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## MINOR REVISION TO LAND DEVELOPMENT PLAN FOR PROPOSED WAREHOUSE AT 2450 GETTYSBURG ROAD

CUMBERLAND COUNTY  
CUMBERLAND TOWNSHIP

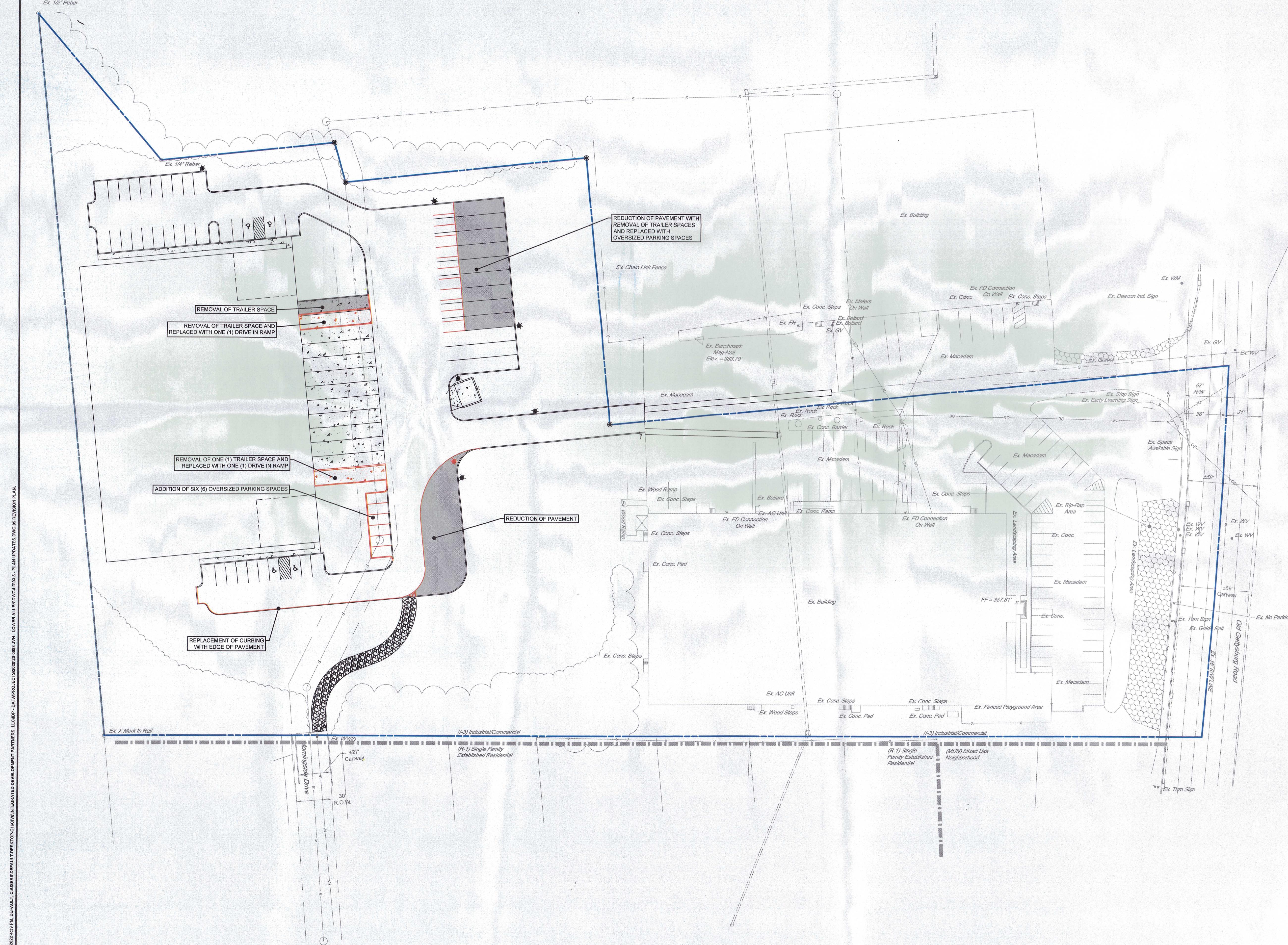
### LEGEND

SITE PLAN	
	PROPOSED CONCRETE
	PROPOSED LIGHT STANDARD
	PROPOSED CURB

### LEGEND

SITE PLAN	
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED STANDARD DUTY PAVEMENT
	PROPOSED HEAVY DUTY PAVEMENT
	PROPOSED STRIPING
	PROPOSED STRIPED AREA
	PROPOSED HANDICAP PARKING SPACE
	PROPOSED LIGHT STANDARD
	PROPOSED CENTERLINE
	PROPOSED CURB
	SITE SIGN
	PROPOSED IRON PIN

NOTE: THIS PLAN IS INTENDED TO REPRESENT THE MODIFICATIONS  
BETWEEN THE CURRENT DESIGN AND THE DESIGN APPROVED BY THE  
TOWNSHIP BOARD OF COMMISSIONERS AT THEIR MEETING ON  
JANUARY 25, 2021.



