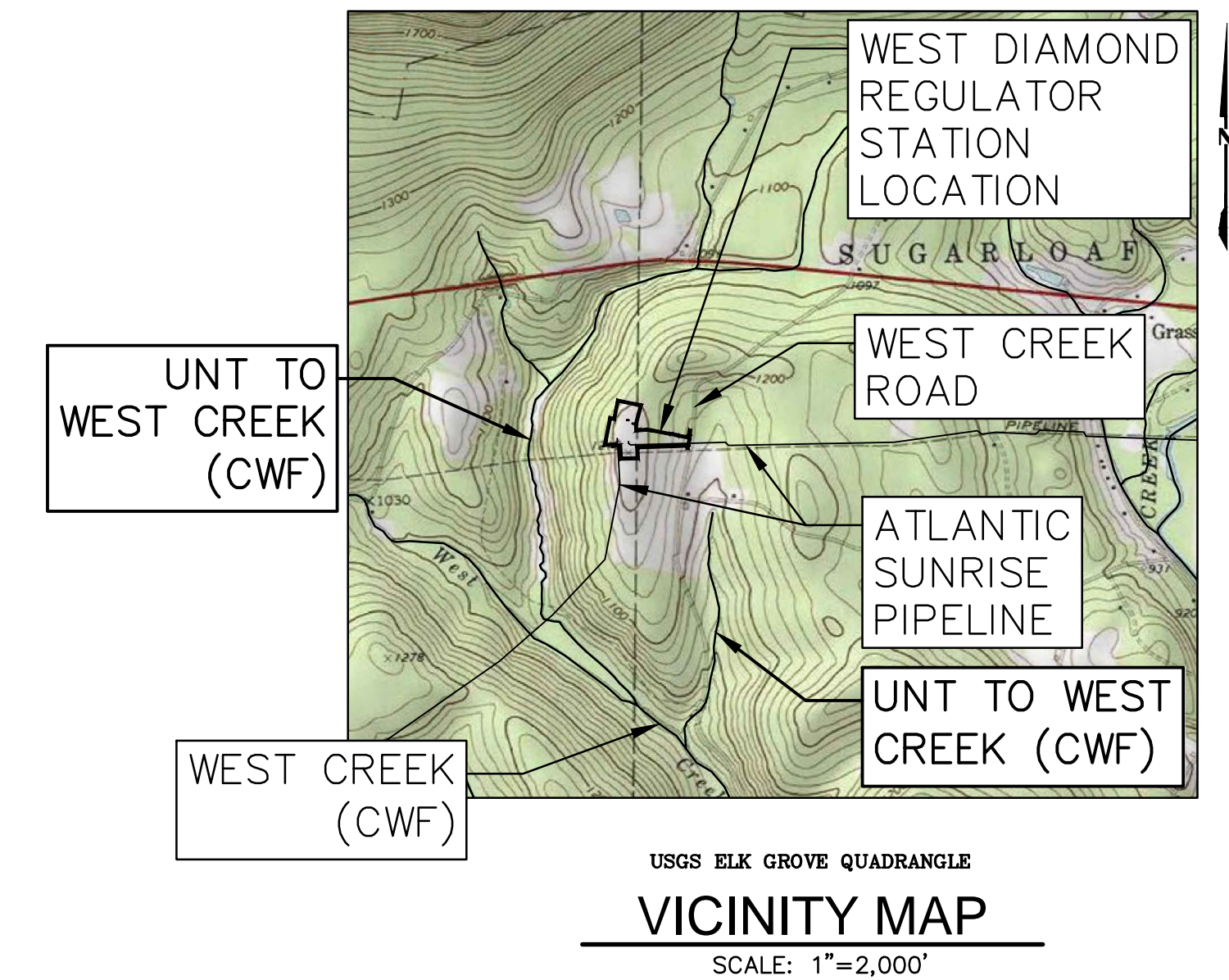


ATLANTIC SUNRISE PROJECT PROPOSED 30"/42" NATURAL GAS PIPELINE

SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR WEST DIAMOND REGULATOR STATION & ASSOCIATED PERMANENT ACCESS ROADS



FACILITY NAME & TYPE	DRAWING NO.	SHEET NO.	DRAWING NAME
WEST DIAMOND REGULATOR STATION	(36-7943)MF-1A-11	1 of 11	COVER SHEET REVISED
	(36-7943)MF-1A-11	2 of 11	EXISTING CONDITIONS MAP
	(36-7943)MF-1A-11	3 of 11	OVERALL DRAINAGE AREA MAP
	(36-7943)MF-1A-11 REVISED	4 of 11	SOIL EROSION & SEDIMENT CONTROL PLAN - PHASE 1
	(36-7943)MF-1A-11 ADDED NEW	5 of 11	SOIL EROSION & SEDIMENT CONTROL PLAN - PHASE 2
	(36-7943)MF-1A-3	6 of 11	ACCESS ROAD CO-107.1 LAYOUT PLAN
	(36-7943)MF-1A-11	7 of 11	SOIL EROSION & SEDIMENT CONTROL NOTES
	(36-7943)MF-1A-11	8 of 11	SOIL EROSION & SEDIMENT CONTROL NOTES
	(36-7943)MF-1A-11	9 of 11	SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS REVISED
	(36-7943)MF-1A-11	10 of 11	SOIL EROSION & SEDIMENT CONTROL DETAILS
	(36-7943)MF-1A-11 REVISED	11 of 11	SOIL EROSION & SEDIMENT CONTROL DETAILS

PHASE 2

JACKSON/SUGARLOAF TOWNSHIPS
COLUMBIA COUNTY

PENNSYLVANIA



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							TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.	ATLANTIC SUNRISE PROJECT- PROPOSED 30"/42" NATURAL GAS PIPELINE SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR WEST DIAMOND REGULATOR STATION & ASSOCIATED PERMANENT ACCESS ROADS JACKSON/SUGARLOAF TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA			
0	08/26/2015	BL	ISSUED FOR PADEP PERMIT SUBMITTAL	W01161501	DAK	AJB	COVER SHEET			
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	DAK	AJB				
2	02/04/2016	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	AJB	AJB				
3	03/26/2016	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	AJB	AJB				
4	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W01161501	AJB	AJB				
5	April 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W01161501	AJB	AJB				
6	August 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #3	W01161501	AJB	AJB	DRAWN BY: JEC DATE: 04/03/15 ISSUED FOR BID: SCALE: AS NOTED			
ALCARIC J. BUSHER REG. NO. PE 60320							CHECKED BY: AJB DATE: 04/03/15 ISSUED FOR CONSTRUCTION: REVISION: 6			
ALCARIC J. BUSHER ARCHITECTURE ENGINEERING ENVIRONMENTAL LAND SURVEYING							APPROVED BY: AJB DATE: 07/17/15 DRAWING NUMBER: (36-7943)MF-1A-11 SHEET 1 OF 11			
COMPANIES							W.O. NUMBER: 1161501			

