PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6 EROSION & SEDIMENT CONTROL & SITE RESTORATION PLAN

CHESTER COUNTY CONSERVATION DISTRICT

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ES-0.11	STREAM CROSSING DETAILS
ES-6.01 TO ES-6.82	EROSION & SEDIMENT CONTROL & SITE RESTORATION PLANS

MARCH 2016

PREPARED BY:



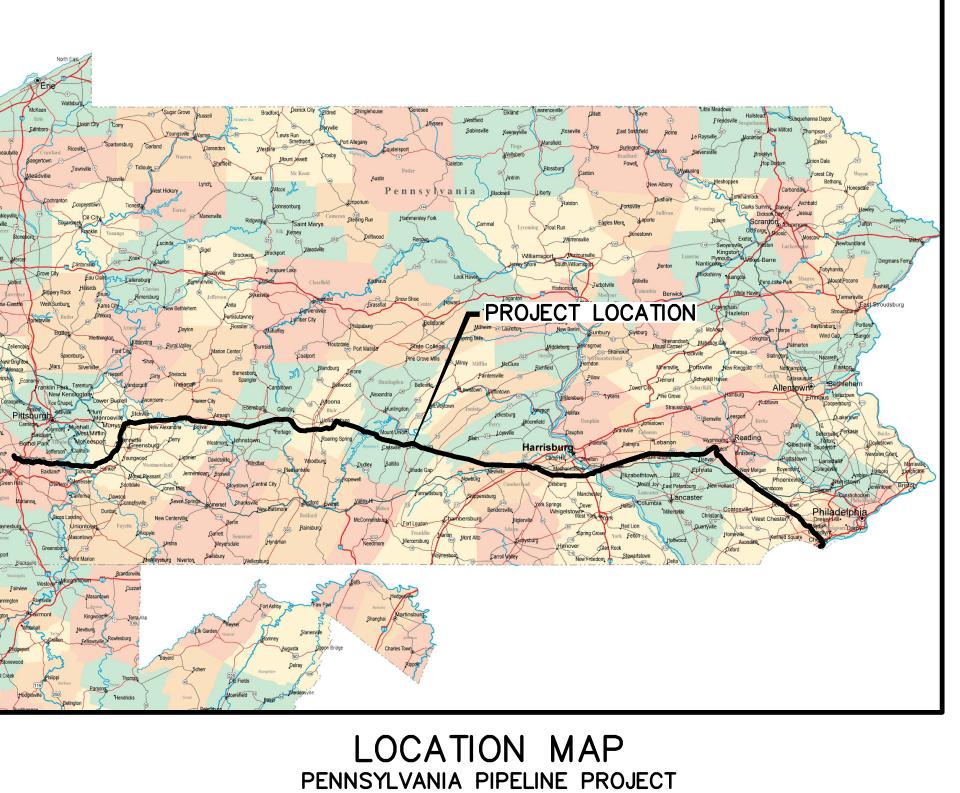
complex world **CLEAR SOLUTIONS**[™]

661 ANDERSEN DRIVE - FOSTER PLAZA 7, PITTSBURGH, PA 15220 TEL: (412) 921-7090 | FAX: (412) 921-4040

PREPARED FOR:



SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA



HOUSTON, PENNSYLVANIA TO MARCUS HOOK, PENNSYLVANIA

	NOTES:							
		PPING AND FEATURES COMPIL KES PLACE WITHIN CHESTER (
Α		ARIES TAKEN FROM WWW.PAS						
		FLOODPLAINS FROM WWW.PAS						
		.03 FOR STREAM AND WETLAN						
		N AND RIGHT-OF-WAY FROM						
1				SPOIL AREA.				
		E COMPOST FILTER SOCK AS REQUIRED TO PREVENT RUNOFF FROM SPOIL AREA. NERAL LOCATION AND SPACING FOR WATERBARS ARE SHOWN ON THE PLAN. WATERBARS MAY BE ADJUS ACTUAL SITE CONDITIONS; HOWEVER, INSTALLATION AND SPACING MUST CONFORM TO THE DETAIL PROVI EET ES-0.08.						
в	9. AT ALL STREAM	CROSSINGS, RUNOFF MUST BE	DIRECTED TO A SEDIME	NT REMOVAL AREA (i.e. COMPOS	T FILTER SOCKS).			
	WITH THE INDIVID BEST AVAILABLE	JAL PROPERTY OWNER. THE F	SHTS-OF-WAY AND EA OVIDED TO TETRA TECH	E RESPONSIBILITY OF SUNOCO F SEMENTS SHOWN ON THIS PERMI H, INC. BY SUNOCO PIPELINE L.P O PIPELINE L.P.	T DRAWING REPRESENT THE			
_		OCKPILE LOCATIONS ARE SHO PSOIL WILL BE PUSHED BACK		ENT, TOPSOIL WILL BE PUSHED T DN.	O ONE SIDE OF THE RIGHT			
		NT LAND USE CONSISTS OF A AINED, VEGETATED RIGHT—OF-		AND RESIDENTIAL AREAS. POST	CONSTRUCTION LAND USE			
	13. ACCUMULATED SE	DIMENT ON TIMBER MATS WIL	BE REMOVED BY HAND	AND PLACED IN THE SOIL STOO	CKPILES.			
с		SOCK INSTALLATION TO BE A PHASES OF THE PROJECT.	JUSTED AS NEEDED TO	ACCOMMODATE ACTUAL CONTOL	JRS IDENTIFIED IN FIELD			
	OCTOBER 1 THRO		RIE TRIBUTARIES FROM	CH 1 THROUGH JUNE 15, WILD I SEPTEMBER 1 THROUGH DECEM ONMENTAL SERVICES.		IS		
_	TESTING OF THE	PIPELINE AND MAINLINE VALVI IUNICIPAL WATER SOURCES. N	. ALL WATER FOR THE	ANING, HORIZONTAL DIRECTIONAL SE ACTIVITIES WITHIN THE DELAV DRAWAL WITHIN THE DELAWARE	VARE RIVER BASIN WILL BE			
D	DISCHARGED THR HOOK, DELAWARE	OUGH THE DELAWARE COUNTY COUNTY, PA.	REGIONAL WATER QUAL	NINLINE VALVES WITHIN THE DELA ITY CONTROL AUTHORITY VIA SU NSHIP, REMOVE WATERBARS, STA	NOCO FACILITIES AT MARCU	JS		
			BY TOWNSHIP					
-	COUNTY	TOWNSHIP	PLA	N SHEETS				
		ELVERSON BOROUGH	ES-6.0	D1 TO ES-6.03				
		WEST NANTMEAL		D3 TO ES-6.12				
		EAST NANTMEAL		09 TO ES-6.12				
Е		WALLACE		12 TO ES-6.23				
		UPPER UWCHLAN		23 TO ES-6.34				
	CHESTER			34 TO ES-6.43				
		WEST WHITELAND		54 & ES-6.75 TO ES-6.	80			
-		EAST WHITELAND		30 TO ES-6.82				
		WEST GOSHEN		54 TO ES-6.58				
		EAST GOSHEN WESTTOWN		58 TO ES-6.69 59 TO ES-6.74				
F								
		LIMIT OF DISTU	RBANCE PRO	JECT AREA				
	CHESTER COUN	TY 184 ACR	S 18	4 ACRES				
F			REVIS	SIONS	STON WEAD			
			DATE	REMARKS	PROFESSIONAL			
		• •			BUIL THUREDAUGAL 102			

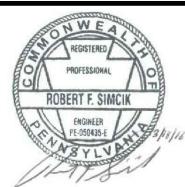
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SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA

6.03				
6.12				
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5.75	TO	ES-	-6.80)
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ONTAL DIRECTIONAL DRILLING AND HYDROSTATIC WITHIN THE DELAWARE RIVER BASIN WILL BE IN THE DELAWARE RIVER BASIN IS PROPOSED	
S WITHIN THE DELAWARE RIVER BASIN WILL BE AUTHORITY VIA SUNOCO FACILITIES AT MARCUS	

- WILL BE
- ARCUS
- WATERBARS, STABILIZE AND RE-VEGETATE

ACTUAL CONTOURS IDENTIFIED IN FIELD JUNE 15, WILD TROUT STREAMS FROM

5

- ITIAL AREAS. POST CONSTRUCTION LAND USE
- WN ON THIS PERMIT DRAWING REPRESENT THE NOCO PIPELINE L.P. THE RIGHTS-OF-WAY AND

- WILL BE PUSHED TO ONE SIDE OF THE RIGHT

4

- IN THE SOIL STOCKPILES.

- - EXISTING DOMINION GAS LINE _____ DOMN _____
 - EXISTING SANITARY SEWER LI —— SAN ——
 - EXISTING BUILDING
 - PROPERTY LINE
 - COUNTY BOUNDARY

 - ----- TOWNSHIP BOUNDARY
 - ---- 100-YEAR FLOODWAY
 - ---- 100-YEAR FEMA FLOODPLAIN
 - WATERSHED BOUNDARY _____
 - ORANGE CONSTRUCTION FENC _____x _____x

 - EXISTING PEM WETLAND
 - EXISTING PFO WETLAND

 - EXISTING PSS WETLAND
 - ----- PROPOSED PIPE LOCATION
 - PROPOSED RIGHT-OF-WAY _____

 - RIPARIAN FOREST BUFFER

PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

LEGEND

6

EXISTING 10' CONTOUR

7

8

- EXISTING 2' CONTOUR
- EXISTING TREE LINE
- EXISTING FENCELINE _____ x _____ x _____ x _____
- EXISTING STREAM WITH ____`___`___ FLOW DIRECTION
- EXISTING WATERSHED BOUNDA _____
- EXISTING ELECTRIC OVERHEAD _____ OVH _____
- EXISTING ELECTRIC UNDERGRO ------ UE ------
- EXISTING LIGHT POLE -¢-
- EXISTING WATER LINE _____ W _____
- EXISTING GAS LINE —— GAS ——

		LIMIT OF DISTURBANCE/AREA TO BE RE	STORED
		AASHTO #1 ROCK CONSTRUCTION	1 0.08
		AASHTO #1 ROCK CONSTRUCTION ENTRANCE WITH WASH RACKS	2 0.08
	8	AGGREGATE STOCKPILE	
		WATER BAR	3 0.08
ARY		EROSION CONTROL BLANKET	4
)	-12-12-12-12-12-	12" COMPOST FILTER SOCK	
DUND	-18-18-18-18-18-18-	18" COMPOST FILTER SOCK	5 0.08
	-24-24-24-24-24-	24" COMPOST FILTER SOCK	
	CT CT	COMPOST SOCK SEDIMENT TRAP	6 0.08
	-12-12-12-12-12-	SILT FENCE	0.09
	- 18 18 18 18 18	SUPER SILT FENCE	8 0.09
NE	-24-24-24-24-24-	REINFORCED SILT FENCE	9 0.09
		TIMBER MATS/ TEMPORARY EQUIPMENT BRIDGE	10 0.09
	D	TRENCH PLUGS	
	∢	WATER DEFLECTOR	<u>12</u> 0.10
		SOIL STOCKPILE -SEE NOTE 7 UNDER S EROSION & SEDIMENT CONTROL NOTES	
	AREA TO	HORIZONTAL DIRECTIONAL DRILL	
	AREA TO BE BORED	CONVENTIONAL BORE	
	B─── G ──⊟		
E			
		DETAIL INDICATOR	
		DETAIL NUMBER	
		└ SHEET SHOWN ON	
	- *		DATE: 3/18/1
-20″ & 1-1	6" PROPOSED W	ELDED STEEL NATURAL GAS LIQUIDS PIPELINES	DATE:3718/1PROJECT NO.:112C0595DESIGNED BY:J
		Y CONSERVATION DISTRICT	DRAWN BY: B CHECKED BY: R COPYRIGHT TETRA TECH INC.
ERC	JSIUN & S	EDIMENT CONTROL PLAN	ES-0.01

GENERAL NOTES & LEGEND

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SHEET 0.01 OF 93

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	1.		RAPHIC ASDA.PS		IG AND F	EATURES (COMF	PILED	FROM	1	<u>ST</u>
А	2.	THE PF	ROJECT	TAKES	PLACE W	ITHIN CHES	STER	COL	JNTY, I	PENNSYLVANIA.	REF ASS
	3.	TOWNSI	HIP BOL	JNDARIE	S TAKEN	FROM WW	W.PA	SDA	.PSU.E	DU.	BEL ACT
	4.	100-YE	EAR FEN	A FLO	DDPLAINS	FROM WW	W.PA	SDA	.PSU.E	DU.	RES
	5.	SEE SH	IEET ES	-0.03	FOR STRI	EAM AND V	VETL	AND	CROSS	SING TABLE.	NEC PLA
	6.	PIPELIN	E LOCA	TION AI	ND RIGHT	-OF-WAY	FRO	M SI	JNOCO	PIPELINE L.P.	
_	7.			FILTER	SOCK A	S REQUIREI	о то	PR	EVENT	RUNOFF FROM	REQ
	0	SPOIL									CON
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	9.									S PLAN ARE THE	ACT
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		PERMIT	DRAWI	NG REP	RESENT	THE BEST A		LABL	E PRO	PERTY INFORMATION	
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					PELINE L.						<u> </u>
_	10.									URAL, FORESTED SE WILL BE A	1.
						I-OF-WAY.					2.
	11.	DRAWN	IGS REF	PRESENT	THE FIN	NAL PLAN F	FOR	CON	STRUC	TION.	۷.
	12.									ESTORATION PLAN, BE AVAILABLE FOR	
С				•						SERVATION DISTRICT.	
	<u>SI</u>	<u>TE</u> R	ESTC	RATI	<u>ON</u> S	<u>CHEDU</u>	<u>LE:</u>	•			3.
										INED BY FIELD PH TESTING.	
							OF 1	TES	ST/ACF	RE (MIN). IN ABSENCE OF	4.
_	FIELD TESTING, APPLY AT 6 TONS/ACRE. 2. APPLY 10-20-20 FERTILIZER AT THE RATE OF 1,000 LB/ACRE, OR AT A RATE								ACRE. OR AT A RATE		
	۵	DETERMIN	NED BY	FIELD	TESTING.				•		_
							h of	- 4	N. USI	ING SUITABLE EQUIPMENT.	5.
D					SEED MI		R۵٦	FO	THRE	EE TONS PER ACRE.	
U										ABLE AS MULCH.	6.
	<u>SIT</u>	<u>e re</u>	STO	RATIC	<u> </u>						
	FOLL	.OWING	COMPLE	TION OF		E INSTALLA		I AN	D TRE	NCH BACKFILLING, THE	7.
_										NT PRIOR TO PIPELINE AINAGE PATTERNS.	8.
	GRO	UNDS DI	STURBE	DBYA	NY OF T	HE OPERAT	FION S	S NE	CESSA	RY TO COMPLETE THE	
										, OR IF SPECIFIED, SIGNATED AS A	
										EARTH DISTURBANCE EMPORARY	
E	STAE	BILIZATIC	DN. DIS	STURBED) AREAS,	WHICH AR	E A	T FIN	IAL GR	RADE, SHALL BE SEEDED	
					•					ERMANENT ACCESS FTER THE AREA	
								•		DISTURBED AREA SHALL THREE TONS PER	
	ACRI	E. THIS	STRAV	/ SHALL	. BE ANC	HORED US	ING	A ME	THOD	DESCRIBED UNDER WILL BE RESTORED TO	
_	A VE	EGETATE	D CONE	ITION F	OLLOWIN	G CONSTRU	CTIO	N. T	HE PR	OPOSED PERMANENT	
										CTION. AN INFILTRATION FOR THE INCREASE IN	
										NFILTRATION BERM AND HERE WILL BE NO	
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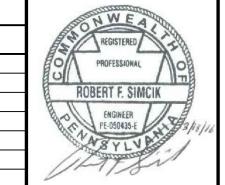
DNSTRUCTION SEQUENCE FOR POST CONSTRUCTION ORMWATER MANAGEMENT CONTROLS:

FER TO THE PLAN DRAWINGS FOR THE LOCATION OF THE PROPOSED WORK AND THE SOCIATED STORMWATER CONTROLS. A GENERALIZED CONSTRUCTION SEQUENCE IS PROVIDED LOW. THE CONSTRUCTION SEQUENCE IS INTENDED TO PROVIDE A GENERAL COURSE OF TION IN ORDER TO CONFORM TO THE APPLICABLE REGULATORY AGENCY REQUIREMENTS FOR STORATION AND POST-CONSTRUCTION STORMWATER MANAGEMENT OF THE SITE. CESSARY PARTS FOR PROPER AND COMPLETE EXECUTION OF WORK PERTAINING TO THIS AN, WHETHER SPECIFICALLY MENTIONED OR NOT, ARE TO BE PERFORMED BY THE ITRACTOR. IT IS NOT INTENDED THAT THE DRAWINGS AND THIS REPORT SHOW DETAILED ORMATION ON METHODS AND MATERIALS. THE CONTRACTOR SHALL COMPLY WITH ALL QUIREMENTS LISTED IN THIS SECTION. THE CONTRACTOR MAY BE REQUIRED TO ALTER NTROLS BASED ON EFFECTIVENESS OF CONTROLS OR DIFFERING CONDITIONS ENCOUNTERED THE FIELD.

PRECONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION TIVITY. THE PADEP OR APPLICABLE COUNTY CONSERVATION DISTRICT, CONTRACTORS, THE NDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, AND THE PLAN PREPARER MUST BE INVITED THIS MEETING AT LEAST SEVEN DAYS IN ADVANCE.

FILTRATION BERM

- . INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL BMPS AS PER THE PENNSYLVANIA EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.
- .COMPLETE SITE GRADING AND STABILIZE WITHIN THE LIMIT OF DISTURBANCE EXCEPT WHERE THE INFILTRATION BERM WILL BE CONSTRUCTED; MAKE EVERY EFFORT TO MINIMIZE BERM FOOTPRINT AND NECESSARY ZONE OF DISTURBANCE (INCLUDING BOTH REMOVAL OF EXISTING VEGETATION AND DISTURBANCE OF EMPTY SOIL) IN ORDER TO MAXIMIZE INFILTRATION.
- LIGHTLY SCARIFY THE SOIL IN THE AREA OF THE PROPOSED BERM BEFORE DELIVERING SOIL TO SITE.
- BRING IN FILL MATERIAL TO MAKE UP THE MAJOR PORTION OF THE BERM. SOIL SHOULD BE ADDED IN 8-INCH LIFTS AND COMPACTED AFTER EACH ADDITION ACCORDING TO DESIGN SPECIFICATIONS. THE SLOPE AND SHAPE OF THE BERM SHOULD BE GRADED OUT AS SOIL IS ADDED.
- .PROTECT THE SURFACE PONDING AREA AT THE BASE OF THE BERM FROM COMPACTION. IF COMPACTION OF THIS AREA DOES OCCUR. SCARIFY SOIL TO A DEPTH OF AT LEAST 8-INCHES.
- .COMPLETE FINAL GRADING OF THE BERM AFTER THE TOP LAYER OF SOIL IS ADDED. TAMP SOIL DOWN LIGHTLY AND SMOOTH SIDES OF THE BERM. THE CREST AND BASE OF THE BERM SHOULD BE AT LEVEL GRADE.
- PLANT BERM WITH TURF, MEADOW PLANTS, SHRUBS OR TREES, AS DESIRED.
- B.MULCH PLANTED AND DISTURBED AREAS WITH COMPOST MULCH TO PREVENT EROSION WHILE PLANTS BECOME ESTABLISHED.



SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA

PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

LONG TERM MAINTENANCE OF THE PROJECT WILL INCLUDE PERIODIC VISUAL INSPECTIONS FOR SUFFICIENT VEGETATIVE GROWTH AND COVER. INSUFFICIENT VEGETATIVE COVER IS DEFINED AS ANY AREA NOT ACHIEVING A UNIFORM 70% PERENNIAL VEGETATIVE COVER. BARE SPOTS AND AREAS WITH INSUFFICIENT VEGETATIVE COVER WILL BE RESEEDED AND MULCHED WITHIN 24 HOURS OF DISCOVERY. RESTORATION AREAS WILL BE INSPECTED FOR SIGNS OF EROSION, ESPECIALLY ON STEEP SLOPES. CORRECTIVE MEASURES WILL BE TAKEN. AS NEEDED. IF THERE IS EVIDENCE OF TRENCH SETTLING. THE AREA WILL BE REGRADED TO MAINTAIN PRE-CONSTRUCTION DRAINAGE PATTERNS, MULCHED, AND SEEDED.

THE PROPOSED, PERMANENT ACCESS ROAD WHICH WILL REMAIN AS A PERMANENT GRAVEL DRIVE SHALL BE INSPECTED PERIODICALLY. AGGREGATE WILL BE APPLIED TO THE PERMANENT ACCESS ROAD AS NEEDED TO MAINTAIN AN ADEQUATE THICKNESS. THE INFILTRATION BERM SHALL BE INSPECTED REGULARLY TO ENSURE IT IS INFILTRATING PROPERLY AND NOT CLOGGED WITH SEDIMENT. VEGETATION OVER THE BERM SHALL BE MAINTAINED AS NECESSARY, WHICH MAY REQUIRE ANNUAL MULCHING. ROUTINELY REMOVE ACCUMULATED DEBRIS AND INVASIVE PLANTS AS NEEDED. INSPECT FOR SIGNS OF FLOW CHANNELIZATION AND RESTORE LEVEL GRADIENT IMMEDIATELY AFTER ANY DEFICIENCIES ARE OBSERVED. THE SOIL AMENDMENT AREAS WILL BE INSPECTED BIANNUALLY TO VERIFY THEIR EFFECTIVENESS.

A WRITTEN REPORT IS REQUIRED FOR EACH INSPECTION AND FOR EACH REPAIR OR MAINTENANCE ACTIVITY. AND THE REPORT SHOULD SPECIFY HOW TO ACCESS THE SITE. SUNOCO PIPELINE L.P. IS RESPONSIBLE FOR MAINTAINING THE RIGHT OF WAY UNDER THE PROVISIONS OF THIS PERMIT.

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LONG TERM INSPECTIONS AND MAINTENANCE FOR SITE **RESTORATION AND PCSM CONTROLS:**

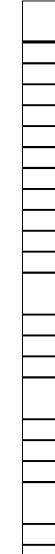
<u>LEGEND</u>		
INFILTRATION BERM	-	
DETAIL INDICATOR		
1-20" & 1-16" PROPOSED WELDED STEEL NATURAL GAS LIQUIDS PIPELINES	DATE: PROJECT NO.: DESIGNED BY:	3/18/16 112C05958 JB
CHESTER COUNTY CONSERVATION DISTRICT SITE RESTORATION PLAN GENERAL NOTES & LEGEND	DRAWN BY: CHECKED BY: COPYRIGHT TETRA ES-0. SHEET 0.02	.02

