETE SHALL BE POURED AGAINST UNDISTURBED SOIL.
7. ALL CONCRETE SHALL BE CURED WITH AN APPROVED CURING COMPOUND.
8. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFER

SCM SPECIFIC MAINTENANCE PLAN

- **AN ANNUAL REPORT SHALL BE SUBMITTED TO THE TOWNSHIP STATING THE FOLLOWING MAINTENANCE HAS BEEN PERFORMED. THE PCSM PLAN, INSPECTION REPORTS, AND MONITORING RECORDS MUST BE AVAILABLE FOR REVIEW AND INSPECTION BY THE PADEP OR CONSERVATION DISTRICT.**
- **BULL CANAL OVER OWNER, LLC IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER CONVEYANCE SYSTEM, AND ALL OTHER PROPOSED SCM'S AS THE PROPERTY OWNER.**
- **MAINTENANCE AND ACCESS EASEMENTS ON NEIGHBORING PROPERTIES SHALL BE COORDINATED IN ASSOCIATION WITH THIS PROJECT.**
- **SEDIMENT REMOVED FROM SCMS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES. APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SCMs) ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT APPROVAL OF THE LOCAL MUNICIPALITY AND LOCAL CONSERVATION DISTRICT.**

STORMWATER CONVEYANCE SYSTEM/CATCH BASINS

- **CATCH BASINS, MANHOLES AND PIPES TO BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST TWICE ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1-INCH OF RAINFALL**
- **ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION AT LEAST TWICE ANNUALLY.**

WATER QUALITY INLETS W/SNOUT (SCM ID# 33)

- **WATER QUALITY INLETS ARE INTENDED TO ACT AS PRE-TREATMENT FOR THE PROPOSED MANAGED RELEASE CONCEPT (MRC) STORAGE SYSTEM SCM'S.**
- **MONTHLY MONITORING FOR THE FIRST YEAR OF A NEW INSTALLATION AFTER THE SITE HAS BEEN STABILIZED.**
- **MEASUREMENTS SHALL BE TAKEN AFTER EACH RAIN EVENT OF 0.5 INCH OR MORE, OR MONTHLY, AS DETERMINED BY LOCAL WEATHER CONDITIONS.**
- **CHECKING SEDIMENT DEPTH AND NOTING THE SURFACE POLLUTANTS IN THE STRUCTURE WILL BE HELPFUL IN PLANNING MAINTENANCE. THE POLLUTANTS COLLECTED IN SNOUT EQUIPPED STRUCTURES WILL CONSIST OF FLOATABLE DEBRIS AND OILS ON THE SURFACE OF THE CAPTURED WATER AND, GRIT AND SEDIMENT ON THE BOTTOM OF THE STRUCTURE.**
- **IT IS BEST TO SCHEDULE MAINTENANCE BASED ON THE SOLIDS COLLECTED IN THE SUMP. OPTIMALLY, THE STRUCTURE SHOULD BE CLEANED WHEN THE SUMP IS HALF FULL!**
- **STRUCTURE SHOULD ALSO BE CLEANED IF A SPILL OR OTHER INCIDENT CAUSES A LARGER THAN NORMAL ACCUMULATION OF POLLUTANTS IN A STRUCTURE.**
- **MAINTENANCE SHALL BE DONE WITH A VACUUM TRUCK.**
- **ALL COLLECTED WASTES MUST BE HANDLED AND DISPOSED OFF ACCORDING TO LOCAL ENVIRONMENTAL REQUIREMENTS. AN ANNUAL INSPECTION OF THE ANTI-SIPHON VENT AND ACCESS HATCH ARE RECOMMENDED TO MAINTAIN SNOUT HOODS. A SIMPLE FLUSHING OF THE VENT, OR GENTLE RODDING WITH A FLEXIBLE WIRE ARE SIMPLE ALTERNATIVES TO MAINTAIN THE ANTI-SIPHON PROPERTIES. OPENING AND CLOSING THE ACCESS HATCH ONCE A YEAR WILL ENSURE A BETTER PERFORMANCE AND DURABILITY OF THE SCM.**

STREET SWEEPING (SCM ID# 34)

- **STREET SWEEPING IS INTENDED TO ACT AS PRE-TREATMENT FOR THE PROPOSED MANAGED RELEASE CONCEPT (MRC) STORAGE SYSTEM SCM'S.**
- **STREET SWEEPING SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.**
- **STREET SWEEPING SHALL BE PERFORMED ON ALL PAVED VEHICULAR SURFACES, INCLUDING DRIVEWAYS, PARKING LOT AREAS, TRAILER PARKING AREAS AND CIRCULATION DRIVE AISLES.**
- **AT MINIMUM, STREET SWEEPING SHALL BE PERFORMED ON A QUARTERLY BASIS.**
- **A COMMERCIAL VACUUM CLEANING UNIT SHALL BE USED.**

SURFACE/VEGETATED DETENTION BASIN (SCM ID# 4, 7, 13, 14, 20, 27, 31, 32)

1. **WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED.**
2. **PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.**
3. **MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE REMOVED FROM THE BASIN. VEGETATED AREAS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY FOR EROSION. VEGETATED AREAS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REPLANTED.**
4. **TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH.**
5. **VEHICLES SHOULD NOT BE PARKED OR DRIVEN WITHIN THE BASIN.**
6. **INSPECT THE BASIN AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITOES SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG PERIOD OF STANDING WATER TO REPRODUCE.**
7. **ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, SIGNS OF WATER CONTAMINATION/SPILLS AND SLOPE STABILITY IN BERMS.**
8. **REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN BASIN IS COMPLETELY DRY. RESTORE ORIGINAL CROSS SECTION AND DISPOSE OF SEDIMENT IN ACCORDANCE WITH APPLICABLE REGULATIONS. DISTURBED AREAS RESULTING FROM SEDIMENT REMOVAL NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED.**
9. **ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR, AS WELL AS AFTER EVERY RUNOFF EVENT GREATER THAN 1 INCH. STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLET STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.**

UNDERGROUND DETENTION BASIN (SCM ID# 25, 26, 30)

1. **CATCH BASINS, MANHOLES AND PIPES TO BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST TWICE ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1-INCH OF RAINFALL**
2. **THE OUTLET CONTROL STRUCTURE AND ASSOCIATED WEIR SHALL BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST TWICE ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1-IN OF RAINFALL**
3. **ENSURE THAT RUNOFF DRAINS DOWN WITHIN 7 DAYS FOLLOWING ALL STORM EVENTS EXCEEDING 1-INCH OF RAINFALL. IF DRAW DOWN TIMES ARE EXCEEDING 7 DAYS, DRAIN THE SUBSURFACE BASIN VIA PUMPING THROUGH A SEDIMENT FILTER BAG AND CLEAN OUT PERFORATED PIPING. IF SLOW DRAINAGE PERSISTS, THE SYSTEM MAY NEED REPLACING.**
4. **ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION AT LEAST TWICE ANNUALLY.**
5. **SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN ALL RUNOFF HAS DRAINED AND THE BASIN IS REASONABLY DRY.**
6. **THE CONDITION OF THE SURROUNDING AREAS SHOULD BE INSPECTED FOR EVIDENCE OF FAILURES OR DETERIORATION OF THE UNDERGROUND SYSTEM.**

UNDERGROUND MANAGED RELEASE CONCEPT BASIN (SCM ID#1-3,5-8, 8-12, 15-19, 21-24, 28-29)

IN ADDITION TO THE MAINTENANCE STANDARDS FOR UNDERGROUND DETENTION SYSTEMS OUTLINED ABOVE, THE FOLLOWING ADDITIONAL MAINTENANCE MEASURES SHALL APPLY TO UNDERGROUND MANAGED RELEASE CONCEPT BASINS:

1. **THE VEGETATION FOR THE CONTRIBUTING DRAINAGE AREA SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED.**
2. **INSPECT AT LEAST TWO TIMES PER YEAR AFTER RUNOFF EVENTS GREATER THAN 1-INCH AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 7 DAYS.**
3. **IF DRAW DOWN TIMES ARE EXCEEDING 7 DAYS, DRAIN THE SUBSURFACE BASIN VIA PUMPING THROUGH A SEDIMENT FILTER BAG AND CLEAN OUT PERFORATED PIPING. SIMILARLY, DEWATERING AND CLEAN OUT THE UNDERDRAIN PIPING, IF SLOW DRAINAGE PERSISTS, THE SYSTEM AY NEED REPLACING.**
4. **AT LEAST TWO TIMES PER YEAR, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION, SIGNS OF WATER CONTAMINATION/SPILLS, AND INSTABILITY. LEAF LITTER NEEDS TO BE REMOVED ANNUALLY.**
5. **ALL MRC SCM COMPONENTS SHOULD BE MAINTAINED AS INDICATED IN THE STORMWATER SCM MANUAL.**

VEGETATED SWALES

MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (> 1 INCH RAINFALL DEPTH):

- **MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN LOCAL COMPOSTING FACILITY;**
- **MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.**
- **INSPECT FOR LITTER, REMOVE PRIOR TO MOWING.**

VEGETATED SWALES

- **INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (WHEN >3 INCHES AT ANY SPOT COVERS VEGETATION).**
- **INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS AND GULLIES, CORRECT AS NEEDED.**
- **INSPECT FOR POOLS OF STANDING WATER. DEWATER AND DISCHARGE TO A STORM SEWER AT AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.**
- **INSPECT FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.**
- **INSPECT SWALE INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE. CORRECT AS NEEDED.**
- **MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:**
- **PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.**
- **RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.**
- **ROTOTILL AND REPLANT SWALE IF DRAW DOWN TIME IS LESS THAN 48 HOURS.**
- **WATER DURING DRY PERIODS, FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.**
- **MAINTENANCE DURING WINTER CONDITIONS:**
- **INSPECT SWALE IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS (E.G. SAND) AND REPLACE DAMAGED VEGETATION WITHOUT DISTURBING REMAINING VEGETATION.**
- **IF DEICING AGENTS ARE USED, BE DIRECTED TO THE SWALE. MULCHING AND/OR AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.**
- **USE NON-TOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.**

SCM CONSTRUCTION SEQUENCE

WATER QUALITY INLETS W/SNOUT - CONSTRUCTION SEQUENCE (SCM ID# 33)

1. **INSTALL SNOUTS DURING FINAL PHASES OF SITE CONSTRUCTION TO PREVENT ON DAMAGE FROM CONSTRUCTION ACTIVITY.**
2. **PLEASE SEE THE SNOUT AND DOVER TOWNSHIP WATER QUALITY INLET DETAILS ON CG-501 FOR ADDITIONAL INSTRUCTIONS.**

SURFACE/VEGETATED DETENTION BASIN - CONSTRUCTION SEQUENCE(SCM ID# 4, 7, 13, 14, 20, 27, 31, 32)

1. **INSTALL THE DETENTION BASIN DURING FINAL PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT-LADEN WATER FROM ENTERING THE FACILITY.**
2. **INSTALL AND MAINTAIN PROPER E&S SCMS DURING CONSTRUCTION.**
3. **EXCAVATE AND PREPARE BASIN BED.**
4. **INSTALL OUTLET CONTROL STRUCTURE, ETC.**
5. **STABILIZE DISTURBED AREA. INSTALL AND MAINTAIN INLET PROTECTION AND OTHER E&S CONTROLS UNTIL THE SITE IS FULLY STABILIZED.**

UNDERGROUND DETENTION BASIN - CONSTRUCTION SEQUENCE(SCM ID# 25, 26, 30)

1. **THE ENTIRE UPSTREAM DRAINAGE AREA MUST BE PERMANENTLY STABILIZED PRIOR TO INSTALLATION.**
2. **EXCAVATE THE BOTTOM OF THE BASIN TO REACH THE PROPOSED BOTTOM STONE ENCASEMENT ELEVATION AS SHOWN ON THE PCSM PLANS. DEWATER EXCAVATION BASED ON THE PUMPED WATER FILTER BAG AND/OR THE SEDIMENT STORAGE DEWATERING FACILITY DETAILS PROVIDED ON THE EROSION AND SEDIMENT CONTROL PLAN DETAILS.**
3. **INSTALL OUTLET CONTROL STRUCTURE**
4. **INSTALL IMPERMEABLE LINER ALONG BASIN BOTTOM AND SIDES OF BASIN**
5. **INSTALL BASIN PIPING AND STONE BED**
6. **INSTALL FINAL PAVEMENT SECTION AND/OR VEGETATIVE COVER**
7. **MAINTAIN INLET PROTECTION AND OTHER E&S CONTROLS UNTIL THE SITE IS FULLY STABILIZED.**

UNDERGROUND MANAGED RELEASE CONCEPT BASIN CONSTRUCTION SEQUENCE (SCM ID#1-3,5-8, 8-12, 15-19, 21-24, 28-29)

1. **THE ENTIRE UPSTREAM DRAINAGE AREA MUST BE PERMANENTLY STABILIZED PRIOR TO INSTALLATION.**
2. **FOR BASINS THAT ARE TO BE CONVERTED FROM A SEDIMENT BASIN, FOLLOW THE BASIN CONVERSION SEQUENCE PROVIDED ON THE E&S PLANS.**
3. **EXCAVATE THE BOTTOM OF THE BASIN TO REACH THE PROPOSED BOTTOM STONE ENCASEMENT ELEVATION AS SHOWN ON THE PCSM PLANS. DEWATER EXCAVATION BASED ON THE PUMPED WATER FILTER BAG AND/OR THE SEDIMENT STORAGE DEWATERING FACILITY DETAILS PROVIDED ON THE EROSION AND SEDIMENT CONTROL PLAN DETAILS.**
4. **INSTALL OUTLET CONTROL STRUCTURE**
5. **INSTALL GEOTEXTILE WRAP ALONG BASIN BOTTOM AND SIDES OF BASIN**
6. **INSTALL UNDERDRAIN WITH CLEANOUTS SPACED AT 50' O.C., BASIN PIPING AND STONE BED**
7. **INSTALL FINAL PAVEMENT SECTION AND/OR VEGETATIVE COVER**
8. **MAINTAIN INLET PROTECTION AND OTHER E&S CONTROLS UNTIL THE SITE IS FULLY STABILIZED.**

VEGETATED SWALE - CONSTRUCTION SEQUENCE

- **BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN THE UPGRADIENT SITE HAS BEEN SUFFICIENTLY STABILIZED AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATED SWALES SHOULD BE CONSTRUCTED AND STABILIZED VERY EARLY IN THE CONSTRUCTION SCHEDULE. PREFERABLY BEFORE MASS EARTHWORK AND PAVING INCREASE THE RATE AND VOLUME OF RUNOFF. (EROSION AND SEDIMENT CONTROL METHODS SHALL ADHERE TO THE PENNSYLVANIA EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, LATEST EDITION.)**
- **ROUGH GRADE THE VEGETATED SWALE. EQUIPMENT SHALL AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE. EXCAVATING EQUIPMENT SHOULD OPERATE FROM THE SIDE OF THE SWALE AND NEVER ON THE BOTTOM. IF EXCAVATION LEADS TO SUBSTANTIAL COMPACTION OF THE SUBGRADE (WHERE AN INFILTRATION SWALE IS BEING USED), THE SUBGRADE SHALL BE RIPPED TO A DEPTH OF 4 INCHES AFTER FINAL GRADING OF THE INFILTRATION AND BIOLOGICAL GROWTH AT THE VERY END OF CONSTRUCTION. TOPSOIL SHALL BE THOROUGHLY DEEP PLOWED INTO THE SUBGRADE OR DISCED TO PENETRATE THE COMPACTED ZONE AND PROMOTE AERATION AND THE FORMATION OF MACROPORES. FOLLOWING THIS, THE AREA SHOULD BE DISCKED PRIOR TO FINAL GRADING OF TOPSOIL.**
- **FINE GRADE THE VEGETATED SWALE. ACCURATE GRADING IS CRUCIAL FOR SWALES. EVEN THE SMALLEST NON-CONFORMITIES MAY COMPROMISE FLOW CONDITIONS.**
- **SEED AND VEGETATE ACCORDING TO LANDSCAPE PLAN. PLANT THE SWALE AT A TIME OF THE YEAR WHEN SUCCESSFUL ESTABLISHMENT WITHOUT IRRIGATION IS MOST LIKELY. HOWEVER, TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT. VEGETATION SHOULD BE ESTABLISHED AS SOON AS POSSIBLE TO PREVENT EROSION AND SCOUR.**
- **ONCE ALL TRIBUTARY AREAS ARE SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. IT IS VERY IMPORTANT THAT THE SWALE BE STABILIZED BEFORE RECEIVING UPLAND STORMWATER FLOW.**

NOTE: IF A VEGETATED SWALE IS USED FOR RUNOFF CONVEYANCE DURING CONSTRUCTION, IT MUST BE REGRADED AND RESEEDED IMMEDIATELY AFTER CONSTRUCTION AND STABILIZATION HAS OCCURRED. ANY DAMAGED AREAS MUST BE FULLY RESTORED TO ENSURE FUTURE FUNCTIONALITY OF THE SWALE

POST-CONSTRUCTION STORMWATER PLAN REQUIREMENTS PER 25 PA CODE §102.8:

PRINCIPLES OF PCSM PLANNING AND DESIGN
THE MANAGEMENT OF POST CONSTRUCTION STORMWATER WILL BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING PRINCIPLES:

- **PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM**
- **PREVENT ANY INCREASE IN THE RATE OF STORMWATER RUNOFF**
- **MINIMIZE ANY INCREASE IN STORMWATER VOLUME**
- **MINIMIZE IMPERVIOUS AREAS**
- **MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION**
- **MINIMIZE LAND CLEARING AND GRADING**
- **MINIMIZE SOIL COMPACTION**
- **UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL SCMS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF**

PROJECT WASTES
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. THE MATERIAL SHALL ALSO BE DISPOSED OF IN ACCORDANCE WITH THE PADEP APPROVED CLEAN UP PLAN. THE CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASHES, ETC. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.

RECEIVING WATERS AND CLASSIFICATION
RECEIVING WATER: UNNAMED TRIBUTARY 08394 OF FOX RUN (CLASSIFICATION: TSF, MF)
RECEIVING WATER: UNNAMED TRIBUTARY 08396 OF FOX RUN (CLASSIFICATION: TSF, MF)
RECEIVING WATER: FOX RUN (TSF, MF)

GEOLOGIC FORMATIONS AND SOIL CONDITIONS
THE GEOLOGY FOR THE SUBJECT PROPERTY IS THE TRIASSIC NEW OXFORD FORMATION BASED ON INFORMATION ACCESSED FROM THE DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES (DCNR). THE MAIN ROCK TYPE OF THE NEW OXFORD FORMATION IS ARKOSIC SANDSTONE. THE GEOLOGY ALSO CONSISTS OF LIGHT-COLORED SANDSTONE, CONGLOMERATIC SANDSTONE AND INCLUDES RED TO PURPLISH-RED SANDSTONE, SHALE AND MUDSTONE. BEDDING IS WELL-DEVELOPED AND THIN TO FLAGGY. IT IS APPROXIMATELY 4,000 FEET THICK.

LAND COVER
THE EXISTING LAND COVER OF THE SUBJECT PROPERTY IS MEADOW AND WOODLAND, WITH A SMALL AMOUNT OF EXISTING IMPERVIOUS/GRAVEL COVER.

GENERAL SITE NOTES

1. **THESE PLANS REPRESENT THE OVERALL SITEWORK IMPROVEMENTS REQUIRED FOR PROJECT CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.**
2. **THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS AND RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT FURTHER AFFECT THE CONSTRUCTION SHALL BE REPORTED TO THE OWNER AT THE START OF WORK. NO EXTRA COMPENSATION WILL BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.**
3. **THE CONTRACTOR SHALL, WHEN THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INFORMATION (RFIS) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY ITEM THAT IS DEPENDENT UPON THE ACCURACY OF SUCH ESTIMATES. REQUESTS FOR INFORMATION SHALL BE MADE IN A REASONABLE AMOUNT OF TIME FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ESTIMATING ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DETAILED ON THE PLANS.**
4. **INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.**
5. **THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.**
6. **THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SAME SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN OF THE DESIGN IS BASED. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR RESOLUTION.**

CLEAN FILL NOTES:

IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE OPERATOR.

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 INCLUDES ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

SEEDING & STABILIZATION NOTES:

TEMPORARY SEEDING

A) THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED AND
1) THE SURFACE OF TOPSOIL STOCKPILES.
2) THE SURFACE OF EXPOSED EARTH AREAS NOT SUBJECT TO CONSTRUCTION
B) SEEDING SHALL OCCUR IMMEDIATELY AFTER THE ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADED AREAS. THE FOLLOWING SEED SHALL BE PLANTED:
RYEGRASS - BLUE TAG CERTIFIED - 100% - 4 TO 5 LBS. PER 1,000 SQUARE FOOT.
ANNUAL TYPE - TYPICAL
PERENNIAL TYPE - NOT APPLICABLE
C) PREPARE AREAS TO BE SEEDED AS FOLLOWS:
1) REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY PULVERIZED AGRICULTURAL GRADED LIME AT A RATE OF 40 LBS. PER 1,000 SQUARE FEET.
2) BEFORE AUGUST, SEPTEMBER OR OCTOBER SEEDING, APPLY 12.5 LBS. OF 10-10-10 FERTILIZER PER 1,000 SQUARE FEET. BEFORE FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY OR NOVEMBER SEEDING, APPLY 40 LBS. OF 10-10-10 FERTILIZER PER 1,000 SQUARE FEET. WORK INTO TOP INCH OF SOIL.
a) SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT. RAKED SEEDED AREA SLIGHTLY. ROLL SURFACE LIGHTLY TO FIRM SOIL AROUND SEED.
b) PLACE CLEAN, DRY STRAW OF HAY MULCH WITHIN 48 HOURS AFTER SEEDING. PLACE AT THE RATE OF 1,200 LBS. PER 1,000 SQUARE YARDS.

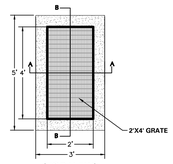
TEMPORARY MULCHING

A) MULCH PROPOSED LANDSCAPE AREAS OR TOPSOIL STOCKPILES IF EARTHWORK IS COMPLETED OUTSIDE OF THE RECOMMENDED PLANTING SEASONS FOR TERMPORARY SEEDING OR DUE TO UNFAVORABLE WEATHER CONDITIONS.
B) MULCH SHALL BE APPLIED IMMEDIATELY FOLLOWING THE ESTABLISHMENT OF TOPSOIL STOCKPILE OR ROUGH GRADING.
C) MULCH WITH SUITABLE FIBROUS GROUND, SHREDDED AGED HARDWOOD, PINEWOOD BARK, STRAW, OR HAY UNIFORMLY AND CONTINUOUSLY TO A LOOSED DEPTH OF 3 INCHES MINIMUM. ANCHOR AS REQUIRED.
D) PROPERLY MAINTAIN MULCHED AREAS UNTIL PERMANENT STABILIZATION MEASURES ARE COMPLETE. REAPPLY MULCH MATERIALS WHICH BECOME DISLODGED AT INITIAL OR MODIFIED RATES AS NECESSARY. IF A SLOPE FAILURE OCCURS WHICH REQUIRES REDRESSING, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE, REPLACE MULCH AS NECESSARY.

PERMANENT SEEDING

A) PERMANENT SEEDING SHALL OCCUR IMMEDIATELY AFTER THE FINAL GRADING IS COMPLETED. THE FOLLOWING SEED SHALL BE PLACED UNLESS OTHERWISE SPECIFIED ON THE PLANS OR DIRECTED IN THE FIELD.
FORMULA B, BLUE TAG CERTIFIED, CONSISTS OF:
- **50% KENTUCKY BLUEGRASS MIXTURE**
- **30% CREEPING RED FESCUE**
- **20% PERENNIAL RYEGRASS MIXTURE**

SPREAD AT A RATE OF 21.0 LBS. PER 1,000 SQUARE YARDS
**B) REMOVE ALL DEBRIS, INCLUDING LARGE STONES. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY LIME AT A RATE OF 6 TONS PER ACRE. BEFORE JUNE 15, APPLY 1,000 LBS. OF 10-20-20 FERTILIZER

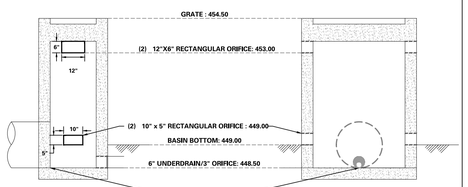


(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

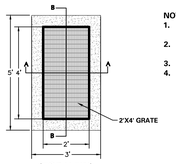
SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)



SCALE: 3/8" = 1'

DETENTION BASIN 1 OCS (SCM ID# 4)

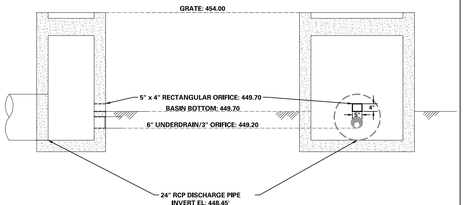


(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

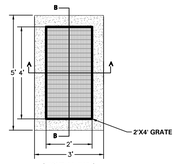
SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)



SCALE: 3/8" = 1'

DETENTION BASIN 2 OCS (SCM ID# 7)

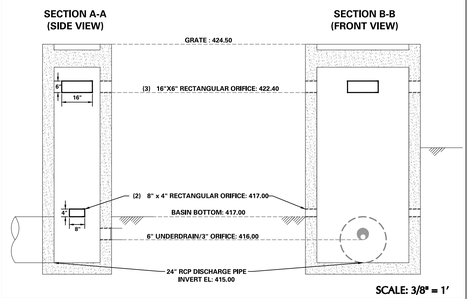


(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET PER THE PENNDOT INLET DETAILS PROVIDED ON DRAWING NO. CG-504.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

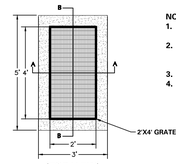
SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)



SCALE: 3/8" = 1'

DETENTION BASIN 3A OCS (SCM ID# 13)

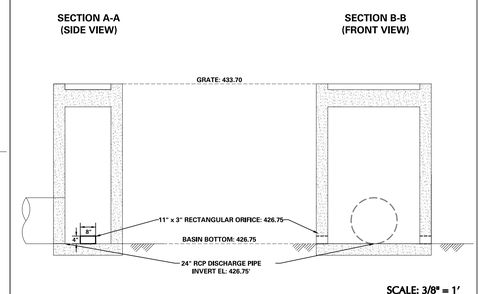


(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET PER THE PENNDOT INLET DETAILS PROVIDED ON DRAWING NO. CG-504.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

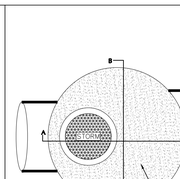
SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)



SCALE: 3/8" = 1'

DETENTION BASIN 3B OCS (SCM ID# 14)

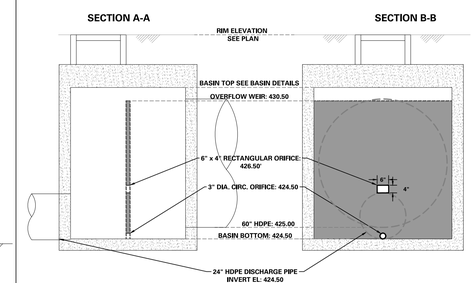


(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET PER THE PENNDOT INLET DETAILS PROVIDED ON DRAWING NO. CG-504.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

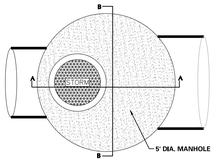
SECTION A-A

SECTION B-B



SCALE: 3/8" = 1'

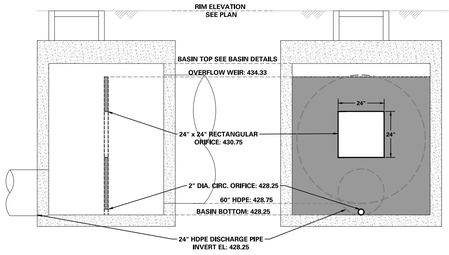
DETENTION BASIN 4A OCS (SCM ID# 25)



NOTES
1. DIAMETER OF MANHOLE SHALL BE REVIEWED BY THE CONTRACTOR TO DETERMINE A LEGEND OF STANDARD MANHOLE DIMENSIONS WITH RESPECT TO PROPOSED PIPE SIZES, NUMBER AND GEOMETRY. OVER SIZE MANHOLES SHALL BE PROVIDED IF MINIMUM 6" WALL DIMENSION BETWEEN PIPES IS NOT MANUFACTURED.
2. MANHOLES SHALL BE STANDARD PRECAST CONCRETE UNITS AND SHALL BE DESIGNED AND CONSTRUCTED BY THE MANUFACTURER TO SUPPORT TRUCK HS20 LOADING.
3. OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SAME PRIOR TO CONSTRUCTION.
4. ALL JOINTS SHALL BE WATERTIGHT.

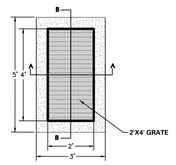
SECTION A-A

SECTION B-B



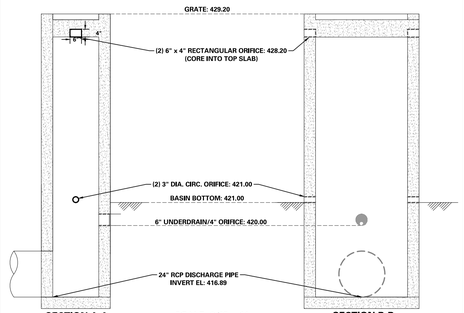
SCALE: 3/8" = 1'

DETENTION BASIN 4B OCS (SCM ID# 26)



(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET PER THE PENNDOT INLET DETAILS PROVIDED ON DRAWING NO. CG-504.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT

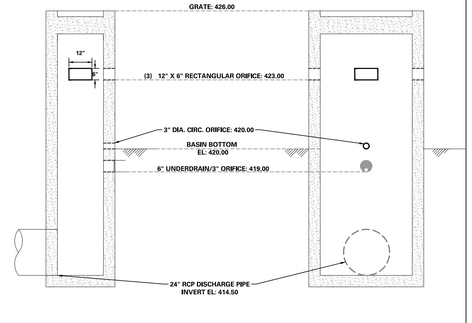


SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)

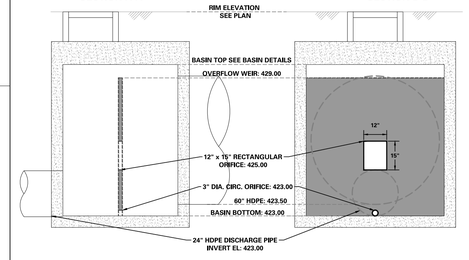
SCALE: 3/8" = 1'

DETENTION BASIN 4C OCS (SCM ID# 27)



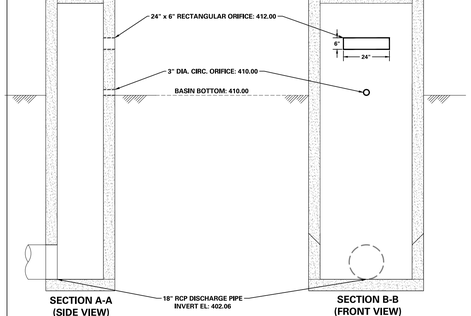
SCALE: 3/8" = 1'

DETENTION BASIN 5 OCS (SCM ID# 20)



SCALE: 3/8" = 1'

DETENTION BASIN 6 OCS (SCM ID# 30)

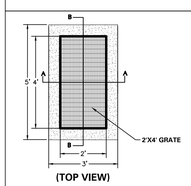


SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)

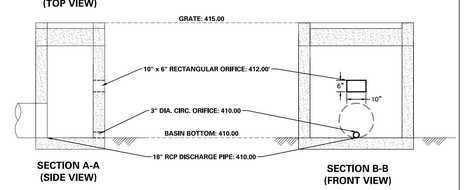
SCALE: 3/8" = 1'

DETENTION BASIN 7 OCS (SCM ID# 31)



(TOP VIEW)

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF OUTLET CONTROL STRUCTURE FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION.
2. STRUCTURE SHOULD CONSIST OF A PENNDOT STANDARD (TYPE M) INLET PER THE PENNDOT INLET DETAILS PROVIDED ON DRAWING NO. CG-504.
3. ALL OUTLET STRUCTURES SHALL HAVE FROST FOOTINGS.
4. ALL JOINTS SHALL BE WATERTIGHT



SECTION A-A (SIDE VIEW)

SECTION B-B (FRONT VIEW)

SCALE: 3/8" = 1'

DETENTION BASIN 8 OCS (SCM ID# 32)

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CG-503
Sheet 84 of 128

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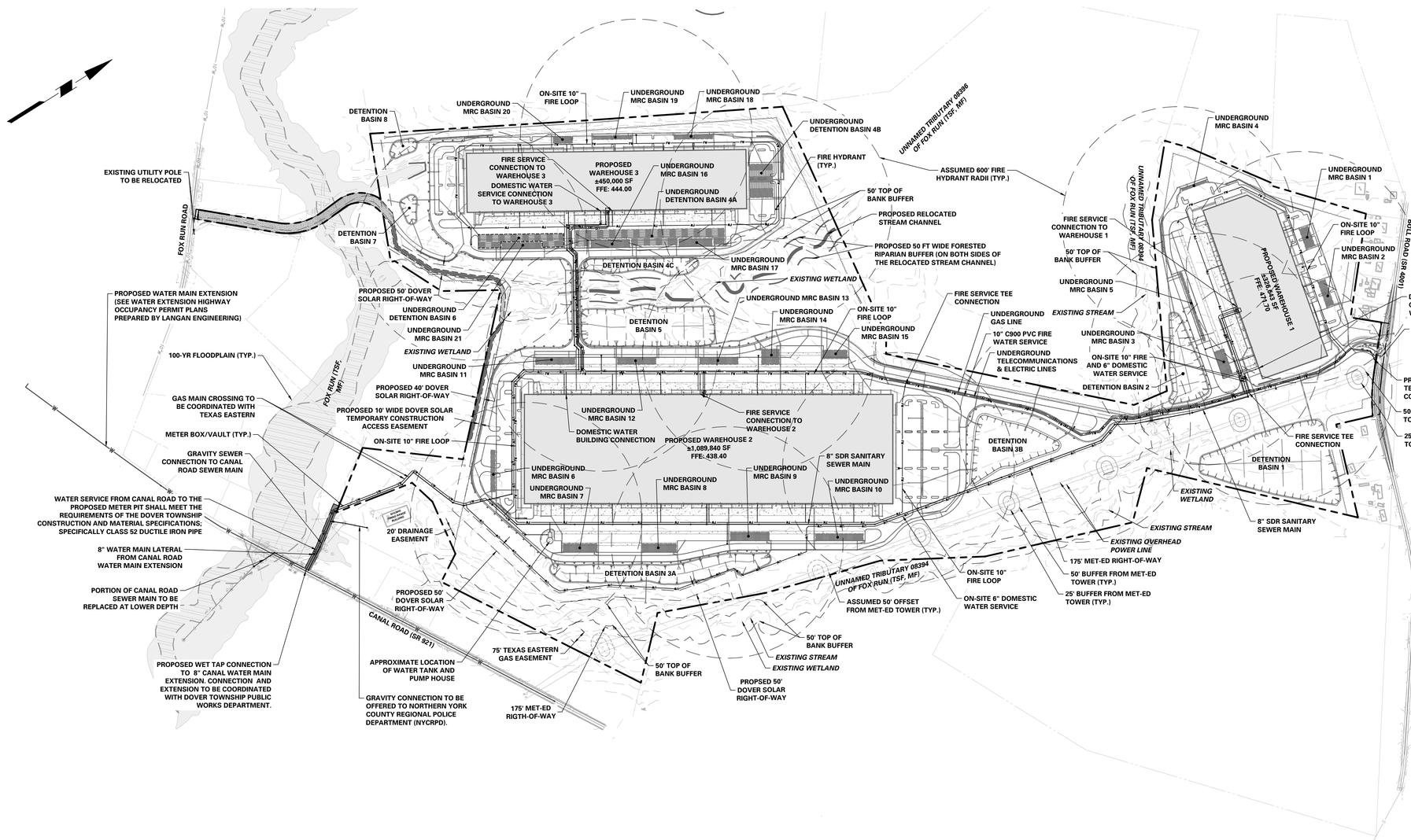
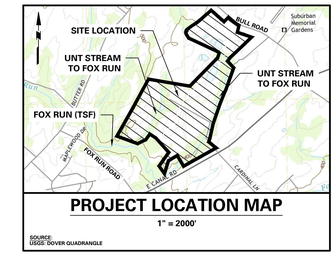
Date: 8/14/2025 Time: 15:14 User: bsollys Style Table: Langan.stb Layout: CG-504 Document Code: 200164401-0301-CG501-0104

