

# FINAL LAND DEVELOPMENT PLAN

## ADDITION AND ALTERATIONS FOR

### LOWER SWATARA TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA AUGUST 9, 2012

#### COMMONWEALTH OF PENNSYLVANIA COUNTY OF DAUPHIN

ON THIS 6<sup>th</sup> DAY OF MARCH, 2013 BEFORE ME THE  
UNDERSIGNED PERSONALLY APPEARED

OWNER

TITLE

WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY  
ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY  
ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE  
SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES NOTARY PUBLIC

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN  
AND DESCRIBED HEREON IS TRUE AND CORRECT AS TO THE ACCURACY  
REQUIRED BY THE TOWNSHIP OF LOWER SWATARA'S CHAPTER 22 SUBDIVISION  
AND LAND DEVELOPMENT ORDINANCE.

ENGINEER DATE 2/12/13

I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN

REGISTERED SURVEYOR

NAME OF SURVEYOR

ADDRESS

THIS PLAN REVIEWED BY THE DAUPHIN COUNTY PLANNING COMMISSION  
THIS 21<sup>st</sup> DAY OF JULY, 2012

CHAIRMAN

SECRETARY

THIS PLAN REVIEWED BY THE LOWER SWATARA TOWNSHIP ENGINEER THIS  
15<sup>th</sup> DAY OF MARCH, 2013.

TOWNSHIP ENGINEER

THIS PLAN RECOMMENDED FOR APPROVAL BY THE LOWER SWATARA

TOWNSHIP PLANNING COMMISSION THIS 25<sup>th</sup> DAY OF OCTOBER, 2012.

CHAIRMAN

SECRETARY

THIS PLAN APPROVED BY THE BOARD OF COMMISSIONERS OF  
LOWER SWATARA TOWNSHIP THIS 19<sup>th</sup> DAY OF DECEMBER, 2012.

PRESIDENT

SECRETARY

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN  
AND FOR DAUPHIN COUNTY THIS DAY OF , 2013.

INSTRUMENT NO.

#### LANDOWNER

I, HEREBY ACKNOWLEDGE THAT THE STORMWATER  
BMP'S ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT  
PRIOR APPROVAL BY THE TOWNSHIP.

#### ENGINEER OF RECORD

I, HEREBY CERTIFY THAT THE STORMWATER  
MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF  
THE LOWER SWATARA TOWNSHIP'S STORMWATER MANAGEMENT ORDINANCE.

I, HEREBY CERTIFY THAT THERE ARE  
NOT WETLANDS IN THE PROJECT AREA, THE PROPOSED PROJECT WILL NOT  
IMPACT OFF-SITE WETLANDS, AND PERMITS ARE NOT REQUIRED FROM THE  
STATE OR FEDERAL GOVERNMENT.

#### REQUESTED WAIVERS:

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE  
SECTION 22-404: PRELIMINARY PLATS PROCEDURE

WATER ORDINANCE SECTION 26-126 3.0. REQUIRING  
ALL INLETS PER PADOT 408 - INLET 1-2 TO BE 19"x19"  
PRE-CAST.

#### ZONING DECISIONS:

VARIANCE REQUEST OF 27-1706 TO ENCROACH TEN FEET (10')  
INTO THE SEVENTY-FIVE FOOT (75') FRONT YARD SETBACK FOR  
THE FIRST FLOOR OF THE EAB AND ENCROACH TWENTY-FIVE  
FEET (25') TO ACCOMMODATE A SECOND FLOOR PROJECTION  
OVERHANG IS HEREBY APPROVED - GRANTED 06/19/12.

SPECIAL EXCEPTION TO 27-1703 TO EXCEED FORTY FOOT  
(40') HEIGHT LIMIT BY NINE FEET (9') - GRANTED 09/26/12.  
CONTINGENT UPON FAA APPROVAL.

FAA APPROVAL GRANTED 07/18/12.

#### OWNERSHIP AND MAINTENANCE PROGRAM FOR STORMWATER MANAGEMENT FACILITIES

THE OWNERSHIP AND MAINTENANCE PROGRAM FOR THE  
PROJECT PROVIDES FOR RESPONSIBILITIES DURING TWO PHASES  
OF THE PROJECT AS FOLLOWS:

##### A. TEMPORARY MAINTENANCE PROGRAM

THE DEVELOPER AND THE CONTRACTOR SHALL BE RESPONSIBLE  
TO INSURE THAT TEMPORARY EROSION AND SEDIMENT  
CONTROLS AS OUTLINED IN THE EROSION AND SEDIMENT  
CONTROL PLAN AND NOTES, AND APPROVED BY BOTH LOWER  
SWATARA TOWNSHIP AND THE DAUPHIN COUNTY CONSERVATION  
DISTRICT ARE IMPLEMENTED AS APPROVED. THE TEMPORARY  
PROGRAM SHALL CONSIST OF BUT NOT BE LIMITED TO SUCH  
ITEMS AS SILT FENCE, ROCK CONSTRUCTION ENTRANCE, INLET  
PROTECTION, AND PROPER SOIL STABILIZATION PROCEDURES.  
THE DETAIL OF THE INSTALLATION, LOCATION AND PROCEDURES  
ARE SHOWN AS PART OF THE EROSION AND SEDIMENTATION  
CONTROL PLAN, DETAILS AND NOTES.

##### B. PERMANENT MAINTENANCE PROGRAM

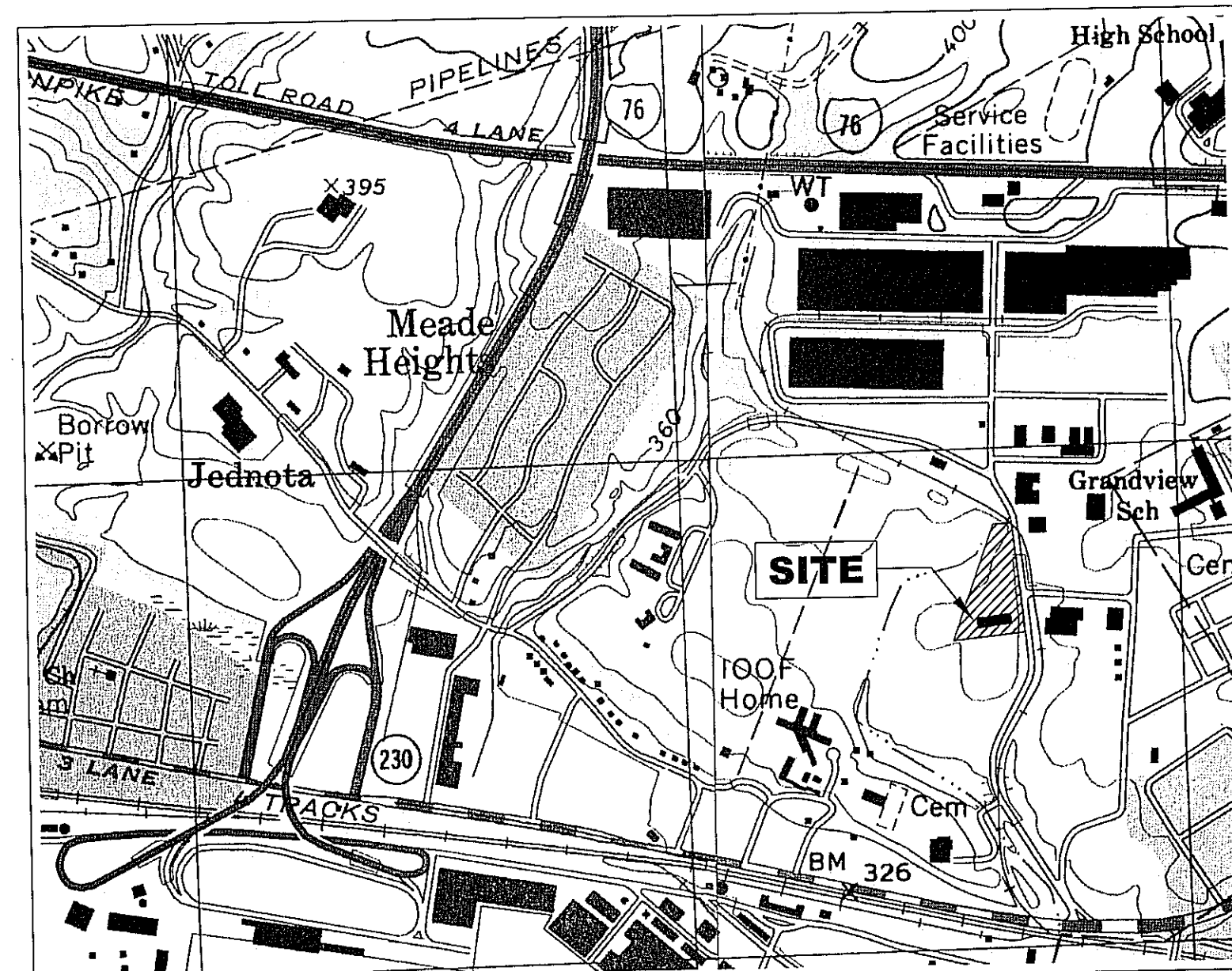
THE DEVELOPER AND CONTRACTOR SHALL INSTALL, MAINTAIN  
AND OPERATE THE PERMANENT EROSION AND SEDIMENT  
CONTROL, STORMWATER MANAGEMENT AND BMP FACILITIES AS  
PART OF THE PROJECT. THESE PERMANENT CONTROLS SHALL  
CONSIST OF BUT NOT BE LIMITED TO THE PROPOSED STORM  
SEWER SYSTEM, THE UNDERGROUND STORMWATER MANAGEMENT  
FACILITY AND PERMANENT SEEDING AND LANDSCAPING.

##### C. LOWER SWATARA TOWNSHIP RIGHT-OF-ENTRY (26-152)

- UPON PRESENTATION OF PROPER CREDENTIALS, DULY  
AUTHORIZED REPRESENTATIVES OF THE TOWNSHIP MAY  
ENTER AT REASONABLE TIMES, UPON ANY PROPERTY  
WITHIN THE TOWNSHIP, TO INSPECT THE IMPLEMENTATION,  
CONDITION, OR OPERATIONS AND MAINTENANCE OF THE  
STORMWATER BMPs IN REGARD TO ANY ASPECT GOVERNED  
BY THIS PART.
- STORMWATER BMP OWNERS AND OPERATORS SHALL ALLOW  
PERSONS WORKING ON BEHALF OF THE TOWNSHIP READY  
ACCESS TO ALL PARTS OF THE PREMISES FOR THE  
PURPOSES OF DETERMINING COMPLIANCE WITH THIS PART.
- PERSONS WORKING ON BEHALF OF THE TOWNSHIP SHALL  
HAVE THE RIGHT TO TEMPORARILY LOCATE ON ANY  
STORMWATER BMP IN THE TOWNSHIP SUCH DEVICES, AS  
ARE NECESSARY, TO CONDUCT MONITORING AND/OR  
SAMPLING OF THE DISCHARGES FROM SUCH STORMWATER  
BMP.
- UNREASONABLE DELAY IN ALLOWING THE TOWNSHIP  
ACCESS TO A STORMWATER BMP IS A VIOLATION OF THIS  
PART.

DATE: 09/05/2012 BY:

PA ONE CALL SERIAL NO:



SOURCE: BASE MAP FROM THE STEELTON, PA 7.5 MINUTE USGS TOPOGRAPHIC QUADRANGLE (PHOTOREVISED 1998),  
AND THE MIDDLETOWN, PA 7.5 MINUTE USGS TOPOGRAPHIC QUADRANGLE (PHOTOREVISED 1999).

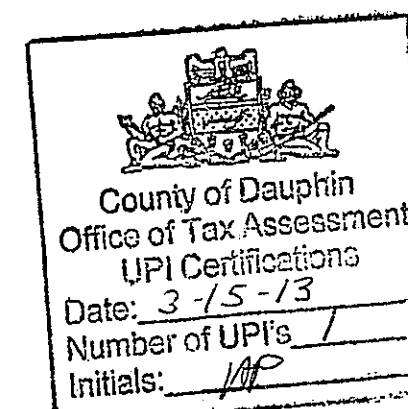


#### SHEET INDEX

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#### LIST OF ABBREVIATIONS

- |      |   |                          |     |   |                            |
|------|---|--------------------------|-----|---|----------------------------|
| BC   | = | BOTTOM OF CURB           | LF  | = | LINEAR FEET                |
| BM   | = | BENCH MARK               | LOD | = | LIMIT OF DISTURBANCE       |
| CB   | = | CIRCUIT BREAKER          | MH  | = | MANHOLE                    |
| CL   | = | CENTER LINE              | N   | = | NORTH                      |
| CMP  | = | CORRUGATED METAL PIPE    | PL  | = | PROPERTY LINE              |
| CO   | = | CLEAN OUT                | PVC | = | POLYVINYL CHLORIDE         |
| OPP  | = | CORRUGATED PLASTIC PIPE  | PGB | = | POINT OF BEGINNING         |
| E    | = | EAST                     | R   | = | RADIUS                     |
| EIP  | = | EXISTING IRON PIN        | RCE | = | ROCK CONSTRUCTION ENTRANCE |
| ELEC | = | ELECTRIC                 | ROW | = | RIGHT-OF-WAY               |
| EOC  | = | EDGE-OF-CARTWAY          | S   | = | SOUTH                      |
| EOP  | = | EDGE-OF-PAVEMENT         | SR  | = | STATE ROAD                 |
| EW   | = | END WALL                 | TC  | = | TOP OF CURB                |
| FFE  | = | FINISHED FLOOR ELEVATION | TG  | = | TOP OF GRADE               |
| FS   | = | FIRE SUPPLY              | TW  | = | TOP OF WALL                |
| GEN  | = | GENERATOR                | UC  | = | UNDERGROUND CONDUIT        |
| PHW  | = | PRESSURIZED HOT WATER    | W   | = | WEST                       |
| IN   | = | INVERT                   |     |   |                            |
| IPS  | = | IRON PIN SET             |     |   |                            |



#### SITE DATA

OWNER/APPLICANT:

ZONING:

PROPOSED USE:

TOTAL SITE AREA:

DISTURBED AREA:

BUILDING SETBACKS:

BUILDING AREA:

FIRST FLOOR AREA:

BUILDING HEIGHT:

PARKING REQUIRED:

PARKING PROVIDED:

EXISTING LOT COVERAGE:

PROPOSED LOT COVERAGE:

SOURCE OF TITLE:

TAX PARCEL:

EDUCATIONAL-INSTITUTIONAL (E-I)

CLASSROOM/LABORATORY

218.159 ACRES

3.24 ACRES

FRONT YARD: 75' FROM CENTERLINE

SIDE YARD: 50'

REAR YARD: 50'

51,405 S.F.

28,775 S.F.

49' PER SPECIAL EXCEPTION (40' PERMITTED)

PER CAMPUS PARKING MASTER PLAN: 2,454 TOTAL  
LOADING SPACES: 3

20.6% ± (65% PERMITTED)

21.2% ± (65% PERMITTED)

DEED BOOK 5, VOL. 51, PG 433

36-013-032-0000000

#### GENERAL NOTES:

- OVERALL PARCEL SURVEY SUBJECT TO COVENANTS AND RESTRICTIONS CONTAINED WITHIN THE  
FOLLOWING: DBV S-51 PG 433, RB 506 PG 223, RB 511 PG 434, RB 773 PG 165, RB 805  
PG 529, RB 2270 PG 143, RB 2282 PG 100, RB 2966 PG 369, RB 2770 PG 142, RB 3326  
PG 569, RB 3326 PG 579, RB 3679 PG 426, RB 3753 PG 030, RB 4309 PG 281, RB 4847  
PG 326, INST. # 20100008839 & INST. # 20100008840 & INST. # 20100009413. IN GENERAL,  
SAID COVENANTS ESTABLISH TOWNSHIP ROAD RIGHT-OF-WAYS, UTILITY RIGHT-OF-WAY, AND  
EASEMENTS, OR TRANSFER UTILITY OWNERSHIP.
- THE INTENT OF THIS LAND DEVELOPMENT PLAN WILL BE TO CONSTRUCT A 52,000 GSF  
CLASSROOM/LABORATORY WITH RELATED UTILITY INFRASTRUCTURE, AND STORMWATER  
MANAGEMENT FACILITIES.
- PROPERTY CORNER MARKERS TO BE PROVIDED IN ACCORDANCE WITH TOWNSHIP STANDARDS.
- NO NEW COVENANTS ARE PROPOSED.
- THE PROJECT IS NOT LOCATED WITHIN A FEMA-DEFINED FLOODPLAIN.
- NO WETLANDS ARE LOCATED WITHIN THE PROJECT AREA PER REPORT BY VORTEX  
ENVIRONMENTAL INC. DATED: FEBRUARY 29, 2012.
- NOTHING SHALL BE PLANTED OR PLACED WITHIN EASEMENTS WHICH WOULD ADVERSELY  
AFFECT THE FUNCTION OF THE EASEMENT, OR CONFLICT WITH ANY CONDITIONS ASSOCIATED  
WITH SUCH EASEMENT.
- ALL NEW EAB ROOF DRAINS MUST BE DIRECTED TO THE STORMWATER MANAGEMENT FACILITY  
ON THE WEST SIDE OF THE SITE.
- ALL CONSTRUCTION OF INLETS, MANHOLES, PIPES, ENDWALLS, END SECTIONS, AND CULVERTS  
MUST BE IN ACCORDANCE WITH PENNDOT PUB 72 LATEST EDITIONS; AND INCONSISTENCIES  
BETWEEN THE PLAN DETAILS AND PENNDOT REQUIREMENTS WILL DEFER TO PENNDOT  
REQUIREMENTS, UNLESS SPECIFICALLY WAIVED.

