

CERTIFICATES:

CERTIFICATION OF PLAN ACCURACY

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE EAST COCALICO TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

DATE: _____ DAVID A. MEASE, P.E.

CERTIFICATION OF GENERAL PLAN/REPORT DATA

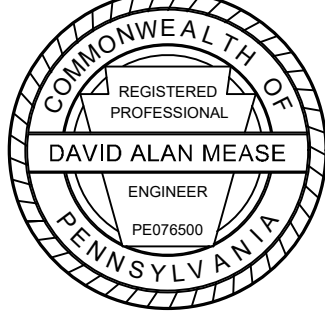
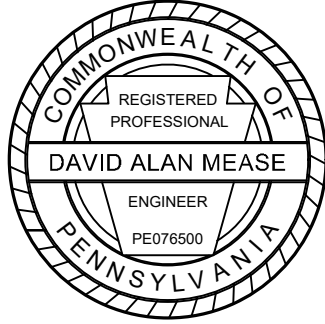
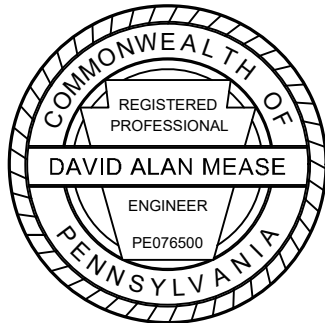
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE FINAL LAND DEVELOPMENT PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE EAST COCALICO TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

DATE: _____ DAVID A. MEASE, P.E.

STORMWATER MANAGEMENT CERTIFICATION

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE STORMWATER MANAGEMENT FACILITIES SHOWN AND DESCRIBED HEREON ARE DESIGNED IN CONFORMANCE WITH THE EAST COCALICO TOWNSHIP STORMWATER MANAGEMENT AND EARTH DISTURBANCE ORDINANCE OF 2014.

DATE: _____ DAVID A. MEASE, P.E.



CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN AND OFFER OF DEDICATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF LANCASTER

ON THIS, _____ DAY OF _____, 20____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____ WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE PRESIDENT OF THE WOODCREST RETREAT ASSOCIATION, WHICH IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE SUBDIVISION AND/OR LAND DEVELOPMENT PLAN THEREOF WAS MADE AT THEIR DIRECTION, AND THAT HE ACKNOWLEDGES THE SAME TO BE THEIR ACT AND PLAN AND DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW, AND THAT ALL STREETS SHOWN AND NOT HERETOFORE DEDICATED ARE HEREBY DEDICATED TO THE PUBLIC USE EXCEPT THOSE LABELED "NOT FOR DEDICATION" (AND ANY OTHER RESTRICTIONS OR RESERVATIONS).

PRESIDENT _____

NOTARY PUBLIC _____

LANCASTER COUNTY PLANNING DEPARTMENT'S REVIEW CERTIFICATE

THIS PLAN, BEARING LCPC FILE NO. _____, WAS REVIEWED BY STAFF OF THE LANCASTER COUNTY PLANNING DEPARTMENT ON _____ AS REQUIRED BY PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ACT 247 OF 1968, AS AMENDED. THIS CERTIFICATE DOES NOT REPRESENT NOR GUARANTEE THAT THIS PLAN COMPLIES WITH THE VARIOUS ORDINANCES, RULES, REGULATIONS, OR LAWS OF THE LOCAL MUNICIPALITY, THE COMMONWEALTH, OR THE FEDERAL GOVERNMENT.

EAST COCALICO TOWNSHIP PLANNING COMMISSION PLAN REVIEW CERTIFICATE

AT A MEETING ON _____, 20____, THE EAST COCALICO TOWNSHIP PLANNING COMMISSION REVIEWED THIS PLAN.

CHAIRMAN OR DESIGNEE _____
MEMBER _____
MEMBER _____
MEMBER _____

EAST COCALICO TOWNSHIP SUPERVISORS PLAN APPROVAL CERTIFICATE

AT A MEETING ON _____, 20____, THE BOARD OF SUPERVISORS OF EAST COCALICO TOWNSHIP GRANTED FINAL PLAN APPROVAL OF THIS PROJECT, BASED UPON ITS CONFORMITY WITH THE STANDARDS OF THE EAST COCALICO TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND ALL CONDITIONS OF APPROVAL HAVE BEEN MET. THIS APPROVAL INCLUDES THE COMPLETE SET OF PLANS/REPORTS THAT ARE FILED WITH THE TOWNSHIP AND AVAILABLE FOR PUBLIC REVIEW.

DATE SIGNED: _____ CHAIRMAN OR DESIGNEE _____
ATTEST: _____ MEMBER _____
EAST COCALICO TOWNSHIP SECRETARY _____ MEMBER _____

GENERAL NOTES:

- THE PURPOSE OF THIS PLAN IS TO PROVIDE FOR LAND DEVELOPMENT IMPROVEMENTS AS SHOWN HEREON.
- THE TOPOGRAPHIC SURVEY DATUM IS A USGS "COG" MONUMENT LOCATED APPROXIMATELY 14' EAST OF THE EXISTING WATER TANK ON THE PROPERTY. ASSUMED ELEVATION = 840.00.
- ALL APPROPRIATE PERMITS SHALL BE OBTAINED FROM THE TOWNSHIP, COUNTY, STATE, ETC. AS REQUIRED AND AS RELATES TO THE CONSTRUCTION ACTIVITY BEING UNDERTAKEN.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT PENNDOT FORM 408 SPECIFICATIONS AND/OR THE CURRENT SPECIFICATIONS AND DESIGN STANDARDS OF EAST COCALICO TOWNSHIP UNLESS OTHERWISE STATED.
- OWNERSHIP AND MAINTENANCE OF ALL OF THE STORMWATER MANAGEMENT FACILITIES WITHIN THE LIMITS OF THE PROPERTY SHALL BE THE RESPONSIBILITY OF THE OWNER. THESE MAINTENANCE RESPONSIBILITIES ARE FURTHER DEFINED ON THE P.C.S.M. PLAN SHEETS AND IN THE STORM WATER MANAGEMENT AGREEMENT AND DECLARATION OF EASEMENT RECORDED CONCURRENTLY WITH THIS PLAN.
- STORM WATER FACILITIES, INCLUDING DETENTION AND INFILTRATION BASINS, SWALES, STORM PIPING AND APPURTENANCES, SHALL BE MAINTAINED IN GOOD WORKING CONDITION BY THE OWNER. OWNER SHALL MAINTAIN ADEQUATE LIABILITY INSURANCE FOR ANY CLAIMS RELATING TO THE OWNERSHIP, USE AND MAINTENANCE OF THE STORM WATER FACILITIES.
- THE OFFICIALS OF EAST COCALICO TOWNSHIP SHALL HAVE ACCESS ONTO THE PROPERTY FOR INSPECTION OF THE PRIVATE STORM WATER MANAGEMENT FACILITIES DEPICTED ON THIS PLAN.
- THE OFFICIALS OF EAST COCALICO TOWNSHIP SHALL HAVE THE RIGHT TO:
 - INSPECT ALL PERMANENT STORMWATER MANAGEMENT FACILITIES AT ANY TIME;
 - REQUIRE THE LOT OWNER TO TAKE CORRECTIVE MEASURES AND ASSIGN THE LOT OWNER REASONABLE TIME PERIODS FOR ANY NECESSARY ACTION;
 - AUTHORIZE MAINTENANCE TO BE DONE AND LIEN ALL COST OF THE WORK AGAINST THE PROPERTY OF THE LOT OWNER RESPONSIBLE FOR MAINTENANCE.
- NOTHING SHALL BE PLACED, PLANTED, OR PUT WITHIN THE AREAS OF THE STORMWATER MANAGEMENT FACILITIES, BASINS, SWALES, OR PIPING.
- ALL EXISTING AND PROPOSED DRIVES AND DRIVEWAYS WILL BE OWNED AND MAINTAINED BY THE OWNER AND NO OFFER OF DEDICATION IS MADE FOR ANY DRIVE OR DRIVEWAY.
- THE PROPERTY OWNER HEREBY GRANTS A "BLANKET EASEMENT" OVER AND ACROSS THE ENTIRE SUBJECT PROPERTY FOR THE FOLLOWING PURPOSES:
 - FOR AUTHORIZED EMERGENCY VEHICLES AND PERSONNEL, INCLUDING, BUT NOT LIMITED TO, AMBULANCE, FIRE AND POLICE.
 - FOR MAINTENANCE AND REPAIR OF UTILITIES, INCLUDING, BUT NOT LIMITED TO, TELEPHONE, ELECTRIC, WATER, SANITARY SEWER, BY AUTHORIZED PERSONNEL.
 - FOR MAINTENANCE AND REPAIR OF ALL STORMWATER FACILITIES, INCLUDING, BUT NOT LIMITED TO, STORMPIPING, INLETS, HEADWALLS, ENDWALLS, MANHOLES, DETENTION/INFILTRATION FACILITIES, AND SWALES, BY AUTHORIZED PERSONNEL.
- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE EAST COCALICO TOWNSHIP AUTHORITY SPECIFICATIONS FOR SANITARY SEWER SYSTEM CONSTRUCTION.
- ALL CONSTRUCTION RELATED TO THIS PROJECT SHALL BE IN STRICT CONFORMANCE WITH CURRENT "AMERICANS WITH DISABILITIES ACT" (A.D.A.) REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION. IT IS HEREBY ACKNOWLEDGED THAT IT IS THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO PROVIDE AND MAINTAIN ALL NECESSARY A.D.A. ACCOMMODATIONS TO MEET FEDERAL REGULATIONS, AND THAT APPROVAL OF THIS PLAN BY EAST COCALICO TOWNSHIP SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SITE IS FULLY COMPLIANT OR THAT FURTHER IMPROVEMENTS ARE NOT REQUIRED FOR A.D.A. COMPLIANCE.
- THE PROJECT AND USE OF THE PROPERTY SHALL COMPLY WITH THE OPERATION AND PERFORMANCE STANDARDS OF THE ZONING ORDINANCE AND ALL PRIOR ZONING APPROVALS.
- IN ORDER TO MINIMIZE GLARE AND OFFSITE NUISANCE, ALL SITE LIGHTING SHALL BE PROVIDED IN CONFORMANCE WITH THE PERFORMANCE STANDARDS OF THE ZONING ORDINANCE RELATED TO HOURS OF USE, ILLUMINATION, POSITION OR LOCATION, HOODING OR SCREENING, AND MOUNTING CONFIGURATION. FUTURE REPLACEMENT OF ANY EXISTING OR PROPOSED FIXTURES SHALL INCLUDE UPGRADES TO COMPLIANT FIXTURES AND ARRANGEMENTS WHERE APPLICABLE.
- AT THE COMPLETION OF THE PROJECT, AND AS A PREREQUISITE FOR THE RELEASE OF THE FINANCIAL SECURITY, THE DEVELOPER OR HIS REPRESENTATIVE SHALL PROVIDE A CERTIFICATE OF COMPLETION FROM A REGISTERED ENGINEER, ARCHITECT, SURVEYOR, OR OTHER QUALIFIED PERSON VERIFYING THAT ALL PERMANENT STORMWATER FACILITIES AND RELATED IMPROVEMENTS HAVE BEEN CONSTRUCTED ACCORDING TO THE APPROVED PLANS AND SPECIFICATIONS AND APPROVED REVISIONS THERETO. CERTIFICATION SHALL BE PROVIDED ON A SET OF RECORD (AS-BUILT) DRAWINGS. (REFER TO §185-20, 194-16, AND 194-23 OF THE EAST COCALICO TOWNSHIP CODE.)
- THE STORMWATER MANAGEMENT FACILITIES ON THIS PLAN HAVE BEEN DESIGNED FOR AN INCREASE OF 65,321 S.F. (1.50 AC.) OF NEW IMPERVIOUS COVERAGE AS DEPICTED ON THIS PLAN. ANY ADDITIONAL IMPERVIOUS COVERAGE BEYOND THE APPROVED AMOUNT WILL REQUIRE APPROVAL FROM THE TOWNSHIP IN ACCORDANCE WITH ALL APPLICABLE ORDINANCES.

WAIVERS:

ON _____, 20____, THE BOARD OF SUPERVISORS OF THE FOLLOWING TOWNSHIP OF THE EAST COCALICO TOWNSHIP CODE:

- §194-9 -- PRELIMINARY PLAN APPLICATION
- §194-14.A(1) -- PLAN SCALE
- §194-25.H -- VERTICAL ALIGNMENT
- §194-25.K(4) -- ACCESS DRIVE PAVEMENT DESIGN
- §194-28.C -- HORIZONTAL ALIGNMENT
- §194-28.H -- CARTWAY WIDTH
- §203-5 -- IMPOSITION OF TRANSPORTATION IMPACT FEE

FINAL LAND DEVELOPMENT PLAN FOR WOODCREST RETREAT PHASE 3

EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

ZONING DATA:

ZONING DISTRICT: CONSERVATION (C)
MIN. FRONT YARD: 50' (PRINCIPAL USE)
100' (ACCESSORY USE)
MIN. SIDE YARD: 25'
MIN. REAR YARD: 50'
MIN. LOT AREA: 1 AC.
MIN. LOT WIDTH: 200'
MAX. BUILDING HEIGHT: 35' (PRINCIPAL STRUCTURE)
20' (ACCESSORY STRUCTURE)
MAX. LOT COVERAGE: 20%

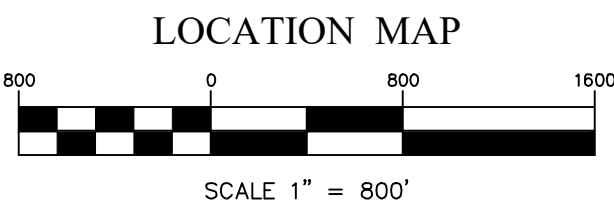
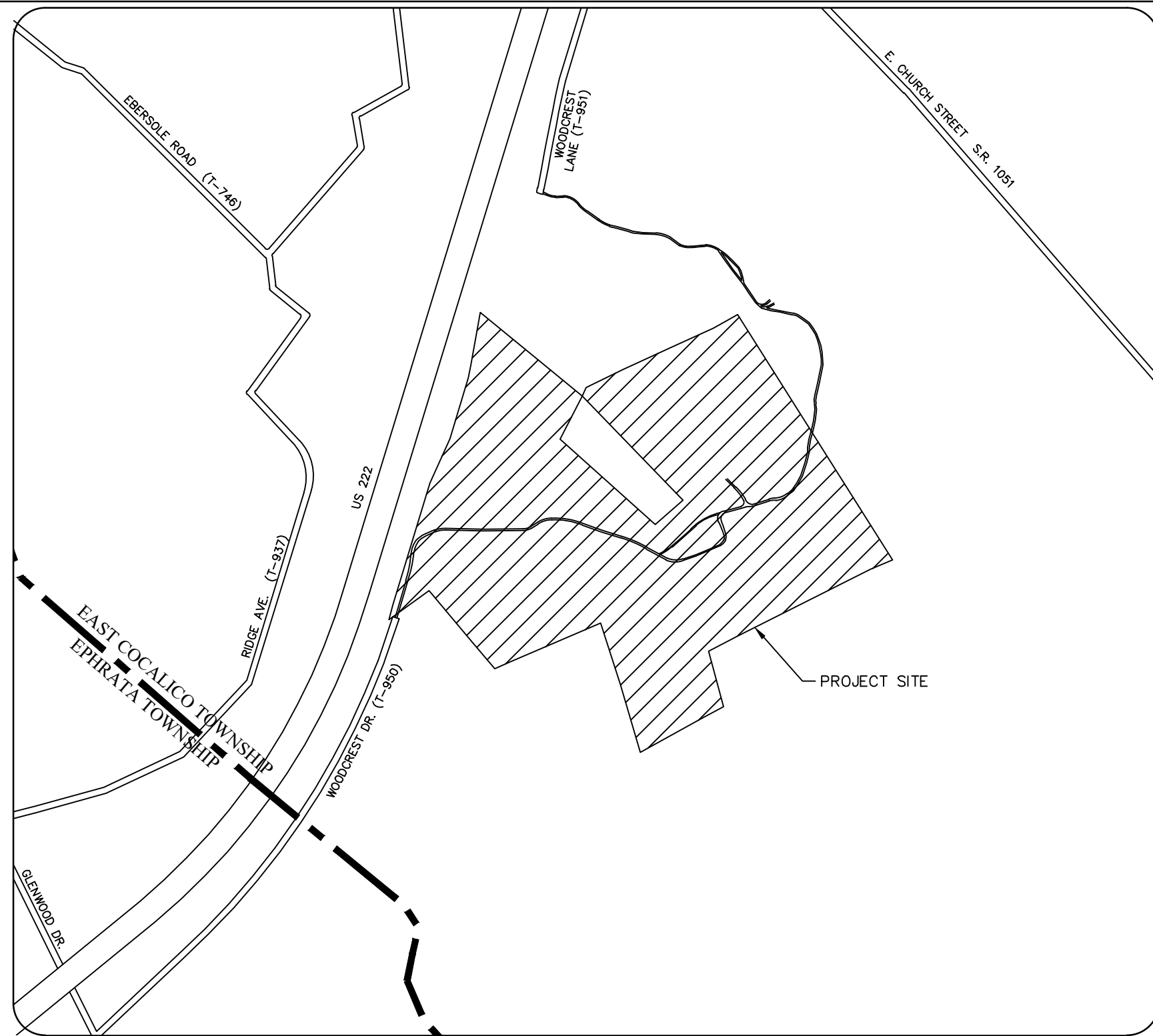
SITE DATA:

TOTAL SITE ACREAGE: 109.0932 AC.
SOURCE OF WATER: PRIVATE ON-LOT WITH NON-COMMUNITY WATER SUPPLY OR PIPING.
SOURCE OF SEWER: PUBLIC
EXISTING LAND USE: WORSHIP RETREAT CAMP
PROPOSED LAND USE: WORSHIP RETREAT CAMP
EXISTING LOT COVERAGE: 2 %
PROPOSED LOT COVERAGE: 3 %

SOURCE OF TITLE:

WOODCREST RETREAT ASSOCIATION
DEED REFERENCE #6154986
TAX ACCT. NO.: 0804493700000
P.B.V. J-215-35
P.B.V. 2010-001-J
P.B.V. 2017-0278-J

SITE ADDRESS:
225 WOODCREST DR.
EPHRATA, PA 17522
(717) 738-2233



INDEX OF SHEETS:

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1.	COVER SHEET *
2.	OVERALL SITE PLAN *
3.	OVERALL GRADING PLAN *
4.	GRADING PLAN - SOUTH AREA *
5.	GRADING PLAN - CENTRAL AREA *
6.	GRADING PLAN - NORTH AREA*
7.	ACCESS DRIVE PROFILES *
8.	SANITARY SEWER PROFILES
9.	CONSTRUCTION DETAILS
10.	PCSM PLAN - OVERALL *
11.	PCSM PLAN - PRE-DEVELOPMENT - SOUTH DRAINAGE AREAS *
12.	PCSM PLAN - PRE-DEVELOPMENT - NORTH DRAINAGE AREAS *
13.	PCSM PLAN - POST-DEVELOPMENT - SOUTH DRAINAGE AREAS *
14.	PCSM PLAN - POST-DEVELOPMENT - NORTH DRAINAGE AREAS *
15.	PCSM PLAN - SUB-DRAINAGE AREAS
16.	PCSM PLAN - STORM SEWER PROFILES
17.	PCSM PLAN DETAILS *
18.	PCSM PLAN DETAILS *
19.	PCSM PLAN NOTES *
20.	EROSION AND SEDIMENT CONTROL PLAN - OVERALL
21.	EROSION AND SEDIMENT CONTROL PLAN - SOUTH AREA
22.	EROSION AND SEDIMENT CONTROL PLAN - NORTH AREA
23.	EROSION AND SEDIMENT CONTROL PLAN DETAILS
24.	EROSION AND SEDIMENT CONTROL PLAN NOTES

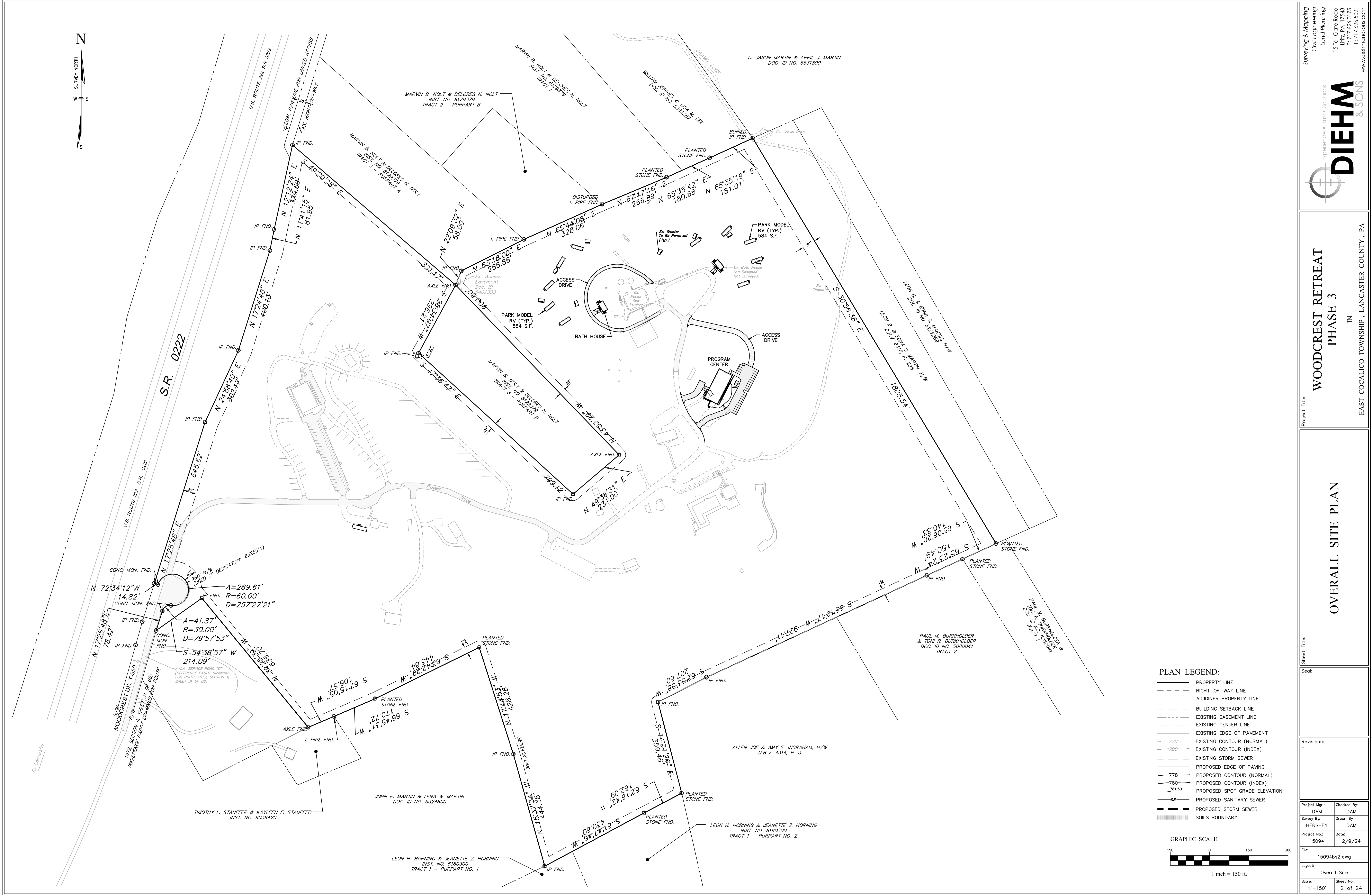
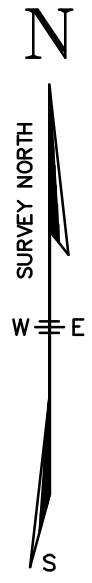
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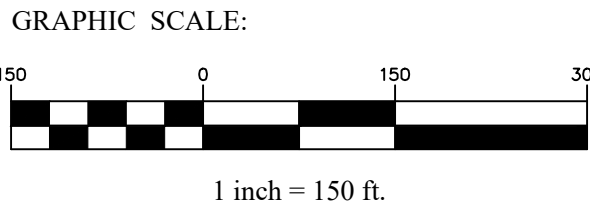
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- PLAN LEGEND:
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - ADJOINER PROPERTY LINE
 - BUILDING SETBACK LINE
 - EXISTING EASEMENT LINE
 - EXISTING CENTER LINE
 - EXISTING EDGE OF PAVEMENT
 - EXISTING CONTOUR (NORMAL)
 - EXISTING CONTOUR (INDEX)
 - EXISTING STORM SEWER
 - PROPOSED EDGE OF PAVING
 - PROPOSED CONTOUR (NORMAL)
 - PROPOSED CONTOUR (INDEX)
 - PROPOSED SPOT GRADE ELEVATION
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - SOILS BOUNDARY



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Project Title:

**WOODCREST RETREAT
PHASE 3**

IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

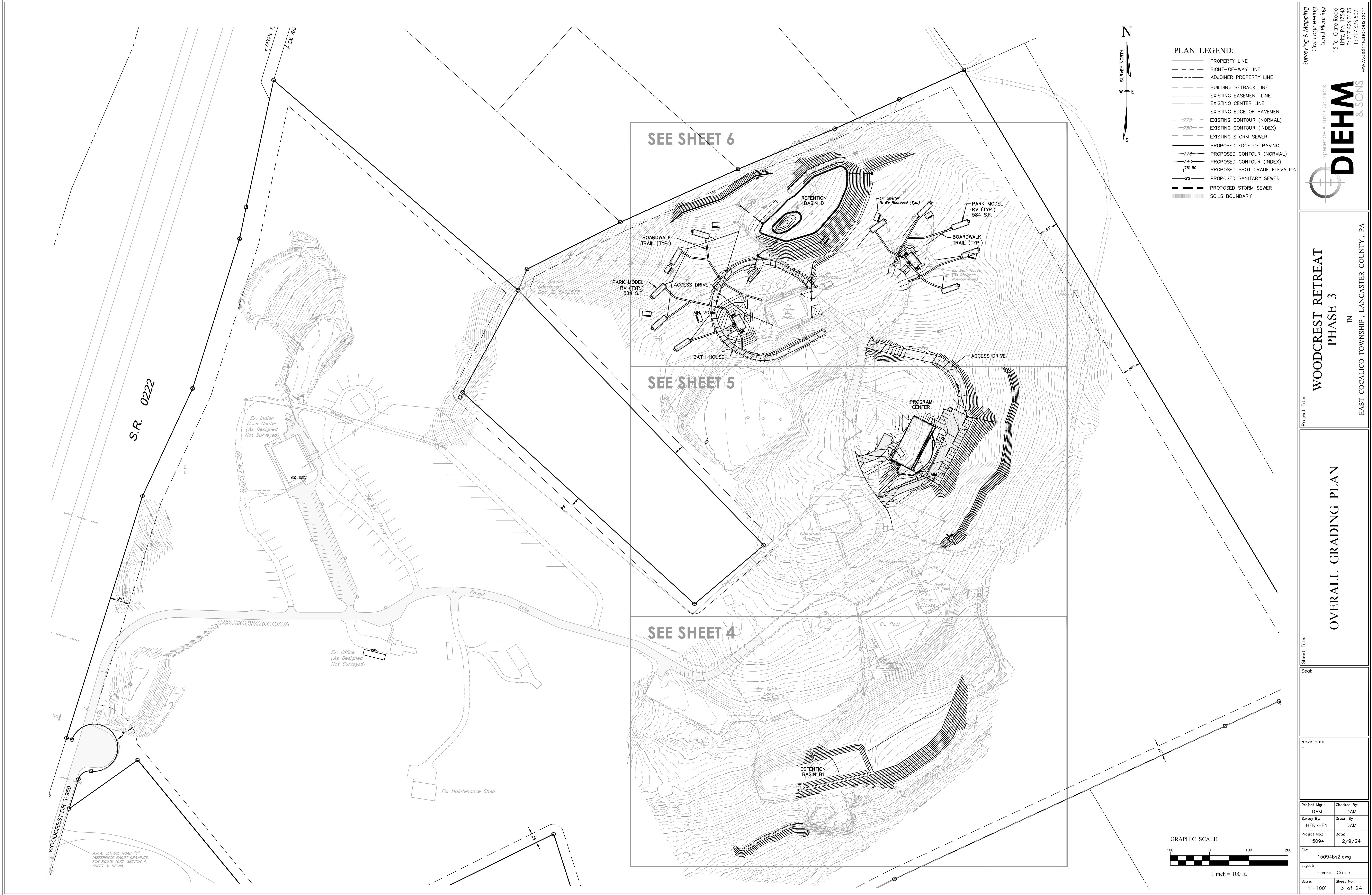
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OVERALL SITE PLAN