UTILITY PLAN NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS TO CONFIRM LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, LIGHTING, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
3. THE LOCATION OF THE EXISTING GAS MAIN IS APPROXIMATE. THE DEPTH OF THE GAS MAIN SHALL BE CONFIRMED THROUGH A FIELD INVESTIGATION PRIOR TO CONSTRUCTION. A REPRESENTATIVE FROM TC ENERGY SHALL BE PRESENT FOR ANY FIELD WORK.
4. ALL GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
5. THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
6. ALL ELECTRICAL WORK, TRANSFORMER PAD, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MINIMUM DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
8. ALL WATER MAINS ARE TO HAVE A MINIMUM COVER OF 4 FEET FROM THE TOP OF THE PIPE.
9. PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 10 FT BETWEEN SANITARY SEWER MAINS AND WATER MAINS. PROVIDE A 5 FT MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND ALL OTHER UTILITIES. PROVIDE A 5 FT. MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND CONCRETE CURBS. A MINIMUM DISTANCE OF 10 FT SHALL BE PROVIDED BETWEEN NEW WATER AND SEWER SERVICE LINES UNLESS AS NOTED FOR SEWER MAIN AND WATER LATERAL EXTENSION FROM CANAL ROAD. IN THIS AREA, SEWER AND WATER ARE TO BE CONSTRUCTED WITHIN SEPARATE TRENCHES AND MUST ALSO HAVE A MINIMUM VERTICAL SEPARATION OF 18".
10. ALL INSTALLED UTILITIES SHALL BE CLEARLY MARKED IN THE FIELD AS PER GOVERNING AGENCY.
11. TEMPORARY ALL-WEATHER SURFACE ACCESS ROADS CAPABLE OF SUPPORTING 30 TON EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES FOR FIRE DEPARTMENT ACCESS TO ALL STRUCTURES UNDER CONSTRUCTION AND STORAGE OF COMBUSTIBLE CONSTRUCTION MATERIALS. ACCESS TO SUCH LOCATIONS SHALL BE WITHIN 125 FT AT ALL TIMES. THE FIRE PROTECTION WATER SUPPLY SYSTEM SHALL BE INSTALLED PRIOR TO PLACING COMBUSTIBLE BUILDING MATERIALS ON THE PROJECT SITE OR UTILIZING THEM IN CONSTRUCTION OF BUILDING STRUCTURES.
12. THE CONTRACTOR MUST COMPLY WITH ALL STATE AND FEDERAL CONFINED SPACE RULES.
13. ALL DUCTILE IRON SEWER PIPES SHALL BE LINED WITH A HYDROGEN SULFIDE SEWER SAFE COATING SIMILAR TO THAT MANUFACTURED BY GRIFFIN PIPE PRODUCTS
14. FIRE LINES WILL BE SUBJECT TO MORE STRINGENT PRESSURE TESTING THAN THE OTHER WATER MAINS AS PRESCRIBED BY THE FIRE SUB-CODE OFFICIAL.
15. PROVIDE MINIMUM 18 INCH VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER LINES AND 12 INCH VERTICAL CLEARANCE BETWEEN WATER AND STORM SEWER LINES AT ALL CROSSINGS OR PROVIDE CONCRETE ENCASEMENTS.
16. CONTRACTOR IS RESPONSIBLE FOR COORDINATING A PRE-CONSTRUCTION MEETING WITH ALL UTILITY COMPANIES PRIOR TO WORK.
17. CONTRACTOR SHALL MAINTAIN RECORDS OF INSTALLED UTILITY LINES AND PROVIDE TO OWNER, OWNER'S ENGINEER AND UTILITY COMPANIES FOR PURPOSES OF COMPLETING AS-BUILT PLANS FOR THE PROJECT. CONTRACTOR MUST PROVIDE LOCATIONS AND ELEVATIONS TO TOP OF CONDUIT AT 50 FOOT INTERVALS ALONG STRAIGHT SECTIONS OF UTILITY, AND AT ALL BENDS AND APPURTENANCES ALONG THE UTILITY LINES.
18. FOR ALL DRIVEWAYS, CONTRACTOR SHALL VERIFY THE VERTICAL DISTANCE FROM PAVEMENT SURFACE TO THE LOWEST POINT ALONG THE OVERHEAD WIRES, AND COORDINATE WITH UTILITY COMPANY TO RAISE WIRE IF VERTICAL DISTANCE IS LESS THAN 17 FT.
19. SANITARY SEWER IS TO BE CONSTRUCTED WITH SDR-35 PVC PIPE. SEE DETAIL ON CU-502 WHICH SPECIFIES BEDDING REQUIREMENTS FOR THE PLACEMENT OF SDR-35, SPECIFICALLY FOR DEPTHS EQUAL TO OR OVER 15' IN DEPTH.
20. REFER TO ARCHITECT PLANS FOR ELECTRICAL LAYOUT AND ALL SERVICE LOCATIONS AT THE BUILDINGS, INCLUDING METER LOCATIONS AND WIREWAYS.
21. FIRE HYDRANTS SHALL MEET THE DOVER TOWNSHIP CONSTRUCTION AND MATERIAL SPECIFICATIONS.
22. ALL CONSTRUCTION MATERIALS, RESTORATION AND METHODS OF INSTALLATION IN STATE ROADS SHALL BE SUBJECT TO THE REQUIREMENTS AND APPROVAL OF MUNICIPALITY AND STATE.
23. THE CONTRACTOR SHALL PAY ALL FEES INCLUDING INSPECTION FEES, AND GIVE NOTICES NECESSARY FOR AND INCIDENTAL TO THE EXECUTION OF THE PROJECT.
24. INSPECTION OF OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY STATE, COUNTY OR TOWNSHIP OFFICIALS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO PERFORM THE WORK IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND LAWS.
25. ALL CLEANOUTS IN PAVEMENT AREAS SHALL HAVE A PROTECTION BOX.
26. WATER PIPES SHALL BE CONSTRUCTED USING C900 PVC PIPE OR APPROVED EQUAL. CONTRACTOR SHALL CONFIRM ALL PROPOSED WATER PIPE SIZES AND MATERIALS WITH THE OWNER, MEP ENGINEER, AND FIRE PROTECTION ENGINEER.
27. SANITARY SEWERS SHALL CONFORM TO DOVER TOWNSHIP STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS (LATEST EDITION).
28. WALL MOUNTED POST INDICATOR VALVES SHALL BE INSTALLED ON THE BUILDING AT ALL SPRINKLER RISER LOCATIONS. TO BE COORDINATED WITH MEP AND FIRE PROTECTION ENGINEER DRAWINGS.
29. FIRE DEPARTMENT CONNECTION'S SHALL BE PROPERLY MARKED. A METAL 1 SIGN WITH WHITE REFLECTIVE BACKGROUND WITH 4" RED LETTERING SHALL BE PROVIDED. THE SIGN SHOULD READ "FIRE DEPARTMENT" ON THE TOP LINE AND "CONNECTION" ON THE BOTTOM LINE. THE SIGN SHALL BE MOUNTED ABOVE THE FDC AT A MINIMUM HEIGHT 12 FT ABOVE FINISHED GRADE OR THE ROOF LINE.
30. THE FIRE RISER LATERALS MUST BE DUCTILE IRON PIPE (DIP). THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSITIONING FROM C900 PVC LEAD-INS TO DIP OUTSIDE THE BUILDING USING ONE PIECE STAINLESS STEEL AND INSTALLING THE RISERS. STAINLESS STEEL LEAD-IN TO TERMINATE AT 1 FOOT ABOVE FINISH FLOOR. C900 PVC MUST BE CONVERTED TO DUCTILE IRON PIPE (DIP) A MINIMUM OF 5' BEFORE THE PIPE ENTERS THE BUILDING.
31. WATER SERVICE IS TO BE PROVIDED THROUGH A CONNECTION TO AN 8" WATER MAIN EXTENSION ALONG CANAL ROAD. SEWER SERVICE WILL BE PROVIDED THROUGH A SEWER MAIN EXTENSION RUNNING PERPENDICULAR TO CANAL ROAD. BOTH THE WATER MAIN EXTENSION AND SEWER MAIN EXTENSION WILL BE WITHIN A SHARED ACCESS/UTILITY EASEMENT ADJACENT TO THE NORTHERN YORK COUNTY REGIONAL POLICE DEPARTMENT (NYCRPD).
32. THE ESTIMATED SEWAGE FLOW FOR THE DEVELOPMENT IS 56,775 GALLONS PER DAY (GPD). BASED ON THE PADEP EQUIVALENT DWELLING UNIT (EDU) RATE OF 400 GPD/EDU, THE ESTIMATED EDU'S FOR THE SITE ARE 142 EDU'S.
    - 32.1. THE TOWNSHIP SANITARY SEWER FEE IS BASED ON DOVER TOWNSHIP'S EDU CONVERSION RATE OF 1 EDU = 230 GPD. THEREFORE THE WATER FEE WILL BE BASED ON 247 EDUS (56,775 GPD/ 230 GPD).
    - 32.2. THE TOWNSHIP WATER FEE IS BASED ON DOVER TOWNSHIP'S EDU CONVERSION RATE OF 1 EDU = 166 GPD. THEREFORE THE WATER FEE WILL BE BASED ON 342 EDUS (56,775 GPD/ 166 GPD).
33. THE ESTIMATED WATER USE FOR THE DEVELOPMENT IS 56,775 GALLONS PER DAY (GPD).
34. BOLT DOWN LIDS SHOULD BE USED FOR ALL MANHOLES IN PAVED AREAS, OR LOW-LYING AREAS.
35. WATER SERVICE FROM CANAL ROAD TO THE PROPOSED METER PIT SHALL MEET THE REQUIREMENTS OF THE DOVER TOWNSHIP CONSTRUCTION AND MATERIAL SPECIFICATIONS; SPECIFICALLY CLASS 52 DUCTILE IRON PIPE.



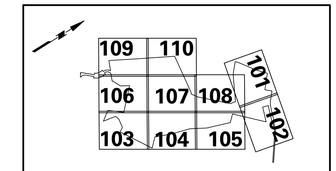
250 0 125 250
SCALE: 1 INCH = 250 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.5)
- PROPOSED SPOT ELEVATION (× 360.5)
- 788 AS EMERGENCY SPILLWAY LINE
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- BOLLARD
- PARKING ROW COUNT

NATURAL FEATURES
- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

CONTACTS

CABLE
COMCAST
15 SUMMIT PARK DRIVE
PITTSBURGH, PA 15275
PHONE: 814-380-0116

ELECTRIC
MET ED ELECTRIC
2800 POTTSVILLE PIKE
READING, PA 19605
PHONE: 610-921-6157

ADAMS ELECTRIC
200 TRINITY RD,
YORK, PA 17408
PHONE: 800-726-2324

TELECOMMUNICATIONS
VERIZON
31 S BEAVER STREET
YORK, PA 17401
PHONE: 717-771-5298

GAS
COLUMBIA GAS OF PENNSYLVANIA
1600 COLONY ROAD
YORK, PA 17408
PHONE: 717-676-2419

WATER
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

SEWER AUTHORITY
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

TOWNSHIP ENGINEER
C.S. DAVIDSON - YORK OFFICE
38 NORTH DUKE STREET
YORK, PA 17401
PHONE: 717-846-4805

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
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Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY MASTER UTILITY PLAN (RECORD PLAN)

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-100
Sheet 85 of 128

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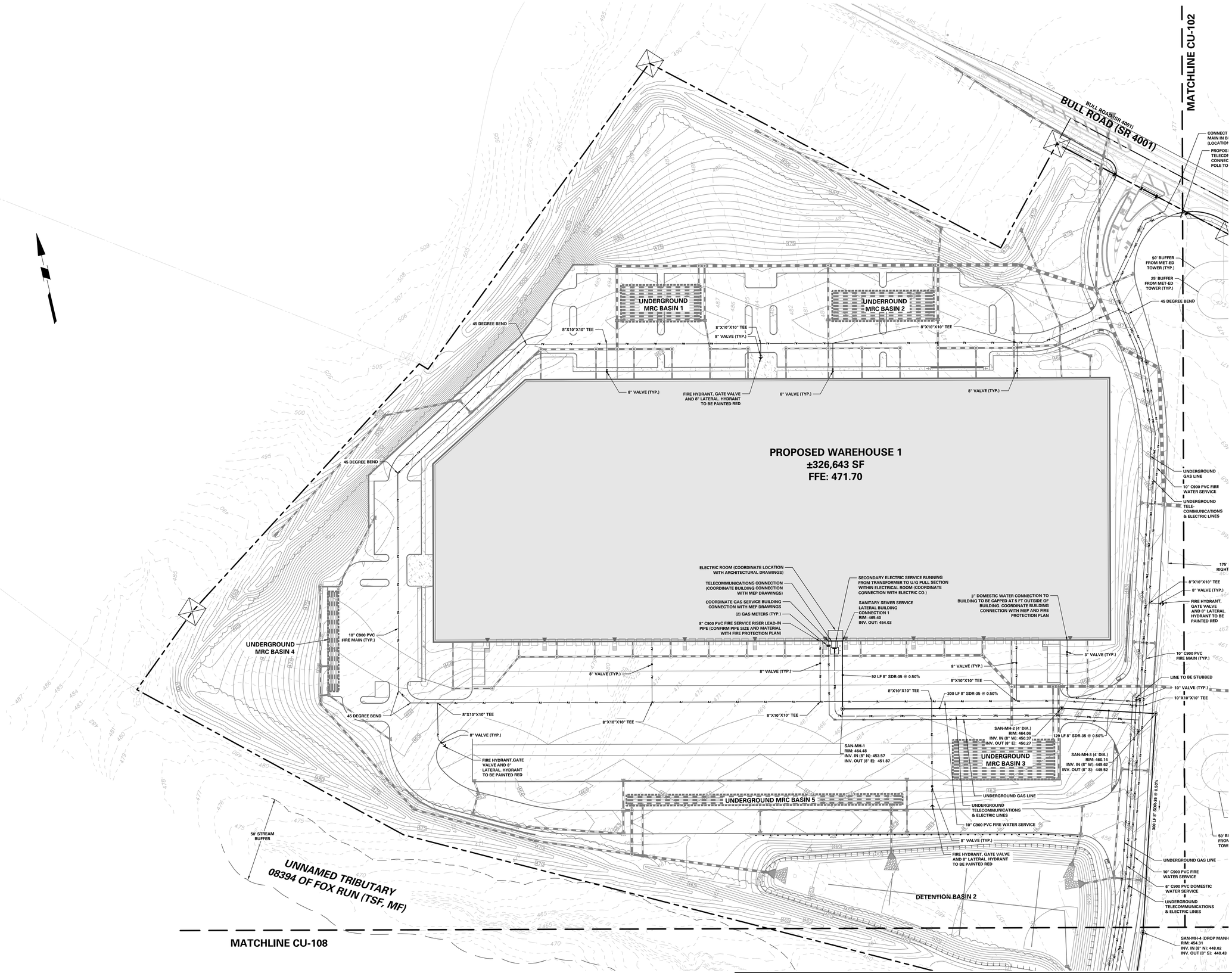
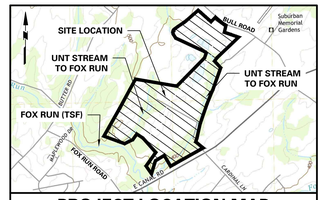
Date: 8/14/2025 Time: 18:37 User: mrynn Style Table: Langan.stb Layout: CU-100 Document Code: 200164401-0301-CU101-0101

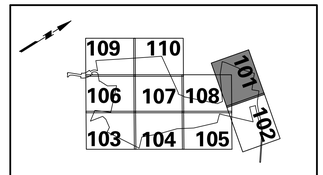




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
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- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
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- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (× 360.3)
- PROPOSED SPOT ELEVATION (× 360.3)
- 100-YEAR EMERGENCY SPILLWAY LIMIT
- FORESTED RIPARIAN BUFFER (PCSM)
- DRAIN LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS
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- PROPOSED BUILDING LINE
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- PROPOSED FENCE (POST AND RAIL)
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- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF ACCESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

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- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
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- EXISTING CATCH BASIN
- EXISTING WATER VALVE
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- PROPOSED HYDRANT
- UTILITY POLE OFFSET

CONTACTS

CABLE
COMCAST
15 SUMMIT PARK DRIVE
PITTSBURGH, PA 15275
PHONE: 814-380-0116

ELECTRIC
MET ED ELECTRIC
2800 POTTSVILLE PIKE
READING, PA 19605
PHONE: 610-921-6157

ADAMS ELECTRIC
200 TRINITY RD,
YORK, PA 17408
PHONE: 800-726-2324

TELECOMMUNICATIONS
VERIZON
31 S BEAVER STREET
YORK, PA 17401
PHONE: 717-771-5298

GAS
COLUMBIA GAS OF PENNSYLVANIA
1600 COLONY ROAD
YORK, PA 17408
PHONE: 717-676-2419

WATER
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

SEWER AUTHORITY
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
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TOWNSHIP ENGINEER
C.S. DAVIDSON - YORK OFFICE
38 NORTH DUKE STREET
YORK, PA 17401
PHONE: 717-846-4805

SURVEYOR, CIVIL & TRAFFIC ENGINEER

LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES

2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER

BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE, AND
(10) WORKING DAYS IN DESIGN STAGE
STOP! CALL!

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-101
Sheet 86 of 128

50 0 25 50
SCALE: 1 INCH = 50 FEET

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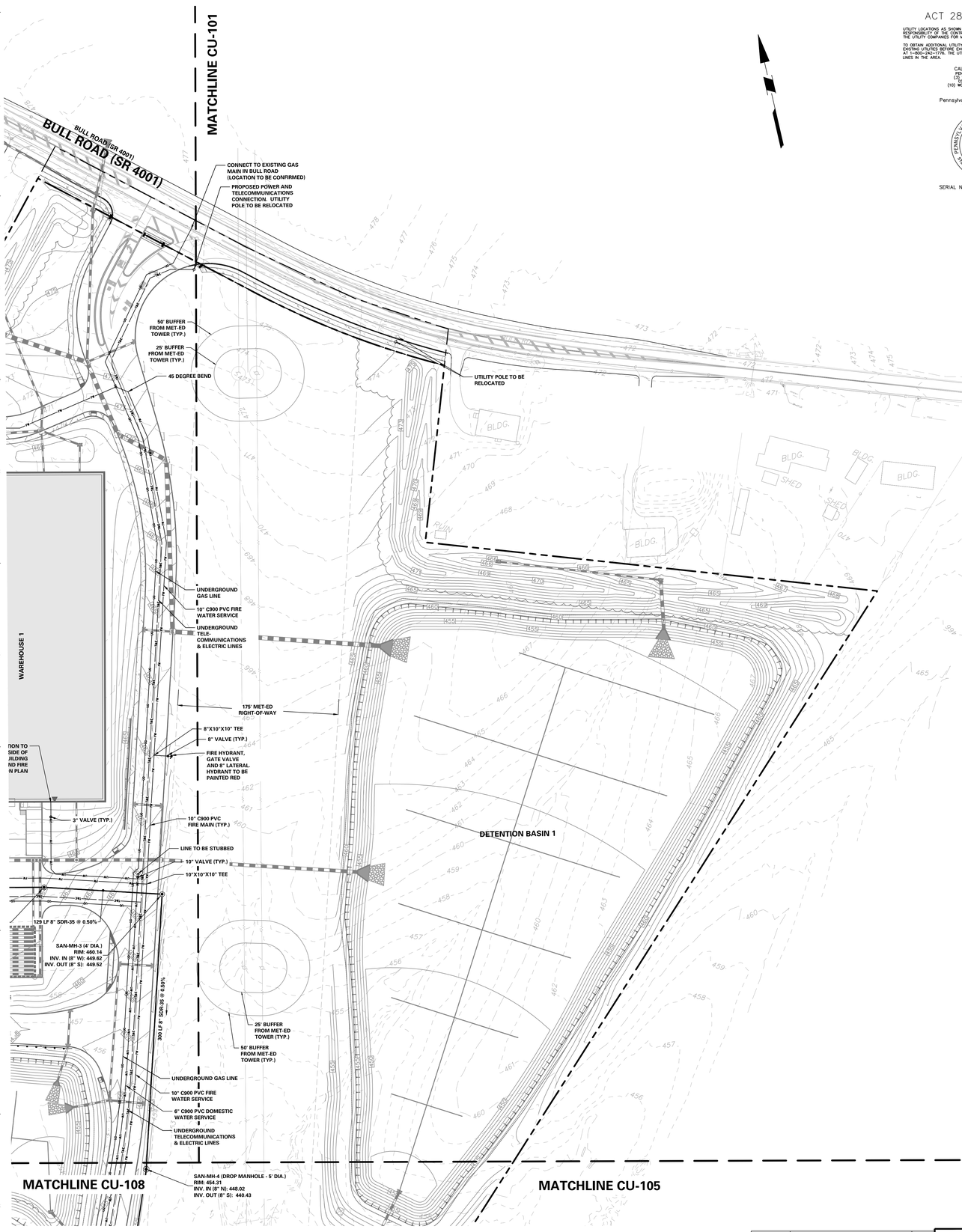
Date: 8/14/2025 Time: 18:17 User: mrynn Style Table: Langan.stb Layout: CU-101 Document Code: 200164401-0301-CU101-0102



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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(1) WORKING DAYS NOTICE FOR
CONSTRUCTION IN NON-DESIGN
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

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CONTACTS

CABLE
COMCAST
15 SUMMIT PARK DRIVE
PITTSBURGH, PA 15275
PHONE: 814-380-0116

ELECTRIC
MET ED ELECTRIC
2800 POTTSVILLE PIKE
READING, PA 19605
PHONE: 610-921-6157

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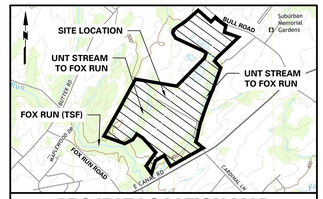
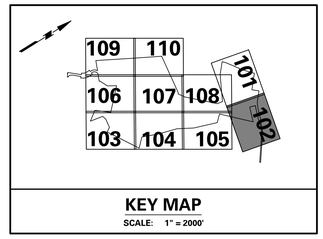


PROJECT LOCATION MAP
1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP
SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS
EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
GROWTH BOUNDARY
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
PARKING SETBACK LINE
BUILDING SETBACK LINE
BUFFER SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEVATION (× 360.3)
PROPOSED SPOT ELEVATION (× 360.3)
100-YR EMERGENCY SPILLWAY LINE
FORESTED RIPARIAN BUFFER (PCSM)
SWALE LINER
EROSION CONTROL BLANKET

SITE SYMBOLS
CURB LINE
PROPOSED BUILDING LINE
PROPOSED FENCE (CHAIN LINK)
PROPOSED FENCE (POST AND RAIL)
GUIDE RAIL
RETAINING WALL
EXISTING FENCE
PROPOSED TREELINE/VEGETATIVE BUFFER
EXISTING TREELINE/VEGETATIVE BUFFER
LOCATION OF INGRESS/EGRESS
ACCESSIBLE DOOR
DEPRESSED CURB
LIGHT POLE
ADA CURB RAMP
CONCRETE SIDEWALK
SIGN
PARKING ROW COUNT

NATURAL FEATURES
STREAM CENTER LINE
EXISTING WETLAND
EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS
SOILS BOUNDARY
SOIL TYPE (e.g. UCB, UCB-HSG B)

UTILITY SYMBOLS
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING GAS MAIN
EXISTING WATER MAIN
EXISTING OVERHEAD ELECTRIC
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED GAS MAIN
PROPOSED FIRE MAIN
PROPOSED DOMESTIC WATER MAIN
PROPOSED TELEPHONE AND ELECTRIC
PROPOSED SANITARY FORCE MAIN
EXISTING SANITARY SEWER MANHOLE
EXISTING FIRE HYDRANT
EXISTING INLET
EXISTING CATCH BASIN
EXISTING WATER VALVE
EXISTING MANHOLE
EXISTING ELECTRIC POLE
PROPOSED HYDRANT
UTILITY POLE OFFSET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
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8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
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T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY **PENNSYLVANIA**

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. **200164401**
Date **6/7/2023**
Drawn By **MR**
Checked By **SMH**

Drawing No. **CU-102**
Sheet **87** of **128**

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Date: 8/14/2025 Time: 18:28 User: mrynn Style Table: Langan.stb Layout: CU-102 Document Code: 200164401-0301-CU101-0106

MATCHLINE CU-106

FOX RUN (TSF, MF)

PROPOSED WAREHOUSE 2
±1,089,840 SF
FFE: 438.40

PROPOSED 40' DOVER SOLAR RIGHT-OF-WAY

10' WIDE DOVER SOLAR TEMPORARY CONSTRUCTION ACCESS EASEMENT

6" C900 PVC DOMESTIC LINE (TYP.)

10" C900 PVC ON-SITE FIRE LOOP (CONFIRM PIPE SIZE AND MATERIAL WITH FIRE PROTECTION PLAN)

UNDERGROUND MRC BASIN 6

SAN-MH-30 (4' DIA.)
RIM: 437.06
INV. IN (8" NW): 413.27
INV. OUT (8" SE): 413.17

153 LF 8" SDR-35

191 LF 8" SDR-35 @ 0.50%

SAN-MH-31 (4' DIA.)
RIM: 436.98
INV. IN (8" NW): 412.34
INV. OUT (8" S): 412.24

SAN-MH-32 (DROP MANHOLE - 5' DIA.)
RIM: 429.58
INV. IN (8" N): 411.65
INV. IN (8" E): 411.87
INV. OUT (8" S): 409.64

SAN-MH-32A (DROP MANHOLE - 5' DIA.)
RIM: 411.70
INV. IN (8" N): 406.90
INV. OUT (8" SW): 402.92

SAN-MH-33A (4' DIA.)
RIM: 402.07
INV. IN (8" E): 392.01
INV. OUT (8" S): 391.20

TOP OF PIPE ELEVATION: 396.88'

GAS MAIN CROSSING TO BE COORDINATED WITH TEXAS EASTERN

TOP OF PIPE ELEVATION: 398.59'

SAN-MH-33 (4' DIA.)
RIM: 402.92
INV. IN (8" N): 390.77
INV. OUT (8" S): 390.67

SAN-MH-34 (DROP MANHOLE - 5' DIA.)
RIM: 396.95
INV. IN (8" S): 389.17
INV. OUT (8" S): 382.82

PROPOSED 20' WIDE DTPW WATER METER ACCESS EASEMENT

8" VALVE (TYP.)

75 LF 8" SDR-35 @ 0.50%

SAN-MH-34A (6' DIA.)
(MONITORING MANHOLE FOR BULL ROAD LOGISTICS)
(TO BE LINED WITH WHITE EPOXY LINER)
RIM: 392.00
INV. IN (8" N): 382.44
INV. OUT (8" SE): 382.34

APPROXIMATE FLOODWAY (TYP.)

8" C900 PVC WATER LINE

300 LF 8" SDR-35 @ 0.50%

96 LF 8" SDR-35 @ 0.50%

257 LF 8" SDR-35 @ 1.00%

10' SPACING BETWEEN SEWER AND WATER LINES

SOLAR EASEMENT CROSSING TO BE COORDINATED WITH DOVER SOLAR

137 LF 8" SDR-35 @ 2.00%

10' SPACING BETWEEN SEWER AND WATER LINES

119 LF 8" SDR-35 @ 0.50%

SAN-MH-32B (DROP MANHOLE - 5' DIA.)
RIM: 413.26
INV. IN (8" NE): 402.62
INV. OUT (8" W): 397.16

59 LF 8" SDR-35 @ 0.50%

6"X8"X8" TEE

8"X10"X16" TEE

FIRE HYDRANT, GATE VALVE AND 8" LATERAL, HYDRANT TO BE PAINTED RED

8" VALVE (TYP.)

10" C900 PVC ON-SITE FIRE LOOP (CONFIRM PIPE SIZE AND MATERIAL WITH FIRE PROTECTION PLAN)

8"X10"X10" TEE

SAN-MH-17 (4' DIA.)
RIM: 433.57
INV. IN (8" NE): 416.52
INV. OUT (8" SW): 416.42

8" VALVE (TYP.)

8"X10"X10" TEE

10' SPACING BETWEEN SEWER AND WATER LINES

300 LF 8" SDR-35 @ 0.50%

8" VALVE (TYP.)

8" VALVE (TYP.)

45 DEGREE BEND

SAN-MH-18 (4' DIA.)
RIM: 432.14
INV. IN (8" NE): 414.92
INV. OUT (8" W): 414.82

45° BEND

6" C900 PVC DOMESTIC LINE (TYP.)

APPROXIMATE LOCATION OF WATER TANK AND PUMP HOUSE

UNDERGROUND MRC BASIN 7

DETENTION BASIN 3A

PROPOSED 50' DOVER SOLAR RIGHT-OF-WAY

EXISTING DRAINAGE EASEMENT

75' TEXAS EASTERN GAS EASEMENT

191 LF 8" SDR-35 @ 0.50%

8" C900 PVC WATER LINE

6"X8"X8" TEE

10' SPACING BETWEEN SEWER AND WATER LINES

WATER METER TO BE COORDINATED WITH WATER AUTHORITY

GRAVITY CONNECTION TO BE OFFERED TO NORTHERN YORK COUNTY REGIONAL POLICE DEPARTMENT (NYCRPD). CONSTRUCTION/ACCESS TO BE COORDINATED WITH NYCRPD

NYCRPD FIRING RANGE BUILDING

NYCPD CONNECTION
RIM: 397.22
INV. OUT (8" SW): 390.00

EXISTING NYCPD FIRING RANGE GRINDER PUMP TO BE REMOVED

56 LF 8" SDR-35 @ 0.50%

119 LF 8" SDR-35 @ 1.50%

57 LF 8" SDR-35 @ 0.50%

SAN-MH-35 (4' DIA.)
RIM: 391.07
INV. IN (8" NW): 382.06
INV. IN (8" NE): 382.87
INV. OUT (8" SE): 381.92

PROPOSED 30' WIDE DTPW WATER AND SEWER EASEMENT

10' SPACING BETWEEN SEWER AND WATER LINES

SEWER AND WATER MAINS TO BE PLACED IN SEPARATE TRENCHES WITH A MINIMUM VERTICAL SEPARATION OF 18" TO ALLOW FOR HORIZONTAL SEPARATION OF 10'

146 LF 8" SDR-35 @ 0.50%

SAN-MH-35A (6' DIA.)
(MONITORING MANHOLE FOR NYCRPD FIRING RANGE)
(TO BE LINED WITH WHITE EPOXY LINER)
RIM: 391.81
INV. IN (8" NE): 382.77
INV. OUT (8" SW): 382.95

16 LF 8" SDR-35 @ 0.50%

EXISTING SANITARY PIPE TO BE REMOVED

100-YEAR FLOODPLAIN (TYP.)

SAN-MH-38 (4' DIA.)
(WATERTIGHT BOLT DOWN COVER)
RIM: 390.07
INV. IN (8" NE): 379.34
INV. OUT (8" S): 379.24

APPROXIMATE 15' WIDE ACCESS EASEMENT (BASED ON L.R. BOOK 1483, PAGE 980)

APPROXIMATE 10' WIDE EXISTING PAVED DRIVEWAY ON HAMM PROPERTY TO PROVIDE ACCESS TO WATER AND SEWER FACILITIES

WATER SERVICE FROM CANAL ROAD TO THE PROPOSED METER PIT SHALL MEET THE REQUIREMENTS OF THE DOVER TOWNSHIP CONSTRUCTION AND MATERIAL SPECIFICATIONS; SPECIFICALLY CLASS 52 DUCTILE IRON PIPE

EXISTING CULVERT
INV. (48"): 385.33

SAN-MH-36 (4' DIA.)
(WATERTIGHT BOLT DOWN COVER)
RIM: 391.43
INV. IN (8" NW): 381.19
INV. OUT (8" SE): 381.09

EXISTING CULVERT
INV. (48"): 386.13

CONCRETE ENCASEMENT (EXTEND 10' BEYOND CULVERT CROSSING) SEE DRAWING NO. CU-502 FOR DETAILS

18 LF 48" HDPE @ 4.44%

151 LF 8" PVC @ 5.50%

APPROXIMATE 10' WIDE UTILITY EASEMENT (BASED ON L.R. BOOK 1567, PAGE 654)

SAN-MH-37 (4' DIA.)
RIM: 392.61
INV. IN (8" NW): 380.43
INV. OUT (8" SW): 380.33

EX-SAN-MH-8
RIM: 393.6
INV. OUT: 387.44

EX-SAN-MH-4
(TO BE REPLACED)
RIM: 390.7
INV. IN (8" NE): 382.28
INV. OUT: 382.28

EX-SAN-MH-5
(TO BE REPLACED)
RIM: 384.4
INV. IN (8" W): 376.66
INV. IN (8" N): 378.16
INV. OUT: 376.91

129 LF 8" SDR-35 @ 0.50%

159 LF 8" SDR-35 @ 0.50%

EXISTING DOVER TOWNSHIP SEWER MAIN TO BE REPLACED AS SHOWN

SAN-MH-39 (DROP MANHOLE - 5' DIA.)
(WATERTIGHT BOLT DOWN COVER)
RIM: 384.59
INV. IN (8" N): 378.59

APPROXIMATE EXISTING SEWER CONNECTION
RIM: 392.26
INV. OUT: 377.21

PROPOSED WET TAP CONNECTION TO 8" CANAL WATER MAIN EXTENSION. CONNECTION AND EXTENSION TO BE COORDINATED WITH DOVER TOWNSHIP PUBLIC WORKS DEPARTMENT. SEE HIGHWAY OCCUPANCY PERMIT PLANS PREPARED BY LANGAN ENGINEERING

EX-SAN-MH-7
RIM: 385.5
INV. IN (8" N): 375.72
INV. OUT: 375.72

PROPOSED WATER MAIN EXTENSION (SEE WATER EXTENSION HIGHWAY OCCUPANCY PERMIT PLANS PREPARED BY LANGAN ENGINEERING)

GAS MAIN CROSSING (TO BE COORDINATED WITH COLUMBIA GAS) AND GUIDERAIL CROSSING (TO BE RESET/REPLACED AS NEEDED)

CANAL ROAD (SR 921)

EX-SAN-MH-3
RIM: 410.7
INV. IN (8" NE): 393.95
INV. OUT: 393.95

EX-SAN-MH-2
RIM: 417.5
INV. IN (8" NE): 407.13
INV. OUT: 407.13

470 LF 8" PVC @ 1.48%

EX-SAN-MH-1
RIM: 420.0
INV. OUT: 413.96

UNNAMED TRIBUTARY 08394 OF FOX RUN (TSF, MF)

EXISTING STREAM

175' MET-ED RIGHT-OF-WAY

50' TOP OF BANK BUFFER

25' BUFFER FROM MET-ED TOWER (TYP.)

50' BUFFER FROM MET-ED TOWER (TYP.)

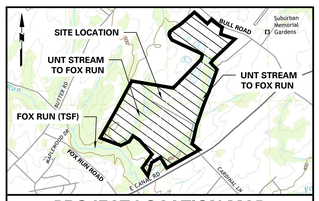
EXISTING OVERHEAD POWER LINE

EXISTING UTILITY POLES

MATCHLINE CU-104

LEGEND

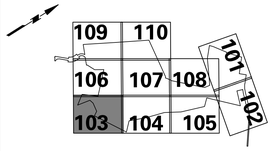
LOT SYMBOLS		SITE SYMBOLS	
EXISTING ZONING BOUNDARY		CURB LINE	
EXISTING MUNICIPAL BOUNDARY		PROPOSED BUILDING LINE	
GROWTH BOUNDARY		PROPOSED FENCE (CHAIN LINK)	
EXISTING RIGHT-OF-WAY		PROPOSED FENCE (POST AND RAIL)	
PROPERTY LINE		GUIDE RAIL	
RIGHT-OF-WAY DEDICATION		RETAINING WALL	
CONCRETE MONUMENT TO BE SET		EXISTING FENCE	
PARKING SETBACK LINE		PROPOSED TREELINE/VEGETATIVE BUFFER	
BUILDING SETBACK LINE		EXISTING TREELINE/VEGETATIVE BUFFER	
BUFFER SETBACK LINE		LOCATION OF INGRESS/EGRESS	
EXISTING EASEMENT		LOADING DOCK DOOR	
PROPOSED EASEMENT		DEPRESSED CURB	
GRADING & DRAINAGE SYMBOLS		LIGHT POLE	
EXISTING CONTOUR		HANDICAP RAMP	
PROPOSED CONTOUR		CONCRETE SIDEWALK	
EXISTING SPOT ELEVATION	× 360.3	SIGN	
PROPOSED SPOT ELEVATION	× 360.3	PARKING ROW COUNT	
75ft# 4ft# EMERGENCY SPILLWAY LINER		**NATURAL FEATURES**	
FORESTED RIPARIAN BUFFER (PCSM)		STREAM CENTER LINE	
SWALE LINER		STREAM BUFFER	
EROSION CONTROL BLANKET		EXISTING WETLAND	
		EXISTING 100-YEAR FLOODPLAIN	
		SOILS SYMBOLS	
		SOILS BOUNDARY	
		SOIL TYPE	
UTILITY SYMBOLS			
EXISTING STORM SEWER		EXISTING SANITARY SEWER MANHOLE	
EXISTING SANITARY SEWER		EXISTING FIRE HYDRANT	
EXISTING GAS MAIN		EXISTING GAS VALVE	
EXISTING WATER MAIN		EXISTING CATCH BASIN	
EXISTING OVERHEAD ELECTRIC		EXISTING WATER VALVE	
EXISTING UNDERGROUND ELECTRIC		EXISTING GAS METER	
PROPOSED SANITARY SEWER		EXISTING ELECTRIC POLE	
PROPOSED GAS MAIN		PROPOSED HYDRANT	
PROPOSED FIRE MAIN			
PROPOSED DOMESTIC WATER MAIN		UTILITY POLE OFFSET	
PROPOSED TELEPHONE AND ELECTRIC			
PROPOSED SANITARY FORCE MAIN			



PROJECT LOCATION MAP

1" = 2000'

SOURCE
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
(10) WORKING DAYS IN DESIGN STAGE
— STOP & CALL —

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

SCALE: 1 INCH = 50 FEET

CROSSING INFORMATION:

1. PIPELINES
   - 1.1. SANITARY - 8" SDR-35
   - 1.2. WATER - 8" DUCTILE IRON PIPE
2. BOTH CROSSINGS DONE AT APPROXIMATELY 90°
3. PIPELINE TO BE INSTALLED IN OPEN CUT
4. MINIMUM CLEARANCE OF 2' (24") BETWEEN PROPOSED PIPELINES AND EXISTING ENBRIDGE (TEXAS EASTERN) TRANSMISSION FACILITIES.