DPG	BKK	PER TOWNSHIP REVIEW COMMENTS	11/07/12	NO.	DATE	REVISION	BY
DPG	BKK	PER TOWNSHIP REVIEW COMMENTS	12/05/12	2			

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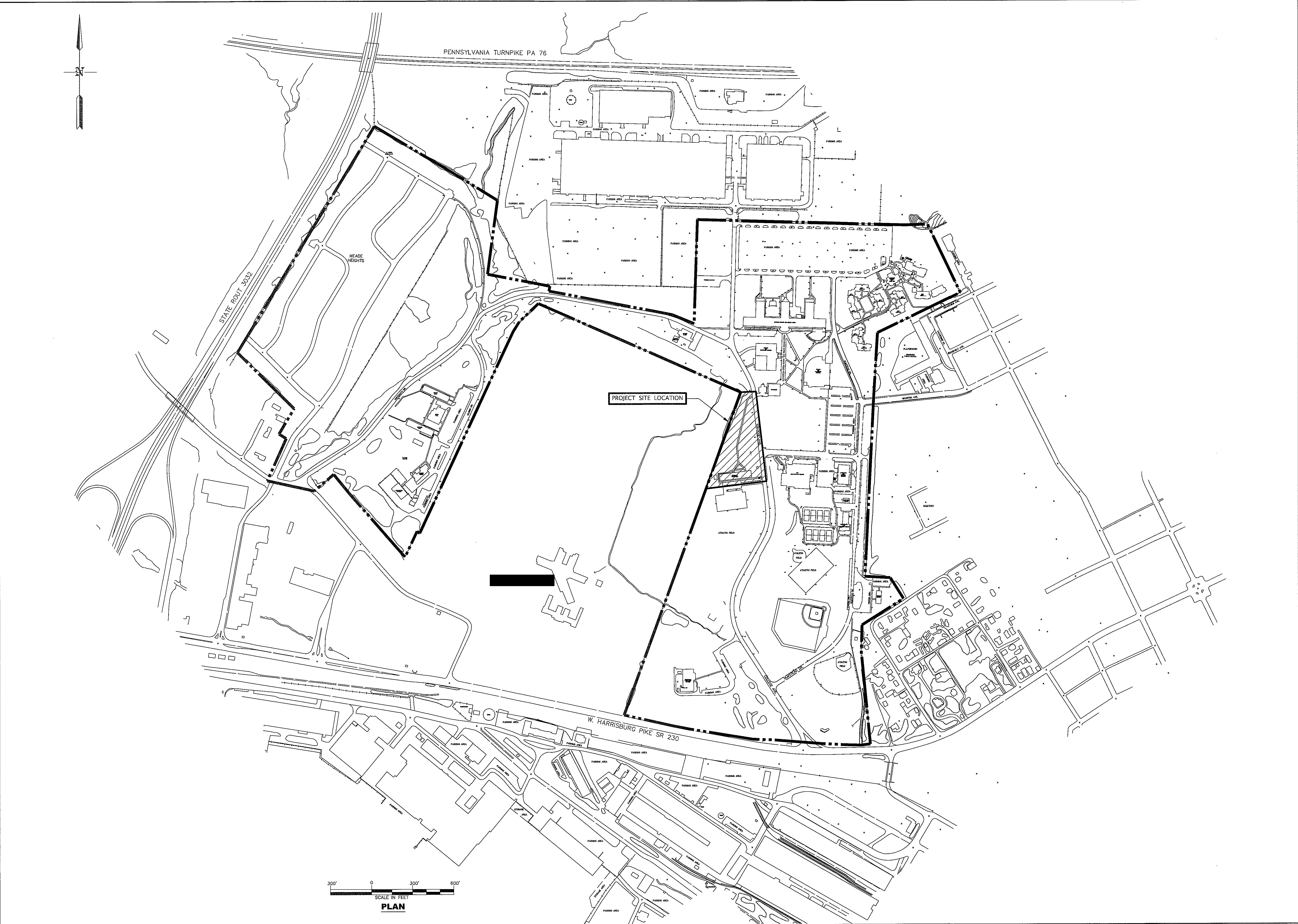
ALL DIMENSIONS MUST BE VERIFIED BY  
CONTRACTOR AND THE ARCHITECT/ENGINEER  
NOTIFIED OF ANY DISCREPANCIES BEFORE  
PROCEEDING WITH CONSTRUCTION.  
DO NOT SCALE DRAWINGS.

COVER SHEET

PROJECT NO.: 11147-11  
DESIGNED BY: DPG  
DRAWN BY: JAG  
CHK'D BY: JAR2  
DATE: August 9, 2012  
SCALE: AS SHOWN  
SHEET NO.:

LD 1

SHEET 1 OF 16



CAMPUS KEYPLAN

PROJECT NO.: 11147-11  
DESIGNED BY: PSU  
DRAWN BY: JAG  
CHK'D BY: DPG  
DATE: August 9, 2012  
SCALE: 1" = 300'  
SHEET NO.: LD 2

NO.	DATE	REVISION	BY	APPROVED
1	11/07/12	PER TOWNSHIP REVIEW COMMENTS	BKK	DPG
2	12/05/12	PER TOWNSHIP REVIEW COMMENTS	BKK	DPG

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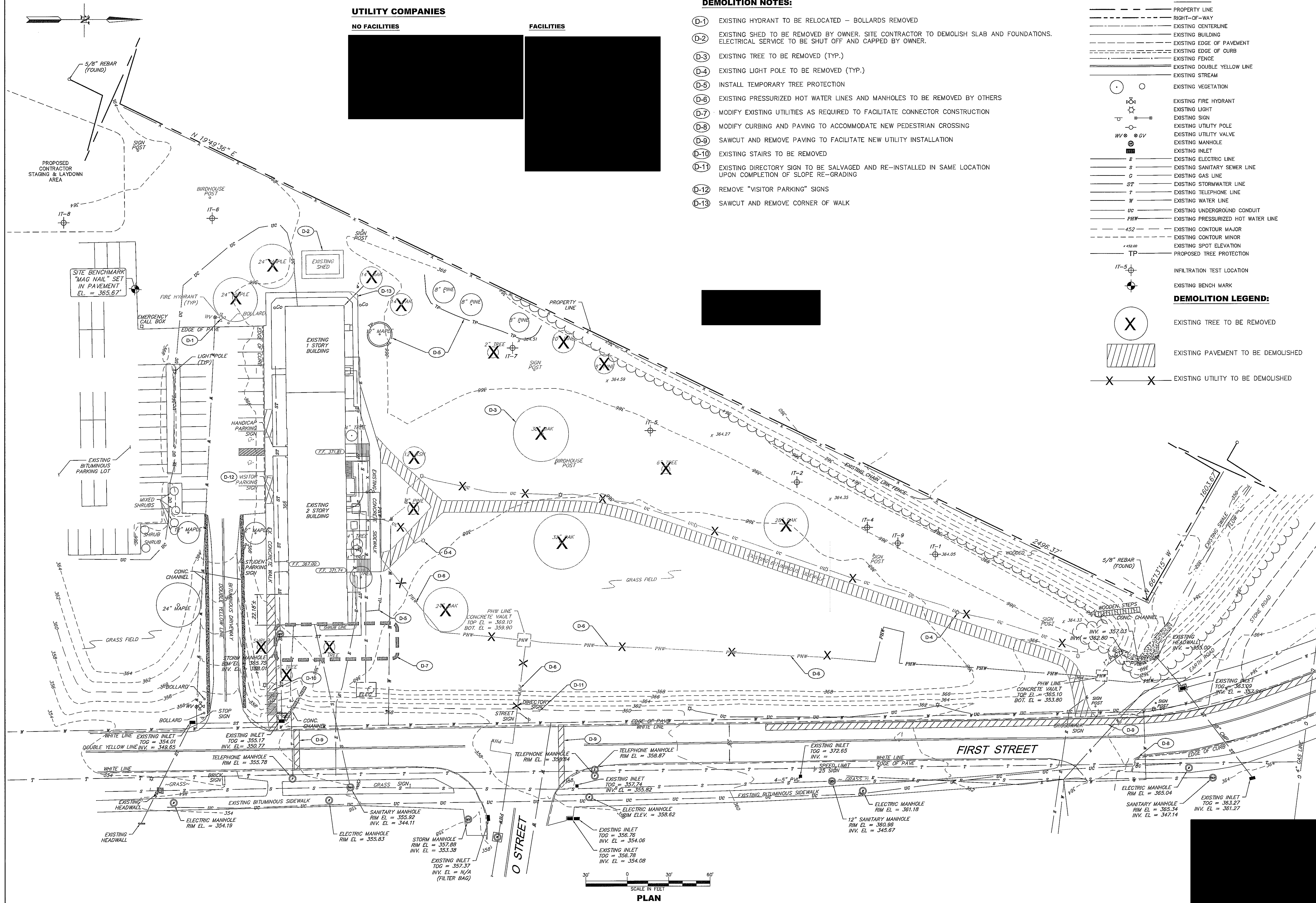
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I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF PENNSYLVANIA, LICENSE NO. \_\_\_\_\_, EXPIRATION DATE: \_\_\_\_\_

SHEET 2 OF 16





## **EXISTING CONDITIONS & DEMOLITION PLAN**

PROJECT NO.:	11147-11
DESIGNED BY:	DPG
DRAWN BY:	LHL
CHK'D BY:	CMR
DATE:	August 9, 2012
SCALE:	1" = 30'
SHEET NO.:	

LD 3

- ### LEGEND

[illegible]

ALL DIMENSIONS MUST BE VERIFIED BY  
CONTRACTOR AND THE ARCHITECT/ENGINEER  
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PROCEEDING WITH CONSTRUCTION.

DO NOT SCALE DRAWINGS.

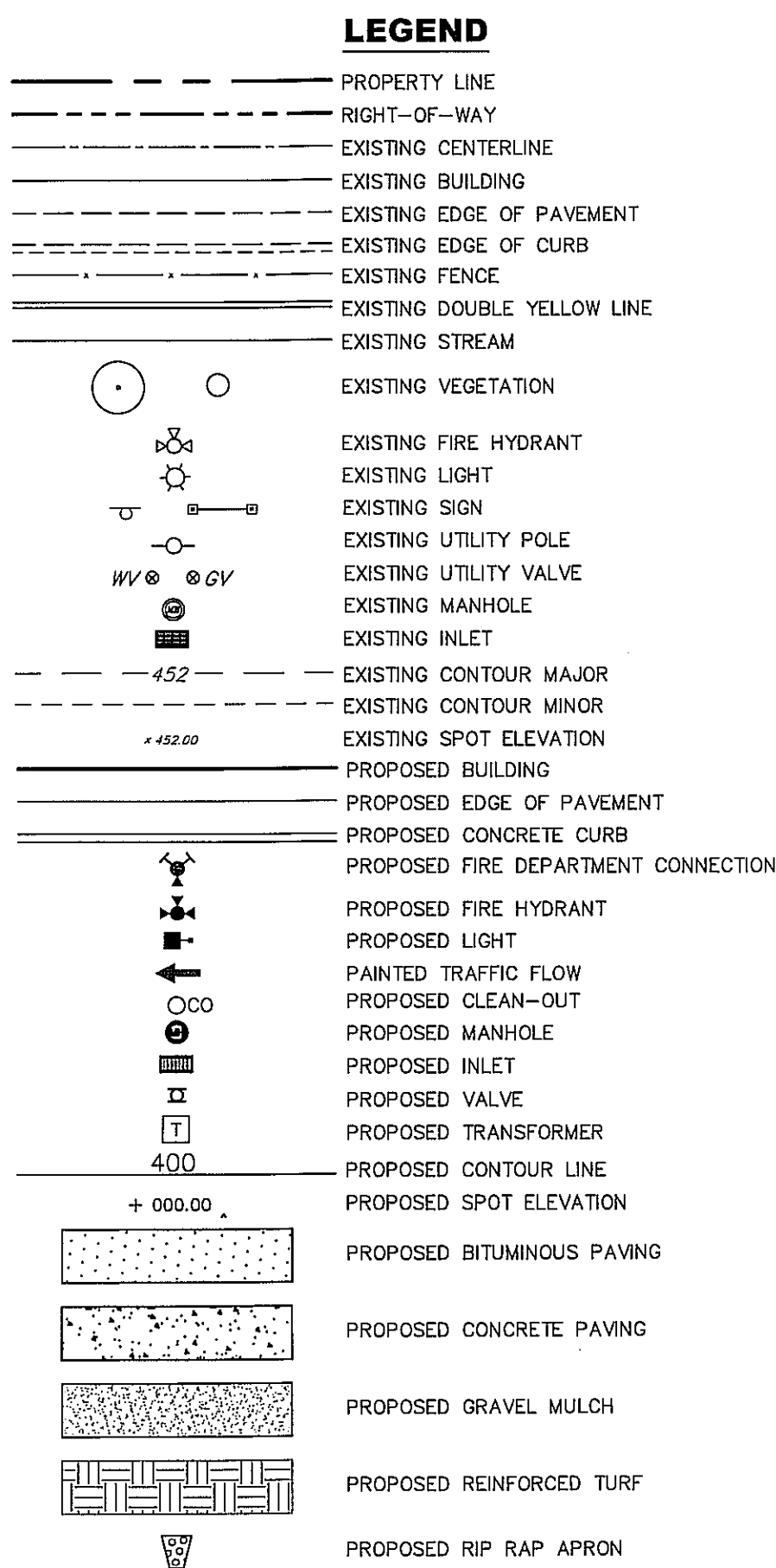
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS  
WERE PREPARED OR APPROVED BY ME, AND  
THAT I AM A DULY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF THE STATE OF  
PENNSYLVANIA, LICENSE NO. \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

## LAYOUT PLAN

**LD 4**

SHEET 4 OF 16



[illegible]

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ENGINEER UNDER THE LAWS OF THE STATE OF  
PENNSYLVANIA, LICENSE NO. \_\_\_\_\_  
EXPIRATION DATE: \_\_\_\_\_

# GRADING PLAN

PROJECT NO.:	11147-11
DESIGNED BY:	DPG
DRAWN BY:	JAG
CHK'D BY:	JAR2
DATE:	August 9, 2012
SCALE:	AS SHOWN
SHEET NO.:	

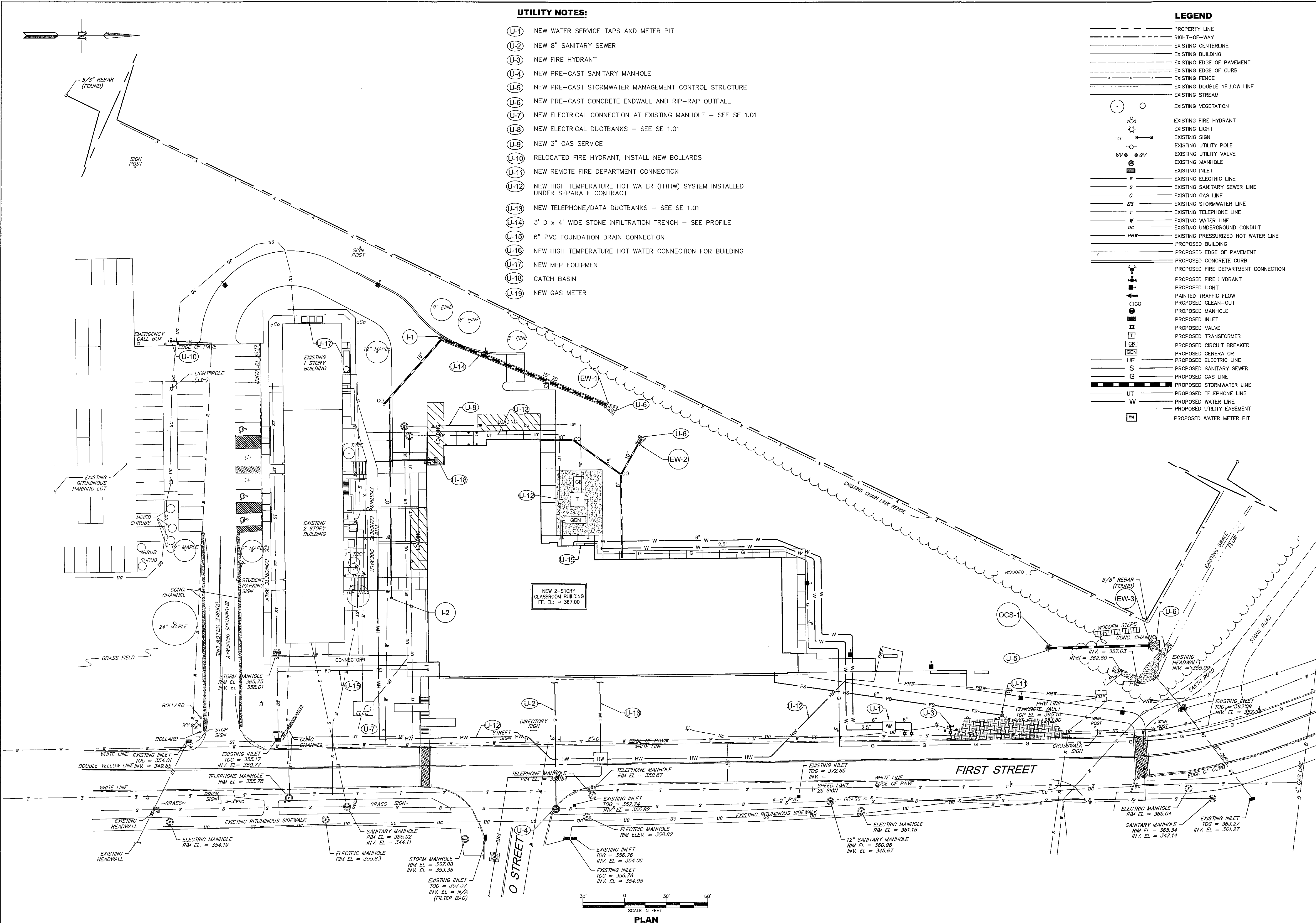
LD 5

UTILITY NOTES:

- U-1 NEW WATER SERVICE TAPS AND METER PIT
- U-2 NEW 8" SANITARY SEWER
- U-3 NEW FIRE HYDRANT
- U-4 NEW PRE-CAST SANITARY MANHOLE
- U-5 NEW PRE-CAST STORMWATER MANAGEMENT CONTROL STRUCTURE
- U-6 NEW PRE-CAST CONCRETE ENDWALL AND RIP-RAP OUTFALL
- U-7 NEW ELECTRICAL CONNECTION AT EXISTING MANHOLE - SEE SE 1.01
- U-8 NEW ELECTRICAL DUCTBANKS - SEE SE 1.01
- U-9 NEW 3" GAS SERVICE
- U-10 RELOCATED FIRE HYDRANT, INSTALL NEW BOLLARDS
- U-11 NEW REMOTE FIRE DEPARTMENT CONNECTION
- U-12 NEW HIGH TEMPERATURE HOT WATER (HTHW) SYSTEM INSTALLED UNDER SEPARATE CONTRACT
- U-13 NEW TELEPHONE/DATA DUCTBANKS - SEE SE 1.01
- U-14 3' D x 4' WIDE STONE INFILTRATION TRENCH - SEE PROFILE
- U-15 6" PVC FOUNDATION DRAIN CONNECTION
- U-16 NEW HIGH TEMPERATURE HOT WATER CONNECTION FOR BUILDING
- U-17 NEW MEP EQUIPMENT
- U-18 CATCH BASIN
- U-19 NEW GAS METER