THERMAL IMPACT ANALYSIS

THERMAL IMPACTS ASSOCIATED WITH CPL NORTH, CPL SOUTH, AND ASSOCIATED FACILITIES WILL BE AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE. THE FOLLOWING PROVISIONS RELATED TO THERMAL IMPACTS ARE INCLUDED IN THE E&S PLAN WITHIN SECTION 2 OF THE ESCGP-2 NOI:

- THE MINIMUM PERMANENT CHANGES IN LAND COVER, NECESSARY TO CONSTRUCT THE REQUIRED FACILITIES ARE BEING PROPOSED.
- RUNOFF FROM THE PERMANENT IMPERVIOUS AREAS WILL BE COLLECTED AS PART OF THE POST CONSTRUCTION STORMWATER MANAGEMENT/SITE RESTORATION (PCSM/SR) PLAN AND ROUTED TO PCSM/SR BMPs. IN ADDITION, IMPERVIOUS AREAS WILL BE GRAVEL INSTEAD OF ASPHALT WHEREVER PRACTICAL.
- PCSM/SR BMPs INCORPORATE THE USE OF A RAIN GARDEN AND VEGETATED SWALES WITH EARTHEN CHECK DAMS WILL BE UTILIZED FOR STORMWATER RATE CONTROL.
- THE REMOVAL OF VEGETATION, ESPECIALLY TREE COVER, WILL BE LIMITED TO ONLY THAT NECESSARY FOR CONSTRUCTION.
- THE AMOUNT OF IMPERVIOUS SURFACES WILL BE LIMITED TO ONLY THAT NECESSARY TO SUPPORT THE CONSTRUCTION OF THE FACILITY AND ASSOCIATED PIPELINE.

REGULATOR STATION SEQUENCE OF CONSTRUCTION

- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, ENVIRONMENTAL INSPECTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- INSTALL ORANGE CONSTRUCTION FENCE AROUND AREAS TO BE PROTECTED.
- LOCATE STAGING AREAS AND ACCESS POINTS INCLUDING CONSTRUCTION ENTRANCES. FIELD LOCATE LIMITS OF DISTURBANCE.
- INSTALL ROCK CONSTRUCTION ENTRANCE (RCE) AT TEMPORARY ACCESS ROAD.
- REMOVE BRUSH TO EFFECTIVELY INSTALL PERIMETER CONTROLS, LEVEL SIDE CUTS TO GRANT ACCESS FOR VEHICLES AND WORKERS TO SAFELY PERFORM THE INSTALLATION OF SEDIMENT BARRIERS ON THE SITE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- THE COMPLIANCE MANAGER SHALL PROVIDE PADEP AND CCD AT LEAST THREE DAYS' NOTICE PRIOR TO BULK EARTH DISTURBANCE AND UPON COMPLETED INSTALLATION OF PERIMETER EROSION CONTROLS.
- INSTALL TEMPORARY ACCESS ROAD. CONSTRUCTION OF TEMPORARY ACCESS ROAD SHALL BE FULLY COMPLETED AND STABILIZED PRIOR TO ANY ADDITIONAL DISTURBANCE OCCURS ON SITE.
- INSTALL WATERBARS. ANY E&S BMPs ASSOCIATED WITH THE CONSTRUCTION OF THE PIPELINE SHOULD REMAIN IN PLACE UNTIL CONSTRUCTION OF PIPELINE AND FACILITY IS COMPLETED AND THE AREAS ARE STABILIZED.
- * INSTALL SEDIMENT TRAP WITH TEMPORARY ORIFICE CONFIGURATION, INCLUDING CLAY CORE, ANTISEEP COLLARS, SLOPE LINERS, CLEANOUT STAKE, AND ASSOCIATED IMPROVEMENTS. INSTALL ORANGE CONSTRUCTION FENCE AT PERIMETER OF TRAP TO PREVENT COMPACTION OF SOILS.
- PROCEED WITH MAJOR CLEARING AND GRUBBING.
- BEGIN CONSTRUCTION STAKING FOR GRADING.
- BEGIN GRADING AND STRIP AND STOCKPILE TOPSOIL WITHIN THE REGULATOR STATION AREA AND INSTALL SEDIMENT BARRIERS AROUND STOCKPILES.
- UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OF AN ACTIVITY WHERE THE CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED FOUR DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. FOR AN EARTH DISTURBANCE ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION, OR AN ACCEPTABLE BMP WHICH TEMPORARILY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION. TEMPORARY STABILIZATION WILL NOT OCCUR ON ACTIVE VEHICULAR TRAVEL WAYS WITHIN THE ROW. THE ON-SITE ENVIRONMENTAL INSPECTOR WILL LOG DAILY ACTIVITY WITHIN THE LOG AND NOTIFY THE CONTRACTOR OF AREAS REQUIRING TEMPORARY STABILIZATION (I.E., AREAS WHERE WORK HAS CEASED FOR AT LEAST FOUR DAYS).
- ROUGH GRADE SITE.
- GRADE THE REGULATOR STATION PAD AS SHOWN ON THE E&S AND PCSM/SR PLANS (SECTIONS 2 AND 3 OF THE ESCGP-2 NOI).
- IMMEDIATELY STABILIZE SIDE SLOPES WITH EROSION CONTROL MATTING WHEN SLOPES ARE 3:1 OR GREATER. SEE PCSM/SR PLANS AND DETAIL SHEETS, AS PROVIDED IN SECTION 3 OF THE ESCGP-2 NOI, (PATTERNS DIFFER BY SLOPE CATEGORY). INSTALL RIP RAP SLOPE STABILIZATION WHERE SHOWN ON THE PCSM/SR PLANS.
- ESTABLISH FINAL GRADE.
- SURFACE STABILIZATION. APPLY PERMANENT STABILIZATION MEASURES IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS REACHED FINAL GRADE.
- CONSTRUCT REMAINDER OF STORMWATER MANAGEMENT BASIN 1 AREA. ALL EARTH MOVING ASSOCIATED WITH THIS WORK SHALL BE COMPLETED PRIOR TO CONVERTING TEMPORARY RISER TO THE PERMANENT RISER CONFIGURATION. ANY EXCESS EXCAVATION MATERIAL THAT WILL NOT BE USED ON-SITE SHALL BE HAULED OFF-SITE.
- UPON COMPLETION OF ALL EARTHWORK ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE LOCAL CCD FOR AN INSPECTION PRIOR TO THE REMOVAL/CONVERSION OF THE E&S BMPs.
- * CONVERT TRAP TO PERMANENT BASIN 1 CONFIGURATION BY REMOVING ALL ACCUMULATED SEDIMENTS, REMOVING BAFFLES, INSTALLING UNDERDRAINS AND ENGINEERED SOIL ON BASIN BOTTOM, IMMEDIATELY SEED AND STABILIZE BASIN, INSTALL ECB ON BASIN SLOPES AND INSTALL CFS AT INTERIOR TOE OF SLOPE. HAUL OFF SITE ANY EXCESS MATERIAL NOT USED LEFT OVER FROM THE CONVERSION OF THE BASIN.
- * RECONFIGURE TEMPORARY RISER TO PERMANENT OUTLET STRUCTURE BY PERMANENTLY SEALING THE 1" ORIFICES, CLEAN OUT SUMP. INSTALL EMERGENCY SPILLWAY AND SNOOT OVER OUTFALL.
- * ONCE CONSTRUCTION FOR THE REGULATOR STATION AND THE PIPELINE IS COMPLETE AND THE AREAS ARE STABILIZED, INSTALL PERMANENT ACCESS ROAD AND ASSOCIATED BMPs (RCE, VEGETATED ROADSIDE SWALES WITH EARTHEN CHECK DAMS, AMENDED SOILS, EROSION CONTROL BLANKET, RAIN GARDEN 2, CULVERTS, WATER DEFLECTORS, AND RIPRAP OUTLET PROTECTION). ANY PORTIONS OF WATERBARS ASSOCIATED WITH THE PIPELINE CONSTRUCTION THAT ARE IMPACTED BY THE CONSTRUCTION OF THE PERMANENT ACCESS ROAD SHOULD BE REMOVED.
- REMOVE TEMPORARY ACCESS ROAD. RESTORE TEMPORARY ACCESS ROAD AREA TO PRE-DEVELOPMENT GRADES. IMMEDIATELY DECOMPACT, SEED, AND STABILIZE AREA DISTURBED DURING REMOVAL OF ACCESS ROAD.
- * AMEND SOILS THROUGHOUT REMAINDER OF SITE. IMMEDIATELY SEED AND STABILIZE.
- AFTER FINISH GRADING AND TOPSOIL PLACEMENT IS COMPLETED, DISTURBED AREAS SHALL BE FERTILIZED, SEEDED, AND MULCHED. SEED MIXTURES, FERTILIZER AND MULCH APPLICATIONS RATES AND DATES SHALL CONFORM TO THE TABLES PROVIDED ON THE PCSM/SR PLANS AND DETAIL SHEETS (SECTION 3 OF THE ESCGP-2 NOI), LAND OWNER AGREEMENTS AND/OR THE ECP (SECTION 4 OF THE ESCGP-2 NOI).
- AFTER SEEDING, FERTILIZING AND MULCHING IS COMPLETE, INSTALL ECBS AS REQUIRED OR ORDERED OR ON SLOPES OF 3:1 OR GREATER.
- AFTER THE SITE IS PERMANENTLY STABILIZED AND UPON PADEP OR LOCAL CCD AND OWNER APPROVAL OF STABILIZATION AND RE-VEGETATION, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND STABILIZE AREAS DISTURBED BY REMOVAL.
- * COMPLETE SITE STABILIZATION, INCLUDING SOIL AMENDMENT, SEED APPLICATION, ECB INSTALLATION IN BASINS, AND MULCHING.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR OPERATORS SHALL CONTACT THE LOCAL CCD FOR A FINAL INSPECTION.
- MAINTAIN E&S BMPs UNTIL SITE WORK IS COMPLETE AND UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED.
- REMOVE AND PROPERLY DISPOSE/RECYCLE E&S BMPs. REMOVE ORANGE CONSTRUCTION FENCE. REPAIR AND PERMANENTLY STABILIZE AREAS DISTURBED DURING E&S BMP REMOVAL UPON ESTABLISHMENT OF UNIFORM 70% VEGETATIVE COVER.