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH S. OTTES — PE 074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-103
Sheet 88 of 128

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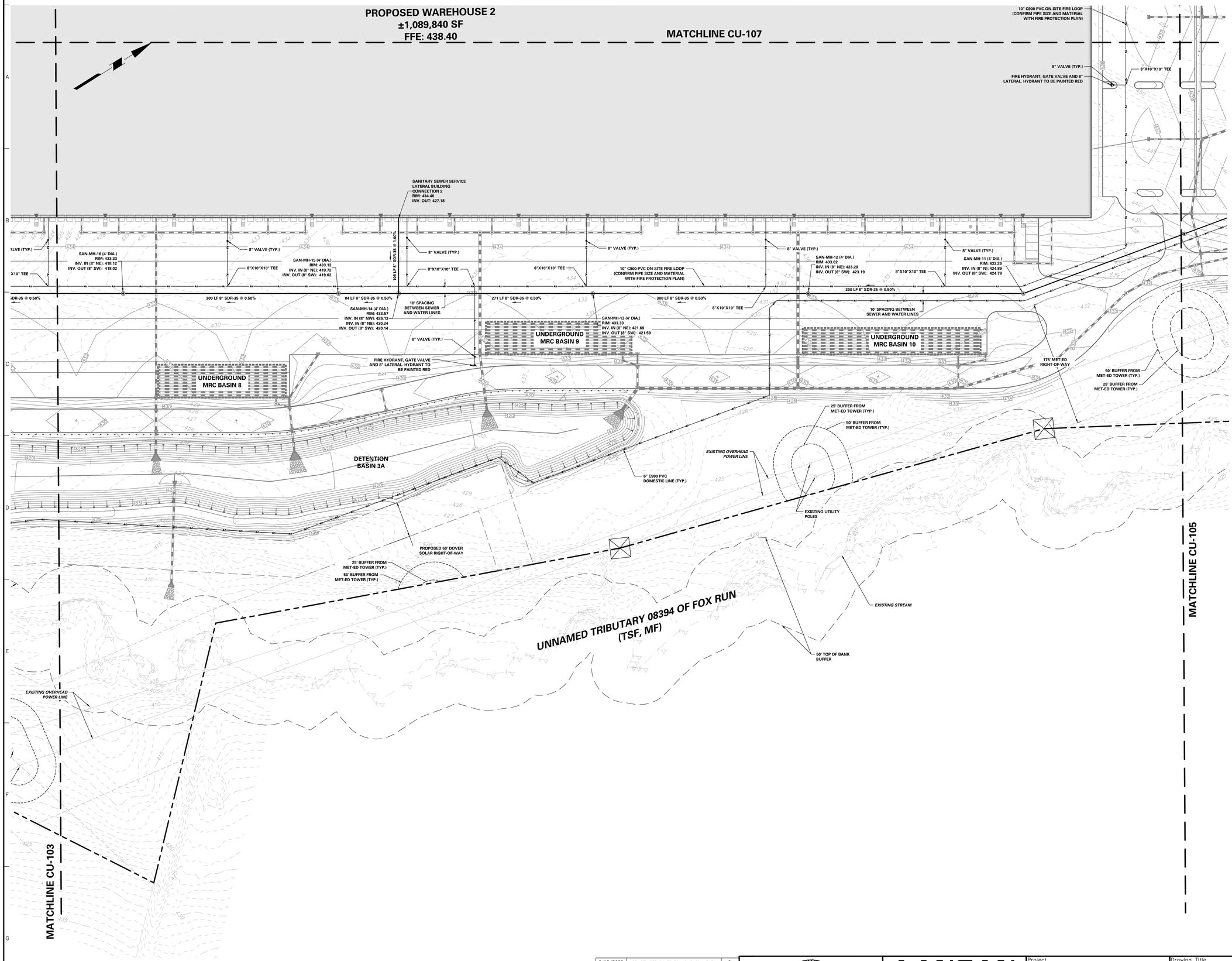
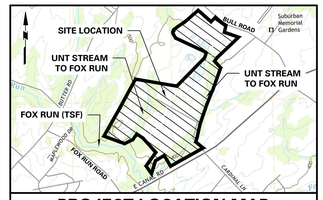
Date: 8/14/2025 Time: 23:58 User: mrynn Style Table: Langan.stb Layout: CU-102 Document Code: 200164401-0301-CU101-0103

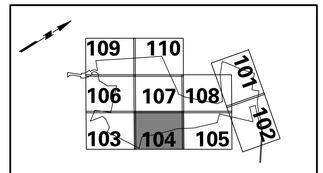




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- GROWTH BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 1996-400 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- EXISTING FENCE
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- HANDICAP RAMP
- CONCRETE BOLLARD
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES

- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS

- SOILS BOUNDARY
- SOIL TYPE

UTILITY SYMBOLS

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- EXISTING TELEPHONE
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- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
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CONTACTS

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PITTSBURGH, PA 15275
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3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER KEITH S. OTTES 078526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-104
Sheet 89 of 128

SCALE: 1 INCH = 50 FEET

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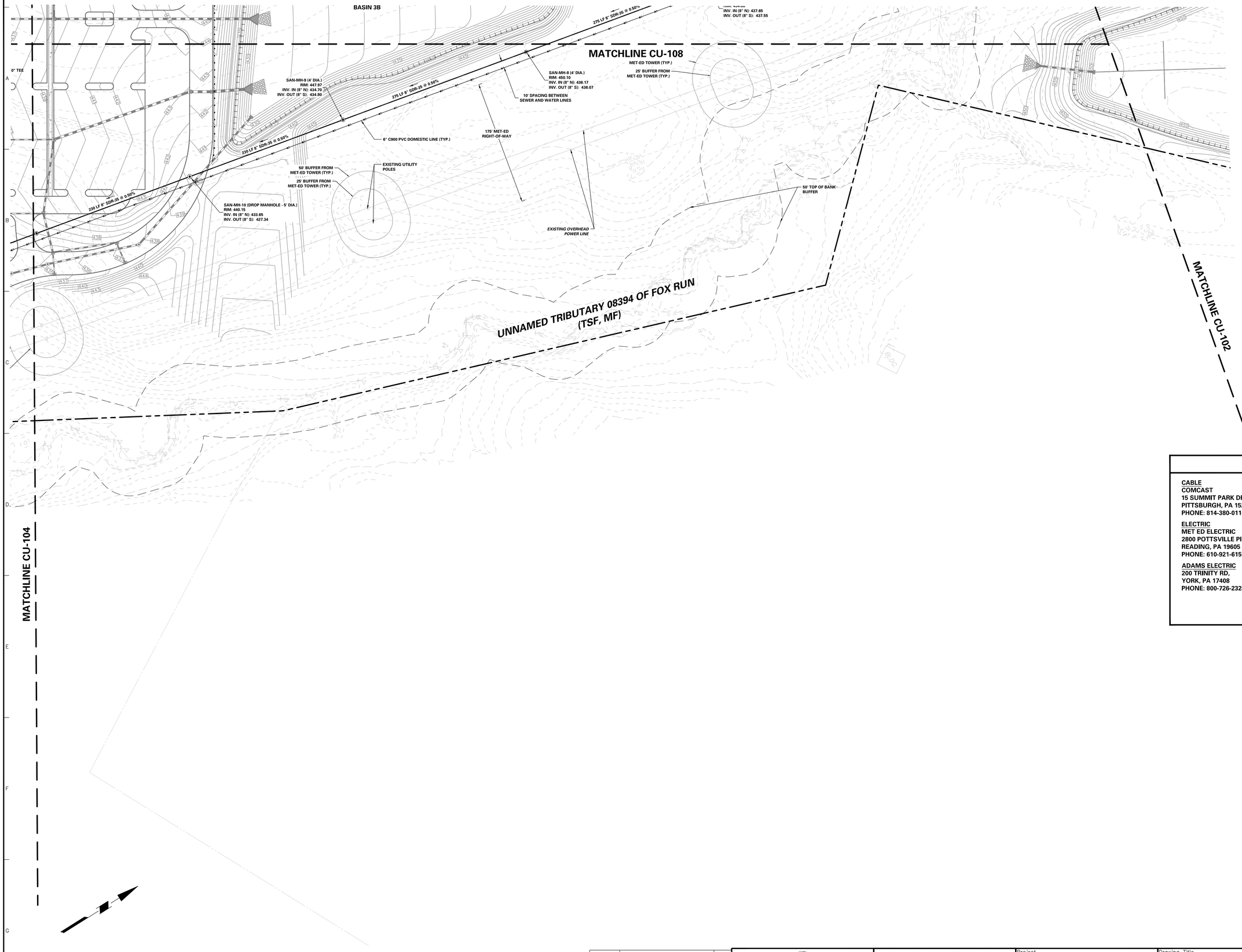
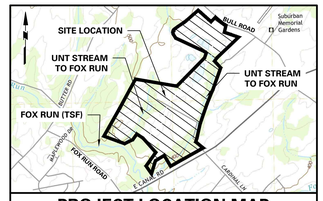
Date: 8/14/2025 Time: 18:46 User: mrynn Style Table: Langan.stb Layout: CU-103 Document Code: 200164401-0301-CU101-0104





PROJECT LOCATION MAP

1" = 2000'

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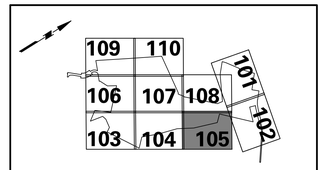
USGS: DOVER QUADRANGLE



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Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-105
Sheet 90 of 128

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Date: 8/14/2025 Time: 18:45 User: mrynn Style Table: Langan.stb Layout: CU-104 Document Code: 200164401-0301-CU101-0105

MATCHLINE CU-109

MATCHLINE CU-103

MATCHLINE CU-107

FOX RUN (TSF, MF)

FOX RUN (TSF, MF)

UNNAMED TRIBUTARY 08396 OF FOX RUN (TSF, MF)

EXISTING WETLAND

PROPOSED WAREHOUSE 2
±1,089,840 SF
FFE: 438.40

UNDERGROUND DETENTION BASIN 6

UNDERGROUND MRC BASIN 21

UNDERGROUND MRC BASIN 16

UNDERGROUND MRC BASIN 11

DETENTION BASIN 4C

MRC BASIN 5

DETEN

8" VALVE (TYP.)
SAN-MH-20 (4' DIA.)
RIM: 436.55
INV. IN (8" NE): 426.23
INV. OUT (8" SE): 426.13
8"X10"X10" TEE
8"X10"X10" TEE
8"X10" CROSS
3" VALVE (TYP.)
3" DOMESTIC WATER LINE
70 LF 8" SDR-35 @ 0.50%
8" C900 PVC FIRE WATER LATERAL
203 LF 8" SDR-35 @ 0.50%
8"X10"X10" TEE
129 LF 8" SDR-35 @ 0.50%
SAN-MH-19 (4' DIA.)
RIM: 436.55
INV. IN (8" NW): 427.34
INV. OUT (8" SW): 427.24
8" VALVE (TYP.)
FIRE HYDRANT, GATE VALVE AND 8" LATERAL. HYDRANT TO BE PAINTED RED
SAN-MH-21 (4' DIA.)
RIM: 435.02
INV. IN (8" NW): 425.48
INV. OUT (8" E): 425.38
45 DEGREE BEND
45 LF 8" SDR-35 @ 0.50%
SAN-MH-22 (4' DIA.)
RIM: 433.35
INV. IN (8" W): 425.16
INV. OUT (8" SE): 425.06
215 LF 8" SDR-35 @ 0.50%
SAN-MH-23 (DROP MANHOLE - 5' DIA.)
RIM: 430.82
INV. IN (8" NW): 423.98
INV. OUT (8" SE): 419.74
UNDERGROUND GAS LINE
10" C900 PVC FIRE WATER SERVICE
6" C900 PVC DOMESTIC WATER SERVICE
UNDERGROUND TELECOMMUNICATIONS & ELECTRIC LINES
248 LF 8" SDR-35 @ 0.50%
SAN-MH-24 (4' DIA.)
RIM: 431.98
INV. IN (8" NW): 418.50
INV. OUT (8" E): 418.40
31 LF 8" SDR-35 @ 0.50%
SAN-MH-25 (4' DIA.)
RIM: 432.65
INV. IN (8" W): 418.24
INV. OUT (8" SE): 418.14
105 LF 8" SDR-35 @ 0.50%
SAN-MH-26 (4' DIA.)
RIM: 432.76
INV. IN (8" NW): 417.62
INV. OUT (8" SW): 417.52
FIRE HYDRANT, GATE VALVE AND 8" LATERAL. HYDRANT TO BE PAINTED RED
8" VALVE (TYP.)
3"X6"X6" TEE
287 LF 8" SDR-35 @ 0.50%
SAN-MH-27 (4' DIA.)
RIM: 430.90
INV. IN (8" NE): 416.08
INV. OUT (8" S): 415.98
SAN-MH-28 (4' DIA.)
RIM: 437.78
INV. IN (8" N): 415.56
INV. OUT (8" SE): 415.46
181 LF 6" SDR-35 @ 0.50%
45 DEGREE BEND
8" VALVE (TYP.)
8"X10"X10" TEE
3" C900 PVC LATERAL (TYP.)
3" VALVE (TYP.)
8" VALVE (TYP.)
3" DOMESTIC WATER CONNECTION TO BUILDING TO BE CAPPED AT 5 FT OUTSIDE OF BUILDING. COORDINATE BUILDING CONNECTION WITH MEP AND FIRE PROTECTION PLAN
263 LF 8" SDR-35 @ 0.50%
SAN-MH-29 (4' DIA.)
RIM: 437.36
INV. IN (8" NW): 414.14
INV. OUT (8" SE): 414.04
153 LF 8" SDR-35 @ 0.50%
6" C900 PVC DOMESTIC LINE (TYP.)
10" C900 PVC ON-SITE FIRE LOOP (CONFIRM PIPE SIZE AND MATERIAL WITH FIRE PROTECTION PLAN)
SAN-MH-30 (4' DIA.)
RIM: 437.06
INV. IN (8" NW): 413.27
INV. OUT (8" SE): 413.17
SAN-MH-32A (4' DIA.)
RIM: 402.07
INV. IN (8" E): 392.01
INV. OUT (8" S): 391.20
TOP OF PIPE ELEVATION: 396.88'
GAS MAIN CROSSING TO BE COORDINATED WITH TEXAS EASTERN
PROPOSED 40' DOVER SOLAR RIGHT-OF-WAY
10' WIDE DOVER SOLAR TEMPORARY CONSTRUCTION ACCESS EASEMENT
PROPOSED 50' DOVER SOLAR RIGHT-OF-WAY
50' TOP OF BANK BUFFER
WIDTH GRAVEL ACCESS ROAD (TO BE PAVED)
410.15
409.71
411.12
411.07
407.16
407.11

50 0 25 50
SCALE: 1 INCH = 50 FEET

PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE

SITE LOCATION
UNT STREAM TO FOX RUN
UNT STREAM TO FOX RUN
FOX RUN (TSF)
BULL ROAD
Suburban Memorial Gardens
BENTZEL RD
DAVIDSON DR
FOX RUN ROAD
E MAIN ST
CAROLINA DR

KEY MAP

SCALE: 1" = 2000'

109 110 101 102 106 107 108 103 104 105

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TOWNSHIP ENGINEER
C.S. DAVIDSON - YORK OFFICE
38 NORTH DUKE STREET
YORK, PA 17401
PHONE: 717-846-4805

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

ACT 287 AS AMENDED

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PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE, AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PENNSYLVANIA

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-106
Sheet 91 of 128

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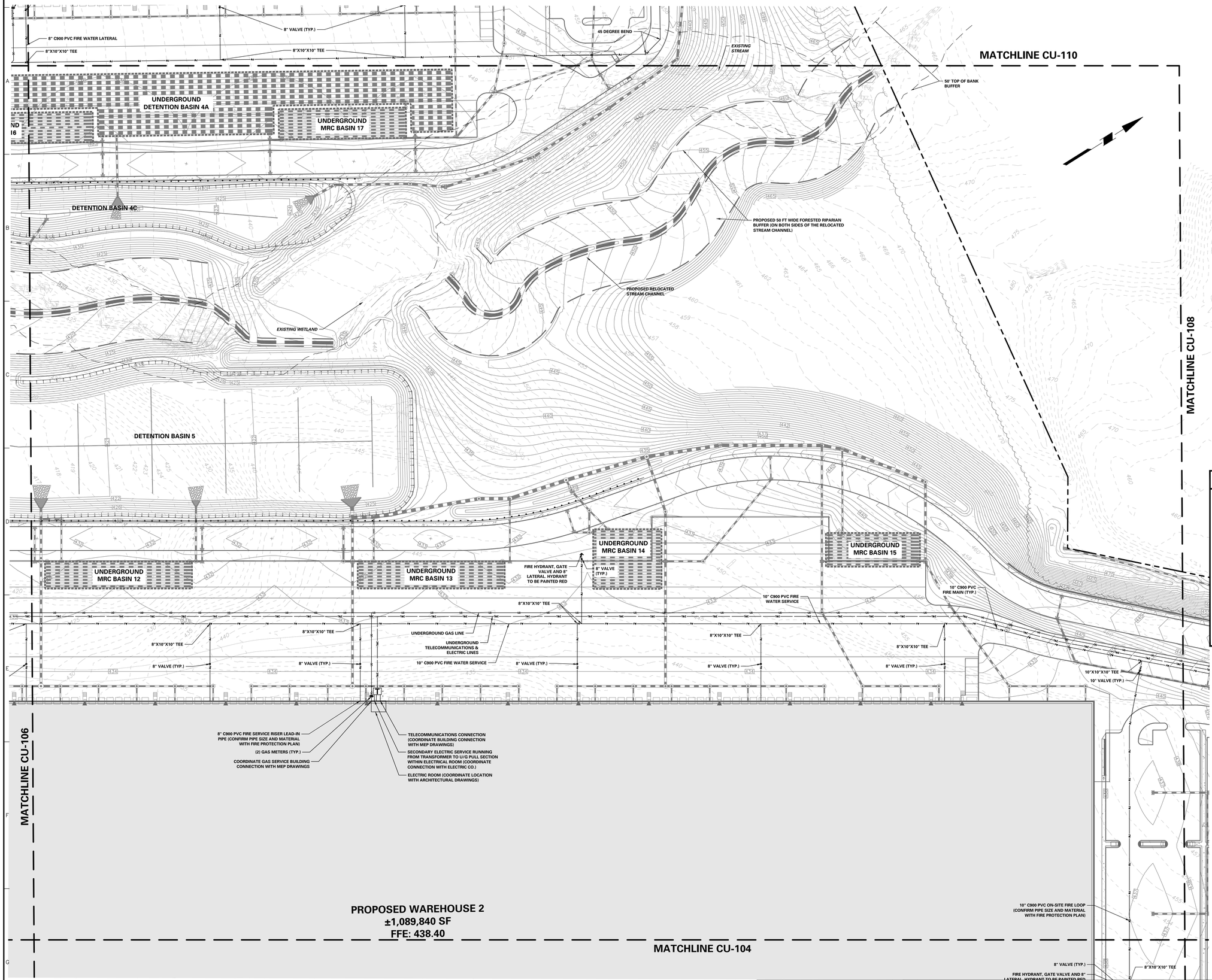
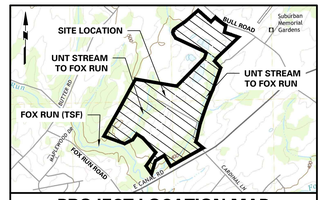
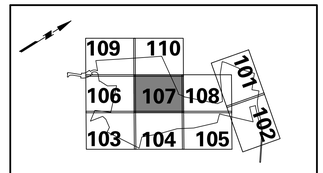
Date: 8/14/2025 Time: 22:44 User: mrynn Style Table: Langan.stb Layout: CU-106 Document Code: 200164401-0301-CU101-0107







LEGEND

LOT SYMBOLS

EXISTING ZONING BOUNDARY
EXISTING MUNICIPAL BOUNDARY
PROPOSED LOT LINE
EXISTING RIGHT-OF-WAY
PROPERTY LINE
RIGHT-OF-WAY DEDICATION
CONCRETE MONUMENT TO BE SET
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SOILS SYMBOLS

SOILS BOUNDARY
SOILS TYPE

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Signature 8/15/2025 Date
KEITH S. OTTES
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BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. CU-107
Sheet 92 of 128

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SCALE: 1 INCH = 50 FEET

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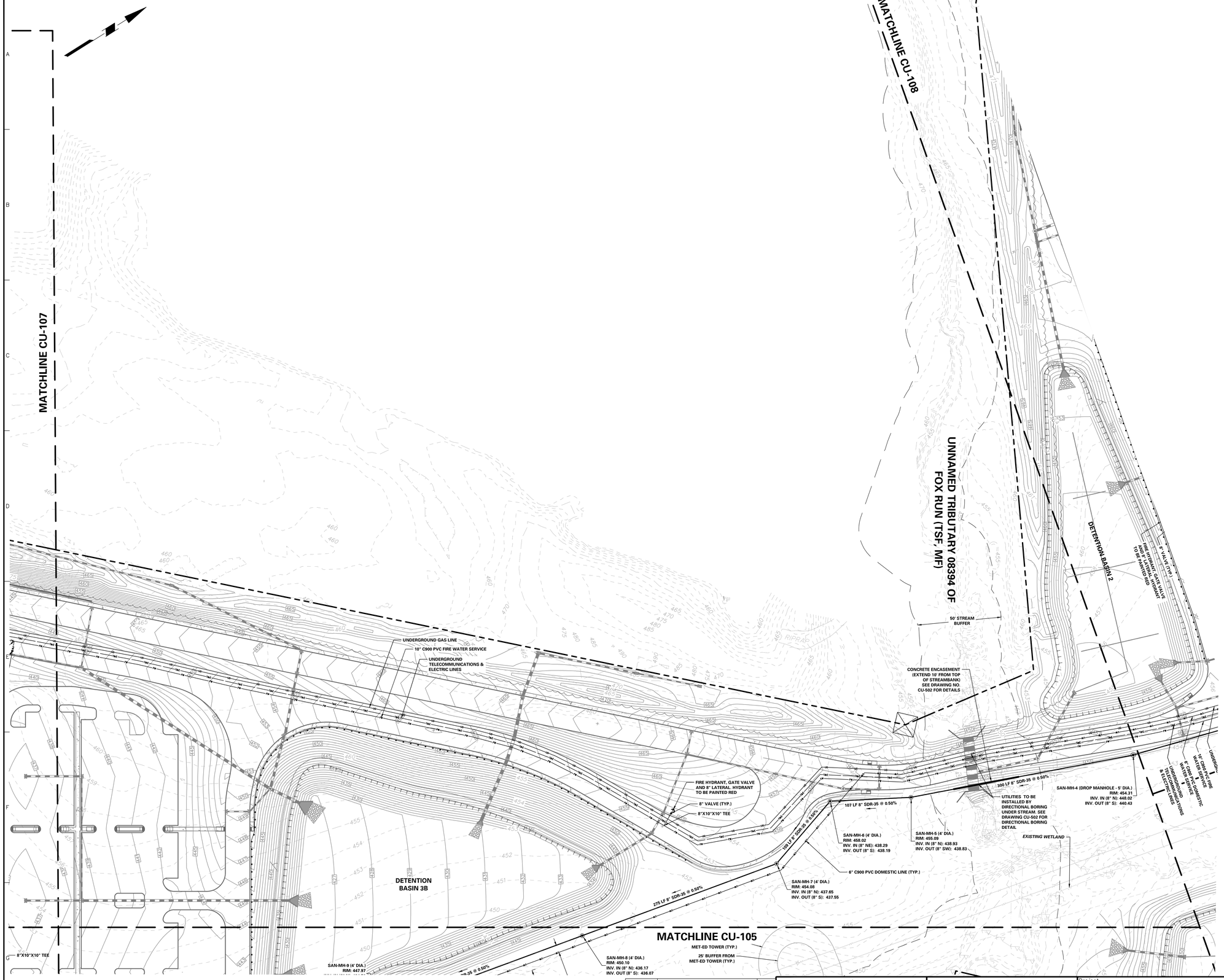
Date: 8/14/2025 Time: 19:13 User: mrynn Style Table: Langan.stb Layout: CU-107 Document Code: 200164401-0301-CU101-0108



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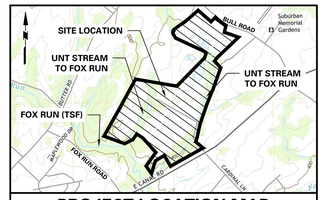
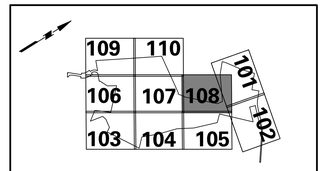


PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
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1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA — KEITH S. OTTES — REGISTERED PROFESSIONAL ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

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BULL ROAD LOGISTICS
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YORK COUNTY PENNSYLVANIA

Drawing Title
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Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-108
Sheet 93 of 128

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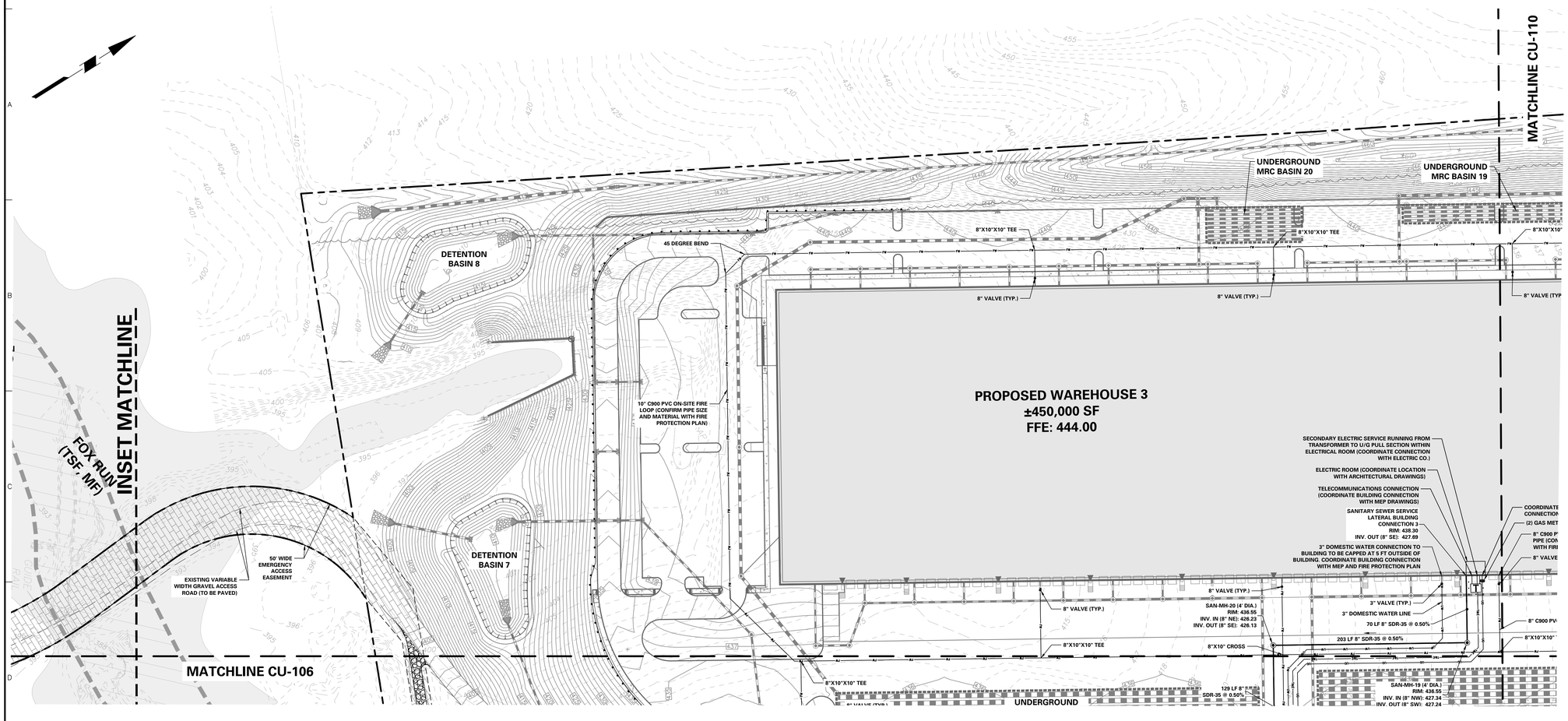
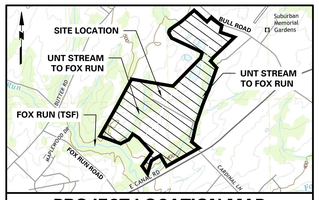
Date: 8/14/2025 Time: 19:10 User: mrynn Style Table: Langan.stb Layout: CU-108 Document Code: 200164401-0301-CU101-0109





PROJECT LOCATION MAP

1" = 2000'

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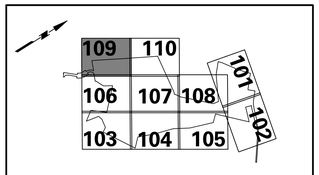

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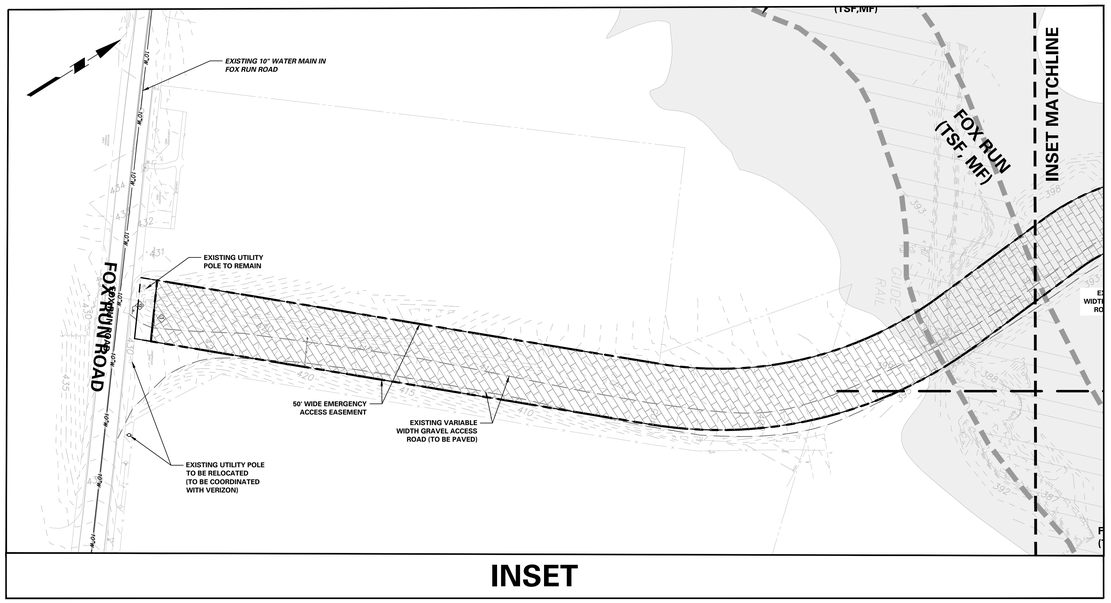

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Signature 8/15/2025 Date

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Sheet 94 of 128

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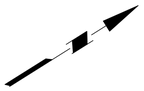
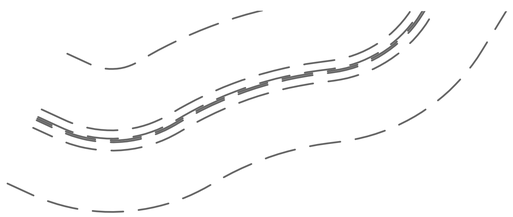
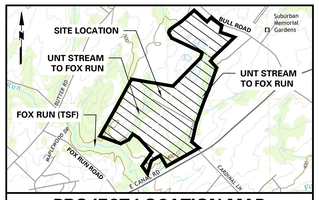
MATCHLINE CU-109



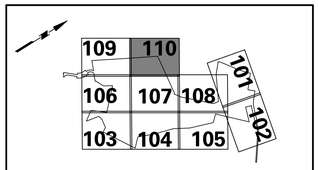




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

LEGEND

LOT SYMBOLS

- EXISTING ZONING BOUNDARY
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPERTY LINE
- RIGHT-OF-WAY DEDICATION
- CONCRETE MONUMENT TO BE SET
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- BUFFER SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT

GRADING & DRAINAGE SYMBOLS

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION (x 360.3)
- PROPOSED SPOT ELEVATION (+ 360.3)
- TRM 433 EMERGENCY SPILLWAY LINER
- FORESTED RIPARIAN BUFFER (PCSM)
- SWALE LINER
- EROSION CONTROL BLANKET

SITE SYMBOLS

- CURB LINE
- PROPOSED BUILDING LINE
- PROPOSED FENCE (CHAIN LINK)
- PROPOSED FENCE (POST AND RAIL)
- GUIDE RAIL
- RETAINING WALL
- SIDEWALK
- PROPOSED TREELINE/VEGETATIVE BUFFER
- EXISTING TREELINE/VEGETATIVE BUFFER
- LOCATION OF INGRESS/EGRESS
- LOADING DOCK DOOR
- DEPRESSED CURB
- LIGHT POLE
- ADA CURB RAMP
- CONCRETE SIDEWALK
- SIGN
- PARKING ROW COUNT

NATURAL FEATURES

- STREAM CENTER LINE
- STREAM BUFFER
- EXISTING WETLAND
- EXISTING 100-YEAR FLOODPLAIN

SOILS SYMBOLS

- SOILS BOUNDARY
- SOILS TYPE

UTILITY SYMBOLS

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS MAIN
- PROPOSED FIRE MAIN
- PROPOSED DOMESTIC WATER MAIN
- PROPOSED TELEPHONE AND ELECTRIC
- PROPOSED SANITARY FORCE MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING MANHOLE
- EXISTING ELECTRIC POLE
- PROPOSED HYDRANT
- UTILITY POLE OFFSET

CONTACTS

CABLE
COMCAST
15 SUMMIT PARK DRIVE
PITTSBURGH, PA 15275
PHONE: 814-380-0116

ELECTRIC
MET ED ELECTRIC
2800 POTTSVILLE PIKE
READING, PA 19605
PHONE: 610-921-6157

ADAMS ELECTRIC
200 TRINITY RD,
YORK, PA 17408
PHONE: 800-726-2324

TELECOMMUNICATIONS
VERIZON
31 S BEAVER STREET
YORK, PA 17401
PHONE: 717-771-5298

GAS
COLUMBIA GAS OF PENNSYLVANIA
1600 COLONY ROAD
YORK, PA 17408
PHONE: 717-676-2419

WATER
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

SEWER AUTHORITY
DOVER TOWNSHIP PUBLIC WORKS
2480 W CANAL RD
DOVER, PA 17315
PHONE: 717-292-3634
FAX: 717-292-1136

TOWNSHIP ENGINEER
C.S. DAVIDSON - YORK OFFICE
38 NORTH DUKE STREET
YORK, PA 17401
PHONE: 717-846-4805

SURVEYOR, CIVIL & TRAFFIC ENGINEER
LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653
P: 215.491.6500 F: 215.491.6501

APPLICANT/OWNER
BULL CANAL DOVER OWNER LLC
845 TEXAS AVENUE, SUITE 3300
HOUSTON, TX 77002
PHONE: 678-699-7594

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITIES AND TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS NOTICE FOR DESIGN STAGE
STOP IS CALL FREE

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	MR
Checked By	SMH

Drawing No. CU-110
Sheet 95 of 128

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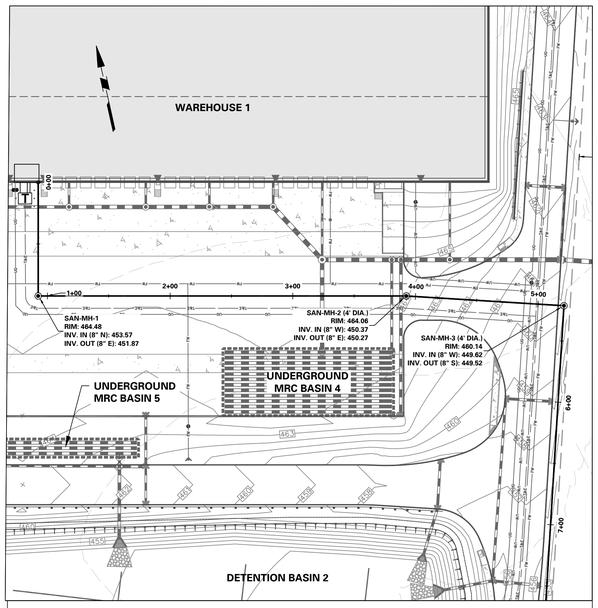
Date: 8/14/2025 Time: 19:03 User: mrynn Style Table: Langan.stb Layout: CU-110 Document Code: 200164401-0301-CU101-0111

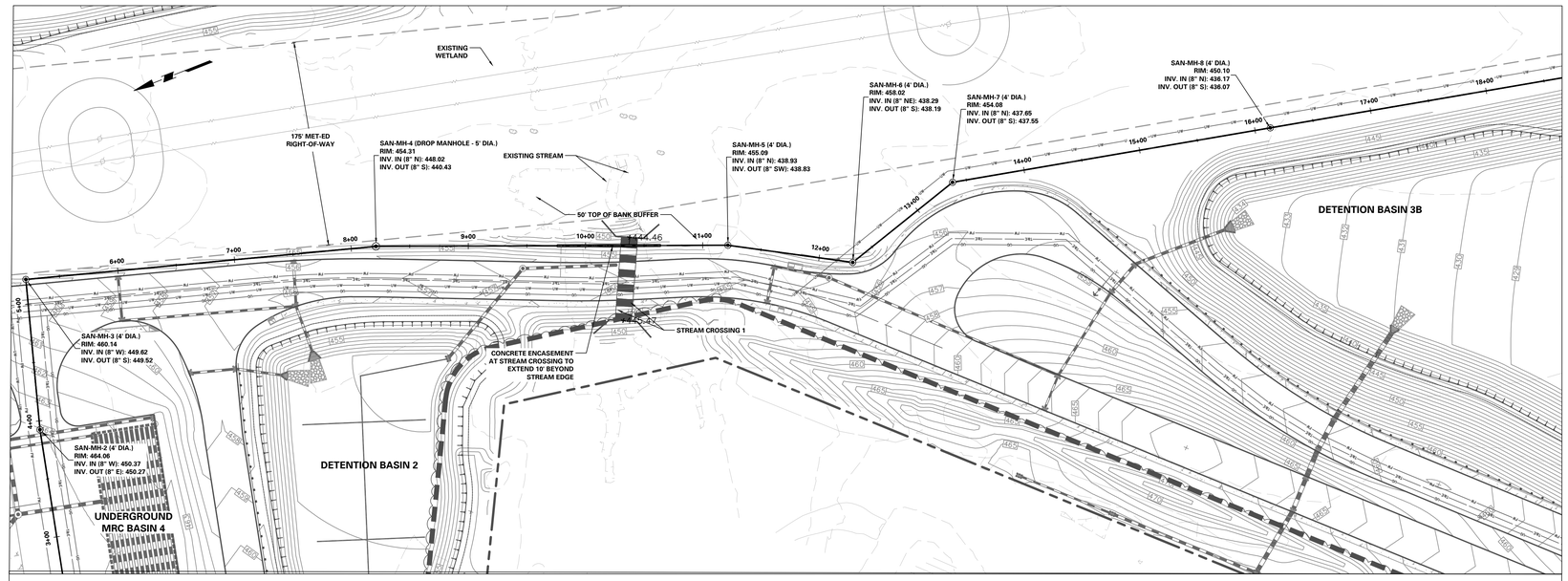


PLAN VIEW - WAREHOUSE 1 SANITARY CONNECTION: BUILDING CONNECTION TO SAN-MH-3

SCALE 1" = 50'