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING BUILDING
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF CURB
- EXISTING FENCE
- EXISTING DOUBLE YELLOW LINE
- EXISTING STREAM
- EXISTING VEGETATION
- EXISTING FIRE HYDRANT
- EXISTING LIGHT
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING UTILITY VALVE
- EXISTING MANHOLE
- EXISTING INLET
- EXISTING ELECTRIC LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING STORMWATER LINE
- EXISTING TELEPHONE LINE
- EXISTING WATER LINE
- EXISTING UNDERGROUND CONDUIT
- EXISTING PRESSURIZED HOT WATER LINE
- PROPOSED BUILDING
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE HYDRANT
- PROPOSED LIGHT
- PAINTED TRAFFIC FLOW
- PROPOSED CLEAN-OUT
- PROPOSED MANHOLE
- PROPOSED INLET
- PROPOSED VALVE
- PROPOSED TRANSFORMER
- PROPOSED CIRCUIT BREAKER
- PROPOSED GENERATOR
- PROPOSED ELECTRIC LINE
- PROPOSED SANITARY SEWER
- PROPOSED GAS LINE
- PROPOSED STORMWATER LINE
- PROPOSED TELEPHONE LINE
- PROPOSED WATER LINE
- PROPOSED UTILITY EASEMENT
- PROPOSED WATER METER PIT



UTILITY PLAN

PROJECT NO.: 11147-11  
DESIGNED BY: DPG  
DRAWN BY: JAG  
CHK'D BY: JAR2  
DATE: August 9, 2012  
SCALE: AS SHOWN  
SHEET NO.: LD 6  
SHEET 6 OF 16

DATE	BY	REVISION
11/07/12		
12/05/12		
1		
2		

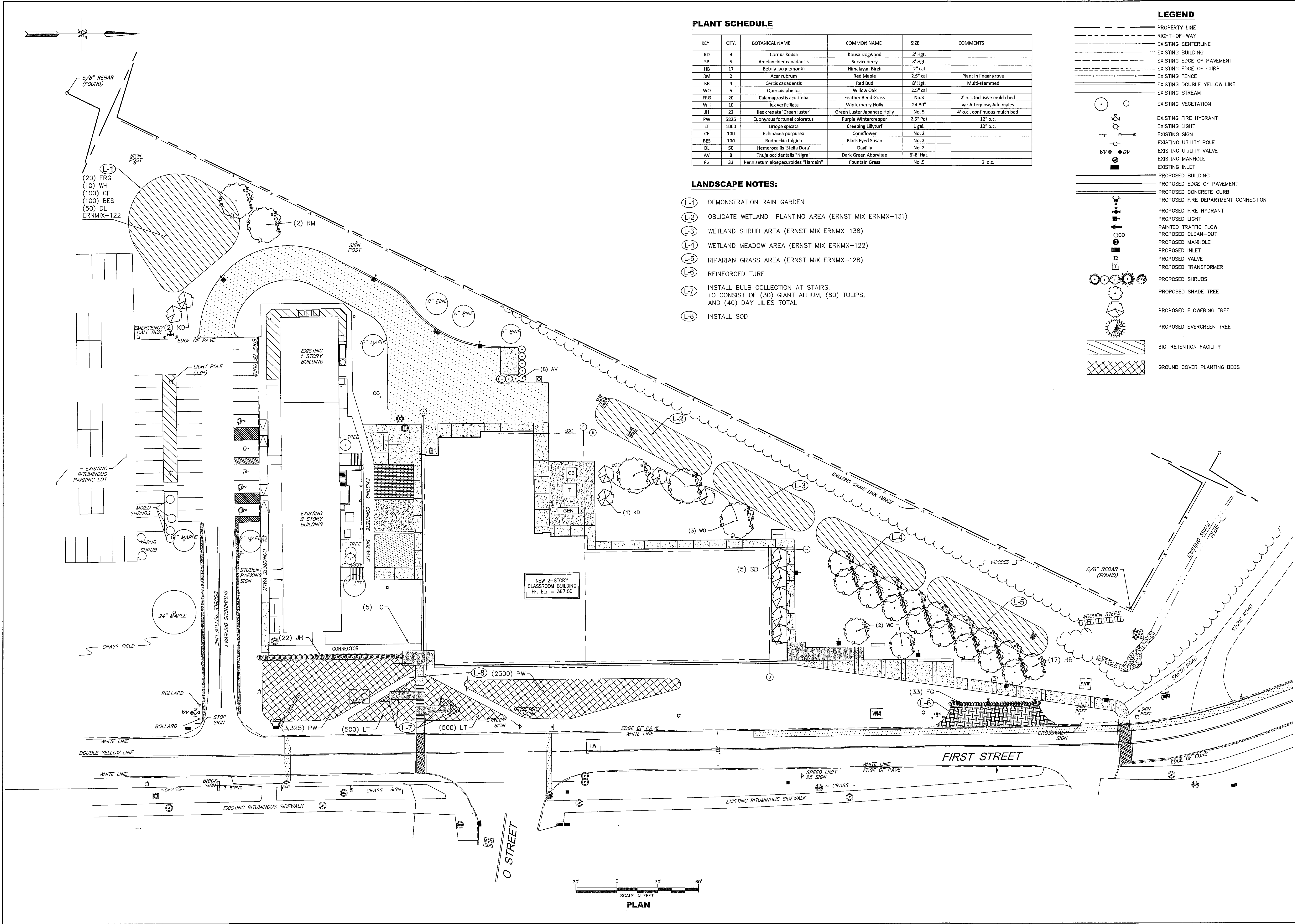
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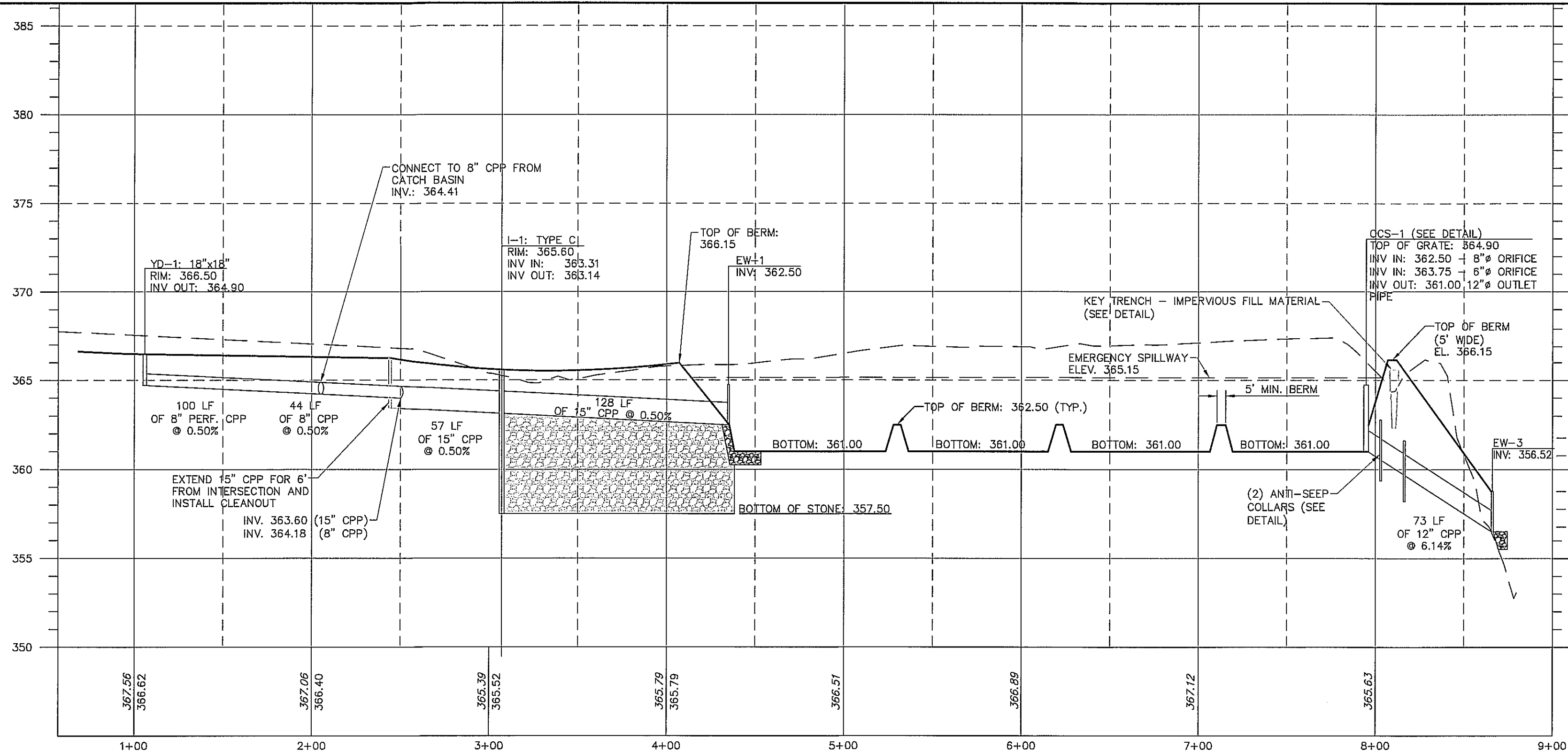




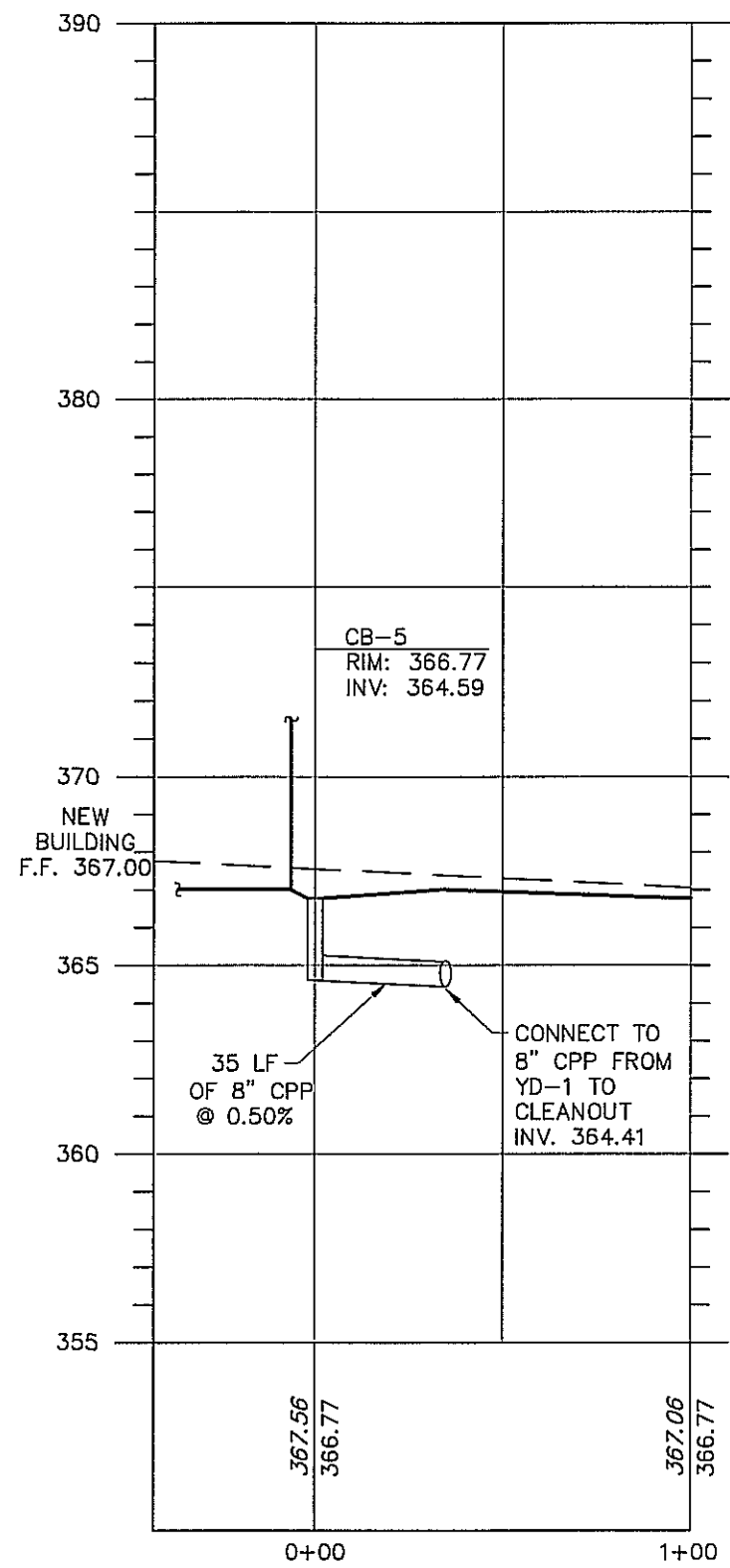
**LANDSCAPE PLAN**

PROJECT NO.: 11147-11  
DESIGNED BY: DPG  
DRAWN BY: JAG  
CHK'D BY: JAR2  
DATE: August 9, 2012  
SCALE: AS SHOWN  
SHEET NO.: LD 7

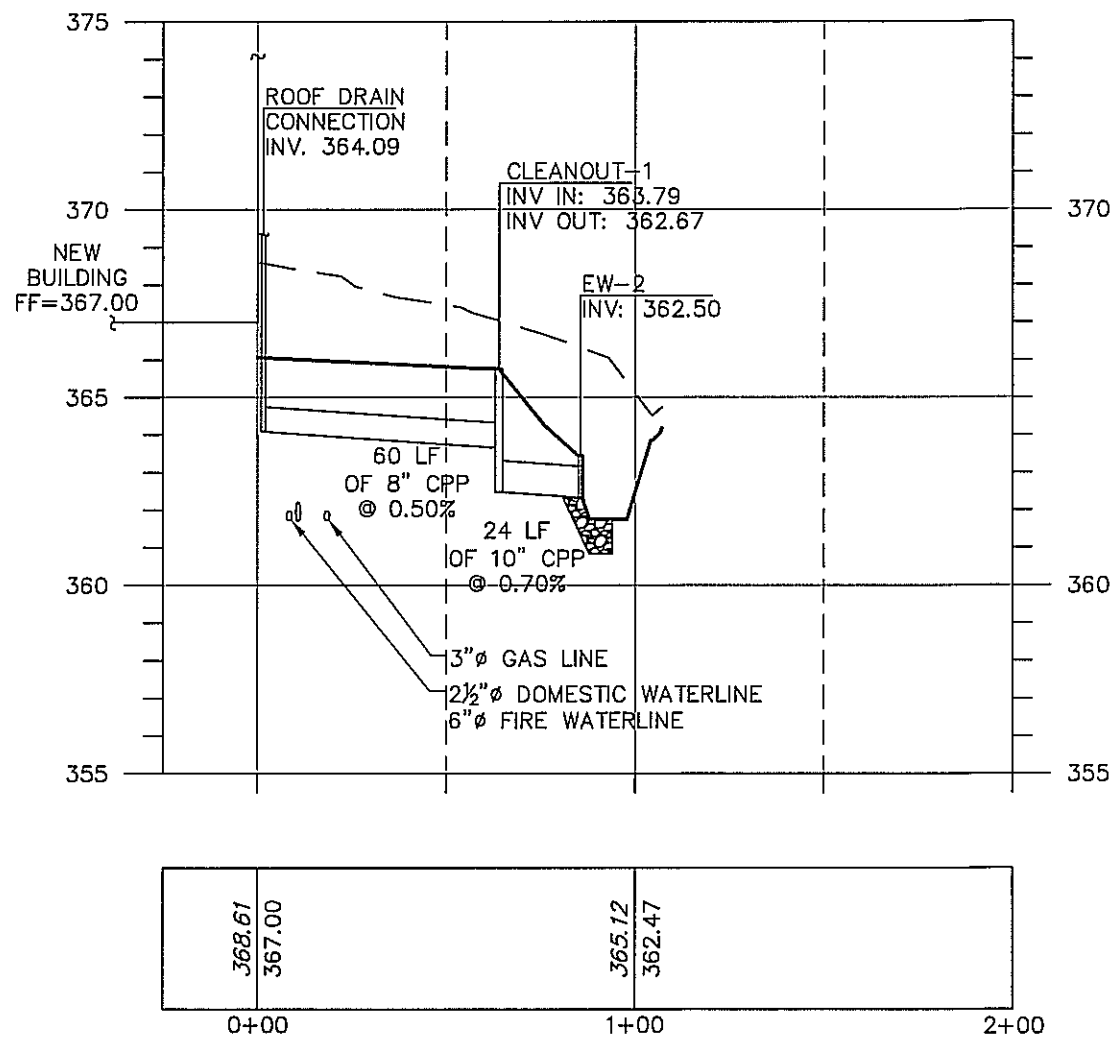
SHEET 7 OF 16



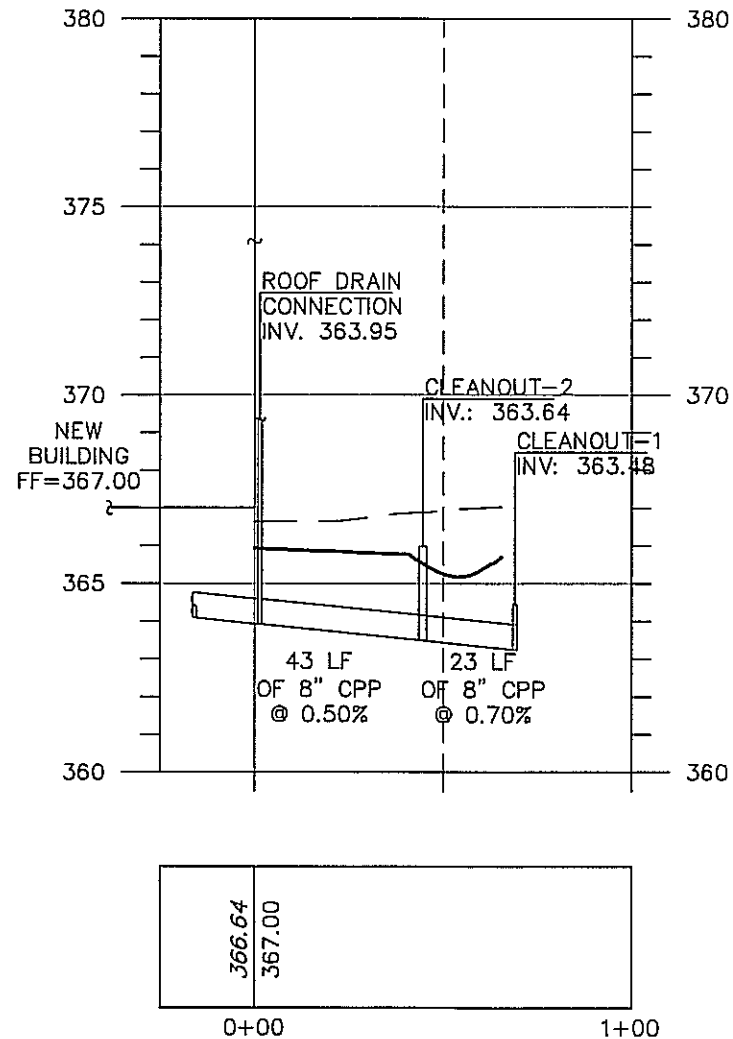
PROPOSED STORMWATER PROFILE I-1 TO EW-3  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



