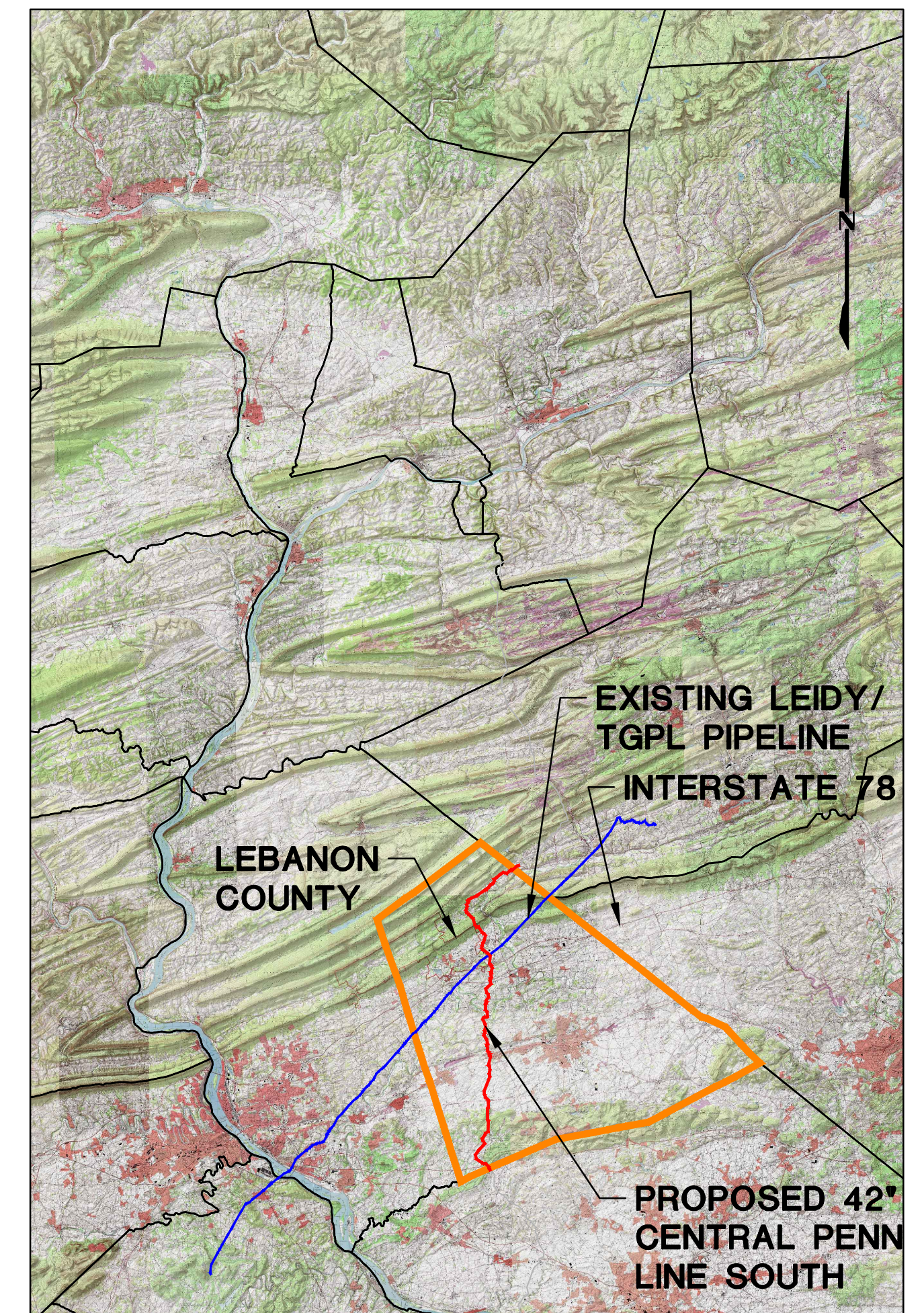


TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR PERMANENT ACCESS ROADS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH

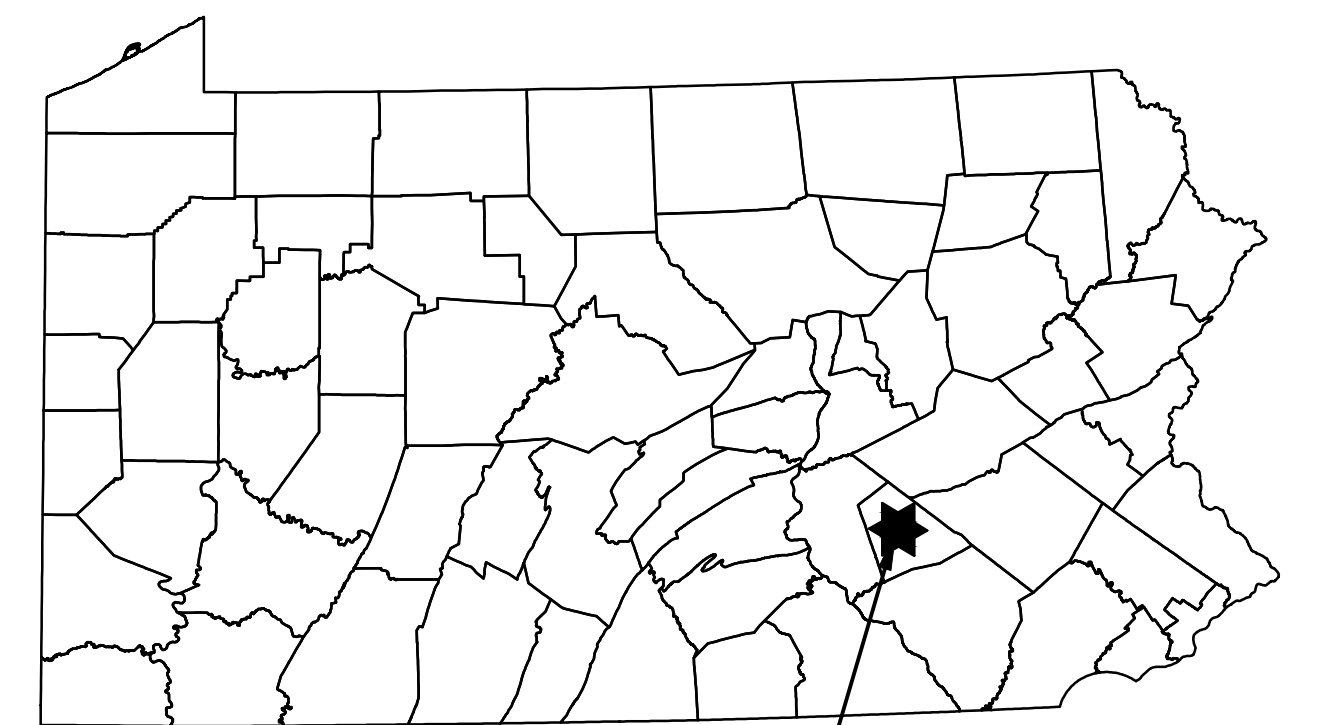
SOUTH ANNVILLE AND UNION TOWNSHIPS
LEBANON COUNTY, PENNSYLVANIA



USGS PINE GROVE, TOWER CITY, LEBANON, INDIANTOWN GAP, PALMYRA, AND ELIZABETHTOWN QUADRANGLES

VICINITY MAP

SCALE: 1"=50,000'