50 0 50

HORIZONTAL SCALE: 1 INCH = 50 FEET

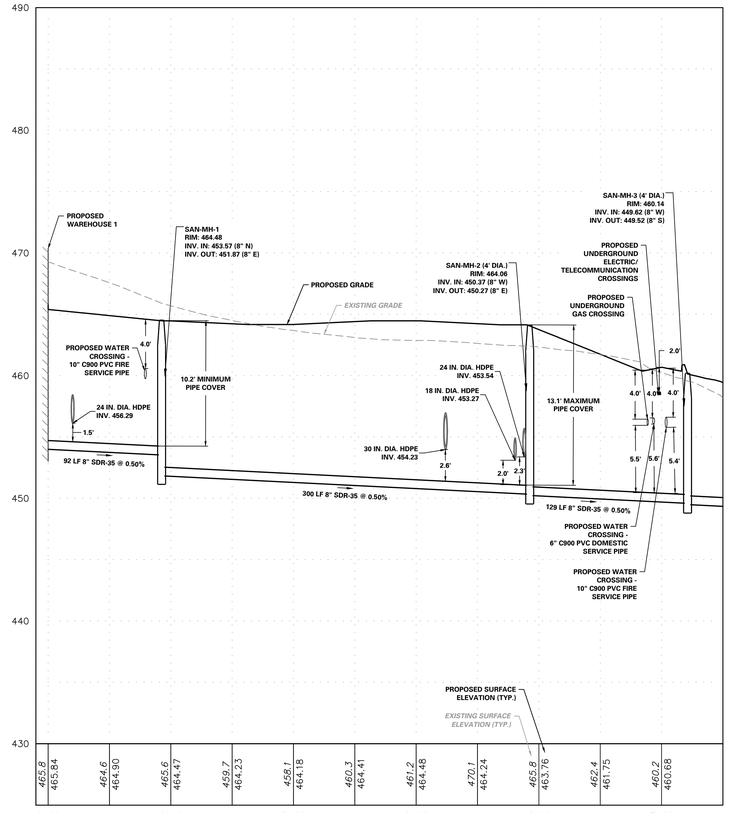


PLAN VIEW - WAREHOUSE 1 SANITARY CONNECTION: SAN-MH-3 TO SAN-MH-8

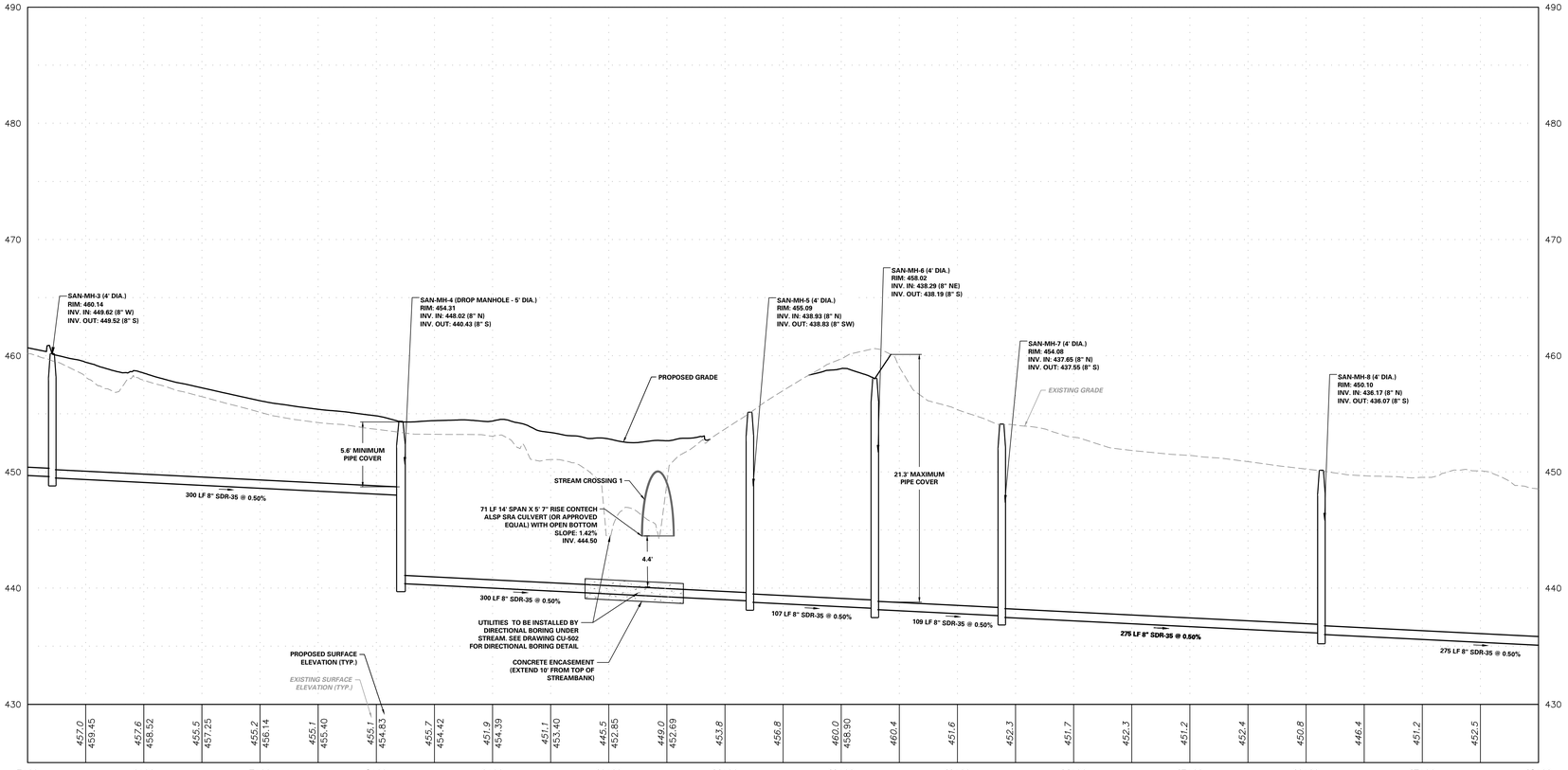
SCALE 1" = 50'

50 0 50

HORIZONTAL SCALE: 1 INCH = 50 FEET



WAREHOUSE 1 SANITARY CONNECTION TO SAN-MH-3 (STA 0+00 TO 5+50) PROFILE



SAN-MH-3 TO SAN-MH-8 (STA. 5+50 TO 18+00) PROFILE

50 0 50

HORIZONTAL SCALE: 1 INCH = 50 FEET

5 0 5

VERTICAL SCALE: 1 INCH = 5 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CU-201
Sheet 96 of 128

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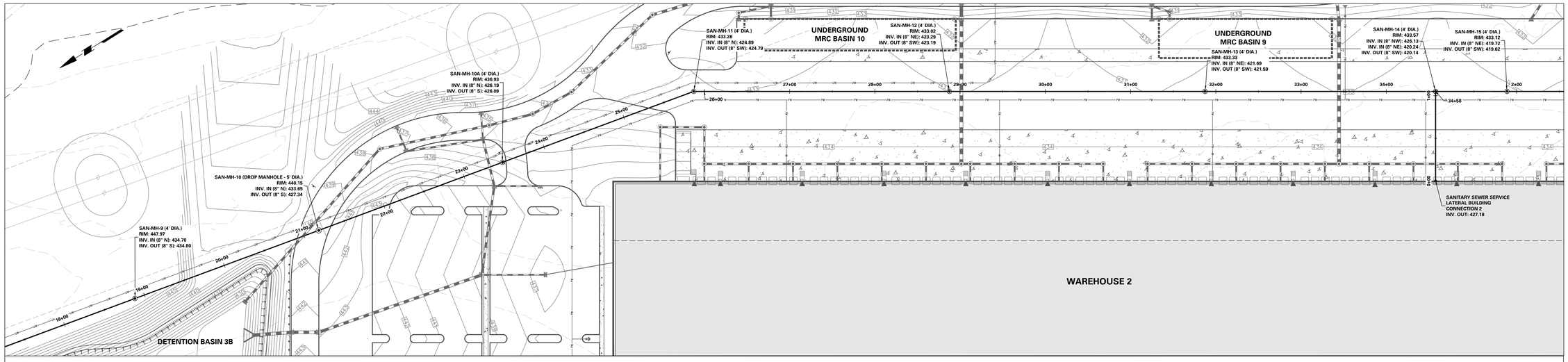
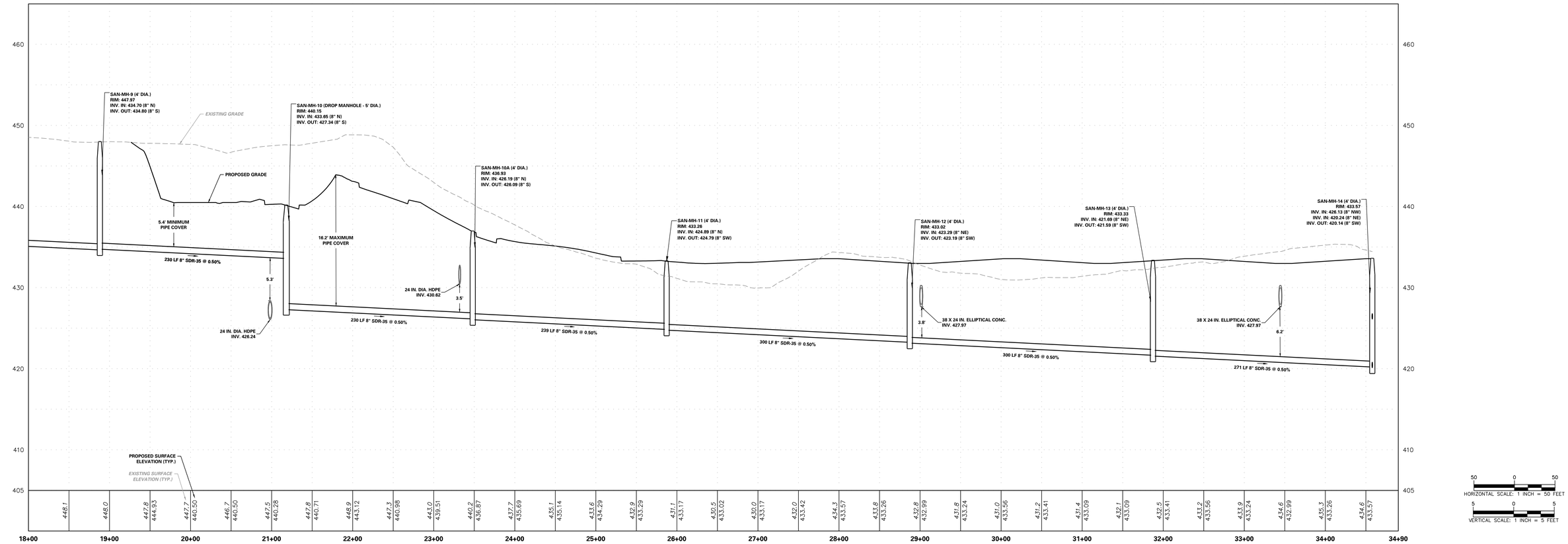


WAREHOUSE 1 SANITARY CONNECTIONS: SAN-MH-9 TO SAN-MH-14
SCALE: 1" = 50'

HORIZONTAL SCALE: 1 INCH = 50 FEET



SAN-MH-9 TO SAN-MH-14 (STA. 18+00 TO 34+57) PROFILE

HORIZONTAL SCALE: 1 INCH = 50 FEET
VERTICAL SCALE: 1 INCH = 5 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER KEITH S. OTTES

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BCD
Checked By SMH

Drawing No. CU-202
Sheet 97 of 128

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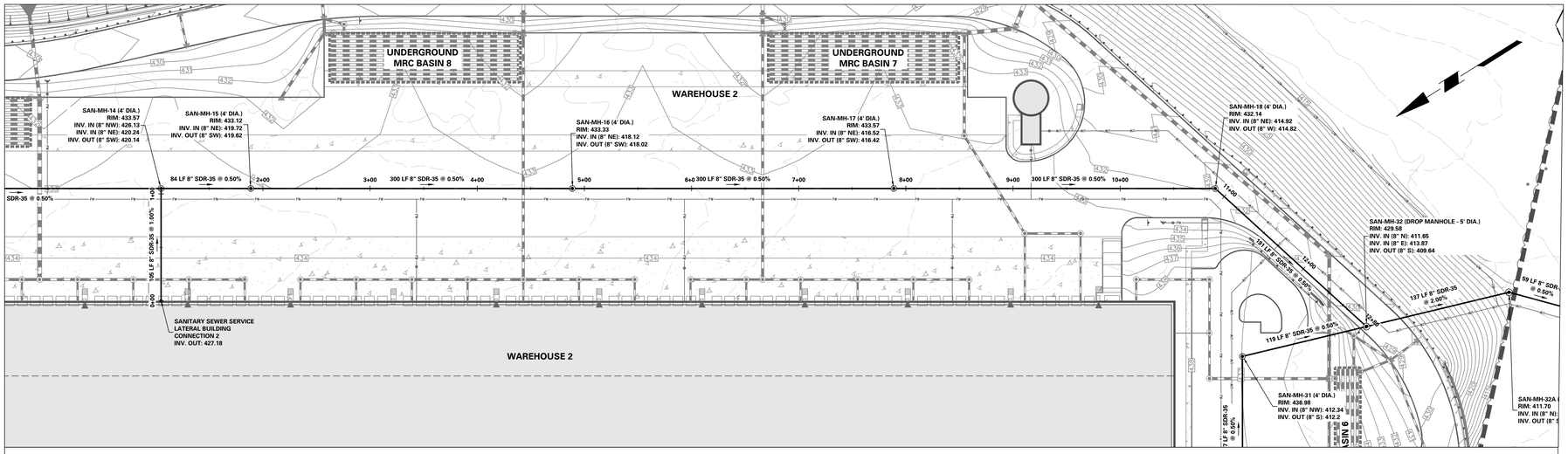
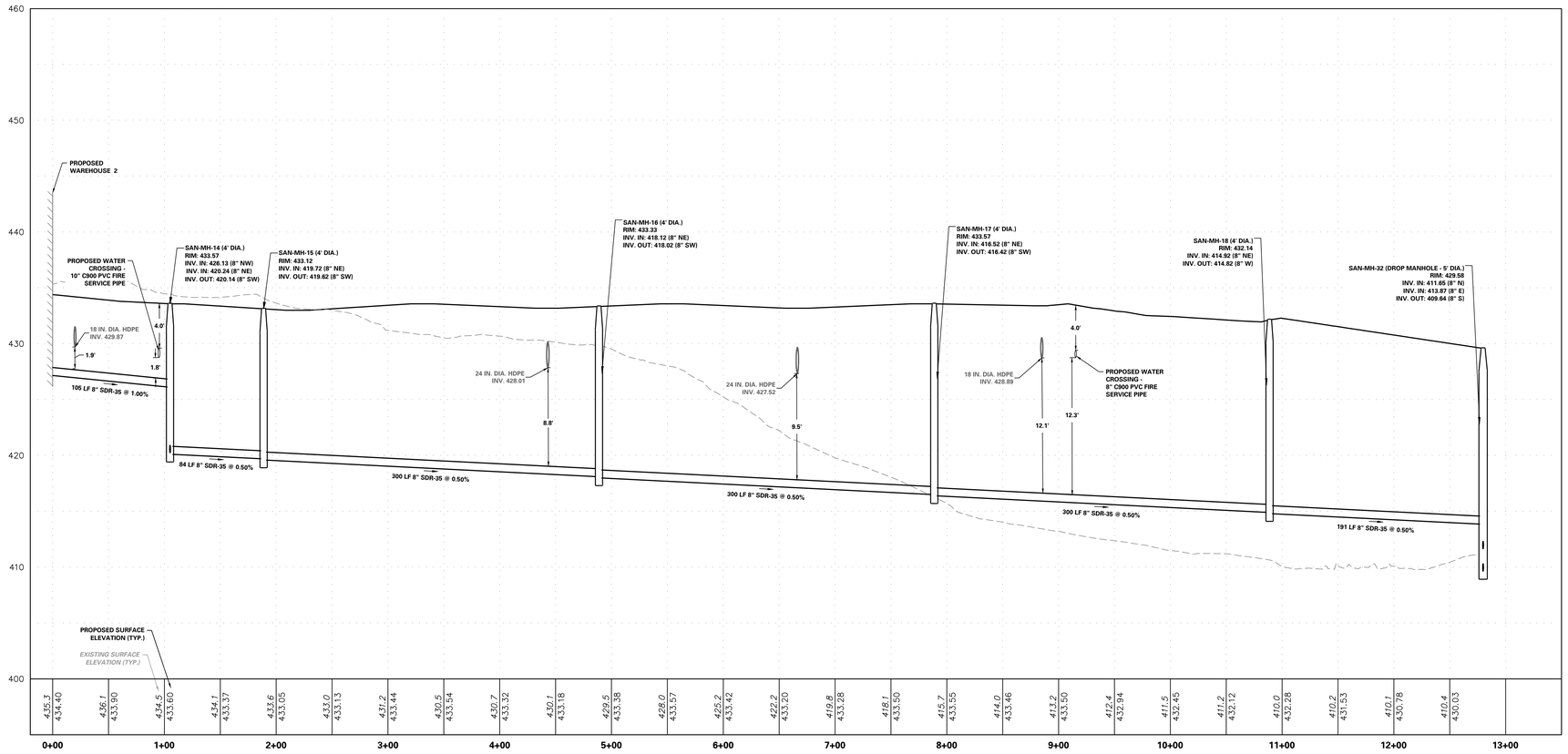


WAREHOUSE 2 SANITARY CONNECTION: BUILDING CONNECTION TO SAN-MH-32
SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



WAREHOUSE 2 SANITARY CONNECTION TO SAN-MH-32 (STA. 0+00 TO 12+80) PROFILE

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET
5 0 5
VERTICAL SCALE: 1 INCH = 5 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CU-203
Sheet 98 of 128

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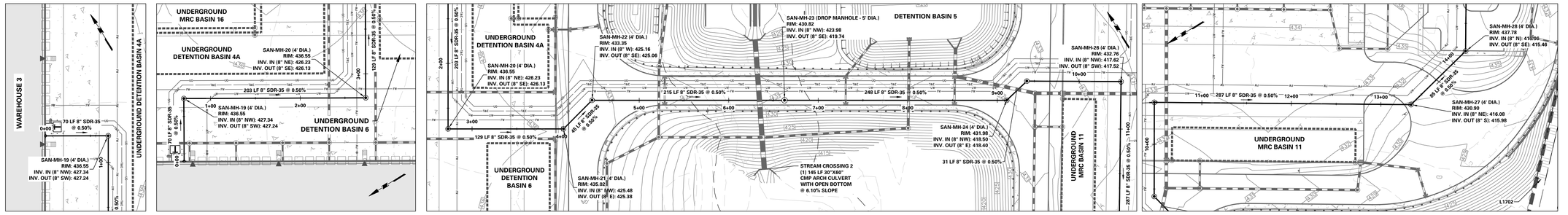
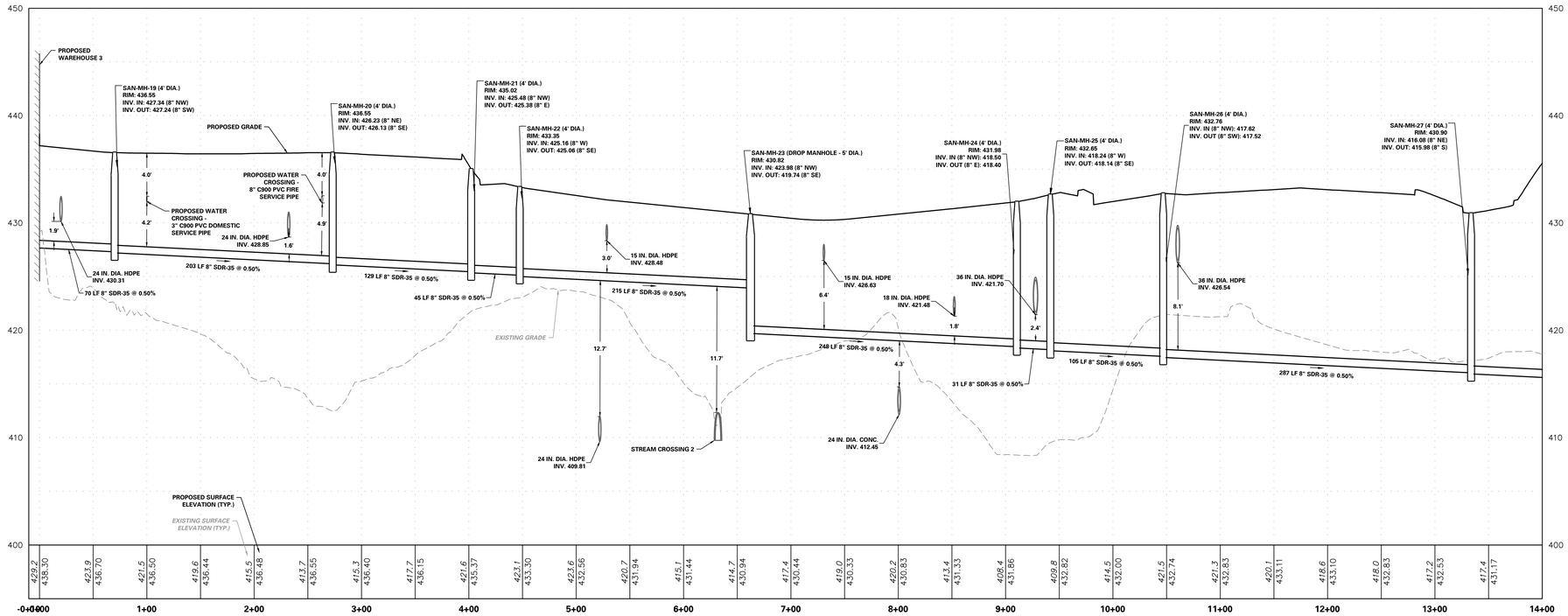


WAREHOUSE 3 SANITARY CONNECTION: BUILDING CONNECTION TO SAN-MH-27

SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



WAREHOUSE 3 SANITARY CONNECTION TO SAN-MH-27 (STA 0+00 TO 14+00) PROFILE

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET
5 0 5
VERTICAL SCALE: 1 INCH = 5 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CU-204
Sheet 99 of 128

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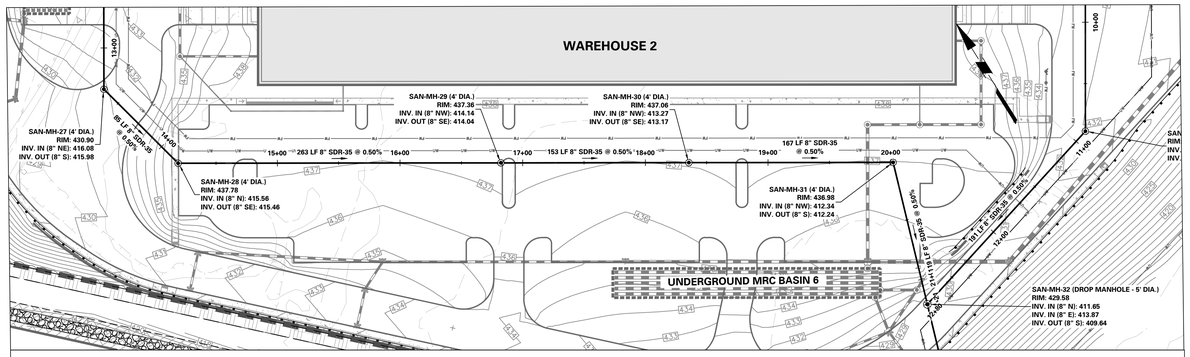
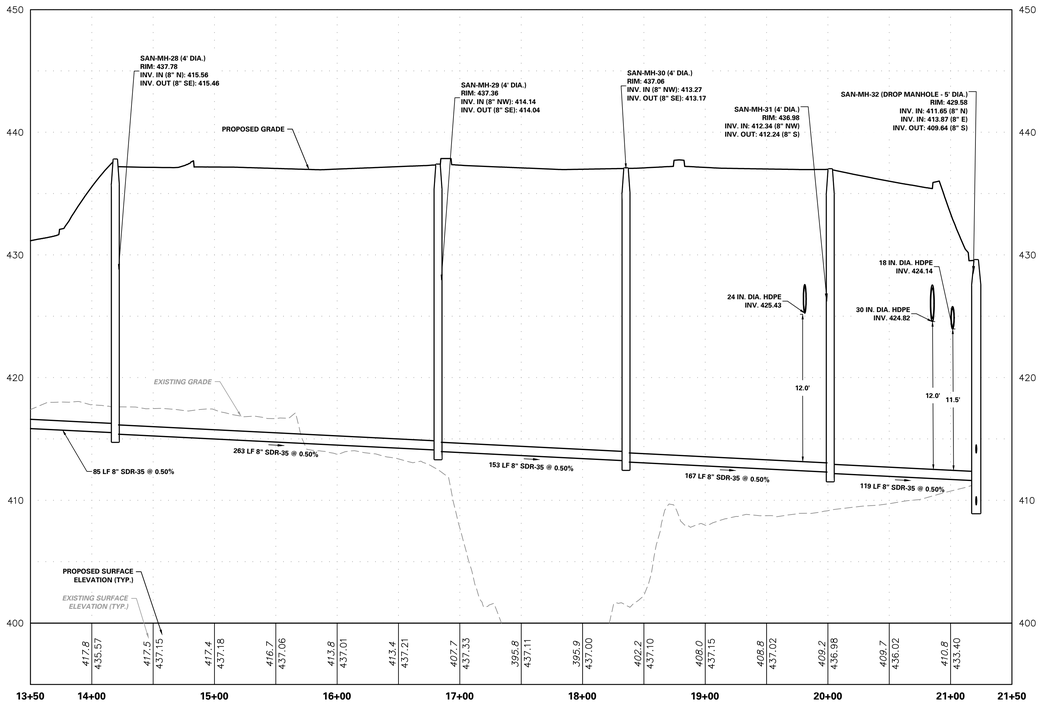
Date: 8/14/2025 Time: 16:21 User: mrynn Style Table: Langan.stb Layout: CU-204 Document Code: 200164401-0301-CU201-0104



SANITARY SEWER CONNECTION TO OFFSITE MAIN: SAN-MH-28 TO SAN-MH-32

SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



SAN-MH-28 TO SAN-MH-32 (STA 14+00 TO 12+80) PROFILE

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET
5 0 5
VERTICAL SCALE: 1 INCH = 5 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526 SURVEYOR

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 6/7/2023
Drawn By MR
Checked By SMH

Drawing No. CU-205
Sheet 100 of 128

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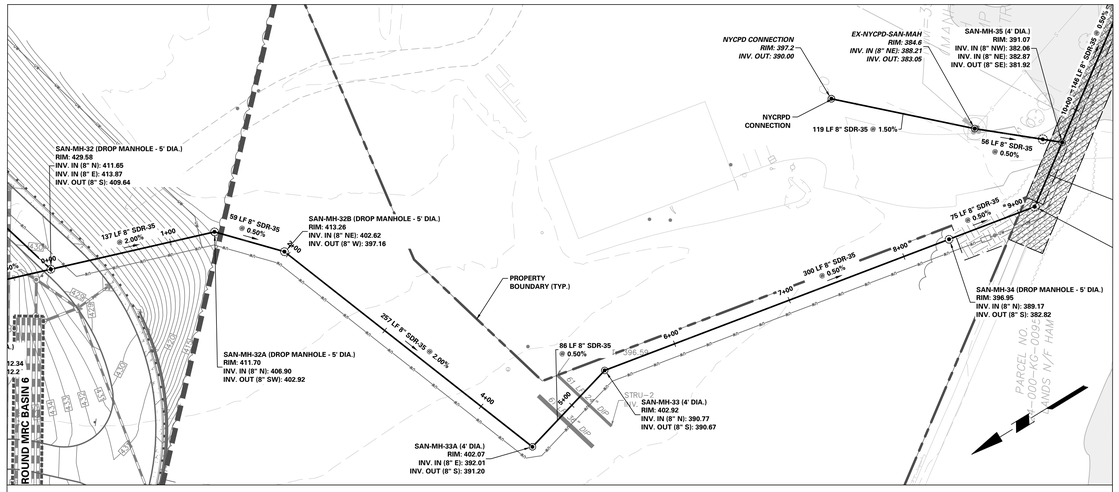
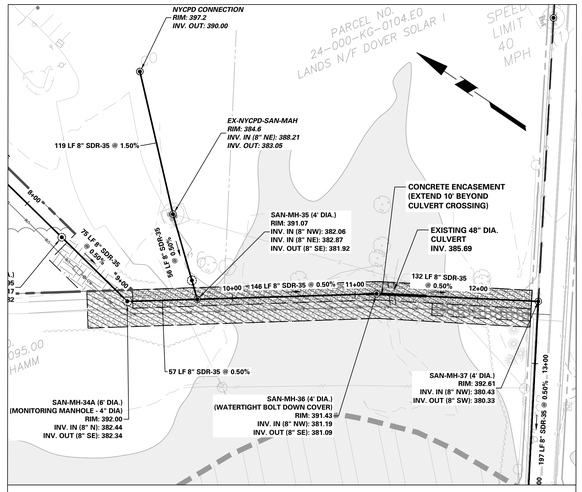
Date: 8/14/2025 Time: 15:27 User: mrynn Style Table: Langan.stb Layout: CU-206 Document Code: 200164401-0301-CU201-0106



SANITARY SEWER CONNECTION TO CANAL RD: SAN-MH-32 TO SAN-MH-34

SCALE: 1" = 50'

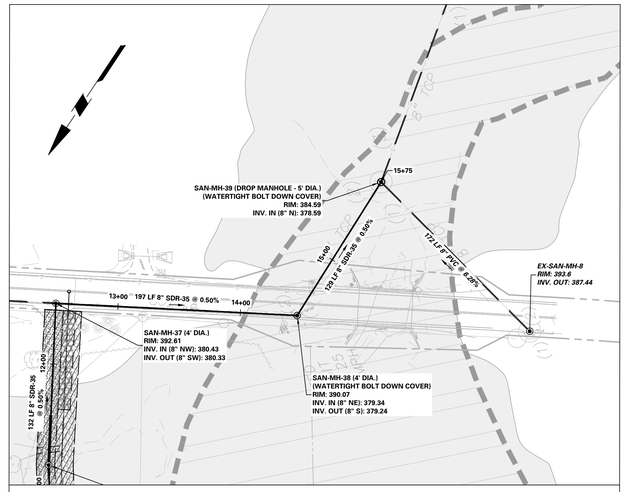
50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



SANITARY SEWER CONNECTION TO CANAL RD: SAN-MH-34A TO SAN-MH-37

SCALE: 1" = 50'

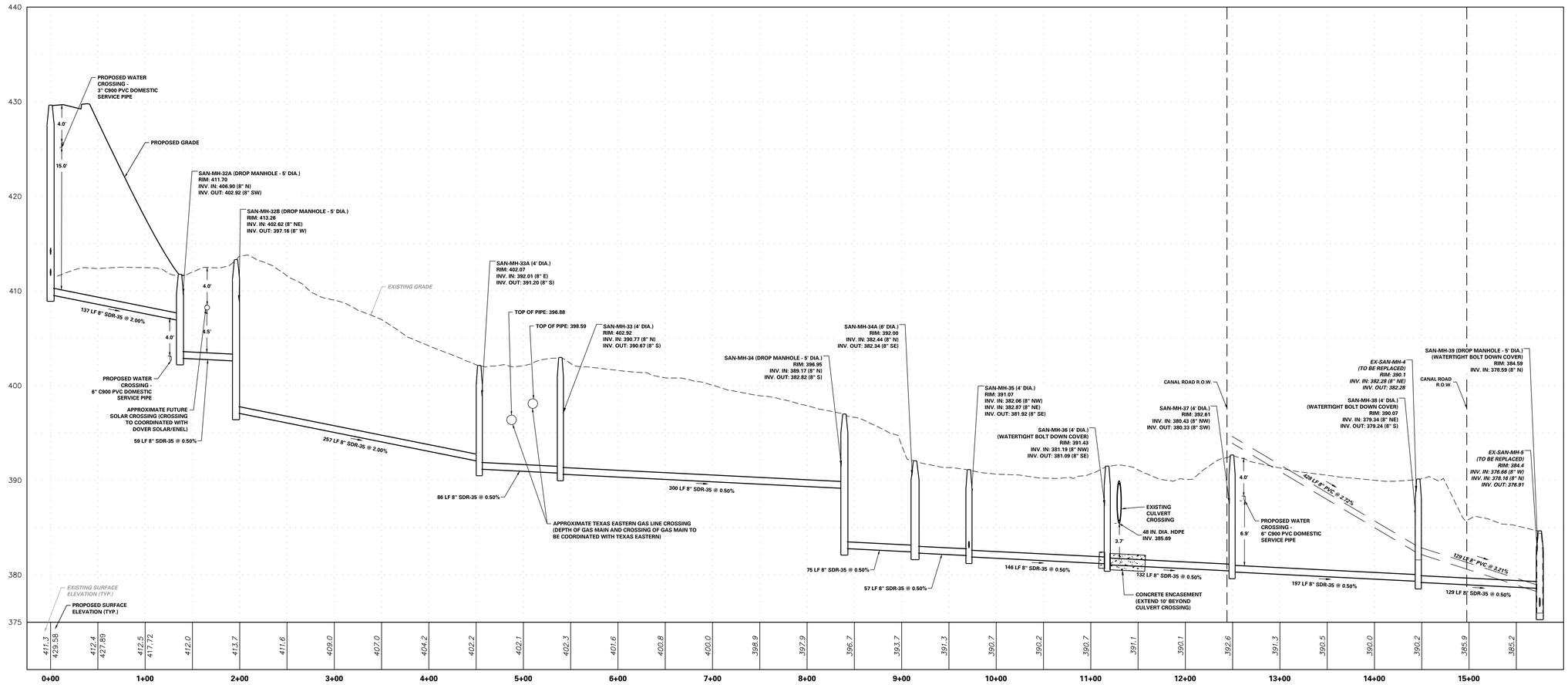
50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



SANITARY SEWER CONNECTION TO CANAL RD: SAN-MH-37 TO SAN-MH-39

SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



SANITARY SEWER CONNECTION TO CANAL ROAD PROFILE

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET
5 0 5
VERTICAL SCALE: 1 INCH = 5 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH S. OTTES ENGINEER PE-074526

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY SANITARY SEWER PROFILES

Project No. 200164401
Date 8/24/2023
Drawn By MR
Checked By SMH

Drawing No. CU-206
Sheet 101 of 128

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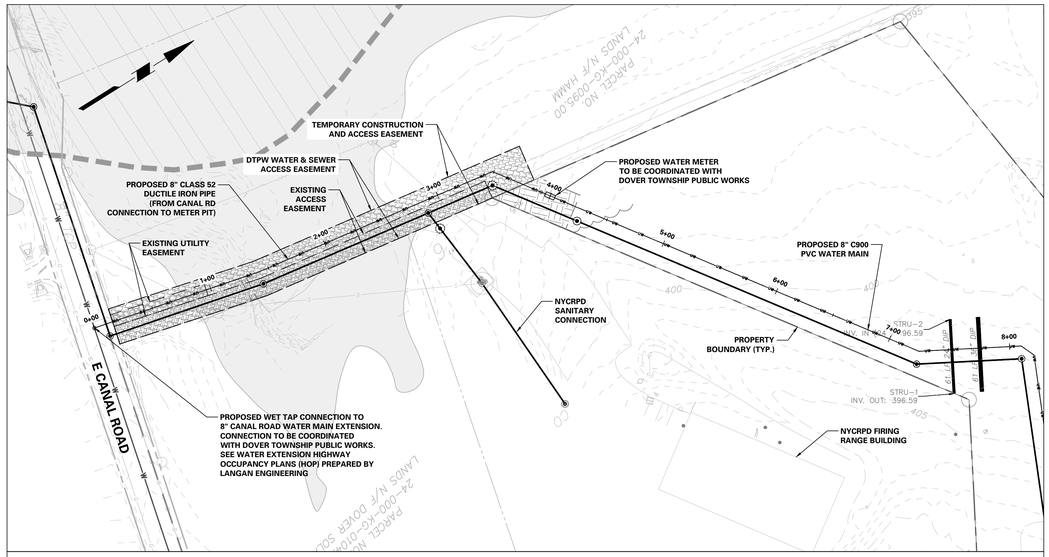
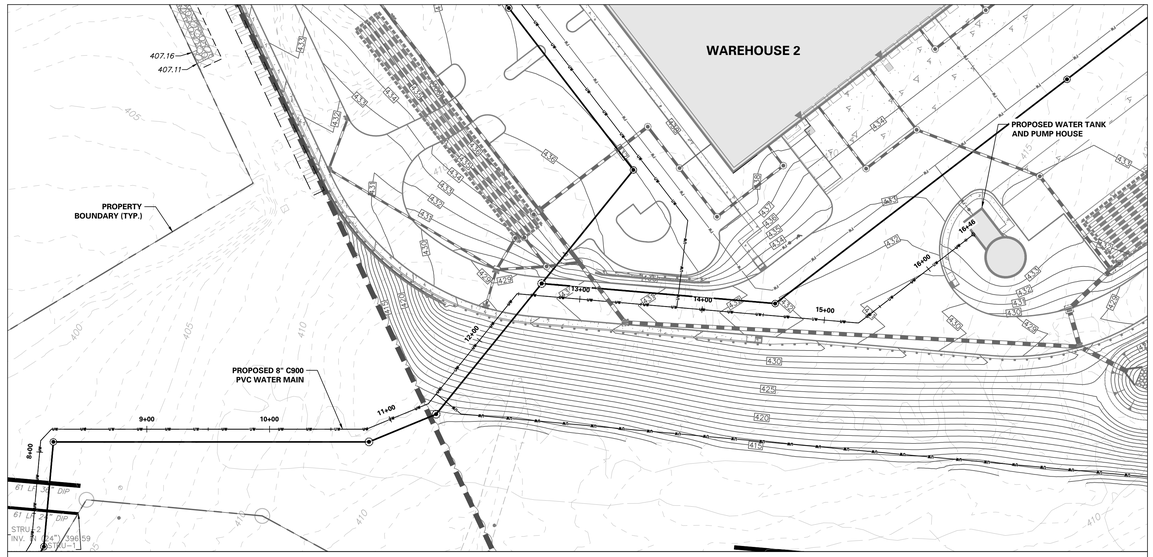
Date: 8/14/2025 Time: 23:51 User: mrynn Style Table: Langan.stb Layout: CU-207 Document Code: 200164401-0301-CU201-0107