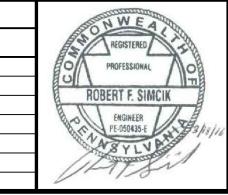
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B 5.470 M* of Applicable Date, 4* (139), 7.48200 Present ii 4 Pry clearing min 3.471 Varish Cose, -44.1014, -0.48201 Persynal 0 my clearing min iii 3.611 2016 Safe Sarch Freeh Cose, 44.1048, -0.48200 Persynal 0 my clearing min iii 3.810 Afro Mark Took 40.1048, -0.49200 Persynal 5 my clearing min iii 3.810 Afro Mark Took 40.1048, -0.49200 Persynal 5 my clearing min iii 3.810 Afro Mark Took 40.1028, -0.49200 Persynal 5 min min iii 3.810 Afro Mark Took 40.1028, -0.49200 Persynal 2 My clearing min iii 3.810 Afro Mark Took 40.3227, -0.49200 Persynal 2 1600 min soft ArW 5.001 My took 40.3227, -0.49200 Persynal 1 1 My took ArW 5.0020	n/a	Open Cut Floodw ay	3	Ephemeral	40.1375,		S-A68	
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B bit 10 virtual data 40.000 273.777 fourthal 0 thy Dowling mill SB15 Virtual Mask Greek	n/a	Dry Crossing	6	Perennial	40.1246,	UNT to Marsh Creek	S-B15	
B 3.6.99 MT to Marke Greek 20.107 175736 Nummient 2 Dry Occuring Nu 9.6.00 MT to Marke Greek 27.000 757368 Yearnitizett 2.3 Open Cut Pisotory Nu 9.05.4 UNT to Marke Greek 27.000 757368 Yearnitizett 2 HCD Darks 0753 ATV 9.05.4 UNT to Openier Ovec 27.5512 Yearnitizett 2 HCD Darks 0753 ATV 9.05.6 MT to Openier Ovec 27.5512 Peervisit 7 HCD Darks 0753 ATV 9.05.6 MT to Openier Ovec 27.5512 Creaseral 3 HCD Darks 0753 ATV 9.05.0 MT to Openier Ovec 27.5512 Creaseral 3 HCD Darks 0753 ATV 9.06.1 Valary Orek 27.5512 Creaseral 10 LCD ATV 0 9.06.1 Valary Orek 27.0512 Freemal 112 HCD ATV 0 9.06.1 Valary Orek 27.0512 Freemal 10 Dy Occuring Nu	n/a	Dry Crossing	5	Perennial	40.1029,	UNT to Marsh Creek	S-B18	
B 9 623 Urf or March Orack 9 0 102 25 5534 Normittee 2.5 Open Cull Product ry via 8.65/4 UNT to Checker Orack 275 5534 Normittee 2 H-DD Drams to STIS, A 174 9.653 UNT to Checker Orack 275 5537 Premittee 3 H-DD Drams to STIS, A 174 9.653 UPT to Checker Orack 275 5137 Premittee 3 H-DD Drams to STIS, A 174 9.657 UPT to Valuy Orack 275 5137 Premittee 3 H-DD Drams to A TA1 9.657 UPT to Valuy Orack 275 5137 Premittee 3 H-DD Drams to A TA1 9.657 UPT to Valuy Orack 275 5170 Remain 12 H-DD A 170, Daras to TS1 9.6526 UPT to Valuy Orack 275 51716 Remain 12 H-DD n/n 9.6527 UPT to Valuy Orack 275 51716 Remain 12 H-DD n/n 9.6528 UPT to Valuy Orack 275 5175 Remain 10 D y Crossing	n/a	Dry Crossing	2		40.1027,	UNT to Marsh Creek	S-B19	
B 1	- 	Open Cut Floodw ay	2.5	Intermittent		UNT to Marsh Creek	S-B20	
C -75.512 -75.513 -75.512 -75.513 -75.					39.9516,	UNT to Chester Creek	S-B34	
C 1.75517 Permital 7 HCO Dates to ATW 5.879 UAT to Valley Deek -755182 Permital 7 HCO Dates to ATW 5.880 UAT to Valley Deek -755182 Reminal 12 HCO Dates to ATW 5.881 Valley Creek -755182 Reminal 12 HCO ArW, Dates to STS 5.882 UAT to Valley Deek -40039, -755193 Reminal 12 HCO ArW, Dates to STS 5.8825 UAT to Valley Deek -40039, -755193 Reminal 12 HCO ArW 5.8826 UAT to Valley Deek -755193 Reminal 12 HCO ArW 5.8827 UAT to Valley Deek -40037, -755193 Reminal 12 HCO ArW 5.8828 UAT to Valley Deek -40037, -755193 Reminal 10 Dry Drossing ArW 5.8829 UAT to Valley Deek -400470, -755193 Reminal 10 Dry Drossing ArW 5.8830 UAT to Sash Branch Remo Cr								
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C						+		
C -75.82 - <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td></td>						+		
SeB23 UNT to Valley Creek -75.0219 Ebeneral 10 HDD r/s SeB27 UNT to Valley Creek -75.0213 Intermittent 5 HDD r/s 1 SeB27 UNT to Valley Creek -75.0213 Intermittent 5 HDD r/s 1 SeB29 UNT to Valley Creek 40.0375, -75.6161 Peremial 12 HDD r/s 1 SeB29 UNT to Valley Creek 40.0410, -75.6039 Peremial 10 Dry Crossing r/s 1 SeB30 UNT to Valley Creek 40.0410, -75.6039 Peremial 10 Dry Crossing r/s 1 SeC68 UNT to South Branch Prench Creek -75.8135 Peremial 6 Dry Crossing r/s SeC57 UNT to South Branch Prench Creek -75.8136 Peremial 3 Open Out Roody ey r/s SeC58 UNT to South Branch Prench Creek 40.1383, -75.8136 Peremial 6 Open Out Roody ey r/s SeC23 UNT to Valley Creek <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
S-BE27 UNT to Valley Creek	n/a		10	Ephemeral	-75.6219	UNT to Valley Creek	S-BB26	
S-BB28 UNIT to Valley Creek -75.8161 -75.8161 Perennal 12 HOD n/a S-BB29 UNIT to Valley Creek 40.0410, -75.8016 Ephemeral 6 Dry Crossing n/a S-BB29 UNIT to Valley Creek 40.0410, -75.8016 Perennial 10 Dry Crossing n/a S-BB20 UNIT to Valley Creek 40.0410, -75.8016 Perennial 10 Dry Crossing n/a S-C56 UNIT to South Branch French Creek 40.1392, -75.8136 Perennial 6 Dry Crossing n/a S-C57 UNIT to South Branch French Creek 40.1390, -75.8136 Ephemeral 3 Open Cut Floodwray n/a S-C58 UNIT to South Branch French Creek 40.1383, -75.8132 Perennial 4 Dry Crossing n/a S-C59 UNIT to South Branch French Creek 40.1383, -75.8132 Perennial 6 Cpen Cut Floodwray n/a S-C59 UNIT to South Branch French Creek -75.8328 Perennial 8 HDD Drains to STS, ATW S-C69 UNIT to Valley Creek<	n/a	HDD	5	Intermittent	-75.6213	UNT to Valley Creek	S-BB27	
S-BB29 UNT to Valley Creek -75.6039 Ephemeral 6 Dry Crossing n/a S-BB30 UNT to Valley Creek 40.0410, .75.6016 Perennial 10 Dry Crossing n/a S-BB30 UNT to Valley Creek 40.0410, .75.6016 Perennial 10 Dry Crossing n/a S-C58 UNT to South Branch French Creek 40.1392, .75.8136 Perennial 6 Dry Crossing n/a S-C57 UNT to South Branch French Creek 40.1390, .75.8136 Ephemeral 3 Open Cut Roodway n/a S-C58 UNT to South Branch French Creek 40.1384, .75.8136 Perennial 4 Dry Crossing n/a S-C59 UNT to South Branch French Creek 40.1383, .75.8132 Perennial 6 Open Cut Roodway n/a S-C59 UNT to Valley Creek 40.0379, .75.8328 Perennial 8 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0376, .75.8336 Ephemeral 3 HDD Drains to STS, ATW S-C62 UNT to Valley Creek	n/a	HDD	12	Perennial	-75.6161	UNT to Valley Creek	S-BB28	
S-BB30 UNT to Valley Creek 75.6016 Perennial 10 Dry Crossing n/a S-C50 UNT to South Branch 40.1392. Perennial 6 Dry Crossing n/a S-C57 UNT to South Branch 40.1390. Ephemeral 3 Open Cut Floodway n/a S-C57 UNT to South Branch 40.1390. Ephemeral 3 Open Cut Floodway n/a S-C58 UNT to South Branch 40.1390. Ephemeral 3 Open Cut Floodway n/a S-C58 UNT to South Branch 40.1390. Ephemeral 3 Open Cut Floodway n/a S-C58 UNT to South Branch 40.1380. Perennial 4 Dry Crossing n/a S-C59 UNT to South Branch 40.1383. Perennial 6 Open Cut Floodway n/a S-C59 UNT to Valley Creek -75.8126 Perennial 8 HDD Drains to STS, ATW S-C69 UNT to Valley Creek 40.0376. Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek -75.6328 Ferennial	n/a	Dry Crossing	6	Ephemeral	-75.6039	UNT to Valley Creek	S-BB29	
D S-C56 Prench Creek Perennial 6 Dry Crossing n/a S-C57 UNT to South Branch French Creek 40.1390, -75.8136 Ephemeral 3 Open Cut Roodway n/a S-C57 UNT to South Branch French Creek 40.1390, -75.8136 Perennial 4 Dry Crossing n/a S-C58 UNT to South Branch French Creek 40.1384, -75.8126 Perennial 4 Dry Crossing n/a S-C58 UNT to South Branch French Creek 40.1383, -75.8126 Perennial 6 Open Cut Roodway n/a S-C59 UNT to South Branch French Creek 40.0370, -75.6328 Perennial 8 HDD Drains to STS, ATW S-C69 UNT to Valley Creek 40.0376, -75.6328 Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW	n/a	Dry Crossing	10	Perennial		UNT to Valley Creek	S-BB30	
D S-C57 Finch Creek Ephemeral 3 Open Cut Ploodway n/a S-C58 UNT to South Branch French Creek 40.1384, -75.8126 Perennial 4 Dry Crossing n/a S-C58 UNT to South Branch French Creek 40.1363, -75.8126 Perennial 6 Open Cut Ploodway n/a S-C23 UNT to South Branch French Creek 40.1363, -75.8132 Perennial 6 Open Cut Ploodway n/a S-C59 UNT to Valley Creek 40.0379, -75.6328 Perennial 8 HDD Drains to STS, ATW S-C60 UNT to Valley Creek 40.0376, -75.6328 Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW	n/a	Dry Crossing	6	Perennial			S-C56	
S-C58 French Creek Perennial 4 Dry Crossing n/a S-CC23 UNT to South Branch French Creek 40.1363, -75.8132 Perennial 6 Open Cut Floodway n/a S-CC23 UNT to South Branch French Creek 40.1363, -75.8132 Perennial 6 Open Cut Floodway n/a S-C59 UNT to Valley Creek 40.0379, -75.6328 Perennial 8 HDD Drains to STS, ATW S-C60 UNT to Valley Creek 40.0376, -75.6326 Perennial 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW S-C62 UNT to Valley Creek 40.0385, -75.6339 Perennial 6 Open Cut Floodway Drains to STS, ATW	n/a	Open Cut Floodw ay	3	Ephemeral			S-C57	
S-CC23 UNT to South Branch French Creek 40.1363. -75.8132 Perennial 6 Open Cut Floodway n/a S-C59 UNT to Valley Creek 40.0379, -75.6328 Perennial 8 HDD Drains to STS, ATW S-C59 UNT to Valley Creek 40.0376, -75.6326 Perennial 8 HDD Drains to STS, ATW S-C60 UNT to Valley Creek 40.0376, -75.6326 Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW S-C62 UNT to Valley Creek 40.0385, -75.6339 Intermittent 6 Open Cut Floodway Drains to STS, ATW	n/a	Dry Crossing	4	Perennial			S-C58	
S-C59 UNT to Valley Creek 40.0379, -75.6328 Perennial 8 HDD Drains to STS, ATW S-C60 UNT to Valley Creek 40.0376, -75.6326 Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW S-C62 UNT to Valley Creek 40.0385, -75.6339 Intermittent 6 Open Cut Floodway Drains to STS, ATW	n/a	Open Cut Floodw ay	6	Perennial	40.1363,		S-CC23	
S-C60 UNT to Valley Creek 40.0376, -75.6326 Ephemeral 3 HDD Drains to STS, ATW S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW S-C62 UNT to Valley Creek 40.0385, -75.6339 Intermittent 6 Open Cut Floodway Drains to STS, ATW	s to STS, ATW	HDD	8	Perennial	40.0379,	UNT to Valley Creek	S-C59	
S-C61 UNT to Valley Creek 40.0381, -75.6339 Perennial 9 Dry Crossing Drains to STS, ATW S-C62 UNT to Valley Creek 40.0385, Intermittent 6 Open Cut Floodway Drains to STS, ATW	s to STS, ATW	HDD	3	Ephemeral	40.0376,	UNT to Valley Creek	S-C60	
S-C62 UNT to Valley Creek 40.0385, Intermittent 6 Open Cut Floodway Drains to STS, ATW	s to STS, ATW	Dry Crossing	9	Perennial		UNT to Valley Creek	S-C61	
-75.6338	s to STS, ATW	Open Cut Floodw ay	6	Intermittent	40.0385,	UNT to Valley Creek	S-C62	
S-C63 UNT to Valley Creek 40.0477, Perennial 8 HDD Drains to STS, ATW	s to STS, ATW	HDD	8	Perennial		UNT to Valley Creek	S-C63	
S-C64 UNT to Valley Creek 40.0496, Perennial Perennial 5 HDD Drains to STS, ATW		HDD	5	Perennial			S-064	
S-C65 LINT to Valley Creek 40.0494, Perennial 3 Floodway Crossing Drains to STS ATW					40.0494,			
S-C66 UNT to Valley Creek 40.0368, Ephemeral 4 Dry Crossing Drains to STS, ATW								
S-C67 UNT to Shamona Creek 40.0636, Intermittent 1.5 HDD n/a								
-75.6813 40.0634.						+		
S-C68 UNT to Shamona Creek -75.681 Intermittent 3 HDD n/a 40.0632					-75.681			
S-C69 UNT to Shamona Creek -75.6803 Ephemeral 2 HDD n/a E UNT to Plack Harso 40.0845. -40.					-75.6803			
S-C/2 Creek -75.7203 Perennial 4 Dry Crossing Drains to TNR					-75.7203	Creek		
INT to Black Horse 40.0857					-75.7227			
S-C74 ON to black horse 40.0037, Creek -75.7223 Ephemeral 4 Floodway Only Drains to TNR	ains to TNR	Floodw ay Only	4	⊢phemeral			S-C74	

	REVISIONS					
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	4				5	6				
		Stream ID	Stream Name	Coordinates	Flow Regime	Bank to Bank Width (feet)	Crossing Method	PAFBC Stream Designation	Siltation Impaired	E&S Plan Sheet Num ber
		S-C87	UNT to Marsh Creek	40.0718, -75.6959	Perennial	10	HDD	n/a	No	ES - 6.31, 6.32
		S-C88	UNT to Marsh Creek	40.0718, -75.6949	Ephemeral	3	HDD	n/a	No	ES - 6.32
		S-C89	UNT to Marsh Creek	40.0720, -75.6963	Ephemeral	4	HDD	n/a	 No	ES - 6.32
		S-C90	UNT to Marsh Creek	40.0721, -75.6965	Ephemeral	3	HDD	n/a	No	ES - 6.31
		S-C91	UNT to Marsh Creek	40.0723,	Intermittent	4	HDD	n/a	No	ES - 6.31
		S-C92	UNT to Marsh Creek	40.0726,	Ephemeral	2.5	HDD	n/a	No	ES - 6.31
		S-C93	UNT to Marsh Creek	40.0752,	Intermittent	2.5	Dry Crossing	n/a	No	ES - 6.30
	-	S-C94	UNT to Marsh Creek	40.0753,	Ephemeral	2	Dry Crossing	n/a	No	ES - 6.30
	-	S-C95	UNT to Marsh Creek	40.0754,		5	Open Cut Floodw ay	n/a	No	ES - 6.30
_		S-C96	UNT to Marsh Creek	40.0779, -75.7076	Perennial	6	Dry Crossing	n/a	No	ES - 6.29
		S-C97	UNT to Marsh Creek	40.0769, -75.7062	Perennial	4	Open Cut Floodw ay	n/a	No	ES - 6.29, 6.30
	-	S-C98	UNT to Marsh Creek	40.0770, -75.7055	Intermittent	3	Open Cut Floodw ay	n/a	No	ES - 6.30
	-	S-H2	UNT to Shamona Creek	40.0653,	Ephemeral	3	HDD	n/a	Yes	ES - 6.34
_		S-H3	UNT to Shamona Creek	40.0642, -75.6824	Perennial	10	HDD	n/a	Yes	ES - 6.34
_	-	S-H4	UNT to Shamona Creek	40.0644,	Ephemeral	1	HDD	n/a	Yes	ES - 6.34
	-	S-H5	Shamona Creek	-75.6825 40.0615, -75.6776	Perennial	12	HDD	n/a	Yes	ES - 6.35
_		S-H6	UNT to Shamona Creek	40.0616	Ephemeral	1	HDD Floodw ay	n/a	Yes	ES - 6.35
		S-H9	UNT to Marsh Creek	40.1002, -75.7524	Perennial	8	Dry Crossing	n/a	No	ES - 6.20
		S-H10	UNT to Marsh Creek	40.0794, -75.7103	Intermittent	3	HDD	n/a	No	ES - 6.29
		S-H11	UNT to Marsh Creek	40.0793, -75.7105	Intermittent	1.5	HDD	n/a	No	ES - 6.29
		S-H30	Chester Creek	40.0088, -75.5921	Perennial	10	HDD	ATW	Yes	ES - 6.54
		S-H31	UNT to Chester Creek	40.0068, -75.5918	Perennial	3	HDD Floodw ay	Drains to STS, ATW	Yes	ES - 6.54
_	[S-H32	UNT to Chester Creek	40.0085, -75.5917	Intermittent	7	HDD Floodw ay	Drains to STS, ATW	Yes	ES - 6.54
		S-H33	UNT to Chester Creek	40.0086, -75.5915 40.0916,	Ephemeral	4	HDD Floodw ay	Drains to STS, ATW	Yes	ES - 6.54
	·	S-H52	Marsh Creek	40.0916, -75.7322 40.0923,	Perennial	20	Dry Crossing	n/a	No	ES - 6.24
_		S-Q81	UNT to Marsh Creek	40.0923, -75.7323 40.0927,	Intermittent	5	Open Cut Floodw ay	n/a	No	ES - 6.24
		S-Q200	UNT to Marsh Creek	-75.733	Intermittent	4	Open Cut Floodw ay	n/a	No	ES - 6.24
		S-Q61	UNT to Ridley Creek	40.0053, -75.5798 40.0913	Ephemeral	3	Dry Crossing	Drains to ATW and STS	No	ES - 6.57
_		S-Q82	UNT to Marsh Creek	40.0913 -75.7296 40.0908,	Unknow n	4	Open Cut Floodw ay	n/a	No	ES - 6.25
		S-Q83	UNT to Marsh Creek	40.0908, -75.7287 40.0909,	Perennial	5	HDD	n/a	No	ES - 6.25
_		S-Q84	UNT to Marsh Creek	-75.7285	Intermittent	2	HDD	n/a	No	ES - 6.25
		S-Q85	UNT to Marsh Creek	40.0893, -75.7271 40.0806	Intermittent	5	HDD	n/a	No	ES - 6.25
		S-Q86	UNT to Marsh Creek	40.0896, -75.7271	Ephemeral	7	HDD	n/a	No	ES - 6.25