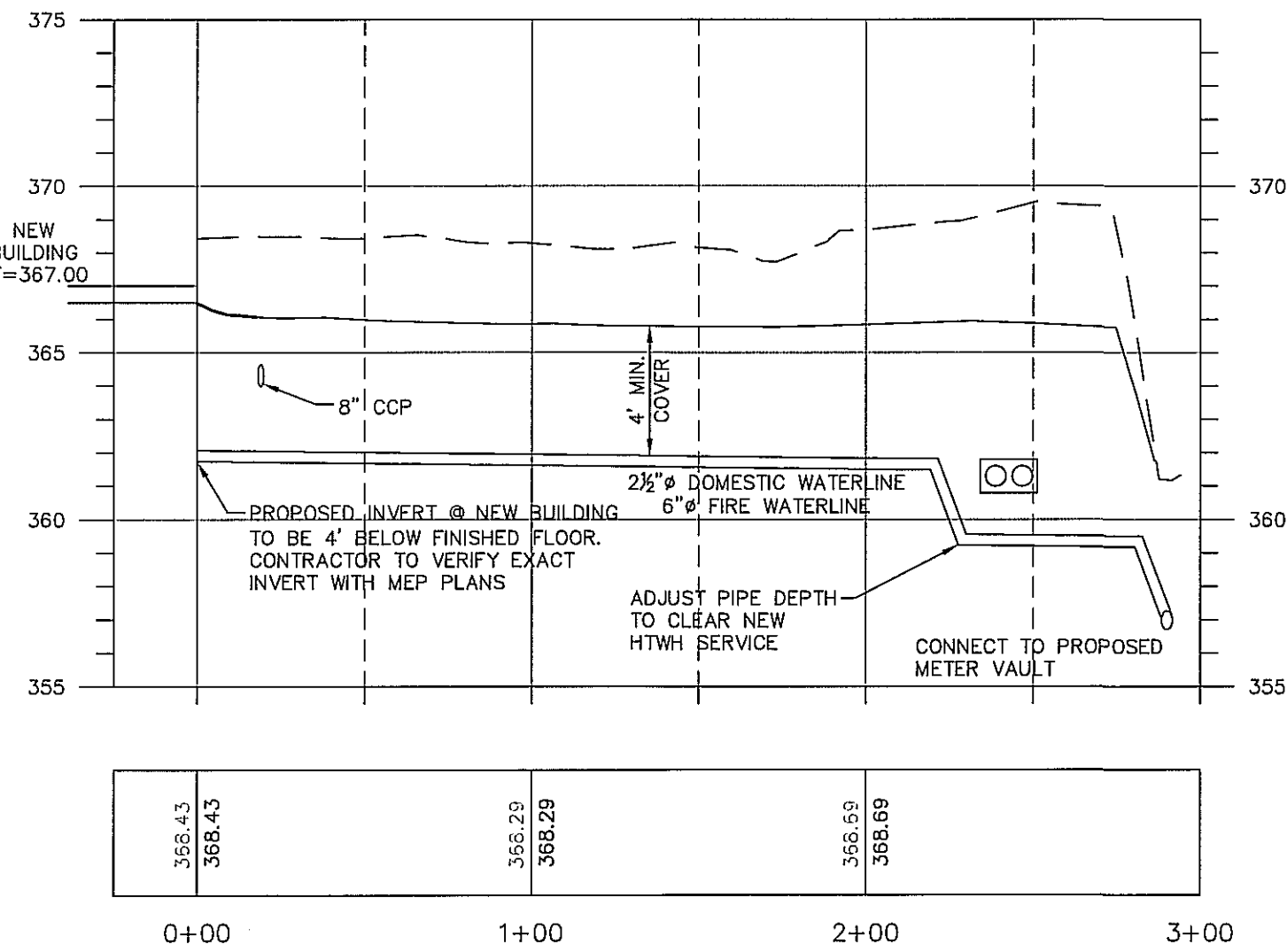
PROPOSED STORMWATER PROFILE CB-5 TO 8" CPP  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



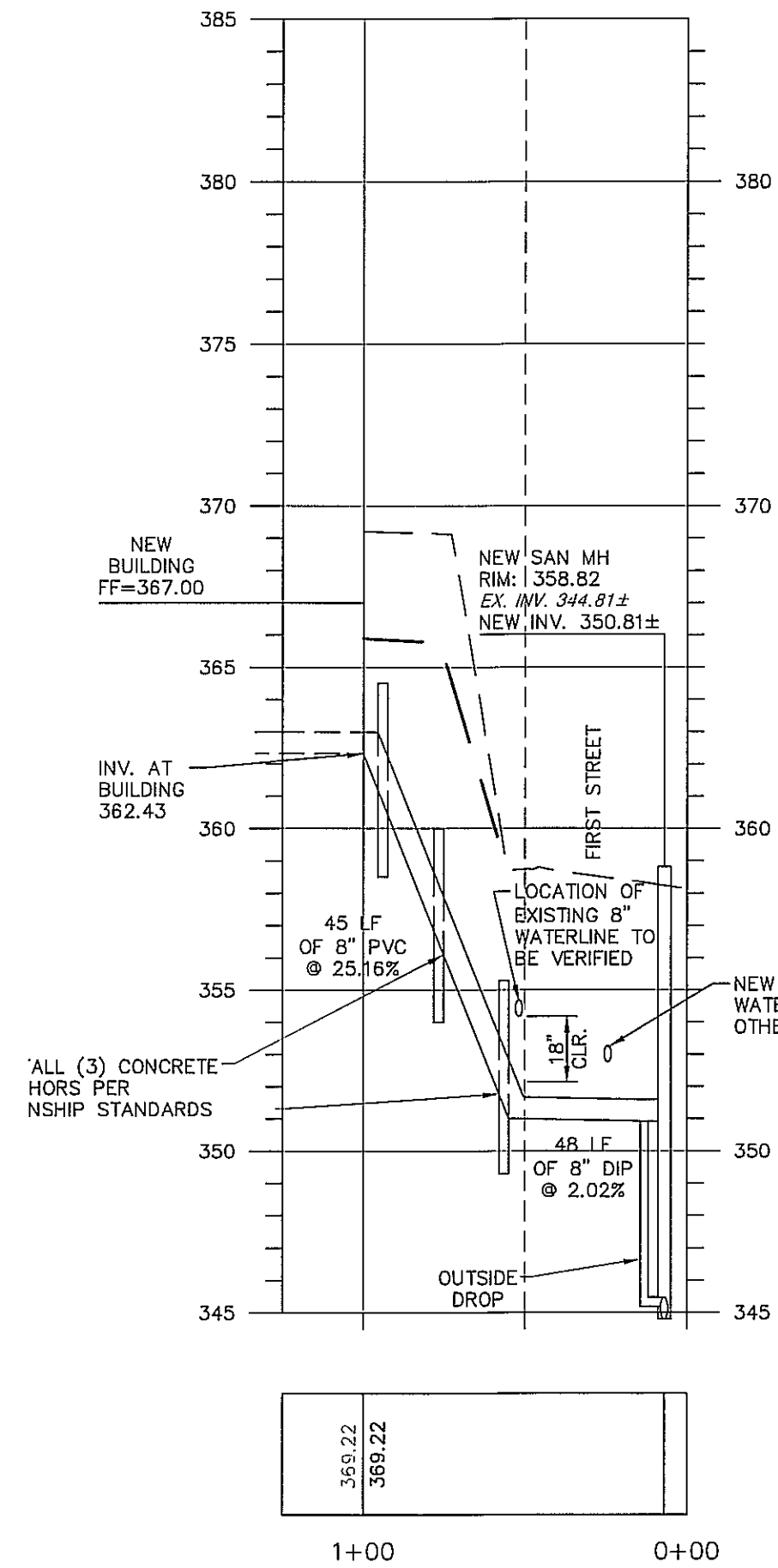
PROPOSED STORMWATER PROFILE  
ROOF DRAIN CONNECTION TO EW-2  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



PROPOSED STORMWATER PROFILE  
ROOF DRAIN CONNECTION TO CO-1  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



PROPOSED WATERLINE PROFILE  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



PROPOSED SANITARY SEWER PROFILE  
PROPOSED BUILDING CONNECTION  
TO EXISTING SANITARY MANHOLE  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

DATE	NO.	REVISION	BY	APPROVED
11/07/12	1	PER TOWNSHIP REVIEW COMMENTS	DPG	
12/05/12	2	PER TOWNSHIP REVIEW COMMENTS	DPG	

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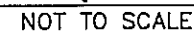
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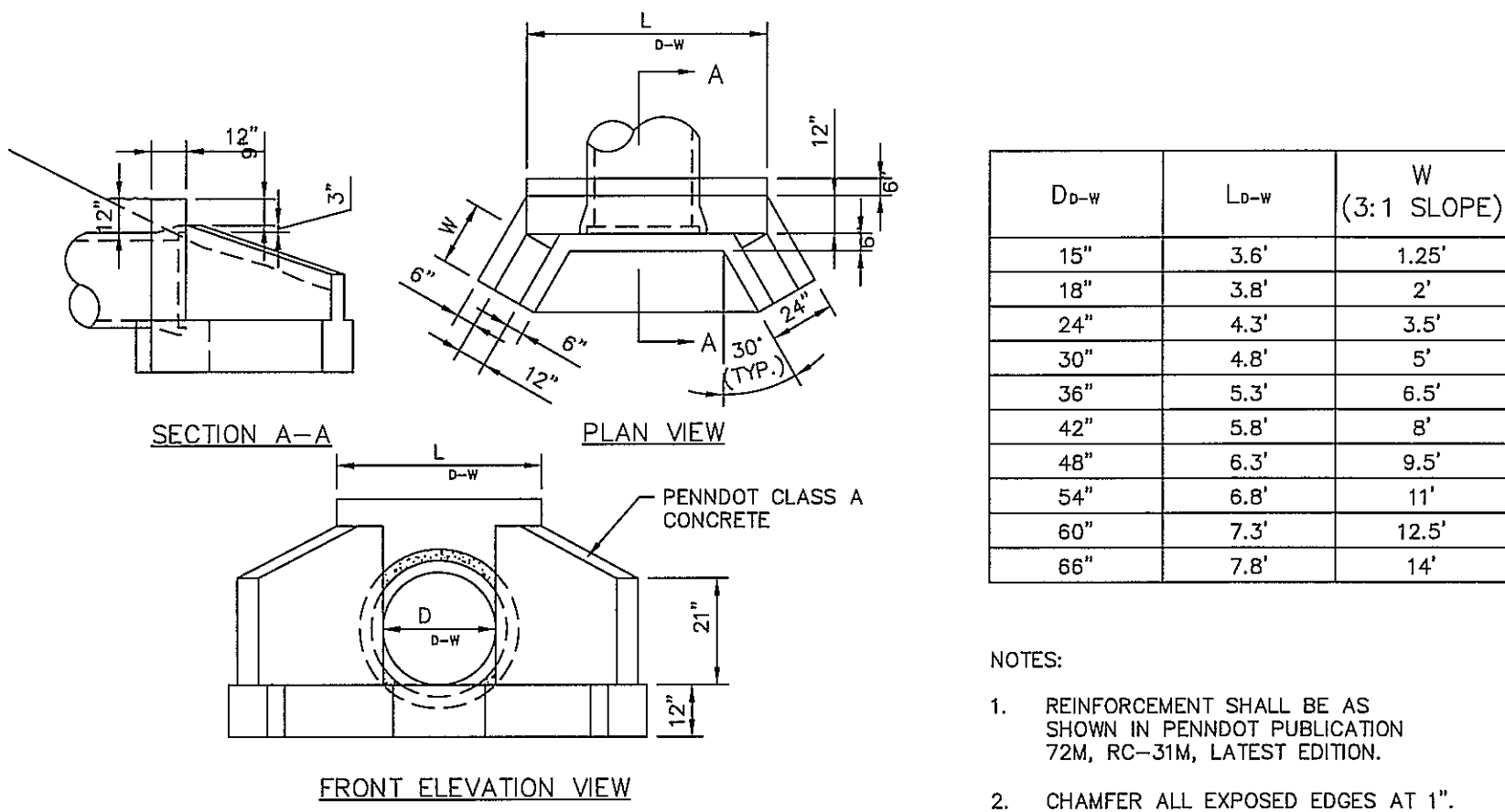
UTILITY PROFILES

PROJECT NO.: 11147-11  
DESIGNED BY: DPG  
DRAWN BY: XXX  
CHK'D BY: JAR2  
DATE: August 9, 2012  
SCALE: AS SHOWN  
SHEET NO.:

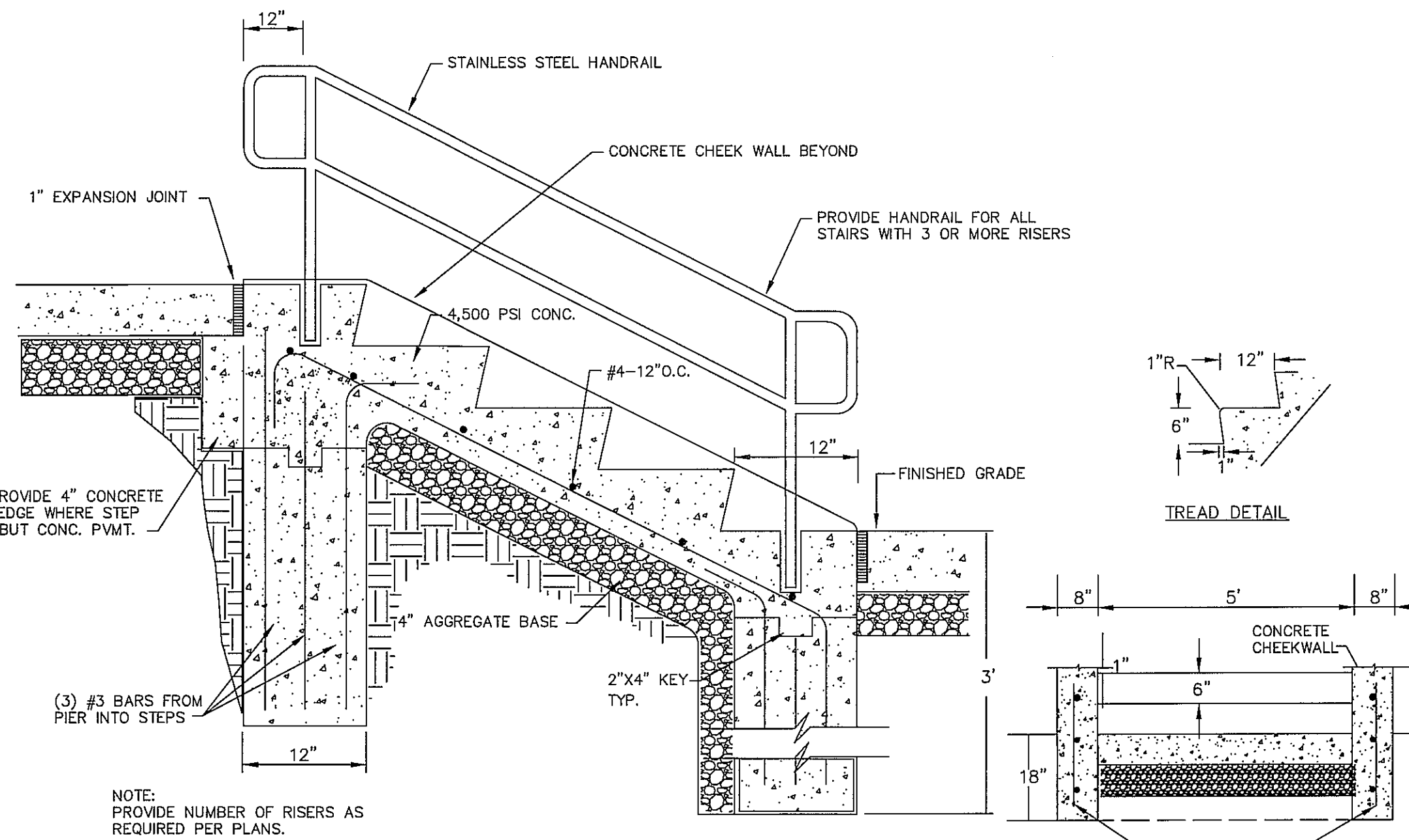
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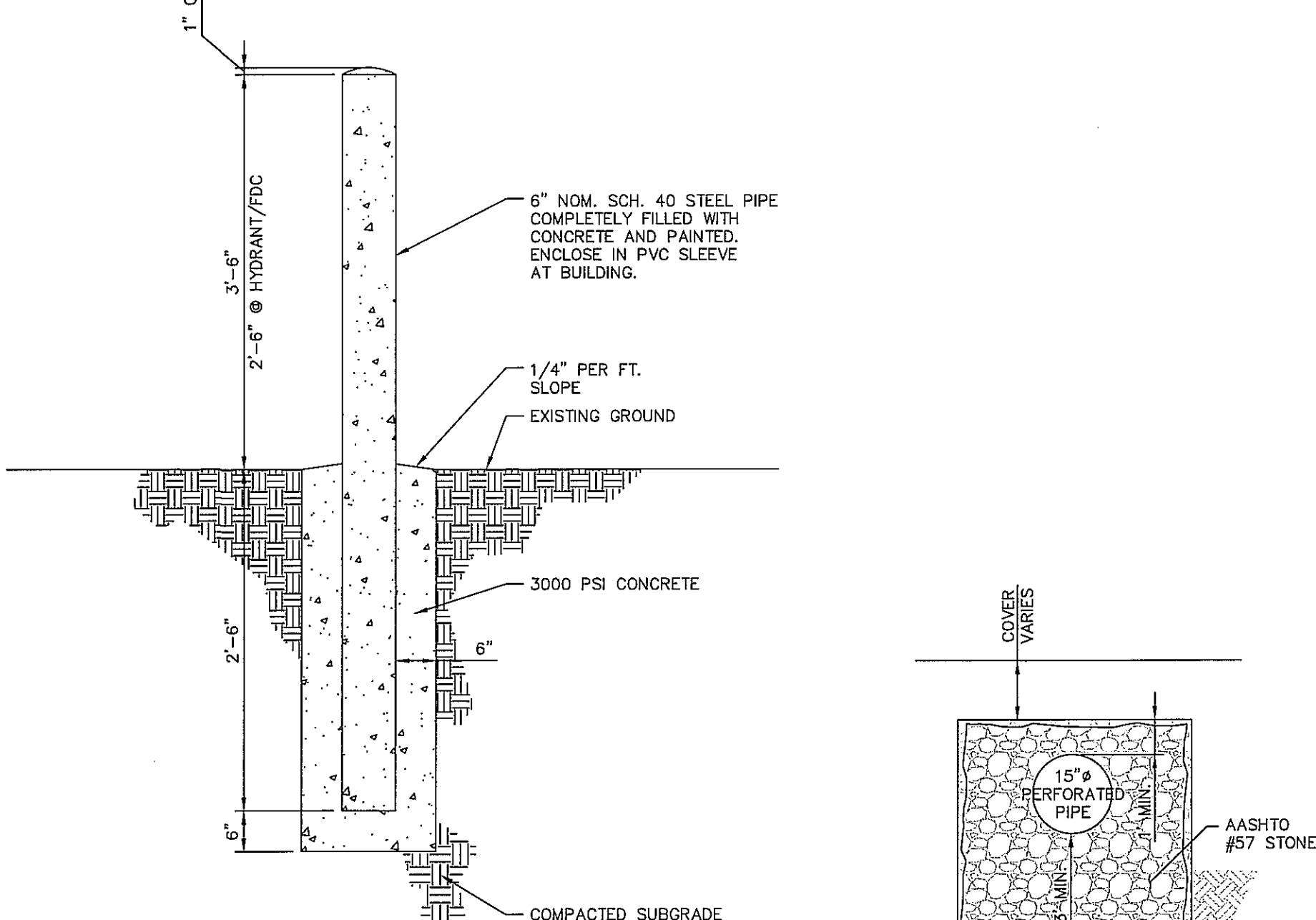




