DISTRICT		COUNT	1		TOWN	SHIP		BOF	ROUG	Н	ROU	TE		SECTI	ON	то	TAL:	SHEETS
	PHIL	_ADELF	PHIA	PH	IILAD	ELPI	HIA				_			_				_
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								WBS I	ELEM	ENT								
	T/P	SYS		WO		SPUR	PHA	SEC	CTION		OF	₹G			PRG		P_C	

SHEET SET LIST								
DRAWING SET	NUMBER OF SHEETS							
CIVIL SET	29							
LANDSCAPE SET	16							
STRUCTURE SET	3							
ELECTRICAL SET	7							

# SCHUYLKILL RIVER DEVELOPMENT CORPORATION

CIVIL DRAWINGS

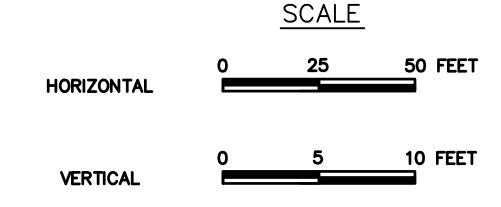
FOR

CONSTRUCTION

OF

THE SCHUYLKILL RIVER TRAIL EXTENSION — SOUTH STREET TO CHRISTIAN STREET IN <u>PHILADELPHIA COUNTY</u>, PENNSYLVANIA

FROM STA. 99+56.00 TO STA. 113+68.00 LENGTH 1412.00 FT, 0.27 MI.

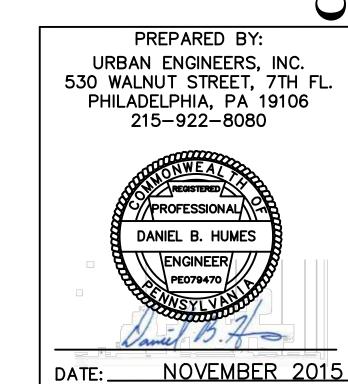


## DESIGN DESIGNATION

HIGHWAY CLASSIFICATION — SHARED USE PATH DESIGN SPEED — 20 MPH

PAVEMENT WIDTH — 12'-0"

SHOULDER WIDTH - 2'-0" (NON-PAVED)



#### **GENERAL NOTES:**

- A FIELD SURVEY OF THE SITE WAS PERFORMED BY PENNONI ASSOCIATES IN JANUARY, FEBRUARY AND MARCH 2011.
- 2. UNLESS SPECIFICALLY STATED OR SHOWN HEREON TO THE CONTRARY, THIS SURVEY IS MADE SUBJECT TO AND DOES NOT LOCATE OR DELINEATE:
  - A. RIGHTS OR INTERESTS OF THE UNITED STATES OF AMERICA OR COMMONWEALTH OF PENNSYLVANIA OVER LANDS NOW OR FORMERLY FLOWED BY TIDEWATER BUT NO LONGER VISIBLE OR PHYSICALLY EVIDENT, OR LANDS CONTAINING ANY ANIMAL, MARINE, OR BOTANICAL SPECIES REGULATED BY OR UNDER THE JURISDICTION OF ANY FEDERAL, STATE, OR LOCAL AGENCY.

    B. BUILDING SETBACK LINES, ZONING REGULATIONS OR LINES
  - ESTABLISHED BY ANY FEDERAL, STATE OR LOCAL AGENCY WHICH MAY AFFECT THE BUILDING OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
  - C. ANY SUBSURFACE OR SUBTERRANEAN CONDITION, EASEMENTS OR RIGHTS INCLUDING BUT NOT LIMITED TO MINERAL OR MINING RIGHTS, OR THE LOCATION OF OR RIGHTS TO ANY SUBSURFACE STRUCTURES, CONTAINERS OR FACILITIES OR ANY OTHER NATURAL OR MAN-MADE SUBSURFACE CONDITION WHICH MAY OR MAY NOT AFFECT THE USE OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
- 6. LOCATIONS OF ON AND OFF SITE UTILITIES AS SHOWN ARE APPROXIMATE AND MAY OR MAY NOT BE COMPLETE. THE NATURE AND EXACT LOCATION OF EXISTING UTILITIES SHOULD BE VERIFIED PRIOR TO INITIATING ANY ACTIVITY THAT MAY AFFECT THEIR USE OR LOCATION.
- A. THE LOCATION OF THE EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM EXISTING UTILITY RECORDS AVAILABLE AT THE TIME THESE PLANS WERE PREPARED AND FROM SURFACE OBSERVATION OF THE SITE.
- B. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES IS NOT GUARANTEED.
- C. THE DESIGNER OF RECORD CONTACTED PA-ONE CALL IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 121 OF 2008 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". (1-800-242-1776)
- D. IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 121 OF 2008 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". <u>THE CONTRACTOR SHALL NOTIFY</u> ALL UTILITIES WITHIN THE WORK AREA VIA THE PENNSYLVANIA ONE CALL SYSTEM, INC. (800–242–1776 OR 811) A MINIMUM OF 3 WORKING DAYS BEFORE THE START OF EXCAVATION.
- E. THE CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.
- 4. THIS SITE IS CURRENTLY ZONED 12 MEDIUM INDUSTRIAL DISTRICT IN THE CITY OF PHILADELPHIA AND IS SUBJECT TO THE CTR RESIDENTIAL PARKING CONTROL DISTRICT ZONING OVERLAY. FOR COMPLETE ZONING INFORMATION PLEASE REFER TO THE ZONING CODE OF THE CITY OF PHILADELPHIA AS CURRENTLY AMENDED.
- 5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
  - A. ALL PROPERTY DIMENSIONS SHOWN ARE IN CITY OF PHILADELPHIA DISTRICT STANDARD MEASURE (DS) UNLESS DESIGNATED (US) TO DENOTE U.S. STANDARD MEASURE.
  - B. ALL RIGHT-OF-WAY AND PARCEL LINES ARE APPROXIMATE.
- 6. SITE HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (PA S.P.C.S.), ZONE SOUTH.
- 7. SITE VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
- 8. SITE BENCHMARK: CONCRETE MONUMENT LOCATION:
  NORTHING 234790.34
  EASTING 2688138.11
  ELEVATION 11.46
- 9. THIS PLAN WAS PREPARED IN ACCORDANCE WITH INSTRUCTIONS OF THE CLIENT, SCHUYLKILL RIVER DEVELOPMENT CORPORATION.
- 10. ATTENTION IS CALLED TO THE ZONING REQUIREMENTS IN THE PHILADELPHIA CODE AS AMENDED.
- 11. THE TREE LOCATIONS SHOWN ON THE SITE PLAN ARE AN APPROXIMATE LOCATION. THE TREES WERE LOCATED BY URBAN ENGINEERS USING GPS ON MARCH 7TH, 2013.
- 12. THE PROJECT UNITS ARE U.S. SURVEY FEET.
- 13. PLACE TYPE III BARRICADES WITH "TRAIL CLOSED" SIGNS AT ALL ENTRANCES UNTIL TRAIL IS OFFICIALLY OPENED.
- 14. PER NRCS'S WEB SOIL SURVEY, THE ENTIRE PROJECT SITE IS Ub SOIL TYPE.
- 15. CHAPTER 93 DESIGNATION FOR THE SCHUYLKILL RIVER IS A WARM WATER FISHERY (WWF).
- 16. THE SCHUYLKILL RIVER TRAIL EXTENSION WILL BE CONSIDERED A SHARED USE PATH.
- 17. FEMA 100-YEAR FLOOD PLAIN ELEVATION = 16.50'.
- 18. THE FOLLOWING CONTROL POINT DATA INFORMATION WAS PRODUCED BY URBAN ENGINEERS, INC. WHEN ADDITIONAL SURVEY WAS PERFORMED ON MARCH 24, 2013. CONTRACTOR TO VERIFY ACCURACY PRIOR TO USE.

CONTROL POINT #401 CONTROL POINT #402 NORTHING: 232652.0530 NORTHING: 233095.4060 EASTING: 2686149.4060 EASTING: 2686569.393 ELEVATION: 11.336 ELEVATION: 10.728 CONTROL POINT #403 CONTROL POINT #404 NORTHING: NORTHING: 233561.454 233343.477 EASTING: 2686795.988 EASTING: 2686994.489 ELEVATION: 13.572 ELEVATION: 11.414

#### **UTILITY INFORMATION:**

COMPANY: COMCAST CABLE AREA 1 ADDRESS: 4400 WAYNE AVE PHILADELPHIA, PA 19140 CONTACT: JACK CLAYTON EMAIL: JACK\_CLAYTON@CABLE.COMCAST.COM COMPANY: VERIZON PENNSYLVANIA INC ADDRESS: 900 RACE STREET, 6TH FLOOR PHILADELPHIA, PA 19107 CONTACT: BRIAN M. MAGEE EMAIL: BRIAN.M.MAGEE@VERIZON.COM COMPANY: AT&T LOCAL SERVICES ADDRESS: 2315 SALEM ROAD, A 10 CONYERS, GA 30013 CONTACT: NANCY SPENCE EMAIL: NSPENCE@EMS.ATT.COM COMPANY: PECO ENERGY ADDRESS: 830 S. SCHYULKILL AVE. PHILADELPHIA, PA 19146 CONTACT: LOU ROBINSON EMAIL: LOUIS.ROBINSON@EXELONCORP.COM

COMPANY: LEVEL 3 COMMUNICATIONS LLC
ADDRESS: 1025 ELDORADO BLVD BLDG
BOOMFIELD, CO 80021
CONTACT: LEVEL 3 OPERATOR
EMAIL: NETWORKRELOCATIONS@LEVEL3.COM

COMPANY: VERIZON BUSINESS ADDRESS: 2400 N GLENVILLE RICHARDSON, TX 75082

CONTACT: TOM ROBERTS
EMAIL: TOM.H.ROBERTS@VERIZONBUSINESS.COM

COMPANY: ABOVENET COMMUNICATIONS (ZAYO GROUP)
ADDRESS: 170 ROBBINS ROAD
DOWNINGTON, PA 19335
CONTACT: CHRIS RICCIUTI

EMAIL: CHRIS.RICCIUTI@ZAYO.COM

COMPANY: PHILADELPHIA CITY WATER DEPARTMENT
ADDRESS: 1101 MARKET STREET
2ND FLOOR, ARA TOWER
PHILADELPHIA, PA 19107-2994

CONTACT: FRANK MAWSON

EMAIL: FRANK.MAWSON@PHILA.GOV

COMPANY: PHILADELPHIA CITY DEPT OF STREETS

ADDRESS: ROOM 940 MSB 1401 JFK BLVD

PHILADELPHIA, PA 19102-1676
CONTACT: JOSEPH KISIEL
EMAIL: JOSEPH.KISIEL@PHILA.GOV

COMPANY: PHILADELPHIA GAS WORKS ADDRESS: 800 W MONTGOMERY AVE PHILADELPHIA, PA 19122 CONTACT: THOMAS PENDERGAST

COMPANY: VEOLIA ENERGY PHILADELPHIA, INC. (TQ) ADDRESS: 2600 CHRISTIAN STREET

PHILADELPHIA PA 19146

\*UTILITY CONTACTS AS LISTED FROM THE 'COMMITTEE OF HIGHWAYS SUPERVISORS MEMBERSHIP', DATED MAY 23, 2013.

<u>CIVIL S</u>	<u>CIVIL SHEET SET</u>						
TITLE	SHEET NUMBER	DATE					
COVER SHEET	1 OF 29	11/2/2015					
GENERAL NOTES	2 OF 29	11/2/2015					
EXISTING FEATURES & DEMOLITION PLAN - 1	3 OF 29	11/2/2015					
EXISTING FEATURES & DEMOLITION PLAN - 2	4 OF 29	11/2/2015					
EXISTING FEATURES & DEMOLITION PLAN - 3	5 OF 29	11/2/2015					
EXISTING DRAINAGE AREA EXHIBIT	6 OF 29	11/2/2015					
SITE & GRADING PLAN 1	7 OF 29	11/2/2015					
SITE & GRADING PLAN 2	8 OF 29	11/2/2015					
SITE & GRADING PLAN 3	9 OF 29	11/2/2015					
SIGNAGE PLAN - 1	10 OF 29	11/2/2015					
SIGNAGE PLAN - 2	11 OF 29	11/2/2015					
SIGNAGE PLAN - 3	12 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL PLAN 1	13 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL PLAN 2	14 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL PLAN 3	15 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL — SOIL SAMPLING PLAN	16 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL DETAILS	17 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL NOTES-1	18 OF 29	11/2/2015					
EROSION AND SEDIMENT CONTROL NOTES-2	19 OF 29	11/2/2015					
PCSWM PLAN 1	20 OF 29	11/2/2015					
PCSWM PLAN 2	21 OF 29	11/2/2015					
PCSWM PLAN 3	22 OF 29	11/2/2015					
PCSWM NOTES & DETAILS	23 OF 29	11/2/2015					
PROPOSED DRAINAGE AREA EXHIBIT	24 OF 29	11/2/2015					
SHARED USE PATH VERTICAL PROFILE - 1	25 OF 29	11/2/2015					
SHARED USE PATH VERTICAL PROFILE - 2	26 OF 29	11/2/2015					
SHARED USE PATH VERTICAL PROFILE - 3	27 OF 29	11/2/2015					
SITE CIVIL DETAIL SHEET	28 OF 29	11/2/2015					
TRAIL CROSS SECTIONS DETAIL SHEET	29 OF 29	11/2/2015					

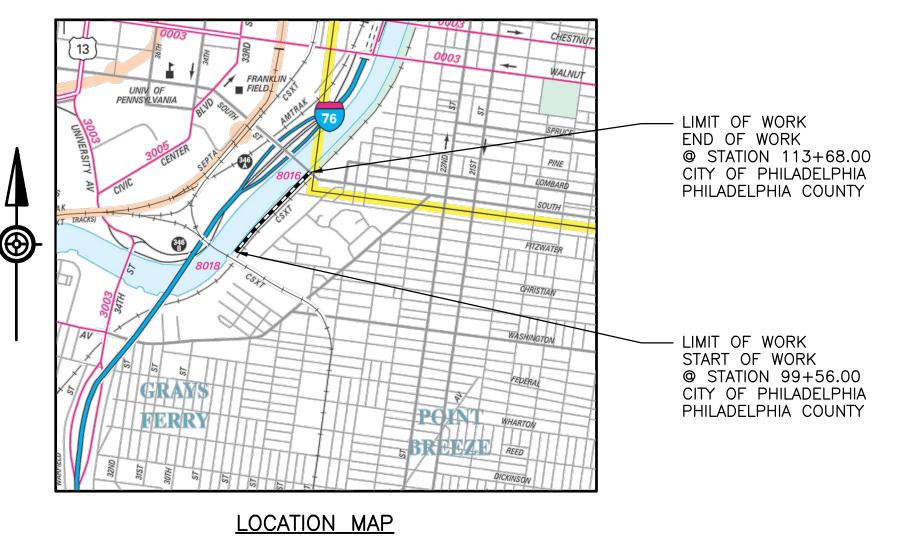
LANDSCAPE SHEET SET							
TITLE	SHEET NUMBER	DATE					
COVER SHEET	1 OF 16	6/12/2015					
SITE MATERIALS AND FURNISHINGS PLAN - 1	2 OF 16	6/12/2015					
SITE MATERIALS AND FURNISHINGS PLAN - 2	3 OF 16	6/12/2015					
SITE MATERIALS AND FURNISHINGS PLAN - 3	4 OF 16	6/12/2015					
MATERIALS AND FURNISHINGS PLAN — PLAN ENLARGEMENTS	5 OF 16	6/12/2015					
PAVING PLAN ENLARGEMENTS	6 OF 16	6/12/2015					
PLANTING PLAN — TREES	7 OF 16	6/12/2015					
PLANTING PLAN — SHRUBS, PERENNIALS AND GROUNDCOVER — 1	8 OF 16	6/12/2015					
PLANTING PLAN — SHRUBS, PERENNIALS AND GROUNDCOVER — 2	9 OF 16	6/12/2015					
PLANTING PLAN — SHRUBS, PERENNIALS AND GROUNDCOVER — 3	10 OF 16	6/12/2015					
PLANTING PLAN — SHRUBS, PERENNIALS AND GROUNDCOVER — 4	11 OF 16	6/12/2015					
PLANTING PLAN — SHRUBS, PERENNIALS AND GROUNDCOVER — 5	12 OF 16	6/12/2015					
SITE DETAILS	13 OF 16	6/12/2015					
LANDSCAPE DETAILS	14 OF 16	6/12/2015					
PLANTING SOIL DEPTH PLAN	15 OF 16	6/12/2015					
IRRIGATION PLAN	16 OF 16	6/12/2015					

STRUCTURA	AL SHEET SET	
TITLE	SHEET NUMBER	DATE
COVER SHEET	1 OF 3	6/11/2015
CONCEPTUAL STRUCTURE PLAN	2 OF 3	6/11/2015
GENERAL NOTES & TYPICAL SECTION	3 OF 3	6/11/2015

<u>ELECTRICA</u>	L SHEET SET	
TITLE	SHEET NUMBER	DATE
COVER SHEET	1 OF 7	6/12/2015
GENERAL ELECTRICAL NOTES, SYMBOLS, AND ABBREVIATIONS	2 OF 7	6/12/2015
ELECTRICAL PLAN 1	3 OF 7	6/12/2015
ELECTRICAL PLAN 2	4 OF 7	6/12/2015
ELECTRICAL PLAN 3	5 OF 7	6/12/2015
ELECTRICAL DIAGRAMS, CALCULATIONS, AND SCHEDULES	6 OF 7	6/12/2015
ELECTRICAL DETAILS	7 OF 7	6/12/2015

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	•	
6-0	PHILADELPHIA	_		2 OF	29	
	CITY OF P	HILADELPHIA				
REVISION NUMBER	REVISION	REVISIONS				
Α	CONFORMED	SET		11/2/2015	JAB	

# SCHUYLKILL RIVER TRAIL EXTENSION GENERAL NOTES



# TABULATION OF OVERALL CONSTRUCTION LENGTH STA 99+56.00 TO STA 113+68.00 = 1412.00 FT, 0.27 MI.

BASE	SUMMARY OF PROJECT COORDINATES BASED ON THE PA STATE PLANE COORDINATE SYSTEM (PA S.P.C.S.), ZONE SOUTH										
RTE	STATION	POINT	COORD	COORDINATES							
NIL	SIATION	FOINT	NORTHING	EASTING	BEARING						
	99+56.00	POT	232632.46	2686118.02	$\bigg \backslash \bigg \backslash$						
	100+25.28	PC	232687.67	2686160.27							
占	100+49.23	PI	232706.32	2686175.26							
SURVEY	100+73.15	PT	232724.25	2686191.11							
ଅ	105+57.64	PC	233079.49	2686520.56							
	105+70.96	PI	233089.27	2686529.64	_						
CONSTRUCTION	105+84.28	PT	233100.17	2686537.33							
TRU	107+92.41	PC	233270.22	2686657.32	_						
SNC	108+05.73	PI	233281.07	2686664.98	_						
	108+19.05	PT	233290.90	2686674.09							
PATH	109+25.79	PC	233369.17	2686746.67	_						
	109+54.68	PI	233398.41	2686773.78	_						
SHARED-USE	110+04.51	PT	233415.01	2686810.03							
RED	110+45.44	PC	233432.06	2686847.25	_						
SHA	110+85.71	PI	233449.05	2686884.36	_						
	111+25.97	PT	233479.23	2686911.84							
	113+68.00	POT	233658.51	2687075.11	> <						





PA ONE CALL SERIAL NUMBERS: #20130491115, #20130491116, #2013049111



PREPARED BY:

NWE A

PROFESSIONAL

DANIEL B. HUMES

ENGINEER

PE079470

VSYLVI

## **FLOOD ZONE INFORMATION:**

BY GRAPHIC PLOTTING ONLY, SUBJECT PARCEL AREA IS LOCATED IN ZONE AE SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD (ZONE AE —BASE FLOOD ELEVATION DETERMINED) OF THE FLOOD INSURANCE RATE MAP, PANELS NO. 179 AND 183 OF 230, COMMUNITY MAP NO. 4207570179G AND 4207570183G WHICH BEARS AN EFFECTIVE DATE OF JANUARY 17, 2007. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THE ELEVATION AND ACCURACY OF THIS ZONE. AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR FLOOD INSURANCE IF REQUIRED.

\Projects\SRDC - Schuylkill Trail at South Street\Drawings\Urban\LD SET\02 GENERAL NOTES.dwg 11/2/2015 4:50:24 PM

## PLAN REFERENCES:

- 1. PWD SEWER OUTFALL #826 OBTAINED FROM PWD TICKET 315555.
- 2. PECO ELECTRIC DUCT BANK LOCATION WAS OBTAINED FROM PECO'S BAINBRIDGE ST. & SCHUYLKILL RIVER' CONDUIT MAP. PLAN NUMBER 311.
- 3. PIER AND BULKHEAD LINE LOCATION OBTAINED FROM CITY PLAN NO. 11-2 ENTITLED 'BOUNDED BY SOUTH STREET GRAYS FERRY AVE. PLETZ STREET AND THE SCHUYLKILL RIVER' 30TH WARD OF PHILADELPHIA

#### DISTRICT COUNTY **EXISTING FEATURES NOTES:** EXISTING LEGEND 6-0 **PHILADELPHIA** 1. PWD COMBINED STORMWATER OUTLET #826 LOCATION WAS OBTAINED FROM PWD RECORD PLAN #315555 AND WAS NOT FIELD LOCATED. ---- 100-YEAR FEMA FLOODPLAIN FEMA FLOODWAY 2. PECO DUCT BANK AND MANHOLE LOCATION WAS TAKEN FROM PECO'S 'BAINBRIDGE NUMBER ST. & SCHUYLKILL RIVER' CONDUIT MAP. PLAN NUMBER 311. ---- MHWL --- MEAN HIGH WATER LINE 3. SOME EXISTING CONTOUR ELEVATIONS DISPLAY MOUNDS OF DEMOLISHED RUBBLE AND MAY NOT ACCURATELY REPRESENT THE EXISTING GROUND ELEVATION. LEGAL RIGHT—OF—WAY 4. ENTIRE PROJECT SITE LOCATED WITHIN THE 100-YEAR FEMA FLOODPLAIN. EXISTING TREE LINE 5. ALL EXISTING TREES WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE E&S PLANS EXISTING BRUSH LINE ARE TO BE REMOVED UNLESS OTHERWISE NOTED. ————————— EXISTING CHAIN LINK FENCE SCHUYLKILL RIVER TRAIL EXTENSION EXISTING FEATURES & DEMOLITION PLAN - 1 ----- FDC ----- EXISTING FIBER OPTIC CABLE SCHUYLKILL RIVER EBB / FLOOD EXISTING OVERHEAD ELECTRIC LINE EXISTING STORM LINE ----- 6 ----- EXISTING MINOR CONTOUR -EXISTING TREE -EXISTING TREES TO REMAIN ---- EXISTING MAJOR CONTOUR TO REMAIN EXISTING LIGHT POST REMOVE INVASIVE, NON-NATIVE-PLANTS IN THIS AREA. EXISTING TREES EXISTING ELECTRIC MANHOLE CONC. PLATFORM TAGGED BY LANDSCAPE ARCHITECT & METAL PLATE OWNER TO REMAIN. EXISTING BOAT MOORING 426 LF OF 8" WIDE WOOD BULKHEAD EXISTING ROAD SIGN EXISTING POST OR POLE N44°24'57"E EXISTING DECIDUOUS TREE 505.727 EXISTING CONCRETE EXISTING LIGHT TO BE REMOVED EXISTING RAIL BLOCK \\_WASHOUT -METAL LADDER EXISTING— DOUBLE GATE (NOT FIELD SURVEYED) WOODS -EXISTING METAL LADDER, LIGHT AND WOODS SUPPORT POST TO BE REMOVED - FOC APPROX. PROPERTY LINE FOC *\$50'03'00"W* 300.591 CXX RAIL TRACKS CSX RAIL TRACKS CSX RAIL TRACKS CSX RAIL TRACKS "AREA NOT INCLUDED PVC STAND IN SURVEY "I" BEAM \ 3' HIGH (TYP.)— "AREA NOT INCLUDED IN SURVEY" N50°02'57"E RIGHT-OF-WAY LINE RIGHT-OF-WAY LINE 200.416 100-YEAR FEMA FLOODPLAIN

EXISTING IMPERVIOUS COVERAGE								
LOCATION	AREA	SHEET PAGE						
CONCRETE PLATFORM	36 SF	SHEET 3						
CONCRETE PLATFORM	15 SF	SHEET 3						
CONCRETE PLATFORM	19 SF	SHEET 3						
CONCRETE PLATFORM	10 SF	SHEET 3						
CONCRETE PLATFORM	17 SF	SHEET 4						
CONCRETE MANHOLE	57 SF	SHEET 4						
CONCRETE PLAZA	492 SF	SHEET 5						
TOTAL IMPERVIOUS COVER	646 SF	_						

#### LIST OF PROPERTY OWNERS:

- NOW OR FORMERLY PHILADELPHIA ELECTRIC COMPANY 830 SCHUYLKILL AVENUE (BRT ACCOUNT #77260700)
- SCHUYLKILL RIVER EAST SIDE RAILROAD RIGHT-OF-WAY (60' WIDE)
- NOW OR FORMERLY REDEVELOPMENT AUTHORITY OF PHILADELPHIA 780 SCHUYLKILL AVENUE (BRT ACCOUNT #782463000)

:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\03 EXISTING FEATURES.dwg 11/2/2015 4:50:57 PM

- NOW OR FORMELY THE CHILDREN'S HOSPITAL OF PHILADELPHIA 700 SCHUYLKILL AVENUE (BRT ACCOUNT #782462700)
- BAINBRIDGE STREET VACATED 50' WIDE RIGHT-OF-WAY RESERVED FOR DRAINAGE & PUBLIC UTILITY PURPOSES
- NOW OR FORMELY CSX TRANSPORTATION 624R SCHUYLKILL AVENUE (BRT ACCOUNT #302171100)