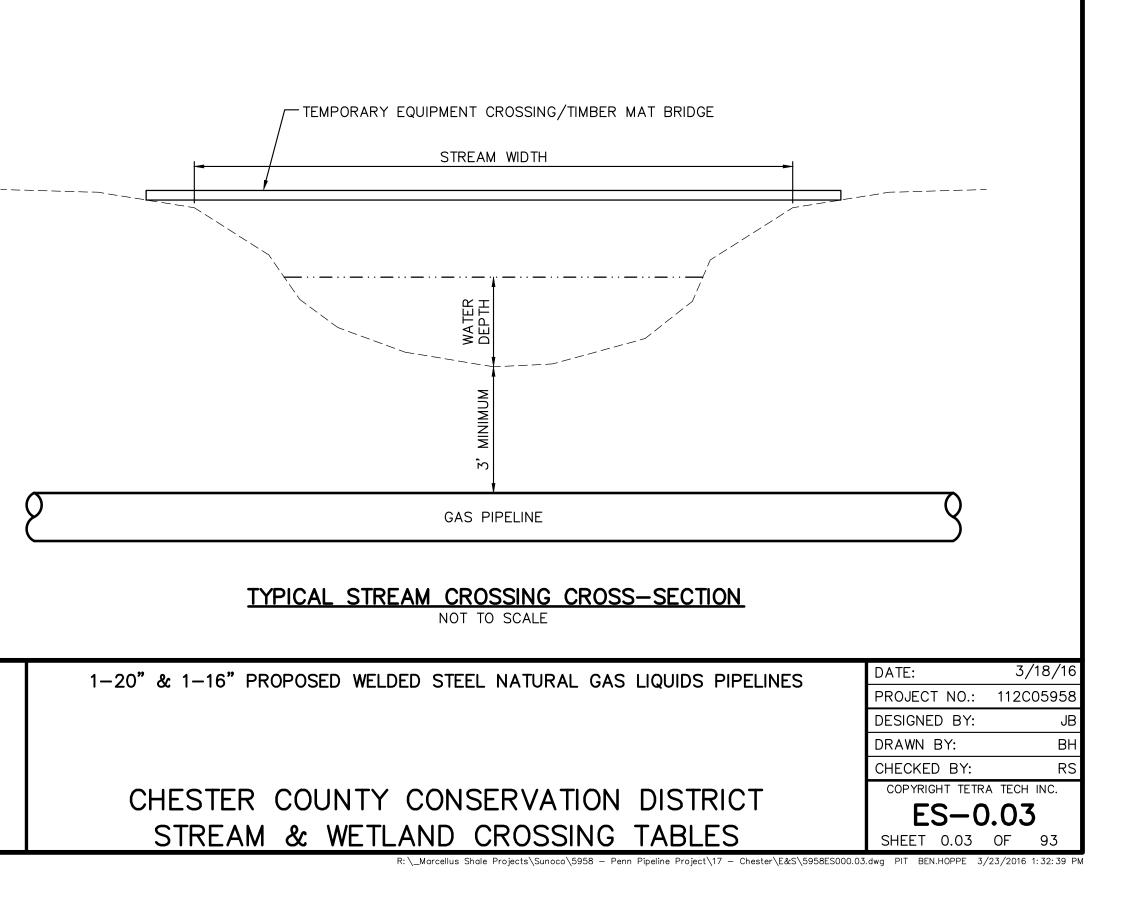


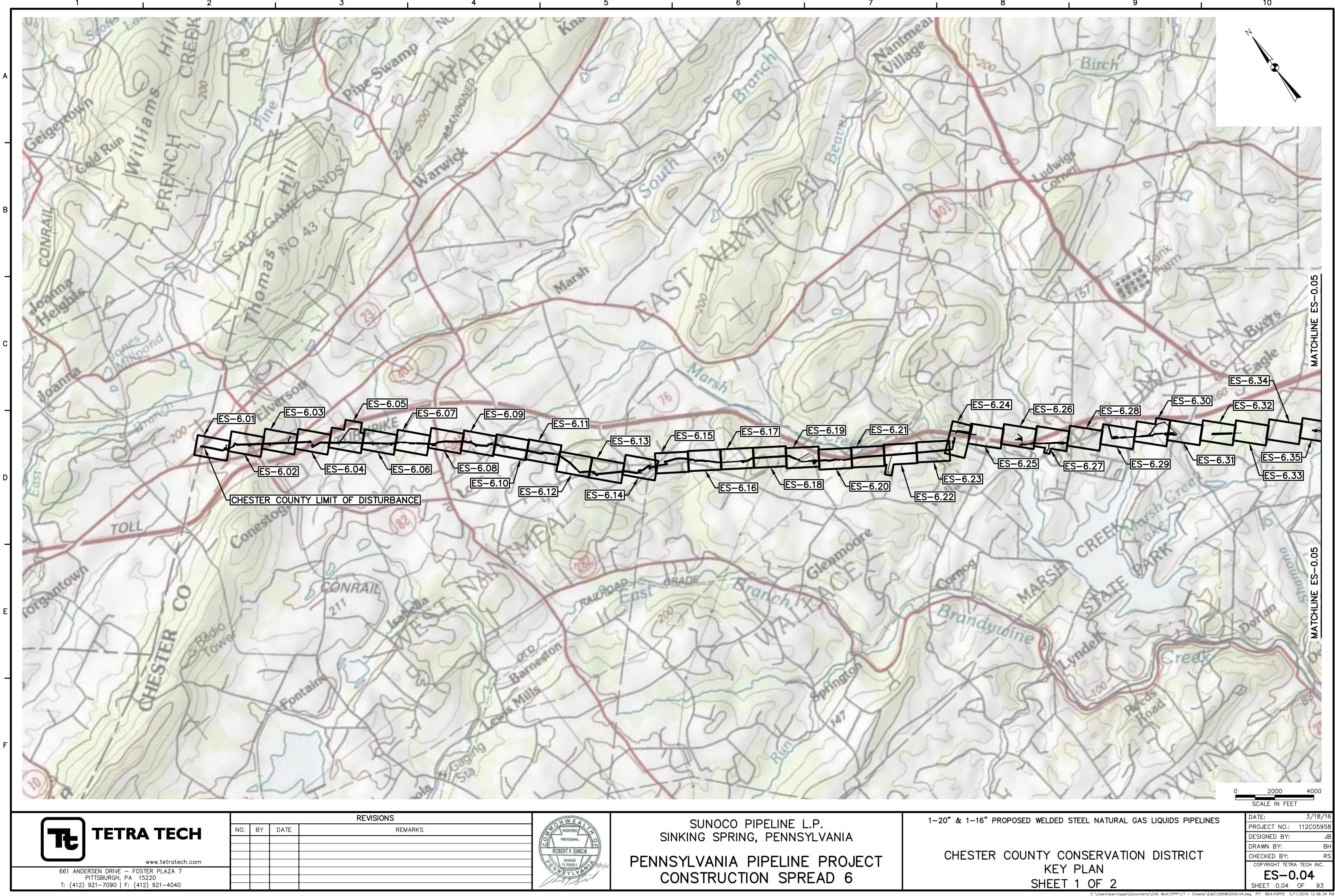


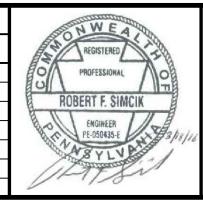
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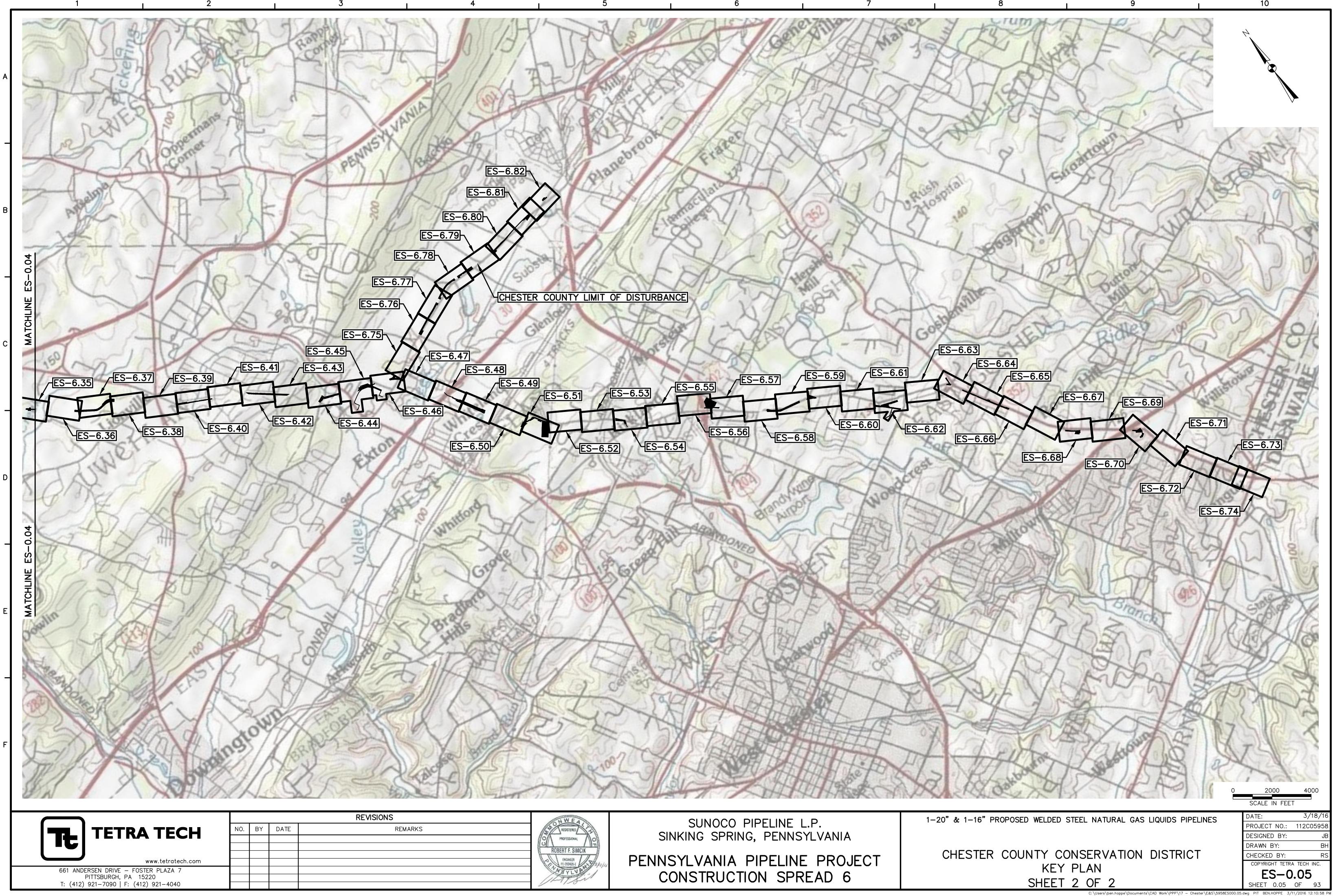
PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

7		8		9	1	10
	Wetland ID	USFWS Cowardin Classification	Coordinates	Crossing Method	Exceptional Value	E&S Plan Sheet Number
	A46	PEM	40.1472, -75.8272	Open Cut	n/a	ES - 6.04
	B12	PEM	40.1436, -75.8217	Open Cut	EV-Stream	ES - 6.05
	B13	PEM	40.1437, -75.8212	Open Cut	EV-Stream	ES - 6.05
	B14	PEM	40.1437, -75.8204	Open Cut	EV-Stream	ES - 6.05
	B15	PEM	40.1246, -75.7921	Open Cut	n/a	ES - 6.11
	B19	PEM	40.1029,-75.7571	Open Cut	n/a	ES - 6.19
	B71	PFO	40.0306, -75.6195	HDD	n/a	ES - 6.47, 6.48
	BB29	PSS	40.0408, -75.6017	Open Cut	n/a	ES - 6.78
	C33	PBM	40.1392, -75.8135	Open Cut	n/a	ES - 6.07
	C34	PBM	40.1390, -75.8127	Open Cut	n/a	ES - 6.07
	C35	PEM	40.1387, -75.8125	Open Cut	n/a	ES - 6.07
		PBM	40.0635, -75.6809	HDD	Bog Turtle	ES - 6.35
	C37	PSS	40.0633, -75.6809	HDD	Bog Turtle	ES - 6.35
	C38	PEM	40.0845, -75.7211	Open Cut/ Temp Matting	Wild Trout-Trib	ES - 6.27
	C40	PEM	40.0845, -75.7227	Open Cut/ Temp Matting	Wild Trout	ES - 6.27
	C42	PBM	40.0705, -75.6936	Open Cut	n/a	ES - 6.32
		PBM	40.0721, -75.6963	HDD	Bog Turtle	ES - 6.31, 6.32
	C43	PFO	40.0719, -75.6966	HDD	Bog Turtle	ES - 6.31, 6.32
	C47	PBM	40.0775, -75.7068	Open Cut	n/a	ES - 6.29, 6.30
	C48	PEM	40.0786, -75.7087	Open Cut	n/a	ES - 6.29
	C49	PEM	40.1089, -75.7676	Open Cut	n/a	ES - 6.17
		PBM	40.0995, -75.7505	Open Cut	n/a	ES - 6.20
	H15	PFO	40.0996, -75.7509	Open Cut		ES - 6.20
	H16	PBM	40.1003, -75.7522	Open Cut	n/a	ES - 6.20
	H17	PEM	40.0794, -75.7104	HDD	n/a	ES - 6.29
	K21	PEM	40.0222, -75.6132	HDD	n/a	ES - 6.50
	Q75	PFO	40.0925, -75.7324	Bore/ Open Cut	Wild Trout	ES - 6.24
	Q76	PSS	40.0909, -75.7290	HDD	Wild Trout	ES - 6.25
	Q77	PEM	40.0898, -75.7275	HDD	Wild Trout	ES - 6.25









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	PORARY EROSION AND SEDIME NSPECTION AND MAINTENANCE	
BMP	INSPECTION FREQUENCY	MAINTENANCE TO BE PERF
COMPOST FILTER SOCK	WEEKLY AND AFTER RUNOFF EVENTS	MAINTENANCE SHALL BE PERFORMED AS SEDIMENT SHALL BE REMOVED ONCE IT H ACCUMULATED TO ONE THIRD THE ORIGIN THE BARRIER. COMPOST FILTER SOCK SH REPLACED WHENEVER IT HAS DETERIORAT AN EXTENT THAT THE EFFECTIVENESS OF FILTER SOCK IS REDUCED. COMPOST FILT SHALL REMAIN IN PLACE UNTIL DISTURBE BEEN PERMANENTLY STABILIZED. ALL SET ACCUMULATION AT THE COMPOST FILTER BE REMOVED AND PROPERLY DISPOSED OF COMPOST FILTER SOCK IS REMOVED.
ROCK CONSTRUCTION ENTRANCE	DAILY	CONTRACTOR SHALL MAINTAIN/REPLACE MATERIAL AS NEEDED THROUGHOUT CONSTRUCTION TO MAINTAIN SPECIFIED M THICKNESS DURING USE OF ACCESS ROA STOCKPILE OF ROCK WILL BE MAINTAINEE FOR THIS PURPOSE
MULCH STABILIZATION	WEEKLY AND AFTER RUNOFF EVENTS	REPLACE MULCH AS REQUIRED. RESTORE AFFECTED AREA IF NECESSARY.
TIMBER MAT	WEEKLY AND AFTER RUNOFF EVENTS	INSPECT THE TIMBER MAT FOR EROSION ANY NECESSARY REPAIRS.
WATERBARS	WEEKLY AND AFTER RUNOFF EVENTS	WATERBARS SHALL BE INSPECTED WEEKI ACTIVE ROADS) AND AFTER EACH RUNO DAMAGED OR ERODED WATERBARS SHAL TO ORIGINAL DIMENSIONS WITHIN 24 HOU INSPECTION.
PUMPED WATER FILTER BAGS	DAILY	FILTER BAGS SHALL BE REPLACED WHEN 1/2 FULL OF SEDIMENT. IF ANY PROBLE PUMPING SHALL CEASE IMMEDIATELY ANI UNTIL THE PROBLEM IS CORRECTED.
SILT FENCE	WEEKLY AND AFTER RUNOFF EVENTS	MAINTENANCE SHALL BE PERFORMED AS SEDIMENT SHALL BE REMOVED ONCE IT ACCUMULATED TO ONE THIRD THE ORIGII THE BARRIER. SILT FENCE SHALL BE REF WHENEVER IT HAS DETERIORATED TO SU THAT THE EFFECTIVENESS OF SILT FENCI SILT FENCE SHALL REMAIN IN PLACE UN AREAS HAVE BEEN PERMANENTLY STABII SEDIMENT ACCUMULATION AT THE SILT F REMOVED AND PROPERLY DISPOSED OF SILT FENCE IS REMOVED.
ALL EARTH DISTURBANCES, INCLUDING C	DIMENT CONTROL PLAN NOTES	
BE AVAILABLE AT THE PROJECT SITE AT	ALL TIMES. THE REVIEWING AGENCY SHALL TION OF THOSE CHANGES. THE REVIEWING AGE	BE NOTIFIED OF ANY CHANGES TO THE
AND/OR OPERATOR SHALL INVITE ALL C PREPARER, THE PCSM PLAN PREPARER,	ANY EARTH DISTURBANCE ACTIVITIES, INCLUDI ONTRACTORS, THE LANDOWNER, APPROPRIATE THE LICENSED PROFESSIONAL RESPONSIBLE F ND A REPRESENTATIVE FROM THE LOCAL CON	E MUNICIPAL OFFICIALS, THE E&S PLAN FOR OVERSIGHT OF CRITICAL STAGES OF
	ANY EARTH DISTURBANCE ACTIVITIES, OR EXP NC. SHALL BE NOTIFIED AT 1-800-242-1776	
	ALL PROCEED IN ACCORDANCE WITH THE SEQUENCE APPROVED IN WRITING FROM THE LOCAL	

5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OT OBJECTIONABLE MATERIAL.