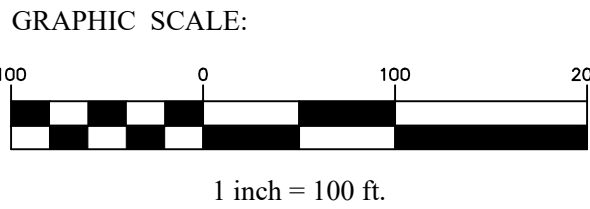
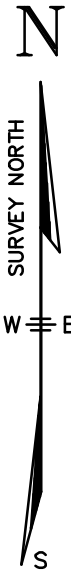
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- PLAN LEGEND:**
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - ADJOINER PROPERTY LINE
 - BUILDING SETBACK LINE
 - EXISTING EASEMENT LINE
 - EXISTING CENTER LINE
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**WOODCREST RETREAT
PHASE 3**

IN

EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Sheet Title:

OVERALL GRADING PLAN

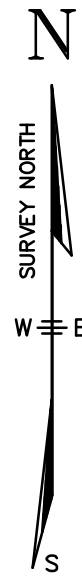
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**WOODCREST RETREAT
PHASE 3**
IN
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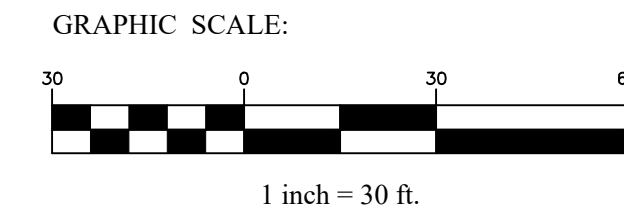
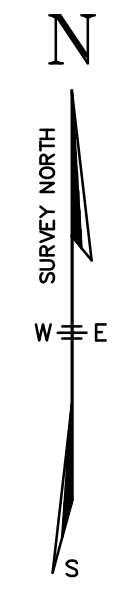
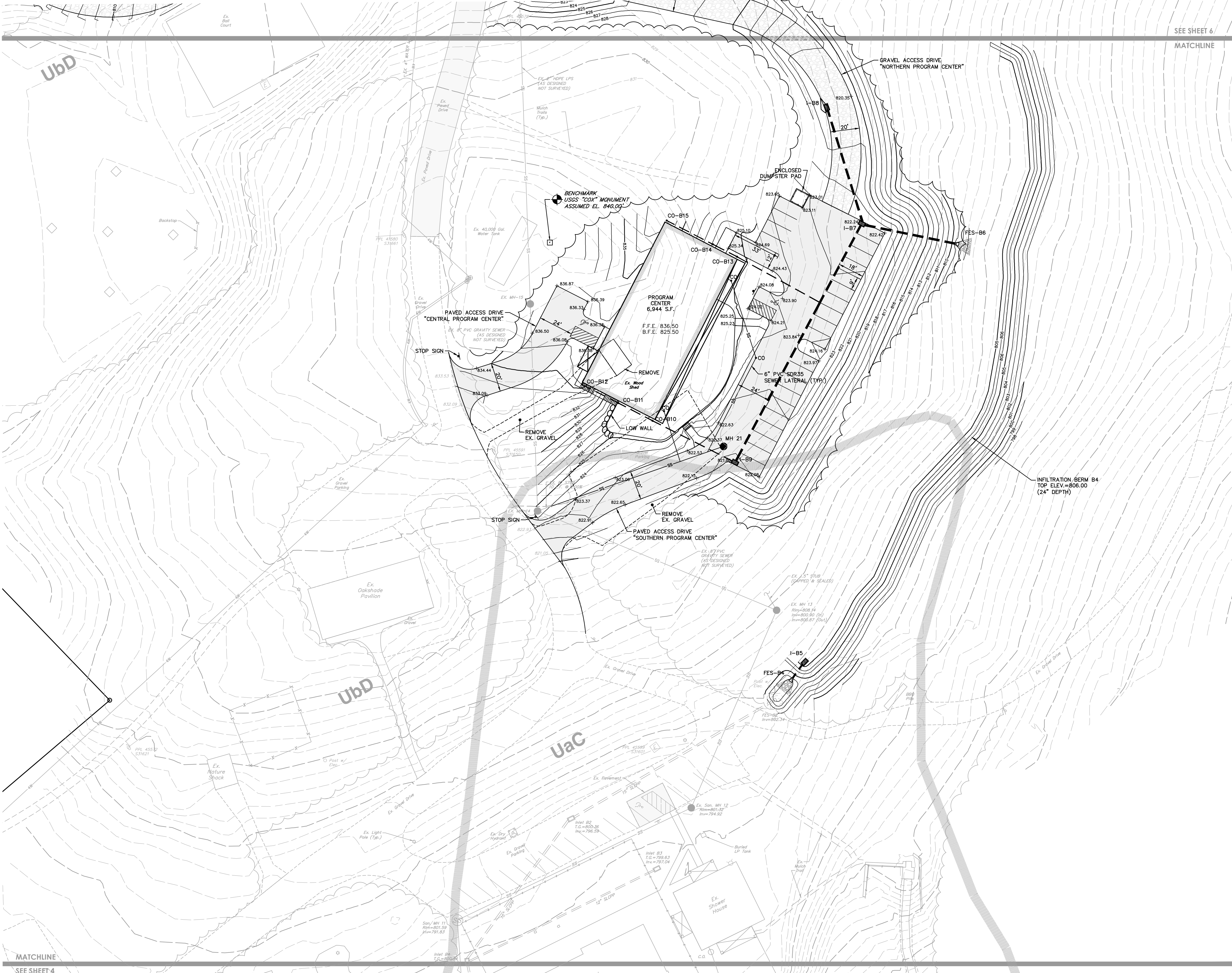
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**GRADING PLAN
SOUTH AREA**

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IN
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Project Title:

Grading Plan
Central Area

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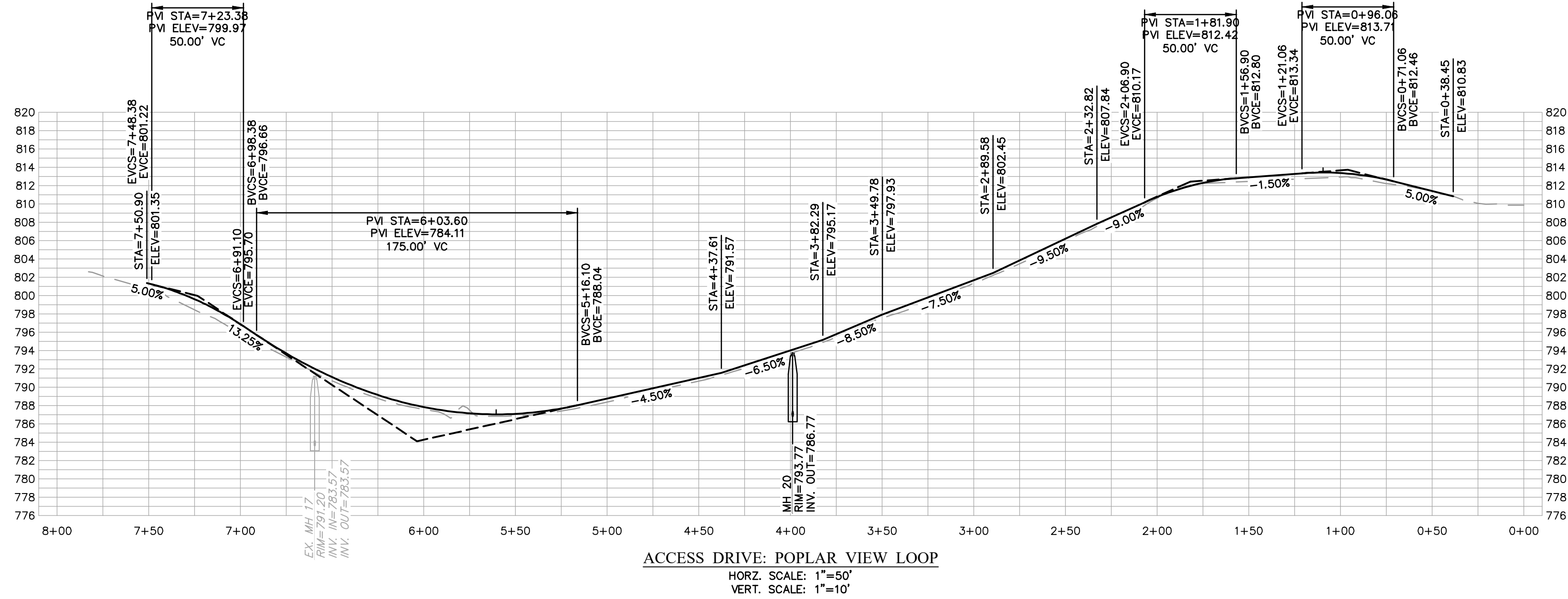
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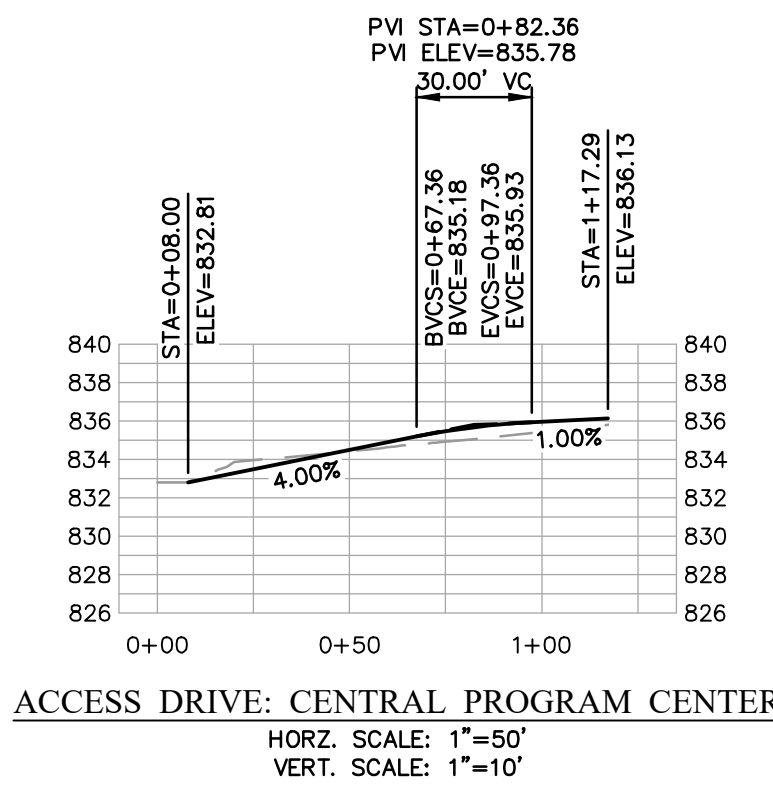
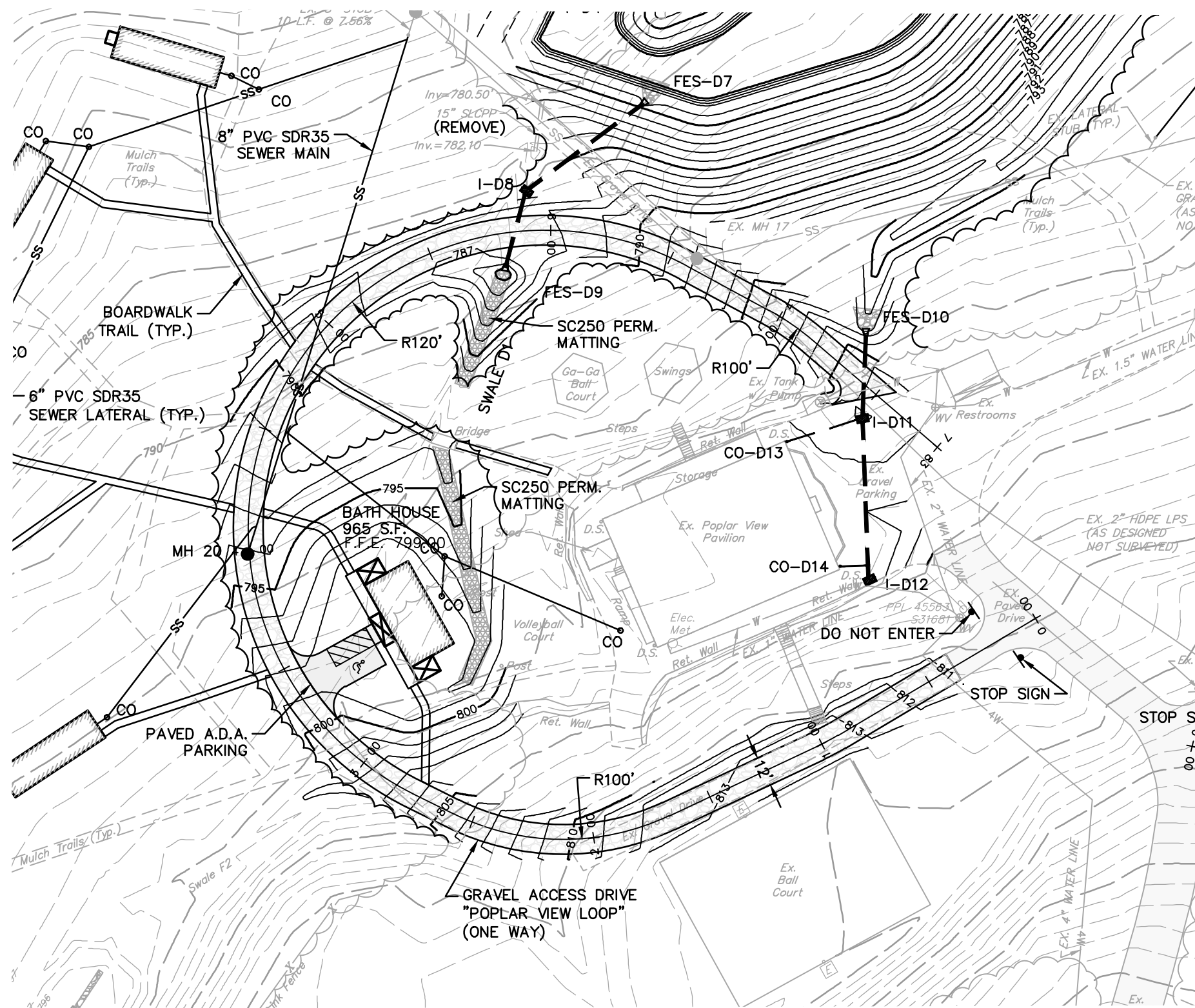
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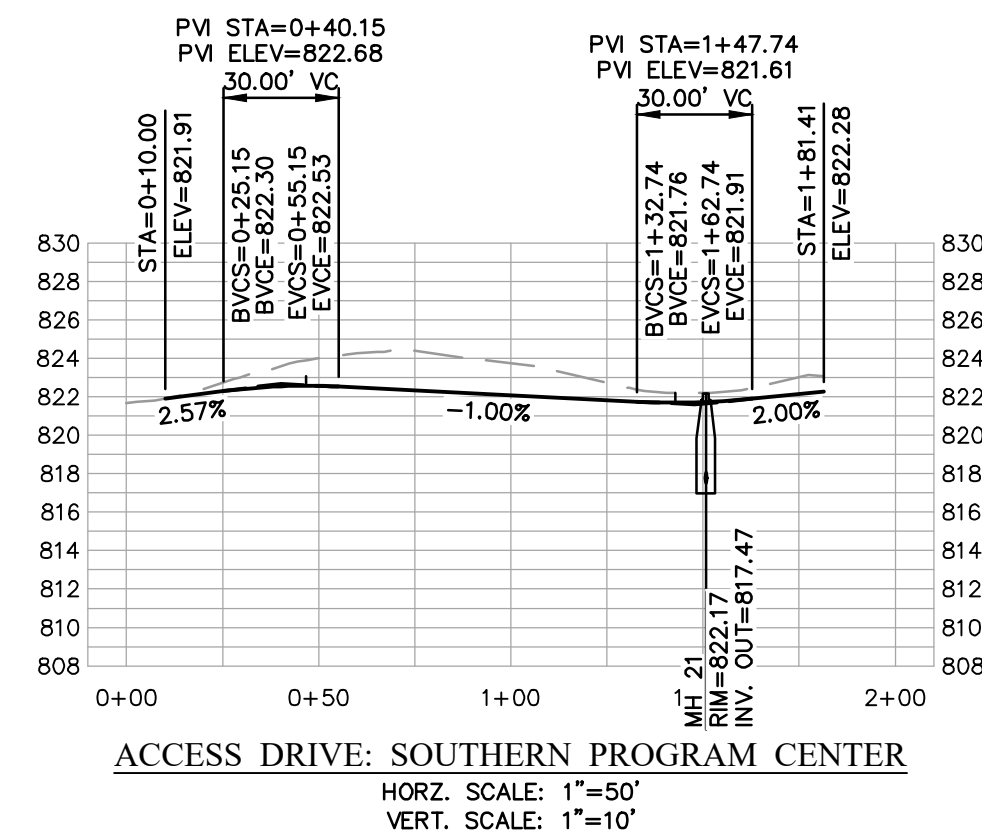
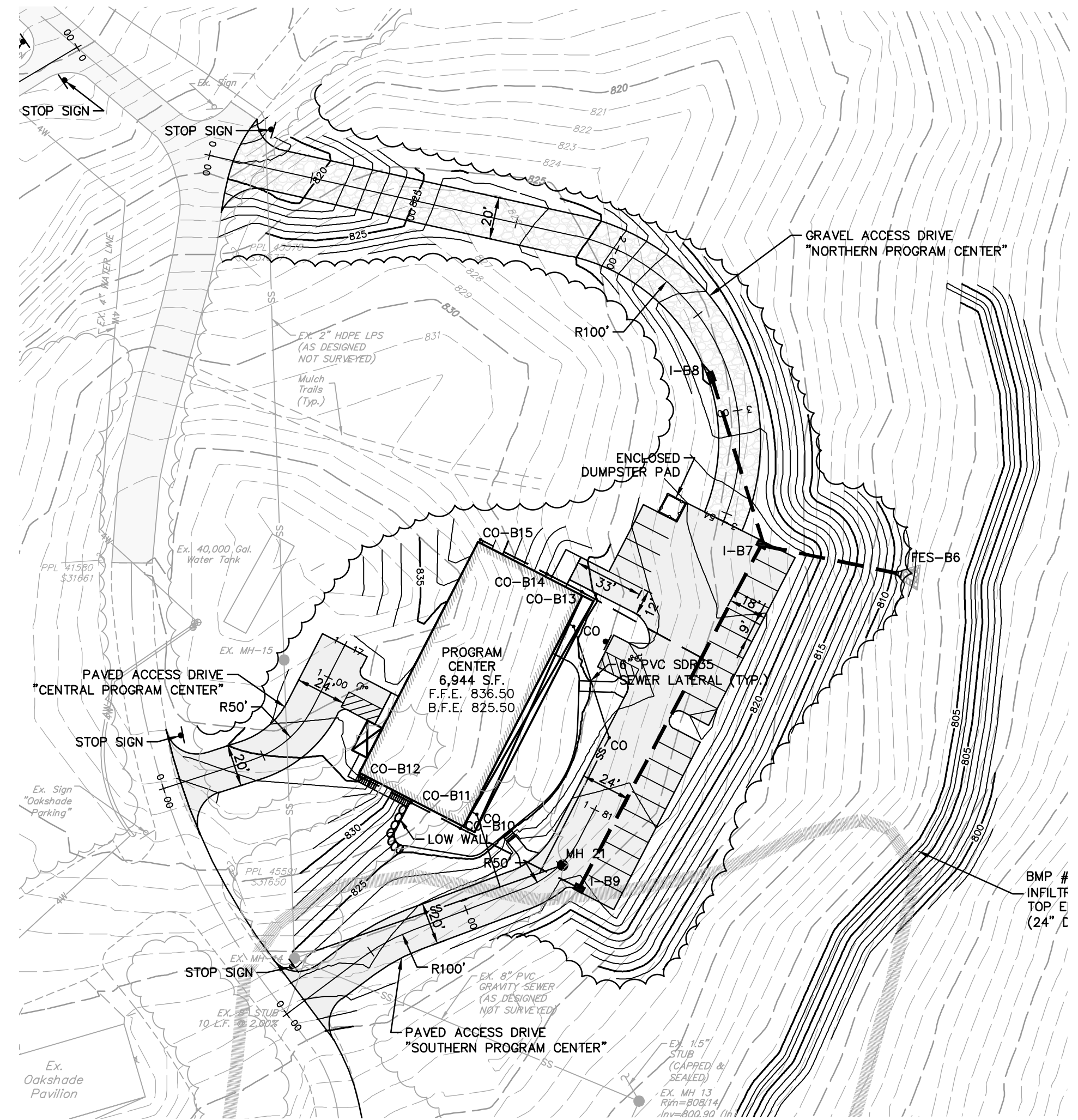
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ACCESS DRIVE: POPLAR VIEW LOOP
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"=10'



ACCESS DRIVE: CENTRAL PROGRAM CENTER
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"=10'



ACCESS DRIVE: SOUTHERN PROGRAM CENTER
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"=10'



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IN
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Sheet Title:
ACCESS DRIVE PROFILES