50 FEI **CONFORMED SET**  PREPARED BY:

/PROFESSIONAL

DANIEL B. HUMES

SECTION

SHEET

3 OF 29

BY

DATE

11/2/2015 JAB

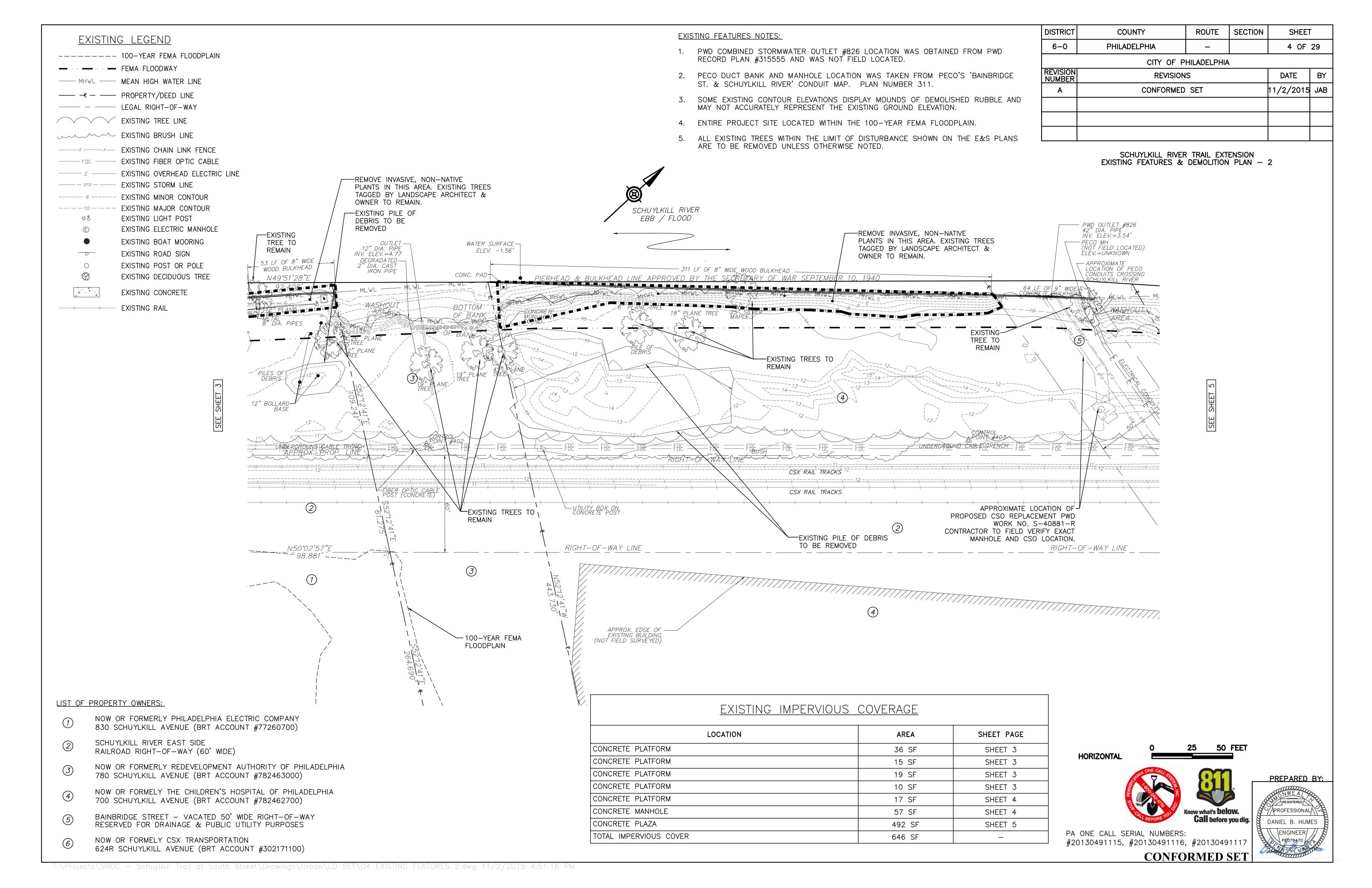
ROUTE

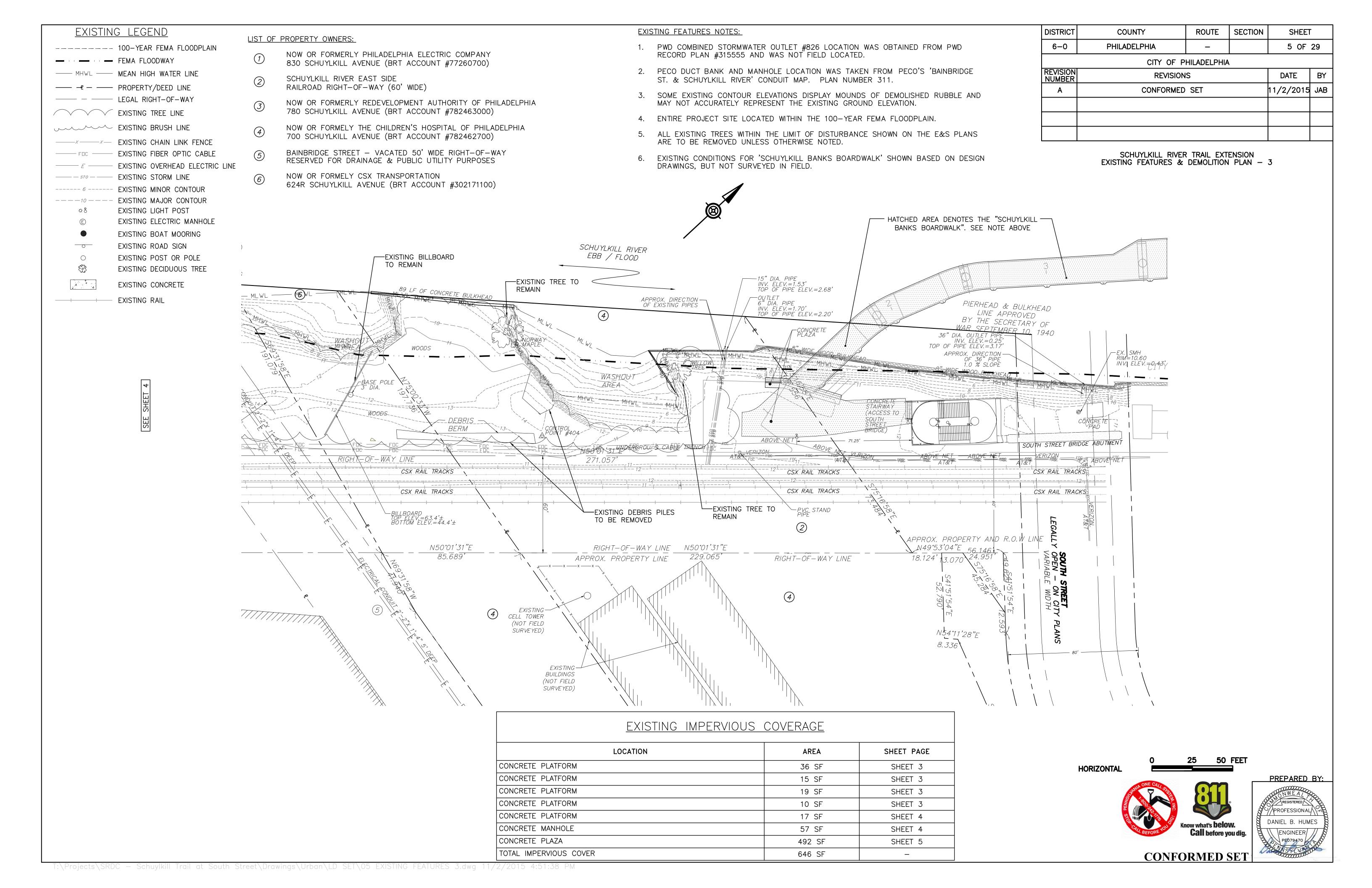
CITY OF PHILADELPHIA

**REVISIONS** 

CONFORMED SET

HORIZONTAL





# **EXISTING LEGEND** ---- 100-YEAR FEMA FLOODPLAIN FEMA FLOODWAY ---- MHWL ---- MEAN HIGH WATER LINE ---- PROPERTY/DEED LINE LEGAL RIGHT-OF-WAY EXISTING TREE LINE EXISTING BRUSH LINE ————————— EXISTING CHAIN LINK FENCE EXISTING FIBER OPTIC CABLE EXISTING OVERHEAD ELECTRIC LINE EXISTING STORM LINE ----- 6 ----- EXISTING MINOR CONTOUR ----- EXISTING MAJOR CONTOUR EXISTING LIGHT POST EXISTING ELECTRIC MANHOLE EXISTING BOAT MOORING EXISTING ROAD SIGN EXISTING POST OR POLE EXISTING DECIDUOUS TREE EXISTING CONCRETE ■ ■ EXISTING DRAINAGE AREA BOUNDARY EXISTING FLOW ARROWS

#### **EXISTING FEATURES NOTES:**

1. PWD COMBINED STORMWATER OUTLET #826 LOCATION WAS OBTAINED FROM PWD RECORD PLAN #315555 AND WAS NOT FIELD LOCATED.

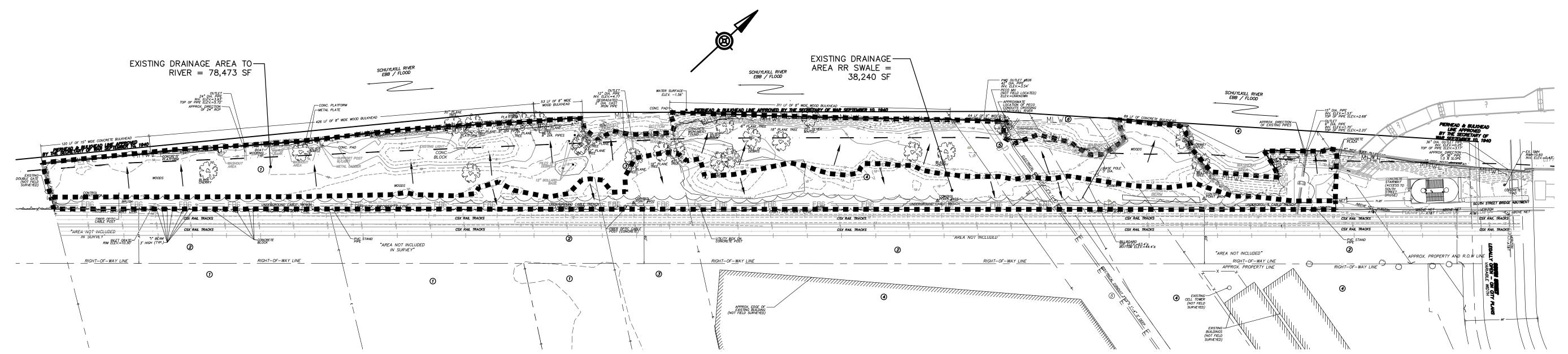
#### DRAINAGE AREA NOTES:

T:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\EXISTING DRAINAGE AREA.dwg 11/2/2015 4:51:53 PM

- 1. CURVE NUMBER VALVES OBTAINED FROM TABLE 5.4 OF THE PHILADELPHIA WATER DEPARTMENT STORMWATER MANAGEMENT GUIDANCE MANUAL VERSION 2.1 REVISED FEBRUARY 10, 2014.
- 2. PER NRCS'S WEB SOIL SURVEY, THE ENTIRE PROJECT SITE IS URBAN (Ub) SOIL.
- 3. CURVE NUMBERS USED IN THE STORMWATER CALCULATIONS ARE BASED ON THE URBAN (Ub) HYDROLOGIC SOIL GROUP.
- 4. EXISTING PERVIOUS COVER IS ASSUMED TO BE BRUSH COVER IN POOR CONDITION (CN=58).

DISTRICT	COUNTY	ROUTE	SECTION	SHEET			
6-0	PHILADELPHIA	1		6 OF	29		
	CITY OF P	HILADELPHIA					
REVISION NUMBER	REVISION	S		DATE	BY		
Α	CONFORMED	CONFORMED SET					

SCHUYLKILL RIVER TRAIL EXTENSION EXISTING DRAINAGE AREA EXHIBIT



EXISTING DRAINAGE AREAS — SCHUYLKILL RIVER TRAIL											
DRAINAGE AREA	IMPERVIOUS COVER (SF)	IMPERVIOUS COVER (AC)	IMPERVIOUS CN	MEADOW (SF)	MEADOW (AC)	MEADOW (CN)	TOTAL AREA (SF)	TOTAL AREA (AC)	COMBINED CN		
EXISTING DRAINAGE AREA TO RIVER	646	0.015	98	77,827	1.79	58	78,473	1.80	74.0		
EXISTING DRAINAGE AREA TO RAILWAY SWALE	0	0.00	98	38,240	0.88	58	38,240	0.88	73.0		

HORIZONTAL

O 60 120 FEET

PREPARED BY:

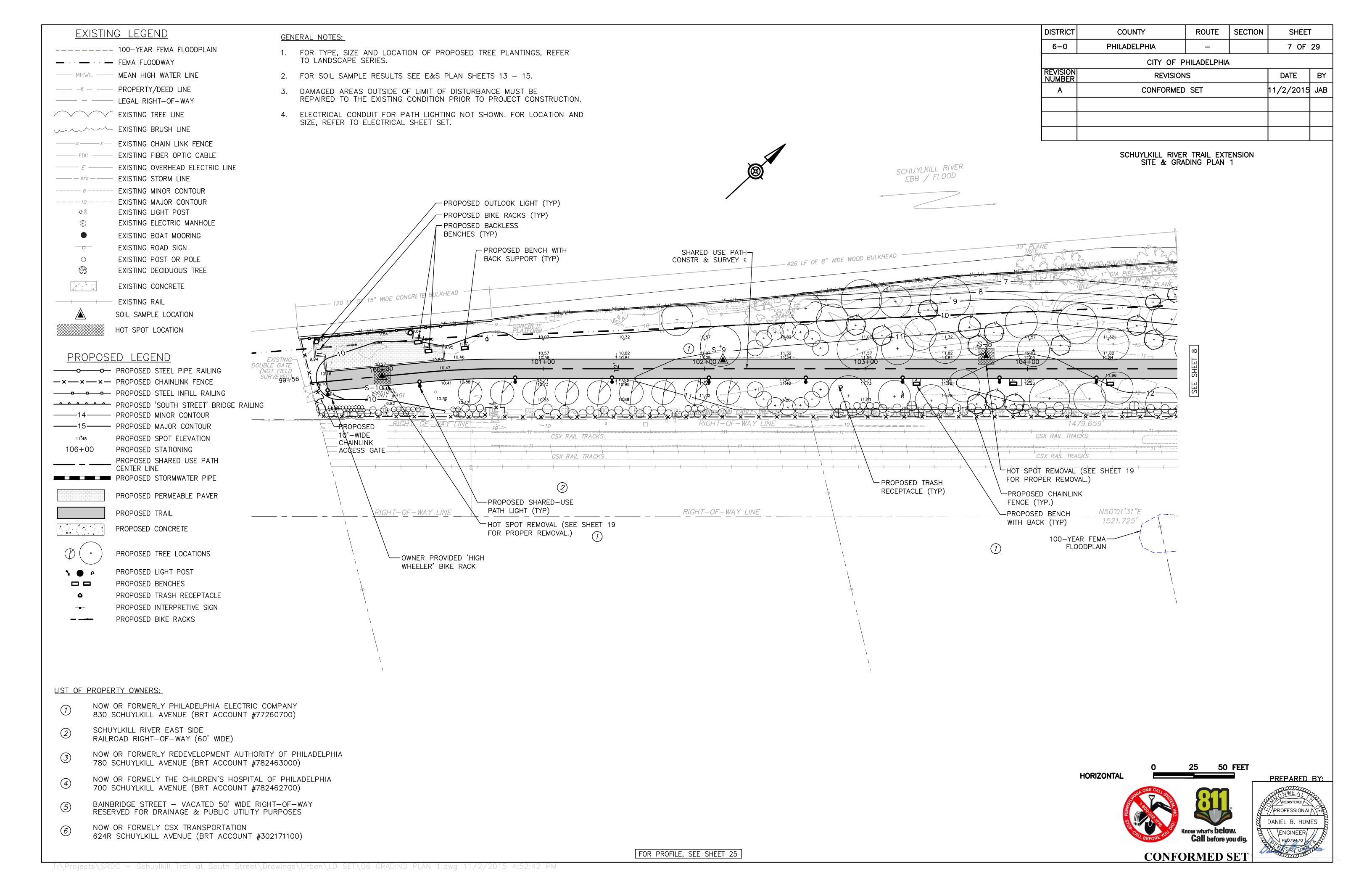
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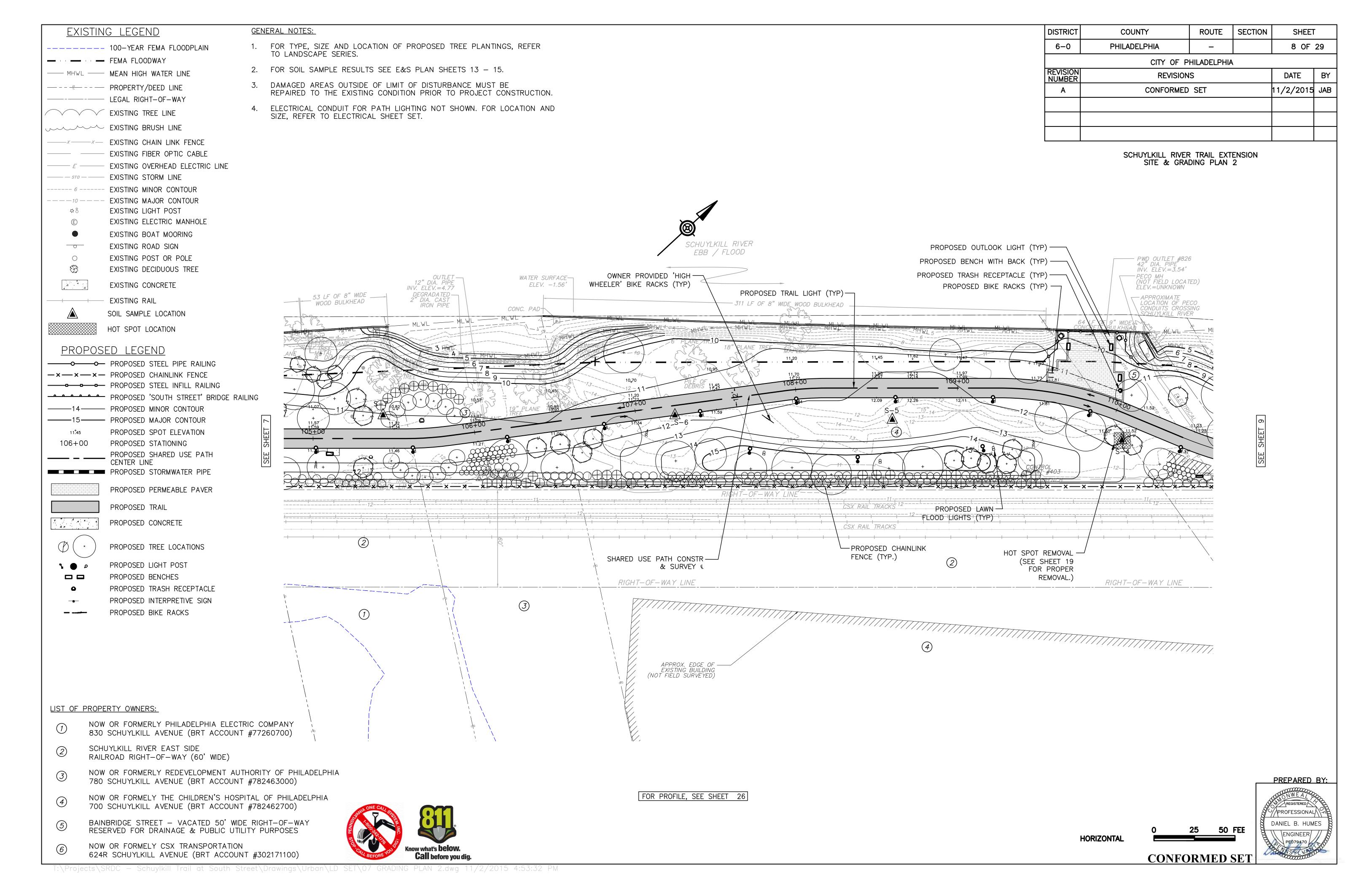
PROFESSIONAL

DANIEL B. HUMES

ENGINEER

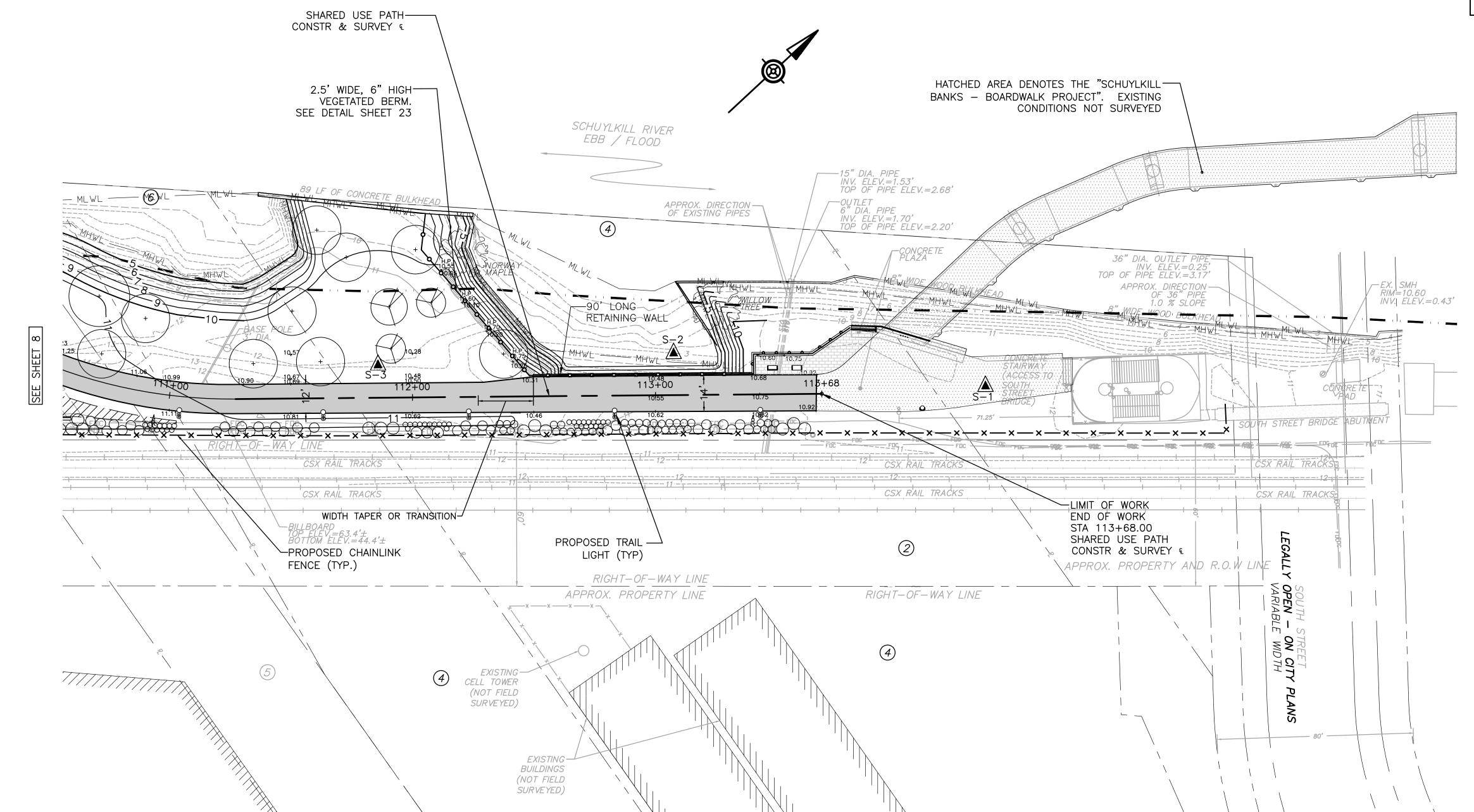
PE079470





#### GENERAL NOTES:

- 1. FOR TYPE, SIZE AND LOCATION OF PROPOSED TREE PLANTINGS, REFER TO LANDSCAPE SERIES.
- 2. FOR SOIL SAMPLE RESULTS SEE E&S PLAN SHEETS 13 15.
- 3. DAMAGED AREAS OUTSIDE OF LIMIT OF DISTURBANCE MUST BE REPAIRED TO THE EXISTING CONDITION PRIOR TO PROJECT CONSTRUCTION.
- 4. ELECTRICAL CONDUIT FOR PATH LIGHTING NOT SHOWN. FOR LOCATION AND SIZE, REFER TO ELECTRICAL SHEET SET.