PRIOR TO IMPLEMENTATION.

- 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCT SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE 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 SHO 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 E VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHAL 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 SEDIN POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROS 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
- 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 B 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.

		REVISIONS			
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	14.			ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED CONSTRUCTION	SEQUENCE:
ORMED		MAINTEN REMULCI	NANCE WORK, INCLUDING CHING AND RENETTING MU M AS EXPECTED, REPLAC	D ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, JST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO CEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REGULATORY AGENCY R	CONSTRUCTION EQUIREMENTS FO
HAS NAL HEIGHT OF IALL BE TED TO SUCH F COMPOST	15.	A LOG S AND THI	SHOWING DATES THAT EG	&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND RECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE ENCY OFFICIALS AT THE TIME OF INSPECTION. CONDITIONS ENCOUNTER	AWINGS AND TH N THIS SECTION.
ER SOCKS ED AREAS HAVE DIMENT SOCK SHALL DF BEFORE THE	16.	CONSTRU	UCTION SITE BY THE EN	PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE D OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED LL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY , OR SURFACE WATER.	NDOWNER, APPRO
	17.		DIMENT REMOVED FROM E RAWINGS.	BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE 1. LOCATE STAGING AF APPROPRIATELY SIZ 2. INSTALL ROCK CONS	ED SILT FENCE I
MINIMUM .D. A D ON SITE	18.	INCHES TO BE \	6 TO 12 INCHES ON VEGETATED SHALL HAVE	OILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 I COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING ES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL. SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL. 5. WATERBARS OR APP	OPOSED ACCESS THE PLAN SHEET TS OF DISTURBAN
SEEDING IN	19.	SUBSIDE	ENCE OR OTHER RELATED	D AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, D PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR MUST CONFORM TO	CONDITIONS. TILTER SOCKS AL THE CHART ANE
AND MAKE	20.	. ALL EAF THICKNE		PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN WETLANDS, AGRICUL 8. MINIMIZE TOTAL ARE	TURAL AREAS A EA OF DISTURBAI
LY (DAILY ON FF EVENT. L BE RESTORED IRS OF	21.	OR OBJE		OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF 9. INSTALL PIPE, BACK 10. INSTALL TRENCH PL	FILL, AND COVER
	22.		N MATERIALS OR SOFT, M ORATED INTO FILLS.	NUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE IN ACCORDANCE WIT PAVING IN ROADWAY	FINISHED GRAD
M IS DETECTED, D NOT RESUME				I SATURATED OR FROZEN SURFACES. 12. INSTALL EROSION CO PROTECTION SURFACES	ONTROL BLANKE ^T CE WATERS. LO
NEEDED, HAS NAL HEIGHT OF		WITH TH . ALL GR/ GRADE.	HE STANDARD AND SPEC ADED AREAS SHALL BE CUT SLOPES IN COMPE	13. MAINTAIN EROSION 14. REMOVE SOIL AND E 14. REMOVE SOIL AND E 14. REMOVE SOIL AND E 15. MAINTAIN EROSION 14. REMOVE SOIL AND E 15. MAINTAIN EROSION 14. REMOVE SOIL AND E 15. MAINTAIN EROSION 14. REMOVE SOIL AND E 15. MAINTAIN EROSION 16. RE—GRADE AND REV 17. MAINTAIN EROSION 18. MAINTAIN EROSION 19. MAINTAIN ERO	EROSION SEDIMEN VEGETATE AREAS
PLACED CH AN EXTENT E IS REDUCED. TIL DISTURBED LIZED. ALL	26.	DRAWING IMMEDIA PROJECT	GS, SHALL BE BLANKETE ATELY AFTER EARTH DIST T, THE OPERATOR SHALL	D ACCORDING TO THE STANDARDS OF THIS PLAN. IURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING E BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN.	GS INSTALL BYP
ENCE SHALL BE BEFORE THE		AREAS I IN ACCC NOT BE	NOT AT FINISHED GRADE ORDANCE WITH THE TEMP	TOP OF THE STREAT WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED TOP OF THE STREAT PORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL 9A. STABILIZE CHANNE YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT 9B. REMOVE BYPASS H	L EXCAVATION A
	27.	COVER (ACCELEF	OR OTHER PERMANENT N	DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ID FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO MOVEMENTS.	
WITH MUST OF	28.	PERMAN		CTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE NTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE OR THE DEPARTMENT. 8C. BORE BENEATH ST	ITS AS SHOWN I ST TOP OF BANK
	29.	ALL DIS	TURBED AREAS, THE OW	TH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF NER AND/OR OPERATOR SHALL CONTACT THE LOCAL N INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS. IF WORKING WIT	TS.
RED, Round	30.	MUST BI MANAGE BE STAE	E REMOVED OR CONVER EMENT BMPS. AREAS DI BILIZED IMMEDIATELY. IN	 N HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS TED TO PERMANENT POST CONSTRUCTION STORMWATER STURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL INSTALL ROCK CONST ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, INSTALL ORANGE FL CONSTRUCTION DRA 	DOWN SLOPE O STRUCTION ENTR AGGING AROUND WINGS.
RTMENT	31.	DISTURB		TH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION INSPECTION. . TO BE REUSED DUR	CKFILLING. ANY OM WETLAND AF
OTHER	32.	LEAVING	G THE CONSTRUCTION SIT	L E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM 6. DEWATER WORK ARE TE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO 7. INSTALL PIPE.	EA; WATER FROM
UCTION IE E		PENALTI PENNSYI \$10,000	IES BEING INSTITUTED BY 'LVANIA CLEAN STREAMS PER DAY IN CIVIL PENA	THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO LTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP 21MINAL PENALTIES FOR EACH VIOLATION 21MINAL PENALTIES FOR EACH VIOLATION	NCH. BACKFILL
SHOWN S		ALL CH	IANNELS SHALL BE KEPT	FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION 11. MAINTAIN ALL EROS ESTABLISHED. 12. REMOVE ALL SOIL A	ION AND SEDIME
BY ALL	34.	BACKFIL LINING.	LED AND THE CHANNEL ANY BASE FLOW WITHIN	IG THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE	
DIMENT ROSION T.	35.	. EROSION 50 FEET	N CONTROL BLANKETING	AN UNTIL SUCH RESTORATION IS COMPLETE. SHALL BE INSTALLED ON ALL SLOPES 3H: 1V OR STEEPER WITHIN AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN BB. TEMPORARY STREAM AND BEFORE ANY S	Y CROSSINGS OF E HABITAT IS NO M CROSSINGS SHA
/ITH IE SITE. HE	36.	PROTEC		9C. AS SOON AS THE T NRY CESSATION OF THE EARTH DISTURBANCE ACTIVITY IN A SPECIAL PORTION OF THE PROJECT SITE TRIBUTARY TO THE SPECIAL IMMEDIATELY STABILIZED.	STABILIZED. REMC
BUT	37.	PRODUC OTHER A ANALYZE	CING ROCK WILL EITHER E ACID-PRODUCING ROCK ED FOR TOTAL PERCENT	JCING ROCK IS ENCOUNTERED AT THE PROJECT SITE, THE ACID BE REMOVED FROM THE SITE OR HANDLED ONSITE. IF COAL OR MUST BE HANDLED ON SITE IS SHOULD BE SAMPLED AND SULFUR IN ACCORDANCE WITH PADEP'S GUIDANCE. ON—SITE BASED ON TESTING AND PADEP GUIDANCE.	
'ER	38.	. IF A SIN SUPERVI	NKHOLE IS ENCOUNTERED ISION OF A PROFESSION/	D, REPAIR SHOULD BE DONE UNDER THE DIRECT OBSERVATION AND AL GEOLOGIST OR LICENSED GEOTECHNICAL ENGINEER. SITE OULD BE DEVELOPED ON A CASE BY CASE BASIS.	
			REGISTERED	SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA	1-2

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A Manual Contraction
ONWEAT
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ROBERT F. SIMCIK
Engineer
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MATEN

PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

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WINGS FOR THE LOCATION OF THE PROPOSED WORK AND THE ASSOCIATED BMPS. A GENERALIZED CONSTRUCTION SEQUENCE IS UCTION SEQUENCE IS INTENDED TO PROVIDE A GENERAL COURSE OF ACTION IN ORDER TO CONFORM TO THE APPLICABLE IENTS FOR TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROLS. NECESSARY PARTS FOR PROPER AND PERTAINING TO THIS PLAN, WHETHER SPECIFICALLY MENTIONED OR NOT, ARE TO BE PERFORMED BY THE CONTRACTOR. IT IS NOT AND THIS REPORT SHOW DETAILED INFORMATION ON METHODS AND MATERIALS. THE CONTRACTOR SHALL COMPLY WITH ALL SECTION. THE CONTRACTOR MAY BE REQUIRED TO ALTER CONTROLS BASED ON EFFECTIVENESS OF CONTROLS OR DIFFERING HE FIELD.

S REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE OWNER AND/OR OPERATOR SHALL INVITE ALL APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, AND A REPRESENTATIVE FROM THE LOCAL PADEP OR ON-SITE PRECONSTRUCTION MEETING AT LEAST SEVEN DAYS IN ADVANCE.

ID ACCESS POINTS INCLUDING CONSTRUCTION ENTRANCES. INSTALL COMPOST FILTER SOCKS DOWN SLOPE OF THESE AREAS. FENCE IS AN APPROVED ALTERNATIVE IN AREAS THAT ARE NOT SPECIAL PROTECTION WATERSHEDS. IN ENTRANCES AS NEEDED. REFER TO THE ROCK CONSTRUCTION ENTRANCE DETAIL ON DRAWINGS FOR SUGGESTED DIMENSIONS. ACCESS ROAD AND IMPLEMENT TEMPORARY IMPROVEMENTS TO ACCESS ROADS AS IDENTIFIED IN ACCESS ROAD SUMMARY TABLE SHEETS.

STURBANCE AND CLEAR VEGETATION ALONG THE PIPELINE ROUTE. NTERCEPTOR DYKES WILL BE INSTALLED ALONG THE ALIGNMENT PRIOR TO PIPE INSTALLATION AS NEEDED BASED ON INSTALLATION

OCKS ALONG THE PERIMETERS OF THE SITE AS SHOWN ON THE CONSTRUCTION DRAWINGS. INSTALLATIONS SIZING, AND SPACING ART AND DETAILS PROVIDED ON PLAN SHEET ES-0.07.

CH AREA (WHERE REQUIRED) AND STOCKPILE WITHIN THE RIGHT-OF-WAY IN ACCORDANCE WITH THE DETAILS PROVIDED. IN AREAS AND RESIDENTIAL AREAS ADDITIONAL TOPSOIL STRIPPING AND STOCKPILING MIGHT BE REQUIRED. ISTURBANCE. MAINTAIN TEMPORARY SOIL STOCKPILES WITHIN EXISTING SOIL EROSION AND SEDIMENT CONTROLS. SHOULD IS, FOLLOW SPECIFIC DETAILS FOR THESE AREAS SHOWN ON THE DRAWINGS AND INCLUDE THE STEPS DETAILED IN THE SPECIFIC

ND COVER WITH TOPSOIL (WHERE TOPSOIL WAS SEGREGATED).

ACCORDANCE WITH THE DETAIL ON DRAWING ES-0.08.

ED GRADE ELEVATIONS AS SOON AS PRACTICABLE FOLLOWING COMPLETION OF PIPE INSTALLATION. REPAIR OR INSTALL WATERBARS DETAIL FOR PERMANENT WATERBARS ON PLAN SHEET ES-0.07. IMMEDIATELY SEED AND MULCH DISTURBED AREAS OR PREPARE FOR

BLANKET ON ALL SLOPES 3:1 OR STEEPER AND WITHIN 100 FEET OF SPECIAL PROTECTION WATERS OR 50 FEET OF NON SPECIAL ERS. LOCATIONS ARE SHOWN ON PLAN SHEETS.

DIMENTATION CONTROL DEVICES UNTIL SITE WORK IS COMPLETE AND A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED. SEDIMENT CONTROL MEASURES UPON ESTABLISHMENT OF A UNIFORM 70% VEGETATIVE COVER OVER THE DISTURBED AREA. AREAS DISTURBED DURING THE REMOVAL OF THE SOIL EROSION AND SEDIMENT CONTROLS.