PROJECT
LOCATION

ROAD NAME & TYPE	DRAWING NO.	SHEET NO.	DRAWING NAME
GENERAL OVERALL	24-1600-70-28-A/LL113_9-AR-LE	1 of 3	COVER SHEET
		2 of 3	LOCATION MAP & ACCESS ROAD INDEX
		3 of 3	PCSM NOTES
AR-LE-037.2 Proposed Permanent	24-1600-70-28-A/LL113_9-AR-LE-037.2	1 of 1	ACCESS ROADS - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
AR-LE-050.1.1 Proposed Permanent	24-1600-70-28-A/LL113_9-AR-LE-050.1.1	1 of 1	ACCESS ROADS - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

ABBREVIATIONS			
ABACT	ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES	LOD	LIMIT OF DISTURBANCE
APPROX.	APPROXIMATE	MLV	MAIN LINE VALVE
AR	ACCESS ROAD	N/A	NOT APPLICABLE
AC	ACRE/ACRES	PADEP	PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BMP	BEST MANAGEMENT PRACTICES		ENVIRONMENTAL PROTECTION
CWF	COLDWATER FISHES	PR	PROPOSED
D	DEPTH	R	RIGHT
D.I.P.	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
ESCGP-2	EROSION AND SEDIMENT CONTROL	STA	STATION
	GENERAL PERMIT - 2	TGPL	TRANSCONTINENTAL GAS PIPE LINE
EV	EXCEPTIONAL VALUE	TSF	TROUT STOCKED FISHERY
EX	EXISTING	TYP.	TYPICAL
GTD	GRADE TO DRAIN	UNK	UNKNOWN
H	HORIZONTAL	UNT	UNNAMED TRIBUTARY
HQ	HIGH QUALITY	V	VERTICAL
INV	INVERT	W	WIDTH
L	LENGTH, LEFT	WWF	WARMWATER FISHES

SOIL TYPES AND LIMITATIONS																	
MAP UNIT NAME	MAP UNIT DESIGNATION	CUTEBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
CkB	CLARKSBURG SILT LOAM, 3 TO 8 PERCENT SLOPES	X	C/S		X		X	X	X	X	X	X	X	X	X	X	X
HaB	HAGERSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES	X	S		X		X	X	X	X	X	X	X	X	X	X	X
HbC	HAGERSTOWN SILTY CLAY LOAM, 8 TO 15 PERCENT SLOPES	X	S	X			X	X	X	X	X	X	X	X	X	X	X
Ls	LINDSIDE SILT LOAM	X	S		X		X	X	X	X	X	X	X	X	X	X	X
MagB	MARKES SILT LOAM, 3 TO 8 PERCENT SLOPES	X	C/S	X			X	X	X	X	X	X	X	X	X	X	X
ThA	THORNDALE SILT LOAM, 0 TO 3 PERCENT SLOPES	X	C/S				X	X	X	X	X	X	X	X	X	X	X
WeB	WEIKERT CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	X	C/S	X			X	X	X	X	X	X	X	X	X	X	X

LEGEND
 X APPLIES TO SOIL
 X CORROSIVE TO STEEL
 C/C CORROSIVE TO CONCRETE
 C/S CORROSIVE TO STEEL AND CONCRETE



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

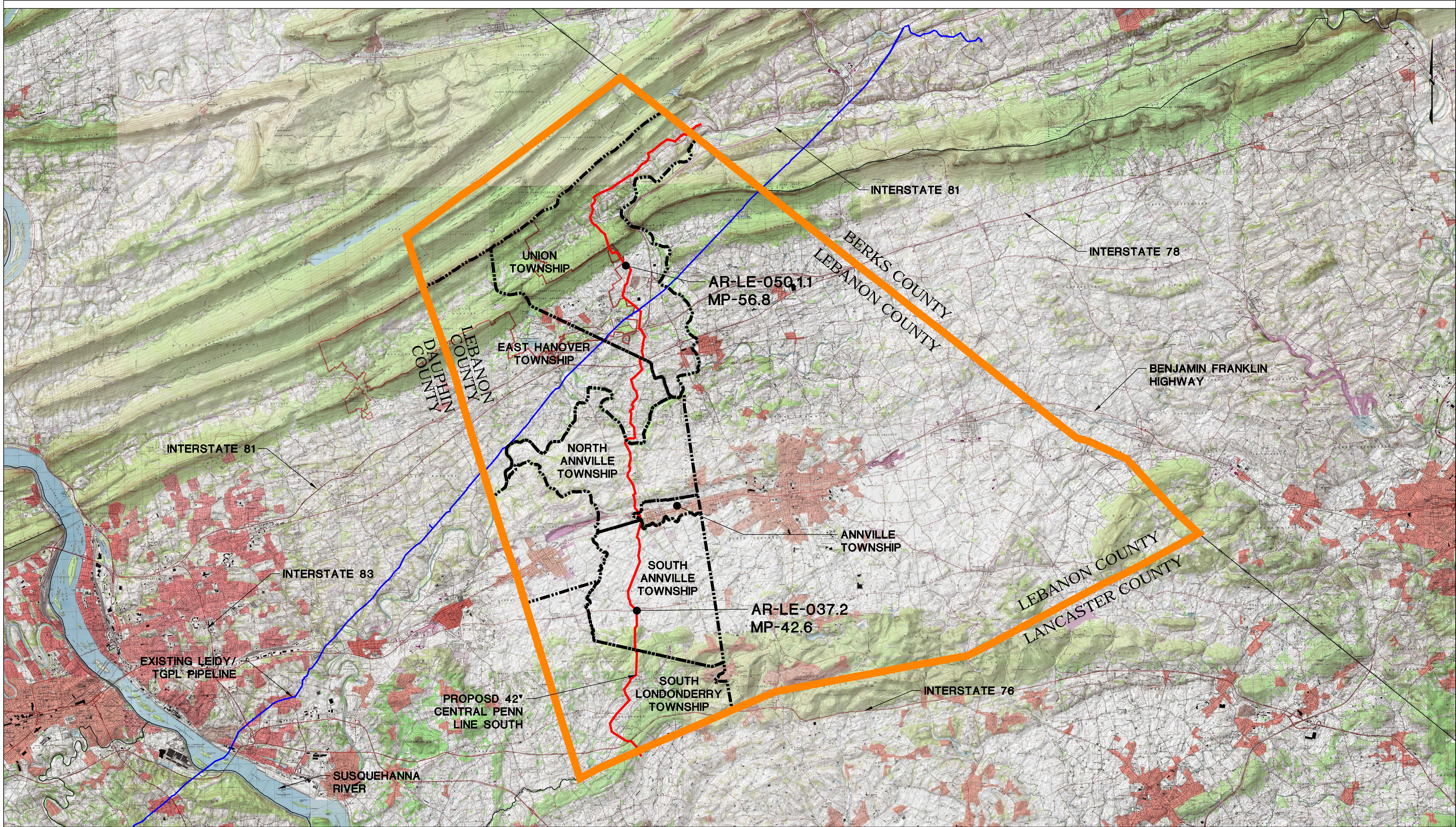
ENGINEER OF RECORD
 BL COMPANIES
 4242 CARLISLE PIKE, SUITE 260
 CAMP HILL, PA 17011
 P:717-651-9850
 F:717-651-9858