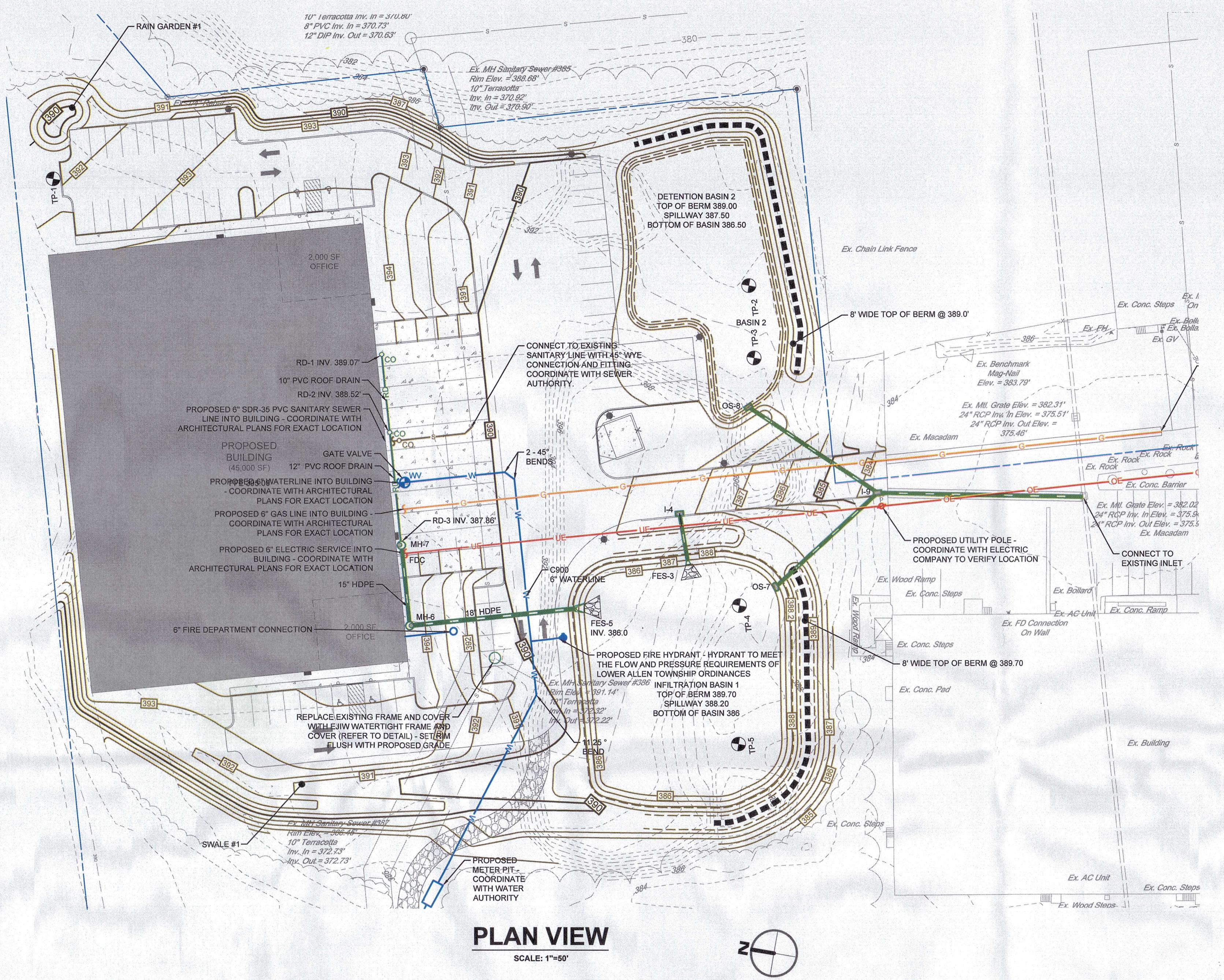




## **MINOR REVISION TO LAND DEVELOPMENT PLAN**

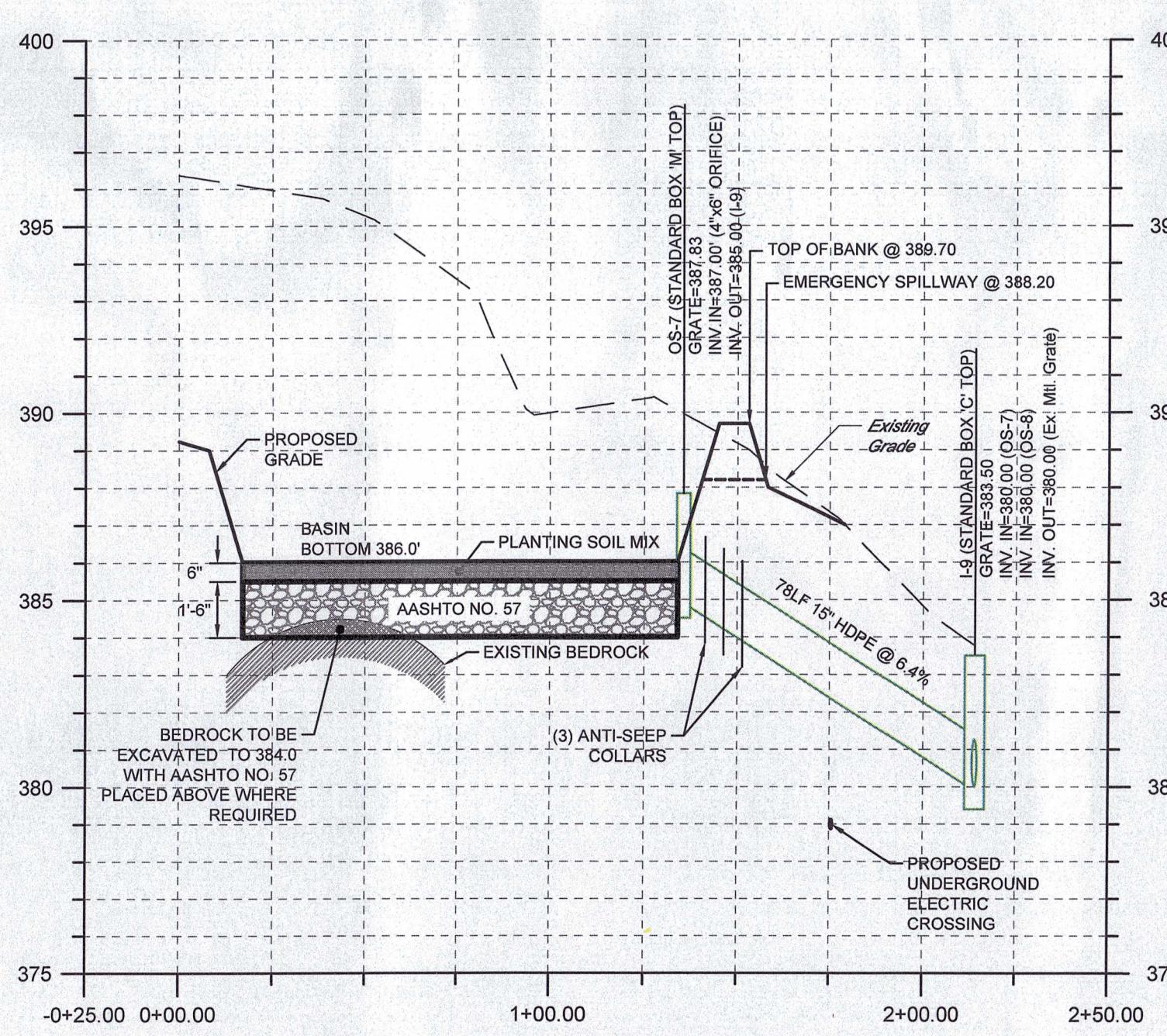
# PROPOSED WAREHOUSE AT 245 E 20TH

**2500 GETTYSBURG ASSOCIATES, LLC**  
**LOWER ALLEN TOWNSHIP**  
**CUMBERLAND COUNTY**



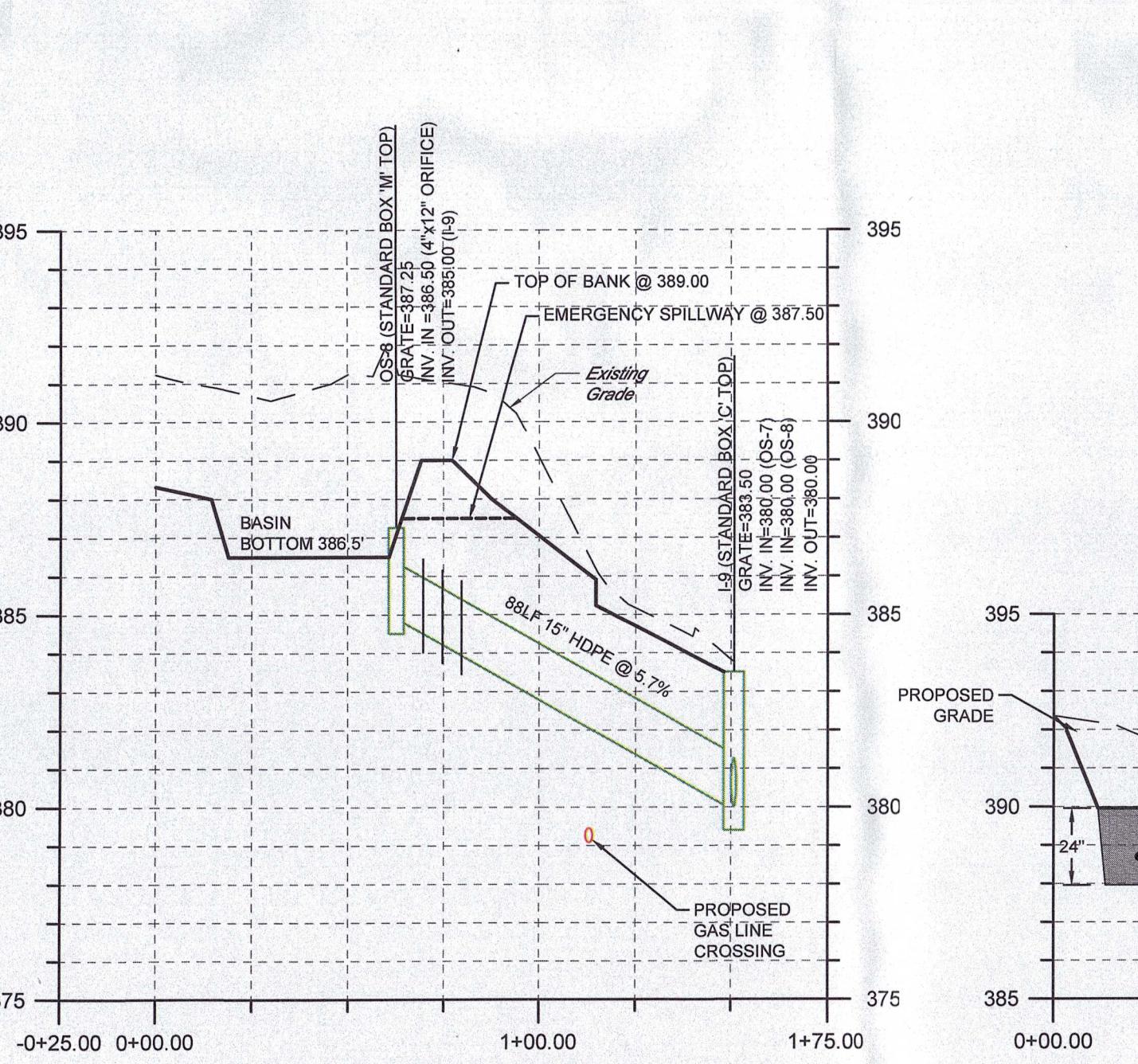
## **PLAN VIEW**

**SCALE: 1"=50'**



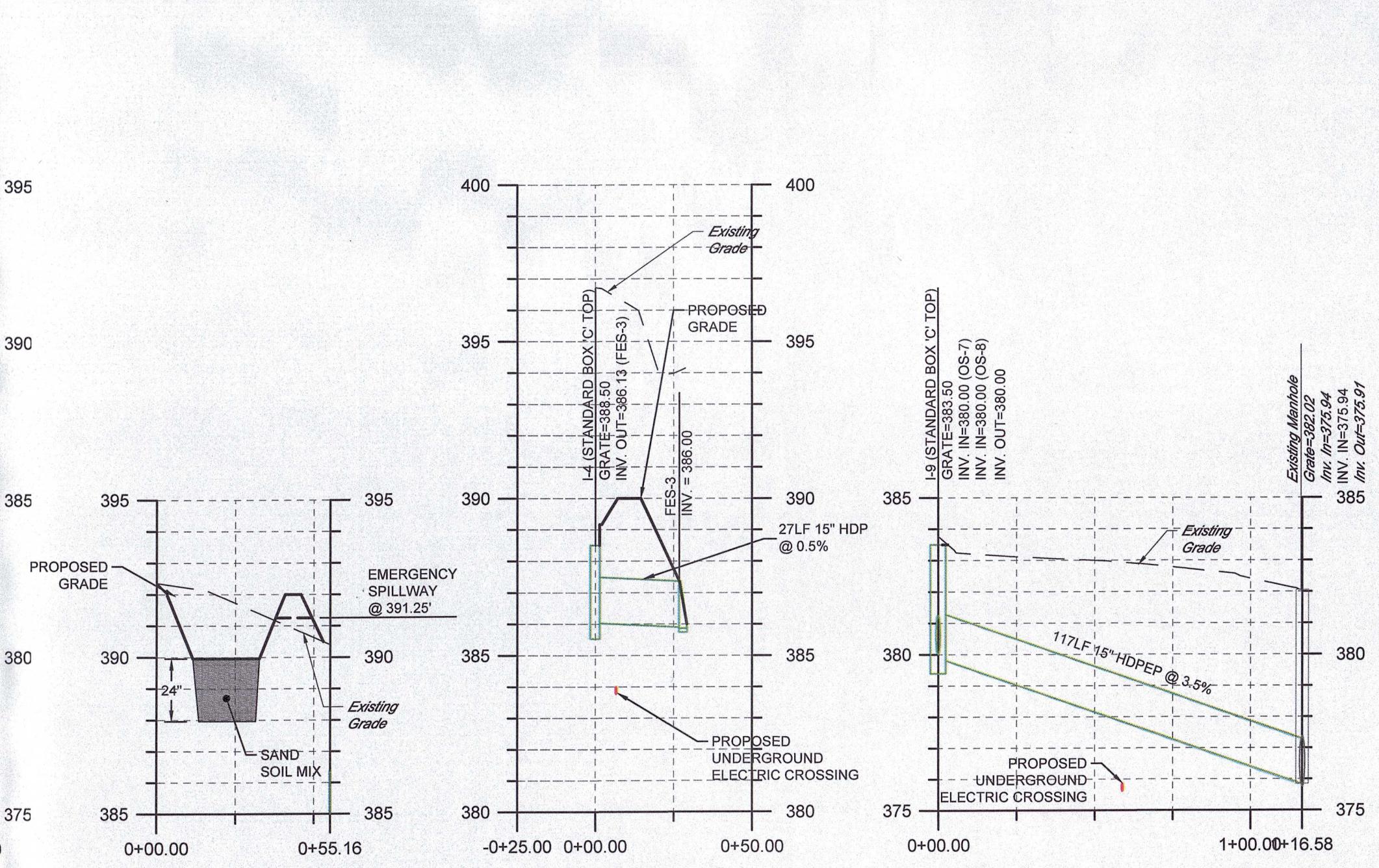
# **INFILTRATION BASIN #1**

HORZ. SCALE: 1"-40'  
VERT. SCALE: 1"-4'



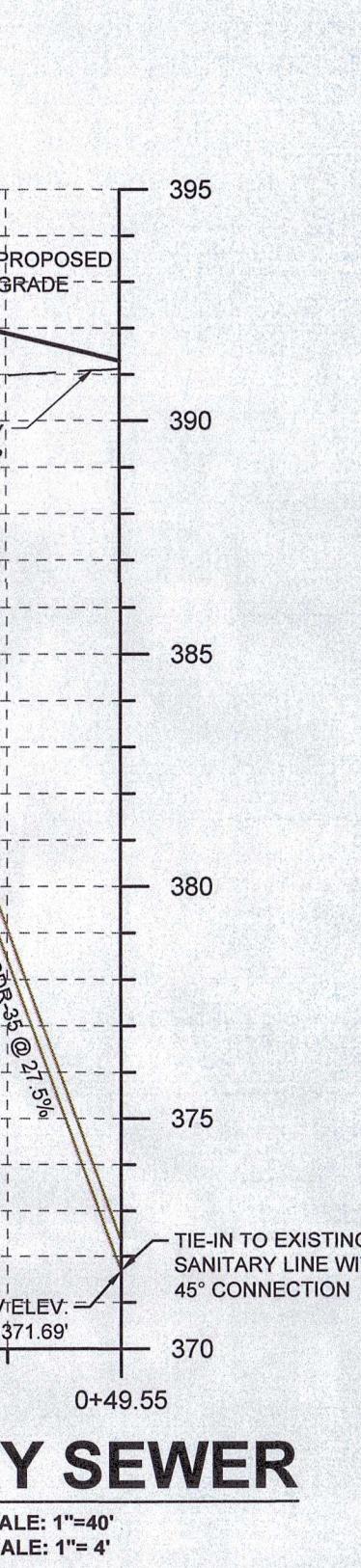
# **DETENTION BASIN #2**

NOTE: REFER TO GEOTECHNICAL ENGINEER REPORT



## **RAIN GARDEN**

NOTE: REFER TO GEOTECHNICAL ENGINEER REPORT



# **SANITARY SEWER**

HORZ. SCALE: 1"=40'  
VERT. SCALE: 1"= 4'