NGS THAT WILL BE OPEN CUT, THE FOLLOWING STEPS SHALL BE INSERTED IN THE ION SEQUENCE ABOVE, BASED ON THE NUMBERING PROVIDED:

ALL BYPASS HOSE, PUMP, OR COFFERDAM AS DESCRIBED IN STREAM CROSSING DETAILS AROUND THE WORK AREA. ATER FROM THE EXCAVATION SHALL BE PUMPED TO A SEDIMENT FILTER BAG. WHERE POSSIBLE, EXCAVATION SHALL BE FROM THE

, WHERE TECHNICALLY FEASIBLE. ATION AND STREAM BANKS PRIOR TO REDIRECTING STREAM FLOW

MP, AND TEMPORARY DAM AS NEEDED. REPEAT STEPS 3-10 FOR EACH WORK AREA.

IGS THAT WILL BE BORED, THE FOLLOWING STEPS SHALL BE INSERTED IN THE GENERAL ENCE ABOVE, BASED ON THE NUMBERING PROVIDED:

SOCKS DOWNGRADIENT OF THE BORE PIT.

SHOWN IN THE TEMPORARY STREAM CROSSING DETAIL ON PLAN SHEET ES-0.11. BORE PITS WILL BE LOCATED A MINIMUM OF 50' OF BANK, WHERE TECHNICALLY FEASIBLE.

WHERE INDICATED ON THE CONSTRUCTION DRAWINGS USING A HORIZONTAL DIRECTIONAL BORING MACHINE.

WETLAND AREA. FOLLOW THE GENERALIZED CONSTRUCTION SEQUENCE BELOW:

ND ACCESS POINTS. STAGING AREAS SHOULD BE LOCATED AT LEAST 50 FEET FROM THE EDGE OF THE WETLAND. INSTALL SLOPE OF THESE AREAS. ON ENTRANCE AS NEEDED. REFER TO THE ROCK CONSTRUCTION ENTRANCE DETAIL ON DRAWINGS FOR SUGGESTED DIMENSIONS. AROUND PERIMETER OF WETLAND AND SEDIMENT BARRIERS ALONG THE PERIMETERS OF THE SITE AS SHOWN ON THE

EVICES SHALL BE USED DURING THE CROSSINGS OF WETLANDS. ORIGINAL GRADES THROUGH WETLANDS MUST BE RESTORED AFTER IG. ANY EXCESS FILL MATERIALS MUST BE REMOVED FROM THE WETLAND AND NOT SPREAD ON-SITE. AND AREAS SHALL BE CAREFULLY REMOVED WITH THE ROOTS INTACT. THIS SOIL SHOULD BE PLACED IN A SEPARATE STOCKPILE WETLAND SURFACE RESTITUTION.

ER FROM THE EXCAVATION SHALL BE PUMPED TO A SEDIMENT TRAP OR A FILTER BAG.

WETLAND AREAS TO PREVENT THE TRENCH FROM DRAINING THE WETLAND OR CHANGING ITS HYDROLOGY.

ACKFILL THE TOP 12-INCHES OF THE EXCAVATED TRENCH WITH THE STOCKPILED WETLAND SOIL TO MATCH ORIGINAL SURFACE

RADE THE SURFACE OF THE TRENCH AREA TO ALLOW FOR POSITIVE DRAINAGE TO SOIL EROSION AND SEDIMENT CONTROLS AND TO FOR PERMANENT TRENCH RESTORATION.

SEDIMENTATION CONTROL DEVICES UNTIL SITE WORK IS COMPLETE AND A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS

SION SEDIMENT CONTROL MEASURES UPON ESTABLISHMENT OF A UNIFORM 70% VEGETATIVE COVER OVER THE DISTURBED AREA. AREAS DISTURBED DURING THE REMOVAL OF THE SOIL EROSION AND SEDIMENT CONTROLS.

IPMENT STREAM AND WETLAND CROSSINGS, FOLLOW THE GENERALIZED

ENCE BELOW:

INGS OF WETLANDS AND STREAMS IN ACCORDANCE E&: S DETAILS ON SHEETS ES-0.08 AND ES-0.10. ACCESS INTO WETLANDS WITH T IS NOT PERMITTED. INGS SHALL BE INSPECTED ON A DAILY BASIS. DAMAGED CROSSINGS SHALL BE REPAIRED WITHIN 24 HOURS OF THE INSPECTION

ENT USE. SEDIMENT DEPOSITS ON THE CROSSING OR ITS APPROACHES SHALL BE REMOVED WITHIN 24 HOURS OF THE INSPECTION. RY CROSSING IS NO LONGER NEEDED, REMOVE TEMPORARY EQUIPMENT CROSSING. ALL MATERIALS SHALL BE DISPOSED OF PROPERLY AND ED. REMOVE ALL SOIL AND EROSION SEDIMENT CONTROL MEASURES UPON ESTABLISHMENT OF A UNIFORM 70% VEGETATION COVER OVER

-20" & 1-16" PROPOSED WELDED STEEL NATURAL GAS LIQUIDS PIPELINES	DATE:	3/18/16
	PROJECT NO .:	112C05958
	DESIGNED BY:	JB
	DRAWN BY:	BH
	CHECKED BY:	RS
CHESTER COUNTY CONSERVATION DISTRICT	COPYRIGHT TETR	A TECH INC.
EROSION & SEDIMENT CONTROL NOTES		
	SHEET 0.06	OF 93

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TEMPORARY SEEDING

TEMPORARY GRASS COVER SHALL BE ESTABLISHED IN THE FOLLOWING AREAS:

1. WHERE SOIL STOCKPILES ARE TO BE EXPOSED FOR A PERIOD GREATER THAN FOUR (4) DAYS, THE STOCKPILE SHALL BE SEEDED.

- 3

2. WHERE VEGETATIVE FILTERS MUST BE ESTABLISHED BELOW FILTER BAGS, A MINIMUM DISTANCE OF 10 FT SHALL BE SEEDED DOWN SLOPE OF THE TRAP OUTLET.

TEMPORARY COVER

SEED MIXTURE FOR TEMPORARY COVER SHALL CONSIST OF 100% ANNUAL RYEGRASS. SEED SHALL BE APPLIED AT THE RATE OF 40 LB/ACRE OR AS RECOMMENDED BY A LOCAL RECOGNIZED SEED SUPPLIER APPROVED BY THE OWNER'S REPRESENTATIVE. PRIOR TO SEEDING, APPLY 1 TON OF AGRICULTURAL GRADE LIMESTONE PER ACRE PLUS 10-10-10 FERTILIZER AT THE RATE OF 500 LB. PER ACRE AND WORK INTO SOIL.

<u>MULCHING</u>

C

THE PURPOSE OF MULCH IS TO REDUCE RUNOFF AND EROSION, PREVENT SURFACE COMPACTION OR CRUSTING, CONSERVE MOISTURE, AID IN ESTABLISHING PLANT COVER, AND CONTROL WEEDS. MULCH SHALL BE APPLIED ON ANY AREA SUBJECT TO EROSION, OR WHICH HAS UNFAVORABLE CONDITIONS FOR PLANT ESTABLISHMENT AND GROWTH. THE PRACTICE MAY BE USED ALONE OR IN CONJUNCTION WITH OTHER STRUCTURAL AND VEGETATIVE CONSERVATION PRACTICES, SUCH AS WATERWAYS, PONDS, SEDIMENTATION TRAPS OR CRITICAL AREA PLANTING. ON SEDIMENT PRODUCING AREAS WHERE THE PERIOD OF EXPOSURE IS LESS THAN TWO (2) MONTHS, MULCH MATERIALS SHALL BE APPLIED ACCORDING TO THE FOLLOWING GUIDELINES:

- 1. STRAW MULCH SHALL BE APPLIED AT THE RATE OF THREE TONS PER ACRE. CHEMICALLY TREATED OR SALTED STRAW IS NOT ACCEPTABLE AS MULCH.
- 2. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION BY AT LEAST ONE OF THE FOLLOWING METHODS. A. "CRIMPED" INTO THE SOIL USING TRACTOR DRAWN EQUIPMENT (STRAIGHT BLADED COULTER OR SIMILAR).
 - THIS METHOD IS LIMITED TO SLOPES NO STEEPER THAN 3:1. MACHINERY SHOULD BE OPERATED ON THE CONTOUR. (CRIMPING OF HAY OR STRAW BY RUNNING IT OVER WITH TRACKED MACHINERY IS NOT RECOMMENDED)
- B. ASPHALT, EITHER EMULSIFIED OR CUT-BACK, CONTAINING NO SOLVENTS OR OTHER DILUTING AGENTS TOXIC TO PLANT OR ANIMAL LIFE, UNIFORMLY APPLIED AT THE RATE OF 31 GALLONS PER 1000 FT2.
- C. SYNTHETIC BINDERS (CHEMICAL BINDERS) MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THAT IT IS NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
- D. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

MULCHED AREAS SHALL BE CHECKED PERIODICALLY AND AFTER EACH RUNOFF EVENT (E.G. RAIN, SNOWMELT, ETC) FOR DAMAGE UNTIL THE DESIRED PURPOSE OF THE MULCHING IS ACHIEVED. DAMAGED PORTIONS OF THE MULCH OR TIE-DOWN MATERIAL SHALL BE REPAIRED UPON DISCOVERY.

			REVISIONS	
	NO.	ΒY	DATE	REMARKS
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REVEGETATION

LIMING RATES

MINIMUM 6 TONS PER ACRE AT 100% EFFECTIVE NEUTRALIZING VALUE (% ENV), UNLESS THE SOIL TEST DETERMINES THAT A LESSER AMOUNT IS NEEDED. TO DETERMINE THE ACTUAL AMOUNT OF REGULAR LIME TO APPLY, DIVIDE THE AMOUNT CALLED FOR BY THE SOIL TEST BY THE % ENV FOR THE PRODUCT USED. FOR EXAMPLE, IF 6 TONS PER ACRE IS NEEDED AND THE ENV FOR THE LIME USED IS 88%, DIVIDE 6 BY 0.88 RESULTING IN 6.8 TONS NEEDING TO BE APPLIED. FOR DOLOMITIC LIME. WHICH HAS A SIGNIFICANT AMOUNT OF MAGNESIUM IN IT. DIVIDE THE AMOUNT CALLED FOR BY THE SOIL TEST BY THE % CALCIUM CARBONATE EQUIVALENT (% CCE) LISTED FOR THE PRODUCT INSTEAD OF

-5

6

THE % ENV. THE % CCE MAY BE ABOVE 100% WHICH ACCOUNTS FOR THE FACT THAT MAGNESIUM HAS A GREATER EFFECT PER POUND THAN THE CALCIUM IN REGULAR LIME. NOTE: WHEN A SOIL TEST REQUIRES MORE THAN 8,000 POUNDS OF LIME PER ACRE, THE LIME MUST BE MIXED INTO THE TOP 6 INCHES OF SOIL.

FERTILIZATION RATES

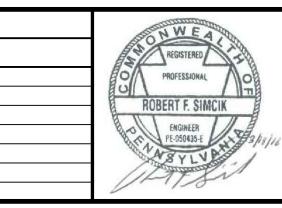
APPLY 10-20-20 AT 600 POUNDS/ACRE, IF TOP DRESSED OR 1,000 POUNDS/AC, IF INCORPORATED, UNLESS THE SOIL TEST DETERMINES THAT THE RATE CAN BE LESS THAN THESE MINIMUMS.

SOIL AMENDMENT APPLICATION RATE EQUIVALENTS					
SOIL AMENDMENT	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YDS.	NOTES	
PERMANENT SEEDING APPLICATION RATE					
AGRICULTURAL LIME	6 TONS	240 LBS.	2,480 LBS.	OR AS PER SOIL TEST; MAY NOT BE	
				REQUIRED IN AGRICULTURAL FIELDS	
10-20-20 FERTILIZER	1,000 LBS.	25 LBS.	210 LBS.	OR AS PER SOIL TEST; MAY NOT BE	
				REQUIRED IN AGRICULTURAL FIELDS	

RECOMMENDED SEED MIXTURES						
MIXTURE NO.	SPECIES	SEEDING RATES - PLS(1)				
		MOST SITES	ADVERSE SITES			
1 (2)	SPRING OATS (SPRING), OR 64 96	64	96			
	ANNUAL RYEGRASS (SPRING OR FALL), OR	10	15			
	WINTER WHEAT (FALL), OR	90	120			
	WINTER RYE (FALL)	56	112			
2 (3)	TALL FESCUE, OR 75	60	75			
	FINE FESCUE, OR 40	35	40			
	KENTUCKY BLUEGRASS, PLUS 25 30	25	30			
	REDTOP(4), OR	3	3			
	PERENNIAL RYEGRASS	15	20			
3	BIRDSFOOT TREFOIL, PLUS 6 10	6	10			
	TALL FESCUE	30	35			
4	BIRDSFOOT TREFOIL, PLUS	6	10			
	REED CANARYGRASS	10	15			
5 (5)	CROWNVETCH, PLUS	10	15			
	TALL FESCUE, OR	20	25			
	PERENNIAL RYEGRASS	20	25			
6 (5,6)	CROWNVETCH, PLUS	10	15			
	ANNUAL RYEGRASS	20	25			
7 (5)	BIRDSFOOT TREFOIL, PLUS	20	30			
	CROWNVETCH, PLUS	20	30			
	TALL FESCUE	20	25			
8	FLATPEA, PLUS	20	30			
	TALL FESCUE, OR	20	30			
	PERENNIAL RYEGRASS	20	25			
9 (7)	SERECIA LESPEDEZA, PLUS	10	20			
	TALL FESCUE, PLUS	20	25			
	REDTOP(4)	3	3			
10	TALL FESCUE, PLUS	40	60			
	FINE FESCUE	10	15			
11	DEERTONGUE, PLUS	15	20			
	BIRDSFOOT TREFOIL	6	10			
12(8)	SWITCHGRASS, OR	15	20			
	BIG BLUESTEM, PLUS	15	20			
	BIRDSFOOT TREFOIL	6	10			
13	ORCHARDGRASS, OR	20	30			
-	SMOOTH BROMEGRASS, PLUS	25	35			
	BIRDSFOOT TREFOIL	6	10			

NOTES:

- 1. PURE LIVE SEED (PLS) IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. FOR EXAMPLE, TO SECURE THE ACTUAL PLANTING RATE FOR SWITCHGRASS, DIVIDE 12 POUNDS PLS SHOWN ON THE SEED TAG. THUS, IF THE PLS CONTENT OF A GIVEN SEED LOT IS 35 PERCENT, DIVIDE 12 PLS BY 0.35 TO OBTAIN 34.3 POUNDS OF SEED REQUIRED TO PLANT ONE-ACRE. ALL MIXTURES IN THIS TABLE ARE SHOWN IN TERMS OF PLS.
- 2. IF HIGH-QUALITY SEED IS USED, FOR MOST SITES SEED SPRING OATS AT A RATE OF TWO BUSHELS PER ACRE, WINTER WHEAT AT 11.5 BUSHELS PER ACRE, AND WINTER RYE AT ONE BUSHEL PER ACRE. IF GERMINATION IS BELOW 90 PERCENT, INCREASE THESE SUGGESTED SEEDING RATES BY 0.5 BUSHEL PER ACRE.
- 3. THIS MIXTURE IS SUITABLE FOR FREQUENT MOWING. DO NOT CUT SHORTER THAN FOUR INCHES.
- 4. KEEP SEEDING RATE TO THAT RECOMMENDED IN TABLE. THESE SPECIES HAVE MANY SEEDS PER POUND AND ARE VERY COMPETITIVE. TO SEED SMALL QUANTITIES OF SMALL SEEDS SUCH AS WEEPING LOVEGRASS AND REDTOP, DILUTE WITH DRY SAWDUST, SAND, RICE HULLS, BUCKWHEAT HULLS, ETC.
- 5. SEED MIXTURES CONTAINING CROWN VETCH SHOULD NOT BE USED IN AREAS ADJACENT TO WETLANDS OR STREAM CHANNELS DUE TO THE INVASIVE NATURE OF THIS SPECIES. 6. USE FOR HIGHWAY SLOPES AND SIMILAR SITES WHERE THE DESIRED SPECIES AFTER
- ESTABLISHMENT IS CROWNVETCH. 7. USE ONLY IN EXTREME SOUTHEASTERN OR EXTREME SOUTHWESTERN PA. SERECIA LESPEDEZA
- IS NOT WELL ADAPTED TO MOST OF PA. 8. DO NOT MOW SHORTER THAN NINE TO 10 INCHES.



SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA

PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

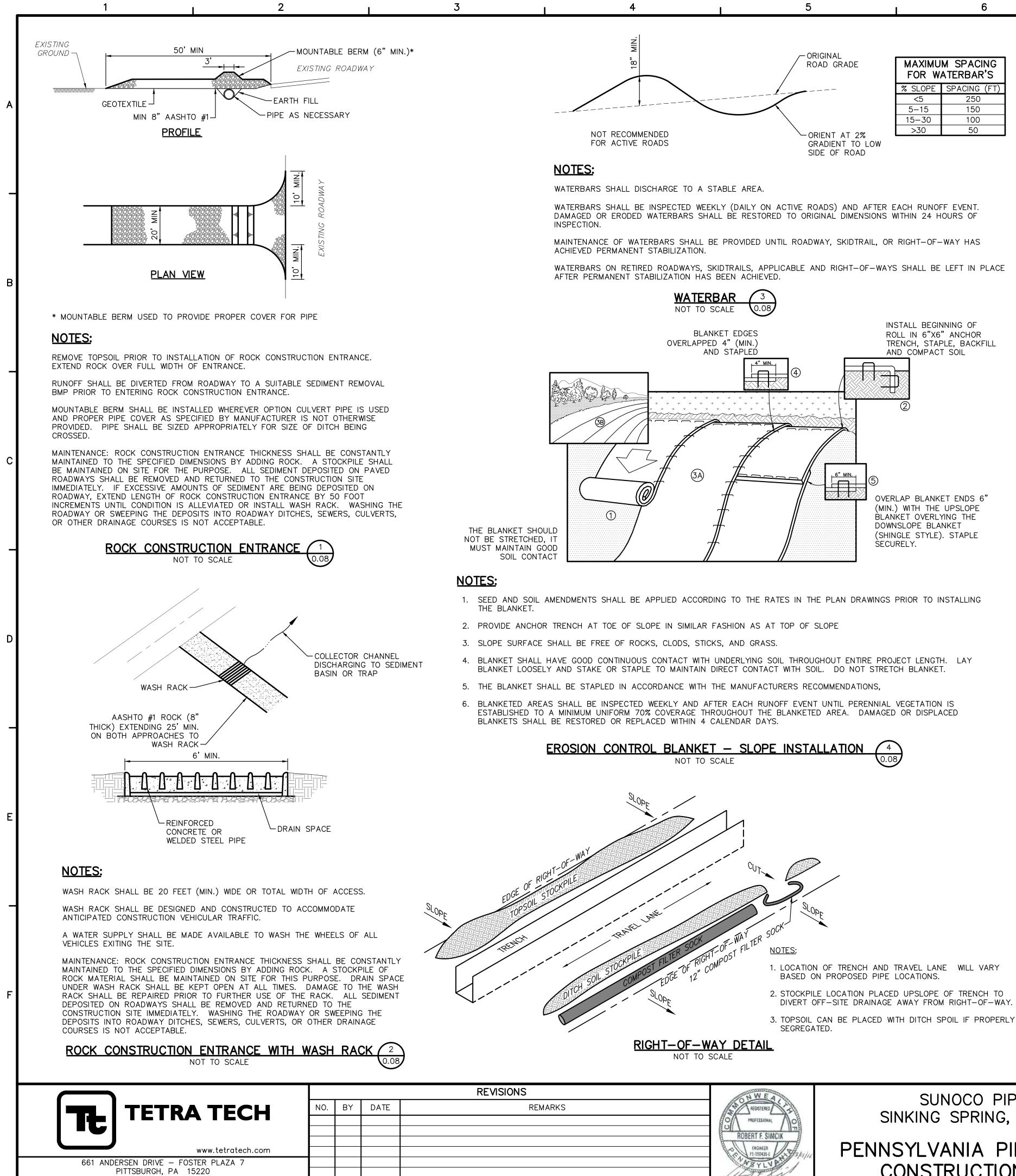
SITE CONDITIONS	NURSE CROP	SEED MIXTURE (SELECT ONE MIXTURE)			
SLOPES AND BANKS (NOT MOWED)	NUNJE UNUF	SELD WIXTORE (SELECT ONE WIXTORE)			
WELL-DRAINED	1 PLUS	3, 5, 8, OR 12 (1)			
VARIABLE DRAINAGE	1 PLUS	3, 0, 0, 0, 12 (1) 3 OR 7			
SLOPES AND BANKS (MOWED)	I FLUS	5 01 7			
WELL-DRAINED	1 PLUS	2 OR 10			
SLOPES AND BANKS (GRAZED/HAY)	T T LOS	2 611 10			
WELL-DRAINED	1 PLUS	2,3, OR 13			
GULLIES AND ERODED AREAS	1 PLUS	3, 5, 7, OR 12 (1)			
EROSION CONTROL FACILITIES (BMPS)	I FLUS	3, 3, 7, 0 1 (1)			
SOD WATERWAYS, SPILLWAYS, FREQUENT WATER FLOW AREAS	1 PLUS	2, 3, OR 4			
DRAINAGE DITCHES	I FLUS	2, 3, 01 +			
SHALLOW, LESS THAN THREE FEET DEEP	1 PLUS	2, 3, OR 4			
DEEP, NOT MOWED	1 PLUS	5 OR 7			
POND BANKS, DIKES, LEVEES, DAMS, DIVERSION CHANNELS,	I FLUS	5 61 7			
AND OCCASIONAL WATER FLOW AREAS					
MOWED AREAS	1 PLUS	2 OR 3			
NON-MOWED AREAS	1 PLUS	5 OR 7			
FOR HAY OR SILAGE ON DIVERSION CHANNELS AND	I FLUS	5 01 7			
OCCASIONAL WATER FLOW AREAS	1 PLUS	3 OR 13			
HIGHWAYS (2)	I FLUS	3 61 13			
NON-MOWED AREAS					
PURE CROWNVETCH3	1 PLUS	5 OR 6			
WELL-DRAINED	1 PLUS	5, 7, 8, 9, OR 10			
VARIABLE DRAINED	1 PLUS	3 OR 7			
POORLY DRAINED	1 PLUS	3 OR 9			
AREAS MOWED SEVERAL TIMES PER YEAR	1 PLUS	2, 3, OR 10			
UTILITY ROW	11203	2, 3, 50 10			
WELL-DRAINED	1 PLUS	5, 8, OR 12 (1)			
VARIABLE DRAINED	1 PLUS	3 OR 7			
WELL-DRAINED AREAS FOR GRAZING/HAY	1 PLUS	2, 3, OR 13			
EFFLUENT DISPOSAL AREAS	1 PLUS	3 OR 4			
SANITARY LANDFILLS	1 PLUS	3, 5, 7, 11 (1), OR 12 (1)			
SURFACE MINES	11205	3, 3, 7, 11 (1), 30 12 (1)			
SPOILS, MINE WASTES, FLY ASH, SLAG, SETTLING BASIN	1 PLUS	3, 4, 5, 7, 8, 9,11 (1) OR 12(1)			
RESIDUES AND OTHER SEVERELY DISTURBED AREAS (LIME TO	11203	0, +, 0, 7, 0, 0, 1, (1)			
SOIL TEST)					
SEVERELY DISTURBED AREAS FOR GRAZING/HAY	1 PLUS	3 OR 13			
· · · · · · · · · · · · · · · · · · ·	1 1 203	5 01 15			
NOTES:					
1. FOR SEED MIXTURES 11 AND 12, ONLY USE SPRING OATS OR WEEPING LOVEGRASS (INCLUDED IN MIX) AS NURSE CROP.					

MULCH APPLICATION RATES				
	AP	PPLICATION RATE (MINIMUM)		
MULCH TABLE	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YDS.	NOTES
STRAW	3 TONS	140 LBS.	1,240 LBS.	EITHER WHEAT OR OAT STRAW, FREE
				OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LBS.	1,240 LBS.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR
				OTHER NATIVE FORAGE GRASSES
WOODCHIPS	4 TO 6 TONS	185 TO 275 LBS.	1,650 TO 2,500 LBS.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 LBS.	415 LS.	SEE LIMITATIONS ABOVE

8	9		10

2. CONTACT THE PA DEPARTMENT OF TRANSPORTATION DISTRICT ROADSIDE SPECIALIST FOR SPECIFIC SUGGESTIONS ON TREATMENT TECHNIQUES AND MANAGEMENT PRACTICES. 3. SEED MIXTURES CONTAINING CROWN VETCH SHOULD NOT BE USED IN AREAS ADJACENT TO WETLANDS OR STREAM CHANNELS DUE TO THE INVASIVE NATURE OF THIS SPECIES.

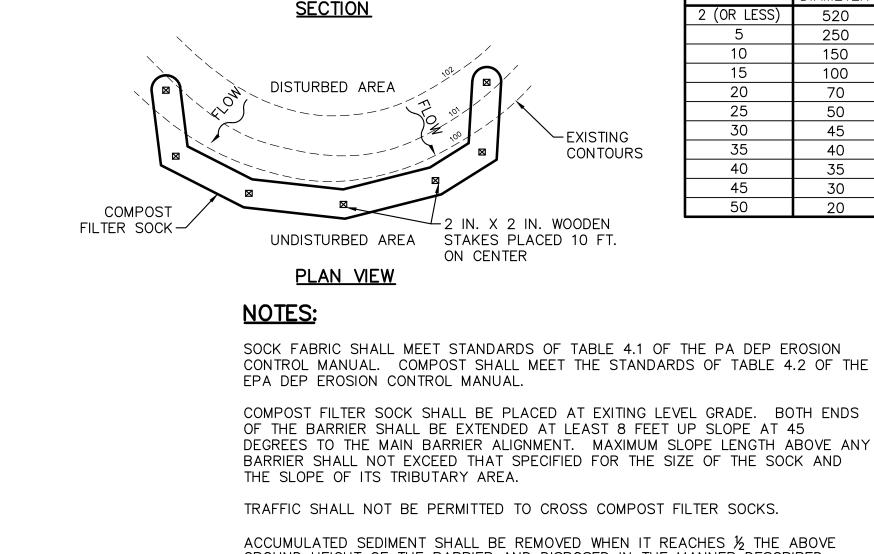
-20" & 1–16" PROPOSED WELDED STEEL NATURAL GAS LIQUIDS PIPELINES	DATE:	3/18/16
	PROJECT NO .:	112C05958
	DESIGNED BY:	JB
	DRAWN BY:	BH
	CHECKED BY:	RS
CHESTER COUNTY CONSERVATION DISTRICT	COPYRIGHT TETRA	A TECH INC.
CHESTER COUNTY CONSERVATION DISTRICT	ES-0	.07
SEEDING SPECIFICATIONS	SHEET 0.07	OF 93
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T: (412) 921-7090 | F: (412) 921-4040

MAXIMUM SPACING FOR WATERBAR'S			
% SLOPE	SPACING (FT)		
<5	250		
5–15	150		
15-30	100		
>30	50		

- DIVERT OFF-SITE DRAINAGE AWAY FROM RIGHT-OF-WAY.
- - - PHOTODEGRADABLE AND BIODEGRADABLE SOCKS S



COMPOST FILTER SOCK-

BLOWN/PLACED FILTER MEDIA-

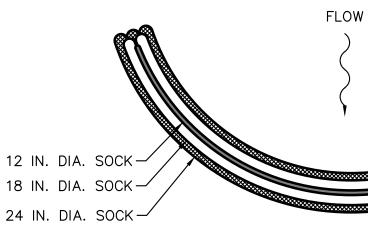
DISTURBED AREA

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES % THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER SOCK SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S

-2 IN. X 2 IN. WOODEN STAKES

PLACED 10 FT. ON CENTER

UNDISTURBED AREA



24 IN. DIA. SOCK-

DESIGN NOTES:



<u>PLAN V</u>

1. COMPOST SEDIMENT TRAP SHALL BE SIZED T

- MINIMUM BASE WIDTH IS EQUAL TO THE HEIGH
- 3. SEDIMENT ACCUMULATION SHALL NOT EXCEED
- 4. SOCKS SHALL BE OF LARGER DIAMETER AT T
- 5. ENDS OF THE TRAP SHALL BE A MINIMUM OF

NOTES:

SOCK MATERIAL SHALL MEET THE STANDARDS OF DEP EROSION CONTROL MANUAL.

COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCE ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE THE LOWER SIDE OF THE TRAP.

COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE FOR ANTICIPATED SETTLEMENT.)

THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0

COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPEC SOCKS.