REVISIONS			
NO.	DATE	BY	DESCRIPTION
0	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1





TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 42" CENTRAL PENN LINE SOUTH			
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN			
ACCESS ROADS			
LEBANON COUNTY, PENNSYLVANIA			
COVER SHEET			
DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE:
CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER:	SHEET 1
NO: W01161503		24-1600-70-28-A/LL113_9-AR-LE	OF 3

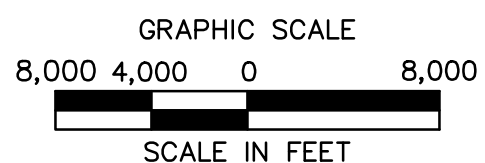




USGS PINE GROVE, TOWER CITY, LEBANON, INDIANTOWN GAP, PALMYRA, AND ELIZABETHTOWN QUADRANGLES

LEGEND

-  TOWNSHIP LINE
-  COUNTY LINE
-  PROPOSED 42" CENTRAL PENN LINE SOUTH
-  EXISTING LEIDY/ TGPL PIPELINE



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.



SUZANNE KING REG. NO. PE 082757


REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.D. NO.	CHK.	APP.
0	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	1161503	DAK	SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 42" CENTRAL PENN LINE SOUTH			
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN			
ACCESS ROADS			
LEBANON COUNTY, PENNSYLVANIA			
LOCATION MAP & ACCESS ROAD INDEX			
DRAWN BY:	OLC/MS	DATE:	4/2015
CHECKED BY:	DAK	DATE:	06/12/15
APPROVED BY:	SMK	DATE:	07/07/15
W.D. NO.:	W01161503	ISSUED FOR:	CONSTRUCTION
SCALE:		REVISION:	0
SHEET 2		OF 3	



Drawn By & Date: Norwooduser Nov 12, 2016 - 6:41pm
 Drawing Location & Name: G:\0851\14\14c\4909.DWG\020-CPLS\VAR_CV14C4909(00)_LEB.dwg

PCSM STANDARD NOTES

PERMIT TERMINATION:
UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

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

PCSM REQUIREMENTS

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

LICENSED PROFESSIONAL OVERSIGHT OF CRITICAL STAGES: A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ON-SITE AND BE RESPONSIBLE DURING CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPs STRUCTURALLY ENGINEERED BMPs, OR OTHER BMPs AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:
"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPs AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER § 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

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

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

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

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."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE 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 MAY INCLUDE, BUT ARE 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. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A 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.

RECYCLING AND DISPOSAL OF MATERIALS

BUILDING MATERIALS AND OTHER CONSTRUCTION SITE WASTES MUST BE PROPERLY MANAGED AND DISPOSED OF TO REDUCE POTENTIAL FOR POLLUTION TO SURFACE AND GROUND WATERS AS PER 25 PA. CODE § 102.4(O)(5)(iv). PROPER TRASH DISPOSAL, RECYCLING OF MATERIALS, PROPER MATERIALS HANDLING, AND SPILL PREVENTION AND CLEAN-UP REDUCE THE POTENTIAL FOR CONSTRUCTION SITE WASTES TO BE MOBILIZED BY STORMWATER RUNOFF AND CONVEYED TO SURFACE WATERS.

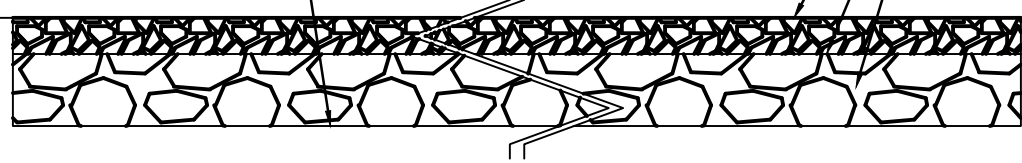
UNDER NO CIRCUMSTANCES MAY EROSION CONTROL BMPs BE USED FOR TEMPORARY STORAGE OF DEMOLITION MATERIALS OR CONSTRUCTION WASTES.

WHEREVER HEAVY EQUIPMENT WILL BE USED DURING CONSTRUCTION OF THE CUTS AND FILLS OR PROPOSED BUILDINGS, A POLLUTION PREVENTION AND CONTINGENCY (PPC) PLAN MUST BE AVAILABLE ON-SITE. THE APPLICANT MUST PREPARE AND IMPLEMENT A PPC PLAN WHEN STORING, USING OR TRANSPORTING MATERIALS INCLUDING: FUELS, CHEMICALS, SOLVENTS, PESTICIDES, FERTILIZERS, LIME, PETROCHEMICALS, WASTEWATER, WASH WATER, CORE DRILLING WASTEWATER, CEMENT, SANITARY WASTES, SOLID WASTES, OR HAZARDOUS MATERIALS ON, ON, OR FROM THE PROJECT SITE DURING EARTH DISTURBANCE ACTIVITIES. THE PPC PLAN MUST BE AVAILABLE UPON REQUEST BY THE DEPARTMENT OR CONSERVATION DISTRICT. GUIDANCE FOR DEVELOPMENT OF A PPC PLAN CAN BE FOUND IN "GUIDELINES FOR THE DEVELOPMENT AND IMPLEMENTATION OF ENVIRONMENTAL EMERGENCY RESPONSE PLANS" (DOCUMENT #400-2200-001), WHICH CAN BE FOUND IN THE DEPARTMENT'S ELIBRARY AT WWW.DEPIWEB.STATE.PA.US.