**PROFESSIONAL SEAL**

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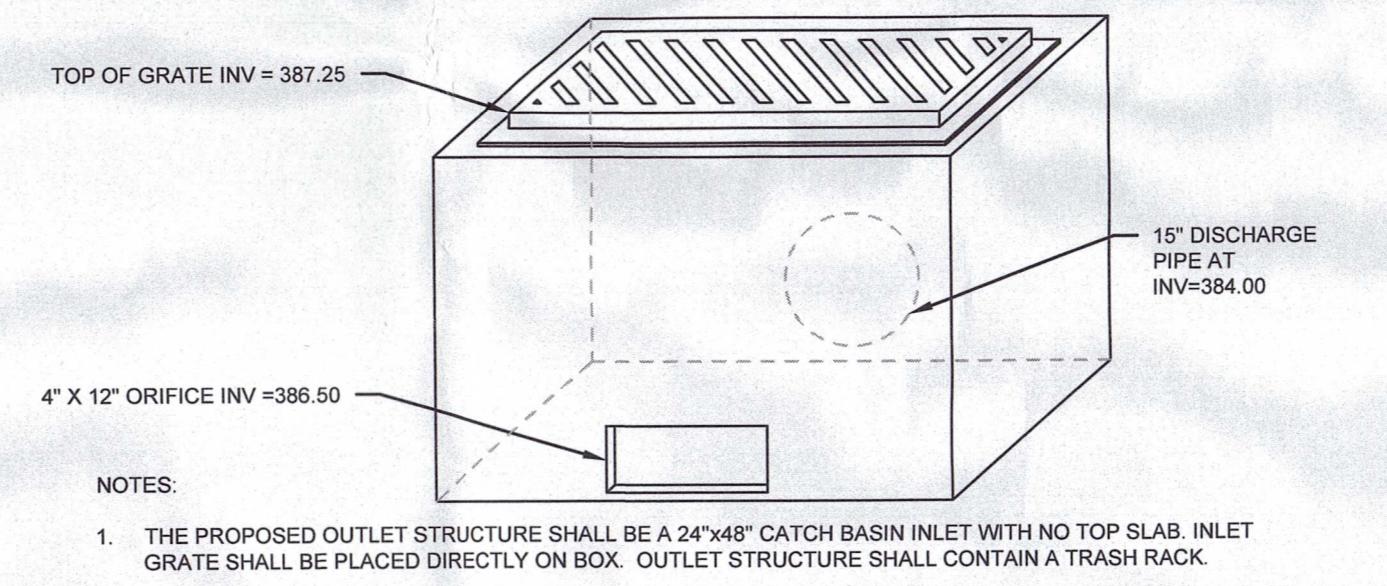
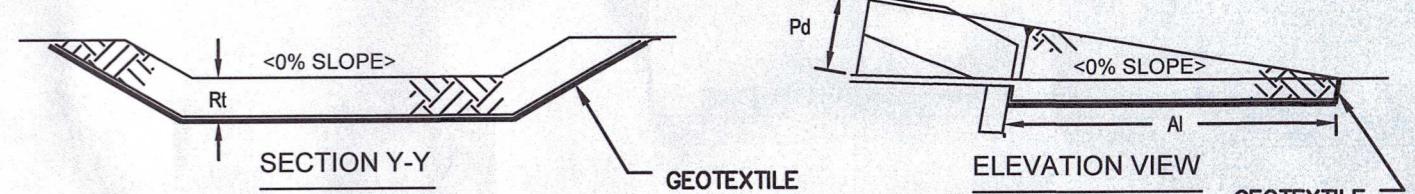
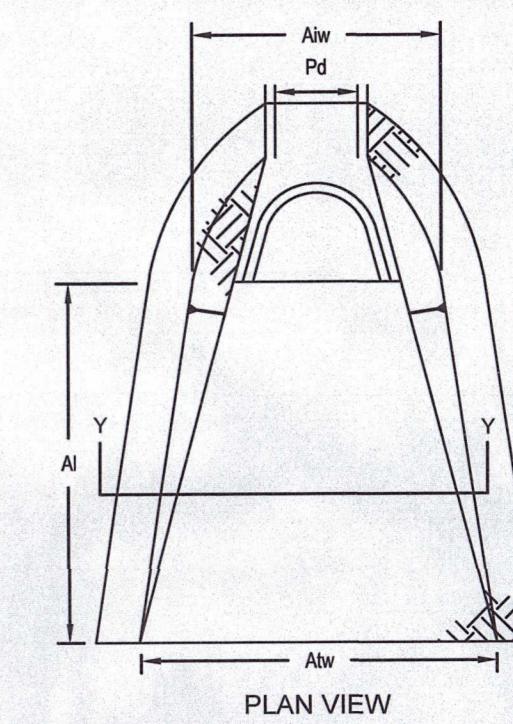
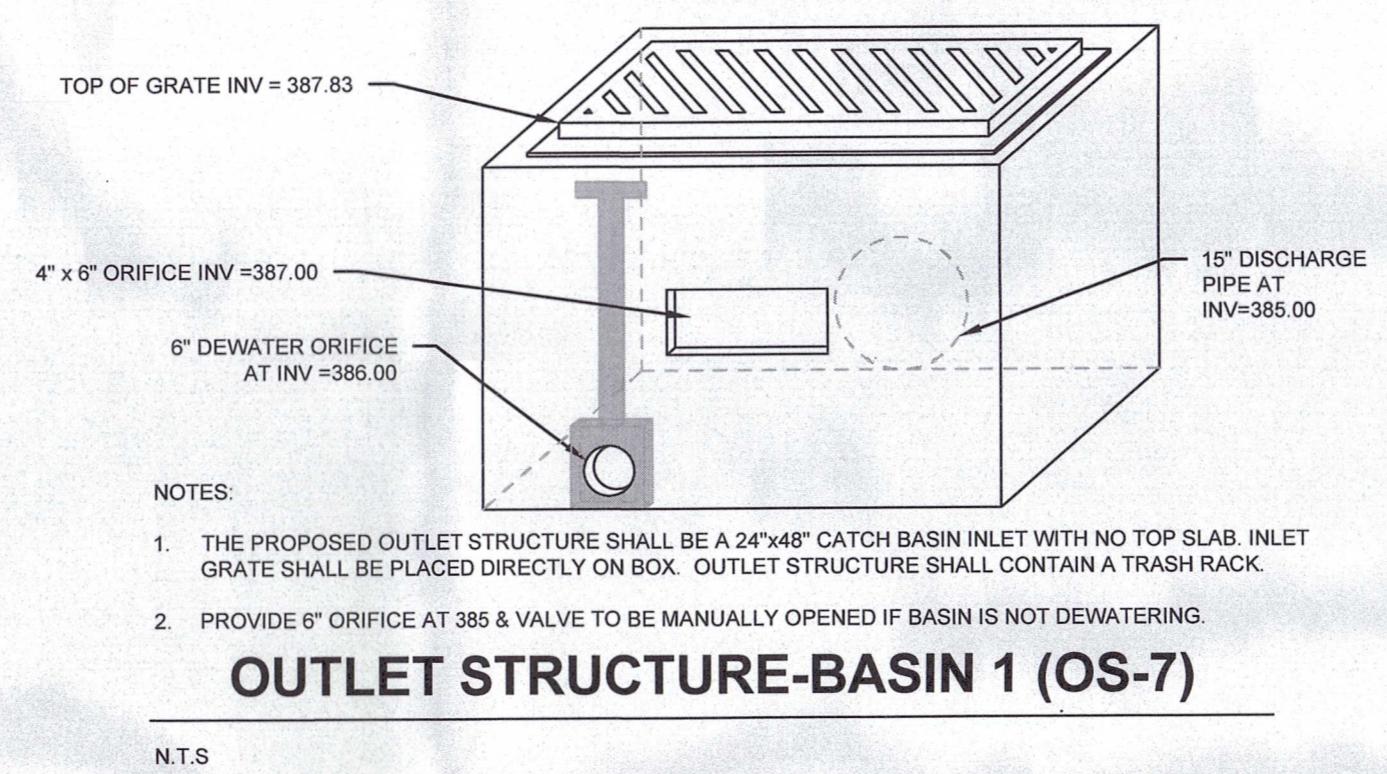
DRAWN AML/MLS  
REVIEWED TLD  
SCALE AS NOTED  
DATE SEPTEMBER 29, 2022  
PROJECT NO. 22-0240  
CAD FILE:

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## ADDITIONAL O&M PROGRAM FOR BMPs

- THE PURPOSE OF THESE INSTRUCTIONS IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED RANGARDEN. THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE PERMIT APPLICANT (PERMITTEE).
- ALL PCSM BMPS WILL BE INSPECTED ACCORDING TO THE SCHEDULES LISTED BELOW. A WRITTEN REPORT MUST BE COMPLETED DOCUMENTING EACH INSPECTION AND ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.
- SOIL, TRASH, DEBRIS OR OTHER MATERIALS REMOVED FROM PCSM BMPs SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 27.1, AND 287.1 ET SEQ. NO WASTES, UNUSED BUILDING MATERIALS OR OTHER MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL DAMAGED OR NON-FUNCTIONAL BMPs SHALL BE REPAIRED IMMEDIATELY. ANY PCSM BMPs THAT CANNOT BE REPAIRED MUST BE REPLACED AS SOON AS PRACTICABLE.
- THE PERMIT APPLICANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PERMANENT STORMWATER FACILITIES LOCATED ON THE SUBJECT PROPERTIES. PERMANENT MAINTENANCE OF THE STORM SYSTEM AFTER ACCEPTANCE WILL PRIMARILY CONSIST OF ROUTINE CLEANING OF ACCUMULATED SEDIMENT AND DEBRIS BY FACILITY STAFF OR PRIVATE CONTRACTORS. THE SPECIFIC MAINTENANCE STEPS AND SCHEDULE ARE LISTED BELOW.
- AT A MINIMUM, ALL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSPECTED BY THE LAND OWNER/DEVELOPER OR RESPONSIBLE ENTITY ANNUALLY FOR THE FIRST 5 YEARS, ONCE EVERY 3 YEARS THEREAFTER, AND DURING OR IMMEDIATELY AFTER THE CESSION OF A 100-YEAR OR GREATER STORM EVENT.

DRY EXTENDED DETENTION BASIN	
OPERATION & MAINTENANCE PROCEDURES	
ACTIVITY	SCHEDULE
REPAIR UNDERCUT OR ERODED AREAS, MOW SIDE SLOPES, SEED OR SOD TO REPAIR DEAD OR DAMAGED GROUND COVER.	AS NEEDED
ALL BASIN STRUCTURES EXPECTED TO RECEIVE & OR TRAP DEBRIS & SEDIMENT SHOULD BE INSPECTED FOR CLOGGING & EXCESSIVE DEBRIS & SEDIMENT ACCUMULATION AS WELL AS AFTER EVERY STORM GREATER THAN 1 INCH.	FOUR TIMES PER YEAR
NOTE EROSION OF POND BANKS OR BOTTOM.	SEMI-ANNUAL
INSPECT FOR DAMAGE TO THE EMBANKMENT. MONITOR FOR SEDIMENT ACCUMULATION IN THE FACILITY & FOREBAY. EXAMINE TO ENSURE THAT INLET & OUTLET DEVICES ARE FREE OF DEBRIS & OPERATIONAL. INSPECT VEGETATED AREAS FOR EROSION & INVASIVE SPECIES.	ANNUAL
REMOVE SEDIMENT FROM THE FOREBAY (IF APPLICABLE).	5-7 YEAR MAINTENANCE
MONITOR SEDIMENT ACCUMULATIONS, & REMOVE SEDIMENT WHEN THE POND VOLUME HAS BEEN REDUCED BY 25%.	25-50 YEAR MAINTENANCE
GENERAL MAINTENANCE NOTES:	
1. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY.	
2. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95%.	
3. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REESTABLISHED.	