* INDICATES A CRITICAL STAGE OF PCSM INSTALLATION TO BE OBSERVED BY A LICENSED PROFESSIONAL OR DESIGNEE. CONTRACTOR TO PROVIDE 3 WORKING DAYS NOTICE TO ENGINEER AND WILLIAMS.

INTERIM AND PERMANENT STABILIZATION

- INTERIM STABILIZATION

TEMPORARY SEEDING WITH STRAW MULCH COVER FOR INTERIM STABILIZATION IS A TYPE OF BMP THAT CAN USUALLY BE PROVIDED WHERE THE EARTH DISTURBANCE ACTIVITY TEMPORARILY CEASES (I.E. 4 DAYS OR MORE) UNLESS DIRECTED BY THE PROJECT OWNER, PADEP, OR CONSERVATION DISTRICT.

THE INSTALLATION OF AN EROSION CONTROL BLANKET OR APPLICATION OF STRAW MULCH UPON SEEDED AREAS ARE BOTH CONSIDERED TO BE INTERIM STABILIZATION BMPs TO PROTECT THE SEEDBED UNTIL VEGETATION IS ESTABLISHED.
- PERMANENT STABILIZATION

UPON COMPLETION OF ANY EARTH DISTURBANCE ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.

THE INSTALLATION OF PAVEMENT, ROCK RIP RAP, OR GABIONS ARE SOME EXAMPLES OF STABILIZATION. THE STANDARD FOR VEGETATIVE COVER AS STABILIZATION IS PERENNIAL VEGETATION THAT IS ESTABLISHED WITH A UNIFORM COVERAGE DENSITY OF 70% ACROSS THE DISTURBED AREA. THE APPLICATION OF LIME, FERTILIZERS, SEED, AND MULCH IS USUALLY DONE TO ACHIEVE PERMANENT STABILIZATION. THE MULCH IS CONSIDERED TO BE AN INTERIM STABILIZATION MEASURE TO ASSIST IN THE ESTABLISHMENT OF THE PERMANENT VEGETATIVE COVER.
- STABILIZATION DURING NON-GROWING SEASONS