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS MUST BE FOLLOWED IN THE USE, HANDLING, AND DISPOSAL OF POTENTIALLY HAZARDOUS MATERIALS.

NONWOVEN GEOTEXTILE (MIRAFI 140N OR EQUAL) INSTALLED ALONG SIDES AND BOTTOM OF VALVE SITE SECTION TO SEPARATE STONE FROM ADJACENT SOIL.

6" AASHTO #8 AGGREGATE
HEAVY NONWOVEN GEOTEXTILE GEOTEX 601 OR EQUAL
AASHTO #57 AGGREGATE
DEPTH VARIES - SEE PLANS FOR DEPTH AT EACH VALVE SITE



VALVE SITE SECTION

OPERATIONS AND MAINTENANCE PROGRAM

THE PERMIT APPLICANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PERMANENT STORMWATER FACILITIES LOCATED ON THE SUBJECT PROPERTY. PERMANENT MAINTENANCE OF THE STORM SYSTEM AFTER ACCEPTANCE WILL PRIMARILY CONSIST OF ROUTINE CLEANING OF ACCUMULATED SEDIMENT AND DEBRIS BY FACILITY STAFF OR PRIVATE CONTRACTORS. THE SPECIFIC MAINTENANCE STEPS AND SCHEDULE ARE LISTED BELOW:

- PCSM BMPs
PCSM BMPs ARE TO BE INSPECTED ANNUALLY FOR SEDIMENT, BUILD-UP, AND EROSION DEBRIS. PCSM BMPs SHOULD BE MAINTAINED TO ENSURE THAT THE SPECIFIED DESIGN DIMENSIONS AND COVER ARE AVAILABLE AT ALL TIMES. ANY LITTER, DEBRIS, SEDIMENT, VEGETATION, OR OTHER ITEMS REMOVED DURING MAINTENANCE ACTIVITIES WILL BE DISPOSED OF AT A SUITABLE DISPOSAL OR RECYCLING SITE AND IN COMPLIANCE WITH LOCAL, STATE AND FEDERAL WASTE REGULATIONS.
- DISCONNECTION FROM STORM SEWERS
DISCONNECTED IMPERVIOUS AREAS SHALL CONTINUE TO BE DIRECTED TO INFILTRATION AREAS AND VEGETATED CHANNELS FOR INFILTRATION PURPOSES AS SHOWN ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS. INFILTRATION AREAS AND VEGETATED CHANNELS FOR INFILTRATION PURPOSES SHALL BE MAINTAINED AS INDICATED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS.
- REFER TO THE TABLES BELOW FOR THE OPERATION AND MAINTENANCE OF POST CONSTRUCTION BEST MANAGEMENT PRACTICES.
- ANNUAL CERTIFICATION OF MAINTENANCE PROCEDURES
THE APPLICANT SHALL MAINTAIN A CHECKLIST WHENEVER THE VEGETATED CHANNELS FOR INFILTRATION PURPOSES ARE INSPECTED AND CLEANED. AN ANNUAL LIST OF INSPECTIONS AND SEDIMENT REMOVAL (AS NECESSARY) SHALL BE MAINTAINED. THE LOCAL COD OR ENFORCEMENT OFFICIALS SHALL HAVE ACCESS TO THOSE RECORDS UPON REQUEST.
- ESCGP-2
THE OWNER SHALL ENSURE COMPLIANCE WITH ESCGP-2 REQUIREMENTS BY MEETING ALL ONGOING RECORD KEEPING, MAINTENANCE, AND OTHER APPLICABLE ESCGP-2 AND PADEP PERMIT CONDITIONS.

VEGETATED CHANNELS WITH CHECK DAMS

OPERATION & MAINTENANCE PROCEDURES

ACTIVITY	SCHEDULE
PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT; RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING; ROTILL AND REPLANT SWALE IF DRAIN DOWN TIME IS MORE THAN 48 HOURS; INSPECT AND CORRECT CHECK DAMS WHEN SIGNS OF ALTERED WATER FLOW ARE IDENTIFIED; WATER DURING DRY PERIODS; FERTILIZE, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.	AS NEEDED

ACTIVITY	SCHEDULE
INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION); INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES; CORRECT AS NEEDED; INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE; MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY; MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING; INSPECT FOR LITTER; REMOVE PRIOR TO MOWING; INSPECT FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE; CORRECT AS NEEDED; INSPECT SWALE INLET AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE; CORRECT AS NEEDED.	ANNUAL

DISCONNECTION FROM STORM SEWERS

OPERATION & MAINTENANCE PROCEDURES

ACTIVITY	SCHEDULE
INSPECT AND MAINTAIN GRADE TO ENSURE DISCONNECTED IMPERVIOUS AREAS CONTINUE TO BE DIRECTED TO INFILTRATION AREAS AND VEGETATED CHANNELS FOR INFILTRATION	AS NEEDED

STONE VALVE SITE

OPERATION & MAINTENANCE PROCEDURES

ACTIVITY	SCHEDULE
INSPECT AND CORRECT EROSION PROBLEMS, DISRUPTION TO STONE, AND SEDIMENT AND DEBRIS ACCUMULATION; INSPECT STONE FOR EROSION AND FORMATION OF RILLS OR GULLIES; CORRECT AS NEEDED; INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE; REMOVE LITTER.	ANNUAL

EARTH DISTURBANCE ACTIVITY - PAST, PRESENT, AND FUTURE LAND USES

THE LAND USES AND AQUATIC FEATURES FOUND WITHIN THE PROJECT AREA OCCUR ON MIXED HARDWOOD UPLAND FOREST, AND SHALLOW FORESTED WETLANDS. ACCORDING TO THE IMAGERY PROVIDED BY THE PENNSYLVANIA GEOLOGICAL SURVEY, THE LAND USES WITHIN THE PROJECT AREA REMAINED SIMILAR BETWEEN 1939 AND 1967. THE LAND USES ON THE 1939 AERIALS WERE PRIMARILY COMPOSED OF MIXED HARDWOOD UPLAND FOREST. FUTURE LAND USE WOULD INVOLVE THE INSTALLATION OF THE MAINLINE VALVE SITE AND PERMANENT ACCESS ROAD.