WATER MAIN PLAN VIEW: STA: 0+00 TO 8+00
SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



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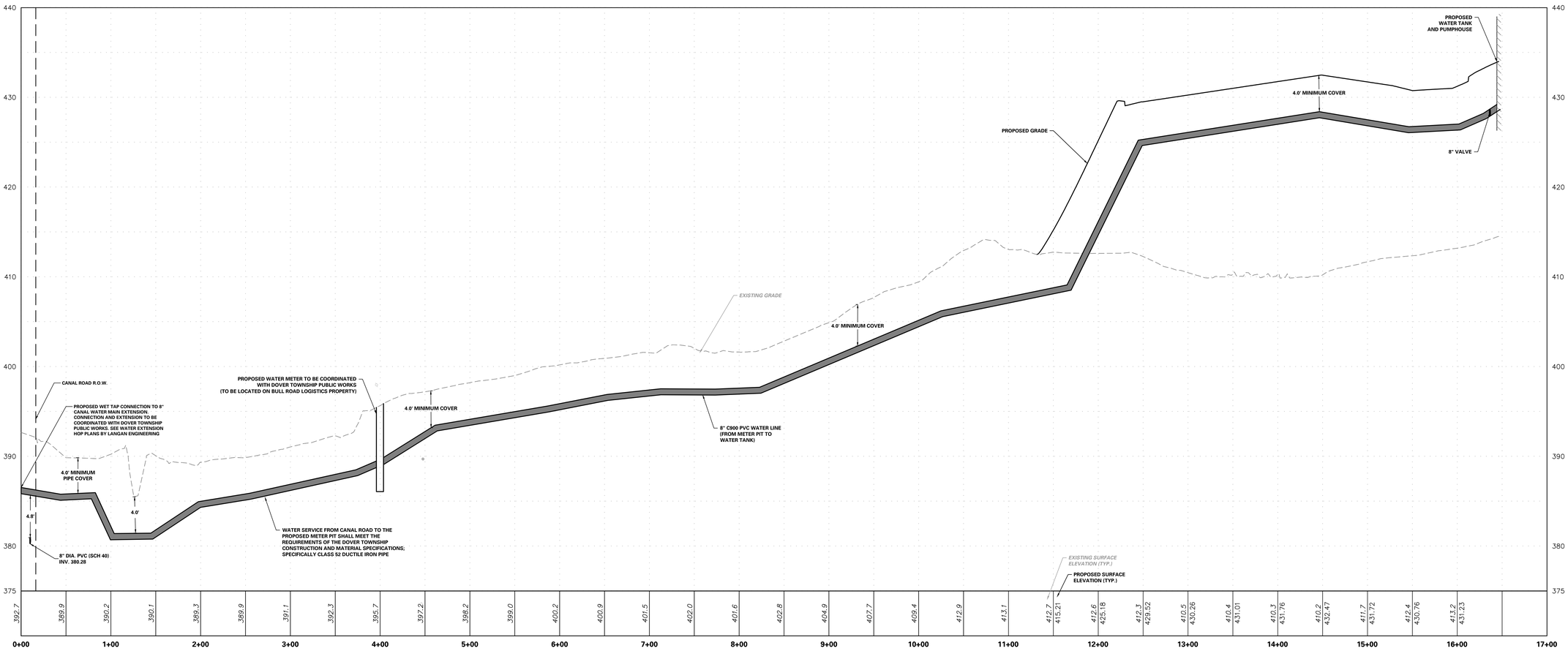
SCALE: 1" = 50'

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET



PROPOSED WATER MAIN (CANAL RD CONNECTION TO PROPOSED WATER TANK) PROFILE

50 0 50
HORIZONTAL SCALE: 1 INCH = 50 FEET
5 0 5
VERTICAL SCALE: 1 INCH = 5 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA — KEITH S. OTTES — PROFESSIONAL ENGINEER — 074526 — 8/15/2025

Signature Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY PROFILES

Project No. 200164401
Date 8/24/2023
Drawn By MR
Checked By SMH

Drawing No. CU-207
Sheet 102 of 128

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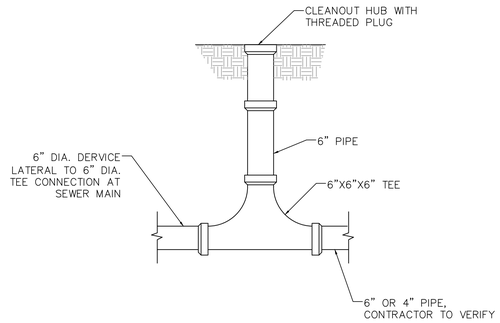
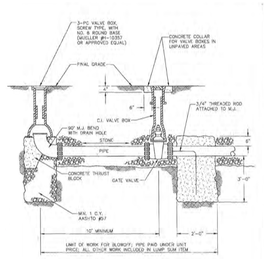
Date: 8/14/2025 Time: 17:52 User: mrynn Style Table: Langan.stb Layout: CU-209 Document Code: 200164401-0301-CU201-0109



NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP CLEANOUT



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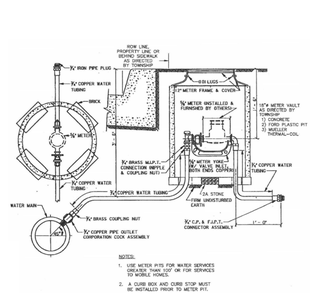
DOVER TOWNSHIP BLOWOFF VALVE



NOTES:
1. USE METER PITS FOR WATER SERVICES UNDER/OR THAN 100' OR FOR SERVICES TO MOBILE HOMES.
2. A CURB BOX AND CURB STOP MUST BE INSTALLED PRIOR TO METER PIT.

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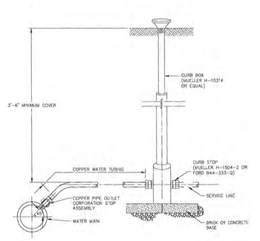
DOVER TOWNSHIP 3/4" METERED DOMESTIC SERVICE INSTALLATION



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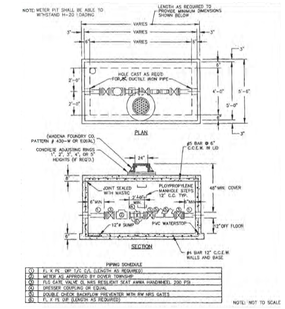
DOVER TOWNSHIP WATER SERVICE INSTALLATION



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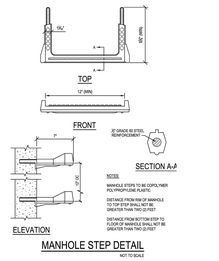
DOVER TOWNSHIP PRECAST METER PIT



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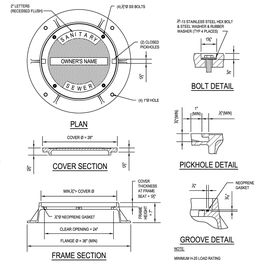
DOVER TOWNSHIP MANHOLE STEP



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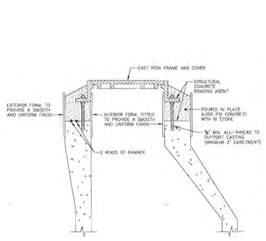
DOVER TOWNSHIP WATERPROOF MANHOLE FRAME AND COVER



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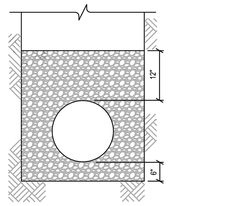
DOVER TOWNSHIP POURED IN PLACE CONCRETE ADJUSTMENT



NOTES:

1. TRENCH BOTTOM TO BE FREE OF WATER BEFORE PLACING BEDDING.
2. SHAPE RECESSES FOR BELL OF PIPE BY HAND.
3. BACKFILL ABOVE BEDDING WITH SPECIFIED BACKFILL MATERIAL.

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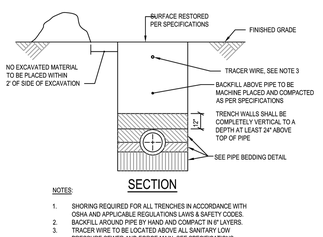
DOVER TOWNSHIP PIPE BEDDING



NOTES:

1. SHORING REQUIRED FOR ALL TRENCHES IN ACCORDANCE WITH OSHA AND APPLICABLE REGULATIONS LAWS & SAFETY CODES.
2. BACKFILL AROUND PIPE BY HAND AND COMPACT IN 6" LAYERS.
3. TRACER WIRE TO BE LOCATED ABOVE ALL SANITARY LOW PRESSURE SEWER AND FORCE MAIN, SEE SPECIFICATIONS.

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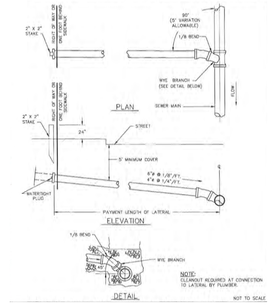
DOVER TOWNSHIP PIPE TRENCH



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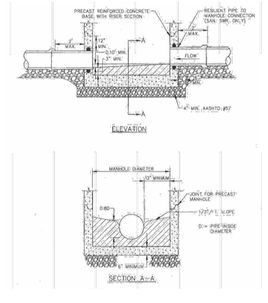
DOVER TOWNSHIP LATERAL CONNECTION



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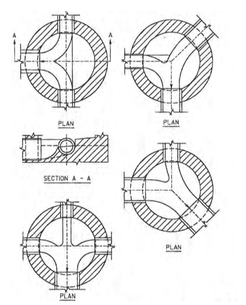
DOVER TOWNSHIP PRECAST MANHOLE BASE



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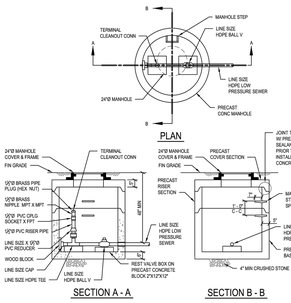
DOVER TOWNSHIP MANHOLE BASE



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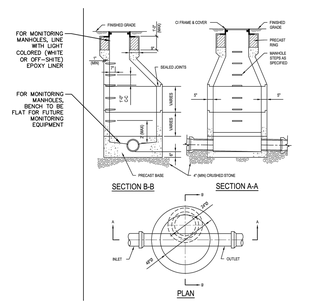
DOVER TOWNSHIP SHALLOW MANHOLE



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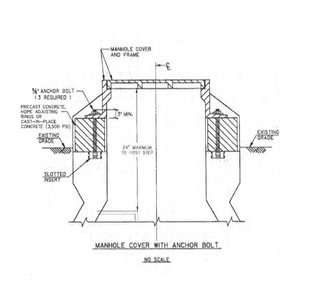
DOVER TOWNSHIP STANDARD MANHOLE



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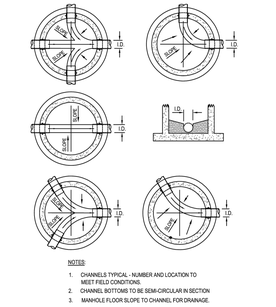
DOVER TOWNSHIP MANHOLE COVER ANCHOR BOLT



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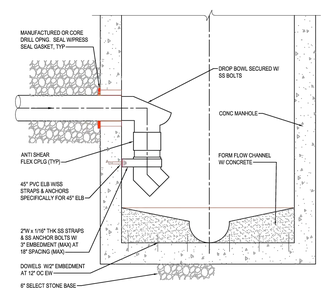
DOVER TOWNSHIP MANHOLE CHANNELS



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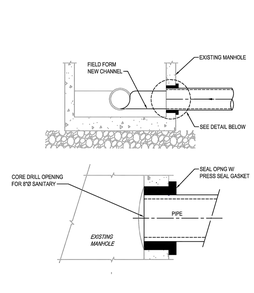
DOVER TOWNSHIP SANITARY DROP CONNECTION



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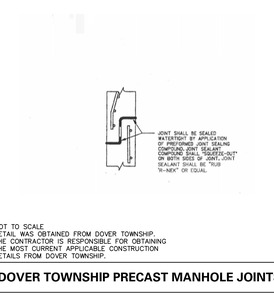
DOVER TOWNSHIP EXISTING MANHOLE CONNECTION



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DOVER TOWNSHIP PRECAST MANHOLE JOINTS

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER KEITH S. OTTES 078526 8/15/2025

Signature Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
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T: 215.491.6500 F: 215.491.6501 www.langan.com

Project: BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title: PRELIMINARY UTILITY DETAILS

Project No. 200164401
Date 6/7/2023
Drawn By BGD
Checked By SMH

Drawing No. CU-501
Sheet 103 of 128

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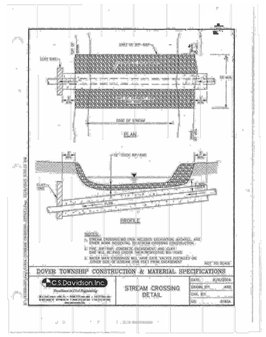

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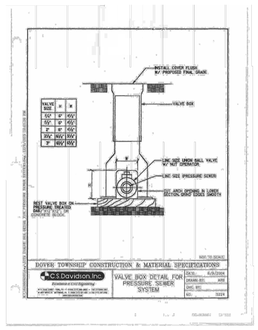
DOVER TOWNSHIP STREAM CROSSING DETAIL



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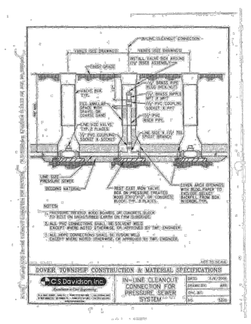
DOVER TOWNSHIP VALVE BOX DETAIL FOR PRESSURE SEWER SYSTEM



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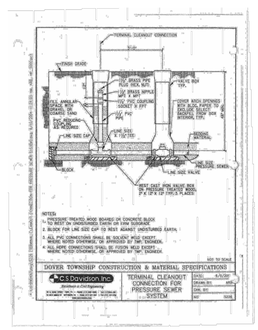
DOVER TOWNSHIP IN-LINE CLEANOUT CONNCECTION FOR PRESSURE SEWER SYSTEM



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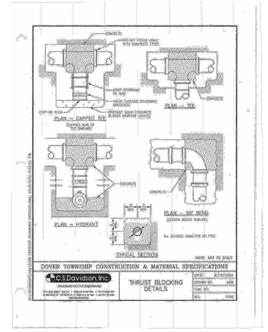
DOVER TOWNSHIP TERMINAL CLEANOUT CONNECTION FOR PRESSURE SEWER SYSTEM



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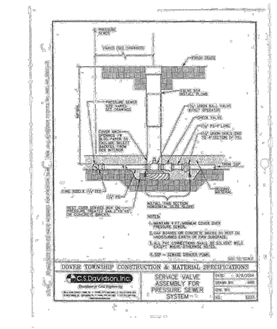
DOVER TOWNSHIP THRUST BLOCKING DETAILS



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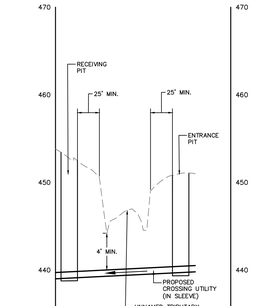
DOVER TOWNSHIP SERVICE VALVE ASSEMBLY FOR PRESSURE SEWER SYSTEM



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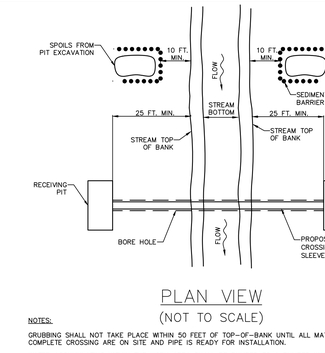
DOVER TOWNSHIP VERTICAL WATER MAIN CLEARANCE



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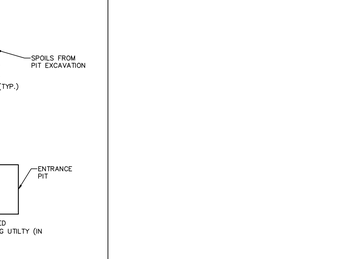
DOVER TOWNSHIP VERTICAL RISER LATERAL DETAIL



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DOVER TOWNSHIP AIR RELEASE VALVE

BUTTRESS FOR VERTICAL BENDS

	BUTTRESS DIMENSIONS					
	SIZE					
BEND	4"	6"	8"	10"	12"	14"
11 1/4°	A	4'-0"	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"
	B	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"
22 1/2°	C	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"
	A	4'-0"	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"
	B	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"
45°	C	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"
	A	4'-0"	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"
	B	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"
90°	C	5'-0"	7'-0"	9'-0"	11'-0"	13'-0"	15'-0"

ANCHORAGE FOR VERTICAL BENDS

	ANCHORAGE DIMENSIONS					
	SIZE					
BEND	4"	6"	8"	10"	12"	14"
11 1/4°	A	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
	B	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	C	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	4'-0"
22 1/2°	A	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
	B	1'-0"	1'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	C	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	4'-0"
45°	A	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
	B	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	4'-0"
	C	2'-0"	2'-0"	3'-0"	4'-0"	4'-0"	5'-0"
90°	A	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	4'-0"
	B	2'-0"	2'-0"	3'-0"	3'-0"	4'-0"	5'-0"
	C	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP THRUST BLOCK FOR VERTICAL BENDS

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

DOVER TOWNSHIP SLOPED RISER LATERAL DETAIL

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

CONCRETE CRADLE AND ENCASEMENT DETAILS

W (FT.)	A (FT.)	W (FT.)	A (FT.)	W (FT.)	A (FT.)	W (FT.)	A (FT.)
1.8	.4	3.4	.5	5.1	.8	8.0	1.4
2.0	.4	3.5	.5	5.2	.8	8.1	1.4
2.1	.4	3.6	.5	5.3	.8	8.3	1.4
2.2	.4	3.7	.5	5.4	.8	8.6	1.5
2.4	.4	3.8	.5	5.6	.8	9.0	1.7
2.5	.4	4.0	.6	5.7	.9	9.5	1.8
2.6	.4	4.4	.6	6.2	.9		
2.8	.4	4.6	.6	6.7	1.0		
2.9	.4	4.7	.7	7.3	1.0		
3.1	.4	4.8	.7	7.4	1.3		
3.2	.4	4.9	.7	7.8	1.2		
3.3	.4	5.0	.7	7.9	1.3		

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

ENCASEMENT TYPE 2 DETAILS

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

VERTICAL WATER MAIN CLEARANCE

NOTES:
- NOT TO SCALE
- DETAIL WAS OBTAINED FROM DOVER TOWNSHIP. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE CONSTRUCTION DETAILS FROM DOVER TOWNSHIP.

STREAM CROSSING DETAIL

TECHNICAL BULLETIN

Burial Depth Guidance for PVC Pipe

Soil Support Table

The modulus of soil reaction, E', is the value assigned to the bedding conditions for a PVC pipe installation. The E' value includes the Bedding Material soil type and the degree of compaction specified for the bedding. The following table shows estimated values for E' for different soil/compaction conditions:

SOIL TYPE – PIPE BEDDING MATERIAL		E' FOR DEGREE OF COMPACTION OF BEDDING, PSI		
Description	Class	Dumped	Slight <85% Proctor, <80% Relative Density	Moderate 85-95% Proctor, 80% - 90% Relative Density	High >95% Proctor, >90% Relative Density
Fine-Grained Soils (LL>50) Soils with medium to high plasticity, CH, MH, OH-MH	V	No data available; consult a geotechnical engineer or use E'=0		
Fine-Grained Soils (LL<50) Soils with medium to no plasticity CL, ML, ML-CL, with less than 25% coarse-grained particles	IV	50	200	400	1,000
Fine-Grained Soils (LL<50) Soils with medium to no plasticity CL, ML, ML-CL, with more than 25% coarse-grained particles Coarse-Grained Soils with Fines GM, GC, SM, SC contain more than 12% fines	III	100	400	1,000	2,000
Coarse-Grained Soils with Little or No Fines GW, GP, SW, SC, contain less than 12% fines	II	200	1,000	2,000	3,000
Crushed Rock	I	1,000	3,000	3,000	3,000

NOTE: PIPE MATERIALS TO BE REVIEWED BY CIVIL ENGINEER AND GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION. PIPE BEDDING AND COMPACTION TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION.

napcopipe.com | 1.855.624.7473

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TECHNICAL BULLETIN

Burial Depth Guidance for PVC Pipe

Pipe Class Selection Table

The table below shows the thinnest class of gravity sewer pipe that can be used with a particular burial depth and E' and assuming a maximum deflection of 7.5% and AOI Highway Live Loading.

THINNEST CLASS OF GRAVITY SEWER PIPE WHEN SUBJECTED TO AOI HIGHWAY LIVE LOADING (MAXIMUM DEFLECTION PERMITTED OF 7.5%)						
Depth of Cover (ft)	Bedding Soil Modulus, E' (psi)					
	200	400	1,000	2,000	3,000	
1	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
2	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
5	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
10	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
15	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
20	SDR35 / PS115	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
25	SDR35 / PS115	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
30	DR21/PS224	SDR35 / PS115	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
35	DR21/PS224	SDR35 / PS115	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
40	DR21/PS224	DR21/PS224	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
45	DR18/PS264	DR21/PS224	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46	SDR35 / PS46
50	DR18/PS364	DR21/PS224	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
55	DR18/PS364	DR18/PS364	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
60	DR18/PS364	DR18/PS364	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
65	DR14/PS315	DR18/PS364	SDR26/ PS115	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
70	DR14/PS315	DR18/PS364	DR21/PS224	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46
75	DR14/PS315	DR14/PS315	DR21/PS224	SDR26 / PS46	SDR26 / PS46	SDR26 / PS46

Assumptions: D_L=1.0, K_x=0.1, Backfill Weight=120 lb/ft³, Live Load=AOI Highway

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MAXIMUM BURIAL DEPTH GUIDANCE FOR PVC PIPE USED FOR GRAVITY SANITARY SEWER

SECTION VIEW
(NOT TO SCALE)

PLAN VIEW
(NOT TO SCALE)

NOTES:

GRUBBING SHALL NOT TAKE PLACE WITHIN 50 FEET OF TOP-OF-BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE AND PIPE IS READY FOR INSTALLATION.

WATER ACCUMULATING WITHIN THE WORK AREA SHALL BE PUMPED TO A PUMPED WATER FILTER BAG OR SEDIMENT TRAP PRIOR TO DISCHARGING INTO ANY SURFACE WATER.

HAZARDOUS OR POLLUTANT MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF STREAMBANK.

ALL EXCESS EXCAVATED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE STREAM CROSSING AREA.

ALL DISTURBED AREAS WITHIN 50 FEET OF TOP-OF-BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR MAJOR STREAMS UNLESS OTHERWISE AUTHORIZED.

APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.

SIZE OF ENTRANCE AND RECEIVING PITS TO BE DETERMINED BY CONTRACTOR BASED ON BORING EQUIPMENT USED.

STREAM CROSSING (DIRECTIONAL BORING)

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER KEITH S. OTTES

Signature 8/15/2025 Date

KEITH S. OTTES
PROFESSIONAL ENGINEER PA LIC. No. PE-074526

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY UTILITY DETAILS

Project No. 200164401
Date 6/7/2023
Drawn By PLPH
Checked By SMH

Drawing No. CU-502
Sheet 104 of 128

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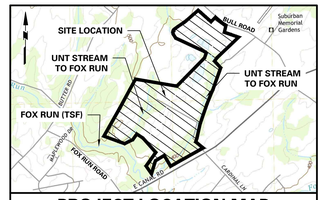
Date: 8/14/2025 Time: 15:39 User: bsoltys Style Table: Langan.stb Layout: CU-502 Document Code: 200164401-0301-CU501-0102

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
ARF	37	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE	2 1/2–3" CAL.	B+B	–
GTIS	20	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2–3" CAL.	B+B	–
LSR	33	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SEEDLESS SWEETGUM	2 1/2–3" CAL.	B+B	–
NS	23	NYSSA SYLVATICA	SOURGUM OR TUPELO	2 1/2–3" CAL.	B+B	–
QA	35	QUERCUS ALBA	WHITE OAK	2 1/2–3" CAL.	B+B	–
QBC	47	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2–3" CAL.	B+B	–
QP	47	QUERCUS PALUSTRIS	PIN OAK	2 1/2–3" CAL.	B+B	–
QPH	29	QUERCUS PHELLOS	WILLOW OAK	2 1/2–3" CAL.	B+B	–
UA	19	ULMUS AMERICANA 'DELAWARE'	DELAWARE AMERICAN ELM	2 1/2–3" CAL.	B+B	–
ORNAMENTAL TREE(S)						
AGAB	107	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2 1/2–3" CAL.	B+B	–
BND	102	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	10–12'	B+B	–
EVERGREEN TREE(S)						
ABC	122	ABIES CONCOLOR	WHITE FIR	6–7'	B+B	–
CJY	20	CRYPTOMERIA JAPONICA 'YOSHINO'	YOSHINO JAPANESE CEDAR	8–10'	B+B	–
PIAB	185	PICEA ABIES	NORWAY SPRUCE	6–7'	B+B	–
PM	170	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6–7'	B+B	–
PS	87	PINUS STROBUS	EASTERN WHITE PINE	6–7'	B+B	–
EVERGREEN SHRUB(S)						
IGN	48	ILEX GLABRA 'NIGRA'	NIGRA INKBERRY	30–36"	CONTAINER	–
JCSG	26	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	30–36"	CONTAINER	–
VR	976	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3–4'	CONTAINER	–
DECIDUOUS SHRUB(S)						
IVJD	92	ILEX VERTICILLATA 'JIM DANDY'	MALE POLLINATOR WINTERBERRY HOLLY	3 GAL.	CONTAINER	–
IVRS	498	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY HOLLY	3 GAL.	CONTAINER	–

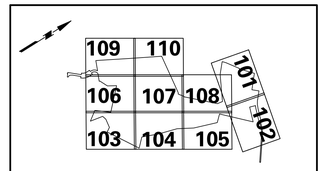
NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

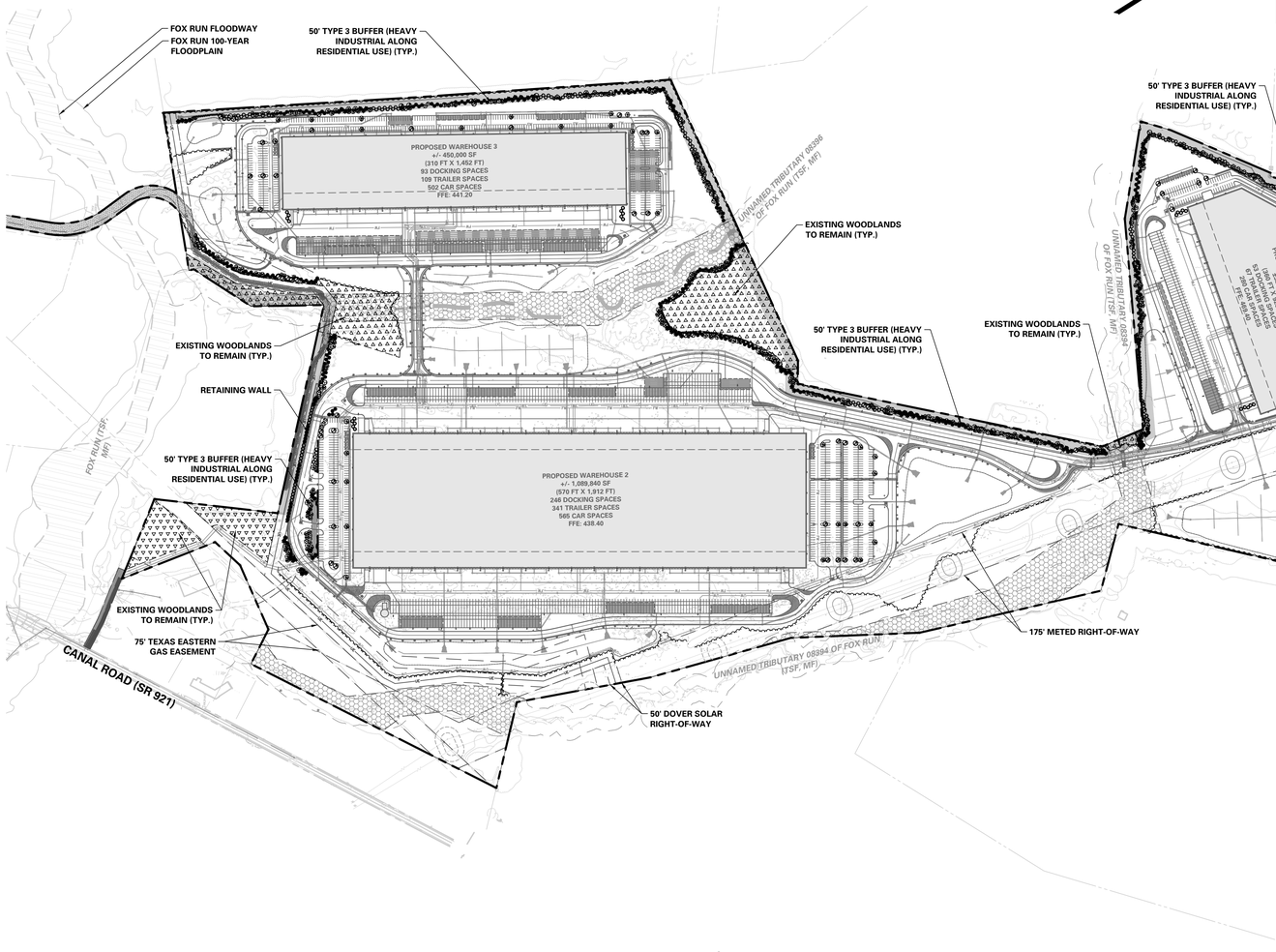
SCALE: 1" = 2000'

ORDINANCE COMPLIANCE TABLE

INDUSTRIAL ZONING DISTRICT : DOVER TOWNSHIP, PENNSYLVANIA

ITEM	REQUIRED	PROVIDED	COMPLIES	ORDINANCE SECTION
Street Trees				
Shade trees shall be planted along streets at 60' intervals on each side of the street	497 LF along Bull Road right-of-way / 60' O.C. = 9 street trees required	9 street trees provided	yes[1]	§ 22-1103.5.B
Parking Lot Landscaping				
A minimum of 10% of any parking facility over 2,000 square feet in gross area shall be devoted to landscaping.	Warehouse 1 72,263 SF in North lot x 0.10 = 7,224 SF required 27,028 SF in West lot x 0.10 = 2,703 SF required	Warehouse 1 8,936 SF landscaping provided in North lot 4,227 SF landscaping provided in West lot	yes	§ 22-1103.12.D
	Warehouse 2 129,978 SF in North lot x 0.10 =12,998 SF required 75,138 SF in South lot x 0.10 = 7,514 SF required	Warehouse 2 14,915 SF landscaping provided in North lot 10,235 SF landscaping provided in South lot	yes	§ 22-1103.12.D
	Warehouse 3 45,210 SF in North lot x 0.10 = 4,521 SF required 90,465 SF in West lot x 0.10 = 9,047 SF required 39,594 SF in South lot x 0.10 = 3,960 SF required	Warehouse 3 5,047 SF landscaping provided in North lot 16,018 SF landscaping provided in West lot 5,049 SF landscaping provided in South lot	yes	§ 22-1103.12.D
One (1) deciduous tree shall be provided for every 20 required parking spaces; and shall be surfaced in lawn or ground cover planting.	Warehouse 1 205 parking spaces at North lot / 20 = 11 trees required 76 parking spaces at West lot / 20 = 4 trees required	Warehouse 1 11 parking lot trees provided in North lot 4 parking lot trees provided in West lot	yes	§ 22-1103.12.D
	Warehouse 2 355 parking spaces at North lot / 20 = 18 trees required 210 parking spaces at South lot / 20 = 11 trees required	Warehouse 2 19 parking lot trees provided in North lot 11 parking lot trees provided in South lot	yes	§ 22-1103.12.D
	Warehouse 3 123 parking spaces at North lot / 20 = 7 trees required 274 parking spaces at West lot / 20 = 14 trees required 105 parking spaces at South lot / 20 = 6 trees required	Warehouse 3 7 parking lot trees provided in North lot 14 parking lot trees provided in West lot 6 parking lot trees provided in South lot	yes	§ 22-1103.12.D
Buffer Yard and Planting Screen				
Any parking lot within 100 feet of public street or intersection shall be screened with hedge, berm, or other measure to prevent distraction or confusion from parking cars' headlights.	0 LF of parking lot headlight screening required	0 LF of parking lot headlight screening proposed	yes	§ 22-1103.12.A
Class 3 buffer planting strip required between industrial use zones and adjacent residential use and agricultural zones areas. Buffer planting strip shall provide 100% opaqueness at a rate of two (2) shade trees, two (2) ornamental trees, five (5) evergreen trees, and 15 shrubs per 100 linear feet.	9,565 LF of buffer planting required 9,565 LF / 100 = 96 x 2 = 192 shade trees required 9,565 LF / 100 = 96 x 2 = 192 ornamental trees required 9,565 LF / 100 = 96 x 5 = 480 evergreen trees required 9,565 LF / 100 = 96 x 15 = 1,440 shrubs required	 206 shade trees provided 192 ornamental trees provided 480 evergreen trees provided 1,440 shrubs provided	yes	§ 22-1103.11 Table 22-1103.11-1
Class 3 buffer planting strip required between industrial use zones and adjacent residential use and agricultural zones areas. When a fence or wall is used, 50% of the required vegetative material may be eliminated. The remaining vegetative material shall be divided equally with one- half placed on each side of the wall or fence.	1,038 LF of wall within buffer planting strip x 0.5 required vegetation may be eliminated = 519 LF of buffer planting required 519 LF/ 100 = 6 x 2 = 12 shade trees required 519 LF/ 100 = 6 x 2 = 12 ornamental trees 519 LF/ 100 = 6 x 5 = 30 evergreen trees required 519 LF/ 100 = 6 x 15 = 90 shrubs required	1,941 LF of wall provided 19 shade trees provided 17 ornamental trees provided 60 evergreen trees provided 199 shrubs provided	yes	§ 22-1103.11.C
All service, delivery, loading and outdoor storage and trash disposal areas shall be screened from all residential districts, public streets, parking lots and pedestrian walkways. Areas shall be screened by use of fence, walls, berms, evergreen plant material, or combination of these, not less than six (6) feet in height.	Loading berth screening required	Loading berth screening provided	yes	Ord. 2011-05, 3/14/2011, § 1103

Notes:
[1]Due to site restrictions, trees are placed around the site. The required number of trees is still provided



250 0 125 250

SCALE: 1 INCH = 250 FEET

NOTES:
STREET TREES SHALL NOT BE PLACED ON PROPERTY LINES

REFER TO SHEETS LP-101 TO LP-110 FOR DETAILED PLANTING PLANS
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA ACT 287 AS AMENDED REQUIRES FOR CONSTRUCTION PHASE AND (10) WORKING DAYS IN DESIGN STAGE
~~ STOP & CALL ~~

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533
8/15/2025

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY MASTER LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-100
Sheet 105 of 128