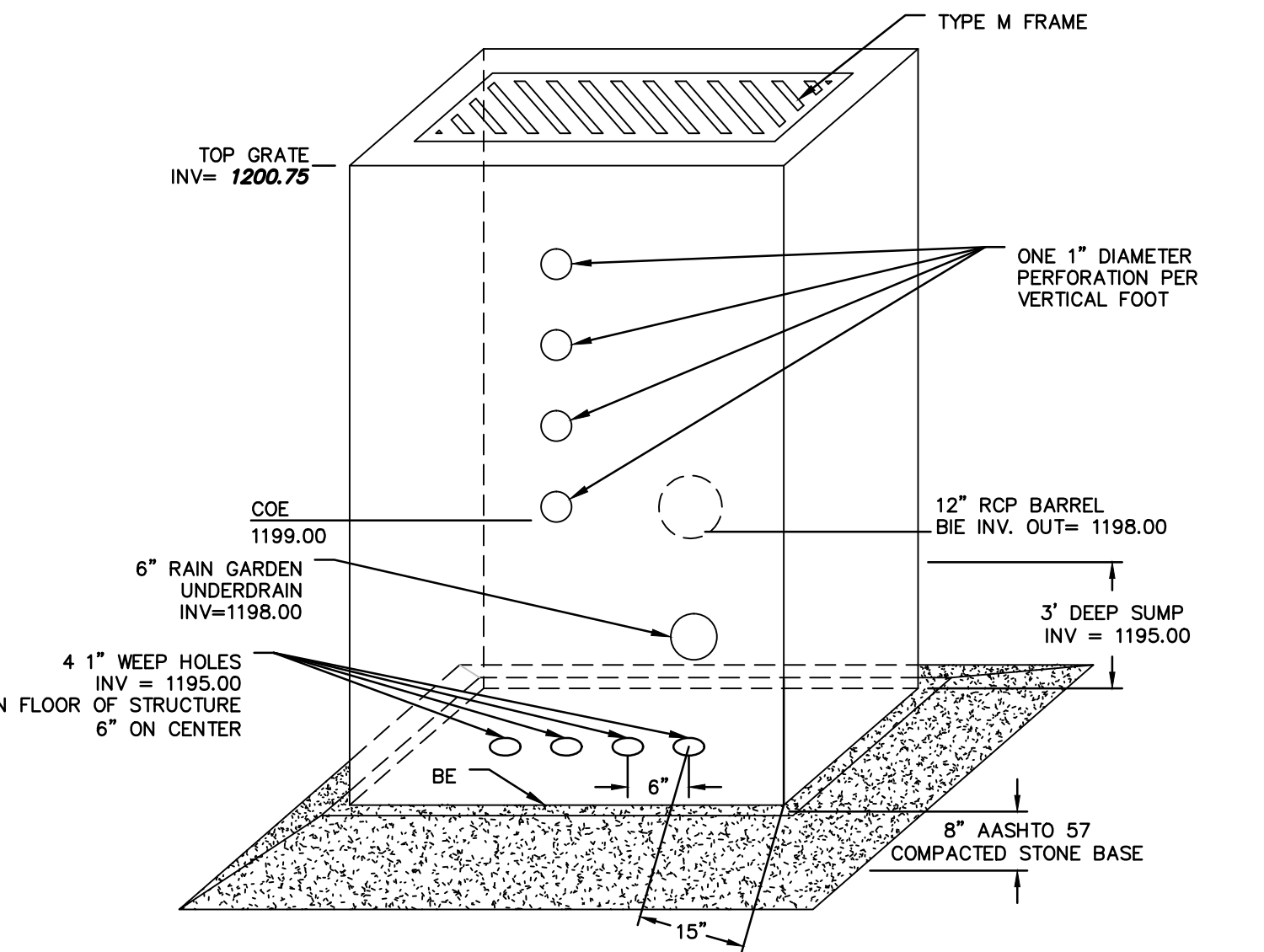
WHEN UTILITY CONSTRUCTION MUST BE DONE AND IS COMPLETED DURING A NON-GROWING SEASON, INTERIM STABILIZATION BMPs MUST BE IMPLEMENTED AND ADEQUATELY MAINTAINED. THE APPLICATION OF STRAW MULCH AT THE RATE OF 3.0 TONS PER ACRE IS REQUIRED. THE BMPs SHOULD BE INSPECTED WEEKLY (UNLESS SNOW COVERED) AND AFTER EACH RUNOFF EVENT TO IDENTIFY AREAS THAT BECOME BARE.

BARE AREAS SHOULD BE COVERED WITH A PROPERLY INSTALLED EROSION CONTROL BLANKET. ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROLS MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- WHERE REQUIRED, STRAW MULCH MUST BE APPLIED AT A MINIMUM OF 3.0 TONS PER ACRE.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT FINELY CHOPPED OR BROKEN.
- PRIOR TO ANY SEEDING, LIME, OR FERTILIZATION APPLICATION, A SOIL TEST SHALL BE PERFORMED TO DETERMINE THE pH FACTOR. ADDITIONAL LIME AND FERTILIZER MAY BE REQUIRED. NO LIME OR FERTILIZERS SHALL BE USED IN WETLAND AREAS.
- LIME, FERTILIZE, SEED, AND MULCH DISTURBED AREAS PER THE EROSION AND SEDIMENT CONTROL PLANS. IN AREAS OF STEEP SLOPES OR OBVIOUS AREAS WHERE POTENTIAL EROSION MAY OCCUR, AND EROSION CONTROL MAT OR FLEXIBLE GROWTH MEDIUM (FGM) SHALL BE USED. FGM SHALL BE APPLIED PER MANUFACTURER SPECIFICATIONS. NO LIME OR FERTILIZERS SHALL BE USED IN WETLAND OR STREAM AREAS.
- WATERBARS WITHIN AGRICULTURAL OR RESIDENTIAL AREAS SHALL BE USED AS TEMPORARY FEATURES. WATERBARS MAY BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA IS AT LEAST 70% STABILIZED WITH PERENNIAL VEGETATION AS PER PA CHAPTER 102.22

ACID-PRODUCING SOILS AND BEDROCK CONTROL PLAN

THE FOLLOWING ACID PRODUCING SOILS CONTROL PLAN WAS DEVELOPED TO IDENTIFY BMPs AND PROCEDURES FOR MINIMIZING THE POTENTIAL FOR POLLUTION ASSOCIATED WITH THE DISTURBANCE OF THE AREAS WITHIN THE PROPOSED RIGHT-OF-WAY THAT CONTAIN ACID-PRODUCING SOILS.