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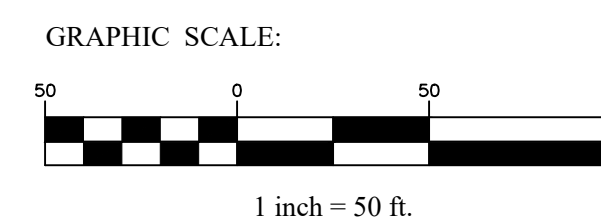
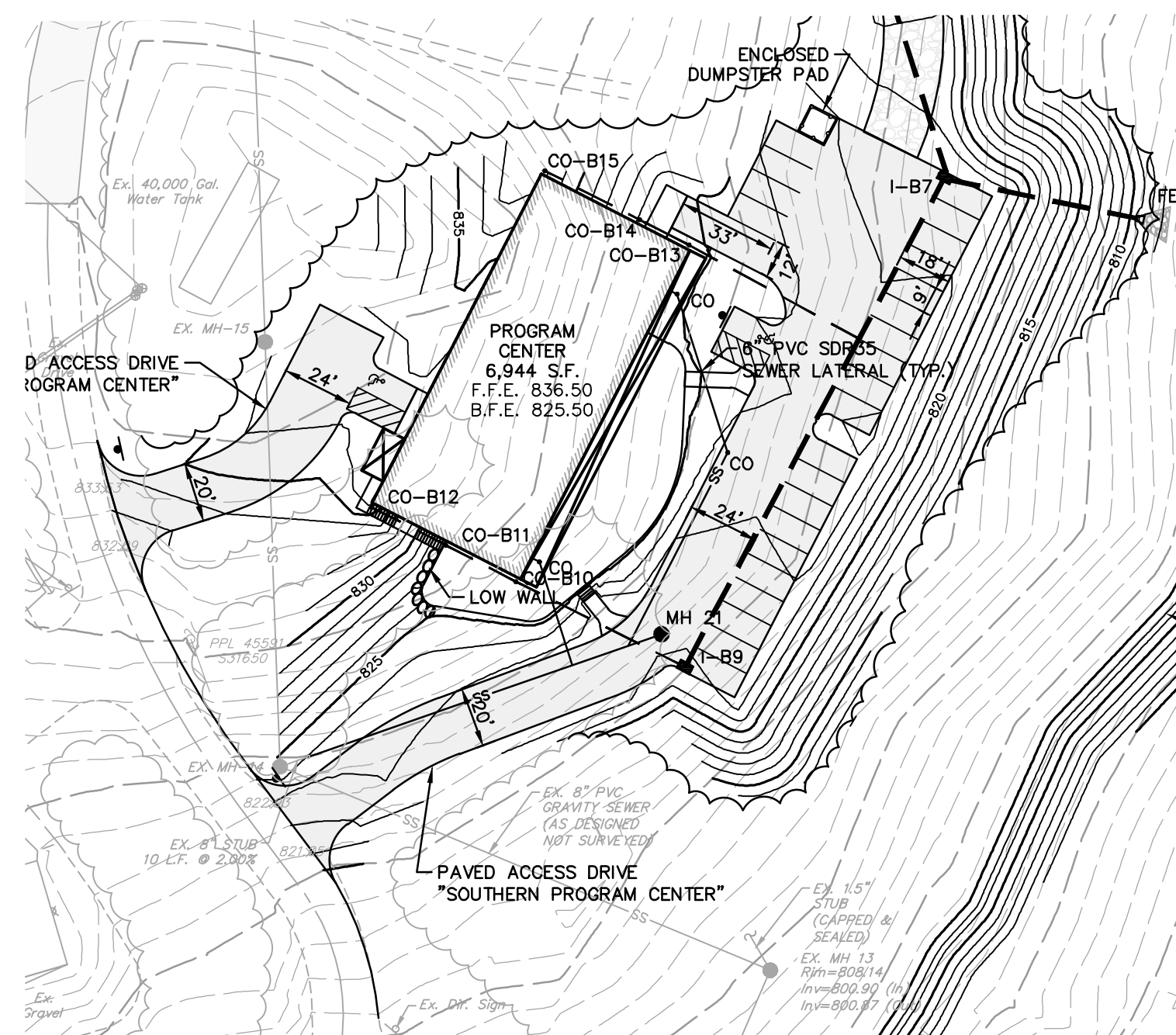
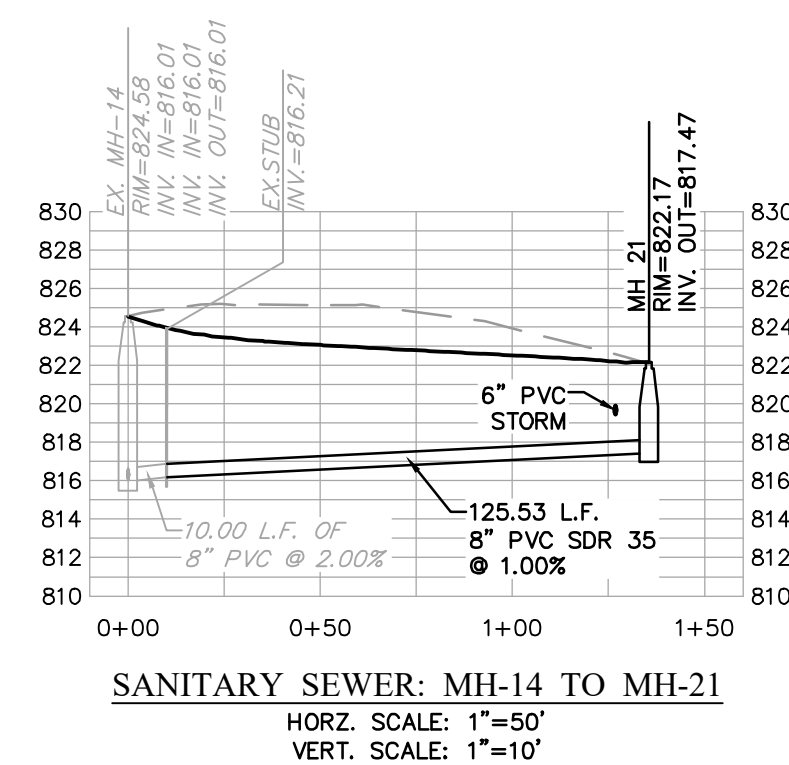
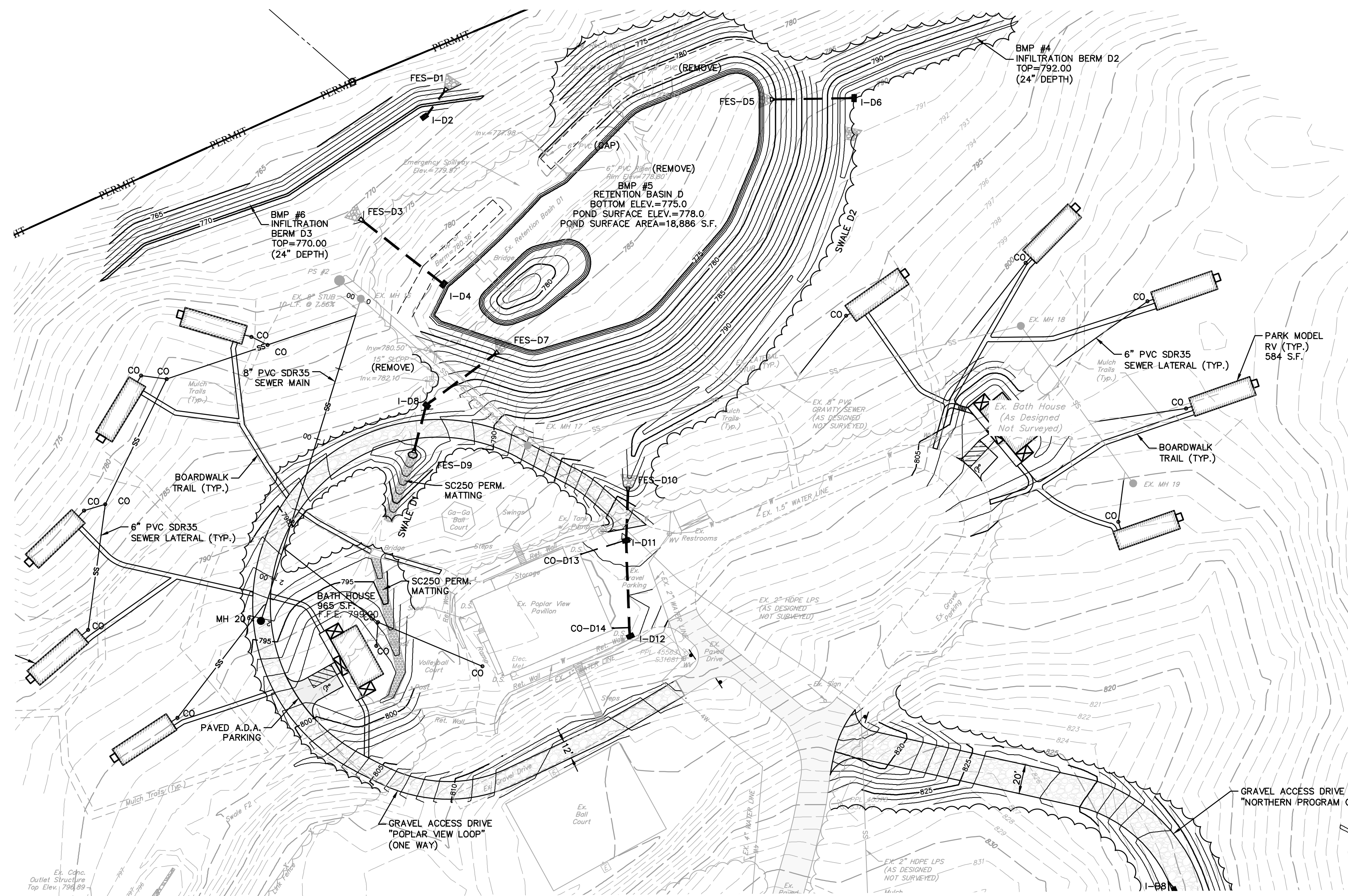
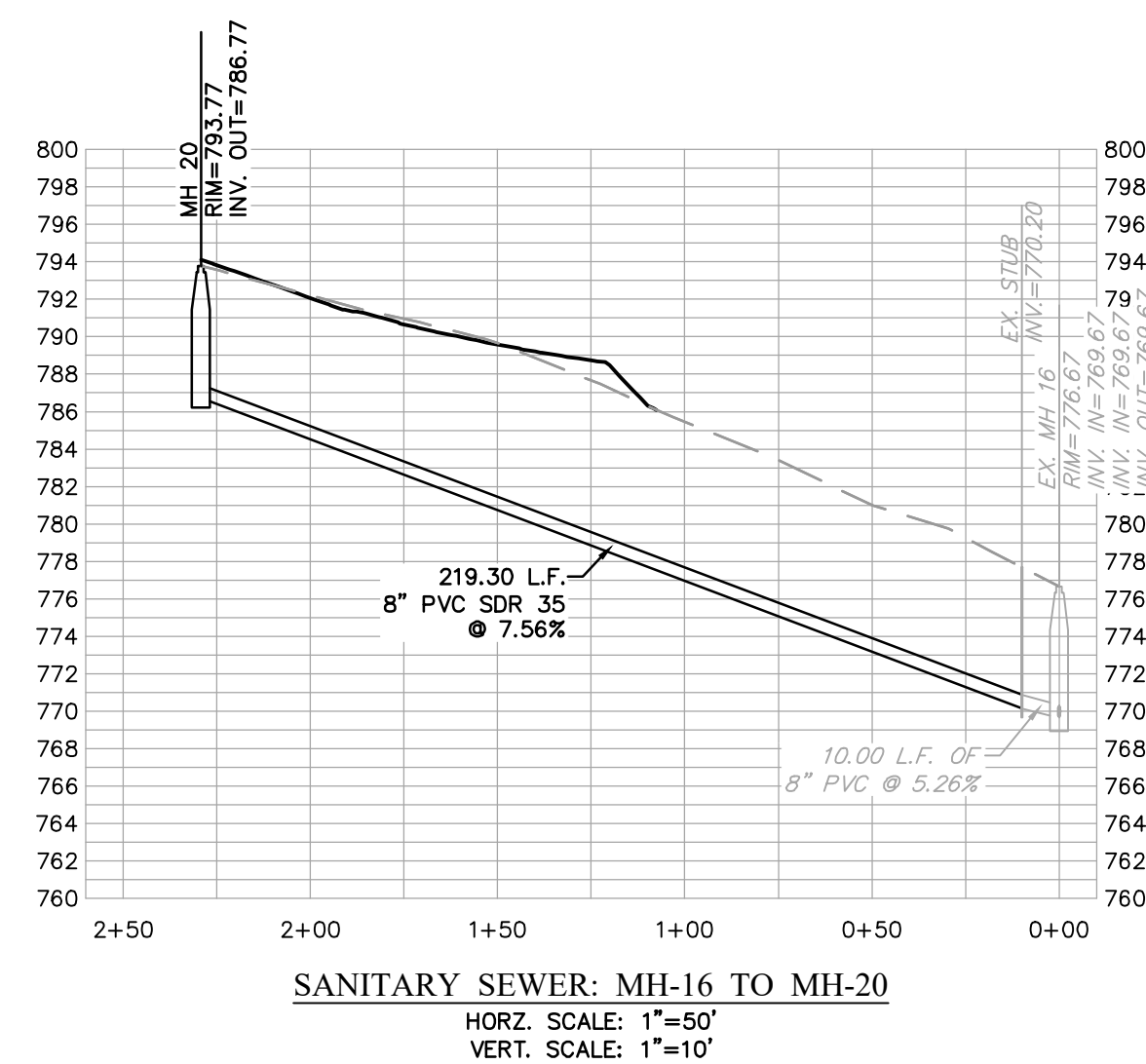
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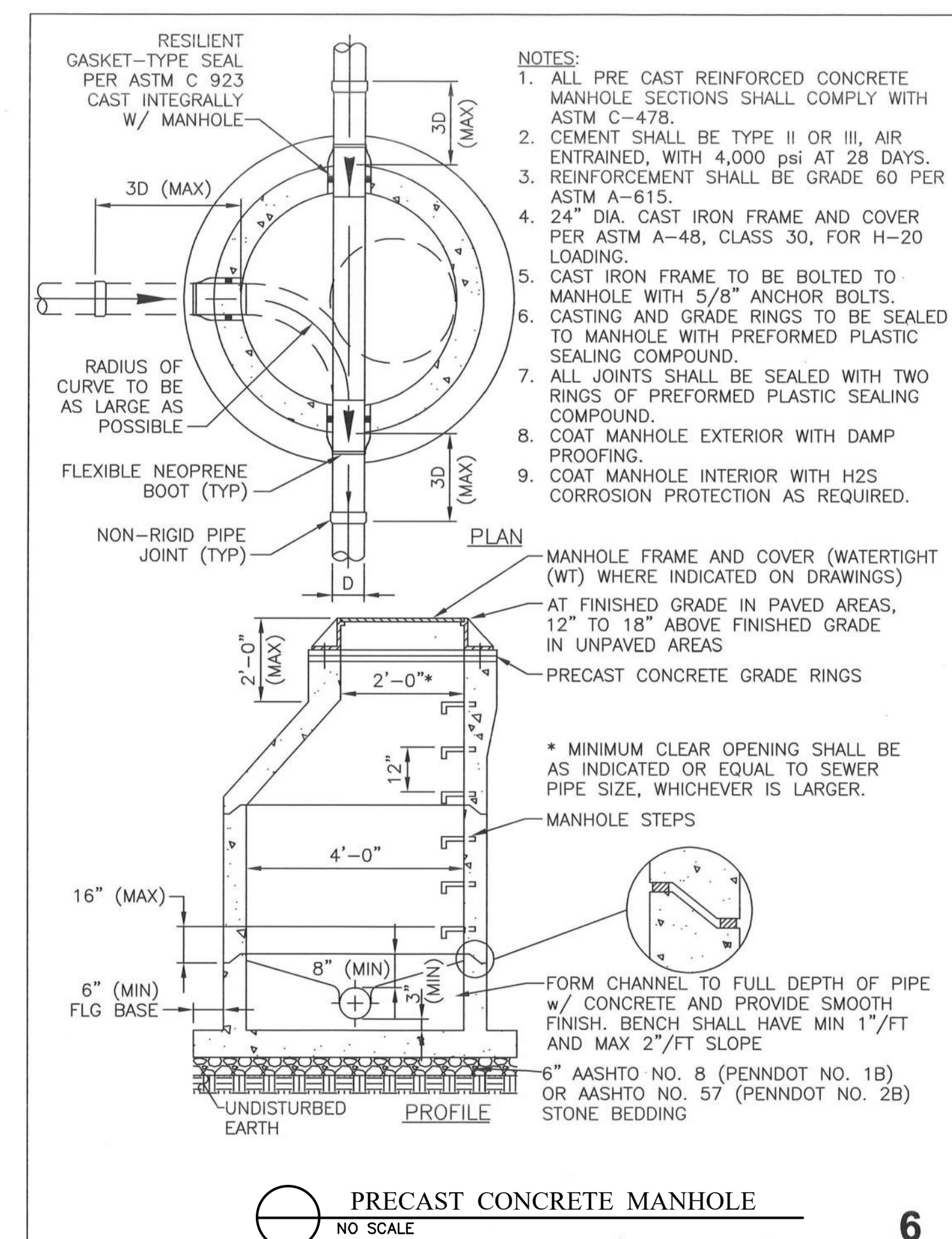
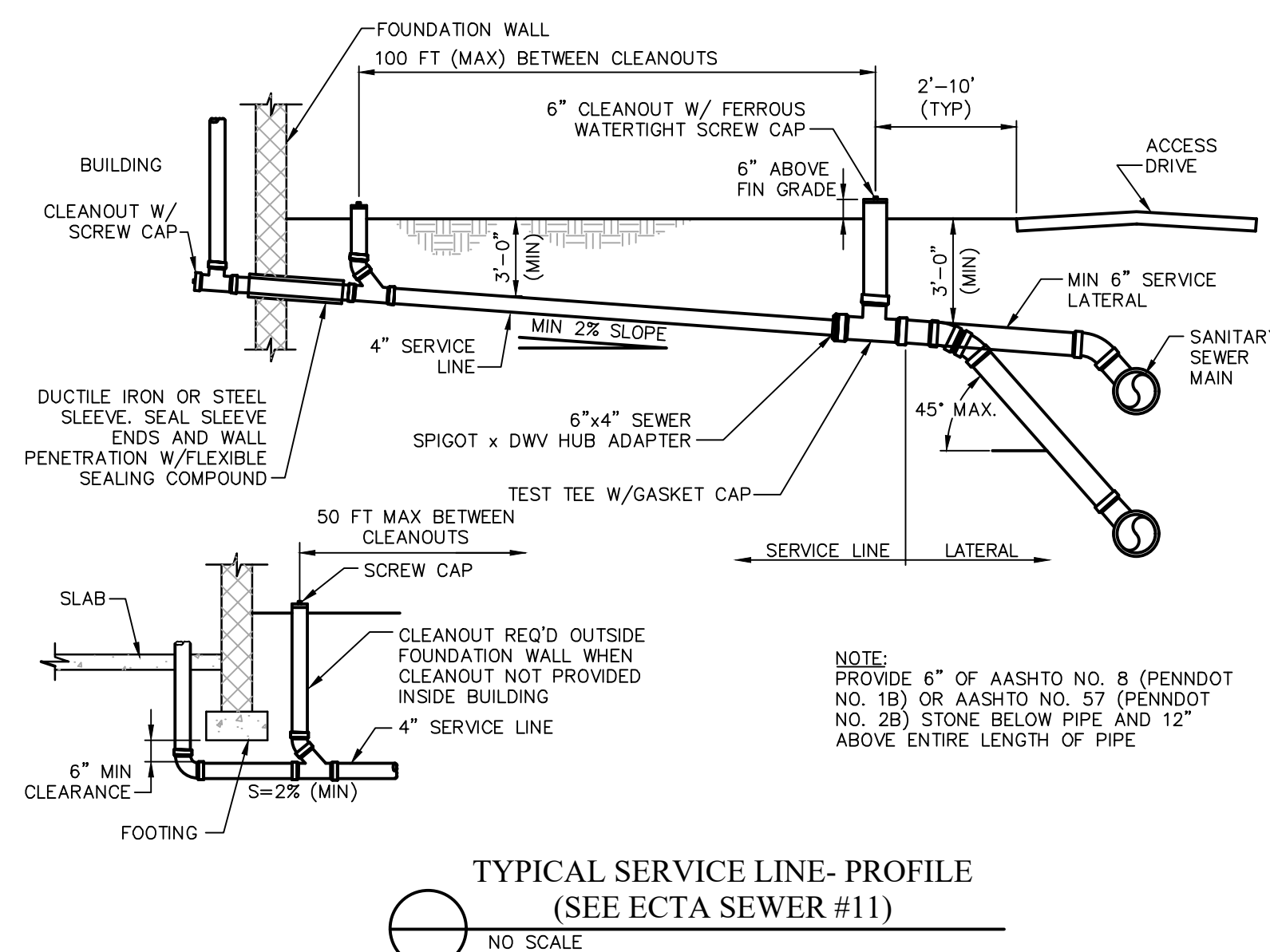
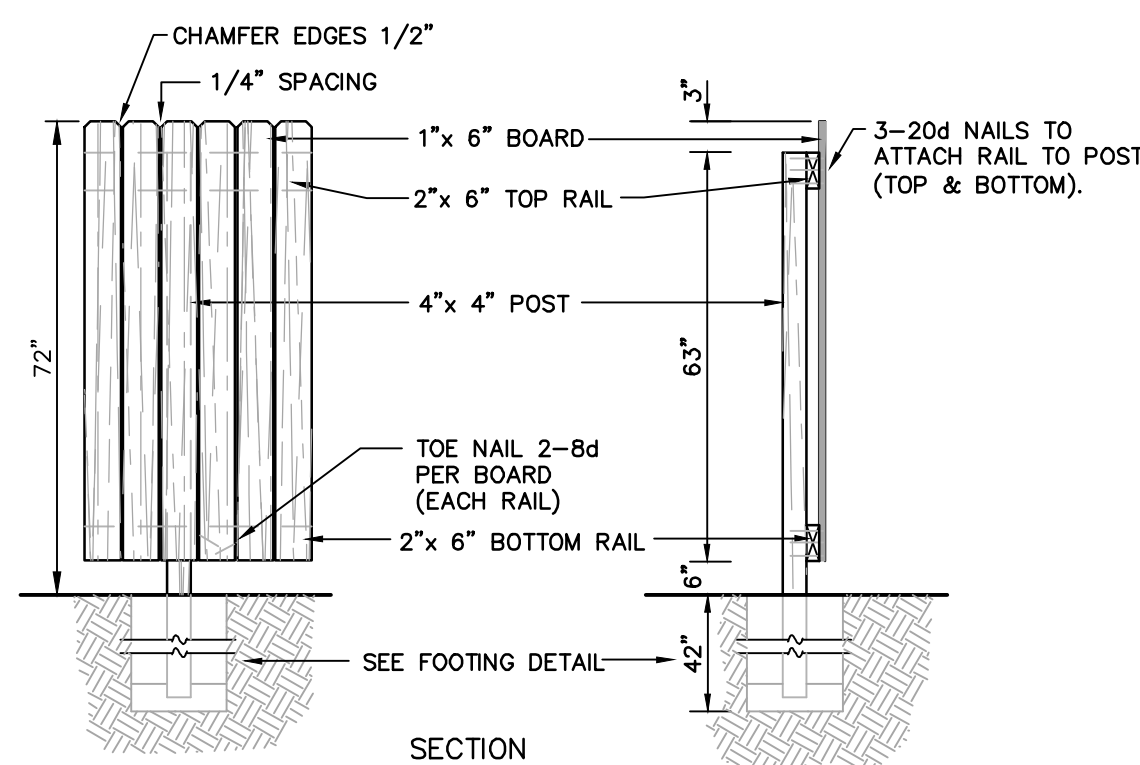
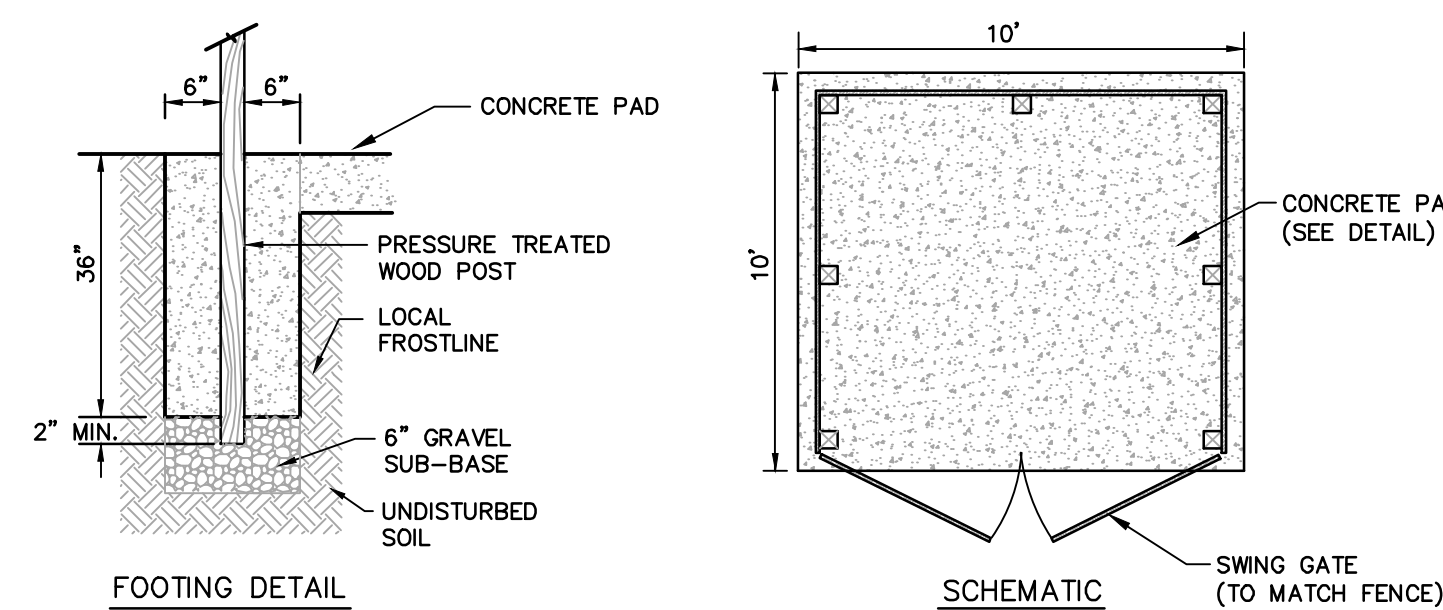
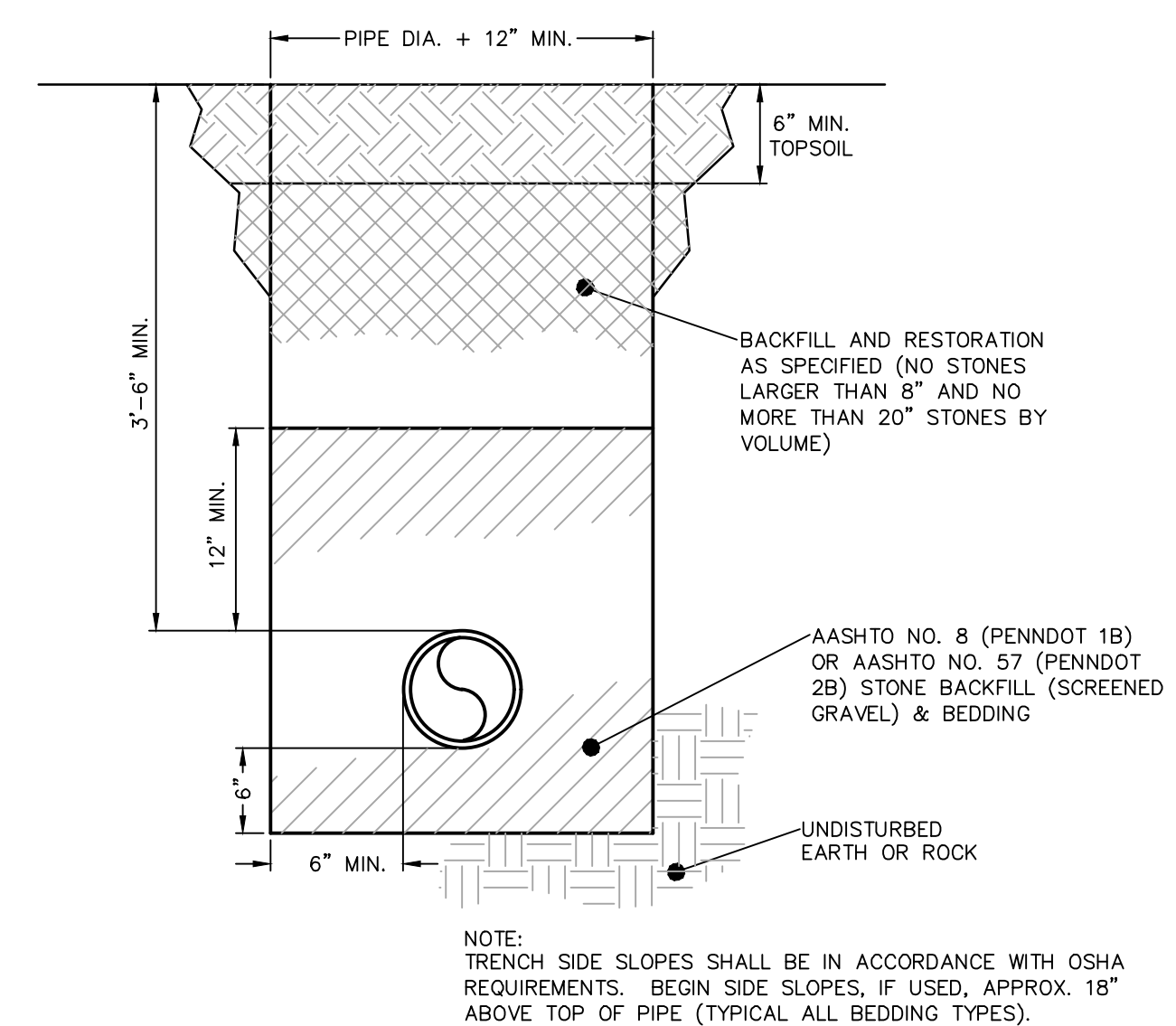
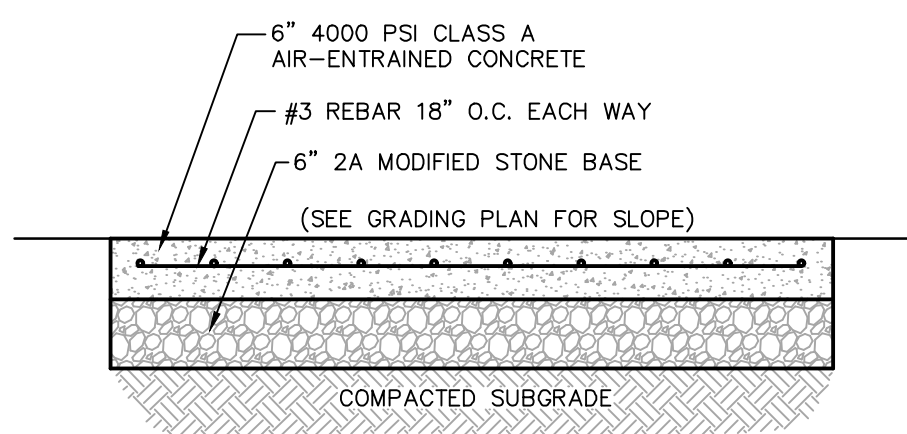
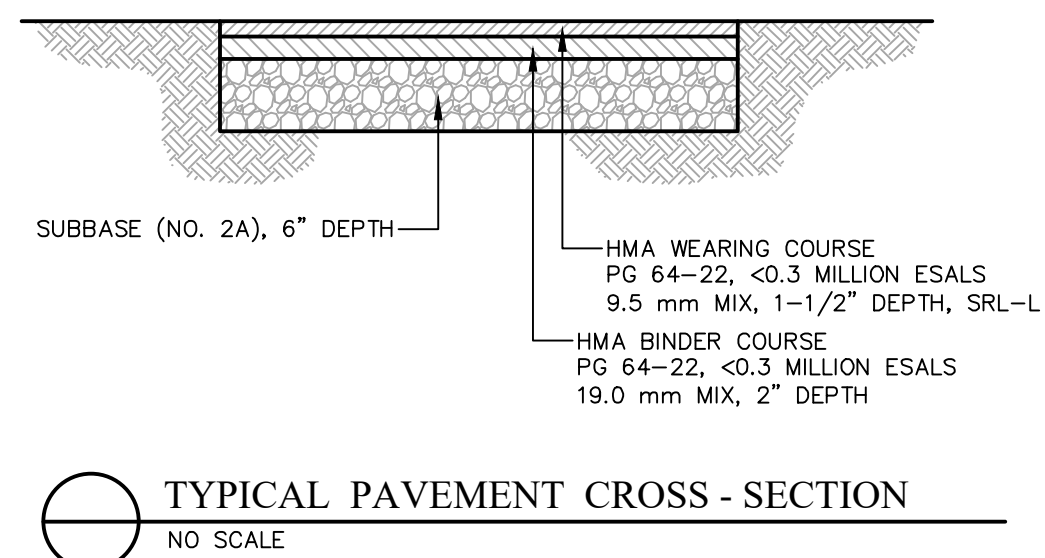
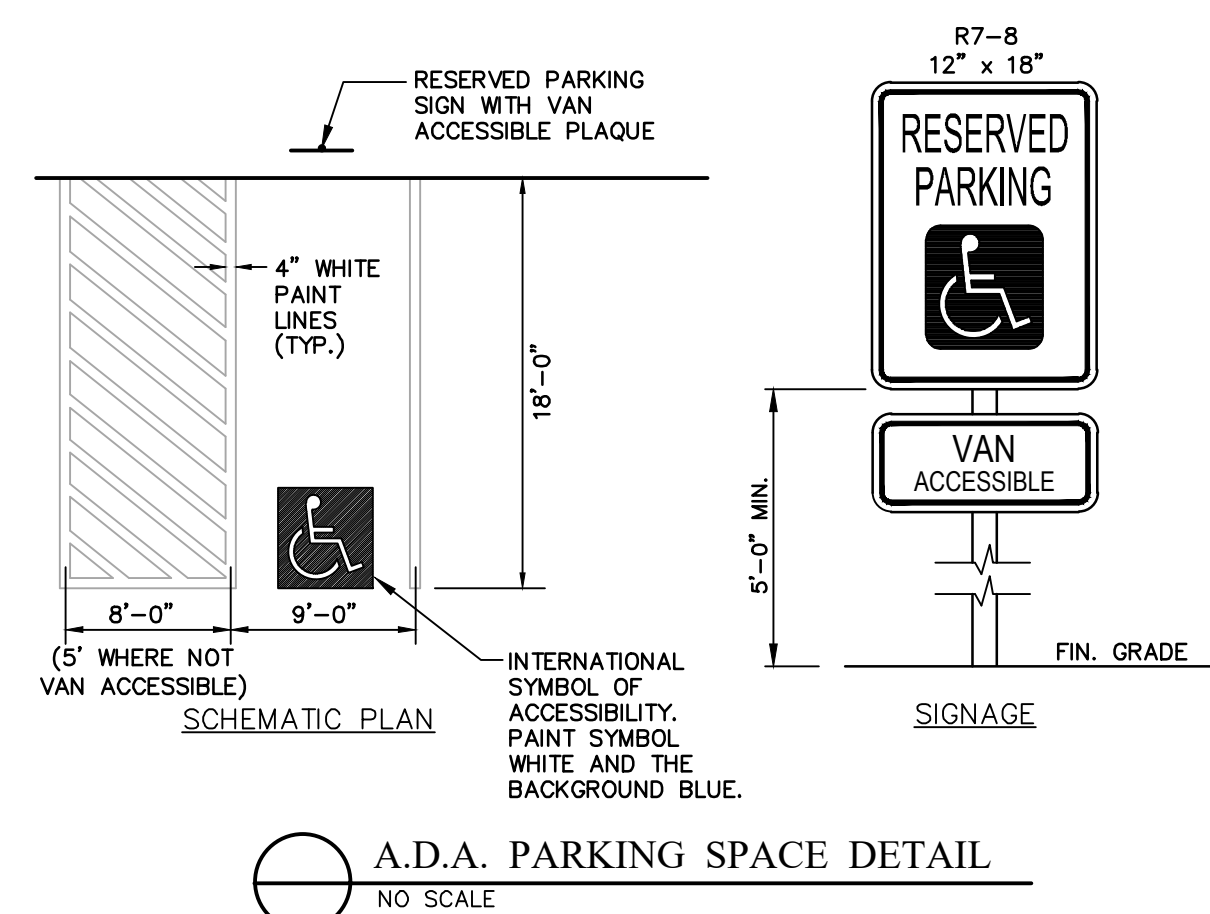
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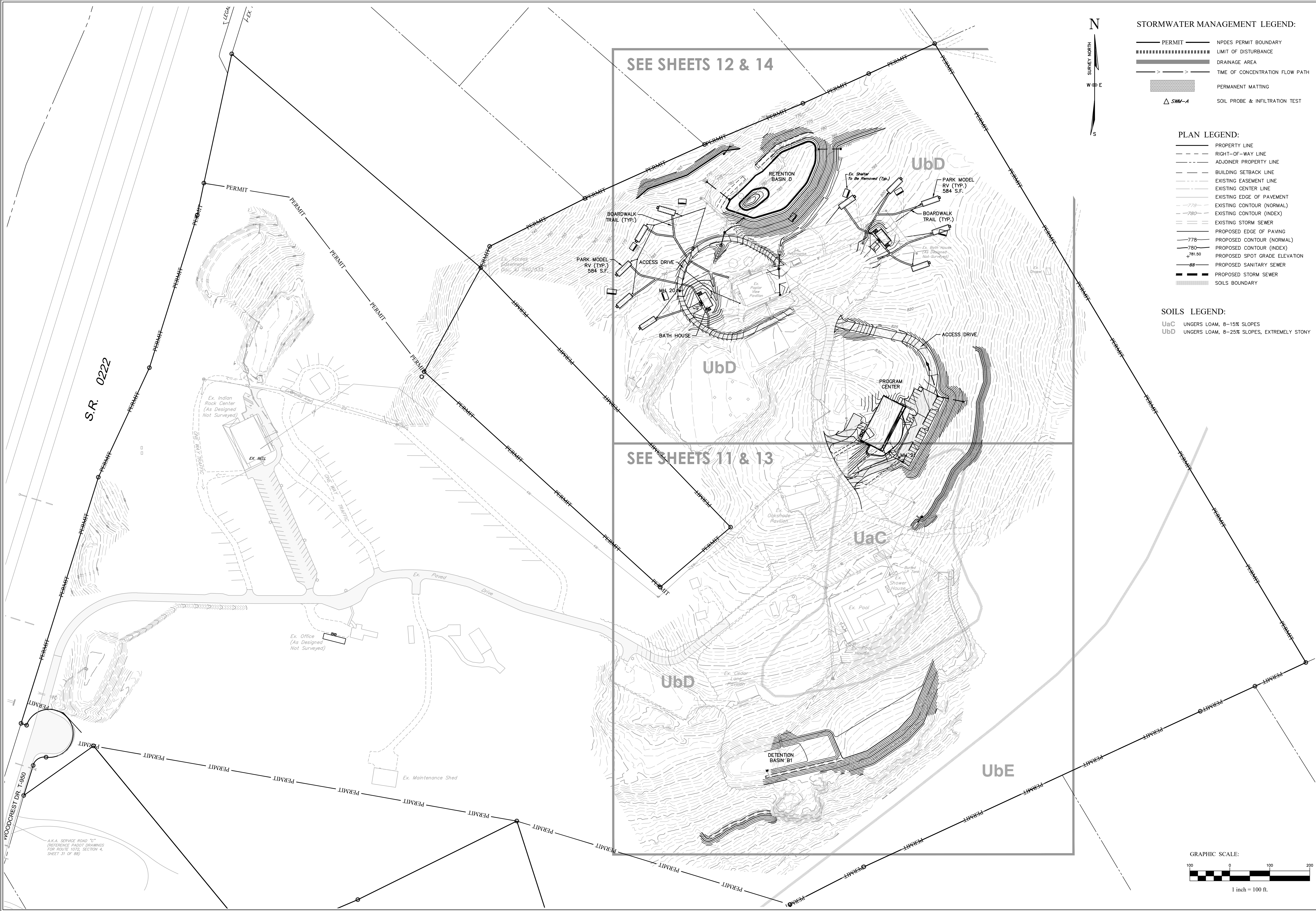
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Sheet No.:
7 of 24