THERMAL IMPACT ANALYSIS

IN ORDER TO PREVENT AN INCREASE IN STREAM TEMPERATURE, CONSTRUCTION OF THE ACCESS ROADS WILL INCORPORATE THE FOLLOWING BMPs TO ADDRESS POTENTIAL THERMAL IMPACTS. GRAVEL WILL BE USED IN LIEU OF ASPHALT FOR ACCESS ROAD AND MAINLINE VALVE SITE CONSTRUCTION TO PREVENT THE COLLECTION AND SUBSEQUENT HEATING OF STORMWATER ON THE SURFACE OF THESE AREAS. A VEGETATED SWALE WITH CHECK DAMS WILL BE PROVIDED, AS NECESSARY, TO CAPTURE AND AID IN THE NET RUNOFF VOLUME INCREASE ASSOCIATED WITH THE TRANSITION FROM PRE-DEVELOPMENT CONDITIONS TO POST-DEVELOPMENT CONDITIONS.

RESPONSIBLE PARTY

OPERATION AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF WILLIAMS (APPLICANT).

CRITICAL STAGES OF CONSTRUCTION

THE FOLLOWING ARE CRITICAL STAGES OF CONSTRUCTION:

- INSTALLATION OF VEGETATED CHANNELS FOR INFILTRATION AND CHECK DAMS.
- PLACEMENT OF STONE AND GEOTEXTILE FABRIC WITHIN THE MLV PADS WHERE SPECIFIED ON THE ACCESS ROAD PLANS.

MAINLINE VALVE SITE AND PERMANENT ACCESS ROAD INSTALLATION SEQUENCE

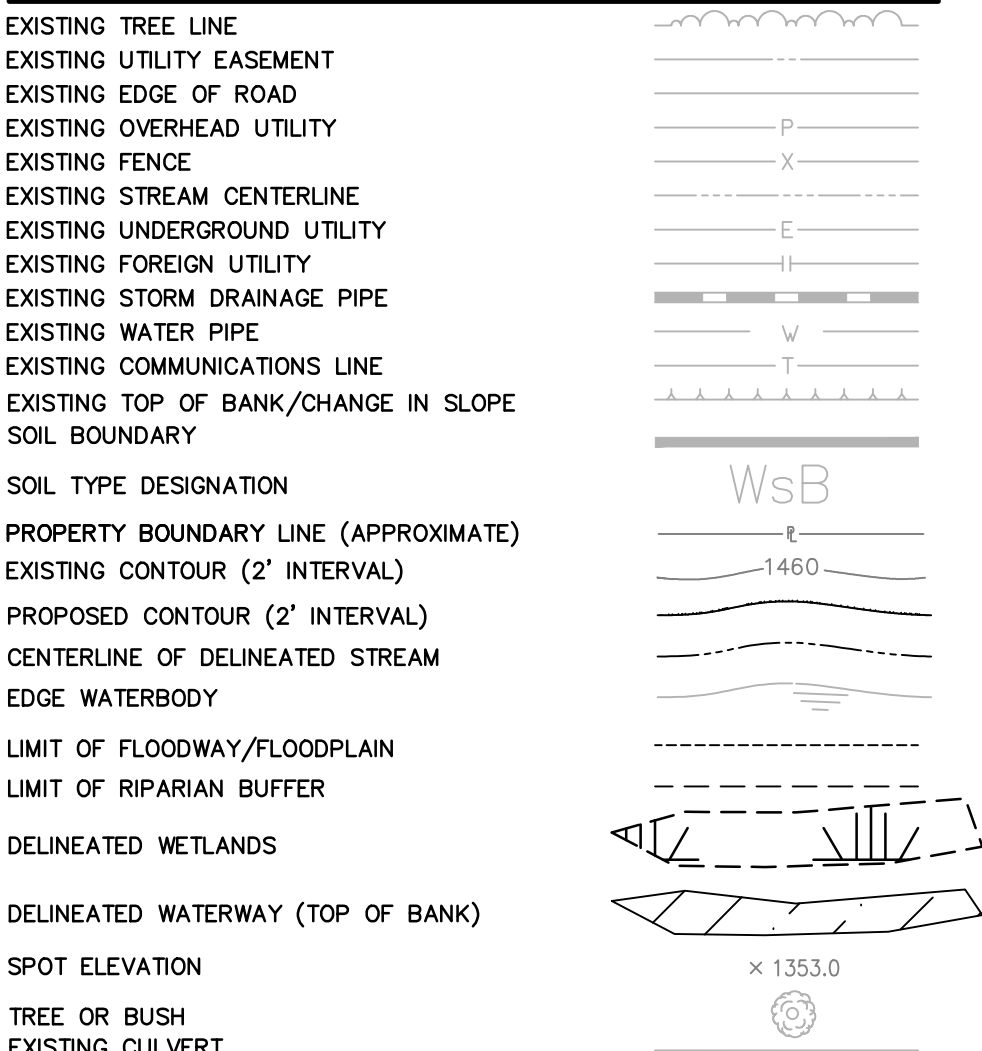
SEE THE ROAD-SPECIFIC "SOIL EROSION CONTROL PLAN" INCLUDED IN THE "EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR ACCESS ROADS" UNDER SEPARATE COVER FOR THE ROAD-SPECIFIC CONSTRUCTION SEQUENCE. THE CONSTRUCTION SEQUENCE IS ALSO INCLUDED IN THE ROAD-SPECIFIC NARRATIVE INCLUDED IN THE "POST CONSTRUCTION STORMWATER MANAGEMENT PLAN NARRATIVE."