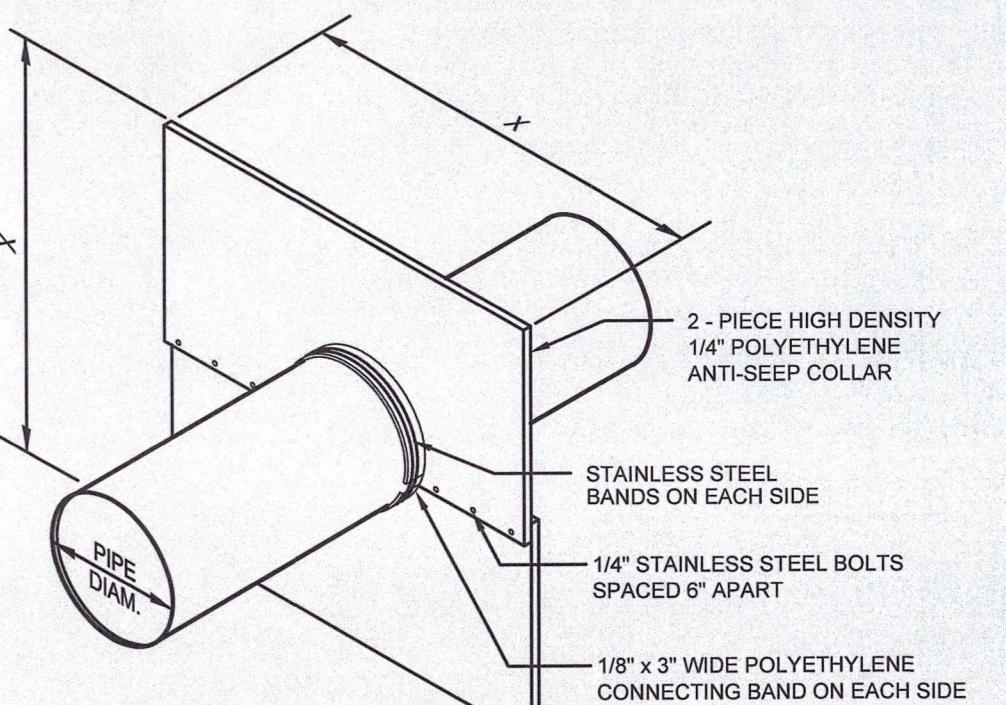


ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.  
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

## RIPRAP APRON AT PIPE OUTLET WITH FLARED ENWALL

N.T.S.

PAGE #9-1



OUTLET PIPE DESIGNATION	NUMBER OF COLLARS	COLLAR SPACING (FT)	X (INCHES)	DISTANCE FROM OUTLET STRUCTURE (FT)
BASIN 1	3	5	34	5
BASIN 2	3	4	29	5

- NOTES:  
1. SEE BASIN EMBANKMENT DETAIL FOR LOCATION WITHIN BERM.  
2. APPLY MASTIC TO CONNECTING BANDS AND SET IN PLACE. BOLT HALVES TOGETHER & INSTALL METAL BANDS ON SPLIT HALVES OF COLLAR. TIGHTEN BOLTS AND BANDS. APPLY MASTIC AS NEEDED TO INSURE GOOD SEAL. BACKFILL AND HAND TAMP.  
3. DO NOT LOCATE AN ANTI-SEEP COLLAR CLOSER THAN 2 FEET TO A PIPE JOINT.

## HDPE ANTI-SEEP COLLAR DETAIL

N.T.S.

SPILLWAY DESIGNATION	CREST LENGTH (FT)	CREST ELEV. (FT)	TOP OF BERM ELEV. (FT)	Z	SPILLWAY SURFACE LINING
BASIN 1	30	388.20	389.70	3	NAG C350 OR APPROVED EQUAL
BASIN 2	20	387.50	389.00	3	NAG C350 OR APPROVED EQUAL

## GRASS-LINED SPILLWAY

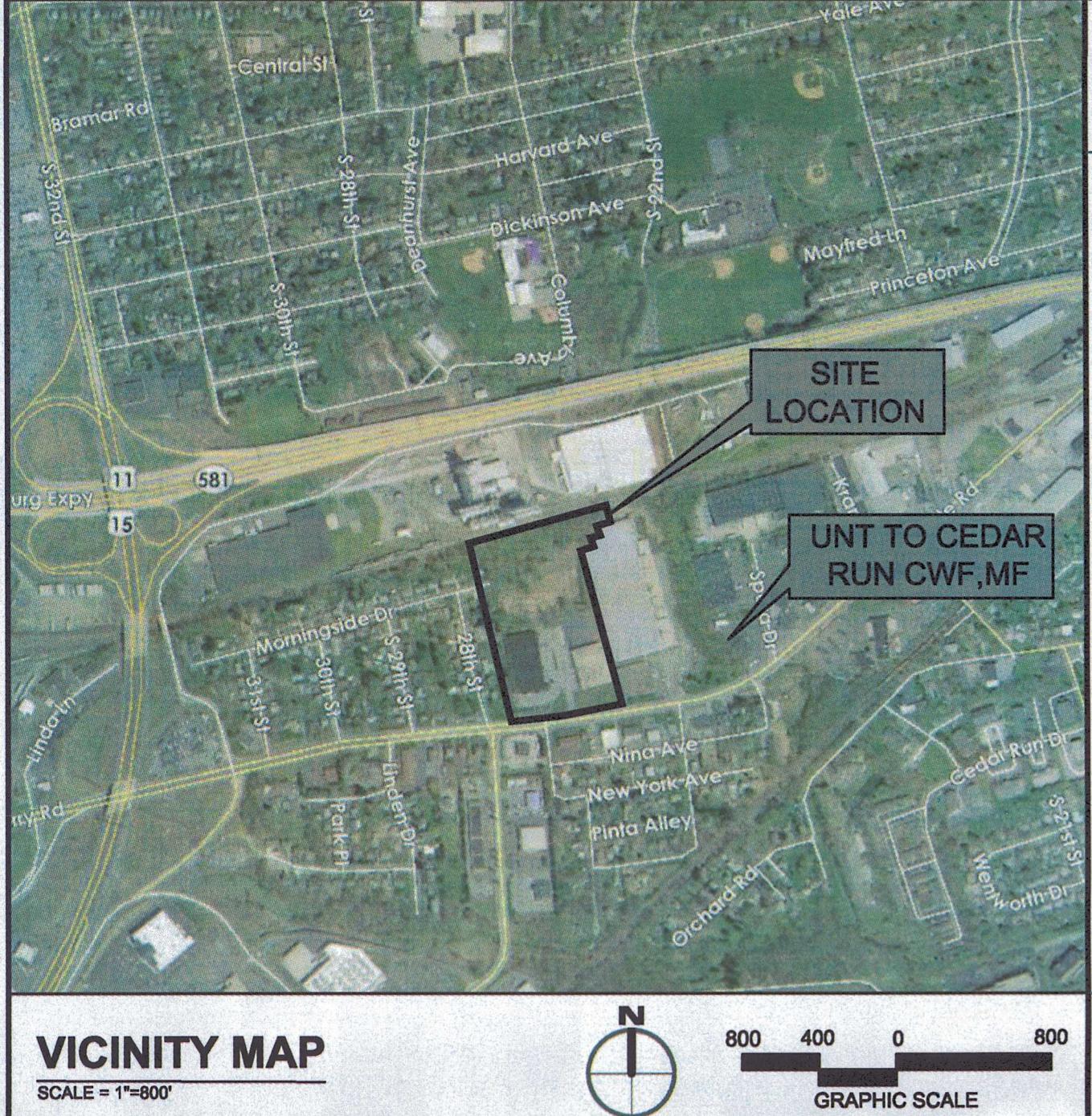
N.T.S.

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PROFESSIONAL SEAL  
DRAWN AML/MLS  
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SCALE AS NOTED  
DATE SEPTEMBER 29, 2022  
PROJECT NO. 22-0240  
CAD FILE: 09 - DETAILS

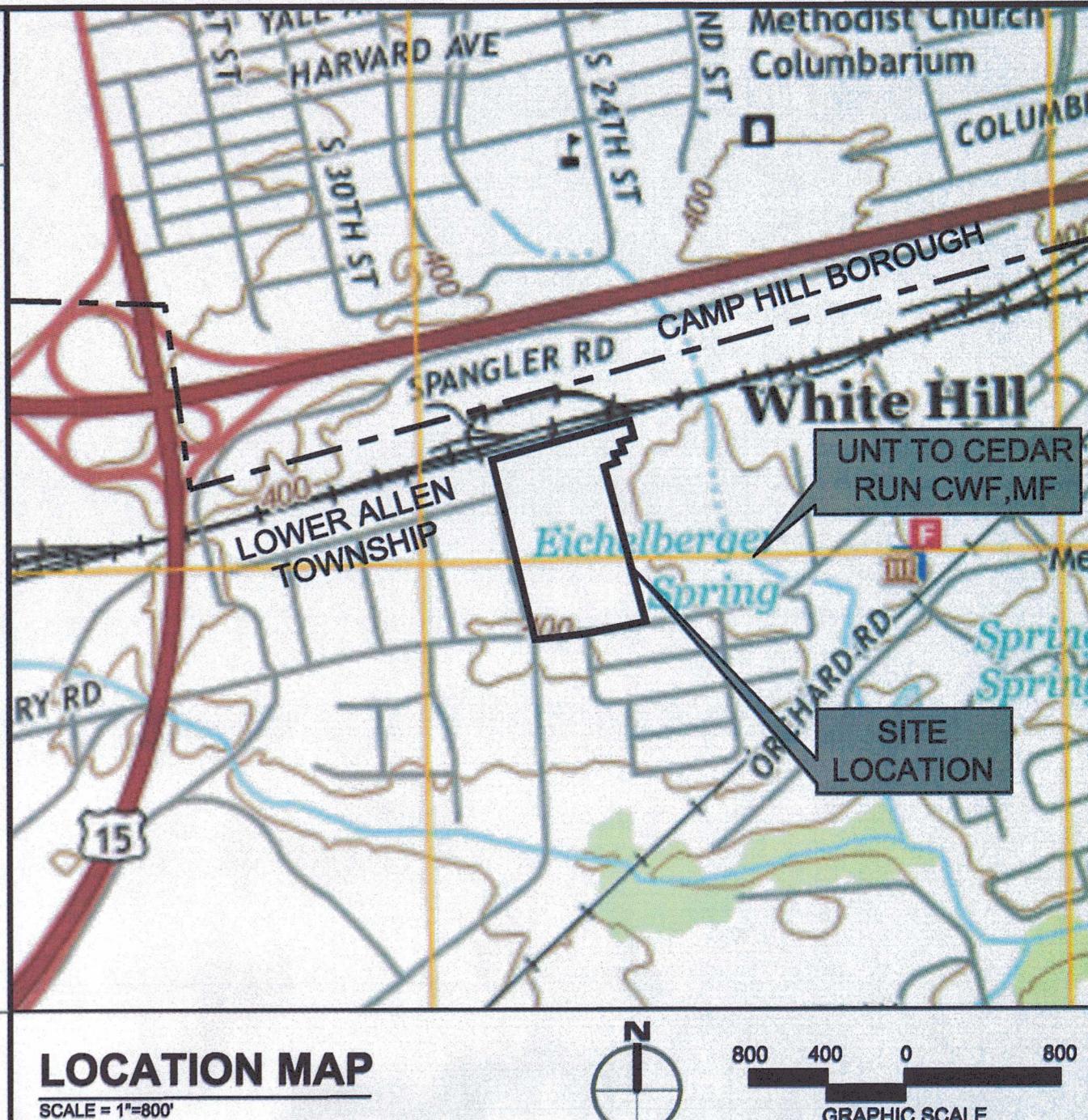
REVISIONS  
NO. DATE DESCRIPTION  
TITLE  
**DETAILS**  
SHEET NO.  
06 of 06



# MAJOR AMENDMENT POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

## PROPOSED WAREHOUSE AT 2450 GETTYSBURG ROAD

FOR  
2500 GETTYSBURG ASSOCIATES, LLC  
LOWER ALLEN TOWNSHIP  
CUMBERLAND COUNTY, PENNSYLVANIA



### PLAN PREPARERS

INTEGRATED CONSULTING  
430 NORTH FRONT STREET  
WORMLEYSBURG, PA 17043

TELEPHONE: 717-386-1362  
CONTACT: JUSTIN KUHN, P.E.  
EMAIL ADDRESS: Justin@IntegratedDP.com



### LANDOWNER AND DEVELOPER

2500 GETTYSBURG ASSOCIATES, LLC  
1503 LETCHWORTH ROAD  
CAMP HILL, PA 17011

CONTACT: BRENT BAUMAN  
TELEPHONE: 717-512-1106

### RECEIVING STREAMS (WATERSHED):

UNIT TO CEDAR RUN CWF, MF

### SHEET INDEX

Sheet Number	Sheet Title
01	COVER SHEET
02	EXISTING CONDITIONS PLAN
03	DEMOLITION PLAN
04	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
05	PROFILES
06	DETAILS
07	DETAILS

### SEED FORMULAS

CONFORMING TO THE PENNSYLVANIA SEED ACT OF 1985 (ACT NO. 187) AND AMENDMENTS, AND REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY.

THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY, CONDUCT PURITY AND GERMINATION ANALYSIS, FOLLOWING THE CURRENT REGULATIONS FOR TESTING SEEDS, OF THE ASSOCIATION OF OFFICIAL SEED ANALYSTS.

USE KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS, CREEPING RED FESCUE, CHEWING FESCUE, HARD FESCUE, AND BIRDSFOOT TREFOIL SEED.

USE SEED, PRETESTED BY THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE, IN 10-POUND (NET) WATERPROOF CONTAINERS, WITH A TAG ATTACHED TO EACH BAG.

USE A PREMIED SEED WITH AN INSPECTION TAG, STAMPED, DATED, AND SIGNED BY THE DEPARTMENT OF AGRICULTURE INSPECTOR SEWN OR STAPLED TO THE OUTSIDE OF EACH BAG. DO NOT USE SEED FROM CONTAINERS THAT ARE NOT SEALED OR THAT HAVE BEEN STORED WITH HERBICIDES.

DO NOT USE SEED, UNLESS IT HAS BEEN INSPECTED AND SAMPLED, AS SPECIFIED, OR SAMPLED BY INDIVIDUAL SPECIES AND LOT NUMBER, AND MIXED, ON THE PROJECT, UNDER DEPARTMENT SUPERVISION.

PERMANENT SEED MIXTURES:

A. LAWN SEEDING MIXTURE:  
SPECIES: 15 % PERENNIAL RYEGRASS (BLEND OF 3 IMPROVED HYBRIDS)  
25 % FINE LEAF OR CREEPING FESCUE (BLEND OF 3 IMPROVED HYBRIDS)  
60 % KENTUCKY BLUEGRASS (BLEND OF 3 IMPROVED HYBRIDS)  
SEEDING RATE: 5 LBS/1,000 SF.  
SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 15,  
UNLESS OTHERWISE APPROVED BY OWNER.

### GENERAL NOTES

#### PERMIT TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(n)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (PCSM) IN ACCORDANCE WITH § 102.8(M) (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

#### THE NOTICE OF TERMINATION MUST INCLUDE:

- (1) THE PROPERTY NAME, ADDRESS AND LOCATION.
- (2) THE OPERATOR NAME AND ADDRESS.
- (3) THE PERMIT NUMBER.
- (4) THE REASON FOR PERMIT TERMINATION.
- (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH § 102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M).

#### PCSM REQUIREMENTS

PCSM REPORTING AND RECORD KEEPING: THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

LICENSED PROFESSIONAL OVERSIGHT OF CRITICAL STAGES: A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ON SITE AND BE RESPONSIBLE DURING CRITICAL STAGES OF THE CONSTRUCTION ACTIVITY IN ACCORDANCE WITH THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF EROSION CONTROL OR STORAGE BMPs, STRUCTURALLY ENGINEERED BMPs, OR OTHER BMPs AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "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 P.A.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 THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF EROSION CONTROL OR STORAGE BMPs, STRUCTURALLY ENGINEERED BMPs, OR OTHER BMPs AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT."

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THE PERMITTER 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 AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, A NON-PROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF 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.

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.

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE:

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTER OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP. FOR ANY PROPERTY WHICH DOES NOT CONTAIN THE PRIMARY 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 BMPs 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 OWNERS, AND PROVIDED PROPER NOTICE TO THE DEPARTMENT OR THE CO-OPERATING PARTNER.

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FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTER OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP. FOR ANY PROPERTY WHICH DOES NOT CONTAIN THE PRIMARY 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 BMPs 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 OWNERS, AND PROVIDED PROPER NOTICE TO THE DEPARTMENT OR THE CO-OPERATING PARTNER.

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, A NON-PROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF 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.

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.

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE:

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTER OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP. FOR ANY PROPERTY WHICH DOES NOT CONTAIN THE PRIMARY 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 BMPs 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 OWNERS, AND PROVIDED PROPER NOTICE TO THE DEPARTMENT OR THE CO-OPERATING PARTNER.