- STORMWATER MANAGEMENT LEGEND:**
- PERMIT
 - NPDES PERMIT BOUNDARY
 - LIMIT OF DISTURBANCE
 - DRAINAGE AREA
 - TIME OF CONCENTRATION FLOW PATH
 - PERMANENT MATTING
 - SOIL PROBE & INFILTRATION TEST

- PLAN LEGEND:**
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - ADJOINER PROPERTY LINE
 - BUILDING SETBACK LINE
 - EXISTING EASEMENT LINE
 - EXISTING CENTER LINE
 - EXISTING EDGE OF PAVEMENT
 - EXISTING CONTOUR (NORMAL)
 - EXISTING CONTOUR (INDEX)
 - EXISTING STORM SEWER
 - PROPOSED EDGE OF PAVING
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 - PROPOSED SPOT GRADE ELEVATION
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - SOILS BOUNDARY

- SOILS LEGEND:**
- UaC UNGERS LOAM, 8-15% SLOPES
 - UbD UNGERS LOAM, 8-25% SLOPES, EXTREMELY STONY

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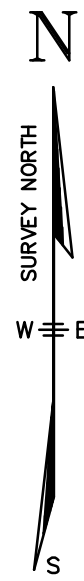
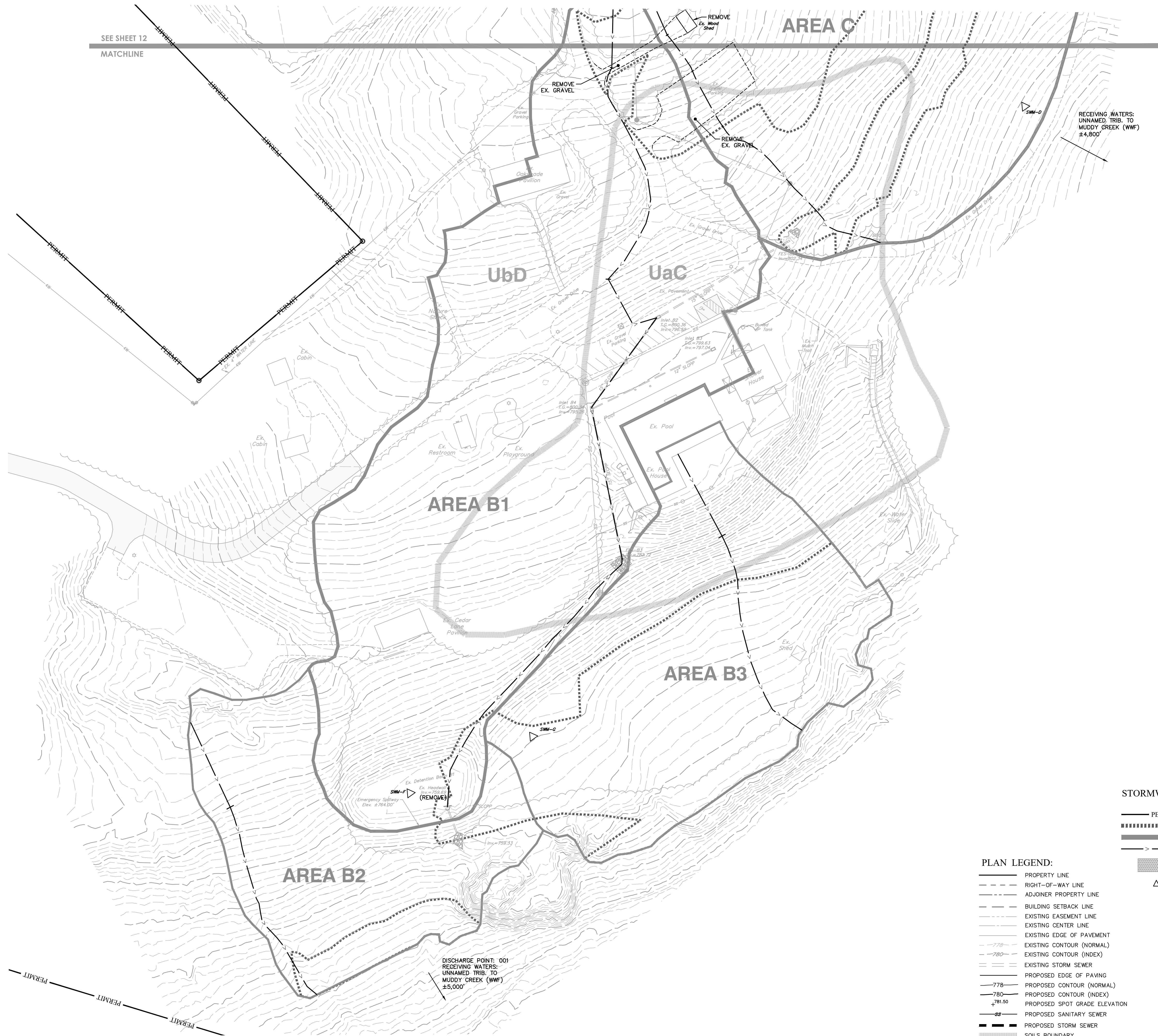
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WOODCREST RETREAT
PHASE 3
IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

PCSM PLAN
OVERALL SITE PLAN

Project Title:
Sheet Title:
Seal:
Revisions:
Project Mgr.:
Survey By:
Project No.:
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Checked By:
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Date:
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PCSM Overall
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Project Title:

**WOODCREST RETREAT
PHASE 3**

IN

EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Sheet Title:

**PCSM PLAN
PRE-DEVELOPMENT
SOUTH DRAINAGE AREAS**

Seal:

Revisions:

Project Mgr.: DAM	Checked By: DAM
Survey By: HERSHEY	Drawn By: DAM
Project No.: 15094	Date: 2/9/24
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Layout: PCSM Pre South	
Scale: 1"=50'	Sheet No.: 11 of 24

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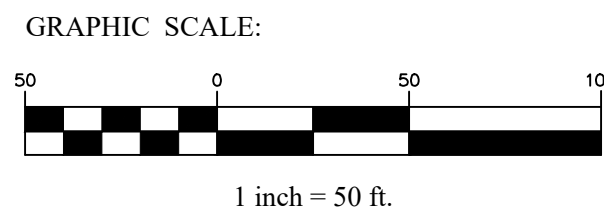
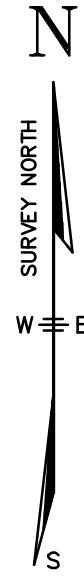
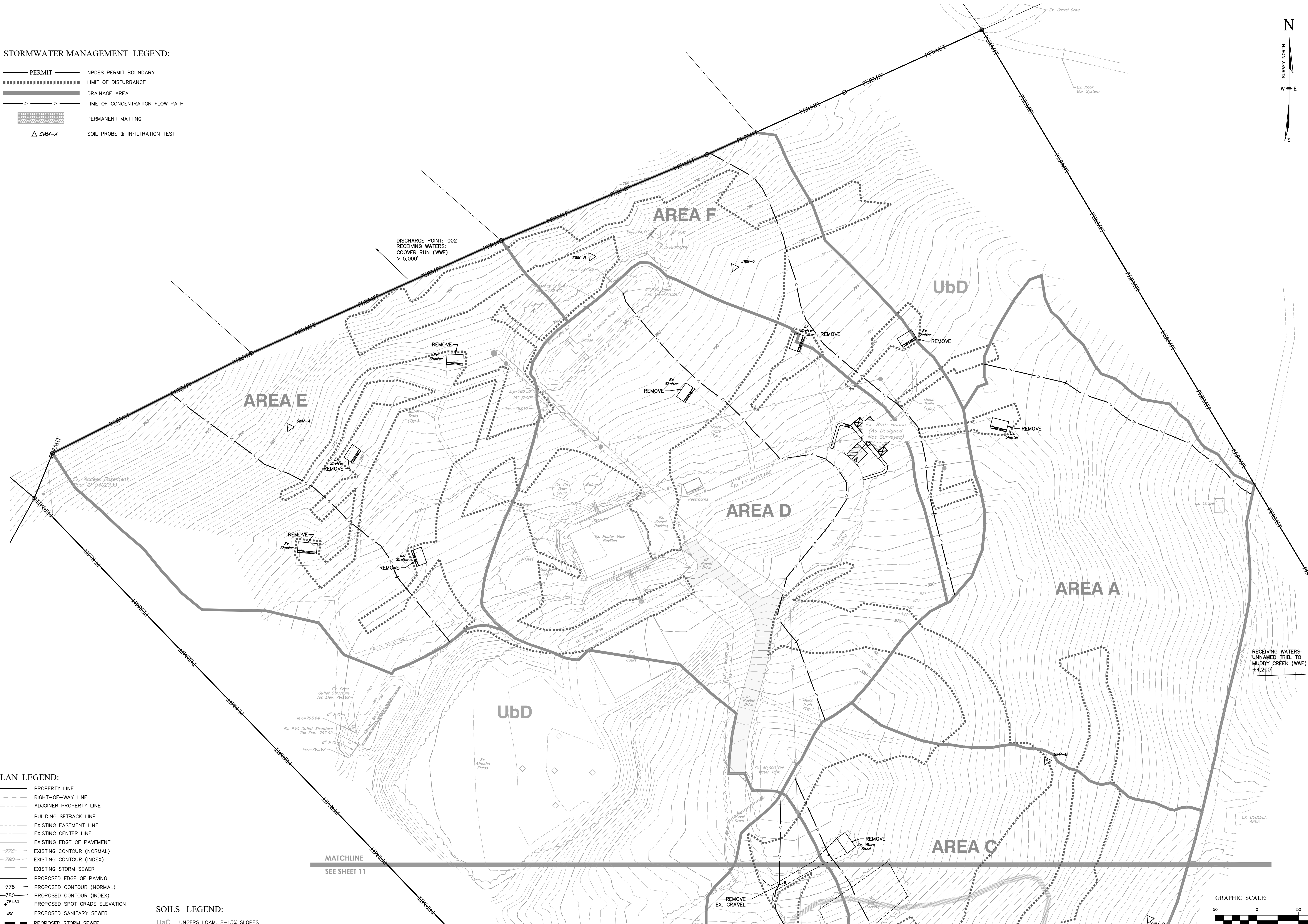
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NPDES PERMIT BOUNDARY
LIMIT OF DISTURBANCE
DRAINAGE AREA
TIME OF CONCENTRATION FLOW PATH
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SOILS LEGEND:

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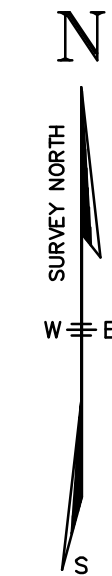
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Project Title:
**WOODCREST RETREAT
PHASE 3**
IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Sheet Title:
**PCSM PLAN
PRE-DEVELOPMENT
NORTH DRAINAGE AREAS**

Revisions:
-

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Survey By: HERSHEY	Drawn By: DAM
Project No.: 15094	Date: 2/9/24
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LAYOUT: PCSM Pre North	
Scale: 1"=50'	Sheet No.: 12 of 24



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Project Title: **WOODCREST RETREAT
PHASE 3**
IN
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PCSM PLAN
POST-DEVELOPMENT
SOUTH DRAINAGE AREAS

title:

Seo

Revisions:

Project Mgr.: DAM	Checked By: DAM
Survey By: HERSHEY	Drawn By: DAM
Project No.: 15094	Date: 2/9/24
File: 15094bs2.dwg	
Layout: PCSM Post South	
Scale: 1"=50'	Sheet No.: 13 of 24

STORMWATER MANAGEMENT LEGEND:

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	LIMIT OF DISTURBANCE
	DRAINAGE AREA
	TIME OF CONCENTRATION FLOW PATH
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SOILS LEGEND:

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UbD UNGERS LOAM, 8-25% SLOPES, EXTREMELY STONY

GRAPHIC SCALE:



1 inch = 50 ft.

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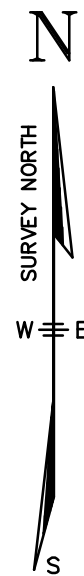
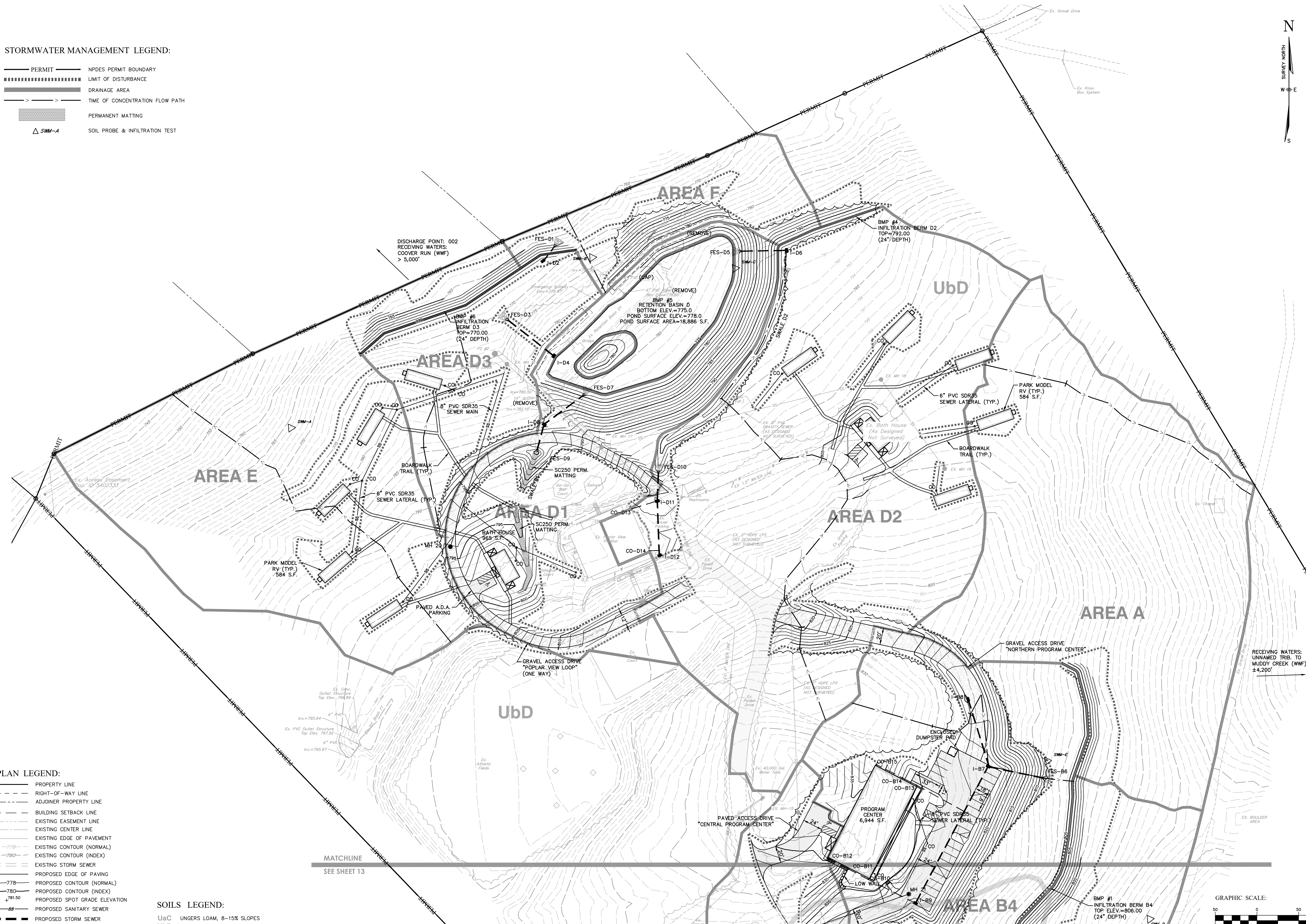
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GRAPHIC SCALE:



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PCSM PLAN
POST-DEVELOPMENT
NORTH DRAINAGE AREAS

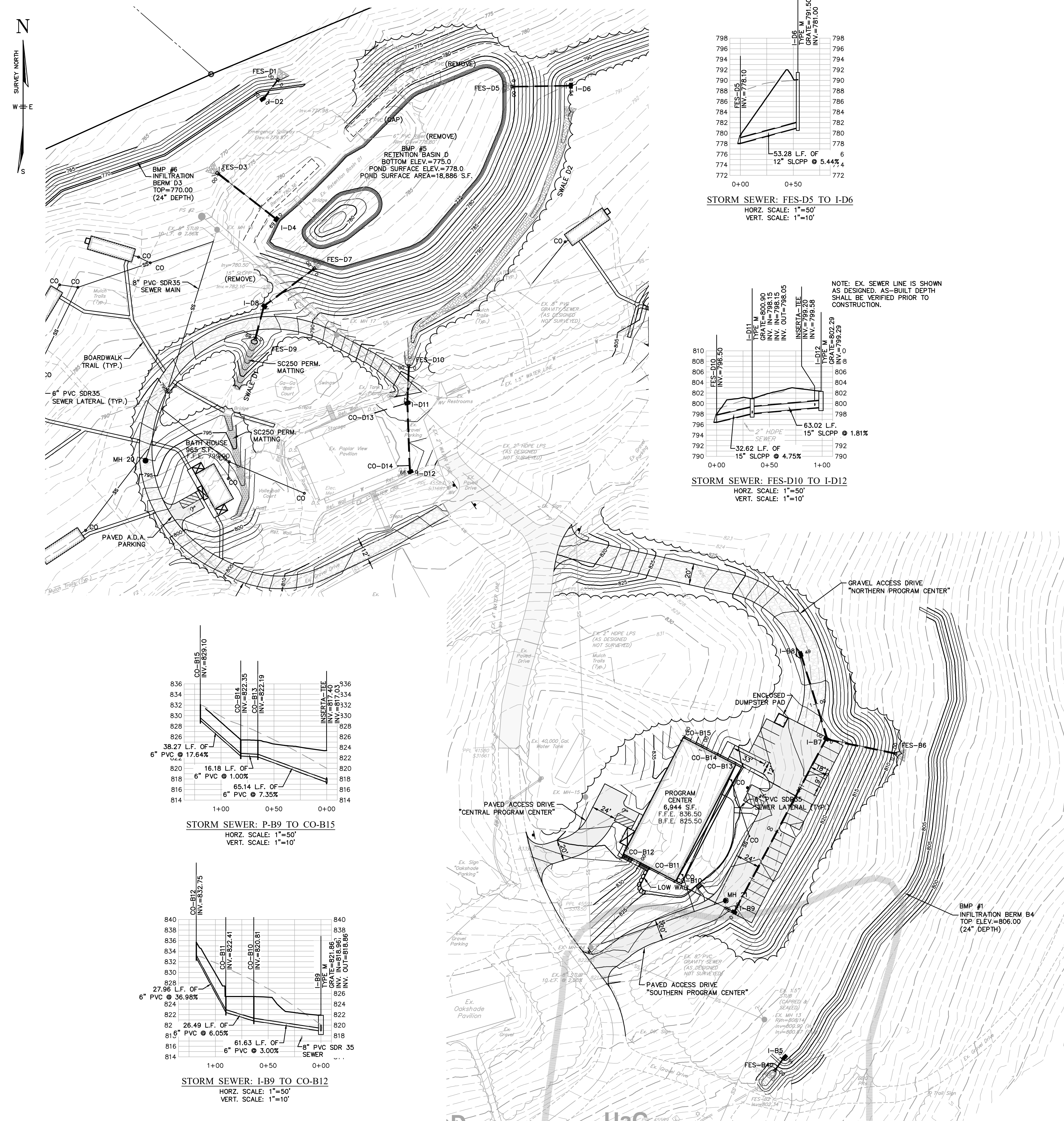
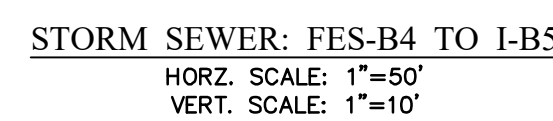
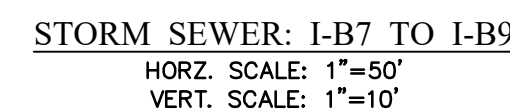
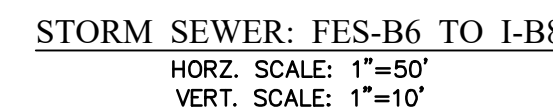
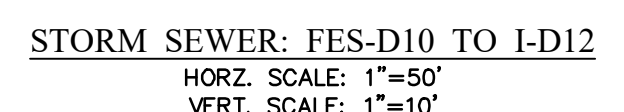
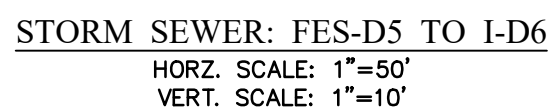
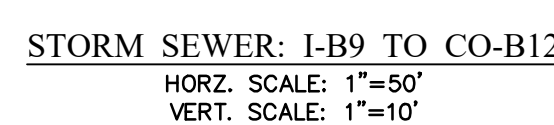
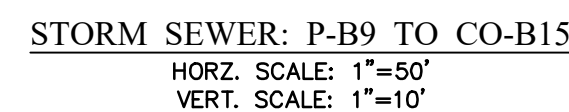
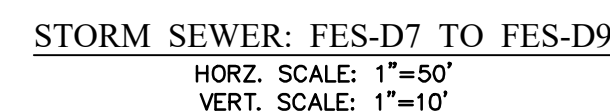
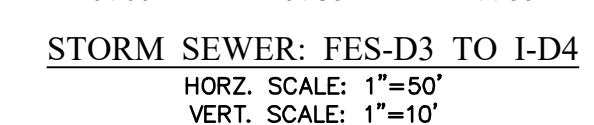
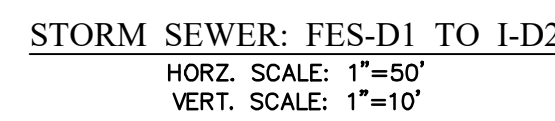
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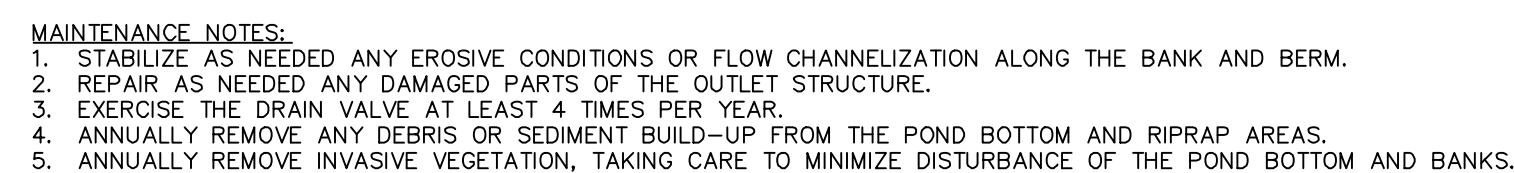
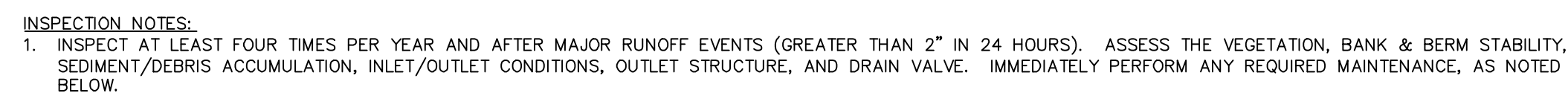
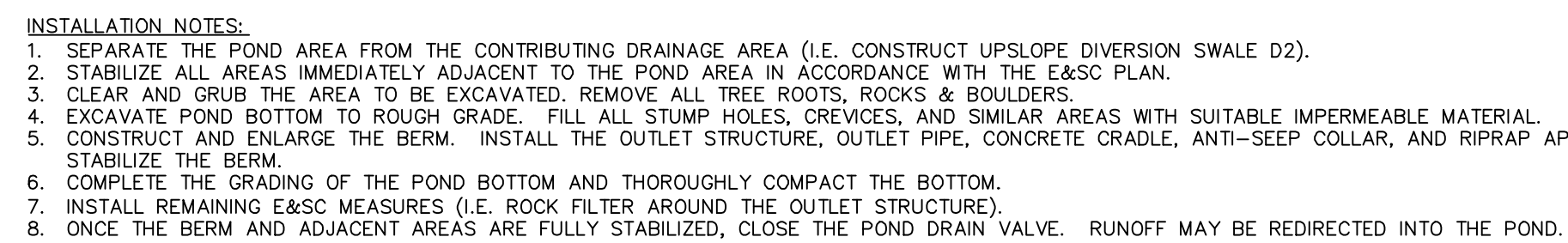
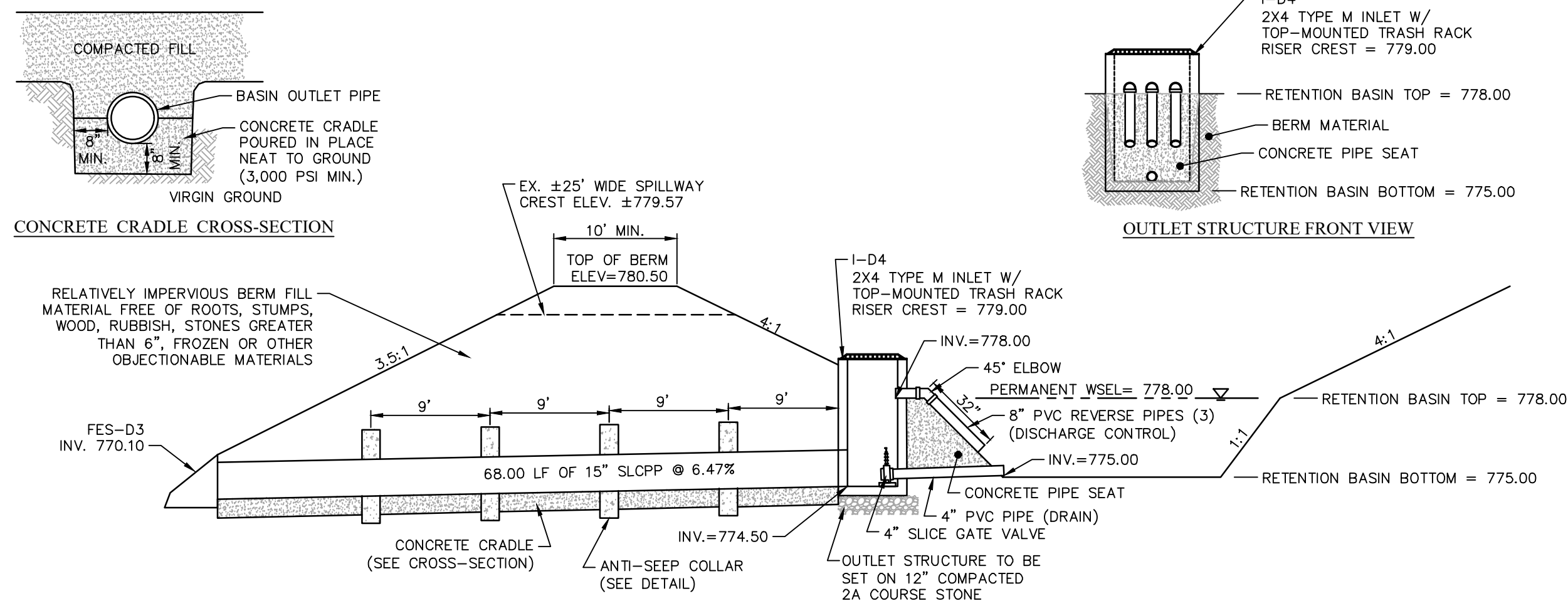
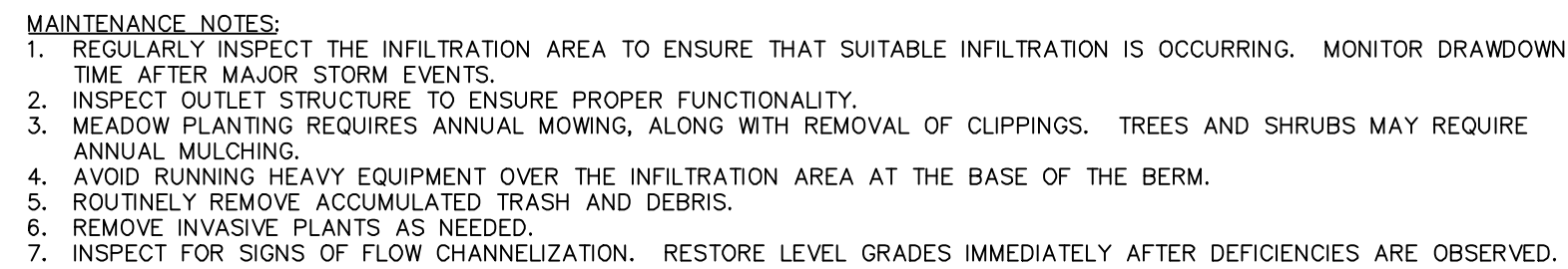
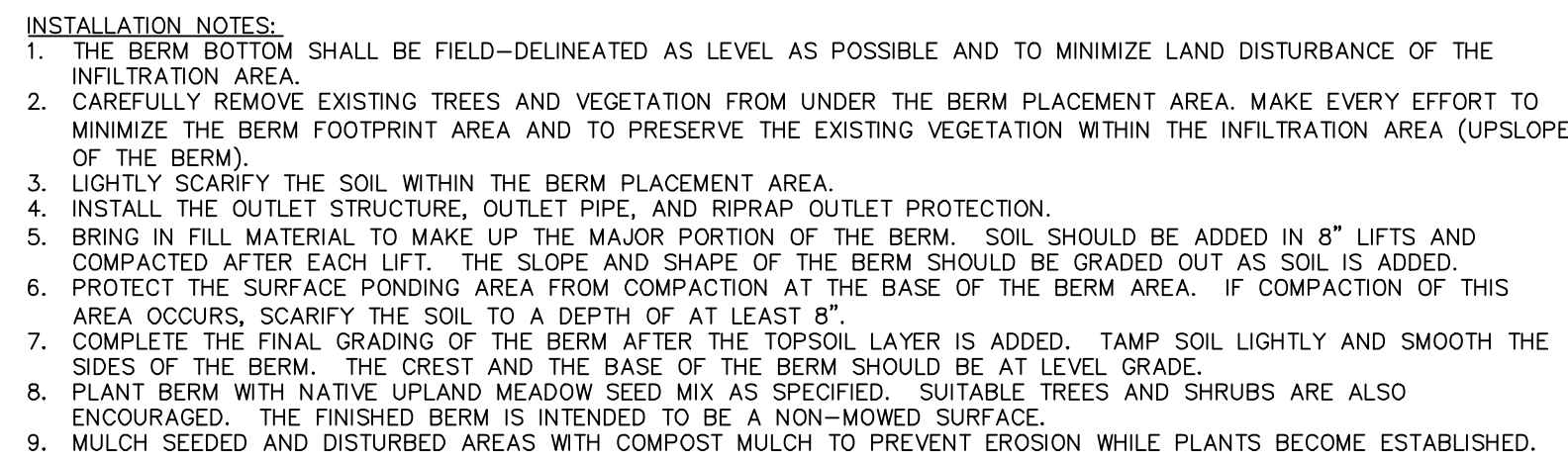
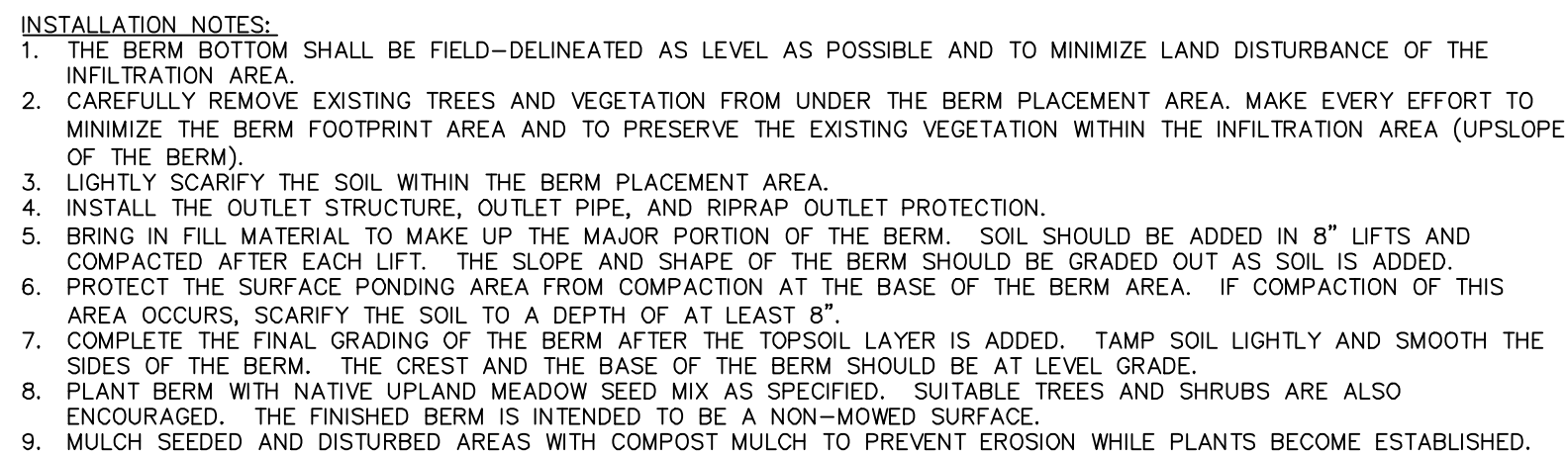
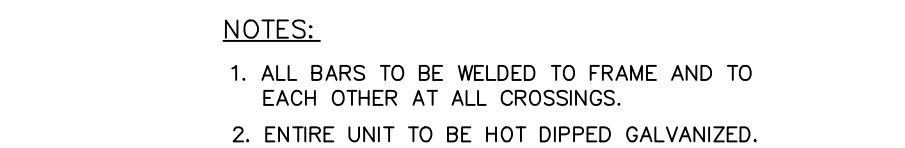
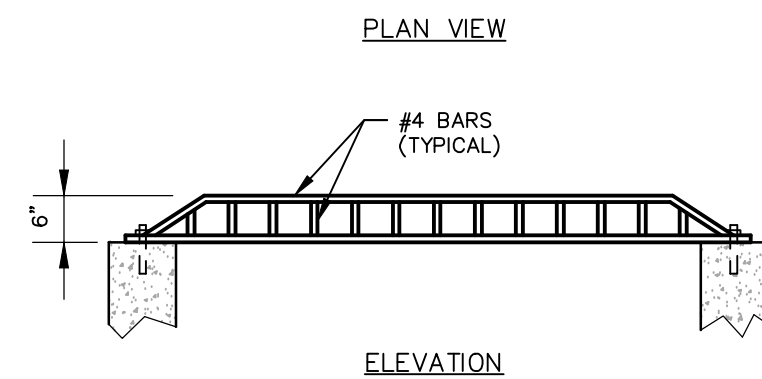
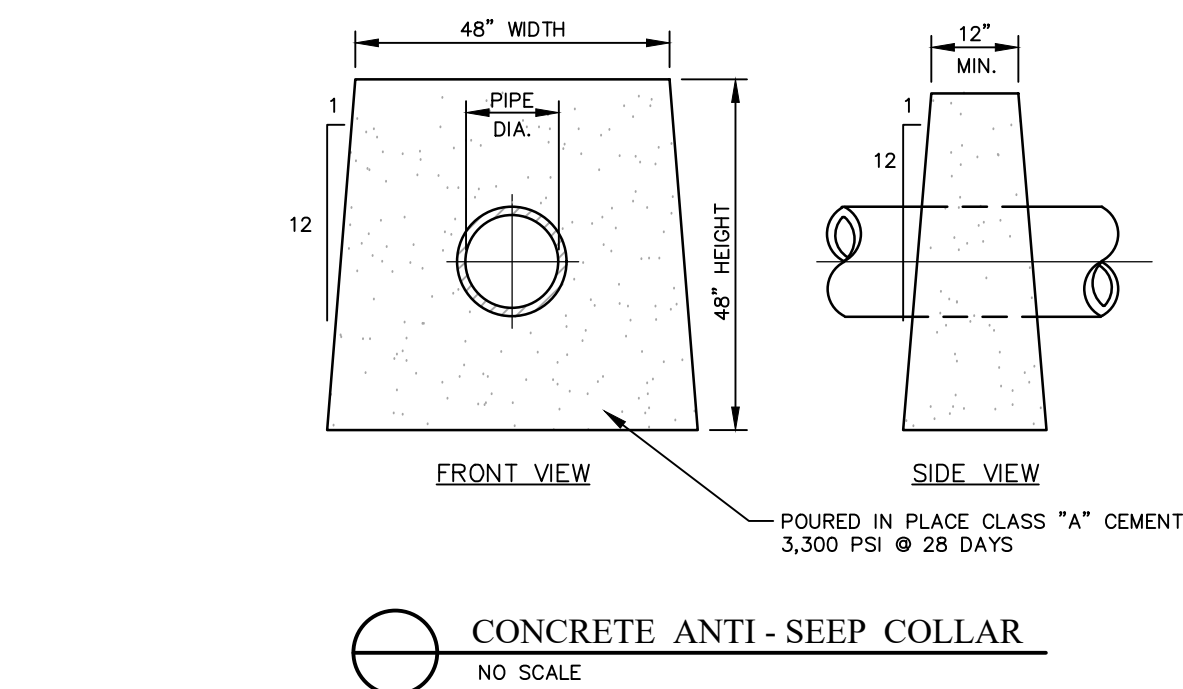
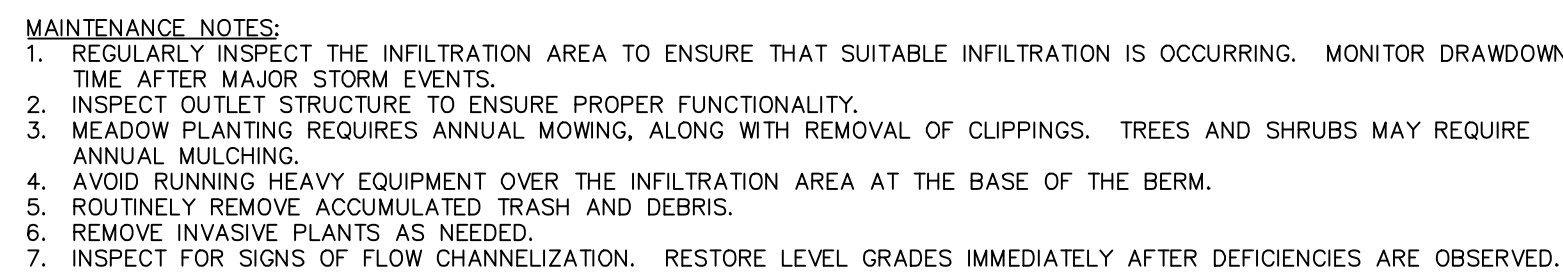
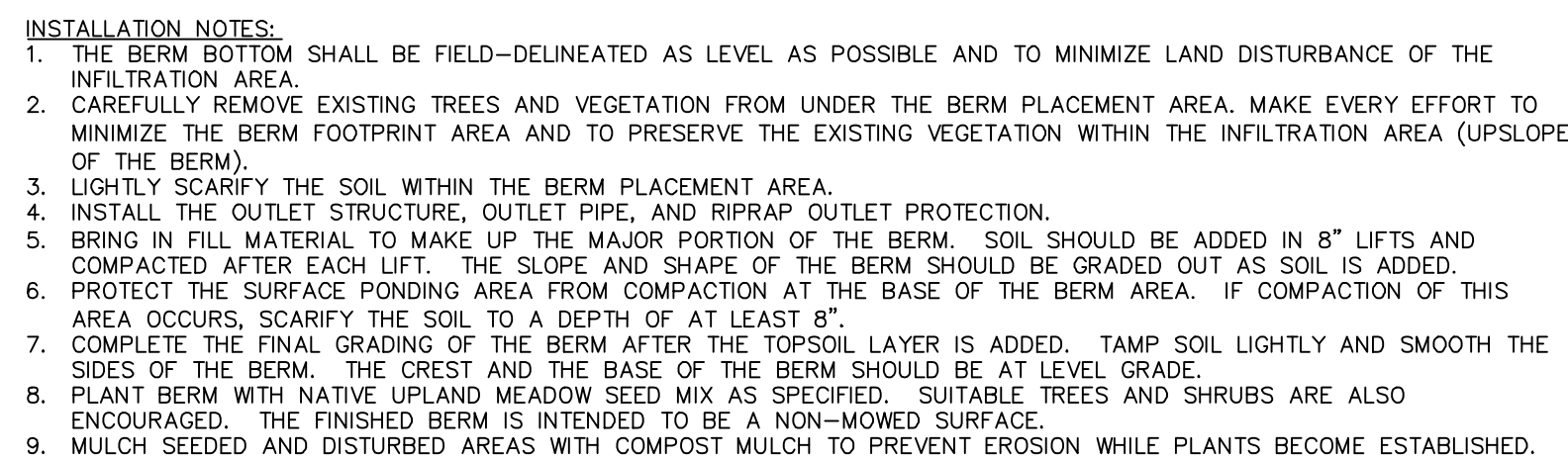
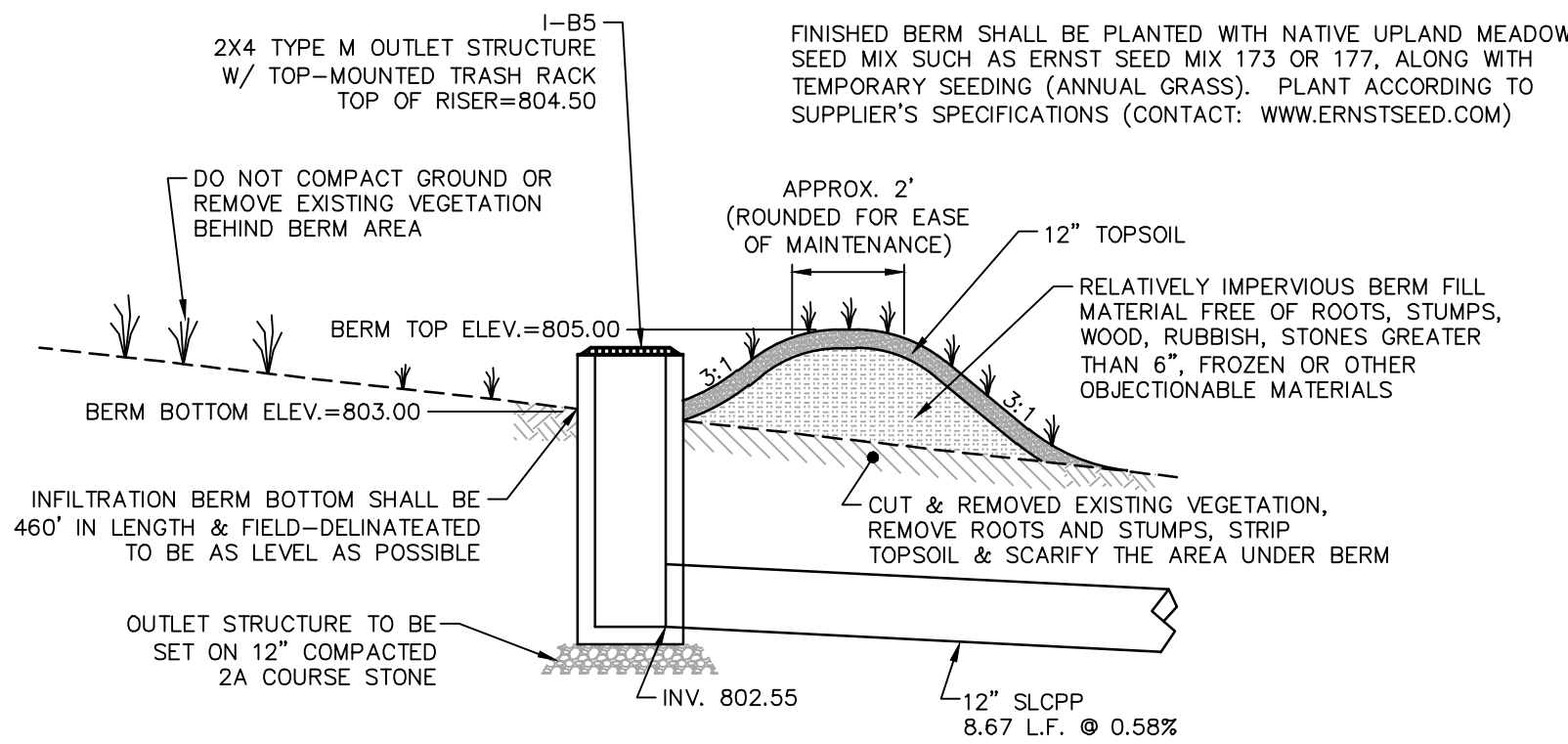
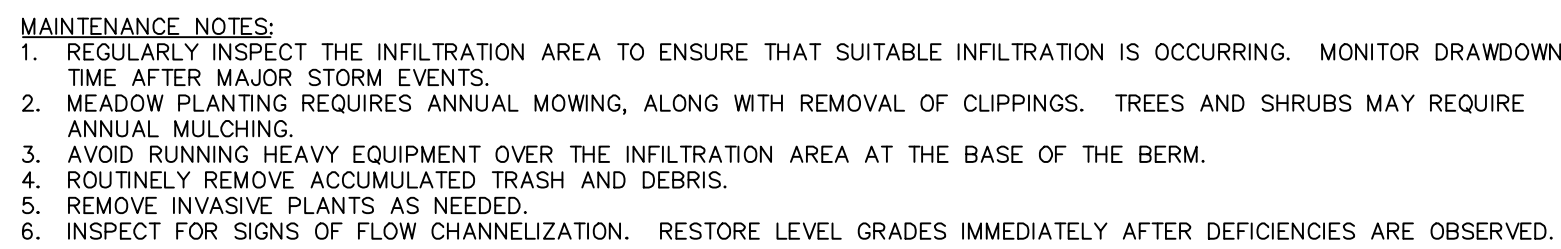
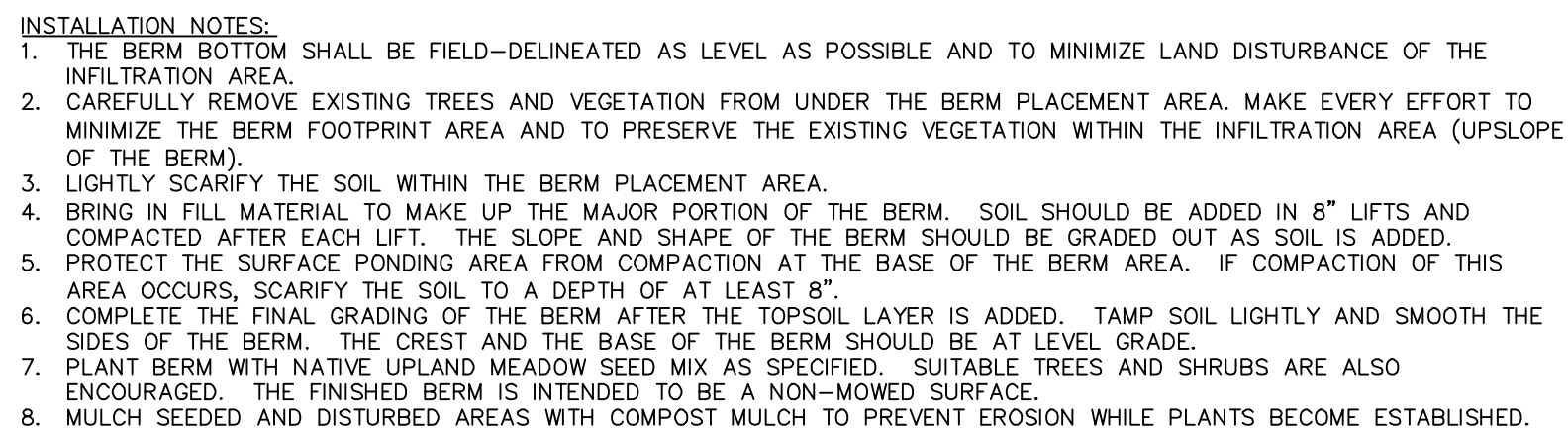
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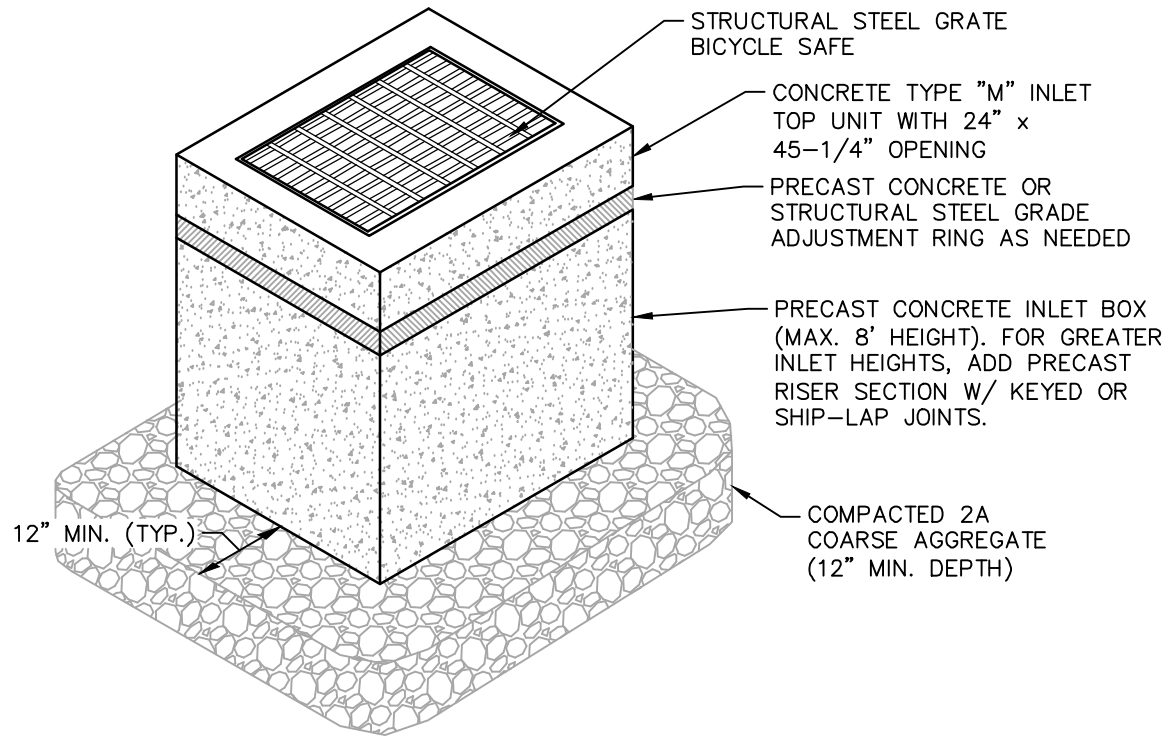
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HERSHEY	DAM
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1"=50'	14 of 24