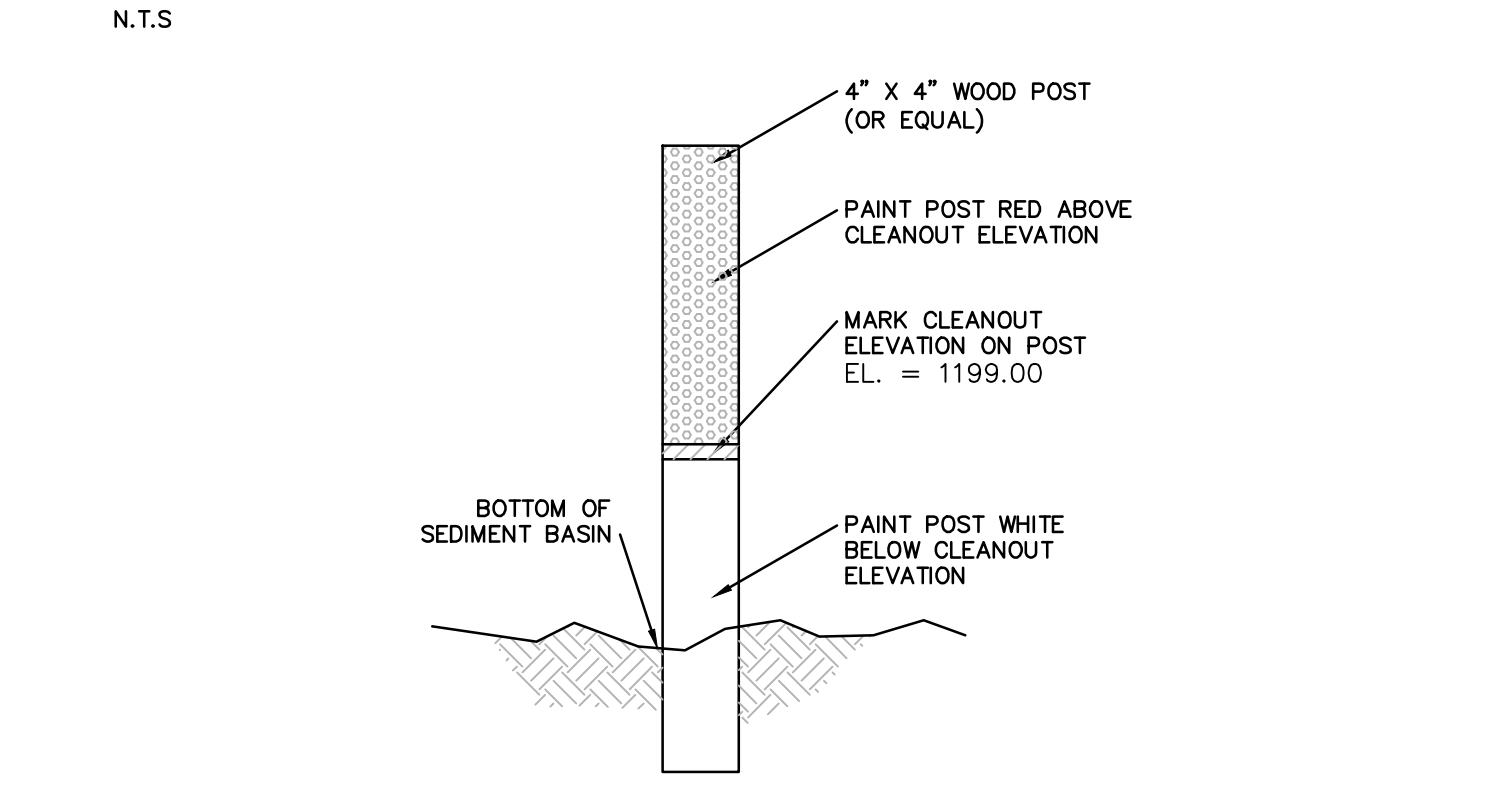
- ACID-PRODUCING SOILS AND BEDROCK CONTROL PLAN:
- CONTRACTOR SHALL LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED. LOCATIONS WHERE ACIDIC SOILS ARE ANTICIPATED TO BE PRESENT ALONG THE PIPELINE CORRIDOR ARE PROVIDED IN THE COUNTY-SPECIFIC TABLE INCLUDED AT THE END OF THIS PLAN SET.
 - CONTRACTOR SHALL SEPARATELY STORE TOPSOIL STRIPPED FROM THE SITE AWAY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS AND BEDROCKS.
 - CONTRACTOR SHALL STOCKPILE HIGH ACID-PRODUCING SOILS AND BEDROCK MATERIAL ON LEVEL GROUND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THESE MATERIALS HAVE A HIGH CLAY CONTENT.
 - CONTRACTOR SHALL COVER TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL AND BEDROCK MATERIAL TO BE EXPOSED MORE THAN 30 DAYS WITH PROPERLY ANCHORED, HEAVY-GRADE SHEETS OF POLYETHYLENE, WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF THREE TO SIX INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. IN ADDITION, THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE TOE OF THE STOCKPILE SLOPE TO CONTAIN MOVEMENT OF MATERIAL. CONTRACTOR SHALL NOT APPLY TOPSOIL TO THE HIGH ACID-PRODUCING SOIL OR BEDROCK STOCKPILES TO PREVENT TOPSOIL CONTAMINATION.
 - CONTRACTOR SHALL ULTIMATELY DISPOSE OF HIGH ACID-PRODUCING SOILS OR BEDROCK WITH A PH OF FOUR OR LESS, OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS) BY PLACING THE MATERIAL COMBINED WITH LIMESTONE AT THE RATE OF 6 TONS PER ACRE (OR 275 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERING THE MIXTURE WITH A MINIMUM OF 12 INCHES OF SETTLED SOILS WITH A PH OF FIVE OR MORE EXCEPT AS FOLLOWS:
 - IN THE AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED, THE CONTRACTOR SHALL COVER THE LIMESTONE/SOIL MIXTURE WITH A MINIMUM OF 24 INCHES OF SOILS WITH A PH OF FIVE OR MORE.
 - CONTRACTOR SHALL NOT LOCATE ANY DISPOSAL AREA WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHER SURFACE WATERS TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
 - AT THE END OF EACH DAY, CONTRACTOR SHALL CLEAN ALL EQUIPMENT USED TO HANDLE HIGH ACID-PRODUCING SOILS OR BEDROCK TO PREVENT SPREADING OF HIGH-ACID MATERIALS TO OTHER PARTS OF THE PROPOSED RIGHT-OF-WAY, INTO STREAMS, OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED CORROSION.
 - CONTRACTOR SHALL PROVIDE AND INSTALL NON-VEGETATIVE EROSION CONTROLS (STONE TRACKING PADS, STRATEGICALLY-PLACE LIMESTONE CHECK DAMS, SILT FENCES, WOOD CHIPS) TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF OF THE PROPOSED RIGHT-OF-WAY.
 - FOLLOWING THE BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOILS AND BEDROCK, TOP SOILING, AND SEEDING OF THE PROPOSED RIGHT-OF-WAY, TRANSO SHALL MONITOR THE SITE FOR APPROXIMATELY SIX TO 12 MONTHS TO ASSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH-ACID SOIL OR BEDROCK PROBLEMS EMERGE. CONTRACTOR SHALL CORRECT ANY PROBLEMS THAT ARE DISCOVERED WITHIN THIS TIME PERIOD.
 - IF PROBLEMS OCCUR WHERE HIGH ACID-PRODUCING SOILS OR BEDROCK HAVE BEEN PLACED OR BURIED, THE APPLICANT SHALL MONITOR THESE AREAS FOR AT LEAST TWO YEARS TO ASSURE THERE IS NO MIGRATION OF POTENTIAL ACID LEACHATE.



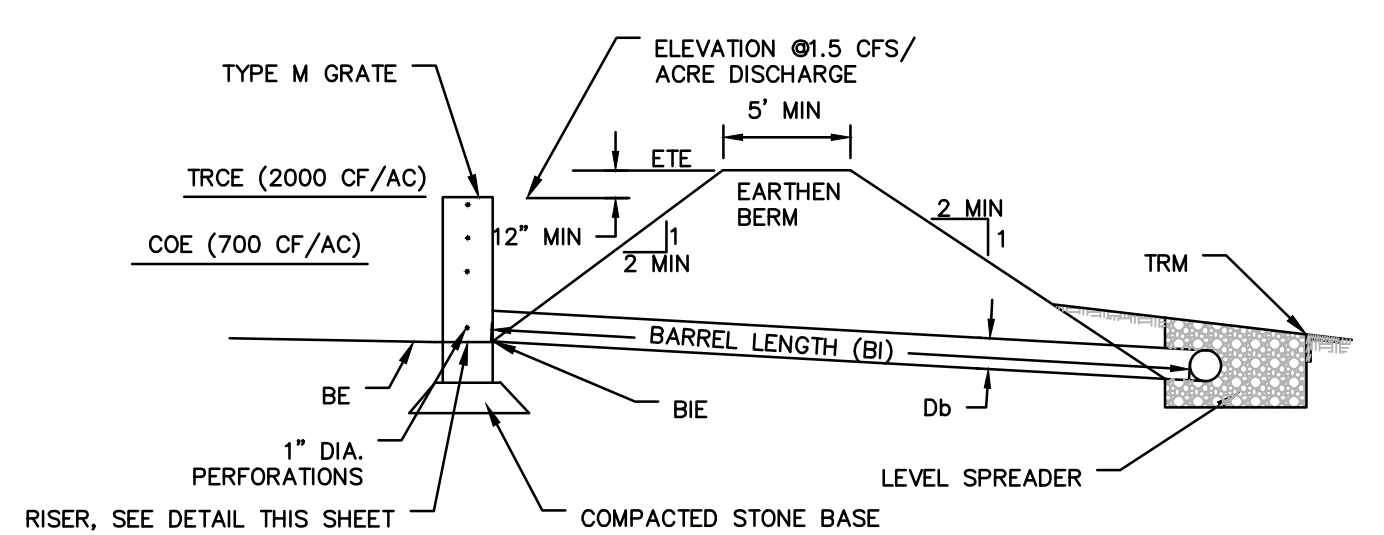
TRAP NO.	TEMPORARY/PERMANENT RISER			BARREL
	STRUCTURE TYPE	CREST ELEV. TRCE (FT)	CLEAN OUT ELEV. COE (FT)	
1	M	1200.75	CONCRETE	1199.00