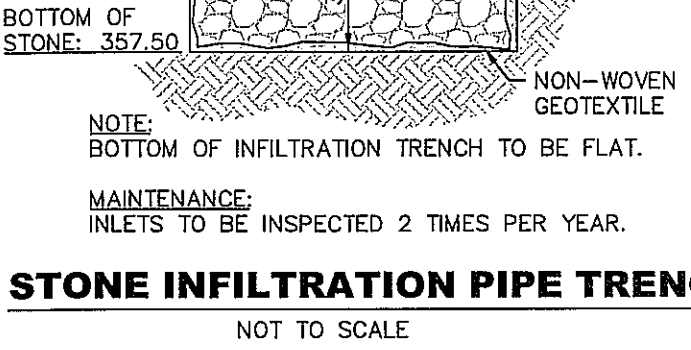
END WALL DETAIL  
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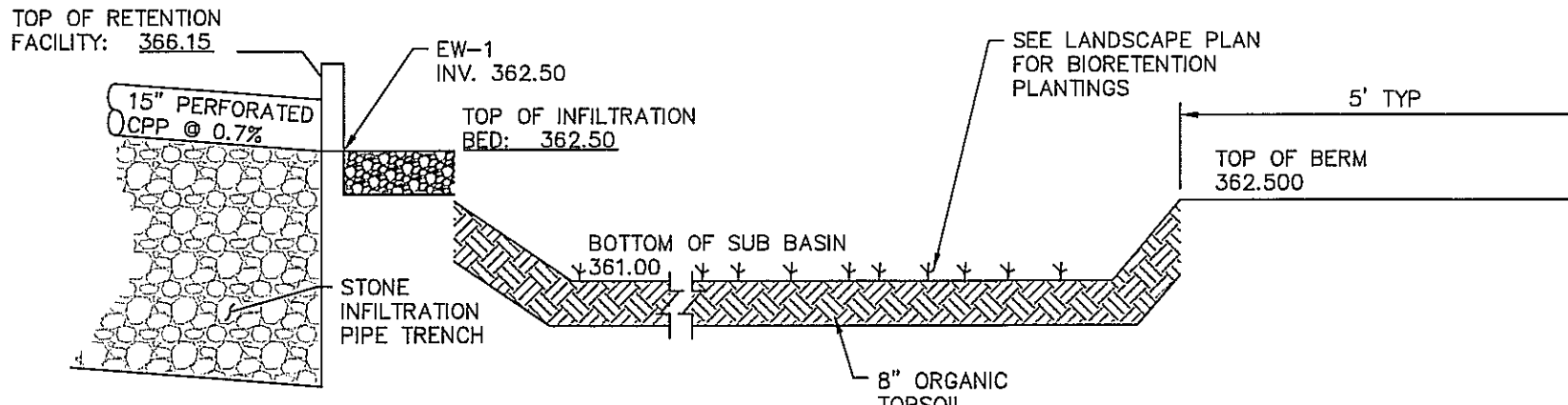
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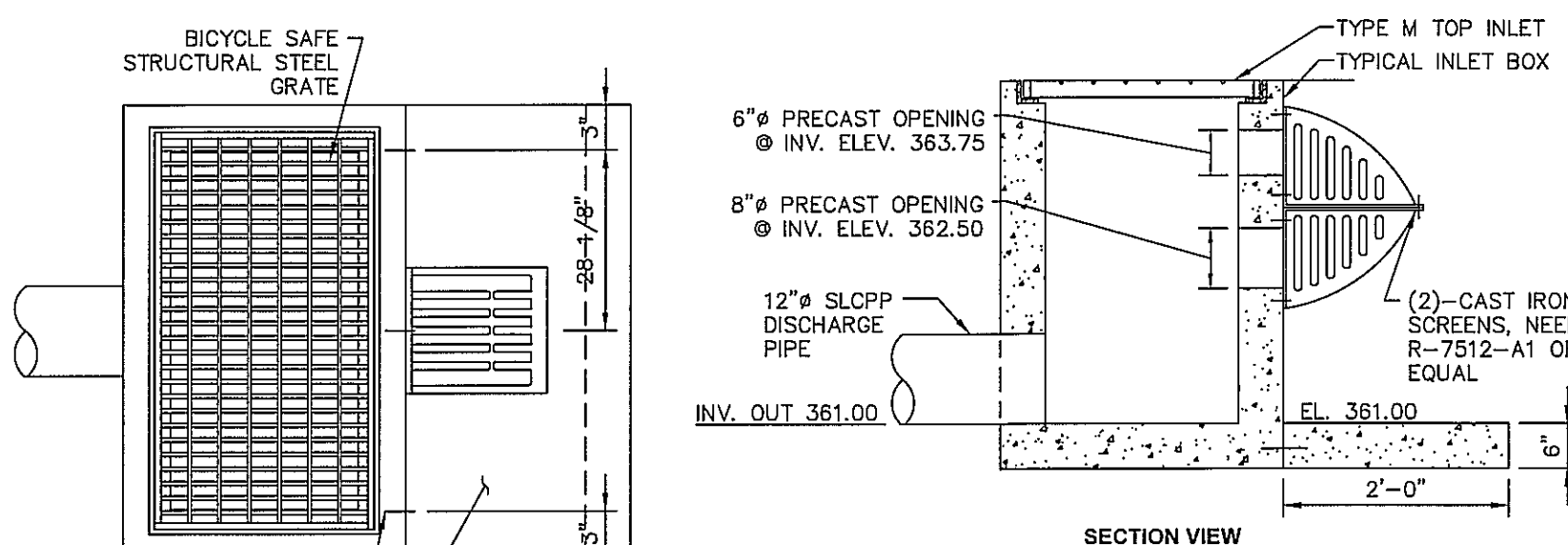
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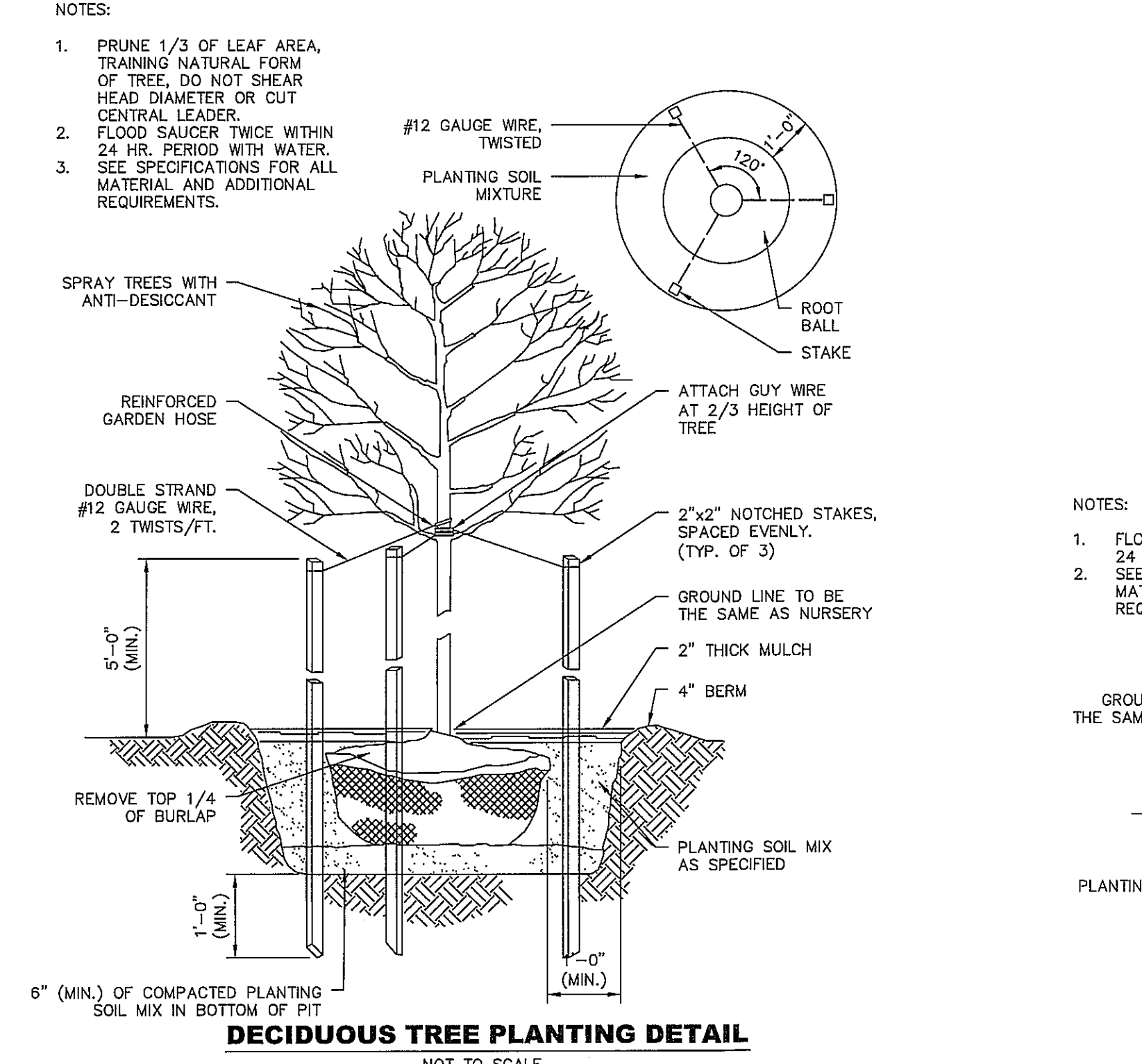
STONE INFILTRATION PIPE TRENCH  
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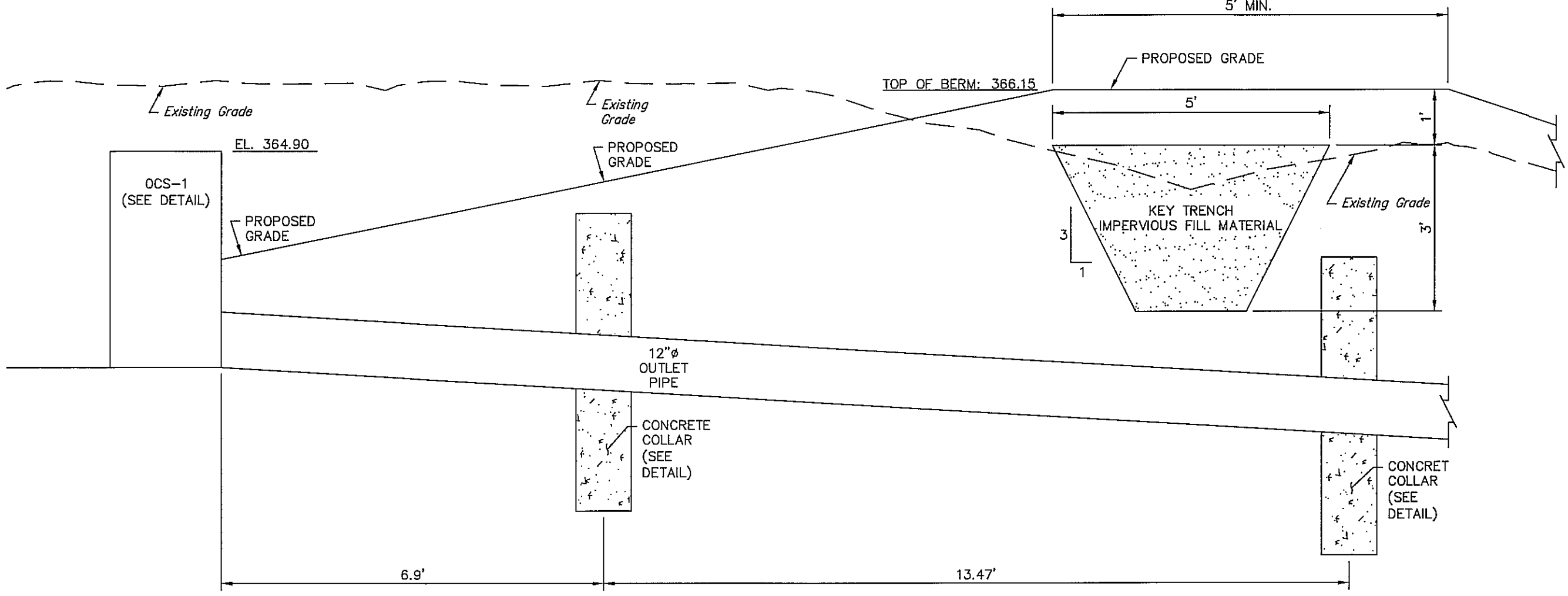
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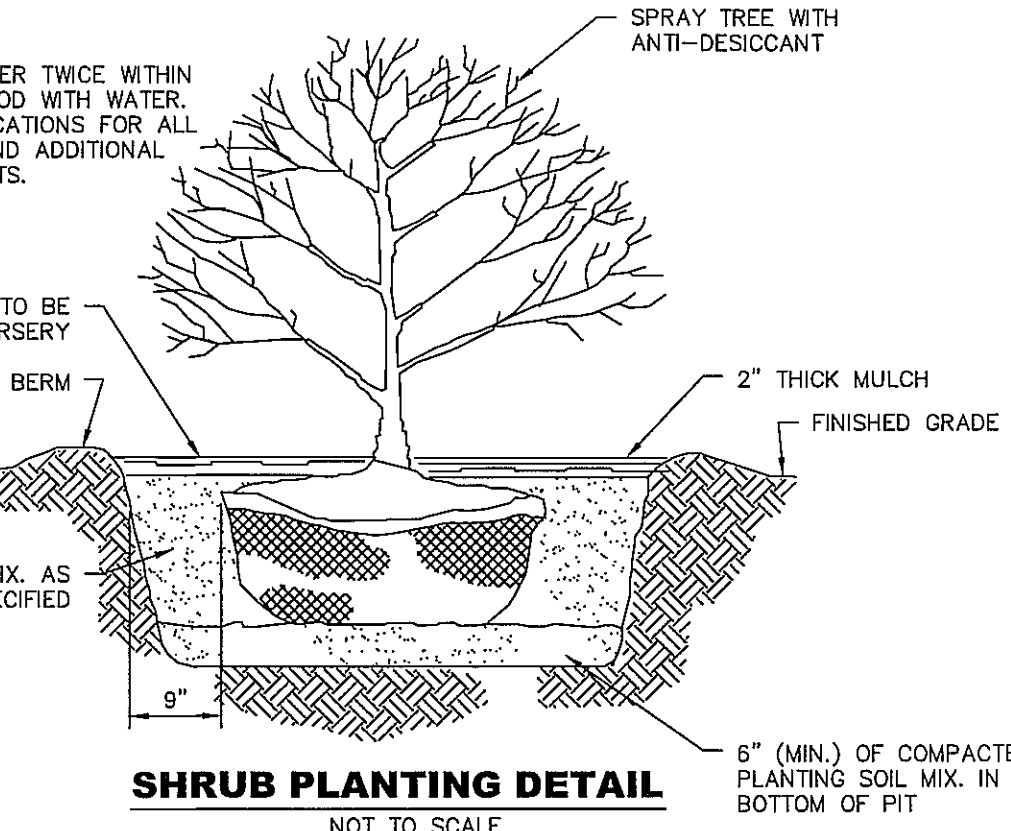
OUTLET STRUCTURE (OCS-1) DETAIL  
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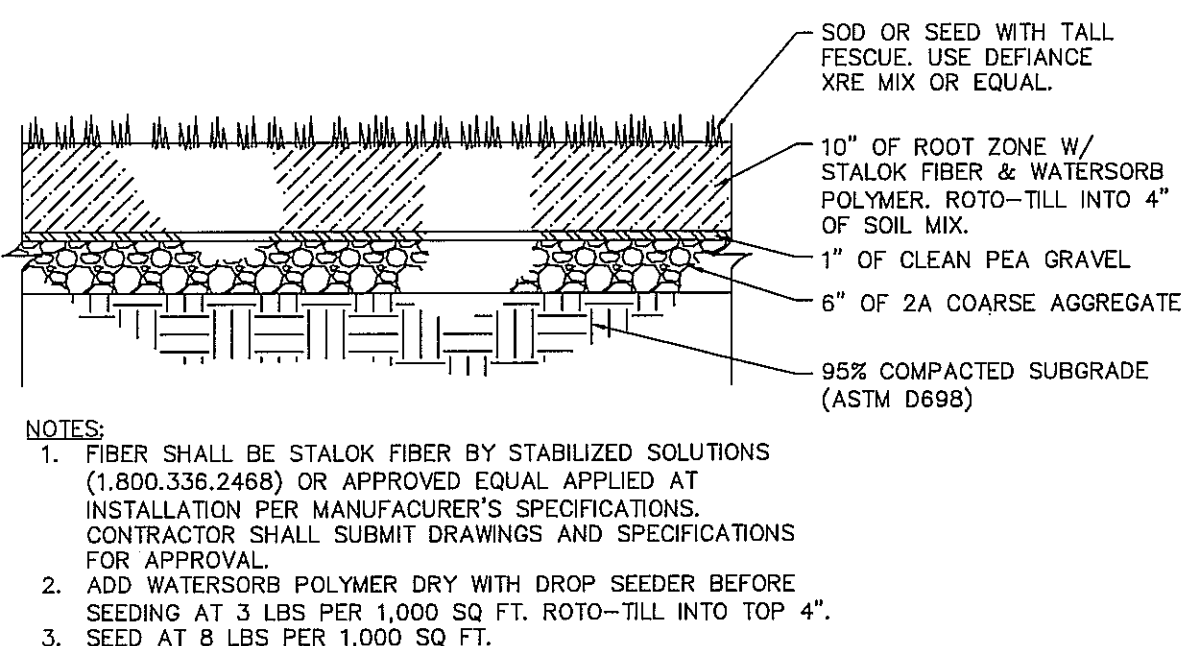
DECIDUOUS TREE PLANTING DETAIL  
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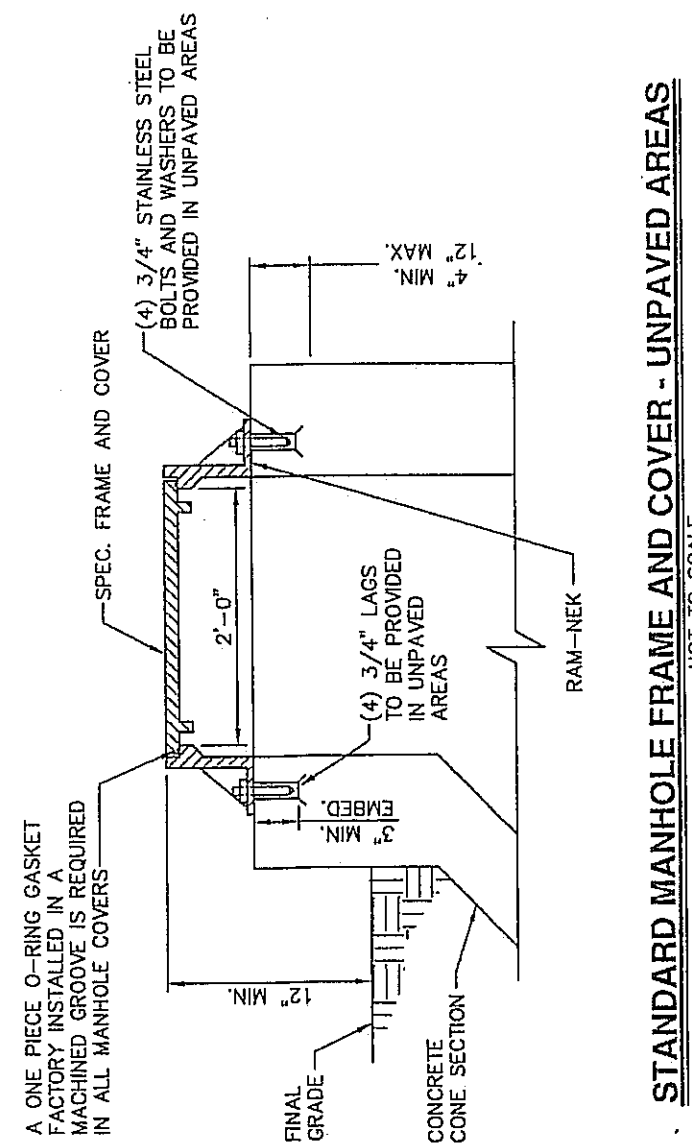
SWM BASIN OUTFALL DA-1 AND KEY TRENCH DETAIL  
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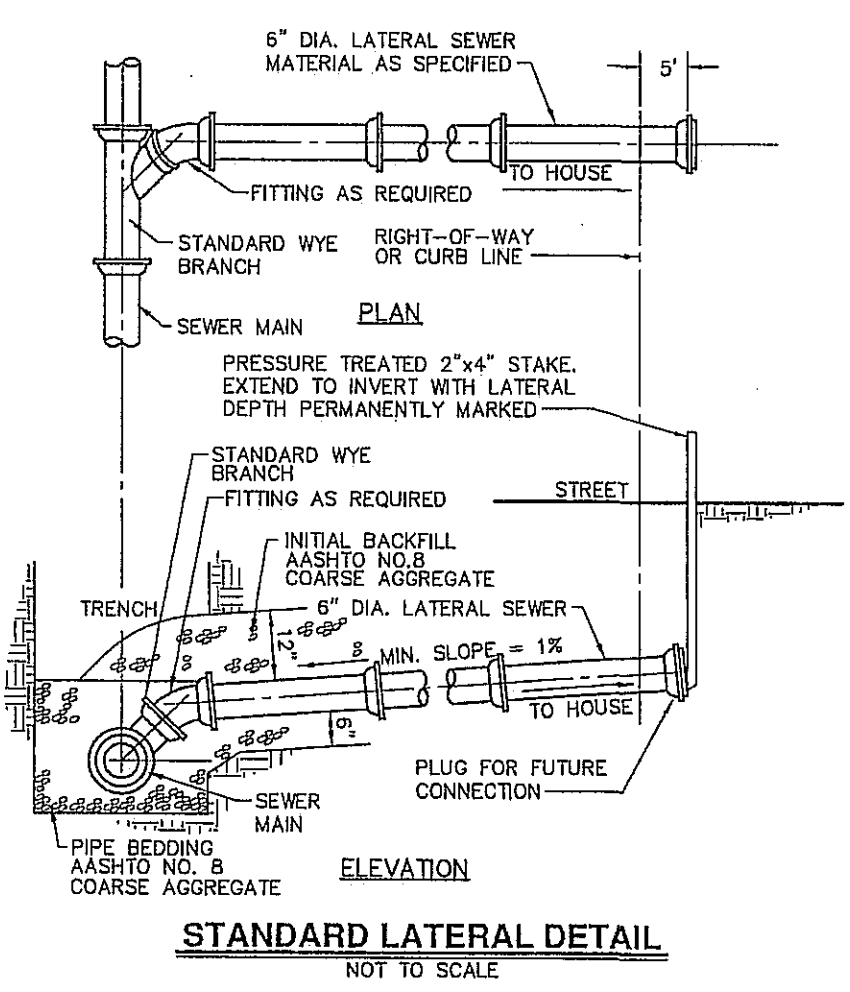
SHRUB PLANTING DETAIL  
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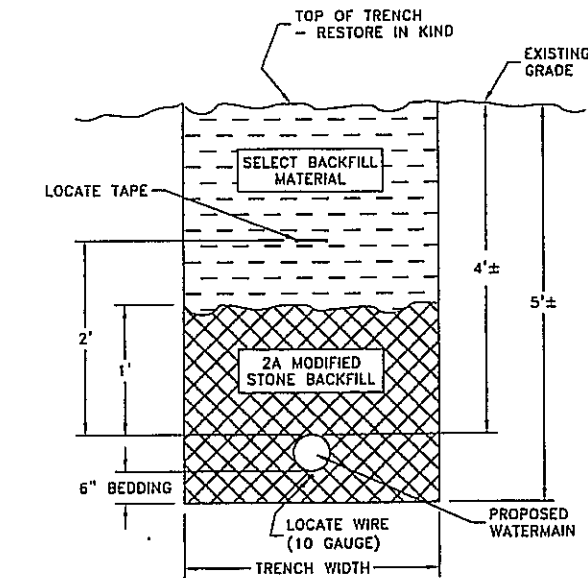