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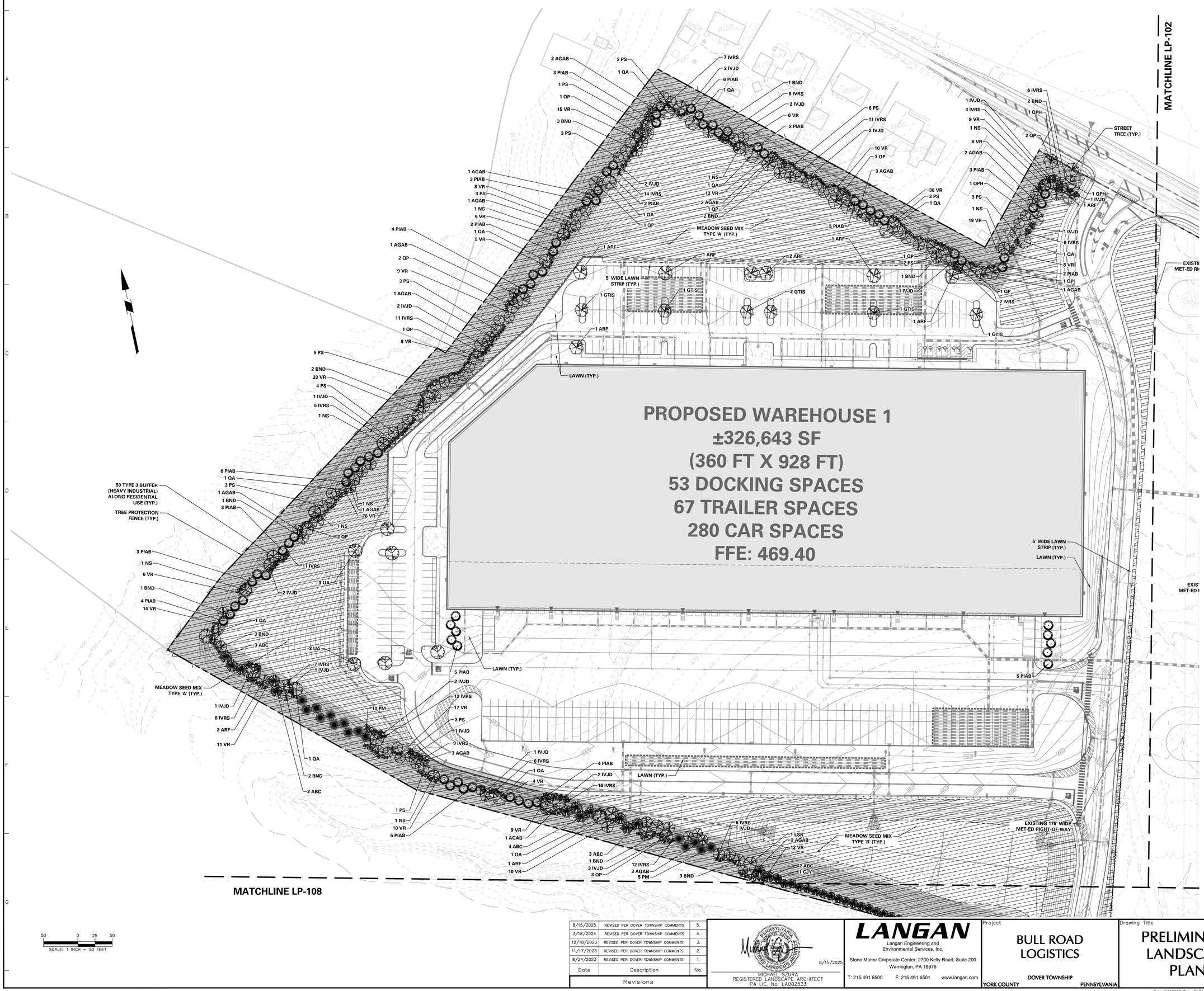
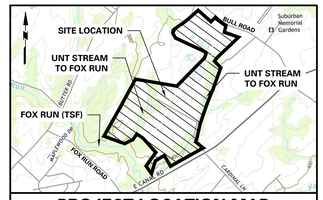
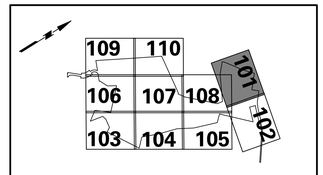
Date: 8/14/2025 Time: 20:51 User: amcguinness Style Table: Langan.stb Layout: LP-100 Document Code: 200164401-0301-LP101-0101





PROJECT LOCATION MAP
1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



KEY MAP
SCALE: 1" = 2000'

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CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

50 0 25 50
SCALE: 1 INCH = 50 FEET

No.	Description	Date
5.	REVISED PER DOVER TOWNSHIP COMMENTS	8/15/2025
4.	REVISED PER DOVER TOWNSHIP COMMENTS	3/18/2024
3.	REVISED PER DOVER TOWNSHIP COMMENTS	12/18/2023
2.	REVISED PER DOVER TOWNSHIP COMMENTS	11/17/2023
1.	REVISED PER DOVER TOWNSHIP COMMENTS	8/24/2023

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-101
Sheet 106 of 128

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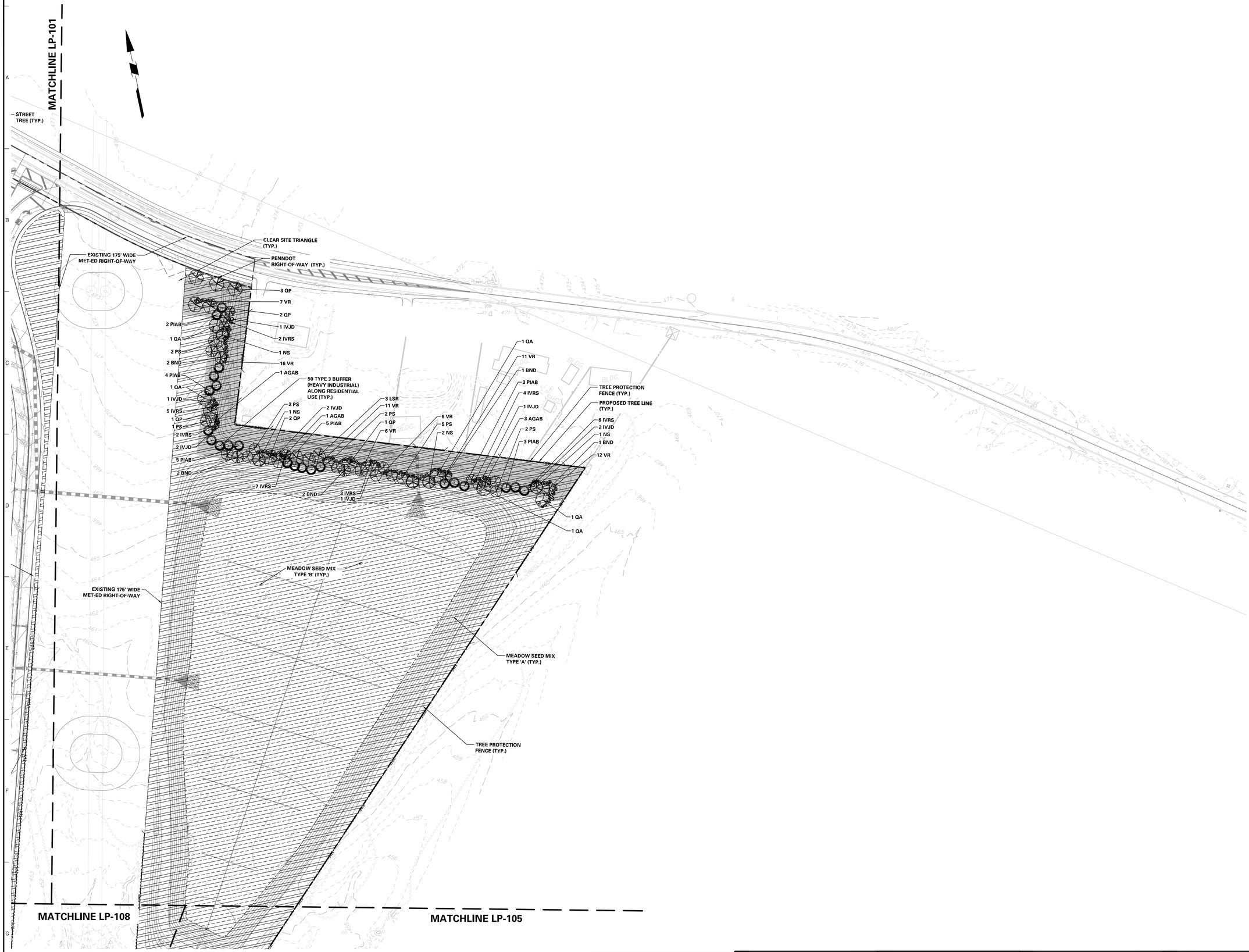
Date: 8/14/2025 Time: 21:01 User: amcguinness Style Table: Langan.stb Layout: LP-101 Document Code: 200164401-0301-LP101-0102



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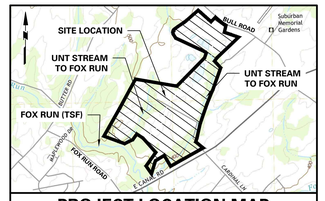
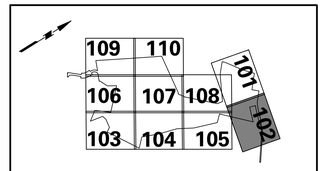


PROJECT LOCATION MAP
1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



KEY MAP
SCALE: 1" = 2000'

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED, TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS @ DESIGN STAGE
— — STOP & CALL — —

Pennsylvania One Call System, Inc.
1-800-242-1776

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

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

COMMONWEALTH OF PENNSYLVANIA — MICHAEL SZURA — REGISTERED LANDSCAPE ARCHITECT

8/15/2025

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-102
Sheet 107 of 128

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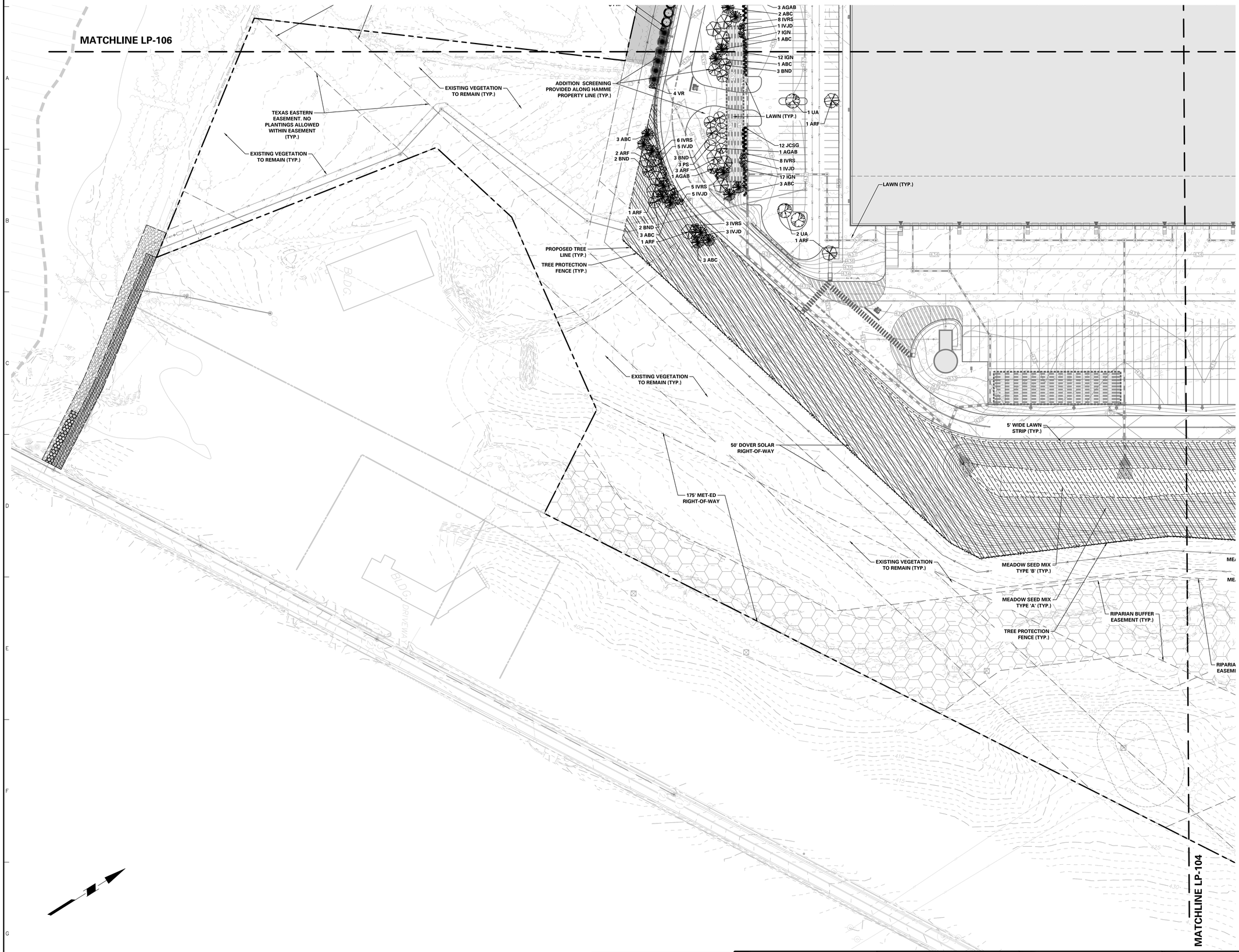
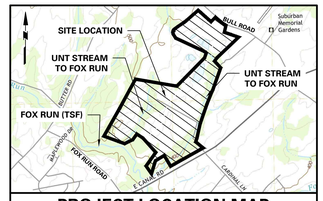
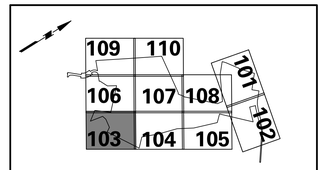




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

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(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE, AND,
(10) WORKING DAYS NOTICE IN DESIGN STAGE

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
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PA LIC. No. LA002533

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Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	ML
Checked By	RP

Drawing No.
LP-103
Sheet 108 of 128

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Date: 8/14/2025 Time: 21:45 User: amcguinness Style Table: Langan.stb Layout: LP-103 Document Code: 200164401-0301-LP101-0103

246 DOCKING SPACES
341 TRAILER SPACES
565 CAR SPACES
FFE: 438.40

MATCHLINE LP-107

LAWN (TYP.)

1 QBC

2

1 GTIS

1 QBC

2 QBC

LAWN (TYP.)

5' WIDE LAWN STRIP (TYP.)

EXISTING 175' WIDE MET-ED RIGHT-OF-WAY

EXISTING VEGETATION TO REMAIN (TYP.)

RIPARIAN BUFFER EASEMENT (TYP.)

MEADOW SEED MIX TYPE 'B' (TYP.)

MEADOW SEED MIX TYPE 'A' (TYP.)

TREE PROTECTION FENCE (TYP.)

PROPOSED TREE LINE (TYP.)

EXISTING VEGETATION TO REMAIN (TYP.)

IAN BUFFER MENT (TYP.)

TREE PROTECTION FENCE (TYP.)

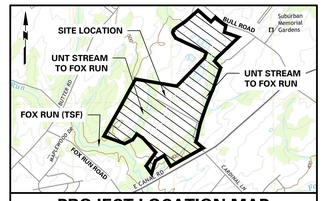
50' DOVER SOLAR RIGHT-OF-WAY

RIPARIAN BUFFER EASEMENT (TYP.)

MATCHLINE LP-105

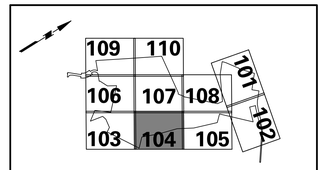
MATCHLINE LP-103

50 0 25 50
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP
1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