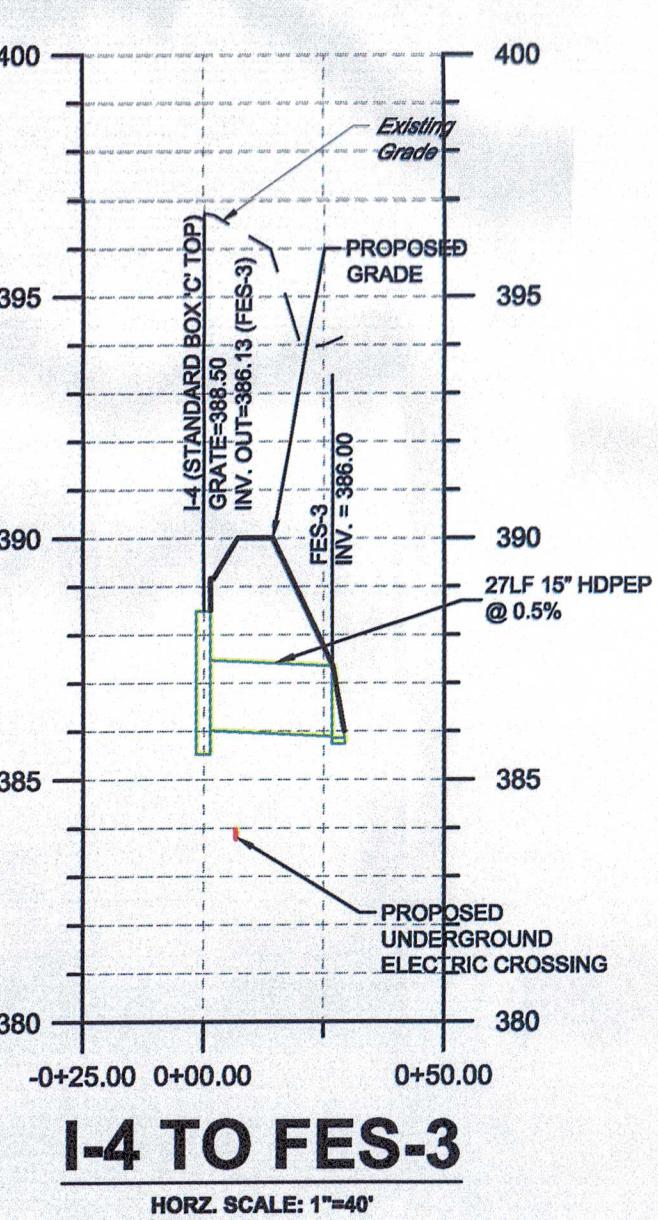
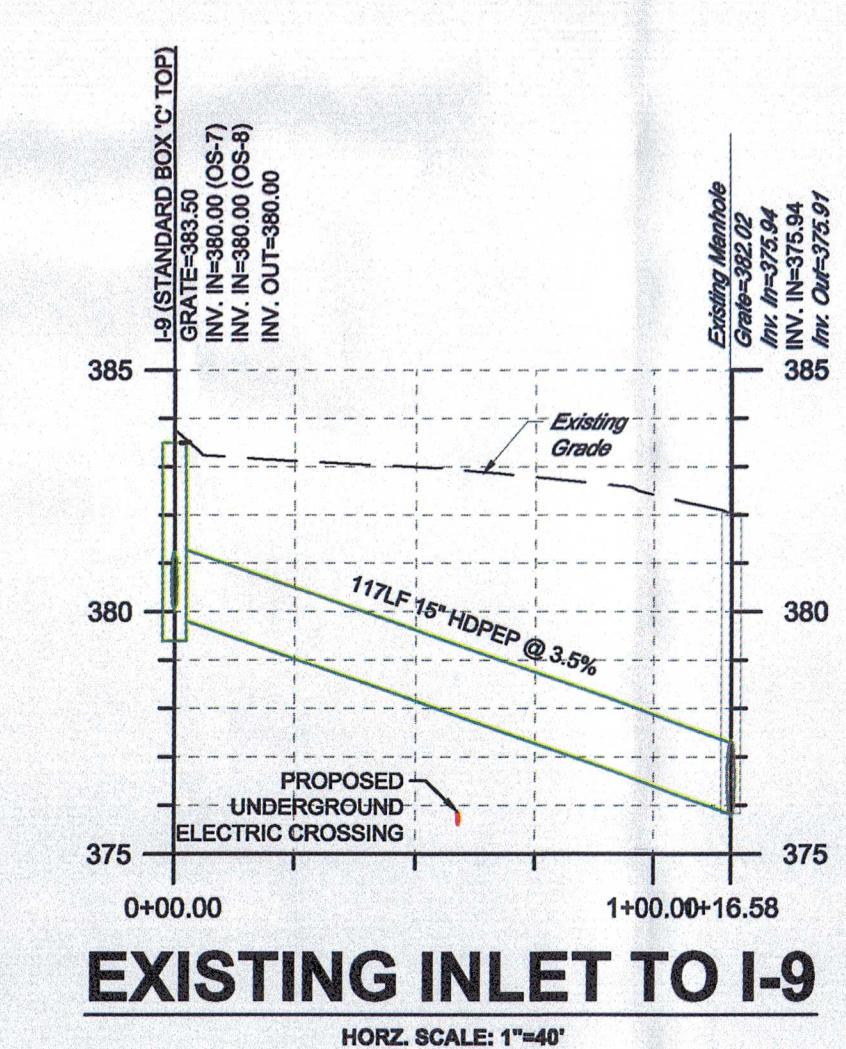
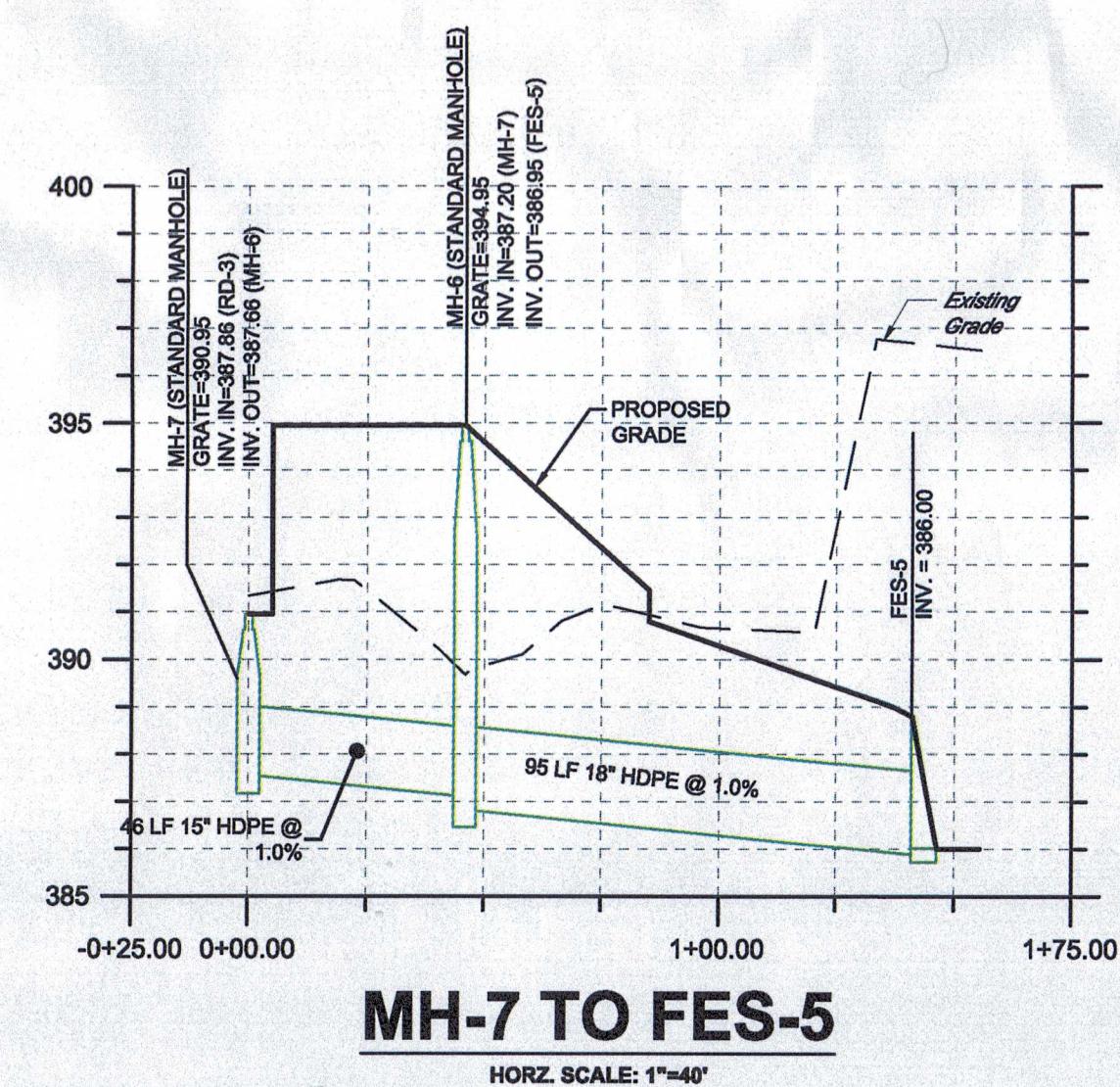
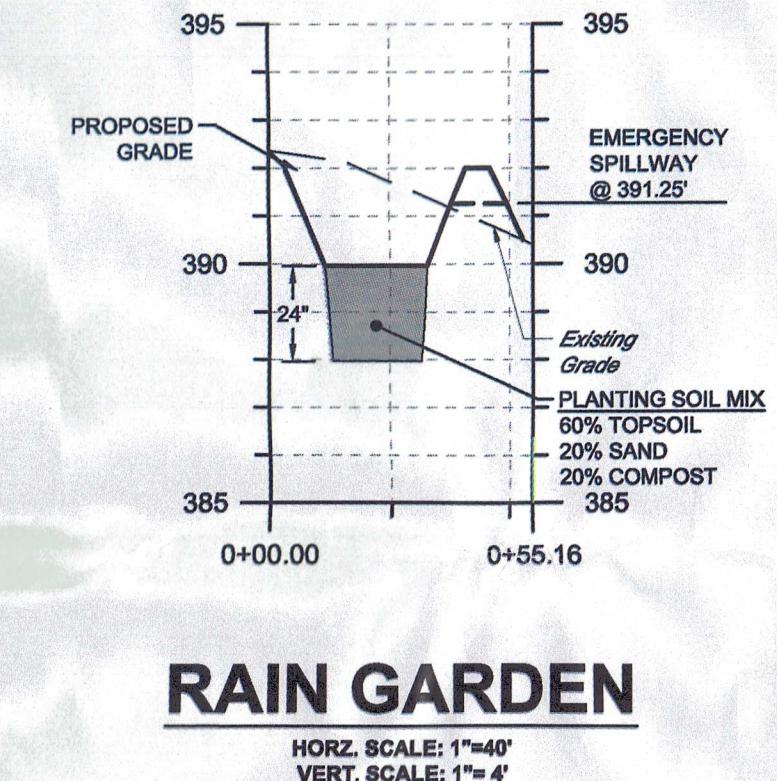
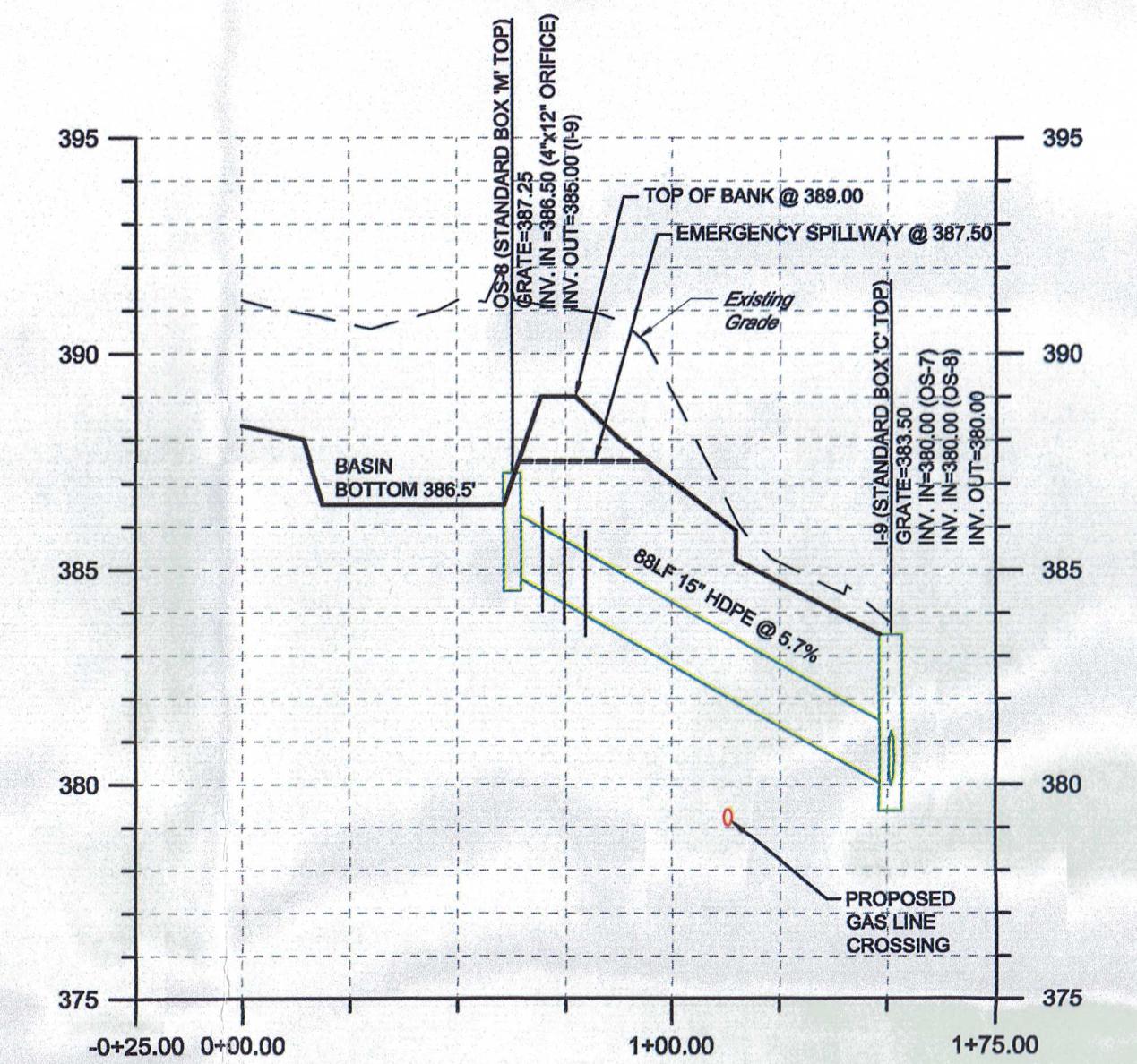
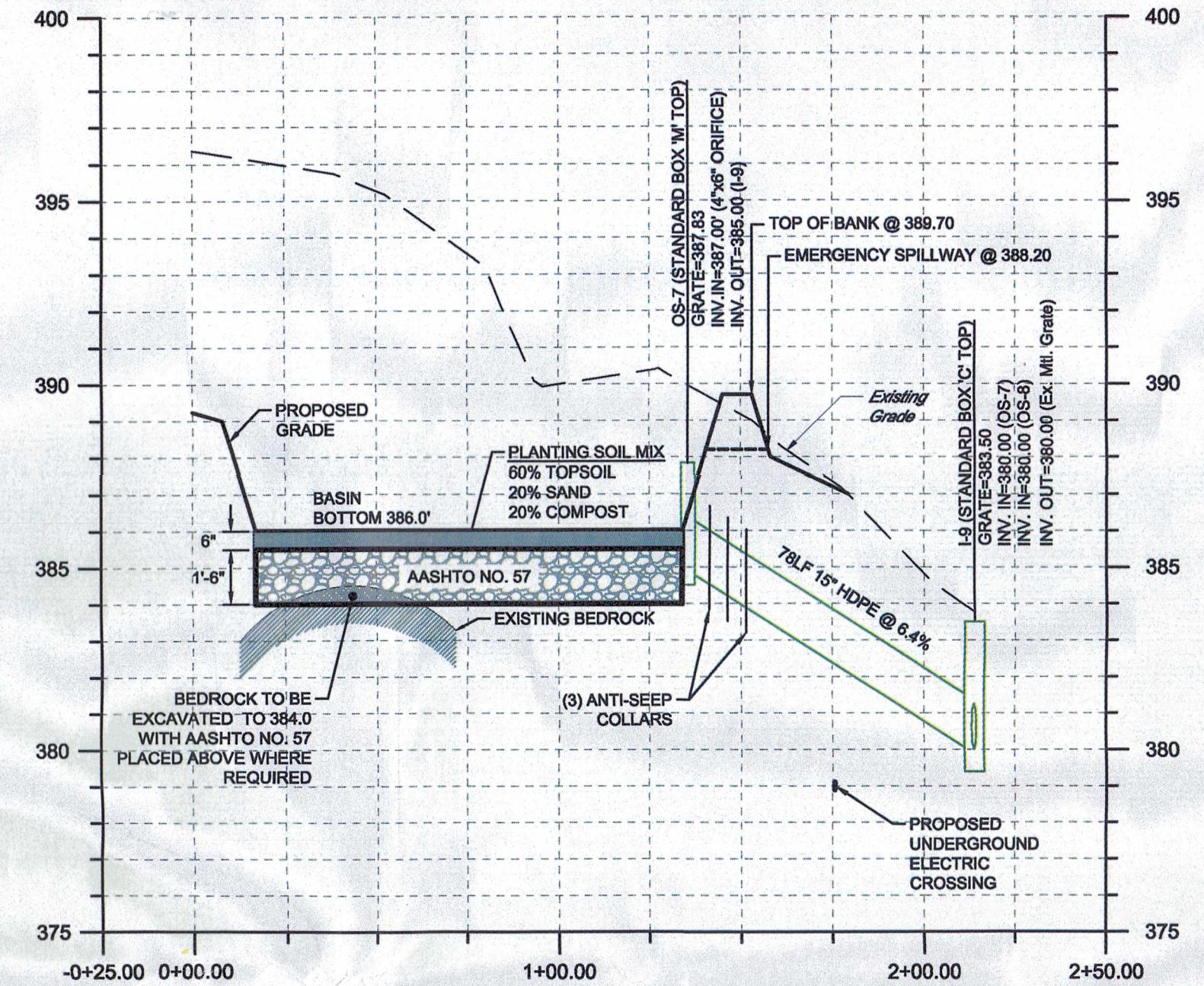