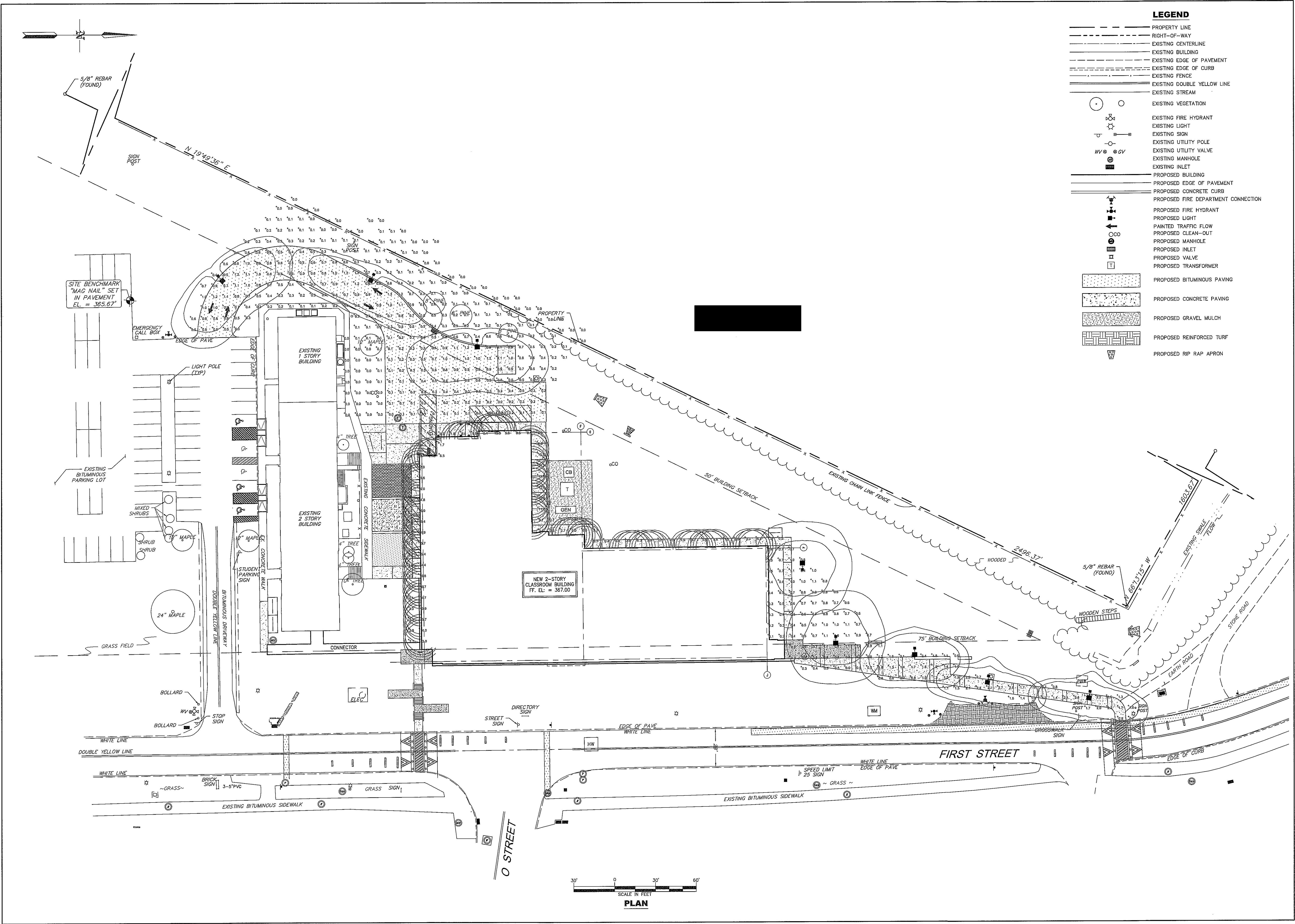
<b>MUNICIPAL AUTHORITY OF LOWER SWATARA TOWNSHIP STANDARD DETAILS</b>			PREL WORK - YES SECTION - 27 CASE - RP CHECKED - SCALE - NONE DATE - JAN 2008	DETAIL NO <b>D10</b> SHEET NO. <b>1 of 1</b> PROJECT 1767630
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MUNICIPAL AUTHORITY OF LOWER SWATARA TOWNSHIP STANDARD DETAILS	PRICE NO. - 000	DETAIL NO.
	DESIGN - JF	D26
	CODE - 102	
	CHANGED -	
	MAKE - NONE	SHEET NO. 1 OF 1



OTHER READ OR ASSUMED AS TO ACCURACY OR RELATIVE ACCURACY. NO WARRANTY IS MADE BY THE COMPANY FOR ANY USE OF THE DATA CONTAINED HEREIN FOR ANY PURPOSES OTHER THAN THAT FOR WHICH IT IS INTENDED.				DWG. NAME  TRENCH RESTORATION DETAIL FOR AREAS OUTSIDE PAVEMENT			
NO.	REVISION	DATE		DRAWN BY	SCALE	DATE	CAD FILE NAME
1	add locate tape and wire	1-4-06					



REVISION

DATE

NO.

BY

APRVD

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LIGHTING PLAN

PROJECT NO.: 11147-11

DESIGNED BY:

DRAWN BY:

CHK'D BY:

DATE: October 11, 2012

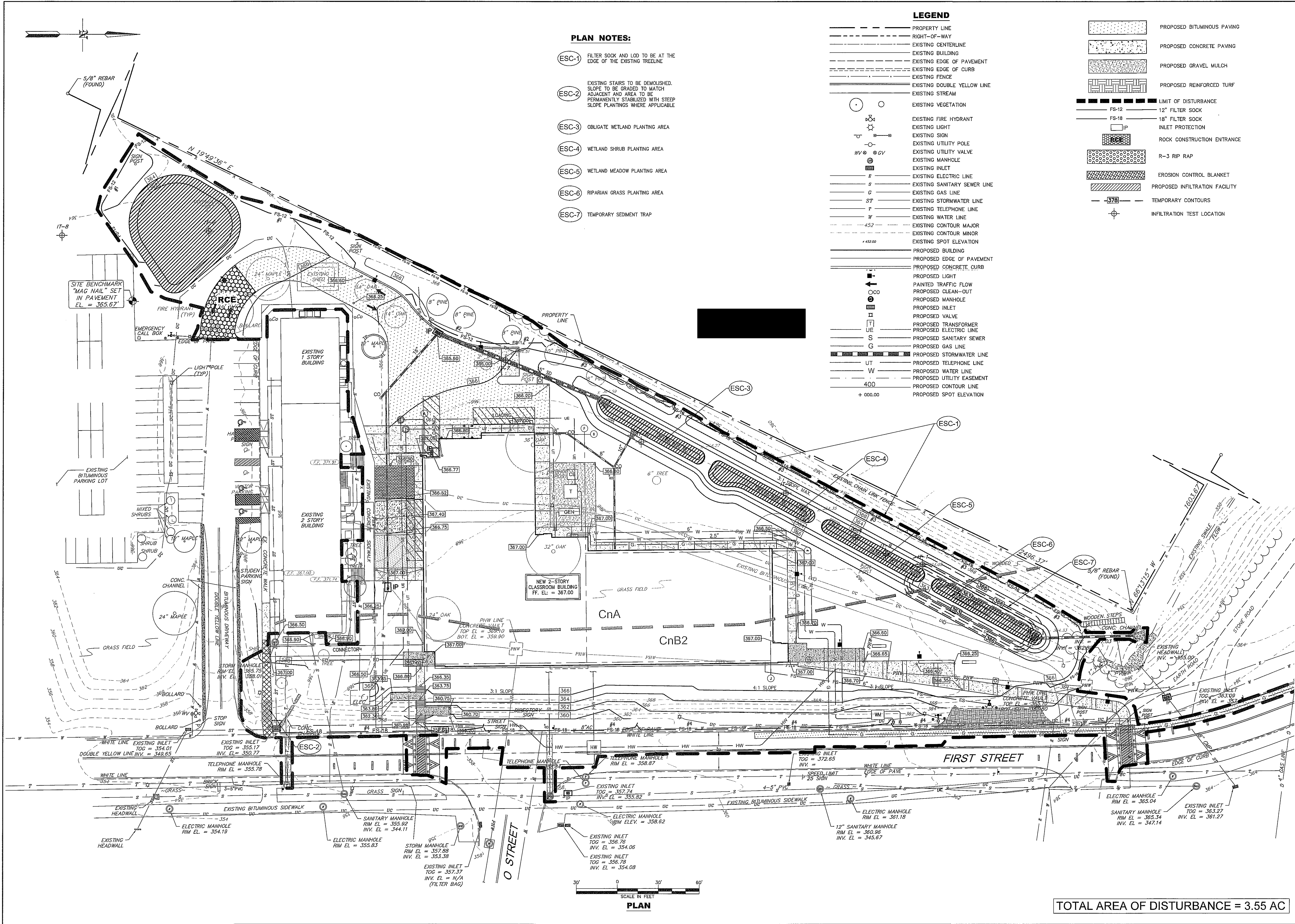
SCALE: AS SHOWN

SHEET NO.:

LP 1

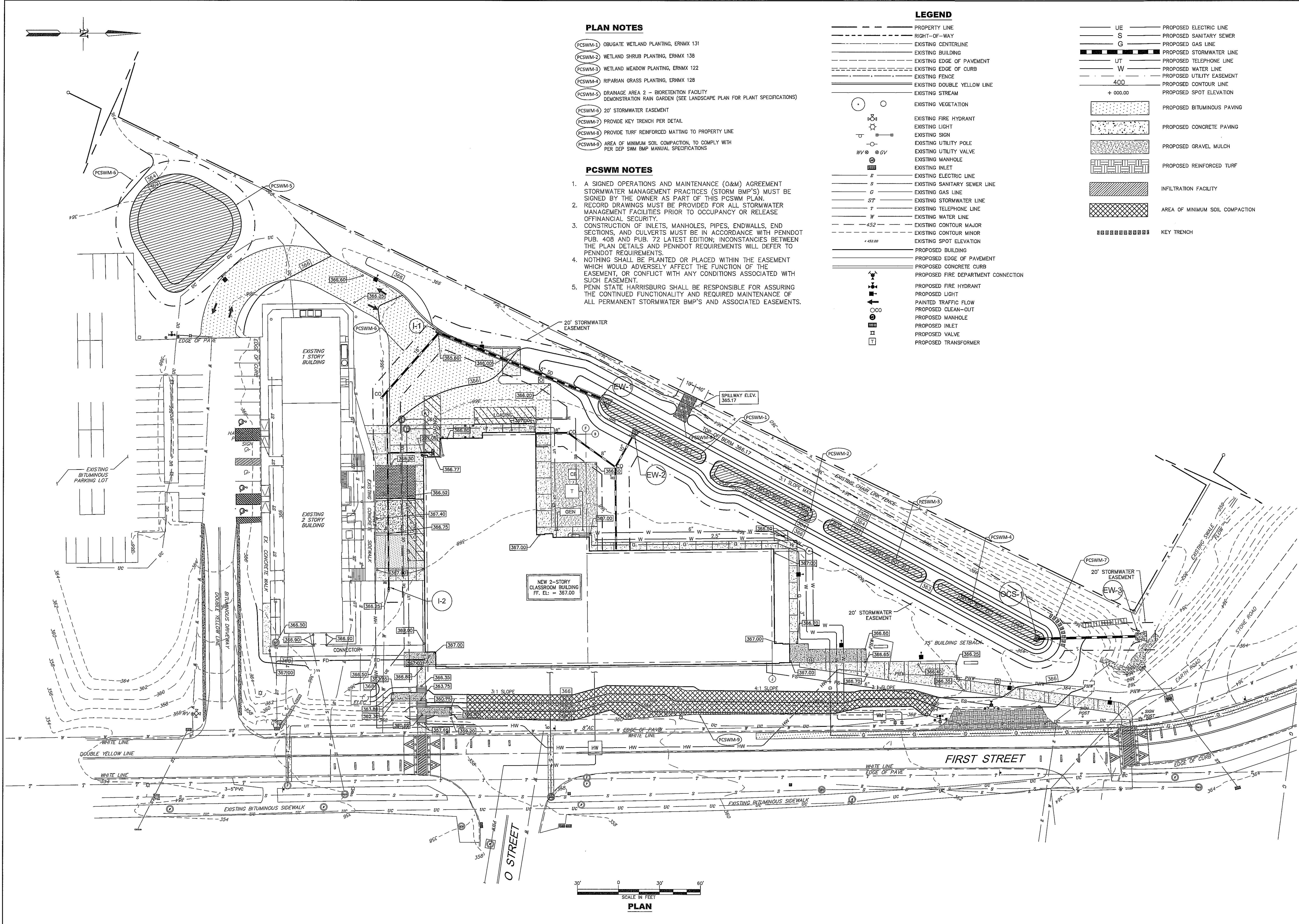
SHEET 1 OF 1





PER TOWNSHIP REVIEW COMMENTS				PER DCD COMMENTS				PER TOWNSHIP REVIEW COMMENTS				PER DCD COMMENTS				BY			
DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.
11/07/12	1	11/19/12	2	12/05/12	3	1/24/13	4												
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PROJECT NO.: 11147-11				DESIGNED BY: DPG				DRAWN BY: JAG				CHK'D BY: JAR2				DATE: August 9, 2012			
SCALE: AS SHOWN				SHEET NO.:				ESC 1				SHEET 13 OF 16							





PLAN NOTES

- PCSWM-1 OBUGATE WETLAND PLANTING, ERNMX 131
- PCSWM-2 WETLAND SHRUB PLANTING, ERNMX 138
- PCSWM-3 WETLAND MEADOW PLANTING, ERNMX 122
- PCSWM-4 RIPARIAN GRASS PLANTING, ERNMX 128
- PCSWM-5 DRAINAGE AREA 2 - BIORETENTION FACILITY DEMONSTRATION RAIN GARDEN (SEE LANDSCAPE PLAN FOR PLANT SPECIFICATIONS)
- PCSWM-6 20' STORMWATER EASEMENT
- PCSWM-7 PROVIDE KEY TRENCH PER DETAIL
- PCSWM-8 PROVIDE TURF REINFORCED MATTING TO PROPERTY LINE
- PCSWM-9 AREA OF MINIMUM SOIL COMPACTION, TO COMPLY WITH PER DEP SWM BMP MANUAL SPECIFICATIONS

PCSWM NOTES

- A SIGNED OPERATIONS AND MAINTENANCE (O&M) AGREEMENT STORMWATER MANAGEMENT PRACTICES (STORM BMP'S) MUST BE SIGNED BY THE OWNER AS PART OF THIS PCSWM PLAN.
- RECORD DRAWINGS MUST BE PROVIDED FOR ALL STORMWATER MANAGEMENT FACILITIES PRIOR TO OCCUPANCY OR RELEASE OFFINANCIAL SECURITY.
- CONSTRUCTION OF INLETS, MANHOLES, PIPES, ENDWALLS, END SECTIONS, AND CULVERTS MUST BE IN ACCORDANCE WITH PENNDOT PUB. 408 AND PUB. 72 LATEST EDITION; INCONSTANCIES BETWEEN THE PLAN DETAILS AND PENNDOT REQUIREMENTS WILL DEFER TO PENNDOT REQUIREMENTS.
- NOTHING SHALL BE PLANTED OR PLACED WITHIN THE EASEMENT WHICH WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT, OR CONFLICT WITH ANY CONDITIONS ASSOCIATED WITH SUCH EASEMENT.
- PENN STATE HARRISBURG SHALL BE RESPONSIBLE FOR ASSURING THE CONTINUED FUNCTIONALITY AND REQUIRED MAINTENANCE OF ALL PERMANENT STORMWATER BMP'S AND ASSOCIATED EASEMENTS.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF CURB
- EXISTING FENCE
- EXISTING DOUBLE YELLOW LINE
- EXISTING STREAM
- EXISTING VEGETATION
- EXISTING FIRE HYDRANT
- EXISTING LIGHT
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING UTILITY VALVE
- EXISTING MANHOLE
- EXISTING INLET
- EXISTING ELECTRIC LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING STORMWATER LINE
- EXISTING TELEPHONE LINE
- EXISTING WATER LINE
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- EXISTING SPOT ELEVATION
- PROPOSED BUILDING
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE HYDRANT
- PROPOSED LIGHT
- PAINTED TRAFFIC FLOW
- PROPOSED CLEAN-OUT
- PROPOSED MANHOLE
- PROPOSED INLET
- PROPOSED VALVE
- PROPOSED TRANSFORMER
- UE PROPOSED ELECTRIC LINE
- S PROPOSED SANITARY SEWER
- G PROPOSED GAS LINE
- STW PROPOSED STORMWATER LINE
- UT PROPOSED TELEPHONE LINE
- W PROPOSED WATER LINE
- 400 PROPOSED UTILITY EASEMENT
- + 000.00 PROPOSED SPOT ELEVATION
- PROPOSED BITUMINOUS PAVING
- PROPOSED CONCRETE PAVING
- PROPOSED GRAVEL MULCH
- PROPOSED REINFORCED TURF
- INFILTRATION FACILITY
- AREA OF MINIMUM SOIL COMPACTION
- KEY TRENCH

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

PROJECT NO.: 11147-11  
DESIGNED BY: DPG  
DRAWN BY: JAG  
CHK'D BY: JAR2  
DATE: August 9, 2012  
SCALE: AS SHOWN  
SHEET NO.:

ESC 2

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NOTIFIED OF ANY DISCREPANCIES BEFORE  
PROCEEDING WITH CONSTRUCTION.  
DO NOT SCALE DRAWINGS.

DATE	NO.	REVISION	BY	APPROVED
11/07/12	1	PER TOWNSHIP REVIEW COMMENTS	BKK	
11/19/12	2	PER DCD COMMENTS	BKK	
12/05/12	3	PER TOWNSHIP REVIEW COMMENTS	BKK	
1/24/13	4	PER DCD COMMENTS	BKK	



## GENERAL NOTES

1. ALL UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE LOCATIONS ARE APPROXIMATE AND MUST BE VERIFIED PRIOR TO CONSTRUCTION. EXCAVATION, TRENCHING, OR ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
2. ALL CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER SUCH THAT SOIL EROSION AND AIR/WATER POLLUTION IS MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE FOLLOWED.
3. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ANY ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR EROSION. EROSION CONTROL MEASURES SHALL BE INSTALLED IMMEDIATELY WITH THE EMERGENCY EROSION PROBLEMS. STONE AND OTHER MULCHES SHALL BE IN READINESS TO DEAL IMMEDIATELY WITH THE EMERGENCY EROSION PROBLEMS.
4. THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64 "EROSION CONTROL RULES AND REGULATIONS", TITLE 25, PART I, SUBPART C, "PROTECTION OF NATURAL RESOURCES", AND ARTICLE III "WATER RESOURCES", CHAPTER 102 EROSION CONTROL. ALL ARE PUBLISHED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES.
5. A COPY OF THESE PLANS AND REPORT MUST BE POSITIONED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
6. ANY REFERENCE TO STABILIZATION REFERS TO A MINIMUM UNIFORM 70% VEGETATIVE GROUND COVER (PERENNIAL FOR PERMANENT AND ANNUAL FOR TEMPORARY) TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT. VEGETATION MUST BE CONTACTED IMMEDIATELY. THE SITE SHALL BE IMMEDIATELY SEEDDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.
7. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: ALL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE SHALL BE REMOVED FROM THE PROJECT SITE. THE CONCENTRATIONS OF THE REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLE PF-1a and PF-1b FOUND IN THE DEPARTMENT'S "CLEAN FILL" MANAGEMENT OF FILL.
8. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM PF-001 TO CERTIFY THAT THE FILL IS CLEAN. THE MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE FILL FOR RE-USE. THE FORM PF-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL AND MUST BE KEPT ON HAND AND MADE AVAILABLE UPON REQUEST BY THE DEPARTMENT OF AUTHORIZED CONSERVATION DISTRICT. FAILURE TO MAINTAIN RECORDS FOR PROOF OF FILL QUALITY OR NON-QUALITY OR TERMINATION OF YOUR PERMIT COULD BE A VIOLATION OF A COPY OF FORM PF-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
9. ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANDPORN MAPS, AND OTHER INVESTIGATIVE TECHNIQUES, INCLUDING BUT NOT LIMITED TO, ANALYTICAL TESTING, SHALL BE USED. 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 BE AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF IT QUALIFIES AS CLEAN FILL, TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLYMER FILL MANAGEMENT OF FILL.
10. CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THIS INCLUDES SAND, ROCK, CRUSHED MATERIAL, USED ASPHALT AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. IT DOES NOT INCLUDE MATERIALS PLACED IN CONTACT WITH SURFACE WATERS UNLESS OTHERWISE AUTHORIZED, MILLIMED ASPHALT, OR ASPHALT MATERIAL THAT HAS BEEN PROCESSED FOR RE-USE.
11. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25p.c. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT, OR 271 PROPOSED WASTE MANAGEMENT.
12. ALL EARTH DISTURBANCES, INCLUDING GRADING AND GRUBBING AND WELL AS ANY OTHER WORK, SHALL BE DONE IN ACCORDANCE WITH THE EARTH DISTURBANCE ACT AND THE REGULATIONS THEREUNDER. ALL WORKING AND DATED BY THE REVIEWING AGENCY MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO THE COMMENCEMENT OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

Wildlife Food & Shelter Mix	
ERINMX-35	ERINMX-135
Cost Per Seed	\$40.91
Seeding Rate	50 lb per acre, or 1/2 lb per 1,000 sq ft
Species List (click for details)	<p>Wet Meadow &amp; Wetland Sites</p> <ul style="list-style-type: none"> <li>55% <i>Poa Secale</i>, <i>Poa Elytrata</i> (Ceres v. hybridus), <i>Poa Elytrata</i></li> <li>20% <i>Biarthrum Villosum</i>, <i>Poa Elytrata</i> (<i>Eragrostis riparia</i>), <i>Poa Elytrata</i></li> <li>10% <i>Stachys Serotina</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> <li>10% <i>Silene Douroglora</i>, <i>Poa Elytrata</i> (<i>Cornus amomum</i>), <i>Poa Elytrata</i></li> <li>5% <i>Polypogon Monspeliensis</i>, <i>Poa Elytrata</i> (<i>Cornus racemosa</i>), <i>Poa Elytrata</i></li> <li>10% <i>Medicago</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> <li>5% <i>Brachypodium Cynosuroides</i>, <i>Poa Elytrata</i></li> <li>5% <i>Hordeum Glaberrimum</i>, <i>Poa Elytrata</i> (<i>Cornus comosa</i>), <i>Poa Elytrata</i></li> <li>5% <i>Ammannia</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> <li>5% <i>Scirpus Setae</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> <li>5% <i>Hordeum Glaberrimum</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> <li>1% <i>Strophololium</i>, <i>Poa Elytrata</i> (<i>Carex lasiocarpa</i>), <i>Poa Elytrata</i></li> </ul>
<p>Prices are subject to change without notice. Please call (800) 873-3333 for current pricing.</p>	

Prices are subject to change without notice. Please call (800) 873-3321 for current pricing.

1. ALL EXISTING AND NEWLY PLANTED, UPRIGED, AND SHIPPED TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBSTRUCTING MATERIAL.
2. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STATE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING, AND TOPSOIL STRIPPING MAY NOT COME IN ANY STAGE OR PHASE OF THE PROJECT UNLESS THE BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
3. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
4. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE DISTURBED AREA TO BE RESTORED. STOCKPILE HEIGHTS SHALL BE LIMITED TO 2 FEET. STOCKPILE PERIMETER SHALL BE FENCED. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
5. IMMEDIATELY UPON DISCOVERING UNDESIRABLE OR UNPREDICTABLE CONDITIONS POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENTATION, THE OPERATOR SHALL IMPLEMENT THE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
6. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 2603.1 ET SEQ., 2717.1, AND 2871.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCARDED AT THE SITE.
7. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-00 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
9. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN. OVER UNDISTURBED VEGETATED AREAS.
10. VEHICLES AND EQUIPMENT MAY NEVER ENTER DIRECTLY NOR EXIT DIRECTLY FROM DISTURBED AREAS INTO FIRST AVENUE.
11. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
12. THE CONTRACTOR SHALL MAINTAIN THE PENNSYLVANIA STATE UNIVERSITY - EROSION AND SEDIMENTATION CONTROL INSPECTION LOG SHEET TO DOCUMENT EACH INSPECTION AND ALL BMP REPAIR, OR REPLACEMENT AND MAINTENANCE ACTIVITIES. THE LOG SHEET SHALL BE MADE AVAILABLE TO ANY AGENCY OR AGENCY OFFICIAL AT ANY TIME UPON THE REQUEST OF THE AGENCY OFFICIAL.
13. UNTIL THE SITE IS STABILIZED ALL E&S BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL E&S BMPs ON A WEEKLY BASIS AND AFTER EACH STORMWATER EVENT. ALL PREVENTATIVE REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
14. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
15. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTCROPPS SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
16. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL MATERIAL TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

31. ALL EARTH FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
32. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, RODS, SOIL, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
33. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
34. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
35. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
36. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUTS SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
37. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. ANNUAL AND PERMANENT STABILIZATION IS GRANTED A ONE YEAR PERIOD. ONE YEAR MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN ONE YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
38. PERMANENT STABILIZATION IS GRANTED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO EROSION.

38. EBS BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
40. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE EBS BMPs.
41. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE IMMEDIATELY RESEEDED TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS. SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
42. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
43. FAILURE TO CORRECTLY INSTALL EBS BMPs, FAILURE TO PREVENT SEDIMENT-LOADED RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO MAINTAIN EBS BMPs TO PREVENT SEDIMENT-LOADED RUNOFF FROM LEAVING THE ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL JUSTICES LAW ENFORCEMENT BUILDING SHALL BE CONSIDERED A VIOLATION OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES THAT FOR \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$100,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$1,000,000 IN SUMMARY CRIMINAL PENALTIES FOR EACH VIOLATION.
44. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITH 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND ADJUTANT DETAIL SHEETS.

42. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO DISCUSS THE RESULTS OF THE MONITORING AND THE NEED FOR FURTHER MONITORING.