GENERAL ACCESS ROAD NOTES

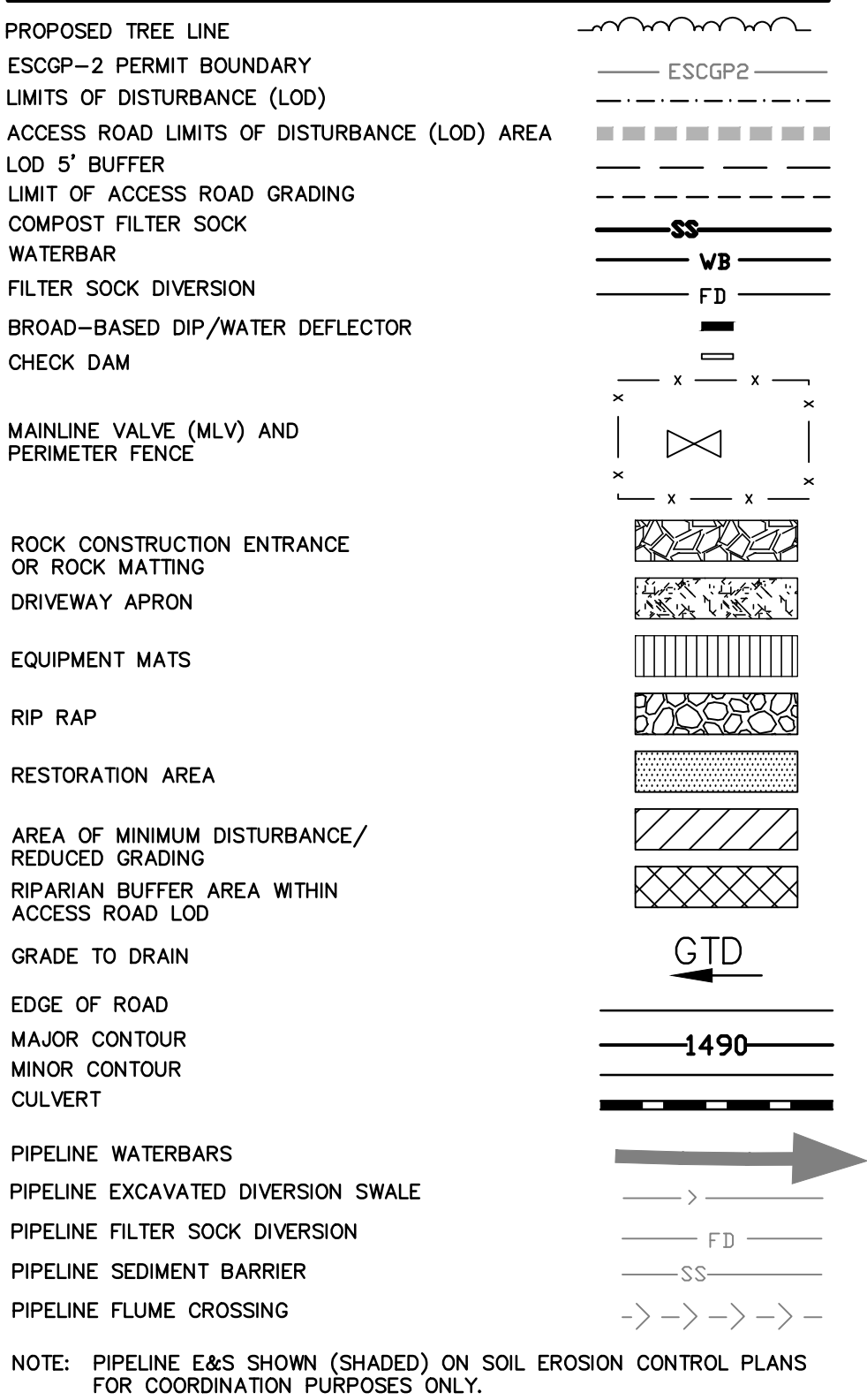
- SEE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN (UNDER SEPARATE COVER) FOR TYPICAL DETAILS, GENERAL NOTES, AND WETLAND AND WATERBODY INFORMATION.
- EROSION & SEDIMENTATION CONTROLS SHALL BE LEFT IN PLACE UNTIL SUCH TIME AS THE DISTURBED AREAS HAVE PERMANENT STABILIZATION. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- ALL SLOPES THAT ARE EQUAL TO OR STEEPER THAN 1:3 SHALL BE SEEDED AND THEN COVERED WITH EROSION CONTROL BLANKET. THE BLANKET SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- ALL NONWOVEN GEOTEXTILE SHALL BE MIRAFI 140N OR EQUAL.
- FOR PERMANENT ROADS, BROAD-BASED DIPS SHALL REMAIN AS PART OF THE PERMANENT IMPROVEMENTS.
- AREA OF MINIMUM DISTURBANCE/REDUCED GRADING IS THE PORTION OF THE ACCESS ROAD WORK AREA THAT IS OUTSIDE THE PROPOSED LIMIT OF GRADING, BUT WITHIN THE LIMITS OF DISTURBANCE. NO GRADING ACTIVITIES ARE PROPOSED. HOWEVER, CONSTRUCTION VEHICLES MAY ACCESS EXISTING ROADS, SEDIMENT BARRIERS MAY BE INSTALLED, AND TOPSOIL STOCKPILING MAY OCCUR WITHIN THE AREA OF MINIMUM DISTURBANCE/REDUCED GRADING. DISTURBED AREAS ARE TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.
- SEED MIXES ARE PROVIDED UNDER SEPARATE COVER IN THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN SET ON GENERAL NOTES SHEET 3 OF 3.
- THE DEPTH OF THE VEGETATED CHANNELS FOR INFILTRATION AND CHECK DAMS SHOWN ON THE EROSION CONTROL PLAN UNDER SEPARATE COVER ARE THE SAME AS THE DEPTH OF THE VEGETATED CHANNELS FOR INFILTRATION AND CHECK DAMS SHOWN THE CORRESPONDING POST CONSTRUCTION STORMWATER MANAGEMENT PLAN INCLUDED IN THIS PLAN SET.
- RIP RAP GRADATION SHALL MEET THE REQUIREMENTS OF TABLE 6.6 OF THE PADEP E&S MANUAL PROVIDED IN THE RIP RAP APRON AT PIPE OUTLET WITHOUT FLARED END SECTION (RAO) DETAIL UNDER SEPARATE COVER IN THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN.
- SEE THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN SET PROVIDED UNDER SEPARATE COVER FOR THE PERENNIAL AND INTERMITTENT STREAM NAMES ASSOCIATED WITH THE STREAM NUMBERS PROVIDED IN THIS PLAN SET.
- PRE-CONSTRUCTION FORESTED AREAS WILL BE SEEDED AND RESTORED TO MEADOW GOOD CONDITIONS. TREES THAT ARE REMOVED WILL NOT BE REPLACED AS PART OF THE RESTORATION PROCESS.