#### LIST OF PROPERTY OWNERS:

- NOW OR FORMERLY PHILADELPHIA ELECTRIC COMPANY 830 SCHUYLKILL AVENUE (BRT ACCOUNT #77260700)
- SCHUYLKILL RIVER EAST SIDE RAILROAD RIGHT-OF-WAY (60' WIDE)
- NOW OR FORMERLY REDEVELOPMENT AUTHORITY OF PHILADELPHIA 780 SCHUYLKILL AVENUE (BRT ACCOUNT #782463000)
- NOW OR FORMELY THE CHILDREN'S HOSPITAL OF PHILADELPHIA 700 SCHUYLKILL AVENUE (BRT ACCOUNT #782462700)
- BAINBRIDGE STREET VACATED 50' WIDE RIGHT-OF-WAY RESERVED FOR DRAINAGE & PUBLIC UTILITY PURPOSES
- NOW OR FORMELY CSX TRANSPORTATION 624R SCHUYLKILL AVENUE (BRT ACCOUNT #302171100)



FOR PROFILE, SEE SHEET 27

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	•
6-0	PHILADELPHIA	1		9 OF	29
	CITY OF P	HILADELPHIA			
REVISION NUMBER	REVISION	REVISIONS			
Α	CONFORMED	CONFORMED SET			

#### SCHUYLKILL RIVER TRAIL EXTENSION SITE & GRADING PLAN 3

#### EXISTING LEGEND

---- 100-YEAR FEMA FLOODPLAIN

FEMA FLOODWAY

- MHWL --- MEAN HIGH WATER LINE

—— → PROPERTY/DEED LINE ----- LEGAL RIGHT-OF-WAY

EXISTING TREE LINE

EXISTING BRUSH LINE ————————— EXISTING CHAIN LINK FENCE

EXISTING FIBER OPTIC CABLE

EXISTING OVERHEAD ELECTRIC LINE

EXISTING STORM LINE EXISTING MINOR CONTOUR

---- EXISTING MAJOR CONTOUR

EXISTING LIGHT POST

EXISTING ELECTRIC MANHOLE EXISTING BOAT MOORING

EXISTING ROAD SIGN

EXISTING POST OR POLE

EXISTING DECIDUOUS TREE

EXISTING RAIL

SOIL SAMPLE LOCATION

EXISTING CONCRETE

HOT SPOT LOCATION

# PROPOSED LEGEND

PROPOSED STEEL PIPE RAILING

-x-x-x- PROPOSED CHAINLINK FENCE PROPOSED STEEL INFILL RAILING

PROPOSED 'SOUTH STREET' BRIDGE RAILING

———14——— PROPOSED MINOR CONTOUR

PROPOSED SPOT ELEVATION

106+00 PROPOSED STATIONING

PROPOSED SHARED USE PATH

CENTER LINE PROPOSED STORMWATER PIPE

PROPOSED PERMEABLE PAVER PROPOSED TRAIL

PROPOSED CONCRETE

PROPOSED LIGHT POST

HORIZONTAL

PROPOSED BENCHES

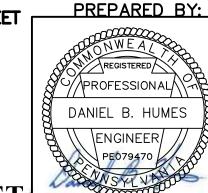
PROPOSED TREE LOCATIONS

PROPOSED TRASH RECEPTACLE

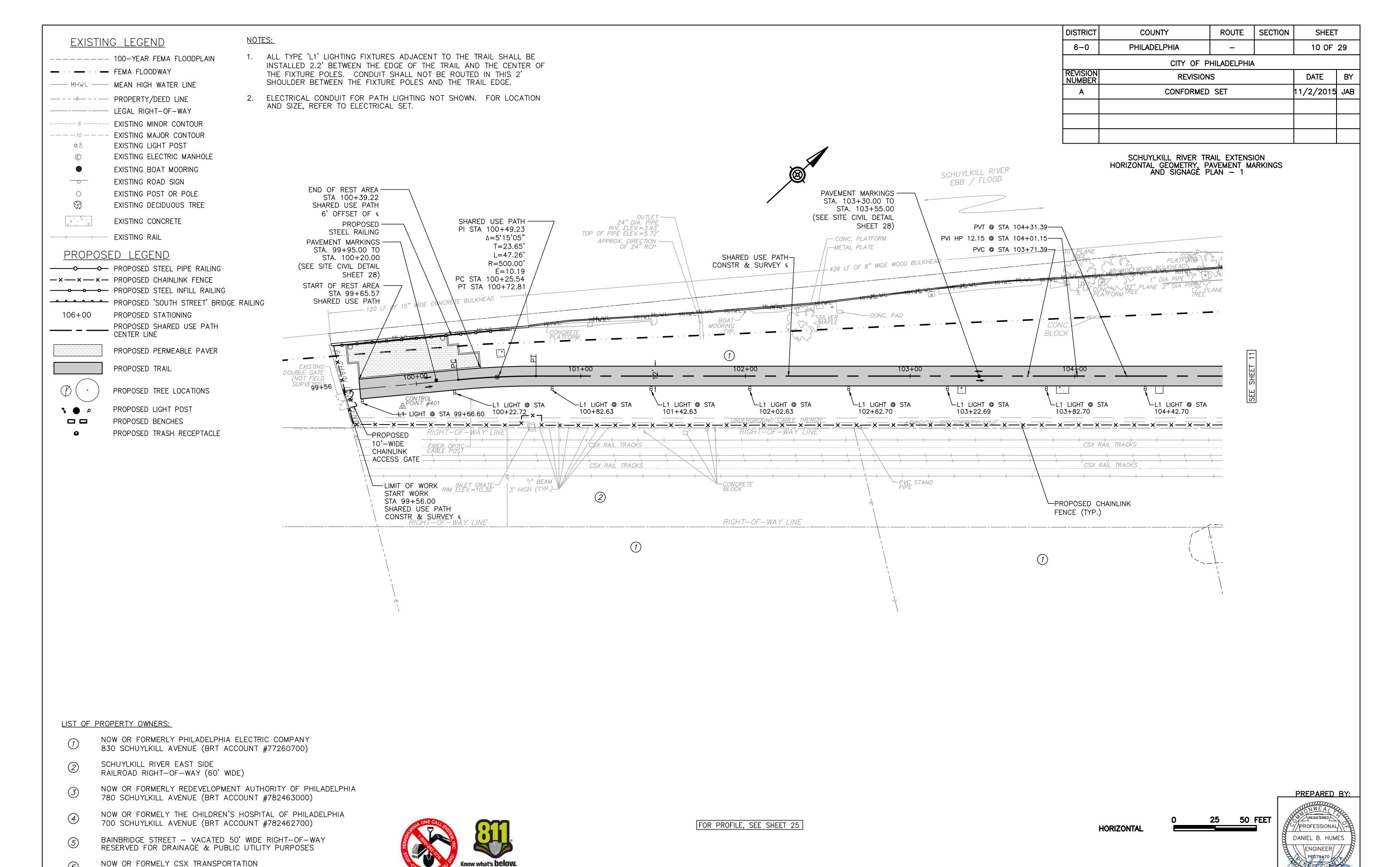
PROPOSED INTERPRETIVE SIGN

PROPOSED BIKE RACKS

25 50 FEET



**CONFORMED SET** 

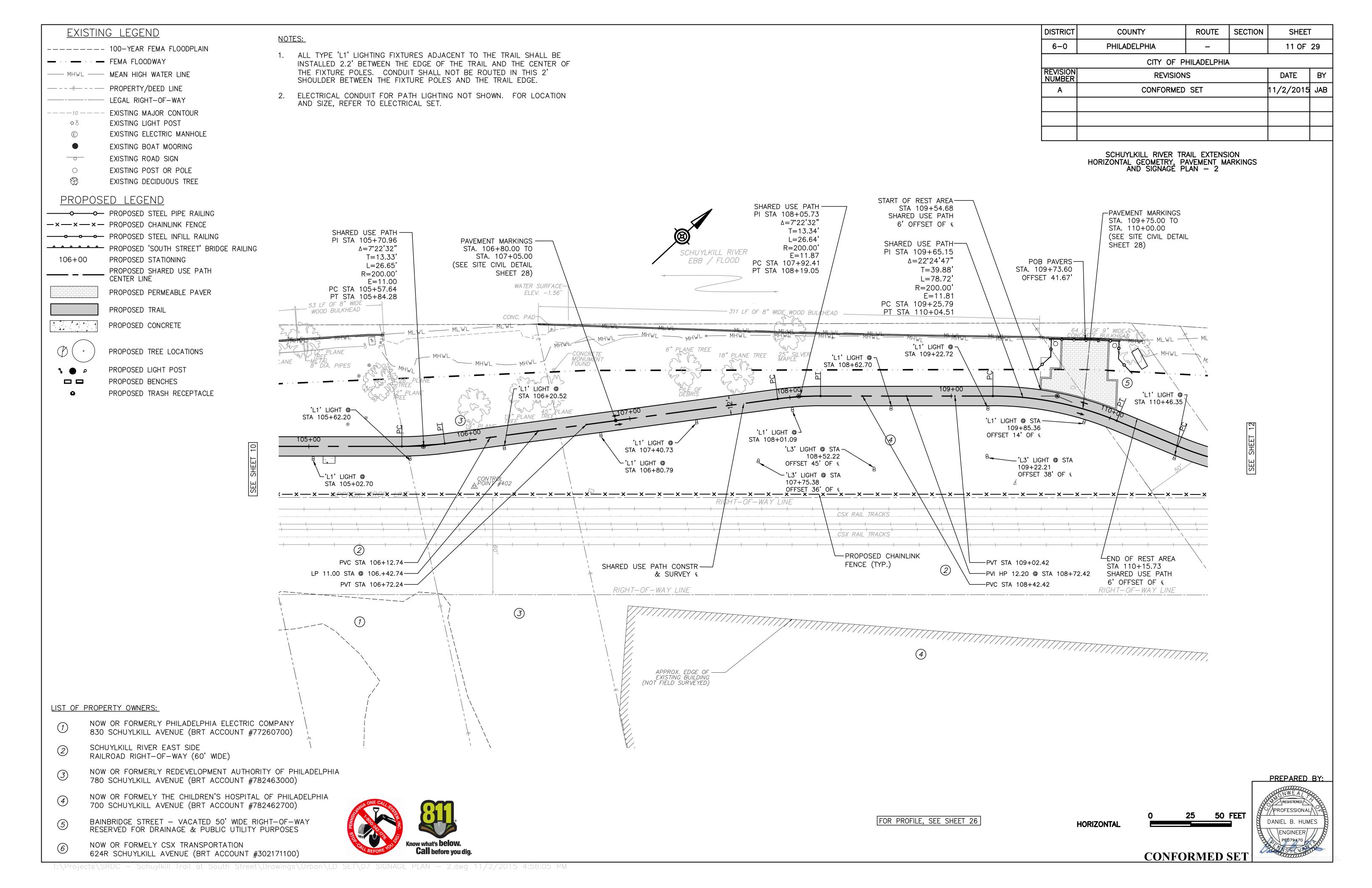


**CONFORMED SET** 

T:\Projects\SRDC - Schuylkill Trail at South Street\Drawings\Urban\LD SET\06 SIGNAGE PLAN - 1.dwg 11/2/2015 4:55:17 PM

624R SCHUYLKILL AVENUE (BRT ACCOUNT #302171100)

**Call** before you dig.



#### NOTES:

- 1. ALL TYPE 'L1' LIGHTING FIXTURES ADJACENT TO THE TRAIL SHALL BE INSTALLED 2.2' BETWEEN THE EDGE OF THE TRAIL AND THE CENTER OF THE FIXTURE POLES. CONDUIT SHALL NOT BE ROUTED IN THIS 2' SHOULDER BETWEEN THE FIXTURE POLES AND THE TRAIL EDGE.
- 2. ELECTRICAL CONDUIT FOR PATH LIGHTING NOT SHOWN. FOR LOCATION AND SIZE, REFER TO ELECTRICAL SET.

CSX RAIL TRACKS

OSX RAIL TRACKS

HATCHED AREA DENOTES THE "SCHUYLKILL-

CONDITIONS NOT SURVEYED

-LIMIT OF WORK

END OF WORK

STA 113+68.00

SHARED USE PATH

CONSTR & SURVEY &

APPROX. PROPERTY AND R.O.W LINE

BANKS - BOARDWALK PROJECT". EXISTING

CONCRETE STAIRWAY

(ACCESS TO

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	_		12 OF 29

CITY OF PHILADELPHIA

	3111 31 1111 <u>3</u> 1111		
REVISION NUMBER	REVISIONS	DATE	BY
Α	CONFORMED SET	11/2/2015	JAB

SCHUYLKILL RIVER TRAIL EXTENSION HORIZONTAL GEOMETRY, PAVEMENT MARKINGS AND SIGNAGE PLAN — 3

### EXISTING LEGEND

---- 100-YEAR FEMA FLOODPLAIN

— FEMA FLOODWAY

— - - PROPERTY/DEED LINE

1HWL --- MEAN HIGH WATER LINE

LEGAL RIGHT-OF-WAY EXISTING MINOR CONTOUR

- EXISTING MAJOR CONTOUR

EXISTING LIGHT POST EXISTING ELECTRIC MANHOLE

EXISTING BOAT MOORING

EXISTING ROAD SIGN

EXISTING POST OR POLE EXISTING DECIDUOUS TREE

EXISTING CONCRETE

EXISTING RAIL

### PROPOSED LEGEND

-x-x-x- PROPOSED CHAINLINK FENCE

PROPOSED STEEL INFILL RAILING PROPOSED 'SOUTH STREET' BRIDGE RAILING

106+00 PROPOSED STATIONING

PROPOSED SHARED USE PATH CENTER LINE

PROPOSED PERMEABLE PAVER

PROPOSED TRAIL

PROPOSED CONCRETE

PROPOSED TREE LOCATIONS

PROPOSED LIGHT POST PROPOSED BENCHES

PROPOSED TRASH RECEPTACLE

#### LIST OF PROPERTY OWNERS:

- NOW OR FORMERLY PHILADELPHIA ELECTRIC COMPANY 830 SCHUYLKILL AVENUE (BRT ACCOUNT #77260700)
- SCHUYLKILL RIVER EAST SIDE RAILROAD RIGHT-OF-WAY (60' WIDE)
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- BAINBRIDGE STREET VACATED 50' WIDE RIGHT-OF-WAY RESERVED FOR DRAINAGE & PUBLIC UTILITY PURPOSES
- NOW OR FORMELY CSX TRANSPORTATION 624R SCHUYLKILL AVENUE (BRT ACCOUNT #302171100)



SHARED USE PATH-

CONSTR & SURVEY &

PAVEMENT MARKINGS

STA. 111+55.00

SHEET 28)

STA. 111+30.00 TO

(SEE SITE CIVIL DETAIL

, 89 LF OF CONCRETE BULKHEAD

PVT STA 112+76.85-

PVC STA 112+16.85-

112+00

4

⊢'L1' LIGHT @

STA 111+63.31

'L1' LIGHT @ 🗆

STA 112+23.20

PVI LP 10.39 @ STA 112+46.85-

√53°33'04"

CSX RAIL TRACKS

CSX RAIL TRACKS

PROPOSED CHAINLINK

- 'L1' LIGHT @

STA 111+04.66

FENCE (TYP.)

SCHUYLKILL RIVER

EBB / FLOOD

RETAINING WALL

'L1' LIGHT @ <sup>□</sup>

PAVEMENT MARKINGS-

STA. 113+00.00 TO

(SEE SITE CIVIL DETAIL

STA. 113+25.00

SHEET 28)

RIGHT-OF-WAY LINE

APPROX. PROPERTY LINE

STA 112+83.30

113+00 ←

'L1' LIGHT @ 🗕

STA 113+43.25

- SHARED USE PATH

PI STA 110+85.71

PC STA 110+45.44

PT STA 111+25.97

Δ=23°9'33" T=40.81'

L=80.52'

R=200.00'

E=11.21



FOR PROFILE, SEE SHEET 27

113+68

CSX RAIL TRACK.

CSX RAIL TRACKS

PVC STAND

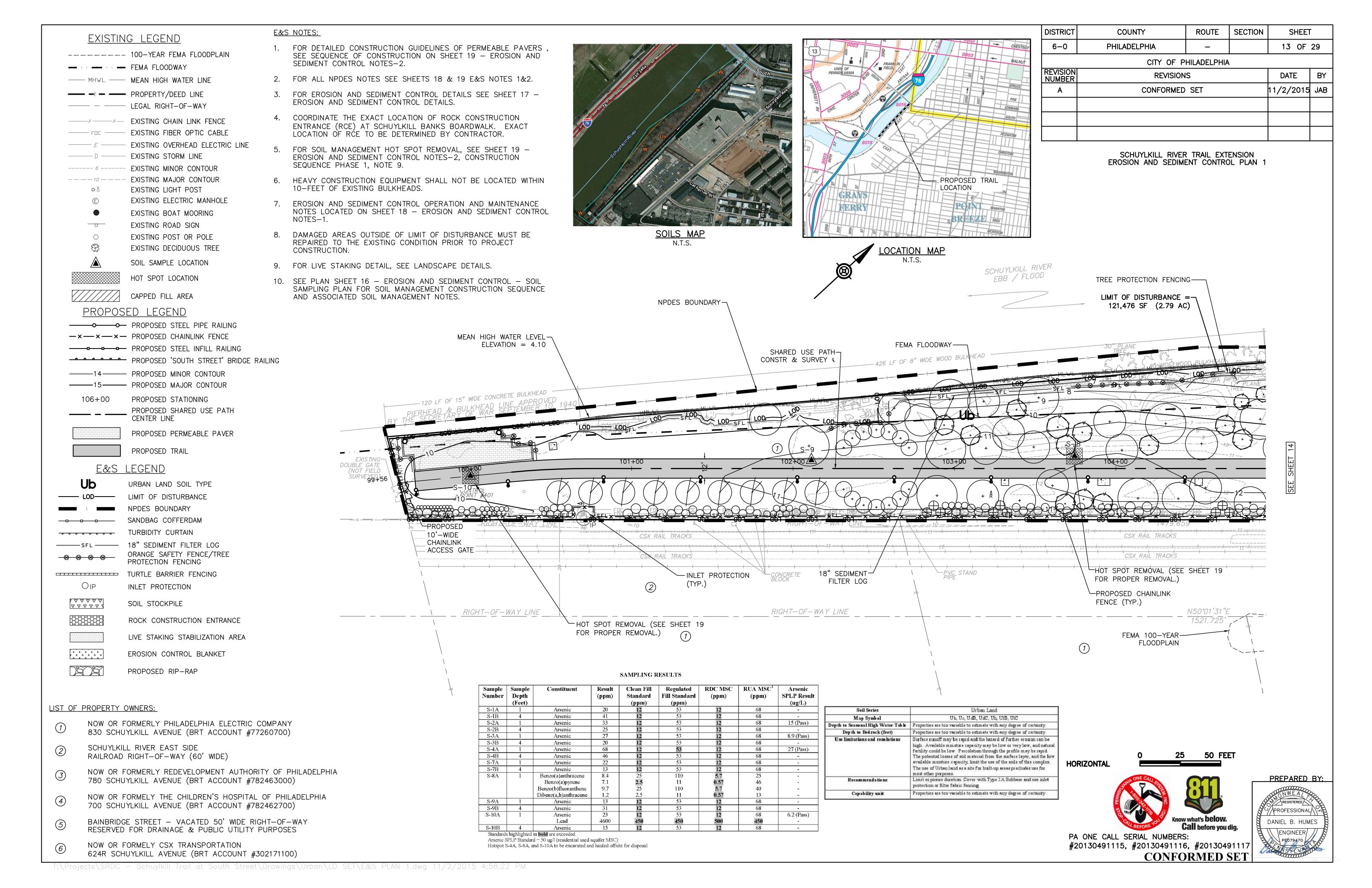
RIGHT-OF-WAY LINE

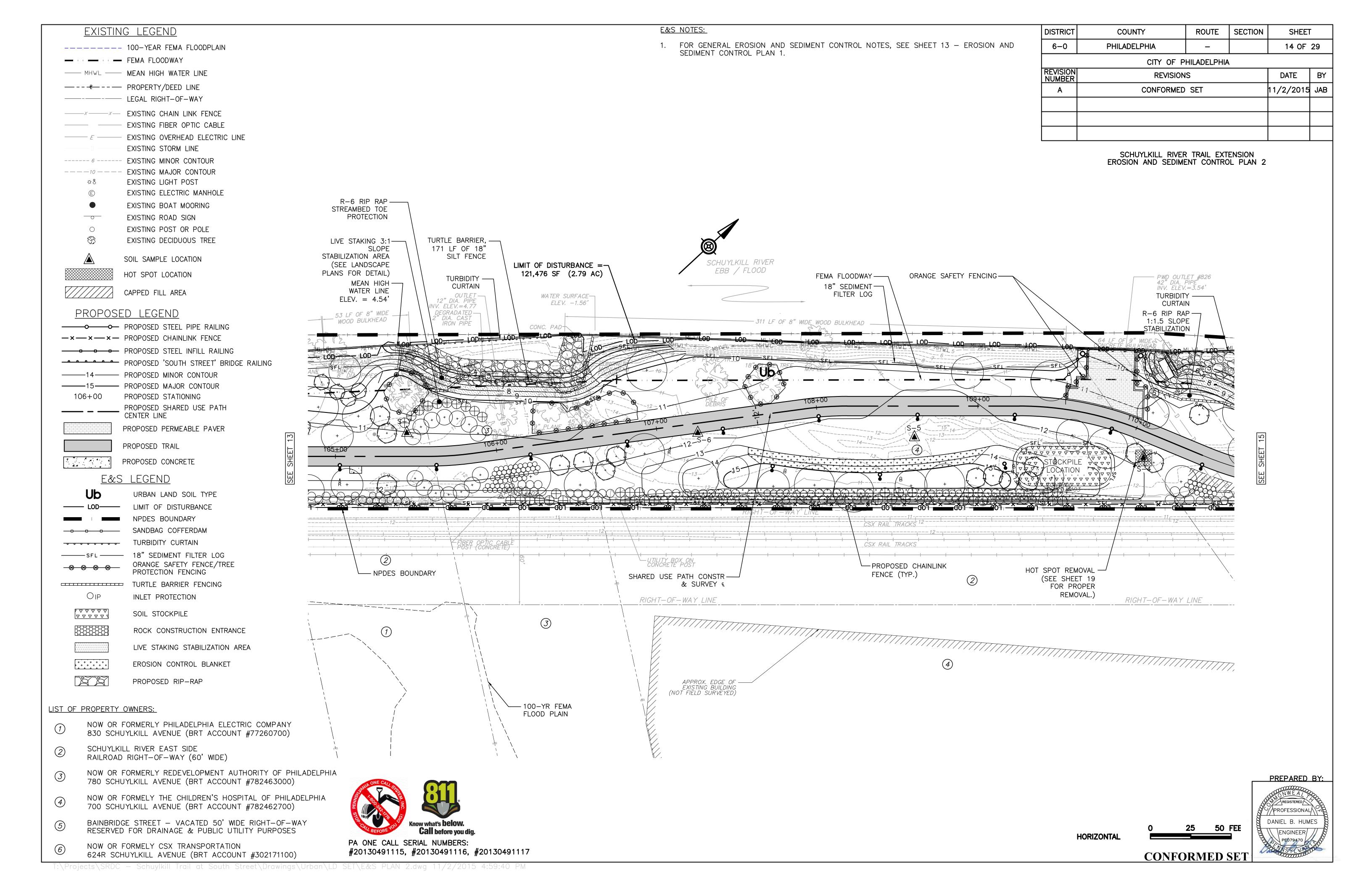
4

25 50 FEE HORIZONTAL

PREPARED BY:

/PROFESSIONAL



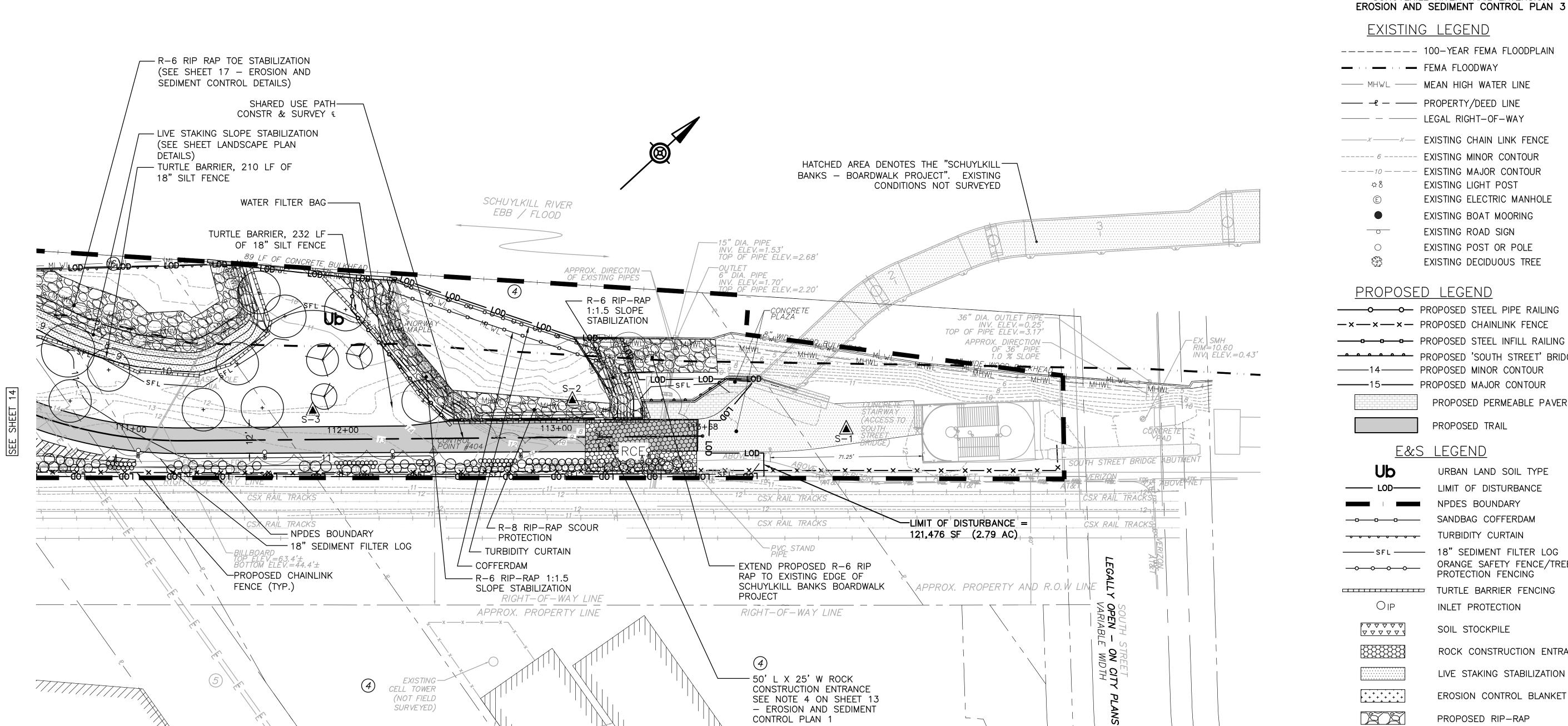


E&S NOTES:

1. FOR GENERAL EROSION AND SEDIMENT CONTROL NOTES, SEE SHEET 13 - EROSION AND SEDIMENT CONTROL PLAN 1.

	DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
ΞE	6-0	PHILADELPHIA	1		15 OF	29
		CITY OF P	HILADELPHIA			
	REVISION NUMBER	REVISION	DATE	BY		
	Α	CONFORMED	SET		11/2/2015	JAB

SCHUYLKILL RIVER TRAIL EXTENSION



:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\E&S PLAN 3.dwg 11/2/2015 5:00:58 PM |

EXISTING LEGEND ---- 100-YEAR FEMA FLOODPLAIN — FEMA FLOODWAY ---- MHWL ---- MEAN HIGH WATER LINE —— -₹ - — PROPERTY/DEED LINE ----- LEGAL RIGHT-OF-WAY ----- 6 ----- EXISTING MINOR CONTOUR ---- EXISTING MAJOR CONTOUR EXISTING LIGHT POST EXISTING ELECTRIC MANHOLE EXISTING BOAT MOORING EXISTING ROAD SIGN EXISTING POST OR POLE EXISTING DECIDUOUS TREE

# PROPOSED LEGEND

-x-x- PROPOSED CHAINLINK FENCE PROPOSED STEEL INFILL RAILING PROPOSED 'SOUTH STREET' BRIDGE RAILING ——14——— PROPOSED MINOR CONTOUR

—15——— PROPOSED MAJOR CONTOUR PROPOSED PERMEABLE PAVER

# PROPOSED TRAIL

URBAN LAND SOIL TYPE LIMIT OF DISTURBANCE NPDES BOUNDARY SANDBAG COFFERDAM TURBIDITY CURTAIN ——— 18" SEDIMENT FILTER LOG ORANGE SAFETY FENCE/TREE PROTECTION FENCING

TURTLE BARRIER FENCING INLET PROTECTION

SOIL STOCKPILE

ROCK CONSTRUCTION ENTRANCE

LIVE STAKING STABILIZATION AREA

EROSION CONTROL BLANKET

PROPOSED RIP-RAP

HORIZONTAL



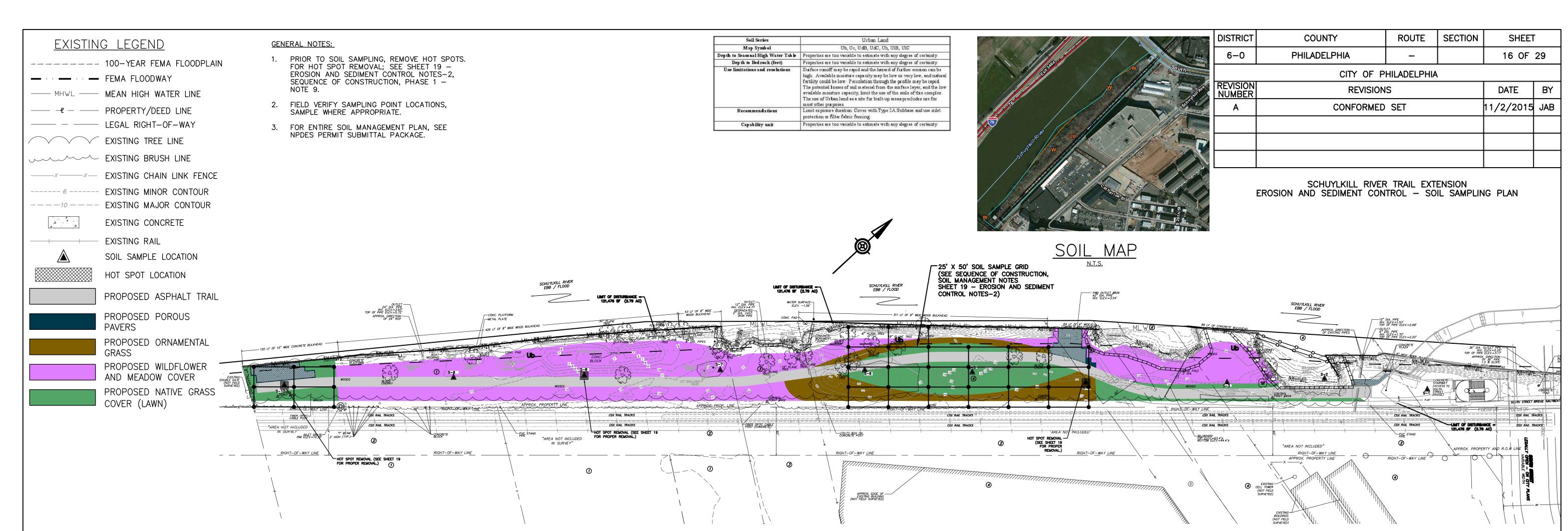


50 FEET

PROFESSIONAL DANIEL B. HUMES \ENGINEER/

PREPARED BY:

PA ONE CALL SERIAL NUMBERS: #20130491115, #20130491116, #20130491117 **CONFORMED SET** 



#### **SOIL MANAGEMENT PLAN NOTES:**

#### GENERAL SOIL HANDLING, EXCAVATION, AND STOCKPILING

- CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE PWD/PADEP-APPROVED E&S PLAN AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- OPERATIONS SHALL BE STAGED TO MINIMIZE THE TIME THAT EXCAVATIONS ARE OPEN AND THE TIME THAT EXCAVATED SOILS ARE EXPOSED TO THE WEATHER. PROVIDE PROTECTION MEASURES AROUND EXCAVATION AREAS TO PREVENT STORM WATER RUN-ON AND RUN-OFF. TO CONTAIN THE SOIL WITHIN THE EXCAVATION AREAS. AND TO PREVENT ACCIDENTAL FALLS.
- PROPER OSHA SAFETY PROCEDURES SHALL BE FOLLOWED DURING EXCAVATION. IN ADDITION, WASH STATIONS SHOULD BE PROVIDED, AND WORKERS ADVISED TO WASH HANDS BEFORE MEALS AND BEFORE LEAVING THE SITE AT THE END OF THE DAY.
- ROCK CONSTRUCTION ENTRANCES AND OTHER DUST CONTROL MEASURES (SUCH AS WATER MISTING) ARE REQUIRED.
- SOILS EXCAVATED SHALL BE STOCKPILED AT A DESIGNATED SOIL STAGING AREA ONSITE. ALL EXCAVATED SOIL WILL BE PLACED ON A POLY LINER AND COVERED IN A PREDETERMINED AREA AS NOTED IN THE EROSION AND SEDIMENT CONTROL PLANS.
- THE SOIL STAGING AREA IS NOT TO BE CONSIDERED A LONG-TERM STORAGE AREA. ITS PURPOSE IS SPECIFICALLY FOR TEMPORARY STOCKPILING TO ALLOW SITE GRADING AND ANALYSIS FOR DETERMINATION OF FINAL DISPOSITION, IF REQUIRED.
- PLANTS AND ASSOCIATED ROOT SYSTEMS SCHEDULED FOR REMOVAL SHALL BE CLEARED, TO THE MAXIMUM EXTENT PRACTICAL, OF EXCESS SOIL PRIOR TO OFFSITE DISPOSAL.
- UNCONTAMINATED BRICK AND BLOCK MAY BE REMOVED FROM THE SITE AS CLEAN FILL PER THE PADEP MANAGEMENT OF FILL POLICY (ATTACHED HEREIN AS REFERENCE). SHOULD ANY QUESTIONABLE FILL OR POTENTIALLY CONTAMINATED SOIL (VISUAL OR ODOR INDICATORS) BE OBSERVED, IT IS UNDERSTOOD THAT THE CONTRACTOR SHALL STOP WORK AND TAKE NECESSARY MEASURES IN ACCORDANCE WITH THE PENNSYLVANIA DEP 'MANAGEMENT OF FILL' POLICY.

#### SAMPLING AND ANALYSIS

- AFTER THE INITIAL CLEARING AND GRUBBING (VEGETATION REMOVAL) AND HOT SPOT REMOVAL, THE OWNER'S REPRESENTATIVE WILL GRID THE NATIVE GRASS (LAWN) PORTIONS OF THE SITE IN PREPARATION FOR FIELD SAMPLE ANALYSIS. THE GRID WILL BE LAID OUT IN A 25 FOOT WIDE BY 50 FOOT LONG PATTERN AS SHOWN ON THIS PLAN SHEET.
- BASED ON THIS GRID PATTERN, IT IS EXPECTED THAT BETWEEN 40 AND 50 SAMPLES WILL BE FIELD ANALYZED FOR RCRA METALS.
- THE OWNER'S REPRESENTATIVE WILL USE A REAL TIME FIELD ANALYZER (XRF GUN) TO SAMPLE AND RECORD THE RCRA METAL (INCLUDING ARSENIC AND LEAD) CONCENTRATIONS AT THE VARIOUS GRID POINTS.
- FROM THIS GRID. THE OWNER'S REPRESENTATIVE WILL PREPARE AN ISO-CONCENTRATION MAP TO DELINEATE THE AREAS OF THE ROUGH GRADED SITE THAT EXCEED CLEAN FILL AND RESIDENTIAL DIRECT CONTACT STANDARDS AND THE AREAS THAT ARE COMPLIANCE WITH THESE STANDARDS.
- AREAS THAT ARE IN COMPLIANCE WITH THE CLEAN FILL AND RESIDENTIAL DIRECT CONTACT STANDARDS MAY BE USED ANYWHERE ONSITE.
- AREAS THAT EXCEED THE CLEAN FILL AND RESIDENTIAL DIRECT CONTACT STANDARDS MUST BE MANAGED IN THE FOLLOWING SEQUENCE:
- 1. PLACED UNDER THE HARD CAP SURFACES (TRAIL PATH, PERVIOUS PAVERS) AS FILL.
- 2.PLACED UNDER AT LEAST 12 INCHES OF CLEAN FILL. 3.USED IN AREAS WITH PROPOSED WILD FLOWER/MEADOW OR ORNAMENTAL GRASS COVER.
- 4.TRANSPORTED OFF-SITE AND DISPOSED OF AS A RESIDUAL WASTE (ALL EFFORTS SHOULD BE MADE TO KEEP MATERIAL ONSITE).

\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\Soil Management Grid Plan.dwg 11/2/2015 5:01:59 PM

- THE 2'-WIDE GRASS SHOULDERS ADJACENT TO BOTH SIDES OF THE TRAIL WILL BE COMPRISED OF 12-INCHES OF CLEAN FILL.
- SHOULD MATERIAL HAVE TO BE MOVED OFF—SITE, THE MATERIAL WILL BE STOCKPILED AND, FOLLOW—UP SAMPLING WILL BE UNDERTAKEN IN ACCORDANCE WITH THE FREQUENCY AND PARAMETERS DICTATED BY THE PADEP MANAGEMENT OF FILL POLICY AND CERTIFIED WASTE RECYCLING AND/OR DISPOSAL FACILITY. SOIL SAMPLES WILL BE COLLECTED BY THE OWNER'S REPRESENTATIVE USING DECONTAMINATED, STAINLESS STEEL TOWELS OR AUGERS, AND WILL BE SUBMITTED TO A CERTIFIED LABORATORY FOR ANALYSIS. ANALYTICAL DATA WILL BE PROVIDED TO THE CERTIFIED WASTE RECYCLING AND/OR DISPOSAL FACILITY, IN ORDER TO RECEIVE A "PRE-APPROVAL" FOR WASTE ACCEPTANCE PRIOR TO RECYCLING/DISPOSAL. WASTE PROFILE FORMS AND WASTE BILLS-OF-LADING/MANIFESTS WILL NEED TO BE ACCURATELY PREPARED AND SIGNED BY THE OWNER (OR DESIGNATED REPRESENTATIVE) PRIOR TO ANY SHIPMENT OF IMPACTED SOIL OFF-SITE.
- SAMPLES SHALL BE COLLECTED BY VOLUME INCREMENTS. SAMPLES SHALL BE COMPOSITED AND COLLECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PADEP MANAGEMENT OF FILL POLICY - APPENDIX A.
- SAMPLING SHALL BE RANDOM AND REPRESENTATIVE OF THE MATERIAL BEING SAMPLED. SAMPLING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE EPA RCRA MANUAL, SW-846 (TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE).

#### TRANSPORTATION AND DISPOSAL

- ONCE LAB RESULTS ARE RECEIVED AND COMPARED WITH PADEP TABLES FP-1A AND 1B. AND GP-1A AND 1B. THE DETERMINATION CAN BE MADE OF WHAT SOILS ARE CLEAN FILL VERSUS REGULATED FILL AND SEGREGATED ACCORDINGLY.
- THE CONTRACTOR SHOULD OBTAIN THREE BIDS FROM DISPOSAL SITES THAT ARE LICENSED TO PROCESS SUCH WASTES AND PREPARE AN ESTIMATE FOR THE TRANSPORTATION OF SUCH WASTES TO THOSE DISPOSAL SITES. THE OWNER'S PROJECT MANAGER SHALL REVIEW THE DISPOSAL BID AND ESTIMATES TO DETERMINE THE APPROPRIATE PAYMENT THEREOF.
- DISPOSAL OF SOILS SHOULD BE ACCOMPANIED BY WASTE MANIFESTS WHICH SHOULD BE PROVIDED TO THE CLIENT.

#### GROUNDWATER AND DEWATERING OF EXCAVATED TRENCHES

STORMWATER THAT PONDS IN OPEN TRENCHES AFTER RAIN EVENTS SHALL NOT BE PUMPED TO THE PWD STORM SEWER SYSTEM OR THE SCHUYLKILL RIVER. THIS WATER SHALL BE PUMPED THROUGH A FILTER BAG AND DISCHARGED TO A STABILIZED AREA ONSITE AND ALLOWED TO NATURALLY INFILTRATE.

#### NO ADDITIONAL GROUNDWATER OR INDUSTRIAL DISCHARGE PERMITS ARE ANTICIPATED.

## GENERAL HEALTH AND SAFETY PROCEDURES

THE SITE CONTRACTOR SHOULD PREPARE AND FOLLOW A SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP). EXCAVATION SUBCONTRACTOR PERSONNEL WILL BE TRAINED IN THE PROPER USE OF PERSONNEL PROTECTIVE EQUIPMENT (PPE) AND THE PROPER HANDLING PROCEDURES OF CONTAMINATED MATERIALS. THE ON-SITE HEALTH AND SAFETY REPRESENTATIVE WILL BE PRESENT DURING EXCAVATION ACTIVITIES IN ALL IMPACTED AREAS.

IN ADDITION TO THE ABOVE, UPON COMPLETION OF EACH WORK-DAY AND PRIOR TO LEAVING THE SITE, WORKERS WILL REMOVE ANY PPE, SUCH AS GLOVES, BOOTIES, AND DUST MASKS, AND DISPOSE OF THEM ON-SITE IN APPROPRIATE CONTAINERS. ADDITIONALLY, WORKERS WILL BE REQUIRED TO WASH THOSE PARTS OF THE BODY POTENTIALLY EXPOSED TO CONTAMINANTS OF CONCERN (COC) THROUGHOUT THE WORK-DAY (I.E., FACE, HANDS, NECK). TO PROVIDE FURTHER PROTECTION FROM COC ONCE THE WORKER HAS LEFT THE SITE, ANY CLOTHES WORN IN FIELD SHALL BE SEGREGATED AND WASHED SEPARATELY.

#### USE OF PERSONAL PROTECTIVE EQUIPMENT

ALL WORK COMPLETED WITHIN THE KNOWN IMPACTED AREAS WILL BE COMPLETED WHILE USING THE PROPER PPE, WHICH MAY INCLUDE, BUT IS NOT LIMITED TO, GLOVES, HARD HATS, STEEL-TOED WORK BOOTS, DUST MASKS, AS MAY BE REQUIRED BY THE ACTIVITIES BEING CONDUCTED.

#### SAMPLING RESULTS

Sample Number	Sample Depth (Feet)	Constituent	Result (ppm)	Clean Fill Standard (ppm)	Regulated Fill Standard (ppm)	RDC MSC (ppm)	RUA MSC <sup>1</sup> (ppm)	Arsenic SPLP Result (ug/L)
S-1A	1	Arsenic	20	12	53	12	68	/=
S-1B	4	Arsenic	41	12	53	12	68	¥ <b>-</b>
S-2A	1	Arsenic	33	12	53	12	68	15 (Pass)
S-2B	4	Arsenic	25	12	53	12	68	I <del>-</del>
S-3A	1	Arsenic	27	12	53	12	68	8.9 (Pass)
S-3B	4	Arsenic	20	12	53	12	68	χ=
S-4A	1	Arsenic	68	12	53	12	68	27 (Pass)
S-4B	4	Arsenic	46	12	53	12	68	
S-7A	1	Arsenic	22	12	53	12	68	5₩
S-7B	4	Arsenic	13	12	53	12	68	7=
S-8A	1	Benzo(a)anthracene	8.4	25	110	5.7	25	2=
		Benzo(a)pyrene	7.1	2.5	11	0.57	46	*=
		Benzo(b)fluoranthene	9.7	25	110	5.7	40	4.=
		Dibenz(a,h)anthracene	1.2	2.5	11	0.57	13	31 <u>44</u>
S-9A	1	Arsenic	13	12	53	12	68	3. <del>2</del>
S <b>-</b> 9B	4	Arsenic	31	12	53	12	68	ž=
S-10A	1	Arsenic	23	12	53	12	68	6.2 (Pass)
		Lead	4600	450	450	500	450	% <b>=</b>
S-10B	4	Arsenic	15	12	53	12	68	3 <del>5</del>

Standards highlighted in **bold** are exceeded. Arsenic SPLP Standard = 50 ug/l (residential used aquifer MSC) Hotspot S-4A, S-8A, and S-10A to be excavated and hauled offsite for disposal

The RUA MSC for arsenic was revised to 68 ppm (as compared to 29 ppm) because the Synthetic Precipitation Leaching Procedure (SPLP) was conducted for arsenic. Per the PADEP Technical Guidance Manual, the four samples with the highest total concentration of arsenic were submitted for SPLP analysis. Since all of these samples resulted in a passing SPLP level (below the published groundwater standards), the new alternative RUA MSC is the total concentration

corresponding to the highest SPLP result (68 ppm). See the Stormwater Management Section for more details on SPLP.

DANIEL B. HUMES

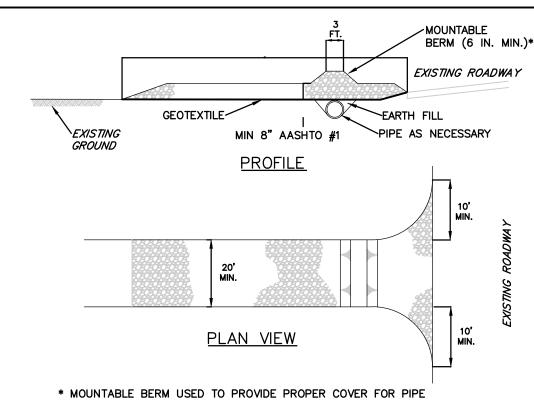
PREPARED BY:

/PROFESSIONAL/

\ENGINEER/

PE079470

120 FEET 60 HORIZONTAL **CONFORMED SET** 



REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

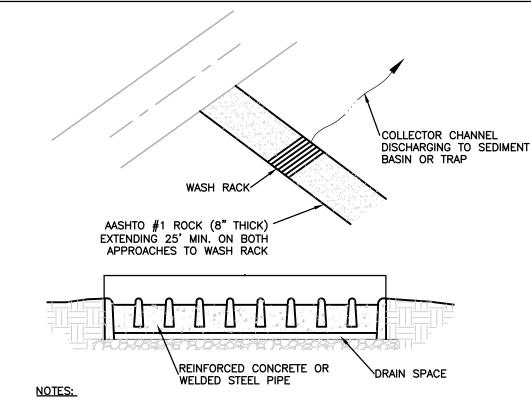
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

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: ROCK CONSTRUCTION ENTRANCE 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 LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT 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.

#### STANDARD CONSTRUCTION DETAIL #3-1 **ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE

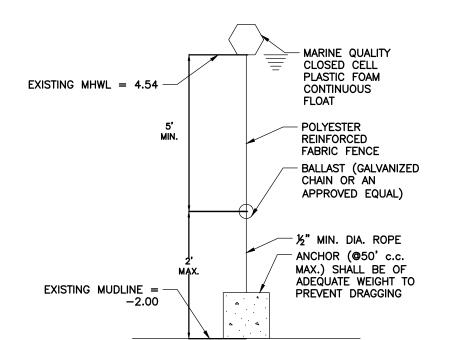


WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

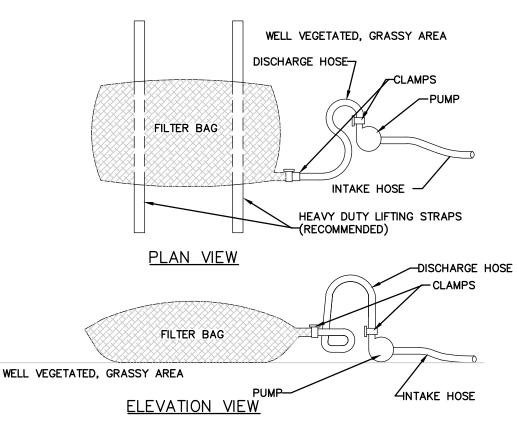
STANDARD CONSTRUCTION DETAIL #3-2 ROCK CONSTRUCTION ACCESS WITH WASH RACK NOT TO SCALE



#### TURBIDITY CURTAIN SPECIFICATIONS

- FLOATING TURBIDITY CURTAIN SHALL BE "TOUGH GUY" TYPE 1 OR A PADEP APPROVED EQUAL. THE CURTAIN SHALL BE MADE OF 18 OZ./SQ. YD. POLYESTER REINFORCED FABRIC (320 LB. PSI TEST) AND ALL SEAMS SHALL BE HEAT-WELDED. THE CURTAIN SHALL HAVE A CLOSED CELL PLASTIC FOAM FLOATATION DEVICE, PROVIDING 16 LBS./FT. BUOYANCY AND SHALL BE WEIGHTED WITH A 1/4" GALVANIZED CHAIN, HEAT-WELDED INTO THE CELL AND SECURED AT BOTH ENDS TO ENABLE THE CURTAIN TO LAY FLAT. EACH CURTAIN SHALL MEASURE 3' (MIN.) DEEP AND 50' IN LENGTH. THE ENDS OF EACH CURTAIN SHALL HAVE A MINIMUM OF FIVE (5) BRASS SPUR-LOCKING GROMMETS
- 2. A 3/16" POLY CORD SHALL BE USED FOR TYING GROMMETS BETWEEN SECTIONS OF THE CURTAIN

TURBIDITY CURTAIN TYPICAL DETAIL NOT TO SCALE



#### NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE

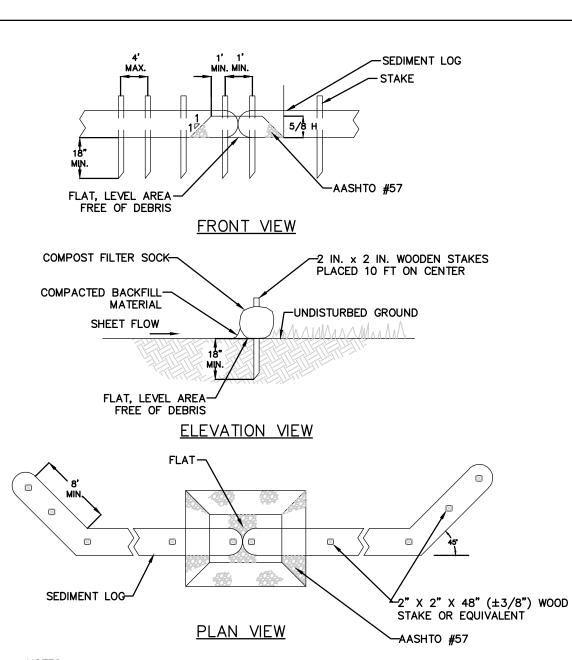
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

#### STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

NOT TO SCALE

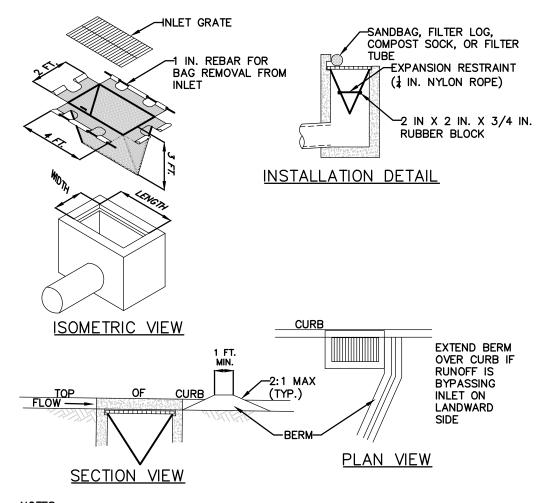


SEDIMENT LOG PLACEMENT AREA SHALL BE PREPARED SO THAT IT IS FREE OF ALL DEBRIS, INCLUDING ROCKS, STICKS, ROOTS, ETC. A 2" LAYER OF COMPACTED FILL MATERIAL SHALL BE PLACED ON THE UPSLOPE SIDE OF THE LOG TO PREVENT UNDERCUTTING. WHERE MORE THAN ONE LOG IS REQUIRED TO OBTAIN SPECIFIED LENGTH, LOGS SHALL BE TIGHTLY ABUTTED AND SECURELY STAKED (OR OVERLAPPED BY 12" MIN.). A LAYER OF AASHTO #57 STONE SHALL BE PLACED WHERE ABUTTING LOGS COME TOGETHER (EXTENDING 2 FT. ON BOTH SIDES OF LOG). A 6" THICK LAYER OF COMPOST ON THE UPSLOPE SIDE MAY BE SUBSTITUTED FOR THE STONE. SEDIMENT FILTER LOGS SHALL BE PLACED AT EXISTING LEVEL GRADE. ENDS SHALL BE EXTENDED UPSLOPE AT 45° TO THE MAIN FILTER LOG ALIGNMENT FOR A MINIMUM OF 8 FEET (FIGURE 4.1) SEDIMENT FILTER LOGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT DEPOSITS SHALL BE CLEANED FROM THE LOG WHEN IT REACHES HALF THE HEIGHT OF THE LOG. DAMAGED FILTER LOGS SHALL BE REPLACED

> STANDARD CONSTRUCTION DETAIL #4-11 SEDIMENT FILTER LOG (FIBER LOG)

WITHIN 24 HOURS OF INSPECTION. A SUPPLY OF FILTER LOGS SHALL BE

MAINTAINED ON SHITE FOR THIS PURPOSE.



#### NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

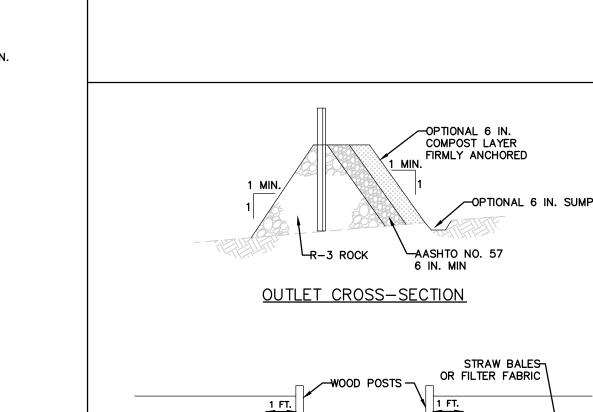
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

NLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO

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

STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET NOT TO SCALE



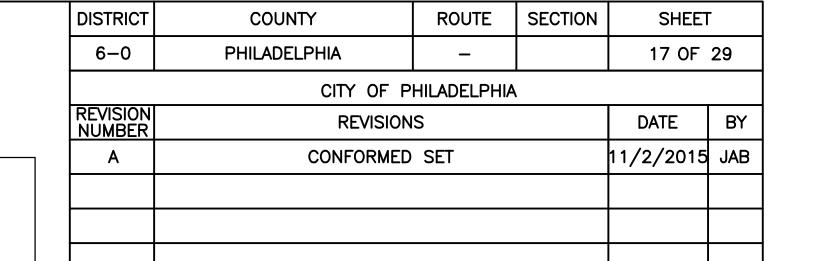
# STRAW BALES OR FILTER FABRIC HEIGHT OF ROCK--AASHTO NO. 57 FILTER=5/6 HEIGHT OF STRAW BALES OR FILTER FABRIC FENCE **UP-SLOPE FACE**

NOTES:

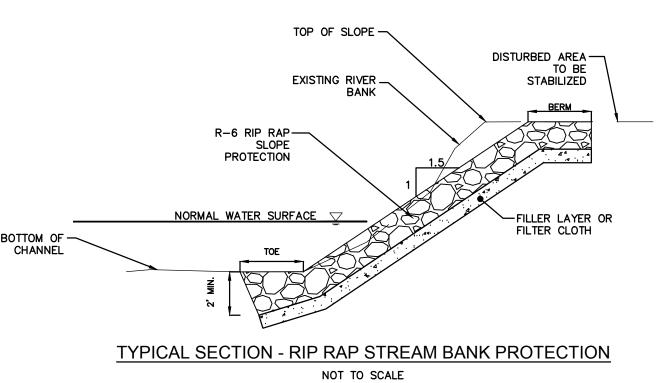
A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATE FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS

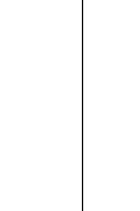
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6 **ROCK FILTER OUTLET** NOT TO SCALE



#### SCHUYLKILL RIVER TRAIL EXTENSION EROSION AND SEDIMENT CONTROL DETAILS





**MEMBRANE** 

SANDBAGS

<u>L. 6.54 FT(±) @</u>

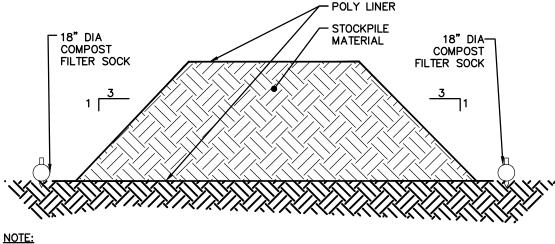
TOP OF COFFERDAM

EL. 4.54 FT. MHWL

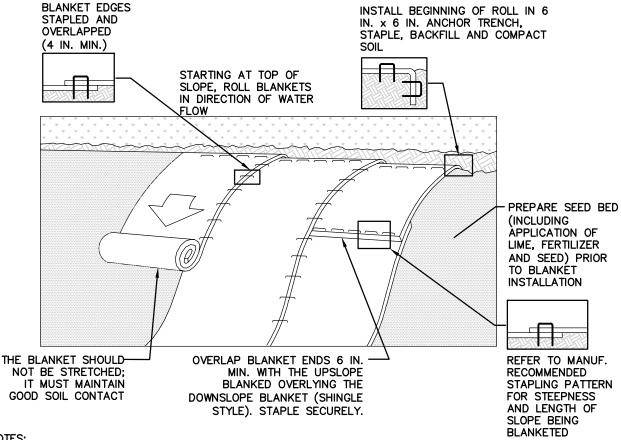
MUDLINE E

- 1. THE PRINCIPAL E&S CONTROL BMP TO BE USED ON THIS PROJECT IS AN IN STREAM COFFERDAM. THIS COFFERDAM SHALL BE INSTALLED AS INDICATED ON PLANS TO SERVE AS A BARRIER TO PREVENT RIVER WATER FROM ENTERING THE CONSTRUCTION SITE DURING EXTREME HIGH TIDE EVENT.
- 2. THE COFFERDAM SHALL BE CONSTRUCTED PRIOR TO CONDUCTING ANY WORK IN OR ALONG THE BANKS OF THE RIVER. DURING THE INSTALLATION OF THE COFFERDAM, THE CONTRACTOR SHALL USE A FLOATING TURBIDITY BARRIER SO THAT SEDIMENTS ARE NOT DISCHARGED TO THE RIVER.
- 3. DEWATERING OF THE LANDSIDE AREA OF THE COFFERDAM SHALL BE DONE IN ACCORDANCE WITH AN APPROVED LETTER OF AUTHORIZATION OBTAINED FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. TREATMENT OF THE DISCHARGE MAY BE REQUIRED DEPENDING UPON THE CONTRACTOR MEANS AND METHODS BEING USED FOR THE DEWATERING OPERATIONS. NO DEWATERING FLUIDS SHALL BE DISCHARGED INTO THE CITY OF PHILADELPHIA'S SEWERS.
- 4. THE COFFERDAM SHALL REMAIN INSTALLED UNTIL SUCH TIME AS THE RIVER BANKS HAVE BEEN STABILIZED AND THERE IS AT LEAST 80% GROWTH OF PERMANENT
- 5. THE CONTRACTOR SHALL UTILIZE SUCH LANDSIDE E&S CONTROLS (AT THE TOP OF THE RIVER BANKS AND STORMWATER INLETS) AS SPECIFIED IN AN APPROVED NPDES PERMIT FOR CONSTRUCTION ACTIVITIES.
- 6. COFFERDAM TO BE DESIGNED BY CONTRACTOR

#### SANDBAG COFFERDAM #3-15 NOT TO SCALE



PER THE NOTE SECTION 'GENERAL SOIL HANDLING, EXCAVATION AND STOCKPILING ON SHEET 16 — EROSION AND SEDIMENT CONTROL — SOIL SAMPLING PLAN, SOILS EXCAVATED SHALL BE STOCKPILED AT A DESIGNATED SOIL STAGING AREA ONSITE. ALL EXCAVATED SOIL WILL BE PLACED ON A POLY LINER AND COVERED IN A PREDETERMINED AREA AS NOTED IN THE EROSION AND SEDIMENT CONTROL PLANS. STOCKPILE STORAGE AREA NOT TO SCALE



SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH

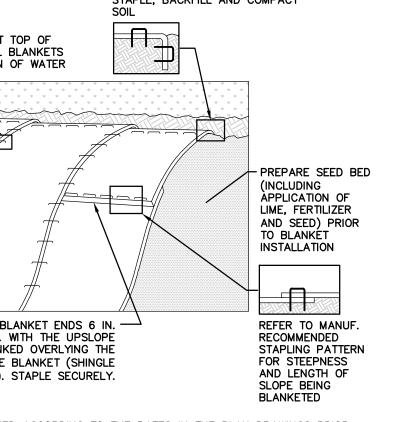
THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-**EROSION CONTROL BLANKET INSTALLATION** NOT TO SCALE

ORANGE CONSTRUCTION FENCE

NOT TO SCALE

STAKE SPACING-



-48" HIGH DENSITY ORANGE

-STAKES: 66" T-POST DRIVEN

POLYETHYLENE SAFETY

SAFETY FENCE TO POST

18" BELOW GRADE

-FINISHED GRADE

#### TREE PROTECTION NARRATIVE:

1. TREES WHICH HAVE BEEN DELINEATED ON THE PLAN AND ARE WITHIN 25 FEET OF PROPOSED TRAIL OR OTHER LOCATIONS DEEMED APPROPRIATE BY THE DESIGN ENGINEER SHALL BE PROTECTED BY INSTALLING AND MAINTAINING A FENCE AT THE DRIP LINE.

PROPOSED ORANGE

CONSTRUCTION FENCE

OR APPROVED EQUAL

2' MIN. BEYOND CANOPY DRIP LINE, OR TO THE

GREATEST EXTENT POSSIBLE

2. NO BOARDS OR OTHER MATERIAL SHALL BE NAILED TO TREES DURING

3. HEAVY EQUIPMENT OPERATORS SHALL AVOID DAMAGING EXISTING TREE TRUNKS AND ROOTS. FEEDER ROOTS SHALL NOT BE CUT CLOSER THAN 25 FEET FROM TREE TRUNKS.

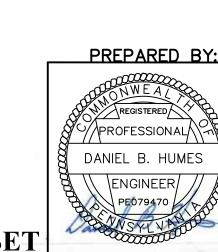
4. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BEING TREATED

5. TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE PROPERLY PRUNED AND TREATED IMMEDIATELY.

THE OPERATIONS OF HEAVY EQUIPMENT OVER ROOT SYSTEMS OF SUCH TREES SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION. 7. DAMAGED TREES SHALL BE FERTILIZED TO AID IN THEIR RECOVERY. . CONSTRUCTION DEBRIS SHALL NOT BE DISPOSED OF NEAR OR AROUND THE BASES OF SUCH TREES.

3. TREE/SOIL PROTECTION MAY BE TEMPORARILY MOVED ONLY FOR GRADING, GRUBBING, OR PLANTING WORK THAT OCCURS WITHIN LIMITS OF PROTECTION FENCE. CONTRACTOR SHALL REINSTALL IN ORIGINAL LOCATION MMEDIATELY FOLLOWING GRUBBING OPERATION, OR DIRECTLY ADJACENT TO NEW PLAN BED IMMEDIATELY FOLLOWING PLANTING OPERATION. STANDARD CONSTRUCTION DETAIL TREE PROTECTION

NOT TO SCALE



**CONFORMED SET** 

:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\E&S PLAN DETAILS.dwg 11/2/2015 5:02:2/ PM

NOT TO SCALE

#### EROSION AND SEDIMENT CONTROL PLAN NOTES

- . ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON—SITE PRECONSTRUCTION MEETING.
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- 5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OR PHASE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- 7. 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.
- 8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE 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.
- 9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE 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.
- 10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- 11. ALL OFF—SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL.
- FORM FP-001 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.

  13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN,
- OVER UNDISTURBED VEGETATED AREAS.
- 14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAMES).
- 15. 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,

  REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO

  PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME
- 17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- 18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

  19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES —— 6 TO 12 INCHES ON COMPACTED SOILS —— PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL
- 20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- 21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
  22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE
- MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

  23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
  25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND
- SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD. 26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT 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.

  27. 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. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE

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

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

  31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO REPMANENT BOST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL
- CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- 32. 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.
- 33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT—LADEN 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 LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

#### MAINTENANCE PROGRAM FOR SEDIMENT AND EROSION CONTROLS

THE CONTRACTOR/CREWS SHALL MAINTAIN A SCHEDULE OF INSPECTION AND MAINTENANCE FOR THE EROSION CONTROL FACILITIES AND WATER QUALITY SWALE AS PREVIOUSLY DESCRIBED. THIS WILL INCLUDE A ROUTINE WEEKLY INSPECTION AS WELL AS INDIVIDUAL INSPECTIONS WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT (3.0 MILLIMETERS/0.125—INCHES OF RAINFALL). REMOVAL OF SILT FROM THE WATER QUALITY SWALE AND INLET PROTECTION IS ESSENTIAL TO MAINTAIN THE PROPER STORAGE VOLUMES AND PROVIDE THE PROPER FILTRATION CAPABILITIES. SILT FENCE THAT HAS BEEN UNDERMINED OR DAMAGED MUST BE REPAIRED AND SEDIMENTS MUST BE REMOVED TO PREVENT WATER QUALITY VIOLATIONS. ADDITIONALLY, SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH ½ THE ABOVE GROUND HEIGHT OF THE SILT FENCE.

SEDIMENT REMOVED FROM THE SILT FENCING AND OTHER E&S CONTROLS WILL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED FACILITY WITH APPROPRIATE E&S CONTROLS. ANY EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH PA DEP. ALL PREVENTATIVE AND REMEDIAL WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY AFTER THE COMPLETION OF A STORM EVENT.

THE CONTRACTOR IS ADVISED THAT THE ACTUAL NPDES PERMIT FOR THE PROJECT HAS VERY SPECIFIC MONITORING AND INSPECTION REQUIREMENTS, INCLUDING THE KEEPING OF A WRITTEN RECORD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE NPDES REQUIREMENTS.

#### **ROCK CONSTRUCTION ENTRANCE:**

1. THE STRUCTURE'S THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED BY USE OF A VACUUM TYPE ROAD SWEEPER AND RETURNED TO THE CONSTRUCTION SITE.

#### FILTER FABRIC SILT FENCE OR SEDIMENT FILTER LOG:

- I. THE FENCE OR LOG INSTALLATION SHALL BE INSPECTED WEEKLY, BEFORE ANY ANTICIPATED PARTICIPATION EVENT, AND AFTER ALL PRECIPITATION EVENTS. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
- 2. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE FENCE OR LOG FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE—GROUND HEIGHT OF THE FENCE OR LOG.
- 3. ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR WILL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS.

#### **ROCK FILTER OUTLETS:**

1. THE ROCK FILTER OUTLET SHALL BE INSPECTED WEEKLY, BEFORE ANY ANTICIPATED PARTICIPATION EVENT, AND AFTER ALL PRECIPITATION EVENTS. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE FENCE FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

#### <u>SEEDING AND MULCHING OF DISTURBED AREAS AND NEW SLOPES:</u>

1. EROSION CONTROL MAT SHALL BE INSTALLED ON SLOPES 3:1 OR STEEPER. DISTURBED AREAS AND NEW SLOPES SHALL BE INSPECTED WEEKLY, BEFORE ANY ANTICIPATED PARTICIPATION EVENT, AND AFTER ALL PRECIPITATION EVENTS.
2. MISSING MULCH SHALL BE REPLACED. RESEEDED AND MULCHED UNTIL THE ESTABLISHMENT OF GOOD VEGETATED COVER.

#### **VISUAL INSPECTIONS**

THE CONTRACTOR MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED AND DOCUMENTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE STORMWATER EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED 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 THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

(1) A SUMMARY OF SITE CONDITIONS, E&S AND PCSM BMPS, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS;

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

#### RECYCLING OR DISPOSAL OF MATERIALS

THIS PROJECT WILL GENERATE SEVERAL WASTE PRODUCTS THAT WILL HAVE TO BE REMOVED OFF-SITE. THESE INCLUDE EXCAVATED MATERIALS AND RESIDUAL WASTE. WASTE MATERIALS MUST BE DISPOSED OF IN ACCORDANCE WITH THE COMMONWEALTH OF PENNSYLVANIA'S WASTE DISPOSAL STANDARDS.

THESE CONTRACT DOCUMENTS REQUIRE THE CONTRACTOR/CREWS TO MONITOR EARTH DISTURBANCE ACTIVITIES FOR THE POTENTIAL PRESENCE OF MUNICIPAL WASTE OR SUBSURFACE CONTAMINATION. IF ENCOUNTERED, A SPECIAL DISPOSAL PLAN WILL NEED TO BE DEVELOPED BY THE CONTRACTOR/CREWS.

THE CONTRACTOR/CREWS SHALL PROVIDE A MATERIAL MANAGEMENT PLAN TO IDENTIFY THE SPECIFIC DISPOSAL SITES FOR EACH CLASSIFICATION OF MATERIALS. IF A PROPOSED DISPOSAL SITE DOES NOT HAVE AN APPROVED E&S CONTROL PLAN OR THE REQUIRED LOCAL/STATE/FEDERALLY ISSUED OPERATING LICENSES, THAT SITE CANNOT BE USED.

#### MANAGEMENT OF FILL AND EXCAVATED MATERIALS

THE CONTRACTOR MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. DEFINITIONS OF CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE ARE PROVIDED BELOW. ALL FILL MATERIAL MUST BE USED IN ACCORDANCE WITH THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL," DOCUMENT NUMBER 258–2182–773. A COPY OF THIS POLICY IS AVAILABLE ONLINE AT WWW.DEPWEB.STATE.PA.US. UNDER THE HEADING QUICK ACCESS ON THE LEFT SIDE OF THE SCREEN, CLICK ON "FORMS AND PUBLICATIONS." ON THE LEFT SIDE OF THE SCREEN CLICK ON "TECHNICAL GUIDANCE DOCUMENTS — FINAL." THEN TYPE THE DOCUMENT NUMBER 258 2182 773 INTO THE SEARCH WINDOW AND CONDUCT THE SEARCH. CLICK ON "MANAGEMENT OF FILL."

#### 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:

FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL."

#### PADEP FORM FP-001 SHALL BE REQUIRED:

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE PADEP FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL AND MUST BE KEPT ON SITE AND MADE AVAILABLE UPON REQUEST BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. FAILURE TO PRODUCE THE FORM UPON REQUEST MAY RESULT IN THE REVOKING, SUSPENSION OR TERMINATION OF YOUR PERMIT COVERAGE.

#### 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, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL."

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

#### FINAL SITE GRADING AND SLOPE STABILIZATION

CONSTRUCTION WILL RESULT IN SOME EMBANKMENTS HAVING GREATER THAN A 3V: 1H SLOPE. IN THESE AREAS AN EROSION CONTROL BLANKET WILL BE REQUIRED. THE PLACEMENT OF THESE BLANKETS WILL BE DONE IN ACCORDANCE WITH SUPPLIED MANUFACTURER'S SPECIFICATIONS. TYPICALLY THE SITE IS FINAL GRADED AND THE UPPER 6—INCHES OF SOIL TREATED WITH SOIL AMENDMENTS. IN THIS CASE THE TOP SOIL MIX WILL INCLUDE A MIXTURE OF AT LEAST 50% COMPOST. ONCE THE SITE IS FINAL GRADED AND THE EROSION CONTROL BLANKET HAS BEEN INSTALLED THE SURFACE WILL THEN BE COVERED WITH AT LEAST 1—INCH OF TOPSOIL AND THEN THE AREA SEEDED. DEPENDING UPON THE BRAND OF EROSION CONTROL BLANKET BEING USED THE TOP COVERING WITH TOPSOIL MAY BE LISTED AS AN "OPTION". FOR THIS PROJECT THE TOPSOIL COVERING IS NOT AN OPTION AND SHALL BE APPLIED IN ALL CASES.

THE ABOVE LISTING IS NOT ALL INCLUSIVE AND THERE MAY BE OTHER DATA AND MEASUREMENTS REQUIRED FOR PSCM PLAN CERTIFICATION. THESE OTHER REQUIREMENT SHOULD BE REVIEWED WITH THE CITY, TOWNSHIP, COUNTY CONSERVATION DISTRICT AND PADEP AT THE MANDATORY PRE—CONSTRUCTION MEETING.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	•				
6-0	PHILADELPHIA	1		18 OF	29				
	CITY OF P	HILADELPHIA							
REVISION NUMBER	REVISION	REVISIONS							
Α	CONFORMED	SET		11/2/2015	JAB				
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SCHUYLKILL RIVER TRAIL EXTENSION EROSION AND SEDIMENT CONTROL NOTES—1

#### SOIL INFORMATION FOR PHILADELPHIA COUNTY

THE SOIL INFORMATION FOR THIS PROJECT WAS OBTAINED FROM THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE SOIL SURVEY FOR PHILADELPHIA AND BUCKS COUNTIES, DATED 1975.

THE SOIL SURVEY INDICATES THAT THE SOILS ENCOMPASSING THE PROJECT AREA ARE URBAN LAND (UB). THIS LAND IS IN HIGHLY BUILT—UP AREAS OF BUCKS AND PHILADELPHIA COUNTIES. MOST URBAN LAND IS ON TERRACES OF THE UPLANDS AND COASTAL PLAIN; HOWEVER, SOME IS ON THE FLOOD PLAIN. THE SOILS AND FOUNDATION MATERIALS ARE HIGHLY VARIABLE. URBAN STRUCTURES AND WORKS COVER SO MUCH OF THIS LAND TYPE THAT IDENTIFICATION OF THE SOILS IS NOT PRACTICAL. MOST AREAS HAVE BEEN SMOOTHED, AND THE ORIGINAL SOIL MATERIAL HAS BEEN DISTURBED, FILLED OVER, OR OTHERWISE DESTROYED PRIOR TO CONSTRUCTION.

#### ADDITIONAL NOTES FOR NPDES PERMIT PROJECTS

- 1. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
- 2. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY
- 2. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOU DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
- 3. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS—SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
- 4. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
- 5. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
- 6. SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
  7. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION
- 8. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY
- SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

  9. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- 10. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8 INCH LAYERED LIFTS AT 95% DENSITY.

#### ADDITIONAL COUNTY/CITY SPECIFIC NOTES

DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.

#### CITY OF PHILADELPHIA:

- 1. AN INDUSTRIAL WASTE PERMIT WILL BE REQUIRED SHOULD PUMPING TO CITY-OWNED INFRASTRUCTURE BECOME NECESSARY DURING CONSTRUCTION.
- 2. INLET PROTECTION SHOULD BE PROVIDED FOR ALL INLETS OWNED BY PWD THAT ARE LOCATED WITHIN ONE BLOCK OF THE PROJECT SITE.
- 3. PWD IS NOT RESPONSIBLE FOR ANY CLEANING OR REPAIRS NEEDED ON CITY-OWNED INFRASTRUCTURE DUE TO FAILURE OF ANY EROSION AND SEDIMENT CONTROL PRACTICES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBLITY TO CLEAN
- 4. INSPECTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES SHALL OCCUR ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS, AND AFTER ALL PRECIPITATION EVENTS.
- 5. THE MAXIMUM HEIGHT FOR STOCKPILES AREAS SHALL BE 35 FEET. 5. THE MAXIMUM SIDE SLOPE FOR STOCKPILE AREAS SHALL NOT EXCEED 2:1.

AND REPAIR ANY DAMAGE CAUSED BY THEIR ACTION OR INACTIONS.

- 6. THE MAXIMUM SIDE SLOPE FOR STOCKPILE AREAS SHALL NOT EXCEED 2:1.
  7. THE ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED ON SITE. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON
- PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

  8. FILTER FABRIC FENCE SHOULD BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION SHOULD BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. SUPPORT STAKES SHALL BE SPACED AT A MAXIMUM OF 8 FEET. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE
- GROUND HEIGHT OF THE FILTER FENCE.

  9. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.
- 10. PRIOR TO ANY EARTH DISTURBANCE, THE INSPECTIONS COORDINATOR OF PWD (OFFICE 215-685-6387) MUST BE CALLED TO SCHEDULE A PRE-CONSTRUCTION MEETING.

#### CONTRACTORS/OPERATORS WHO ARE NOT THE PERMITTEE SHALL BE CO-PERMITTEES

FEDERAL NPDES REGULATIONS AT 40 C.F.R. \\$122.21(B) REQUIRE THAT CONTRACTOR/OPERATOR(S) MUST BECOME A PERMITTEE. AN OPERATOR IS A PERSON WHO MEETS EITHER OF THE FOLLOWING CRITERIA: 1.) YOU HAVE OPERATIONAL CONTROL OF CONSTRUCTION PROJECT PLANS AND SPECIFICATIONS, INCLUDING THE ABILITY TO MAKE MODIFICATIONS TO THOSE PLANS AND SPECIFICATIONS; OR 2.) YOU HAVE DAY-TO-DAY OPERATIONAL CONTROL (SUPERVISION) OF THOSE ACTIVITIES AT THE PROJECT THAT ARE NECESSARY TO ENSURE COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE OR ENSURE COMPLIANCE WITH OTHER PERMIT CONDITIONS, I.E., GENERAL CONTRACTORS. SUBCONTRACTORS GENERALLY DO NOT HAVE SUPERVISORY CONTROL OVER EARTH DISTURBANCE ACTIVITIES AND THEREFORE USUALLY SHOULD NOT BECOME A PERMITTEE OR CO-PERMITTEE. IF PRIOR TO CONSTRUCTION ACTIVITIES, THERE IS NO OPERATOR, THE OWNER MUST APPLY FOR THE PERMIT. ONCE THE OPERATOR HAS BEEN SELECTED, THE CONTRACTOR/OPERATOR MUST USE PADEP FORM 3150-PM-BWEW0228 TRANSFEREE/CO-PERMITTEE APPLICATION FORM TO HAVE THE PERMIT TRANSFERRED TO THE CONTRACTOR.