**BASIN & RAIN GARDEN SEED MIXTURE**

Native Detention Area Mix (ERNMX-183)	
Seeding Rate	20 lb per acre, or 1/2 lb per 1,000 sq ft
Mix Type	Storm Water Management Facility Sites
Species List	
25%	Deertongue, 'Tioga' (Panicum clandestinum (Dichanthelium c.), 'Tioga')
25%	Fox Sedge, PA Ecotype (Carex vulpinoidea, PA Ecotype)
20%	Virginia Wildrye, PA Ecotype (Elymus virginicus, PA Ecotype)
20%	Switchgrass, 'Shawnee' (Panicum virgatum, 'Shawnee')
5%	Autumn Bentgrass, PA Ecotype (Agrostis perennans, PA Ecotype)
2%	Ticklegrass (Rough Bentgrass), PA Ecotype (Agrostis scabra, PA Ecotype)
1%	Soft Rush (Juncus effusus)
1%	Path Rush, PA Ecotype (Juncus tenuis, PA Ecotype)
1%	Green Bulrush, PA Ecotype (Scirpus atrovirens, PA Ecotype)



**MAJOR AMENDMENT TO  
POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN  
FOR  
PROPOSED WAREHOUSE AT 2450 GETTYSBURG ROAD**

2500 GETTYSBURG ASSOCIATES, LLC  
LOWER ALLEN TOWNSHIP  
CUMBERLAND COUNTY

**PROFESSIONAL SEAL**

DRAWN	TLD
REVIEWED	JLK
SCALE	AS NOTED
DATE	10/11/2022
PROJECT NO.	22-0240
CAD FILE:	05 - PROFILES

REVISIONS	DESCRIPTION
1	11/28/2022 REVISED PER COCO REVIEW COMMENTS
2	12/27/2022 REVISED PER COCO TECHNICAL REVIEW COMMENTS

**PROFILES**

**SHEET NO.**

**05 of 07**



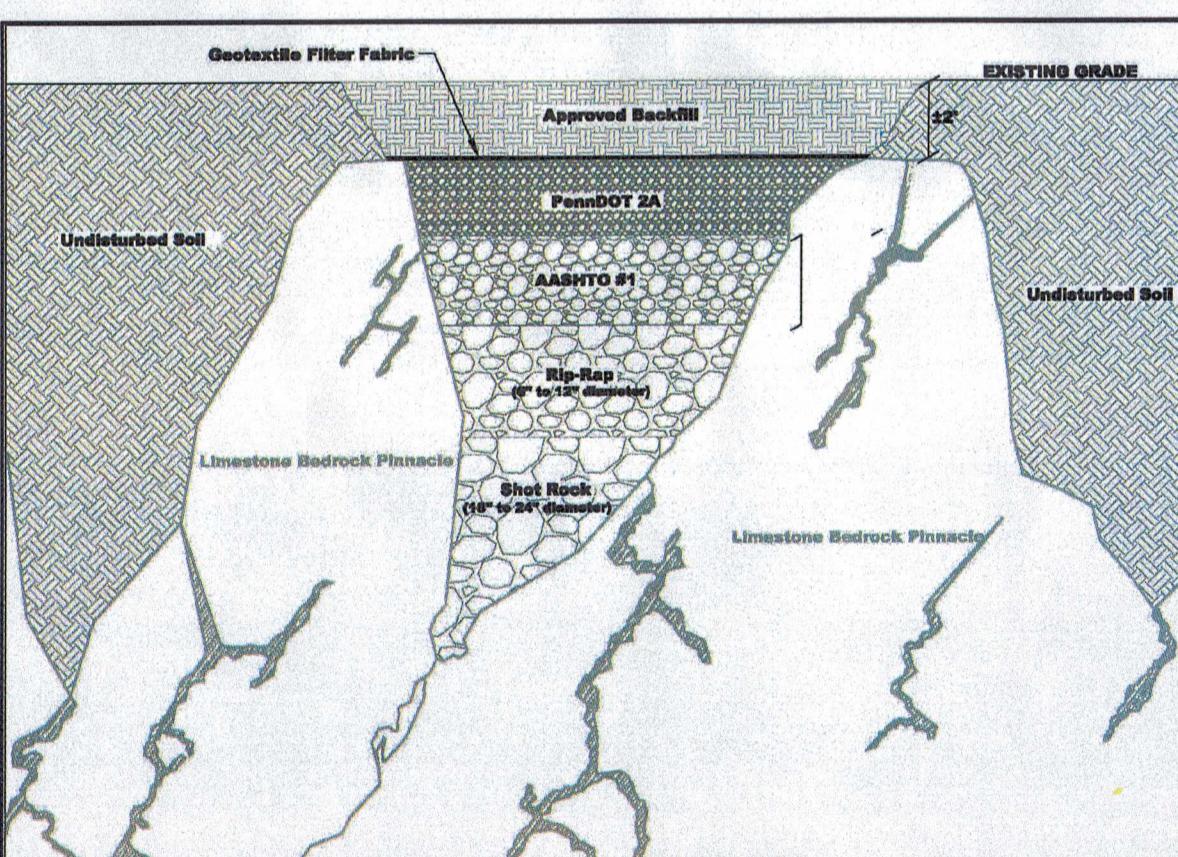
## O&M PROGRAM FOR BMPs

1. THE PURPOSE OF THESE INSTRUCTIONS IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED RAINGARDEN. THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE PERMIT APPLICANT (PERMITTEE).
  2. ALL PCSM BMPS WILL BE INSPECTED ACCORDING TO THE SCHEDULES LISTED BELOW. A WRITTEN REPORT MUST BE COMPLETED DOCUMENTING EACH INSPECTION AND ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.
  3. SOIL, TRASH, DEBRIS OR OTHER MATERIALS REMOVED FROM PCSM BMPs SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO WASTES, UNUSED BUILDING MATERIALS OR OTHER MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
  4. ALL DAMAGED OR NON-FUNCTIONAL BMPs SHALL BE REPAIRED IMMEDIATELY. ANY PCSM BMPs THAT CANNOT BE REPAIRED MUST BE REPLACED AS SOON AS PRACTICABLE.
  5. THE PERMIT APPLICANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PERMANENT STORMWATER FACILITIES LOCATED ON THE SUBJECT PROPERTIES. PERMANENT MAINTENANCE OF THE STORM SYSTEM AFTER ACCEPTANCE WILL PRIMARILY CONSIST OF ROUTINE CLEANING OF ACCUMULATED SEDIMENT AND DEBRIS BY FACILITY STAFF OR PRIVATE CONTRACTORS. THE SPECIFIC MAINTENANCE STEPS AND SCHEDULE ARE LISTED BELOW:
  6. AT A MINIMUM, ALL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSPECTED BY THE LAND OWNER/DEVELOPER OR RESPONSIBLE ENTITY ANNUALLY FOR THE FIRST 5 YEARS, ONCE EVERY 3 YEARS THEREAFTER, AND DURING OR IMMEDIATELY AFTER THE CESSION OF A 100-YEAR OR GREATER STORM EVENT.

INfiltration Basins	
Operation & Maintenance Procedures	
Activity	Schedule
OVER-EXCAVATE INTO BEDROCK TO DESIRED INFILTRATION BASIN BOTTOM ELEVATION, AND PER GEOTECHNICAL ENGINEERING REPORT. INSTALL GEOTEXTILE, STONE AND SAND/SOIL MIX PER THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AND APPROVED PLANS. SEED WITH PLANTING MIX AS SHOWN ON APPROVED PLANS. QUALIFIED PROFESSIONAL OR THEIR DESIGNEE SHALL ENSURE THAT DESIGN INFILTRATION RATE OF 1.0 INCH/HOUR IS BEING.	AT CONVERSION OF E&S TRACTOR TO PERMANENT PCSM INFILTRATION BASINS
FIRST GROWING SEASON: WHENEVER VEGETATION REACHES A HEIGHT OF 18-24", TRIM TO A HEIGHT OF 8". HAND PULL PROBLEM WEEDS. SECOND GROWING SEASON: PRIOR TO NEW SPRING GROWTH REACHING A HEIGHT OF 2", TRIM ALL VEGETATION DOWN TO 2". HAND PULL PROBLEM WEEDS.	FIRST AND SECOND GROWING SEASONS AND ONCE PER YEAR AFTER LAST FREEZE IN APPROPRIATE GROWING SEASON
REMOVE LITTER AND DEBRIS	MONTHLY
INSPECT FOR SEDIMENT BUILDUP, EROSION, AND VEGETATIVE CONDITIONS. STABILIZE ERODED BANKS, REPAIR UNDERCUT AND ERODED AREAS AT INFLOW AND OUTFLOW STRUCTURES, AND RESEED AS NECESSARY TO ENSURE STABILIZATION. CONTACT QUALIFIED PROFESSIONAL IF SIGNIFICANT SEDIMENT BUILDUP (I.E. POND VOLUME HAS BEEN REDUCED BY 10%) OR EROSION HAS OCCURRED.	ONCE PER YEAR BETWEEN MARCH 31 AND MAY 31 AND AFTER A STORM EVENT 0.25 INCHES OR GREATER
INSPECT FACILITY FOR SIGNS OF WETNESS OR DAMAGE TO STRUCTURES. NOTE ERODED AREAS. IF DEAD OR DYING GRASS ON THE BOTTOM IS OBSERVED, CHECK TO ENSURE THAT WATER IS PERCOLATING WITHIN THE DESIGN DEWATERING TIME OF 1.0 INCH/HOUR.	ONCE PER YEAR BETWEEN MARCH 31 AND MAY 31 AND AFTER A STORM EVENT 0.25 INCHES OR GREATER
<b>GENERAL MAINTENANCE NOTES:</b> 1. VEGETATION ALONG THE SURFACE OF THE INFILTRATION BASINS SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE. 2. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON BASINS, AVOID COMPACTION. 3. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. 4. DURING PERIODS OF EXTENDED DROUGHT, INFILTRATION AREAS MAY REQUIRE WATERING.	
<b>POTENTIAL FAILURES:</b> 1. THE BASINS DO NOT DEWATER - A GATE VALVE HAS BEEN PROVIDED TO DEWATER MANUALLY. THIS VALVE SHALL ONLY BE OPENED TO PERFORM MAINTENANCE ON THE BASIN. CONTACT ENGINEER OF RECORD TO DETERMINE CAUSE AND SOLUTION. 2. BERM DEGRADATION / BREACH - RESTORE BERM TO DESIGN ELEVATIONS USING SUITABLE MATERIAL IN 8 LIFTS. APPLY MATTING AND RESEED IMMEDIATELY. 3. BARE SPOTS - RESEED AREAS WITH SPECIFIED SEED MIX.	
Stormwater Collection/Conveyance	
Operation & Maintenance Procedures	
Activity	Schedule
INLETS & CATCH BASINS SHOULD BE CLEANED OF DEBRIS. REPAIRS SHOULD BE MADE AS SOON AS PROBLEMS ARISE.	CLEAN ONCE PER YEAR & REPAIR AS NEEDED
INSPECT OUTFALL STRUCTURES QUARTERLY DURING 1ST YEAR & 1X PER YEAR THEREAFTER	QUARTERLY & ONCE PER YEAR
COLLECTION/CONVEYANCE SYSTEMS SHOULD BE INSPECTED 2X PER YEAR MINIMUM.	TWICE PER YEAR
<b>GENERAL MAINTENANCE NOTES:</b> 1. VACTOR TRUCKS MAY BE AN EFFICIENT CLEANING MECHANISM. 2. CATCH BASINS SHOULD BE CLEANED BEFORE HALF FULL.	