- NOTES:
- THE PROPOSED OUTLET STRUCTURE SHALL BE A TYPE "M" INLET IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. OUTLET STRUCTURE SHALL CONTAIN A TRASH RACK.
 - CLOGGED OR DAMAGED SPILLWAYS SHALL BE REPAIRED IMMEDIATELY. TRASH AND OTHER DEBRIS FROM THE TRAP AND RISER SHALL BE REMOVED.

DRY SEDIMENT TRAP TEMPORARY RISER CONFIGURATION DETAIL



CLEANOUT STAKE
N.T.S.



TRAP NO.	Z1 (FT)	Z2 (FT)	RISER		BARREL						
			MAT'L	FRAME TYPE	CREST ELEV. TRCE (FT)	BOT. PERF. ELEV. (FT)	MAT'L	DIA DB (IN)	INLET ELEV. BIE (FT)	LENGTH BI (FT)	OUTLET ELEV. BOE (FT)
1	3	3	CONC.	M	1200.75	1199.00	RCP	12	1198.00	34	1195.00

EMBANK TOP ELEV. ETE (FT)	CLEAN OUT ELEV. COE (FT)	BOTTOM ELEV. BE (FT)
1202.00	1199.00	1198.00

IN SPECIAL PROTECTION - HQ OR EV - WATERSHEDS, ADD 6" LAYER OF COMPOST ON TOP OF STONE OR REPLACE STONE WITH SUITABLE COMPOST FILTER SOCK.

FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6" TO 9". THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS.

ALL SEDIMENT TRAPS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH TRAP. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE TRAP IN THE MANNER DESCRIBED IN THE E&S PLAN.

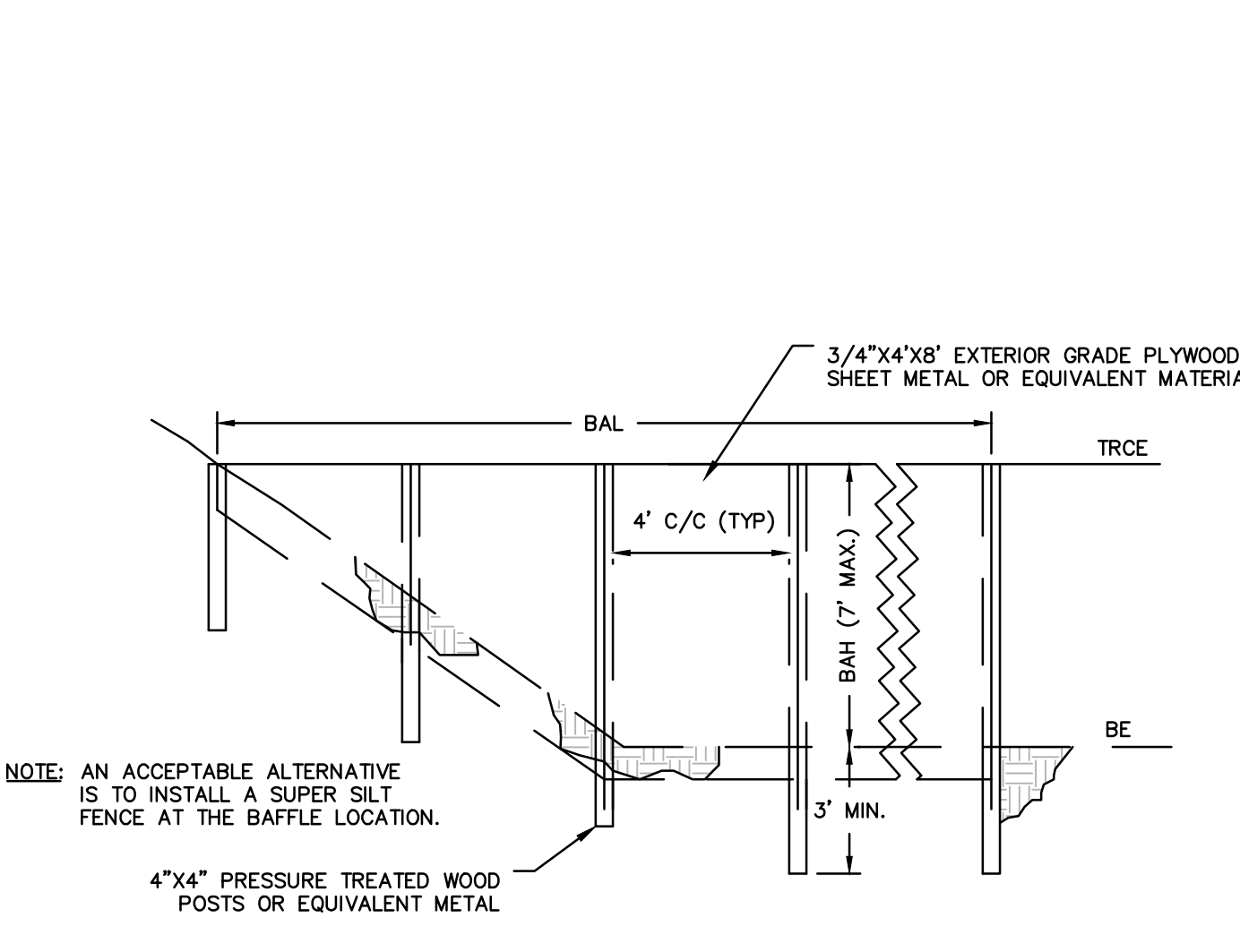
CHECK EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. CLOGGED OR DAMAGED SPILLWAYS AND/OR EMBANKMENTS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS.

DISPLACED RIPRAP WITHIN THE OUTLET PROTECTION SHALL BE REPLACED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE TRAP SHALL BE STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY, TO ASSIST IN REMOVING SEDIMENT, WHICH MAY BE SATURATED. A DEVICE SUCH AS IS SHOWN IN STANDARD CONSTRUCTION DETAIL #7-18 (SEDIMENT BASIN OR SEDIMENT TRAP SEDIMENT STORAGE DEWATERING FACILITY) MAY BE USED TO DEWATER THE SEDIMENT PRIOR TO ITS REMOVAL.