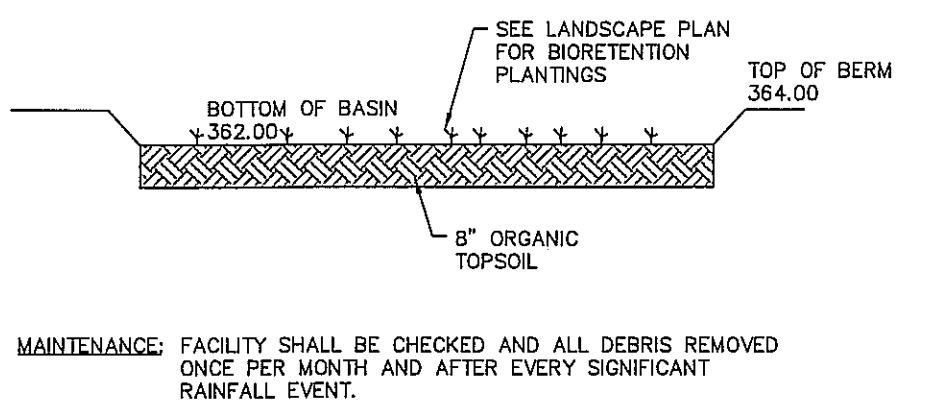
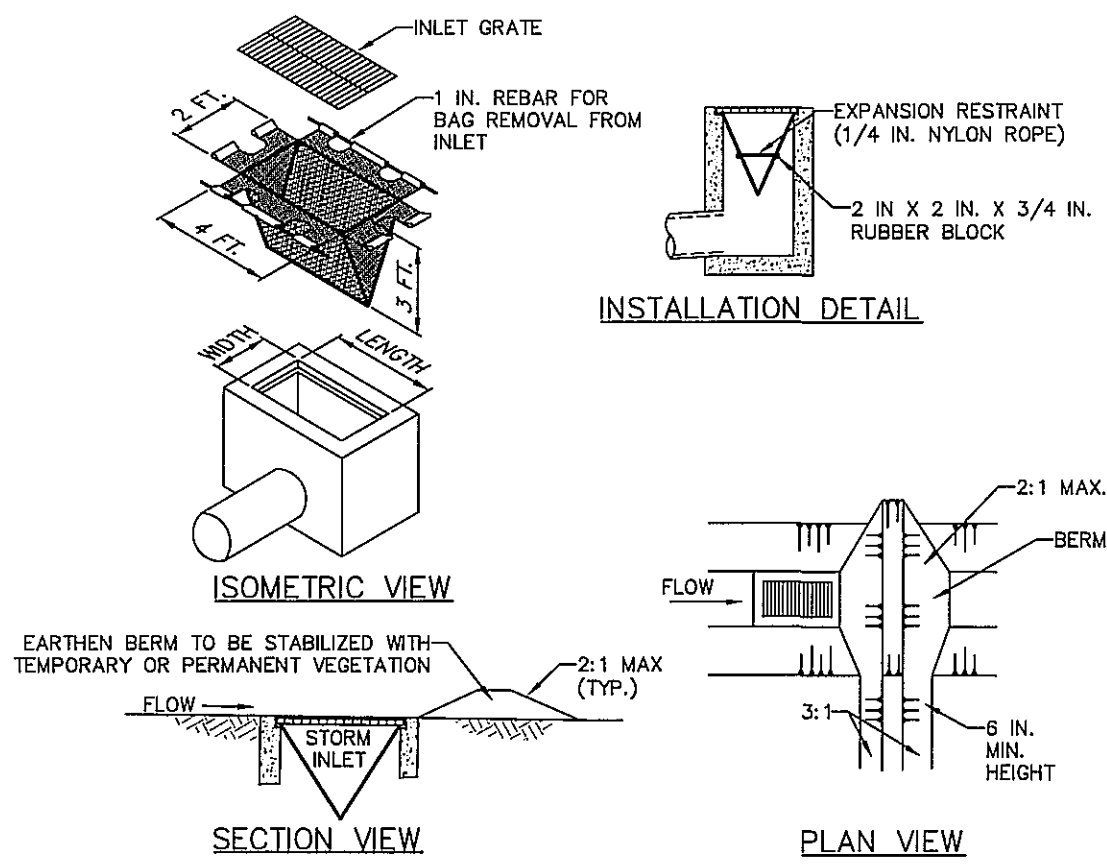
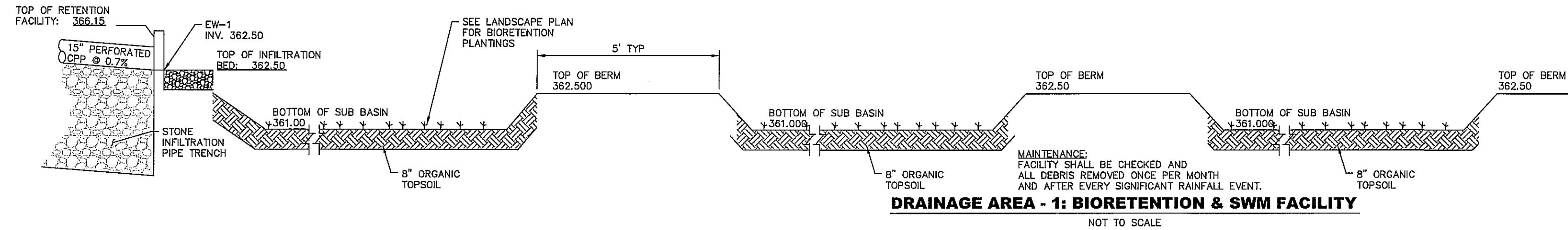
43. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LOADED RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS PROVISIONS OF THE LAW PROVIDE FOR FINES OF UP TO \$100,000 PER VIOLATION, UP TO \$100,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

44. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3:1V OR STEEPER WITH 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

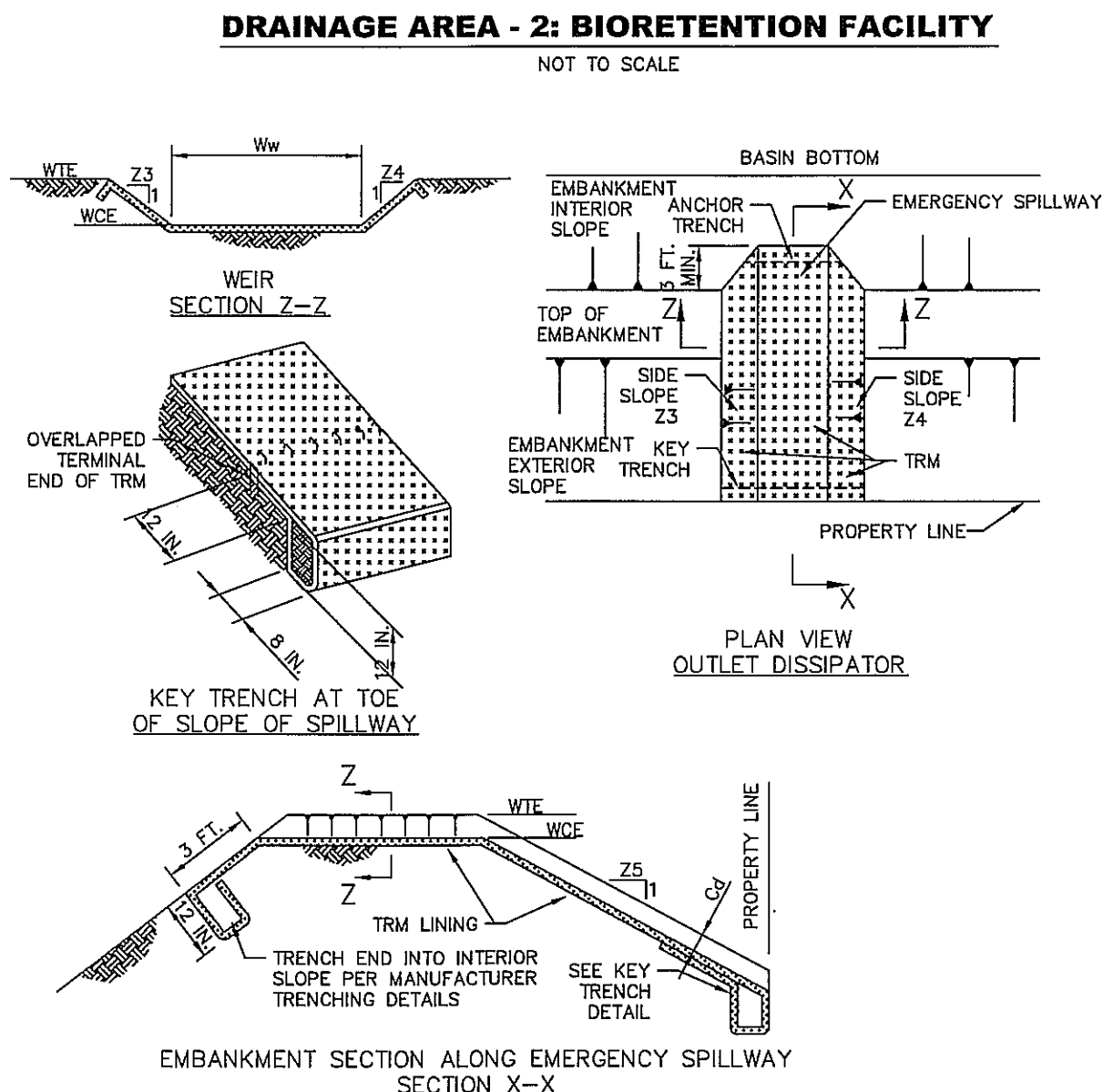
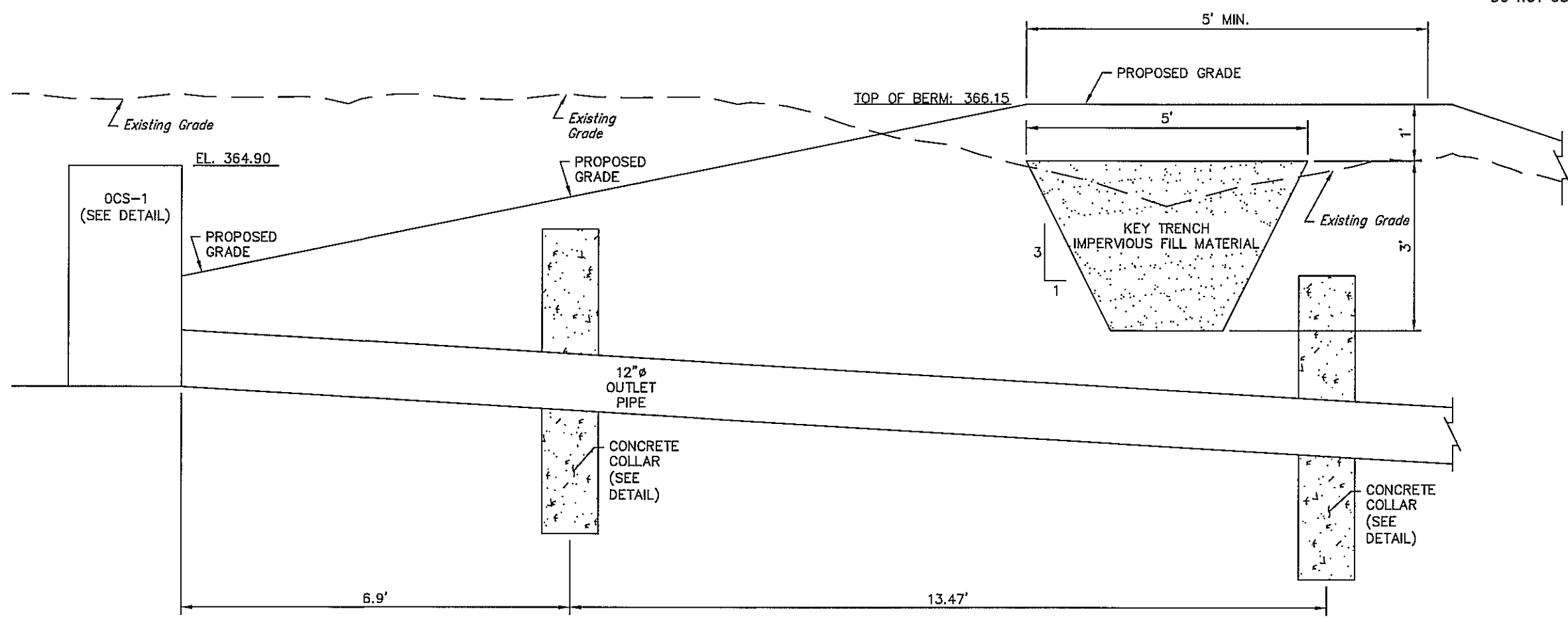
# EROSION & SEDIMENTATION CONTROL NOTES

# ESC 3





**COMPOST FILTER SOCK**  
NOT TO SCALE

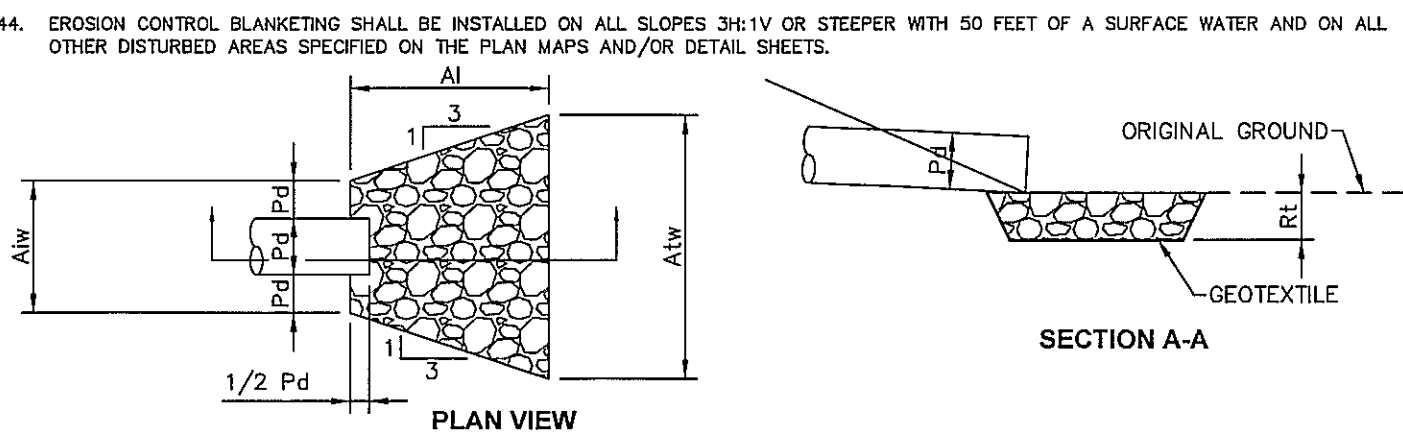


BASIN NO.	WEIR					LINING		CHANNEL	
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	Z5 (FT)	DEPTH Cd (FT)
DA-1	3	3	366.15	365.15	10	C35	2	2	0.3

NOTES:

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING.

DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

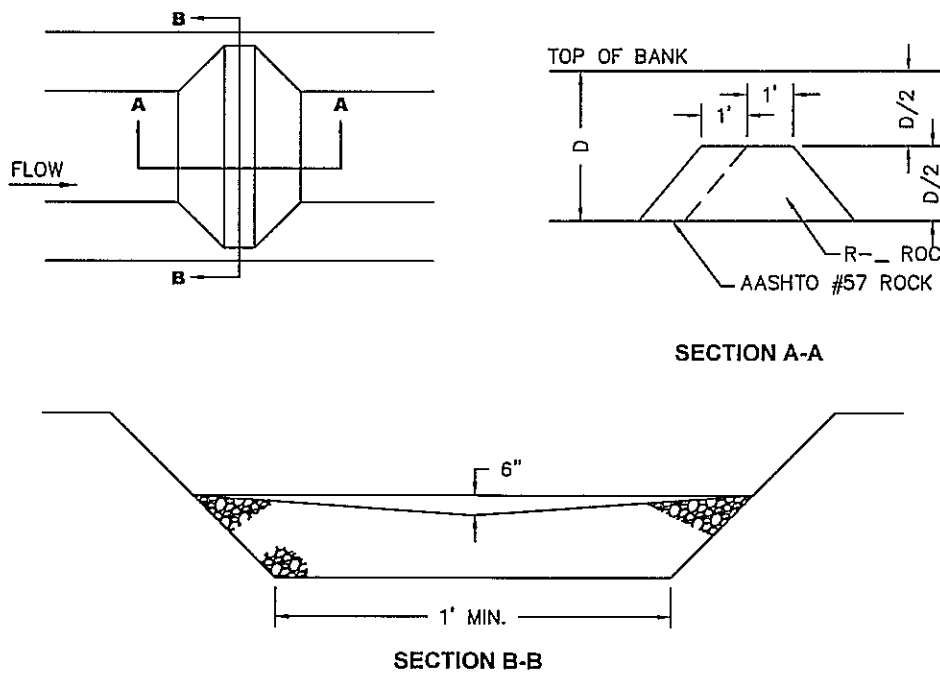


NO.	PIPE DIA (IN)	TAIL WATER COND. (Max or Min.)	MAN. "n" FOR PIPE	PIPE SLOPE (FT/FT)	Q (CFS)	V* (FPS)	RIPRAP SIZE	Rt (in)	At (FT)	Aiw (FT)	Atw (FT)
EW-1	15	MAX	0.023	0.005	2.13	2.3	R=3	12	8	3.75	12.5
EW-2	8	MAX	0.023	0.005	0.5	1.5	R=3	12	8	2	6.2
EW-3	12	MAX	0.026	0.061	2.3	6.2	R=3	12	8	3	6.2

**RIPRAP APRON OUTLET PROTECTION**  
NOT TO SCALE

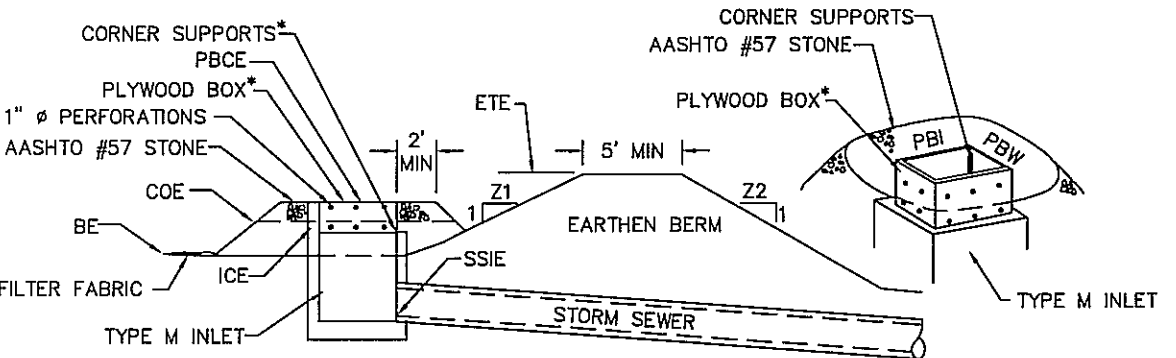
BASIN NO.	WEIR					LINING		CHANNEL	
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	Z5 (FT)	DEPTH Cd (FT)
	3	3	366.15	365.15	10	C35	2	2	0.3

**SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING**



NOTES:  
ROCK FILTER WILL BE USED IN THE EVENT A SECTION OF COMPOST FILTER SOCK FAILS.  
SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.  
IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT,  
REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

**ROCK FILTER**  
NOT TO SCALE



TRAP NO.	Z1 (FT)	Z2 (FT)	PLYWOOD BOX			PERFORATIONS		INLET CREST ELEV ICE (FT)	STORM SEWER INVERT ELEV ICE (FT)	EMBANK TOP ELEV ETE (FT)	CLEAN OUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
			LENGTH PBI (IN)	WIDTH PBW (IN)	CREST ELEV PBCE (FT)	NO. PER ROW	ROW ELEV (FT)					
1	3	3	48	36	365.00	3	364.00	364.39	362.50	366.00	364.10	363.00

\* 3/4" MARINE GRADE PLYWOOD BOX WITH 2"x2" PRESSURE TREATED CORNER SUPPORTS, SET INTO TYPE M INLET 1 1/2" GRATE OFFSETS TO FORM WATERTIGHT SEALS.

MAINTENANCE:

AT A MINIMUM, SEDIMENT TRAPS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. SEDIMENT MUST BE REMOVED FROM THE TRAP WHEN THE STORAGE VOLUME HAS BEEN REDUCED TO 1,500 CUBIC FEET PER ACRE OF CONTRIBUTING DRAINAGE. THIS ELEVATION SHOULD BE CLEARLY MARKED ON A STAKE NEAR THE CENTER OF THE TRAP.

CLOGGED OR DAMAGED SPILLWAYS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS.

OTHER REQUIRED MAINTENANCE SHALL BE COMPLETED WITHIN 5 WORKING DAYS OF INSPECTION.

**TYPE M INLET SEDIMENT TRAPS**  
NOT TO SCALE