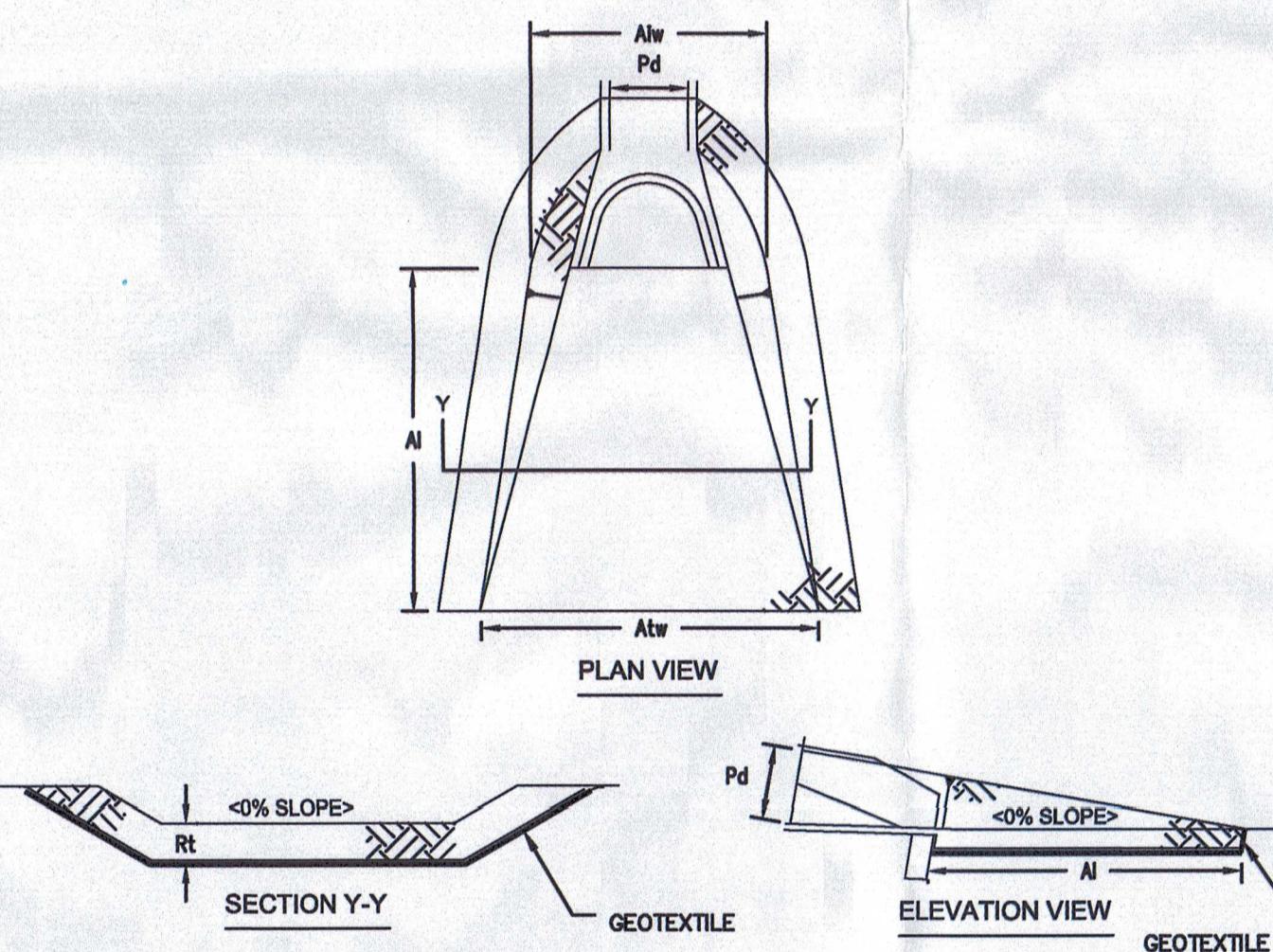
DRY EXTENDED DETENTION BASIN	
OPERATION & MAINTENANCE PROCEDURES	
ACTIVITY	SCHEDULE
REPAIR UNDERCUT OR ERODED AREAS, MOW SIDE SLOPES, SEED OR SOD TO REPAIR DEAD OR DAMAGED GROUND COVER.	AS NEEDED
ALL BASIN STRUCTURES EXPECTED TO RECEIVE &/OR TRAP DEBRIS & SEDIMENT SHOULD BE INSPECTED FOR CLOGGING & EXCESSIVE DEBRIS & SEDIMENT ACCUMULATION, AS WELL AS AFTER EVERY STORM GREATER THAN 1 INCH.	FOUR TIMES PER YEAR
NOTE EROSION OF POND BANKS OR BOTTOM.	SEMI-ANNUAL
INSPECT FOR DAMAGE TO THE EMBANKMENT. MONITOR FOR SEDIMENT ACCUMULATION IN THE FACILITY & FOREBAY, EXAMINE TO ENSURE THAT INLET & OUTLET DEVICES ARE FREE OF DEBRIS & OPERATIONAL. INSPECT VEGETATED AREAS FOR EROSION & INVASIVE SPECIES.	ANNUAL
REMOVE SEDIMENT FROM THE FOREBAY (IF APPLICABLE).	5-7 YEAR MAINTENANCE
MONITOR SEDIMENT ACCUMULATIONS, & REMOVE SEDIMENT WHEN THE POND VOLUME HAS BEEN REDUCED BY 25%.	25-50 YEAR MAINTENANCE
<b>GENERAL MAINTENANCE NOTES:</b>	
1. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY.	
2. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95%.	
3. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REESTABLISHED.	

VEGETATED SWALE	
OPERATION & MAINTENANCE PROCEDURES	
ACTIVITY	SCHEDULE
MOW GRASS TO MAINTAIN A HEIGHT OF 3-4 INCHES. ROTOTILL OR CULTIVATE THE SURFACE OF THE SAND/SOIL BED OF DRY SWALES IF THE SWALE DOES NOT DRAW DOWN WITHIN 48 HOURS. REMOVE SEDIMENT BUILD-UP WITHIN THE BOTTOM OF THE SWALE ONCE IT HAS ACCUMULATED TO 25% OF THE ORIGINAL DESIGN VOLUME, OR ONCE IT HAS COVERED VEGETATION.	AS NEEDED
INSPECT PEA GRAVEL DIAPHRAGM FOR CLOGGING & CORRECT THE PROBLEM. INSPECT GRASS ALONG SIDE SLOPES FOR EROSION, RILLS, OR GULLIES, & CORRECT. REMOVE TRASH & DEBRIS ACCUMULATED IN SWALE. INSPECT & CORRECT EROSION PROBLEMS IN THE BED OF DRY SWALES. INSPECT VEGETATION, PLANT ALTERNATIVE SPECIES IF ORIGINAL SPECIES HAVE NOT SUCCESSFULLY ESTABLISHED. INSPECT FOR POOLS OF STANDING WATER; DEWATER & DISCHARGE TO AN APPROVED LOCATION, RESTORE TO DESIGN GRADE. INSPECT FOR UNIFORMITY IN CROSS-SECTION & LONGITUDINAL SLOPE, CORRECT AS NEEDED.	ANNUAL
INSPECT SWALE IMMEDIATELY AFTER SPRING MELT. REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION. IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE SWALE, MULCHING &/OR SOIL AERATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE & MOISTURE CAPACITY & TO REDUCE THE IMPACT OF DEICING AGENTS. USE NONTOXIC, ORGANIC DEICING AGENTS. PLANT SALT TOLERANT VEGETATION IN SWALES.	ONCE PER YEAR/ APRIL



## SINKHOLE REPAIR DETAIL

N.T.S.

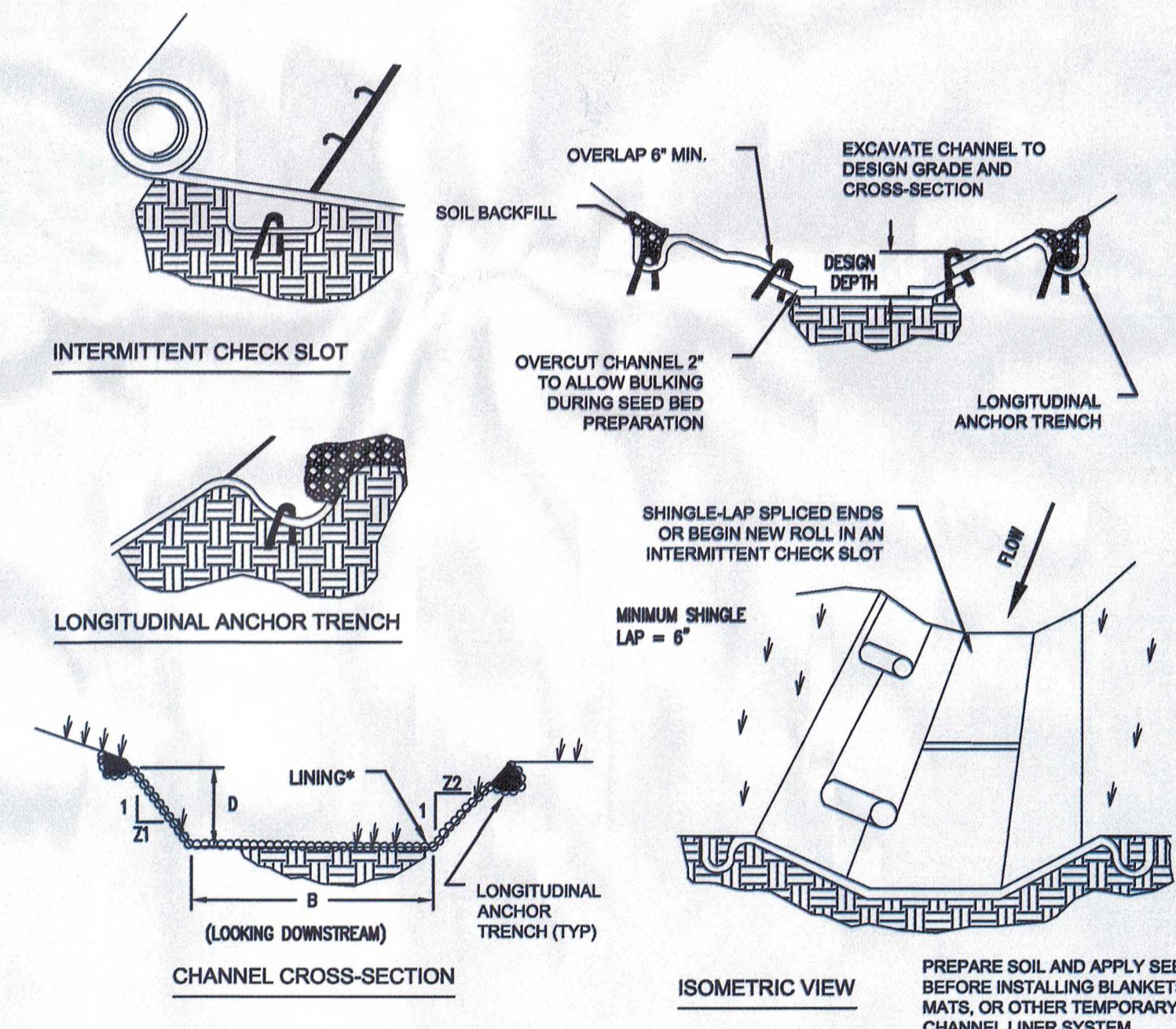


# RIPRAP APRON AT PIPE OUTLET WITH FLARED ENWALL

Digitized by srujanika@gmail.com

N.T.S.

**PADEP #9**



\* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, AND VEGETATIVE STABILIZATION SPECIFICATIONS 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*
SWALE 1	ALL	5	1	9	2	2	NAG S75 O APPROVE EQUAL

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.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

## **VEGETATED CHANNEL**

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BADEFP #6-1