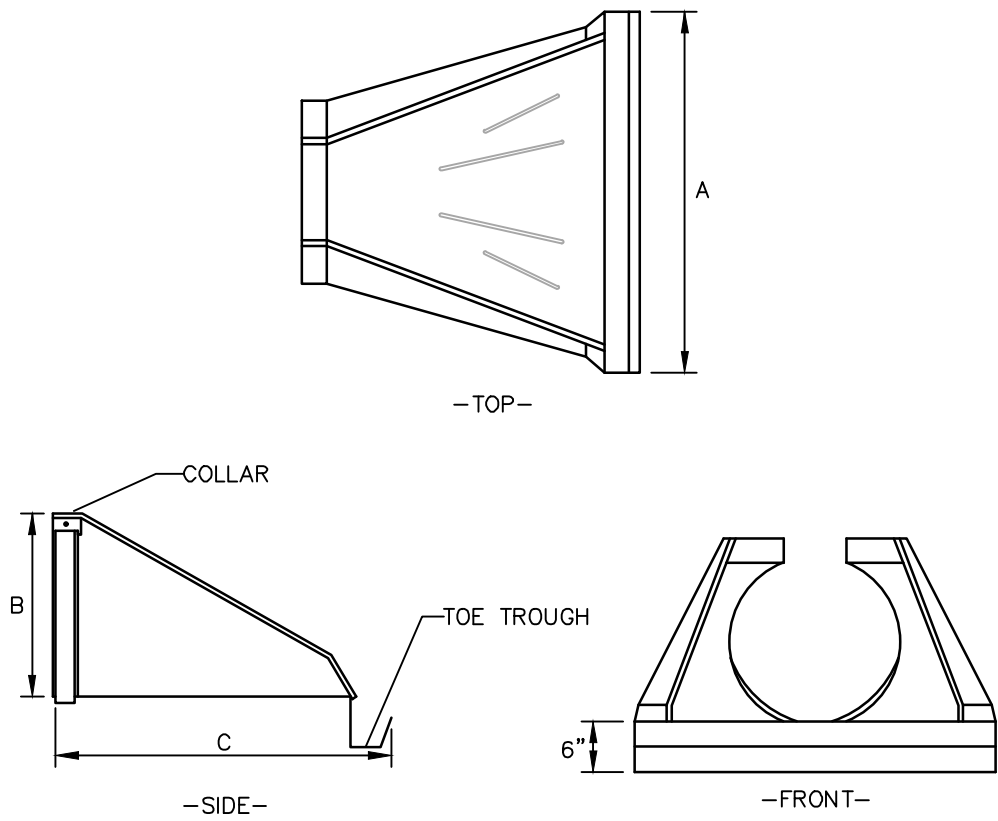
NOTES:

1. MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUB. 408 & PUB. 72M (RC-45M & RC-46M), LATEST EDITIONS.
2. SET PRECAST GRADE ADJUSTMENT RING AND INLET TOP UNIT ON NON-SHRINK GROUT PADS TO PROVIDE FULL BEARING CAPACITY ON THE SUPPORTING SURFACE. MAXIMUM GROUT DEPTH = 1/2".
3. CONNECT PIPES TO BOX WITH MORTAR OR WATERTIGHT RUBBER FLEXIBLE CONNECTORS.
4. ALL PIPES MUST ENTER INLET BOX COMPLETELY THROUGH ONE OF THE SIDES. NO CORNER ENTRY OF PIPES IS PERMITTED.
5. PROVIDE FLOW CHANNEL TOWARD OUTLET PIPE USING CLASS A CEMENT CONCRETE IN ALL INLETS.
6. PROVIDE MANHOLE STEPS (SEE RC-39M) FOR INLETS DEEPER THAN 5'-0" FROM THE FINISHED GRADE ELEVATION TO THE TOP OF THE BOTTOM SLAB.
7. PROVIDE 2" DIAMETER WEEP HOLES FOR INLETS DEEPER THAN 10' FROM THE FINISHED GRADE ELEVATION TO THE TOP OF THE BOTTOM SLAB.

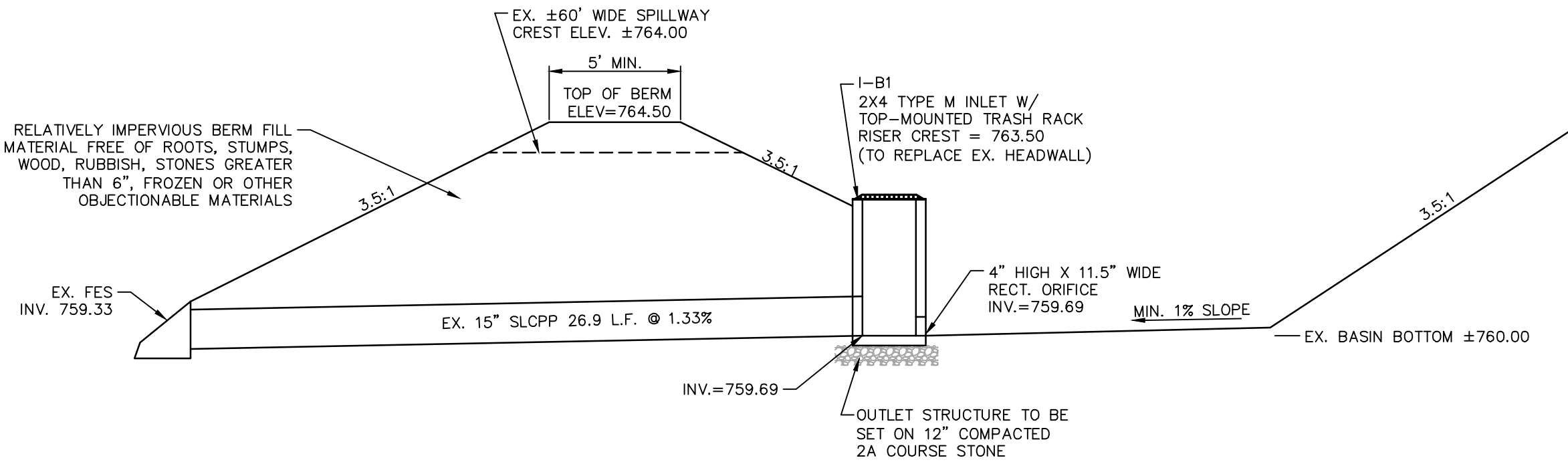


TYPE "M" INLET DETAIL
NO SCALE

DIMENSION (IN.)	PIPE DIAMETER (IN.)					
	12	15	18	24	30	36
A	42	42	59	59	82	82
B	14	17	21	27	34	41
C	34	34	48	48	58	58



POLYETHYLENE FLARED END SECTION
NO SCALE

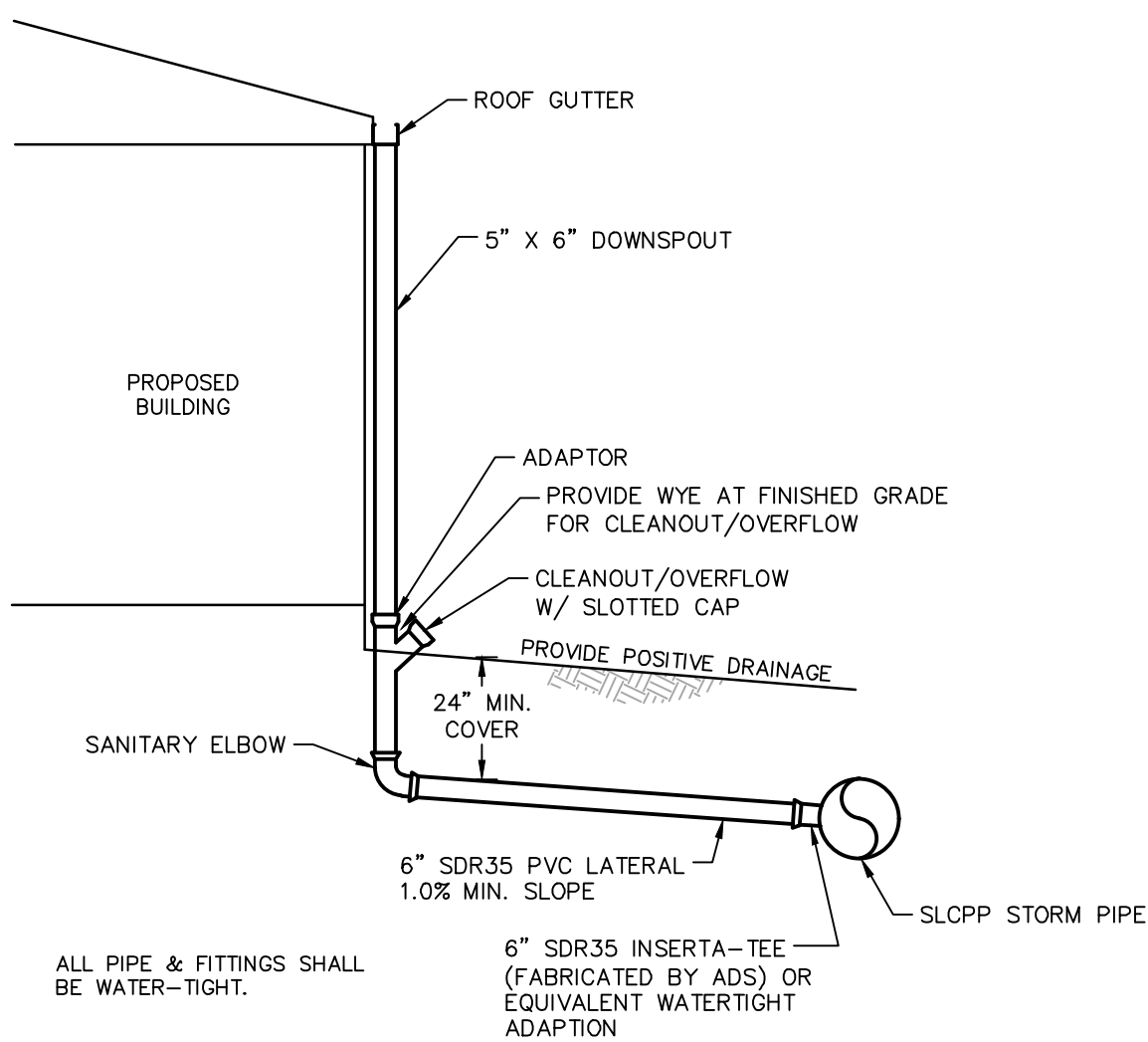


- INSTALLATION NOTES:
1. EXCAVATE THE BASIN AREA AND EXPAND THE BERM. REMOVE THE EXISTING HEADWALL AND INSTALL THE PROPOSED TYPE M OUTLET STRUCTURE.
 2. INSTALL TEMPORARY E&SC MEASURES AROUND THE OUTLET STRUCTURE AS SPECIFIED IN THE APPROVED E&SC PLAN.
 3. IMMEDIATELY STABILIZE THE BASIN AREA.

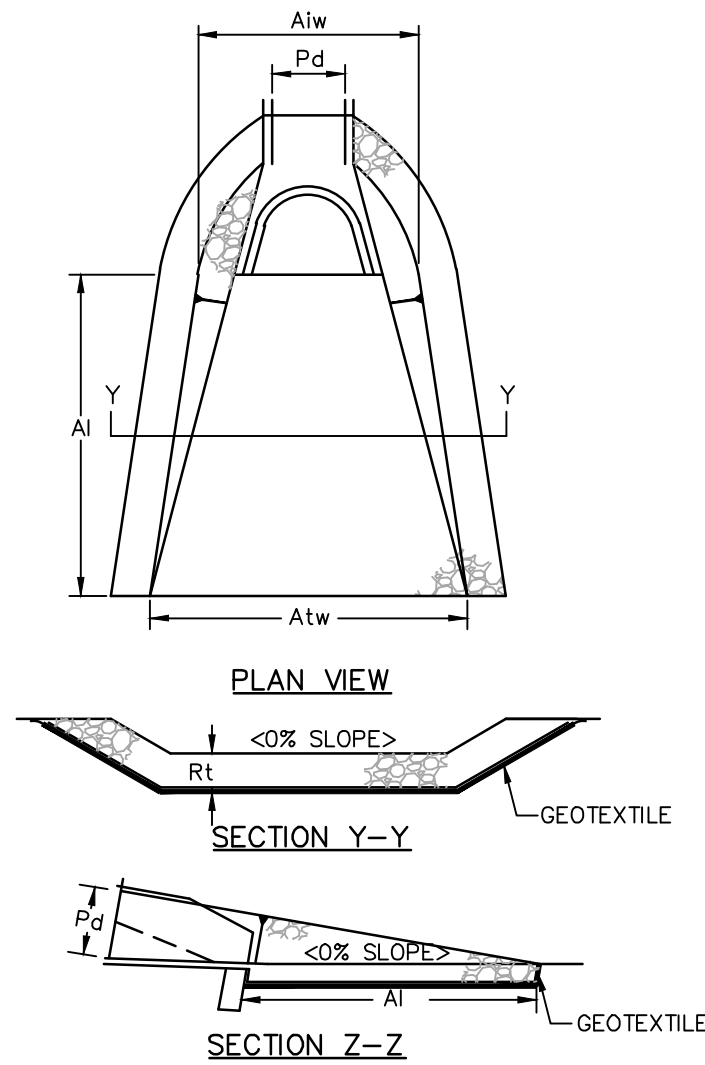
- INSPECTION NOTES:
1. INSPECT AT LEAST FOUR TIMES PER YEAR AND AFTER MAJOR RUNOFF EVENTS (GREATER THAN 2" IN 24 HOURS). ASSESS THE VEGETATION, BANK & BERM STABILITY, SEDIMENT/DEBRIS ACCUMULATION, INLET/OUTLET CONDITIONS, AND OUTLET STRUCTURE. IMMEDIATELY PERFORM ANY REQUIRED MAINTENANCE, AS NOTED BELOW.

- MAINTENANCE NOTES:
1. STABILIZE AS NEEDED ANY EROSION CONDITIONS OR FLOW CHANNELIZATION ALONG THE BERM.
 2. REPAIR AS NEEDED ANY DAMAGED PARTS OF THE OUTLET STRUCTURE.
 3. ANNUALLY REMOVE ANY DEBRIS OR SEDIMENT BUILD-UP FROM THE BASIN BOTTOM AND RIPRAP AREAS.
 4. REMOVE INVASIVE VEGETATION AS NEEDED.

DETENTION BASIN B
NO SCALE



ROOF DRAIN LATERAL DETAIL
NO SCALE

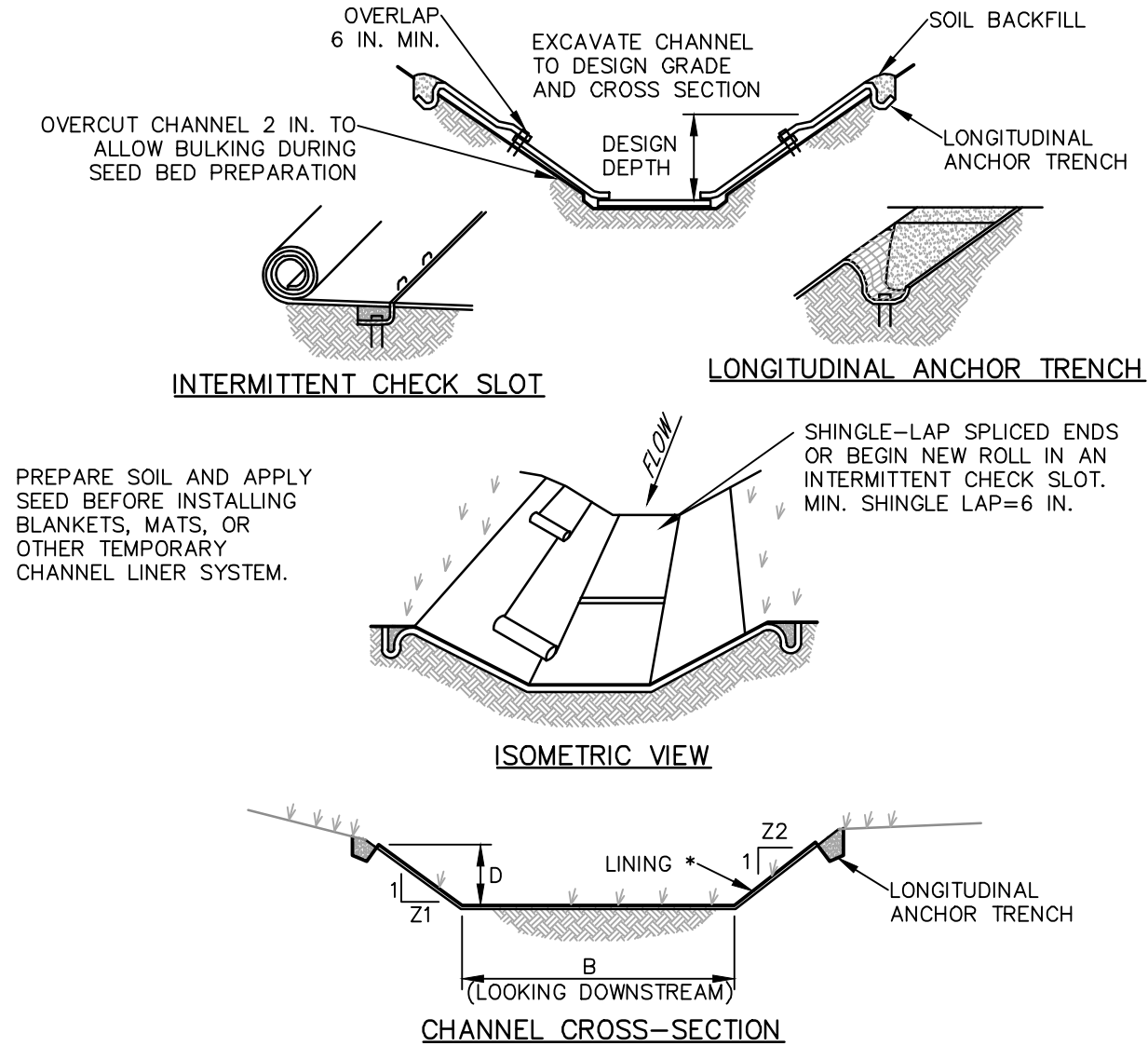


OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
FES-B4	12	R-4	18	8	3	11
FES-B6	15	R-4	18	8	4	12
FES-D1	12	R-4	18	8	3	11
FES-D3	15	R-4	18	8	4	12
FES-D5	12	R-5	27	10	3	12
FES-D7	15	R-4	18	8	4	13
FES-D10	15	R-4	18	8	4	12
SWALE D2	12(EQ. DIAM)	R-4	18	8	5	13

- INSTALLATION
1. CONSTRUCT ALL APRONS TO THE DIMENSIONS SHOW. ADJUST TERMINAL WIDTHS AS NECESSARY TO MATCH RECEIVING CHANNELS.

- MAINTENANCE
1. INSPECT ALL APRONS ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
 2. REPLACE DISPLACED RIPRAP WITHIN THE APRON IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH
FLARED END SECTION OR ENDWALL
NO SCALE



- * SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING*
D1	UPPER	2	1	9	3.5	3.5	SC250 PERM/STAPLE E
D1	LOWER	2	1	9	3.5	3.5	SC250 PERM/STAPLE E
D2	ALL	5	1.1	12.7	3.5	3.5	S75 TEMP/STAPLE D

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 CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. 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.

**MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES (TYPICALLY ONCE OR TWICE PER GROWING SEASON). REMOVE INVASIVE SPECIES AS NEEDED.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NO SCALE

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN NOTES

A. SEQUENCE OF BMP INSTALLATION AND REMOVAL

- At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and representatives of the Lancaster County Conservation District (717-299-5361 extension 5) to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities locations.
- Install the rock construction entrance. All construction vehicles shall enter and leave the site via the rock construction entrance.
- Install compost filter socks below all areas to be disturbed as shown. Install the concrete washout station.
- Timbering, clearing, and grubbing of the site may begin.
- Removal of existing improvements may begin. Existing gravel surfaces shall remain in place for as long as possible to minimize earth disturbance.
- Strip topsoil from proposed construction areas only as construction activities require. Stockpile topsoil at the locations shown on the plan. Stockpiles which are to remain shall be seeded per temporary seeding schedule and mulched. Areas outside of the limit of disturbance shall not be disturbed or stripped of existing vegetation.
- Install Infiltration Berm B2 and Infiltration Berm D3 (along with FES-D1, I-D2, and riprap outlet protection). Do not disturb existing vegetation immediately upslope of the infiltration berms. Permanently stabilize the disturbed areas related to these improvements.
- Construct Swale D2 and riprap outlet protection. Install temporary matting as specified and permanently stabilize the swale.
- Enlargement of Detention Basin B may begin. Remove existing headwall and install the proposed basin outlet structure (I-B1). Install the stone filter berm around the outlet structure. Permanently stabilize the disturbed areas related to these improvements.
- Enlargement of Retention Basin D may begin. Dewater the existing basin and discharge the water into Infiltration Berm D2. Install the basin outlet structure (I-D4), FES-D3, outlet pipe with cradle, anti-seep collars, and riprap outlet protection. Open the drain valve. Remove the existing outlet structure and permanently cap the existing outlet pipe. Install the stone filter berm around the outlet structure. Permanently stabilize the disturbed areas related to these improvements.
- Install FES-D5, I-D6, FES-D7, I-D8, and FES-D9, along with related stormpiping and riprap outlet protection. Permanently stabilize the disturbed area related to these improvements.
- Construct Swale D1. Install permanent matting as specified and permanently stabilize the swale.
- Install Infiltration Berm D2 and Infiltration Berm B4 (along with FES-B4, I-B5, and riprap outlet protection). Do not disturb existing vegetation immediately upslope of the infiltration berms. Permanently stabilize the disturbed area related to these improvements.
- Rough grading of the site may begin. Stabilize the access drives and parking areas with stone as soon as finished grade is achieved.
- Installation of the sanitary sewer improvements may begin.
- Install FES-B6, I-B7, I-B8, and I-B9, along with along with related stormpiping and riprap outlet protection.
- Install FES-D10, I-D11, and I-D12, along with along with related stormpiping and riprap outlet protection. Immediately connect the existing pavilion downspouts to the storm sewer system.
- Construction of the buildings, access drives, parking facilities, and other site improvements may begin. Connect the downspouts to the storm sewer network as soon as possible.
- Complete final grading of the site. Immediately seed and mulch all areas to become lawn and encourage stabilization as quickly as possible.
- Temporary E&S BMPs shall remain in place until all construction activities have been completed and site has reached a minimum uniform 70% perennial vegetative cover.
- Upon achieving a minimum uniform 70% perennial vegetative cover of all areas, temporary sediment control facilities may be removed. Stabilize areas disturbed by removal of these facilities.
- Close the Basin D drain valve.
- Complete the paving of the access drives and parking areas.

B. PCSM BMPs AND FACILITIES

- Detention Basin – an earthen structure which provides temporary storage of runoff in order to attenuate peak flow rates.
- Retention Basin – a stormwater basin which includes a substantial permanent pool for water quality treatment and provides additional capacity above the permanent pool for temporary storage of runoff in order to attenuate peak flow rates. See the retention basin detail for specific construction, operation & maintenance, and inspection notes and procedures.
- Infiltration Berm – a mound of compacted earth that is located along a contour in order to retain stormwater flows to allow volume control by infiltration in a vegetated area. See the infiltration berm detail for specific construction, operation & maintenance, and inspection notes and procedures.

C. MAINTENANCE

- The permittee or co-permittee shall perform maintenance of the PCSM BMPs as outlined on the respective BMP details.
- The permittee or co-permittee shall be responsible for long-term operation and maintenance of PCSM BMPs unless a different person is identified in the Notice of Termination who has agreed to long-term operation and maintenance of PCSM BMPs.
- A permittee or co-permittee that fails to transfer long-term operation and maintenance of the PCSM BMPs or otherwise fails to comply with this requirement shall remain jointly and severally responsible with the landowner for long-term operation and maintenance of the PCSM BMPs located on the property.

D. WASTE DISPOSAL

- All building materials and wastes must be removed from the site and recycled or disposed with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et. Seq., Sec. 271.1 et. sec., and Sec. 287.1 et. seq. No building material or wastes or unused building materials shall be buried, dumped, or discharged at the site.

E. OWNER/DEVELOPER

The party responsible for implementation and maintenance of all PCSM BMP facilities (both onsite and offsite) is the applicant.

F. NPDES PERMIT NOTES

- Monitoring and Reporting Requirements

a. Visual Inspections

The permittee and co-permittee must ensure that visual site inspections are conducted weekly, and within 24 hours after each measurable stormwater event throughout the duration of construction and until the receipt and acknowledgement of the Notice of Termination by the Department or authorized conservation district. The visual site inspections and reports shall be completed on a form developed by the Department, and conducted by qualified personnel trained and experienced in erosion and sediment control, to ascertain that E&S, PCSM, and PPC BMPs are properly constructed and maintained and contained to effectively minimize pollution to the waters of the Commonwealth. A written report of each inspection shall be kept, and include:

- a summary of site conditions, E&S and PCSM BMPs, and implementation, maintenance and compliance actions; and
- the date, time, name and signature of the person conducting the inspection.

b. Licensed Professional Oversight of Critical Stages

A licensed professional or a designee shall be present onsite and be responsible for oversight of critical stages of implementation of the approved PCSM Plan. The critical stages may include the installation of underground treatment or storage BMPs, structurally engineered BMPs, or other BMPs as deemed appropriate by the Department or the conservation district.

Contact Diehm & Sons at (717) 626-0175, prior to implementation of the following critical stages of BMP installation for this project:

- Enlargement of Retention Basin D, including the installation of the outlet pipe, cradle, anti-seep collars, and outlet structure;

c. Non-compliance Reporting

Where E&S, PCSM, or PPC BMPs are found to be inoperative or ineffective during an inspection, or any other time, the permittee and co-permittee shall, within 24 hours, contact the Department or authorized conservation district, by phone or personal contact, followed by the submission of a written report within 5 days of the initial contact. Non-compliance reports shall include the following information:

- any condition on the project site which may endanger public health, safety, or the environment, or involve incidents which cause or threaten pollution;
- the period of non-compliance, including exact dates and times and/or anticipated time when the activity will return to compliance;
- steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance; and
- the date or schedule of dates, and identifying remedies for correcting non-compliance conditions.

d. Supplemental Monitoring

The Department or authorized conservation district may require additional monitoring where an increased risk of potential pollution is present, or water pollution is suspected to be occurring from a construction activity subject to this general permit. The permittee or co-permittee shall commence such monitoring upon notification from the Department or authorized conservation district.

e. Availability of Reports

Except for data determined to be confidential under Section 607 of the Clean Streams Law, all reports and other information prepared in accordance with the terms of the permit shall be available for public inspection at the appropriate Department Regional Office or authorized conservation district.