TYPICAL FEATURES LEGEND

EXISTING FEATURES



PROPOSED FEATURES



TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
ATLANTIC SUNRISE PROJECT - PROPOSED 42" CENTRAL PENN LINE SOUTH

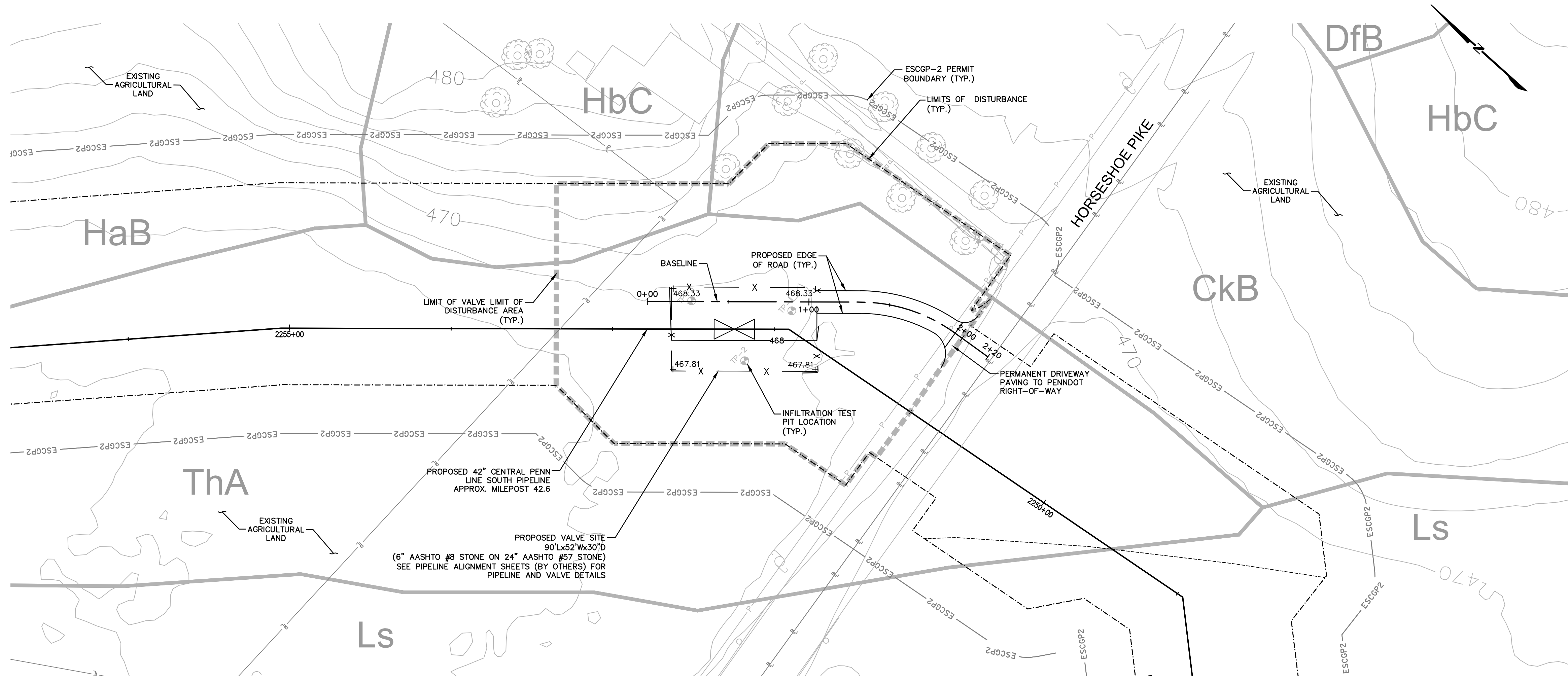
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
ACCESS ROADS
LEBANON COUNTY, PENNSYLVANIA

PCSM NOTES

DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE:
CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER:	SHEET 3
NO: W01161503		24-1600-70-28-A/LL113_9-AR-LE	OF 3

WILLIAMS GAS PIPELINE





ESCGP-2 PERMIT TABLE

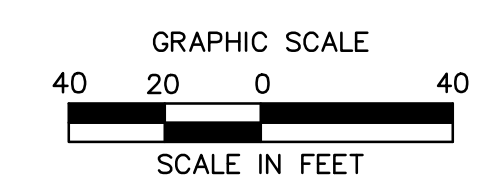
LIMIT OF DISTURBANCE:	
ACCESS ROAD	0.00 AC.
VALVE WITHIN PIPELINE ROW	0.96 AC.
TOTAL	0.96 AC.
LOD AREA WITHIN FLOODWAY/FLOODPLAIN	0.00 AC.
AREA OF RIPARIAN FOREST BUFFER	0.00 AC.
AREA OF MINIMUM DISTURBANCE/REDUCED GRADING	0.00 AC.
STORMWATER MANAGEMENT AREA	0.96 AC.
AREA CONTROLLED BY BMPS	0.23 AC.

SITE SOIL TYPES

SEE COVER SHEET FOR SOIL TYPES AND LIMITATIONS

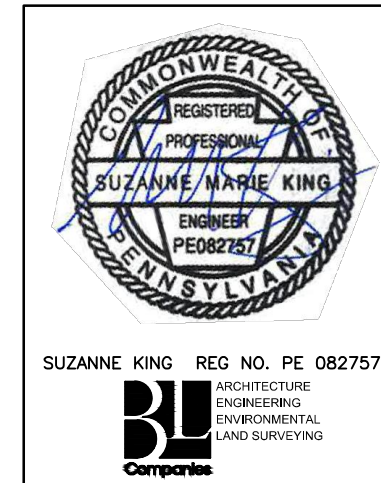
RECEIVING WATERS

GINGRICH RUN, TSF, MF
 CHAPTER 303(D) IMPAIRMENT: AGRICULTURE
 (SUSPENDED SOLIDS); SOURCE UNKNOWN
 (PATHOGENS); RUNOFF/STORM SEWERS (ORGANIC ENRICHMENT/LOW D.O.)



Drawn By & Date/Time: nonocaduser Nov 13, 2016 - 5:23pm
 Drawing Location & Name: C:\DBS1\14\14c\4909\DWG\020-CPLS\VAR_PCSM\4C-8909(205)-PAR-LE-037-2.dwg