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(10) WORKING DAYS IN DESIGN STAGE
~~~ STOP & CALL ~~~

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
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Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-104
Sheet 109 of 128

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Date: 8/14/2025 Time: 20:43 User: amcguinness Style Table: Langan.stb Layout: LP-104 Document Code: 200164401-0301-LP101-0104
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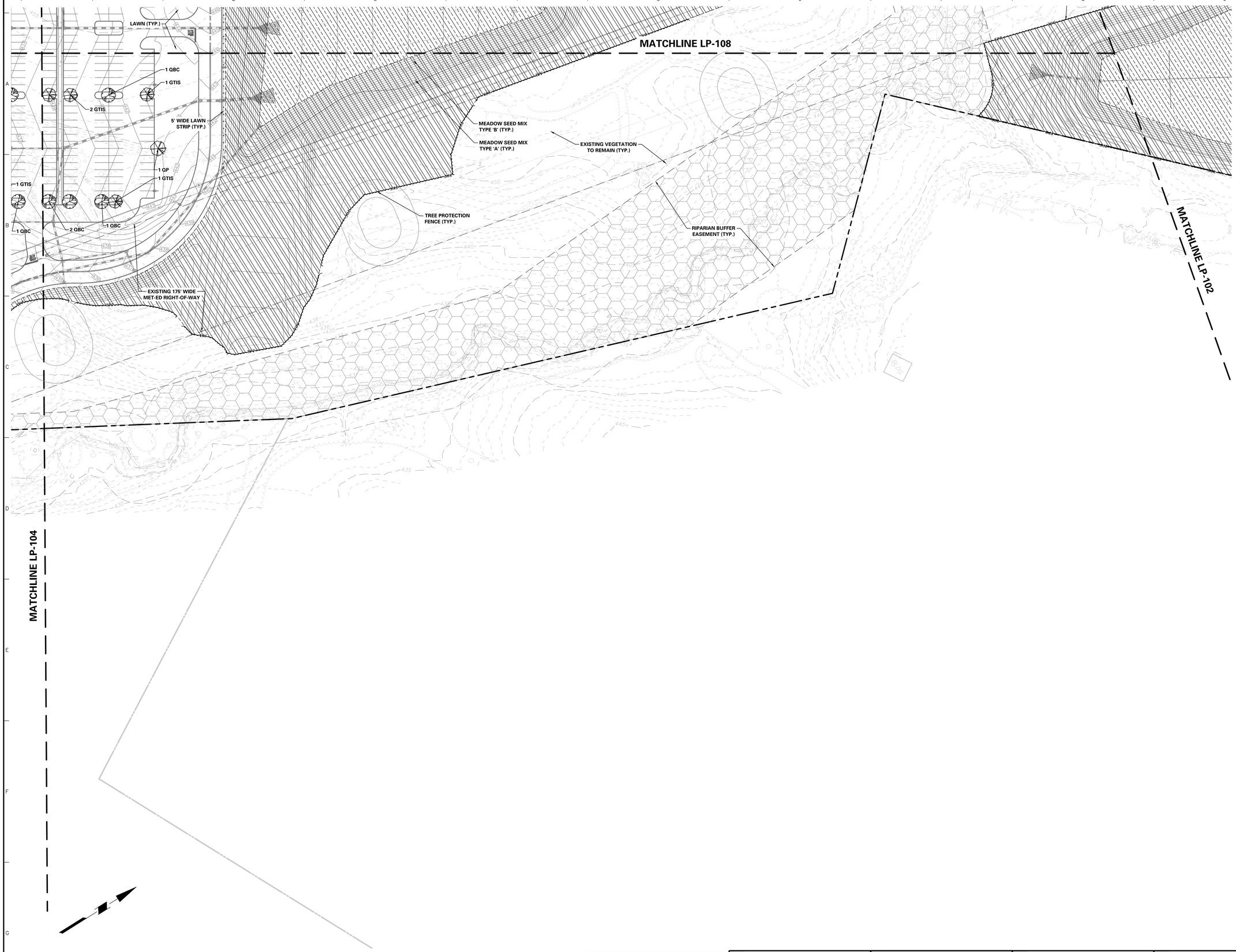
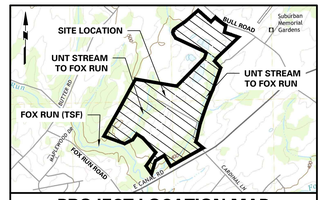
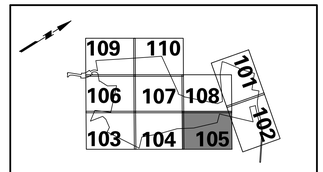




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



KEY MAP

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(10) WORKING DAYS IN DESIGN STAGE
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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

Date	Description	No.
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Revisions

8/15/2025

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-105
Sheet 110 of 128

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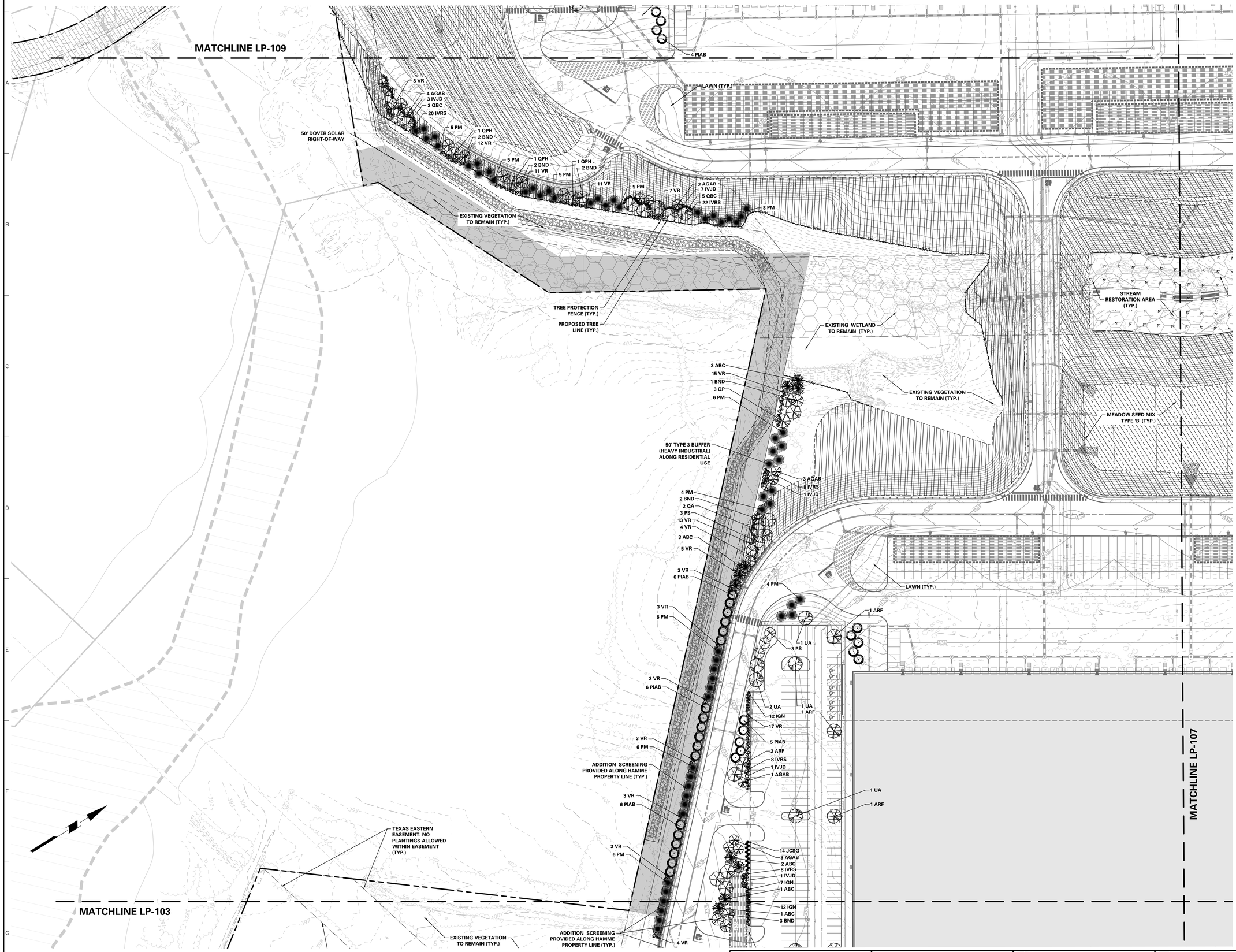
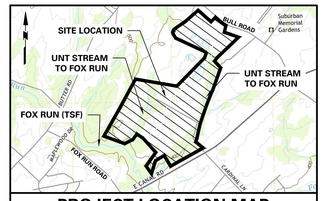
Date: 8/14/2025 Time: 21:40 User: amcguinness Style Table: Langan.stb Layout: LP-105 Document Code: 200164401-0301-LP101-0105

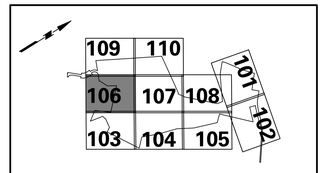




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



KEY MAP

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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

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REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Revisions

8/15/2025

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-106
Sheet 111 of 128

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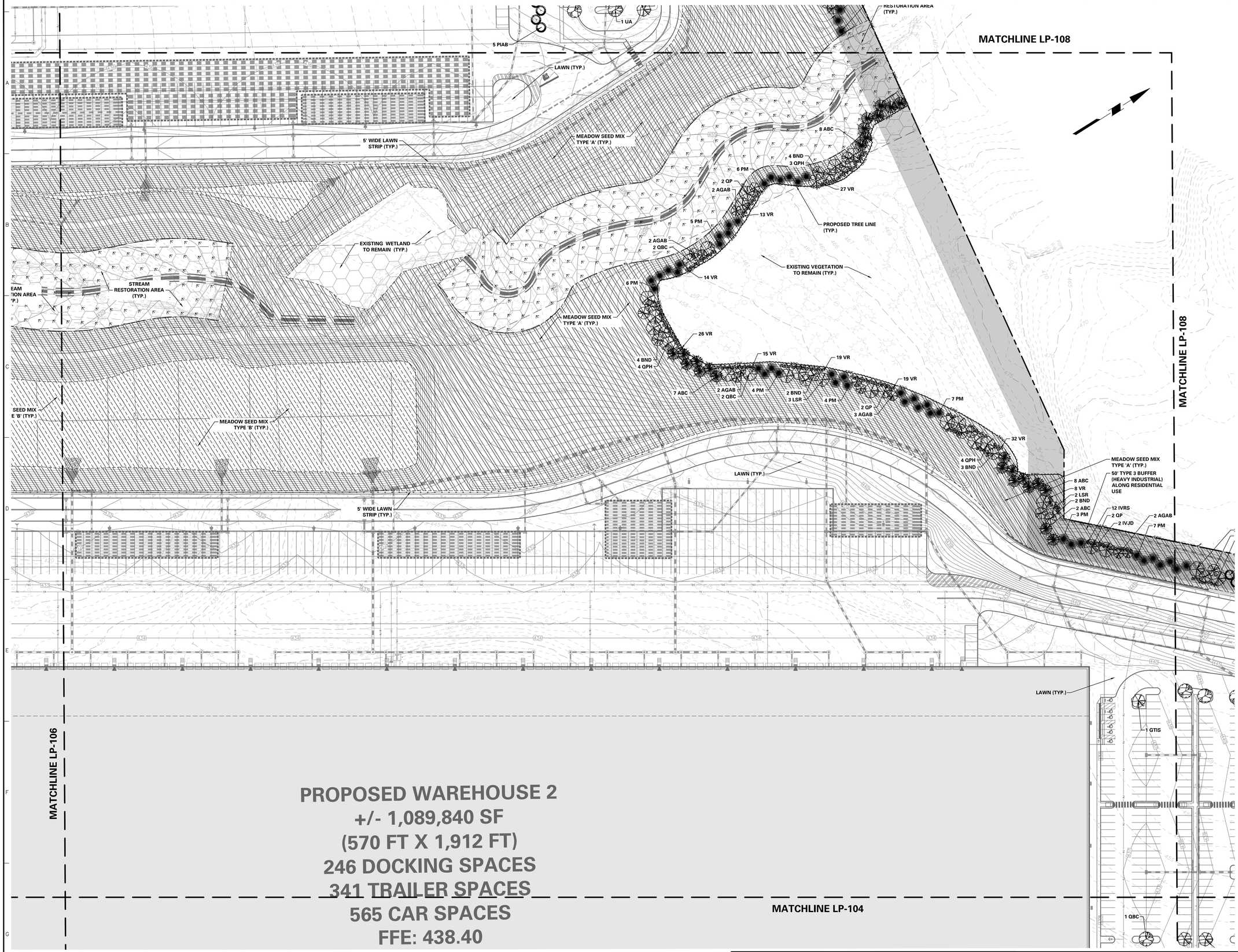
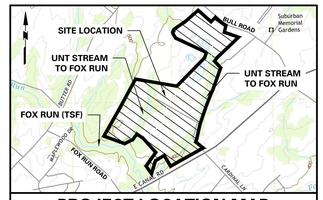
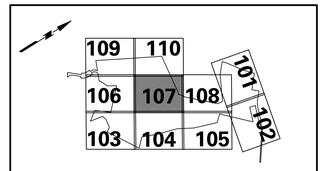




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



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1-800-242-1776

SERIAL NUMBER, 20221664559-000

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REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

50 0 25 50
SCALE: 1 INCH = 50 FEET

Date	Description	No.
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Revisions

8/15/2025
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Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No.	200164401
Date	6/7/2023
Drawn By	ML
Checked By	RP

Drawing No.
LP-107
Sheet 112 of 128

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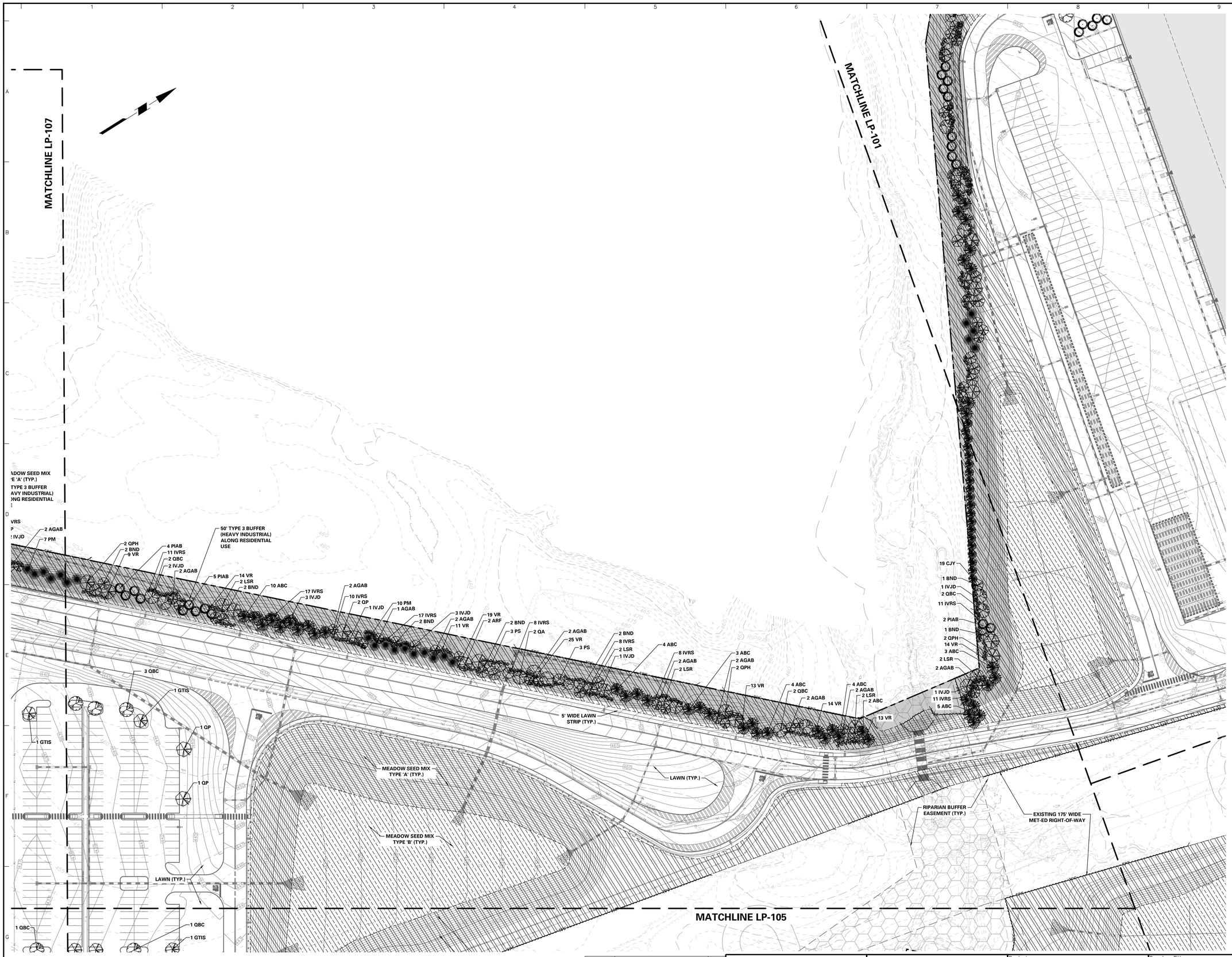
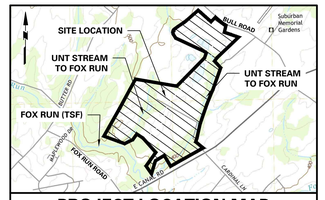
Date: 8/14/2025 Time: 21:28 User: amcguinness Style Table: Langan.stb Layout: LP-107 Document Code: 200164401-0301-LP101-0108



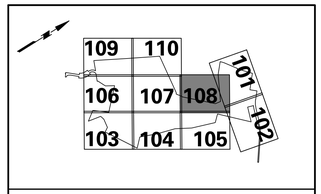
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEET LP-501 FOR LANDSCAPE NOTES AND DETAILS

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LP-108

Sheet 113 of 128

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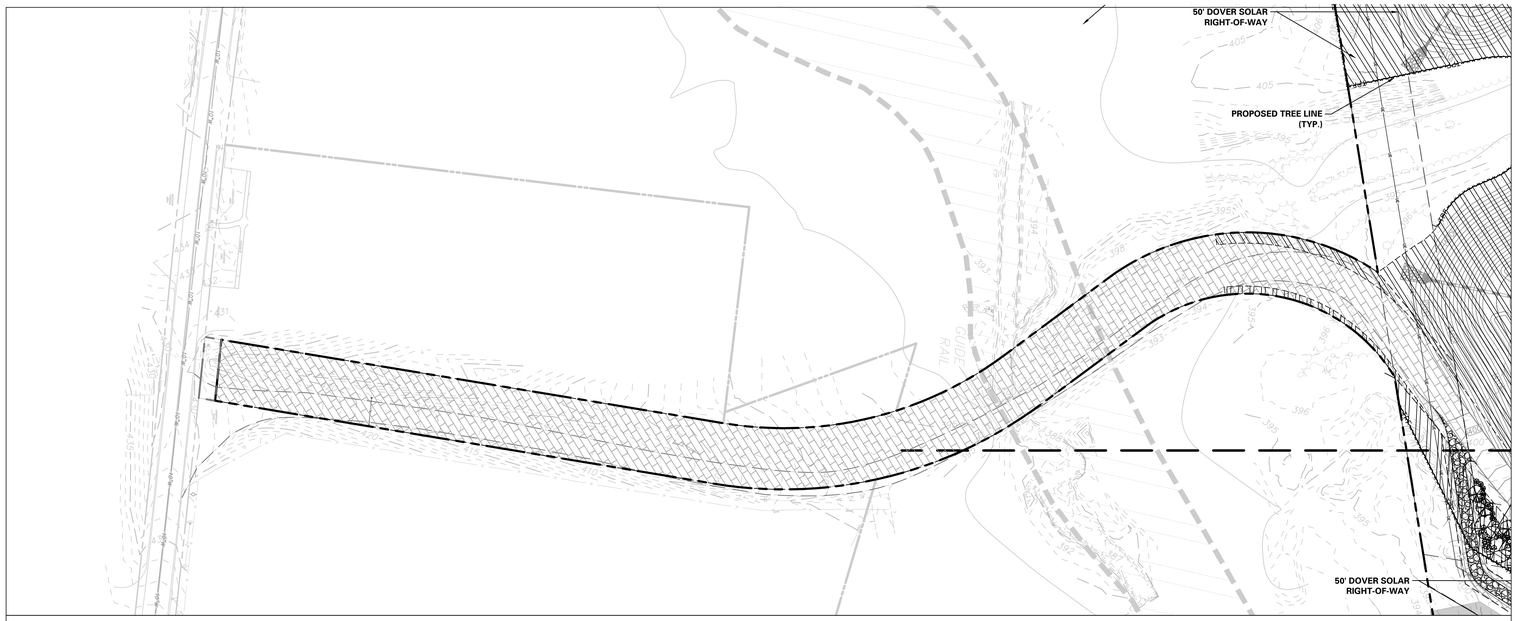
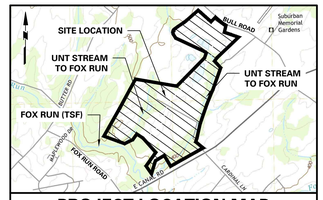
Date: 8/14/2025 Time: 21:18 User: amcguinness Style Table: Langan.stb Layout: LP-108 Document Code: 200164401-0301-LP101-0109



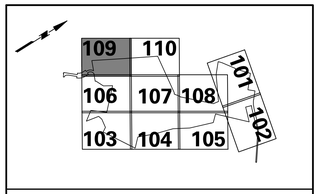
INSET 1



PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
-- STOP & CALL --

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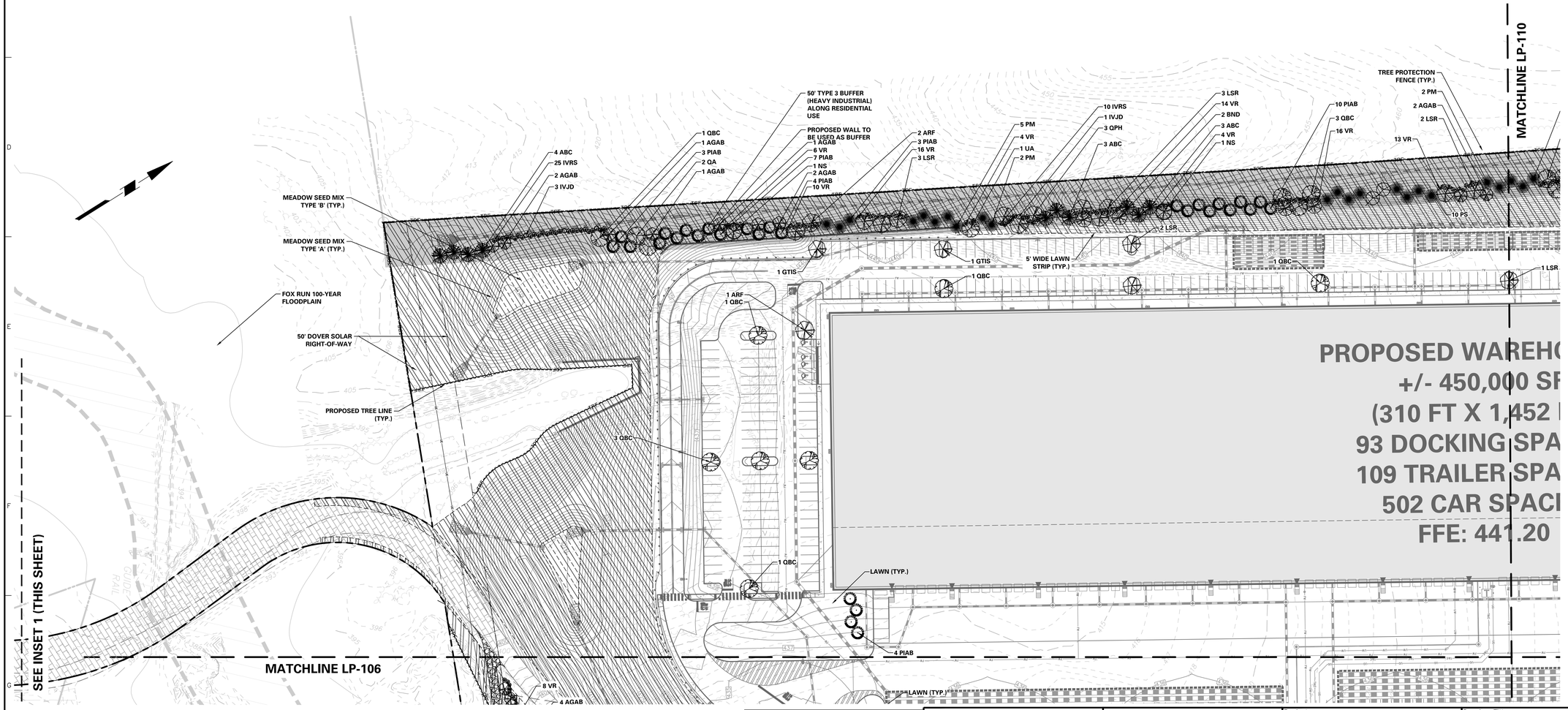

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SCALE: 1 INCH = 50 FEET

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Drawing No. LP-109

Sheet 114 of 128

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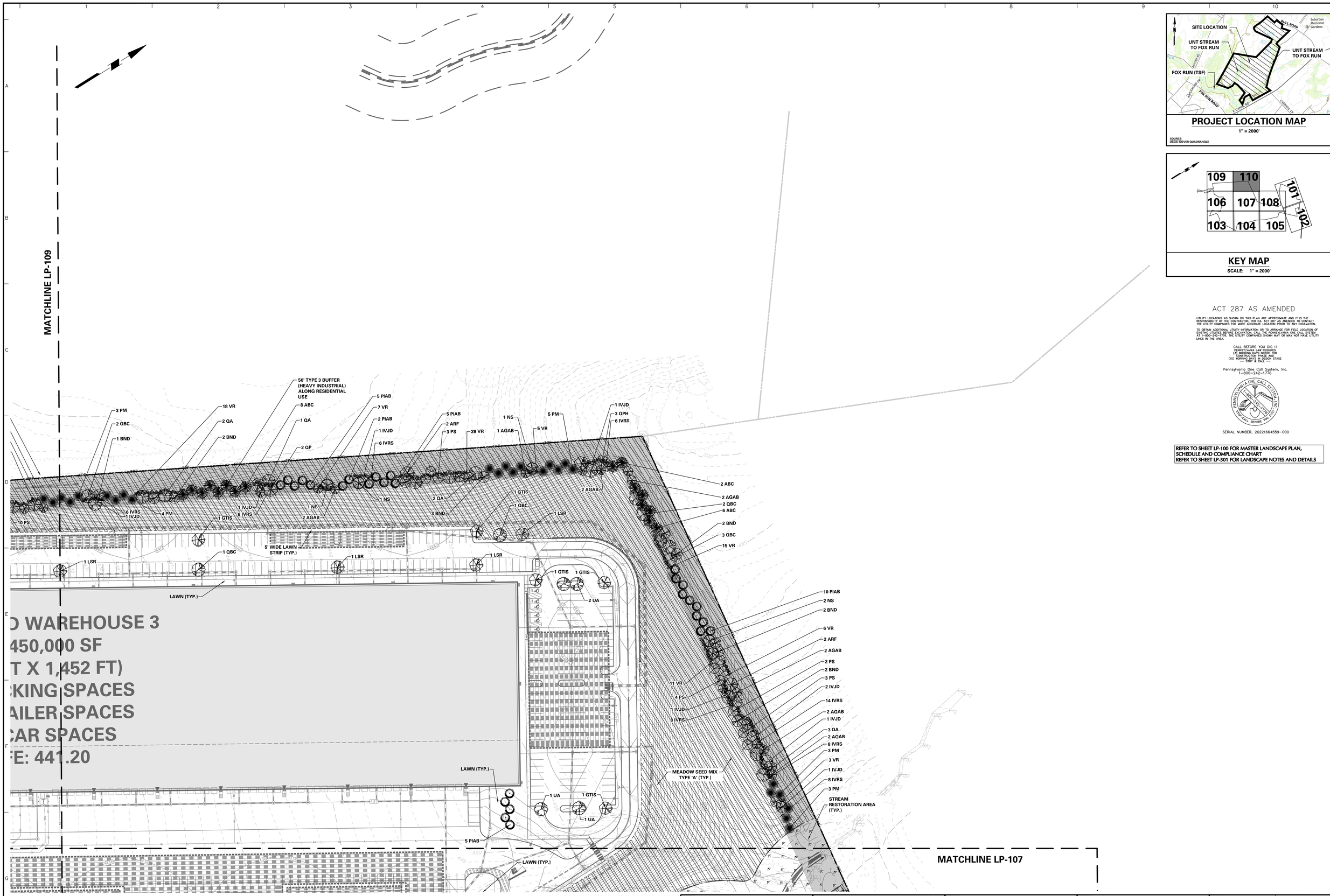

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1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE

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Drawing No. LP-110
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GENERAL LANDSCAPE PLANTING NOTES:

PLANTING MATERIALS

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.

2. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", Z-60.1, PUBLISHED BY AMERICANHORT. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.

3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.

4. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.

5. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.

PLANTING SOILS

1. REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS

2. SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

3. IF DEPTH OF PLANTING SOILS AND TOPSOIL IS NOT INDICATED IN PLANS OR DETAILS, A MINIMUM 18" DEPTH SHALL BE PROVIDED FOR ALL TREES AND LARGE SHRUBS; MINIMUM 12" DEPTH SHALL BE PROVIDED FOR GROUNDCOVERS, HERBACEOUS AND MEADOW OR ORNAMENTAL GRASS AREAS AND A MINIMUM 6" LAYER SHALL BE INSTALLED IN ALL LAWN AREAS. TOPSOIL AND PLANTING SOIL DEPTH INDICATED ON PLANS AND PLANTING DETAILS AND NARRATIVE SPECIFICATIONS SHALL GOVERN DEPTH WHEN PROVIDED.

4. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.

5. IF THE QUANTITY OF SOILS FROM THE SITE IS NOT ADEQUATE TO FILL PLANTING AREAS TO THE DEPTH INDICATED IN THE PLANS AND DETAILS, CONTRACTOR SHALL FURNISH PLANTING SOILS THAT ARE FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER AND COMPLY WITH THE FOLLOWING CRITERIA:
   - SOILS SHALL MEET ALL APPLICABLE SOIL REMEDIATION STANDARDS
   - ORGANIC CONTENT: 2-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
   - SOLUBLE SALTS: LESS THAN 0.5 MM HOS/CM.
   - SOIL PH: 4.5-7% TO BE AMENDED PER SOIL TEST RESULTS
   - PHYSICAL (SIEVE) ANALYSIS/ SOIL TEXTURE
     SAND: 40-60% SILT: 25-60% CLAY: 5-20%
   - NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE.

6. ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

7. IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE; SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL; FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER

8. SCARIFY AND/OR TILL ALL COMPACTED SUBSOILS PRIOR TO ADDING PLANTING SOIL OR TOPSOIL. PLANTING SOILS AND TOPSOIL SHALL BE PLACED IN 12-18" LIFTS THAT ARE LOOSELY COMPACTED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.

DELIVERY, STORAGE, AND HANDLING

1. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.

2. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP OR BREAK BALLED STOCK DURING DELIVERY OR HANDLING.

3. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT BALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING, IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8" INTO THE PLANTING HOLE. WITH CONTAINER-GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.

4. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.

INSTALLATION

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.

2. THE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.

3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.

4. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.

5. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.

6. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.

7. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.

8. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.

9. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY OWNER AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.

10. AFTER COMPLETION OF A PROJECT, ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A SHREDDED HARDWOOD BARK OR APPROVED EQUAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.

11. CONTRACTOR SHALL SUPPLY SUPPLEMENTARY IRRIGATION UNTIL ACCEPTANCE BY OWNER.

12. CONTRACTOR SHALL ASSESS THE NEED FOR DEER PROTECTION ON SITE. IF DEEMED NECESSARY, SHADE AND ORNAMENTAL TREES SHALL BE PROTECTED THROUGH WINTER WITH SPIRAL WRAP TREE GUARDS, OR APPROVED EQUAL. PROTECTION LENGTH TO BE FROM BELOW THE LOWEST BRANCH AND DOWN TO WITHIN A FEW INCHES OF THE GROUND. THE GUARDS CAN BE REMOVED IN SPRING AND SAVED FOR RE-INSTALLATION DURING THE FOLLOWING WINTERS AS PART OF A MAINTENANCE PROGRAM.

COMPLIANCE

1. IF AT ANY TIME LEVEL 3 SCREENING IS NOT BEING MET, THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE BUFFER SCREENING AS REQUIRED BY ZONING ORDINANCE SECTION 27-664.2.

GUARANTEE

1. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

REFER TO SHEET LP-100 FOR MASTER LANDSCAPE PLAN, SCHEDULE AND COMPLIANCE CHART
REFER TO SHEETS LP-101 TO LP-110 FOR DETAILED LANDSCAPE PLANS

MEADOW SEEDING NOTES:

1. MEADOW SEED MIX "A" - ERNST SEED MIX ERNMX-181 "NATIVE STEEP SLOPE MIX W/ ANNUAL RYEGRASS"

27.3%	SORGHASTRUM NUTANS, PA ECOTYPE	INDIANGRASS
20.0%	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
11.0%	ANDROPOGON GERARDII, 'NIAGARA'	BIG BLUESTEM
10.0%	ELYMUS VIGINICUS, PA ECOTYPE	VIRGINIA WILDRYE
7.0%	ELYMUS CANADENSIS	CANADA WILDRYE
6.1%	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
5.0%	TRIDENS FLAVU,PURPLETOP	
4.0%	AGROSTIS PERENNANS	AUTUMN BENTGRASS
3.0%	PANICUM VIRGATUM, 'SHAWNEE'	SWITCHGRASS
1.3%	CHAMAECORISTA FASCICULATA	PARTRIDGE PEA
1.2%	ECHINACEA PURPUREA	PURPLE CONEFLOWER
1.0%	COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
1.0%	RUDBECKIA HIRTA	BLACKEYED SUSAN
0.8%	HELIOPSIS HELIANTHOIDES	OXEYE, SUNFLOWER
0.5%	ASTER LATERIFLORUS	CALICO ASTER
0.3%	ASCLEPIAS SYRIACA	COMMON MILKWEED
0.3%	LIATRIS SPICATA	BLAZING STAR
0.2%	MONARDA FISTULOSA	WILD BERGAMOT

NOTES:

1. SEED AT A RATE OF 60 LBS./ACRE.
2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE.
3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.

2. MEADOW SEED MIX "B" - ERNST SEED MIX ERNMX-183 "NATIVE DETENTION AREA MIX"

32.0%	PANICUM CLANDESTINUM, 'TIOGA'	DEERTONGUE
20.0%	CAREX VULPINOIDEA, PA ECOTYPE	FOX SEDGE
20.0%	ELYMUS VIRGINICUS, PA ECOTYPE	VIRGINIA WILDRYE
20.0%	PANICUM VIRGANTUM, 'SHAWNEE'	SWITCHGRASS
4.0%	ARAGROSTIS STOLONIFERA	CREEPING BENTGRASS
2.0%	JUNCUS TENUIS, PA ECOTYPE	PATH RUSH
1.0%	JUNCUS EFFUSUS	SOFT RUSH
1.0%	PANICUM RIGIDULUM, PA ECOTYPE	REDTOP PANICGRASS

NOTES:

1. SEED AT A RATE OF 20 LBS./ACRE.
2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE.
3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.

3. GENERAL SEEDING NOTES :

1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 1).
2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
4. CONTINUOUS MOISTURE FOR 4-6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION.

4. WEED CONTROL/MAINTENANCE NOTES :

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NO MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY; ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
3. MOW IN WETLAND AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR WETLAND AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 1 TO AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND TRANSITION AREAS ESTABLISHMENT OF MEADOW MIX.
4. DURING MAINTENANCE PERIOD CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO CONTROL AGGRESSIVE WEEDS AND OVERSEED AREAS AS NEEDED TO ENSURE ADEQUATE COVER.

LAWN SEED NOTES:

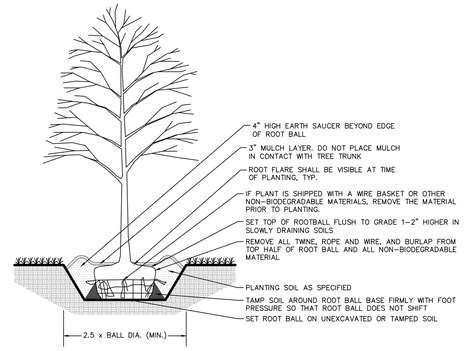
1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
2. THE FOLLOWNG SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:

RED FESCUE	1 1/2 LBS./1,000 SF
PERENNIAL RYEGRASS	1 LBS./1,000 SF
KENTUCKY BLUEGRASS	1 1/2 LBS./1,000 SF
SPREADING FESCUE	1 LBS./1,000 SF

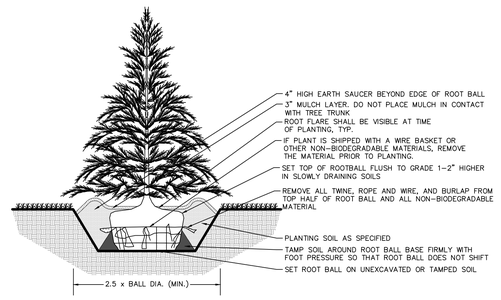
3. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS/AC OR 90 LBS/1,000 SF
4. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:
   SPRING: APRIL 1 - MAY 31
   FALL: AUGUST 16 - OCTOBER 31
5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

TREE PROTECTION NOTES:

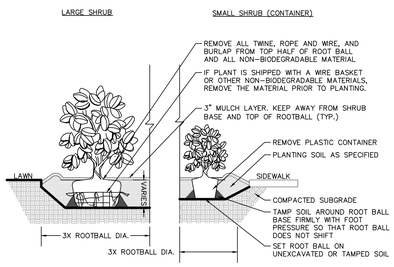
1. ALL EXISTING TREES WITHIN THE LIMITS OF TREE PROTECTION FENCING SHALL BE PROTECTED THROUGHOUT THE DURATION OF WORK. THE LIMIT OF TREE PROTECTION FENCE RADIUS SHALL BE 18 TIMES THE MEASURED DIAMETER-AT-BREAST-HEIGHT (DBH), UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED CLOSER TO THE TREE. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
2. TREE PROTECTION PLANKING SHALL BE INSTALLED ON ALL EXISTING TREES WHERE WORK IS TO BE DONE WITHIN THE LIMIT OF TREE PROTECTION FENCING. REFER TO DETAIL ON THIS SHEET.
3. IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
4. TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
5. DEMOLITION WORK WITHIN THE TREE PROTECTION FENCE OF PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS. ROOTS SHALL NOT BE OTHERWISE DAMAGED, BROKEN OR RIPPED. ANY ROOTS FOUND GREATER THAN 2 INCHES DIAMETER WITHIN THE AREA TO BE DISTURBED WILL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT FOR FURTHER CONSIDERATION PRIOR TO ROOT PRUNING. ROOT PRUNED TREES SHALL BE MAINTAINED BY WATERING, WEEDING, MOWING, SPRAYING, FERTILIZING, AND OTHER HORTICULTURE PRACTICES THROUGHOUT THE DURATION OF CONSTRUCTION. IMMEDIATELY AFTER ROOT PRUNING, BACKFILL WITH GOOD ROOTING MEDIUM AND FERTILIZE WITH ORGANIC FERTILIZER TO PROMOTE ROOT GROWTH. PER MANUFACTURER'S RECOMMENDATIONS, FEED WITH A DILUTED SOLUTION OF N-P-K, AND MYCORRHIZAL POWDER AS NEEDED, WITH A SOIL NEEDLE TO PROVIDE WATER, AIR AND NUTRIENTS. THE SOIL AROUND EACH TREE SHALL BE THOROUGHLY SATURATED WITH WATER AND SHALL BE THOROUGHLY WATERED AS SEASONABLE CONDITIONS REQUIRE THROUGHOUT THE ENTIRE BOND PERIOD.
6. ALL TEMPORARILY EXPOSED TREE ROOTS SHALL BE COVERED WITH 2 INCHES OF SHREDDED HARDWOOD MULCH TO REDUCE WEEDS, DISCOURAGE FOOT TRAFFIC, CONSERVE MOISTURE, AND MINIMIZE TEMPERATURE FLUCTUATION UNTIL PERMANENT SOIL EROSION CONTROL IS IMPLEMENTED. EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
7. ANY TREE SHOWN TO BE PROTECTED WHICH IS OBSERVED TO HAVE 25% OR MORE OF ITS BRANCHING OR LEAVES DEAD OR DYING WITHIN THREE YEARS OF COMPLETED CONSTRUCTION, AND WHICH CANNOT BE REASONABLY PRUNED TO MAINTAIN THE HABIT KNOWN FOR THE SPECIES, SHALL BE REPLACED WITH A QUANTITY OF TREES OF THE SAME SPECIES AND AT A SIZE THAT, WHEN PUT TOGETHER, EQUALS THE TOTAL CANOPY SIZE OF THE TREE TO BE REPLACED.
8. CHANGES OF GRADE PROPOSED (CUT/FILL) WITHIN TREE PROTECTION FENCING SHALL BE PERFORMED AS FOLLOWS:
   A. RAISING GRADES:
      1. WHERE FILL NOT EXCEEDING 16 INCHES IS REQUIRED, CLEAN, WASHED GRAVEL GRADED FROM 1 INCH TO 2 INCHES IN SIZE SHALL BE PLACED DIRECTLY AROUND TREE TRUNK. EXTEND GRAVEL OUT FROM TRUNK ON ALL SIDES MINIMUM OF 18 INCHES AND FINISH APPROXIMATELY 2 INCHES ABOVE FINISHED GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH TRUNKS OF TREES REQUIRING FILL.
      2. WHERE FILL EXCEEDING 16 INCHES IS REQUIRED, CONSTRUCT DRY-LAID TREE WELL AROUND TRUNK OF TREE. TREE WELL SHALL EXTEND OUT FROM TRUNK ON ALL SIDES MINIMUM OF 3 FEET AND TO 3 INCHES ABOVE FINISH GRADE. PLACE COARSE-GRADED ROCK DIRECTLY AROUND TREE WELL EXTENDING OUT TO DRIP LINE OF TREE. PLACE CLEAN, WASHED GRAVEL GRADED FROM 1 INCH TO 2 INCHES IN SIZE DIRECTLY OVER COARSE ROCK TO DEPTH OF 3 INCHES. PLACE APPROVED BACKFILL MATERIAL DIRECTLY OVER WASHED GRAVEL TO DESIRED FINISH GRADE.
   B. LOWERING GRADES: EXISTING TREES IN AREAS WHERE NEW FINISH GRADE IS TO BE LOWERED SHALL HAVE REGRADING WORK DONE BY HAND TO ELEVATION INDICATED ON THE DRAWINGS. ROOTS AS REQUIRED SHALL BE CUT AND MAINTAINED PER THE NOTES ABOVE IN #2.
   C. TREES MARKED FOR PRESERVATION THAT ARE MORE THAN 6 INCHES ABOVE PROPOSED GRADES SHALL STAND ON BROAD ROUNDED MOUNDS AND GRADED SMOOTHLY INTO LOWER LEVEL. TREES LOCATED MORE THAN 16 INCHES ABOVE PROPOSED GRADES SHALL HAVE DRY-LAID STONE WALL OR OTHER RETAINING STRUCTURE AS DETAILED ON THE DRAWINGS CONSTRUCTED MINIMUM OF 5 FEET FROM TRUNK. EXPOSED OR BROKEN ROOTS SHALL BE CUT CLEAN AND COVERED WITH TOPSOIL.
9. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE, CERTIFIED ARBORIST, OR THE PROJECT LANDSCAPE ARCHITECT.



1 SHADE TREE DETAIL



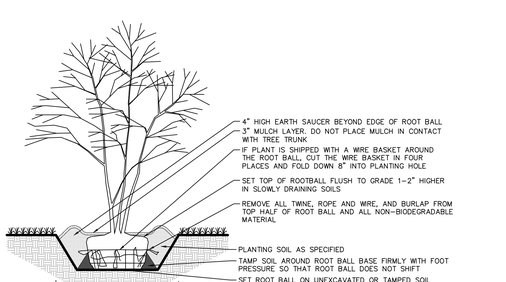
2 EVERGREEN TREE DETAIL



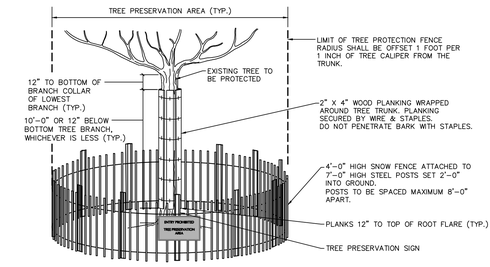
NOTES:

1. ALL SHRUBS TO BE SET PLUMB.
2. REFER TO LANDSCAPE PLAN FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

3 SHRUB DETAIL



4 ORNAMENTAL TREE DETAIL


TREE PRESERVATION AREA (TYP.)
LIMIT OF TREE PROTECTION FENCE RADIUS SHALL BE OFFSET 1 FOOT PER 1 INCH OF TREE CALIPER FROM THE TRUNK.
EXISTING TREE TO BE PROTECTED
12" TO BOTTOM OF BRANCH COLLAR OF LOWEST BRANCH (TYP.)
10'-0" OR 12" BELOW BOTTOM TREE BRANCH, WHICHEVER IS LESS (TYP.)
2" X 4" WOOD PLANKING WRAPPED AROUND TREE TRUNK. PLANKING SECURED BY WIRE & STAPLES. DO NOT PENETRATE BARK WITH STAPLES.
4'-0" HIGH SNOW FENCE ATTACHED TO 7'-0" HIGH STEEL POSTS SET 2'-0" INTO GROUND. POSTS TO BE SPACED MAXIMUM 8'-0" APART.
PLANKS 12" TO TOP OF

SITE LIGHTING SCHEDULE

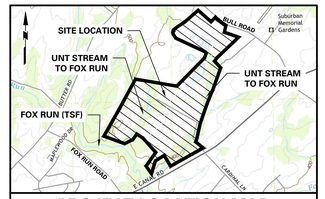
SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	WATTS	LUMENS	OPTICS	COLOR TEMPERATURE	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
▪	A	23	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	19,946	TYPE I SHORT W/ HOUSE SIDE SHIELD	3000K	DSX2 LED-P1-30K-80CRI-T1S-MVOLT-RPA-HS-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪	B	4	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	18,477	TYPE II MEDIUM W/ HOUSESIDE SHIELD	3000K	DSX2 LED-P1-30K-80CRI-T2M-MVOLT-RPA-HS-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪	C	5	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	19,101	TYPE FORWARD THROW W/ HOUSE SIDE SHIELD	3000K	DSX2 LED-P1-30K-80CRI-TFTM-MVOLT-RPA-HS-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪	D	13	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	19,101	TYPE FORWARD THOW	3000K	DSX2 LED-P1-30K-80CRI-TFTM-MVOLT-RPA-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪	E	24	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	14,042	BACKLIGHT IV	3000K	DSX2 LED-P1-30K-80CRI-BLC4-MVOLT-RPA-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪	F	40	LITHONIA	DSX 2 LED	POLE MOUNTED AREA LIGHT	30'-0"	135	19,517	TYPE V	3000K	DSX2 LED-P1-30K-80CRI-T5M-MVOLT-RPA-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM19AS-VD-DBLXD
▪▪	G	6	LITHONIA	DSX 2 LED	BACK TO BACK POLE MOUNTED AREA LIGHT	30'-0"	135	39,034	DOUBLE TYPE V	3000K	DSX2 LED-P1-30K-80CRI-T5M-MVOLT-RPA-DBLXD	LITHONIA	ROUND STRAIGHT STEEL	27'-0"	RSS-27-5B-DM28AS-VD-DBLXD
▬	H	99	LITHONIA	DSX 2 LED	WALL MOUNTED AREA LIGHT	30'-0"	135	19,101	TYPE FORWARD THROW	3000K	DSX2 LED-P1-30K-80CRI-TFTM-MVOLT-WBA-DBLXD	N/A	N/A	N/A	N/A

NOTES:
1. POLES OVER 25' MOUNTING HEIGHT ARE TO BE INSTALLED WITH VIBATION DAMPENER.
2. POLE MOUNTED FIXTURES ARE TO BE INSTALLED ON 3'-0" EXPOSED FOUNDATIONS. POLES TO BE FACTORY CUT TO DESIRED LENGTH.
3. WALL PACK LOCATIONS TO BE COORDINATED WITH ARCHITECT.
4. ALL MOUNTING METHODS, CONDUITS, WIRING AND THE SUPPLY OF THE CORRECT ELECTRICAL POWER IN ACCORDANCE WITH ALL LOCAL CODES IS THE RESPONSIBILITY OF THE INSTALLER.
5. FIXTURES DENOTED WITH AN "*" ARE TO RECEIVE TWO (2) BOLLARDS BETWEEN THE LIGHT FIXTURE FOUNDATION AND THE TRUCK COURT. REFER TO DETAIL ON LL501.

STATISTICS

DESCRIPTION	AVG. (FC)	MAX. (FC)	MIN. (FC)	MAX./MIN.	AVG./MIN.
BUILDING 1 - NORTH CAR PARK	1.32	2.3	0.5	4.60:1	2.64:1
BUILDING 1 - WEST CAR PARK	1.21	2.3	0.5	4.60:1	2.42:1
BUILDING 1 - TRUCK PARK	1.24	2.6	0.5	5.20:1	2.48:1
BUILDING 2 - NORTH CAR PARK	1.52	2.6	0.5	5.20:1	3.04:1
BUILDING 2 - SOUTH CAR PARK	1.18	2.8	0.6	4.67:1	1.97:1
BUILDING 2 - EAST TRUCK PARK	1.19	3.2	0.5	6.40:1	2.38:1
BUILDING 2 - WEST TRUCK PARK	1.16	4.1	0.5	8.20:1	2.32:1
BUILDING 3 - NORTH CAR PARK	0.99	2.2	0.7	3.14:1	1.41:1
BUILDING 3 - WEST CAR PARK	0.90	2.3	0.5	4.60:1	1.80:1
BUILDING 3 - TRUCK PARK	1.07	2.8	0.5	5.60:1	2.14:1

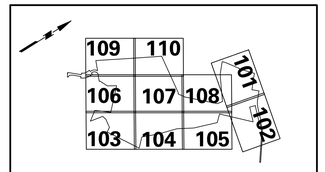
NOTES:
LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO REMAIN ARE NOT INCLUDED IN THE ABOVE STATISTICS.