DRY SEDIMENT TRAP

N.T.S. PADEP-8-8



IN POOLS WITH DEPTHS EXCEEDING 7", THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BASIN	BAFFLE	TEMP. RISER	BOTTOM
BASIN OR TRAP NO.	LENGTH BAL (FT)	HEIGHT BAH (FT)	CREST ELEV. TRCE (FT)
1	80	2.00	1,200.75
			BOTTOM ELEV. BE (FT)
			1,198.00

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

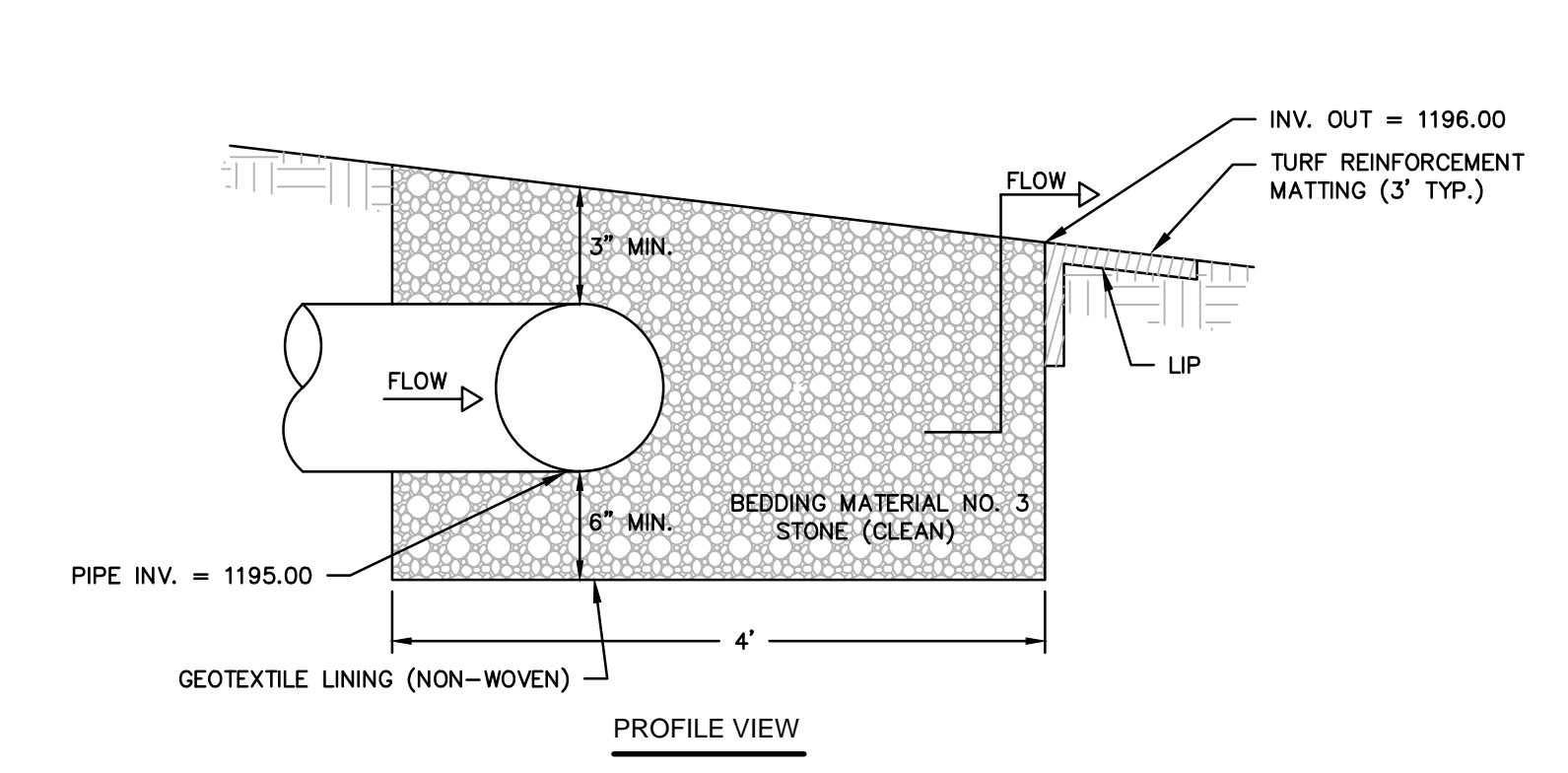
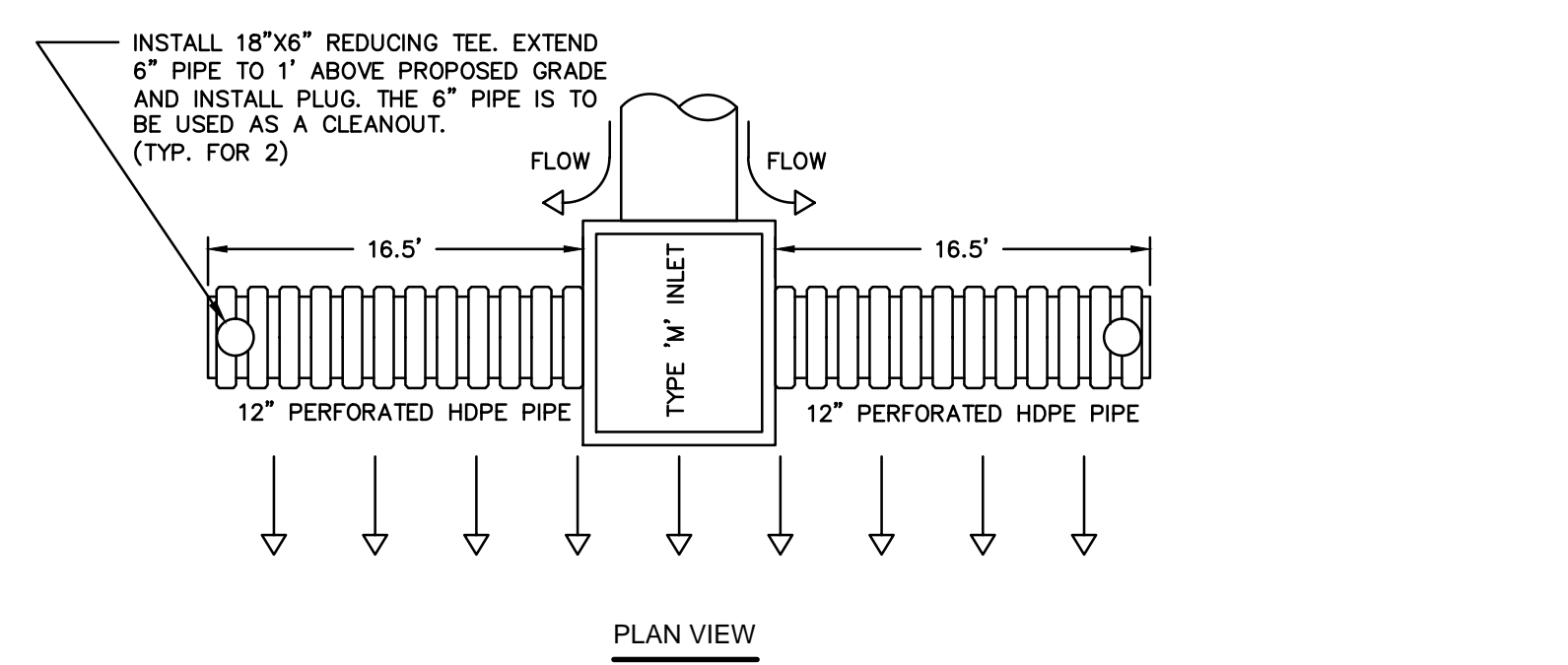
BAFFLE