# FAILURE OF THE CONTRACTOR/OPERATOR TO BE ADDED TO THE PERMIT IS A VIOLATION OF FEDERAL AND STATE LAW AND REGULATION.

THIS APPLICATION MUST BE FILED AT LEAST 30 DAYS PRIOR TO THE PROPOSED CHANGE OF OWNERSHIP AND/OR OPERATIONAL CONTROL WHICH WILL RESULT IN THE TRANSFER OF PERMIT RESPONSIBILITY, COVERAGE AND LIABILITY.

PREPARED BY:

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**CONFORMED SET** 

#### TICAL STAGES OF IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR WHICH A LICENSED PROFESSIONAL OR THEIR DESIGNEE SHALL BE PRESENT ON THE PROJECT SITE.

A LICENSED PROFESSIONAL OR THEIR ASSIGNED DESIGNEE SHALL ANNOTATE (MARK-UP) THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (PCSMP) TO INDICATE ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS, AND ANY OTHER CHANGES OR DEVIATIONS THAT VARY FROM THE ORIGINAL PCSMP. THESE ANNOTATED RECORD DRAWINGS ARE ACTUAL REPRESENTATIONS OF AS-BUILT CONDITIONS, INCLUDING ALL REVISIONS MADE NECESSARY BY CHANGE ORDERS, DESIGN MODIFICATIONS. REQUESTS FOR INFORMATION AND FIELD ORDERS.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE OWNER AND THE OWNER'S DESIGNATED LICENSED PROFESSIONAL WHEN THEY ARE REQUIRED ON THE SITE FOR INSPECTIONS. FAILURE OF THE CONTRACTOR TO PROVIDE ADEQUATE NOTIFICATION TO THE OWNER AND OWNER'S LICENSED PROFESSIONAL MAY RESULT IN THE NEED FOR THE CONTRACTOR REMOVE AND REDO ANY INSTALLED WORK THAT HAS NOT BEEN INSPECTED OR DONE IN ACCORDANCE WITH THE APPROVED DOCUMENTS.

DURING THESE INSPECTIONS MAKE CERTAIN THAT THE LICENSE PROFESSIONAL COLLECTS ALL OF THE REQUIRED DOCUMENTS, REPORTS AND PHOTOGRAPHIC RECORDS FOR USE IN COMPLETING RECORD DRAWINGS AND ANY REQUIRED CERTIFICATION PACKAGES.

THE CONTRACTOR IS ALSO REQUIRED TO SUBMIT SHOP DRAWINGS, BILLS-OF-LADING, MATERIAL SHEETS, PHOTOGRAPHS TO DOCUMENT AS-BUILT CONDITIONS AND OTHER DOCUMENTATION TO PROVE THAT THE MATERIALS AND PRODUCTS BEING INSTALLED COMPLY WITH THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.

THE FOLLOWING ARE CRITICAL STAGES OF IMPLEMENTATION FOR THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN AND REQUIRE INSPECTION BY A LICENSED PROFESSIONAL OR THEIR DESIGNEE:

CRITICAL PCSM SEQUENCE FOR INSTALLATION AND INSPECTION POINTS

#### PERMEABLE PAVER EXCAVATION

FOR ALL PERMEABLE PAVER OUTLOOK AREAS, ONCE EXCAVATION HAS BEEN COMPLETED BY THE CONTRACTOR, PERMEABLE PAVER BASE DEPTH WILL BE INSPECTED TO ENSURE THAT SUB-BASE ELEVATION ARE AT THE CORRECT DEPTHS.

#### PERMEABLE PAVER INSTALLATION

WHILE PERMEABLE PAVER OUTLOOK AREAS ARE BEING CONSTRUCTED, PERIODIC INSPECTIONS WILL BE CONDUCTED TO ENSURE THAT THE APPROPRIATE DEPTHS OF AASHTO NO. 3 SUB-BASE IS INSTALLED PER PCSWM DETAILS. CONSTRUCTION SEQUENCE

FOLLOWING IS A SCHEDULE OF EARTHMOVING/CONSTRUCTION ACTIVITIES AND INSTALLATION OF CONTROL MEASURES AND FACILITIES. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. THEY SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS AND MAINTAINED AS INSTRUCTED ON THE DETAILS AND WITHIN THE EROSION & SEDIMENTATION CONTROL PLAN.

THE PROJECT WILL BE DIVIDED INTO TWO PHASES: PHASE I CLEANUP AND DEMOLITION AND PHASE II TRAIL DEVELOPMENT AND GRADING. STAGES SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED.

#### <u>PHASE I</u>

- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER SHALL INVITE ALL CONTRACTORS INVOLVED IN THE PROPOSED ACTIVITIES, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.
- 2. BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION & SEDIMENTATION CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EROSION & SEDIMENTATION CONTROL PLAN, THE OWNER MUST RECEIVE THE APPROVAL OF THE PA DEP.
- 3. MAINTAIN TURTLE FENCING AS INDICATED ON THE E&S PLANS AT WASHOUT AREAS ONLY. TURTLE FENCING SHOULD BE MAINTAINED UNTIL OCT. 15TH, WHEN THE RED BELLY TURTLE'S SEASONAL MIGRATION PERIOD ENDS.
- 4. CLEAR AND GRUB LOCATION FOR TEMPORARY ROCK CONSTRUCTION ENTRANCE.
- 5. INSTALL ONE (1) TEMPORARY ROCK CONSTRUCTION ENTRANCES AT LOCATION SHOWN IN ACCORDANCE WITH PA DEP E&S STANDARDS. PROVIDE TEMPORARY SECURITY FENCING AND GATES AS REQUIRED BY OWNER.
- 6. CLEAR AND GRUB SITE WITHIN THE PROPOSED LIMITS OF DISTURBANCE SHOWN ON EROSION AND SEDIMENT CONTROL PLANS. THIS WILL INCLUDE REMOVAL AND DISPOSAL OF UNCLASSIFIED MATERIAL SUCH AS LITTER, DEBRIS, AND IDENTIFIED LIMITS OF 23. INSTALL ALL LANDSCAPING ITEMS AS SHOWN ON PLANS AND DETAILS. FENCING.
- 7. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ. AND 287 ET 25. INSTALL SITE FURNISHINGS SUCH AS BENCHES, SIGNS, TRASH RECEPTACLES, FENCING, AND RAILINGS.
- 8. INSTALL EROSION AND SEDIMENTATION ITEMS (I.E., SILT FENCING) AT LOCATIONS SHOWN ON EXISTING FEATURES AND DEMOLITION PLAN. SILT FENCE SHALL REMAIN IN PLACE UNTIL THE END OF PHASE II.
- 9. EXCAVATE, REMOVE AND PROPERLY DISPOSE OF CONTAMINATED SOILS FROM THE THREE (3) AREAS INDICATED ON THE CLEANUP DEMOLITION PLAN. CONTAMINATED SOIL SHALL BE DISPOSED OF AT EITHER AN APPROVED DISPOSAL FACILITY WITH AN APPROVED AND CURRENT PADEP SOIL WASTE MANAGEMENT PERMIT. OR AN APPROVED LANDFILL. WASTE MATERIALS. SCRAP OR EXCESS CONSTRUCTION MATERIALS SHALL BE COLLECTED, STORED AND DISPOSED OF IN ACCORDANCE WITH THE SOIL WASTE MANAGEMENT ACT (35 P.S. § § 6018.101-6018.1003), THE MUNICIPAL WASTE PLANNING, RECYCLING AND WASTE REDUCTION ACT (53 P. S. § § 4000.101-4000.1904), THE CLEAN STREAMS LAW (35 P. S. § § 691.1-691.1001) AND RELATED RULES AND REGULATIONS. (TITLE 25, CHAPTER 105, SECTION 46A).
- 10. SOIL SAMPLING FOR PORTIONS OF THE SITE TO BE CONDUCTED BY OWNER'S REPRESENTATIVE. FOR SOIL SAMPLING ANALYSIS, SEE SHEET 16 - EROSION AND SEDIMENT CONTROL - SOIL SAMPLING PLAN.
- 11. APPLY RODEO OR APPROVED EQUAL HERBICIDE WITHIN THE LIMIT OF DISTURBANCE IN ORDER TO ELIMINATE INVASIVE SPECIES. THREE SPRAYINGS APPROXIMATELY EIGHT WEEKS APART IS RECOMMENDED.
- 12. DEMOLISH, REMOVE AND PROPERLY DISPOSE OF BITUMINOUS AND CONCRETE PAVEMENT AREAS INDICATED ON THE EXISTING FEATURES AND DEMOLITION PLAN.

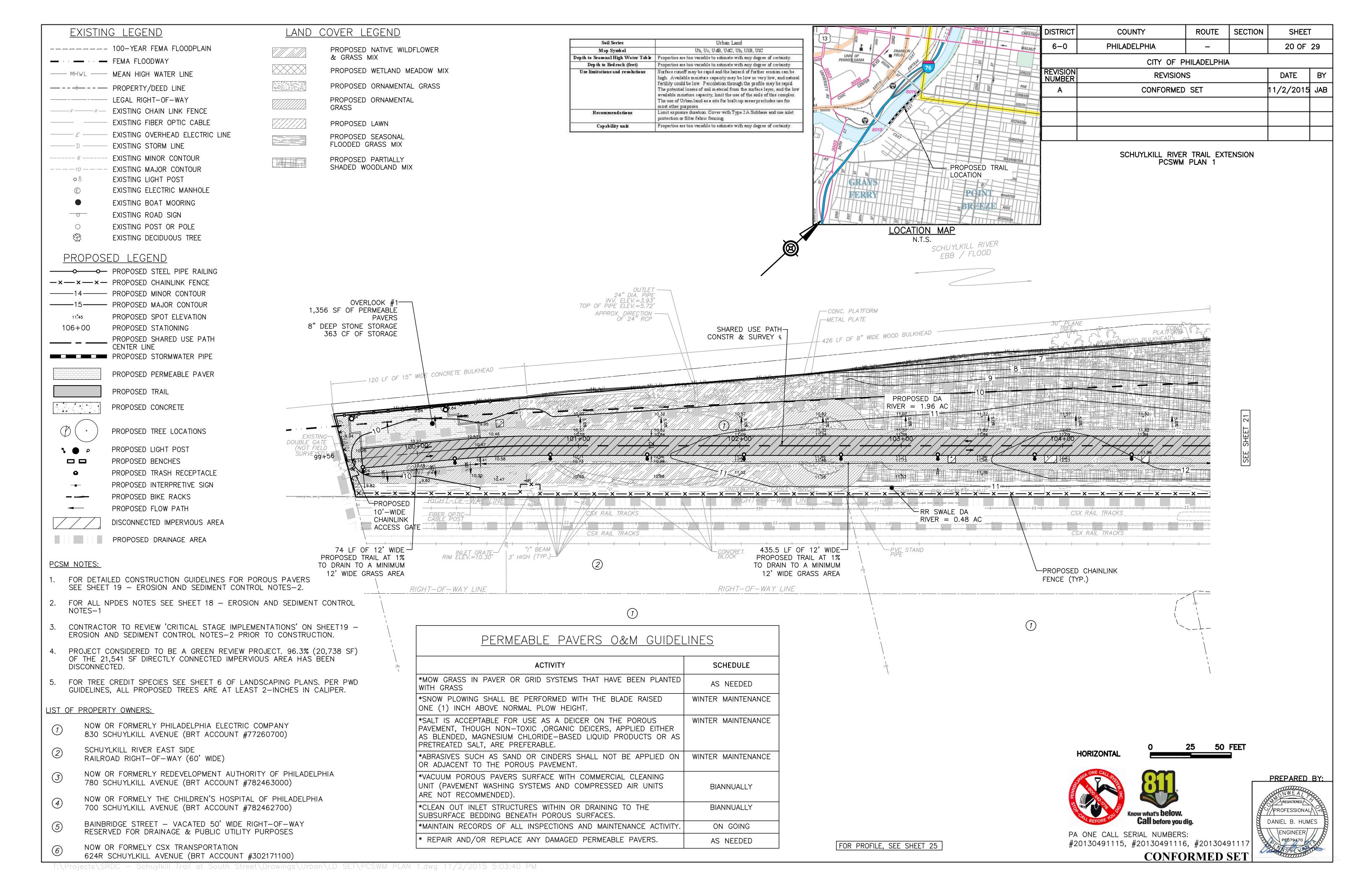
#### PHASE II TRAIL DEVELOPMENT AND GRADING

- 1. INSTALL REMAINDER OF SILT FENCE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. IF NEEDED ADJUST, REPAIR, OR REPLACE SILT FENCE INSTALLED IN PHASE I.
- 2. ROUGH GRADE AREA OF DISTURBANCE TO PROPOSED SUBGRADE AS IDENTIFIED ON THE GRADING PLAN AND PROPOSED CROSS SECTIONS AND TYPICAL DETAILS. AREAS OF PERMEABLE PAVERS AND BIORETENTION SHALL BE CLEARLY MARKED OUT BEFORE ANY SITE WORK TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
- 3. INSTALL PROPOSED RETAINING WALL IN ACCORDANCE TO STRUCTURAL DRAWINGS AND DETAILS.
- 4. COMPLETE SITE ELEVATION GRADING AND STABILIZE THE SOIL DISTURBED WITH THE LIMITS OF DISTURBANCE. DO NOT FINALIZE BIORETENTION EXCAVATION AND CONSTRUCTION UNTIL THE DRAINAGE AREA IS FULLY STABILIZED.
- 5. ALL STONE, IF USED, THAT MAKES UP IN THE INFILTRATION SMP MUST REMAIN FREE OF SEDIMENT. IF SEDIMENT ENTERS THE STONE, THE CONTRACTOR MAY BE REQUIRED TO REMOVE THE SEDIMENT AND REPLACE WITH CLEAN WASHED STONE.
- 6. IF USING AN UNDERDRAIN AND/OR A GRAVEL STORAGE BED, PLACE FILTER FABRIC OR PEA GRAVEL FILTER, THEN PLACE THE ROCK, AND SET THE UNDERDRAIN ACCORDING TO THE PLANS.
- 7. IF AN UNDERDRAIN AND/OR GRAVEL ARE NOT USED, ROTOTILL 2-3 INCHES OF SAND INTO THE BASE OF THE FACILITY, THEN ROTOTILL 3-4 INCHES OF PLANINT SOIL INTO THE SANDY SUBRAGE TO CREATE A GRADATION ZONE.
- 8. AFTER ALLOWING FOR SETTLEMENT, COMPLETE FINAL GRADING WITHIN ABOUT 2 INCHES OF THE PROPOSED DESIGN ELEVATIONS, LEAVING SPACE FOR TOP DRESSING OF MULCH OR MULCH/COMPOST BLEND.
- 9. SEED AND PLANT VEGETATION AS INDICATED ON THE PLANS AND SPECIFICATIONS.
- 10. PLACE MULCH AND HAND GRADE TO FINAL ELEVATIONS.
- 11. WATER VEGETATION AT THE END OF EACH DAY FOR TWO WEEKS AFTER PLANTING IS COMPLETED.
- 12. WATER VEGETATION REGULARLY DURING FIRST YEAR TO ENSURE SUCCESSFUL ESTABLISHMENT.
- 13. AREAS FOR POROUS PAVEMENT SYSTEMS SHALL BE CLEARLY MARKED BEFORE ANY SITE WORK BEGINS TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
- 14. EXCAVATE POROUS PAVEMENT SUBSURFACE AREA TO PROPOSED DEPTH. WHERE EROSION OF SUBGRADE HAS CASED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL AND/OR SURFACE PONDING, THIS MATERIAL SHALL BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE OR EQUIVALENT AND LIGHT TRACTOR.
- 15. EXISTING SUBGRADE SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT PRIOR TO PLACEMENT OF GEOTEXTILE AND STONE BED. THE USE OF MACHINERY TO LOAD STONE FROM OUTSIDE OF THE BASIN FOOTPRINT IS RECOMMENDED. IF IT IS ESSENTIAL THAT EQUIPMENT BE USED IN EXCAVATED AREA, ALL EQUIPMENT MUST BE APPROVED BY THE ENGINEER. USE OF EQUIPMENT WITH NARROW TRACKS OR TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION AND SHALL NOT BE USED. SHOULD THE SUBGRADE BE COMPACTED DURING CONSTRUCTION ADDITIONAL TESTING OF SOIL INFILTRATION RATES AND SYSTEM REDESIGN MAY BE REQUIRED.
- 16. BRING SUBGRADE OF STONE INFILTRATION BED TO LINE, GRADE, AND ELEVATIONS INDICATED IN THE DRAWINGS, WHILE AVOIDING COMPACTION. THE BOTTOM OF THE INFILTRATION BED SHALL BE AT A LEVEL GRADE.
- 17. PLACE GEOTEXTILE AND RECHARGE BED AGGREGATE IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION TO PREVENT ACCUMULATION OF DEBRIS OR SEDIMENT. PREVENT RUNOFF AND SEDIMENT FROM ENTERING THE STORAGE BED DURING THE PLACEMENT OF THE GEOTEXTILE AND AGGREGATE BED.
- 18. PLACE GEOTEXTILE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF 16 INCHES. FABRIC SHALL BE SECURED AT LEAST 4 FEET OUTSIDE OF BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE CAN BE CUT BACK TO THE EDGE OF THE BED.
- 19. INSTALL AGGREGATE COURSE IN 6-8 INCHES. COMPACT EACH LAYER WITH EQUIPMENT. KEEPING EQUIPMENT MOVEMENT OVER STORAGE BED SUBGRADES TO A MINIMUM. INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.
- 20. INSTALL SITE LIGHTING SERVICE. BACKFILL AND COMPACT DISTURBED AREAS TO PROPOSED ROUGH GRADING ELEVATIONS.
- 21. COMPACT SUBGRADE AND INSTALL PAVEMENT SUBBASE AND BITUMINOUS BASE COURSE FOR THE PROPOSED TRAIL.
- 22. ALL DISTURBED AREAS SHALL BE TEMPORARY STABILIZED WITH MULCH OR TEMPORARY SEEDING. EROSION CONTROL MAT MUST BE INSTALLED ON ALL SLOPES 3:1 OR GREATER.
- 24. INSTALL FINAL BITUMINOUS SURFACE COURSE AND PERMEABLE PAVERS UPON COMPLETION OF LANDSCAPING ACTIVITIES.
- 26. REMOVE CONSTRUCTION ENTRANCES AND PERFORM FINISHED SITE IMPROVEMENTS TO THESE AREAS (I.E., GRADING WITH LANDSCAPING AND/OR PAVING).
- 27. REMOVE ALL EROSION AND SEDIMENTATION CONTROLS ONCE SITE IS PERMANENTLY STABILIZED AND RESTORE DISTURBED AREAS TO THE ORIGINAL CONDITION.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	-			
6-0	PHILADELPHIA	1		19 OF	29			
CITY OF PHILADELPHIA								
REVISION NUMBER	REVISION	REVISIONS						
Α	CONFORMED	SET		11/2/2015	JAB			

SCHUYLKILL RIVER TRAIL EXTENSION EROSION AND SEDIMENT CONTROL NOTES-2

> PREPARED BY: //PROFESSIONAL DANIEL B. HUMES \ENGINEER PE079470



#### EXISTING LEGEND DISTRICT PCSM NOTES: PERMEABLE PAVERS 0&M GUIDELINES 6-0 1. FOR DETAILED CONSTRUCTION GUIDELINES FOR POROUS PAVERS ---- 100-YEAR FEMA FLOODPLAIN SEE SHEET 19 - EROSION AND SEDIMENT CONTROL NOTES-2. FEMA FLOODWAY SCHEDULE ACTIVITY 2. FOR ALL NPDES NOTES SEE SHEET 18 - EROSION AND SEDIMENT CONTROL **REVISION** --- MHWL/<del>AHT-</del> MEAN HIGH WATER LINE NUMBER \*MOW GRASS IN PAVER OR GRID SYSTEMS THAT HAVE BEEN PLANTED AS NEEDED WITH GRASS ----- PROPERTY/DEED LINE CONTRACTOR TO REVIEW 'CRITICAL STAGE IMPLEMENTATIONS' ON SHEET19 -WINTER MAINTENANCE \*SNOW PLOWING SHALL BE PERFORMED WITH THE BLADE RAISED LEGAL RIGHT-OF-WAY EROSION AND SEDIMENT CONTROL NOTES-2 PRIOR TO CONSTRUCTION. ONE (1) INCH ABOVE NORMAL PLOW HEIGHT. EXISTING CHAIN LINK FENCE PROJECT CONSIDERED TO BE A GREEN REVIEW PROJECT. 96.3% (20,738 SF) WINTER MAINTENANCE \*SALT IS ACCEPTABLE FOR USE AS A DEICER ON THE POROUS EXISTING FIBER OPTIC CABLE OF THE 21.541 SF DIRECTLY CONNECTED IMPERVIOUS AREA HAS BEEN PAVEMENT, THOUGH NON-TOXIC ,ORGANIC DEICERS, APPLIED EITHER EXISTING OVERHEAD ELECTRIC LINE DISCONNECTED. AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT, ARE PREFERABLE EXISTING STORM LINE 5. FOR TREE CREDIT SPECIES SEE SHEET 6 OF LANDSCAPING PLANS. PER PWD \*ABRASIVES SUCH AS SAND OR CINDERS SHALL NOT BE APPLIED ON WINTER MAINTENANCE EXISTING MINOR CONTOUR GUIDELINES, ALL PROPOSED TREES ARE AT LEAST 2-INCHES IN CALIPER. OR ADJACENT TO THE POROUS PAVEMENT ----- EXISTING MAJOR CONTOUR \*VACUUM POROUS PAVERS SURFACE WITH COMMERCIAL CLEANING EXISTING LIGHT POST UNIT (PAVEMENT WASHING SYSTEMS AND COMPRESSED AIR UNITS BIANNUALLY EXISTING ELECTRIC MANHOLE ARE NOT RECOMMENDED). EXISTING BOAT MOORING \*CLEAN OUT INLET STRUCTURES WITHIN OR DRAINING TO THE BIANNUALLY EXISTING ROAD SIGN SUBSURFACE BEDDING BENEATH POROUS SURFACES. EXISTING POST OR POLE \*MAINTAIN RECORDS OF ALL INSPECTIONS AND MAINTENANCE ACTIVITY. ON GOING £43 EXISTING DECIDUOUS TREE \* REPAIR AND/OR REPLACE ANY DAMAGED PERMEABLE PAVERS. AS NEEDED SCHUYLKILL RIVER PROPOSED LEGEND OVERLOOK #2-EBB / FLOOD 1,244 SF OF PERMEABLE → PROPOSED STEEL PIPE RAILING **PAVERS** -x-x-x- PROPOSED CHAINLINK FENCE 8" DEEP STONE STORAGE WATER SURFACE-346 CF OF STORAGE 12" DIA. PIPE INV. ELEV.=4.77 —14——— PROPOSED MINOR CONTOUR *ELEV.* −1.56 53 LF OF 8" WIDE \_\_ DEGRADATED -" DIA. CAST IRON PIPE WOOD BULKHEAD 311 LF OF 8" WIDE WOOD BULKHEAD PROPOSED SPOT ELEVATION CONC. PAD 106+00 PROPOSED STATIONING MLWL -PROPOSED SHARED USE PATH CENTER LINE PROPOSED STORMWATER PIPE PROPOSED PERMEABLE PAVER PROPOSED TRAIL PROPOSED CONCRETE PROPOSED DA PROPOSED TREE LOCATIONS RIVER = 1.96 ACPROPOSED LIGHT POST PROPOSED BENCHES PROPOSED TRASH RECEPTACLE PROPOSED INTERPRETIVE SIGN RIVER = 0.73 ACPROPOSED BIKE RACKS PROPOSED FLOW PATH CSX RAIL TRACKS DISCONNECTED IMPERVIOUS AREA 6 PROPOSED TREES Z FIBER OF IIC CABLE POST (CONCRETE) CSX RAIL TRACKS FOR PWD TREE PROPOSED DRAINAGE AREA ADJUSTMENT CREDIT \_ 80 LF OF 12' WIDE -UTILITY BOX ON CONCRETE POST PROPOSED CHAINLINK PROPOSED TRAIL AT 1% ∠ 221 LF OF 12' WIDE \ 164 LF OF 12' WIDE TO DRAIN TO A MINIMUM PROPOSED TRAIL AT FENCE (TYP.) PROPOSED TRAIL AT 1% SHARED USE PATH CONSTR -1% TO DRAIN TO A 12' WIDE GRASS AREA TO DRAIN TO A MINIMUM & SURVEY & MINIMUM 12' WIDE 12' WIDE GRASS AREA GRASS AREA RIGHT-OF-WAY LINE 3

# LAND COVER LEGEND

PROPOSED NATIVE WILDFLOWER & GRASS MIX

PROPOSED WETLAND MEADOW MIX

PROPOSED ORNAMENTAL GRASS

PROPOSED ORNAMENTAL

GRASS

PROPOSED LAWN PROPOSED SEASONAL FLOODED GRASS MIX

PROPOSED PARTIALLY SHADED WOODLAND MIX **HORIZONTAL** 



25 50 FEET



PREPARED BY: /PROFESSIONAL/ DANIEL B. HUMES \ENGINEER/ PE079470

SECTION

SHEET

21 OF 29

DATE

11/2/2015 JAB

BY

ROUTE

CITY OF PHILADELPHIA

SCHUYLKILL RIVER TRAIL EXTENSION

PCSWM PLAN 2

**REVISIONS** 

CONFORMED SET

COUNTY

**PHILADELPHIA** 

- PWD OUTLET #826 42" DIA. PIPE INV. ELEV.=3.54"

— PECO MH (NOT FIELD LOCATED)

LOCATION OF PECO CONDUITS CROSSING SCHUYLKILL RIVER

ELEV.=UNKNOWN

— APPROXIMATE

748 LF-05 12'WIDE

RIGHT-OF-WAY LINE

PROPOSED TRAIL AT 1%

12' WIDE GRASS AREA

TO DRAIN TO A MINIMUM

FOR PROFILE, SEE SHEET 26

APPROX. EDGE OF EXISTING BUILDING (NOT FIELD SURVEYED)

PA ONE CALL SERIAL NUMBERS: #20130491115, #20130491116, #20130491117 **CONFORMED SET** 

LIST OF PROPERTY OWNERS:

SCHUYLKILL RIVER EAST SIDE

RAILROAD RIGHT-OF-WAY (60' WIDE)

NOW OR FORMELY CSX TRANSPORTATION

NOW OR FORMERLY PHILADELPHIA ELECTRIC COMPANY 830 SCHUYLKILL AVENUE (BRT ACCOUNT #77260700)

780 SCHUYLKILL AVENUE (BRT ACCOUNT #782463000)

700 SCHUYLKILL AVENUE (BRT ACCOUNT #782462700)

RESERVED FOR DRAINAGE & PUBLIC UTILITY PURPOSES

624R SCHUYLKILL AVENUE (BRT ACCOUNT #302171100)

BAINBRIDGE STREET - VACATED 50' WIDE RIGHT-OF-WAY

NOW OR FORMERLY REDEVELOPMENT AUTHORITY OF PHILADELPHIA

NOW OR FORMELY THE CHILDREN'S HOSPITAL OF PHILADELPHIA

# LAND COVER LEGEND

PROPOSED NATIVE WILDFLOWER & GRASS MIX



PROPOSED WETLAND MEADOW MIX



PROPOSED ORNAMENTAL GRASS



PROPOSED LAWN

GRASS



PROPOSED SEASONAL FLOODED GRASS MIX

PROPOSED ORNAMENTAL



PROPOSED PARTIALLY SHADED WOODLAND MIX

163 LF OF 12\\ WIDE---

PROPOSED TRAIL AT 1%

TO DRAIN TO A MINIMUM

12' WIDE GRASS ARÈA

#### PCSM NOTES:

2.5' WIDE, 6" HIGH-

VEGETATED BERM.