PROJECT LOCATION MAP

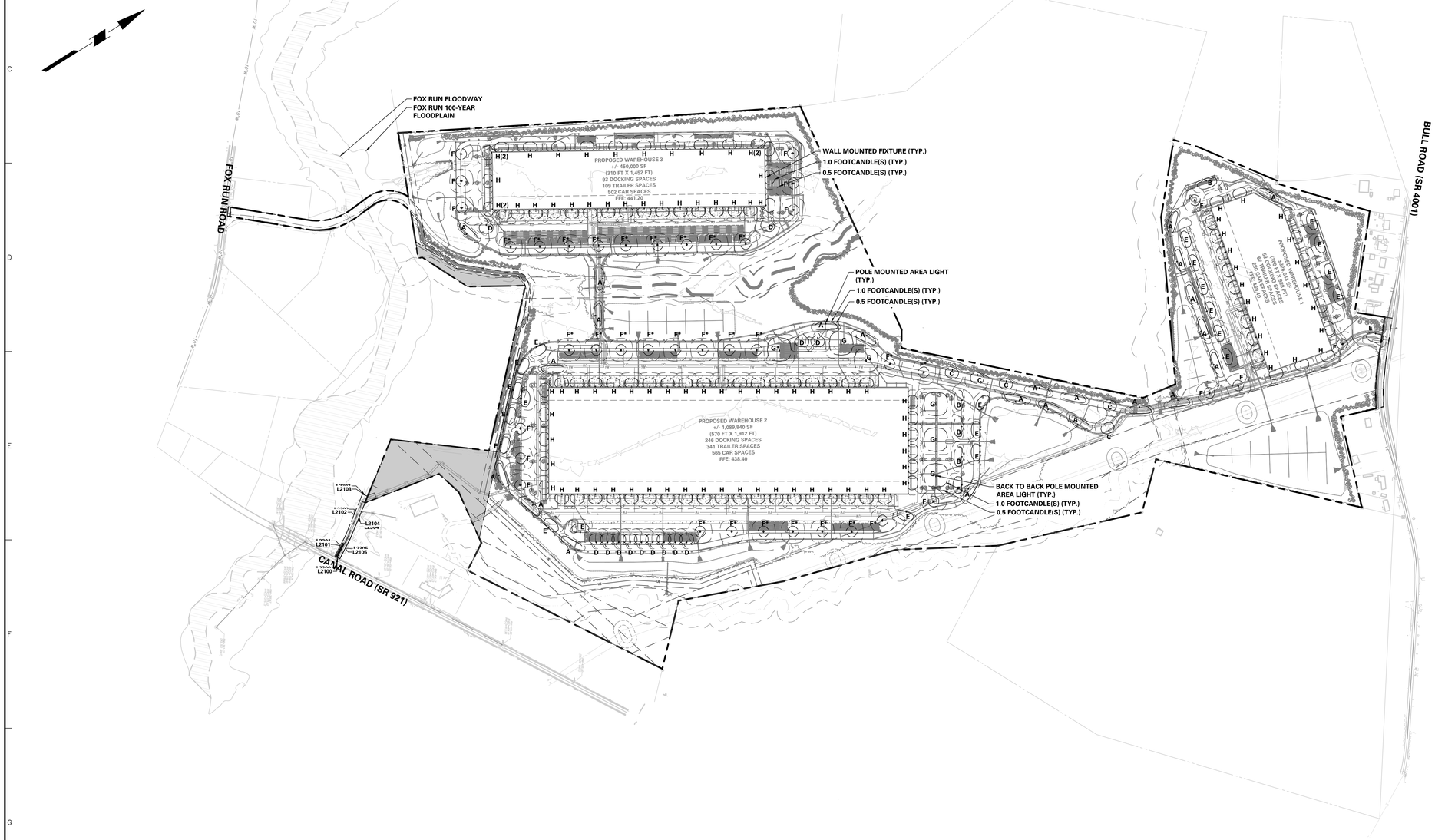
1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



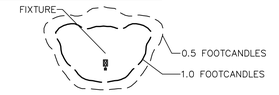
KEY MAP

SCALE: 1" = 2000'



250 0 125 250
SCALE: 1 INCH = 250 FEET

PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

NOTES:
PROPOSED LIGHTING SHOULD BE DIRECTED DOWNWARD AND INWARD

REFER TO SHEETS LL-101, LL-102, LL-103 AND LL-104 FOR DETAILED LIGHTING PLANS.
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

Revisions		
Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY MASTER LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-100
Sheet 117 of 128

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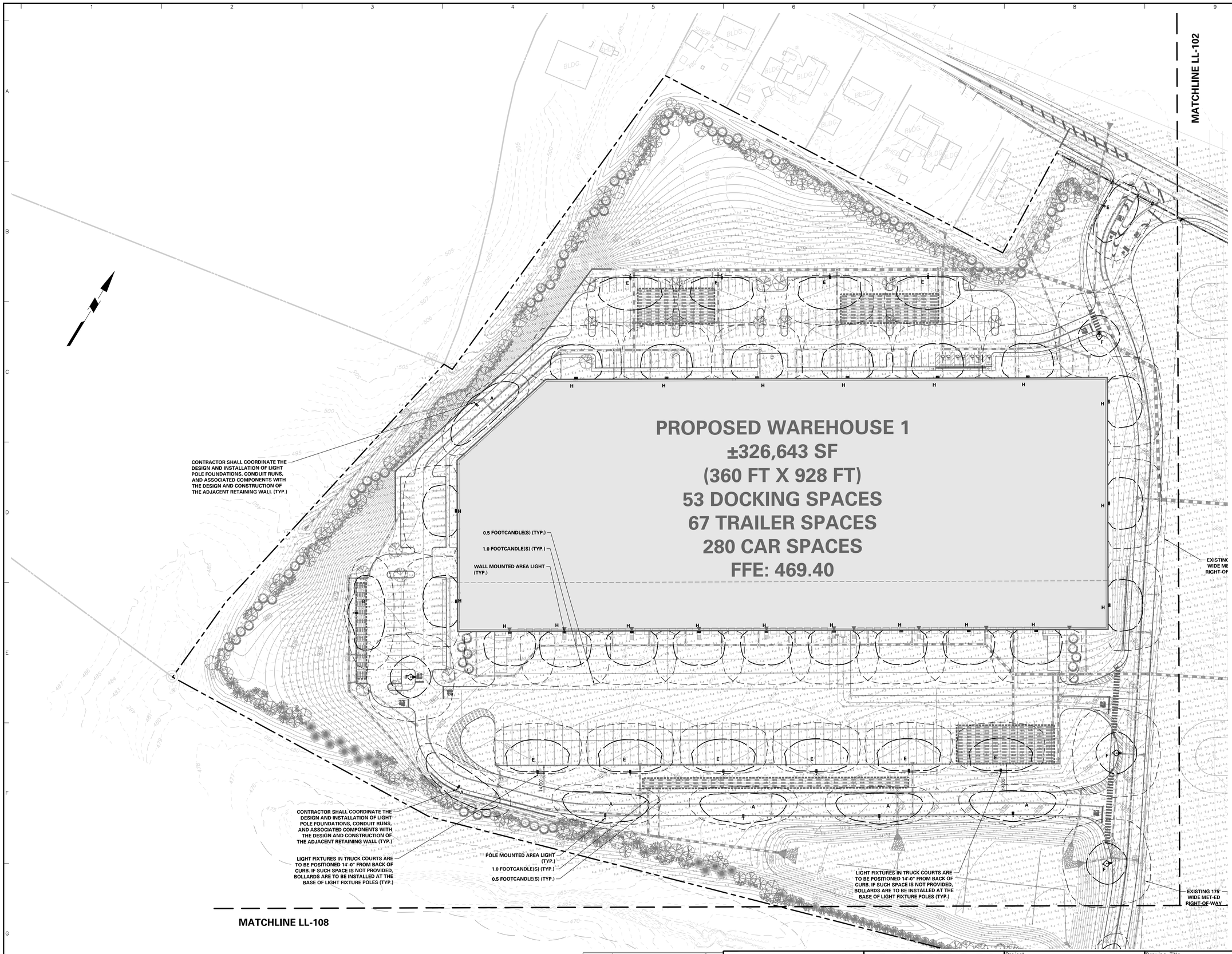
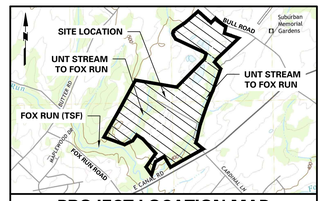
Date: 8/14/2025 Time: 21:53 User: rparisi Style Table: Langan.stb Layout: LL-100 Document Code: 200164401-0301-LL101-0101

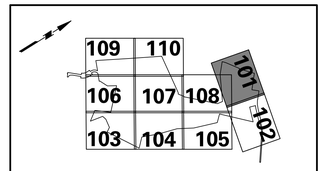




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

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~~ STOP & CALL ~~

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Revisions

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Project: BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title: PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-101
Sheet 118 of 128

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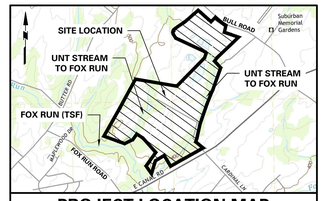
Date: 8/14/2025 Time: 22:06 User: rparisi Style Table: Langan.stb Layout: LL-101 Document Code: 200164401-0301-LL101-0102





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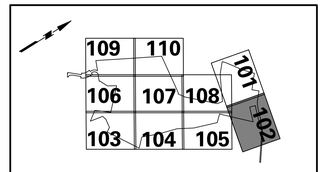
USGS DOVER QUADRANGLE



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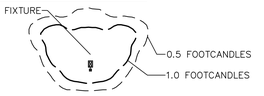

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Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-102
Sheet 119 of 128

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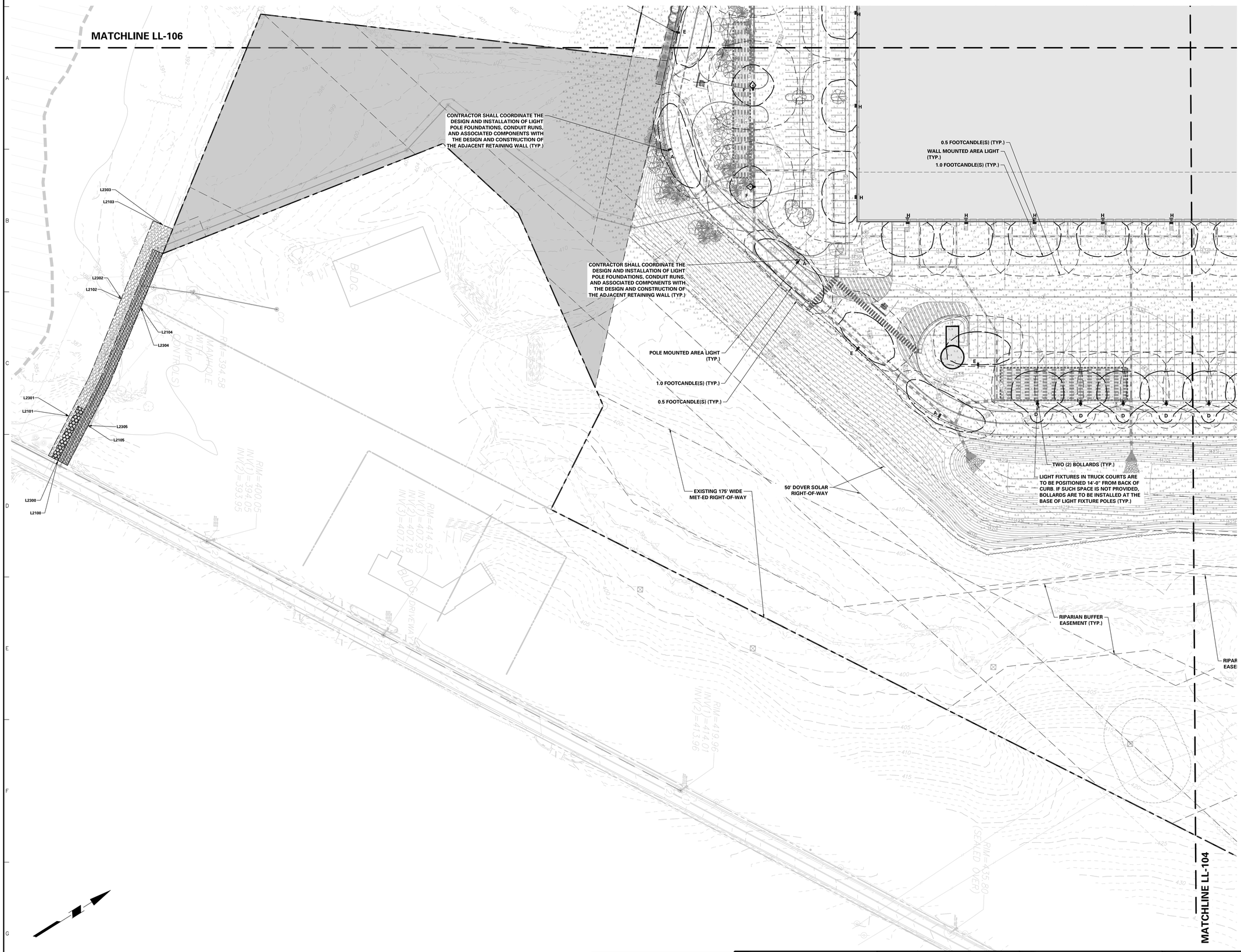
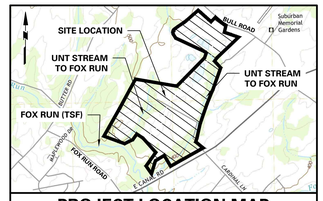
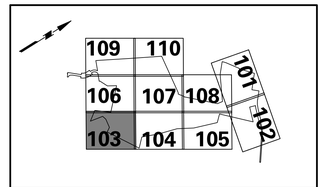




PROJECT LOCATION MAP

1" = 2000'

SOURCE: USGS DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

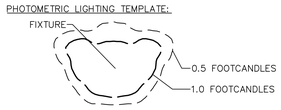
CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
-- STOP & CALL --

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-103

Sheet 120 of 128

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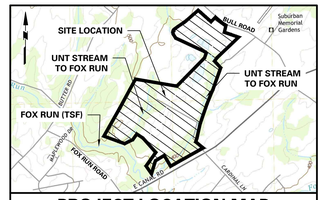
Date: 8/14/2025 Time: 22:19 User: rparisi Style Table: Langan.stb Layout: LL-103 Document Code: 200164401-0301-LL101-0103

246 DOCKING SPACES
341 TRAILER SPACES
565 CAR SPACES
FFE: 438.40

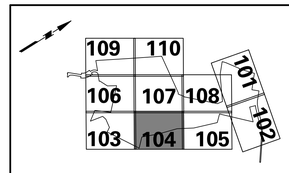
MATCHLINE LL-107

0.5 FOOTCANDLE(S) (TYP.)
WALL MOUNTED AREA LIGHT (TYP.)
1.0 FOOTCANDLE(S) (TYP.)
TWO (2) BOLLARDS (TYP.)
THREE (3) BOLLARDS
TWO (2) BOLLARDS (TYP.)
EXISTING 175' WIDE MET-ED RIGHT-OF-WAY
POLE MOUNTED AREA LIGHT (TYP.)
1.0 FOOTCANDLE(S) (TYP.)
0.5 FOOTCANDLE(S) (TYP.)
50' DOVER SOLAR RIGHT-OF-WAY
RIPARIAN BUFFER EASEMENT (TYP.)
MATCHLINE LL-103
MATCHLINE LL-105

SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP
1" = 2000'
SOURCE: USGS DOVER QUADRANGLE



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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

PHOTOMETRIC LIGHTING TEMPLATE:

NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

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8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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YORK COUNTY DOVER TOWNSHIP PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-104
Sheet 121 of 128

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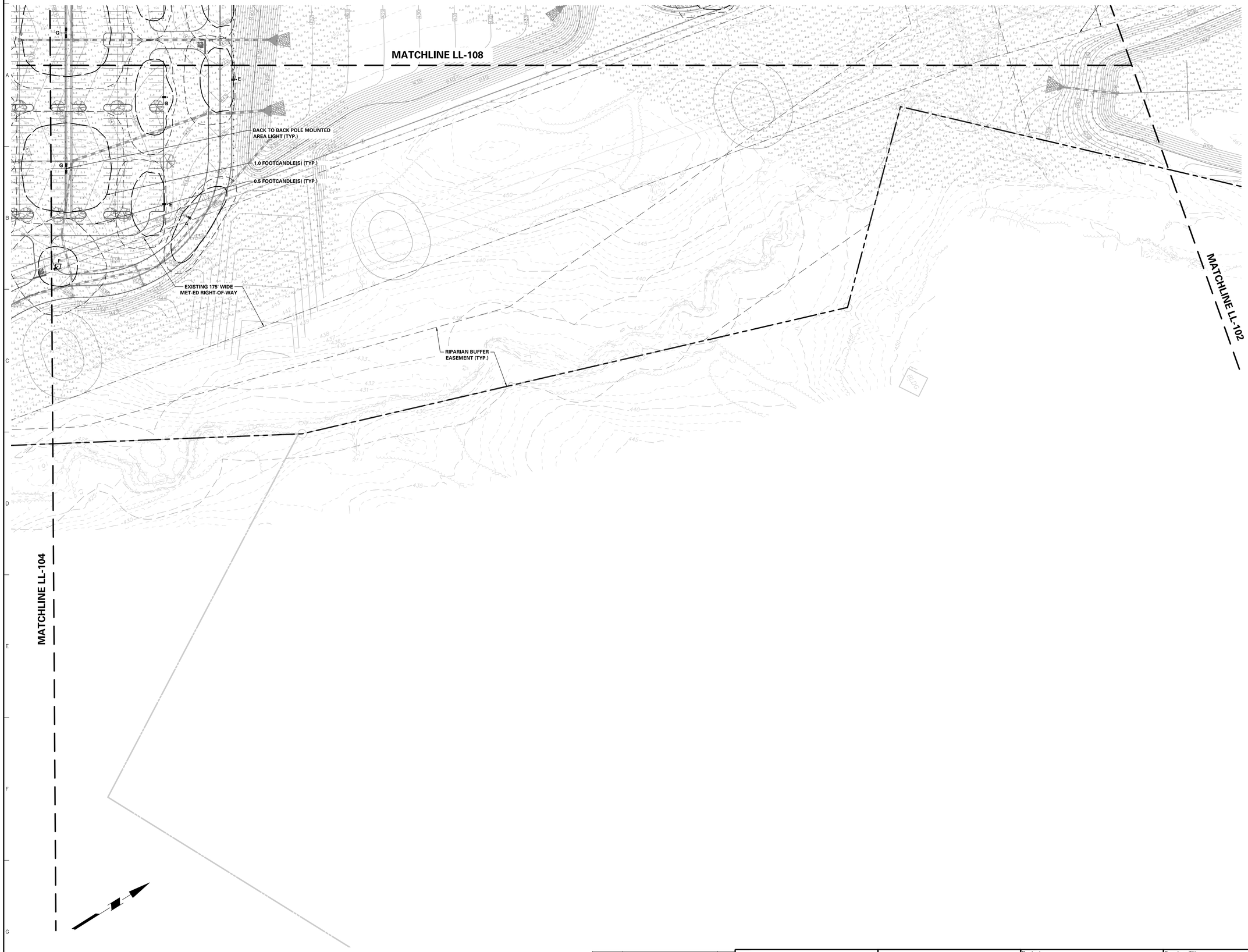
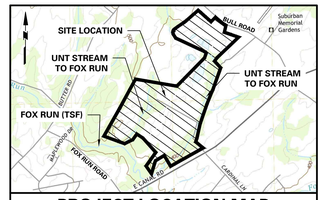
Date: 8/14/2025 Time: 22:27 User: rparisi Style Table: Langan.stb Layout: LL-104 Document Code: 200164401-0301-LL101-0104

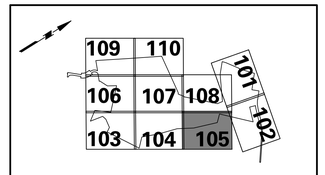




PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



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Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

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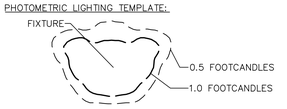

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Revisions

8/15/2025
MICHAEL J. CZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-105
Sheet 122 of 128

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Date: 8/14/2025 Time: 22:33 User: rparisi Style Table: Langan.stb Layout: LL-105 Document Code: 200164401-0301-LL101-0105

MATCHLINE LL-109

50' DOVER SOLAR RIGHT-OF-WAY

TWO (2) BOLLARDS (TYP.)

LIGHT FIXTURES IN TRUCK COURTS ARE TO BE POSITIONED 14'-0" FROM BACK OF CURB. IF SUCH SPACE IS NOT PROVIDED, BOLLARDS ARE TO BE INSTALLED AT THE BASE OF LIGHT FIXTURE POLES (TYP.)

CONTRACTOR SHALL COORDINATE THE DESIGN AND INSTALLATION OF LIGHT POLE FOUNDATIONS, CONDUIT RUNS, AND ASSOCIATED COMPONENTS WITH THE DESIGN AND CONSTRUCTION OF THE ADJACENT RETAINING WALL (TYP.)

FOX RUN FLOODWAY

FOX RUN 100-YEAR FLOODPLAIN

CONTRACTOR SHALL COORDINATE THE DESIGN AND INSTALLATION OF LIGHT POLE FOUNDATIONS, CONDUIT RUNS, AND ASSOCIATED COMPONENTS WITH THE DESIGN AND CONSTRUCTION OF THE ADJACENT RETAINING WALL (TYP.)

TWO (2) BOLLARDS (TYP.)

POLE MOUNTED AREA LIGHT (TYP.)

1.0 FOOTCANDLE(S) (TYP.)

0.5 FOOTCANDLE(S) (TYP.)

CONTRACTOR SHALL COORDINATE THE DESIGN AND INSTALLATION OF LIGHT POLE FOUNDATIONS, CONDUIT RUNS, AND ASSOCIATED COMPONENTS WITH THE DESIGN AND CONSTRUCTION OF THE ADJACENT RETAINING WALL (TYP.)

0.5 FOOTCANDLE(S) (TYP.)

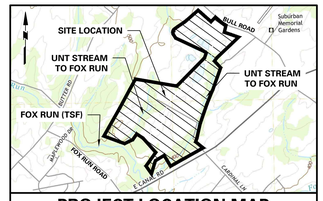
1.0 FOOTCANDLE(S) (TYP.)

WALL MOUNTED AREA LIGHT (TYP.)

MATCHLINE LL-107

MATCHLINE LL-103

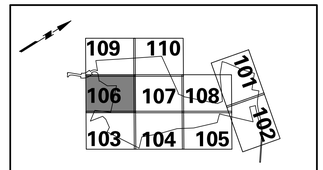
50 0 25 50
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

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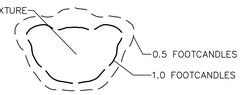
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS FOR CONSTRUCTION PHASE, AND
(10) WORKING DAYS IN DESIGN STAGE
--- STOP & CALL ---

Pennsylvania One Call System, Inc.
1-800-242-1776

SERIAL NUMBER, 20221664559-000

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

Revisions		
Date	Description	No.
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8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

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Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-106
Sheet 123 of 128

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MATCHLINE LL-110

MATCHLINE LL-108

MATCHLINE LL-106

MATCHLINE LL-104

TWO (2) BOLLARDS (TYP.)

POLE MOUNTED AREA LIGHT (TYP.)

1.0 FOOTCANDLE(S) (TYP.)

0.5 FOOTCANDLE(S) (TYP.)

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TWO (2) BOLLARDS (TYP.)

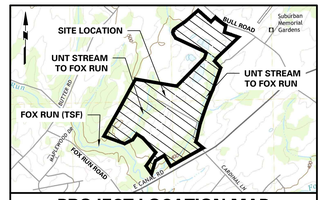
0.5 FOOTCANDLE(S) (TYP.)

1.0 FOOTCANDLE(S) (TYP.)

WALL MOUNTED AREA LIGHT (TYP.)

PROPOSED WAREHOUSE 2
+/- 1,089,840 SF
(570 FT X 1,912 FT)
246 DOCKING SPACES
341 TRAILER SPACES
565 CAR SPACES
FFE: 438.40

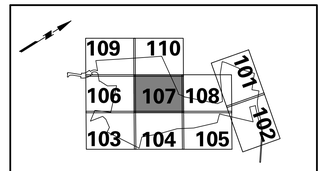
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE



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SERIAL NUMBER, 20221664559-000

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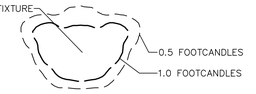

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8/15/2025

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Sheet 124 of 128

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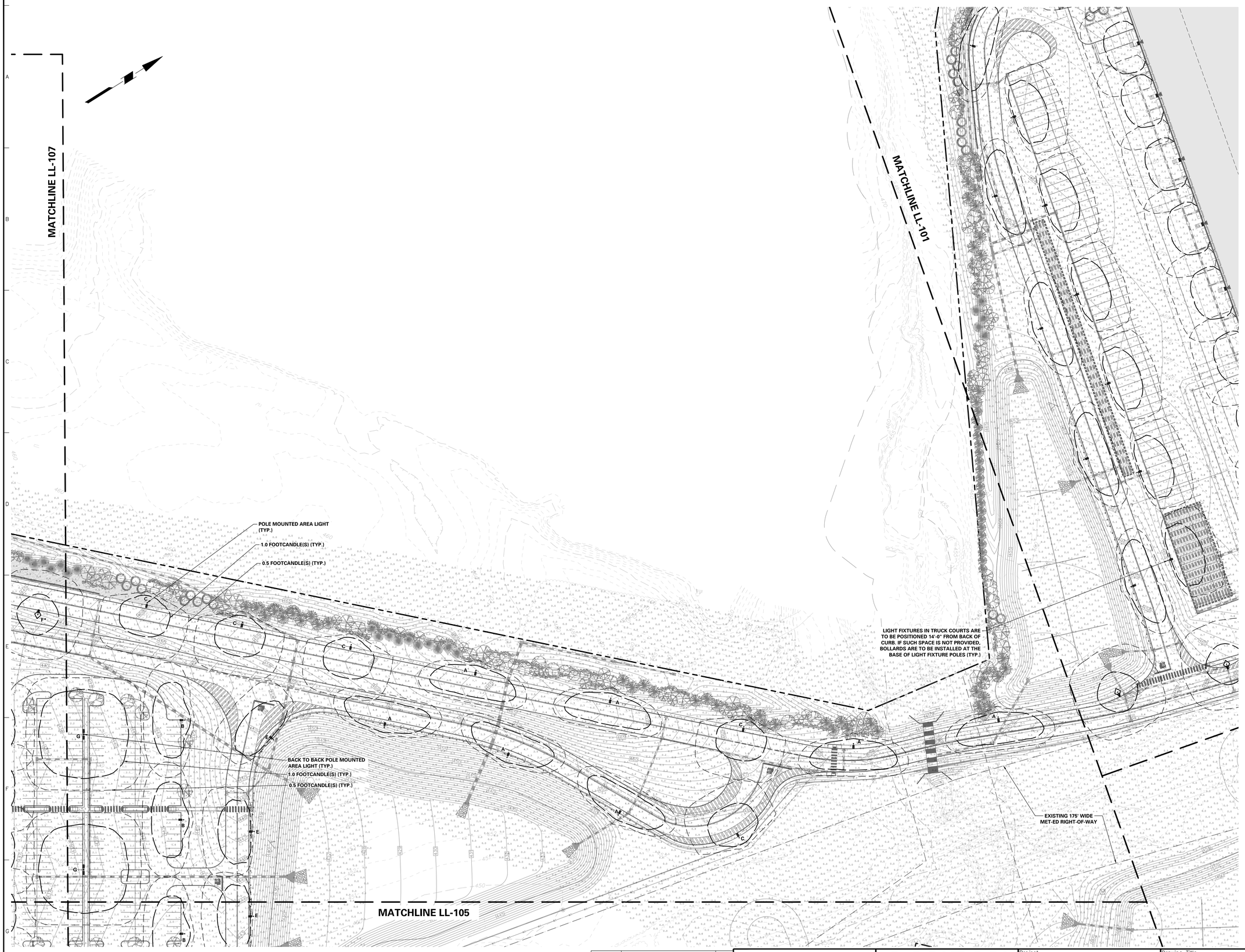
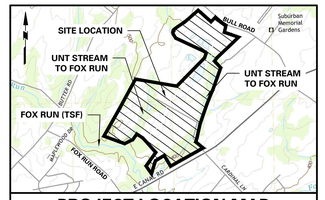


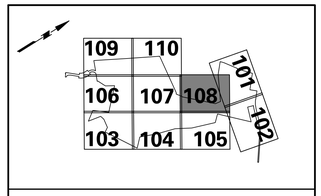
50 0 25 50
SCALE: 1 INCH = 50 FEET



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



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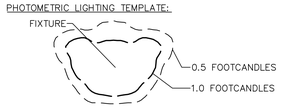

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11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY LIGHTING PLAN

Project No. 200164401
Date 6/7/2023
Drawn By ML
Checked By RP

Drawing No. LL-108

Sheet 125 of 128

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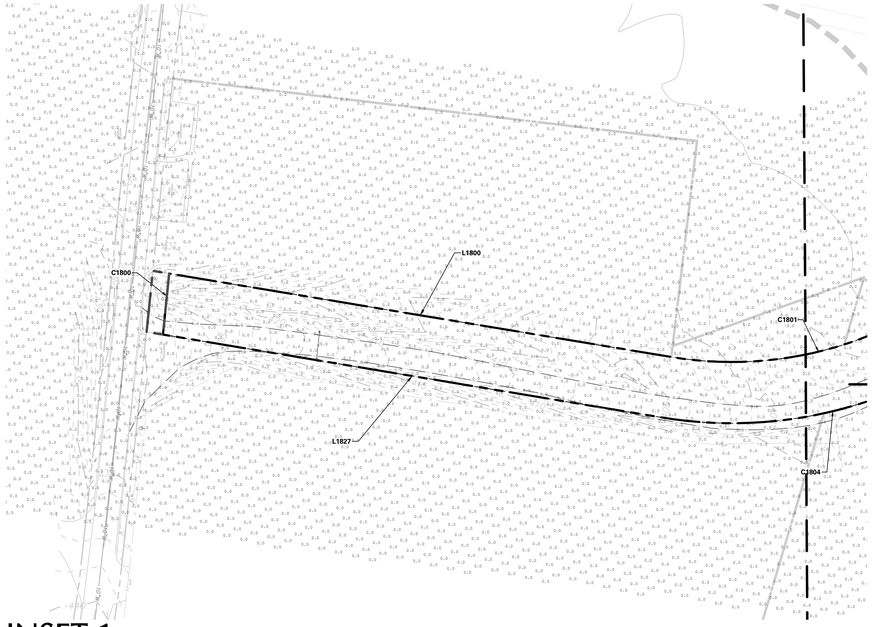
Date: 8/14/2025 Time: 23:00 User: rparisi Style Table: Langan.stb Layout: LL-108 Document Code: 200164401-0301-LL101-0109



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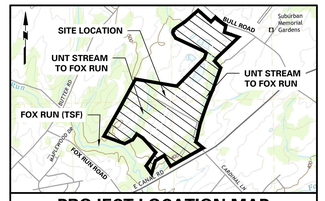
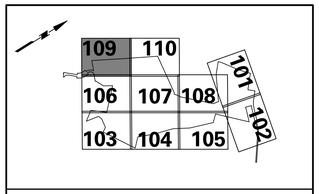


PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS: DOVER QUADRANGLE



KEY MAP

SCALE: 1" = 2000'

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

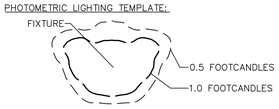
CALL BEFORE YOU DIG !!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND
(10) WORKING DAYS IN DESIGN STAGE
-- STOP & CALL --

Pennsylvania One Call System, Inc.
1-800-242-1776

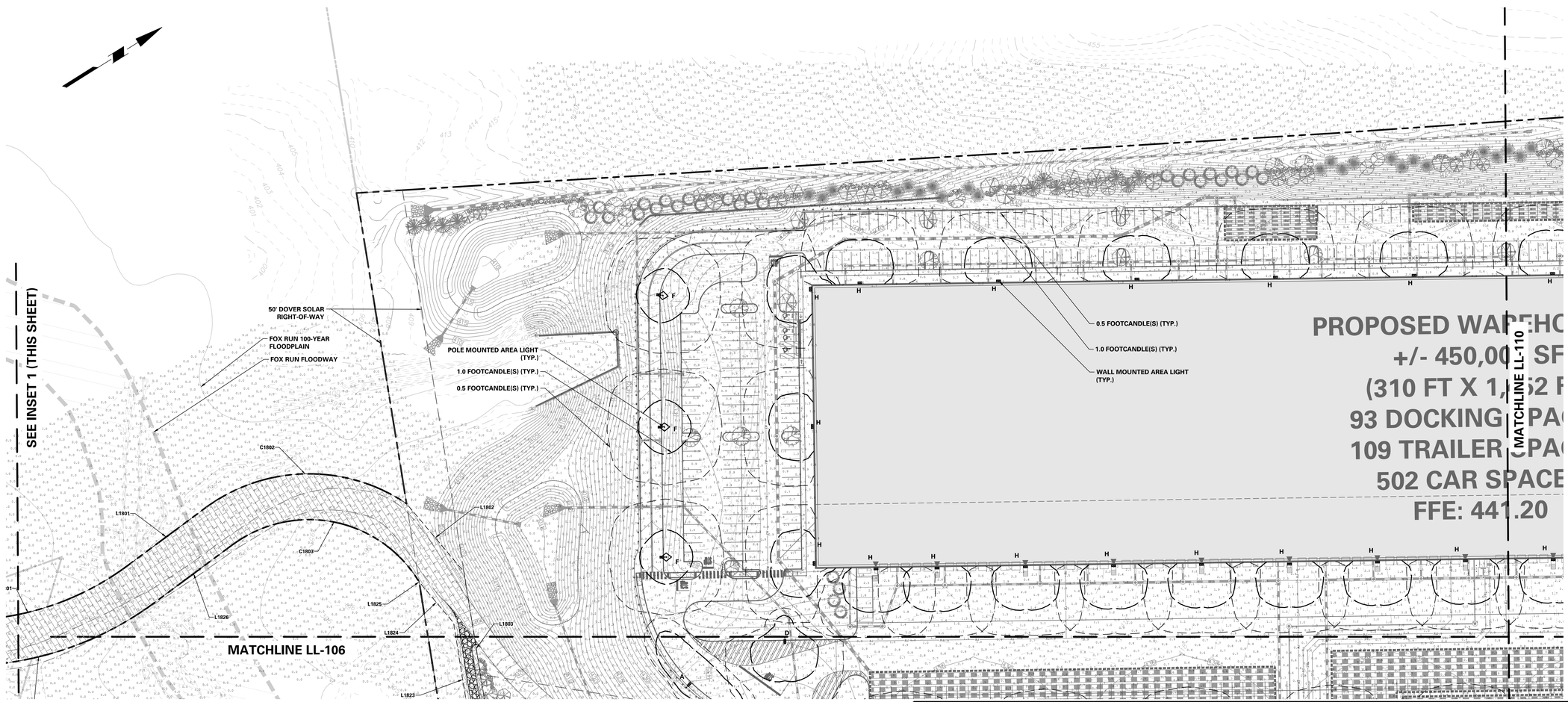
SERIAL NUMBER, 20221664559-000

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS

PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.



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SCALE: 1 INCH = 50 FEET

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
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Sheet 126 of 128

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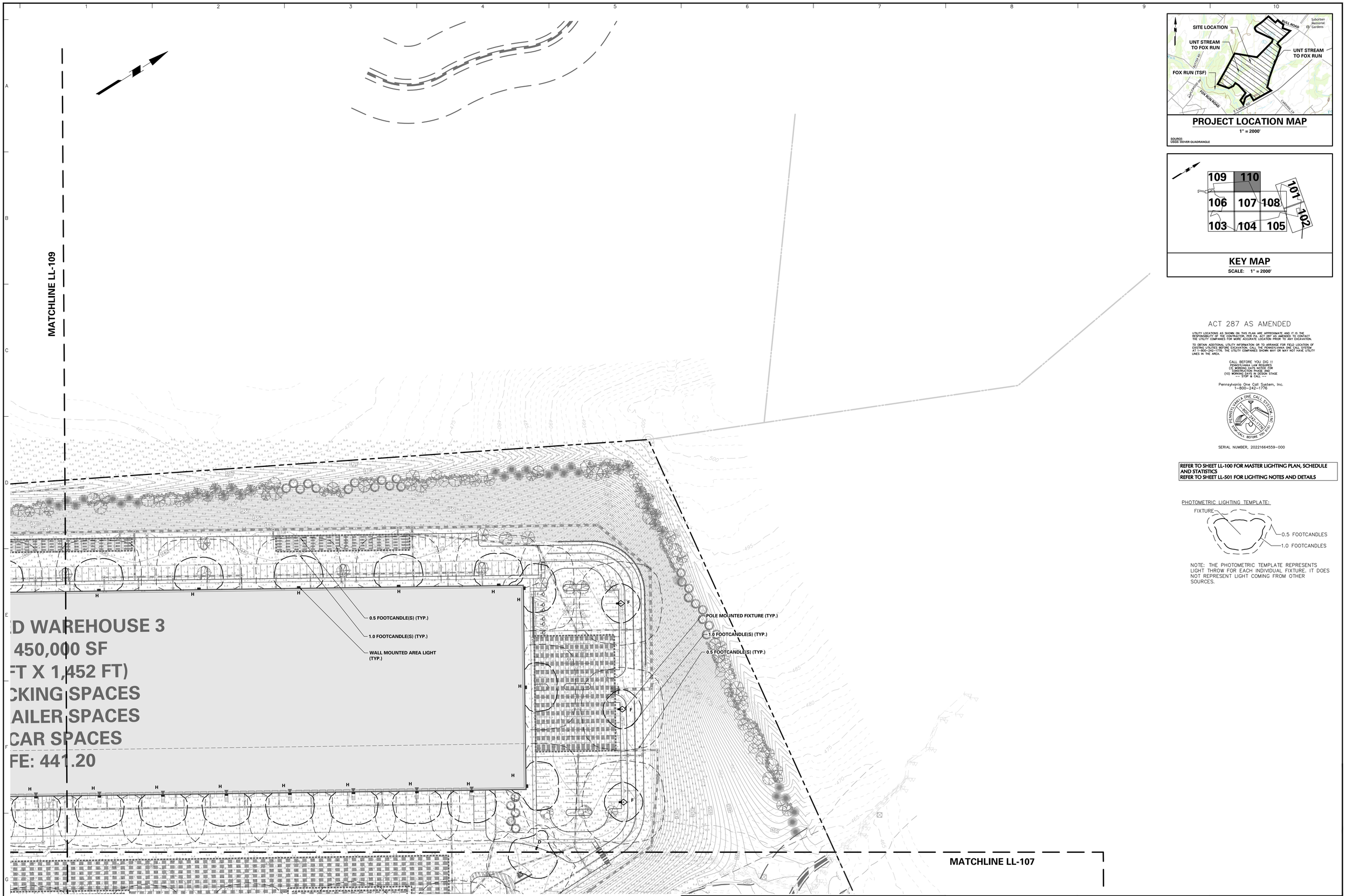
Date: 8/14/2025 Time: 23:08 User: rparisi Style Table: Langan.stb Layout: LL-109 Document Code: 200164401-0301-LL101-0110



PROJECT LOCATION MAP

1" = 2000'

SOURCE:
USGS DOVER QUADRANGLE

KEY MAP

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Drawn By ML
Checked By RP

Drawing No. LL-110
Sheet 127 of 128

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LIGHTING NOTES

GENERAL

1. POINT–BY–POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP/ DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS–BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.

2. LIGHT LEVEL POINT SPACING IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

COMPLIANCE

3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.

4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

5. CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.

6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.

7. CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.

8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.

9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST–IN–PLACE CONCRETE. THE USE OF ALTERNATE FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.

11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.

12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.

13. ALL POLES HIGHER THAN 25 FT. SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.

15. INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

ADJUSTMENT AND INSPECTION

16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.

17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.

18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

REQUIREMENTS FOR ALTERNATES

19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
    - A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR
    - B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
    - C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
    - D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
    - E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
    - F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

REFER TO SHEET LL-100 FOR MASTER LIGHTING PLAN, SCHEDULE AND STATISTICS
REFER TO SHEETS LL-101 TO LL-110 FOR DETAILED LIGHTING PLANS.



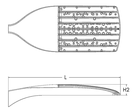
D-Series Size 2
LED Area Luminaire

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA: 1.06 ft² (0.10 m²)
Length: 40.59" (103.1 cm)
Width: 16.76" (42.6 cm)
Height H1: 8.11" (20.6 cm)
Height H2: 3.96" (10.1 cm)
Weight: 46 lbs (20.8 kg)



Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of up to 80% vs. 1000W HID and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX2 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED

Series	LEDs	Color temperature	Color Rendering Index	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** P1 P5 P2 P6 P3 P7 P4 P8 **Rotated optics** P10[1] P9[1] P11[1] P14[1] P12[1]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare[2] T4M Type IV medium T4LG Type IV low glare[2] TFTM Forward throw medium T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control[3] BLC4 Type IV backlight control[3] LCCO Left corner cutoff[3] RCCO Right corner cutoff[3]	MVOLT (120V-277V)[4] HVOLT (347V-480V)[5,6] XVOLT (277V - 480V)[5,6]	**Shipped included** SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPA5 Square pole mounting #5 drilling[8] RPA5 Round pole mounting #5 drilling[8] SPAAN Square narrow pole mounting #8 drilling WBA Wall bracket[9] MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[11,12,13,14,15] PIR High/low, motion/ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[11,12,13] PER NEMA twist-lock receptacle only (controls ordered separately)[16] PERS Five-pin receptacle only (controls ordered separate)[16,17]	PER7 Seven-pin receptacle only (controls ordered separate)[16,17] FAO Field adjustable output[11,12] BL30 Bi-level switched dimming, 30%[11,12] BL50 Bi-level switched dimming, 50%[11,12] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[17] DS Dual switching[18,19]	**Shipped installed** SPD20KV 20KV surge protection HS Houseside shield (black finish standard)[20] L90 Left rotated optics[11] R90 Right rotated optics[11] CCE Coastal Construction[21] HA 50°C ambient operation[24] **Shipped separately** EGSR External Glare Shield (reversible, field install required, matches housing finish) BSDB Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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RSS Round Straight Steel Pole

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** RSS 20 4-5B DM19 DDBXD

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[1]		
RSS	8'-30' (for 1'-2' ft increments, add -6 to the pole height. Ex. 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.)	3B 3" (.120") 4B 4" (.120") 4-5B 4 1/2" (.120") 5B 5" (.120")[2] (See technical information table for complete ordering information.)	Tenon mounting PT Open top T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS)[3] T35 4" O.D. (3-1/2" NPS)[3] KAC,KAD,NSE,NSX,WB,WXF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28PL 2 at 180° with one side plugged DM29 2 at 90° DM32 3 at 120° DM49 4 at 90° CSX,DSX,RSX,NBHS,""OMERO""HLA,KAA Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM32AS 3 at 120° DM39AS 3 at 90° DM49AS 4 at 90°	RAD drill mounting[3,4] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM32RAD 3 at 120° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	AERIS™ Suspend drill mounting[3,5] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[3,5] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90°

Options			Finish[10]	
Shipped installed VD Vibration damper[6] HArm Horizontal arm bracket (1 fixture)[22] FOLxy Festoon outlet less electrical[23] CPL12/xy 1/2" coupling[7] CPL34/xy 3/4" coupling[7] CPL1/xy 1" coupling[7] NPL12/xy 1/2" threaded nipple[7] NPL34/xy 3/4" threaded nipple[7] NPL1/xy 1" threaded nipple[7] EHHxy Extra handhole[7,24]	STLHHC Steel handhole cover (standard is plastic, finish is smooth) FBCSTL2PC 2 Piece steel base cover (standard is plastic) IC Interior coating[7] LLAB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant[25]	**Super durable paint colors** DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DGCXD Charcoal gray DTGXD Tennis green DBRXD Bright red DSBXD Steel blue	DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white **Other finishes** GALV Galvanized finish **Architectural colors and special finishes** Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available via RFA.

NOTES
1. Wall thickness will be signified with a "B" (11 Gauge) or a "7" (7 Gauge) in nomenclature. "B" – .120" | "7" – .180"
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. DM19RAD, DM28RAD and DM32RAD require a minimum top O.D. of 4". DM29RAD, DM39RAD and DM49RAD require a minimum top O.D of 4.25".
5. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
6. VD not available with 3" pole. On 4" and 5" poles, VD cannot be installed if ganmasters (DMG, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height. *Example: Pole height is 25ft. A premium cannot be placed above 16ft.*
7. Specify location and orientation when ordering option.
For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
Example: 5ft = 5 and 25ft 3in = 25-3
For "y": Specify orientation from handhole (A,B,C,D). Refer to the Handhole Orientation diagram below.
Example: 1/2" coupling at 5' 3", orientation C = CPL12/5-4C
8. Horizontal arm is 18" x 2-3/8" O.D. tenon standard with radius curve providing 53" rise. If ordering two horizontal arm at the same height, specify with HArm*y. Example: HA180.*
9. FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
10. Combination of tenon top and drill mount includes extra handhole.
11. Provides enhanced corrosion resistance. Not available with GALV.
12. Use when mill certifications are required.
13. Finish must be specified. Additional colors available; see Architectural Colors brochure linked here from No. 794.3).

Accessories: *Order as separate catalog number.*	
PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxAS drillings

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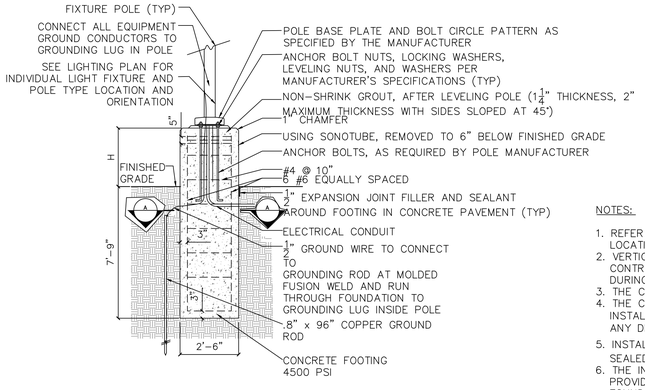
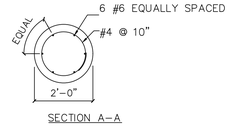
1 AREA MOUNTED LIGHT FIXTURES

LIGHTING TYPE	MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	'H'
SITE	30'–0" (POLE + FOUNDATION)	7'–9"	2'–6"	6 #5 BARS	3'–0" EXPOSED CONCRETE BASE



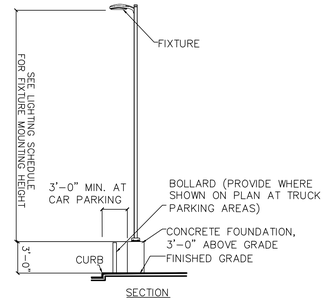


SECTION A–A

NOTES:

1. REFER TO SITE LIGHTING PLANS AND SITE LIGHTING SCHEDULE FOR SPECIFIC FOUNDATION LOCATIONS.
2. VERTICAL AND HORIZONTAL BARS SHALL BE FIELD TIED. WELDING IS NOT PERMITTED. THE CONTRACTOR SHALL SUPPORT REINFORCEMENT IN ITS PROPER LOCATION FROM THE FORMWORK DURING CONCRETE OPERATION.
3. THE CONTRACTOR SHALL REMOVE WATER PRESENT IN HOLE PRIOR TO POURING CONCRETE.
4. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO THE POLE AND FIXTURE INSTALLATION WITH THE MANUFACTURER. THE ENGINEER AND/OR OWNER TO BE NOTIFIED OF ANY DISCREPANCIES.
5. INSTALLATION OF POLE FOOTING IN CONCRETE PAVING REQUIRES ½" EXPANSION JOINT FILLER SEALED WITH JOINT SEALANT.
6. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.
7. PRIOR TO ORDERING OR FORMING FOUNDATIONS, CONTRACTOR SHALL CONFIRM BOLT TEMPLATE WITH MANUFACTURER.

2 LIGHT POLE FOR AREA LIGHT FIXTURES



SECTION

NOTE:

1. ALL LIGHTS WITH 25' MOUNTING HEIGHT OR GREATER TO RECEIVE FACTORY INSTALLED VIBRATION DAMPENERS.

3 AREA LIGHT POLE BASE

Date	Description	No.
8/15/2025	REVISED PER DOVER TOWNSHIP COMMENTS	5.
3/18/2024	REVISED PER DOVER TOWNSHIP COMMENTS	4.
12/18/2023	REVISED PER DOVER TOWNSHIP COMMENTS	3.
11/17/2023	REVISED PER DOVER TOWNSHIP COMMENTS	2.
8/24/2023	REVISED PER DOVER TOWNSHIP COMMENTS	1.

Revisions

8/15/2025
MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT
PA LIC. No. LA002533

LANGAN
Langan Engineering and Environmental Services, Inc.
Stone Manor Corporate Center, 2700 Kelly Road, Suite 200
Warrington, PA 18976
T: 215.491.6500 F: 215.491.6501 www.langan.com

Project
BULL ROAD LOGISTICS
DOVER TOWNSHIP
YORK COUNTY PENNSYLVANIA

Drawing Title
PRELIMINARY NOTES AND LIGHTING DETAILS

Project No.	Drawing No.
200164401	LL-501
Date: 6/7/2023	
Drawn By: ML	
Checked By: RP	
Sheet 128 of 128	

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