2. Record Keeping

a. Retention of Records

The permittee and co-permittee shall retain records of all monitoring information including copies of all monitoring and inspection reports required by this permit, all monitoring information (including site log book, calibration and maintenance records) and records of data used to complete the Notice of Intent for this permit, for a period of three years from the date of the termination of coverage under this permit.

b. Reporting of Monitoring Reports

Visual inspection monitoring results shall be submitted to the Department or authorized conservation district upon request.

3. Discharges Consistent with Terms and Conditions of the Permit

All discharges authorized by the NPDES permit shall be consistent with the terms and conditions of the permit.

4. Notice of Termination

a. Termination of Coverage

Upon permanent stabilization of the earth disturbance activity and installation of BMPs in accordance with an approved plan, the permittee and/or co-permittee shall submit a Notice of Termination (NOT) to the Department or authorized conservation district. The NOT must include:

- The facility name, address and location;
- The operator name and address;
- The NPDES permit number;
- The reason for permit termination;
- Identification of the persons who have agreed to and will be responsible for long-term operation and maintenance of the PCSM BMPs;

Until the permittee or co-permittee has received written approval of the NOT, the permittee or co-permittee will remain responsible for compliance with the permit terms and conditions, including long-term operation and maintenance of all PCSM BMPs on the project site. The Department or authorized conservation district will conduct a follow up inspection and approve or deny the NOT within 30 days of receipt.

b. Final Certification

The permittee shall include with the NOT "Record Drawings" with a final certification statement from a licensed professional, which reads as follows:

"I (name) do hereby certify pursuant to the penalties of 18 Pa. C.S.A. §4904 to the best of my knowledge, information and belief, that the accompanying record drawings accurately reflect the as-built conditions, are true and correct, and are in conformance with Chapter 102 of the Rules and Regulations of the Department of Environmental Protection and that the project site was constructed in accordance with the approved PCSM Plan, all approved plan changes, and accepted construction practices."

The permittee shall retain a copy of the record drawings as a part of the approved PCSM Plan. The permittee shall also provide a copy of the record drawings as part of the approved PCSM Plan to the persons identified as responsible for the long-term operation and maintenance of PCSM BMPs. The permittee shall also provide copies of both the record drawings and the long-term operation and maintenance plan to the Department, authorized conservation district, and municipality.

5. Recorded Legal Instrument

For any property containing a PCSM BMP, the permittee or co-permittee shall record an instrument with the Recorder of Deeds which will assure disclosure of the PCSM BMP and the related obligations in the ordinary course of a title search of the subject property. The recorded instrument must identify the PCSM BMP, provide for necessary access related to long-term operation and maintenance for PCSM BMP and provide notice that the responsibility for long-term operation and maintenance of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees, and provide proof of filing with the notice of termination.

G. ENVIRONMENTAL DUE DILIGENCE AND CLEAN FILL

- The applicant/operator shall be responsible to perform environmental due diligence to determine/certify that any fill imported onto the site or exported from the site meets DEP's definition of clean fill as required in the NPDES permit application.
- Fill exported from the site shall be to a site with an erosion and sedimentation control plan.
- Clean fill is defined as uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)
- Environmental due diligence is defined as investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance.

H. AREAS OF SPECIAL CONCERN

- Sinkhole Repair – Due to the variable nature of sinkholes, they should be repaired under the direct observation and supervision of a professional geologist or licensed geotechnical engineer. Figures 17.2 and 17.3 are provided as general guidelines for the repair of sinkholes. They may be modified as necessary to accommodate specific site conditions. Site-specific sinkhole repair plans will be reviewed on a case-by-case basis.

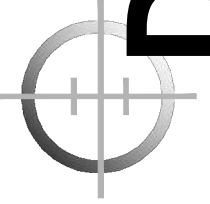
SOIL LIMITATIONS AND RESOLUTIONS

UoC	LOW PH LOW STRENGTH MODERATE FROST ACTION POOR TOPSOIL SUITABILITY SEEPAGE	APPLY LIMESTONE ACCORDING TO SOIL TEST PERFORM SOIL BEARING TESTS FOR STRUCTURES & MINIMIZE SLOPE OF CUT BANKS UTILIZE PROPER FOUNDATION DEPTH AND PAVING BASE STOCKPILE & PRESERVE EXISTING TOPSOIL PROPER BERM COMPACTION & ANTI-SEEP COLLARS
UbD	MODERATE FROST ACTION LOW PH OUTBANK CAVING	UTILIZE PROPER FOUNDATION DEPTH AND PAVING BASE APPLY LIMESTONE ACCORDING TO SOIL TESTS SHORE EXCAVATION AS NEEDED

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Project Title

WOODCREST RETREAT
PHASE 3
IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

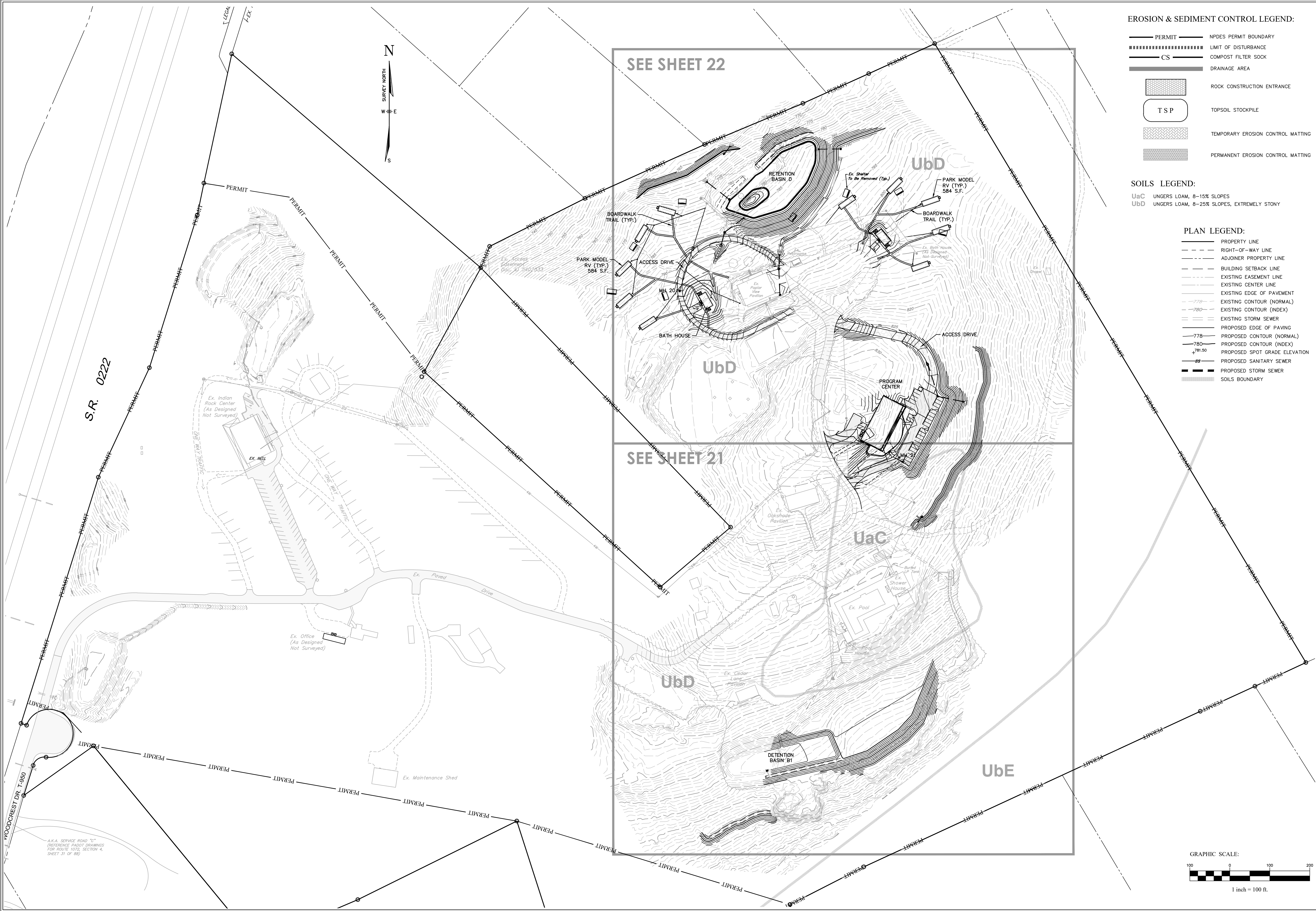
Sheet Title

PCSM PLAN
NOTES

Seal:

Revisions:

Project Mgr.:	Checked By:
DAM	DAM
Survey By:	Drawn By:
HERSHEY	DAM
Project No.:	Date:
15094	2/9/24
File:	
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Scale:	Sheet No.:
AS SHOWN	19 of 24



EROSION & SEDIMENT CONTROL LEGEND:

- PERMIT
- NPDES PERMIT BOUNDARY
- LIMIT OF DISTURBANCE
- COMPOST FILTER SOCK
- DRAINAGE AREA
- ROCK CONSTRUCTION ENTRANCE
- T S P
- TOPSOIL STOCKPILE
- TEMPORARY EROSION CONTROL MATTING
- PERMANENT EROSION CONTROL MATTING

SOILS LEGEND:

- UaC UNGERS LOAM, 8-15% SLOPES
- UbD UNGERS LOAM, 8-25% SLOPES, EXTREMELY STONY

PLAN LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINER PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EXISTING CENTER LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOUR (NORMAL)
- EXISTING CONTOUR (INDEX)
- EXISTING STORM SEWER
- PROPOSED EDGE OF PAVING
- PROPOSED CONTOUR (NORMAL)
- PROPOSED CONTOUR (INDEX)
- PROPOSED SPOT GRADE ELEVATION
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- SOILS BOUNDARY

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Project Title:
**WOODCREST RETREAT
PHASE 3**
IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Sheet Title:
**EROSION & SEDIMENT
CONTROL PLAN
OVERALL SITE PLAN**

Sheet No.:
15094

Revisions:
-

Project Mgr.:
DAM

Survey By:
HERSHEY

Project No.:
15094

File:
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Layout:
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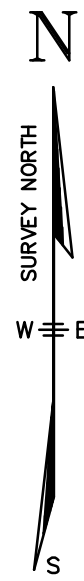
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2/9/24

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20 of 24



EROSION & SEDIMENT CONTROL LEGEND:

- PERMIT
- NPDES PERMIT BOUNDARY
- LIMIT OF DISTURBANCE
- COMPOST FILTER SOCK
- CS
- DRAINAGE AREA
- ROCK CONSTRUCTION ENTRANCE
- TSP
- TOPSOIL STOCKPILE
- TEMPORARY EROSION CONTROL MATTING
- PERMANENT EROSION CONTROL MATTING

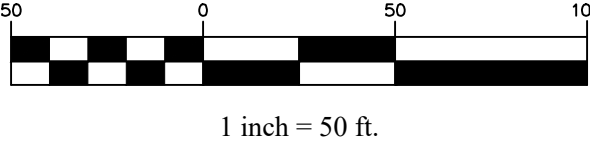
PLAN LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINER PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EXISTING CENTER LINE
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- PROPOSED CONTOUR (NORMAL)
- PROPOSED CONTOUR (INDEX)
- PROPOSED SPOT GRADE ELEVATION
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- SOILS BOUNDARY

SOILS LEGEND:

- UaC UNGERS LOAM, 8-15% SLOPES
- UbD UNGERS LOAM, 8-25% SLOPES, EXTREMELY STONY

GRAPHIC SCALE:



Project Title:

WOODCREST RETREAT
PHASE 3
IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Sheet Title:

EROSION & SEDIMENT
CONTROL PLAN
SOUTH AREA

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DAM

Checked By:

DAM

Survey By:

HERSHEY

Drawn By:

DAM

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2/9/24

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E&S South

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1"=50'

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21 of 24

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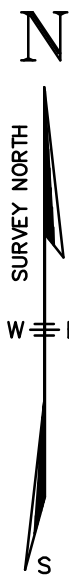
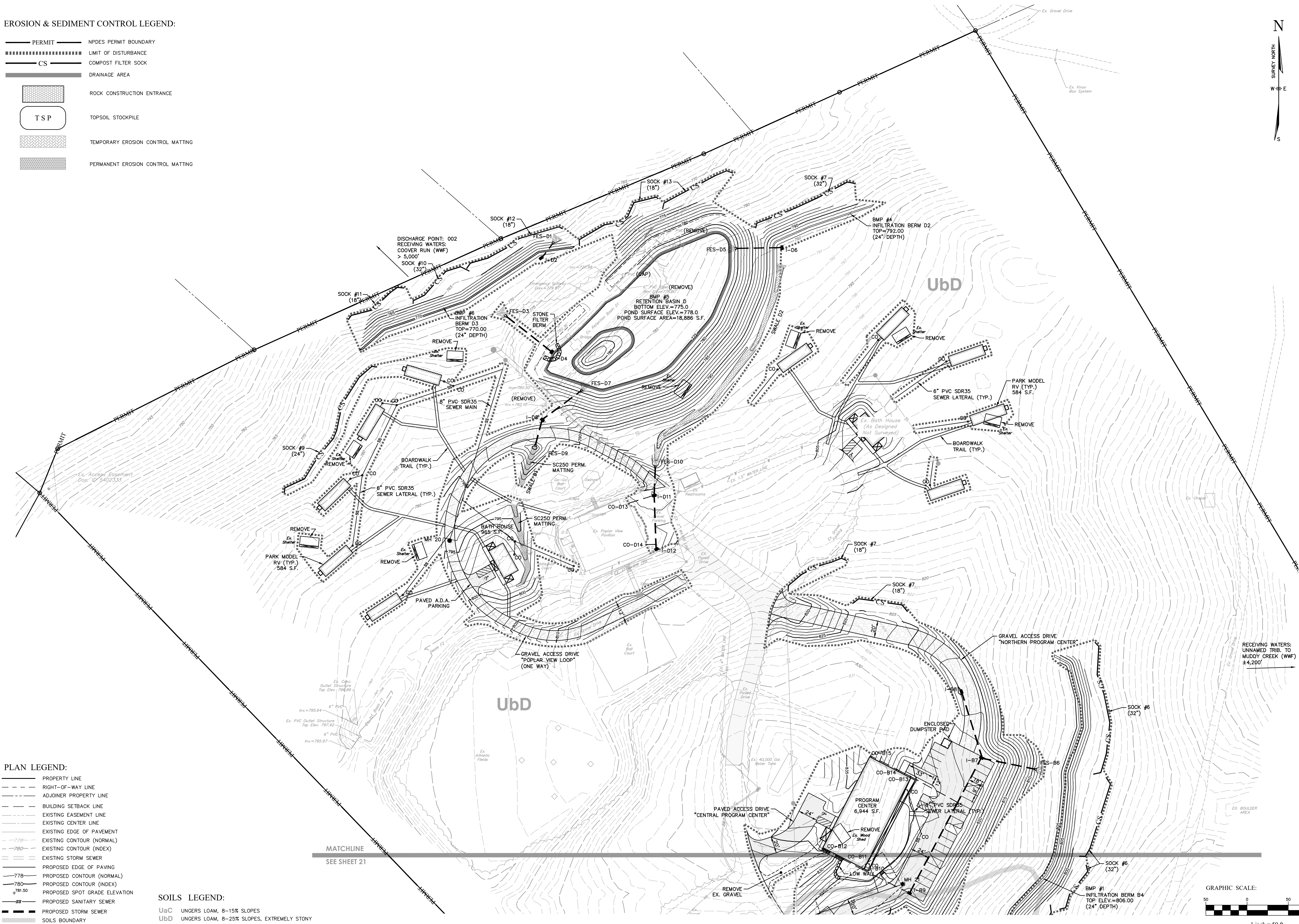
- PERMIT NPDES PERMIT BOUNDARY
LIMIT OF DISTURBANCE
CS COMPOST FILTER SOCK
DRAINAGE AREA
ROCK CONSTRUCTION ENTRANCE
TSP TOPSOIL STOCKPILE
TEMPORARY EROSION CONTROL MATTING
PERMANENT EROSION CONTROL MATTING

PLAN LEGEND:

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PROPOSED SANITARY SEWER
PROPOSED STORM SEWER
SOILS BOUNDARY

SOILS LEGEND:

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UbD UNGERS LOAM, 8-25% SLOPES, EXTREMELY STONY



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**WOODCREST RETREAT
PHASE 3**

IN
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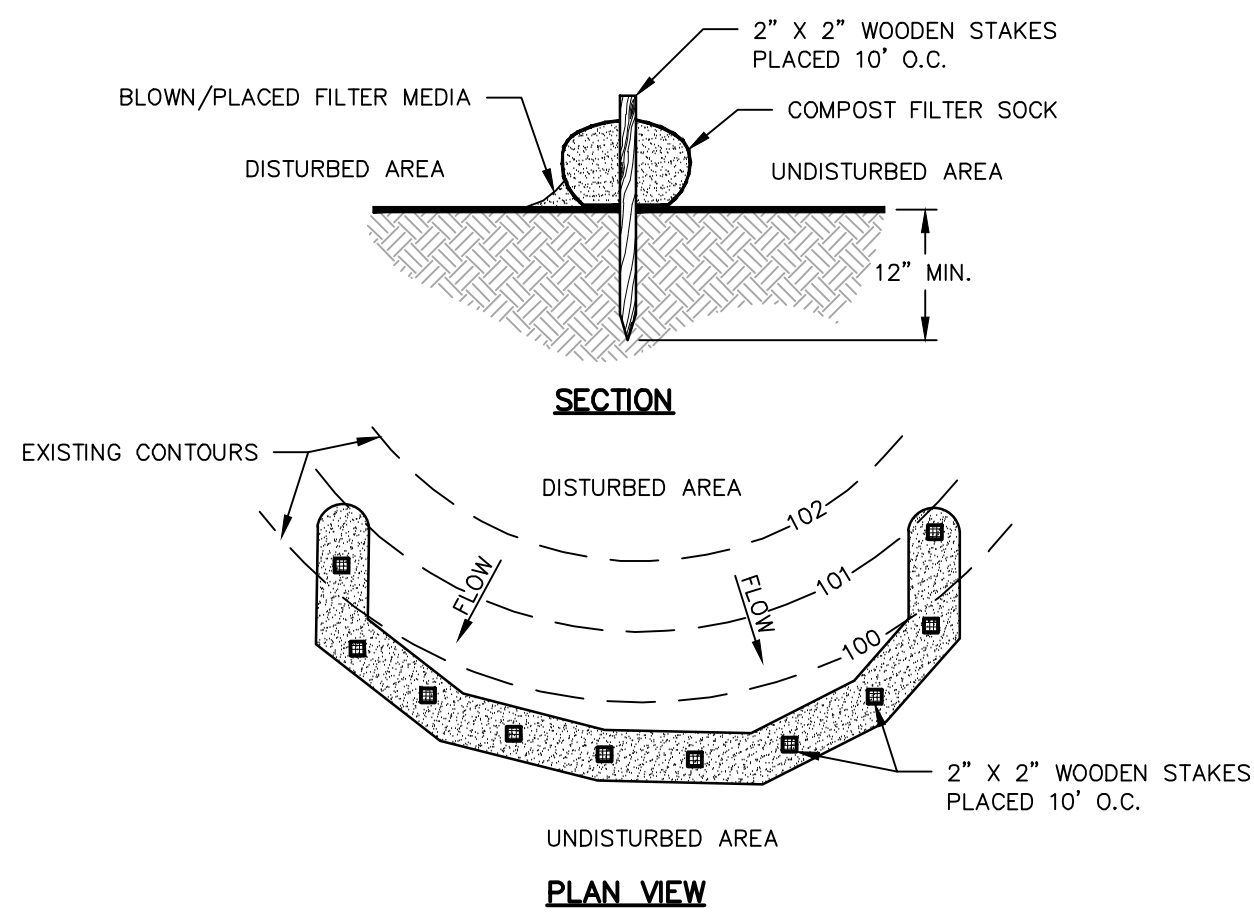
Sheet Title:

**EROSION & SEDIMENT
CONTROL PLAN
NORTH AREA**

Seal:

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Scale:	Sheet No.:
1"=50'	22 of 24



SOCK NO.	SOCK DIA (IN)	LOCATION	SLOPE (%)	SLOPE LENGTH ABOVE BARRIER (FT)
1	24	BELOW BATH HOUSE	8	360
2	32*	BELOW PUMP STATION	11	170
3	32*	BELOW TOPSOIL PILE	11	120
4	18	BELOW BATH HOUSE	8	360
5	18	BELOW PUMP STATION	11	170
6	32*	BELOW TOPSOIL PILE	11	120
7	18	BELOW BATH HOUSE	8	360
8	32*	BELOW PUMP STATION	11	170
9	24	BELOW TOPSOIL PILE	11	120
10	32*	BELOW BATH HOUSE	8	360
11	18	BELOW PUMP STATION	11	170
12	18	BELOW TOPSOIL PILE	11	120
13	18	BELOW TOPSOIL PILE	11	120

*SEE COMPOST SOCK STACKING DETAIL FOR 32" SOCK

TABLE 4.1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	3/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G55)	23% AT 1000 HR	23% AT 1000 HR		100% AT 1000 HR	100% AT 1000 HR
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION-WELDED JUNCTURES				
OUTER FILTRATION MESH	3/4" X 3/4" MAX. APERTURE SIZE				
	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN LAYER MECHANICALLY FUSED NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
SOCK FABRIC COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS					

FILTRIX® & DMF
THE PHYSICAL PARAMETERS OF THE COMPOST SHOULD COMPLY WITH THE STANDARDS IN TABLE 4.2. THE STANDARDS CONTAINED IN THE PENNDOT PUBLICATION 408 ARE AN ACCEPTABLE ALTERNATIVE.

TABLE 4.2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

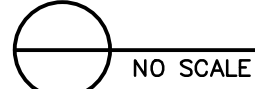
INSTALLATION NOTES:

- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8' UPSLOPE AT 45° TO THE MAIN SOCK ALIGNMENT.
- STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK, IF SO SPECIFIED BY THE MANUFACTURER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

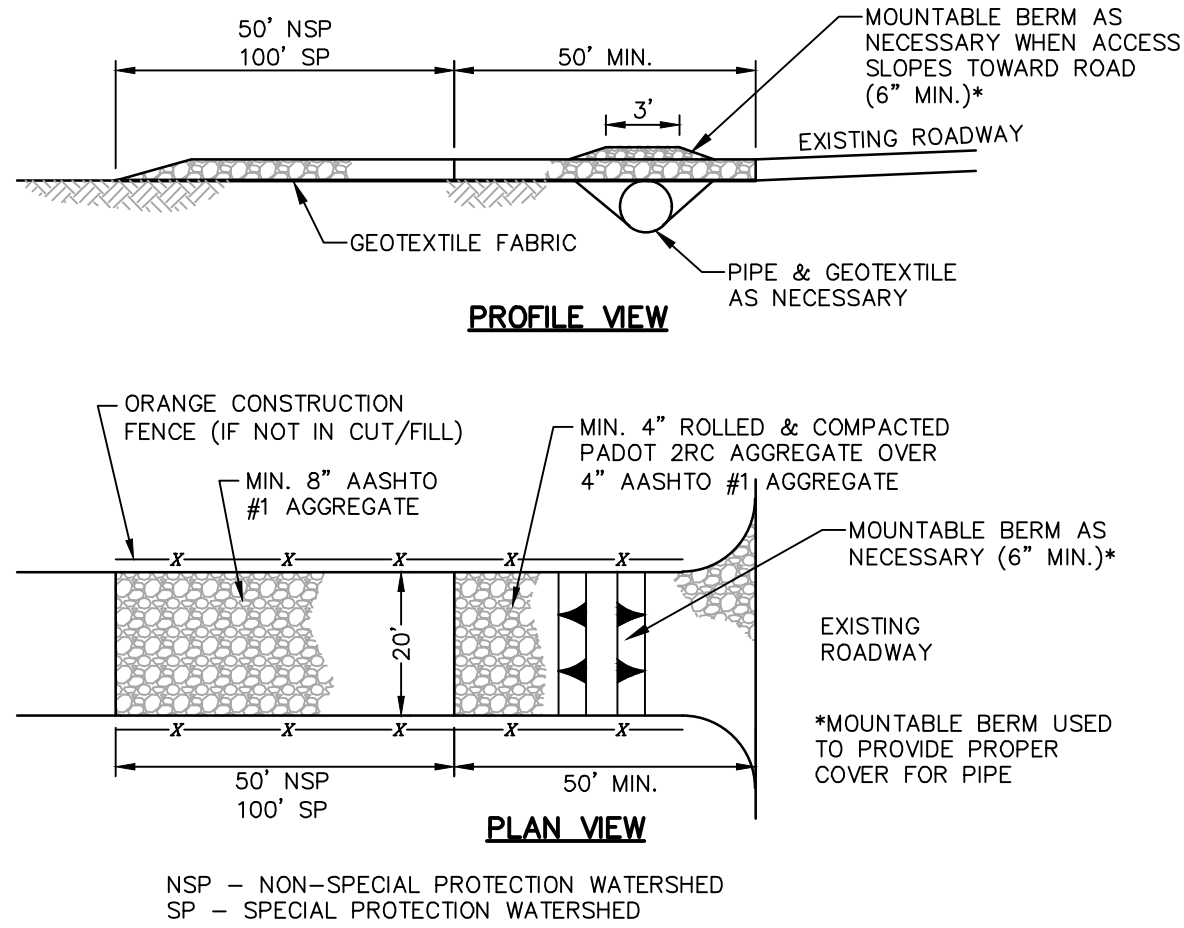
MAINTENANCE NOTES:

- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE-GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE E&S PLAN.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED, OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK



NO SCALE



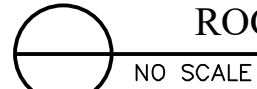
INSTALLATION NOTES:

- REMOVE TOPSOIL PRIOR TO INSTALLATION OR ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

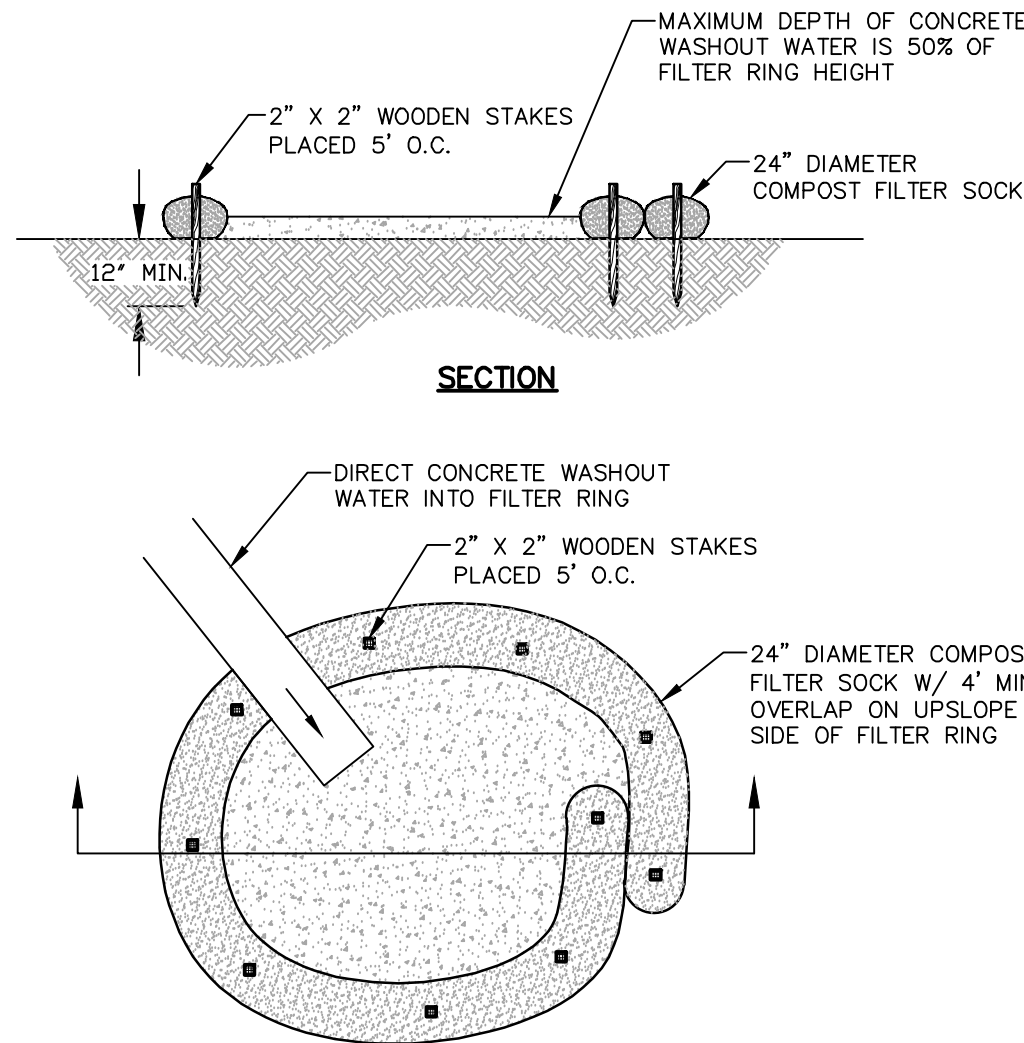
MAINTENANCE NOTES:

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

ALTERNATIVE ROCK CONSTRUCTION ENTRANCE



NO SCALE



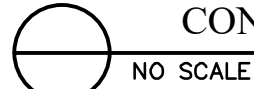
INSTALLATION NOTES:

- A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLATION OF THE SOCK. ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS.
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE (MAX. 2% SLOPE).
- 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

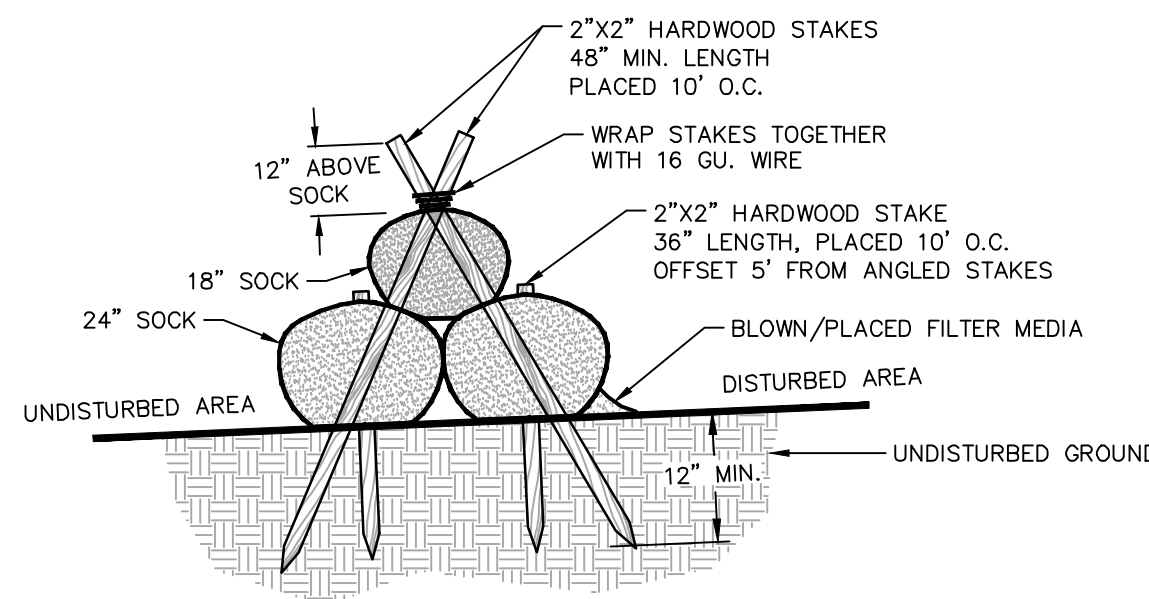
MAINTENANCE NOTES:

- WASHOUT STATION SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED IMMEDIATELY.
- ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% OF CAPACITY.
- GEOMEMBRANE SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT STATION.