N.T.S. PADEP-7-14

NO.	DATE	BY	DESCRIPTION	REVISIONS		
				W.O. NO.	CHK.	APP.
0	08/26/2015	BL	ISSUED FOR PADEP PERMIT SUBMITTAL	W01161501	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	DAK	AJB
2	02/04/2016	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	AJB	AJB
3	03/26/2016	BL	ISSUED FOR PADEP RESUBMITTAL	W01161501	AJB	AJB
4	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W01161501	AJB	AJB
5	April 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W01161501	AJB	AJB
6	August 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #3	W01161501	AJB	AJB

ALARIC J. BUSHER REG. NO. PE. 60320

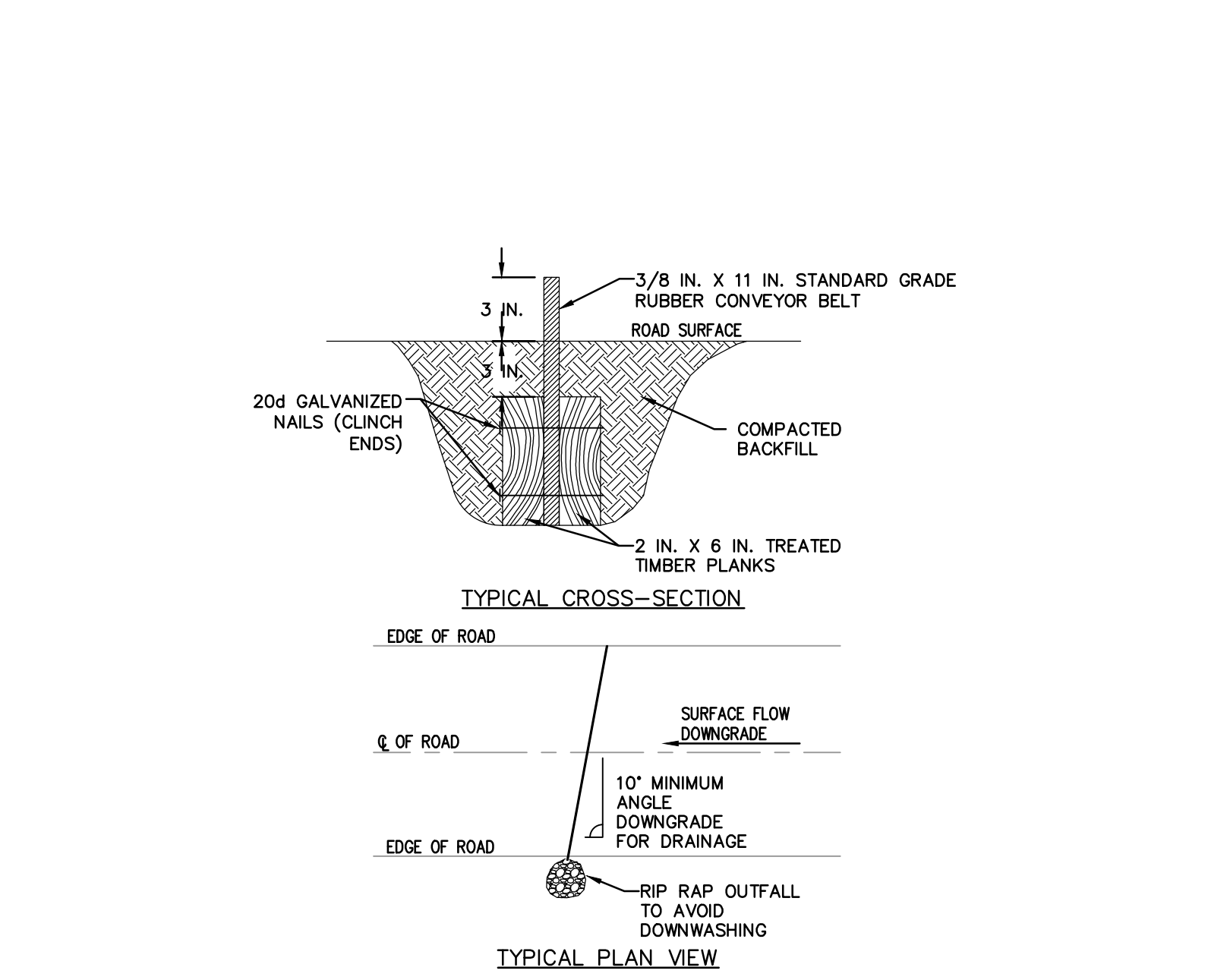
 ENGINEERING
 ENVIRONMENTAL
 LAND SURVEYING
 COMPASS



LEVEL SPREADER SUMMARY TABLE			
LEVEL SPREADER NO.	LENGTH (L) (FT)	PIPE INVERT	SPREADER INVERT OUT
BASIN 1	33	1195.00	1196.00

LEVEL SPREADER WITH SUBSURFACE DISCHARGE

N.T.S.



- NOTES:
- DEFLECTORS SHALL BE USED ON TEMPORARY ACCESS ROADS WITH SLOPES GREATER THAN 10 PERCENT. MAXIMUM DEFLECTOR SPACING SHALL BE 100 FEET.
 - DEFLECTOR SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM DEFLECTOR WITHIN 24 HOURS OF INSPECTION.
 - BELT SHALL BE REPLACED WHEN WORN AND NO LONGER EFFECTIVE.

WATER DEFLECTOR

N.T.S.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30"/42" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR WEST			
DIAMOND REGULATOR STATION & ASSOCIATED PERMANENT ACCESS ROADS			
JACKSON/SUGARLOAF TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA			
SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS			
DRAWN BY:	JEC	DATE:	04/03/15
ISSUED FOR:	CONSTRUCTION	SCALE:	AS NOTED
CHECKED BY:	AJB	DATE:	04/03/15
ISSUED FOR:	CONSTRUCTION	REVISION:	6
APPROVED BY:	AJB	DATE:	07/17/15
DRAWING NUMBER:	(36-7943)MF-1A-11	SHEET:	9
W.O.:	1161501	OF:	11

Drawn By & Date/Time: shorimton Jul 26, 2017 4:54pm
 Drawing Location & Name: G:\JOBS\14\14064909\DWG\010-CPLN\FRS_EC\14064909\10_WDIAMOND.dwg