SEE DETAIL SHEET 23

CSX RAIL TRACKS

-BILLBOARD TOP\_ELEV.=63.4'± BOTTOM\_ELEV.=44.4'±

:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\PCSWM PLAN 3.dwg 11/2/2015 5:05:28 PM

-RR SWALE DA

RIVER = 0.73 AC

EXISTING CELL TOWER (NOT FIELD SURVEYED)

> EXISTING BUILDINGS (NOT FIELD SURVEYED)

- 1. FOR DETAILED CONSTRUCTION GUIDELINES FOR POROUS PAVERS SEE SHEET 19 - EROSION AND SEDIMENT CONTROL NOTES-2.
- 2. FOR ALL NPDES NOTES SEE SHEET 18 EROSION AND SEDIMENT CONTROL
- CONTRACTOR TO REVIEW 'CRITICAL STAGE IMPLEMENTATIONS' ON SHEET19 -EROSION AND SEDIMENT CONTROL NOTES-2 PRIOR TO CONSTRUCTION.
- 4. PROJECT CONSIDERED TO BE A GREEN REVIEW PROJECT. 96.3% (20,738 SF)
  OF THE 21,541 SF DIRECTLY CONNECTED IMPERVIOUS AREA HAS BEEN DISCONNECTED.
- 5. FOR TREE CREDIT SPECIES SEE SHEET 6 OF LANDSCAPING PLANS. PER PWD GUIDELINES, ALL PROPOSED TREES ARE AT LEAST 2-INCHES IN CALIPER.

428 SF OF PERMEABLE

114 CF OF STORAGE

SCHUYLKILL RIVER

EBB / FLOOD

4

-90° LONG-

-21 LF OF 12' WIDE

PROPOSED TRAIL AT 1%

TO DRAIN TO A MINIMUM

RIGHT-OF-WAY LINE

APPROX. PROPERTY LINE

12' WIDE GRASS AREA

PROPOSED DA

RETAINING WALL

RIVER = 1.96 AC

8" DEEP STONE STORAGE

OVERLOOK #3

**PAVERS** 

APPROX. DIRECTION - OF EXISTING PIPES

-116 LF OF 14' WIDE

PROPOSED TRAIL AT

0.75% ALONG RETAINING

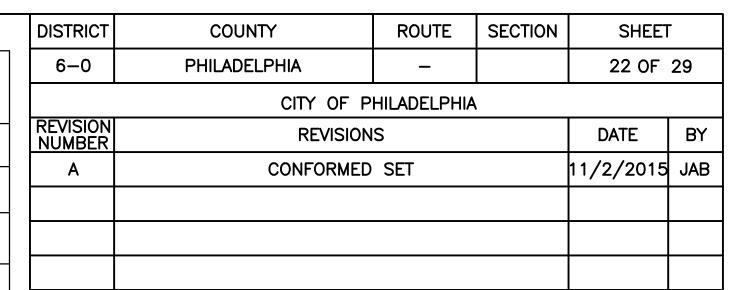
ADJACENT GRASS AREA

4

WALL GUTTERLINE TO

# PERMEABLE PAVERS 0&M GUIDELINES

ACTIVITY	SCHEDULE
*MOW GRASS IN PAVER OR GRID SYSTEMS THAT HAVE BEEN PLANTED WITH GRASS	AS NEEDED
*SNOW PLOWING SHALL BE PERFORMED WITH THE BLADE RAISED ONE (1) INCH ABOVE NORMAL PLOW HEIGHT.	WINTER MAINTENANCE
*SALT IS ACCEPTABLE FOR USE AS A DEICER ON THE POROUS PAVEMENT, THOUGH NON-TOXIC ,ORGANIC DEICERS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT, ARE PREFERABLE.	WINTER MAINTENANCE
*ABRASIVES SUCH AS SAND OR CINDERS SHALL NOT BE APPLIED ON OR ADJACENT TO THE POROUS PAVEMENT.	WINTER MAINTENANCE
*VACUUM POROUS PAVERS SURFACE WITH COMMERCIAL CLEANING UNIT (PAVEMENT WASHING SYSTEMS AND COMPRESSED AIR UNITS ARE NOT RECOMMENDED).	BIANNUALLY
*CLEAN OUT INLET STRUCTURES WITHIN OR DRAINING TO THE SUBSURFACE BEDDING BENEATH POROUS SURFACES.	BIANNUALLY
*MAINTAIN DECORDS OF ALL INSPECTIONS AND MAINTENANCE ACTIVITY	ON COINC



# SCHUYLKILL RIVER TRAIL EXTENSION PCSWM PLAN 3

## EXISTING LEGEND

---- 100-YEAR FEMA FLOODPLAIN

FEMA FLOODWAY

---- MHWL --- MEAN HIGH WATER LINE

----- PROPERTY/DEED LINE

EXISTING TREE LINE

EXISTING FIBER OPTIC CABLE

----- LEGAL RIGHT-OF-WAY

—— EXISTING OVERHEAD ELECTRIC LINE 

----- 6 ----- EXISTING MINOR CONTOUR

- EXISTING MAJOR CONTOUR

EXISTING LIGHT POST

EXISTING ELECTRIC MANHOLE

EXISTING BOAT MOORING

EXISTING ROAD SIGN

EXISTING POST OR POLE

EXISTING DECIDUOUS TREE

#### PROPOSED LEGEND

PROPOSED STEEL PIPE RAILING

-x-x-x- PROPOSED CHAINLINK FENCE 

——15——— PROPOSED MAJOR CONTOUR

PROPOSED SPOT ELEVATION

PROPOSED STATIONING PROPOSED SHARED USE PATH

CENTER LINE

PROPOSED STORMWATER PIPE

PROPOSED PERMEABLE PAVER

PROPOSED TRAIL

DISCONNECTED IMPERVIOUS AREA

PROPOSED CONCRETE

PROPOSED TREE LOCATIONS

PROPOSED LIGHT POST PROPOSED BENCHES

PROPOSED TRASH RECEPTACLE PROPOSED DRAINAGE AREA



PROPOSED DIVERSION BERM

50 FEET

PREPARED BY:

/PROFESSIONAL

DANIEL B. HUMES

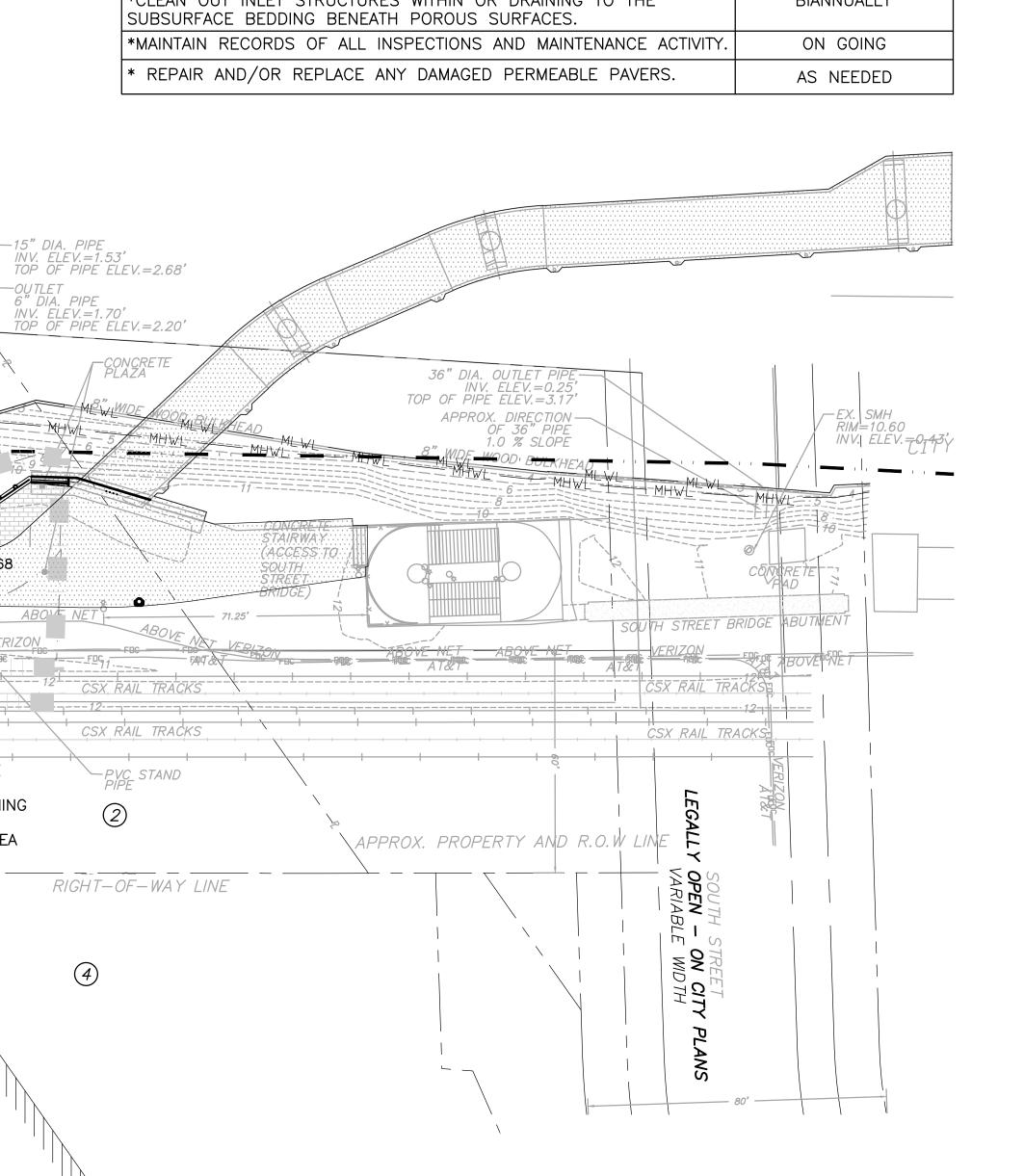
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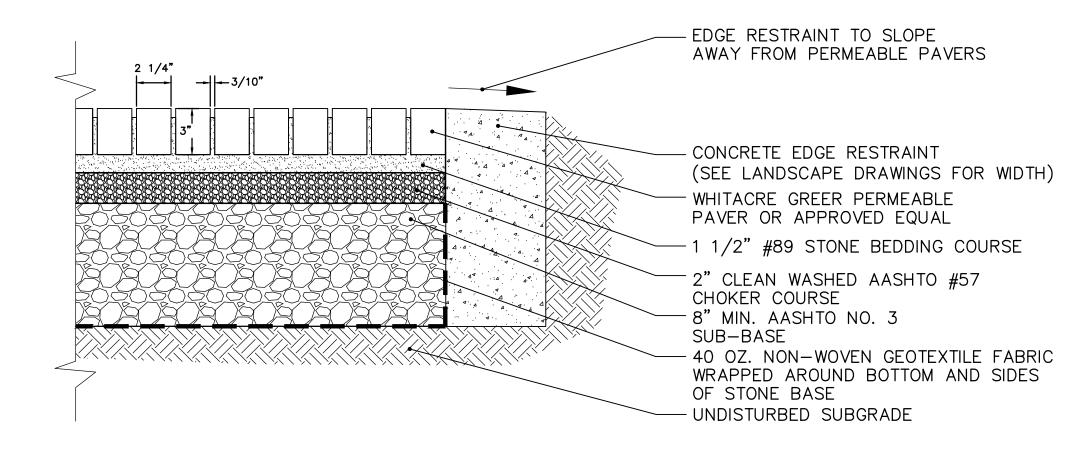


Know what's **below.** 

Call before you dig.

PA ONE CALL SERIAL NUMBERS: #20130491115, #20130491116, #20130491117 **CONFORMED SET** 





1. FOR BMP MAINTENANCE GUIDELINES SEE SHEET 22 - PCSWM PLAN 3.

2. SUBSURFACE STORAGE BEDS MUST MEET THE FOLLOWING:

A. MAXIMUM WASH LOSS OF 0.5%

B. MINIMUM DURABILITY INDEX OF 35 C. MAXIMUM ABRASION OF 10% FOR 100 REVOLUTIONS AND MAXIMUM OF 50% FOR 500 REVOLUTIONS

CRITICAL PCSM SEQUENCE FOR INSTALLATION AND INSPECTION POINTS

PERMEABLE PAVER EXCAVATION

NOTES:

FOR ALL PERMEABLE PAVER OUTLOOK AREAS, ONCE EXCAVATION HAS BEEN COMPLETED BY THE CONTRACTOR, PERMEABLE PAVER BASE DEPTH WILL BE INSPECTED TO ENSURE THAT SUB-BASE ELEVATION ARE AT THE CORRECT DEPTHS.

PERMEABLE PAVER INSTALLATION

WHILE PERMEABLE PAVER OUTLOOK AREAS ARE BEING CONSTRUCTED, PERIODIC INSPECTIONS WILL BE CONDUCTED TO ENSURE THAT THE APPROPRIATE DEPTHS OF THE AASHTO #57 STONE CHOKER COARSE AND THE AASHTO NO. 3 SUB-BASE ARE INSTALLED TO THE CORRECT DEPTH PER PCSWM DETAILS.

T:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\PCSWM DETAIL SHEET.dwg 11/2/2015 5:05:48 PM

TYPICAL PERMEABLE PAVER CROSS—SECTION NOT TO SCALE

	DISTRICT	COUNTY	ROUTE	SECTION	SHEET	•
	6-0	PHILADELPHIA	_		23 OF	29
		CITY OF P	HILADELPHIA			
	REVISION NUMBER	REVISION	S		DATE	BY
	Α	CONFORMED	SET		11/2/2015	JAB
ſ						

PCSWM NOTES & DETAILS

PLANTING MEDIUM

1.5

1

VARIES FROM 0.5' TO 1.0'
REFER TO SITE PLAN

NOTES:

4" MINIMUM OF

 BERM SHALL BE VEGETATED WITH TURF SEED MIX OR MEADOW PER SITE PLAN.

VEGETATED BERM DETAIL

NOT TO SCALE

PREPARED BY:

NWEA

PROFESSIONAL

DANIEL B. HUMES

ENGINEER

PE079470

WSYLVI

#### PROPOSED LEGEND **EXISTING LEGEND EXISTING FEATURES NOTES:** ———14——— PROPOSED MINOR CONTOUR 1. PWD COMBINED STORMWATER OUTLET #826 LOCATION WAS OBTAINED FROM PWD RECORD PLAN #315555 AND WAS NOT FIELD LOCATED. ---- 100-YEAR FEMA FLOODPLAIN FEMA FLOODWAY PROPOSED SPOT ELEVATION DRAINAGE AREA NOTES: ----- MHWL ---- MEAN HIGH WATER LINE 106+00 PROPOSED STATIONING 1. CURVE NUMBER VALUES OBTAINED FROM TABLE 5.4 OF THE PHILADELPHIA WATER DEPARTMENT STORMWATER MANAGMENT GUIDANCE MANUAL VERSION 2.1 REVISED FEBRUARY —— → PROPERTY/DEED LINE PROPOSED SHARED USE PATH CENTER LINE LEGAL RIGHT-OF-WAY 10, 2014. EXISTING TREE LINE PROPOSED PERMEABLE PAVER 2. PER NRCS'S WEB SOIL SURVEY, THE ENTIRE PROJECT SITE IS URBAN (Ub) SOIL. EXISTING BRUSH LINE PROPOSED TRAIL 3. CURVE NUMBERS USED IN THE STORMWATER CALCULATIONS ARE BASED ON THE URBAN (Ub) HYDROLOGIC SOIL GROUP. PROPOSED CONCRETE EXISTING FIBER OPTIC CABLE 4. PROPOSED LAWN IS ASSUMED TO BE IN GOOD HYDROLOGIC CONDITION (CN=61). PROPOSED FLOW PATH EXISTING OVERHEAD ELECTRIC LINE EXISTING STORM LINE DISCONNECTED IMPERVIOUS AREA ----- 6 ----- EXISTING MINOR CONTOUR PROPOSED DRAINAGE AREA BOUNDARY ----- EXISTING MAJOR CONTOUR EXISTING LIGHT POST EXISTING ELECTRIC MANHOLE EXISTING BOAT MOORING EXISTING ROAD SIGN EXISTING POST OR POLE EXISTING DECIDUOUS TREE EXISTING CONCRETE PWD OUTLET #826 42" DIA. PIPE INV. ELEV.=3.54' PECO MH (NOT FIELD LOCATED) ELEV.=UNKNOWN 24" DIA.ET-24" DIA. PIPE INV. ELEV.=3.93' TOP OF PIPE ELEV.=5.72' APPROX. DIRECTION — OF 24" RCP PROPOSED DRAINAGE AREA TO RIVER = 85,160 SF

RIM ELEV.=10.30 | 3' HIGH (TYP.)

RIGHT-OF-WAY LINE

T:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\PROPOSED DRAINAGE AREA.dwg 11/2/2015 5:06:32 PM

RIGHT-OF-WAY LINE

DISTRICT	T COUNTY ROUTE SECTION			SHEET		
6-0	PHILADELPHIA	_		24 OF	29	
	CITY OF P	HILADELPHIA				
REVISION NUMBER	REVISION	S		DATE	BY	
Α	CONFORMED	SET		11/2/2015	JAB	

SCHUYLKILL RIVER TRAIL EXTENSION PROPOSED DRAINAGE AREA EXHIBIT

15" DIA. PIPE INV. ELEV.=1.53' TOP OF PIPE ELEV.=2.68'

RIGHT-OF-WAY LINE

APPROX. PROPERTY LINE

RIGHT-OF-WAY LINE

O

BILLBOARD TOP FLEV.=63.4'± BOTTOM ELEV.=44.4'±

RIGHT-OF-WAY LINE

PROPOSED DRAINAGE AREAS — SCHUYLKILL RIVER TRAIL												
DRAINAGE AREA	IMPERVIOUS COVER (SF)			GRASS COVER (SF)	GRASS COVER (AC)	LAWN (CN)	PERMEABLE PAVERS (SF)	PERMEABLE PAVERS (AC)	PERMEABLE PAVERS (CN)	TOTAL AREA (SF)	TOTAL AREA (AC)	COMBINED (CN)
PROPOSED DRAINAGE AREA TO RIVER	17,575	0.40	98	75,003	1.72	61	3,080	0.09	70	95,658	1.95	77.3
PROPOSED DRAINAGE AREA TO RAILWAY SWALE	886	0.02	98	20,184	0.46	61	0	0.00	70	21,070	0.73	63.1

3

APPROX. EDGE OF — EXISTING BUILDING (NOT FIELD SURVEYED)

PROPOSED DRAINAGE AREA TO

RR SWALE = 21,070 SF ②

HORIZONTAL

O 60 120 FEET

PREPARED BY:

NWE A

PROFESSIONAL

DANIEL B. HUMES

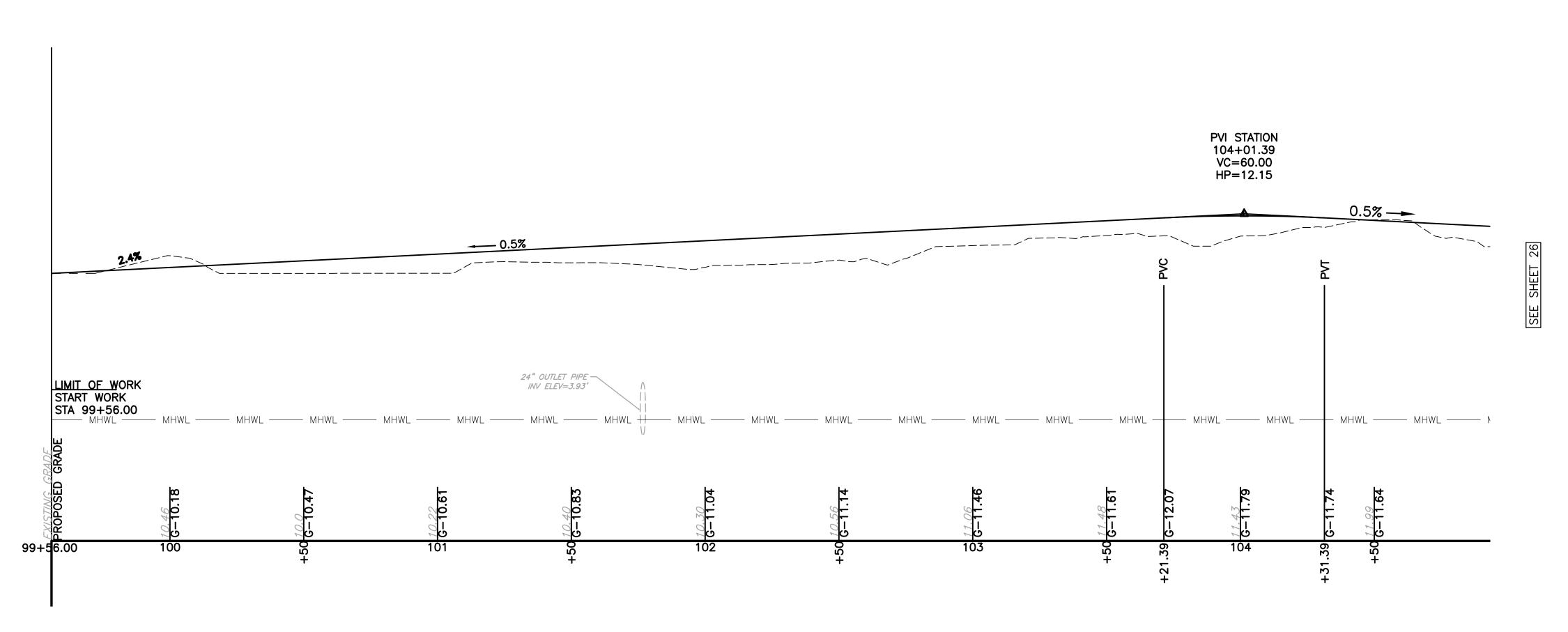
ENGINEER

PE079470

GSX RAIL TRACKS

	DISTRICT	COUNTY	ROUTE	SECTION	SHEET	Γ	
	6-0	PHILADELPHIA	_		25 OF	29	
		CITY OF P	HILADELPHIA	<b>\</b>			
F	REVISION NUMBER	REVISION	S		DATE	BY	
	Α	CONFORMED	SET		11/2/2015	JAB	

SCHUYLKILL RIVER TRAIL EXTENSION SHARED USE PATH VERTICAL PROFILE — 1



SHARED USE PATH PROFILE

VERTICAL

0 5 10 FEET

0 25 50 FEET

HORIZONTAL

PREPARED BY:

ONWE A

PROFESSIONAL

DANIEL B. HUMES

ENGINEER

PE079470

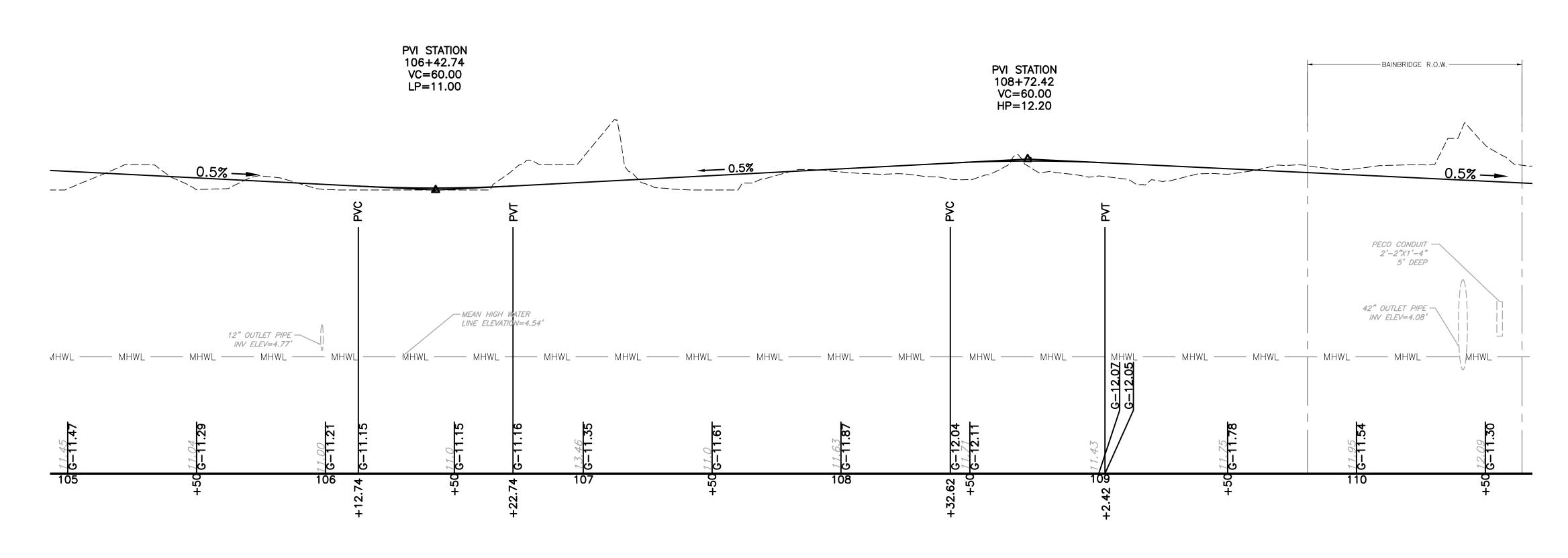
PE079470

PE079470



DISTRICT	COUNTY	ROUTE	SECTION	SHEET				
6-0	PHILADELPHIA	ı		26 OF 29				
CITY OF PHILADELPHIA								
REVISION NUMBER	REVISION	DATE	BY					
Α	CONFORMED SET			11/2/2015	JAB			

SCHUYLKILL RIVER TRAIL EXTENSION SHARED USE PATH VERTICAL PROFILE — 2



SHARED USE PATH PROFILE

VERTICAL
HORIZONTAL

25 50 FEET

PREPARED BY:

REGISTERED

PROFESSIONAL

DANIEL B. HUMES

ENGINEER

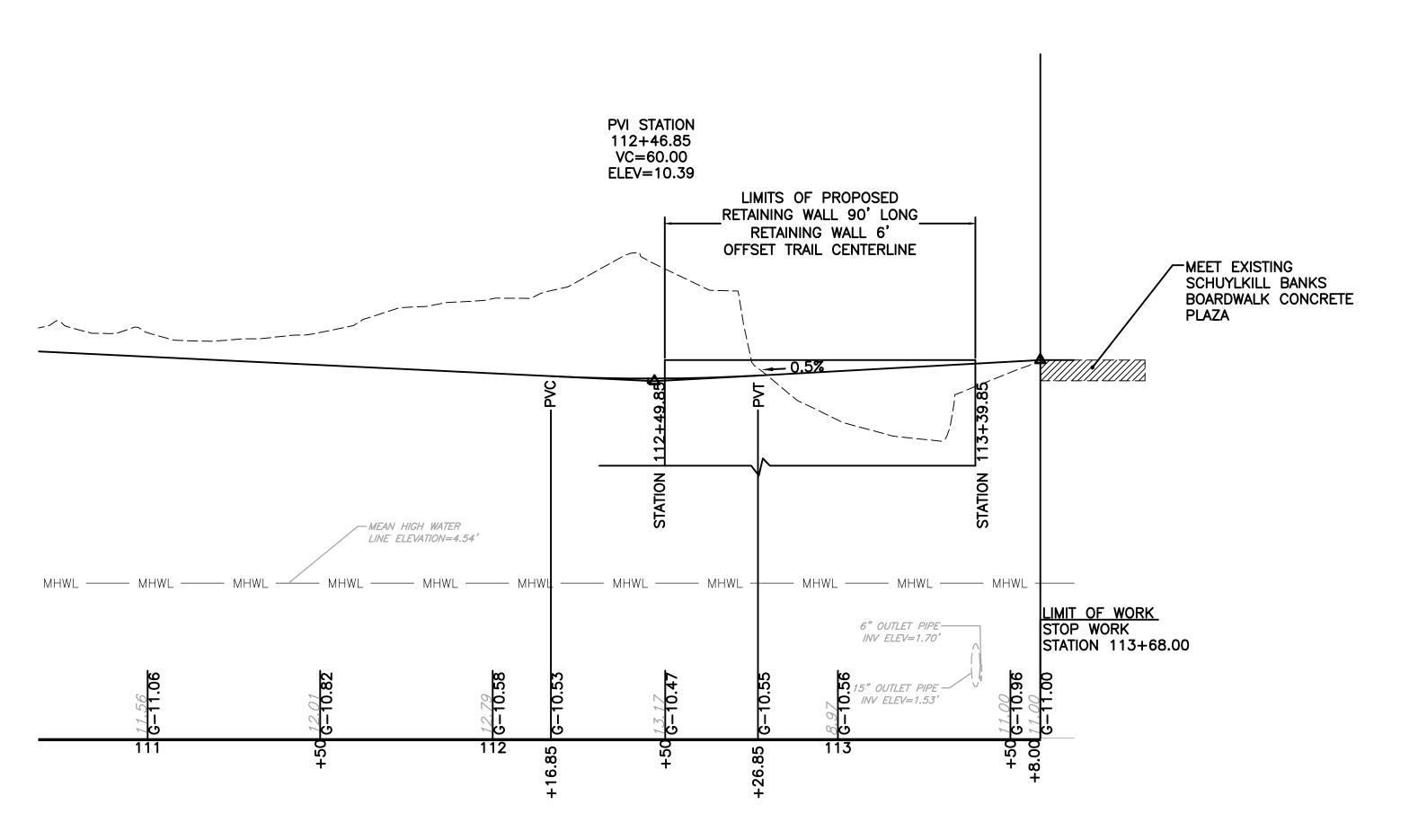
PE079470

PE079470

FOR PLAN, SEE SHEET 8

DISTRICT	COUNTY	ROUTE	SECTION	SHEET					
6-0	PHILADELPHIA	ı		27 OF 29					
	CITY OF PHILADELPHIA								
REVISION NUMBER	REVISION	REVISIONS							
Α	CONFORMED	CONFORMED SET							

SCHUYLKILL RIVER TRAIL EXTENSION SHARED USE PATH VERTICAL PROFILE — 3



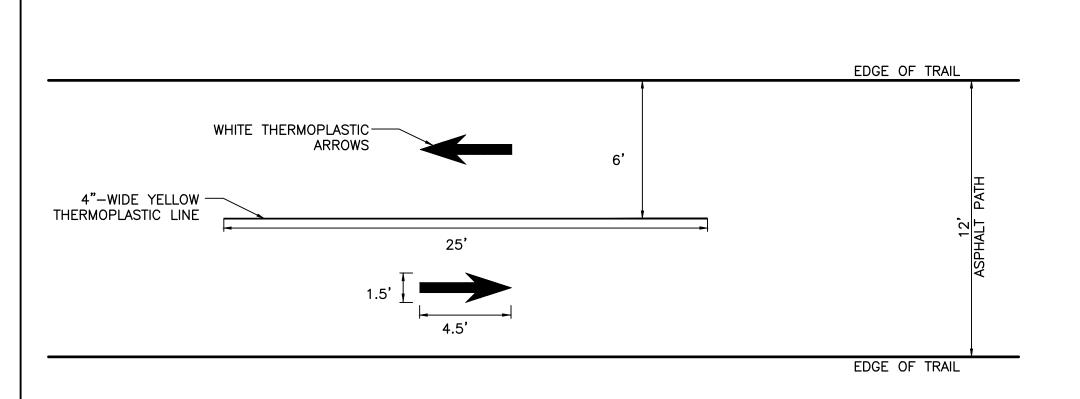
SHARED USE PATH PROFILE

**VERTICAL** 25 50 FEET HORIZONTAL

PREPARED BY: PROFESSIONAL CONFORMED SET

FOR PLAN, SEE SHEET 9

T:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\09 VERTICAL PROFILE SHEET — 3.dwg 11/2/2015 5:07:45 PM



NOTE:

1. PAVEMENT MARKING LOCATIONS SPECIFIED ON PAVEMENT MARKING AND SIGNAGE PLAN SHEETS 10 - 12.

2 ¼" O.D. RAIL

- 2 ¼" O.D. RAIL

42.0"

T:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\11 SITE CIVIL DETAIL SHEET.dwg 11/2/2015 5:08:09 PM

21.5"

2. PAVEMENT MARKINGS ARE LOCATED NEAR PERMEABLE PAVER OUTLOOK AREAS AND AT THE PROPOSED RETAINING WALL.

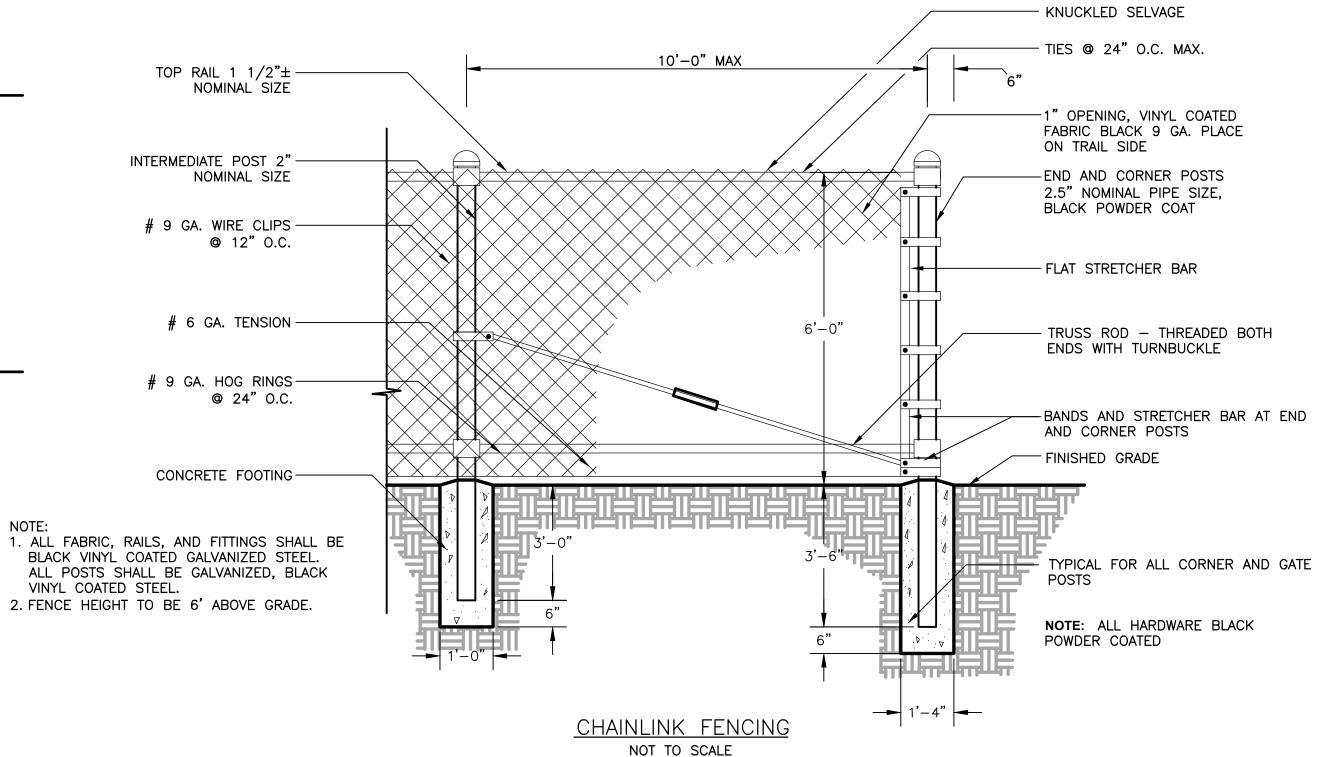
PAVEMENT MARKINGS
NOT TO SCALE

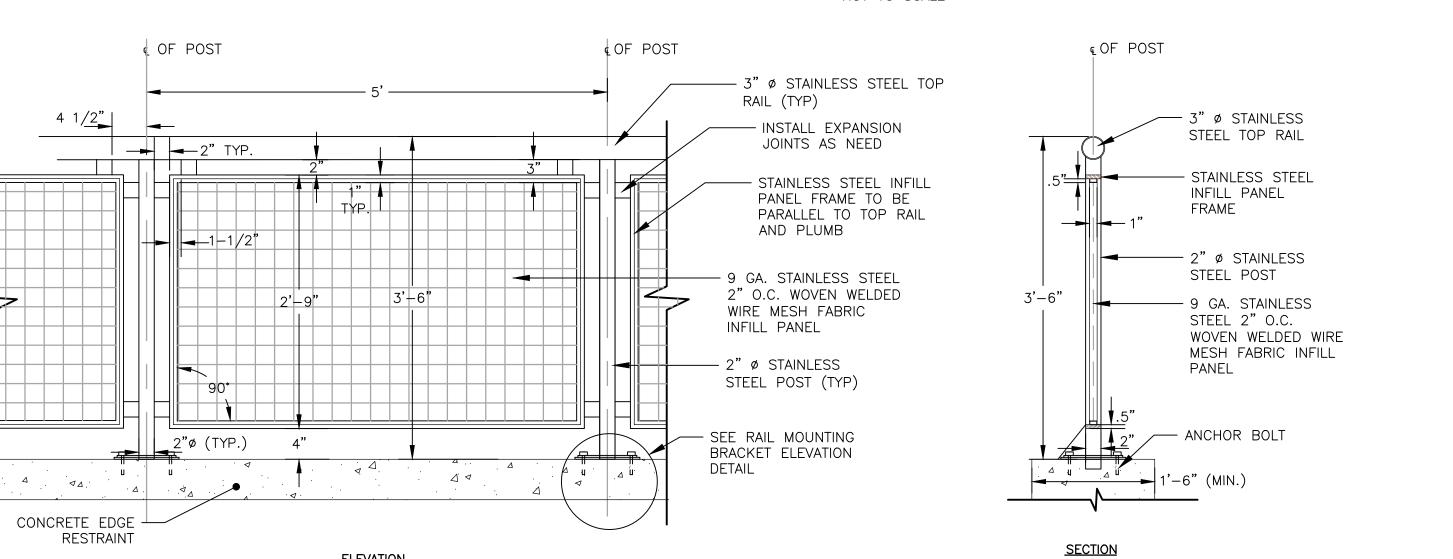
– RAIL LENGTH VARIES —

PLAN VIEW

PIPE RAILING DETAIL

NOT TO SCALE



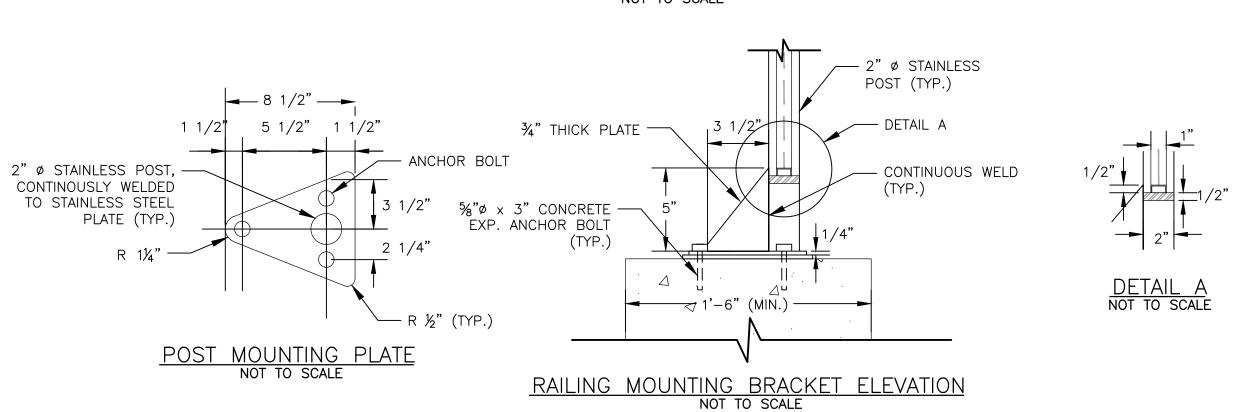


NOTF:

**ELEVATION** 

- 1. SUBMIT SHOP DRAWINGS FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF RAILING.
- 2. ADJUST ANGLES OF INFILL PANELS TO MAINTAIN 2' SPACING FROM TOP RAIL AND POST FOR PANELS STARTING AT LANDSIDE PLATFORM EXTENDING TO WALKWAY BENT 2.
- 3. RAILING AND INFILL PANEL TO BE SIMILAR TO THE FENCE ON MARKET ST./CHESTNUT ST. RAMPS ON SCHUYLKILL BANKS.

STAINLESS STEEL RAILING WITH INFILL PANEL NOT TO SCALE



DISTRICT ROUTE SECTION COUNTY SHEET 6-0 **PHILADELPHIA** 28 OF 29 CITY OF PHILADELPHIA REVISION BY **REVISIONS** DATE NUMBER 11/2/2015 JAB CONFORMED SET

SITE CIVIL DETAIL SHEET FOUR (4) THREADED -MASÓNRY STUDS AT CORNERS WITH MORTAR TO SEAL PERIMETER JOINT. 6" MIN ROUT STONE TO RECESS -PLAQUE FLUSH WITH BOULDER FACE -BOULDER. 3'x3'x3' BRONZE CAST PLAQUE MIN /12" MAX -FINISHED GRADE <u>անձախան արգանգում</u> -COMPACTED SUBGRADE

NOTE:

1. BOULDER TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

 BOULDER MUST BE PLACED TO PROHIBIT MOVEMENT/ROCKING.

BOULDER WITH BRONZE PLAQUE NOT TO SCALE

PREPARED BY:

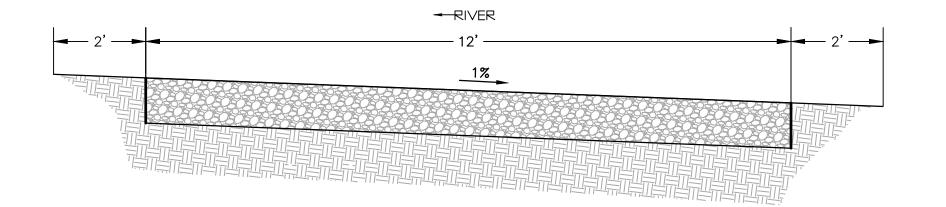
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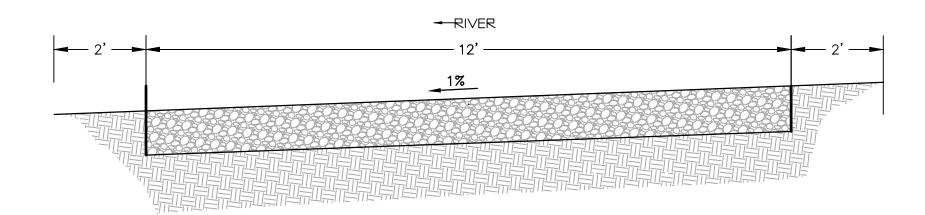
PROFESSIONAL

DANIEL B. HUMES

ENGINEER
PE079470

WSYLVE





TRAIL CROSS SECTIONS DETAIL SHEET

**REVISIONS** 

CONFORMED SET

CITY OF PHILADELPHIA

COUNTY

**PHILADELPHIA** 

ROUTE SECTION

SHEET

29 OF 29

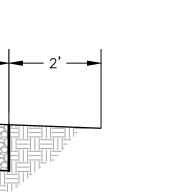
DATE

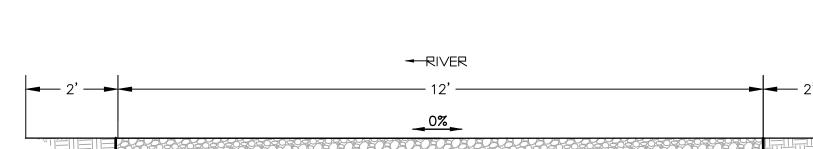
11/2/2015 JAB

BY

TYPICAL TRAIL SECTION - LOOKING NORTH STA 99+56.00 to 100+39.50 NOT TO SCALE

<del>----</del>RIVER





TYPICAL TRAIL SECTION - LOOKING NORTH

STA 100+54.50 to 109+54.00 NOT TO SCALE

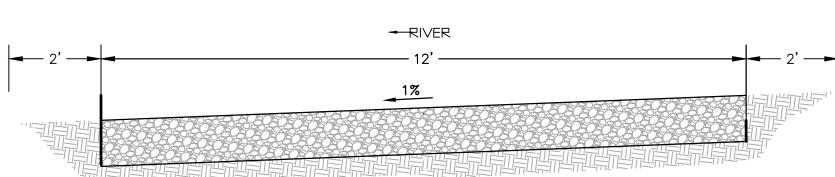
<del>- R</del>IVER └─3" TRAIL SURFACE AGGREGATE (TSA) ─ 9" SUBBASE NO. 2A STONE

DISTRICT

6-0

REVISION NUMBER

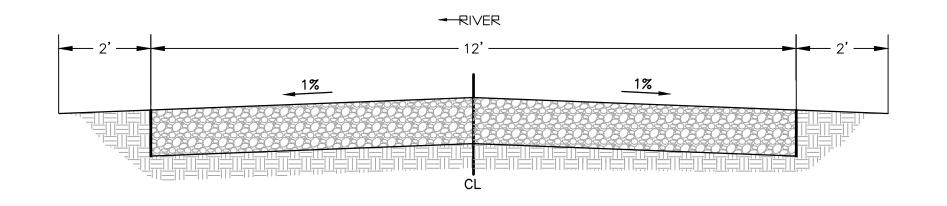
TYPICAL TRAIL SECTION - LOOKING NORTH STA 100+39.50 to 100+44.50\* NOT TO SCALE

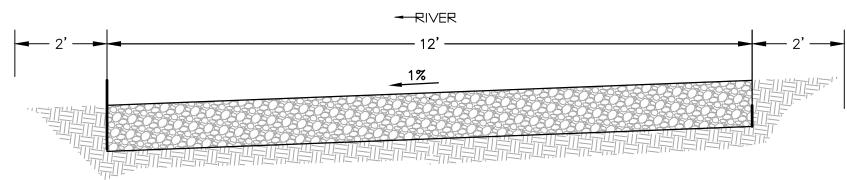


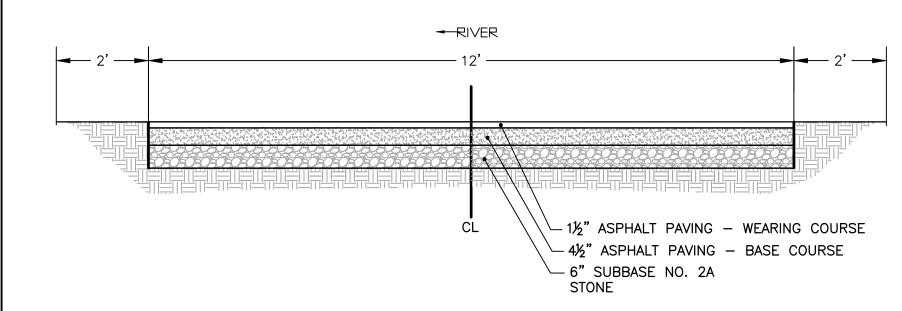
TYPICAL TRAIL SECTION - LOOKING NORTH

STA 109+54.00 to 110+16.00\*

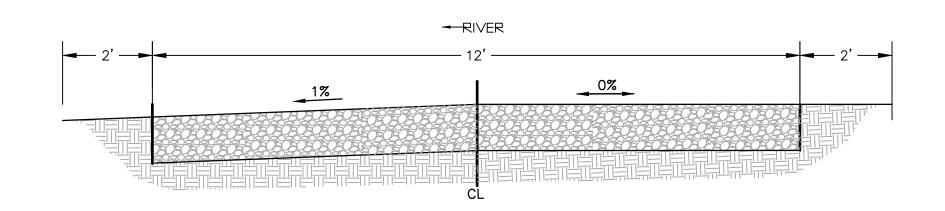








TYPICAL TRAIL SECTION - LOOKING NORTH STA 100+44.50 to 100+49.50\* NOT TO SCALE



- RIVER

TYPICAL TRAIL SECTION - LOOKING NORTH

STA 110+16.00 to 113+42.50

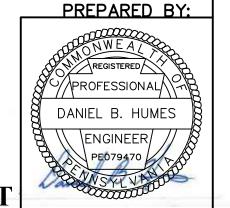
NOT TO SCALE

TYPICAL TRAIL SECTION - ALTERNATE #2 NOT TO SCALE

TYPICAL TRAIL SECTION - LOOKING NORTH STA 100+49.50 to 100+54.50\* NOT TO SCALE

[:\Projects\SRDC — Schuylkill Trail at South Street\Drawings\Urban\LD SET\12 TRAIL CROSS SECTIONS DETAIL SHEET.dwg 11/2/2015 5:08:31 PM

TYPICAL TRAIL SECTION - LOOKING NORTH STA 113+42.50 to 113+68.00\* NOT TO SCALE



NOTE: ALL SECTIONS SYMBOLIZED WITH AND '\*' INDICATE A TRANSITION IN TRAIL SLOPE. CONTRACTOR TO FEATHER TRAIL SECTIONS ACCORDINGLY TO ALLOW FOR A SMOOTH TRANSITION BETWEEN CHANGES IN CROSS SLOPE.