SUNOCO PIPELINE L.P. SINKING SPRING, PENNSYLVANIA

PENNSYLVANIA PIPELINE PROJECT CONSTRUCTION SPREAD 6

UNDISTURBED			
STAKING VIEW			
PROVIDE 2000 CUBIC FEET OF STORAGE CAPACITY FOR EACH ACRE TRIBUTARY TO THE TRAP.			
HT.			
沒 THE TOTAL HEIGHT OF THE TRAP.			
THE BASE OF THE TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS AS SHOWN ON THE PL	AN VIEW.		
1 FOOT HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE LOCATED AT THE POINT OF	DISCHARGE.		
TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF	TABLE 4.2 OF THE PA		
ED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS 1AY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG			
2,000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER			
ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.			
CTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN IT REACHES $rak{k}$ THE HEIGHT OF THE			
HALL NOT BE USED FOR MORE THAN 1 EYAR.			
COMPOST SOCK SEDIMENT TRAP 6 NOT TO SCALE 0.08			
-20" & 1-16" PROPOSED WELDED STEEL NATURAL GAS LIQUIDS PIPELINES	DATE: 3/18/16		
	PROJECT NO.: 112C05958		
CHESTER COUNTY CONSERVATION DISTRICT	DESIGNED BY: JB DRAWN BY: BH		
EROSION & SEDIMENT CONTROL &	CHECKED BY: RS		
	COPYRIGHT TETRA TECH INC.		
SITE RESTORATION DETAILS	ES-0.08		
SHEET 1 OF 3	SHEET 0.08 OF 93		
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SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATION OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

12 IN.

ABOVE SOCK

COMPOST FILTER SOCK

NOT TO SCALE

THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

-EXISTING

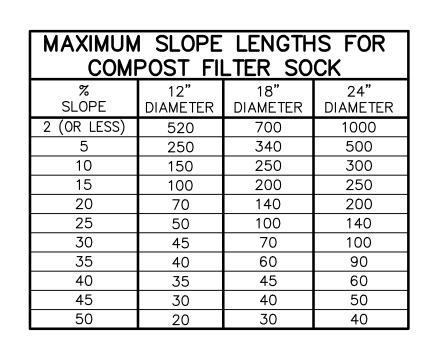
IN. X 2 IN. WOODEN

STAKES PLACED 10 FT.

ON CENTER

CONTOURS

REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



-(2)-2 IN. X 2 IN. X 72 IN. HARDWOOD

STAKE, WRAPPED TOGETHER WITH 16

-2 IN. X 2 IN. X 60 IN. HARDWOOD

STAKE, 10 FT. O.C. STARTING 5 FT.

-2 IN. X 2 IN. X 42 IN. HARDWOOD

-BLOWN/PLACED FILTER MEDIA

STAKE, 10 FT. O.C. STARTING 5 FT.

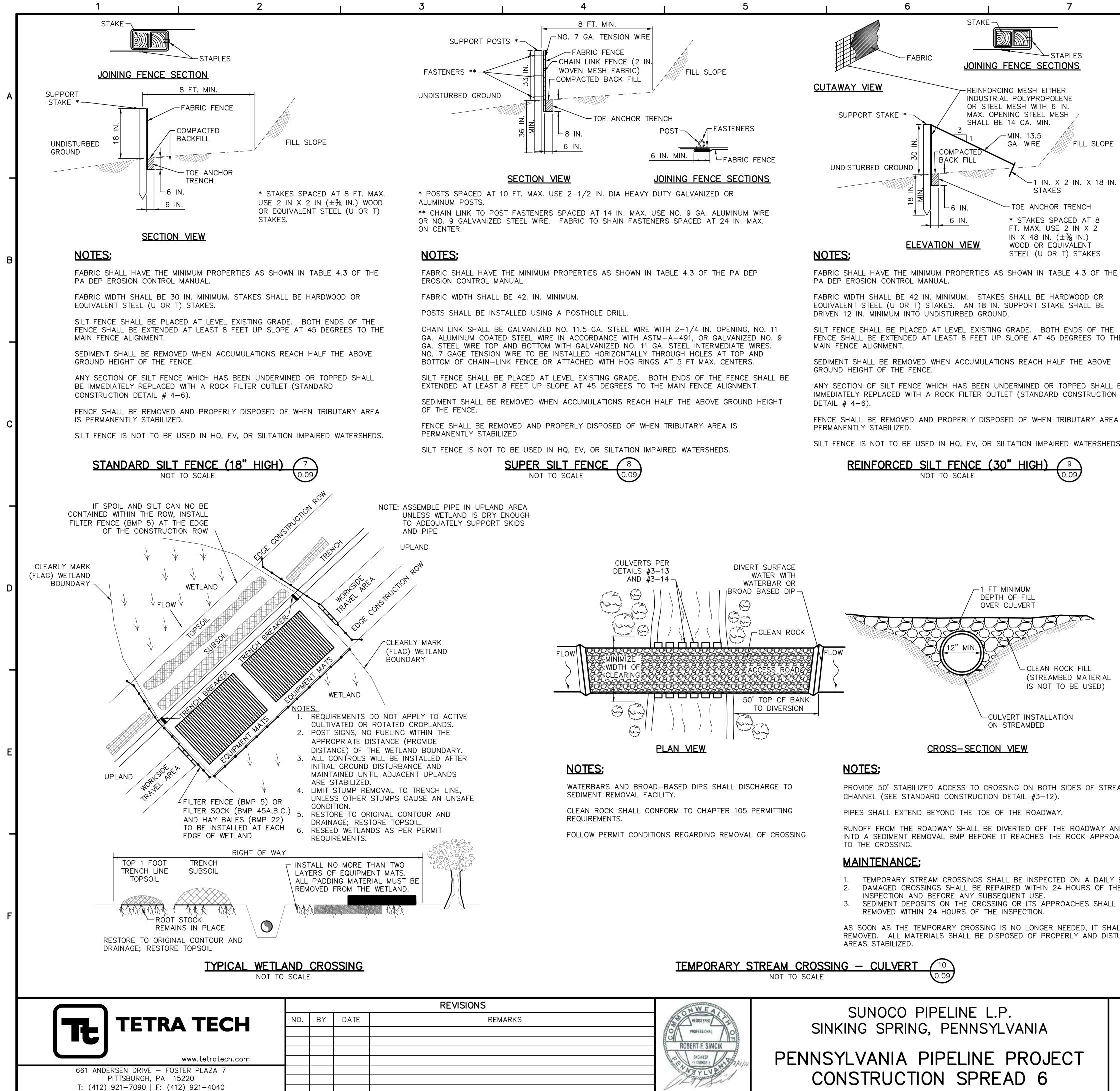
- REMOVE BRUSH AND WOODY DEBRIS

GA. WIRE, 10 FT. O.C.

FROM ANGLED STAKES

FROM ANGLED STAKES

18" NIN



FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS

SILT FENCE IS NOT TO BE USED IN HQ, EV, OR SILTATION IMPAIRED WATERSHEDS

PROVIDE 50' STABILIZED ACCESS TO CROSSING ON BOTH SIDES OF STREAM

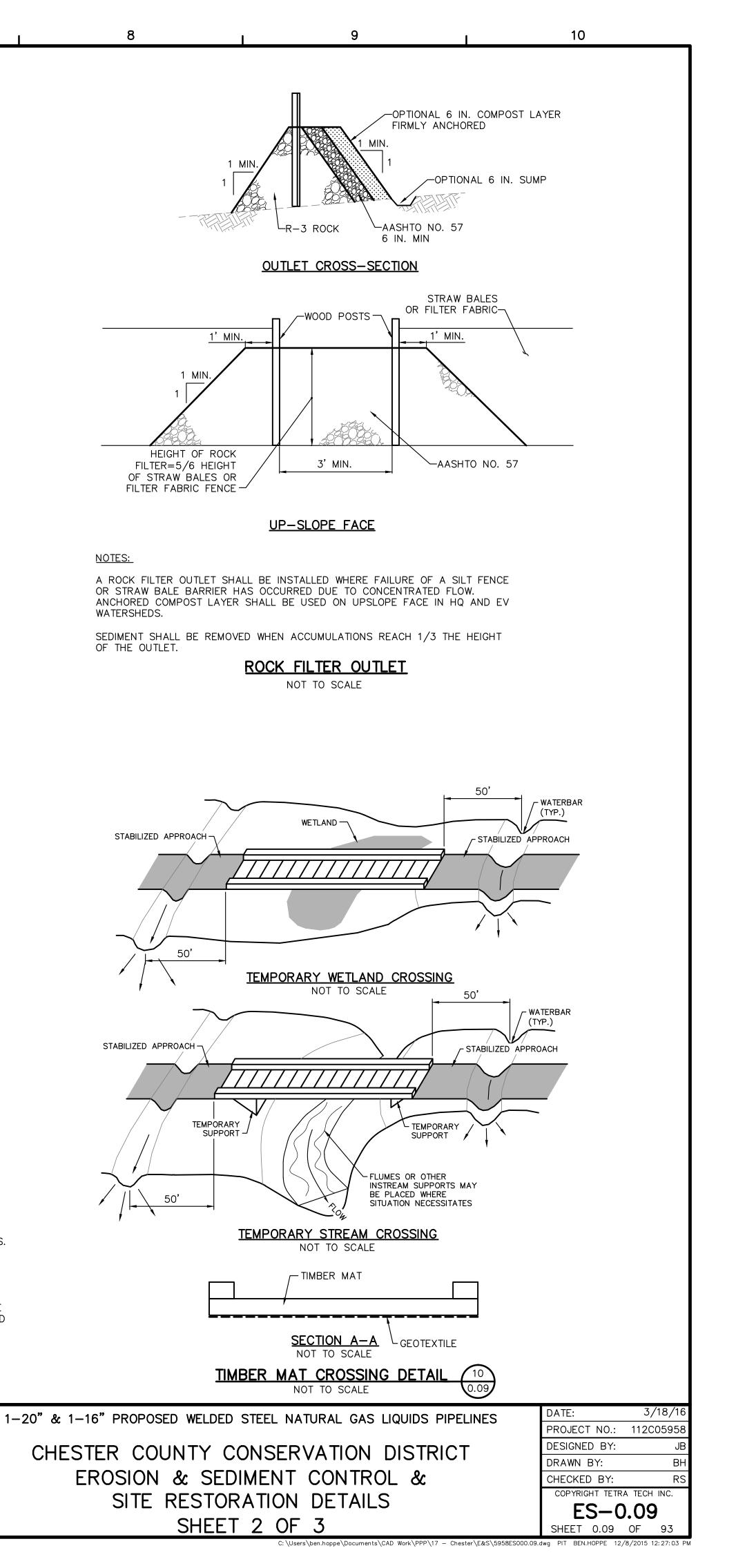
RUNOFF FROM THE ROADWAY SHALL BE DIVERTED OFF THE ROADWAY AND INTO A SEDIMENT REMOVAL BMP BEFORE IT REACHES THE ROCK APPROACH

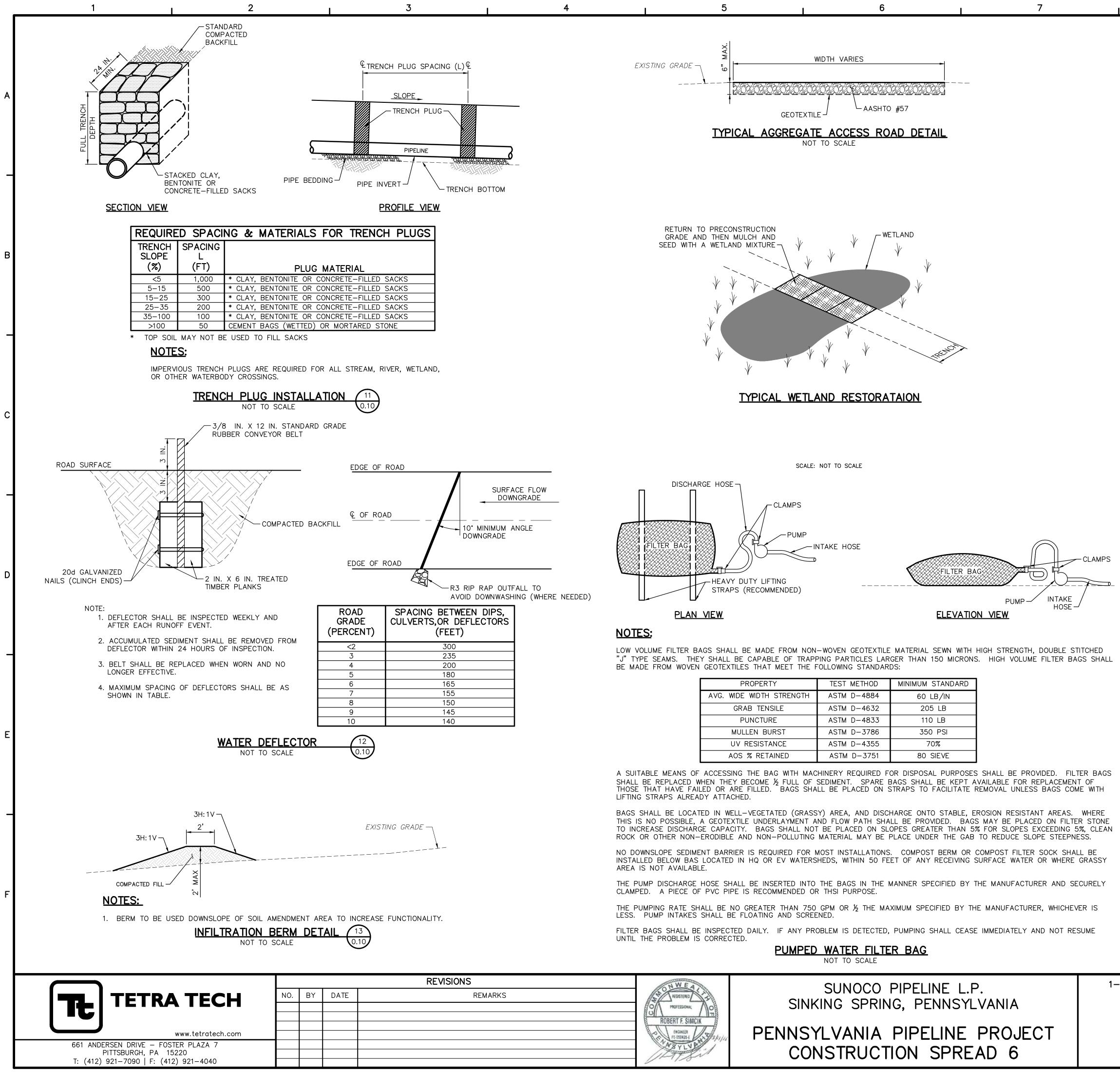
- TEMPORARY STREAM CROSSINGS SHALL BE INSPECTED ON A DAILY BASIS. DAMAGED CROSSINGS SHALL BE REPAIRED WITHIN 24 HOURS OF THE
- SEDIMENT DEPOSITS ON THE CROSSING OR ITS APPROACHES SHALL BE

AS SOON AS THE TEMPORARY CROSSING IS NO LONGER NEEDED, IT SHALL BE REMOVED. ALL MATERIALS SHALL BE DISPOSED OF PROPERLY AND DISTURBED

NWEAL
REGISTERED
PROFESSIONAL OF
 ROBERT F. SIMCIK
ENGINEER PE-050435-E
ABYLV
 11ATTSU

CONSTRUCTION SPREAD 6





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-3751	80 SIEVE