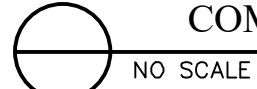
COMPOST SOCK CONCRETE WASHOUT STATION



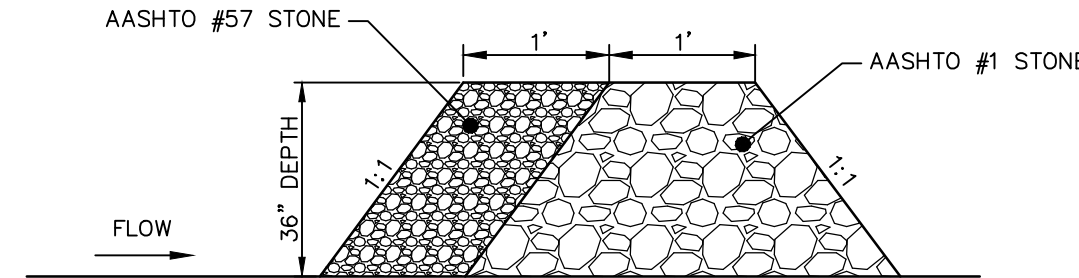
NO SCALE



COMPOST SOCK STACKING DETAIL



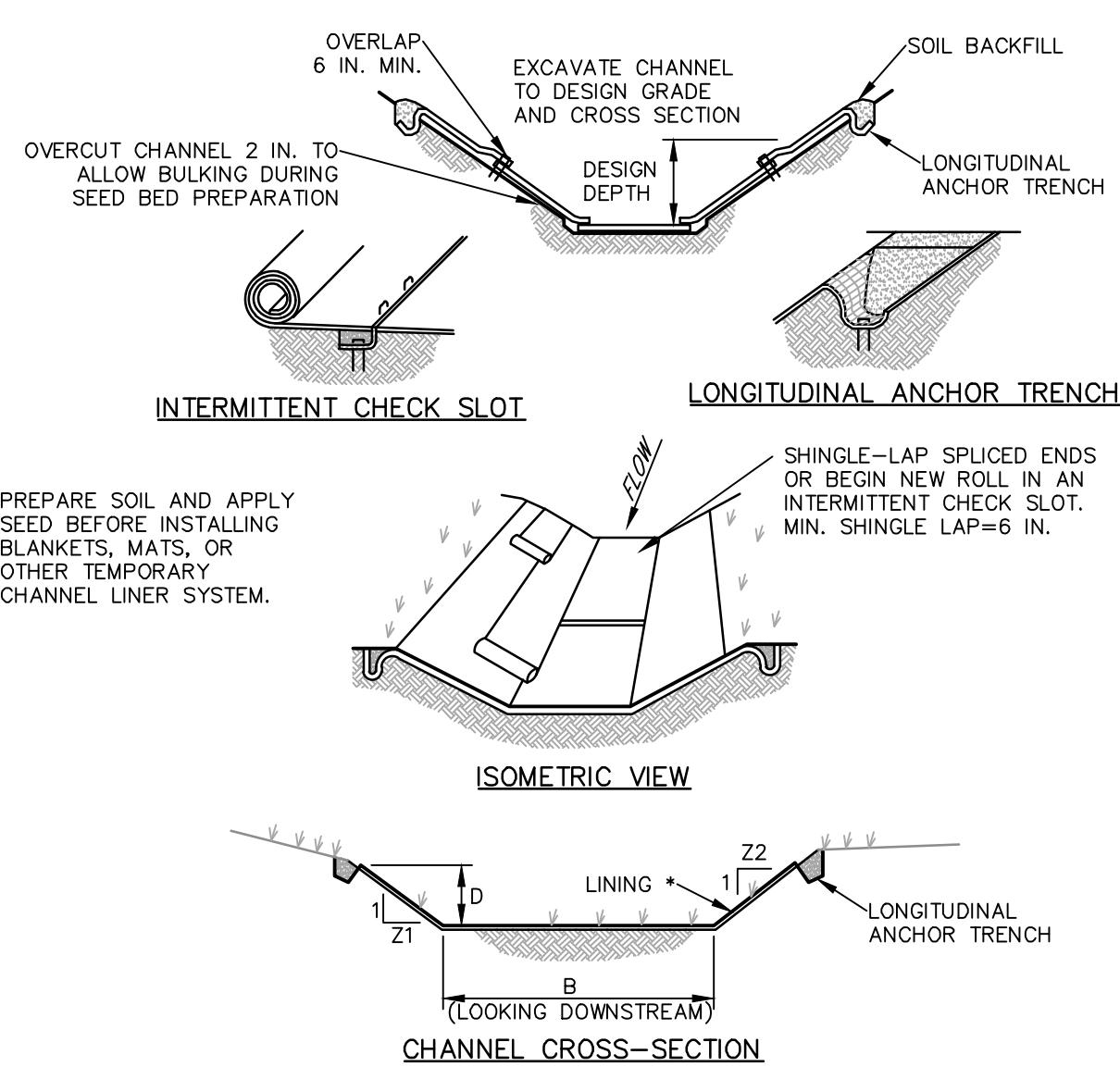
NO SCALE



STONE FILTER BERM



NO SCALE



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING*
D1	UPPER	2	1	9	3.5	3.5	SC250 PERM/STAPLE E
D1	LOWER	2	1	9	3.5	3.5	SC250 PERM/STAPLE E
D2	ALL	5	1.1	12.7	3.5	3.5	S75 TEMP/STAPLE D

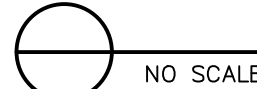
NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

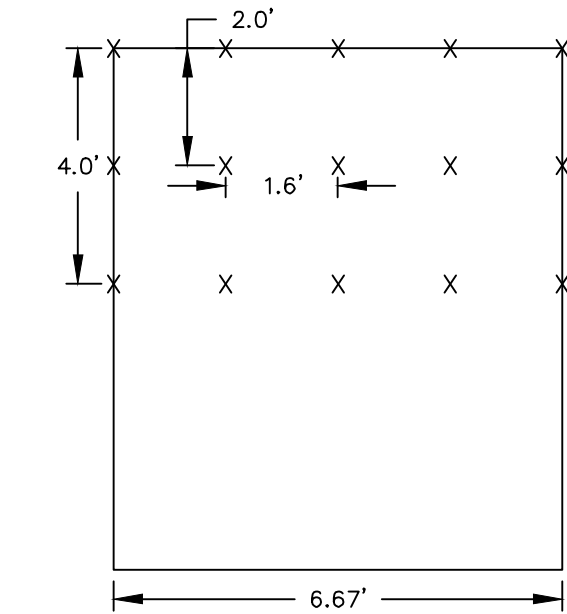
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

**NOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES (TYPICALLY ONCE OR TWICE PER GROWING SEASON). REMOVE INVASIVE SPECIES AS NEEDED.

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

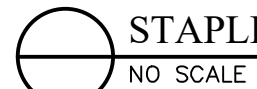


NO SCALE



INSTALL USING 3.75 STAPLES/SQ. YD., 6", 11 GA. WIRE "U" SHAPED STAPLES. LONGER STAPLES MAY BE REQUIRED FOR LOOSE SOILS. LARGER GAUGE STAPLES MAY BE NEEDED FOR COMPACTED OR ROCKY SOILS.

STAPLE PATTERN "D" DETAIL



NO SCALE

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Civil Engineering
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WOODCREST RETREAT
PHASE 3

IN
EAST COCALICO TOWNSHIP, LANCASTER COUNTY, PA

Project Title:

EROSION & SEDIMENT
CONTROL PLAN
DETAILS

Sheet Title:

Seal:

Revisions:

Project Mgr.: DAM
Survey By: HERSHEY
Project No.: 15094
File: 15094bs2.dwg
Layout: E&SC Details
Scale: AS SHOWN
Sheet No.: 23 of 24

EROSION & SEDIMENT CONTROL PLAN NOTES

A. SEQUENCE OF BMP INSTALLATION AND REMOVAL

- At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and representatives of the Lancaster County Conservation District (717-299-5361 extension 5) to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System incorporated at 1-800-242-1776 for buried utilities locations.
- Install the rock construction entrance. All construction vehicles shall enter and leave the site via the rock construction entrance.
- Install compost filter socks below all areas to be disturbed as shown. Install the concrete washout station.
- Timbering, clearing, and grubbing of the site may begin.
- Removal of existing improvements may begin. Existing gravel surfaces shall remain in place for as long as possible to minimize earth disturbance.
- Strip topsoil from proposed construction areas only as construction activities require. Stockpile topsoil at the locations shown on the plan. Stockpiles which are to remain shall be seeded per temporary seeding schedule and mulched. Areas outside of the limit of disturbance shall not be disturbed or stripped of existing vegetation.
- Install Infiltration Berm B2 and Infiltration Berm D3 (along with FES-D1, I-D2, and riprap outlet protection). Do not disturb existing vegetation immediately upslope of the infiltration berms. Permanently stabilize the disturbed area related to these improvements.
- Construct Swale D2 and riprap outlet protection. Install temporary matting as specified and permanently stabilize the swale.
- Enlargement of Detention Basin B may begin. Remove existing headwall and install the proposed basin outlet structure (I-B1). Install the stone filter berm around the outlet structure. Permanently stabilize the disturbed areas related to these improvements.
- Enlargement of Retention Basin D may begin. Dewater the existing basin and discharge the water into Infiltration Berm D2. Install the basin outlet structure (I-D4), FES-D3, outlet pipe with cradle, anti-seep collars, and riprap outlet protection. Open the drain valve. Remove the existing outlet structure and permanently cap the existing outlet pipe. Install the stone filter berm around the outlet structure. Permanently stabilize the disturbed areas related to these improvements.
- Install FES-D5, I-D6, FES-D7, I-D8, and FES-D9, along with related stormpiping and riprap outlet protection. Permanently stabilize the disturbed area related to these improvements.
- Construct Swale D1. Install permanent matting as specified and permanently stabilize the swale.
- Install Infiltration Berm D2 and Infiltration Berm B4 (along with FES-B4, I-B5, and riprap outlet protection). Do not disturb existing vegetation immediately upslope of the infiltration berms. Permanently stabilize the disturbed area related to these improvements.
- Rough grading of the site may begin. Stabilize the access drives and parking areas with stone as soon as finished grade is achieved.
- Installation of the sanitary sewer improvements may begin.
- Install FES-B6, I-B7, I-B8, and I-B9, along with along with related stormpiping and riprap outlet protection.
- Install FES-D10, I-D11, and I-D12, along with along with related stormpiping and riprap outlet protection. Immediately connect the existing pavilion downspouts to the storm sewer system.
- Construction of the buildings, access drives, parking facilities, and other site improvements may begin. Connect the downspouts to the storm sewer network as soon as possible.
- Complete final grading of the site. Immediately seed and mulch all areas to become lawn and encourage stabilization as quickly as possible.
- Temporary E&SC BMPs shall remain in place until all construction activities have been completed and site has reached a minimum uniform 70% perennial vegetative cover.
- Upon achieving a minimum uniform 70% perennial vegetative cover of all areas, temporary sediment control facilities may be removed. Stabilize areas disturbed by removal of these facilities.
- Close the Basin D drain valve.
- Complete the paving of the access drives and parking areas.

B. TEMPORARY E&SC BMPs AND FACILITIES

- Topsoil Stockpiles – shall be used to contain all stripped topsoil in a limited area in order to keep the disturbed are to a minimum. Stockpiles shall be stabilized with a temporary cover crop of annual ryegrass (1 lb./1000 square feet) or winter rye (3.5 lb./1000 square feet) in accordance with accepted seeding practices. In the event that excess topsoil or excavated material must be removed from the site, an erosion & sedimentation control plan for all off-site disposal areas will be required.
- Rock Construction Entrance – shall be used to provide a stabilized surface where construction vehicles will exit the site onto the public roadway. All construction vehicles shall enter and leave the site at this point.
- Compost Filter Sock – shall be located as shown on the plan to slow runoff to drainage ways and to prevent sediment from flowing onto adjacent properties.
- Stone Filter Berm – shall be installed at the basin outlet structure to trap sediment and prevent sediment-laden runoff from leaving the site.
- Temporary Matting – shall be installed in all swales to minimize soil loss from the site and to assist reestablishment of permanent vegetation.
- Temporary Stabilization: Disturbed areas which will be subject to additional earthmoving activities within 12 months may be stabilized with temporary seed mixtures. Prior to seeding, apply agricultural lime at a rate of 40 lb./1,000 s.f. (1 ton/ac.) and apply 10-10-10 fertilizer at a rate of 12.5 lb./1,000 s.f. (500 lb./ac.). Work the lime and fertilizer into the soil as deeply as possible.

After application of lime and fertilizer, temporary seeding shall be applied as per the following schedule:

Seed Type	% by Wt	Min. Purity	Min. Germ. Rate	Seeding Rate	Seeding Dates
Ryegrass	100%	95%	90%	1 lb./1000 s.f. (40 lb./ac.)	Mar 1 to Sept 15
Spring Oats	100%	95%	90%	2.2 lb./1000 s.f. (96 lb./ac.)	Mar 1 to June 15
Winter Rye	100%	95%	90%	3.9 lb./1000 s.f. (168 lb./ac.)	Aug 15 to Oct 15
Annual Rye	25%	95%	90%	0.5 lb./1000 s.f.	Mar 1 to June 15
& Spring Oats	75%			1.5 lb./1000 s.f. (85 lb./ac. total)	

- Mulch – shall be applied to seeding areas to help establish a temporary grass cover and to prevent erosion. It shall be applied at a rate of 3 tons per acre. Mulch shall also be applied as a means of achieving temporary site stabilization of disturbance areas in non-germinating seasons.

C. PERMANENT E&SC MEASURES

- Permanent Vegetative Stabilization: A uniform 70% vegetative cover of erosion-resistant species shall be established on all areas of the site that are not to be paved. Permanent vegetative stabilization shall consist of proper topsoil application, lime and fertilizer application, seeding, and mulching, as outlined below.
- Topsoil Application: Graded areas shall be scarified or otherwise loosened to a depth of 3 to 5". Place topsoil at a uniform depth of 4 to 8". Topsoil shall not be placed while topsoil or subsoil is frozen or excessively wet.
- Lime & Fertilizer Application: It is recommended that a site-specific soil test be conducted in order to determine the optimal rate of lime and fertilizer application for the project site. Otherwise, apply agricultural lime at a rate of 240 lb./1000 s.f. (6 tons/ac.). Apply 10-10-20 commercial grade fertilizer at the rate of 25 lb./1,000 s.f. (1,000 lb./ac.). Blend the lime and fertilizer into the topsoil to a depth of at least 2" by raking, disking, harrowing, or other acceptable methods.
- Seeding: Sow seed uniformly by broadcast, drilling, hydro-seeding, or hand seeding methods. After seeding, areas which will eventually be mowed may be rolled with a roller weight not exceeding 65 lb./s.f. Seed shall be applied per the following schedule, as per PennDOT's Publication #408, Section 804, and manufacturer's seeding rate recommendations:

Seed Type	% by Wt	Min. Purity	Min. Germ. Rate	Seeding Rate	Seeding Dates
Formula B				Total: 4.9 lb./1000 s.f. (214 lb./ac.)	Mar 15 to Jun 1 & Aug 1 to Oct 15
• Perennial Ryegrass mixture (Lolium perenne). A combination of improved certified varieties with no one variety exceeding 50% of the total ryegrass component.	20%	97%	90%	1 lb./1,000 s.f. (41 lb./ac.)	
• Creeping Red Fescue or Chewings Fescue (Festuca rubra or ssp. commutata) (Improved & Certified)	30%	97%	85%	1.4 lb./1,000 s.f. (61 lb./ac.)	
• Kentucky Bluegrass mixture (Poa pratensis). A combination of improved certified varieties with no one variety exceeding 50% of total Bluegrass component.	45%	97%	80%	2.3 lb./1,000 s.f. (102 lb./ac.)	
• Annual Ryegrass (Lolium multiflorum)	5%	95%	90%	0.2 lb. (10 lb./ac.)	

- Mulching: Cover seeded areas with straw or old hay (free of weed seeds) at a rate of 140 lb./1,000 s.f. (3 tons/ac.) in order to aid in seed germination and to minimize erosion.
- Sodding: Sod may be installed in areas where stabilization is found to be difficult. Sod material and installation shall conform to "Guideline Specification to Sodding" by the American Sod Producer Association.

D. MAINTENANCE & INSPECTIONS

- The owner shall perform maintenance and inspection of the E&SC BMPs as outlined on the respective BMP details.
- All E&SC BMPs shall be inspected for damage after each storm. All facilities that are damaged, clogged or can no longer function as designed shall be replaced.
- All sediment removed from E&S BMPs shall be placed on the topsoil stockpile or shall be respread on the site in accordance with the grading plan, and shall be immediately stabilized.
- Any permanent seeded areas that become eroded shall have the topsoil replaced, the grass seed resown and mulch reapplied, or, at the direction of the developer, sod may be installed.

E. WASTE DISPOSAL

- All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et. Seq., Sec. 271.1 et. sec., and Sec. 287.1 et. seq. No building material or wastes or unused building materials shall be buried, dumped, or discharged at the site.

F. OWNER/DEVELOPER

The party responsible for implementation and maintenance of PCSM BMP facilities is the applicant.

G. NPDES PERMIT NOTES

- Monitoring and Reporting Requirements

a. Visual Inspections

The permittee and co-permittee must ensure that visual site inspections are conducted weekly, and within 24 hours after each measurable stormwater event throughout the duration of construction and until the receipt and acknowledgement of the Notice of Termination by the Department or authorized conservation district. The visual site inspections and reports shall be completed on a form developed by the Department, and conducted by qualified personnel trained and experienced in erosion and sediment control, to ascertain that E&S, PCSM, and PPC BMPs are properly constructed and maintained to effectively minimize pollution to the waters of the Commonwealth. A written report of each inspection shall be kept, and include:

- a summary of site conditions, E&S and PCSM BMPs, and implementation, maintenance and compliance actions; and
- the date, time, name and signature of the person conducting the inspection.

b. Licensed Professional Oversight of Critical Stages

A licensed professional or a designee shall be present onsite and be responsible for oversight of critical stages of implementation of the approved PCSM Plan. The critical stages may include the installation of underground treatment or storage BMPs, structurally engineered BMPs, or other BMPs as deemed appropriate by the Department or the conservation district.

Contact Diehm & Sons at (717) 626-0175, prior to implementation of the following critical stages of BMP installation for this project:

- Enlargement of Retention Basin D, including the installation of the outlet pipe, cradle, anti-seep collars, and outlet structure;

c. Non-compliance Reporting

Where E&S, PCSM, or PPC BMPs are found to be inoperative or ineffective during an inspection, or any other time, the permittee and co-permittee shall, within 24 hours, contact the Department or authorized conservation district, by phone or personal contact, followed by the submission of a written report within 5 days of the initial contact. Non-compliance reports shall include the following information:

- any condition on the project site which may endanger public health, safety, or the environment, or involve incidents which cause or threaten pollution;
- the period of non-compliance, including exact dates and times and/or anticipated time when the activity will return to compliance;
- steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance; and
- the date or schedule of dates, and identifying remedies for correcting non-compliance conditions.

d. Supplemental Monitoring

The Department or authorized conservation district may require additional monitoring where an increased risk of potential pollution is present, or water pollution is suspected to be occurring from a construction activity subject to this general permit. The permittee or co-permittee shall commence such monitoring upon notification from the Department or authorized conservation district.

e. Availability of Reports

Except for data determined to be confidential under Section 607 of the Clean Streams Law, all reports and other information prepared in accordance with the terms of the permit shall be available for public inspection at the appropriate Department Regional Office or authorized conservation district.

- Record Keeping

a. Retention of Records

The permittee and co-permittee shall retain records of all monitoring information including copies of all monitoring and inspection reports required by this permit, all monitoring information (including site log book, calibration and maintenance records) and records of data used to complete the Notice of Intent for this permit, for a period of three years from the date of the termination of coverage under this permit.

b. Reporting of Monitoring Reports

Visual inspection monitoring results shall be submitted to the Department or authorized conservation district upon request.

- Discharges Consistent with Terms and Conditions of the Permit

All discharges authorized by the NPDES permit shall be consistent with the terms and conditions of the permit.

- Notice of Termination

a. Termination of Coverage

Upon permanent stabilization of the earth disturbance activity and installation of BMPs in accordance with an approved plan, the permittee and/or co-permittee shall submit a Notice of Termination (NOT) to the Department or authorized conservation district. The NOT must include:

- The facility name, address and location;
- The operator name and address;
- The NPDES permit number;
- The reason for permit termination;
- Identification of the persons who have agreed to and will be responsible for long-term operation and maintenance of the PCSM BMPs;

Until the permittee or co-permittee has received written approval of the NOT, the permittee or co-permittee will remain responsible for compliance with the permit terms and conditions, including long-term operation and maintenance of all PCSM BMPs on the project site. The Department or authorized conservation district will conduct a follow up inspection and approve or deny the NOT within 30 days of receipt.

b. Final Certification

The permittee shall include with the NOT "Record Drawings" with a final certification statement from a licensed professional, which reads as follows:

"I (name) do hereby certify pursuant to the penalties of 18 Pa. C.S.A. §4904 to the best of my knowledge, information and belief, that the accompanying record drawings accurately reflect the as-built conditions, are true and correct, and are in conformance with Chapter 102 of the Rules and Regulations of the Department of Environmental Protection and that the project site was constructed in accordance with the approved PCSM Plan, all approved plan changes, and accepted construction practices."

The permittee shall retain a copy of the record drawings as a part of the approved PCSM Plan. The permittee shall also provide a copy of the record drawings as part of the approved PCSM Plan to the persons identified as responsible for the long-term operation and maintenance of PCSM BMPs. The permittee shall also provide copies of both the record drawings and the long-term operation and maintenance plan to the Department, authorized conservation district, and municipality.

- Recorded Legal Instrument

For any property containing a PCSM BMP, the permittee or co-permittee shall record an instrument with the Recorder of Deeds which will assure disclosure of the PCSM BMP and the related obligations in the ordinary course of a title search of the subject property. The recorded instrument must identify the PCSM BMP, provide for necessary access related to long-term operation and maintenance for PCSM BMP and provide notice that the responsibility for long-term operation and maintenance of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees, and provide proof of filing with the notice of termination.

H. ENVIRONMENTAL DUE DILIGENCE AND CLEAN FILL

- The applicant/operator shall be responsible to perform environmental due diligence to determine/certify that any fill imported onto the site or exported from the site meets DEP's definition of clean fill as required in the NPDES permit application.
- Fill exported from the site shall be to a site with an erosion and sedimentation control plan.
- Clean fill is defined as uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)
- Environmental due diligence is defined as investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance.

I. AREAS OF SPECIAL CONCERN

- Sinkhole Repair – Due to the variable nature of sinkholes, they should be repaired under the direct observation and supervision of a professional geologist or licensed geotechnical engineer. Figures 17.2 and 17.3 are provided as general guidelines for the repair of sinkholes. They may be modified as necessary to accommodate specific site conditions. Site-specific sinkhole repair plans will be reviewed on a case-by-case basis.

SOIL LIMITATIONS AND RESOLUTIONS

UoC	LOW PH LOW STRENGTH MODERATE FROST ACTION POOR TOPSOIL SUITABILITY SEEPAGE	APPLY LIMESTONE ACCORDING TO SOIL TEST PERFORM SOIL BEARING TESTS FOR STRUCTURES & MINIMIZE SLOPE OF CUT BANKS UTILIZE PROPER FOUNDATION DEPTH AND PAVING BASE STOCKPILE & PRESERVE EXISTING TOPSOIL PROPER BERM COMPACTION & ANTI-SEEP COLLARS
UoD	MODERATE FROST ACTION LOW PH OUTBANK CAVING	UTILIZE PROPER FOUNDATION DEPTH AND PAVING BASE APPLY LIMESTONE ACCORDING TO SOIL TESTS SHORE EXCAVATION AS NEEDED

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