NOTE:
 SEE PCSM NOTES SHEET 3 OF 3 FOR
 EXISTING AND PROPOSED FEATURES
 LEGEND

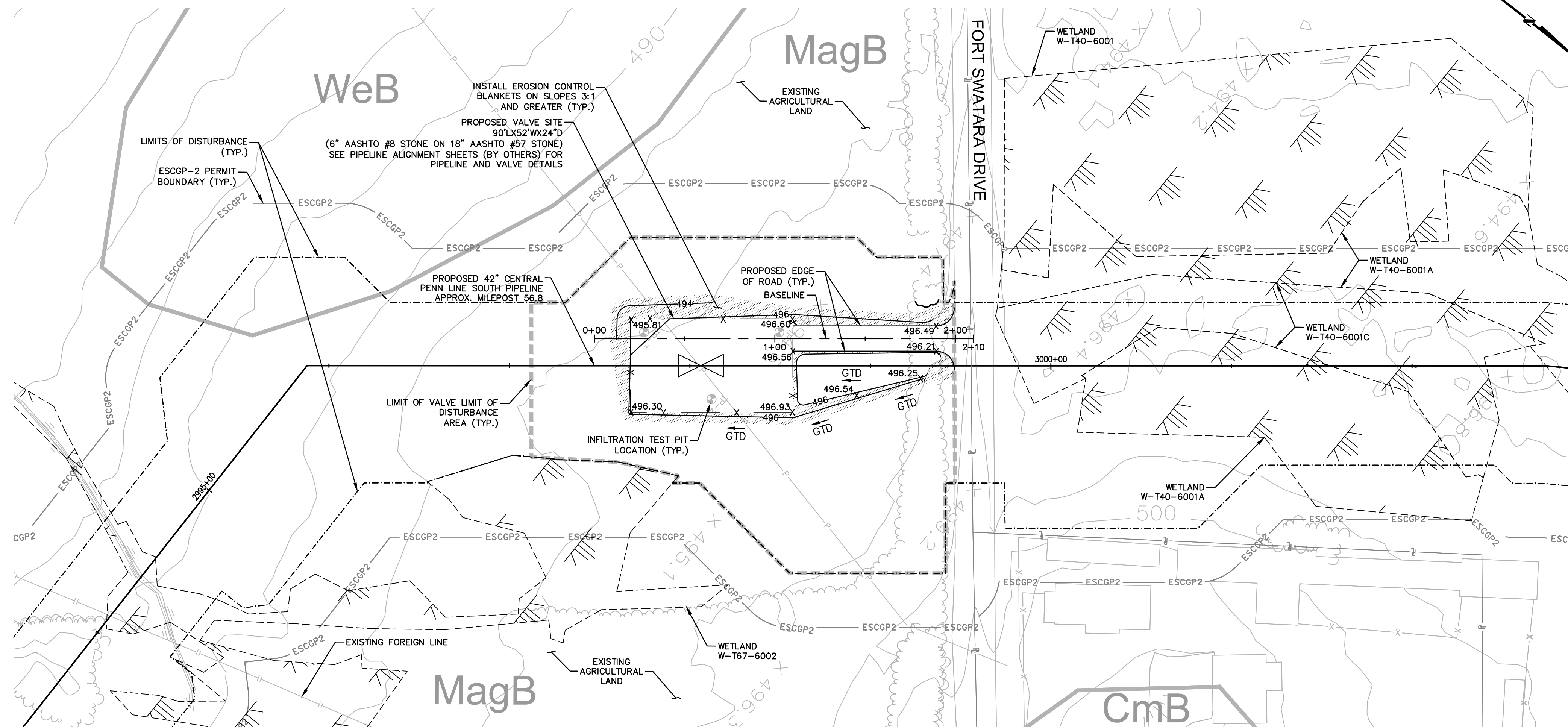


REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
0	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	1161503	DAK	SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 ATLANTIC SUNRISE PROJECT- PROPOSED 42" CENTRAL PENN LINE SOUTH
 ACCESS ROADS - POST CONSTRUCTION STORMWATER
 MANAGEMENT PLAN
 PROPOSED PERMANENT ACCESS ROAD AR-LE-037.2
 SOUTH ANNVILLE TOWNSHIP,
 LEBANON COUNTY, PENNSYLVANIA

Williams
 GAS PIPELINE

DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE: 1"=40'
CHECKED BY: ---DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: ---SMK	DATE: 07/07/15	DRAWING NUMBER: 24-1600-70-28-A/LL113_9-AR-LE-037.2	SHEET 1 OF 1
W.O. NO: W01161503			



ESCGP-2 PERMIT TABLE

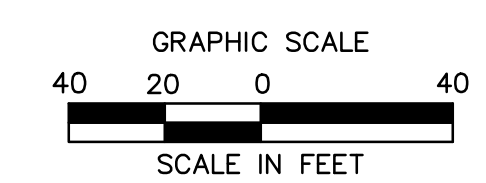
LIMIT OF DISTURBANCE:	
ACCESS ROAD	0.00 AC.
VALVE WITHIN PIPELINE ROW	0.79 AC.
TOTAL	0.79 AC.
LOD AREA WITHIN FLOODWAY/FLOODPLAIN	0.00 AC.
AREA OF RIPARIAN FOREST BUFFER	0.00 AC.
AREA OF MINIMUM DISTURBANCE/REDUCED GRADING	0.00 AC.
STORMWATER MANAGEMENT AREA	0.79 AC.
AREA CONTROLLED BY BMPs	0.19 AC.

SITE SOIL TYPES

SEE COVER SHEET FOR SOIL TYPES AND LIMITATIONS

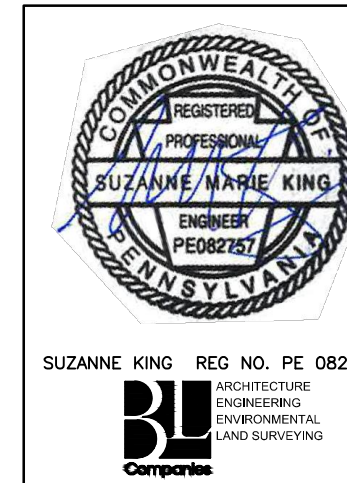
RECEIVING WATERS

FORGE CREEK WWF, MF
CHAPTER 303(D) IMPAIRMENT: AGRICULTURE
(SILTATION AND FLOW ALTERATIONS)



Drawn By & Date/Time: nonocuser Nov 13, 2016 - 5:27pm
 Drawing Location & Name: C:\DBS1\14\1404999\DWG\020-CPLS\AR_PCSM14C4999(205)-PAR-LE-050-1-1.dwg

NOTE:
SEE PCSM NOTES SHEET 3 OF 3 FOR
EXISTING AND PROPOSED FEATURES
LEGEND



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
0	07/17/2015	BL	ISSUED FOR PADEP SUBMITTAL	1161503	DAK	SMK
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	1161503	DAK	SMK
2	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	1161503	DAK	SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 ATLANTIC SUNRISE PROJECT- PROPOSED 42" CENTRAL PENN LINE SOUTH
 ACCESS ROADS - POST CONSTRUCTION STORMWATER
 MANAGEMENT PLAN
 PROPOSED PERMANENT ACCESS ROAD AR-LE-050.1.1
 UNION TOWNSHIP, LEBANON COUNTY, PENNSYLVANIA

Williams
GAS PIPELINE

DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE: 1"=40'
CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER: 24-1600-70-28-A/LL113_9-AR-LE-050.1.1	SHEET 1 OF 1